

U.S.-Russia Cooperation in Conservation of Wildlife and Wildlife Habitat



Activities for 2011-2012



Agreement between the Government of the United States of America
and the Government of the Russian Federation
on Cooperation in the Field of Protection of the Environment
and Natural Resources

“...the Parties shall work together to develop mutually agreed-upon policies in the field of protection of the environment and natural resources on a bilateral, regional and global basis.”

The **Agreement between the Government of the United States of America and the Government of the Russian Federation on Cooperation in the Field of Protection of the Environment and Natural Resources** was signed on 23 June 1994 and supersedes the Agreement between the United States of America and the Government of the Union of Soviet Socialist Republics on Cooperation in the Field of Environmental Protection of 23 May 1972.

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Cover photographs:

Left top: Red-faced cormorant; photo by Nikolai Konyukhov
Left bottom: Flowering chives *Allium schoenoprasum*; photo by Elena Glazkova
Right top: Polar bear in Bering Sea; FWS photo by Elizabeth Labunski.
Right bottom: Nature reserve and national park staff from Primorye and Khabarovsk Krai at Jarina Waterfowl Production Area, Montana, in August 2009; FWS photo by Peter Ward.

Why do the United States and Russia cooperate on wildlife issues?

As neighboring countries, the U.S. and Russia share certain populations of fish, marine mammals and migratory birds, many of which have economic, cultural and subsistence importance in addition to their ecosystem role and intrinsic value. To better manage and research wildlife, biologists engage in a number of cooperative conservation activities including information sharing and joint scientific studies on the ground, in the air, on and below the sea, and using satellite technology. Russians and Americans have long maintained a dialogue on wildlife issues. Indeed, the first international treaty to address wildlife conservation was the North Pacific Fur Seal Convention of 1911. A more recent example: the U.S.-Russia Polar Bear Commission, which met for the first time in 2009, includes both Governmental and Native representatives.

What is the Environmental Agreement?

The "Agreement between the Government of the United States of America and the Government of the Russian Federation on Cooperation in the Field of Protection of the Environment and Natural Resources," signed in 1994, is a mechanism for cooperation. The Agreement is between the U.S. and Russian governments, but the involvement of non-governmental organizations in conservation efforts is encouraged.

What does Area V refer to?

The U.S.-U.S.S.R. Environmental Agreement, signed in 1972, listed a number of areas of cooperation, including air pollution and earthquake prediction. The fifth listed category was nature conservation, and the familiar term "Area V" has been used by long-time cooperators for decades. Though nature conservation is not the fifth listed category in the 1994 Agreement, the Agreement stipulates that "the Parties may agree that an institutional structure developed under [the 1972 Agreement] may continue without being reconstituted."

What is included in this list?

This list of cooperative wildlife conservation activities occurring under the auspices of the Environmental Agreement has been prepared by the U.S. Fish and Wildlife Service in partnership with the Russian Ministry of Natural Resources and Environment. In June 2011, program leaders met in Washington, D.C., to review exchanges carried out in 2009-2010 and agree on activities for 2011-2012. This list is a result of those discussions and subsequent correspondence. Also included are certain efforts by non-governmental organizations. This is not an exhaustive list of all U.S.-Russia nature conservation activities by governmental and non-governmental partners, many of which are agreed upon through direct correspondence or occur under different auspices.

What is Wildlife Without Borders?

The Division of International Conservation of the U.S. Fish and Wildlife Service uses the term Wildlife Without Borders-Russia to refer to its regional (Russia/East Asia) efforts to partner for wildlife conservation. Since 1995, Wildlife Without Borders has provided \$1.4M in grant support for Russia's nature reserves and parks. Additionally, logistical and financial assistance is provided for exchanges of biologists; conferences, workshops and training opportunities are also organized. Read more at:

<http://www.fws.gov/international/DIC/regional%20programs/russia/russia.html>

What about tiger conservation?

The United States welcomes the opportunity to partner with Russia in efforts to conserve the tiger, a species of global concern. Governmental and non-governmental partnerships with Russia for tiger conservation commenced in the 1990s. In 1994, the U.S. Congress established the Rhinoceros and Tiger Conservation Fund. Funding from this program allows the U.S. Fish and Wildlife Service to provide support for the conservation of tigers throughout their range. More than \$2M in assistance for tiger conservation in Russia has been disbursed to date. Read more at:

<http://www.fws.gov/international/DIC/species/tiger/tiger.html>



Area V Work Plan for 2011-2012

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 in Washington, D.C., June 1-2, 2011, to review exchanges carried out in 2009-2010 and agree on activities for 2011-2012. The following Work Plan was adopted:

(NOTE: Wherever possible, principal participating U.S. and Russian agencies are indicated; see Key to Abbreviations on last page.)

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



Vladimir Burkanov/NOAA

*Common murre*s colonize a rocky point on Tyuleny (Robben) Island in the Sea of Okhotsk, summer 2011.

PURPOSE: Coordinate implementation of the 1976 bilateral Convention between the United States and U.S.S.R. (Russia) and promote the conservation and study of the more than 200 avian species listed in the Appendix to the Convention.

1. American, Russian and Japanese specialists will meet in Moscow in April 2011 in the fourth of an ongoing series of periodic meetings to discuss migratory bird topics of mutual concern to the three countries. (FWS, ASC; MNRE, BBRC)
2. The two sides will produce and distribute a dual language fact sheet highlighting implementation of the Convention since 2000. Activities up to 2000 were covered in a series of individual reports issued by the two countries. (FWS; MNRE, NBBL)

3. The two sides will continue to exchange bird banding and recovery data, as well as information on the ecology of diseases affecting migratory birds, including avian influenza. (IPEE; USGS, FWS)

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

PURPOSE: Promote wild avian populations by encouraging conservation of critical habitat, scientific collaboration and educational outreach.

1. The two sides will continue to implement Project Hope, a detailed five-year program developed in 2010 to strengthen conservation of the western population of Siberian cranes. (ICF; VNIIPrirody)
2. To improve hunting regulation and management of the crane population, American and Russian experts will attend the International Conference, “Cranes of Palearctic: Biology, Conservation, Management,” in October 2011. Additionally, Russian specialists will travel to the U.S. to exchange information about hunting regulation and management of waterbirds at crane habitats, and educational activities to raise public awareness of rare crane species will be undertaken in the Far East and West Siberia in late 2011 or early 2012. (ICF, USGS, FWS; IPEE, Crane Working Group of Eurasia)
3. In 2011 and continuing for two years, American and Russian scientists will begin a study to determine the genetic relatedness of gyrfalcon populations in both countries by collecting and analyzing samples from the Moscow Zoological Museum, Russian State Darwin Museum and captive breeding facilities for rare species of raptors in Russia. (ADFG, USGS; IPEE, VNIIPrirody)

Activity 02.05-1103 Study and Conservation of Polar Bears

PURPOSE: Promote research on the biology and ecology of polar bears, and coordinate implementation of the U.S.-Russia Agreement on the Conservation and Management of the Alaska-Chukotka Polar Bear Population (2000).



Steven Kohl/USFWS

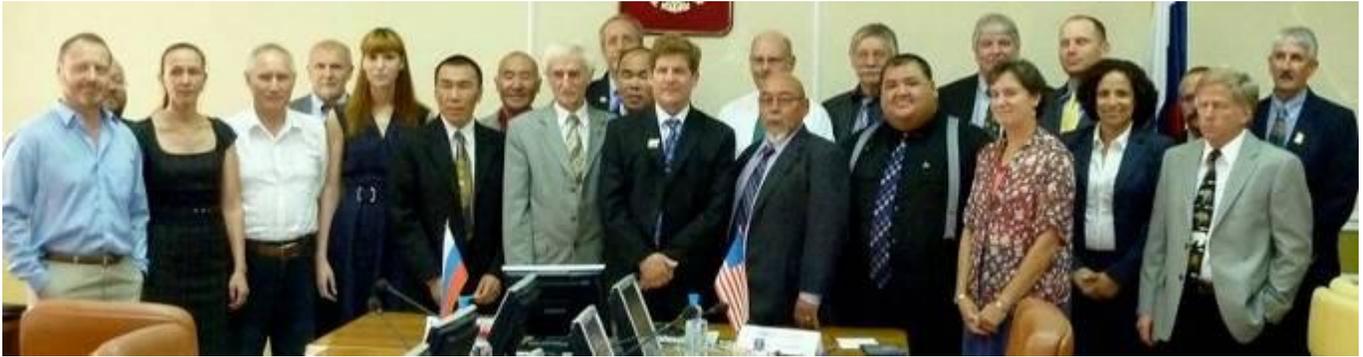
Left:
Commissioners Amirkhan Amirkhanov (Russia) and Geoffrey Haskett (U.S.) during the 2011 meeting of the Polar Bear Commission.

Right:
A polar bear makes its way along the shoreline.



USFWS

1. Thirteen American specialists will visit Moscow in July 2011 to take part in the 3rd meeting of the Commission established under the U.S.-Russia Polar Bear Agreement, to be immediately preceded by a meeting of the Scientific Working Group established by the Commission. The agenda will include reports on governmental and Native-led research programs, the role of traditional knowledge, and establishment of subsistence harvest quotas for the coming year.
2. The 4th meeting of the U.S.-Russia Polar Bear Commission will be held in July 2012 in Alaska. The Scientific Working Group will next convene March 14-16, 2012, in Anchorage. (FWS, MMM-7; MNRE)



Adrianna Muir/US Dept. of State

Participants in the third meeting of the Commission established under the Agreement on the Conservation and Management of the Alaska-Chukotka Polar Bear Population, Moscow, July 2011.

Activity 02.05-1104 “Protected Natural Areas”: see Project 02.05-51

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

PURPOSE: Foster cooperation among U.S. and Russian zoos to preserve genetic diversity of rare and endangered species maintained in captivity, sponsor public education and outreach activities, conduct scientific research, and promote conservation of wild animals and their habitats.

1. One Russian specialist will visit the U.S. for two weeks in August-September 2011 to take part in a workshop on diseases affecting endangered Amur tigers and for familiarization with the work of the wildlife pathology laboratory of the Bronx Zoo. (Moscow Zoo; Wildlife Conservation Society)
2. One Russian specialist will visit the U.S. for two weeks in February 2012 for familiarization with the work of the Kansas City Zoo and other public facilities in the Kansas City area on the use of hardwood trees, tropical plants, decorative grasses and other landscaping techniques to enhance the aesthetic experience of zoo visitors. (Moscow Zoo; Kansas City Zoo)
3. Long term cooperation between the Moscow Zoo and American zoos will continue, and information will be exchanged on captive animal management, breeding, veterinary care, and facilities design.

Activity 02.05-1106 Conservation and Management of Marine Birds

PURPOSE: Promote conservation of seabirds and shorebirds through exchange of information, field studies, and jointly formulated monitoring and management strategies.



Pavel Tomkovich/USGS

*Left:
Maksim Dementyev and Robert Gill use a net to capture a nesting bar-tailed godwit at Tutakoke Camp, Alaska.*

*Right:
A wandering tattler walks the shore in Chukotka.*



Pavel Tomkovich/USGS

1. The two sides will update and add new entries to the U.S.-Russia Seabird Colony Catalog database, containing information on the location, species composition and breeding population size for most of the estimated 1,000 seabird colonies in the Russian Far East. (MBM-7; RAS/FEB, IBPN)
2. The two sides will continue cooperation under the Important Bird Areas (IBA) Program for the Bering Sea region, which to date has identified 845 IBAs in Alaska (145) and Russia (700) as critical habitat for waterfowl, seabirds, shorebirds, songbirds and raptors. (MBM-7; MNRE, RAS/FEB, IBPN)
3. Coordination of joint research and monitoring of the effects of climate change on Beringian shorebird populations will continue, with the involvement of Native peoples of Alaska and Chukotka. (FWS; BBRC)
4. One Russian specialist will visit the U.S. for three months in the summer of 2012 for nesting studies of rhinoceros auklet colonies on St. Lazaria Island, Alaska. (FWS-Refuges; BBRC)

Project 02.05-21 Beringia Conservation Forum

PURPOSE: Promote the study and conservation of ecosystems and fauna/flora species and their habitats common to the Aleutian (U.S.) and Commander (Russia) Islands and adjacent land areas of Alaska, Kamchatka and Chukotka. Work under this Project also furthers the goals of several other Area V projects and activities.

Alaska Maritime National Wildlife Refuge and Commander Islands Nature Reserve will continue to solidify their relationship through implementation of a Memorandum of Understanding signed in 2008. Among topics for collaboration are: seabird monitoring, invasive species management, and oil spill preparedness. Specific projects for 2011-2012 will include implementation of measures to reduce seabird bycatch during fishing operations, and comparative genetic studies of foxes on Shemya (U.S.) and Medny (Russia) Islands. Other protected areas in both countries will be invited to participate in this Project's activities as appropriate. (FWS-Refuges; MNRE)

Project 02.05-31 Cooperation in Wildlife Trade and Law Enforcement

PURPOSE: Encourage communication among law enforcement officials in both countries to address problems of international wildlife commerce, with particular attention to the (CITES) Convention on International Trade in Endangered Species of Wild Fauna and Flora.

The two sides will continue to exchange information on policy questions pertaining to shipment of Caspian sturgeon and caviar products to the U.S., and also on the dates and duration of hunting seasons in Russia for brown bears and other species which American and other foreign citizens may hunt with the goal of exporting trophies. (FWS-Law Enforcement; GlavOkhota, RNAFEE)

Project 02.05-41 Ecosystem Biodiversity

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

Activity 02.05-4101 Biosphere Reserves

PURPOSE: Monitor natural processes in biosphere reserves of both countries and share data through established MABFauna, MABFlora, ACCESS and Biomass systems.

Both sides will continue to exchange information on the role of biosphere reserves and other protected territories in the conservation of biodiversity, with special attention to questions of ensuring sustainable development in the basins of the Mississippi and Volga Rivers. The possibility of exchanges of specialists for field work on specific topics will be considered. (IPEE; FWS)

Activity 02.05-4102 Arid Ecosystems

PURPOSE: Promote the study and conservation of critical arid land areas and their endemic fauna and flora; develop strategies for combating desertification and loss of water resources.

1. In 2011 or 2012, Russian specialists will visit the U.S. for two weeks to discuss satellite tagging of saigas in Astrakhan oblast and Kalmykia. Additionally, American specialists will visit Russia to provide technical support on biomedical evaluation, diagnostics, preventative medicine, provision of neonatal survival, and organization of effective systems for compiling laboratory and medical records for saigas in Astrakhan oblast and Kalmykia. (IPEE, The Wilds)

2. In 2011, FWS will contribute \$80,000 to a grants competition conducted by the Saiga Conservation Alliance for conservation of saiga antelope throughout its range. (FWS; Saiga Conservation Alliance)

Activity 02.05-4103 Mountain Ecosystems

PURPOSE: Promote the study and conservation of alpine systems and their unique biodiversity.

In October 2011, representatives of several U.S. government agencies and non-governmental organizations will visit two nature reserves and two national parks in the Caucasus Mountains region of Russia for the purpose of assessing the effects of economic development and increased ecotourism activity on conservation efforts. (FWS, USFS, NPS; MNRE)

Activity 02.05-4104

Wetland and River Ecosystems



Chuck Lane/EPA

Oleg Anenkhonov (standing) of the Russian Academy of Sciences in Ulan-Ude surveys vegetation in the Selenga River Delta with colleagues from Bolonsky Reserve and the U.S. EPA in July 2011.

PURPOSE: Promote the study and conservation of wetland and delta ecosystems, recognizing their importance in flood prevention, as habitat for fish and migratory birds, and as filters of pollutants and other harmful substances.

1. Five or six American specialists will be invited to take part in the 12th International Great Rivers Forum, to be held May 15-18, 2012 in Nizhny Novgorod, Russia. The focus will be on managing riverine ecosystems to ensure optimal levels of water quality and quantity, restore and manage riverine and riparian wetlands, increase sustainable fishery stocks, and conserve those internationally significant natural resources. (RAS; EPA, FWS)
2. In 2012-2013, American specialists will be invited to take part in a series of one-week workshops on development of baseline ecological monitoring techniques for Russian streams and rivers. (EPA; RAS/FEB)
3. Beginning in July 2011, a joint Russian-American research group will survey and create a baseline census of wetland vegetation in the Selenga River Delta, Buryatia, Russia. (EPA; RAS/SIB, Irkutsk State University)

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

PURPOSE: Provide for comparative studies of refuges and nature reserves and the external factors affecting them, with emphasis on rare and endangered species of fauna and flora and their habitats.



Lara Peterson/USFS

In February 2011, nineteen Russian park and reserve managers visited St. Marks National Wildlife Refuge and other protected areas in Florida to view and discuss visitor programs and facilities. The U.S. Fish and Wildlife Service, National Park Service, and U.S. Forest Service coordinated the visit, which occurred under the auspices of the Environmental Working Group of the U.S.-Russia Presidential Commission created in July 2009 by Presidents Obama and Medvedev. Travel expenses for the Russian visitors were provided by the U.S. Department of State under the FORECAST Program administered by the U.S. Agency for International Development (USAID).

1. In February 2011, 19 Russian specialists will visit Washington, D.C., and Florida for familiarization with the role of education, outreach, law enforcement, and visitor services in national parks, wildlife refuges, and national forests. (FWS, NPS, USFS; MNRE)
2. In August 2011, six American specialists will visit Volzhsko-Kamsky Reserve (Kazan) and several reserves and national parks in the Lake Baikal region for two weeks to exchange views on the ecotourism potential of selected Russian protected natural areas. (FWS; MNRE)
3. The two sides will consider organizing a workshop on visitor safety and law enforcement in protected areas, to be held in the U.S. in the summer of 2012. Topics will include communications between enforcement staff and visitors, investigation of illegal activities, interview techniques, and field demonstrations of effective methods of handling various incidents and situations. 15-20 Russian specialists will be invited to participate. (FWS; MNRE)
4. The 8th Call for Proposals under the U.S. Fish and Wildlife Service program of grants to Russian reserves and national parks will be announced in 2012. Previous grants have supported the work of these protected areas through purchase of field and communications equipment, motor vehicles and boats, support of facilities repair and maintenance, and public outreach activities. Review panels in Russia and the U.S. will evaluate all applications, and recipients will be announced by the end of 2012. Awards will be a maximum of \$10,000 each. (FWS; MNRE, Zapovedniks)



In August 2011, American National Wildlife Refuge System staff traveled to Lake Baikal to exchange expertise about conserving nature in areas undergoing ecotourism development. Aboard the "Atlant" (pictured here), the delegation visited several nature reserves and national parks bordering the lake.

Jim Kurth/USFWS

Activity 02.05-5102 Conservation Education

PURPOSE: Promote public awareness of and commitment to the need to conserve wild species of fauna and flora and their habitats.

1. Two Russian specialists will visit the U.S. for ten days in May 2012 to take part in a visitor services workshop which includes training in the organization and role of volunteers and friends groups. (FWS-Refuges; Zapovedniks)
2. A total of four American specialists will visit Russia in 2012 for up to two weeks to work with Russian counterparts on the design, equipping and fabrication of displays for visitor centers at Kronotsky Reserve (Kamchatka) and at one or more reserves on Lake Baikal. (FWS; MNRE)
3. The two sides will consider holding in 2012 or 2013 a Fourth joint training workshop on the design, production and installation of interpretive exhibits at refuge and park visitor centers. (FWS-Refuges; MNRE, Zapovedniks)

Project 02.05-61 Marine Mammals

PURPOSE: Carry out cooperative studies and exchange scientific information to better manage and conserve marine mammal species shared by both countries.

GENERAL

The 22nd meeting of the U.S.-Russia Marine Mammal Working Group will be planned for 2012 in the United States with the participation of 8-10 Russian specialists.



Vladimir Burkanov/NMML

Russian and American specialists meet in St. Petersburg in September 2011 to plan joint ice seal aerial surveys to be conducted in the North Pacific in 2012.

I. PINNIPEDS

True Seals

1. Russian and American scientists will collaborate in developing unified methodologies for aerial surveys and related telemetry studies of true seals for implementation of ecosystem-based resource assessments, and will carry out such surveys in the Okhotsk and Bering Seas in 2012. (IPEE; NMML, AFSC, NOAA)
2. Three or four American specialists will visit Russia in April-June 2012 to take part in aerial surveys and ecological studies of ice seals in the Okhotsk and Bering Seas. (NMML; KBPIG)
3. One to four Russian scientists will participate in a workshop in the United States on the genetic population structure of seals in 2012. (NMML, AFSC, NOAA)

Eared Seals



Vladimir Burkanov/NMML

Russian and American researchers prepare to measure a sea lion pup on a mixed sea lion/fur seal haulout in the Kuril Islands in July 2011.

1. Three or four American scientists will take part in a cruise to survey Steller sea lion and Northern fur seal haulouts, tag newborn pups, and study feeding ecology in Kamchatka, the Kuril, and Commander Islands in May-July 2011-2012. (NMML; KBPIG)
2. In September 2011, six American specialists will travel to St. Petersburg, Russia, to participate in a seminar on applying instrumental aerial surveys to marine mammal studies. (Giprorybflot)

3. One or two Russian scientists will visit the Alaska SeaLife Center (Seward) in 2012 for collaborative research on Steller sea lions and northern fur seals, and training in the use of biotelemetry instruments. (ASLC)
4. One or two Russian scientists will take part in northern fur seal pup assessments for three weeks on the Pribilof Islands, Alaska, in August 2012. (NMML)

Pacific Walrus

1. Up to seven Russian specialists will participate in a workshop in Anchorage, Alaska, in March 2012 whose goal is to discuss and refine objectives, methods, and strategies for monitoring walrus at coastal haulout sites in the U.S. and Russia. (FWS; IPEE Chukotka TINRO, VNIIPrirody)
2. One or two American scientists will visit Chukotka, Russia, in the fall of 2012 to assist in collection of biopsy samples from walrus at coastal haulouts. (FWS; Chukotka TINRO)

Sea Otters

1. Russian specialists will be invited to take part in the Seventh Sea Otter Conservation Workshop in Seattle in March 2011. (FWS)
2. One or two American scientists will take part in surveys of sea otters and other marine mammals in the Kuril Islands for up to two months in June-September 2011-2012. (MNRE; FWS)

II. CETACEANS



Russian and American scientists take part in a joint research expedition to study cetaceans in Avacha Bay, Kamchatka, during the summer of 2011.

1. Three or four American scientists will join Russian colleagues for shipboard studies of the distribution, abundance, migrations and population structure of large cetaceans in the Bering and Okhotsk Seas in August-September 2012. (KBPIG)

2. Three or four American scientists will take part in joint stationary coastal and shipboard observations, toxicology studies, satellite tagging and studies of the health of beluga and bowhead whales in the Bering and Okhotsk Seas for a period of one to three months in 2012. (IPEE; NMML)

3. One or two Russian scientists will visit the Alaska SeaLife Center in 2012 for collaborative research on cetaceans, primarily killer and beluga whales, and training in the use of biotelemetry instruments. (ASLC)

Project 02.05-71 Animal and Plant Ecology

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

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

PURPOSE: Promote 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.

1. The two sides will update a bilingual website (<http://www.usrubep.org>) launched in 2007 to highlight U.S.-Russia botanical cooperation under the Environmental Agreement. Information is available on scientific developments, recent publications, and upcoming conferences and expeditions. (Nat. Arb.-USDA, FWS; Main Bot. Garden, RAS)

2. Joint botanical expeditions of 2-3 weeks' duration to collect plant materials and analyze floristic ties between Eurasia and North America will be conducted in 2012. Tentative areas to be surveyed are the southern Ural Mountains (Russia) and Appalachians (U.S.). (Nat. Arb.-USDA, Missouri Bot. Garden; Main Bot. Garden-RAS)

Activity 02.05-7102 Northern Migratory Waterfowl



Peter Ward/USFWS

Left:
U.S. and European biologists view migrating waterfowl in Kalmykia, Russia, March 2011.

Right:
Diana Solovyova weighs a female spectacled eider at Chaun Bay, Chukotka, Russia, July 2011.



Diana Solovyova/Inst. of Zoology-RAS

PURPOSE: Determine nesting grounds, migratory routes, wintering areas, adaptation to environmental change, and productivity of geese, ducks and other waterfowl species.

1. Three American specialists will take part in the conference, "Waterfowl of Northern Eurasia: Geography, Dynamics and Population Management," to be held March 24-29, 2011 in Elista, Russia. (BBRC; FWS, ASC)

2. Two Russian specialists will attend and present papers at the 4th International Sea Duck Conference in Seward, Alaska, to be held September 12-16, 2011. (USGS, ASC, FWS)

Activity 02.05-7103 Holarctic Mammals

PURPOSE: Investigate the systematics, zoogeography and genetic variability of mammals of the holarctic, with the goal of conserving gene pools of those species.



Taras Sipko/Russian Academy of Sciences

*Left:
A European bison browses
vegetation in the Caucasus
Mountains.*

*Right:
A bison herd moves along a snow-
capped ridge in southwestern
Russia.*



Taras Sipko/Russian Academy of Sciences

1. Russian and American biologists will collaborate on a comparative history of the population structure and demography of bison in the Caucasus Mountains region (Russia) and the area of Yellowstone National Park (U.S.). Exchanges of specialists will be arranged as needed in 2012. (IPEE; USGS)
2. Beginning in the autumn of 2012 and continuing for three years, Russian and American scientists will collaborate on joint research to study the distribution of genetic diversity of Russian brown bears, with the goal of identifying and protecting significant subpopulations in the Russian Far East, Siberia, and Beringia. (FWS, ASC, USGS; RAS, IBIW)
3. Russian specialists will visit the U.S. in 2011-2012 to work on evaluating and mapping the most productive reindeer (caribou) calving locations in the Northern Hemisphere for determining where protected territories might be established. American specialists will be invited to travel to Russia to take part in reindeer field work, and the two sides will collaborate on publications focusing on protection of reindeer as economic development of the North continues. (IPEE; Univ. of Wisconsin)
4. Comprehensive studies of the Holarctic examine the region's topography, climate, hydrology, and flora and fauna distribution, overlaid by the impact of human economic activity (e.g., farming, livestock grazing, road building, mineral extraction). The Institute of Ecology and Evolution invites American colleagues to join ongoing work on evaluating and mapping these and other factors affecting Holarctic ecosystems so that predictive models can be constructed and put to practical use. (IPEE; FWS, USGS)

Activity 02.05-7104 Chemical Senses and Communication in Animals

PURPOSE: Investigate the functions and mechanisms of taste and smell as related to the disciplines of physiology, biochemistry, endocrinology, immunology, nutrition, behavior and genetics.

One Russian specialist will visit the U.S. for one month in April-May 2011 and 2012 to attend the annual meeting of the Association for Chemoreception Sciences (Huntington Beach, California) and continue studies of chemosensory biology and genotyping at Monell Chemical Senses Center in Philadelphia. (IPEE; Monell)

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

PURPOSE: Develop joint methods to collect and process remotely-sensed microwave and optical data, integrate analyses of satellite data from telemetry and environmental remote sensing, and create database structures and models for ecological studies of large mammals in Arctic environments.

Collaborative research will continue on the effects of climate change on the spatial and temporal distributions and physical characteristics of habitats used by Arctic marine and terrestrial mammals. Specific topics for 2011-2012 will include: (1) assessment of polar bear habitat quality and annual change, (2) Arctic marine ice cover modeling at various times of the year, (3) key sea ice habitat parameters affected by climate, and (4) atmospheric circulation patterns.

Two Russian specialists will visit the U.S. (Alaska) for up to two months in the winter of 2011-2012, and one American specialist will visit Russia in the summer of 2012, if funding permits. (IPEE; USGS)

Activity 02.05-7106 Wildlife Health and Disease

PURPOSE: Cooperate in the study, prevention, and treatment of wildlife diseases of microbial, parasitic and chemical origin common to both countries.

Throughout 2011 and 2012 the two sides will closely monitor outbreaks of avian influenza and exchange the latest information about its prevention, diagnosis, spread, pathology and threats to humans. Clinical samples may also be jointly analyzed. (NWHC, FWS; BBRC, RAS/SIB)

Activity 02.05-7107 Invasive Species of Fauna and Flora

PURPOSE: Mitigate the environmental damage caused by invasive species.



The Third International Symposium on Invasive Species in the Holarctic took place in Borok, Yaroslavl Province, Russia, October 5-9, 2010.

In 2011-2012 studies to be carried out by the two sides will focus on: understanding and predicting the spread of branchiopod crustaceans; temperature rise as a factor in the successful adaptation of certain invasive species; penetration of Amur sleepers (*Perccottus glehni*) westward into Europe and measures to prevent its further spread. Web conferences and exchange visits of Russian and American specialists will be arranged as determined through mutual correspondence. (IPEE, IBIW; USGS, FWS)

Project 02.05-81 Ichthyology and Aquaculture

The work of this project is carried out under four Activities:

Activity 02.05-8101 Fish Culture, Nutrition and Disease

PURPOSE: Improve fisheries management, increase productivity through fish culture, restore fishery resources, and exchange information on the physiology, nutrition, diseases, genetics and reproductive biology of species of mutual interest.

In 2012, planning will get underway for the Fourth U.S.-Russia Conference on Aquatic Animal Health, to be held in 2013 or 2014 in Russia. Up to 20 American specialists will attend the conference, whose major topics will include: effects of human activities, pollutants/contaminants and climate change on fish health; impact of disease within aquatic and marine ecosystems; and interactions among wild and captive fish. (USGS, FWS; IFF)

Activity 02.05-8102 Study and Conservation of Sturgeon

PURPOSE: Promote sound management of sturgeon populations in both countries. (Questions relating to international trade of caviar and other sturgeon products are addressed under Project 02.05-31.)

Exchanges of information, samples and sturgeon specialists in 2011-2012 will be arranged as the need arises. (IPEE, RNAFEE; FWS, USGS)

Activity 02.05-8103 Study and Conservation of Salmon

PURPOSE: Promote sound management of salmon populations in both countries.



© Igor Shipilenok

Russia's South Kamchatka Federal Nature Reserve is home to the largest sockeye salmon population in the Western Pacific, supporting wildlife and thriving fishing communities. The Wild Salmon Center and partners in Russia are working to create a network of protected areas, regional watershed councils, and programs to promote sustainable fisheries so that Kamchatka's wild salmon ecosystems and the communities dependent on them will continue to thrive.

1. Work on assessment of the status of and development of measures for the conservation of salmon populations in protected areas of Sakhalin, Khabarovsk Krai, and Kamchatka, including Kronotsky, South

Kamchatka, Kol River, Vostochny, and Koppi River Reserves, as well as others, will continue. In 2011 and 2012, expeditions are planned to the Kol River Biological Station with the participation of instructors and students of Kamchatka State Technical University. (IPEE RAS, KamchatNIRO, MSU, KSTU, WSC, Kronotsky SNR, Russian Salmon Fund, Khabarovsk Wildlife Foundation; WSC)

2. Work will continue on preparation of biological foundations for the establishment of Federal Fishery Protected Zones in the Russian Far East. Participants from the two countries will meet in 2011 to discuss plans. (VNIRO, IPEE RAS, KamchatNIRO, MagadanNIRO; WSC)
3. Joint field research will be conducted to assess the status of salmonids listed in the Russian Federation Red Data Book of threatened and endangered species (Kamchatka steelhead, Sakhalin taimen). To that end, expeditions to the Kvachina and Utkholok Rivers of Kamchatka will be organized in 2011 and 2012. (IPEE RAS, MSU, SakhNIRO, SSI; WSC)
4. Six representatives of the Sakhalin Public Salmon Councils will visit Oregon, U.S., in the fall of 2011 for consultations and to share experiences with analogous councils in the U.S. (SSI; WSC)
5. Up to six Russian specialists will take part in a State of the Salmon conference scheduled for November 15-17, 2011, in Portland, Oregon. This session will focus on climate change and its impact on salmon. (WSC, FWS, USGS; institutes of Russian Federal Fisheries Agency; MNRE; other partners)
6. Participation in international meetings and exchange of experience on conservation and sustainable use of wild salmon populations will continue in 2011 and 2012. (IPEE, RAS, MSU, MNRE, KamchatNIRO, KSTU, SSI, MagadanNIRO; WSC)

State of the Salmon, a program of the Wild Salmon Center, convened over 300 participants from Russia, Japan, Canada, and the U.S. in 2010 for the first international conference on the ecological interactions between wild and hatchery salmon.



Wild Salmon Center

Activity 02.05-8104 Comparative Studies of Fisheries in Large Lakes and Rivers of the U.S. and Russia

PURPOSE: Study the ecology of endemic fishes of the Great Lakes (U.S.), Lake Baikal (Russia) and other important lake and river systems of both countries, with emphasis on comparative parasitology.

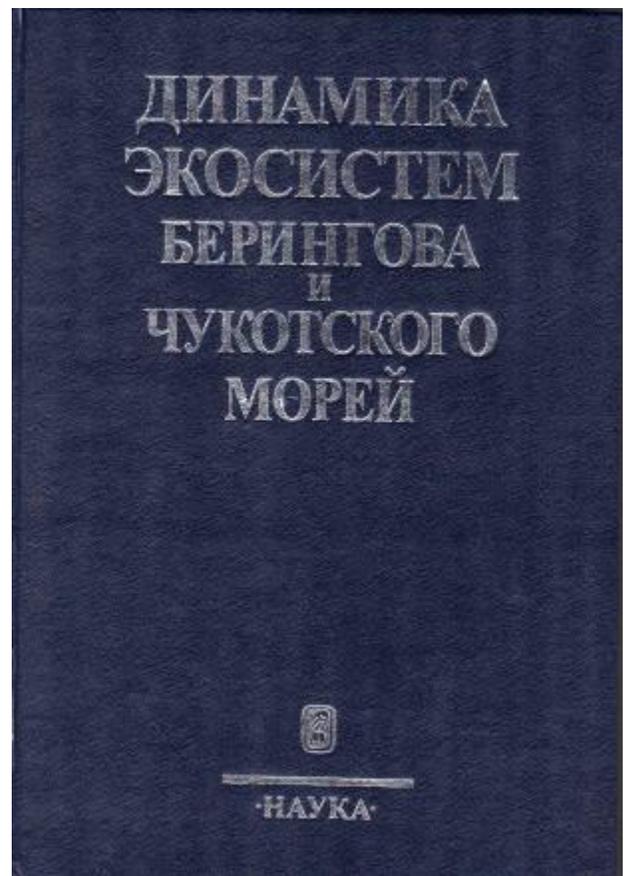
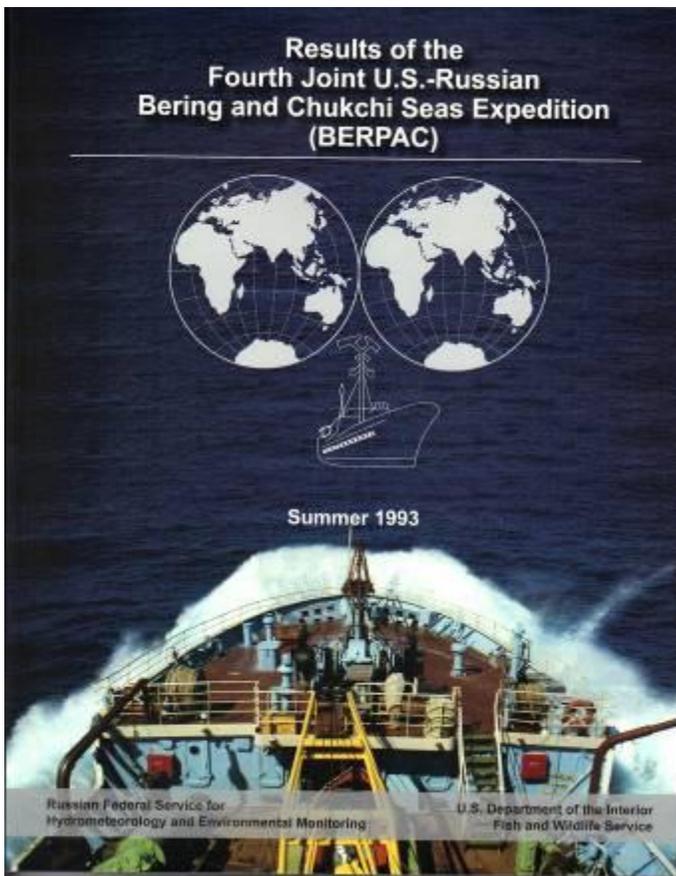
1. Two American specialists will visit Russia in 2012 to consult and agree on methods of collection and subsequent molecular-genetic processing of samples from endemic and relict species of fish in Siberia, Central Asia, and the European part of Russia. (IPEE, RAS; FWS, USGS)

2. The two sides will consider convening in 2012 or 2013 in the U.S. a workshop examining the effects of climate change on relict fish populations of Northeastern Eurasia and Western North America. Topics will include conservation and survival of relict and endemic fish species undergoing ecological stress and experiencing the potential impact of climate change. 12-15 Russian specialists will be invited to attend. (Univ. of Arkansas; IBIW, IPEE)

Project 02.05-91 Ecology and Dynamics of Arctic Marine Ecosystems (BERPAC)

PURPOSE: Study the status and dynamics of the Bering and Chukchi Seas, including their assimilative capacity, bioindicators of ocean pollution, and effects of human-caused disturbances, to establish a scientific basis for predicting major ecological, geochemical and geophysical trends and processes.

In October 2011, the American side will publish and distribute the English language edition of a joint monograph presenting the long-range scientific results of the September 1993 BERPAC expedition. (FWS, USGS; RAS)



List of Acronyms and Abbreviations

ADF&G	Alaska Department of Fish and Game
AFSC	Alaska Fisheries Science Center
ASC	Alaska Science Center, USGS, Anchorage
ASLC	Alaska SeaLife Center, Seward
BBRC	Bird Banding and Ringing Center, Russian Academy of Sciences, Moscow
Chukotka TINRO	Chukotka Branch, Pacific Fed. Research Institute of Fisheries and Oceanography
CSBG	Central Siberian Botanical Garden, Russian Academy of Sciences, Novosibirsk
EPA	U.S. Environmental Protection Agency
FWS	U.S. Fish and Wildlife Service
FWS-Refuges	FWS Division of Refuges
Giprorybflot	Federal Fleet Development and Research Institute, St. Petersburg
GlavOkhota	Department of Hunting Management and Forestry, Russian Min. of Agriculture
IBIW	Institute of the Biology of Inland Waters, Russian Academy of Sciences, Borok
ICF	International Crane Foundation, Baraboo, Wisconsin
IFF	All-Russian Federal Research Institute of Freshwater Fisheries, Dmitrov
IPEE	Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow
Kamchatka NIRO	Kamchatka Branch, Federal Research Institute of Fisheries and Oceanography
KBPIG	Kamchatka Branch, Pacific Institute of Geography, Academy of Sciences
Khabarovsk TINRO	Khabarovsk Branch, Pacific Fed. Research Institute of Fisheries and Oceanography
Komarov	Komarov Botanical Institute/Garden, Russian Academy of Sciences, St. Petersburg
KSTU	Kamchatka State Technical University
Main Bot. Garden	Main Botanical Garden, Russian Academy of Sciences, Moscow
Magadan NIRO	Magadan Branch, Federal Research Institute of Fisheries and Oceanography
MBM-7	Migratory Bird Management, FWS, Alaska
MMM-7	Marine Mammals Management, FWS, Alaska
MNRE	Russian Ministry of Natural Resources and Environment
Monell	Monell Chemical Senses Center, Philadelphia
MSU	Moscow State University
Nat. Arb.-USDA	National Arboretum, Department of Agriculture
NBBL	National Bird Banding Laboratory, USGS, Laurel, Maryland
NMML	National Marine Mammal Laboratory, NOAA/NMFS, Seattle
NMNH	National Museum of Natural History, Smithsonian Institution, Washington, D.C.
NWHC	National Wildlife Health Center, USGS, Madison, Wisconsin
RAS	Russian Academy of Sciences
RAS/FEB	Far East Branch of Russian Academy of Sciences
RAS/SIB	Siberian Branch of Russian Academy of Sciences
RNAFEE	Russian National Association of Fishery Enterprises, Entrepreneurs and Exporters
Sevvostrybvod	Northeast Fisheries Agency, Kamchatka
SSI	Sakhalin Salmon Initiative
SWFC	Southwest Fisheries Center, NOAA/NMFS, La Jolla, California
TINRO	Russian Pacific Federal Fisheries Research Center, Vladivostok
USFS	U.S. Forest Service
USGS	U.S. Geological Survey
VNIIPrirody	Russian Federal Research Institute for Nature Protection, Moscow
VNIRO	Russian Federal Research Institute of Fisheries and Oceanography
WSC	Wild Salmon Center, Portland, Oregon
Zapovedniks	Zapovedniks Environmental Education Center, Moscow