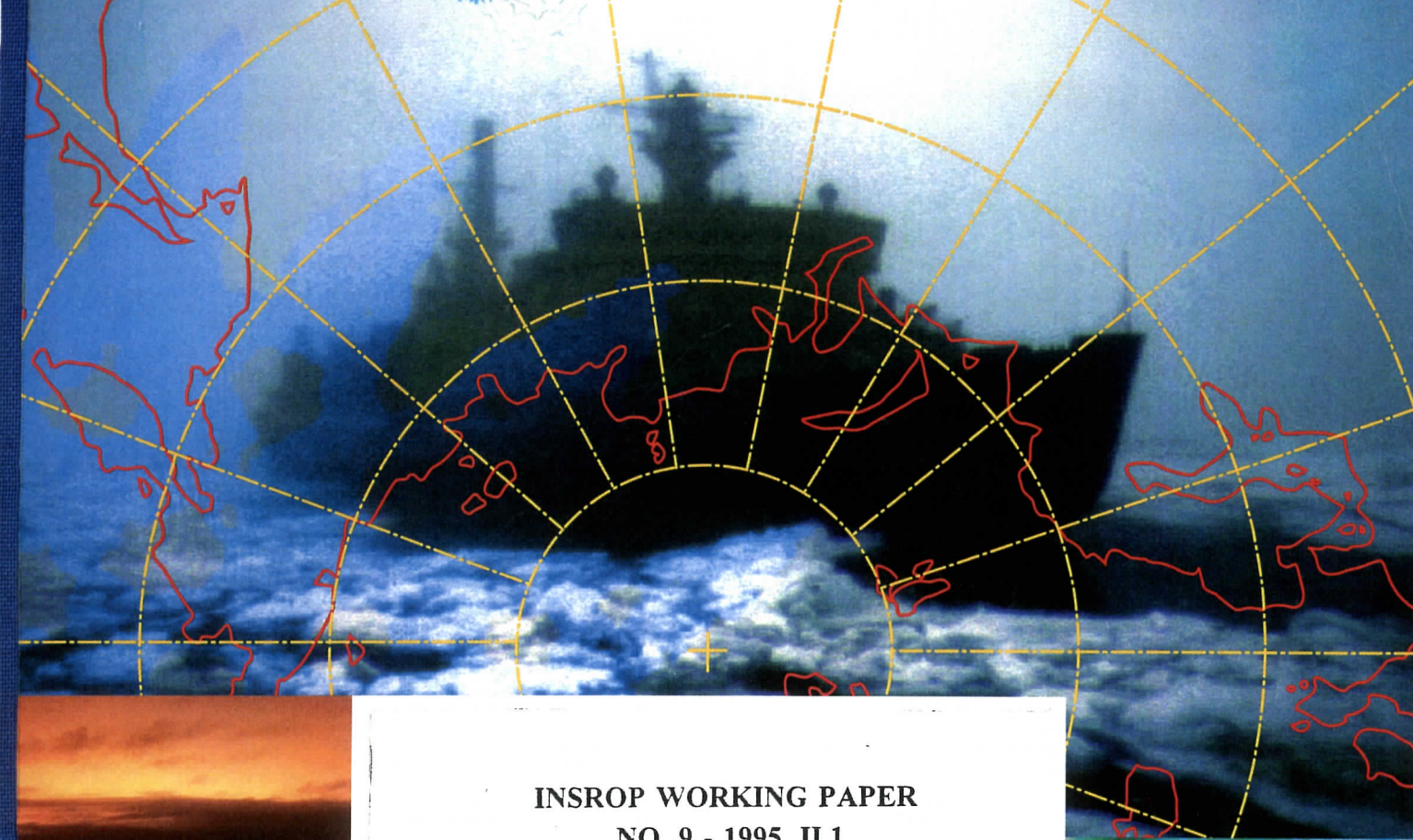


INSROP WORKING PAPER
NO. 9 - 1995, II.1

Initial Survey of Russian Data Sources

Maria Gavrilo and Boris Sirenko

INSROP International Northern Sea Route Programme

Central Marine Research & Design Institute, Russia

The Fridtjof Nansen Institute, Norway

Ship and Ocean Foundation, Japan

International Northern Sea Route Programme (INSROP)

Central Marine Research & Design Institute, Russia

The Fridtjof Nansen Institute, Norway

Ship & Ocean Foundation, Japan

INSROP WORKING PAPER NO.9-1995

Sub-programme II: Environmental factors

Project II.1: Initial Survey of Russian Data Sources

By: Maria Gavrilo, Arctic and Antarctic Research Institute, 38 Bering Street, St. Petersburg, 199 397 Russia.

Dr. Boris Sirenko, Zoological Institute of Russian Academy of Science, 1 Universitetskaya Nab., St. Petersburg, 199 034 Russia.

Supervisors:
Prof. Dr. Sci. Evgeny Korotkevich and Dr. Anatoly Novozhilov, Arctic and Antarctic Research Institute.

Date: 10 October 1994

Reviewed by:
Dr. Eike Rachor, Alfred-Wegener Institut Für Polar und Meeresforschung.

What is an INSROP Working Paper and how to handle it:

FOREWORD - INSROP WORKING PAPER

INSROP is a five-year multidisciplinary and multilateral research programme, the main phase of which commenced in June 1993. The three principal cooperating partners are **Central Marine Research & Design Institute (CNIIMF)**, St. Petersburg, Russia; **Ship and Ocean Foundation (SOF)**, Tokyo, Japan; and **Fridtjof Nansen Institute (FNI)**, Lysaker, Norway. The INSROP Secretariat is shared between CNIIMF and FNI and is located at FNI.

INSROP is split into four main projects: 1) Natural Conditions and Ice Navigation; 2) Environmental Factors; 3) Trade and Commercial Shipping Aspects of the NSR; and 4) Political, Legal and Strategic Factors. The aim of INSROP is to build up a knowledge base adequate to provide a foundation for long-term planning and decision-making by state agencies as well as private companies etc., for purposes of promoting rational decisionmaking concerning the use of the Northern Sea Route for transit and regional development.

INSROP is a direct result of the normalization of the international situation and the Murmansk initiatives of the former Soviet Union in 1987, when the readiness of the USSR to open the NSR for international shipping was officially declared. The Murmansk Initiatives enabled the continuation, expansion and intensification of traditional collaboration between the states in the Arctic, including safety and efficiency of shipping. Russia, being the successor state to the USSR, supports the Murmansk Initiatives. The initiatives stimulated contact and cooperation between CNIIMF and FNI in 1988 and resulted in a pilot study of the NSR in 1991. In 1992 SOF entered INSROP as a third partner on an equal basis with CNIIMF and FNI.

The complete series of publications may be obtained from the Fridtjof Nansen Institute.

SPONSORS FOR INSROP

- Sasakawa Foundation/Ship & Ocean Foundation, Japan
- The government of the Russian Federation
- The Norwegian Research Council
- The Norwegian Ministry of Foreign Affairs
- The Norwegian Ministry of Industry and Energy
- The Norwegian Ministry of the Environment
- State Industry and Regional Development Fund, Norway
- Norsk Hydro
- Norwegian Federation of Shipowners
- Fridtjof Nansen Institute
- Kværner a.s.

PROFESSIONAL ORGANISATIONS PERMANENTLY ATTACHED TO INSROP

- Ship & Ocean Foundation, Japan
- Central Marine Research & Design Institute, Russia
- Fridtjof Nansen Institute, Norway
- National Institute of Polar Research, Japan
- Ship Research Institute, Japan
- Murmansk Shipping Company, Russia
- Northern Sea Route Administration, Russia
- Arctic & Antarctic Research Institute, Russia
- ARTEC, Norway
- Norwegian Polar Research Institute
- Norwegian School of Economics and Business Administration
- SINTEF NHL (Foundation for Scientific and Industrial Research - Norwegian Hydrotechnical Laboratory), Norway.

PROGRAMME COORDINATORS

- **Yuri Ivanov, CNIIMF**
  Kavalergardskaya Str.6
  St. Petersburg 193015, Russia
  Tel: 7 812 271 5633
  Fax: 7 812 274 3864
  Telex: 12 14 58 CNIMF SU
- **Willy Østreng, FNI**
  P.O. Box 326
  N-1324 Lysaker, Norway
  Tel: 47 67 53 89 12
  Fax: 47 67 12 50 47
  Telex: 79 965 nanse n
  E-mail: Elin.Dragland @fni.
  wpoffice.telemax.no
- **Masaru Sakuma, SOF**
  Senpaku Shinko Building
  15-16 Toranomon 1-chome
  Minato-ku, Tokyo 105, Japan
  Tel: 81 3 3502 2371
  Fax: 81 3 3502 2033
  Telex: J 23704

KEY PERSONNEL:

Dr. Boris Sirenko, *ZIN RAS* - 2, Annex 1, 3;
Dr. Aleksey Smirnov, *ZIN RAS* - 1.1, 1.2,1.3, 1.5, 1.6, 1.7;
Dr. Igor Smirnov, *ZIN RAS* - 1.1, Database support
Dr. Victor Petryashov, *ZIN RAS* - 1.1, 1.7, 1.8;
Dr. Vladislav Khlebovich, *ZIN RAS* - 1.9, Annex 1;
Dr. Aleksey Neelov, *ZIN RAS* - 1.10, Annex 1;
Dr. Andrey Lobanov, *ZIN RAS* - Annex 4, Database support;
Dr. Liudmila Firsova *ZIN RAS* - 1.11;
Dr. Aleksey Aristov, *ZIN RAS* - 1.12, 2, Annex 1;
Dr. Maria Gavrilo, *AARI* - 1.11, 2, Annex 1, 2;
Dr. Gregory Tertitskiy, *Inst. Geography RAS* - 1.11;
Dr. Sci. Kira Vinogradova, *BIN RAS* - 1.4, Annex 1;
Dr. Lyudmila Sergienko, *BIN RAS* - 1.13, Annex 1;
Dr. Vladimir Kilyozhenko, *PINRO* - 2, Annex 1;
Dr. Svetlana Drobysheva, *PINRO* - 2, Annex 1;
Dr. Nikolay Ushakov, *PINRO* - 2, Annex 1.

See abbreviations and addresses of participants in Annex 1.

CONTENTS

Page

SUMMARY

The state of knowledge on biota along the Northern Sea Route area is considered within the work on the INSROP project II.1. A references database of Russian sources dealing with this biota was created. It numbers 963 references. The publications on different groups of plants and animals were analysed and annotated separately. All references are supported by 3 types of keywords including taxa, geography and problems discussed. A list of 36 references for general geographical and biological publications was created. A list of botanical publications concerning both coastal and marine flora numbers 57 references. A list of hydrobiological publications including works on invertebrates and protozoon consists of 297 items. For vertebrates (fishes, marine birds and mammals) 562 publications were found and annotated. All references are available both in the form of the list (Annex 5) and database (see description in the Annex 4). Published works can be found in different Russian libraries (see Annex 3).

An overview both of materials kept in different Russian institutions (Annex 1) and ongoing and planned projects (Annex 1 and 2) is given. It contains information about the volume and quality of materials including reliability, availability, studied objects , covered area etc. as well as contact persons and addresses.

The analysis of published data on biota along the NSR area and corresponding material existing in different Russian institutions suggests that the main problems facing Arctic research are as follows:

- uneven information support within the Arctic region, background data are absent for some regions;
- dissimilar data format derived from different extent of primary data treatment. As a rule only published data are fully available. Unpublished primary data kept in archives, unexamined collections, daybooks, databases will become available only after treatment by their possessors;
- most ongoing projects are studies not concerning the INSROP needs and combined they will not close all gaps in the knowledge.

Investigations of biota of the northern seas including algae, invertebrates and fishes, began more than 200 years ago. Among the seas through which the NSR passes, the Kara Sea is studied best of all. The Laptev Sea and the Chukchi Sea are less studied. Flora and fauna of the East-Siberian Sea is investigated least of all due to long distance from the western ports and the heavy ice conditions at the Long Strait. The water bodies of each sea are also studied unevenly in terms of hydrobiology

The Kara Sea is well investigated in its western and south-western parts, where two large-scale benthos surveys made in 1940-s and 1970-s enable the conduct of the comparative studies. Changes in the distribution of benthic communities were found. At the same time, the easternmost part of the Kara Sea adjoining the Vil'kitskiy Strait remains poorly known.

The Laptev Sea has been the least studied sea in the Russian Arctic up to 1993. The situation was changed extremely due to intensive studies carried out within the frame of the multidisciplinary joint Russian-German project Geosystem-Laptev Sea. The treatment of collected materials will allow us to gain an idea of distribution of hydrobios. However, the western parts of the sea, especially Khatanga Bay, remain poorly studied yet.

The Chaun Bay (East-Siberian Sea) is studied best of all regions in the Russian Arctic seas.

The complete data on the quantitative distribution of hydrobios are present for the eastern and south-eastern part of the Chukchi Sea, adjoining Wrangel Island and the Long Strait. At the same time the central part of the sea is poorly studied.

Much less is known about annual cycles of hydrobios, trophic relations and other aspects of ecosystem functioning. Only few works deal with the assessment of the ecological situation in the local regions of high anthropogenic activity.

Our preliminary analysis suggests the existing material to be useful for a general description of the ecological state of all seas along the NSR.

The general distribution and biotopic preferences of sea birds and waterfowl along the coast of the NSR area are known at present. The data on numbers, densities, breeding success and population trends are present for the few regions covered by intensive permanent investigations only. A little information exists about diets, foraging, time and energy budgets. The most attention is paid to the breeding period in birds' life. There are not enough data on migration and the prebreeding distribution. The information about wintering within considered areas is very incomplete. The data on pelagic distribution are but totally absent. There are none any quantitative data on the pelagic distribution of seabirds. The data on anthropogenic influences upon birds, including information about levels of contaminants within the NSR area are very incomplete, too.

The main gaps in the knowledge about Arctic marine mammals are as follows:

- -The division of polar bears into the populations remains yet unclear. Distribution, migration and abundance in the Eastern Arctic are not well studied;
- -the systematic position of some groups of Ringed seal is not clear. Their migration ways in accordance with the ice conditions in the eastern part of the Arctic are not full studied nor is their biology in the Laptev and East-Siberian Seas;
- -there are few data on Walrus and Belukha and their reactions to anthropogenic disturbance; corresponding data on Ringed sea are completely absent.

There are no data about possible effects off pollution on all mentioned species within the area considered. There is not sufficient information about biology and ecology to accurately assess the anthropogenic influence upon sea mammals.

All this knowledge as well as the experience of experts involved in this study enabled the execution of an analysis of the deficiencies and a substantiation of the necessity of a special expedition.

Key words: Arctic ecology, literature, state of knowledge, Northern Sea Route (NSR) area, collection, distribution, biota, plankton, benthos, fishes, marine birds, marine mammals.

INTRODUCTION

There is not enough knowledge at present to assess all ecological consequences of transit shipping along the Northern Sea Route(NSR). Arctic biota is not studied well up to this point, the basic data on numbers, distribution and functioning of its components are absent as yet for some regions. At the same time shipping is one of the most intensive components of anthropogenic influence in the high latitudes. The effects of this influence will be significant for the particular individuals as well as for populations. This report reflects the state of knowledge on different components both for marine and coastal ecosystems: fishes and invertebrates, marine birds and mammals, coastal vegetation. It includes annotations to the list of references on different groups of biota , an annotated list of institutions possessing material on biota along the NSR area, and a list of ongoing projects. A references database is also available as a part of the Report.

Material of the Progress Report on the Project II.1 with additions and some verifications are also included

1. REVIEW OF THE STATE OF KNOWLEDGE ON THE BIOTA ALONG THE NORTHERN SEA ROUTE AREA ACCORDING TO THE RUSSIAN DATA

This review is based on an analysis of the information assembled in the reference database, created during the work on the project. As a rule only the main publications dealing with the problem of biota distribution and functioning were included into the database. The reference database contains only Russian sources correspondingly to the project task. Detail databases including references concerning particular problems as well as non-Russian sources will be created within the frame of other INSROP projects (II.4.1-II.4.5).

The Russian literature concerning the plant and animal world of the seas where the NSR passes is quite large. It will be expedient to divide it into several parts. The volume of each part reflects both present state of knowledge on different biological components of the ecosystem and their relations to the Northern Sea Route activity.

1.1. Different taxa of the hydrobios.

A series of monographs and identification keys, enveloping the northern seas of Eurasia and often adjacent waters also, were created as a result of multi-years of work by Russian scientists. The monographs on the following groups should be mentioned first of all: Bacillariophyta (Kiselev, 1950; Makarova, 1988); Rhodophycea (Zinova F.D., 1955); Phaeophycea (Zinova A.D., 1953); Syphonocladales (Vinogradova, 1986); Chlorophyta (Vinogradova, 1974); Radiolaria (Petrushevskaya, 1981) ;Acantharia (Reshetnyak, 1981); Infusoria (Yankovskiy, 1973); Spongia (Koltun, 1959; 1966; 1967); Cnidaria (Naumov, 1960; 1961; Stepan'yants, 1967); Turbellaria (Evdonin, 1977); Nemertini (Korotkevich, 1977); Sipunculida (Murina, 1977); Annelida (Ushakov, 1972; 1982); Crustacea: Cirripedia (Zevina, Urusov, 964; Zevina, 1981; 1982); Ascothoracida (Vagin, 1976); Copepoda (Brodskiy, 1950; Brodskiy et al., 1983; Shuvalov, 1980); Cumacea Loomakina, 1958); Isopoda (Gur'yanova, 1932; Kussakin, 1979; 1982; 1988); Amphipoda (Gur'yanova, 1951; Bulycheva, 1964; Vasilenko, 1974; Tsvetkova, 1975; Vinogradov et al., 1982); Euphausiacea (Lomakina, 1978); Decapoda (Makarov, 1938); Pantopoda (Shimkevich, 1929; 1930; Lozina-Lozinskiy, 1930); Bryozoa (Klyuge, 1962); Mollusca: Polyplacophora (Yakovleva, 1952); Bivalvia (Filatova, 1957); Gastropoda (Galkin, 1955; Golikov, 1963; 1980; Golikov, Kussakin, 1978); Cephalopoda (Nesis, 1987); Echinodermata (D'yakonov, 1933; 1950; 1954); Chaetognata (Kasatkina, 1982); Pogonophora (Ivanov, 1960); Ascidiacea (Redikortsev, 1916; Romanov, 1989).

The flora and fauna of separate regions of the NSR area are described in numerous papers of a large number of authors. Among

the groups which are not treated by monographs and identification keys, series of works should be mentioned here: on Foraminifera by Shchedrina (1936; 1946; 1952) and Lukina (1990), on Nematodes by Filip'ev (1946), on Copepoda Harpacticoida by Smirnov S.S. (1946), on Ostracoda by Akatova (1946),on Mysidacea by Timofeev (1985) and Petryashev (1990) and on Brachiopoda by Zevina (1977; 1990). A joint determinative table on fauna and flora of Arctic seas exists (edited by Gaevskaya, 1948); but unfortunately, it is quite incomplete.

1.2. Phytoplankton.

The works on the phytoplankton concern primarily the species composition of algae. The distribution and composition of phytoplankton of the Kara Sea can be found in the works by Zabelina (1930, 1946), Kiselev (1935), Usachev (1968). The phytoplankton of the south-eastern part of the Laptev Sea is described in the work by Kiselev (1936), the data on diatom algae of the East-Siberian Sea and the Chukchi Sea are represented in the works by Polyakova (1982), on the phytoplankton of the Chukchi Sea in the work by Kiselev (1937). Several publications are devoted to the kryopelagical flora: Usachev (1949), Okolodkov (1992, 1993). Besides, several works concerning phytoplankton as an indicator of the ice regime and seasonal changes in the phytoplankton are existent (Shirshov, 1936, 1937, Usachev, 1946). The quantitative data on the phytoplankton and primary production of the region considered are very fragmentary (Bogorov, 1938). There are some data on the Kara Sea only (Bobrov et al., 1989).

1.3. Zooplankton.

The data on the zooplankton of the Kara sea can be found in the works by Yashnov (1927), Bernshtein (1934), Khmyznikova (1935, 1936a, b, 1937), Virketis (1945), Bogorov (1945 b,c, 1945d), Khmyznikova and Zabelina (1946), Ponomareva (1957), Chislenko (1972), Timofeev (1983), on the Laptev Sea (Virketis, 1932, Bogorov, 1946b, Pavshtiks, 1990), on the Chukchi Sea (Virketis, 1952). The data on the phytoplankton biomass are presented in the works by Bogorov (1950), Fomin et al. (1984) and Fomin (1989). Some quantitative data on the zooplankton of the New-Siberian Shallows can be found in the work by Pavshtiks (1990), mentioned above. The problem of plankton's productivity is considered by Yashnov (1940). Some works were devoted to the zooplankton as an indicator of hydrological regime. The question of daily vertical migrations of zooplankton is considered by Bogorov (1943, 1946a, 1946).

1.4. Phytobenthos

Besides the works dealing with different groups of algae mentioned in part 1.1, several publications on phytobenthos of particular Arctic regions exist: Novaya Zemlya (Zinova E.S., 1929), Kara Sea (Zinova E.S., 1925), Eastern Arctic (Zinova A.D., 1957), New Siberian Shallows (Vinogradova, 1990), Chaun Bay (Zinova A.D., 1970, Vinogradova, 1992), Chukchi Sea (Zinova, E.S., 1941, 1952). Quantitative data on phytobenthos can be found in the papers mentioned in part 1.6.

1.5. Zoobenthos of particular regions

Besides reviews concerning separate groups, works comprising all bottom communities of particular regions as a whole are present. The work by Pergament (1945) is devoted to the Kara Sea, the publication by Antipova and Semenov (1989) to its south-western part, a monograph paper by Gorbunov (1946) deals with the New Siberian Shallows, and a paper by Guryanova (1948) reviews the fauna of the East-Siberian Sea in general. Different aspects of the biology of the Kara Sea are described in the monograph edited by Matishov (1989), of the Laptev Sea in a collection of papers edited Deryugin (1932). Two large volumes are devoted to the fauna of the New-Siberian Shallows, edited by Gorbunov (1946) and Golikov (1990). The second volume of the joint monograph "The Extreme East-North of the Union of SSR" (Edited by Ushakov, 1952) is devoted to the biology of the Chukchi Sea, which is less known outside Russia due to restricted availability in the previous time. A general review of fauna of the northern seas is contained in the publication by Zenkevich (1963). The data on distribution of different groups of animals in the Eurasian Arctic sector can be found in the collection of papers, edited by Herman (1989).

1.6. Benthic communities including quantitative accounts

Unfortunately such works are not numerous. Only some few regions of the NSR area have been thoroughly studied and mapped: the Matochkin Shar Strait at Novaya Zemlya (Ushakov, 1931), the south-western part of the Kara Sea (Filatova, Zenkevich, 1957, Antipova, Semenov, 1989),the coastal regions near Severnaya Zemlya (Averintsev, 1989), some regions of the New-Siberian Shallows (Golikov et al., 1990), the Chaun Bay (Gagaev et al., 1988), the south-western part of the Chukchi Sea (Ushakov, 1936; 1952; Golikov et al., 1991; Sirenko, Koltun, 1992). Semenov (1989) made an attempt to follow the changes in benthic communities in the south-eastern part of the Kara Sea. However, quantitative samples can be compared without statistical treatment, because sampling has been made at different times and using different methods.

1.7. Bioindicators

The use of living organisms as indicators of natural processes and conditions is well developed in the Russian researches (Deryugin, 1930; Bogorov, 1945). Seasonal changes in plankton and their application for the ice forecasts are considered in the papers by Shirshov (1936; 1937), Bogorov (1938; 1939b) and Usachev (1946). The plankton as an indicator of hydrological conditions in the Kara Sea is considered in the papers by Khmyznikova (1935; 1936; 1937) and Virketis (1945). Distribution of algae Halosphaera as an indicator of the Barents Sea water in the Kara Sea is noted by Yashnov (1927). The distribution of different types of water masses in the Chukchi Sea by means of planktonic indicators is studied in the papers by Kiselev (1937) and Stepanova (1937). Best of all, these phenomena demonstrate distribution of the Bering Sea water penetrating through the Bering Strait into the Chukchi Sea (Stepanova, 1937). According to the distribution of brackish water planktonic fauna, the distribution of mainland runoff can be followed up (Bogorov, 1944). While plankton indicates the hydrological situation at the moment of sampling, the benthic organisms indicate near bottom water masses for a longer period. The use of benthos as an indicator of water origin is considered in the works by Gorbunov (1934; 1935; 1937; 1939; 1940; 1946; 1946b), Ushakov (1936; 1940; 1945), Gur'yanova (1939), Golikov, (1968).

1.8. Biogeography and origin of fauna.

Works dealing with the zoogeographical division of the Arctic and analysing the Arctic flora and fauna origin are quite numerous. Zoogeographical chapters of major monographs concerning particular groups of animals should be mentioned first of all (Golikov, 1963; 1980), Vasilenko (1974), Tsvetkova (1975), Kusakin (1979). Besides, there are many works devoted to the zoogeographical aspects of the Arctic Basin as a whole (Mesyatsev, 1923; Zenkevich, 1933; Gur'yanova, 1934; 1939; 1947; 1957; 1970; 1974; Gur'yanova, 1935; Filatova, 1957; Skarlato, Kafanov, 1976; Kafanov, 1979b); Nesis (1983 , 1983b), of the Kara Sea (Gur'yanova, 1936; Gorbunov, 1937; Pergament, 1945; Semenov, 1989), of the Chukchi Sea (Makarov, 1941; Ushakov, 1952; Gorbunov, 1952), of the central part of the Arctic Basin (Gur'yanova, 1938; Gorbunov, 1939; 1946). The problem of origin for the particular groups of animals (D'yakonov, 1945; Kafanov, 1974, 1978, 1979) and algae (Zinova, Petrov, 1970) is considered in the special works. Evseev and Krasnov (1977) analyse the role of the Beringia in this process.

1.9. Hydrobiology of estuaries and deltas

Only the estuary of the Yenisei River and Gulf Buor-Khaya with brackish water, which is under the influence of the Lena River runoff,

formally belong to the NSR area. Nevertheless, the main works concerning the principal problems of estuaries and deltas are included in the Database.

The problems of abiotic components of estuarian ecosystems (hydrology, hydrochemistry etc.) were processed in the works of AARI only (about 400 publications). The main publications on these problems are Antonov, 1938, 1940, 1967, 1972; Ivanov, Osipov, Ivanova, 1974, Egorova, Ivanov, 1971, Zinchenko, Timkin, 1980; Chaplygin, 1939; Egorova, Ivanov, 1971 etc.

Research on the most valuable fish species especially on whitefish, including studies on their food items, prevail among the biological works (Leshinskaya, 1962, Greze, 1957, Moskalenko, 1958, Ioffe, 1847, Saldau, 1949, Pirozhnikov, 1937, 1950, 1955, 1967 etc.). Hydrobiological works, as a rule, concern separate studies on the ecological complexes - phytoplankton (Ilyash, Koltsova, 1981, etc.), zooplankton (Pirozhnikov, Shulga, 1957; Chislenko, 1972; Pirozhnikov, 1937), zoobenthos (Romanov, 1948; Pirozhnikov, 1941; Gukov, 1989; Kuzikova, 1989; Kuzikova et al, 1989 etc.). Plankton and benthos as a complex were studied by several authors (Greze, 1957; Leshinskaya, 1962, Serkina, 1969).

Publications on various contaminants have been appearing during the last decade only: organic matters in the water and ground (Uvarova, 1989, Brusnitsina, Krokhalevskiy, 1989), radionuclides in the sediments of Ob and Yenisei (Khotuleva, Chechetkin, 1993, Polikarpov, 1993, Trapeznikov et al., 1993). Most studies were conducted by the state Institute of Lake and River Fisheries and its departments. Works concerning complete ecological studies on simultaneous assessment of the abiotic environment, biotic components and effects of contaminants are practically absent due to different causes.

1.10. Ichthyology

The Russian publications on the fish of sea and fresh waters number several hundred names, originating from the works of Pallas and Gmelin, i.e. from the end of the 18th century. It is Pallas who first described the fishes from the Arctic water basins of Russia. Due to the efforts of many generations of investigators, travellers and natural scientists, the variety of the fish species and forms from the Russian North was collected and described; their biology and their place in the ecosystems and importance for fishery have been investigated.

The main attention in the publications has evidently been given to the fish important for fishery, first of all, such as white fish species, salmon, Siberian sturgeon, and later polar cod, navaga, capelin and others.

The first results of the studies of the fish of the North were summarised by Garatzianov in the monograph "Experience of the review of the fish of the Russian Empire". All data on fresh water, anadromous and brackish water fish, including practically all extensive literature, published by that time on the fish of the North were collected by Berg in the 3 volumes of the monograph "Fish of the fresh waters of the USSR and adjacent countries" (1948-1949). In subsequent years much attention was given to the studies of the fishes and their biology from the gulfs, deltas and estuaries of the Siberian rivers. Here one should, first of all, mention the series of the works by Pirozhnikov; especially his work on the fishes of the Ob' Gulf (1955).

In 1972 the monograph of Kirillov "Fish of Yakutia" was published where the author mainly dwelled on the fresh water and anadromous fish, as well as the species coming to the river deltas; there are detailed data on the fish biology and its importance for fishery. In later years and up to the present time the anadromous and fresh water fishes of the Northeast of Russia were actively studied by Chernyshev, who made a significant contribution to the knowledge of the fishes of this region.

Sea fishes have been studied much less, as the heavy ice conditions of the Arctic Seas did not allow planned studies, and only as a result of the work during the drift of the ships were fish collections and data on their biology obtained. The first summary of this was given by Knipovich in 1926 in the "Identification keys of the fishes of the Barents, White and the Kara Seas". Already in the Soviet time special expeditions to the Arctic were made, which provided new materials on sea fish. This is found in the series of the publications by Andriyashev, V.K.Yesipov, A.M.Popov. In 1954 the generalising monograph of Andriyashev "Fish of the Northern Seas of the USSR" was published with the data on 276 fish species of the Russian North.

Very valuable new data were obtained on the fishes of the central Arctic at the "North Pole" drifting stations, with the results published by Andriyashev and co-authors (1980) and Tsinovskiy (1980). Lately the fishery studies in the Kara Sea have become active and the publications on the biology of some fish species of this sea have appeared (Borkin et al.).

In 1994 the Journal of Ichthyology will publish a complete (at present) list of the fishes of the Arctic and adjacent waters (Andriyashev and Chernova) with summaries, numbering 414 sea and anadromous fish and fish-like species of the Arctic basin.

It should also be stressed that up to now the fish fauna of the Arctic seas, particularly of the Laptev, East-Siberian Sea and the central polar region, remains one of the least studied in the world.

1.11. Marine birds.

About 65 species of seabirds and waterfowl inhabit the mainland coast and islands along the NSR area. Several species visit this region regularly as migrants.

The state of knowledge about different areas is rather uneven. The eastern part, especially the Wrangel Island as far as the Yamal, Yugor and Taimyr Peninsulas is marked by the greatest information support. Ornithological works carried out in these regions are based on the permanent field researches.

The data on birds inhabiting Arctic islands, excluding the Wrangel Island where the State reserve has existed since 1976, are characterised by incompleteness and a lack of modern data for some regions (the Novaya Zemlya eastern coast, the New Siberian Islands). There are many publications dealing with the birds of Wrangel Island (series of works by Stishov, 1985-1991, Stishov et al., 1991, and Pridatko, 1981-1990 and many others). One of the best investigated species at Wrangel Island is the Snow Goose, described in numerous publications by V.Syroechkovskiy and co-authors (1977-1991). The data on densities, biotopic distribution and preference, abiotic influences of abiotic factors, interspecific interactions, phenology, demography and population dynamics are present. Less data is published on nonbreeding bird biology and distribution.

The only modern publication concerning the distribution of birds and counts at sea along the eastern coast of Novaya Zemlya is from Kalyakin, 1993. The rest are devoted to the most northern part of the archipelago and were written several decades ago (Gorbunov, 1925, 1929, Antipin, 1938, 1953). The New-Siberian Islands were studied intensively by ornithologists during the 1950-s (Rutilevskiy, 1957-1964, Uspenskiy, 1957, 1963), but quantitative data on birds were practically absent in their works. These publications mainly deal with distribution, timing of arrival at, and departure from, the breeding area, and breeding biology including phenology. The data on numbers and diets are rather sparse. In the past Yakutian ornithologists began studies at the New-Siberian Islands, but the data are not yet published in Russian.

The Severnaya Zemlya Archipelago, long devoid of biological research was visited by several ornithological expeditions during the last decade (Belikov, Randla, 1987, Gavrilo, 1988 a,b, Volkov, Pridatko, in press). Other materials are being prepared for publication.

The Yamal and Taimyr Peninsulas are studied quite well judging by number of publications. There are many important publications (Birulia, 1907; Tugarinov, Buturlin, 1911; Zhitkov, 1913; Naumov, 1931; Tugarinov, Tolmachev, 1934; Dunaeva, Kucheruk, 1941; Danilov, 1965, Danilov et al., 1977, 1984, Krechmar, 1966; Pavlov,

Dorogov, 1976; Matiushenkov, 1979, 1983; Morozov, 1984, 1985; Vinokurov, 1981; Pavlov et al., 1983; Yakushin, 1983; Shostak, 1921, Sdobnikov, 1937, 1956, 1959 a,b, 1960, 1971; Sosin, 1986, Tomkovich, Vronskiy, 1987, 1989, Yurlov, 1982; Vronskiy, Tomkovich, 1983; Borzhonov, Vinokurov, 1984), including 2 monographs (Tugarinov, Buturlin, 1911, concerning Yenisei Territory and Danilov et al., 1984, concerning Yamal). At least one publication based on multi-year investigations combined permanent work at the same place and extensive surveys (Krechmar, 1966). The data both on migration and breeding stages timing exist more often than the data on biotope distribution. Several works deal with diets and foraging. Only few publications concern number, densities and breeding success. The data obtained during intensive studies conducted in the last decade by the Arctic Expedition of IAME are in press now and partly published in non-Russian issues. The territories covered least of all by ornithological studies are as follows: the coast of Baidaratskaya Bay, some places at western Yamal and a vast part of eastern Yamal, the Gydan Peninsula, some islands of the Kara Sea.

The vast territory between Khatanga and Indigirka is studied rather less thoroughly than previous region. The following important publications exist concerning this enormous area: (Birulia, 1911; Zhitkov, Zenzinov, 1915; Mikhel', 1935; Sdobnikov, 1959; Kapitonov, 1962; Priklonskiy et al., 1962; Uspenskiy et al., 1962; Gladkov, Zaletaev, 1965; Uspenskiy, 1965 a; Grigoriev, 1976; Perelomov, 1976; Roshchevskiy, 1976; Labutin, 1984, Labutin et al., 1984, 1985, 1986; Zubakin et al., 1988). Data on the coastal zone are found in a few works only. The best studied coastal area is the delta of the Lena River, for which quantitative data on waterfowl exist. In other regions permanent investigations are almost absent. So the information about birds is incomplete and represented as a rule in the form of articles on species. In the past Yakutian ornithologists improved ornithological studies at the coastal tundra, but the data are not published in Russian as yet. Most publications on gulls deal with Ross' Gull, but only that of Zubakin et al., 1988, has complete data on these species, including breeding biology, migration, demography parameters.

The eastern part from the Alazeya River basin to the Bering Strait is considered to be best studied of all the Asian Russian North. The ornithological investigations in this region have been carried out since the last half of the XVIII century (Portenko, 1973). More than 20 important publications for this region exist, including 2 monographs (Vorobiev, 1963; Portenko, 1973) and many works based on permanent studies (for example Kondratyev, 1978, 1982). This method offers varied and as a rule statistical data, including information about densities, population dynamics, breeding success, diets, foraging, migrations (timing and directions). The list of publications, mentioned above, contains faunistic papers as well as papers concerning particular species. Special attention is paid to the occurrence and distribution of rare species (Stishov, 1988, 1991 b; Stishov, Maryukhnich, 1992 a,b). Everything mentioned above

suggests that the researches carried out in this region have been of a higher level compared with other regions.

The areas along the lower reaches of Kolyma and of Chaun Bay vicinity are studied best of all. Further to the east the area is covered by ornithological investigations more or less evenly due to the efforts of L.A.Portenko, his precursors and followers (Portenko, 1973; Golovkin, Flint, 1975; Kondratiev et al., 1975, Krechmar et al., 1978).

1.12. Marine mammals

Purposeful studies of marine mammals of the Russian Arctic were started already in the last century (Gedenshtrom, 1822; Vrangel, 1841; Middendorf, 1869; Anuchin, 1876; Bunge, 1887 et al). These were both faunistic studies and works, where information on biology and distribution was given occasionally. In addition, publications appeared which aimed to attempt to investigate and make more orderly the marine hunting (Boguslav, 1847; Borodin, 1902; Anufriev, 1912). A significant increase in the number of studies occurred in the 30s of the present century due to the increased use of the NSR. Since that time reports on the Arctic mammals have been regularly published (Adlerberg et al, 1935; Chapskiy, 1941; Vinogradov, 1949). Also large reports and identification keys on the fauna of the USSR and its regions were published which summarised and briefly presented the available data on the species listed below in sketch form (Ognev, 1931, 1935; Geptner, 1932; Novikov, 1956; Stroganov, 1962; The mammals of the USSR fauna, 1963; Geptner et al, 1967, 1976; The mammals of Yakutia, 1971).

Polar bear (Ursus maritimus)

The main data on the taxonomy, distribution, biology and abundance of the polar bears can be found both in large reports on the USSR fauna, and in special monographs (Anuchin, 1876; Kishchinskiy, 1974, 1976; Uspenskiy, 1977, 1989). Three volumes totally devoted to the polar bear (Polar bear... 1969, 1977; Ecology and morphology..., 1973) were published. An assessment of the current state of knowledge of the species has been given by Uspenskiy, 1969, 1976; Sokolov, Uspenskiy, 1973, with the data on the evolution and taxonomy, historical change of the area are described (Vereshchagin, 1969). On the basis of the morphometric study the conclusion was made that the species has no subspecies. However, subsequently, on the basis of the content of chemical elements (metals) in the bone tissue 3 groups of bears in the Russian Arctic were identified: western, central and eastern.

Morphological studies have been carried out on bears from Wrangel Island: the structures of the skin (Sokolov, Sushkina, 1973), eye (Andreev, 1973), brain (Avksent'eva, Bogoslovskaya, 1973),

digestive system (Sablina, 1973), female reproductive system and the thyroid gland as the indicators of the physiological state of the animals (Polikarpova, Nevzgodina, 1973) were investigated. All these works showed special differences of the polar bear as distinct from the brown one and other mammals, related with their inhabitancy in particular extreme conditions.

Of particular interest are the works connected with the distribution and numbers of the species in different parts of the area both on the basis of questionnaires (Karpovich, 1969) and on the basis of aerial surveys (Uspenskiy, Shilnikov, 1969; Chelintsev, 1977). A comparison of the methods of the surveys was made (Belikov et al, 1987). The dependence of the distribution of the bears on the ice situation (Gorbunov et al., 1987) is shown. The maps indicating the current distribution and abundance in the Russian Arctic in different seasons are given.

More data on biology, distribution, variability, effects of abiotic factors are contained in the articles on some regions: the Kolyma North and the Extreme East (Shubnikova, 1978; Tarkhov, 1981), the New-Siberian Islands (Kishchinskiy, 1969), Taimyr Peninsula (Shereshevskiy, 1977), the Kara Sea (Marunin, Kishchinskiy, 1969). These problems are most studied for the bears of Wrangel Island (Mineev, 1935; Kishchinskiy, Uspenskiy, 1973; Belikov, 1973, 1977, 1984; Shvets, 1976; Belikov et al, 1977). The structure of the dens, behaviour of males and females, their daily activity are described, data on diet, breeding and population structure are obtained. A number of the works are devoted to the diseases affecting polar bears (Ozerovetskaya et al, 1969; Pereverzeva, Veretennikova, 1973).

Belukha Whale (Delphinapterus leucas)

This species has traditionally been considered to be a fishery object in the Russian North. Traditional fishery in large quantities was conducted in the White and Barents Seas, that is why Belukhas of this region are most studied. From the late 20s to early 30s the fishery interests extended also to the eastern seas. At the same time an increase in publications on the Belukha of the Asian North was observed.

Geptner (1930) in a major publication summarises the available data on the geographical distribution and biological features. A series of the studies by Klumov was concluded by his summarising article (1939), where much room is devoted to the data on the Belukha of the Kara sea, as well as to the data on the distribution (map), taxonomy, number and catching methods in the western Arctic (up to the Laptev Sea).There were no monographs on Belukha before then. The studies initiated on the intraspecies' variability of Belukha were continued in extensive reports on the USSR fauna. A monograph on this species was published by Kleinenberg et al, 1964. Here one can find the materials on various aspects of the life of this whale; its taxonomy, harvesting. Maps are attached.

The behaviour of Belukhas was studied both in connection with the ice situation (Bobkov, 1996) and the diet (Zatevakhin, 1983); the data on the behaviour and bioacoustics are generalised in the monograph of Bel'kovich and Shekotov (1990).

A number of works describe the features of biology, individual development, distribution, number, migration of the species in various regions: the Kolyma North (Obukhov, 1971), Yenisei Bay (Butorin, Podlesnyi, 1967), Ob' Gulf (Dukhovnyi, 1933; Balikov, 1936; Chapskiy, 1937), the Dikson Island (Geptner, 1936; Medvedev, 1970, 1971), Yakutia (Buyakovich, 1939; The mammals of Yakutia, 1971).

A large number of maps of the distribution and abundance with migration pathways in the northern seas of the USSR are given in the article of Kleinberg et al. (1960). The features of the seasonal approach of Belukha to the shores are studied (Koshkin, 1939; Kleinberg et al, 1959; Tarasevich, 1960a, b; Medvedev, 1970). Some works describe the methods of tracking and observation of Belukhas from aircraft (Bel'kovich, 1960; Bel'kovich, Khuzin, 1970). As the Belukha remains a fishery object over a significant part of the Arctic, a large number of the publications still refer exclusively to the harvesting problems, or these problems are considered together with the others.

Walrus (Odobaenus rosmarus)

The Walruses of the Asian Arctic belong to three subspecies: Atlantic, Laptev and Pacific. The generalised data on biology, distribution, abundance are contained in the sketches of the species of the mentioned reports on the fauna of the USSR mammals, regional fauna and the Soviet Arctic fauna.

On the whole, the distribution of walruses is sufficiently well studied (Tsalkin, 1937; Belopol'skiy, 1939; Chapskiy, 1940; Uspenskiy, 1958; Krylov, 1964; Timoshenko, 1977; Fedoseev, 1976, 1984; Kibal'chich, 1988).

The Atlantic walrus in the Russian sector of the Arctic is at present under threat of extinction (Chapskiy, 1939; Timoshenko, 1984). The data on this subspecies were first collected in the works f the 30s (Tsalkin, 1935; Chapskiy, 1936, 1939). The data on the current state of this subspecies including its biology in the Kara Sea are rather fragmentary (Potelov, 1973).

The Laptev walrus can be considered to be the least investigated subspecies. Early works (Koshkin, 1940) do not cover all aspects of its biology. In the last decades a number of publications have appeared with the data on biology, number, and periodical phenomena in the life of these mammals (Popov, 1958, 1959, 1960 a,b; Pavlikov, 1966; Vishnevskaya, Bychkov, 1985, 1986; Vishnevskaya, 1989; Bychkov, 1991). However, in spite of a detailed work of Shereshevskiy (1960) the question about seasonal migrations is not fully studied.

The Pacific walrus, inhabiting the area of the Chukchi Peninsula is considered to be the best one studied. The distribution of this subspecies, the habitats of which in the Arctic is limited by the waters of Chukotka and Wrangel Island was studied by means of questionnaires, shipborne observations (Chechulin, 1936; Fedoseev, 1986; Kibal'chich, 1988), aerial surveys (Fedoseev, Gol'tsev, Zasypkin, 1978) and by tagging (Krylov, 1964). The dynamics of the populations and their structure were investigated (Fedoseev, Gol'tsev, 1969; Fedoseev, 1982). The biology studies were based on the extensive of 1940 (Nikulin, 1941; Freiman, 1941), which supplemented each other and were published in one volume of the TINRO Izvestiya. Some features of the life of Walruses at rookeries were studied (Nikulin, 1947; Yablokov, Bel'kovich, 1962). Further the attention of zoologists was attracted by the Walrus from the vicinity of Wrangel Island (Krylov, 1971; Tomilin, Kibal'chich, 1975).

*Ringed seal [Pusa hispida (= Phoca (Pusa) hispida)]**

This species has a circumpolar distribution. However, its knowledge in the Russian Arctic Seas is evidently insufficient. The main data on the Ringed seal of the Arctic Ocean can be found in the reports on the USSR fauna mentioned. A separate monograph study of the Ringed seal has not yet been published.

The observations of the drifting stations over the central Arctic were generalised (Rutilevskiy, Uspenskiy, 1957).

The Ringed seal of the Kara Sea should be considered to be comparatively better studied (Nazarenko, 1968; Lukin, Potelov, 1978; Timoshenko, 1983; Potelov, 1986; Potelov et al, 1986; Starikov et al, 1987; Starikov, 1990; Rezanova, Starikov, 1990). Seasonal changes of the numbers, features of breeding grounds, distribution by seasons, to a smaller extent diet, features of breeding, were investigated.

The Ringed seal of the Laptev Sea is not well studied (Koshkin, 1937), where its number is probably small. The studies concern small regions (Begichev Island) and can not be extrapolated to the entire area. The knowledge on the East-Siberian Sea is no better (Arsen'ev, 1935; Uspenskiy, 1963; Obukhov, 1974), where the studies of the number and distribution were carried from aircraft (Belikov, 1984; Ognetov, 1990). Here again the data on the biology of the species are very fragmentary, describing it only in some regions (Chaun Bay, Bennet Island, Kolyma delta). The situation with the Ringed seal from the Chukchi Sea is better. The population and craniometric studies were carried out (Fedoseev, 1965; Fedoseev, Mineev, 1986), the diet (Fedoseev, 1965) and the breeding features were investigated (Fedoseev, 1964, 1965).

---

* According to N.A.Smirnov, 1929 (Opredelitel' lastonogikh [Pennipedia] Evropy I Severnoy Azii /An identification key for Pennipedia of Europe and Northern Asia/ *Izvestiya otdeleniya prikladnoy ikhtiologii i nauchno-promyslovykh issledovaniy* 9(3), p. 231-268) and Reih D.W., Scheffer V.B. (1968) subgenuses of Phoca genus are regarded as original genuses: Phoca, Pusa, Pagophilus.

1.13. Coastal flora and vegetation

Data on flora composition of higher plants of coastal regions of the Russian Arctic and Arctic islands is present in works by Borodin (1908), Tolmachev (1935), Derviz-Sokolova (1966), Petrovskiy (1973), Sergienko (1977, 1982 , 1982b, 1985, 1989, 1990, 1991, 1993), Zaslavskaya and Pliev (1983). Analyses of coastal vegetation and plant communities can be found in the works by Kunets (1935), Gorodkov (1936, 1939), Tikhomirov (1946), Matveeva (1976).

CONCLUSIONS
2. ASSESSMENT OF EXISTING DATA ON BIOTA FOR THE PURPOSES OF THE INSROP

The analysis of published data on biota along the NSR area and corresponding material existing in different Russian institutions suggests that the main problems facing Arctic research are as follows:

- Uneven information support within the Arctic region, background data are absent for some regions.
- Dissimilar data format derived from different extent of primary data treatment. As a rule only published data are fully available. Unpublished primary data kept in archives, unexamined collections, daybooks, databases will become available only after treatment by their possessors. To agree upon the possibility of using the data of restricted availability one can get in touch with a key person of the Institution responsible for the keeping of the material.
- Most ongoing projects are studies not concerning the INSROP needs and combined they will not close all gaps in the knowledge.

Investigations of biota of the northern seas including algae, invertebrates and fishes, began more than 200 years ago. Among the seas through which the NSR passes, the Kara Sea is studied best of all. The Laptev Sea and the Chukchi Sea are less studied. Flora and fauna of the East-Siberian Sea is investigated least of all due to long distance from the western ports and the heavy ice conditions at the Long Strait. The water bodies of each sea are also studied unevenly in terms of hydrobiology

More than 1000 benthos and about 200 planktonic sampling stations were made in the Kara Sea. This sea is well investigated in its western and south-western parts, where two large-scale benthos surveys made in 1940-s and 1970-s enable the conduct of the comparative studies. Changes in the distribution of benthic communities were found. At the same time, the easternmost part of the Kara Sea adjoining the Vil'kitskiy Strait remains poorly known.

More than 550 benthic and 80 planktonic stations were made in the Laptev Sea. It has been the least studied sea in the Russian Arctic up to 1993. The situation was changed extremely due to intensive studies carried out during the multidisciplinary joint expeditions of the German icebreaker "Polarstern" and the Russian vessel "Ivan Kireev" in 1993. A large part of the sea was covered by a set of hydrobiological stations. The treatment of collected materials will allow us to gain an idea of distribution of hydrobios. However, the western parts of the sea, especially Khatanga Bay, are studied poorly due to heavy ice conditions and long distance from Tiksi, where research vessels are based.

More than 300 benthic and 40 planktonic stations were sampled in the East-Siberian Sea. Most of them were made at the Chaun Bay, which is studied best of all regions in the Russian Arctic seas. As for the remaining part of the East-Siberian Sea, we have the only quantitative data on distribution of marine organisms from the eastern part near the Kolyma River delta and incomplete qualitative data obtained by trawls and dredges in other parts of the sea.

More than 500 benthic and about 100 planktonic stations were made in the Chukchi Sea. The complete data on the quantitative distribution of hydrobios are present for the eastern and south-eastern part of this sea, adjoining Wrangel Island and the Long Strait. At the same time the central part of the sea is poorly studied. It should be mentioned also, that the data were obtained over a long period (more than 50 years). Changes in distribution of biocenoses were observed at those places, where repeated studies were made. All this combined forces us to be cautious in assessing the modern status of marine ecosystems.

Our preliminary analysis suggests the existing material to be useful for a general description of the ecological state of all seas along the NSR.

Much less is known about annual cycles of hydrobios, trophic relations and other aspects of ecosystem functioning. Only few works deal with the assessment of the ecological situation in the local regions of high anthropogenic activity.

The general distribution and biotopic preferences of sea birds and waterfowl along the coast of the NSR area are known at present. The data on numbers, densities, breeding success and population trends are present for the regions covered by intensive permanent investigations only. A little information exists about diets, foraging, time and energy budgets. The most attention is paid to the breeding period in birds' life. There are not enough data on migration and the prebreeding distribution. The information about wintering within considered areas is very incomplete. The data on pelagic distribution are but totally absent. There are none any quantitative data on the pelagic distribution of seabirds except the area along the north-east coast of Novaya Zemlya and the south-west part of the Chukchi Sea. The data on anthropogenic influences upon birds, including information about levels of contaminants within the NSR area are very incomplete, too.

The main gaps in the knowledge about Arctic marine mammals are as follows:

-The division of polar bears into the populations remains yet unclear, because of the populations that may present in the groups defined now. Distribution, migration and abundance in the Eastern Arctic are not well studied;

-the systematic position of some groups of Ringed seal is not clear. Their migration ways in accordance with the ice conditions in the eastern part of the Arctic are not full studied nor is their biology in the Laptev and East-Siberian Seas;
-there are few data on Walrus and Belukha and their reactions to anthropogenic disturbance; corresponding data on Ringed sea are completely absent.

There are no data about possible effects off pollution on all mentioned species within the area considered. There is not sufficient information about biology and ecology to accurately assess the anthropogenic influence upon sea mammals.

It is well known that data on physical-chemical factors such as abiotic components of ecosystems are of great importance for the assessment and sensitive modelling. This idea should be realised as a separate project in Sub-program II, as was concluded during the expert workshop (AARI, St.-Petersburg, 18 February, 1994).

The majority of ongoing projects and planned expeditions are not INSROP-oriented and hence will not cover all gaps mentioned above. To obtain the necessary modern complete data on biota as well as on abiotic conditions simultaneously for the regions marked by information gaps; a special expedition aboard a scientific vessel is to be organised as it was agreed by all experts involved in the project.

The main purposes of the expedition should be as follows:
- to collect background data on the badly studied areas including eastern part of the Kara Sea, the Khatanga Bay, western and central parts of the East-Siberian Sea, the central part of the Chukchi Sea for the marine hydrobios; the Baydaratskaya Bay coast, the eastern coast of the Yamal Peninsula, the Gydan Peninsula, the New-Siberia Islands for the marine birds;
- repeated examination of those benthic communities, the data on which have become obsolete;
- a quantitative pelagic survey of seabirds within the whole NSR area.

Besides, the following studies are of great importance to make an accurate assessment and sensitive modelling:
- studies on structure and functioning of marine communities, ecology of separate species and populations with particular emphasis to trophic relations, spatial-temporal dynamics and life cycles of biota from cryopelagic flora up to higher vertebrates including creation of primary production, reproductive potential, migration activity etc.;
- studies on effects of shipping and accompanying activities, including different types of pollution and disturbances, habitats transformation, coastal infrastructure development, upon biota.

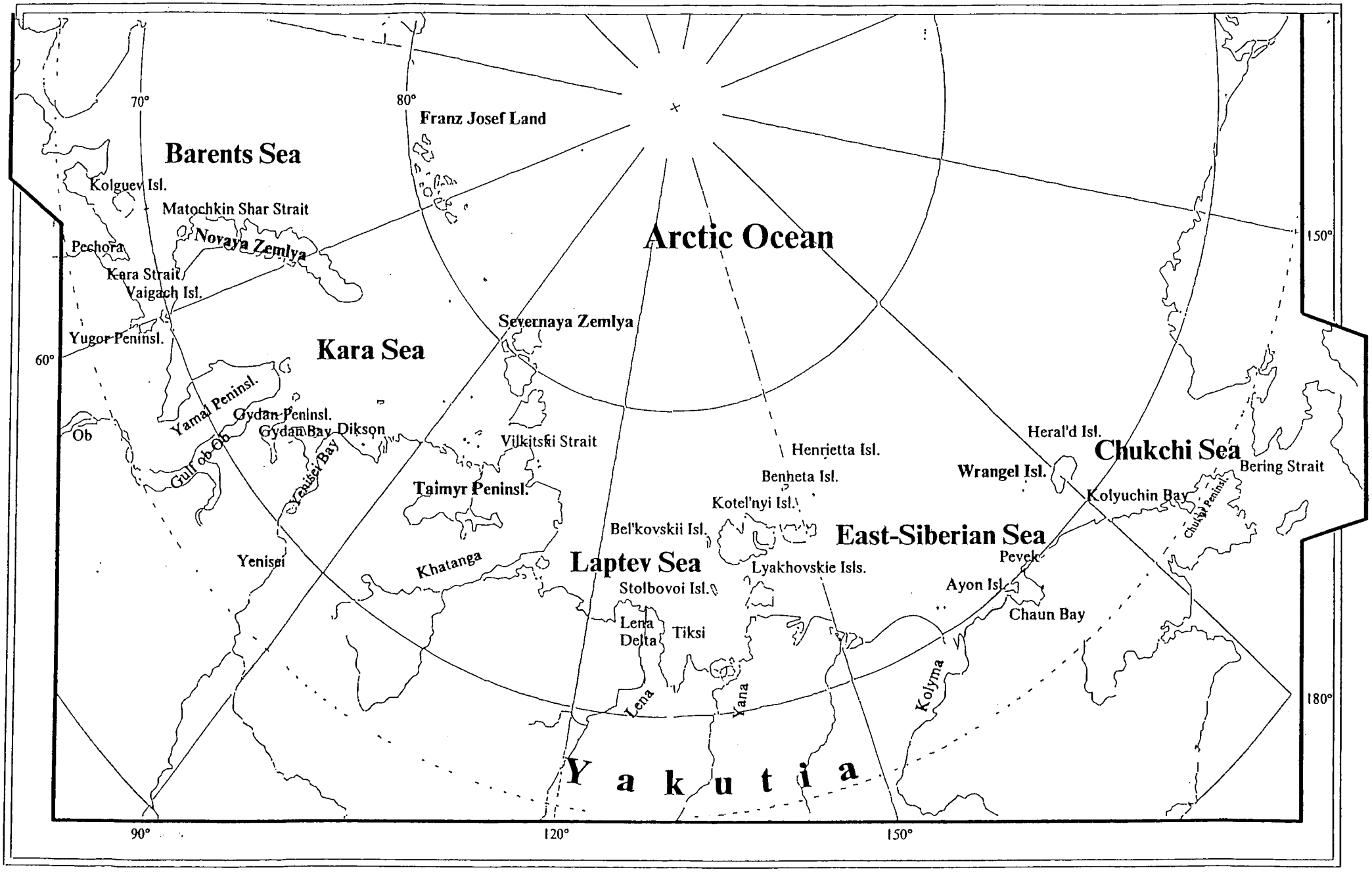


Figure. The NSR area. Geographical names mentioned in the references database.

Annex 1.

A LIST OF RUSSIAN INSTITUTIONS POSSESSING MATERIALS AND DEALING WITH RESEARCH ON BIOTA WITHIN THE NORTHERN SEA ROUTE AREA

1. Zoological Institute (ZIN), RAS

Address: Universitetskaya nab.1,
St.-Petersburg, 199034, Russia

Tel: (812) 244 61 59
(812) 218-13-11
(812) 114-04-04
Fax: (812) 218-29-41
(812) 114-04-44
E-mail: SBI@ZISP.SPB.SU

Research and materials:

Region: Kara Sea, Laptev Sea, East-Siberian Sea, Chukchi Sea.

Systematic and unidentified collections and catalogues on marine and estuarian invertebrates, fishes, birds and mammals collected over the past 100 years in the course of about 50 expeditions over the entire NSR, including the following:

The Laboratory of Marine Research has large systematic collections on separate taxa of marine and estuary invertebrates collected in Siberian Arctic seas mostly on the NSR. Data on each sample are entered into catalogues. The following data are indicated on catalogue cards: index number of each sample; number of specimens or colonies in it; region of sampling; depth; name of expedition or research vessel; number of station; collector; who identified the material; if the sample is quantitative, the area covered.

Volume of systematic collections, degree of treatment of material:

Foraminifera - 450 species, 500 samples (80% of the material from the NSR has been identified);
Porifera (Spongia) - 170 species, 1000 samples (80% identified).
Coelenterata (80% identified):
Hydrozoa - 140 species, 1000 samples
Scyphozoa - 20 species, 200 samples
Anthozoa - 70 species, 500 samples.
Nematoda - 340 species, 1000 samples (30% identified).
Polychaeta - 280 species, 18000 samples (60% identified).
Bryozoa - 340 species, 2000 samples (90% identified).
Crustcea:
Calanoida - 160 species, 700 samples (50% identified)
Amphipoda - 480 species, 800 samples (70% identified)
Cumacea - 60 species, 500 samples (85% identified)
Decapoda - 60 species, 1100 samples (90% identified)
Mysidacea - 42 species, 1200 samples (90% identified)
Euphausiacea - 6 species, 200 samples (90% identified)
Pantopoda - 30 species, 200 samples (60% identified)
Mollusca: (80% identified):
Bivalvia - 180 species, 10000 samples;
Gastropoda - 200 species, 15 000 samples.
Echinodermata: (90% identified):
Crinoidea - 6 species, 500 samples;
Asteroidea - 70 species, 2000 samples;
Holothuroidea - 50 - species, 2000 samples;
Echinoidea - 17 species, 1000 samples;
Ophiuroidea - 45 species, 2500 samples.
Ascidiacea - 60 species, 300 samples (75 % identified).
Other groups - approximately 10,000 samples (70 % identified).

A total of more than 3,500 species and 91,500 samples of invertebrate animals from the Russian Arctic seas have been deposited in systematic collections of the Laboratory of Marine Research (the information about material deposited in the Zoological Institute see: separate table).

Contact persons: Dr. B.I. Sirenko, Dr. I.S. Smirnov,

The Laboratory of ichthyology. Actual data on fish of the areas within the NSR and in the entire Arctic Ocean, including the central Arctic Ocean, as well as the gulfs, estuaries, river deltas and coastal shallow waters are centered mainly at the Zoological Institute of the RAS. First of all, these are fish collections, which were initiated by specimen sampling of the Academician Middendorf (1843), and continued later by numerous expeditions to the Russian North up to the present day, for example, sampling of the "Polarstern" icebreaker and the R/V "Ivan Kireyev" in the Laptev Sea in 1993.

Within the NSR there are not less than 111 fish-like and fish species and subspecies of 23 families, known at present. 32 species refer to the fresh water, brackish water and anadromous fish; they inhabit mainly the gulfs, estuaries, deltas and coastal zones of the northern seas, although they are found also in open but desalinated parts of these areas. The remaining species are marine species, including those inhabiting the central polar basin. Except for Somniusus microcephalus all species are represented in the fund collection of the ichthyology laboratory of ZIN. Many species are represented by large or sufficiently representative samplings from different regions of polar basins. Rare species or species known only by type data are also represented in the fund collection; including the types, first of all, of the species, described by the Russian scientists. In addition, there are species, sent from different museums and research centers in the world. All information on these fishes' card-index, catalogues, expedition routes, lists of the new ones are centered at the ZIN. At present a computer data bank on the entire collection of the Arctic fish is being set up.

The majority of the samples have been processed; the results are published or will be published in the near future.

The main samplings were made during polar expeditions by many generations of scientists, natural scientists and hunters and fishermen. Valuable collections were obtained during the expeditions aboard the ships the "Pakhtusov", "Andrey Pervozvanny", "Sadko", "Malygin", "Sibiryakov", "The North Pole", "Persey", "Dal'ny Zelentsy", "Polarstern", "Ivan Kireyev" and many others.
Quite interesting samplings were made at the "North Pole" drifting stations and coastal stations. Some samples were obtained during fishing in the gulfs and estuaries of the Siberian rivers.

Additional actual information is stored in the archives of the State Research Institute of the Lakes and Fishery (St.-Petersburg, mainly for fresh water and anadromous fish), in the regional inspection divisions for fish protection.

Contact person: Dr. A.V.Neyelov

Table

THE MATERIALS OF EXPEDITIONS, WORKED AT THE NSR AREA AND KEPT AT THE ZOOLOGICAL INSTITUTE RAS

No	Expedition/ collector	Time	Region	stations	Number of benthos samples	plankton samples	Degree of treatment
1.	"Leitenant Dm.Ovtsin"/ A.S.Botkin	1895	Kara Sea	9	9 trawls	-	treated, partly published
2.	"Pakhtusov"/ A.S.Botkin, Varnek, Polilov	1898 1900 1901	Kara Sea	8	8 trawls	-	treated, partly published
3.	"Ermak"/ Chernyshev	1901	Kara Sea	3	3 trawls	-	treated
4.	"Zarya"/ Byalynitskiy-Birulya	1900 - 1903	Kara Sea	62	52 trawls	20	treated except Polychaeta, partly published
5.	"Pakhtusov"/ Polilov	1902 - 1904	Kara Sea	12	9 trawls	5	treated, partly published
6.	"Andrei Pervozvannyi:/ L.A.Breitfus	1906	Kara Sea	17	12 trawls	12	partly treated partly published
7.	"Taimyr" & "Vaigach"/ Arngol'd, Starokadomskiy	1910 - 1915	from the Chukchi Sea to the Kara Sea	186	185 trawls	-	partly treated
8.	"Pakhtusov"/ Polilov	1911	Kara Sea	5	5 trawls	-	partly treated partly missed
9.	"Taimyr"/ Strel'nikov	1921	Kara Sea	18	18 trawls 1 bottom dredge	-	partly treated
10.	"Malygin"	1921	Kara Sea	27	27 dredges	-	partly treated
11.	"Zarnitsa"/ G.P.Gorbunov	1925	Kara Sea	11	11 trawls	-	partly treated
12.	Hydrological Inst.expedition/ Krechman	1927	Kara Sea	10			partly treated
13.	"Persei"	1927	Kara Sea	44			partly treated
14.	"Polyarnaya Zvezda"/ Polilov	1927	Laptev Sea	11			partly treated partly published
15.	"Sedov"/ G.P.Gorbunov	1929	Kara Sea	2	2 trawls		partly treated
16.	"Litke"/ P.V.Ushakov	1930	Kara Sea	57	56 trawls 33 dredges		partly treated and published
17.	"Sedov"/ G.P.Gorbunov	1930	Kara Sea	25	25 trawls		partly treated
18.	"Belukha"/ Khmyznikov	1930 1931	Kara Sea	15	14 trawls	1	partly treated
19.	"Lomonosov"/ Retovskiy, Vagin	1931	Kara Sea	19	15 trawls, 4 bottom-dredges		partly treated

20.	"Rusanov"/ G.P.Gorbunov	1931	Kara Sea	43	37 trawls 12 bottom-dredges		partly treated
21.	"Sibiryakov"/ Retovskiy	1932	Kara Sea Laptev Sea Chukchi Sea	12	12 trawls		partly treated
22.	"Rusanov"/Vagin, Kondakov	1932	Kara Sea Laptev Sea Chukchi Sea	31	31 trawls		partly treated
23.	"Taimyr"/ Ptokhov	1932	Kara Sea	8	2 trawls 6 bottom-dredges		partly treated
24.	"Dalnevostochnik "Krasnoarmeets"/ Ratmanov,Ivanov, Makarov, Andriyashev, Kondakov, Panin	1932 1933	Chukchi Sea	93	11 trawls 28 bottom-dredges	54	partly treated and published
25.	"Sibiryakov"/ G.P.Gorbunov	1933	Kara Sea	39	36 trawls bottom-dredges		partly treated
26.	"Arktika"/ Slastnikov	1934	Kara Sea	40	20 trawls 20 bottom-dredges		partly treated
27.	"Sedov"/Vagin	1934	Kara Sea	102	102 trawls		partly treated
28.	"Krasin"/ Chekulin	1934	Chukchi Sea	2	2 bottom-dredges		partly treated
29.	"Temp"	1934	Laptev Sea	8	8 dredges		partly treated
30.	exp. "Sever"/ Slastnikov	1934	East-Siberian Sea Chukchi Sea	19	8 dredges		partly treated
31.	"Krasin"/ Shirshov,Ushakov	1935	East-Siberian Sea Chukchi Sea	74	17 trawls 38 bottom-dredges 7 dredges	10	partly treated and published
32.	"Sadko"/ G.P.Gorbunov	1935	Kara Sea	41	41 trawls, 1 bottom-dredge		partly treated
33.	"Sadko"/ G.P.Gorbunov	1936	Kara Sea	14			partly treated
34.	"Sedov"/ Khmyznikov	1936	Kara Sea	3	3 trawls		partly treated
35.	"Nerpa"/ Popov	1936	Kara Sea	61	61 bottom-dredges		partly treated
36.	"Malygin"/ Andriyashev	1937	Kara Sea	15	25 trawls		partly treated
37.	"Sedov"/ Macaroon	1937	Kara Sea East-Siberian Sea	17	11 trawls 6 dredges		partly treated

38.	"Sadko"/ G.P.Gorbunov	1937 – 1938	Kara Sea	91	8 bottom-dredges 83 trawls		partly treated
39.	"Okhotsk"/Leonov	1938	Chukchi Sea	13			partly treated
40.	"Severnyi Polyus"/ Andriyashev	1946	East-Siberian Sea Chukchi Sea	43	39 trawls . 4 bottom-dredges		partly treated
41.	"Litke"/Vagin, Koltun	1948	Kara Sea Laptev sea	103	94 trawls 14 bottom-dredges		partly treated
42.	expedition "Severnyi Polyus-6"	1957	East-Siberian Sea	1	1 trawl		partly treated
43.	"Shtorm"/ Shcherbakov	1960	Kara Sea	18	18 trawls		partly treated
44.	Second Arctic Exp. ZIN RAS/ A.N.Golikov	1973	Laptev sea New-Siberian shallows	112	640 trawls, bottom-dredges, under water samples	10	treated partly published
45.	Third Arctic Exp. ZIN RAS/ A.N.Golikov	1976	De-Long Strait	21	84 under water samples		partly treated
46.	Expedition "Severnyi Polyus-22"	1980	East-Siberian Sea	24	24 trawls		partly treated and published
47.	Fourth Arctic Exp. ZIN RAS/ A.N.Golikov	1986	East-Siberian Sea	34	150 under water samples 30 bottom-dredges, trawls	30	partly treated and published
48.	"Ac.Koroliev"/ Sirenko, Koltun	1988	Chukchi Sea	43	20 trawls 42 bottom-dredges		partly treated
49.	"Dm.Laptev"/ A.N.Golikov	1989	East-Siberian Sea Chukchi Sea	39	111 bottom-dredges		partly treated
50.	"Geolog Persman"	1993	Kara Sea south-west	46	trawls		not treated
51.	"Ivan Kireev"/ V.Petryashev	1993	Laptev Sea	39	36 trawls 108 bottom-dredges	79	partly treated
52.	"Polarstern"/ B.I.Sirenko	1993	Laptev Sea	23	23 trawls 51 bottom-dredges	10	partly treated

The Laboratory of sea mammals has the following collection of sea mammals:

Pusa hispida: more than 70 specimens
Odobaenus rosmarus: more than 70 specimens
Delphinapterus leucas: approximately 20 specimens
Ursus maritimus: more than 100 specimens

Collections on sea mammals are included in the data bank and available for researchers. All materials are in good condition and available.

Contact person: Dr. A.A.Aristov

The Laboratory of ornithology has a large collection of birds from the NSR area. The collection is not catalogued.

Unpublished data are kept in: Daybooks of E.Toll' Polar expedition; Daybooks of L.A.Portenko' expedition in Taimyr.

Contact person: Dr. L.V.Firsova.

2. Botanical Institute (BIN), RAS

Address: Popov St. 2,
St.- Petersburg, 197376, Russia

Tel: (812) 234-84-41
(812) 234-84-61
(812) 234-84-38
E-mail: BINRAN@GLAMS.APC.ORG

Research and materials:

Region: coast along the NSR including Arctic islands

The Group of the vegetation cover of the Far North have carried out their studies in the Arctic since 1952-1953. During this time a vast herbarium material has been accumulated, approximately 1,2 mln of

herbarium sheets. There are also collections of sporophyte plants, about 500 000 envelopes.

There are floristic lists for the regions of the Ob', Taz and Baidaratskaya gulfs, islands of Litke, Bely, Shokal'sky, some locations at the Taimyr Peninsula, including the region of the Dikson settlement, eastern part of the Lena delta, also for the vicinity of the Tiksi settlement, region of the Kolyma river delta - Medvezhy Islands, Aion Islands, Wrangel Island and many points on the coast of Chukotka.

Floristic and geobotanical examination were carried out at the Severnaya Zemlya Archipelago and the north-western coast of the Taimyr Peninsula.

Comprehensive studies: herbarium collection, geobotanical descriptions, analysis of soil specimens with a subsequent correlation of the composition of the soil layer with the submarine vegetation were carried out in the region of the Kolyma River delta-Medvezhy Islands, as well as at the Arctic and Pacific coasts of Chukotka.

The classification of geobotanical descriptions with the use of the TWINSPAN program is made.

Contact person: Prof. B.A.Yurtsev

Materials on the littoral-halophyte flora complexes

Contact person: Dr. L.V.Sergienko

Region: Kara Sea, Laptev Sea, East-Siberian Sea, Chukchi Sea.

The Department of Algology obtained complete material on planktonic and sea algae from the Arctic Seas of Russia. The samples are kept either fixed in formalin (from different regions of the Arctic) or as permanent slides.

Contact persons: Dr.Y.B.Okolodkov, R.M. Gogorev

The materials from different regions of the Chukchi Sea (172 qualitative and 485 quantitative phytoplanktonic samples and 35 samples of sea-ice algae) and Kara Sea (108 round-the-year quantitative phytoplanktonic samples off Dikson Island and 31 samples of sea-ice algae) are the most complete. The collection also contains 15 quantitative phytoplanktonic samples and 9 samples of the sea-ice algae from the East Siberian Sea, 18 qualitative phytoplanktonic samples and 17 samples of the sea-ice algae from the Laptev Sea.

Material on the sea-ice algae of the Chukchi Sea was collected in the expeditions of the Arctic and Antarctic Institute (1980, 1983, 1984, 1985) and in the expedition "Sever 40" (1988); East Siberian Sea - in the expedition "Sever-39" (1987) and in the expedition of the Zoological Institute RAS (1986); Laptev Sea - in the expeditions "Sever-40" (1988) and "Sever-41" (1989) and in the Russian-German expedition (1993); Kara Sea - in the expedition: Sever-41" (1989) and "Sever-42" (1990).

The collection materials are partly identified, and the processed data are presented in a number of publications and unpublished scientific accounts. The sample of data includes information on species composition, ecology and biogeography of phytoplankton of seas, information on rare and most abundant species from every sea and about indicator species of different water masses. There are data on spatial distribution, change of species composition and quantitative development of phytoplankton in the Chukchi Sea during the season of vegetation. Quantity and in separate cases biomass of algae were calculated during the sample treatment.

The Botanical Institute RAS is the only institution which possesses the specialists, materials, and information on macrophytobenthos from the Kara, Laptev, East-Siberian, Chukchi Seas, where the Northern Sea Route passes.

The Kara Sea. The collection is represented by the herbarium specimens of 75 species, gathered by the expeditions, which took place in the 19th and in the first quarter of the 20th centuries and by the individual collectors in later periods. The south-

western part of the sea around the Kara Strait, Vaigach Island, Baydaratskaya Bay is the most investigated one. This collection is completely treated; and the obtained results are published. At the same time the information on species composition and distribution of algae is now out of date and needs revision.

Novaya Zemlya. The collection is represented by the herbarium specimens of 125 species, collected mainly by the expeditions, which took place in the 19th and in the first quarter of the 20th centuries. The coast of the Barents Sea is the most investigated. The materials on flora and distribution are treated and basically published, however they do not reflect the contemporary condition of the bottom vegetation.

The Laptev Sea (New Siberian Islands). Data on the continental coast is actually absent. The algae collection from the New Siberian Islands includes 27 species, gathered mainly by the expedition of the Zoological Institute, RAS, in 1973 and by the individual collectors. All the materials are treated and published. Further investigations are required.

The East-Siberian Sea. The collection includes 90 fixed in formalin samples and a herbarium of 65 species, gathered mainly in Chaun Bay by the expedition of the Zoological Institute, RAS in 1986. The material is completely examined; data on the species composition, distribution of the biocenosis, biomass of the leading species are published. The materials from the Wrangel Island(nearly 30 fixed in formalin samples and 50 herbarium specimens) are examined and partly published.

The Chukchi Sea. The collection contains herbarium specimens, gathered by different collectors in different years and fixed material (nearly 60 samples) collected by the hydrobiological expedition of the Zoological Institute RAS in 1989 in the Kolychin Bay. These materials are partly treated and published.

As a whole the collection material from the above mentioned seas contains 400-500 herbarium specimens and 180 fixed samples of algae. Treatment of the

collections, analysis of the unpublished and published information will enable obtaining the data on biodiversity of the arctic shelf phytobenthos, ecology of species, general peculiarities of spreading and distribution of the vegetation dominants and species which require protection, and also a preliminary evaluation of their quantitative distribution.

Contact persons: Dr. K.L. Vinogradova , Dr. V.A.Nikolayev, Dr. Yu.B.Okolodkov.

3. Arctic and Antarctic Research Institute (AARI)

Address: Bering St., 38
St.-Petersburg, 199397, Russia

Tel: (812) 352-31-79
(812) 352-22-31
Fax: (812) 352-26-88
Telex: 312-509 NILAS
E-mail: AARICOOP@SOVAM.COM

Director: Dr. I.E.Frolov.
Research and materials:

Region: Kara Sea, Laptev Sea, East-Siberian Sea, Chukchi Sea, Severnaya Zemlya, New-Siberian Islands, Novaya Zemlya.

AARI has a database on marine mammals and polar bear distribution along the NSR area on paper carrier, based on material collected over the past 40 years during aerial ice survey. Annual Reports on ice navigation along the NSR area including information about sea mammals and birds distribution in the eastern part of the area are kept in the archives. Reports of the expeditions over the entire NSR, containing data on biota (Novaya Zemlya, Severnaya Zemlya, New Siberian Islands) deposited in the AARI archive and included in the references Database. Material on seabird counts along NSR obtained in 1994 is also available.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.A.V.Novozhilov, Dr.Yu.A.Gorbunov, M.V.Gavrilo

4. Tiksi Federal Hydrometeorological Service

Address: Fedorov St. 27, Tiksi,
Sakha Republic (Yakutia), 678400, Russia

Tel: (411-67) 21-066

Research and materials:

Region: Laptev Sea

Collections and catalogues on sea invertebrates of the eastern part of the Laptev Sea (of the past 10 years), including Anabar Bay (5 stations), Olenek Bay (30 stations), Buor-Khaya Bay (about 300 stations), Yana Bay (about 60 stations).

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr. A.Yu. Gukov.

5. Pevek Federal Hydrometerorological Service

Address: Popov St., 8, Pevek
Chukot District, Magadan Region, 686510, Russia

Research and materials:

Region: Chaun Bay

Catalogues on sea invertebrates of the Chaun Bay region of the East-Siberian Sea, based on collections from 31 stations, obtained during past 10 years.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.S.Yu.Gagaev

6. Murmansk Marine Biological Institute (MMBI), Kola Scientific Center RAS

Address: Vladimirskaya St. 17,
Murmansk, 183023, Russia

Tel (815) 2-57-91-76
(815) 2-56-20-29
(815) 2-57-91-54
Telex: 1261118 PGI SU

Director: Prof. G.G.Matishov

Research and materials:

Region: Kara Sea

Catalogues on sea invertebrates and fishes based on materials of 3 expeditions have been deposited by specialists on the particular groups of animals. Data on contamination levels in sea organisms.

Contact persons: Dr. L. Kuznetsov, Dr.P.R.Makarevich, Dr.V.Druzhkov, Dr.S.G.Denisenko, Dr.T.V.Savinova.

Address: Prof.Kamshilov St. 1
Dalnie Zelentsy, Murmanskaya obl.
184631, Russia

The Department of Pelagic Ecology has collections of algae from the Kara Sea and Laptev Sea.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr. V.M. Ryzhov, Dr.S.Timofeev

7. Institute of Animal Evolution Morphology and Ecology, RAS (IAME RAS)

Address: Leninskii pr., 33,
Moscow, 117333, Russia

Tel/Fax: (095) 232-20-88
Tel: (095) 124-79-32

Research and materials:

Region: Taimyr Peninsula, Kara Sea Islands

The International Arctic Expedition (IAME) has been working in Taimyr region and Kara Sea Islands since 1988. The head of the expedition is Prof. E.E.Syrojechkovskiy. More than 30 biologists and 19 students, mostly from Russia, but also from other countries have been involved.

Characteristic of materials: partly published, reliable, modern.

Information on terminated and ongoing ***projects:***

Establishing an inventory of bird fauna and populations of Taimyr - ongoing project./ *Supervisors*: Prof. E.V.Rogacheva, Syroechkovskiy Jr.

Brent Goose distribution, numbers and ecology./ *Supervisors:* E.E.Syroechkovskiy Jr.

Numbers and distribution of seabirds in the coastal zone of Taimyr and Kara Sea Islands with special attention to the Ivory Gull./ *Supervisors*: E.E.Syroechkovskiy Jr., E.G.Lappo.
Comparison of ducks (King Eider and Long-Tailed Duck) ecology in the High and Low arctic./ *Supervisor*: V.N.Karpov.

Herring Gull taxonomy and ecology in the Russian Arctic./ *Supervisor:* A.Fil'chagov.

Dunlin migration and breeding system./ *Supervisor:* I.I.Chernichko.

High Arctic waders' population studies (Knot, Sanderling, Curlew and Purple Sandpipers, Little Stint, etc.) including ecology, population dynamic and migration phenology./ *Supervisors:* P.S.Tomkovich, M.Yu.Soloviev, E.E.Syroechkovskiy Jr., E.G.Lappo, T.Sviridova.

Mapping of Arctic and Subarctic waders' breeding areas./ *Supervisor:* E.G.Lappo.

Steller's Eider distribution and biology in the Western part of the Russian Arctic. Supervisor:/ *E.G.Lappo. E.E.Syroechkovskiy Jr.*

Nest habitat selection in High-Arctic birds./ *Supervisors:* E.E.Syroechkovskii Jr., F.A.Romanenko.

8. Shirshov Oceanology Institute RAS

Address: Krasikov St. 23,
Moscow, 117218, Russia

Tel: (095) 129-21-18

Research and materials:

Region: Kara Sea, Chukchi Sea, Laptev Sea

Systematic and unidentified collections and catalogues on marine mostly deep water invertebrates of the Kara Sea (R/V "Dmitry Mendeleev" 29th voyage (1993): 39 stations, including 29 trawl and 39 bottom samples). Chukchi Sea (SP-22): 24 stations and 24 trawl samples. Laptev Sea: 200 plankton samples. Collections in special depository, catalogues in the institute.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.A.P.Kuznetsov, Dr.L.I.Moskalev, Dr. X.Kosobokova

9. All-Union Institute for Nature Conservation and Reserves (VNIIpriroda)

Address: Znamenskoye-Sadki
Moscow, 113628, Russia

Tel: (095) 423 03 22
Fax: (095) 423-23-22

Director: Dr.S.P.Peshkov

Contact persons: Dr.Sci.A.N.Golovkin, Dr.S.E.Belikov, Dr.A.V.Volkov, Dr. I.V.Pokrovskaya, Dr.Sci.V.A.Bychkov

Research and materials:

Region: Yamal Peninsula, Taimyr Peninsula, Severnaya Zemlya Archipelago, Wrangel Island, East-Siberian Sea, Chukchi Sea, Laptev Sea.

Characteristic of materials: partly published, reliable, modern.

*Information on **terminated projects** kept in the Institute as Reports (Title/Supervisor/Time)*

1. Draft of the program for the conservation of colonial seabirds in Russia / A.N.Golovkin / 1993.

2. Materials on waterfowl of the Yamal Peninsula / V.G.Vinogradov, V.Avdanin / 1992-1993.

3. Annotated list of rare and disappearing species of Arctic flora and fauna / S.E.Belikov, V.V.Morozov, I.V.Pokrovskaya / 1992.

4. The review of status and program for conservation of some animal species in the Arctic / V.V.Morozov, I.V.Pokrovskaya / 1992

5. The review of population status and scientific principles of conservation, reproduction and reacclimatization of rare, disappearing and

economically important Arctic species / S.E.Belikov, V.V.Morozov, I.V.Pokrovskaya / 1992-1993 (supervisor - IAME RAS).

7. New data on ecology and practical recommendations for management of Polar bear in the Russian Arctic / S.E.Belikov, A.Boltunov / 1993.

8. Ecological-social and low evidences for the establishment of protected regime for marine ecosystems in the economic zone of the Russian Arctic / S.E.Belikov, I.V.Pokrovskaya, V.F.Leonov, V.P.Artemenko, T.P.Belikova / 1993.

10. Proposals for nature management and conservation at the Bol'shevik Island (Severnaya Zemlya) / S.E.Belikov, A.E.Volkov / 1992.

*Information on **ongoing projects***

1. Programs for the conservation and rehabilitation of populations of rare and disappearing bird species in the Russian tundra / V.V.Morozov / 1988 -

2. Scientific principles of the ecological control upon use and protection of sea mammals within the shelf zone and marine economical zone of the Russian arctic / V.A.Bychkov / 1993 -

3. Creation of the wetland network of international and national importance in the Russian Arctic (with field work at the Yamal Peninsula) / V.G.Krivenko, V.G.Vinogradov / 1976 -

4. Modern status of ornithocomplexes of the Severnaya Zemlya archipelago (with field work) / A.E.Volkov / 1991 -

5. Monitoring of the Ivory Gull population at the Severnaya Zemlya / (with field work) / A.E.Volkov / 1991 -

6. Adaptation of the data of Annual Nature Reports, prepared by State reserves, for the purposes of Joint State System of Ecological Monitoring / A.E.Volkov / 1992 -

7. Database on the colonial seabirds of Russia / A.N.Golovkin, E.E.Stotskaya / 1993-

8. Project of creation of "The Severnaya Zemlya National Park" / S.E.Belikov, A.E.Volkov / 1994 -

9. Project of creation of "The Novaya Zemlya Federal Reserve" / S.E.Belikov, I.V.Pokrovskaya / 1994 -

10. Database on rare, disappearing and economically important vertebrate species of the Russian Arctic and Subarctic / S.E.Belikov, I.V.Pokrovskaya, V.V.Morozov / 1994 -

11. Scientific principles and practical recommendations for the creation of joint system of protected areas (Supervisor IAME RAS) / S.E.Belikov, V.F.Leonov, V.P.Artemenko / 1993 -

The data concerning VNIIpriroda apply as of January 1994. Intensive
staff and structural reorganization currently taking place now at the institute.

10. Moscow State University (MGU).

Address: Leninskie Gory (MGU),
Moscow, 117234, Russia

Tel: (095) 939-28-30

Research and materials:

Region: Kara Sea

Biological Faculty, Department of General Ecology and Hydrobiology. The collections probably contain materials from the Kara Sea.

Contact persons: Dr.T.I.Koltsova

Region: East-Siberian Sea, Chukchi Sea

Geographic Faculty. The materials from the Chukchi Sea (54 samples of water and sediments) and from the East Siberian Sea (13 samples of sediments).

Contact persons: Dr.E.I.Polyakova

The material is available for study.

11. Zoological Museum of the Moscow State University

Address: Hertsen St. 6,
Moscow, 103009, Russia

Tel: (095) 203-29-32.
(095) 203-43-66

The Zoological Museum has large collections of birds and mammals from the NSR area. Collections are partly treated. Most untreated materials were collected during the foregoing period.

Collection of sea mammals includes:
Pusa hispida: more than 180 specimens (mostly from Yamal Peninsula)
Odobaenus rosmarus: more than 30 specimens
Delphinapterus leucas: approximately 30 specimens.
Ursus maritimus: approximately 60 specimens.

The Zoological Museum does not itself carry out field work along the NSR area, though its workers participate in the expeditions organized by other institutions.

The *Russian working group on waders (RWGW)* was created on the basis of the Zoological Museum in 1987. The leader of RWGW is Dr. P.S.Tomkovich. A group of regional supervisors exists at the Bureau of RWGW, though there is no general supervisor for the Arctic. RWGW regularly publishes "The

informational materials", which are sent to the international working group on waders.

11. All-Russian Research Institute of Fisheries and Oceanography (VNIRO)

Address: Verkhne-Krasnoselskay St. 17,
Moscow, 107140, Russia

Tel: (095) 264-90-89
(095) 264-92-10

Research and materials:

Region: seas of the eastern part of the Arctic

Object: Catalogues on feeding of estuarian fishes.

Contact persons: Dr.A.A.Neiman

Objects: Beluga Whale, Ringed Seal, Laptev and Pacific Walruses, marine mammals counts in the Laptev, East-Siberian and Chukchi Seas

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.V.A.Vladimirov, Dr.A.A.Kibalchich, Dr.V.M.Sadovov.

12. Polar Research Institute of Sea Fisheries and Oceanography (PINRO)

Address: Knipowitsch St. 6,
Murmansk, 183763, Russia

Tel: (815) 00 57-31-76

Research and materials:

Region: Kara Sea

Catalogues on fishes and invertebrates based on data of 11 expeditions in the Kara Sea performed in 1969-1977, during which 257 trawl samples, 14 samples of ichthyoplankton, 190 samples of zooplankton, 90 samples of benthos were collected.

1. *1960. R/V "Tunets"(RT-211) cruise report* for the period 23.08-08.09 describing investigation results ,including:

-trawl cards (25 hauls) indicating specific composition of catches;

-data from mass fish measurements from catches(total number- 15478 spec.);

-Materials from biological analysis of catches (length, weight, age, sex, maturuty, feeding), total number of analyzed fishes - 350 spec.

2. *1969. R/V "Mukhachevo"(RT-322) cruise report* for the period 23.09-30.09. describing investigation results ,including:

-trawl cards (7 hauls) indicating specific composition of catches;

-data from mass fish measurements of catches (total number - 312 spec.);

-materials from biological analysis of catches (length, sex, maturity, feeding), total number of analyzed fishes - 100 spec.

3. *1970. R/V "Mukhachevo"(RT-322) cruise report* for the period 28.08-03.09. describing investigation results ,including:

-trawl cards (23 hauls) indicating specific composition of catches;

-data from mass fish measurements of catches (total number- 742 spec.);

-materials from biological analysis of catches (length,sex, maturity, feeding), total number of analyzed fishes - 100 spec.

4. *1970. R/V "Nikolay Maslov" (SRTM) cruise report* for the period 13.09-30.09. describing investigation results, including:

-trawl cards (25 hauls) indicating specific composition of catches;

-data from mass fish measurements of catches(total number- 727 spec.);

-materials from biological analysis of catches (length, age, weight, sex, maturity, feeding),total number of analyzed fishes - 300 spec.

5. *1972. R/V "Akademik Knipovich" (SRT-r) cruise report* for the period 05.09-19.09. describing investigation results, including:

-trawl cards (20 hauls) indicating specific composition of catches;

-data from mass fish measurements of catches (total number - 4207 spec.);

-materials from biological analysis of catches (length, weight, age, sex, maturity, feeding), total number of analyzed fishes - 370 spec.

6. *1973. R/V "Achill" (SRTM) cruise report* for the period 27.08-15.09 describing investigation results, including:

-trawl cards (30 hauls) indicating specific composition of catches;

-data from mass fish measurements of catches (total number - 1845 spec.);

-materials from biological analysis of catches (length, sex, weight, age stages, feeding), total number of analyzed fishes - 575 spec.

7. *1975. R/V "Vychegda" (SRT) cruise report* for the period 02.09-23.09 describing investigation results,including:

-trawl cards (10 hauls) indicating specific composition of catches;

-data from mass fish measurements of catches (total number - 1447 spec.);

-materials from biological analysis of catches (length, weight, age, sex, maturity, feeding), total number of analyzed fishes - 525 spec.

-information on plankton characteristic (volume and specific composition) 104 plankton samples

-materials on benthos sampling (totally 85 samples).

8. *1976. R/V "Teriberka" (ZRS-2010) cruise report* for the period 19.09-2.10 describing investigation results, including:
-trawl cards (43 hauls) indicating specific composition of catches;
-data from mass fish measurements of catches (total number - 6195 spec.);
-materials from biological analysis of catches (length, weight, age, sex, maturity stages, feeding), total number of analyzed fishes - 573 spec.
-plankton characteristic (volume and specific composition) from analysis of 23 plankton samples

9. *1977. R/V "Serebrjanka" (ZRS) cruise report* for the period 20.08-14.09 describing investigation results, including:
-trawl cards (29 hauls) indicating specific composition of catches;
-data from mass fish measurements of catches (total number- 392 spec.);
-materials from biological analysis of catches (length, sex, maturity, feeding), total number of analyzed fishes - 100 spec.
-plankton characteristic (volume and specific composition) from 40 plankton samples
-data from ichthyoplankton observation (14 ichthyoplankton samples)

10. *1977. R/V "Academic Knipovich" (SRT-r) cruise report* for the period 21.09-02.10 describing investigation results, including:
-trawl cards (12 hauls) indicating specific composition of catches;
-data from mass fish measurements of catches (total number - 69 spec.);
-materials from biological analysis of catches (length, sex, maturity, feeding), total number of analyzed fishes - 60 spec.
-plankton characteristic (volume and specific composition) from 20 plankton samples

11. *1991. R/V "Ajaks" (SRTM) cruise report* for the period 27.07-14.08 describing investigation results, including:
-materials on benthos sampling (totally 67 samples).

Total, during the 11 above mentioned expeditions, from 229 hauls 23410 fish were measured, 3053 specimens.were analyzed, 187 plankton samples,152 benthos samples and 14 ichthyoplankton samples were collected. Despite an important volume of ichthyologic materials ,it is far from presenting total ichthyofauna composition of the area. There is a need to carry out additional investigations in order to assess more completely distribution of main representatives from local ichthyofauna, bottom hydrobios and ecological conditions of their living within coastal shallows neighbouring the Northern Sea Route area (and inaccessible for sea vessels' investigations).

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.V.P.Kilyozhenko

13. Northern Polar Research Institute of Fisheries and Oceanography (SevPINRO)

Address: Uritsky st.,17,
Arkhangelsk, 163002, Russia

Tel (818) 00 44-03-66.

Research and materials:

Region: Kara Sea

Subject: quantitative surveys of marine mammals, including remote methods, numbers, stock, biology, including anthropogenic influence.

Collection of sea mammals:
Pusa hispida: probably present Collection catalogue is lacking (?) Availability is unknown.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr. Yu.K. Timoshenko, Dr. V.A. Potelov

14. Pacific Research Institute of Fisheries and Oceanography (TINRO)

Address: Tupik Shevchenko 4,
Vladivostok, 690600. Russia

Tel: 57-778

Research and materials:

Region: Chukchi Sea

Subject: Catalogues on sea invertebrates and fishes collected in 9 expeditions.

Collection of sea mammals:
Pusa hispida: probably present.
Odobaenus rosmarus: probably present.
Delphinapterus leucas: probably present.
Catalogue of collections is lacking (?).
Availability is unknown.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.A.E.Kuzin, Dr.V.Koblikov.

15. Magadan Department of Pacific Research Institute of Fisheries and Oceanography (MO TINRO)

Address: Nagaevskaya St., 51
Magadan, 685013, Russia

Tel: (413) 2-64-21

Region: Chukchi Sea

Subjects: Data on distribution and biology of Beluga Whale, Ringed seal, Pacific Walrus

Characteristic of materials: partly published, reliable, modern.

Contact person: Dr.G.A.Fedoseev

16. Institute of Plant and Animal Ecology, RAS

Address: 8 Marta St., 202
Ekaterinburg, 620014, Russia

Tel: (343) 2-29-41-70

Director: Ac. V.N.Bol'shakov

Research and materials:

Region: Yamal and Gydan Peninsulas

Subject: The main objects of investigations are the bird species of the tundra. The material on multi-year permanent studies concerning breeding numbers dynamic, biology and ecology of bird species are present. Places having great conservational value for the rare bird species and bird communities as a whole are determined within the area under investigation.

Characteristic of materials: partly published, reliable, modern (1969-1993).

Contact person: Dr.V.K.Riabitsev.

The institute also conducts the hydrobiological investigations and possesses catalogues on invertebrates of Ob' Bay.

17. Institute of biology of Komi Scientific Center, Ural Department of RAS

Address: Kommunisticheskaya St., 24
Syktyvkar, GSP, 667610, Russia

Tel: (821) 22 3 10 07
Fax: (821) 22 2 01 63

Director: Prof.M.V.Getsen

Research and materials:

Region: Yugor Peninsula and Vaigach Island

Subject: *The Laboratory of animal ecology* carries out research and possesses materials on status, distribution, places of spring and autumn concentrations (while migrating and molting), migration routes, numbers and densities, phenology and breeding of waterfowl, obtained during permanent works and surveys, including aerial.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.A.A.Estafiev, Dr.Yu.N.Mineev.

18. Institute of Biological Problems of the North, Far-East Department RAS

Address: Karl Marx St. 24,
Magadan, 685000, Russia

Tel: (413) 22 229-65

Director: Dr.F.B.Chernyavskiy

Research and materials:

Region: The Arctic coast of the Chukchi and East-Siberian Seas from the Kolyuchin Bay to the Kolyma mouth.

Subject: Investigations on anadromous and freshwater fishes, birds (mainly waterfowl) breeding biology and ecology are conducted on the basis of permanent stations.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr.I.A.Chereshnev (fishes), Dr.A.V.Andreev, Dr.A.Ya.Kondratiev, Dr.A.V.Kondratiev (birds).

19. The Great Arctic Reserve

Address: Box 355, Regional Post Office, Dudinka, Krasnoyarsk Territory, 663210, Russia

Tel/Fax: (39111) 2 55 83

Director: V.N.Badukin

The Reserve has existed since 1993; its territory covers a significant part of the central NSR area. At present the reserve has no permanent scientific staff. Supervisor of scientific programs carried out in the territory of the Reserve - Prof. E.E.Syroechkovskiy.

20. Ust'-Lenskiy State Reserve

Address: Akademika Fiodorova St., 28, Tiksi Sakha Respublika (Yakutia), 678400, Russia

Tel: (411-67) 22 614
(411-67) 22 599

Director: Dr. S.V.Larionov

Research and materials:

Region: The River Lena delta and adjacent area.

Subject: The Reserve has existed since 1985; in 1993 the New Siberian Islands were joined as buffer zone. The catalogues on birds and mammals as well as reports on numbers, distribution, migrations, phenology, places of concentrations of marine birds, and to a lesser extent of marine mammals are deposited in archives of the Reserve. Materials on marine invertebrates are also available.

Characteristic of materials: mainly unpublished, reliable, modern.

Contact persons: Deputy Director on science - Dr. A.I.Tsybul'skiy, D.V.Solovieva - ornithologist.

21. "The Wrangel Island" State Reserve

Address: Ushakovskoye, Shmidtovskiy district, Magadan Region, 686870, Russia

Director: Dr.D.N.Kovalev

Research and materials:

Region: Wrangel and Herald Islands. The adjacent mainland coast (near the Chaun Bay and Aion Island) is covered by the studies of scientists of the reserve, too.

Subject: The reserve has existed since 1976. The catalogues on birds and mammals as well as Annual Nature Reports are deposited in the archives of the reserve. Intensive studies on tundra birds including breeding biology, biotopic distribution, population dynamics and demography are as well as complex studies of colonial seabirds (counts, mapping, phenology, breeding parameters) carried out within the territory of the Reserve.

Characteristic of materials: partly published, reliable, modern.

Contact person: Dr.M.S.Stishov,
Tel.(095)452-70-33.

22. Russian Research Institute of Cultural and Natural Heritage

Address: Kosmonavtov St., 2
Moscow, 129366, Russia

Tel: (095) 282 94 62
Fax: (095) 286 13 24

Deputy director: Dr.Sci.P.V.Boyarskiy

Research and materials:

Region: Arctic coast of the Chukchi Sea from Serdtse Kamen' Cape to the Bering Strait

Subject: counts in the seabird colonies made during 1976-1990. Aerial observations of the sea birds and mammals along the route Franz-Josef Land - Chukotka in summer 1993. Materials for the organization of National Park "Beringia", including data on birds and mammals, prepared by scientists of different institutions.

Characteristic of materials: mainly unpublished, of moderate reliability, modern.

Contact persons: Dr.Sci.L.S.Bogoslovskaya, Tel. (095) 455-29-34, also Dr.B.N.Konyukhov (IAME) concerning bird counts.

The Institute is also an organizer of The Integrated Marine Arctic Expedition (IMAE). Coordinator of IMAE - Dr. Sci. P.V.Boyarskiy. In 1992 the expedition worked in the Kara Sea. The Proceedings are published (see Database).

23. The State Scientific Institute of Nature Protection of Arctic and North (GosNIIOPAS)

Address: Chelieva St., 13, Box 288,
S.-Petersburg, 193224, Russia

Tel: (812) 263 63 31
Fax: (812) 352-26-88 (for GosNIIOPAS)

Director: Dr.V.M.Makeev

Research and materials:

Region: Kara Sea.

Subject: *The Laboratory of marine ecosystems* possesses tabulated data including computer tables on the composition and quantitative distribution of benthos (mainly macrobenthos) in the south-eastern part of the Kara Sea, based on the materials of 46 stations. The data on composition and abundance of micro and meiobentos at 12 stations (48 samples) are present.

Characteristic of materials: partly published, reliable, modern.

Contact person: Dr.Sci.V.B.Pogrebov

*Information on **ongoing projects***

The Institute is the coordinator of the project "To create the structure and contents of collection of ecological-thematic maps of the Arctic"./ *Supervisor* - Dr.Sci. I.N.Safronova (Botanical institute RAS, Tel. (812) 234-17-92).

Participants:

VNIIpriroda - maps on habitats of rare vertebrate species and protected areas, *key-persons:* Dr.A.V.Kuprina, Dr.M.V.Mirutenko, Dr.S.E.Belikov, Dr.A.E.Volkov, Dr.A.K.Danilenko.

AARI: Dr.V.T.Sokolov is *supervisor* of the part "Sea".

24. Scientific-Research Institute of the Agriculture of the Far North (NIISKh Kraynego severa)

Address: Komsomol'skaya St.,1,
Norilsk, 663302, Russia

Research and materials:

Region: Taimyr Peninsula

Subject: Studies are carried out in the inner parts of the Taimyr Peninsula mainly, and concentrated on game species.

Characteristic of materials: partly published, reliable, modern.

Contact person: Dr. Ya.I.Kokorev

25. Institute of biology of the Yakut Branch of the Northern Department RAS

Address: Lenina St., 41, Yakutsk,
Respublika Sakha (Yakutia), 677891,
Russia

Tel: (411) 3-54-08

Deputy director: Dr. N.I.Germogenov

Research and materials:

Region: Yakut coast of the Laptev Sea and East-Siberian sea, New-Siberian Islands.

Subject: *The Laboratory of zoology of vertebrates* carries out studies on tundra bird fauna and ecology.

Characteristic of materials: partly published, reliable, modern.

Contact persons: Dr. Yu.V. Labutin, Dr.V.I.Pozdniakov.

26. Institute of Nature Protection and Sustainable Nature Use of the Foundation of National and International Security

Address: Box 215, FN i MB
Moscow, 121019, Russia

Tel: (095) 479-74-13 (priv.)

Director/Contact person: Dr.V.N.Kalyakin

Research and materials:

Region: North-east part of Novaya Zemlya, Vaigach Island, Yugor Peninsula, Baydaratskaya Bay coast up to the Yuratskaya Bay, Yakut coast, Kara Sea and Laptev Sea water bodies.

Subject: surveys including aerial, ship and by foot, studies on biology, spring migration, status of bird populations (waterfowl mainly). Aerial survey of marine mammals. Determination of contaminant contents (radionuclides, chlorinated pesticides) in vertebrate animals from Novaya Zemlya and Yamal.

Characteristic of materials: partly published, reliable, modern (1980-1993).

Annex 2

A LIST OF PLANNED EXPEDITIONS

1. The International Arctic Expedition

Supervisor: IAME RAS

Head of the Expedition: Prof. E.E.Syroechkovskiy

Place: Taimyr Peninsula

Program: complex investigations of tundra's birds with particular interest to the waders and the Brent Goose.

2. Swedish-Russian Expedition "ECOTUNDRA-94"

Supervisor from the Russian side: IAME RAS

Co-ordinator of the ornithological program: Prof. E.V.Rogacheva

Place: the ship will pass along the NSR with landings at approximately 15 places

Time frame: June - August 1994

Program: - faunistic studies
- tundra bird counts and ringing
- studies of breeding success in tundra birds in relation to the lemmings abundance

3. Russian-American Expedition on Polar Bear investigation

Supervisor from the Russian side: VNIIpriroda

Head of the Expedition: Dr.S.E.Belikov

Place: the East-Siberian Sea

Program: complex investigations of the Polar Bear's population ecology. Aerial sea mammals counts (occasionally).

4. The complex biological expedition at Severnaya Zemlya

Supervisor: VNIIpriroda

Head of the Expedition: Dr. S.E.Belikov

Key person: Dr.A.E.Volkov

Place: Severnaya Zemlya archipelago (Bol'shevik Isl.)

Program: complex investigations of the population biology of birds and mammals.

5. Russian-German expedition "LAPEX - 94"

Supervisor from the Russian side: AARI

Head of the Expedition: Dr.Sci.L.A.Timokhov

Place: the Laptev Sea

Time frame: July - September 1994

Program: complex investigations on the oceanology, meteorology and hydrobiology, studies on vertebrates are not planned.

6. Russian-American expedition to the Siberian River deltas

Supervisor from the Russian side: GosNIIOPAS

Co-partner: ZIN RAS

Place: deltas and estuaries of large Siberian rivers

Time frame: summer 1994

Program: complex investigations on the hydrology and hydrobiology.

7. Russian-Norwegian Expedition in the Kara Sea.

Supervisor from the Russian side: AARI

Head of the expedition: Dr.V.A.Volkov

Place: the Kara Sea

Program: complex investigations on the oceanology, hydrometeorology and hydrobiology.

Annex 3

A LIST OF RUSSIAN LIBRARIES HAVING LITERATURE ON BIOTA ALONG THE NORTHERN SEA ROUTE AREA

1. Russian State Library

Address: Kalinin Prospect, 3, Moscow, 101000

2. Library of Natural Sciences, Russian Academy of Sciences

Address: Frunze, 11, Moscow, 121019

3. Russian National Library

Address: Sadovaya St., 18, St.-Petersburg, 191069

4. Library of the Russian Academy of Sciences (BAN)

Address: Birzhevaya Liniya, 1, St. Petersburg, 199034

Director: Dr.V.P.Leonov.

4a. Library of the Zoological Institute, Russian Academy of Sciences

Address: Universiteskaya nab. 1, St. Petersburg, 199034

Director: L.P.Grozdilova

4b. Library of the Botanical Institute, Russian Academy of Sciences

Address: Popov St., 2, St. Petersburg, 197376

4c. Library of the Oceanological Institute, Russian Academy of Sciences

Address: Krasikov St. 23, Moscow, 117218

4d. Library of the Plant and Animal Ecology Institute, Russian Academy of Sciences

Address: 8 Marta St. 202, Ekaterinburg, 620219

5. Library of the Arctic and Antarctic Research Institute

Address: Bering St. 38, St. Petersburg, 19939

6. Gorky Scientific Library of Lomonosov University

Address: Marx Prospect 20, Moscow, 100000

7. Scientific Library of St.-Petersburg State University

Address: Universitetskaya nab. 7/9, St. Petersburg, 199034

8. Library of Murmansk Marine Biology Institute, Russian Academy of Sciences

Address: Vladimirskaya St. 17, Murmansk, 183023

9. Scientific Technical Library of the All-Russian Research Institute of Sea Fisheries and Oceanography

Address: Verkhne-Krasnoselskaya St. 17, Moscow, 107140

10. Scientific-technical library of Knipowitsch Polar Research Institute of Fisheries and Oceanography

Address: Knipowitsch St. 6, Murmansk, 183763

Annex 4

BRIEF DESCRIPTION OF REFERENCES DATABASE

File **polarbib.dbf** contains a Database of references of Russian publications on biota along the NSR area. The Database can be used in FoxBASE, dBASE and FoxPro systems.

Descriptions of fields.

1. Field **AUTHOR** contains the name(s) of author in original language of publication.

2. Field **TRANSAUTH** contains the transliteration of author's name.

3. Field **TITLE** contains the title of publication in original language, mainly in Russian.

4. Field **TRANSTITLE** contains the translation of the title into English, if the original language of publication was Russian.

5. Field **SOURCE** contains the name of source (book, journal, collection of papers, etc.) in the original language of publication.

6. Field **TRANSSOUR** contains the transliteration of the source name.

7. Field **PLACE** contains information about the place of publication in the original language of publication.

8. Field **TRANSPLACE** contains the transliteration of the previous field's contents.

9. Field **PUBL** contains information about the Publishing House in the original language of publication.

10. Field **TRANSPUBL** contains the transliteration of the previous field's contents.

11. Field **LG** contains the code of the original language of publication.
"r" means Russian language
"d" means German language
"e" means English language

12. Field **BT** contains the code of publication type. Classification and codification are taken from ProCite system. The following codes are used:
B - book, monograph, paper from the collection;
D - paper from a journal;
E - report;
G - theses, abstract of thesis;
J - manuscript;
K - abstracts of proceedings of a conference etc.

13. Field **KEYLATNAM** contains the names of plants and animals in Latin mainly. If the taxon name is present in the title, it can be missed in this field.

14. Field **KEYWORD** contains keywords in English.

15. Field **KEYW** contains keywords in Russian.

16. Field **KEYGEO** contains geographical keywords in English. All geographical names are shown at the figure.

17. Field **KEYG** contains geographical keywords in Russian.

Annex 5

A LIST OF REFERENCES
PRINTED FROM THE DATABASE

The list is generated from the References database. References are grouped taking into account systematic keys mainly.

General hydrology and geography

1. Antonov N.D. 1938. Materials toward hydrology of lower part of the Yenisei River. Trudy Vsesoyuznogo Arkticheskogo instituta. Vol. 105, Iss. 2. P. 143-181.
   Keywords: hydrology, estuarine complex/group.
   Region: Yenisei.
2. Antonov N.D. 1939. Hydrological characters of the lower part of the Ob-river. Trudy Vsesoyuznogo Arkticheskogo instituta. Vol. 128, Iss. 4. P. 27-79.
   Keywords: hydrology, estuarine complex/group.
   Region: Ob.
3. Antonov V.S. 1940. In the lower part of the Yenisei. Moskva-Leningrad: Glavsevmorput. P. 40.
   Keywords: hydrology, estuarine complex/group.
   Region: Yenisei.
4. Antonov V.S. 1957. Distribution of riverine waters in the Arctic Seas. Trudy AANII. Vol. 208, Iss. 2. P. 25-52.
   Keywords: hydrology, estuarine complex/group.
   Region: Arctic Regions.
5. Antonov V.S. 1965. Effect of the riverine output on the ice cover of the arctic waterbodies. Trudy AANII. Vol. 268. P. 6-56.
   Keywords: hydrology, estuarine complex/group.
   Region: Yenisei, Ob.
6. Antonov V.S. 1967. The mouth part of the Lena-river. Leningrad: Gidrometeoizdat. P. 1-107.
   Keywords: hydrology, estuarine complex/group.
   Region: Lena.
7. Antonov V.S. 1972. The environment-transport conditions in the mouth part of the Kolyma River. Trudy AANII. Vol. 297. P. 69-74.
   Keywords: hydrology, estuarine complex/group, geology.
   Region: Kolyma.
8. Antonov V.S., Ivanov V.V., Nalimov Yu.V. 1964. Typical features of the ice regime of the navigable arctic zone rivers. Problemy Arktiki i Antarktiki. Iss. 5. P. 11-17.
   Keywords: hydrology, estuarine complex/group.
   Region: Arctic Regions.

9. Bogorov B.G. 1939. Local ice forecast by biological indications. Problemy Arktiki. N 1. P. 32-38.
Keywords: seasonal abundance, phytoplankton, bioindicators.
Region: Arctic Regions.
10. Bogorov B.G. 1945. Significance of the bioindicators in knowledge of hydrology of the sea. - Doklady yubileynoy sessii. Arkticheskiy nauchno-issledovatel'skiy Institut Glavsevmorputi. Moskva-Leningrad: Glavsevmorputi, 1945. P. 1-15.
Keywords: bioindicators, hydrology.
Region: Arctic Regions.
11. Buynovich A.G., Rusanov V.P., Smagin V.M. 1980. Distribution of riverine waters in the Laptev's Sea according to hydrochemical data. Trudy AANII. Vol. 358. P. 116-125.
Keywords: hydrology, hydrochemistry, estuarine complex/group.
Region: Lena, Laptev Sea.
12. Chaplygin E.I. 1939. Hydrochemical regime of the Tiksi Bay. - Problemy Arktiki. N 3. P. 5-20.
Keywords: hydrochemistry, estuarine complex/group.
Region: Siberia, Lena.
13. Egorova N.P., Ivanov V.V. 1971. Water regime of the river mouths: the bibliography index. Leningrad : AANII. P. 1-44.
Keywords: hydrology, estuarine complex/group.
Region: Arctic Regions.
14. Gukov A.Yu. 1990. Antropogenic contamination in delta of Lena and estimation of water quality. - Antropogennoye vozdeystviye na prirodu zapovednikov. Moskva. P. 132-136.
Keywords: anthropogenic influence, estuarine complex/group.
Region: Lena.
15. Ivanov V.V., Osipova I.V. 1974. Input in the Yenisei mouth region and its yearly variability. Trudy AANII. Vol. 308. P. 35-41.
Keywords: hydrology, estuarine complex/group.
Region: Siberia, Yenisei.
16. Khotuleva M.V., Chechetkin V.A. 1993. Radioactine contamination of the Kara Sea through the Ob River basin. - Zagryazneniye morey vokrug poberezh'ya SNG (preimushchestvenno Arktiki)ch.P Materialy Mezhdunarodnoy konferentsii - Arkhangel'sk, 19-23 iyulya 1993 g. Sevastopol', 1993. P. 45-47.
Keywords: radioactive pollution.
Region: Kara Sea, Ob.
17. Leont'yev E.A., Ivanov V.K. 1939. Climat characteristics of the Ob'-Yenisei region . Glavsevmorput. P. 1-184.
Keywords: climate, estuarine complex/group.
Region: Ob, Yenisei, Kara Sea.
18. Nesis K.N. 1983. Did the Panarctic Ice Sheet exist during the Pleistocene?. Biologiya morya. P. 11-19.
Keywords: biogeography, Pleistocene.
Region: Arctic Regions.
19. Polikarpov G.G. 1993. Assessment of present and possible future transfer of radionuclides from the Southern Urals to the Arctic Ocean. - Zagryazneniye morey vokrug poberezh'ya SNG (preimushchestvenno Arktiki)ch.P Materialy Mezhdunarodnoy konferentsii - Arkhangel'sk, 19-23 iyulya 1993 g. Sevastopol'. P. 43-44.
Keywords: radioactive pollution.
Region: Ob, Yenisei.
20. Romankevich E.A., Danyushevskaya A.I., Belyaeva A.N., Rusanov V.P. 1982. Boigeochemistry of organic elements of the arctic seas. Moskva : Nauka. P. 1-238.
Keywords: organic matter, estuarine complex/group, hydrochemistry. *Region:* Arctic Regions.

21. Samoylov I.V. 1952. The river mouths. Moskva : Geografgiz, P. 1-526.
Keywords: estuarine complex/group, hydrology, hydrobiology.
Region: Pechora, Ob, Yenisei, Lena, Kolyma.

22. Smagin V.M., Rusanov V.P., Katunin I.M. 1980. Hydrochemical regime and conserwation of waters of lower parts and mouths of West Sibirian rivers and Kara Sea related to territorial redistributions of water resources. - Problemy Arktiki i Antarktiki. Iss. 55. P. 61-66.
Keywords: hydrochemistry, estuarine complex/group.
Region: Ob, Yenisei, Kara Sea.

23. Trapeznikov A.V.,Yushkov P.I.,Aarkrog A.,Ekidin A.A.,Kulikov N.V.et al. 1993. Sr-90, Cs-137 and Pu-239,240 content in Irtysh-Ob' River System. - Zagryazneniye morey vokrug poberezh'ya SNG (preimushchestvenno Arktiki)ch.P Materialy Mezhdunarodnoy konferentsii - Arkhangel'sk, 19-23 iyulya 1993 g. Sevastopol'. P. 42-43.
Keywords: radioactive pollution.
Region: Ob.

24. Uvarova V.I. 1989. Contemporary status of contamination level of water and Bottom ground in some waterbodies of Ob'-Irtysh basin. Cbornik nauchnykh trudov GosNIORKh. Vol. 305. P. 23-33.
Keywords: pollution.
Region: Ob.

25. Vasil'yev A.N. 1976. Interaction between the riverine and marine waters in the Ob mouth region. Trudy AANII. Vol. 314. P. 183-196.
Keywords: hydrology, hydrochemistry, estuarine complex/group. *Region:* Ob, Kara Sea.

26. Zinenko A.A., Timkin L.N. 1980. Questions of hydrometeorological survey of river navigation in the Ob mouth region. Trudy AANII. Vol. 358. P. 126-129.
Keywords: hydrology, estuarine complex/group.
Region: Ob.

Botany and zoology

1. Anonim. Scientific Results of the Russian Polar Expedition 1900-1903, uder comander of baron E.Toll. 1910. Section E: Zoology. Vol. I. Zapiski Imperatorskoy Akademii Nauk po fiziko-matematicheskomu otdeleniyu. Vol. 18.
   Taxa: ANIMALIA, PLANTAE.
   Keywords: station list of species, distribution, botany, zoology. *Region:* Kara Sea, Laptev Sea, East Siberian Sea, New Siberian Isls.
2. Filatova Z.A., Zenkevich L.A. 1957. Quantitative studies of the distribution of bottom fauna of the Kara Sea. Trudy Vsesoyuznogo gidrobiologicheskogo obshchestva. Vol. 8. P. 3-67.
   Taxa: ANIMALIA, ALGAE.
   Keywords: biocenosis, biomass.
   Region: Kara Sea.
3. Gayevskaya N.S. (Ed.). 1948. A guide of the fauna and flora of the northen seas of the USSR. Moskva : Sovetskaya nauka. P. 1-740.
   Taxa: ANIMALIA, ALGAE, PLANTAE.
   Keywords: keys.
   Region: Arctic Ocean, Kara Sea, Laptev Sea, East Siberian Sea, Chukchi Sea.
4. Golikov A.N. (Ed.). 1974. Origin and development of the shelf ecosystems in boreal and cold waters of the Northern Hemisphere and some princeps of the biogeography. Gidrobiologiya i biogeografiya shel'fov kholodnykh i umerennykh vod Mirovogo okeana. Tezisy dokladov. Leningrad : Nauka. P. 20-21.
   Taxa: ANIMALIA, ALGAE.
   Keywords: biogeography.
   Region: Arctic Regions.
5. Golikov A.N. (Ed.). 1977. Biocoenoses of the shelf of Franz Josef Land and the fauna of adjacent waters. Explorations of the fauna of the seas. Vol. 14 (22). Leningrad : Nauka. P. 1-471.
   Taxa: ANIMALIA, ALGAE.
   Keywords: fauna, flora, biocenosis.
   Region: Franz Josef Land, Barents Sea.
6. Golikov A.N. (Ed.). 1990. Ecosystems of the New Siberian shoall and the Fauna of the Laptev sea and adjacent waters. Explorations of the fauna of the seas. Vol. 37 (45). Leningrad : Nauka. P. 1-463.
   Taxa: ALGAE, FORAMINIFERA, BRYOZOA, BRACHIOPODA, CRUSTACEA, MOLLUSCA, ECHINODERMATA.
   Keywords: biocenosis, distribution, algae, zooplankton. *Region:* Laptev Sea, East Siberian Sea, New Siberian Isls..
7. Semenov V.N. 1989. Information about composition and formation of the bottom fauna and flora. - Ekologiya i bioresursy Karskogo morya. Apatity : Kol'skiy nauchnyy tsentr AN SSSR. P. 120-126.
   Taxa: ALGAE, ANIMALIA.
   Keywords: benthos, distribution, algae.
   Region: Kara Sea.
8. Ushakov P.V. 1931. Biocoenosis of the Matochkin Shar (Novaia Zemlia). Issledovaniya morey SSSR. Iss. 12. P. 5-128.
   Taxa: ANIMALIA, ALGAE.
   Keywords: biocenosis, list of *Taxa*.
   Region: Kara Sea, Matochkin Shar Strait.

9. Ushakov P.V. (Ed.). 1952. Fauna and Flora of the Chukchi sea. North-East of the USSR. Vol. 2. AN SSSR. P. 1-359.
Taxa: PROTOZOA, FORAMINIFERA, POLYCHAETA, BRYOZOA, BIVALVIA, ECHINODERMATA, PISCES, ALGAE.
Keywords: biocenosis, biogeography, hydrology, list of *Taxa*, station list of species, zooplankton, bacteria, bioindicators. *Region:* Chukchi Sea.
10. Zenkevich L.A. 1963. Biology of the seas of the USSR. Moskva: AN SSSR, P. 1-739.
Taxa: ANIMALIA, ALGAE.
Keywords: biology, benthos, biogeography, hydrobiology, plankton. *Region:* Arctic Regions.

Botany

1. Bobrov Yu.A., Savinov V.M., Makarevich P.R. 1989. Chlorophyll and primary production. - Ekologiya i bioresursy Karskogo morya. Apatity. P. 45-50.
Taxa: ALGAE.
Keywords: phytoplankton, production.
Region: Kara Sea.
2. Borodin I.P. 1908. Collectors and collections of the Siberian flora. Trudy Botanicheskogo Muzeya Imperatorskoy Akademii Nauk. Iss. 4. P. 1-245.
Taxa: PLANTAE.
Keywords: flora, plants.
Region: Arctic Regions.
3. Derviz-Sokolova T.G. 1966. Flora of the east of Chukchi peninsula. - Rasteniya severa Sibiri i Dal'nego Vostoka. Nauka. P. 80-108.
Taxa: PLANTAE.
Keywords: plants, flora.
Region: Chukchi Peninsl..
4. Flerov B.K. 1932. Seaweeds of the coasts of Novaia Zemlia. 1.Distribution of the seaweeds near Novaia Zemlia. Trudy Okeanograficheskogo instituta. Vol. 11. P. .
Taxa: ALGAE.
Keywords: algae, distribution.
Region: Novaya Zemlya.
5. Genkal S.I., Semenova L.A. 1989. Materials on the algal flora (Bacillariophyta) of Îbian North. Cbornik nauchnykh trudov GosNIORKh. Vol. 305. P. 43-55.
Taxa: ALGAE.
Keywords: flora, algae.
Region: Ob.
6. Gorodkov B.A. 1936. Geobotanical and soil investigations in Chuckchi Peninsula. Vestnik Dal'nevostochnogo filiala Akademii Nauk. Vol. 19. P. 173-178.
Taxa: PLANTAE.
Keywords: plants, association, biocenosis.
Region: Chukchi Peninsl..
7. Gorodkov B.A. 1939. Botanical-geographical sketch of the Chukchi peninsula. Uchenye zapiski Pedagogicheskogo instituta. Vol. 21. P. 52-76.
Taxa: PLANTAE.
Keywords: plants, geography, association.
Region: Chukchi Peninsl..
8. Il'yash L.V., Kol'tsova T.I. 1981. Phytoplankton of the Yenisei Gulf. Gidrobiologicheskiy zhurnal. Vol. 17, N 3. P. 2-8.
Taxa: ALGAE.
Keywords: estuarine complex/group, phytoplankton.
Region: Yenisei Bay.
9. Kaplina T.N., Lozhkin A.V. 1982. History of evolution of the plant cover of seaside lowlands of the Jakut in the holocene. Razvitiye prirody territorii SSSR v pozdnem pleystotsene i golotsene. Moskva. P. 207-220.
Taxa: PLANTAE.
Keywords: plants, association, biocenosis.
Region: Yakutia.
10. Katayeva T.K. 1976. Seaweeds of the New Siberian islands. Novosti sistematiki nizshikh rasteniy. Vol. 13. P. 18-19.
Taxa: ALGAE.
Keywords: algae.
Region: East Siberian Sea, Laptev Sea, New Siberian Isls.

11. Katenin A.E. 1984. Vegetation of the east coast of the Krest bay. Botanicheskiy zhurnal. Vol. 69, Iss. 3. P. 316-324.
Taxa: PLANTAE.
Keywords: plants, association, biocenosis.
Region: Chukchi Peninsl..

12. Kiselev I.A. 1932. Materials on the microflora of the south-eastern part of the Laptev Sea. Issledovaniya morey SSSR. Iss. 15. P. 67-104.
Taxa: ALGAE.
Keywords: microalgae, phytoplankton.
Region: Laptev Sea.

13. Kiselev I.A. 1935. Some data on the phytoplankton in north-eastern part of the Kara Sea. - Trudy Taymyrskoy gidrograficheskoy ekspeditsii. P. 191-202.
Taxa: ALGAE.
Keywords: phytoplankton.
Region: Kara Sea.

14. Kiselev I.A. 1937. Composition and distribution of phytoplankton in the northern part of the Bering Sea and Southern part of the Chukchi Sea. Issledovaniya morey SSSR. Iss. 25. P. 217-245.
Taxa: ALGAE.
Keywords: phytoplankton, distribution, bioindicators.
Region: Bering Sea, Chukchi Sea.

15. Kiselev I.A. 1950. Dinoflagellata of the seas and freshwaters of the SSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 33. P. 1-280.
Taxa: ALGAE, DINOFLAGELLATA.
Keywords: keys, distribution, phytoplankton.
Region: Arctic Regions.

16. Kriss A.E. 1952. Microbiological population of the of the Chukchi Sea and Bering Strait. - Ushakov P.V.(Ed.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR. P. 336-358.
Taxa: BACTERIA.
Keywords: bacteria.
Region: Chukchi Sea, Bering Strait.

17. Kuznetsov N.I. 1935. Laids in the lower reaches of Enisei river, their structure, development and place in the clssification of the march-forest formations. Trudy polyarnoy komissii AN SSSR. Vol. 12. P. 1-40.
Taxa: PLANTAE.
Keywords: plants, association, biocenosis.
Region: Yenisei.

18. Makarevich P.R., Kol'tsova T.I. 1989. History of studies and to-day data about phytoplankton. - Ekologiya i bioresursy Karskogo morya. Apatity, P. 38-45.
Taxa: ALGAE.
Keywords: phytoplankton, list of *Taxa*.
Region: Kara Sea.

19. Makarova I.V. 1988. Diatoms of the seas of the USSR: genus Thalassiosira Cl. Leningrad : Nauka. P. 1-117. *Taxa*: ALGAE, BACILLARIOPHYTA, DIATOMEAE. *Keywords*: phytoplankton.
Region: Arctic Regions.

20. Matveyeva N.V. 1980. Two excursions on the Bol'shoi Begichev island (brief description of the flora and the plant cover). Botanicheskiy zhurnal. Vol. 65, Iss. 11. P. 1543-1560.
Taxa: PLANTAE.
Keywords: plants, association, biocenosis.
Region: Laptev Sea.

21. Okolodkov Y.B. 1992. Cryopelagic flora of the Chukchi, East Siberian and Laptev Sea. Proc. NIRP Symp. Polar Biology. Vol. 5. P. 28-43.
Taxa: ALGAE.
Keywords: kryopelagos, phytoplankton.
Region: East Siberian Sea, Laptev Sea, Chukchi Sea.

22. Okolodkov Y.B. 1993. A cheklist of algal species found in the East Siberian Sea in May 1987. Polar Biology. Vol. 13. P. 7-11.
Taxa: ALGAE.
Keywords: phytoplankton.
Region: East Siberian Sea.
23. Petrovskiy V.V. 1973. List of the plants of the Vrangel Island. Botanicheskiy zhurnal. Vol. 58, Iss. 1. P. 113-126.
Taxa: PLANTAE.
Keywords: plants.
Region: Wrangel Isl..
24. Polyakova E.I. 1982. Diatoms of the sublittoral and lagoons of the Chukchi and East Siberian Seas. Okeanologiya. Vol. 22, N 5. P. 809-812.
Taxa: ALGAE, DINOFLAGELLATA.
Keywords: phytoplankton.
Region: East Siberian Sea, Chukchi Sea.
25. Polyakova E.I. 1989. Diatoms in Arctic shallow waters sediments. Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 481-496.
Taxa: ALGAE.
Keywords: algae, paleogeography.
Region: Arctic Regions.
26. Sergiyenko L.A. 1977. Remarks about some arctic maritime species of the genus Plantago L. on the north of the European part of the USSR. Novosti sistematiki vysshikh rasteniy. Iss. 14. P. 209-216.
Taxa: PLANTAE.
Keywords: plants.
Region: Arctic Regions.
27. Sergiyenko L.A. 1982. Remarks about arctic species of the genus Potentilla L. from the anserina group.. Novosti sistematiki vysshikh rasteniy. Iss. 19. P. 212-225.
Taxa: PLANTAE.
Keywords: plants.
Region: Arctic Regions.
28. Sergiyenko L.A. 1983. Remarks about Pucciniella phriganodes trin. (scribn. et Merr.) and P. denella (Holm.) Lange (Poacea). Novosti sistematiki vysshikh rasteniy. Iss. 20. P. 8-22.
Taxa: PLANTAE.
Keywords: plants.
Region: Arctic Regions.
29. Sergiyenko L.A. 1985. Remarks about arctic maritime species of the genus Honckenya Rhrh. (Caryophillacea). Novosti sistematiki vysshikh rasteniy. Iss. 22. P. 88-95.
Taxa: PLANTAE.
Keywords: plants.
Region: Arctic Regions.
30. Shirshov P.P. 1936. Plankton as an indicator of ice regime of the sea. - Nauchnye raboty ekspeditsii na ledokole "Krasin". Leningrad : Glavsevmorputi. P. 59-73.
Taxa: ALGAE.
Keywords: bioindicators, phytoplankton.
Region: East Siberian Sea, Chukchi Sea.
31. Shirshov P.P. 1937. Seasonal phenomena in life of the phytoplankton of the polar seas in connection with ice regime. Trudy Arkticheskogo instituta. Vol. 82. P. 47-111.
Taxa: ALGAE.
Keywords: seasonal abundance, phytoplankton, bioindicators. *Region:* Arctic Regions.

32. Shirshov P.P. 1938. Determination of the productivity of phytoplankton of the polar seas by the photosynthesis. - Nauchnye rezul'taty rabot ekspeditsii na "Chelyuskine" i "Lagere Shmidta". Leningrad : Glavsevmorputi. P. 237-247.
Taxa: ALGAE.
Keywords: phytoplankton, productivity.
Region: Arctic Regions.
33. Teplinskaya N.G. 1989. Bacteriaplankton and bakteriabenthos of the Kara Sea. - Ekologiya i bioresursy Karskogo morya. Apatity. P. 29-37.
Taxa: BACTERIA.
Keywords: bacteria, benthos, plankton.
Region: Kara Sea.
34. Tikhomirov B.A. 1946. Origin of the mat-grassland type of vegitation in Arctic Eurasia. - Sbornik nauchnykh rabot, vypolnennykh v Leningrade za 3 goda Velikoy Otechestvennoy Voytsy (1941-1943). Leningrad : AN SSSR. P. 157-182.
Taxa: PLANTAE.
Keywords: plants, association.
Region: Arctic Regions.
35. Tolmachev A.I. 1934. Botanisca Notizer. 1934. S. 213-227.
Taxa: PLANTAE.
Keywords: plants.
Region: Arctic Regions.
36. Usachev P.I. 138. Biological analisis of ice. Doklady Akademii Nauk SSSR. Vol. 19, N 8.
Taxa: ALGAE, DINOFLAGELLATA.
Keywords: phytoplankton, bioindicators, kryopelagos.
Region: Arctic Regions.
37. Usachev P.I. 1946. Biological indicators of the origin of ice-floes in the Kara Sea, Laptev Sea and the straits of the Franz Josef Land. Trudy instituta okeanologii Akademii Nauk SSSR. Vol. 1. P. 113-150.
Taxa: ALGAE, DINOFLAGELLATA.
Keywords: phytoplankton, bioindicators, kryopelagos. *Region:* Franz Josef Land, Kara Sea, Laptev Sea.
38. Usachev P.I. 1949. Microflora of the polar ice. Trudy instituta okeanologii Akademii Nauk SSSR. Vol. 3. P. 216-259.
Taxa: ALGAE.
Keywords: phytoplankton, kryopelagos.
Region: Arctic Regions.
39. Usachev P.I. 1968. Phytoplankton of the Kara Sea. - Plankton okeana. Moskva : Nauka. P. 6-28.
Taxa: ALGAE.
Keywords: phytoplankton.
Region: Kara Sea.
40. Vinogradova K.L. 1974. Ulvaceae (Chlorophyta) of the seas of the USSR. Leningrad : Nauka. P. 1-112.
Taxa: ALGAE.
Keywords: algae, distribution.
Region: Arctic Regions.
41. Vinogradova K.L. 1986. Genera Chaetomorpha Kutz. and Rhizoclonium Kutz. (Siphonocladales) from the northen seas of the USSR. Novosti sistematiki nizshikh rasteniy. Vol. 23. P. 13-25.
Taxa: ALGAÅ.
Keywords: ecology, biogeography, algae.
Region: Arctic Regions.
42. Vinogradova K.L. 1986. Species composition of the seaweeds of the Franz Josef Land. Novosti sistematiki nizshikh rasteniy. Vol. 23. P. 27-37.
Taxa: ALGAÅ.
Keywords: algae.
Region: Barents Sea, Franz Josef Land.

43. Vinogradova K.L. 1990. Marine algae of the New Siberian shoals (Laptev sea). Issledovaniya fauny morey. Vol. 37(45). P. 80-88.
Taxa: ALGAÅ.
Keywords: algae, biogeography, distribution.
Region: Laptev Sea, East Siberian Sea, New Siberian Isls.
44. Vinogradova K.L. 1992. Species composition of the Chauna Bay (East-Siberian Sea). Novosti sistematiki nizshikh rasteniy. Vol. 28. P. 8-16.
Taxa: ALGAÅ.
Keywords: algae, distribution, ecology.
Region: East Siberian Sea, Chaun Bay.
45. Zabelina M.M. 1930. Some new data of the phytoplankton of the Kara Sea. Issledovaniya morey SSSR. Iss. 13. P. 103-145.
Taxa: ALGAE.
Keywords: phytoplankton.
Region: Kara Sea.
46. Zabelina M.M. 1946. Phytoplankton of the south-western part of the Kara Sea. Trudy Arkticheskogo instituta. N 193. P. 45-73.
Taxa: ALGAE.
Keywords: phytoplankton.
Region: Kara Sea.
47. Zaslavskaya T.M., Pliyeva T.V. 1983. Flora of the island Cheturekhstolbovoi, archipelago Medvezh'i ostrova, East-Siberian Sea. Botanicheskiy zhurnal. Vol. 68, Iss. 3. P. 369-376.
Taxa: PLANTAE.
Keywords: plants, flora.
Region: East Siberian Sea.
48. Zinova A.D. 1953. A guide of the brown seaweeds of the nothern seas of the USSR. Moskva-Leningrad: AN SSSR. P. 1-224.
Taxa: ALGAE, PHAEOPHYCEAE.
Keywords: biogeography, ecology, algae.
Region: Arctic Regions.
49. Zinova A.D. 1955. A guide of the red seaweeds of the nothern seas of the USSR. Moskva-Leningrad: AN SSSR. P. 1-219.
Taxa: ALGAE, RHODOPHYCEAE.
Keywords: biogeography, ecology, algae.
Region: Arctic Regions.
50. Zinova A.D. 1957. Seaweeds of the eastern part of the soviet sector of the Arctic. Trudy Instituta Okeanologii AN SSSR. Vol. 27. P. 146-167.
Taxa: ALGAE.
Keywords: algae, distribution.
Region: Arctic Regions.
51. Zinova A.D. 1970. New data about the seaweeds from the Chauna Bay East-Siberian Sea. Novosti sistematiki nizshikh rasteniy. Vol. 7. P. 102-107.
Taxa: ALGAE.
Keywords: algae.
Region: East Siberian Sea, Chaun Bay.
52. Zinova A.D., Petrov Yu.E. 1970. The ways of formation of the sea microalgean flora of the Polar basin. - Severnyy Ledovityy okean i ego poberezh'ye v kaynozoye. Leningrad : Gidrometeoizdat. P. 162-165.
Taxa: ALGAE.
Keywords: microalgae, biogeography.
Region: Arctic Regions.
53. Zinova E.S. Seaweeds from the Kara Sea. Trudy Leningradskogo obshchestva estestvoispytateley. 1925. Vol. 55, Iss. 3. P. .
Taxa: ALGAE.
Keywords: algae, distribution.
Region: Kara Sea.

54. Zinova E.S. 1929. Seaweeds of the Novaia Zemlia. Issledovaniya morey SSSR. Iss.8. P. 41-128.
Taxa: ALGAE.
Keywords: ecology, algae, distribution.
Region: Barents Sea, Kara Sea, Novaya Zemlya.
55. Zinova E.S. 1941. Seaweeds of the Vrangel island. Issledovaniya dal'nevostochnykh morey SSSR. Iss. 1. P. 104-110.
Taxa: ALGAE.
Keywords: algae.
Region: Wrangel Isl., Chukchi Sea.
56. Zinova E.S. 1952. Seaweeds of the Chukchi Sea and Bering Strait. Ushakov P.V.(red.) Fauna i flora Chukotskogo morya/Krayniy severo-vostok Soyuza SSR. Leningrad : AN SSSR. P. 83-97. *Taxa*: ALGAE.
Keywords: algae.
Region: Chukchi Sea, Bering Strait.
57. Zinova E.S. 1956. Seaweeds of the Polar Basin. Trudy botanicheskogo instituta Akademii Nauk SSSR. 1956. Vol. 2. P. 39-51.
Taxa: ALGAE.
Keywords: algae, distribution. *Region:* Arctic Regions, Arctic Ocean.

General hydrobiology

1. Alekseyev A.P., Galkin Yu.I. Our country investigations in the Arctic seas. Trudy Vsesoyuznogo gidrobiologicheskogo obshchestva. 1981. Vol. 24. P. 41-60.
   Keywords: history of researches.
   Region: Arctic Regions.
2. Anonim. On the hydrology and biology of the Laptev Sea. 1932. Issledovaniya morey SSSR. Iss. 15. P. 1-230.
   Taxa: SPONGIA, POLYCHAETA, BRYOZOA, MOLLUSCA, ECHINODERMATA, CRUSTACEA.
   Keywords: hydrology, benthos, microalgae, phytoplankton,zooplankton, hydrobiology, list of taxa.
   Region: Laptev Sea.
3. Anonim. Scientific results of the expedition on the "Sibiriakov" 1932. 1936. Part 2. - Trudy Arkticheskogo instituta. Leningrad. Vol. 33. P. 1-85.
   Taxa: CRUSTACEA, FORAMINIFERA.
   Keywords: distribution.
   Region: Arctic Regions.
4. Antipova T.V., Semenov V.N. 1989. Composition and distribution of the benthos of south-west typical marine waters of the Kara sea. Ekologiya i bioresursy Karskogo morya. Apatity : Kol'skiynauchnyy tsentr AN SSSR, 1989. P. 127-137.
   Taxa: ANIMALIA.
   Keywords: benthos, distribution.
   Region: Kara Sea.
5. Antipova T.V., Semenov V.N. 1989. Biocoenosis of the south-west part of the Kara Sea. - Ekologiya i bioresursy Karskogo morya. Apatity : Kol'skiy nauchnyy tsentr AN SSSR. P. 138-144.
   Taxa: ANIMALIA.
   Keywords: biocenosis, benthos.
   Region: Kara Sea.
6. Averintsev V.G. 1989. On the upper shelf of the Severnaia Zemlia. Ekologiya i bioresursy Karskogo morya. Apatity : Kol'skiy NTs AN SSSR. P. 150-153.
   Taxa: ANIMALIA.
   Keywords: benthos, distribution.
   Region: Kara Sea.
7. Bernshteyn T. 1932. Zooplankton of the Franz-Josef Land region. Trudy Arkticheskogo instituta. Vol. 2. P. 3-35.
   Taxa: ANIMALIA.
   Keywords: zooplankton.
   Region: Barents Sea, Franz Josef Land.
8. Bernshteyn T. 1934. Zooplankton of the northern part of the Kara Sea. Trudy Arkticheskogoo instituta. Vol. 9. P. 3-58.
   Taxa: ANIMALIA.
   Keywords: zooplankton.
   Region: Kara Sea.
9. Birulya A.A. 1897. Biology and zoogeography of the russian seas. II. Hydroidea, Polychaeta and Crustacea, collected by Dr. A.S.Botkin in Enisei and Ob inlets in summer 1895. Ezhegodnik Zoologicheskogo muzeya Imperatorskoy Akademii nauk. Vol. 2. P. 78-116.
   Taxa: CNIDARIA, HYDROZOA, POLYCHAETA, CRUSTACEA.
   Keywords: distribution.
   Region: Kara Sea, Yenisei Bay, Gulf of Ob.
10. Bobrov Yu.A., Savinov V.M., Makarevich P.R., Baytaz O.N., Druzhkov N.V. 1989. Zonal distribution, peculiarity of the production cycle of the microplankton. - Ekologiya i bioresursy Karskogo morya. Apatity. P. 60-64.
    Keywords: plankton, production, biomass.
    Region: Kara Sea.

11. Bogorov B.G. 1938. Biological seasons of the polar sea. Doklady Akademii Nauk SSSR. Vol. 19, N 8. P. 639-642.
Keywords: seasonal abundance, bioindicators.
Region: Arctic Regions.
12. Bogorov B.G. 1939. Peculiarity of the season phenomenon in the plankton of polar seas and their significance for ice forecast. Zoologicheskiy zhurnal. Vol. 18, Iss. 5. P. 735-747.
Keywords: seasonal abundance, phytoplankton, bioindicators. *Region:* Arctic Regions.
13. Bogorov B.G. 1943. Daily vertical migration of the zooplankton in polar seas. Doklady Akademii Nauk SSSR. Vol. 40, N 4. P. 184-186.
Taxa: ANIMALIA.
Keywords: vertical zonation, zooplankton, migration.
Region: Arctic Regions.
14. Bogorov B.G. 1944. Distribution of the saltish plankton fauna in the Siberian Polar Seas. Doklady Akademii Nauk SSSR. Vol. 44, N 5. P. 208-210.
Taxa: ANIMALIA.
Keywords: bioindicators, zooplankton.
Region: Arctic Regions.
15. Bogorov B.G. 1945. Importance of the different groups of anumals in zooplankton of different Regions of the Kara Sea. Doklady Akademii Nauk SSSR. Vol. 50, N 1. P. 175-176.
Taxa: ANIMALIA.
Keywords: zooplankton, biomass.
Region: Kara Sea.
16. Bogorov B.G. 1946a. Biomass of the zooplankton in the south part of the Kara Sea. Problemy Arktiki. N 1. P. 65-70.
Taxa: ANIMALIA.
Keywords: zooplankton, biomass.
Region: Kara Sea.
17. Bogorov B.G. 1947b. Peculiarity of the daily vertical migration of the zooplankton in polar seas. Trudy Instituta okeanologii. Vol. 1. P. 151-158.
Keywords: vertical distribution/bathymetry, migration, zooplankton.
Region: Arctic Regions.
18. Bogorov B.G. 1947c. Biomass of the plankton in the near mouth Regions of the Siberian rivers. Problemy Arktiki. 1946c, N 3. P. 65-71.
Keywords: plankton, biomass.
Region: Arctic Regions.
19. Bogorov V.G. 1946. Zooplancton collected during the expedition on the icebreaker "G.Sedov " in 1937-1939. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 336-370.
Taxa: ANIMALIA.
Keywords: zooplankton.
Region: Arctic Regions.
20. Brusynina I.N., Krokhalevskiy V.R. 1989. Contemporary status of the ecosystems of Ob'River and its tributaries under the antropogenous effects. Sbornik nauchnykh trudov GosNIORKh. Vol. 305. P. 3-22.
Keywords: benthos, hydrobiology, plankton, ichthyofauna, pollution.
Region: Ob.
21. Chislenko L.L. 1972a. Zooplankton of the Dikson Bay. - Geograficheskaya i sezonnaya izmenchivost' morskogo planktona. Leningrad : Nauka 1972. P. 228-238.
Taxa: ANIMALIA.
Keywords: hydrobiology, zooplankton, estuarine complex/group.
Region: Kara Sea.

22. Chislenko L.L. 1972b. Species composition and distribution of the zooplancton ecological complexes in the Yenisei Gulf. Geograficheskaya i sezonnaya izmenchivost' morskogo planktona. Leningrad : Nauka. P. 239-260.
Taxa: ANIMALIA.
Keywords: estuarine complex/group, hydrobiology, zooplankton. *Region:* Yenisei Bay.
23. Chislenko L.L. 1972c. Species composition and distribution of the ecological complex of the zooplankton in Enisei gulf. Geograficheskaya i sezonnaya izmenchivost' morskogo planktona. Leningrad : Nauka. P. 239-260.
Taxa: ANIMALIA.
Keywords: zooplankton, list of *Taxa*, distribution, ecology.
Region: Kara Sea, Yenisei Bay.
24. Chislenko L.L. 1972d. Zooplankton of the Dikson Bay (Kara Sea). - Geograficheskaya i sezonnaya izmenchivost' morskogo planktona. Leningrad : Nauka. P. 228-238.
Taxa: ANIMALIA.
Keywords: zooplankton, list of *Taxa*.
Region: Kara Sea.
25. Deryugin K.M. 1930. Hydrology and biology. Issledovaniya morey SSSR. Iss. 11. P. 37-45.
Keywords: hydrology, hydrobiology, bioindicators.
Region: Arctic Regions.
26. Deryugin K.M. 1932a. Benthos of the estuary of the Lena river. Issledovaniya morey SSSR. Iss. 15. P. 63-66.
Taxa: ANIMALIA.
Keywords: benthos, estuarine complex/group.
Region: Laptev Sea.
27. Deryugin K.M. 1932b. Echinoderms and molluscs from the Laptev Sea. Issledovaniya morey SSSR. Iss. 15. P. 147-156.
Taxa: ECHINODERMATA, MOLLUSCA.
Keywords: distribution.
Region: Laptev Sea.
28. Deryugin K.M. (Ed.). 1932c. Hydrology and Biology of the Laptev Sea. - Issledovaniya morey SSSR. Leningrad. Iss. 15. P. 1-230.
Taxa: ANIMALIA.
Keywords: hydrology, benthos, estuarine complex/group,zooplankton, phytoplankton, hydrobiology.
Region: Laptev Sea.
29. Deryugin K.M. 1932d. Materials on hydrology and biology of the Laptev Sea.. Introduction.. Issledovaniya morey SSSR. Iss. 15. P. 5-12.
Taxa: ANIMALIA.
Keywords: hydrology, hydrobiology.
Region: Laptev Sea.
30. Deryugin K.M. 1936. Success of the soviet hydrobiology in sea studies. Uspekhi Sovremennoy Biologii. Vol. 5, Iss. 1. P. 9-26.
Keywords: hydrobiology, history of researches.
Region: Arctic Regions.
31. Deryugin K.M., Ivanov A.V. 1937. Preliminary rewiew of the bentic investigation in the Bering and Chuchi seas. Issledovaniya morey SSSR. Iss. 25. P. 247-258.
Taxa: ANIMALIA.
Keywords: benthos.
Region: Chukchi Sea.
32. Fomin O.K. 1989. Some structural description of the zooplankton. Ekologiya i bioresursy Karskogo morya. Apatity, 1989. P. 65-85.
Taxa: ANIMALIA.
Keywords: zooplankton, biomass.
Region: Kara Sea.

33. Fomin O.K., Savinov V.M., Bobrov Yu.A. 1984. Spatial distribution of biomass of plankton in the Kara Sea. Nauchnye doklady vysshey shkoly. Biologicheskiye nauki. Vol. 11. P. 54-59.
Keywords: plankton, biomass, distribution.
Region: Kara Sea.

34. Gagayev S.Yu., Golikov A.N., Skarlato O.A., Sirenko B.I., Golikov A.A. 1988. . The distribution of bottom ecosystem in the Chaun Bay of the East Siberian Sea. - Kutikova L.A. (Ed.). Gidrobiologicheskiye issledovaniya morskikh i presnykh vod. Leningrad. P. 113-126.
Taxa: ANIMALIA.
Keywords: biocenosis, distribution. *Region:* East Siberian Sea, Chaun Bay.

35. Golikov A.N. 1974. Hydrobiology and biogeography of the shelfs of the cold and temperature waters of the World Ocean. Abstracts. Leningrad, 18-21 November 1974. Leningrad : Nauka, 1974. P. 1-146.
Keywords: biogeography, hydrobiology.
Region: Arctic Regions.

36. Golikov A.N., Averintsev V.G. 1977. Bioccoenoses of the upper Regions of the shelf of Franz Josef Land archipelago and some reguliarities of their distribution. Issledovaniya fauny morey. Vol. 14(22). P. 5-54.
Taxa: ANIMALIA.
Keywords: diving investigations, biomass, biocenosis, biogeography.
Region: Franz Josef Land, Barents Sea.

37. Golikov A.N., Skarlato O.A., Pavshtiks E.A. 1983. Biological resources of the Arctic Ocean. Geografiya i prirodnye resursy. N 3. P. 1-71.
Keywords: resources, vertical distribution/bathymetry, diversity of species.
Region: Arctic Regions.

38. Golikov A.N., Scarlato O.A. 1989. Evolution of Arctic ecosystems during the Neogene Period. - Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company, P. 257-279.
Taxa: ANIMALIA.
Keywords: biocenosis, evolution.
Region: Arctic Regions.

39. Golikov A.N., Skarlato O.A., Averintsev V.G., Menshutkina T.V., Novikov. 1990. Ecosystems of the New Siberian shoals, their distribution and functioning. Issledovaniya fauny morey. Vol. 37(45). P. 4-79.
Taxa: ANIMALIA.
Keywords: biocenosis, quantitative count, energetic, biomass, diving investigations.
Region: Laptev Sea, East Siberian Sea, New Siberian Isls.

40. Golikov A.N., Babkov A.I., Golikov A.A. 1991. Benthos of the Gerald bank in Chukchi Sea. Okeanologiya. Vol. 31, Iss. 4. P. 628-630.
Taxa: ANIMALIA.
Keywords: benthos.
Region: Chukchi Sea.

41. Gorbunov G.P. 1934. Biological Indicators and their importance in the study of the Arctic. Arctica. N 2. P. 113-125.
Taxa: ANIMALIA.
Keywords: bioindicators.
Region: Arctic Regions.

42. Gorbunov G.P. 1935. Benthic collections. - Trudy Taymyrskoy gidrograficheskoy ekspeditsii. Chast' II. Gidrologiya, meteorologiya, gidrobiologiya. Gidrograficheskogo otdela UMS RKKA. P. 203-215.
Taxa: ANIMALIA.
Keywords: hydrobiology, station list of species, benthos, biogeography, bioindicators.
Region: Kara Sea.

43. Gorbunov G.P. 1937a. Hydrobiological investigation in northen seas of the USSR during last 20 years. Izvestiya Akademii nauk SSSR. Otdeleniye matematicheskikh i estestvennykh nauk. P. 1527-1535.
Keywords: hydrobiology, history of researches.
Region: Arctic Regions.

44. Gorbunov G.P. 1937b. Benthos of the Kara Sea as indicator of the origin of the water mass. Priroda. N 5. P. 20-31.
Taxa: ANIMALIA.
Keywords: benthos, bioindicators, biogeography, hydrology.
Region: Kara Sea.

45. Gorbunov G.P. 1939. Bottom animals of the Soviet Arctic Seas. Problemy Arktiki. N 7-8. P. 89-96.
Taxa: PROTOZOA, FORAMINIFERA, SPONGIA, ANNELIDA, CRUSTACEA, MOLLUSCA, ECHINODERMATA, PISCES.
Keywords: benthos, bioindicators, diversity of species, hydrology, zoogeography,, vertical distribution, distribution. *Region:* Arctic Ocean, Kara Sea, Laptev Sea, East Siberian Sea, Chukchi Sea.

46. Gorbunov G.P. 1946a. Bottom Life of the Novosiberian Schoalwaters and the Central Part of the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 30-138.
Taxa: ANIMALIA.
Keywords: benthos, biogeography, bioindicators, vertical distribution.
Region: Arctic Ocean, East Siberian Sea, Laptev Sea, New Siberian Isls.

47. Gorbunov G.P. 1946b. Hydrobiological peculiarities of the Shokal'skii Strait. Problemy Arktiki. N 3. P. 55-68.
Taxa: ANIMALIA.
Keywords: hydrobiology, station list of species, benthos, biogeography, bioindicators, hydrology.
Region: Kara Sea, Severnaya Zemlya.

48. Gorbunov G.P. (Ed.). 1946c. Transactions of the drift expedition of Glavsevmorput' jn the ice-breaker "G.Sedov" 1937-1940. Vol. 3. Biology. Moskva-Leningrad: Glavsevmorputi. P. 1-402.
Taxa: ANIMALIA.
Keywords: biogeography, bioindicators, distribution, station list of species, new taxa.
Region: Kara Sea, Laptev Sea, East Siberian Sea, Arctic Ocean, New Siberian Isls.

49. Gukov A.Yu. 1989. Bottom biocoenoses in the Buore-Chaia Bay (The Laptev's sea). Okeanologiya. Vol. 29, N 2. P. 316-317.
Keywords: hydrobiology, benthos, biocenosis, estuarine complex/group.
Region: Laptev Sea.

51. Gur'yanova E.F. 1929. About contens and distribution of the bentos of the Cheshskaya guba. Trudy Instituta po izucheniyu Severa. Iss. 43. P. 57-100.
Taxa: ANIMALIA.
Keywords: benthos.
Region: Barents Sea, Novaya Zemlya.

52. Gur'yanova E.F. 1936. Zoogeography of the Kara Sea. Izvestiya Akdemii nauk SSSR. P. 565-598.
Taxa: ANIMALIA, CRUSTACEA.
Keywords: biogeography.
Region: Kara Sea.

53. Gur'yanova E.F. 1938. Contens and origin of the abyssal fauna of the Polar basin. Doklady Akademii Nauk SSSR. Vol. 20, N 4. P. 333-336.
Taxa: ANIMALIA.
Keywords: benthos, biogeography, origin.
Region: Arctic Ocean.

54. Gur'yanova E.F. 1939. On the origin and history of the Arctic Basin fauna. Izvestiya Akademii Nauk SSSR. N 5. P. 679-704.
Taxa: ANIMALIA.
Keywords: zoogeography, bioindicators.
Region: Arctic Ocean.

55. Gur'yanova E.F. 1947. Fauna of the Polar basin and ways of its exchange with the faunas of the adjacent Regions of the World Ocean. Tezisy dokladov II Vsesoyuznogo Geograficheskogo s'yezda. P. 42-44.
Taxa: ANIMALIA.
Keywords: biogeography.
Region: Arctic Regions.

56. Gur'yanova E.F. 1948. Bottom fauna of the East-Siberian Sea. Nauchnyy byulleten' Leningradskogo gosudarstvennogo universiteta. N 21. P. 15-18.
Taxa: ANIMALIA.
Keywords: benthos.
Region: East Siberian Sea.

57. Gur'yanova E.F. 1957. Zoogeography of the Polar Basin. - Materialy nablyudeniy dreyfuyushchey stantsii "Sev.Polyus-3" i "Sev.Polyus-4". Vol. 1. P. 243-262.
Taxa: ANIMALIA.
Keywords: zoogeography, biogeography.
Region: Arctic Ocean.

58. Gur'yanova E.F. 1970. Peculiarities of the Arctic Ocean fauna and their significance for coprehanding of the history of its formation. - Severnyy Ledovityy okean i ego poberezh'ye v kaynozoye. Leningrad : Gidrometeoizdat. P. 126-161.
Taxa: ANIMALIA.
Keywords: biogeography.
Region: Arctic Ocean.

59. Gur'yanova E.F. 1974. On the zoogeographical zonation of the cold and temperate waters of the north hemisphere. - Gidrobiologiya i biogeografiya shel'fov kholodnykh i umerennykh vod Mirovogo okeana. Tezisy dokladov. Leningrad : Nauka. P. 11-12.
Taxa: ANIMALIA.
Keywords: biogeography.
Region: Arctic Ocean.

60. Kafanov A.I. 1979. On the status of the Arctic marine biogeographic region (according to paleontological data). Institut biologii morya. Sbornik rabot. N 16. P. 100-129.
Keywords: biogeography, paleontology.
Region: Arctic Regions.

61. Khlebovich V.V. 1986. On the Biological typology of the Soviet Union estuaries. Trudy Zoologicheskogo intituta AN SSSR. Vol. 141. P. 5-16.
Keywords: estuarine complex/group.

62. Khmyznikova V.L. 1935. Some data about zooplankton of the eastern straits and the northern part of the Kara Sea. - Trudy Taymyrskoy gidrograficheskoy ekspeditsii. Part. 2. P. 1-16.
Taxa: ANIMALIA.
Keywords: bioindicators, zooplankton.
Region: Kara Sea.

63. Khmyznikova V.L. 1936a. Zooplankton of the Kara Sea as biological indicator of currents. - Severnyy morskoy put'. Leningrad : Glavsevmorputi. Iss. 4. P. 68-75.
Taxa: ANIMALIA.
Keywords: bioindicators, zooplankton.
Region: Kara Sea.

63. Khmyznikova V.L. 1936b. Zooplankton of the south and south-eastern parts of the Kara Sea. Issledovaniya morey SSSR. Iss. 24. P. 232-285.
Taxa: ANIMALIA.
Keywords: bioindicators, zooplankton.
Region: Kara Sea.

64. Khmyznikova V.L. 1937. Distribution of the biological indicators in the Shokal'skogo and Vil'kitskogo Straits (by the materials of the expedition on icebreaker "Rusanov" in 1932). Trudy Arkticheskogo instituta. Vol. 82. P. 145-159.
Taxa: ANIMALIA.
Keywords: bioindicators, zooplankton.
Region: Kara Sea, Laptev Sea, Vilkitski Strait, Shokalski Strait.

65. Khmyznikova V.L., Zabelina M.M. 1946. Plankton of the south-west part of the Kara Sea. Trudy Arkticheskogo instituta. P.193.
Taxa: ANIMALIA.
Keywords: zooplankton.
Region: Kara Sea.

66. Koltun V.M. 1966. Abyssal bottom fauna of the Central Basin. Doklady AN SSSR. Vol. 129. P. 662-665.
Taxa: ANIMALIA.
Keywords: benthos.
Region: Arctic Ocean.

67. Koltun V.M., Balakshina L.L. (Eds.). 1964. Scientific results of the high latitude expeditions to the northern part of the Greenland Sea and adjacent Regions of the Arctic Basin in 1955-1958. Hydrobiology. - Trudy AANII. Moskva-Leningrad: Transport. Vol. 259. P. 1-403.
Taxa: ANIMALIA, FORAMINIFERA, SPONGIA, POLYCHAETA, BRYOZOA, CRUSTACEA, PANTOPODA, MOLLUSCA, ECHINODERMATA, PISCES.
Keywords: distribution, benthos, zooplankton, list of stations, list of taxa.
Region: Arctic Basin.

68. Kuzikova V.B. 1989. Bottom zoocoenoses of the Ob-Gulf. Nauchnye trudy GosNIORKh. Iss. 305. P. 66-73.
Taxa: ANIMALIA.
Keywords: estuarine complex/group, benthos, biocenosis.
Region: Gulf of Ob.

69. Kuzikova V.B., Butakova T.A., Sadyrin V.M. 1989. The modern condition of the bottom fauna of the Lower Ob and its estuaries. Gidrobiologicheskaya kharakteristika vodoyemov Urala. Sverdlovsk. P. 92-102.
Taxa: ANIMALIA.
Keywords: estuarine complex/group, benthos, biocenosis.
Region: Ob.

70. Kuznetsov L.L. 1989. Destruction of the organic matter in the water and in the bottom. - Ekologiya i bioresursy Karskogo morya. Apatity. P. 51-53.
Keywords: production.
Region: Kara Sea.

71. Makarov V.V. 1937. Materials on the quantitative calculation of the benthic fauna of the northern part of the Bering Sea and south part of the Chukchi Sea. Issledovaniya morey SSSR. 1937. Iss. 25. P. 260-291.
Taxa: ANIMALIA.
Keywords: benthos, quantitative count, biocenosis.
Region: Chukchi Sea.

72. Matishov G.G. (Ed.). 1989. Ecology and resources of the Kara sea. Apatity. P. 1-183.
Taxa: ANIMALIA.
Keywords: ecology, biogeography, resources, bacteria, phytoplankton, zooplankton, benthos, ichthyofauna.
Region: Kara Sea.

73. Mel'nikov I.A. Mel'nikov I.A. 1989. Ecology of Arctic Ocean cryopelagic fauna. - Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 235-255.
Taxa: ANIMALIA.
Keywords: kryopelagos.
Region: Arctic Regions.

74. Mesyatsev I.I. 1923. Materials to the zoogeography of the Russian northern seas. Trudy Plovuchego morskogo nauchnogo instituta. Vol. 1, Iss. 13. P. 1-26.
Keywords: biogeography.
Region: Arctic Regions.

75. Nerman Y. (Ed.). 1989. The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P.400.
Taxa: ANIMALIA.
Keywords: benthos, biogeography, vertical distribution/bathymetry, distribution.
Region: Arctic Regions.

76. Nesis K.N. 1983. A hypothesis of the origin of Western and eastern Arctic ranges of marine bottom animals. Biologiya morya. N 5. P. 3-13.
Keywords: biogeography, benthos, type of areas.
Region: Arctic Regions.

77. Pavshtiks E.A. 1990. Composition and quantitative distribution of the zooplancton near New Siberian islands (The Laptev sea). Issledovaniya fauny morey. Vol. 37(45). P. 89-104.
Taxa: CNIDARIA, CRUSTACEA, ANNELIDA, CHAETOGNATHA, ECHINODERMATA, APPENDICULARIA.
Keywords: zooplankton, quantitative count.
Region: Laptev Sea, East Siberian Sea, New Siberian Isls.

78. Pergament T.S. 1945. Benthos of the Kara Sea. Problemy Arktiki. Vol. 1944, N 1. P. 102-132.
Taxa: ANIMALIA.
Keywords: benthos, bioindicators, distribution, biogeography, list of taxa.
Region: Kara Sea.

79. Pirozhnikov P.L. Hydrobiological investigations of the northern estuaries and the mouth Regions of the north Seas of the USSR. - Ocherki po istorii gidrobiologicheskikh issledovaniy v SSSR. P. 72-89.
Keywords: hydrobiology, estuarine complex/group, history of researches.
Region: Arctic Regions.

80. Pirozhnikov P.L. 1941. The marine features of the Yenisei River and Yenisei Gulf bottom fauna. Trudy Astrakhanskogo tekhn. in-ta rybnj promyshlennosti i khozyajstva. Iss. 1. P. 135-157.
Keywords: hydrobiology, benthos, estuarine complex/group.
Region: Yenisei, Yenisei Bay, Kara Sea.

81. Ponomareva L.A. 1957. Zooplankton of the western part of the Kara Sea and the Baidaratckaia inlet. Trudy instituta okeanologii Akademii Nauk. Vol. 20. P. 228-245.
Taxa: ANIMALIA.
Keywords: zooplankton, list of *Taxa*.
Region: Kara Sea.

82. Popov A.M., Mosevich A. 1926. Materials on the fauna of Ygorskii Shar, Kara Sea and Obskaia guba. Izvestiya Biologicheskogo Nauchno-Issledovatel'skogo Instituta pri Permskom Gosudarstvennom Universitete. Vol. 5, Iss. 1. P. 35-48.
Taxa: CRUSTACEA, ECHINODERMATA, HYDROZOA, MOLLUSCA, PISCES, ARTHROPODA.
Keywords: benthos, list of stations.
Region: Kara Sea.

83. Romanova G.P. 1948. Quantitative character of bethos of the eastern part of Rnissey Gulf. Trudy Sibirskogo otd. VNIORKh. Vol. 7, N 2. P. 205-222.
Keywords: estuarine complex/group, hydrobiology, benthos.
Region: Lena, Kara Sea.

84. Semenov V.N. 1989. Many years changes of the benthos biocoenosis of the Kara Sea and adjacent waters. - Ekologiya i bioresursy Karskogo morya. Apatity : Kol'skiy nauchnyy tsentr AN SSSR. P. 145-149.
Taxa: ANIMALIA.
Keywords: benthos, biocenosis.
Region: Kara Sea.

85. Serkina R.A. 1969. Plancton and benthos of the Lena River and its marine parts. Trudy Yakutskogo otdeleniya Sibirskogo NII Rybnogo khozyajstva. Iss. 3. P. 188-196.
Keywords: estuarine complex/group, hydrobiology, plankton, benthos.
Region: Lena.

86. Shuvalov V.S., Pavshtiks E.A. 1977. Composition and distribution of the undersurface zooplankton (hyponeiston) off Franz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 55-71.
Taxa: ANIMALIA.
Keywords: plankton, numbers. *Region:* Franz Josef Land, Barents Sea.

87. Sirenko B.I., Koltun V.M. 1992. Characteristics of benthic biocenoses of Chukchi and Bering Sea. - Nagel P.A. (ed.). Results of the third joint US-USSR Bering and Chukchi Seas Expedition (BEPRAC). P. 251-261.
Taxa: ANIMALIA.
Keywords: benthos, biocenosis.
Region: Chukchi Sea.

88. Stepanova V.S. 1937. Biological indicators of currents in the northern part of the Bering Sea and south part of the Chukchi Sea. Issledovaniya morey SSSR. Iss. 25. P. 175-216.
Keywords: plankton, bioindicators.
Region: Chukchi Sea.

89. Strel'nikov I.D. 1923. To the knowledge of the fauna of the Kara Sea. Izvestiya Petrogradskogo Nauchnogo Instituta im.Lesgafta. Vol. 6. P. 1-11.
Taxa: ANIMALIA.
Keywords: station list of species.
Region: Kara Sea.

90. Timofeyev S.F. 1983. Macroplankton of the Kara Sea. - Issledovaniya biologii, morfologii i fiziologii gidrobiontov. Apatity. P. 17-22.
Taxa: ANIMALIA.
Keywords: zooplankton, list of *Taxa*.
Region: Kara Sea.

91. Timofeyev S.F. 1989. Architectonics of the pelagial of the Kara Sea. - Ekologiya i bioresursy Karskogo morya. Apatity. P. 86-92.
Taxa: ANIMALIA.
Keywords: zooplankton, diversity of species, phytoplankton.
Region: Kara Sea.

92. Ushakov P.V. 1927. Zoogeography of the coastal zones of the Moller Bay. Issledovaniya morey SSSR. Iss. 4. P. 17-79.
Taxa: ANIMALIA.
Keywords: biogeography.
Region: Barents Sea, Novaya Zemlya.

93. Ushakov P.V. 1936. Benthos fauna of the Chukchi Sea. - Nauchnye raboty ekspeditsii na ledokole "Krasin". Leningrad : Glavsevmorputi. P. 74-89.
Taxa: ANIMALIA.
Keywords: benthos, biocenosis, biogeography, bioindicators. *Region:* Chukchi Sea, East Siberian Sea.

94. Ushakov P.V. 1940. Benthos as indicator of warm and cold currents in the Chukchi Sea. Problemy Arktiki. N 7-8. P. 21-25.
Taxa: ANIMALIA.
Keywords: bioindicators, hydrology, benthos.
Region: Arctic Regions.

95. Ushakov P.V. 1945. Benthos the Chukchi Sea as indicator of the currents in the Chukchi Sea. Doklady Gosudarstvennogo okeanograficheskogo instituta. N 31. P. 1-6.
Taxa: ANIMALIA.
Keywords: bioindicators, benthos, hydrology.
Region: Chukchi Sea.

96. Ushakov P.V. 1952. The bottom fauna of the Chukchi Sea. - Ushakov P.V.(red.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR. P. 5-82.
Taxa: ANIMALIA.
Keywords: benthos, distribution, biogeography, bioindicators, biomass, biocenosis.
Region: Chukchi Sea.

97. Virketis M.A. 1932. Some data about zooplankton of the south-eastern part of the Laptev Sea. Issledovaniya morey SSSR. Iss. 15. P. 105-126.
Taxa: ANIMALIA.
Keywords: zooplankton, distribution.
Region: Laptev Sea.

98. Virketis M.A. 1945. Zooplankton as indicator of the hydrological conditions of the Kara Sea. Problemy Arktiki. 1945. N 1. P. 67-101.
Taxa: ANIMALIA.
Keywords: plankton, bioindicators, ecology, hydrology.
Region: Kara Sea.

99. Virketis M.A. 1952. Zooplankton of the Chukchi Sea and Bering Strait. - Ushakov P.V.(red.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR. P. 323-336.
Taxa: ANIMALIA.
Keywords: distribution, zooplankton.
Region: Chukchi Sea, Bering Strait.

100. Virketis M.A. 1957. Some data about zooplankton of the Central part of the Arctic Basin. - Materialy nablyudeniy dreyfuyushchey stantsii "Sev.Polyus-3" i "Sev.Polyus-4". Vol. 1. P. 238-342.
Taxa: ANIMALIA.
Keywords: zooplankton.
Region: Arctic Regions, Arctic Ocean.

101. Vize V.Yu. (Ed.). 1931. Scientific Results of the Expedition to Franz Josef Land in thye summer of 1929. - Trudy Instituta po Izucheniyu Severa. N 49. P. 1-178.
Taxa: ANIMALIA, ANTHOZOA, PISCES.
Keywords: distribution, hydrology.
Region: Franz Josef Land, Barents Sea.

102. Vize V.Yu. (Ed.). 1932. Scientific results of the expedition to Franz-Josef Land in the summer of 1929. Transactions of the Arctic Institute. Vol. II. Leningrad. P. 1-215.
Taxa: CRUSTACEA, ECHINODERMATA, HYDROZOA, POLYCHAETA.
Keywords: distribution, new species, zooplankton.
Region: Barents Sea, Franz Josef Land.

103. Yashnov V.A. 1927. Zooplankton of the Kara Sea. Trudy Plavuchego Morskogo instituta. Vol. 2, Iss. 2. P. 1-59.
Taxa: ANIMALIA.
Keywords: zooplankton, bioindicators.
Region: Kara Sea.

104. Yashnov V.A. 1940. Plankton productivity of the northern seas of the USSR. – Moskovskoye obshchestvo ispytateley prirody. Moskva. P. 1–86.
Taxa: ANIMALIA.
Keywords: plankton, productivity.
Region: Arctic Regions.
105. Zenkevich L.A. 1933. Some zoogeographical aspects of the Polar basin in relation with the question about its paleogeographical history. Zoologicheskiy zhurnal. Vol. 12, N 4. P. 17–34.
Keywords: biogeography.
Region: Arctic Ocean.
106. Zenkevich L.A. 1937. Success in USSR sea fauna studies during last 20 years. Zoologicheskiy zhurnal. 1937. Vol. 16, Iss. 5. P. 830–870.
Keywords: hydrobiology, history of researches.
Region: Arctic Regions.

Protozoa

1. Druzhkov N.V. 1989. Microzooplankton. - Ekologiya i bioresursy Karskogo morya. Apatity. P. 54-60.
   Taxa: PROTOZOA.
   Keywords: zooplankton, list of *Taxa*, numbers.
   Region: Kara Sea.
2. Kruglikova S.B., Nerman Y. (Eds.). 1989. The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 461-480.
   Taxa: PROTOZOA, RADIOLARIA.
   Keywords: distribution.
   Region: Arctic Regions.
3. Lukina T.G. 1977. Foraminifera of the upper parts of the shelf near Rfanz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 72-105.
   Taxa: PROTOZOA, FORAMINIFERA.
   Keywords: biogeography, biomass, numbers, distribution. *Region:* Franz Josef Land, Barents Sea.
4. Lukina T.G. 1990. Foraminifera of the New Siberian shoals. Issledovaniya fauny morey. Vol. 37(45). P. 105-129.
   Taxa: PROTOZOA, FORAMINIFERA.
   Keywords: biogeography, meiobenthos.
   Region: Laptev Sea, East Siberian Sea, New Siberian Isls.
5. Petrushevskaya M.G. 1981. Radiolaria of the order Nasselaria of the World ocean. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka. Iss. 128. P. 1-405.
   Taxa: PROTOZOA, RADIOLARIA, NASSELARIA.
   Keywords: keys, distribution, phylogeny, evolution, paleoecology. *Region:* Arctic Regions.
6. Reshetnyak V.V. 1981. Acantharia of the World Ocean. - Fauna SSSR. Novaya seriya. Akantarii. Leningrad : Nauka. Iss. 123.
   P. 1-221.
   Taxa: PROTOZOA, ACANTHARIAE.
   Keywords: keys, distribution, phylogeny, evolution.
   Region: Arctic Ocean.
7. Shchedrina Z.G. 1936. The Fauna of the foraminifera of the polar seas of the USSR. Trudy Arkticheskogo Instituta. Vol. 33. P. 51-64.
   Taxa: PROTOZOA, FORAMINIFERA.
   Keywords: distribution.
   Region: Arctic Regions.
8. Shchedrina Z.G. 1946. New Species of Foraminifera from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Gglavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningra : Glavsevmorputi. Vol. 3. P. 139-148.
   Taxa: PROTOZOA, FORAMINIFERA.
   Keywords: new *Taxa*.
   Region: Arctic Ocean, East Siberian Sea, Laptev Sea, New Siberian Isls.
9. Shchedrina Z.G. 1952. Foraminifera of the Chukchi Sea and Bering Strait. - Ushakov P.V.(Ed.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR, 1952. P. 98-111.
   Taxa: PROTOZOA, FORAMINIFERA.
   Keywords: distribution.
   Region: Chukchi Sea.

Hydrobiology. Invertebrates

1. Abrikosov G.G. 1932. Briozoans fauna of the Laptev sea. Issledovaniya morey SSSR. Iss. 15. P. 141-146.
   Taxa: BRYOZOA.
   Keywords: distribution.
   Region: Laptev Sea.
2. Akatova N.A. 1946. Ostracoda from the Novosiberian schelf waters. Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 224-230.
   Taxa: CRUSTACEA, OSTRACODA.
   Keywords: distribution.
   Region: New Siberian Isls., Laptev Sea, East Siberian Sea.
3. Androsova E.I. 1977. Bryozoa in the biocoenosis of the Arctic Ocean (Franz Josef Land). Issledovaniya fauny morey. Vol. 14(22). P. 194-204.
   Taxa: BRYOZOA.
   Keywords: distribution.
   Region: Franz Josef Land, Barents Sea.
4. Anisimova N.A. 1989. Distributiom patterns of echinoderms in the Eurasian Sector of Arctic Ocean. - Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 281-301.
   Taxa: ECHINODERMATA.
   Keywords: biogeography, vertical distribution/bathymetry, distribution.
   Region: Arctic Regions.
5. Annenkova N.P. 1932. Polychaeta fauna of the Laptev sea. Issledovaniya morey SSSR. Iss. 15. P. 133-140.
   Taxa: POLYCHAETA.
   Keywords: distribution.
   Region: Laptev Sea.
6. Annenkova N.P. 1946. New Species of Polychaeta from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 185-188.
   Taxa: POLYCHAETA.
   Keywords: new species.
   Region: Arctic Ocean, East Siberian Sea, Laptev Sea.
7. Annenkova N.P. 1952. Polychaeta of the Chukchi Sea and Bering Strait. - Ushakov P.V.(Ed.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR, 1952. P. 112-137.
   Taxa: POLYCHAETA.
   Keywords: distribution.
   Region: Chukchi Sea, Bering Strait.
8. Averintsev V.G. 1977. Polychaeta of the shelf of Franz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 140-184.
   Taxa: POLYCHAETA.
   Keywords: distribution, dimensions, trophics, population,density, biomass.
   Region: Franz Josef Land, Barents Sea.
9. Averintsev V.G. 1977. About systematic position, ecology and distribution of Lagisca extenuata (Grube, 1840), L. rarispina (Sars, 1860) and L. propinqua Malmgren, 1867 (Polychaeta, Polynoidae). Issledovaniya fauny morey. 1977. Vol. 14(22). P. 185-193.
   Taxa: POLYCHAETA.
   Keywords: distribution, areas.
   Region: Arctic Ocean.

10. Averintsev V.G. 1990. Polichaeta of the Laptev sea. Issledovaniya fauny morey. Vol. 37(45). P. 147-187.
Taxa: POLYCHAETA.
Keywords: biogeography, new species, quantitative count, trophics. *Region:* Laptev Sea, East Siberian Sea, New Siberian Isls..
11. Baranova Z.I. 1974. Sea Hedgehods of genus Strongylocentrotus of northern seas and some peculiarities of their distribution and ecology. - Gidrobiologiya i biogeografiya shel'fov kholodnykh i umerennykh vod Mirovogo okeana. Tezisy dokladov. Leningrad:Nauka, 1974. P. 22-23.
Taxa: ECHINODERMATA, ECHINOIDEA.
Keywords: distribution.
Region: Arctic Regions.
12. Baranova Z.I. 1977. Echinoderms from Franz Josef Land and adjacent waters. Issledovaniya fauny morey. Vol. 14(22). P. 435-465.
Taxa: ECHINODERMATA.
Keywords: new species, distribution, biogeography, dimensions. *Region:* Franz Josef Land, Barents Sea.
13. Birulya A.A. 1899. Biology and zoogeography of the russian seas. YII. Crustacea, collected by Dr. A.S.Botkin in 1896 and 1897 in Kara Sea and Kanin-Pechorskii region of the Murman Sea. Ezhegodnik Zoologicheskogo muzeya Imperatorskoy Akademii nauk. Vol. 4. P. 418-448.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Barents Sea, Kara Sea.
14. Birulya A.A. 1937. The Crustacean fauna of the Kara inlet and Kara river. Trudy Zoologicheskogo instituta Akademii nauk SSSR. Vol. 4. P. 701-742.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Kara Sea.
15. Bogdanov I.P. 1990. Molluscs of the Oenopotinae subfamily (Gastropoda, Pectinibranchia, Turridae) in the seas of the USSR. - Fauna SSSR. Novaya seriya. Mollyuski. Tom NY, vyp. 3. Leningrad : Nauka. P. 1-223.
Taxa: MOLLUSCA, GASTROPODA, PECTINIBRANCHIA, TURRIDAE, OENOPOTINAE.
Keywords: keys, distribution, phylogeny, morphology.
Region: Arctic Regions.
16. Brodskiy K.A. 1949. Vertical distribution of Calanoida and connection of the Arctic ocean with Atlantic and Pacific. Doklady Akademii Nauk SSSR. Vol. 65, N 3. P. 365-368.
Taxa: CRUSTACEA, COPEPODA.
Keywords: vertical distribution/bathymetry.
Region: Arctic Regions, Arctic Ocean.
17. Brodskiy K.A. 1950. Calanoida of the far-eastern seas of the USSR and the Arctic. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 35. P. 1-442.
Taxa: CRUSTACEA, COPEPODA, CALANOIDA.
Keywords: keys, distribution, biology, morphology.
Region: Arctic Regions, Arctic Ocean.
18. Brodskiy K.A., Vyshkvartseva N.V., Kos M.S., Markhaseva E.L. 1983. Copepoda Calanoida of the Seas of the USSR and adjacent waters. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka. Iss. 135. P. 1-358.
Taxa: CRUSTACEA, COPEPODA, CALANOIDA.
Keywords: keys, distribution, morphology, phylogeny.
Region: Arctic Regions.
19. Bruggen Ernst von der. 1909 Memoires de l'Academie Imperiale des Scieces de St.-Petersburg. Ser. 8. Bd. 18, N 16. S. 1-57.
Taxa: CRUSTACEA, AMPHIPODA.
Keywords: distribution, station list of species.
Region: Kara Sea, Laptev Sea, East Siberian Sea.

20. Bulycheva A.I. 1957. Amphipoda Talitroidea of the seas of the USSR and adjacent waters. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 65. P. 1-186.
Taxa: CRUSTACEA, AMPHIPODA, TALITRPOIDEA.
Keywords: keys, distribution, morphology, phylogeny.
Region: Arctic Regions.

21. Bulycheva A.I. 1964. Amphipoda Hyperiidea of the arctic seas. Trudy Arkticheskogo i Antarkticheskogo nauchno-issledovatel'skogo instituta. Vol. 259. P. 316-321.
Taxa: CRUSTACEA, AMPHIPODA, HYPERIIDEA.
Keywords: distribution, keys, morphology, phylogeny, evolution. *Region:* Arctic Regions.

22. Bushuyeva I.V. 1977. About ecology and distribution of Amphipoda-Gammaridea in shoal waters of the Novaya Zemlya and Franz Jozef Land. Issledovaniya fauny morey. Vol. 14(22). P. 277-290.
Taxa: CRUSTACEA, AMPHIPODA, GAMMAROIDEA.
Keywords: distribution, dimensions.
Region: Franz Josef Land, Novaya Zemlya.

23. Chislenko L.L. 1977. Harpacticids (Copepoda, Harpacticoidea) from sponges of Franz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 237-276.
Taxa: CRUSTACEA, COPEPODA, HARPACTICOIDEA.
Keywords: new species, biogeography, distribution, ecology, variation.
Region: Franz Josef Land, Barents Sea.

24. D'yakonov A.M. 1923. Sea urchins (Echinoidea). - Fauna Rossii i sopredel'nykh stran preimushchestvenno po kollektsiyam Zoologicheskogo muzeya. Iglokozhiye (Echinodermata). Tom I, vyp. 1. Petrograd. P. 1-361.
Taxa: ECHINODERMATA, ECHINOIDEA.
Keywords: keys, distribution.
Region: Arctic Regions.

25. D'yakonov A.M. 1933. Echinoderms of the northen seas. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : AN SSSR. Iss. 8. P. 1-166.
Taxa: ECHINODERMATA.
Keywords: keys, distribution.
Region: Arctic Regions.

26. D'yakonov A.M. 1945. On the relationship between the Arctic and the North Pacific marine faunas based on the zoogeographical analysis of the Echinodermata. Zhurnal obshchey biologii. Vol. 6, N 2. P. 125-155.
Taxa: ECHINODERMATA.
Keywords: biogeography.
Region: Arctic Regions.

27. D'yakonov A.M. 1946. New and interesting species of Echinodermata from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parakhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 324-332.
Taxa: ECHINODERMATA.
Keywords: new species.
Region: Arctic Ocean.

28. D'yakonov A.M. 1950. Sea stars of the seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 34. P. 1-203.
Taxa: ECHINODERMATA, ASTEROIDEA.
Keywords: keys, distribution.
Region: Arctic Regions.

29. D'yakonov A.M. 1952. Echinodermata of the Chukchi Sea and Bering Strait. - Ushakov P.V.(Ed.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. V.2. Leningrad : AN SSSR. P. 286-310.
Taxa: ECHINODERMATA.
Keywords: distribution.
Region: Chukchi Sea, Bering Strait.

30. D'yakonov A.M. 1954. Ophiurans of the seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 55. P. 1-136.
Taxa: ECHINODERMATA, OPHIUROIDEA.
Keywords: keys, distribution.
Region: Arctic Regions.
31. Dement'yeva T. 1931. Variability of the amphipods of the northen seas. Trudy Okeanograficheskogo instituta. Vol. 1, N 2-3. P. 65-82.
Taxa: CRUSTACEA, AMPHIPODA.
Keywords: variation.
Region: Arctic Regions.
32. Deryugin K.M. 1936. Molluscs of the northern and far-eastern seas. - Zhivotnyy mir SSSR. Moskva-Leningrad: AN SSSR. Iss. 1. P. 393-398.
Taxa: MOLLUSCA.
Keywords: distribution.
Region: Arctic Regions.
33. Evdonin L.A. 1977. Turbellaria Kaliptorrhynchia of the fauna of the USSR and adjacent countries.. - Fauna SSSR. Novaya seriya.Turbellyarii. Tom I, vyp. 1. Leningrad : Nauka. 1-400.
Taxa: TURBELLARIA.
Keywords: keys, distribution, phylogeny, anatomy, development, ecology, biogeography.
Region: Barents Sea.
34. Evseyev G.A., Krasnov E.V. 1976. Beringia and its significance in formation of the invertebrates faunas. - Beringiya v kaynozoye. Materialy Vsesoyuznogo simpoziuma "Beringiyskaya susha i eye znacheniye dlya razvitiya golarkticheskikh flor i faun v kaynozoye. Vladivostok. P. 43-53.
Keywords: biogeography.
Region: Chukchi Sea.
35. Fedyakov V.V., Naumov A.D., Nerman Y. (Eds.). 1989. The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York:Van Nostrand Reinhold Company. P. 303-324.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: distribution.
Region: Arctic Regions.
36. Filatova Z.A. 1948. Geographical distribution and some geographical peculiarity of the bivalvian molluscs from the genus Portlandia from the northern seas of the USSR. Problemy Arktiki. Vol. 1. P. 82-99.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: distribution, biogeography.
Region: Arctic Regions.
37. Filatova Z.A. 1951. Some biogeographical peculiarities of the bivalvian molluscs of the genus Portlandia. Trudy instituta okeanologii AN SSSR. Vol. 6. P. 117-131.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: biogeography.
Region: Arctic Regions.
38. Filatova Z.A. 1957. General review of the bivalvian fauna of the northern seas of the USSR. Trudy intituta okeanologii AN SSSR. Vol. 20. P. 3-59.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: distribution.
Region: Arctic Regions.
39. Filatova Z.A. 1957. Zoogeographical division of the northern seas according to bivalvian molluscs fauna. Trudy instituta okeanologii AN SSSR. Vol. 23. P. 195-215.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: biogeography.
Region: Arctic Regions, Arctic Ocean.

40. Filip'yev I.N. 1946. Nematodes from the Polar basin. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. P. 158-184.
Taxa: NEMATODA.
Keywords: new *Taxa*.
Region: Arctic Ocean.

41. Galkin Yu.I. 1955. Gastropods of the family Trochidae of the Far-eastern and nothern seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 57. P. 1-132.
Taxa: MOLLUSCA, GASTROPODA, TROCHIDAE.
Keywords: keys, distribution, morphology, ecology.
Region: Arctic Regions.

42. Golikov A.A. 1990. Amphipods of the Laptev sea and adjacent waters. Issledovaniya fauny morey. Vol. 37(45). P. 235-257.
Taxa: CRUSTACEA, AMPHIPODA, GAMMAROIDEA.
Keywords: biogeography.
Region: Laptev Sea, East Siberian Sea, New Siberian Isls.

43. Golikov A.N. 1963. Gastropods of the genus Neptunea Bolten. - Fauna SSSR. Novaya seriya. Mollyuski. Tom Y, vyp. 1. Moskva-Leningrad: AN SSSR. P. 1-218.
Taxa: MOLLUSCA, GASTROPODA, BUCCINIDAE, NEPTUNEA.
Keywords: keys, distribution, phylogeny, evolution, biogeography, morphology.
Region: Arctic Regions.

44. Golikov A.N. 1980. Molluscs of the subfamily Buccininae of the World Ocean. - Fauna SSSR. Novaya seriya. Mollyuski. Tom Y, vyp. 2. Leningrad : Nauka. P. 1-466.
Taxa: MOLLUSCA, GASTROPODA, BUCCINIDAE, BUCCUNINAE.
Keywords: keys, distribution, phylogeny, evolution, biogeography, morphology, ecology.
Region: Arctic Regions.

45. Golikov A.N. 1989. Arctic Ocean Gastropod Prosobranchs. - Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 325-340.
Taxa: MOLLUSCA, GASTROPODA.
Keywords: distribution.
Region: Arctic Regions.

46. Golikov A.N. 1990. The shellbearing gastropods of the Laptev sea. Issledovaniya fauny morey. Vol. 37(45). P. 365-385.
Taxa: MOLLUSCA, GASTROPODA.
Keywords: biogeography, trophics, vertical distribution. *Region:* Laptev Sea, East Siberian Sea, New Siberian Isls..

47. Golikov A.N., Kusakin O.G. 1978. Shells gastropods from the littoral of the seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka. Iss. 116. P. 1-256.
Taxa: MOLLUSCA, GASTROPODA.
Keywords: keys, distribution, morphology.
Region: Arctic Regions.

48. Golikov A.N., Skarlato O.A. 1977. Composition, distribution and ecology of gastropods and bivbalves off Framz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 313-390.
Taxa: MOLLUSCA, BIVALVIA, GASTROPODA.
Keywords: biogeography, distribution, vertical distribution, age, dimensions, ecology, production.
Region: Franz Josef Land, Barents Sea.

49. Gontar V.I., Denisenko N.V. 1989. Arctic Ocean Bryozoa. - Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 341-371.
Taxa: BRYOZOA.
Keywords: distribution.
Region: Arctic Regions.

50. Gontar' V.I. 1990. Bryozoa of the Laptev sea and New Siberian shoals. Issledovaniya fauny morey. Vol. 37(45). P. 130-138.
Taxa: BRYOZOA.
Keywords: biogeography, biomass, quantitative count, energetic. *Region:* Laptev Sea, East Siberian Sea, New Siberian Isls..

51. Gorbunov G.P. 1932a. Decapoda of Franz-Josef Land. Trudy Arkticheskogo instituta. Vol. 2. P. 80-91.
Taxa: CRUSTACEA, DECAPODA.
Keywords: distribution.
Region: Barents Sea, Franz Josef Land.

52. Gorbunov G.P. 1932b. Echinodermata of Franz-Josef Land and The Queen Victoria Sea. Trudy Arkticheskogo instituta. 1932. Vol. 2. P. 93-139.
Taxa: ECHINODERMATA.
Keywords: distribution.
Region: Barents Sea, Franz Josef Land.

53. Gorbunov G.P. 1933a. Echinoderms fauna of the North Island of Novaia Zemlia shoals. Trudy Arkticheskogo instituta. Vol. 7. P. 41-70.
Taxa: ECHINODERMATA.
Keywords: distribution.
Region: Barents Sea, Kara Sea, Novaya Zemlya.

54. Gorbunov G.P. 1933b. Echinoderms of the northern part of the Kara Sea. Trudy Arkticheskogo instituta. Vol. 8. P. 5-78.
Taxa: ECHINODERMATA.
Keywords: distribution, bioindicators.
Region: Kara Sea.

55. Gorbunov G.P. 1934. Crustacea-Decapoda fauna of the northen part of the Kara Sea. Trudy Arkticheskogo instituta. Vol. 9. P. 59-77.
Taxa: CRUSTACEA, DECAPODA.
Keywords: distribution.
Region: Kara Sea.

56. Gorbunov G.P. 1941. Bivalvian Portlandia arctica (Gray) as indicator of the distribution of the continental waters in the Siberian Seas. Problemy Arktiki. N 11. P. 46-55.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: bioindicators, biogeography, hydrology, distribution. *Region:* Kara Sea, Laptev Sea, East Siberian Sea.

57. Gorbunov G.P. 1946. New and interesting species of Mollusca and Brachiopoda from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 308-322.
Taxa: BRACHIOPODA, MOLLUSCA.
Keywords: new species.
Region: Arctic Ocean.

58. Gorbunov G.P. 1952. Bivalvia of the Chukchi Sea and Bering Strait. Ushakov P.V.(Ed.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR, 1952. P. 216-278.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: distribution, biogeography.
Region: Chukchi Sea, Bering Strait.

59. Gur'yanova E.F. 1929. Fauna of the Crustacea-Malacostraca of the Enisei mouth. Russkiy gidrobiologicheskiy zhurnal. Vol. 8, N 10-12. P. 285-299.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Yenisei Bay, Kara Sea.

60. Gur'yanova E.F. 1930. Crustacea-Malacostraca fauna of the Barents, White and Kara seas. Trudy Leningradskogo obshchestva estestvoispytateley. Vol. 59, Iss. 1. P. 29-46.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Barents Sea, White Sea, Kara Sea.
61. Gur'yanova E.F. 1932a. Crustacean fauna of the Laptev sea. Issledovaniya morey SSSR. Iss. 15. P. 1157-188.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Laptev Sea.
62. Gur'yanova E.F. 1932b. Marine arctic isopods. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR, 1932. Part. 4a. P. 1-181.
Taxa: CRUSTACEA, ISOPODA.
Keywords: keys, distribution, morphology.
Region: Arctic Regions.
63. Gur'yanova E.F. 1933. Crustącea-Malacostraca of the Ob-Enisei Bay of the Ob inlet. Issledovaniya morey SSSR. Iss. 18. P. 75-90.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Kara Sea, Gulf of Ob, Yenisei Bay.
64. Gur'yanova E.F. 1934. Crustacean fauna of the Kara Sea and penetration way of the atlantic fauna to Arctic. Doklady Akademii nauk SSSR. N 2. P. 91-96.
Taxa: CRUSTACEA.
Keywords: biogeography, distribution.
Region: Kara Sea, Arctic Regions.
65. Gur'yanova E.F. 1934. Zoogeographic essay of the arctic isopods fauna. Arctica. N 2. P. 127-152.
Taxa: CRUSTACEA, ISOPODA.
Keywords: zoogeography.
Region: Arctic Regions.
66. Gur'yanova E.F. 1935. Amphipoda and Isopoda of the south part of the Kara sea. Issledovaniya morey SSSR. Iss. 21. P. 65-87.
Taxa: CRUSTACEA, AMPHIPODA, ISOPODA.
Keywords: distribution.
Region: Kara Sea.
67. Gur'yanova E.F. 1936. Crustacea-Malacostraca fauna of the Arctic region. Trudy Arkticheskogo instituta. Vol. 33. P. 31-44.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Arctic Regions.
68. Gur'yanova E.F. 1946a. New Species of Isopoda and Amphipoda from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 272-297.
Taxa: CRUSTACEA, AMPHIPODA, ISOPODA.
Keywords: new species.
Region: Arctic Ocean.
69. Gur'yanova E.F. 1946b. Individual and growth variability of the sea cockroach and its significance in evolution of the genus Mesidothea Rich. Trudy Zoologicheskogo instituta AN SSSR. 1946. Vol. 8, N 5. P. 105-144.
Taxa: CRUSTACEA, ISOPODA, MESIDOTHEA.
Keywords: variation, evolution.
Region: Arctic Regions.

70. Gur'yanova E.F. 1951. Amphipoda Gammaridea of the seas of the USSR and adjacent waters. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 41. P. 1-1029.
Taxa: CRUSTACEA, AMPHIPODA, GAMMARIDEA,.
Keywords: keys, distribution, phylogeny, evolution, biogeography, morphology.
Region: Arctic Regions.
71. Gur'yanova E.F. 1952. Crustacea-Malacostraca of the Chukchi Sea and Bering Strait. - Ushakov P.V. (Ed.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR. P. 169-214.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Chukchi Sea.
72. Gur'yanova E.F. 1933. Die marinen Isopoden der Arctic. - Fauna arctica. 1933. Bd. 6, N 5. S. 391-470.
Taxa: CRUSTACEA, ISOPODA.
Keywords: distribution.
Region: Arctic Regions.
73. Gur'yanova E.F. 1929. Neue Formen arktischer Isopoden und Amphipoden. Zoologischer Anzeiger. Bd. 81, N 11-12. S. 309-317.
Taxa: CRUSTACEA, AMPHIPODA, ISOPODA.
Keywords: new *Taxa*.
Region: Arctic Regions.
74. Gur'yanova E. 1930. Beitrage zur Fauna der Crustacea-Malacostraca des Arktischen Gebietes. Zoologischer Anzeiger. Bd. 86, N 9-10. S. 231-248.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Arctic Regions.
75. Gur'yanova E.F. 1933. Zur Amphipodenfauna des Karischen Meeres. Zoologischer Anzeiger. Bd. 103, N 5-6. S. 122-130.
Taxa: CRUSTACEA, AMPHIPODA.
Keywords: distribution.
Region: Kara Sea.
76. Gur'yanova E.F. 1934. Neue Formen von Amphipoden des Karischen Meeres. Zoologischer Anzeiger. 1934. Bd. 108, N 5-6. S. 122-130.
Taxa: CRUSTACEA, AMPHIPODA.
Keywords: new *Taxa*.
Region: Kara Sea.
77. Gur'yanova E..F. 1935. Zur Zoogeographie der Crustacea-Malacostraca des Arctischen Gebietes. Zoogeographica. Bd. 2, N 4. S. 555-571.
Taxa: CRUSTACEA.
Keywords: biogeography.
Region: Arctic Regions.
78. Gur'yanova E.F. 1936. Beitrage zur Amphipodenfauna des Karischen Meeres. Zoologischer Anzeiger. Bd. 116, N 5-6. S. 145-152.
Taxa: CRUSTACEA, AMPHIPODA.
Keywords: distribution.
Region: Kara Sea.
79. Ivanov A.V. 1949. New pogonophora. Zoologicheskiy zhurnal. Vol. 28(1). P. 79-84.
Taxa: POGONOPHORA.
Region: Arctic Basin.
80. Ivanov A.V. 1960. Pogonophora. - Fauna SSCP. NNovaya seriya. Pogonofory. Moskva-Leningrad: AN SSSR. P. 1-271.
Taxa: POGONOPHORA.
Keywords: keys, distribution, phylogeny, evolution, anatomy, morphology, dimensions.
Region: Arctic Regions.

81. Jaderholm E. 1908. Die Hydroiden des Sibirischen Eismeeres, gesammelt von der Russischen Polar-Expedition 1900-1903.Memoires de l'Academie Imperiale des Scieces de St.-Petersburg. Ser. 8. Bd. 18, N 12, Ser. 8. S. 1-28.
Taxa: CNIDARIA, HYDROZOA.
Keywords: distribution, station list of species, new species. *Region:* Arctic Ocean.

82. Kafanov A.I. 1974. Zoogeographic peculiarity and formation of the Cardiidae (Mollusca, Bivalvia) fauna of the cold and temperature waters of the Northern Hemispere. Gidrobiologiya i biogeografiya shel'fov kholodnykh i umerennykh vod Mirovogo okeana. Tezisy dokladov. Leningrad, 18-21 noyabrya 1974. Leningrad : Nauka. P. 23-24.
Taxa: MOLLUSCA, BIVALVIA, CARDIIDAE.
Keywords: biogeography.
Region: Arctic Regions.

83. Kafanov A.I. 1978. About the centers of origin and some features of ecological evolution of cold water marine malacofaunas of the Northen Hemisphere. Biologiya morya. N 1. P. 1-9.
Taxa: MOLLUSCA.
Keywords: biogeography, evolution, ecology.
Region: Arctic Regions.

84. Kafanov A.I. 1979. On the ecological evolution of cold-water shelf malacofaunas of the Northern hemisphere and the palaeoecological significance of marine bivalves. Dal'nevostochnyy nauchnyy tsentr. Biologo-pochvennyy institut. Trudy. Novaya seriya. Vol. 52(155). P. 53-72.
Taxa: MOLLUSCA.
Keywords: biogeography, ecology, evolution, paleoecology.
Region: Arctic Regions.

85. Kalischewskiy M. 1907. Memoires de l'Academie Imperiale des Sciences de St.-Petersbourg. Ser.8. Bd. 18, N 4, Ser. 8. S. 1-67.
Taxa: ECHINODERMATA.
Keywords: station list of species, distribution, new *Taxa*. *Region:* Kara Sea, Laptev Sea, East Siberian Sea.

86. Kasatkina A.P. 1982. Chaetognata of the seas of the USSR and adjacent waters. Leningrad : Nauka. P. 1-136.
Taxa: CHAETOGNATHA.
Keywords: keys, distribution, phylogeny, evolution, biogeography. *Region:* Arctic Regions.

87. Klyuge G.A. 1929. Die Bryozoen des sibirischen Eismeers. Paboty Murmanskoy biologicheskoy stantsii. Bd. 3. S. 1-33.
Taxa: BRYOZOA.
Keywords: distribution.
Region: Arctic Regions.

88. Klyuge G.A. 1946. Kamptozoa from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 149-157.
Taxa: KAMPTOZOA.
Keywords: distribution.
Region: Arctic Ocean.

89. Klyuge G.A. 1946. New and little known species of Bryozoa from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 194-223.
Taxa: BRYOZOA.
Keywords: new species.
Region: Arctic Ocean.

90. Klyuge G.A. 1952. Briozoa of the Chukchi Sea and Bering Strait. Ushakov P.V.(red.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. Tom 2. Leningrad : AN SSSR. P. 138-168.
Taxa: BRYOZOA.
Keywords: distribution.
Region: Chukchi Sea, Bering Strait.

91. Klyuge G.A. 1955. New and little known briozoans from the Arctic Basin. Trudy Zoologicheskogo instituta AN SSSR. Vol. 18, N 2. P. 63-99.
Taxa: BRYOZOA.
Keywords: new species, distribution.
Region: Arctic Ocean.

92. Klyuge G.A. 1962. Briozoa of the northen seas of the USSR. Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 76. P. 1-584.
Taxa: BRYOZOA.
Keywords: keys, distribution, morphology, breeding, ecology.
Region: Arctic Regions.

93. Koltun V.M. 1959. Cornacuspongia of the northern and far-eastern seas of the USSR. (Ordo Cornacuspongia). - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 67. P. 1-236.
Taxa: SPONGIA, CORNACUSPONGIDA.
Keywords: keys, distribution, morphology, development, ecology. *Region:* Arctic Regions.

94. Koltun V.M. 1966. Tetraxonid sponges of the northern and far-eastern seas of the USSR. (Ordo Tetraxonida). - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: Nauka. Iss. 90. P. 1-112.
Taxa: SPONGIA, TETRAXONIDA.
Keywords: keys, distribution, morphology, ecology.
Region: Arctic Regions.

95. Koltun V.M. 1967. Hyalospongiae of the northern and far-eastern seas of the USSR. (Class Hyalospongiae). - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka. Iss. 94. P. 1-125.
Taxa: SPONGIA, HYALOSPONGIAE.
Keywords: keys, distribution, morphology, ecology.
Region: Arctic Regions.

96. Korotkevich V.S. 1977. The pelagic nemertians of the Arctic Basin. Issledovaniya fauny morey. Vol. 14(22). P. 126-139.
Taxa: NEMERTINI.
Keywords: new species, distribution, dispersal.
Region: Arctic Regions.

97. Kudelin N.V. 1914. Plumulariidae, Campanulinidae è Sertulariidae. Fauna Rossii i sopredel'nykh stran preimushchestvenno po kollektsiyam Zoologicheskogo muzeya. Gidroidy (Nydroidea). Tom II, vyp. 2. Sankt-Peterburg. P. 139-526.
Taxa: CNIDARIA, HYDROZOA.
Keywords: keys, distribution.
Region: Arctic Regions.

98. Kusakin O.G. 1979. Marine and saltishwaters isopods of the cold and boreal waters of the Northern Hemisphere. Suborder Flabellifera. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka. Iss. 122. P. 1-470.
Taxa: CRUSTACEA, ISOPODA.
Keywords: keys, distribution, phylogeny, evolution, biogeography, morphology, breeding, development.
Region: Arctic Regions.

99. Kusakin O.G. 1982. Marine and saltishwaters isopods of the cold and boreal waters of the Northern Hemisphere. Vol I, part 2. Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka. Iss. 131. P. 1-463.
Taxa: CRUSTACEA, ISOPODA.
Keywords: keys, distribution.
Region: Arctic Regions.

100. Kusakin O.G. 1988. Marine and saltishwaters isopods of the cold and boreal waters of the Northern Hemisphere. Vol. III. Suborder Asellota. Part I. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka, 1988. P. 1-501.
Taxa: CRUSTACEA, ISOPODA.
Keywords: keys, distribution.
Region: Arctic Regions.

101. Linko A.K. 1908. Shizopods of the northern Russian seas. Zapiski Imperatorskoy Akademii Nauk. Ser. 8. Vol. 18. P. 1-76.
Taxa: CRUSTACEA, MYSIDACEA, EUPHASIACEA.
Keywords: keys, station list of species, distribution. *Region:* Kara Sea, Laptev Sea, East Siberian Sea.

102. Linko A.K. 1911. Haleciidae, Lofoeidae, Bonneviellidae and Campanulariidae. - Fauna Rossii i sopredel'nykh stran preimushchestvenno po uollektsiyam Zoologicheskogo muzeya. Gidroidy (Nydroidea). Tom I. Sankt-Peterburg. Iss. 2. P. 1-250.
Taxa: CNIDARIA, HYDROZOA.
Keywords: keys, distribution.
Region: Arctic Regions.

103. Linko A.K. 1912. Plumulariidae, Campanulinidae è Sertulariidae. Fauna Rossii i sopredel'nykh stran preimushchestvenno po kollektsiyam Zoologicheskogo muzeya. Gidroidy (Nydroidea). Tom II, vyp. 1. Sankt-Peterburg. Iss. 3. P. 1-138.
Taxa: CNIDARIA, HYDROZOA.
Keywords: keys, distribution.
Region: Arctic Regions.

104. Lomakina N.B. 1958a. Cumacea of the Seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : AN SSSR. Iss. 66. P. 1-302.
Taxa: CRUSTACEA, CUMACEA.
Keywords: keys, distribution, morphology.
Region: Arctic Regions.

105. Lomakina N.B. 1958b. Euphasiacea of the World Ocean. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad : Nauka, 1978. Iss. 118. P. 1-224.
Taxa: CRUSTACEA, EUPHAUSIACEA.
Keywords: keys, distribution, morphology, feeding, development, vertical distribution/bathymetry.
Region: Arctic Regions.

106. Lozina-Lozinskiy L.K. 1930. A guide of the Pantopoda of the Seas of the USSR. Trudy obshchestva estestvoispytateley pri Leningradskom Universitete. Vol. 59, Iss. 1. P. 63-82.
Taxa: PANTOPODA.
Keywords: keys, distribution.
Region: Arctic Regions.

107. Makarov V.V. 1938. Anomura. - Fauna SSSR. Novaya seriya. Rakoobraznye. Tom X, vyp. 3. Moskva-Leningrad: AN SSSR. P. 1-327.
Taxa: CRUSTACEA, DECAPODA, ANOMURA.
Keywords: keys, distribution, morphology, development.
Region: Arctic Regions.

108. Makarov V.V. 1941. Decapod fauna of the Bering and Chukchi Sea. Issledovaniya dal'nevostochnykh morey SSSR. Iss. 1. P. 111-163.
Taxa: CRUSTACEA, DECAPODA.
Keywords: new *Taxa*, biogeography, distribution.
Region: Chukchi Sea.

109. Matveyeva T.A. 1977. Reproduction of bivalves of the family Astartidae. Issledovaniya fauny morey. Vol. 14(22). P. 418-427.
Taxa: MOLLUSCA, BIVALVIA, ASTARTIDAE.
Keywords: breeding, dimensions.
Region: Arctic Regions, Arctic Ocean.

110. Menshutkina T.V. 1977. Some peculiarities of growth of two shrimps species (Decapoda,Macrura) in high latitudes of the Arctic. Issledovaniya fauny morey. Vol. 14(22). P. 299-312.
Taxa: CRUSTACEA, DECAPODA, MACRURA.
Keywords: age, population, production, ecology.
Region: Arctic Regions.

111. Menshutkina T.V. 1990. Shrimps (Macrura) of the Laptev sea New Siberian shols and adjoining waters. Issledovaniya fauny morey. Vol. 37(45). P. 344-364.
Taxa: CRUSTACEA, DECAPODA, MACRURA.
Keywords: biomass, age, distribution, vertical distribution. *Region:* Laptev Sea, East Siberian Sea, New Siberian Isls..

112. Miloslavskaya N.M. 1977. Molluscs of the family Thyasiridae (Bivalvia, Lucinoidae) in the arctic seas of the USSR. Issledovaniya fauny morey. Vol. 14(22). P. 391-418.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: keys, distribution, ecology, variation.
Region: Arctic Regions.

113. Minichev Yu.S. 1977. On the morphology and systematic of Cylichna (Gastropoda Opistobranchia) from the region Franz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 428-434.
Taxa: MOLLUSCA, GASTROPODA, OPISTHOBRANCHIA.
Keywords: new species, new *Taxa*, systematics.
Region: Franz Josef Land, Barents Sea.

114. Mosevich N.A. 1928. Systematic, ecology and distribution of the recent and extent Yoldia arctica Gray. - Materialy komissii po izucheniyu Yakutskoy Avtonomnoy Sovetskoy Sotsialisticheskoy Respubliki. Iss. 19. P. 1-44.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: bioindicators, distribution.
Region: Arctic Regions.

115. Murina V.V. 1977. Sipunculids of the arctic and boreal waters of Eurasia. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Leningrad: Nauka. Iss. 111. P. 1-284.
Taxa: SIPUNCULIDA.
Keywords: keys, distribution, morphology, reproduction/breeding parametres, development, ecology. *Region:* Arctic Regions.

116. Naumov A.D., Fedyakov V.V. 1990. Bivalvia of the Novosibirskie Islands region. Issledovaniya fauny morey. Vol. 37(45). P. 385-410.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: biogeography, trophics.
Region: Laptev Sea, East Siberian Sea, New Siberian Isls..

117. Naumov D.V. Seawaters, saltishwaters and freshwaters hydroids and hydromedusae of the USSR. 1960 Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom. Moskva-Leningrad: AN SSSR. Iss. 70. P. 1-626.
Taxa: CNIDARIA, HYDROZOA.
Keywords: keys, phylogeny, evolution, distribution, morphology. *Region:* Arctic Regions.

118. Naumov D.V. 1961. Sciphozoa of the seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Moskva-Leningrad: AN SSSR. Iss. 75. P. 1-98.
Taxa: CNIDARIA, SCYPHOZOA.
Keywords: keys, distribution, phylogeny, evolution, morphology. *Region:* Arctic Regions.

119. Nesis K.N. 1987. Cephalopoda of the Arctic. - Fauna i raspredeleniye mollyuskov: Severnaya Patsifika i Polyarnyy basseyn. Vladivostok. P. 115-136.
Taxa: MOLLUSCA, CEPHALOPODA.
Keywords: distribution, biogeography. *Region:* Arctic Regions.

120. Pavshtiks E.A., Vyshkvartseva N.V. 1977. Age composition and morphological characters of the population Calanus finmarchinus s.l. near Spitzbergen and Franz Jozef Land (80° N.L.) in September 1970. Issledovaniya fauny morey. Vol. 14(22). P. 219-236.
Taxa: CRUSTACEA, COPEPODA.
Keywords: population, dimensions, young generation.
Region: Spitsbergen, Franz Josef Land.

121. Pergament T.S. 1946. New genus and little known species of Sipunculida from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 189-193.
Taxa: SIPUNCULIDA.
Keywords: new *Taxa*, distribution.
Region: Arctic Ocean.

122. Petryashev V.V. 1990. Mysids (Crustacea, Mysidacea) of the Laptev sea and New Siberian shoals. Issledovaniya fauny morey. Vol. 37(45). P. 188-209.
Taxa: CRUSTACEA, MYSIDACEA.
Keywords: biogeography, hydrology, new species, fertility, breeding,, distribution, vertical distribution.
Region: Laptev Sea, East Siberian Sea, New Siberian Isls.

123. Petryashov V.V. 1989. Arctic Ocean Mysids (Crustacea, Mysidacea). Nerman Y. (Eds.). The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 373-396.
Taxa: CRUSTACEA, MYSIDACEA.
Keywords: distribution.
Region: Arctic Regions.

124. Pirozhnikov P.L., Shul'ga E.L. 1957. The main features of the lower Lena zooplankton. Trudy Vsesoyuznogo gidrobiologicheskogo obshchestva. Vol. 8. P. 219-230.
Keywords: hydrobiology, zooplankton, estuarine complex/group. *Region:* Siberia, Lena.

125. Redikortsev V.V. 1910. Ascidians of the Arctic seas. Trudy Sankt-Peterburgskogo obshchestva estestvoispytateley. Vol. 41, Iss. 2. P. 87-175.
Taxa: ASCIDIACEA.
Keywords: distribution.
Region: Arctic Regions.

126. Redikortsev V.V. 1916. Tunicata. - Fauna Rossii i sopredel'nykh stran preimushchestvenno po kollektsiyam Zoologicheskogo muzeya. Obolochniki (Tunicata). Iss. 1. Petrograd. P. 1-366.
Taxa: ASCIDIACEA.
Keywords: keys, distribution.
Region: Arctic Regions.

127. Redikortsev V.V. 1946. New genus and species of Ascidia from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 333-335.
Taxa: ASCIDIACEA.
Keywords: new species.

Region: Arctic Ocean.

128. Redikorzev V.V. 1907. Ein Beitrag zur Ascidienfauna der Arctic. Annuaire du Musee Zooljgique de l'Academie Imperiale des Sciences de St.-Petersbourg. Bd. 11. S. 126-154.
Taxa: ASCIDIACEA.
Keywords: distribution.
Region: Arctic Regions.

129. Redikorzev V.V. 1908. Die Ascidien des Sibirischen Eismeeres. Memoires de l'Academie Imperiale des Scieces de St.-Petersburg. Ser. 8. 1908. Bd. 18, N 11. S. 1-59.
Taxa: ASCIDIACEA.
Keywords: distribution, station list of species, new *Taxa*.
Region: Kara Sea, Laptev Sea, East Siberian Sea.

130. Retovskiy L.O. 1936. The fauna of the Crustacea-Decapoda of the Siberian Seas. Trudy Arkticheskogo Instituta. Vol. 33, Iss. 2. P. 7-30.
Taxa: CRUSTACEA.
Keywords: distribution.
Region: Arctic Regions.

131. Retovskiy L.O. 1946. New Species of Crustacea-Decapoda from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parakhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 298-301.
Taxa: CRUSTACEA, DECAPODA.
Keywords: new species.
Region: Arctic Ocean.

132. Rezvoj P.D. 1925. Uber neue Schwamme aus den Meeren der russiachen Arctic. Zoologischer Anzeiger. Bd. 62, N 9/10. S. 193-201.
Taxa: SPONGIA.
Keywords: new species.
Region: Arctic Regions.

133. Rezvoy P.D. 1924. The sponge fauna of the Kara and Barents Sea. Izvestiya Nauchnogo instituta imeni Lesgafta. Vol. 8. P. 241-250.
Taxa: SPONGIA.
Keywords: distribution.
Region: Kara Sea, Barents Sea.

134. Rezvoy P.D. 1931. Sponges, collected in the expedition of the Institute of the studies of the North on Novaia Zemlia on summer 1925. Ezhegodnik Zoologicheskogo muzeya AN SSSR. Vol. 32, Iss. 4. P. 503-521.
Taxa: SPONGIA.
Keywords: distribution.
Region: Novaya Zemlya.

135. Rezvoy P.D. 1932. Sponge fauna of the Laptev sea. Issledovaniya morey SSSR. 1932. Iss. 15. P. 127-132.
Taxa: SPONGIA.
Keywords: distribution.
Region: Laptev Sea.

136. Romanov V.N. 1989. Ascidians. Colonial ascidians of the family Didemnidae of the seas of the USSR and adjacent waters. Fauna SSSR. Novaya seriya. Tunikata. V. I, Iss. 1. Leningrad : Nauka. P. 1-226.
Taxa: ASCIDIACEA.
Keywords: keys, distribution, phylogeny, evolution, anaV.y, morphology, development, ecology.
Region: Arctic Regions.

137. Ryabinina N.V. 1952. Carditacea of the Chukchi Sea and Bering Strait. - Ushakov P.V.(red.). Fauna i flora Chukotskogo morya. Krayniy severo-vostok Soyuza SSR. V. 2. Leningrad : AN SSSR. P. 279-285.
Taxa: MOLLUSCA, BIVALVIA.
Keywords: distribution.
Region: Chukchi Sea.

138. Schimkevisch V.M. 1907. Zur Pantopoden-Fauna des Sibirisches Eismeeres. Memoires de l'Academie Imperiale des Scieces de St.-Petersburg. Ser. 8. Bd. 18, N 6. S. 1-9.
Taxa: PANTOPODA.
Keywords: distribution, station list or species. *Region:* Kara Sea, Laptev Sea, East Siberian Sea.

139. Shimkevich V.M. 1895. Pantopods of the Arctic Basin and White Sea. Trudy Imperatorskogo Sankt-Peterburgskogo Obshchestva Estestvoispytateley. Vol. 25, Iss. 1. P. 20.
Taxa: PANTOPODA.
Keywords: distribution.
Region: Arctic Regions.

140. Shimkevich V.M. 1896. Pantopods of the Arctic Basin and White Sea. Trudy Imperatorskogo SPb. Obshchestva Estestvoispytateley. Vol. 27, Iss. 1. P. 1-4.
Taxa: PANTOPODA.
Keywords: distribution.
Region: Arctic Regions.

141. Shimkevich V.M. 1929. Introduction. Pycnogonidae, Colossendeidae, Tanystilidae, Oorhynchidae, Ammotheidae, Decolopodidae, Phoxichilidae. - Fauna SSSR i sopredel'nykh stran preimushchestvenno po kollektsiyam Zoologicheskogo muzeya. Mnogokolenchatye (Pantopoda). Iss. 1. Leningrad. P. 1-224.
Taxa: PANTOPODA.
Keywords: keys, distribution, morphology.
Region: Arctic Regions.

142. Shimkevich V.M. 1930. Pallenidae, Nymphonidae. - Fauna SSSR i sopredel'nykh stran preimushchestvenno po kollektsiyam Zoologicheskogo muzeya. Mnogokolenchatye (Pantopoda). Iss. 2. Leningrad. P. 225-554.
Taxa: PANTOPODA.
Keywords: keys, distribution.
Region: Arctic Regions.

143. Shorygin A.A. 1925. Echinoderms collected in the expeditions of the Marine Scientific Institute in 1921, 1923 and 1924. Trudy Morskogo nauchnogo instituta. Vol. 1, Iss. 8. P. 1-27.
Taxa: ECHINODERMATA.
Keywords: station list of species.
Region: Barents Sea, White Sea, Kara Sea.

144. Shuvalov V.S. 1980. Cyclopoids of the family Oithonidae of the World Ocean. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Leningrad ; Nauka, 1980. Iss. 125. P. 1-197.
Taxa: CRUSTACEA, CYCLOPOIDA.
Keywords: keys, distribution, morphology, development, variation. *Region:* Arctic Regions.

145. Skarlato O.A., Kafanov A.I. 1976. Pre-Pliocene fauna of the Polar basin and the problem of initial autochtony of euarctic genera. Zoologicheskiy zhurnal. Vol. 55, Iss. 12. P. 1765-1772.
Taxa: MOLLUSCA.
Keywords: biogeography, paleogeography.
Region: Arctic Regions.

146. Smirnov A.V., Smirnov I.S. 1990. Echinoderms from the Laptev sea. Issledovaniya fauny morey. Vol. 37(45). P. 411-462.
Taxa: ECHINODERMATA.
Keywords: biogeography, distribution, vertical distribution. *Region:* Laptev Sea, New Siberian Isls..

147. Smirnov N.S. 1932. Rotatoria, collected by the expedition on Franz-Josef Land in summer 1929. Trudy Arkticheskogo instituta. Vol. 2. P. 36-52.
Taxa: ROTIFERA.
Keywords: zooplankton, new species.

Region: Barents Sea, Franz Josef Land.

148. Smirnov S.S. 1932. Copepoda-Harpacticoida of Franz-Josef Land. Trudy Arkticheskogo instituta. Vol. 2. P. 195-214.
Taxa: CRUSTACEA, COPEPODA, HARPACTICOIDEA.
Keywords: new species, zooplankton, distribution. *Region:* Barents Sea, Franz Josef Land.

149. Smirnov S.S. 1946. New species of Copepoda-Harpacticoida from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 231-263.
Taxa: CRUSTACEA, COPEPODA, HARPACTICOIDA.
Keywords: new species.
Region: Arctic Ocean.

150. Stepan'yants S.D. 1967. Siphonophorae of the seas of the USSR and North Pacific. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Moskva-Leningrad: Nauka. Iss. 96. P. 1-216.
Taxa: CNIDARIA, HYDROZOA.
Keywords: keys, distribution, phylogeny, evolution.
Region: Arctic Regions.

151. Stepanjants S.D., Nerman Y. (Eds.). 1989. The Arctic Seas. Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 397-430.
Taxa: CRUSTACEA, CUMACEA.
Keywords: distribution.
Region: Arctic Regions.

152. Tarasov N.I. 1932. Regarding the knowledge of the arctic fauna of Cirripedia thoracica. Trudy Arkticheskogo Instituta. Vol. 2. P. 59-62.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: distribution.
Region: Barents Sea, Kara Sea, Severnaya Zemlya, Franz Josef Land.

153. Tarasov N.I. 1936. Regarding the knowledge of the arctic fauna of Cirripedia thoracica. II. Trudy Arkticheskogo Instituta.. Vol. 33. P. 45-50.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: distribution.
Region: Arctic Regions.

154. Tarasov N.I. 1937. Regarding the knowledge of the arctic fauna of Cirripedia thoracica. III. Trudy Arkticheskogo Instituta. Vol. 50. P. 35-59.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: distribution.
Region: Arctic Regions.

155. Tarasov N.I. 1945. Regarding the knowledge of the arctic fauna of Cirripedia thoracica. IY. Problemy Arktiki. Vol. 1945, Iss. 4. P. 51-61.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: distribution.
Region: Arctic Regions.

156. Tarasov N.I., Zevina G.B. 1957. Cirripedia thoracica of the Seas of the USSR. - Fauna SSSR. Novaya seriya. V. YI, Iss. 1. Moskva-Leningrad: AN SSSR. P. 1-268.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: keys, distribution, morphology, ecology.
Region: Arctic Regions.

157. Timofeyev S.F. 1985. Myisids of the Kara sea. Zoologicheskiy zhurnal. Vol. 64, Iss. 11. P. 1739-1741.
Taxa: CRUSTACEA, MYSIDACEA.
Keywords: zooplankton.
Region: Kara Sea.

158. Tsimmer K. 1946. Cumacea from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 264-271.
Taxa: CRUSTACEA, CUMACEA.
Keywords: new species, distribution.
Region: Laptev Sea, East Siberian Sea, Arctic Ocean, New Siberian Isls.
159. Tsvetkova N.L. 1975. Coastal gammarids of the northen and far eastern seas of the USSR and adjacent waters. Leningrad : Nauka. P. 1-258.
Taxa: CRUSTACEA, AMPHIPODA, GAMMARIDAE.
Keywords: distribution.
Region: Arctic Regions.
160. Tsvetkova N.L. 1977. Some peculiarities of ecology, growth and production of two species of Gammarids (Amphipoda, Gammaridae) in high latitudes of the Arctic. Issledovaniya fauny morey. Vol. 14(22). P. 291-298.
Taxa: CRUSTACEA, AMPHPODA, GAMMAROIDEA, GAMMARIDAE.
Keywords: production, growth, ecology, age.
Region: Arctic Regions.
161. Tsvetkova N.L., Golikov A.A. 1990. Fauna, ecology and role in ecosystems of amphipods (Amphipoda, Gammaroidea) at the New Siberian shoals and adjacent waters of the Laptev sea. Issledovaniya fauny morey. Vol. 37(45). P. 258-343.
Taxa: CRUSTACEA, AMPHIPODA, GAMMAROIDEA.
Keywords: biogeography, biomass, new species, production. *Region:* Laptev Sea, East Siberian Sea, New Siberian Isls..
162. Ushakov P.V. 1932. Hydroida fauna of the Franz Josef Land. Trudy Arkticheskogo instituta. 1932. Vol. 2. P. 141-151.
Taxa: CNIDARIA, HYDROZOA.
Keywords: distribution.
Region: Barents Sea, Franz Josef Land.
163. Ushakov P.V. 1937. Materials of the hydroids of the Arctic Seas of the USSR. Trudy Arkticheskogo instituta. Vol. 50. P. 5-34.
Taxa: CNIDARIA, HYDROZOA.
Keywords: distribution.
Region: Arctic Regions.
164. Ushakov P.V. 1972. Polychaetes of the suborder Phyllodociformia of the Polar Basin and North-western part of the Pacific. - Fauna SSSR. Novaya seriya. Mnogoshchetinkovye chervi. V. I. Leningrad : Nauka. P. 1-272.
Taxa: POLYCHAETA.
Keywords: keys, distribution, biogeography, morphology, breeding, development, ecology. *Region:* Arctic Regions.
165. Ushakov P.V. 1982. Polychaeta of the suborder Aphroditiformia of the Arctic Ocean and the northwestern part of the Pacific. Families Aphroditidae è Polynoidae. - Fauna SSSR. Mnogoshchetinkovye chervi. V. II, Iss. 1. Leningrad : Nauka. P. 1-272.
Taxa: POLYCHAETA.
Keywords: keys, distribution, evolution, morphology, development. *Region:* Arctic Regions.
166. Vagin V.L. 1934. Hydroidea, collected by the expedition on the vessel "Lomonosov' on the summer 1931 in the Barents and Kara Seas. Trudy Arkticheskogo instituta. Vol. 9. P. 79-87.
Taxa: CNIDARIA, HYDROIDEA.
Keywords: distribution.
Region: Barents Sea, Kara Sea.
167. Vagin V.L. 1976. Ascothoracida. Kazan': Trudy Kazanskogo Universiteta. P. 1-141.
Taxa: CRUSTACEA, ASCOTHORACIDA.
Keywords: distribution, phylogeny, evolution.
Region: Arctic Regions.

168. Vasilenko S.V. 1974. Caprellids of the seas of the USSR and adjacent waters. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim institutom.. Leningrad : Nauka, 1974. Part. 107. P. 1-288.
Taxa: CRUSTACEA, AMPHIPODA, CAPRELLIDEA.
Keywords: keys, distribution, phylogeny, evolution, biogeography. *Region:* Arctic Regions.

169. Vasilenko S.V., Nerman Y. (Eds.). 1989. The Arctic Seas.Climatology, Oceanology, Geology, and Biology. New York : Van Nostrand Reinhold Company. P. 431-444.
Taxa: CRUSTACEA, CUMACEA.
Keywords: distribution.
Region: Arctic Regions.

170. Vasilenko S.V. 1990. Cumacea of the Laptev sea, New Siberian shoals and adjacent deep water part of the Arctic Ocean. Issledovaniya fauny morey. Vol. 37(45). P. 210-234.
Taxa: CRUSTACEA, CUMACEA.
Keywords: biogeography, biomass, distribution, new species, new taxa.
Region: Laptev Sea, East Siberian Sea, Arctic Ocean, New Siberian Isls.

171. Vinogradov M.E., Volkov A.F., Semenova T. 1982. Hyperiids amphipoda of the World Ocean. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Leningrad : Nauka. Iss. 132. P. 1-492.
Taxa: CRUSTACEA, AMPHIPODA, HYPERIIDAE.
Keywords: keys, distribution, morphology.
Region: Arctic Regions.

172. Volodchenko N.I. 1946. New species of Nubibranchiata from the Arctic Ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva-Leningrad: Glavsevmorputi. Vol. 3. P. 323.
Taxa: MOLLUSCA, NUBIBRANCHIATA.
Keywords: new species.
Region: Arctic Ocean.

173. Yakovleva A.M. 1952. Loricata of the seas of the USSR. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Moskva-Leningrad: AN SSSR. Iss. 45. P. 1-107.
Taxa: MOLLUSCA, POLYPLACOPHORA.
Keywords: keys, distribution, morphology.
Region: Arctic Regions.

174. Yankovskiy A.V. 1973. Subclass Chonotricha. Infusoria. - Fauna SSSR. Novaya seriya. Infuzorii. V. II, Iss. 1. Leningrad : Nauka. Iss. 103. P. 1-355.
Taxa: CILIATA.
Keywords: keys, distribution, morphology, ecology.
Region: Barents Sea.

175. Yashnov V.A. 1939. Hydromedusae of the siberian shoals of the Arctic Ocean. Byullyuten' Moskovskogo obshchestva ispytateley prirody. Vol. 18, N 2-3. P. 107-114.
Taxa: CNIDARIA, HYDROZOA.
Keywords: zooplankton, distribution.
Region: Arctic Regions.

176. Yashnov V.A. 1947. Derjuginia - a new species of the Copepoda from the Polar Basin. Byulleten' Moskovskogo obshchestva ispytateley prirody. Vol. 52(4). P. 3-9.
Taxa: CRUSTACEA, COPEPODA.
Keywords: new species.
Region: Arctic Regions.

177. Zevina G.B. 1981. Cirripedia (Thoracica) of the suborder Lepadomorpha of the World Ocean. Part 1. Fam. Scalpellidae. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Leningrad : Nauka. Iss. 127. P. 1-406.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: keys, morphology, distribution.
Region: Arctic Regions.

178. Zevina G.B. 1982. Cirripedia of the order Lepadomorpha of the World Ocean. Part 2. - Opredeliteli po faune SSSR, izdavayemye Zoologicheskim instituV.. Leningrad : Nauka. Iss. 133. P. 1-224.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: keys, distribution.
Region: Arctic Regions.

179. Zevina G.B., Tarasov N.I. 1964. Fauna of the Cirripedia Thoracica of the Polar Basin. Trudy Arkticheskogo i Antarkticheskogo nauchno-issledovatel'skogo instituta. Vol. 259. P. 229-240.
Taxa: CRUSTACEA, CIRRIPEDIA.
Keywords: distribution.
Region: Arctic Ocean.

180. Zezina O.N. 1977. Brachiopods of the western Arctic (composition, distribution, role in biocoenosis). Issledovaniya fauny morey. Vol. 14(22). P. 205-218.
Taxa: BRACHIOPODA.
Keywords: distribution, quantitative count.
Region: Arctic Ocean, Arctic Regions.

181. Zezina O.N. 1990. Brachiopods of Northern Siberian. Issledovaniya fauny morey. Vol. 37(45). P. 139-146.
Taxa: BRACHIOPODA.
Keywords: distribution.
Region: New Siberian Isls., Laptev Sea, East Siberian Sea.

182. Zhyubikas I.I. 1977. Some species of actinians of the western region of the Barents Sea and Franz Josef Land. Issledovaniya fauny morey. Vol. 14(22). P. 106-125.
Taxa: CNIDARIA, ACTINIARIA. *Keywords*: new species, distribution.
Region: Franz Josef Land, Barents Sea.

Fishes

1. Anonim. Commercial biological resources of the Northern Atlantic and adjacent seas of the Northern Ice Ocean. 1977. Moskva. Part. 1-2.
   Taxa: PISCES.
   Keywords: commercial species.
   Region: Arctic.
2. Andriyashev A.P. 1937. To knowledge of the ichthyofauna of the Bering and Chukchi Seas.. - Issledovaniya morey SSSR. Iss. 25. P. 292-335.
   Taxa: PISCES.
   Region: Chukchi Sea, Bering Sea.
3. Andriyashev A.P. 1939. Esse of the zoogeography and origin of the fauna of fishes of the Bering Sea and anjacent waters. Leningrad : LGU. P. 187.
   Taxa: PISCES.
   Keywords: species composition, zoogeographe, distribution, taxonomy.
   Region: Bering Sea.
4. Andriyashev A.P. 1939. New data on ecology and distribution of fishes of the Laptev Sea. DAN SSSR. Vol. 23, N 7. P. 728-731.
   Taxa: PISCES.
   Keywords: ecology, zoogeography, licodids, sculpins.
   Region: Laptev Sea.
5. Andriyashev A.P. 1944. Interrupuion of the distribution of the marine fauna in the Northern Hemisphere.. Priroda. N 1. P. 44-52.
   Taxa: PISCES.
   Keywords: marine fauna, distribution.
   Region: Northern Sea.
6. Andriyashev A.P. 1948a. To the knowledge of fishes of the Laptev Sea. Tr. Zool. in-ta AN SSSR. Vol. 7, Iss. 3. P. 76-100.
   Taxa: PISCES.
   Keywords: licods, sculpins.
   Region: Laptev Sea.
7. Andriyashev A.P. 1948b. Fishes of the Chuckchee Sea and Bering Strait. Tr. Zool. in-ta AN SSSR, 1948. Vol. 7, Iss. 3. P. 76-100.
   Taxa: PISCES.
   Keywords: licods, sculpins.
   Region: Laptev Sea.
8. Andriyashev A.P. 1949. On the species composition and distribution of seulpins of the genus Triglops Reinh. in the Northern Seas. Trudy Vsesoyuznogo gidrobiologicheskogo obshchestva. Vol. 1. P. 194-209.
   Taxa: PISCES, Triglops, Cottidae.
   Keywords: distribution, seulpins, taxonomy.
   Region: Northern Sea.
9. Andriyashev A.P. 1954. Fishes of the Northern Seas of the USSR. Moskva-Leningrad: AN SSSR. P.1-566.
   Taxa: PISCES.
   Keywords: fishes, keys, diagnoses, distribation, taxonomy, chavaeters, biology, species lists.
   Region: Northern Seas.
10. Andriyashev A.P. 1957. A new species of Gadid fesh for the Fauna of USSR Arctogadus glacialus (Peters) from the drifting ice-camp "Northern Pole - 6". Zoologicheskiy zhurnal. Vol. 36, Iss. 11. P. 1747-1749.
    Taxa: PISCES.
    Keywords: arctic cod, distribution, biology.
    Region: Arctic.

11. Andriyashev A.P. 1961. Review of Artediellus Bering Sea.. Voprosy ikhtiologii. Vol. 1, Iss. 2. P. 231-242.
Taxa: PISCES, Cottidae, Artediellus.
Keywords: distribution, taxonomy, seulpins. *Region:* Chukchi Sea.
12. Andriyashev A.P., Chernova N.V. 1994. Check-lisn kf the fish-like vertebrates and fishes of the Arctic Seas and adjacent waters. Voprosy ikhtiologii. Vol. 34, Iss. 4.
Taxa: PISCES.
Keywords: species lists, synonyms, distribution, ecology.
Region: Arctic.
13. Andriyashev A.P., Mukhomediarov F.B., Pavshtiks E.A. 1980. On large concentrations of cryopelagic fishes (Boreogadus saida snd Arctogadus glacialis) in nearpole Regions of the Arctic. Biologiya Tsentral'nogo Arkticheskogo basseyna. Moskva : Nauka. P. 196-211.
Taxa: PISCES.
Keywords: distribution, biology, criopelagic fishes, polar cods. *Region:* Arctic.
14. Antonov S.G., Chernova N.V. 1989. Species composition of the fish fauna. - Ekologiya i bioresursy Karskogo morya. Apatity : Kol'skogo nauchnogo tsentra AN SSSR. Iss. 10. P. 95-100.
Taxa: PISCES.
Keywords: taxonomy, distribution.
Region: Kara Sea.
15. Argenov S.A. 1860. Fishes of the Koluma River system with neighouring lakes and ice sea. - Akklimatizatsiya. Sankt-Peterburg : Komiteta akklimatizatsii. P. 352-368.
Taxa: PISCES, Salmonidae. *Keywords*: char, whitefishes.
Region: Kolyma River, East-Sibirian Sea.
16. Barsukov V.V. 1960. On the systematics of the chars genus Salvelinus of Chukotka. Voprosy ikhtiologii. Iss. 14. P. 3-17.
Taxa: PISCES.
Keywords: char, taxonomy. .
Region: Chukchi Sea.
17. Berg L.S. 1908. Check-hlist of fishes of the Kolyna River. Ezhegodnik Zoologicheskogo Muzeya Rossiyskoy Akademii Nauk. Sankt-Peterburg. Vol. 13. P. 69-107.
Taxa: PISCES.
Keywords: species composition.
Region: Kolyma River.
18. Berg L.S. 1916. On the disteibution of fish Myoxocephalus quadricornis and question connected with. Izvestiya Rossiyskoy Akademii Nauk. 1916. Iss. 15, Part. 6. P. 1343-1360.
Taxa: PISCES, Cottidae, Myoxocephalus.
Keywords: distribution, four-korn sculpin, glaciations.
Region: Arctic.
19. Berg L.S. 1949. Freshwater fishes of the USSR and adjacent waters. Moskva-Leningrad : AN SSSR. Part. 1-3. P. 1-1381.
Taxa: PISCES.
Keywords: taxonomy, freshwater fishes, distribution, keys, estuaries.
Region: Northern Seas.
20. Berg L.S., Popov A.M. 1932. A review of the forms of Myoxocephalus quadricornis. - DAN SSSR. Vol. 6. P. 152-160.
Taxa: PISCES.
Keywords: taxonomy, four-horn sculpin.
Region: Northern Sea.

21. Borisovets K.E. 1982. Discriminant analysis of andromous Chuckchee Peninsula chars of the genus Salvelinus (Salmonidae). Voprosy ikhtiologii. 1982. Vol. 22, Iss. 3. P. 365-373.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, taxonomy.
Region: Chukchi Sea.
22. Borkin I.V., Mel'yantsev R.V. 1984. New data on the range of the polar cod Arctogadus glacialis (Peters) (Gadidae) in the Arctic. Voprosy ikhtiologii. Vol. 24, Iss. 3. P. 324-326.
Taxa: PISCES.
Keywords: distribution, ice cod.
Region: Arctic.
23. Borkin I.V., Ponamorenko V.P., Tret'yak V.L., Shlitnik V.N. 1987. Polar cod Boreogadus saida (Lepechin) - a fish of the Arctic Polar Seas (stock and fishery). - V kn.: Biologicheskiye resurcy Arktiki i Antarktiki. Moskva : Nauka. P. 183-207.
Taxa: PISCES, Gadidae.
Keywords: Polar cod, open sea, stock, fishery.
Region: Arctic Seas.
24. Burmakin E.V. 1940. Fishes of the Obskaja Guba. - Tr. NII polyarnogo zemledeliya i promyslovogo khozyajstva. Iss. 10. P. 33-47.
Taxa: PISCES.
Keywords: fishes, species composition, whitefishes.
Region: Obskaja Guba.
25. Burmakin E.V. 1957. Fishes of islands of the Soviet Arctic. - Tr. Arktich. in-ta. Iss. 205. P. 127-151.
Taxa: PISCES.
Keywords: fishes, species composition.
Region: Arctic Isls..
26. Burmakin E.V., Galkin T.G., Esipov V.K. 1940. Fishery in the northern part of the Obskaja Guba. - Trudy NII polyarnogo zemledeliya, zhivotnovodstva i khozyajstva. Ser. promyslovoye khozyajstvo. Iss. 10. P. 113-136.
Taxa: PISCES.
Keywords: fishery, stocks, whitefishes, polar cod.
Region: Arctic.
27. Butorin D.A. 1965. Areas of concentrations of polar cod in the Arctic. Rybnoye khozyajstvo. N 10. P. 8-9.
Taxa: PISCES.
Keywords: polar cod, distribution, stocks.
Region: Arctic.
28. Chereshnev I.A. 1976. Comparatibe analysis of sympature chars of the genus Salvelinus of the Chuckchii Peninsula. - Lososevidnye ryby (morfologiya, sistematika i ekologiya). Leningrad : Zoologicheskogo in-ta AN SSSR. P. 118-119.
Taxa: PISCES.
Keywords: char, taxonomy, morphology.
Region: Chukchi Sea.
29. Chereshnev I.A. 1978. Systematic status of an anadromous char of the genus Sulvelinus (wilsson) Richardson of the Amguaema River (Chuckotka). - Sistematika i biologiya presnovodnykh organizmov Severo-Vostoka Azii. Vladivostok : DVNTs AN SSSR. P. 76-89.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: Chukchi Sea.

30. Chereshnev I.A. 1979. Systematic status of an anadromous char (genus Salvelinus) from the Joniveem River basin (the Cuckchee Peninsula). - Sistematika i ekologiya ryb kontinental'nykh vodoyemov Dal'nego Vostoka. Vladivostok : DVNTs AN SSSR. P. 114-125.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: Chukchi Sea.

31. Chereshnev I.A. 1981. Materials on biology of anadromous Salmonids of the Eastern Chuckotka. - Ryby v ekosistemakh lososevykh rek Dal'nego Vostoka. Vladivostok : DVNTs AN SSSR. P. 116-146.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: Chukchi Sea.

32. Chereshnev I.A. 1982. On the taxonomic status of sympature populations of migration chars from the genus Salvelinus (Salmonidae) in eastern Chuckchee Peninsula. Voprosy ikhtiologii. Vol. 22, Iss. 6. P. 922-936.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: Chukchi Sea.

33. Chereshnev I.A. 1984. New species of whitefishes to the fauna of the USSR Coregonus laurettae Bean (Salmonidae) - bering omul from the Chegitun River (Arctic coast of the Cuckchee Peninsula). Voprosy ikhtiologii. Vol. 24, Iss. 6. P. 898-894.
Taxa: PISCES.
Keywords: new species, omul.
Region: Chukchi Sea.

34. Chereshnev I.A., Gudkov P.K., Neyman M.Yu. 1989. First data on the biology of the anadromous malima Salvelinus malima from the Chegitun River basin (Arctic coast of the eactern Chuckchii Peninsuln). Voprosy ikhtiologii. Vol. 29, Iss. 1. P. 68-83.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, biology.
Region: Chukchi Sea.

35. Chernova N.V. 1991. Snailfishes (Liparididae) from the Eurasian Arctic. Apatity. P. 109.
Taxa: PISCES, Liparidae.
Keywords: biology, keys, morphology, zoogeography, taxonomy, snailfishes.
Region: Arctic.

36. Cvetovidov A.N. 1948. Gadiformes. - Fauna SSSR, ryby. Moskva-Leningrad. Vol. 9, Iss. 4. P. 222. *Taxa*: PISCES, Gadidae.
Keywords: distribution, cods, taxonomy, keys, biology, morphology. *Region:* Arctic.

37. Dryagin P.A. 1933. Fish stocks of the Jakutia. - Tr. Soveta po izucheniyu proizvoditel'nykh sil Yakutskoy ASSR. Vol.5. P. 3-94.
Taxa: PISCES.
Keywords: fishes, species composition, whitefishes.
Region: Obskaja Guba.

38. Dryagin P.A. 1946. Hydrography and ichtyology features of fisheries in the lower part of the Lena river. Problemy Arktiki. N 4. P. 85-101.
Taxa: PISCES.
Keywords: hydrology, ichthyology, estuarine complex/group. *Region:* Lena.

39. Dryagin P.A. 1948. Commercial fishes of the Ob-Irtysh basin. Izvestiya VNIORKh. Vol. 25. N 2. P. 3-104.
Taxa: PISCES.
Keywords: commercial fishes, stocks, feeding, fishery.
Region: Ob River.

40. Esipov V.K. 1937. On fishes of the Polar Basin and adjacent dapths. - Problemy Arktiki. Iss. 4. P. 85-97.
Taxa: PISCES.
Keywords: seulpins, lycods, deep-sea fishes.
Region: Arctic.
41. Esipov V.K. 1940. Ichthyofauna of the Laptev brathers Sea. Zoologicheskiy zhurnal. Vol. 19, Iss. 1. P. 139-142.
Taxa: PISCES.
Keywords: species composition, taxonomy.
Region: Arctic.
42. Esipov V.K. 1952. Fishes of the Kara Sea. Leningrad : AN SSSR. P.1-147.
Taxa: PISCES.
Keywords: species composition, taxonomy.
Region: Kara Sea.
43. Gratsianov V.I. 1907. Attempt to a review of fishes of the Russia Impire. P. 1-567.
Taxa: PISCES.
Keywords: keys, diagnoses, distribution.
Region: Arctic.
44. Greze V.N. 1957. The food resources for river Yenisei fishes and their exploration. Izvestiya VNIORKh. Vol. 11. P. 234.
Taxa: PISCES.
Keywords: estuarine complex/group, zooplankton, benthos, biocenosis.
Region: Yenisei.
45. Gudkov P.K. 1990a. Biological patterns of anadromous chars of the genus Salvelinus of the North-East Asia. - Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata biologicheskikh nauk. Vladivostok. P.1-15.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, biology, migration.
Region: Arctic.
46. Gudkov P.K. 1990b. The materials on biology of Salvelinus malma in Chaun River Basine (Arctic coast of Chukotka). Voprosy ikhtiologii. Vol. 30, Iss. 3. P. 404-415.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, migration.
Region: Chukchi Sea, Chaun River.
47. Ioffe Ts.I. 1947. Bottom fauna of the Ob'-Irtysh basin and its fisheries significans. - Izvestiya VNIORKh. Vol. 25, Iss. 1. P. 113-161.
Taxa: PISCES.
Keywords: benthos, ichthyology, estuarine complex/group.
Region: Ob, Irtysh.
48. Kaganovskiy A.G. 1955. A char of the Bering Sea basin. Voprosy ikhtiologii. Iss. 3. P. 54-56.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, new species.
Region: Bering Sea.
49. Kartavtsev Yu.F., Glubokovskiy M.K., Chereshnev I.A. 1983. Genetic differenses and variability of two sympatric species of chars (Salvelinus, Salmonidae) of the Chuckchee. Genetika. Vol. 19, N 4. P. 584.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: Chukchi Sea.
50. Kirillov F.N. 1972. Fishes of the Jakutia. Moskva: Nauka, 1972. P. 360.
Taxa: PISCES.
Keywords: species composition, freshwater fishes, characters, feeding, stock, whitefishes, stargeon, herrings, salmonids, capelin, smelt, sculpins.
Region: Arctic.

51. Kiseleva E.V. 1940. Polar cod from the Obskaja Guba. - Tr. NII polyarnogo zemledeliya, zhivotnovodstva i promyslovogo khozyajstva. Iss. 10. P. 103-110.
Taxa: PISCES.
Keywords: polar cod, biollogy.
Region: Obskaja Guba.
52. Klumov S.K. 1937. Polar cod (Boreogadus saida (Lepechin)) and its significance for some life processes of the Arctic. Izv. AN SSSR. ser. biol. N 1. P. 175-195.
Taxa: PISCES.
Keywords: polar cod, rope in ecosystems, nutrian webbs.
Region: Arctic.
53. Knipovich N.M. 1926. Key of the fishes of the Barents, White and Kara Seas. - Trudy NII po izucheniyu Severa. Iss. 26. P. 183.
Taxa: PISCES.
Keywords: keys, ecology, zoogeography, taxonomy.
Region: Kara Sea.
54. Kravchuk V.A. 1958. Polar cod, saika - Boreogadus saida (Lepechin). Izv. VNIORKh. Vol. 44. P. 207-214.
Taxa: PISCES.
Keywords: polar cod, biology.
Region: Ob River, Enisei River.
55. Kuderskiy L.A. 1987. Commercial fish complexs of the big bays and estuaries of the Northern Eurasia.. - V kn: Biologicheskiye resursy Arktiki i Antarktiki. Moskva : Nauka. P. 171-182.
Taxa: PISCES.
Keywords: estauries, species composition, commercial fishes. *Region:* Arctic.
56. Lebedev V.D., Savvaitova K.A. 1956. On taxonomy of chars of the genus Salvelinus of the Lena River delta. - Vestnik Moskovskogo universiteta. N 2, Ser. 6. P. 46-56.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, taxonomy.
Region: Laptev Sea, Lena River.
57. Leshchinskaya A.S. 1962. Zoopolankton and benthos of the Ob-Gulf as food base fo fish. Trudy Salekhardskogo statsionara. Ural'skiy filial AN SSSR. Iss. 2. P. 76.
Taxa: PISCES.
Keywords: benthos, ichthyology, estuarine complex/group, zooplankton.
Region: Ob.
58. Maksimov V.A., Volobuyev V.V. 1988. On relationships of anadromous forms of the Chukckee chars of the genus Salvelinus (Salmonuidae, Salmoniformes). Zoologicheskiy zhurnal. Vol. 67, N 10. P. 1498-1508.
Taxa: PISCES, Salmonidae, Salvelinus. *Keywords*: char, taxonomy.
Region: Chukchi Sea.
59. Manteyfel' B.P. 1943. Polar cod and its fishery. Arkhangel'sk : OGIZ. P. 1-32.
Taxa: PISCES.
Keywords: polar cod, fishery.
Region: Arctic.
60. Mednikov B.M., Maksimov V.A. 1979. Genetic divergents of chars (Salvelinus) of the Chuckchee Peninsula and a problem of speciation in the groupe. - Biokhimicheskaya i populyatsionnaya genetika ryb. Leningrad : Nauka. P. 45-48.
Taxa: PISCES.
Keywords: char, speciation.
Region: Chukchi Sea.

61. Mikhin V.S. 1941. Fishes and fishery of the Chatanga River and Chatanga Bay. - Trudy NII polyarnogo zemledeliya, zhivotnovodstva i promyslovogo khozyajstva. Vol. 16. P. 37-72.
Taxa: PISCES.
Keywords: fishes, stock, fishery.
Region: Laptev Sea, Chatanga Bay.
62. Moskalenko B.I. 1960. On the Eastern-Siberian cod. Zoologicheskiy zhurnal. Vol. 39, Iss. 8. P. 1262-1263.
Taxa: PISCES.
Keywords: siberian cod, distribution, biology.
Region: Arctic.
63. Moskalenko B.I. 1964. On biology of polar cod (saika) Boreogadus saida Lep.. Voprosy ikhtiologii. Vol. 4, Iss. 3. P. 433-.
Taxa: PISCES.
Keywords: polar cod, biology, distribution, feeding.
Region: Laptev Sea, Kara Sea.
64. Moskalenko B.K. 1958. Materials on biology of the whitw fishes in the Ob Gulf. - Izvestiya VNIORKh. Vol. 44. P. 74-94.
Taxa: PISCES.
Keywords: ichthyology, estuarine complex/group.
Region: Ob.
65. Naumenko N.I., Dzhangil'din Ch.A. 1987. Distribution of plankton and some species of fishes on the southern part of the Chukchi Sea.. - V kn.: Biologicheskiye resursy Arktiki i Antarktiki. Moskva : Nauka P. 224-238.
Taxa: PISCES, Clupeidae.
Keywords: open sea, herring, stock.
Region: Chukchi Sea.
66. Neyelov A.V. 1979. Lateral-line system and taxonomy of sculping (Cottidae). Leningrad : Nauka, leningradskoye otdel. P. 208.
Taxa: PISCES, Cottidae, Myoxocephalinae, Artediellinae.
Keywords: evolution, distribution, morphology, keys, lateral-line, taxonomy.
Region: Northern Sea.
67. Novikov A.S. 1966. Fishes of the Kolyme River. Moskva : Nauka. P. 134.
Taxa: PISCES.
Keywords: fishery, species composition, taxonomy, stock, whitefishes, stargeon, salmonids, smelt, capelin, seulpins, polar cod, place.
Region: Kolyma River.
68. Novitskiy O.P., Katkov S.N. 1980. Significations of the lower part and mouth region of Ob for fisheries and the possible influence of the water management on its fish production. - Problemy Arktiki i Antarktiki. Iss. 55. P. 129-133.
Taxa: PISCES.
Keywords: ichthyology, estuarine complex/group.
Region: Ob.
69. Pirozhnikov P.L. 1947. New data on fishes of the Laptev Sea. - Doklady AN SSSR. Vol. 56, Iss. 4. P. 441-443.
Taxa: PISCES.
Keywords: polar cod, whitefishes.
Region: Arctic.
70. Pirozhnikov P.L. 1950. About the nutrishment of the white fishes in the mouth river Regions. - Zoologicheskiy zhurnal. Vol. 29, N 2. P. 140-146.
Taxa: PISCES.
Keywords: ichthyology, estuarine complex/group.
Region: Arctic Regions.

71. Pirozhnikov P.L. 1955a. Nutrition and food relations of the fishes in the estuarine Regions of Laptev's Sea. Voprosy ikhtiologii. N 3. P. 140-185.
Taxa: PISCES.
Keywords: ichthyology, estuarine complex/group.
Region: Laptev Sea.

72. Pirozhnikov P.L. 1955b. Feeding and food zelations of fished in estuarian areas of the Laptev Sea.. V zhurn.: Voprosy ikhtiologii. 1955. Iss. 3. P. 140-185.
Taxa: PISCES, Coregonidae.
Keywords: feeding, whitefishes, estuaries, delta, coastzone.. *Region:* Laptev Sea.

73. Pirozhnikov P.L. 1959. Complexes of fish fauna and ecological-classifications of fish of the Lena River mouth. In.: Biologicheskiye osnovy rybnogo khozyajstva. P. 91-100.
Taxa: PISCES.
Keywords: ecology, species composition.
Region: Lena River.

74. Pirozhnikov P.L. 1966. Diadromose fishes of the Eastern Siberia.(areals, food, biology, stock). Leningrad. P. 44.
Taxa: PISCES, Acipenseridae, Coregonidae, Salmonidae. *Keywords*: areals, food, biology, stock, estuaries.
Region: Arctic.

75. Pirozhnikov P.L. 1967. About the white fishes distribution and quantity in the Sibirian rivers and estuaria. Izvestiya GosNIORKh. Vol. 62. P. 6-15.
Taxa: PISCES.
Keywords: ichthyology, estuarine complex/group.
Region: Arctic Regions.

76. Pirozhnikov P.L. 1987. Zooplankton of the Yenisei River and Yenisei Gulf and its role in the fish nutrition. Trudy Vsesoyuznogo Arkticheskogo instituta. Vol. 98. P. 15-31.
Taxa: PISCES.
Keywords: hydrobiology, zooplankton, ichthyology, estuarine complex/group.
Region: Yenisei, Yenisei Bay.

77. Pirozhnikov P.L. 1987. Fishes and fish stocks of the Siberian North: (To the History of investigation and explotation of fish). V kn: Biologicheskiye resursy Arktiki i Antarktiki. Moskva: Nauka. P. 162-171.
Taxa: PISCES, Coregonidae.
Keywords: history, species composition, commercial fishes, coastal fishery, whitefishes..
Region: Siberian Coastal Seas.

78. Pirozhnikov P.L. 1988. Peculiarities of distribution of whitefishes in the Siberian Rivers and its origin. - Biologiya sigovykh ryb. Sbornik nauchnykh trudov. Moskva : Nauka. P. 28-31.
Taxa: PISCES.
Keywords: whitefishes, distribution, origin.
Region: Arctic.

79. Pokrovskaya T.N. 1957. Age and growth of navaga of the Kara Sea. Trudy instituta okeanologii. Vol. 20. P. 302-311.
Taxa: PISCES.
Keywords: age, growth, navaga.
Region: Kara Sea.

80. Pokrovskaya T.N. 1958.On rasous determing of the recent distribution of navaga (genus Eleginus). Zoologicheskiy zhurnal. 1958. Vol. 37, Iss. 8. P. 1181-1194.
Taxa: PISCES.
Keywords: distribution, navaga.
Region: Arctic.

81. Ponomarenko V.P. 1967. Feeding of larvas ans juveniles of polar cod (Boreogadus saida Lepechin) in Barents and Kara Saes. Materialy rybokhozyajstvennykh issledovaniy Severnogo basseyna. Iss. 10. P. 20-27.
Taxa: PISCES.
Keywords: polar cod, feeding, larvas, juveniles.
Region: Kara Sea.

82. Ponomarenko V.P. 1968. Migration of polar cod in the Soviet sector of the Arctic. - Trudy PINRO. Murmansk. Iss. 23. P. 500-512.
Taxa: PISCES.
Keywords: polar cod, migration.
Region: Arctic.

83. Ponomarenko V.P. 1977. Polar cod. - Promyslovye biologicheskiye resursy Severnoy Atlantiki i prilegayushchikh morey Severnogo Ledovitogo Okeana. Moskva Part. 1. P. 309-313.
Taxa: PISCES.
Keywords: biology, distribution, stock, polar cod, fishery.
Region: Arctic.

84. Ponomarenko V.P., Tret'yak V.L., Shleynik V.N. 1984. Polar cod - a fish of the Polar Sea. - Puti realizatsii programmy na Kraynem Severe. Tezisy doklada 5 Vsesoyuznogo soveshchaniya. P. 74-75.
Taxa: PISCES.
Keywords: biology, distribution, polar cod, fishery.
Region: Arctic.

85. Ponomarenko V.P., Tret'yak V.L., Shleynik V.N. 1987. Polar cod (Boreogadus saida Lepechin) - a fish of the Polar Sea (stock and fishery). - Biologicheskiye resursy Arktiki i Antarktiki. Moskva : Nauka. P. 183-206.
Taxa: PISCES.
Keywords: biology, distribution, polar cod, fishery.
Region: Arctic.

86. Ponomarev L.A. 1957. Zooplankton of the Western part of the Kara Sea and Bajdarackaja Guba. - Trudy instituta okeanologii AN SSSR. Vol. XX. P. 228-245.
Taxa: PISCES.
Keywords: ichthyoplankton.
Region: Kara Sea, Bajdarackaja Guba.

87. Probatov A.N. 1934. Materials on scientific-fishery investigation of the Kara guba and the Kara River. - Izdaniye VNIRO. Moskva.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, estuaries.
Region: Kara Sea.

88. Rasc T.S. 1945. Ichthyoplankton of the Eastern-Siberian and Chukchi Sea. Problemy Arktiki. N 1. P. 71-78.
Taxa: PISCES.
Keywords: ichthyoplankton, polar cod, sculpins, smelt, capelin. *Region:* Arctic.

89. Reshetnikov Yu.S. 1975. On systematic position of the whitefishes. Zoologicheskiy zhurnal. Vol. 54, Iss. 11. P. 1656-1671.
Taxa: PISCES.
Keywords: whitefishes, classification.
Region: Arctic.

90. Reshetnikov Yu.S. 1979. Whitefishes in the Northern ecosystems. Voprosy ikhtiologii. Vol. 19, Iss. 3. P. 419-433.
Taxa: PISCES.
Keywords: whitefishes, ecosystem.
Region: Arctic.

91. Reshetnikov Yu.S. 1980. Ecology and taxonomy of whitefishes. Moskva: Nauka. P. 1-301.
Taxa: PISCES.
Keywords: whitefishes, taxonomy, ecology, origin.
Region: Arctic.

92. Reshetnikov Yu.S. 1988. Modern status of whitefishes and perspectives of the using af their stocks. - Biologiya sigovykh ryb. Sbornik nauchnykh trudov. Moskva : Nauka. P. 5-17.
Taxa: PISCES.
Keywords: whitefishes, distribution, stock, ecology, fishery. *Region:* Arctic.

93. Rudakova V.A. 1941. Char (genus Salvelinus) of the Gydan Bay baysin. Trudy NII polyarnogo zemledeliya, zhivotnovodstva i promyslovogo khozyajstva. Iss. 15. P. .
Taxa: PISCES.
Keywords: char.
Region: Kara Sea.

94. Sal'dau M.P. 1949. Nutrition of the Ob-Irtysh basin fishes. Izvestiya VNIORKh. Vol. 28. P. 175-225.
Taxa: PISCES.
Keywords: ichthyology, estuarine complex/group.
Region: Ob.

95. Savvaitova K.A. 1961. Taxonomy of chars of the genus Salvelinus (Salmonidae) from the Easthern-Siberian Sea baysin. Biologicheskiye nauki. Vysshaya shkola. Vol. 1, Iss. 2. P. 37-41.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: East-Sibirian Sea.

96. Savvaitova K.A., Maksimov V.A., Nesterov V.D. 1980. On the taxonomy and the ecology of chars (Salvelinus, Salmonidae) fron the water of peninsula Taimir. Voprosy ikhtiologii. Vol. 20, Iss. 2. P. 195-210.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, ecology, age, growth, speciation, taxonomy. *Region:* Arctic.

97. Savvaitova K.A., Maksimov V.A., Volobuyev V.V. 1988. Internelations of diadromous forms of Chuckchee chars of the genus Salvelinus (Salmonidae, Salmoniformes). Zoologicheskiy zhurnal. Vol. 67, N 10. P. 1498-1508.
Taxa: PISCES.
Keywords: char, taxonomy.
Region: Chukchi Sea.

98. Shepel' L.I. 1971. Size-age composition of polar cod (Boreogadus saida Lepechin) in the southwestern Kara Sea in the autumn of 1969. Voprosy ikhtiologii. Vol. 11, Iss. 1. P. 161-164.
Taxa: PISCES.
Keywords: polar cod, age, grouth.
Region: Kara Sea.

99. Svetovidov A.N. 1952. Herrings (Clupeidae). - Fauna SSSR. Ryby. Moskva-Leningrad. Vol. 2, Iss. 1. P.1-333.
Taxa: PISCES, Clupeidae.
Keywords: herrings, taxonomy, morphology, keys, biology, distribution.
Region: Arctic.

100. Tsinovskiy V.D. 1980. Fishes collected on drift station "North Pole 22" in winters of 1978-1979 and 1979-1980. - Ryby otkrytogo okeana. NII okeanologii AN SSSR. P. 110-112.
Taxa: PISCES, Zoaeicidae, Cottidae, Gadidae, Liparidae, Rajidae, Pleuronectidae.
Region: Polar Basin.

101. Volobuyev V.V, Vasil'yeva E.D., Savvaitova K.A. 1979. On the systematic status of the Chukckee anadromous chars of the genus Salvelinus. Voprosy ikhtiologii. Vol. 19, Iss. 3. P. 408-418.
Taxa: PISCES, Salmonidae, Salvelinus.
Keywords: char, taxonomy.
Region: Chukchi Sea.

102. Yudanov I.G. 1976. Zoogeography of polar cod in the Northern Ice Ocean. - Priroda i khozyajstvo Severa. Apatity. Iss. 4. P. 111-113.
Taxa: PISCES.
Keywords: polar cod, zoogeography, distribution.
Region: Arctic.

103. Yudkin I.I. 1943. Penetration of herring into the Kara Sea and other Arctic Regions in connection with the fluctuation of climate.. V zhur.: Rybnoye khozyajstvo. N 5. P. 41-47.
Taxa: PISCES, Clupeidae.
Keywords: Herring, open sea, climate..
Region: Kara Sea.

104. Zvyagina O.A. 1961. Materials on breeding and development of fishes of the Laptev Sea. I. Eastern-Sibeian cod (Arctogadus borisovi, Gadidae). - Trudy In-ta okeanologii AN SSSR. Biologicheskiye issledovaniya morya (ikhtiologiya). Vol. 43. P. 320-327.
Taxa: PISCES.
Keywords: Siberian cod, breeding, embryogenes, development.
Region: Laptev Sea.

Higher vertebrates

1. Antipin V.M. 1938þ The vertebrate fauna of the north-east of Noaya Zemlya. - Problemy Arktiki. Leningrad : Glavsevmorputi. N 2. P. 153-171.
   Taxa: MAMMALIA, Cetacea, Delphinapterus leucas, AVES, Charadriidae, C.grylle, U.lomvia, P.eburnea, R.tridactyla, F.glacialis, Anatidae.
   Keywords: species lists, phenology, migration, breeding, biotope, feeding, distribution
   Region: Novaya Zemlya, Kara Sea.
2. Belikov S.E., Randla T.E. 1987. The fauna of birds and mammals of the Severnaya Zemlya. - Fauna i ekologiya ptits I mlekopitayushchikh Sredney Sibiri. Moskva : Nauka. P.16-28.
   Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, AVES, G.stellata, Anatidae, Charadriidae, Laridae, Stercorariidae, Alcidae.
   Keywords: distribution, species lists, phenology, numbers, red data book.
   Region: Severnaya Zemlya.
3. Gavrilo M.V. 1990. Vertebrate fauna of the Zhokhov Island. Unpubl. report. Leningrad: AANII, 1990. P. 1-21.
   Taxa: ANIMALIA, AVES, Anatidae, Charadriidae, Stercorariidae, L.hyperboreus, R.rosea, R.tridactyla, U.lomvia, C.grylle, MAMMALIA, O.rosmarus laptevi.
   Keywords: red data book, conservation, breeding, species lists, numbers, phenology.
   Region: New Siberian Isls..
4. Demme N.P. 1934. The hunting fauna of the Severnaya Zemlya archipelago. Unpubl. report- Leningrad : ANII. P. 1-120.
   Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, B.bernicla, S.spectabilis, Calidris, P.eburnea,.
   Keywords: breeding, phenology, biotope, red data book, numbers.
   Region: Severnaya Zemlya, Kara Sea
5. Kalyakin V.N. 1993. Fauna of birds and mammals of the Novaya Zemlya region and an assessment of their condition. - Tr. Morskoy arkticheskoy kompleksnoy ekspeditsii. Novaya Zemlya. Moskva. Vol. 2, Iss. 3. P. 23-90.
   Taxa: ANIMALIA, AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae, MAMMALIA, U.maritimus, D.leucas, O.rosmarus, Ph.hispida.
   Keywords: distribution, quantitative count, migrations, conservation, content of pollutants, numbers, species lists.
   Region: Novaya Zemlya, Kara Sea.
6. Laktionov A.R. 1946. Severnaya Zemlya. Moskva-Leningrad: Glavsevmorputi. P. 1-156.
   Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, B.bernicla, S.spectabilis, Calidris, Stercorariidae, L.hyperboreus, R.tridactyla, A.alle, C.grylle, P.eburnea, R.rosea. *Keywords*: species lists, distribution, red data book, numbers, migration, phenology.
   Region: Severnaya Zemlya, Kara Sea.
7. Rutilevskiy G.L., Uspenskiy S.M. 1957. The fauna of mammals and birds of Central Arctic (by observatins of drifting stations). Trudy Arkticheskogo Nauchn. issled. in-ta. Vol. 205. P. 5-19.
   Taxa: MAMMALIA, Pusa hispida, AVES, Alcidae, Laridae, Stercorariidae.
   Keywords: distribution, ecology.
   Region: Central Arctic Basine.
8. Semenov I.V. 1967. The Severnaya Zemlya archipelago. Physical-geographical characteristic. Leningrad: AANII. P. 1-132.
   Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, G.stellata, B.bernicla, S.spectabilis, C.hyemalis, Calidris, Ph.fulicarius, Stercorariidae, Laridae, Alcidae.
   Keywords: biotope, distribution, species lists.
   Region: Severnaya Zemlya, Kara Sea.

9. Semenov I.V. 1970. The Severnaya Zemlya archipelago. Sovetskaya Arktika. P. 391-421.
Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, Gaviidae, Anatidae, Charadriidae, Laridae, Alcidae.
Keywords: species lists, distribution.
Region: Severnaya Zemlya, Kara Sea.
10. Urvantsev N.N. 1935. Two years at the Severnaya Zemlya. Leningrad. P. 1-363.
Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, B.bernicla, Calidris, Stercorariidae, R.tridactyla, R.rosea, P.eburnea, A.alle
Keywords: distribution, breeding, phenology, red data book.
Region: Severnaya Zemlya, Kara Sea.
11. Ushakov G.A. 1951. Along the land never have being went on. Moskva-Leningra. P. 1-393.
Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, B.bernicla, Calidris, Stercorariidae, R.tridactyla, R.rosea, P.eburnea, A.alle.
Keywords: distribution, breeding , phenology, red data book.
Region: Severnaya Zemlya, Kara Sea.
12. Uspenskiy S.M. 1956. The vertebrate animals of Central Arctic. Priroda. N 8. P. 41-46.
Taxa: MAMMALIA, Delphinapterus leucas, Pusa hyspidae, Erignatus barbatus, AVES, Laridae, Stercorariidae, Alcidae, Charadriidae.
Keywords: distribution, species lists, red data book, migrations.
Region: Arctic Ocean.
13. Uspenskiy S.M. 1963. The birds and mammals of Benneta Islands. Trudy Arkticheskogo instituta. Leningrad : Morskoy transport. Vol. 224. P. 180-206.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus, Pusa hispida, AVES, Charadriidae, R.rosea, R.tridactyla, P.eburnea, L.hyperboreus, U.lomvia, C.grylle, Anatidae.
Keywords: ecology, distribution, species lists, morphology, feeding, breeding, phenology, numbers, red data book.
Region: East Siberian Sea, New Siberian Isls..

Marine birds

1. Anonim. 1982. The history of birds' study in the Soviet Union. Ptitsy SSSR. Moskva : Nauka. Vol. 1. P. 10-242.
   Taxa: AVES, Gaviidae, Phalacrocoracidae, Anatidae, Charadriidae, Laridae, Alcidae, Stercorariidae.
   Keywords: state of knowledge, bibliography.
   Region: Russia.
2. Anonim. 1987. Wetlands and waterfowl. Tallinn : Valgus. P. 1-128.
   Taxa: AVES, Gaviidae, Anatidae, Charadriidae.
   Keywords: biotope, conservation.
   Region: Russia.
3. Anonim. 1988. The information of the working group on waders. Vladivostok. P. 1-46.
   Taxa: AVES, Charadriidae.
   Keywords: distribution, wintering, red data book, migration, conservation, breeding, systematics.
   Region: Arctic Regions.
4. Anonim. 1989. The information of the working group on waders. Magadan. P. 1-70.
   Taxa: AVES, Charadriidae.
   Keywords: state of knowledge, migration, morphology, red data book, breeding.
   Region: Taimyr, Chukotka, Wrangel Isl., Yamal, Gydan Peninsl., Yakutia.
5. Anonim. 1990. Information of the working group on waders. Magadan. P. 1-54.
   Taxa: AVES, Charadriidae.
   Keywords: migration, biotope, conservation, numbers, breeding.
   Region: Yamal, Gydan Peninsl., Taimyr, Chukotka, Wrangel Isl., Yakutia.
6. Anonim. 1994. Information of the working group on waders. Moskva. N 7. P. 1-40.
   Taxa: AVES, Charadriidae.
   Keywords: conservation, numbers, breeding, distribution, nature reserve, state of knowledge, energetics.
   Region: Yamal, Gydan Peninsl., Taimyr, Chukotka, Wrangel Isl., Yakutia.
7. Andreyev A.V., Dorogoy I.V. 1987. The breeding of Snow Goose in the Kolyma and Chaun Lowland tundras.. Byulleten' MOIP.Otdeleniye biologii. Vol. 92, Iss. 2. P. 42-44.
   Taxa: AVES, Ch.caerulescens.
   Keywords: breeding, number, red data book.
   Region: Yakutia, Chukotka.
8. Andreyev V.A. 1991. The rare bird species of Vajgach Island. - Mat.10-j Vses.ornitol.konf. Minsk. Vol. 1, Part. 2. P. 21.
   Taxa: AVES, C.bewickii, B.leucopsis.
   Keywords: red data book, numbers.
   Region: Vaigach Isl..
9. Antipin V.M. 1953. The seabirds' colonies of the north-east of the Novaya Zemlya. Priroda. N 3. P. 115-116.
   Taxa: AVES, U.lomvia, A.alle, C.grylle.
   Keywords: phenology, breeding, migration. *Region:* Novaya Zemlya.
10. Bannikov A.G. 1941. To the ornithofauna of the Wrangel Island. -Sbornik trudov Zool.muzeya Mosk.un-ta. Moskva : MGU. Vol. 6. P. 197-202.
    Taxa: AVES, St.longicaudus.
    Keywords: species lists, breeding, phenology, nature reserve.
    Region: Wrangel Isl..

11. Barashkina Zh.V., Volkov A.E., Martynov A.S. 1983. Distribution and nuber of some waterfowl birds species in the Krasnoyarsk Territory. - Ptitsy Sibiri: Tezisy dokladov k Vtoroy sibirskoy ornitologicheskoy konferentsii. Gorno-Altaysk. P. 65-67.
Taxa: AVES, Anser, Anas.
Keywords: distribution, number.
Region: Taimyr, Yenisei Bay, Kara Sea Island.

12. Bel'kovich V.M. 1960. The ecology-morthological character of the adaptations to flight of Glaucous Gull and Long-tailed Skua. Trudy instituta morfologii zhivotnykh im. A.N.Severtsova.Moskva : Nauka. Iss. 32. P. 131-141.
Taxa: AVES, St. longicaudus, L. hyperboreus. *Keywords*: morphology, feeding, adaptations.

13. Belikov S.E. 1987. The Brent Goose on the Severnaya Zemlya archipelago in connection with its developing. - Vliyaniye antropogennoy transformatsii landshafta na naseleniye nazemnykh pozvonochnykh zhivotnykh. Moskva. Part. 2. P. 118-119.
Taxa: AVES, B.bernicla.
Keywords: anthropogenic influence, numbers.
Region: Severnaya Zemlya.

14. Birulya A.A. 1907. Notes on the life of birds along the polar coast of Siberia. Zapiski Imperatorskoy Akademii Nauk po fiz.-mat.sektsii. Vol. 18, N 2, Iss. YIII. P. 1-157.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae.
Keywords: species lists, distribution, phenology, breeding.
Region: Taimyr, New Siberian Isls., Kara Sea Isls..

15. Blokhin Yu.Yu. 1983. Distribution of the waterfoul birds in the northern Yakutian tundras.. - Okhrana zhivoy prirody: Tezisy dokladov Vsesoyuznoy konferentsii molodykh uchenykh. Moskva. P. 22-23.
Taxa: AVES, Gaviidae, Anatidae, Laridae.
Keywords: distribution, density, counts, red data book.
Region: Yakutia.

16. Blokhin Yu.Yu. 1984. About change of number of Geese and Cygnus bewickii on the Far North-West of Yakutia.. - Sovremennoye sostoyaniye resursov vodoplavayushchikh ptits: Tezisy Vsesoyuznogo seminara. Moskva. P. 177-178.
Taxa: AVES, Anatidae, Anser, C.bewickii.
Keywords: number, population dynamic.
Region: Yakutia.

17. Bogoslovskaya L.S., Konyukhov N.B. 1986. Procellariiformes of the East Chukotka. - Ornitologiya. Moskva. N 23. P. 194-197.
Taxa: AVES, Procellariidae.
Keywords: distribution, numbers, biotope.
Region: Chukchi Sea, Chukotka.

18. Borzhonov B.B., Savel'yev V.D. 1976. Ecology of the King-Eider in Taimyr Peninsula. - Nauchnye trudy NIISKh Kraynego Severa. Vol. 22. P. 115-120.
Taxa: AVES, S.spectabilis.
Keywords: biotope, breeding, migration, phenology, feeding.
Region: Taimyr.

19. Borzhonov B.B., Vinokurov A.A. 1984. Delta of Pyasina river on Taimyr, as place of large moulting of Geese.. - Sovremennoye sostoyaniye resursov vodoplavayushchikh ptits: Tezisy Vsesoyuznogo seminara. Moskva. P. 166-167.
Taxa: AVES, Anatidae.
Keywords: moult, number.
Region: Taimyr.

20. Bulavintsev V.I. 1984. The birds of Bolshevik Island, the Severnaya Zemlya archipelago. - Ornitologiya. Moskva : MGU. Iss. 19. P. 175-176.
Taxa: AVES, B.bernicla, Calidris, L.hyperboreus, P.eburnea, St.longicaudus, R.tridactyla,.
Keywords: distribution, quantitative count, breeding, numbers, red data book, biotope, population density, phenology.
Region: Severnaya Zemlya.

21. But'yev V.G. 1959. The wintering of birds at the north of Novaya Zemlya. - Ornitologiya. Moskva. Iss. 2. P. 99-101.
Taxa: AVES, C.grylle, U.lomvia, A.alle, P.eburnea, C.hyemalis. *Keywords*: wintering, red data book.
Region: Kara Sea, Polynya.

22. Buturlin S.A. 1905. The breeding places of the Ross's Gull. Psovaya i ruzheynaya okhota. Vol. XI-XII. P. 1-25.
Taxa: AVES, Rh. rosea.
Keywords: biotope, breeding, phenology, red data book.
Region: Yakutia.

23. Buturlin S.A. 1906. The Game Birds of the Lowe Kolyma. Psovaya i ruzheynaya okhota. N 1-2. P. 1-10.
Taxa: AVES, St. parasiticus, St. longicaudus, St. pomarinus,X. sabini, L. argentatus, L. hyperboreus, Rh. rosea.
Keywords: numbers, phenology, migration, red data book.
Region: Yakutia.

24. Buturlin S.A. 1911. Larus affinis taimyrensis subsp. nov.. Ornitologicheskiy vestnik. Vol. 2. P. 149.
Taxa: AVES, L. argentatus.
Keywords: systematics.
Region: Yenisei Bay.

25. Buyakovich N.G. 1952. On protection of the Ross's Gull. Okhrana prirody. N 15. P. 119-121.
Taxa: AVES, Rh. rosea.
Keywords: feeding, migration, conservation, red data book.
Region: Yakutia.

26. Buynitskiy V.K. 1946. The daybook of observations on mammals and birds. - Tr.Dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940 gg. Moskva,Leningrad. Vol. 3. P. 5-13.
Taxa: AVES, Charadriidae, Stercorariidae, Laridae, Alcidae.
Keywords: distribution, migrations, species lists.
Region: Arctic Ocean.

27. Chernov Yu.I., Striganova B.R., Anan'yeva S.I., Kuz'min L.L. 1979. The wildlife of the polar desert of Cape Chelyuskin.. Arkticheskiye tundry i polyarnye pustyni Taymyra. Leningrad : Nauka. P. 35-49.
Taxa: AVES, Calidris, S.parasiticus, S.longicaudus, L.argentatus, L.hyperboreus, R.tridactyla, P.eburnea, S.paradisaea.
Keywords: species lists, red data book.
Region: Taimyr.

28. Danilov N.N., Ryzhanovskiy I.N., Ryabitsev V.K. 1984. Birds of Yamal. Moskva : Nauka. P. 1-334.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotops, species lists, breeding, density, distribution, migration, red data book.
Region: Yamal.

29. Danilov N.N., Ryzhanovskiy V.N., Ryabitsev V.K. 1977. The waterfoul birds of Yamal.. - Fauna i biologiya guseobraznykh: 4-oye Vsesoyuznoye soveshchaniye. Moskva : Nauka. P. 22-24.
Taxa: AVES, Anatidae, Anser, C.bewickii, Anas.
Keywords: distribution, number, red data book.
Region: Yamal.

30. Demme N.P. 1946. Terrestrial mammals and birds of the Novaya Zemlya.Unpubl. report Leningrad, ANII. P. 1-49.
Taxa: AVES, U.lomvia, C.grylle, R.tridactyla, L.hyperboreus, A.alle, S.mollissima, B.leucopsis, P.eburnea, S.paradisea, A.interpers, St.longicaudus.
Keywords: distribution, species lists, phenology, red data book. *Region:* Novaya Zemlya.
31. Dobrinskiy L.N. 1965. The Notes on Bird Fauna of the valley Chadyta River (The south part of Yamal Peninsula). - Tr.instituta biologii Ural'skogo filiala AN SSSR. Sverdlovsk. Iss. 38. P. 167-177.
Taxa: AVES, St.parasiticus, St. longicaudus, L.argentatus, St. paradisaea.
Keywords: phenology, biotope, breeding.
Region: Yamal.
32. Dorogov V.F. et al. 1988. The rare bird species of the North of Krasnoyarsk district.. - Redkiye nazemnye pozvonochnye Sibiri. Novosibirsk : Nauka. P. 76-82.
Taxa: AVES, C.bewickii, P.eburnea, R.rosea.
Keywords: area, distribution, number, red data book.
Region: Taimyr, Severnaya Zemlya.
33. Dorogov V.F., Kokorev Ya.I. 1981. To the ornithofauna of Northern Taimyr (basine of Nizhnaya Taimyra river). - Ekologiya i khozyajstvennoye ispol'zovaniye nazemnoy fauny Eniseyskogo Severa. Novosibirsk. P. 116-125.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotope, breeding, phenology, species lists.
Region: Taimyr.
34. Dorogov V.F., Kokorev Ya.I. 1989. To the ornithofauna of the lower reaches of Pyasina river.. - Resursy, ekologiya i okhrana mlekopitayushchikh i ptits na Eniseyskom Severe. Novosibirsk : Sibirskogo otdeleniya VASKhNIL. Iss. 1/2. P. 7-11.
Taxa: AVES, Gaviidae, Anatidae, Anser, C.bewickii, Charadriidae, Stercorariidae, Laridae.
Keywords: density, counts, number, red data book.
Region: Taimyr.
35. Dorogoy I.V. 1981. Ecology of the Skuas. - Ekologiya mlekopitayushchikh i ptits ostrova Vrangelya. Vladivostok. P. 38-55.
Taxa: AVES, St.pomarinus, St.parasiticus, St.longicaudus.
Keywords: population density, biodemography, feeding, biotope, nature reserve.
Region: Wrangel Isl..
36. Dorogoy I.V. 1982. Biotopic distribution of breeding birds in tundras of Wrangel Island. - Ornitologiya. Moskva. Iss. 17. P.119-124.
Taxa: AVES, G.stellata, B.bernicla, S.mollissima, S.spectabilis, Pluvialis, A.interpers, Calidris, Ph.fulicarius, Stercorariidae, L.hyperboreus.
Keywords: biotope, population density, nature reserve.
Region: Wrangel Isl..
37. Dorogoy I.V. 1982. About breeding of Pacific Golden Plover at the Wrangel Island. Vestnik zoologii.. N 4. P. 69-71.
Taxa: AVES, Pluvialis.
Keywords: breeding, feeding, population density, biotope, nature reserve.
Region: Wrangel Isl..
38. Dorogoy I.V. 1984. To the biology of the Sabine's Gull (Xema sabini). - Ornitologiya. Moskva : MGU. Iss. 19. P. 198.
Taxa: AVES, X.sabini.
Keywords: numbers, phenology, biotope, breeding, nature reserve. *Region:* Wrangel Isl.

39. Dorogoy I.V. 1985. To the avifauna of Wrangel Island. Byull. MOIP. Otd. biologii. Vol. 90, Iss. 2. P. 38-41.
Taxa: AVES, Anatidae, Charadriidae, Gaviidae, Ph.pelagicus, Stercorariidae, Laridae, Alcidae.
Keywords: species lists, nature reserve.
Region: Wrangel Isl..

40. Dorogoy I.V. 1987. The materials on the biology of Black Brant (B ranta bernicla nigricans). - Ornitologiya. Moskva : MGU. Iss. 22. P. 206-208.
Taxa: AVES, B.nigricans.
Keywords: breeding, phenology, moult, biotope, red data book, conservation, nature reserve.
Region: Wrangel Isl.

41. Dorogoy I.V. 1988. Materials on the sandpiper biology in the lower reaches of the Chukochya river (North-Eastern Yakutia).. Byulleten' MOIP. Otdeleniye biologii. Vol. 93, Iss. 1. P. 61-67.
Taxa: AVES, Charadriidae, Pluvialis, Ch.hiaticula, A.interpres, Ph.fulicarius, Calidris.
Keywords: biotops, breeding, density, species lists.
Region: Yakutia.

42. Dorogoy I.V. 1990. Ornithological findings in the West Chukotka. Vestnik zoologii. N 4. P. 36-39.
Taxa: AVES,.
Keywords: population density, phenology, breeding.
Region: Chukotka.

43. Dorogoy I.V. 1990. The factors, causing the joint breeding of Snowy Owls and Anseriformes at the Wrangel Island. - Ornitologiya. Moskva : MGU. Iss. 24. P. 26-33.
Taxa: AVES, Ch.caerulescens, B.nigricans, S.mollissima.
Keywords: biodemography, red data book, breeding, nature reserve.
Region: Wrangel Isl..

44. Dorogoy I.V., Kiryushchenko S.P. 1980. About breeding of Tryngites subruficollis at the Wrangel Island. Zoologicheskiy zhurnal. Vol. 59, Iss. 6. P. 951-952.
Taxa: AVES, Charadriidae.
Keywords: breeding, biotope, behaviour, nature reserve, red data book.
Region: Wrangel Isl..

45. Dorogoy I.V., Pridatko V.I. 1981. About new and rare birds' and mammals' species of Wrangel Island. Vestnik zoologii. N 3. P. 45-49.
Taxa: AVES, Anatidae, Charadriidae, Alcidae.
Keywords: species lists, nature reserve.
Region: Wrangel Isl.

46. Dubrovskiy A.N. 1944. The birds as an indicators of ice regime of arctic seas. Priroda. Vol. 33, N 2. P. 67-68.
Taxa: AVES, S.spectabilis, S.mollissima, C.hyemalis, L.hyperboreus, R.tridactyla, C.grylle.
Keywords: wintering, phenology.
Region: Novaya Zemlya.

47. DunayevaT.N., Kucheruk V.V. 1941. The materials on the ecology of the terrestrial vertebrates of tundra in the south parts of Yamal. - Materialy k poznaniyu fauny i flory SSSR. Novaya seriya. Otdel zoologii. Moskva. Iss. 4. P. 5-80.
Taxa: AVES, St.parasiticus, St.longicaudus.
Keywords: distribution, breeding.
Region: Yamal.

48. Estaf'yev A.A. 1986. Geografical and biotopical distribution and number of waders at the Yugor Peninsula. - Tr. Komi filiala AN SSSR. Syktyvkar. N 74. P. 10-120.
Taxa: AVES, Charadriidae.
Keywords: biotope, breeding, numbers.
Region: Yugor Peninsl..

49. Estaf'yev A.A. 1986. The time ofautumn migration and places of concentrations in waders of Europian North-Eastern tundras. Fauna pozvonochnykh Urala i sopredel'nykh territoriy.Sverdlovsk : Ural'skogo universiteta. P. 72-85.
Taxa: AVES, Charadriidae.
Keywords: biotope, numbers, migration, distribution. *Region:* Yugor Peninsl..

50. Estaf'yev A.A. 1991. Fauna and ecology of waders in Bol'shezemel'skaya tundra and the Yugor Peninsula. Leningrad : Nauka. P. 1-144.
Taxa: AVES, Charadriidae.
Keywords: biotope, breeding, distribution, biodemography, population dynamics, migration, feeding, population density.
Region: Yugor Peninsl..

51. Flint E.V. 1973. To the waders' fauna of Wrangel Island. - Fauna i ekologiya kulikov. Moskva. Iss. 2. P. 77-78.
Taxa: AVES, Charadriidae.
Keywords: species lists, biotope, nature reserve.
Region: Wrangel Isl..

52. Galushin V.M., Likhopek E.A., Logunova F.N., Rubinshteyn N.A. 1964. Laridae of the south-eastern parts of the Yamal Peninsula. Uchenye zapiski Moskovskogo pedagogicheskogo instituta im. V.I.Lenina. Moskva. Iss. 227. P. 279-290.
Taxa: AVES, St.pomarinus, St.Parasiticus, St. longicaudus.
Keywords: breeding, migration, phenology, population density.
Region: Yamal.

53. Gavrilo M.V. 1988. The birds of Oktyabrskoy Revolyutsii Island (Severnaya Zemlya): numbers, distribution peculiarities, recommendations for the protection. - Izucheniye i okhrana ptits v ekosistemakh Severa. Vladivostok. P. 38-41.
Taxa: AVES, G.stellata, B.bernicla, S.spectabilis, Calidris, St.pomarinus, St.parasiticus, L.hyperboreus, R.tridactyla, P.eburnea, A.alle,C.grylle.
Keywords: biotope, distribution, conservation, quantitative count, species lists.
Region: Severnaya Zemlya.

54. Gavrilo M.V. 1988. The waders of Octyabrskoy Revolyutsii Island (Severnaya Zemlya archipelago). - Ornitologiya. Moskva : MGU. Iss. 23. P. 204.
Taxa: AVES, Ph.fulicarius, Calidris.
Keywords: population density, breeding, biotope.
Region: Severnaya Zemlya.

55. Gavrilov V.V. 1993. Breeding biology and energetics in waders at the north-east Yakutia. Moskva : MGU. P. 1-376.
Taxa: AVES, Charadriidae.
Keywords: adaptations, energetics, breeding, brooding, feeding, population density.
Region: Yakutia.

56. Gladkov N.A. 1958. The birds of Polar Yakutia (Tixi Bay).. - Problemy Severa. Moskva : AN SSSR. Iss. 2. P. 159-193.
Taxa: AVES, S.pomarinus, Pluvialis, Ch.hiaticula, Ph.fulicarius, Calidris.
Keywords: biotops, species lists, breeding, distribution.
Region: Yakutia.

57. Gladkov N.A., Zaletayev V.S. 1965. Observations on the birds Anabar tundras (Transpolar Yakutia, north-west). - Issledovaniya po faune Sovetskogo Soyuza (ptitsy). Moskva : MGU. P. 38-62.
Taxa: AVES, St.pomarinus, St. longicaudus, Rh.rosea, L.argentatus, L.hyperboreus, St. paradisaea, Charadriidae.
Keywords: breeding, phenology, red data book.
Region: Yakutia.

58. Golovkin A.N. 1990a. The Brunnich's Guillemot. - Ptitsy SSSR.Chistikovye. Moskva : Nauka. Vol. 3. P. 43-55.
Taxa: AVES, U.lomvia.
Keywords: biotope, distribution, biodemography, migration, feeding, behaviour, breeding, systematics, numbers.
Region: Arctic Regions.

59. Golovkin A.N. 1990b. The Litta Auk. - Ptitsy SSSR.Chistikovye. Moskva : Nauka. P. 8-15.
Taxa: AVES, A.alle.
Keywords: biotope, distribution, biodemography, migration, feeding, behaviour, breeding, systematics, numbers.
Region: Arctic Regions.

60. Golovkin A.N., Flint V.E. 1975. Colonies of the sea birds in the region of the Serdtse Kamen' Cape. - Kolonial'nye gnezdov'ya okolovodnykh ptits i ikh okhrana. Moskva : Nauka. P. 171-173.
Taxa: AVES, L.hyperboreus, L.argentatus, R.tridactyla, U.lomvia, C.grylle, F.corniculata.
Keywords: breeding, numbers.
Region: Chukotka.

61. Gorbunov G.P. 1925. The seabirds' colonies of Novaya Zemlya. - Trudy NII po izucheniyu Severa. Moskva : Khimtekhizdat. Iss. 26, Part. 1à. P. 1-47.
Taxa: AVES, L.hyperboreus, R.tridactyla, C.grylle, U.lomvia, A.alle.
Keywords: distribution, behaviour, breeding, species lists, feeding, phenology, numbers, biotope.
Region: Novaya Zemlya.

62. Gorbunov G.P. 1929. The materials on bird's and mammal's fauna of the Novaja Zemlja. - Trudy instituta po izuch. Severa. Moskva-Leningrad: Nauchno-tekhn.upravleniya VSNKh. Iss. 40. P. 168-240.
Taxa: AVES, Laridae, Alcidae, Stercorariidae, Charadriidae, Anatidae, F.glacialis, Gaviidae.
Keywords: distribution, species lists, migration, feeding, breeding , phenology.
Region: Novaya Zemlya.

63. Gorbunov G.P. et al. 1929. The journal of voyage of Novaya-Zemlya expedition for the 1925.The birds. - Tr. Instiuta po izucheniyu Severa. Moskva-Leningrad: Nauchno-tekhn. upravleniya VSNKh. Iss. 40. P. 335-355.
Taxa: AVES, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae, F.glacialis.
Keywords: distribution, phenology.
Region: Arctic Regions.

64. Grabovskiy V.I. 1991. The breeding of Herring Gull in the mounth of the Pyasina river (Taimyr). - Materialy X Vsesoyuznoy ornitologicheskoy konferentsii. Minsk : Navuka i tekhnika. Part. 2. P. 164-165.
Taxa: AVES, L. argentatus.
Keywords: biodemography, morphology, feeding, population density; breeding, phenology, numbers.
Region: Taimyr.

65. Grigor'yev V.R. 1976. Brief reports on the Ross's Gull. - Trudy Okskogo zapovednika. Pyazan'. Vol. XIII. P. 178.
Taxa: AVES, R.rosea.
Keywords: migration, phenology, red data book.
Region: Yakutia.

66. Gurtovaya E.N. 1991. The spatial-ethological relations in the Snow Goose colony (at the Wrangel Island). - Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata biologicheskikh nauk. Moskva : MGU. P. 1-19.
Taxa: AVES, Ch.caerulescens.
Keywords: population dynamics, behaviour, conservation, nature reserve, structure of population, red data book.
Region: Wrangel Isl..

67. Gyngazov A.M., Milovidov S.P. 1977. Avifauna of the West-Siberia Plain. V.sk : V.skogo universiteta. P. 5-350.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, phenology, migration, breeding, biotope.
Region: Yamal, Gydan Peninsl..
68. Kalyakin V.N.,Ivanova O.A. 1985. The chlorinated pesticides and vertebrate animals of the Far North. - Soobshchestva Kraynego Severa i chelovek. Moskva : Nauka. P. 169-204.
Taxa: AVES, G.arctica, G.stellata, Anas, C.hyemalis, Ch.hiaticula, Calidris, St.parasiticus, St.longicaudus, L.argentatus, Laridae.
Keywords: content of pollutants. *Region:* Arctic Regions.
69. Kalyakin V.P. 1985. To the project of biosphere reserve organisation at the Vaigach Island. - Sb.tr.VNIIprirody.Vopr. obosnovaniya razmeshcheniya okhr. prir. terr. Moskva. P. 15-29.
Taxa: AVES, C.bewickii, B.leucopsis.
Keywords: conservation, red data book.
Region: Vaigach Isl..
70. Kalyakin V.P. 1988. To the wader fauna of Yugor Peninsula and Vaigach Island. - Ornitologiya. Moskva. Iss. 23. P. 210-211.
Taxa: AVES, Pluvialis, Calidris, Ph.fulicarius, A.interpers.
Keywords: biotope, species lists.
Region: Vaigach Isl., Yugor Peninsl..
71. Kapitonov V.I. 1962. Ornithological observation in the Lower Lena.. - Ornitologiya. Moskva : MGU. Iss. 4. P. 40-63.
Taxa: AVES, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, breeding, phenology.
Region: Yakutia.
72. Karpovich V.N., Kokhanov V.D. 1967. Birds fauna of the Vaigach Island and north-east of the Yugor Peninsula.. - Trudy Kandalakshskogo zapovednika. Moskva : Lesnaya promyshlennost'. Iss. 5. P. 268-338.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotops, species lists, number, distribution, breeding, migration.
Region: Vaigach.
73. Karpovich V.NN., Kokhanov V.D. 1963. Count of number of hunting birds on the Vaigach Island.. - Organizatsiya i metody ucheta ptits i vrednykh gryzunov. Moskva : AN SSSR. P. 91-99.
Taxa: AVES, G.arctica, B.leucopsis, C.bewickii, S.mollissima, S.spectabilis, C.hyemalis.
Keywords: distribution, number, demography, red data book.
Region: Vaigach.
74. Kharitonov S.P. 1990. The Horned Puffin. - Ptitsy SSSR.Chistikovye. Moskva: Nauka. P. 164-173.
Taxa: AVES, F.corniculata.
Keywords: biotope, distribution, biodemography, migration, feeding, behaviour, breeding, systematics, numbers.
Region: Chukotka.
75. Kharitonov S.P. 1990. The Tuffed Puffin. - Ptitsy SSSR.Chistikovye. Moskva : Nauka. P. 173-182.
Taxa: AVES, L.cirrhata.
Keywords: biotope, distribution, biodemography, migration, feeding, behaviour, breeding, systematics, numbers.
Region: Chukotka.
76. Kharitonov S.P. 1990. The foraging behaviour of Snow Goose as related to the colonial breeding. - Sovremennye problemy izuch. kolonial'n. u ptits.Mat. Vses. soveshchaniya. Simferopol'. P. 159-160.
Taxa: AVES, Ch.caerulescens.
Keywords: feeding, biotope, behaviour, red data book, nature reserve.
Region: Wrangel Isl..

77. Kharitonovich B. 1940. At the Domashny Island. Sovetskaya Arktika. N 8. P. 60-66.
Taxa: AVES, B.bernicla, P.eburnea.
Keywords: red data book, breeding.
Region: Severnaya Zemlya.
78. Kiryushchenko S.P. 1973. On the biology and number of waders of the Chukot Peninsula.. - Fauna i ekologiya kulikov: Materialy soveshchaniya. Moskva : MGU. Part. 2. P. 37-41.
Taxa: AVES, Charadriidae, Pluvialis, Ch.hiaticula, A.interpres, Ph.fulicarius, Calidris.
Keywords: distribution, breeding, number, species lists.
Region: Chukotka.
79. Kishchinskiy A.A. 1982. The birds' migration of the North-East Asia modern status and perspectivies of study. - Migratsii i ekologiya ptits Sibiri. Novosibirsk : Nauka. P. 3-17.
Taxa: AVES, Anatidae, Charadriidae, Laridae.
Keywords: migration, distribution, red data book, state of knowledge.
Region: Wrangel Isl., Herald Isl., Chukotka.
80. Kishchinskiy A.A. 1988. Avifauna of North-East Asia: History and Modern State. Moskva : Nauka. P. 1-288.
Taxa: AVES, Gaviidae, Phalacrocoracidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae.
Keywords: area, distribution, biotops, phenology, density, species lists, state of knowledge.
Region: New Siberian Islands, Yakutia, Chukotka, Wrangel.
81. Kishchinskiy A.A., Flint V.E. 1977. Number and density of the population of waterfoul birds in Chukot Peninsula.. - Resursy vodoplavayushchikh ptits SSSR, ikh vosproizvodstvo i ispol'zovaniye: Materialy 4-go Vsesoyuznogo soveshchaniya. Moskva : Nauka. P. 112-114.
Taxa: AVES, Anser, Anas.
Keywords: distribution, number, density.
Region: Chukotka.
82. Kishchinskiy A.A., Vronskiy N.V. 1979. The migration of Brent Goose. - Migratsii ptits Vostochnoy Evropy i Severnoy Azii.Aistoobraznye - plastinchatoklyuvye. Moskva. P. 188-202.
Taxa: AVES, B.bernicla, B.nigricans.
Keywords: migration, distribution, red data book.
Region: Arctic Regions.
83. Kishchinskiy A.A.,Syroyechkovskiy E.V. 1980. The study of migration of azian Snow Goose population. - Mat. k III Vsesoyuzn. soveshch. "Vid i ego produktivnost' v areale". Vil'nyus. P. 93-94.
Taxa: AVES, Ch.caerulescens.
Keywords: migration, distribution, wintering, nature reserve, red data book.
Region: Wrangel Isl., Chukotka.
84. Kolonin G.V. 1980. Ornithological observations at the Chukotka and Wrangel Island. Ornitologiya. Iss. 15. P. 197-200.
Taxa: AVES, St.pomarinus, Calidris, L.hyperboreus, S.paradisea, A.interpers, X.sabinii,.
Keywords: population density.
Region: Wrangel Isl., Chukotka.
85. Kondrat'yev A.V. 1986. The seabird's colonies at the arctic coast of Chukotka. - Izucheniye ptits v SSSR, ikh okhrana i ratsion.ispol'zovaniye.Tez. dokl. I-go s'yezda Vses.ornitol. o-va i IX Vses. ornitol. konf. Leningrad : Nauka. P. 308-310.
Taxa: AVES, R.tridactyla, Ph.pelagicus, U.lomvia, L.hyperboreus, C.grylle, U.aalgae, F.corniculata, L.cirrhata, L.argentatus.
Keywords: distribution, numbers.
Region: Chukotka.

86. Kondrat'yev A.Ya. 1989. The state of knowledge and min directions of investigations of waders at the Extreme North-East of the USSR. - Informatsiya rabochey gruppy po kulikam. Magadan : AN SSSR. P. 24-28.
Taxa: AVES, Charadriidae.
Keywords: state of knowledge.
Region: Wrangel Isl., Chukotka.

87. Kondrat'yev A.Ya. 1972. The new data on avifauna of the northen part of the East Chukotka. - Ornitologiya. Moskva : MGU. Iss. 13. P. 22-24.
Taxa: AVES, P. eburnea, Rh. rosea.
Keywords: migration, phenology, red data book.
Region: Chukotka.

88. Kondrat'yev A.Ya. 1975. About the state of the seabirds' colonies at the Kolyuchin Island. - Kolonial'nye gnezdov'ya okolovodnykh ptits i ikh okhrana. Moskva : Nauka. P. 174-175.
Taxa: AVES, R. tridactyla, L. hyperboreus, U.lomvia, C.grylle.
Keywords: numbers, population dynamics.
Region: Chukotka.

89. Kondrat'yev A.Ya. 1978. The birds of coastal tundras of the Kolyuchin Bay and Kolyuchin Island.. - Ekologiya i rasprostraneniye ptits na Severo-Vostoke SSSR. Moskva : Nauka. P. 8-57.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, breeding, species lists, red data book.
Region: Chukotka.

90. Kondrat'yev A.Ya. 1979. The seasonal occurences in the birds live in the Chaun Lowland.. - Ptitsy Severo-Vostoka Azii. Vladivostok. P. 95-105.
Taxa: AVES, G.arctica, C.bewickii, Anas, Charadriidae, Laridae.
Keywords: biotops, phenology, breeding, red data book.
Region: Chukotka.

91. Kondrat'yev A.Ya. 1982. Biology of waders in tundras of the Northern-East Asia. Moskva : Nauka. P. 1-192.
Taxa: AVES, Charadriidae.
Keywords: biotope, breeding, distribution, biodemography, feeding, population density, behaviour.
Region: Yakutia, Chukotka.

92. Kondrat'yev A.Ya. 1986. The seabird's colonies at the arctic coast ofExtreme North-East of the USSR. - Morskiye ptitsy Dal'nego Vostoka. Vladivostok : DVNTs AN SSSR. P. 37-47.
Taxa: AVES, R.tridactyla, Ph.pelagicus, U.lomvia, L.hyperboreus, C.grylle, F.corniculata, L.cirrhata, L.argentatus.
Keywords: distribution, numbers, biotope, population dynamics.
Region: Chukotka.

93. Kondrat'yev A.Ya. 1990. Swans at the extreme north-east of the USSR: population state, results and perspectives of investigation.- Ekologiya i okhrana lebedey v SSSR: Tezisy Vtorogo Vsesoyuznogo soveshchaniya po lebedyam. Melitopol'. Part. 2. P. 75-78.
Taxa: AVES, C.bewickii.
Keywords: distribution, biotops, number, red data book.
Region: Yakutia, Chukotka.

94. Kondrat'yev A.Ya., Kondrat'yeva L.F. 1984. Growth and development of chicks of the Sabine's Gull (Xema sabini). - Ornitilogiya. Moskva : MGU. Iss. 19. P. 81-88.
Taxa: AVES, X. sabini.
Keywords: breeding, biodemography, biotope, feeding, phenology.
Region: Chukotka.

95. Kondrat'yev A.Ya.,Korovin M.M., Bodyak N.D. 1986. The number and structure of seabirds colonies at the Koluchin Island (Chukchi Sea). - Raprostraneniye i biologiya morskikh ptits Dal'nego Vostoka. Vladivostok. P. 22-35.
Taxa: AVES, Ph.pelagicus, L.hyperboreus, R.tridactyla, U.lomvia, U.aalgae, F.corniculata, L.cirrhata, C.grylle.
Keywords: biotope, biodemography, population dynamics, breeding, phenology.
Region: Chukotka.

96. Kosygin G.M. 1975. Ivory Gull at the Chukot Peninsula. - Kolonial'nye gnezdov'ya okolovodnykh ptits i ikh okhrana. Moskva : Nauka. P. 176.
Taxa: AVES, P. eburnea.
Keywords: migration, phenology, numbers, red data book.
Region: Chukotka.

97. Kosygin G.M. 1985. Registrations of the Ivory, Sabine's and Ross's Gulls at the seas of Chukot, Bering and Okhotsk. - Redkiye i ischezayushchiye ptitsy Dal'nego Vostoka. Vladivostok : DVNTs AN SSSR, 1985. P. 135-137.
Taxa: AVES, X. sabini.
Keywords: migration, phenology, numbers.
Region: Chukchi Sea.

98. Kozlova E.V. 1947. Gaviiformes, Procellariiformes. - AN SSSR.Zool. in-t.Fauna SSSR.Nov.ser.Ptitsy. Moskva, Leningrad: AN SSSR. Vol. 1, N 33, Iss. 3. P. 1-125.
Taxa: AVES, Gaviiformes, Procellariiformes.
Keywords: distribution, systematics, feeding, breeding, migration, biotope, moult.
Region: Russia.

99. Kozlova E.V. 1957. Charadriiformes: suborder Alcae. - AN SSSR.Zool. in-t.Fauna SSSR.Nov.ser. Moskva,Leningrad: AN SSSR. Vol. 2, N 65, Iss. 3. P. 1-144.
Taxa: AVES, Alcidae.
Keywords: distribution, systematics, breeding, migration, feeding, biotope, moult.
Region: Russia.

100. Kozlova E.V. 1961. Charadriiformes: suborder Limicola. - AN SSSR. Zool. in-t.Fauna SSSR.Nov.ser. Moskva,Leningrad: AN SSSR. Vol. 2, N 80, Iss. 1, Part. 2. P. 1-501.
Taxa: AVES.
Keywords: distribution, systematics, breeding, migration, feeding, biotope, moult.
Region: Russia.

101. Kozlova E.V. Charadriiformes: suborder Limicola. - AN SSSR.Zool.in-t.Fauna SSSR.Nov.ser. Moskva,Leningrad: AN SSSR, 1962. Vol. 2, N 81, Iss. 1, Part. 3. P. 1-433.
Taxa: AVES.
Keywords: distribution, systematics, breeding, migration, feeding, biotope, moult.
Region: Russia.

102. Krechmar A.V. 1966. The birds of the western parts of the Taimyr Peninsula. - Trudy Zoologicheskogo instituta AN SSSR. Leningrad : Nauka. Vol. 34. P. 185-312.
Taxa: AVES, L. argentatus, St. paradisaea, Gaviidae, Anatidae, Charadriidae, Charadriidae, Stercorariidae.
Keywords: systematics, distribution, numbers, biotope, breeding, feeding, phenology.
Region: Taimyr.

103. Krechmar A.V., Andreyev A.V., Kondrat'yev A.Ya. 1978. Ecology and distribution of birds on the North-east of the USSR. Moskva: Nauka. Part. 2. P. 7-194.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae,.
Keywords: distribution, phenology, feeding, breeding, biodemography, population density, red data book.
Region: Chukotka.

104. Krechmar A.V., Andreyev A.V., Kondrat'yev A.Ya. 1991. Birds of nothern plains. Leningrad : Nauka. P. 1-228.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae,.
Keywords: biotops, feeding, phenology, number, breeding, species lists, red data book.
Region: Yakutia, Chukotka.

105. Krechmar A.V.,Syroyechkovskiy E.V. 1974. Bad spring conditions affecting the Snow Goose breeding at the Wrangel Island. Zoologicheskiye issledovaniya Sibiri i Dal'nego Vostoka. Vladivostok. P. 112-115.
Taxa: AVES, Ch.caerulescens.
Keywords: breeding, phenology, population density, biodemography, adaptations, nature reserve, red data book.
Region: Wrangel Isl..

106. Kupetskiy V.N. 1959. The permanent polynyas in freezing seas. Dissertatsiya na soiskaniye uchenoy stepeni kandidata geograficheskikh nauk. Leningrad. P. 1-356.
Taxa: AVES, Laridae, Alcidae.
Keywords: distribution.
Region: Arctic Regions, Polynya.

107. Labutin Yu.V., Degtyarev A.G., Blokhin Yu.Yu. 1984. Number and distribution of the waterfoul birds of the Lena delta and adjoining territories.. - Sovremennoye sostoyaniye resursov vodoplavayushchikh ptits: Tezisy Vsesoyuznogo seminara. Moskva. P. 178-180.
Taxa: AVES, Gaviidae, G.arctica, Anser, Anas, S.spectabilis, S.fisheri, C.hyemalis.
Keywords: distribution, number, demography.
Region: Yakutia.

108. Labutin Yu.V., Degtyarev A.G., Blokhin Yu.Yu. 1985. The Birds. Rastitel'nyy i zhivotnyy mir del'ty reki Leny. Yakutsk. P. 88-110.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, X.sabini, R.rosea.
Keywords: distribution, species lists, nature reserve, red data book.
Region: Yakutia.

109. Labutin Yu.V., Degtyarev A.G., Blokhin Yu.Yu., Larionov V.P. 1986. Resources of the waterfoul birds of the tundras of the Western Yakutia.. - Voprosy okhotnich'yej ornitologii. Moskva.P. 37-54.
Taxa: AVES, Gaviidae, Anatidae, B.nigricans, Anser, C.bewickii, C.hyemalis, S.spectabilis, P.stelleri.
Keywords: biotops, density, counts, number, population dinamic, nature reserve, red data book.
Region: Yakutia.

110. Lebedev V.D., Filin V.R. 1959. Ornithological observation in the Western Chukotka. - Ornitologiya. Moskva : MGU. Iss. 2. P. 122-129.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: breeding, species lists.
Region: Chukotka.

111. Leonov L.I. 1945. The ornithofauna of Henrietta Island. Problemy Arktiki. N 5/6. P. 73-88.
Taxa: AVES, C.grylle, R.tridactyla, L.hyperboreus, S.spectabilis, Ph.fulicarius.
Keywords: migration, morphology, breeding, phenology, numbers, feeding.
Region: Henrietta Isl..

112. Lin'kov A.B. 1983. Some peculiarities of ecology and distribution of Anser on north-east of the Gydan Peninsula.. - Ekologiya I ratsional'noye ispol'zovaniye okhotnich'ikh ptits v RSFSR. Moskva : Nauka. P. 62-70.
Taxa: AVES, Anser, B.bernicla.
Keywords: distribution, breeding, species lists.
Region: Gydan.

113. Litvin K.E. 1991. The structure and mechanisms of formation of Northern Anseriformes colonies. - Dissertatsiya na soiskaniye uchenoy stepeni kandidata biologicheskikh nauk. Moskva : MGU. P. 1-193.
Taxa: AVES, Anatidae.
Keywords: red data book, structure of population, population density, breeding.
Region: Arctic Regions.

114. Litvin K.E., Pulyaev A.I., Syroyechkovskiy E.V. 1985. The settlements of Snow Goose, Black Brant and Common Eilder in the vicinity of Snowy Owl's nests at the Wrangel Island. Zoologicheskiy zhurnal. Vol. 64, Iss. 7. P. 1012-1023.
Taxa: AVES, Ch.caerulescens, S.mollissima, B.nigricans.
Keywords: biodemography, red data book, breeding, nature reserve.
Region: Wrangel Isl..

115. Martynov A.S. 1983. Some data on the Geese of the Krasnoyarsk Territory. - Sovremenoye sostoyaniye resursov vodoplavayushchikh ptits: Tezisy Vsesoyuznogo seminara. Moskva. P. 154-155.
Taxa: AVES, Anser, B.bernicla.
Keywords: distribution, number.
Region: Gydan, Taimyr.

116. Martynov A.S. 1986. About summer distribution of Branta bernicla.. - Izucheniye ptits SSSR, ikh okhrana i ratsional'noye ispol'zovaniye: Tezisy dokladov IX Vsesoyuznoy ornitologicheskoy konferentsii. Leningrad. Part. 2. P. 54-55.
Taxa: AVES, B.bernicla.
Keywords: area, distribution, density, number.
Region: Novaya Zemlya, Gydan, Yamal, Taimyr, Severnaya Zemlya, Kara Sea Islands.

117. Mikhel' N.M. 1934. New data about the birds of the Indighir Territory (Preliminary report).. Izvestiya gosudarstvennogo geograficheskogo obshchestva. Vol. 66, Iss. 3. P. 430-440.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, biotops, species lists.
Region: Yakutia.

118. Mikhel' N.M. 1935. Data on birds of the Indighir Territory. - Trudy Arkticheskogo instituta. Leningrad : Glavsevmorputi. Vol. 31. P. 1-101.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, species lists, phenology, breeding, biotops, migration.
Region: Yakutia.

119. Mikhel' N.M. 1937. Observation on the birds and mammals of the Kara Bay area.. Izvestiya gosudarstvennogo geograficheskogo obshchestva. Vol. 69, Iss. 3. P. 443-447.
Taxa: AVES, G.arctica, Anatidae, Calidris, L.argentatus, R.tridactyla.
Keywords: biotops, migration, species lists.
Region: Kara Sea, Yugor Peninsl..

120. Morozov V.V. 1984. The waterfoul birds in the Cape Kharasaway area.. - Sovremennoye sostoyaniye resursov vodoplavayushchikh ptits: Tezisy Vsesoyuznogo seminara. Moskva. P. 147-148.
Taxa: AVES, Anser, Anas.
Keywords: distribution, numbers.
Region: Yamal.

121. Morozov V.V. 1985. Notes on the autumn migration of waders on the nothern Yamal peninsula. - Ornitologiya. Moskva : MGU. Iss. 20. P. 191.
Taxa: AVES,Charadriidae,pluyialis,Ch.hiaticula,A.interpres,Calidris:
Keyword . migration .
Region: Yamal.

122. Morozov V.V.,Savinetskiy A.B. 1986. To the avifauna of Northern Yamal Peninsula. - Ornitologiya. Moskva : MGU. Iss. 21. P. 139-140.
Taxa: AVES, L. hyperboreus, R. tridactyla,.
Keywords: breeding, population density, phenology, feeding.
Region: Yamal.

123. Naumov S.P. 1931. The mammals and birds of the Gydan Peninsula (Northern-west Siberia).. - Trudy Polyarnoy komissii. Leningrad : AN SSSR. Iss. 4. P. 1-106.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, biotops, species lists, phenology.
Region: Gydan, Yenisei Bay.

124. Osmolovskaya V.I. 1948. Ecology of the Birds of Prey of Yamal Peninsula. - Trudy instituta geografii AN SSSR. Iss. 41. P. 5-77.
Taxa: AVES, St. parasiticus, St. longicaudus.
Keywords: feeding.
Region: Yamal.

125. Ostapenko V.A. 1973. Avifauna of the Chaun river delta (Western Chukot Peninsula).. - Trudy Instituta biologicheskikh problem Severa. Magadan. Iss. 2. P. 59-73.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: breeding, feeding, species lists.
Region: Chukotka.

126. Ovsyannikov N.G.,Kovalev D.N. 1991. The changes in spatial distribution of Snow Goose at the Wrangel Island during the presence of reserve. - Populyatsii i soobshchestva zhivotnykh ostrova Vrangelya. Moskva. P. 42-51.
Taxa: AVES, Ch.caerulescens.
Keywords: biotope, anthropogenic influence, conservation, numbers, behaviour, nature reserve, red data book.
Region: Wrangel Isl..

127. Pavlov B.M., Dorogov V.F. 1976. Brief reports on the Ross's Gull. Trudy Okskogo zapovednika. Ryazan'. Iss. 13. P. 178-179.
Taxa: AVES, Rh. rosea.
Keywords: distribution, phenology, migration, breeding, red data book.
Region: Taimyr.

128. Perfil'yev V.I. 1977. Change of the number and distribution of waterfowl birds on the north of Yakutia.. - Fauna i biologiya guseobraznykh: 4-oye Vsesoyuznoye soveshchaniye. Moskva : Nauka. P. 27-29.
Taxa: AVES, Anatidae.
Keywords: number, hunting.
Region: Yakutia.

129. Petrov V.N.,Smirnov I.P. 1991. Organization of the reserve in the Severnaya Zemlya archipelago. - Problemy ekologii polyarnykh oblastey. Moskva : Nauka. Iss. 2. P. 15-17.
Taxa: AVES, B.bernicla.
Keywords: conservation.
Region: Severnaya Zemlya.

130. Portenko L.A. 1944. The new forms of birds from Wrangel Island. Doklady AN SSSR. Vol. XYIII, N 51. P. 237-239.
Taxa: AVES, U.lomvia, C.grylle.
Keywords: systematics, morphology, distribution, nature reserve.
Region: Wrangel Isl.

131. Portenko L.A. 1937. The birds of Wrangel Island. Problemy Arktiki. N 3. P. 99-130.
Taxa: AVES, Gaviidae, Phalacrocoracidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae, Procellariidae.
Keywords: species lists, phenology, breeding, fishery/hunting, conservation, nature reserve, red data book.
Region: Wrangel Isl..

132. Portenko L.A. 1946. The birds of high latitudes of Arctic ocean. - Tr.Dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G.Sedov" 1937-1940. Moskva, Leningrad: Glavsevmorput'. Vol. 3. P. 19-29.
Taxa: AVES, St.pomarinus, St.parasiticus, Laridae, Alcidae, F.glacialis, S.mollissima, Ph.fulicarius, St.longicaudus.
Keywords: distribution, migrations, migration, phenology.
Region: Arctic Ocean.

133. Portenko L.A. 1947. The peculiarities of birds' migration in the Arctic. Priroda. N 4. P. 33-39.
Taxa: AVES, Anatidae, Charadriidae, Stercorariidae.
Keywords: migration, migrations.
Region: Arctic Regions.

134. Portenko L.A. 1970. Zoological plots of the north-eastern borderlands of Asia based on the bird distribution.. - Trudy Zoologicheskogo instituta AN SSSR. Ornitologicheskiy sbornik. Leningrad :Nauka. Vol. 47. P. 182-204.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae.
Keywords: distribution, species lists.
Region: Chukotka, Wrangel.

135. Portenko L.A. 1972. Transcontinental Connections Migratory Birds in the Extreme North-East Asia. - Transkontinental'nye svyazi pereletnykh ptits i ikh rol' v rasprostranenii arbovirusov. Novosibirsk :Nauka. P. 79-81.
Taxa: AVES, P. eburnea, Ch.caerulescens.
Keywords: migration, phenology, nature reserve, red data book.
Region: Wrangel Isl..

136. Portenko L.A. 1972. The birds of Chucot Peninsula and Wrangel Island. Leningrad : Nauka. Part. 1. P. 1-424.
Taxa: AVES, Anatidae, Gaviidae, Charadriidae.
Keywords: distribution, species lists, biotope, feeding, breeding, phenology, nature reserve.
Region: Wrangel Isl., Chukotka.

137. Portenko L.A. 1973. The Birds of the Chukot Peninsula and Wrangel Island. Leningrad : Nauka. Part. 2. P. 3-323.
Taxa: AVES, Stercorariidae, Laridae, Alcidae.
Keywords: distribution, biotope, migration, phenology, breeding, feeding, population density, nature reserve.
Region: Wrangel Isl., Chukotka.

138. Pozdnyakov V.I., Germogenov N.I. 1988. Migrations and number of Branta bernicla in Yakutia.. - Redkiye nazemnye pozvonochnye Sibiri. Novosibirsk : Nauka. P. 164-170.
Taxa: AVES, B.bernicla.
Keywords: migration, number, red data book.
Region: Yakutia.

139. Pridatko V.I. 1981. The sea ice regime and migrations of Ross's Gull. - Ekologiya i okhrana ptits.Tzisy dokl. Kishinev : Shtiintsa. P. 186.
Taxa: AVES, R.rosea.
Keywords: migrations, red data book, migration, phenology, feeding.
Region: Chukchi Sea, East Siberian Sea.

140. Pridatko V.I. 1983. The dynamic in the seabirds colonies of Wrangel and Herald Islands. -· Biol. probl. Severa. Mat. X Vsesoyuznogo simpoziuma. Magadan. Part. 2. P. 45-46.
Taxa: AVES, L.hyperboreus, R.tridactyla, Ph.pelagicus, U.lomvia, F.corniculata.
Keywords: population dynamics, nature reserve.
Region: Wrangel Isl., Herald Isl..

141. Pridatko V.I. 1986. The alternation patterns of seasonal events in the seabird's colonies at the Wrangel Island. - Ekosistemy v ekstremal'nykh usloviyakh sredy v zapovednikakh RSFSR. Moskva. P. 160-166.
Taxa: AVES, U.lomvia, R.tridactyla, Ph.pelagicus, L.hyperboreus, C.grylle, F.corniculata, L.cirrhata.
Keywords: migration, breeding, phenology, nature reserve.
Region: Wrangel Isl..

142. Pridatko V.I. 1986a. Colonial seabirds of the Wrangel and Herald Islands (ecology, protection). - Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata biologicheskikh nauk. Kiyev. P. 1-21.
Taxa: AVES, Ph.pelagicus, U.lomvia, F.corniculata, C.grylle, L.hyperboreus, R.tridactyla, R.rosea.
Keywords: numbers, conservation, phenology, biodemography, population dynamics, nature reserve, red data book.
Region: Wrangel Isl., Herald Isl..

143. Pridatko V.I. 1986b. The history of formation and modern status of seabird's complexes of Wrangel and Herald Islands. Zhivotnyy mir ostrova Vrangelya. Vladivostok. P. 32-74.
Taxa: AVES, L.hyperboreus, R.tridactyla, Ph.pelagicus, U.lomvia, F.corniculata.
Keywords: quantitative count, nature reserve, adaptations.
Region: Wrangel Isl., Herald Isl..

144. Pridatko V.I. 1990. The external geological-geomorphological processes and patterns of settlement organization in the colonial seabirds. - Sovremennye problemy izuch. kolonial'n. u ptits.Mat. Vses. soveshchaniya. Simferopol'. P. 94-97.
Taxa: AVES, L.hyperboreus, R.tridactyla, Ph.pelagicus, U.lomvia, F.corniculata.
Keywords: biotope, nature reserve, population structure.
Region: Wrangel Isl., Herald Isl., Chukotka.

145. Pridatko V.I.. 1986c. The activity of predators in the seabirds' colonies at the Wrangel Island. - Teriologiya, ornitologiya i okhrana prirody.Tez. IX Vses. simp. Yakutsk. Part. 3. P. 115-116.
Taxa: AVES, Ph.pelagicus, U.lomvia, C.grylle, L.hyperboreus, R.tridactyla.
Keywords: demography, breeding, nature reserve.
Region: Wrangel Isl..

146. Pridatko V.I., Stishov M.S. 1988. The additional data on waders' fauna of Wrangel Island. - Ornitologiya. Moskva : MGU. Iss. 23. P. 220.
Taxa: AVES, Charadriidae.
Keywords: biotope, species lists, nature reserve.
Region: Wrangel Isl..

147. Pridatko V.N., Lutsyuk O.B. 1986. The ornithofauna of Herald Island (Chukchi Sea). Vestnik zoologii. N 3. P. 29-34.
Taxa: AVES, Ph.pelagicus, Laridae, Alcidae.
Keywords: biotope, species lists, numbers, feeding, breeding, phenology.
Region: Herald Isl..

148. Priklonskiy S.G., Beme R.L., Uspenskiy S.M. 1962. Data on the birds migration in the Indighir delta.. - Migratsii zhivotnykh. Moskva : AN SSSR. Iss. 3. P. 145-159.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Laridae.
Keywords: migration.
Region: Yakutia.

149. Priklonskiy S.G.,Sapetin Ya.V. 1979. Migrations of Snow Goose. Migratsii ptits Vostochnoy Evropy i Severnoy Azii.Aistoobraznye - plastinchatoklyuvye. Moskva : Nauka. P. 163-178.
Taxa: AVES, Ch.caerulescens.
Keywords: migration, distribution, biodemography, nature reserve, red data book.
Region: Wrangel Isl., Chukotka.

150. Pugachuk N.N. 1965. The Waterfoul birds of the Yamal Peninsula.. Geografiya resursov vodoplavayushchikh ptits v SSSR: Tezisy dokladov soveshchaniya. Moskva : MGU. Part. 2. P. 54-58.
Taxa: AVES, Gaviidae, Anatidae, Laridae.
Keywords: density, species lists.
Region: Yamal.

151. Pugayeva V.A., Sazonov A.A., Stoyko I.P. 1981. Observations on the Ross's Gulls at the Wrangel Island. - Redkiye i ischezayushchiye zhivotnye sushi Dal'nego Vostoka SSSR. Vladivostok : DVNTs AN SSSR. P. 134-136.
Taxa: AVES, Rh. rosea.
Keywords: migration, phenology, feeding, nature reserve, red data book.
Region: Wrangel Isl..

152. Rogacheva E.V. 1959. Article of the mammals and birds fauna of the Yenisei taiga and forest tundra.. - Geografiya naseleniya nazemnykh zhivotnykh i metody ego izucheniya. Moskva : AN SSSR. P. 197-207.
Taxa: AVES, Gaviidae, C.bewickii, Anser, Anas, Charadriidae, Laridae.
Keywords: biotops, species lists, red data book.
Region: Yenisei.

153. Rogacheva E.V., Ravkin E.S., Syroyechkovskiy E.E., Kuznetsov E.A. 1983. Fauna and population of the birds of the Yenisei forest tundra. - Zhivotnyy mir eniseyskoy taygi i lesotundry i prirodnaya zonal'nost'. Moskva : Nauka. P. 14-47.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Laridae.
Keywords: distribution, species lists, density, breeding, biotops.
Region: Yenisei.

154. Rogacheva E.V., Syroyechkovskiy E.E.-ml., Lappo E.G. 1991. Distribution and number of the moult Branta bernicla at the Taimyr. -Materialy 10-j Vsesoyuznoy ornitologicheskoy konferentsii. Minsk. Part. 1. P. 135-136.
Taxa: AVES, B.bernicla.
Keywords: distribution, number, moult.
Region: Taimyr.

155. Rutilevskiy G.L. 1957a. Distribution of Baikal Teal at the New-Siberian Islands. Problemy Arktiki. Iss. 1. P. 119-121.
Taxa: AVES, Anatidae.
Keywords: distribution, biotope.
Region: New Siberian Isls..

156. Rutilevskiy G.L. 1957b. The eiders of New-Siberian Islands. - Trudy Arkticheskogo i antarkticheskogo instituta. Leningrad : Morskoy transport. Vol. 205. P. 33-62.
Taxa: AVES, S.mollissima, S.spectabilis, S.fischeri, P.stelleri.
Keywords: distribution, biotope, morphology, breeding, migration, phenology, moult, feeding.
Region: New Siberian Isls..

157. Rutilevskiy G.L. 1958a. The birds of Bol'shoy Lyakhovskii Island.. Problemy Arktiki. Iss. 4. P. 79-80.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Laridae, Stercorariidae.
Keywords: biotope, species lists, breeding, morphology, phenology, migration, numbers.
Region: Bol'shoi Lyakhovskii Isl.

158. Rutilevskiy G.L. 1958b. The scientific-technical report on the zoological group. - Nauchno-tekhnicheskiy otchet ekspeditsii A-162 na ostrov Faddevskiy v maye-oktyabre 1958 g. Unpubl. report. Leningrad: Arktich. i antarktich.NII. 90-104 p.
Taxa: AVES, Charadriidae, G.stellata, Stercorariidae, Laridae, Anatidae.
Keywords: species lists, biotope.
Region: New-Siberian Isls.

159. Rutilevskiy G.L. 1960. The report on the zoological works. Nauchno-tekhnicheskiy otchet ekspeditsii A-162 na ostrov Novaya Sibir' v maye-sentyabre 1960 g. Unpubl. report. Leningrad : Arktich. i antarktich.NII. 150-180 p.
Taxa: AVES, G.stellata, Charadriidae, Laridae, Stercorariidae, Anatidae.
Keywords: species lists, biotope, phenology, breeding.
Region: Novaya Sibir Isl..

160. Rutilevskiy G.L. 1962. The animal world. - Tr. Arkticheskogo i antarkticheskogo NII. Severnaya Yakutiya:(Fiziko-geograficheskaya kharakteristika). Leningrad : Morskoy transport. Vol. 236. P. 255-273.
Taxa: AVES, Alcidae, Anatidae, Laridae, Charadriidae, Gaviidae.
Keywords: distribution.
Region: New Siberian Isls., Yakutia.

161. Rutilevskiy G.L. 1963. The birds of Stolbovoy Island. - Trudy Arkticheskogo i Antarkticheskogo instituta. Leningrad : Morskoy transport. Vol. 224. P. 93-117.
Taxa: AVES, Charadriidae, Stercorariidae, Laridae, Alcidae, Anatidae.
Keywords: biotope, species lists, morphology, breeding, behaviour, systematics, phenology.
Region: Stolbovoi.

162. Rutilevskiy G.L. 1964. The report on zoology. - Nauchno-tekhnicheskiy otchet kompleksnoy fiziko-geograficheskoy ekspeditsii A-162 o rabote na ostrove Novaya Sibir' v maye-oktyabre 1964 g. Unpubl. report. Leningrad : Arktich. i antarktich.NII. 82-92 p.
Taxa: AVES, G.stellata, Charadriidae, Laridae, Stercorariidae, Anatidae.
Keywords: biotope, species lists.
Region: Novaya Sibir Isl..

163. Rutilevskiy G.L. 1970a. The animal world. The birds. - Sovetskaya Arktika. Morya i ostrova Severnogo Ledovitogo okeana. Moskva : Nauka. P. 286-296.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae,.
Keywords: distribution, species lists.
Region: Novaya Zemlya, New Siberian Isls., Wrangel Isl., Severnaya Zemlya, Arctic Ocean.

164. Rutilevskiy G.L. 1970b. The animal world. - Taymyro-Severozemel'skaya oblast'. Leningrad : Gidrometeoizdat. P. 301-333.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Laridae, Stercorariidae, Alcidae.
Keywords: species lists, distribution, biotope, breeding.
Region: Severnaya Zemlya, Taimyr.

165. Rutilevskiy G.L.,Uspenskiy S.M. 1957. The fauna of mammals and birds of the Central Arctic (according to the observation carried out on the drifting stations). - Trudy Arkticheskogo NII. Leningrad : Morskoy transport. Vol. 205. P. 5-18.
Taxa: AVES, Calidris, Ph.fulicarius, Stercorariidae, Laridae, Alcidae, C.hyemalis.
Keywords: distribution, species lists.
Region: Arctic Ocean.

166. Sdobnikov V.M. 1937. Distribution of mammals and birds, according to the types of habitats in the Bolshezemel tundra and Yamal Peninsula.. - Trudy Arkticheskogo instituta. Leningrad: Glavsevmorputi. Vol. 92. P. 1-76.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, biotops, species lists.
Region: Yamal.

167. Sdobnikov V.M. 1956. Change in ornithofauna of the Northern Taimyr.. Priroda. N 9. P. 109-110.
Taxa: AVES, G.arctica, Anser, S.mollissima, Pluvialis, Ch.hiaticula, Stercorariidae, X.sabini.
Keywords: area, species lists.
Region: Taimyr.

168. Sdobnikov V.M. 1957. Data on fauna and ecology of birds of the Lena-Khatanga area.. - Trudy Instituta biologii AN SSSR Sib. otd. Yakutskiy filial. Yakutsk. Iss. 6. P. 119-143.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, breeding, migration, species lists.
Region: Taimyr.

169. Sdobnikov V.M. 1959a. Geese and ducks of the Nothern Taimyr.. - Trudy NII sel'skogo khozyajstva Kraynego Severa. Vol. 9. P. 154-183.
Taxa: AVES, Anatidae, Anser, Anas.
Keywords: distribution, phenology, migration, breeding, feeding, moult, species lists.
Region: Taimyr.

170. Sdobnikov V.M. 1959b. The waders of the Northern Taimyr.. - Trudy NNII sel'skogo khozyajstva Kraynego Severa. Vol. 9. P. 184-207.
Taxa: AVES, Pluvialis, Ch.hiaticula, A.interpres, Ph.lobatus, Calidris.
Keywords: biotops, migration, breeding, species lists.
Region: Taimyr.

171. Sdobnikov V.M. 1960. Birds of the Central and Northern Taimyr and Severnaya Zemlya. Unpubl. report. - Leningrad : AANII. 1-108.
Taxa: AVES, Stercorariidae, Gaviidae, Laridae, A.alle, C.grylle, F.glacialis.
Keywords: species lists, biotope, red data book, feeding, behaviour, breeding, phenology, numbers, migrations.
Region: Taimyr, Severnaya Zemlya.

172. Sdobnikov V.M. `969. Some peculiarities of avifauna of North-Eastern Taimyr.. Zoologicheskiy zhurnal. Vol. 48, Iss. 3. P. 400-406.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distrbution, area, species lists.
Region: Taimyr.

173. Sdobnikov V.N. 1971. Causes for breaks in breeding of arctic birds. Zoologicheskiy zhurnal. Vol. 50, N 5. P. 734-740.
Taxa: AVES, P. eburnea, L. hyperboreus, L. argentatus, St. pomarinus, St. longicaudus, St. paradisaea.
Keywords: migration, breeding, phenology.
Region: Taimyr.

174. Shostak A.S. 1921. Data to study of avifauna of the Ob-Taz Peninsula and Yamal.. - Vestnik Vserosiyskogo ornitologicheskogo obshchestva. V.sk, 1921. Vol. 1. P. 87-104.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, S.paradisaea.
Keywords: distribution, species lists.
Region: Yamal.

175. Shukhov I.N. 1928. To the avifauna of the nothern part of the Ob Bay and Shokal'skii Island.. - Izvestiya Zapadno-Sibirskogo otdeleniya RGO. Omsk. Vol. 6. P. 57-59.
Taxa: AVES, G.stellata, Anatidae, Charadriidae, Stercorariidae, S.paradisaea.
Keywords: distribution, biotops, species lists.
Region: Gydan, Kara Sea Island.

176. Skalon V.N. 1946. The direction and character in the flight of Branta bernicla in Yakutia.. Priroda. N 7. P. 68-69.
Taxa: AVES, B.bernicla.
Keywords: migration, red data book.
Region: Yakutia.

177. Smirnov G.P., Velizhanin A.G. 1986. Colonies of seabirds in the Chukot National Area. Byulleten' moskovskogo obshchestva ispytateley prirody. Otd. biologii. Vol. 91, N 3. P. 29-35.
Taxa: AVES, L. argentatus, R. tridactyla, U.lomvia, C.grylle.
Keywords: distribution, population dynamics.
Region: Chukotka.

178. Sosin V.F. 1983. About breeding of Branta bernicla in Yamal.. - Biologicheskiye problemy Severa: Tezisy dokladov Vsesoyuznogo simpoziuma. Magadan. Part. 1. P. 35-36.
Taxa: AVES, B.bernicla.
Keywords: distribution, number, breeding.
Region: Yamal.

179. Sosin V.F. 1986. Character of the distribution and breeding of the Pomarine Skua on the Yamal Peninsula. - Tezisy dokladov I s'yezda Vsesoyuznogo ornitologicheskogo obshchestva i IX Vsesoyuznoy ornitologicheskoy konferentsii. Leningrad : Nauka. P. 254-255.
Taxa: AVES, St. pomarinus.
Keywords: distribution, biotope, breeding.
Region: Yamal.

180. Spangenberg E.P. 1960a. New data on the distribution and biology of birds in the Lower Kolyma.. Byulleten' MOIP. Novaya seriya. Otdeleniye biologii. Vol. 65, Iss. 2. P. 31-35.
Taxa: AVES, Anser, Ch.caerulescens, Charadriidae, L.hyperboreus, R.rosea.
Keywords: distribution, breeding, species lists, red data book.
Region: Yakutia.

181. Spangenberg E.P. 1960b. About birds of the Lower Kolyma.. - Ornitologiya. Moskva : MGU, 1960. Iss. 3. P. 106-111.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotops, species lists.
Region: Yakutia.

182. Stishov M.S. 1984. The seabirds' settlements of Wrangel Island and lithogenic factors. - Teor.aspekty kolonial'nosti u ptits.Mat-ly soveshch. po teor. aspektam kolonial'nosti u ptits.16-18 okt.. Moskva, 1985. P. 123-127.
Taxa: AVES, Ph.pelagicus, R.tridactyla, L.hyperboreus, U.lomvia, C.grylle, F.corniculata.
Keywords: biotope, population density, nature reserve.
Region: Wrangel Isl..

183. Stishov M.S. 1986. The typology and chorology of bird's population of Wrangel Island. - Zhivotnyy mir ostrova Vrangelya. Vladivostok : DVNTs AN SSSR, 1986. P. 75-95.
Taxa: AVES, Charadriidae, Anatidae, Stercorariidae.
Keywords: population density, biotope, quantitative count, nature reserve.
Region: Wrangel Isl.

184. Stishov M.S. 1988a. New point of breeding of Tryngites subruficollis in the USSR.. - Informatsiya Rabochey gruppy po kulikam. Vladivostok. P. 41.
Taxa: AVES, Calidris.
Keywords: distribution, biotops, phenology, density, breeding, red data - book.
Region: Chukotka.

185. Stishov M.S. 1988b. The spatial distribution and structure of wader's communities at the Wrangel Island. - Kuliki v SSSR: rasprostraneniye, biologiya i okhrana.Mat. 3 soveshch."Rasprostraneniye, biologiya i okhrana kulikov". Moskva. P. 134-141.
Taxa: AVES, Calidris, Pluvialis, A.interpers, Ph.fulicarius, Ch.hiaticula,.
Keywords: population density, quantitative count, biotope, nature reserve.
Region: Wrangel Isl..

186. Stishov M.S. 1989. The spatial-typological structure of birds' population of Wrangel Island. - Ptitsy v soobshchestvakh tundrovoy zony. Moskva : Nauka. P. 187-212.
Taxa: AVES, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotope, nature reserve, population structure.
Region: Wrangel Isl..

187. Stishov M.S. 1990. The nesting of small arctic goose at the settlements of large gulls: advantages and negative aspects. Sovremennye problemy izuch. kolonial'n. u ptits.Mat. Vses. soveshchaniya. Simferopol'. P. 107-109.
Taxa: AVES, B.nigricans, L.argentatus, L.hyperboreus.
Keywords: breeding, biodemography, behaviour, biotope, nature reserve.
Region: Wrangel Isl., Chukotka.

188. Stishov M.S. 1991a. The spatial relations among the ecological similar birds' species at the Wrangel Island. - Populyatsii i soobshchestva zhivotnykh ostrova Vrangelya. Moskva. P. 116-143.
Taxa: AVES, Charadriidae, X.sabinii, S.paradisea, S.mollissima, S.spectabilis, C.hyemalis.
Keywords: biotope, population density, feeding, nature reserve.
Region: Wrangel Isl..

189. Stishov M.S. 1991b. Distribution and population types of breeding seabirds at the Wrangel and Herald Islands. - Populyatsii i soobshchestva zhivotnykh ostrova Vrangelya. Moskva. P. 143-160.
Taxa: AVES, Ph.pelagicus, L.hyperboreus, R.tridactyla, U.lomvia, C.grylle.
Keywords: biotope, population density, nature reserve.
Region: Wrangel Isl., Herald Isl..

190. Stishov M.S. 1991c. The spatial distribution of breeding obligatory colonial seabirds at Wrangel and Herald Islands.1.Distribution patterns and general characteristics of settlement's structure.- Ekologiya. N 4. P. 56-61.
Taxa: AVES, U.lomvia, R.tridactyla, Ph.pelagicus, L.hyperboreus, C.grylle, F.corniculata, L.cirrhata.
Keywords: biotope, population density, nature reserve.
Region: Wrangel Isl., Herald Isl..

191. Stishov M.S. 1991d. New datas about distribution of some birds species along the arctic coast of the Chukot Peninsula.. Ornitologicheskiye problemy Sibiri: Tezisy dokladov IV konferentsii ornitologov Sibiri. Barnaul. P. 132-133.
Taxa: AVES, C.bewickii, Calidris.
Keywords: distribution, red data book.
Region: Chukotka.

192. Stishov M.S. 1991e. Basic features of the bird population spatial organization on the arctic coast of Western Chukotka.. Ornitologicheskiye problemy Sibiri:Tezisy doklado IV konferentsii ornitology Sibiri. Barnaul.P. 109-111.
Taxa: AVES, Charadriidae.
Keywords: biotops, distribution.
Region: Chukotka.

193. Stishov M.S., Maryukhnich P.V. 1992a. Eurynorhynchus pygmeus on the west of Vankarem Lowland.. - Informatsiya Rabochey gruppy po kulikam. Novosibirsk. P. 65-66.
Taxa: AVES, Calidris.
Keywords: distribution, red data book.
Region: Chukotka.

194. Stishov M.S., Maryukhnich P.V. 1992b. Tryngites subruficollis on the arctic coast of Chukotka.. - Informatsiya Rabochey gruppy po kulikam. Novosibirsk. P. 66.
Taxa: AVES, Calidris.
Keywords: biotops, density, number, red data book.
Region: Chukotka.

195. Stishov M.S., Maryukhnich P.V. 1992c. Breeding of the Calidris canutus and C.ferruginea on the Cape Yakan (arctic coast of Chukotka).. - Informatsiya Rabochey gruppy po kulikam. Novosibirsk. P. 66.
Taxa: AVES, Calidris.
Keywords: distribution, biotops, phenology, density, breeding.
Region: Chukotka.

196. Stishov M.S., Pridatko V.I. 1989. Charadrius semipalmatus in the USSR. - Informatsiya rabochey gruppy po kulikam. Magadan : AN SSSR. P. 60.
Taxa: AVES, Charadriidae.
Keywords: distribution.
Region: Herald Isl..

197. Stishov M.S., Pridatko V.I., Baranyuk V.V. 1985. New data concerning birds in the Wrangel Island. Byull. MOIP.Otd. biologii. Vol. 90, Iss. 2. P. 42-48.
Taxa: AVES, Anatidae, Charadriidae, Alcidae, R.rosea.
Keywords: species lists, migration, phenology, nature reserve, red data book.
Region: Wrangel Isl..

198. Stishov M.S., Pridatko V.I., Baranyuk V.V. 1991. The birds of Wrangel Island. Novosibirsk. P. 1-253.
Taxa: AVES, Gaviidae, Phalacrocoracidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae, Procellariidae.
Keywords: species lists, population density, numbers, biotope, structure of population, population dynamics, phenology, breeding.
Region: Wrangel Isl., Herald Isl..

199. Stishov M.S.,Pridatko V.I.,Baranyuk V.V. 1987. The birds. - Flora i fauna zapovednikov SSSR.Fauna zapovednika "Ostrov Vrangelya". Moskva. P. 37-49.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae, Phalacrocoracidae.
Keywords: species lists, numbers, status, nature reserve, red data book.
Region: Wrangel Isl., Herald Isl..

200. Stotskaya E.E. 1990. The Pigeon Guillemot. - Ptitsy SSSR.Chistikovye. Moskva : Nauka. P. 66-73.
Taxa: AVES, C.columba.
Keywords: biotope, distribution, biodemography, migration, feeding, behaviour, breeding, systematics,
Region: Chukotka.

201. Syroyechkovskiy E.V. 1975a. The ecology of Snow Goose of Wrangej Island.- Avtoreferat dissertatsii na soiskaniye uchenoy stepeni kandidata biologicheskikh nauk. Moskva. P. 1-23.
Taxa: AVES, Ch.caerulescens.
Keywords: red data book, breeding, migration, population density, biodemography, phenology, nature reserve.
Region: Wrangel Isl..

202. Syroyechkovskiy E.V. 1975b. Weight of eggs and its influence upon goslings' demography in Snow Goose (Chen caerulescens) at the Wrangel Island. Zoologicheskiy zhurnal. 1975. Vol. 54, Iss. 3. P. 408-412.
Taxa: AVES, Ch.caerulescens.
Keywords: breeding, biodemography, nature reserve, red data book.
Region: Wrangel Isl..

203. Syroyechkovskiy E.V. 1976. The peculiarities of behavior in the Snow Goose (Anser caerulescens) during breeding period. Zoologicheskiy zhurnal. Vol. 55, Iss. 10. P. 1495-1505.
Taxa: AVES, Ch.caerulescens.
Keywords: breeding, morphology, nature reserve, red data book.
Region: Wrangel Isl..

204. Syroyechkovskiy E.V. 1977. The colonies of Anserformes near the nests of Snowy Owls at the Wrangel Island. - Ornitologiya. Moskva : MGU. Iss. 13. P. 211-212.
Taxa: AVES, B.nigricans, Ch.caerulescens, S.mollissima.
Keywords: biodemography, red data book, breeding, nature reserve.
Region: Wrangel Isl..

205. Syroyechkovskiy E.V. 1981. The structure of colonies of Snow Goose (Chen.caerulescens) at the Wrangel Island and attempt of the forcast of their number's changes. Zoologicheskiy zhurnal. Vol. 60, Iss. 9. P. 1364-1373.
Taxa: AVES, Ch.caerulescens.
Keywords: population dynamics, population density, structure of population, breeding, nature reserve, red data book.
Region: Wrangel Isl..

206. Syroyechkovskiy E.V., Sychev E.V., Krechmar A.V. 1981. The Lesser Snow Goose at the Wrangel Island. - Ornitologiya. Moskva : MGU. Iss. 16. P. 158-159.
Taxa: AVES, Ch.caerulescens.
Keywords: red data book, breeding, nature reserve.
Region: Wrangel Isl..

207. Syroyechkovskiy E.V.,Krechmar A.V. 1981. The main factors determing number of Snow Goose. - Ekologiya mlekopitayushchikh i ptits ostrova Vrangelya. Vladivostok. P. 3-37.
Taxa: AVES, Ch.caerulescens.
Keywords: breeding, biodemography, nature reserve, red data book.
Region: Wrangel Isl..

208. Syroyechkovskiy E.V.,Krechmar A.V.,Artyukhov A.I. 1977. The number's changes in breeding Snow Goose at the Wrangel Island during the period of 1969 - 1973. - Ornitologiya. Moskva : MGU. Iss. 13. P. 212-213.
Taxa: AVES, Ch.caerulescens.
Keywords: population dynamics, nature reserve, red data book.
Region: Wrangel Isl..

209. Syroyechkovskiy E.V.,Krechmar A.V.,Sychev E.V. 1980. The factors determing number's dynamic in Snow Goose of Wrangel Island. Mat. k III Vsesoyuzn. soveshchaniyu "Vid i ego produktivnost' v areale". Vil'nyus. P. 103-105.
Taxa: AVES, Ch.caerulescens.
Keywords: breeding, biodemography, anthropogenic influence, nature reserve, red data book.
Region: Wrangel Isl..

210. Syroyechkovskiy E.V.,Litvin K.E. 1984. Population structure in Snow Goose at the Wrangel Island. - Vid i ego produktivnost' v areale. Sverdlovsk. Part. 2. P. 85-86.
Taxa: AVES, Ch.caerulescens.
Keywords: structure of population, nature reserve, red data book.
Region: Wrangel Isl..

211. Syroyechkovskiy E.V.,Litvin K.E. 1986. Study of migration of Wrangel's Snow Goose by means of individual banding. - Kol'tsevaniye i mecheniye ptits v SSSR. Moskva. P. 5-20.
Taxa: AVES, Ch.caerulescens.
Keywords: migration, distribution, wintering, nature reserve, red data book.
Region: Wrangel Isl..

212. Syroyechkovskiy E.V.,Litvin K.E.,Gurtovaya E.N. 1984. Organization and number's dynamic in populations of Wrangel's Snow Goose. Sistemnye printsipy i etologicheskiye podkhody v izuchenii populyatsiy. Pushchino. P. 183-196.
Taxa: AVES, Ch.caerulescens.
Keywords: population dynamics, structure of population, nature reserve, red data book.
Region: Wrangel Isl..

213. Syroyechkovskiy E.V.,Litvin K.E.,Kalyakin V.N. 1990. The peculiarities of nesting of Bewick's Swan at the Vaigach Island in 1986 -1987. - Ekologiya i okhrana lebedey v SSSR. Melitopol'. Part. 1. P. 121-123.
Taxa: AVES, C.bewickii.
Keywords: red data book, breeding, biotope, population density.
Region: Vaigach Isl..

214. Tatarinkova I.P.,Golovkin A.N. 1990. The Black Guillemot. - Ptitsy SSSR.Chistikovye. Moskva : Nauka. P. 56-65.
Taxa: AVES, C.grylle.
Keywords: biotope, areas, biodemography, migration, feeding, behaviour, breeding, systematics, numbers.
Region: Russia.

215. Teplov V.P.,Shevareva T.P. 1965. About seasonal distribution and hunting of Snow Goose. - Migratsii ptits i mlekopitayushchikh. Moskva. P. 25-38.
Taxa: AVES, Ch.caerulescens.
Keywords: red data book, fishery/hunting, distribution, migration, structure of population.
Region: Wrangel Isl., Chukotka.

216. Tolmachev A.I. 1926. Preliminary report about the travel in the Yenisei river lower and coastal part of the Gydan tundra on summer 1926. Izvestiya AN SSSR. Seriya 6. Vol. 20, N 18. P. 1655-1680.
Taxa: AVES, Gaviidae, B.bernicla, C.hyemalis, Charadriidae, Stercorariidae, Laridae.
Keywords: biotops, distribution, species lists.
Region: Gydan, Yenisei Bay, Taimyr.

217. Tomkovich P.S. 1980. Unusual nesting of Ross's Gull (Rhodostethia rosea). - Ornitologiya. Moskva : MGU. Iss. 15. P. 215.
Taxa: AVES, Rh. rosea.
Keywords: distribution, breeding, phenology, red data book.

218. Tomkovich P.S. 1988. Birds of the southern coast of Buor-Khaya Gulf (Nothern Yakutia). - Sb. trudov Zoomuzeya MGU. Moskva : MGU. Vol. 24. P. 3-38.
Taxa: AVES, Charadriidae, Gaviidae, Anatidae, Stercorariidae, Laridae.
Keywords: biotope, breeding, distribution, feeding, behaviour, moult, migration.
Region: Yakutia.

219. Tomkovich P.S. 1990. To the problem of nonbreeding movements of Ivory Gull. - Sovremennaya ornitologiya. Moskva : Nauka. P. 150-151.
Taxa: AVES, P.eburnea.
Keywords: migrations, red data book.
Region: Arctic Regions.

220. Tomkovich P.S., Ryabitsev V.K., Volkov A.E. et al. 1993. The breeding condition of the Charadriidae in Russian tundras in 1992.. Informatsiya Rabochey gruppy po kulikam. Ekaterinburg : Nauka. P. 19-27.
Taxa: AVES, Charadriidae.
Keywords: breeding.
Region: Novaya Zemlya, Yamal, Severnaya Zemlya, Taimyr, Yakutia, Chukotka.

221. Tomkovich P.S., Ryabitsev V.K., Zhukov V.S. et al. 1992. The breeding conditions of the Charadriidae in USSR tundras in 1990.. Informatsiya Rabochey gruppy po kulikam. Novosibirsk : Nauka. P. 51-61.
Taxa: AVES, Charadriidae.
Keywords: breeding, nature reserve.
Region: Novaya Zemlya, Yamal, Gydan, Yenisei Bay, Taimyr, Chukotka, Wrangel.

222. Tomkovich P.S., Solov'yev M.Yu., Volkov A.E. et al. 1992. The breeding condition of the Charadriidae in Russian tundras in 1991.. Informatsiya Rabochey gruppy po kulikam. Ekaterinburg : Nauka. P. 32-43.
Taxa: AVES, Charadriidae.
Keywords: breeding.
Region: Vaigach, Yamal, Taimyr, Severnaya Zemlya, Yakutia.

223. Tomkovich P.S., Stishov M.S., Vinokurov A.A. et al. 1990. The breeding condition of the Charadriidae in USSR tundras in 1989.. Informatsiya Rabochey gruppy po kulikam. Magadan. P. 40-48.
Taxa: AVES, Charadriidae.
Keywords: breeding, nature reserve.
Region: Yamal, Gydan, Taimyr, Yakutia, Chukotka, Wrangel.

224. Tomkovich P.S., Syroyechkovskiy E.E.-ml, Solov'yev M.Yu. et al. 1991. New data on ornithofauna of the Northern Taimyr.. Ornitologicheskiye problemy Sibiri: Tezisy dokladov IV konferentsii ornitologov Sibiri. Barnaul. P. 134-135.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, species lists.
Region: Taimyr.

225. Tomkovich P.S., Zhukov V.S., Kalyakin V.NN. et al. 1989. The breeding condition of the Charadriidae in USSR tundras in 1988.. Informatsiya Rabochey gruppy po kulikam. Magadan. P. 51-58.
Taxa: AVES, Charadriidae.
Keywords: breeding, nature reserve.
Region: Vaigach, Novaya Zemlya, Yamal, Gydan, Yenisei Bay, Yakutia, Chukotka, Wrangel.

226. Tomkovich P.S.,Vronskiy N.V. 1988. The bird fauna of the Dikson vicinity, Northern Taimyr. - Sb. trudov Zoomuzeya MGU. Moskva : MGU. Vol. 24. P. 39-77.
Taxa: AVES, Charadriidae, Gaviidae, Anatidae, Stercorariidae, Laridae.
Keywords: biotope, breeding, distribution, feeding, behaviour, moult, migration.
Region: Taimyr.

227. Trukhin A.M.,Kosygin G.M. 1987. The distribution of seabirds in the ice of the western part of Beeing and Chukotsk Sea. - Rasprostraneniye i biologiya ptits morskikh Dal'nego Vostoka. Vladivostok. P. 6-21.
Taxa: AVES, Ph.pelagicus, St.pomarinus, St.longicaudus, P.eburnea, L.argentatus, R.tridactyla, R.rosea, X.sabinii, U.lomvia, U.aalgae.
Keywords: wintering, quantitative count, distribution, red data book.
Region: Chukchi Sea.

228. Tugarinov A.Ya. 1927. The birds of Yenisei Siberia. List and distribution.. Zapiski Sredne-Sibirskogo otdeleniya RGO. Seriya 2. Vol. 1, Iss. 1. P. 1-43.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, species lists.
Region: Yenisei Bay.

229. Tugarinov A.Ya., Buturlin S.A. 1911. Data on the birds of Yenisei Territory. Zapiski Krasnoyarskogo otdeleniya RGO. Vol. 1, Iss. 2-4. P. 1-440.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, breeding, migration, phenology, biotops, species lists.
Region: Yenisei Bay, Taimyr.

230. Tyulin A.NN. 1938. The game fauna of the Belyi Island.. - Trudy nauchno-issledovatel'skogo instituta polyarnogo zemledeliya, zhivotnovodstva i promyslovogo khozyajstva. Seriya promyslovoye khozyajstvo. Leningrad : Glavsevmorputi. Iss. 1. P. 5-39.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: breeding, number, migration, species lists.
Region: Kara Sea Islands.

231. Uspenskiy S.M. 1957. The colonial sea birds of Anzhu Islands. - Trudy Arkticheskogo instituta. Leningrad: Morskoy transport. Vol. 205. P. 97-108.
Taxa: AVES, L.hyperboreus, R.tridactyla, U.lomvia, C.grylle.
Keywords: distribution, morphology, biotope, feeding, breeding, phenology.
Region: Bel'kovskii, Kotel'nyi Isl., Stolbovoi.

232. Uspenskiy S.M. 1958. The some birds species on the north-east of the Eurupean part of the USSR.. Uchenye zapiski MGU. Iss. 197. P. 35-47.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, breeding, species lists.
Region: Vaigach.

233. Uspenskiy S.M. 1959. Seabirds nesting in colonies of the northern and Far-eastern seas of the USSR, their distribution, number and role as a plancton and benthos consumers. Byull. Mosk. ob-va ispytateley prirody.Otdel. biol. Vol. 64, N 2. P. 39-52.
Taxa: AVES, Alcidae, Laridae.
Keywords: distribution, feeding, economic use, numbers.
Region: Arctic Regions.

234. Uspenskiy S.M. 1961. Number survey and modern status of Snow Goose resources at the Wrangel Island. - Soveshch. po vopr. organizatsii i metodam ucheta resursov fauny nazemn. pozvonochn., 4-8 marta/Mosk.o-vo ispyt.prirody. Moskva : AN SSSR, In-t geografii. P. 115-116.
Taxa: AVES, Ch.caerulescens.
Keywords: red data book, economic use, hunting, resources, nature reserve.
Region: Wrangel Isl..

235. Uspenskiy S.M. 1963. The Snow-Goose. Priroda. N 9. P. 58-62.
Taxa: AVES, Ch.caerulescens.
Keywords: distribution, breeding, fishery/hunting, numbers, resources, nature reserve, red data book.
Region: Wrangel Isl..

236. Uspenskiy S.M. 1965a. Birds of the east of Bolshezemel'skaya tundra, Yugor Peninsula and Vaigach Island.. - Trudy Instituta biologii Ural'skogo filiala AN SSSR. Sverdlovsk : Nauka. Iss. 38. P. 65-102.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotops, breeding, species lists, number.
Region: Vaigach.

237. Uspenskiy S.M. 1965b. Materials on bird fauna of the north parts of the Anabar tundras. - Sbornik trudov Zoomuzeya MGU "Issledovaniya po faune Sovetskogo Soyuza (ptitsy). Moskva : MGU. Vol. IX. P. 63-97.
Taxa: AVES, X. sabini, L. argentatus, L. hyperboreus, St. paradisaea, St. parasiticus, St. longicaudus.
Keywords: distribution, breeding, phenology, biotope, migration.
Region: Yakutia.

238. Uspenskiy S.M. 1967. The Snow-Goose in the Soviet Arctic: Perspectives of restoration and economic use of resources. Problemy Severa. Iss. 11. P. 224-288.
Taxa: AVES, Ch.caerulescens.
Keywords: distribution, resources, fishery/hunting, conservation, nature reserve.
Region: Wrangel Isl., Chukotka.

239. Uspenskiy S.M. 1969. Life in high latitudes.Demonstrated mainly on birds. Moskva : Mysl'. P. 1-463.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae.
Keywords: anthropogenic influence, biotope, distribution, population density, feeding, hunting, breeding, migration, phenology.
Region: Arctic Regions.

240. Uspenskiy S.M., Beme R.L., Priklonskiy S.G., Vekhov V.N. 1962. The birds of the north-east of Yakutia.. - Ornitologiya. Moskva : MGU. Iss. 4,5. P. 64-86, 49-67.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, feeding, species lists.
Region: Yakutia.

241. Uspenskiy S.M., Beme R.L., Velizhanin A.G. 1963. Avifauna of the Wrangel Island. - Ornitologiya. Moskva : MGU. Iss. 6. P. 58-67.
Taxa: AVES, Gaviidae, Phalacrocoracidae, Anatidae, Charadriidae, Stercorariidae, Laridae, Alcidae.
Keywords: feeding, breeding, phenology, migration, nature reserve, red data book, species lists.
Region: Wrangel Isl..

424. Uspenskiy S.M.,Chernov Yu.I. 1960. The waterfowl of Vaigach Island and Yugor Peninsula and their protection. - Okhrana prirody i ozeleneniye. Iss. 2. P. 47-53.
Taxa: AVES, Anatidae, Gaviidae.
Keywords: conservation.
Region: Vaigach Isl., Yugor Peninsl..

243. Vas'kovskiy A.P. 1966. List and geographical distribution of the birds of the Far North-East of the USSR.. - Krayevedcheskiye zapiski. Magadanskiy krayevedcheskiy muzey. Magadan. Iss. 6. P. 84-124.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, species lists.
Region: Chukotka.

244. Velizhanin A.G. 1965. The notes on the fauna of the terrestres vertebrates of the Wrangel Island. Zapiski Primorskogo filiala Geograficheskogo obshchestva Soyuza SSR. Vol. I(XXIV).
Taxa: AVES, X. sabini.
Keywords: biotope, breeding, nature reserve.
Region: Wrangel Isl..

245. Vinogradov V.G. 1988. The network of wetlands of special importance in the Russian Federation - the problems of creation and function. - Okhrana ugodiy i ispol'zovaniye okhotnich'ikh ptits. Moskva. P. 7-22.
Taxa: AVES, Anatidae, Charadriidae.
Keywords: biotope, conservation.
Region: Russia.

246. Vinokurov A.A. 1981. The Herring and Glaucous Gulls in the central part of the Taimyr Peninsula. - Razmeshcheniye i sostoyaniye koloniy okolovodnykh ptits na territorii SSSR. Moskva : Nauka. P. 37.
Taxa: AVES, L. hyperboreus, L. argentatus.
Keywords: biotope, distribution, numbers.
Region: Taimyr.

247. Vorob'yev I.E. 1940. The Chetyrekhstolbovoy Island.Bio-geographical essey. Izv.VGO. Vol. 72, Iss. 3. P. 342-353.
Taxa: AVES, R.tridactyla, L.hyperboreus, St.longicaudus, C.grylle, Charadriidae, Anatidae.
Keywords: species lists, phenology, breeding.
Region: East Siberian Sea.

248. Vorob'yev K.A. 1963. The birds of Yakutia. Moskva : AN SSSR. P. 1-336.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: area, distribution, breeding, biotops, species lists.
Region: Yakutia.

249. Vorob'yev K.A. 1967. Ornithological investigations on the Alasea river (north-eastern Yakutia. - Ornitologiya. Moskva : MGU. Iss. 8. P. 150-159.
Taxa: AVES, St.pomarinus, St. parasiticus, St.longicaudus, Rh. rosea.
Keywords: migration, phenology, red data book.
Region: Yakutia.

250. Vronskiy N.V. 1987. Data to the avifauna of the north-western Taimyr.- Fauna i ekologiya ptits i mlekopitayushchikh Sredney Sibiri. Moskva : Nauka. P. 28-38.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: biotops, phenology, species lists.
Region: Taimyr.

251. Vronskiy N.V., V.kovich P.S. 1983. Charadriidae in the arctic tundras around the Dikson.. - Biologicheskiye problemy Severa. Magadan. Part. 2. P. 13-14.
Taxa: AVES, Charadriidae.
Keywords: breeding, phenology.
Region: Taimyr.

252. Yudin K.A. 1964. On the avifauna of central part of the Arctic ocean. Trudy Arkticheskogo i antarkticheskogo instituta. Leningrad: Glavsevmorput'. Vol. 259. P. 400-403.
Taxa: AVES, P.eburnea, L.hyperboreus, R.tridactyla, R.rosea, C.grylle, A.alle.
Keywords: distribution, species lists, moult, phenology, red data book.
Region: Arctic Ocean.

253. Yudin K.A., Firsova L.V. 1988a. The Herring Gull. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. 1988. P. 126-146.
Taxa: AVES, L.argentatus.
Keywords: areas, biotope, wintering, migrations, moult, feeding, behaviour, breeding, numbers, systematics, morphology, phenology.
Region: Russia.

254. Yudin K.A., Firsova L.V. 1988b. The Glaucos Gull. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 165-174.
Taxa: AVES, L.hyperboreus.
Keywords: areas, biotope, wintering, migrations, moult, feeding, behaviour, migration, breeding, numbers, biodemography.
Region: Arctic Regions.

255. Yudin K.A., Firsova L.V. 1988c. The Sabine's Gull. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 207-215.
Taxa: AVES, X.sabinii.
Keywords: areas, biotope, wintering, migrations, red data book, moult, feeding, behaviour, migration, breeding, biodemography.
Region: Arctic Regions.

256. Yudin K.A., Firsova L.V. 1988d. The Ivory Gull. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 51-57.
Taxa: AVES, P.eburnea.
Keywords: areas, biotope, wintering, migartions, red data book, moult. feeding, behaviour, breeding, numbers, biodemography.
Region: Arctic Regions.

257. Yudin K.A., Firsova L.V. 1988e. The Kittiwake. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 215-226.
Taxa: AVES, R.tridactyla.
Keywords: areas, biotope, wintering, migrations, moult, feeding, behaviour, migration, breeding, numbers, biodemography.
Region: Russia.

258. Yudin K.A., Firsova L.V. 1988f. The Ross's Gull. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 244-557.
Taxa: AVES, R.rosea.
Keywords: areas, biotope, wintering, migrations, red data book, moult, feeding, behaviour, breeding, numbers, biodemography.
Region: Arctic Regions.

259. Yudin K.A., Firsova L.V. 1988g. The Arctic Tern. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 337-348.
Taxa: AVES, S.paradisea.
Keywords: areas, biotope, wintering, migrations, red data book, moult, feeding, behaviour, migration, breeding, numbers.
Region: Arctic Regions.

260. Yurlov A.K. 1982. Number and distribution of summer population of the birds in Lower Pyasina river (Western Taimyr).. -Razmeshcheniye i chislennost' pozvonochnykh Sibiri. Novosibirsk : Nauka. P. 182-189.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, number, species lists, biotops, population dynamic.
Region: Taimyr.

261. Zasypkin M.Yu. 1981. Distribution of birds in Western Chukotka and zoogeographic analysis of its avifauna. - Ornitologiya. Moskva : MGU. Iss. 16. P. 100-113.
Taxa: AVES,St.longicaudus, St.parasiticus, P.eburnea, L.hyperboreus, L.argentatus, R.tridactyla, Rh.rosea, X.sabini, St.paradisaea.
Keywords: distribution, breeding, phenology, migration, numbers, red data book.
Region: Chukotka.

262. Zasypkin M.Yu., Stepanov A.P. 1973. On the waders of the Chaun lowlands.. - Fauna i ekologiya kulikov. Moskva : MGU. Part. 2. P. 36-37.
Taxa: AVES, Charadriidae.
Keywords: breeding, species lists.
Region: Chukotka.

263. Zhitkov B.M. 1912. The birds of the Yamal Peninsula.. Ezhegodnik Zoologicheskogo muzeya Imperatorskoy Akademii Nauk. Vol. 17, N 3-4. P. 311-369.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, breeding, moult, species lists, biotope, phenology.
Region: Yamal.

264. Zhitkov B.M., Zenzinov V.M. 1915. To the ornithofauna of the Far North of Siberia.. - Dnevnik zoologicheskogo otdeleniya Obshchestva lyubiteley estestvoznaniya, antropologii i etnografii. Novaya seriya. Moskva. Vol. 3, N 2. P. 42-59.
Taxa: AVES, Gaviidae, Anatidae, Charadriidae, Stercorariidae, Laridae.
Keywords: distribution, biotops, phenology, breeding, moult, species lists, migration, feeding.
Region: Yakutia.

265. Zubakin V.A. 1977. About the necessity of inclusion in the Red Book of the USSR of some rare specieses of Gulls. - Redkiye zhivotnye i ikh okhrana v SSSR. Tezisy seminara po obmenu opyV. okhrany redkikh zhivotnykh.Moskva . TsLOP MSKh SSSR. P. 77-80.
Taxa: AVES, X.sabini.
Keywords: conservation.
Region: Russia.

266. Zubakin V.A., Avdanin V.O. 1983. Peculiarities of colonial nesting in Rhodostethia rosea. Zoologicheskiy zhurnal. Vol. 62, Iss. 11. P. 1754-1756.
Taxa: AVES, R.rosea.
Keywords: phenology, breeding, red data book.
Region: Yakutia.

267. Zubakin V.A., Kishchinskiy A.A., Flint V.E., Avdanin V.O. 1988. The Poss's Gull. - Ptitsy SSSR. Chaykovye. Moskva : Nauka. P. 244-257.
Taxa: AVES, Rh.rosea.
Keywords: distribution, biodemography, biotope, breeding, red data book.
Region: Taimyr, Yakutia.

Marine mammals

1. Anonim. 1971. The Yakutian mammals. Moskva : Nauka. P. 1-660.
   Taxa: MAMMALIA, Delphinapterus leucas, Odobenus rosmarus, Pusa hispida, Ursus maritimus.
   Keywords: review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult, rookeries.
   Region: Yakutia, East Siberian Sea, Laptev Sea.
2. Adlerberg G.P., Vinogradov B.S., Smirnov N.A., Flerov K.K. 1935. The Arctic mammals. Leningrad : Glavsevmorputi. P. 1-751.
   Taxa: MAMMALIA, Cetacea, Pinnipedia, Delphinapterus leucas, Pusa hispida, Odobenus rosmarus, Ursus maritimus.
   Keywords: distribution, hunting, systematics, ecology, breeding, feeding, moult.
   Region: Arctic Regions.
3. Andreyev F.V. 1973. On the structure of polar bear eye. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 99-107.
   Taxa: MAMMALIA, Ursus maritimus.
   Keywords: morphology, eye.
   Region: Wrangel Isl..
4. Anufriyev I.P. 1912a. The marine mammal catch and fishery at Russian North in old times. Izv. Arkhangel'skogo ob-va izucheniya Russkogo Severa. N 3-4.
   Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
   Keywords: fishery/hunting, distribution.
   Region: Arctic.
5. Anufriyev I.P. 1912b. The marine mammal catch and fishery at Russian North in old times. Izv. Arkhangel'skogo ob-va izucheniya Russkogo Severa. 1912. N 5-6.
   Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
   Keywords: fishery/hunting, distribution.
   Region: Arctic.
6. Anufriyev I.P. 1912c. The marine mammal catch and fishery at Russian North in old times. Izv. Arkhangel'skogo ob-va izucheniya Russkogo Severa. N 7-8.
   Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
   Keywords: fishery/hunting, distribution.
   Region: Arctic.
7. Arsen'yev V.A. 1935. The marine mammals catch in Chukotsk and East-Siberian Seas. Sov. Sever. N 3-4. P. .
   Taxa: MAMMALIA, Pinnipedia, Cetacea, Delphinapterus leucas, Pusa hispida, Odobenus rosmarus.
   Keywords: fishery/hunting.
   Region: Arctic.
8. Avksent'yeva L.N., Bogoslovskaya L.S. 1973. The anatomy of polar bear brain. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 107-113.
   Taxa: MAMMALIA, Ursus maritimus.
   Keywords: morphology, brain, nervous system.
   Region: Wrangel Isl..
9. Bel'kovich V.M. 1959. On mechanism of the colour change of the beluga. Dokl. AN SSSR. Vol. 127, N 3-4. P. 928-930.
   Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
   Keywords: colouration, moult.
   Region: Arctic.

10. Bel'kovich V.M. 1960. Some biological observations on the beluga from air. Zool. zh. Vol. 39; Iss. 9. P. 1414-1422.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, migration.
Region: Arctic.
11. Bel'kovich V.M., Khuzin R.Sh. 1960. Experience of using airplane for beluga prospecting. Tr. PINRO. Vol. 12. P. 158-164.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: fishery/hunting, methods of tracking.
Region: Arctic.
12. Bel'kovich V.M., Shchekotov M.N. 1990. The beluga. The behaviour and bioacustics in nature. P. 1-180.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: behaviour, bioacoustics.
Region: Arctic.
13. Belikov S.E. 1973. Data on the autumn and winter ecology of polar bear females on the Vrangel Island. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 28-36.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, behaviour, dens.
Region: Wrangel Isl..
14. Belikov S.E. 1977. Number, distribution and pecularities of the structure of the dens of the females of the polar bear on the model plot in Wrangel Island. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 19-39.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, breeding, dens, numbers, distribution.
Region: Arctic Regions, Wrangel Isl..
15. Belikov S.E. 1984. On population structure and breeding productivity of the polar bear in Wrangel Island. - Vid i ego produktivnost' na areale. Sverdlovsk. Part. 2. P. 7-8.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: population, biodemography, breeding, numbers.
Region: Arctic Regions, Wrangel Isl..
16. Belikov S.E., Bogdanova N.E., Vekhov V.N. 1977. Composition of the vegetation food of the lactating females of the polar bear in Wrangel Island. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 55-65.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, feeding.
Region: Arctic Regions, Wrangel Isl..
17. Belikov S.E., Gorbunov Yu.A., Kalyakin V.N. 1990. The oservations of the marine mammals in Arctic. - Morskiye mlekopitayushchiye. Tez.dokl. 10 Vsesoyuzn.soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Moskva. P. 16-17.
Taxa: MAMMALIA, Pusa hispida, Delphinapterus leucas, Odobenus rosmarus,.
Keywords: distribution.
Region: Arctic Regions.
18. Belikov S.E., Gorbunov Yu.A., Shil'nikov V.I. 1984. Distribution and migrations of some pinnipeds, cetaceans and polar bear in East Arctic seas. - Morskiye mlekopitayushchiye. Moskva : Nauka. P. 233-252.
Taxa: MAMMALIA, Ursus maritimus, Delphinapterus leucas, Odobenus rosmarus divergens, Pusa hispida.
Keywords: ecology, numbers, distribution, abiotic factors.
Region: Arctic Regions, East Siberian Sea, Chukchi Sea.
19. Belikov S.E., Kupriyanov A.G. 1977. The polar bear of Wrangel Island. - Redkiye vidy mlekopitayushchikh i ikh okhrana. Moskva. P. 102-103.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology.
Region: Arctic Regions, Wrangel Isl.

20. Belikov S.E., Kupriyanov A.G. 1977. The behaviour of the polar bear in Wrangel Island. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 40-54.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: behaviour.
Region: Arctic Regions, Wrangel Isl..
21. Belikov S.E., Kupriyanov A.G. 1979. The behaviour of the polar bear in Wrangel Island. - Ekologicheskiye osnovy okhrany i ratsional'nogo ispol'zovaniya khishchnykh mlekopitayushchikh. Moskva. P. 210-211.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: behaviour.
Region: Arctic Regions, Wrangel Isl..
22. Belikov S.E., Uspenskiy S.M., Chelintsev N.P. 1987. Our's and foreign knowledge of the polar bear recording. - Ekologiya medvedey. Novosibirsk. P. 158-116.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, numbers.
Region: Arctic Regions.
23. Belikov S.E., Uspenskiy S.M., Kupriyanov A.G. 1977. Polar bear ecology in the denning period in Wrangel Island. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 7-18.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: behaviour, ecology, breeding, dens.
Region: Arctic Regions, Wrangel Isl..
24. Belopol'skiy L.O. 939. On migration and breeding ecology of the Pacific walrus (Odobenus rosmarus divergens Illiger). Zool. zh. Vol. 18, Iss. 5. P. 762-778.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus divergens.
Keywords: ecology, migration, distribution, breeding.
Region: Arctic.
25. Bobkov A.V. 1986. The behaviour of the beluga in ice conditions. Morskiye mlekopitayushchiye. Tez. dokl. 9 Vsesoyuzn. soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Arkhangel'sk. P. 46-47.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: behaviour.
Region: Arctic.
26. Bogovoy Iv. 1923. The marine mammal catch at North. Arkhangel'sk.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: fishery/hunting, distribution.
Region: Arctic.
27. Boguslav I. 1847. Novaya Zemlya and hunting near there. Trudy vol'no-ekonomicheskogo ob-va. N 2, Iss. 2.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, distribution, fishery/hunting.
Region: Arctic.
28. Borisov T.M. 1930. The beluga. Khabarovsk.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas. *Keywords*: ecology, distribution, fishery/hunting. *Region:* Arctic.
29. Borodin N. 1902. The new mammal hunting near Enisei mouth. Vestnik rybopromyshlennosti. Vol. 17.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: distribution, fishery/hunting.
Region: Kara Sea.
30. Butorin S.V. 1964. Peculiarities of the beluga catch and its distributional patterns in Arctic. Rybnoye khozyajstvo. N 5. P. 19-21.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: fishery/hunting, distribution.
Region: Arctic Regions.

31. Butorin S.V., Podlesnyy A.V. 1967. The beluga Delphinapterus leucas Pall. of Enisei Bay and adjacent parts of Kara Sea. Tr. Krasnoyarskogo otd. SibNII rybn. khoz-va. Vol. 9. P. 362-375.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: fishery/hunting, ecology.
Region: Kara Sea, Yenisei Bay.
32. Buturlin S.A. 1913. Observation on marine mammals during Kolyma expedition in 1905. Dnevnik zoologicheskogo otdela Ob-va lyubiteley estestvoznaniya, novaya ser. Vol. 1.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: distribution.
Region: Arctic Regions, East Siberian Sea.
33. Buyakovich N. 1939. On the marine mammal catch in Yakutiya. Sov. Arktika.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: distribution.
Region: Yakutia.
34. Chapskiy K.K. 1936. The walrus of Kara Sea. Tr. Arkticheskogo in-ta. Vol. 67. P. 9-111.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution.
Region: Kara Sea.
35. Chapskiy K.K. 1939. The brief historical analysis of recent status of the walrus in Barents and Kara Seas. Problemy Arktiki. N 3. P. 62-69.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution, fishery/hunting.
Region: Kara Sea, Barents Sea.
36. Chapskiy K.K. 1940. Distribution of the walrus in Laptev and East-Siberian Seas. Problemy Arktiki. N 6. P. 80-94.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, distribution.
Region: Laptev Sea, East Siberian Sea.
37. Chapskiy K.K. 1941. The marine mammals of Soviet Arctic. Leningrad-Moskva: Glavsevmorputi. P. 19-40.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus, Delphinapterus leucas, Pusa hispida.
Keywords: ecology, distribution.
Region: Arctic Regions.
38. Chapskiy K.K. 1941. The marine mammals of Soviet Arctic. Leningrad-Moskva. P. 19-40.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution.
Region: Arctic Regions.
39. Chapskiy K.K. 1946. Mammals of the high latitudes of the Arctic ocean. - Trudy dreyfuyushchey ekspeditsii Glavsevmorputi na ledokol'nom parokhode "G. Sedov" 1937-1940 gg. Moskva-Leningrad: Izd-vo Glavsevmorputi. Vol. 3. P. 14-18.
Taxa: MAMMALIA, Ursus maritimus, Pusa hispida, Alopex lagopus, Erignathus barbatus, Momodon monocerus.
Keywords: distribution.
Region: Arctic Regions.
40. Chechulin A.S. 1936. Observations on large marine mammals from aboard of ice-break "Krasin" in the expedition to Bering and Chukotsk Seas in 1934. Sev. mor. put'. Iss. 5.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution.
Region: Chukchi Sea, Bering Sea.

41. Chelintsev N.G. 1977. Determination of the absolute number of dens oased on selective counts. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 66-85.
Taxa: MAMMALIA, Urusus maritmus.
Keywords: ecology, breeding, numbers.
Region: Arctic Regions, Wrangel Isl..

42. Chernyavskiy F.B. 1969. Craniometric variability of polar bear in Soviet Arctic. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Leningrad : Gidrometeoizdat. P. 54-67.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphometry, skull, systematics.
Region: Arctic Regions.

43. Delyamure S.L., Yurakhno M.V., Popov V.N., Treshchev V.V. 1978. Helminthofauna of the ringed seal in different parts of the areal. - Morskiye mlekopitayushchiye. Tez. dokl. 7 Vsesoyuzn. soveshch. Moskva. P. 104-106.
Taxa: MAMMALIA, Pinnipedia.
Keywords: parasites, systematics.
Region: Arctic.

44. Dukhovnyy M.M. 1933. The beluga in the Ob Bay. Byull. Nauchno-issled. in-ta zoologii MGU. N 1.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology.
Region: Kara Sea.

45. Fedoseyev G.A. 1964. On embryonal, postembryonal growth and sexual maturing of the Ochotsk ringed seal. Zool. zhurn. Vol. 43, Iss. 8. P. 1228-1235.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida ochotensis.
Keywords: growth, embryonal development, breeding.
Region: Sea of Okhotsk.

46. Fedoseyev G.A. 1965. Feeding of the ringed seal. Izv. TINRO. Vol. 59. P. 216-223.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida ochotensis.
Keywords: feeding.
Region: Arctic.

47. Fedoseyev G.A. 1965. Comparative characteristics of the ringed seal populations of Chukotsk Peninsula coastal waters. Izv. TINRO. Vol. 59. P. 194-212.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida ochotensis.
Keywords: feeding, ecology, breeding, feeding, morphometry, skull.
Region: Pacific Ocean.

48. Fedoseyev G.A. 1966. Airplane survey of marine mammals in the Bering and Chukchi Sea. - Izv. TINRO. Vol. 58. P. 173-177.
Taxa: MAMMALIA, Odobenus rosmarus, Pusa hispida, Delphinapterus leucas.
Keywords: numbers, distribution.
Region: Eastern Arctic, Bering Sea, East Siberian Sea.

49. Fedoseyev G.A. 1976. The giants of the polar seas. Priroda. N 8. P. 76-83.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: distribution, numbers, ecology, popular-science literature.
Region: Arctic Regions.

50. Fedoseyev G.A. 1978. The ice influence on the walrus distribution. Morskiye mlekopitayushchiye. Tez. dokl. 7 Vses. soveshch. Moskva. P. 339-340.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus divergens.
Keywords: distribution, abiotic factor.
Region: East Siberian Sea, Chukchi Sea, Bering Sea.

51. Fedoseyev G.A. 1982. The areal dynamics and ecological differentiation of the Pacific walrus populations. Ekologiya. N 1. P. 45-51.
Taxa: MAMMALIA, Odobenus rosmarus divergens.
Keywords: numbers, population.
Region: Arctic.

52. Fedoseyev G.A. 1984a. The recent status of walrus populations (Odobenus rosmarus) in East Arctic and Bering Sea. - Morskiye mlekopitayushchiye Dal'nego Vostoka. Vladivostok. P. 73-85.
Taxa: MAMMALIA, Odobenus rosmarus.
Keywords: numbers, population.
Region: Eastern Arctic, Bering Sea.

53. Fedoseyev G.A. 1984b. The population structure, present status and economical perspectives of ice pinnipeds in Northern Pacific. - Morskiye mlekopitayushchiye. Moskva : Nauka. P. 130-146.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida, Odobenus rosmarus divergens, Histriophoca fasciata, Erignathus barbatus, Phoca largha.
Keywords: ecology, fishery/hunting, numbers, distribution.
Region: Arctic.

54. Fedoseyev G.A. 1986a. Distribution and abundance of the walruses in Eastern Arctic and Bering Sea in autumn 1985. - NIR po mor. mlekopitayushchim sev. chasti Tikhogo okeana v 1984-1985 gg. Moskva. P. 93-98.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: distribution, numbers.
Region: Bering Sea.

55. Fedoseyev G.A. 1986b. Seasonal changes of distribution and ecological differentiation of the beluga of Northern Pacific and Eastern Arctic. - Morskiye mlekopitayushchiye. Tez. dokl. 9 Vsesoyuzn. soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Arkhangel'sk. P. 406-407.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology.
Region: Arctic.

56. Fedoseyev G.A., Mineyev V.N. 1986b. Comparative description of ringed seals skull from Chukotka and Alaska coastal water. Morskiye mlekopitayushchiye. Tez.dokl. 9 Vsesoyuzn.soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Arkhangel'sk. P. 405-406.
Taxa: MAMMALIA, Pusa hispida.
Keywords: morphology, skull, populations, intraspecific variability.
Region: Chukchi Peninsl., Alaska.

57. Freyman S.Yu. 1940-41. The data on biology of the Chukotsk walrus. Izv. TINRO. Vol. 20.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, breeding.
Region: Chukchi Sea.

58. Geptner V.G. 1930. The data on knowledge of geographical distribution and biology of the beluga. Tr. Nauchno-issled. in-ta zoologii MGU. Vol. 4, Iss. 2. P. 7-101.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: distribution, ecology, migration, breeding, diving, biodemography, enemies, feeding, behaviour.
Region: Kara Sea.

59. Geptner V.G. 1932. The bears. Moskva-Leningra : Vneshtorgizdat. P. 1-32.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: review, reference book, description of species, ecology, systematics, feeding, breeding, distribution.
Region: Arctic.

60. Geptner V.G. 1936. The data on knowledge of Dixon Island and near part of North-Westertn Taimyr and Kara Sea. - Sb. trudov Gos. zool. muzeya MGU. Iss. 3. P. 3-23.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, ecology, migration, fishery/hunting.
Region: Kara Sea.

61. Geptner V.G., Naumov N.P., Yurgenson P.B., et al. 1967. Mammals of the Soviet Union. Vol. 2, pt. 1. The Steller's sea cows and carnivores. Moskva : Vysshaya shkola. P. 1-1004.
Taxa: MAMMALIA, Sirenia, Carnivora.
Keywords: review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult, paleontology.
Region: Arctic.

62. Geptner V.G., Chapskiy K.K., Arsen'yev V.A., Sokolov V.E. 1976. Mammals of the Soviet Union. Vol. 2, pt. 3. Pinnipeds and odontocetes. Moskva: Vysshaya shkola. P. 1-718.
Taxa: MAMMALIA, Cetacea, Pinnipedia, Cetacea, Pinnipedia.
Keywords: review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult, rookeries.
Region: Arctic.

63. Gol'tsev V.N., Zasypkin M.Yu. 1978. Aerial record of the Pacific walrus in Soviet part of Arctic. - Morskiye mlekopitayushchiye. Tez. dokl. 7 Vses. soveshch. Moskva. P. 91-92.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus divergens.
Keywords: distribution, numbers, rookeries.
Region: Chukchi Sea, Bering Sea, Arctic Regions.

64. Golenchenko A. 1935. The hunting biology of the beluga. Za rybn. industriyu Severa. N 6.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, fishery/hunting.
Region: Kara Sea.

65. Golenchenko A.P. 1961. The ringed seal of White, Barents and Kara Seas. - Tez. dokl. sessii uch. sov. po probleme" Teor. osnovy ratsion. isp., vosproizv. resursov Belogo morya i vnutr. vodoyem. Karelii". Petrozavodsk.
Taxa: MAMMALIA, Pinnipedia.
Keywords: fishery/hunting, ecology.
Region: White Sea, Barents Sea, Kara Sea.

66. Gorbunov Yu.A., Belikov S.E., Shil'nikov V.I. 1987. The influence of ice conditions upon distribution and abundance of the polar bear in Soviet Arctic seas. Byulleten' Moskovskogo ob-va ispyt. prirody. Otd. biol. Vol. 92, Iss. 5. P. 19-28.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, numbers, distribution, distribution.
Region: Arctic Regions.

67. Grushetskaya L.A., Kishchinskiy A.A., Uspenskiy S.M. 1973. Polar bear fat study. - Ekologiya i morfologiya belogo medvedya. Moskva: Nauka. P. 62-69.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphology, fat.
Region: Wrangel Isl..

68. Karpovich V.N. 1969. Distribution and numbers of the polar bear in Soviet Arctic, according to observations carried out by correspondent network. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Leningrad : Gidrometeoizdat. P. 68-87.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, numbers, maps.
Region: Arctic Regions.

69. Khuzin R.Sh. 1958. Investigation of the biology and distribution of the beluga. Nauchno-tekhn. byull. PINRO. N 1 (5).
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, distribution, migration.
Region: Arctic Regions.

70. Khuzin R.Sh. 1961. The method of age determination and data on breeding of the beluga. Nauchno-tekhn. byull. PINRO. N 1 (15)
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, breeding, age, methods, growth, morphometry.
Region: White Sea, Barents Sea.

71. Kibal'chich A.A..1988. The materials on the Pacific walrus biology (Ship "Zakharovo" trip in 1985). - NIR po mor. mlekopitayushchim sev. chasti Tikhogo okeana v 1986-1987,gg.Moskva.P.126-141.
Taxa: MAMMALIA, Pinnipedia,Odobenus rosmarus.
Keywords: numbers, rookeries, biodemography, breeding.
Region: Chukchi Sea.

72. Kishchinskiy A.A. 1973. The polar bear on the Novosibirsk Island. Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 103-113.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, morphometry, skull, distribution, breeding, numbers, feeding, protection, maps
Region: New Siberian Isls..

73. Kishchinskiy A.A. 1974. The polar bear. Moskva: Lesnaya promyshlennost. P. 1-74.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, ecology.
Region: Arctic Regions.

74. Kishchinskiy A.A., Uspenskiy S.M. 1973. New data on the winter ecology of the polar bear on the Vrangel Island. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 10-28.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, behaviour, morphometry, growth, breeding, numbers, dens.
Region: Wrangel Isl..

75. Kleynenberg S.E., Bel'kovich V.M., Tarasevich M.N., Yablokov A.V. 1959. Distribution of the beluga in Russian northern seas and its coming to the coasts. Arkhangel'sk : Arkhangel'skoye knizhnoye izdatel'stvo. P. 1-36.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, distribution, migration, fishery/hunting.
Region: Arctic Regions, White Sea, Barents Sea, Kara Sea.

76. Kleynenberg S.E., Bel'kovich V.M., Yablokov A.V. 1960. The data on distribution of the beluga in northern seas of the USSR. Tr. PINRO. Iss. 12.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, distribution, migration.
Region: Arctic Regions.

77. Kleynenberg S.E., Yablokov A.V. 1960. The data on breeding biology of the beluga of northern seas of the USSR. Tr. PINRO. Iss. 12. P. 165-173.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas. *Keywords*: ecology, breeding. *Region:* Arctic.

78. Kleynenberg S.E., Yablokov A.V., Bel'kovich V.M., Tarasevich M.N. 1964. The beluga. The attempt of monographic investigation of the species. Moskva : Nauka. P. 1-456.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, systematics, feeding, reproduction, distribution, morphology, morphometry, sense organs, enemies, parasites, fishery/hunting, history.
Region: Arctic.

79. Klumov S. 1935. New form of the beluga. Rybnoye khoz-vo SSSR. N 7. P. 26-28.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas freimani.
Keywords: systematics, distribution, feeding, migration, breeding, description of new taxa.
Region: White Sea.

80. Klumov S. 1938. New forms of the beluga. Izv. AN SSSR.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: systematics.
Region: Arctic.

81. Klumov S.K. 1939. The beluga of the Soviet Union (abundance and catch)// Tr. VNIRO. Vol. 12. P. 3-79.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: systematics, numbers, ecology, distribution, breeding, fishery/hunting, feeding.
Region: Arctic.

82. Klyushev I.I. 1933. The data on fauna and hunting of Western corner of Taimyr Peninsula. Materialy po izucheniyu Sibiri. Vol. 4.
Taxa: MAMMALIA, Pinnipedia.
Keywords: fishery/hunting, ecology.
Region: Kara Sea.

83. Kochetkov N.V., Mishin V.L. 1988. The peculiarities of the biology of the beluga as possible object of mariculture. - Osobennosti biologii i usloviya obitaniya gidrobiontov Barentseva morya. Murm. mor. biol. in-t Kol'sk. fil. AN SSSR. Apatity. P. 174-188.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: review, ecology, fishery/hunting.
Region: Arctic.

84. Koshkin V.N. 1940. On the walrus wintering in Western part of Laptev Sea. Problemy Arktiki. N 7-8. P. 90-95.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, rookeries, migration, distribution.
Region: Laptev Sea.

85. Krylov V.I. 1965. The experience of walrus marking in Chukotsk Sea. - Izvestiya TINRO. Vol. 55. P. 223-225.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, marking.
Region: Chukchi Sea, Arctic Regions.

86. Krylov V.I. 1971. On the feed of Pacific walrus. - Issledovaniya morskikh mlekopitayushchikh. Trudy AtlantNIRO. Iss. 39. P. 110-116.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus divergens.
Keywords: ecology, feeding.
Region: Chukchi Sea, Arctic Regions, Wrangel Isl..

87. Loganov G.I. 1939. The seals and the walrus. Moskva-Leningrad: Kogiz.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, migration, distribution, breeding.
Region: Arctic.

88. Lukin L.R. 1978. On the pupping dates and areas of the Atlantic walrus. Ekologiya. N 5. P. 100-101.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus rosmarus.
Keywords: ecology, breeding.
Region: Arctic.

89. Lukin L.R., Potelov V.A. 1978. On the distribution of the ringed seal in winter period in the south-eastern part of Barents Sea. Morskiye mlekopitayushchiye. Tez. dokl. 7 Vsesoyuzn. soveshch. Moskva. P. 201-203.
Taxa: MAMMALIA, Pinnipedia.
Keywords: breeding.
Region: Arctic.

90. Marunin V.N., Kishchinskiy A.A. 1973. The polar bear in the east part of the Kara Sea. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 114-121.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, distribution, breeding, numbers, feeding, protection, maps.
Region: Kara Sea.

91. Medvedev L.P. 1970. Peculiarities of coming and biological characteristics of the beluga (Delphinapterus leucas) of Dixon Island locality. - Trudy molodykh uchenykh VNIRO. Moskva. Iss. 4. P. 137-142.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, migration, biology.
Region: Kara Sea, Dikson Isl..
92. Medvedev L.P. 1971. The data on feeding of the beluga of Dixon Island locality. - Trudy AtlantNIRO. Iss. 39. P. 60-66.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, feeding.
Region: Kara Sea, Dikson Isl..
93. Mikhaylov S. 1961. The polar bear. Okhota i okhotnich'ye khoz-vo. N 7. P. 24.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, ecology.
Region: Arctic Regions.
94. Mineyev A.I. 1935a. The polar bear (Wrangel Island). Sov. Arktika. N 5. P. 33-44.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, numbers, biology, breeding.
Region: Wrangel Isl., Chukchi Sea.
95. Mineyev A.I. 1935b. The walrus hunting at Wrangel Island. Sov. Arktika. N 2.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution, fishery/hunting.
Region: Wrangel Isl., Chukchi Sea.
96. Nazarenko Yu.I. 1968. The ringed seal (Pusa hispida Schreber, 1775) of Northern European part of USSR, its morpho-ecological characteristics and economical significance. - Avtoref. kand. diss. Petrozavodsk. P. 1-27.
Taxa: MAMMALIA, Pinnipedia.
Keywords: ecology, colouration, fishery/hunting, reproduction, moult, feeding, parasites, morphometry, growth, locomotion, sexual distinctions, migrations.
Region: Russia, Western Arctic.
97. Nazarenko Yu.I. 1969. The data on hunting of the Northern ringed seal. - Morskiye mlekopitayushchiye. Moskva : Nauka. P. 234-236.
Taxa: MAMMALIA, Pinnipedia.
Keywords: fishery/hunting.
Region: White Sea, Barents Sea, Kara Sea.
98. Nechiporenko G.P. 1927. The walrus hunting at Chukotka. Ekonom. zhizn' Dal'nego Vostoka. N 6-7. P. 169-177.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution, fishery/hunting.
Region: Chukchi Sea, Bering Sea.
99. Nikulin P.G. 1940. The Chukotsk walrus. Izv. TINRO. Vol. 20. P. 21-59.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution, fishery/hunting.
Region: Chukchi Sea.
100. Nikulin P.G. 1947. The biological characteristics of the coastal rookeries of the walrus of Chukotsk Peninsula. Izv. TINRO. Vol. 25. P. 226-228.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution, rookeries.
Region: Bering Sea.
101. Nikulin P.G. 1954. On twins in the Chukotsk walrus. Izv. TINRO. Vol. 39.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, breeding.
Region: Chukchi Sea.

102. Novikov B.V. 1977. On the osteology of the polar bear. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 98-101.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphometry, osteology.
Region: Arctic Regions.

103. Novikov G.A. 1956. Carnivorous mammals of the USSR fauna. Moskva-Leningrad: AN SSSR. P. 1-294.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: review, reference book, description of species, ecology, systematics, feeding, breeding, distribution.
Region: Arctic.

104. Novikov G.A., Sokolov I.I., Chapskiy K.K. 1963. Mammals of the USSR fauna. Vol. 2. Moskva-Leningra : AN SSSR. P. 641-1101.
Taxa: MAMMALIA, Cetacea, Pinnipedia, Cetacea, Pinnipedia.
Keywords: review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult, rookeries.
Region: Arctic.

105. Obukhov P.A. 1974. The marine mammals (Cetacea and Pinnipedia) of Kolyma estuary. - Teriologiya. T. 2. Novosibirsk : Nauka. P. 317-321.
Taxa: MAMMALIA, Monodon monoceros, Delphinapterus leucas, E. rignathus barbatus, Pusa hispida, Odobenus rosmarus.
Keywords: young, colouration, distribution, ecology, numbers, feeding, moult, behaviour, fishery/hunting, growth.
Region: Arctic Regions, East Siberian Sea.

106. Obukhov P.A. 1975. The polar bear in the Kolyma North and its presevation. - Problemy okhotovedeniya i okhrany prirody. Irkutsk. P. 128-130.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, ecology, protection.
Region: Arctic Regions, East Siberian Sea.

107. Ognetov G.N. 1978. Date of maturing of the beluga females. - Morskiye mlekopitayushchiye. Tez. dokl. 7 Vsesoyuzn. soveshch. Moskva. P. 250.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ontogeny, puberty.
Region: Arctic.

108. Ognetov G.N. 1983. Preservation and rational use of the beluga of Western region of Soviet Arctic. - Biologicheskiye problemy Severa. Tez. 10 Vsesoyuzn. simpoz. Ch. 2. Zhivotnyy mir (sektsii VII, VII, X-XV, XVII). Magadan, 1983. P. 127.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: conservation, fishery/hunting.
Region: Arctic.

109. Ognetov G.N. 1990a. The data on the distribution and number of ringed seal from East-Siberian Sea. - Morskiye mlekopitayushchiye. Tez.dokl. 10 Vsesoyuzn.soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Moskva. P. 218-219.
Taxa: MAMMALIA, Pusa hispida.
Keywords: distribution, numbers.
Region: East Siberian Sea.

110. Ognetov G.N. 1990b. Studying the stock structure of the beluga Delphinapterus leucas. - 5 S'ezd Vses. teriol. o-va. Tez. dokl. T. 3. Moskva. P. 42-43.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: biodemography, herd.
Region: Arctic.

111. Ognetov G.N. 1986. Intraspecific differences of the beluga. - Morskiye mlekopitayushchiye. Tez. dokl. 9 Vsesoyuzn. soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Arkhangel'sk, 1986. P. 299-300.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: morphometry, exterior.
Region: Arctic.

112. Ognev S.I. 1931. The mammals of USSR and adjacent countries (The mammals of Eastern Europe and Northern Asia). Vol. 2. Moskva-Leningrad: Gosizdat. Vol. 2. P. 1-776.
Taxa: MAMMALIA, Carnivora, Ursus maritimus.
Keywords: morphometry, review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult.
Region: Arctic.

113. Ognev S.I. 1935. The mammals of USSR and adjacent countries (The mammals of Eastern Europe and Northern Asia). Vol. 3. Moskva-Leningrad: Gos. Izd-vo biologich. i meditsin. liter. P. VIII,1-753.
Taxa: MAMMALIA, Pinnipedia.
Keywords: morphometry, review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult.
Region: Arctic.

114. Orlov V. 1973. The walruses will return again. Vokrug sveta. N 12. P. 54-59.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: distribution, popular-science literature.
Region: Arctic Regions, Wrangel Isl..

115. Ostroumov N.A. 1935. On systematics and distribution of the beluga of European North and Kara Sea. Za rybn. industriyu Severa. N 11. P. 28-35.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: systematics, numbers, ecology, distribution, fishery/hunting.
Region: Kara Sea.

116. Ozeretskovskaya N.N., Romanova V.I., Broshnshteyn A.M. 1969. Trichinellosis in the Soviet Arctic of the polar bear meat. Belyy medved' i ego okhrana v Sovetskoy Arktike. Leningrad : Gidrometeoizdat. P. 157-168.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: disease.
Region: Arctic Regions.

117. Pavlikov Zh.A. 1966. The walruses at Wilkitsky Island. Priroda. N 9.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology.
Region: Kara Sea.

118. Pereverzeva E.V., Veretennikova N.L. 1973. On the study of helmintosis of the polar bear on the Vrangel Island. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 43-54.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: disease.
Region: Wrangel Isl..

119. Pereverzeva E.V., Veretennikova N.L. 1973. The study of polar bear blood. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 69-70.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphology, blood.
Region: Wrangel Isl..

120. Polikarpova E.F., Nevzgodina M.V. 1973. The morphology of ovaries, uterus and the thyroid gland in polar bear females. Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 123-141.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphology, reproductive system, endocrine system.
Region: Wrangel Isl.

121. Popov L. 1958. The walrus rookeries at Peschany Island. Priroda. N 9. P. 102-103.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: rookeries.
Region: Laptev Sea.

122. Popov L.A. 1959. Distribution of the walrus rookeries in western sector of Soviet Arctic in summer-spring period. Informats. sbornik VNIRO. N 7. P. 40-49.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, rookeries, distribution.
Region: Arctic Regions.

123. Popov L.A. 1960a. The data on breeding biology of the walrus of Laptev Sea. Byull. MOIP. Vol. 65, N 2. P. 25-30.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, rookeries, breeding.
Region: Laptev Sea.

124. Popov L.A. 1960b. The status of coastal rookeries of the walrus in Laptev Sea. - Okhrana poleznykh zverey. 1960. Iss. 3.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, rookeries, breeding.
Region: Laptev Sea.

125. Potelov V.A. 1986a. Comparative description of pupping areas of the ringed seal of White, Barents and Kara Seas. - Morskiye mlekopitayushchiye. Tez.dokl. 9 Vsesoyuzn.soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Arkhangel'sk. P. 325-326.
Taxa: MAMMALIA, Pinnipedia.
Keywords: breeding.
Region: Arctic.

126. Potelov V.A. 1986b. Marine mammals from east part of Kara Sea, and recommendations for their economical using. - Morskiye mlekopitayushchiye. Tez.dokl. 9 Vsesoyuzn.soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Arkhangel'sk. P. 326-327.
Taxa: MAMMALIA, Delphinapterus leucas, Pusa hispida.
Keywords: distribution, feeding.
Region: Kara Sea.

127. Potelov V.A., Beloborodov A.G., Timoshenko Yu.K. 1971. The adaptive peculiarities of nail growth in some pinniped species. Materialy rybokhozyajstvennykh issledovaniy severnogo basseyna. Iss. 18. P. 127-131.
Taxa: MAMMALIA, Pinnipedia, Pinnipedia, Cystophora cristata, Histriophoca groenlandica, Erignathus barbatus, Pusa hispida sibirica caspica.
Keywords: morphology, covers, claws.
Region: Arctic.

128. Rezanova Z.A., Starikov G.V. 1990. About investigation of seasonal migrations and influence of abundance of the ringed seal of Gydansk Bay on industrial fish abundance. - Resursy zhivotnogo mira Sibiri. Ryby. Novosibirsk. P. 46-48.
Taxa: MAMMALIA, Pusa hispida.
Keywords: migration, economic significance, distribution.
Region: Arctic Regions, Gydan Bay, Kara Sea.

129. Sablina T.B. 1973. The structure of the alimentary tract in polar bear. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 113-123.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphology, digestive system.
Region: Wrangel Isl..

130. Shereshevskiy E.I. 1960. The walrus (Odobenus rosmarus L.), its distribution and migrations in Laptev Sea. Migratsii zhivotnykh. Iss. 2. P. 27-37.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, distribution, migration.
Region: Laptev Sea.

131. Shereshevskiy E.I. 1977. Polar bear in the Nort-East of Taimyr. Belyy medved' i ego okhrana v Sovetskoy Arktike. Moskva. P. 102-103.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, morphometry, feeding, distribution.
Region: Arctic Regions, Taimyr.

132. Shubnikova O.N. 1978. The polar bear in the Far East of Soviet Arctic. Byulleten' Moskovskogo ob-va ispyt. prirody. Otd. biol. Vol. 83, Iss. 4. P. 31-35.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution.
Region: Arctic Regions.

133. Shustov A.P. 1972. On abundance and distribution of phocids and walruses of North Pacific. - Tez. dokl. 5 Vsesoyuzn. soveshch. po morskim mlekopitayushchim. Ch. 1. Makhachkala. P. 146-147.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus, Pusa hispida, Erignathus barbatus, Histriophoca fasciata.
Keywords: numbers, distribution.
Region: Bering Sea, Sea of Okhotsk.

134. Shvets V.G. 1976. Abundance of the polar bear in Wrangel Island. Okhrana prirody na Dal'nem Vostoke. Vladivostok. P. 210-214.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: numbers.
Region: Arctic Regions, Wrangel Isl..

135. Smirnov N.A. 1908. The remarks on pinnipeds in Russia. - Zapiski Imperatorskoy Akademii Nauk. VIII seriya. Vol. 13, N 4. P. 1-76.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida, Odobenus rosmarus.
Keywords: distribution, fishery/hunting, systematics, ecology.
Region: Arctic Regions.

136. Sokolov V.E. (Ed.). 1973. Ecology and morphology of the polar bear. Moskva. P. 1-161.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, morphology.
Region: Arctic Regions.

137. Sokolov V.E., Sumina E.B. 1973. A comparative study of the skin white polar and brown bears. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 70-98.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: morphology, skin.
Region: Wrangel Isl..

138. Sokolov V.E., Uspenskiy S.M. T1973. rends and advances in studies of the polar bear. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 5-9.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, morphology, review.
Region: Arctic Regions.

139. Starikov G.V. 1990. On stock and group structure of ringed seals in Gydansk Bay of Kara Sea. - Morskiye mlekopitayushchiye. Tez.dokl. 10 Vsesoyuzn.soveshch. po izucheniyu, okhrane i ratsional'nomu ispol'zovaniyu morskikh mlekopitayushchikh. Moskva. P. 285-286.
Taxa: MAMMALIA, Pusa hispida.
Keywords: distribution, numbers, age, structure of population.
Region: Kara Sea, Gydan Bay.

140. Starikov G.V., Ukraintsev N.P., Rezanova Z.A. 1987. Abundance and catch perspectives of the ringed seal in Gydansk Bay of Kara Sea. Sbornik nauchnykh trudov GosNIORKh. Iss. 271. P. 95-102.
Taxa: MAMMALIA, Pusa hispida.
Keywords: numbers, fishery/hunting.
Region: Arctic Regions, Gydan Bay, Kara Sea.

141. Stroganov S.U. 19632. The Siberian mammals (Carnivora). Moskva: AN SSSR. P. 1-475.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: systematics, distribution, biology, ecology.
Region: Arctic Regions.

142. Suvorov E.K. 1914. On the walrus and whale hunting at Chukotka. Materialy k poznaniyu russkogo rybolovstva. Vol. 3, Iss. 5.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, fishery/hunting.
Region: Chukchi Sea.

143. Tarasevich M.N. 1960a. Regularity of the beluga coming to the coasts of northern seas. Inform. sb. VNIRO. N 8.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, distribution, migration.
Region: Arctic Regions.

144. Tarasevich M.N. 1961b. The characteristics of the beluga coming to the coasts. Tr. PINRO. Iss. I2. P. 146-153.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: ecology, distribution, migration.
Region: Arctic Regions.

145. Tarkhov V.S. 1981. Unusual migration of the polar bear (Ursus maritimus) in Chukotka. - Povedeniye okhotnich'ikh zhivotnykh. Kirov. P. 94-98.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, migration.
Region: Arctic Regions.

146. Tikhomirov E.A. 1958. The necessary knowledge about rational hunting of the walrus at Chukotka. Kolyma. N 6. P. 41-42.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, fishery/hunting.
Region: Chukchi Sea.

147. Tikhomirov E.A. 1966. Species determination of the Far East seals from air. Izv. TINRO. Vol. 58. P. 163-172.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida ochotensis, Histriophoca fasciata, Erignathus barbatus, Phoca largha, Phocidae.
Keywords: ecology, key.
Region: Far East.

148. Tikhomirov E.A. 1968. Body growth and development of breeding organs of North Pacific phocids. Tr. VNIRO. 1968. Vol. 68. P. 216-243.
Taxa: MAMMALIA, Pinnipedia, Phocidae, Histriophoca fasciata, Phoca largha, Pusa hispida ochotensis.
Keywords: morphology, reproduction, sexual, maturity, growth, age.
Region: Sea of Okhotsk, Bering Sea.

149. Tikhomirov E.A., Klevezal' G.A. 1964. The methods of age determination in some pinnipeds. - Opredeleniye vozrasta promyslovykh lastonogikh i ratsional'noye isppol'zovaniye morskikh mlekopitayushchikh. Moskva : Nauka. P. 5-20.
Taxa: MAMMALIA, Pinnipedia, Histriophoca fasciata, Pusa hispida, Erignathus barbatus, Phoca largha.
Keywords: methods, identification/determination, age, claws, morphology.
Region: Arctic.

150. Timoshenko Yu.K. 1977. Distribution of the walrus in Soviet Arctic. Redkiye vidy mlekopitayushchikh i ikh okhrana. Mat-ly 2 Vsesoyuzn. soveshch. Moskva : Nauka. P. 164-165.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution.
Region: Arctic.

151. Timoshenko Yu.K. 1983. The influence of ice and meteorological conditions upon some phocid species determination of the Far East seals from air. - Biologicheskiye problemy Severa. Tez. 10 Vsesoyuzn. simpoz. Ch. 2. Zhivotnyy mir (sektsii VII, VII, X-XV, XVII). Magadan. P. 135-136.
Taxa: MAMMALIA, Pinnipedia, Pusa hispida, Histriophoca groenlandica, Pagophilus.
Keywords: demography, influence of environment.
Region: Arctic.
152. Tomilin A.G. 1935. Cetaceans cath at the USSR. Rybnoye khoz-vo SSSR. N 9. P. 20-25.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: fishery/hunting, history.
Region: Arctic Regions.
153. Tomilin A.G. 1957. The mammals of USSR and adjacent countries (The mammals of Eastern Europe and Northern Asia). Vol. 9. Cetaceans. Moskva: AN SSSR. P. 1-756.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: morphometry, review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult.
Region: Arctic.
154. Tomilin A.G. 1962. Cetaceans of the USSR. Moskva: AN SSSR.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: morphometry, review, reference book, description of species, ecology, systematics, feeding, breeding, distribution, maps, moult.
Region: Arctic.
155. Tomilin A.G., Kibal'chich A.A. 1975. The walruses of Wrangel Island locality. Zool. zh. Vol. 54, Iss. 2. P. 266-272.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus divergens.
Keywords: numbers, migration, rookeries, behaviour, feeding, breeding, thermoregulation.
Region: Blossom Sea, Wrangel Isl., Chukchi Sea.
156. Tsalkin V.I. 1936. On the biology of the polar bear of Franz-Ioseph archipelago. Byull. MOIP, otd. biolog. Vol. 45, Iss. 5. P. 355-362.
Taxa: MAMMALIA, Pinnipedia.
Keywords: ecology, distribution, migration, enemies.
Region: Franz Josef Land.
157. Tsalkin V.I. 1937. The data on biology of the walrus of Franz-Ioseph archipelago. Byull. MOIP, otd. biolog. Vol. 46, Iss. 1. P. 43-51.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology.
Region: Franz Josef Land.
158. Uspenskiy S.M. 1958. Distribution of the walrus in Laptev Sea and western part of East-Siberian Sea in winter-autumn period. Problemy Severa. Iss. 2. P. 219-221.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: ecology, rookeries, distribution.
Region: Laptev Sea, East Siberian Sea.
159. Uspenskiy S.M. 1969. The study of polar bear and their conservation in the USSR and abroad. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Leningrad : Gidrometeoizdat. P. 7-24.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, review, protection, bibliography.
Region: Arctic Regions.
160. Uspenskiy S.M. 1973. Hunting of thr polar bear in the north of Eurasia in XVIII-XX centuries. - Ekologiya i morfologiya belogo medvedya. Moskva : Nauka. P. 122-141.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: fishery/hunting, history, maps..
Region: Arctic Regions.

161. Uspenskiy S.M. 1976. The polar bear: its study and preservation. - Itogi nauki i tekhniki. Seriya Zoologiya pozvonochnykh. Moskva: VINITI AN SSSR. Vol. 8. P. 168-205.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: review, distribution, ecology, protection, bibliography.
Region: Arctic Regions.

162. Uspenskiy S.M. 1977. The polar bear. Moskva: Nauka. P. 1-80.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, ecology.
Region: Arctic Regions.

163. Uspenskiy S.M. 1989. The polar bear. Moskva: Agropromizdat. P. 1-188.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: distribution, ecology.
Region: Arctic Regions.

164. Uspenskiy S.M. (Ed.). 1969. The polar bear and its preservation in Soviet Arctic. Leningrad: Gidrometeoizdat. P. 1-186.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, behaviour, population, numbers, protection.
Region: Arctic Regions.

165. Uspenskiy S.M. (Ed.). 1977. The polar bear and its preservation in Soviet Arctic. Moskva: MSKh SSSR. P. 1-118.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, behaviour, population, numbers, protection.
Region: Arctic Regions.

166. Uspenskiy S.M., Golovkin A.N., Gurevich V.I., Chelintsev N.G. 1958. The geographical groups of the polar bear in Soviet Arctic distinguished on the base of geochemical data. Zoologicheskiy zhurnal. Vol. 64, Iss. 4. P. 600-605.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: ecology, population, structure of population, geochemistry.
Region: Arctic Regions.

167. Uspenskiy S.M., Shil'nikov V.I. 1969. Distribution and numbers of the polar bear in the Arctic, according to the data of aerial ice surveys. - Belyy medved' i ego okhrana v Sovetskoy Arktike. Leningrad : Gidrometeoizdat. P. 89-102.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: numbers, distribution, abiotic factors, maps.
Region: Arctic Regions.

168. Valikov N.A. 1936. The Ob beluga (Delphinapterus leucas Pall.) and its catch. Moskva.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: fishery/hunting, ecology.
Region: Kara Sea.

169. Velizhanin A.V. 1965. The rookeries of the walrus at Wrangel Island. Zapiski Primorskogo filiala Geograficheskogo ob-va SSSR. N 1 (24). P. 150-151.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: rookeries, ecology.
Region: Wrangel Isl., Chukchi Sea, Arctic Regions.

170. Vereshchagin N.K. 1969. The origin and evolution of the polar bear. Belyy medved' i ego okhrana v Sovetskoy Arktike. Leningrad : Gidrometeoizdat. P. 25-53.
Taxa: MAMMALIA, Ursus maritimus.
Keywords: evolution, origin, paleontology.
Region: Arctic Regions.

171. Vinogradov M.P. 1949. The Arctic marine mammals. Trudy Arkticheskogo in-ta. Vol. 202. P. 1-280.
Taxa: MAMMALIA, Cetacea, Pinnipedia, Delphinapterus leucas, Pusa hispida, Odobenus rosmarus.
Keywords: distribution, fishery/hunting, systematics, ecology, breeding, feeding, moult.
Region: Arctic.

172. Vishnevskaya T.Yu. 1989. Peculiarities of pinniped biology and some rare species preservation. - Avtoref. kand. diss. Moskva. P. 1-26.
Taxa: MAMMALIA, Pinnipedia, Phocidae, Odobenus rosmarus laptevi, Halichoerus grypus, Monachus monachus, Pusa caspica.
Keywords: ecology, distribution, territory, behaviour, numbers, conservation, breeding, lactation, refuges/shelters, biodemography.
Region: Arctic.

173. Vishnevskaya T.Yu., Bychkov V.A. 1985. Joint rookery of the Laptev walrus in M.Pronchishcheva Bay and perspectives of its preservation. - Ekologicheskiye osobennosti okhrany zhivotnogo mira. Sb. nauchnykh trudov. Moskva : VNIIPrirody. P. 3-14.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: conservation, ecology, numbers, breeding, rookeries, biodemography, distribution.
Region: Laptev Sea.

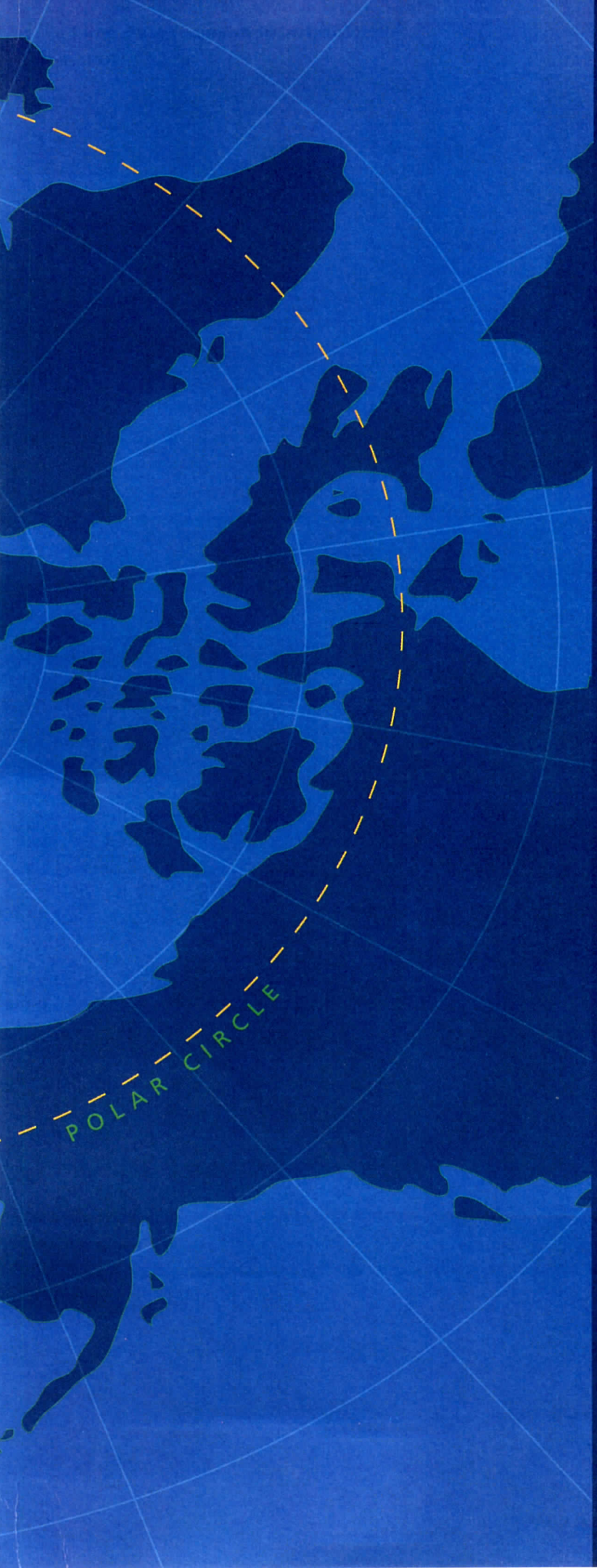
174. Vishnevskaya T.Yu., Bychkov V.A. 1986. Ecological and administrative prerequisites of the Laptev walrus conservation by method of reserve. - Ekologicheskiye , organizatsionnye i pravovye aspekty zapovednogo dela SSSR. Moskva. P. 23-38.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus laptevi.
Keywords: conservation, ecology, numbers, rookeries, behaviour.
Region: Laptev Sea, Taimyr.

175. Yablokov A.V., Bel'kovich V.M. 1962. Observations on the walrus at rookeries in Anadyr Bay and Chukotsk Sea. Krayeved. zapiski Obl. krayeved. muzeya Upr. Magadansk. Oblispolkoma. Iss. 4. P. 156-174.
Taxa: MAMMALIA, Pinnipedia, Odobenus rosmarus.
Keywords: ecology, distribution, rookeries.
Region: Bering Sea, Chukchi Sea.

176. Yurakhno M.V. 1969. On helminthofauna of the ringed seal of Chukotsk Sea. - Voprosy morskoy biologii. Tez. 2 Vses. simp. mol. uch. Sevastopol'. P. 154-156.
Taxa: MAMMALIA, Pinnipedia.
Keywords: parasites.
Region: Chukchi Sea.

177. Yurakhno M.V. 1991. On penetration ways of phocids into the North Pacific (helmintological evidence). - Ratsional'noye ispol'zovaniye bioresursov Tikhogo okeana. Tez. dokl. Vses. konf., 8-10 oktyabrya, 1991. Vladivostok. P. 152-153.
Taxa: MAMMALIA, Pinnipedia.
Keywords: distribution, palegeographic distribution.
Region: Arctic.

178. Zatevakhin I.I. 1983. Hunting behaviour of the beluga near Kanin Peninsula coast. - Biologicheskiye problemy Severa. Tez. 10 Vsesoyuzn. simpoz. Ch. 2. Zhivotnyy mir (sektsii VII, VII, X-XV, XVII). Magadan. P. 117-118.
Taxa: MAMMALIA, Cetacea, Delphinapterus leucas.
Keywords: behaviour, feeding.
Region: Arctic.



The three main cooperating institutions of INSROP

Ship & Ocean Foundation (SOF), Tokyo, Japan.

SOF was established in 1975 as a non-profit organization to advance modernization and rationalization of Japan's shipbuilding and related industries, and to give assistance to non-profit organizations associated with these industries. SOF is provided with operation funds by the Sasakawa Foundation, the world's largest foundation operated with revenue from motorboat racing. An integral part of SOF, the Tsukuba Institute, carries out experimental research into ocean environment protection and ocean development.

Central Marine Research & Design Institute (CNIIMF), St. Petersburg, Russia.

CNIIMF was founded in 1929. The institute's research focus is applied and technological with four main goals: the improvment of merchant fleet efficiency; shipping safety; technical development of the merchant fleet; and design support for future fleet development. CNIIMF was a Russian state institution up to 1993, when it was converted into a stock-holding company.

The Fridtjof Nansen Institute (FNI), Lysaker, Norway.

FNI was founded in 1958 and is based at Polhøgda, the home of Fridtjof Nansen, famous Norwegian polar explorer, scientist, humanist and statesman. The institute spesializes in applied social science research, with special focus on international resource and environmental management. In addition to INSROP, the research is organized in six integrated programmes. Typical of FNI research is a multi-disciplinary approach, entailing extensive cooperation with other research institutions both at home and abroad. The INSROP Secretariat is located at FNI.