

1999 Working Group Protocol Area V Protection of Nature and the Organization of Reserves of the U.S.-Russia Agreement on Cooperation in the Field of Protection of the Environment and Natural Resources

American and Russian Area V project leaders and participants met February 23-25, 1999 in Seattle to review exchanges carried out in 1998 and agree on activities for 1999. The following Work Plan was adopted (NOTE: Wherever possible, principal participating U.S. and Russian agencies/organizations are indicated for each item):

Project 02.05-11, Conservation of Wild Species of Fauna

The work of this Project is carried out under five Activities:

Activity 02.05-1101, Implementation of the U.S.-Russia Convention Concerning the Conservation of Migratory Birds and Their Environment

This Activity coordinates implementation of the bilateral Convention between the United States and U.S.S.R. (Russia) Concerning the Conservation of Migratory Birds and Their Environment (1976), and promotes the protection and study of the more than 200 species listed in the Appendix to the Convention.

1. In the 2nd half of 1999 the two sides will hold a consultative meeting (location to be determined) for one week to review the list and nomenclature of bird species included in the Appendix to the Convention, discuss procedures for adopting changes to the Appendix, and begin compiling information to be used in the next Joint Statement, covering the Years 1993-1998. (MBM; VNIIPRIRODA)
2. Three Russian specialists will visit the Patuxent Bird Banding Laboratory (Maryland) in the 4th quarter of 1999 for two weeks to continue the transfer into a computer database of 250,000 band recovery records for Russia and the former Soviet Union (BBL; MBRC).

Activity 02.05-1102, The Study and Conservation of Cranes, Raptors and Other Rare Birds

This Activity seeks to establish and maintain stable reproducing populations of rare and endangered species of birds, both in the wild and in captivity.

I. Cranes:

1. One Russian specialist will visit the U.S. for ten days in March 1999 for consultations in Wisconsin with the International Crane Foundation and the Milwaukee Public Museum

2. The two sides are preparing for implementation in 2000 a special conservation project aimed at assisting the recovery of the western population of the Siberian crane. The effort will include four stages:

release of costume-reared Siberian cranes in the lower Ob River and Volga River delta;

substitution of Siberian crane eggs into the nests of Eurasian cranes;

deployment of long-life satellite transmitters on wild Siberian crane chicks to identify unknown summering areas for juveniles;

deployment of satellite transmitters on adult Siberian cranes to identify alternate wintering areas in Iran.

II. Raptors:

1. One American specialist from the Milwaukee Public Museum will visit Russia for ten days in August 1999 to monitor the progress of a program to reintroduce peregrine falcons into the greater Moscow metropolitan area. (VNIIPRIRODA)

2. Two American specialists will visit the southern tip (Cape Lopatka) of the Kamchatka Peninsula in September-October 1999 for three weeks to survey birds of prey migrating along the Pacific flyway. (RRTAC)

III. Other

Spruce Grouse: One Russian specialist will visit Kenai National Wildlife Refuge in Alaska for one month in late 1999 to monitor the effects beetle-thinned and unthinned stands of white spruce on the diet and food quality of spruce grouse. This will be the

basis for a comparative study of competitive relations between Asian spruce grouse and ruffed grouse in the Russian Far East. (R7)

Activity 02.05-1103, The Study and Conservation of Polar Bears

This Activity coordinates implementation of the U.S.-Russia Agreement on the Conservation and Management of the Alaska-Chukotka Polar Bear Population, and promotes research on the biology and seasonal movements of polar bears.

1. One American specialist will visit Russia for two weeks in May 1999 to take part in a field survey in Chukotka to identify critical habitat used by polar bears for denning, feeding and seasonal movements. (MMM)

2. The United States and Russia will sign in the 2nd half of 1999 a bilateral Agreement on the Conservation and Management of the Alaska-Chukotka Polar Bear Population negotiated in February 1998. (R7; GOSKOMEKOLOGIA)

3. A workshop for polar specialists from both countries will be conducted in the 2nd half of 1999 in Alaska to develop a consensus on a preferred protocol for polar bear maternity den surveys, as well as evaluate techniques and discuss the logistics of aerial surveys on Wrangel Island planned for March-April 2000. (MMM; VNIIPRIRODA)

(Activity 02.05-1104 has been redesignated as Project 02.05-51)

Activity 02.05-1105, Cooperation among Zoos in Captive Breeding of Rare and Endangered Animals

This Activity fosters cooperation among zoos of both countries to preserve genetic diversity of rare and endangered animals raised and maintained in captivity.

1. In 1999 the two sides will continue to exchange and disseminate information on research conducted in zoos of both countries. Animal transfers will be carried out in strict compliance with the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The species to be studied or exchanged and participating zoos are:

WALRUS: Brookfield Zoo (Chicago) and Moscow Zoo

PALLAS CAT: Brookfield Zoo, San Diego Zoo and Moscow Zoo

SNAKES: Brookfield Zoo and Moscow Zoo

GALAPAGOS TORTOISE: Brookfield Zoo and Moscow Zoo

RED WOLF: San Diego Zoo and Moscow Zoo

EUROPEAN LYNX: San Diego Zoo and Moscow Zoo

GIBBON: International Center for Gibbon Studies (California) and Moscow Zoo

2. One representative of the Moscow Zoo will visit the U.S. (Florida) for one week in March 1999 for a consultative meeting on Felidae sponsored by the American Zoo and Aquarium Association (AZA).

3. The Moscow Zoo will cooperate with the following U.S. zoos in information and design technology:

BALTIMORE AQUARIUM: design and construction of aquarium

CINCINNATI ZOO: design and construction of insectarium

MINNESOTA ZOO: ISIS/ARKS for Windows computer program

Activity 02.05-1106, Conservation and Management of Marine Birds

This Activity is the means by which the U.S.-Russia Marine Bird Working Group coordinates joint seabird and shorebird studies.

1. One Russian specialist will visit the U.S. for one month in February-March 1999 to work with Alaskan counterparts on development of an educational curriculum for the study of Arctic nesting shorebirds and establishment of a sister school program. (MBM-7; RAS/FEB)

2. Two Russian specialists will visit Alaska during April-July 1999 for three months to continue long-term comparative field studies at Lake Clark National Park on the distribution, behavior and genetic characteristics of surfbirds and great knots. Work will also continue on producing a bilingual bibliography and database of published and unpublished literature about shorebirds of the North Pacific. (ASC; MUS)

3. One Russian specialist will visit Alaska for three months (June-August 1999) for long-term monitoring of ledge-nesting birds, including common and thick-billed murre, black-legged kittiwakes and auklets, on Little Diomed Island, Alaska (MBM-7; IEE).

4. 2-3 American specialists will visit Russia in the 3rd quarter of 1999 to take part in a survey of coastal birds in estuaries and nearshore marine waters of Sakhalin Island. Data obtained will permit specialists to better evaluate the potential effect on these birds of gas and oil development activities on Sakhalin. (MBM-7)

5. One Russian specialist will visit the U.S for up to two months in the 2nd quarter of 1999 for joint field studies on molt, breeding biology and weight dynamics of five species of auklets on Buldir Island, Alaska. (MBM-7; IEE)

6. Two American specialists will visit Sakhalin during the 2nd half of 1999 to conduct teacher workshops and coordinate classroom activities for schoolchildren on conservation of the island's 400 species of birds. Educational materials and kits (posters, videos, slide sets, puppets) will be developed and distributed. (R7)

7. Throughout the year American and Russian specialists will continue work on development of a database and atlas of Beringian shorebird distribution. Visits of specialists will be arranged as necessary. (MBM-7)

Project 02.05-21, Aleutian Chain Biodiversity

This Project studies the natural features and fauna/flora species common to the national wildlife refuges of Southeastern Alaska, the Alaska Peninsula and the Aleutian Islands (U.S.), and the nature reserves of Northeastern Russia, the Kamchatka Peninsula and the Commander Islands (Russia). Many of the exchanges conducted under Activities 02.05-1101, -1102, -1106 and -7102 also promote the goals of Project 02.05-21.

1. In 1999 the two sides will continue work on a cooperative *A Chronicle of Nature* describing all the natural processes occurring at certain periods of time in Izembek National Wildlife Refuge (U.S.) And Kronotskiy Reserve (Russia). The draft text, tables, figures and appendices have been completed and will be finalized before year's end. (R7; GOSKOMEKOLOGIA)

2. The Russian side will invite American specialists to take part in the development of management plans for Kronotskiy and Commander Islands Nature Reserves (Kamchatka). The possibility of pairing these reserves with sister U.S. refuges in the Aleutian Islands will also be discussed. (REF; GOSKOMEKOLOGIA)

Project 02.05-31, Cooperation in Wildlife Trade and Law Enforcement

This project assists enforcement officials in the U.S. and Russia to address the problems of international wildlife commerce, with particular attention to the Convention on International Trade in Endangered Species of Fauna and Flora, or CITES.

1. Two American forensic specialists will visit Russia in April 1999 for ten days for consultations with the Russian Interagency Ichthyological Commission in Moscow and Astrakhan on identification of different types of caviar in connection with the April 1, 1998 listing of all the world's sturgeon species as threatened or endangered under the CITES Convention. (LE; GLAVRYBVOD)

2. The two sides will consult on the design and installation of airport exhibits in gateway cities of Alaska and the Russian Far East to familiarize the traveling public with international wildlife conservation and trade laws. (R7)

Project 02.05-41, Ecosystem Biodiversity

The work of this Project is carried out under three Activities:

Activity 02.05-4101, Biosphere Reserves

This Activity provides for monitoring of the natural processes in paired biosphere reserves of both countries, and facilitates exchange and sharing of data through the Man and the Biosphere information MABFlora, MABFauna, ACCESS and Biomass systems.

1. One American specialist will visit Russia for one week in April 1999 to conduct a training workshop in Moscow in the use of MABFlora/MABFauna standardized biological inventory and monitoring software. Each workshop participant will receive a Pentium II-class computer for use in his/her respective biosphere reserve east of the Ural Mountains. (BRD; IEE)
2. One American and one Russian specialist will each spend up to three months in the other country in the 2nd half of 1999 to further develop MABFauna databases, with special emphasis on global distribution of amphibians and exotic vertebrate species. (BRD; IEE)
3. One Russian specialist will spend up to two months in the U.S. in the 2nd half of 1999 working to expand MABFlora databases to include non-indigenous vascular plants of Russia. (BRD; IEE)

Activity 02.05-4102, Arid Ecosystems

This Activity promotes the study and conservation of critical arid land areas, and develops methods for combating the processes of desertification and loss of water resources.

1. The following topics are under consideration for cooperation in 1999 and beyond: identifying the ecological impact of the rising level of the Caspian Sea on arid ecosystems of Kalmykia, and conducting research on the status of the saiga antelope in Kalmykia. Cherniye Zemli Biosphere Reserve will play a leading role in these exchanges, for which plans will be agreed upon through correspondence. (IEE)
2. The two sides will discuss a possible comparative joint study of ecosystems in both countries where the genera *Populus*, *Salix* and *Tamarix* co-occur as natives, in order to better understand the long-term dynamics of *Tamarix ramosissima* in the U.S. (BRD; IEE)

Activity 02.05-4103, Mountain Ecosystems

This Activity promotes the study and conservation of mountain territories and the unique biodiversity of mountain ecosystems.

The two sides are considering initiating a series of information and personnel exchanges on the comparative ecology of the Appalachian (U.S.) and Ural (Russia) Mountains, including disturbances to ecosystems as a result of economic development activity. (BRD; IEE)

Project 02.05-51, Protected Natural Areas

The work of this Project is carried out under two Activities:

Activity 02.05-5101, Protected Areas Management

This Activity provides for the comparative study of refuges and nature reserves, including internal processes and external factors affecting them, with emphasis on protection of rare and endangered species of fauna and flora.

1. The 3rd Call for Proposals under the U.S. Fish and Wildlife Service program of small grants to Russian reserves and parks will be conducted January 1-March 15, 1999. Review panels in Russia and the U.S. will evaluate all applications, and winners will be announced by June 30. Awards will be a maximum of \$5,000 each. (FWS; GOSKOMEKOLOGIA)
2. Six Russian specialists from reserves in eastern Siberia will visit the U.S. in the 3rd quarter of 1999 for 2-3 weeks for familiarization land use planning, public use, fire management, exotic species and water quality issues in analogous national wildlife refuges. (REF; MINPRIRODY)
3. To gain a better understanding of day-to-day operations in refuges and reserves in both countries, the two sides inaugurated in 1998 a program of long-term (one month or more) exchanges of specialists from protected areas of the U.S. and Russia. The program will continue in 1999, with the participation of up to two Americans and two Russians. (REF; GOSKOMEKOLOGIA)
4. Two specialists from the Sakha (Yakutia) Ministry of Nature Protection and Lena Delta Nature Reserve will visit the U.S. in the 3rd quarter of 1999 for familiarization with refuge operations and field work on waterfowl at Yukon Delta National Wildlife Refuge, Alaska. (R7)

Activity 02.05-5102, Conservation Education

This Activity enhances public awareness of and commitment to the need to conserve wild species of fauna and flora and their habitats while encouraging sustainable natural resource development practices.

1. Two American specialists will visit Russia for two weeks in August 1999 to conduct an evaluation of educational and public outreach activities at Katunskiy Reserve in Gorno-Altai. (REF, R1; MINPRIRODA, LESKHOZ) (R1)

2. A major photo exhibit on protected natural areas of Russia, organized by the "Zapovedniks" Environmental Education Center in Moscow, will tour in the U.S. during the period January-September 1999 and be displayed in Olympia, WA; Portland, OR; Blackwater National Wildlife Refuge, MD; and Yellowstone National Park, WY.

Project 02.05-61, Marine Mammals

This Project carries out cooperative research on the biology, ecology and population dynamics of marine mammal species shared by both countries, leading to the development of methods for the management and protection of these animals.

The 15th meeting of the U.S.-Russia Marine Mammal Working Group will be held in Moscow or Kamchatka, Russia in September 1999 with the participation of eight American specialists.

Northern Fur Seals

One Russian specialist will visit the National Marine Mammal Laboratory in Seattle for three weeks in March-April 1999 to analyze and write up the results of data obtained from fur seal population and ecological studies conducted in the U.S. and Russia. (NMML; Kamchatka TINRO)

Steller Sea Lions

1. One American specialist will visit Russia in June 1999 for 2-3 weeks to assist in aerial surveys of sea lion rookeries in Kamchatka. (NMML; Kamchatka TINRO)

2. One American specialist will visit Russia in June-July 1999 for three weeks to participate in censusing and tagging of sea lion on rookeries in the Kuril Islands. (NMML; TINRO)

3. One American specialist will visit Russia for up to one month in June-July 1999 to take part in tagging of sea lions for migration studies in the Yamskiy Islands (Okhotsk Sea). (NMML)

Walrus

1. Four Russian specialists will visit the U.S. for one week in May 1999 to attend a joint workshop in Gambell, Alaska on walrus harvest monitoring. Topics will include: overview of the process and monitoring of walrus harvests in both countries, presentation of U.S. and Russian harvest data for 1992-1997, and development of recommendations for improving and coordinating harvest monitoring efforts. (MMM; VNIRO)

2. One Russian specialist will visit the U.S. for up to one month in May-June 1999 to take part in walrus harvest monitoring field studies in northwest Alaska. (MMM; VNIRO)

3. One American specialist will visit Russia for up to one month in July-August 1999 to take part in an aerial survey of walrus on rookeries in northeast Kamchatka. (MMM; VNIRO)

4. Two American specialists will visit Russia for 3-4 weeks in the 3rd quarter of 1999 to assist in studies of the size and composition of walrus herds at Rudder and Meechkin (Chukotka) haulouts. (MMM; VNIRO)

Sea Otters

1. One Russian specialist will visit the U.S. for one week in March 1999 to work with U.S. colleagues in Alaska on preparation of a draft manuscript on the relationship of genetic diversity to fluctuating asymmetry in sea otters. (ASC; KIE)

2. 2-3 American specialists will visit Russia for six weeks in June-July 1999 to take part in surveys of foraging sea otters as well as capture and tagging in the Commander Islands. (MMM; Kamchatka TINRO)

3. The two sides will evaluate the results of necropsies performed at the U.S. National Wildlife Health Center on several sea otters from the Commander Islands, Russia. (NWHC; KAMCHATRYBVOD)

Whales

1. In the summer of 1999 Russian and American specialists will continue work begun in 1998 on monitoring and studying the Okhotsk-Korean population of gray whales in connection with oil and gas exploration and development activities off the northern coast of Sakhalin Island, Russia. (SWFC; KIE)

2. The two sides will continue cooperation in the second year of a five-year project to track and document the movements of bowhead whales off Chukotka and determine the extent to which they enter Alaskan waters. (SWFC, NSB/DWM; RAS/FEB; VNIRO)

Project 02.05-71, Animal and Plant Ecology

The work of this Project is carried out under six Activities:

Activity 02.05-7101, Conservation of Rare and Endangered Species of Plants and Comparative Studies of North American and Eurasian Flora

This Activity promotes cooperation among botanical gardens and arboreta in both countries, including exchanges of seeds and other plant materials endemic to each country for propagation and growing, and organization of joint botanical research and collecting expeditions.

In 1999, the two sides will consider exchanging delegations of up to three members each for familiarization with work on selection of the best plant species for projects to introduce more greenery into urban areas, and to work on computer databases for collections in botanical gardens and arboreta of both countries. (U.S. National Arboretum; Moscow Botanical garden)

Activity 02.05-7102, Northern Migratory Waterfowl

This Activity determines the nesting areas, migratory routes, wintering grounds, productivity and adaptation to environmental changes of geese, ducks and other waterfowl species, with particular emphasis on areas subject to human disturbance.

1. Under a bilateral Cooperative Agreement the Russian side will continue to monitor the status of and deploy metal leg bands on approximately 1,000 Wrangel Island snow geese. In preparation for this work, one Russian specialist will visit the U.S. for two weeks in April 1999 for consultations in Oregon and California on reproductive success and harvest mortality of this species. (R1)
2. The two sides will prepare a joint report on the results of aerial surveys of waterfowl conducted by Russian and American biologists in Chukotka between 1992 and 1995. (MBM-7; IEE)
3. Three Russian specialists will visit the National Bird Banding Laboratory (Laurel, Maryland) in the 3rd quarter of 1999 for 2-3 weeks to update Russia's computer database for banded waterfowl and songbirds and study computer applications of population models. (BRD; IEE)

Activity 02.05-7103, Holarctic Mammals

This Activity studies the systematics and zoogeography of mammals of the holarctic, examines problems of gene pool conservation in those species, and evaluates genetic variability in populations.

One Russian specialist will visit the Smithsonian Institution in Washington, D.C. in the 2nd half of 1999 to complete work on standardization of American and Russian computer habitat mapping techniques and prepare portions of the joint Atlas of Holarctic Mammals for publication on laser discs. (NMNH; IEE)

Activity 02.05-7104, Chemical Senses and Communication in Animals

This Activity investigates the functions and mechanisms of taste and smell. Areas of research include general ecology, physiology, immunology, endocrinology, biochemistry, carbohydrate chemistry, nutrition, behavior and genetics.

One Russian scientist will visit the U.S. for three months during February-May 1999 to continue joint behavioral and neuroanatomical studies of animal sensitivity to

environmental chemicals at Monell Chemical Senses Center in Philadelphia. (Monell; IEE)

Activity 02.05-7105, Application of Contemporary Technology in Ecological Studies of Large Mammals

This Activity develops joint methods for the collection and processing of remotely-sensed data in radar deposition, integrated processing of satellite data from telemetry and multi-deposition environmental remote sensing, and creation of data base structures and models for ecological studies of large mammals in arctic environments.

Two Russian specialists will visit the U.S. (Alaska) for two months in September-October 1999 to assess sea ice habitat parameters and their effect on movements and behavior of polar bears and walrus in a changing global climate. (ASC; IEE)

Activity 02.05-7106, Wildlife Health and Disease

Wildlife in the U.S. and Russia share many common diseases of microbial, parasitic, and chemical origin. Migrations and translocations of certain species create conditions for the transfer of diseases between the two countries. This Activity provides for cooperation in wildlife health research and disease prevention.

Six American specialists will visit Moscow for one week in September 1999 to take part in a seminar/training workshop for Russian veterinarians on exotic diseases of wildlife. Topics to be covered will include: rabies, distemper, anthrax, brucellosis, botulism, avian cholera, lead poisoning, and development of medicines and vaccines. (NWHC; VNIIPRIRODA)

Project 02.05-81, Ichthyology and Aquaculture

The purposes of this Project are to improve fisheries management, increase productivity through intensive fish culture, restore fishery resources, and study and exchange information on the physiology, nutrition, diseases, genetics, and reproductive biotechnology of fish of mutual interest.

1. Four Russian specialists from Sakhalinrybvod will visit the U.S. for two weeks in May 1999 for familiarization with laboratory and field research on green sturgeon in the Pacific Northwest, and for observation of fisheries law enforcement activities in Oregon. (ODFW)
2. Fifteen Russian specialists will visit the U.S. for one week in August 1999 to attend the 7th International Symposium on the Biology and Management of Coregonid Fishes in Ann Arbor, Michigan. (GLSC)
3. Fifteen American specialists will visit the Russian Far East for one week in October 1999 to take part in a bilateral Workshop on Interaction of Wild and Hatchery-Produced

Salmon. (FWS, ODFW, WDFW, Wild Salmon Center; GLAVRYBVOD, KAMCHATRYBVOD, SAKHALINRYBVOD, OKHOTSKRYBVOD, TINRO, Kamchatka TINRO, Magadan TINRO)

4. Under an ongoing project to study and conserve steelhead salmon and other native fish species and their habitats on the Kamchatka Peninsula, scientists and volunteers from the Wild Salmon Center (Washington, Oregon) and Moscow State University will continue expeditionary field work on Kamchatka during the summer and fall of 1999 to collect and analyze samples and data.

Project 02.05-91, Ecology and Dynamics of Arctic Marine Ecosystems

This Project, abbreviated "BERPAC," studies the status and dynamics of Arctic marine ecosystems, including their assimilative capacity, biological indicators of ocean pollution, and effects of human-caused disturbances, in order to establish scientific bases for predicting major ecological, geochemical and geophysical processes in the Bering and Chukchi Seas.

1. Five Russian specialists will visit the U.S. for one week in February 1999 to (1) complete the manuscript editing and finalize for publication the text of a joint monograph presenting the scientific results of the September 1993 BERPAC expedition, and (2) begin planning the next BERPAC expedition, to be conducted in the 3rd quarter of 2000. (BRD; RAS)

2. Three American specialists will visit Russia for ten days in July 1999 for consultations with the Russian side on scientific objectives, funding and logistical arrangements for the summer 2000 BERPAC expedition. (BRD; RAS)

List of Acronyms and Abbreviations

ADF&G Alaska Department of Fish and Game

ASC BRD Alaska Biological Science Center, Anchorage

BRD Biological Resources Division of U.S. Geological Survey

FWS U.S. Fish and Wildlife Service

GLAVRYBVOD Main Fisheries Directorate, Moscow

GLSC BRD Great Lakes Science Center, Ann Arbor

GOSKOMEKOLOGIA Russian State Committee for Environmental Protection

IBPN Institute of the Biological Problems of the North, Magadan

IEE Institute of Ecology and Evolution, RAS, Moscow

KAMCHATRYBOD Kamchatka Fisheries Agency

Kamchatka TINRO Kamchatka Federal Fisheries Research Institute

KIE Kamchatka Institute of Ecology, Russian Academy of Sciences

LE FWS Division of Law Enforcement

LESKHOZ Russian Federal Forestry Service

Magadan TINRO Okhotsk Federal Fisheries Research Institute

MBM FWS Migratory Bird Management

MBM-7 Region 7 FWS Migratory Bird Management, Anchorage

Monell Monell Chemical Senses Center, Philadelphia

MMM FWS Marine Mammals Management (Alaska)

MUS Museum of Natural History of Moscow State University

NSB/DWM North Slope Borough Dep't of Wildlife Management, Alaska

NMFS U.S. National Marine Fisheries Service

NMML NMFS National Marine Mammal Laboratory, Seattle

NMNH Smithsonian National Museum of Natural History, Wash., DC

NWHC BRD National Wildlife Health Center, Madison, WI

ODFW Oregon Department of Fish and Wildlife

OKHOTSKRYBOD Okhotsk Sea Fisheries Agency, Magadan

OMA FWS Office of Management Authority

OSA FWS Office of Scientific Authority

R1 FWS Region 1 (CA, ID, WA, OR, NV, HI)

R7 FWS Region 7 (AK)

RAS Russian Academy of Sciences

RAS/FEB Far East Branch of Russian Academy of Sciences

REF FWS Division of Refuges

RRTAC BRD Raptor Research and Technical Assistance Center, Idaho

SAKHALINRYBVOD Sakhalin Fisheries Agency

SWFC NMFS Southwest Fisheries Center, La Jolla

TINRO Russian Pacific Federal Fisheries Research Institute, Vladivostok

USFS U.S. Forest Service

VNIIPRIRODA Russian Federal Wildlife Research Institute, Moscow

VNIRO Russian Federal Fisheries Research Institute, Moscow

WDFW Washington Department of Fish and Wildlife