

VII. Magadan and Chukotka Regions

Overview of the Regions

Josh Newell

Location

Magadan Oblast and Chukotka Autonomous Okrug (AO) together form the Russian region closest to Alaska (less than 160 km. away) in the far northeast. Chukotka, formerly the northeastern half of Magadan Oblast, officially separated in 1992, but the two regions are still often considered as one geographic-ally and economically.

Size

Magadan Oblast and Chukotka AO cover 199,100 sq. km.

Climate

The region's harsh continental climate is regulateded by the Pacific and Arctic Oceans, two major mountain ranges, and the anticyclone that forms above Eastern Siberia. The average January temperature ranges from -19C along the Sea of Okhotsk to -38C in the interior. Average July temperatures range from 3C to 16C. Annual precipitation is 300 to 700 mm.

Geography and Ecology

The region is mountainous. The Anuiyskiy and Pekulnei mountain ranges feed the Bolshoy and Maliy Anui Rivers. The Kolyma, Suntar-Khayata, and Cherskiy mountain ranges feed the gold-rich Omolon and Kolyma Rivers. The Chukotka and Anadyr plateaus feed the great Anadyr River, which empties into the Bering Sea. The Anadyr River valley in Chukotka is the only relatively flat landscape in the entire region. The largest lakes are Krasnoye and Elgygytgyn.

Permafrost and tundra, marsh, and arctic desert cover most of the territory (especially Chukotka), making open-earth cultivation impossible. The growing season is only 100 days. Chukotka is comparable to western Alaska with similar geography, geology, vegetation, and animals. Larch forests and marshland form the landscape in southern Magadan Oblast. Dwarf Siberian pine grows along the coast. The most valuable forests (mainly larch, poplar, and willow) grow along river valleys. The vegetation is 2 to 2.5 times denser in river valleys than on neighboring slopes. These river valley forests are the richest in terms of species diversity, biomass, and productivity, and often have the main gold deposits.

Flora and Fauna

The Yamsk Islands, off the Pyagin Peninsula on the southeastern coast, are home to over one million birds, including many that are endemic to the Sea of Okhotsk. Steller's sea lions and Steller's sea eagles also live on the islands. A population of black-capped marmot have found a home in Magadan Zapovednik - a species virtually extinct in other parts of the region. Large mammals include brown bear, moose, Siberian snow sheep, and reindeer. Gray and humpbacked whales feed off the Chukotka coast. Wrangel and Herald Islands in Chukotka support the world's largest concentrations of breeding polar bears and walrus rookeries, and other sea mammals.

Red Book birds include the golden eagle, yellow-billed loon, Aleut tern, gyrfalcon, Chinese merganser, Steller's and white-tailed sea eagles, snow goose, marbled murrelet, Kittlitz's murrelet, peregrine falcon, osprey, solitary snipe, and Blackiston's fish owl.

Forests

The region has limited forests, mainly larch which grow and regenerate slowly due to the extreme cold. Larch makes up about 43% of the forest. Dwarf Siberian pine often grows on the coast and on slopes above the larch forests, and makes up 43% of the forest cover. The most productive forests grow around the city of Magadan and the gold-mining regions of the Kolyma River basin. About 75% of the forests have been logged. The only remaining forests are in inaccessible areas or are in forest zones close to rivers, lakes, and the sea. Heavy logging along river valleys, particularly in the northern regions, has caused serious soil erosion, divided river beds, and destroyed salmon-spawning grounds. Often in the summer following clear-cut logging, the permafrost melts, causing entire layers of soil to slip from the hillsides. This clogs rivers and causes flooding in river basins. In winter, these flooded areas become vast ice fields, destroying the most important wintering grounds for moose, ermine, ptarmigan, and Siberian grouse.

Forest Hotspots

1. Magadan Zapovednik - *note a description of the reserve is included in the section on protected areas so it is omitted here.*

INDUSTRY

Population

Total population is 550,800. Magadan Oblast has 426,800 people, while Chukotka has 124,000. Native populations constitute about 10% of Chukotka's population: Chukchi (11,914), Eskimo (1,425), Eveni (1,336), Chuvantsi (944), and Yukagir (160).

Largest Cities

Magadan, the administrative center pop. 152,000

Susuman, a mining center pop. 16,800

Anadyr, administrative center of Chukotka and a major port • pop. 17,130

Pevек, a major seaport on northern shipping routes • pop. 13,020

Main Resources

Gold, silver, tin, tungsten, mercury, coal, reindeer, and fish

Main Industries

Mining is the main industry - almost 60% of industrial output. In 1992, Magadan and Chukotka produced 33% of Russia's gold (43 tons). The two regions together are traditionally among Russia's leading producers of gold, silver, tin, and tungsten.⁶ Production is now shifting from the exhausted Kolyma River valley in Magadan to untapped reserves in Chukotka. Energy production is the second major industry; Bilibino (Chukotka) has the RFE's only nuclear power station. The food industry (mostly fish and fish processing) makes up 16% of industrial production, but most food and consumer products have to be imported. Other important industries include coal mining and forestry.

Economic Importance in the RFE

Most Narrow and stagnant economy in the RFE

10% of total RFE industrial output

Produces more gold than any other RFE region

The Protected Area System of Magadan Region

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Of the total territory of the Magadan and Chukotka regions, 4.2% (or 47,500 sq.km.) is protected. Of that area, 31,516 sq.km. are in Chukotka.

Magadan Region

The major protected area in Magadan is the Zapovednik.

Magadan Zapovednik

The Magadan Zapovednik headquarters are located in Magadan and administered by the Magadan Committee of Ecology. The committee provides some funds to the zapovednik but these are far from sufficient. Magadan Zapovednik, the third largest in the RFE, protects 8,838 sq. km. (883,800 ha.) and is made up of four unconnected sections:

- the Kava- Chelumzhe section, named after the two rivers that create its borders
- the Koni Peninsula section
- the Pyagin Peninsula section, including Yamskiy Islands, the Yama River, and the Pyagin Peninsula coast
- the Semchanskiy section, which borders the Kolyma River to the north of Magadan city.

The zapovednik protects representative northern vegetation and wildlife. The inland territories have large expanses of larch-dominated taiga (larch covers 52% of the zapovednik territory), and riparian poplar and willow forests. Alpine tundra plans grow on mountain ridges. Along the coast, steep cliffs give way to vast tidal marshes and rocky islands battered by rough seas. The zapovednik protects an array of animal and plant species, many of which are endangered. The reserve's biological richness is closely linked to the Sea of Okhotsk, one of the cleanest and most biologically productive seas in the world. The Zapovednik provides habitat for large mammals such as the brown bear, moose, Siberian snow sheep, and reindeer. Protected commercial species include the red fox, sable, and lynx. There is also a colony of black-capped Marmot, a species once nearly extinct in the region. The Yamak Islands are home to the Russian Far East's largest seabird colony – one can see millions of birds, including many species endemic to the Sea of Okhotsk. The islands are also home to Russia's largest colony of Steller's sea lions and large numbers of Steller's sea eagles.

Major problems facing the Zapovednik

In addition to serious funding problems, the Magadan Zapovednik faces growing efforts of the regional administration to exert its power over resource use and protection. However, zapovedniks are still under the control of the federal government, so conflicts have arisen of who has control of the reserve. Other problems have to do with illegal resource users within the boundaries of the reserve, including illegal fishing and hunting of brown bears.

Chukotka Autonomous Okrug

The Development of Chukotka's Protected Area System

Until 1976, the network of PAs of Chukotka consisted of five local reserves (the "Tundrovyi", "Tumanskiy", and "Avtatkuul" in the Nizhneanadyrskaya lowlands at the junction of the Anadyrskiy and Beringovskiy Raions, "Ust'-Tanyurerskiy"-one of the large tributaries of the Anadyr' River, and "Teyukuul" on the eastern shore of the Chaunskaya Inlet) and one federal reserves on Wrangel Island.

The 1970's were characterized by rapid industrialization of Chukotka. Vigorous prospecting and new mines for extraction of non-ferrous metals was in progress, as was intensive prospecting for oil and gas was undertaken in the lowlands and on the marine shelf. Settlements were erected, new roads were built. Use of heavy-tracked vehicles increased abruptly, scarring the formerly pristine tundra areas all over Chukotka. A wave of migrants from the central regions of the country arrived, most of them interested in the promise of quick and easy earnings. All these circumstances drastically increased the threat to the natural ecosystems of Chukotka, systems that were irreplaceable in their biological structure.

Anticipating this threat, environmentalists and nature-conservation increasingly called attention in mass media and in scientific publications to the need for the establishment of nature protection territories. Of particular concern were the decline in population, and sometimes the disappearance, from their local habitats of certain Red Data Book species (white-neck goose, the Brent goose, and the lesser white-fronted goose, the tundra bean goose, the Steller's sea eagle and others). Thanks to the persistence of these specialists and the signing at that time of the Soviet-Japanese and the Soviet-American treaties on the protection of migratory birds and their habitats, the process of expanding the territories of the reserves and enhancing the status of the existing PAs was brought to life in 1976 when the reserve on Wrangel Island was given zapovednik status.

In 1977, the Chukotskiy Okrispolkom [Okrug Executive Committee] approved the plan for the creation of 15 new reserves. However, the implementation of this program continually collided with opposition from the biased Party technocrats and Soviet leaders and managers of mining and agricultural enterprises. It was precisely for this reason that the opening of the first of the planned reserves, the "Omolonskiy," was delayed to 1980. And only in 1984 was the Republican zoological reserve "Lebedinyi" approved.

The Gorbachev perestroika era and the beginning of the socio-political reforms in Russia were accompanied by an explosion of environmental activity on part of the population, largely incited by the Chernobyl' catastrophe. Chukotka's ecologists and activists succeeded in preventing the construction of the Amguema hydroelectric power station which threatened to flood large areas of reindeer grazing grounds and relict stands of [chozeniev?] poplars.

In 1990, the presidents of the USSR and the USA, M. Gorbachev and G. Bush agreed on the creation of an international park, the "Bering Heritage" which would provide a unique example of collaboration between Russian and American scientists and specialists in the field of nature conservation on both sides of the Bering Strait. Subsequently, this idea was discussed regularly during working meetings of the presidents of Russia and the USA and also within the framework of the specially created "Gore-Chernomyrdin Commission" for the development of bilateral relations. On August 14, 1994, Russian Prime Minister, V. Chernomyrdin assigned the Minister of the Environment with the task of developing the Bering Park on the Russian territory. From the very beginning of this project, convoluted political debates within executive and legislative branches of government from all levels were common. Suddenly there appeared many opponents to the creation of an international park. While supporting the idea as a whole, they would still

look for any pretext to hinder its implementation. The okrug administration adopted a harshly negative stance, as exemplified by the statements of its governor, A. Nazarov. By way of a peculiar compensation for the intergovernmental agreements, a Nature-Ethnographic park, the "Beringia" was established in 1993 in Chukotka, with a regional status and objectives and tasks that formally correspond to the original intent.

In 1994, by order of the Russian Federation, a plan was approved for the creation of new SPNTs in the years 1994-2005. Of these, two were to be in Chukotka: a national park "Central'no-Chukotskiy" (the basin of the Lake El'gygytgyn) and a state preserve "Pribrezhnyi" (the Meynypypil'gynskaya lake-river system and the coastal marine waters). The nature-conservation committee of the Chukotskiy Autonomous Okrug (Goskomchukotekologiya) did a feasibility study for the creation of the national park "El'gygytgynskiy" within the framework of this federal plan. At the first stage of its establishment, the territory of the future park has been declared a regional reserve. The full implementation of the government document is delayed for an indeterminate time owing to lack of funds. In 1995 environmentalists and specialists had great expectations for the Decree 1032 of the President of the Russian Federation of 5-10-1995, which guaranteed financial support to the state preserves and national parks through the year 2005. However, all hopes about the possibility of creating new preserve territories and expectations for financial and technical support for the existing ones were dashed by the termination of the financing of the Decree by the President himself.

The Okrug adopted a plan for the establishment of a network of new SPNTs prior to the year 2005. This would include two preserves, five national parks, and 24 reserves. Assuming that the plan is implemented, the total area of the protected nature territories will represent 15-20% of the area of Chukotka. In 1995, in response to the demands of the indigenous population of the village of Rytkuchi and on the initiative of the administration of the Chaunskiy Raion, a regional reserve, the "Chaunskaya Guba" was established. It incorporated a functioning reserve, the "Teyukuul", and 10,500 ha of new territory. Prior to the inclusion of the territory into the reserve, there had been a long decline in the numbers of indigenous game. This was a consequence of the opening of a new highway, the "Bilibino-Pevék" link, and subsequent increase in poaching activities. Thus, in the post-Soviet era, only one regional reserve, "Chaunskaya Guba", has been established in Chukotka.

At the present time, the network of nature reserves is practically not growing at all in Chukotka owing to political and economic difficulties both in Russia and in Chukotka. The area of the specially protected nature territories in the Okrug amounts to 5,533,000 hectares (8.3% of okrug territory.) This is comprised of the "Ostrov Vrangelya" Zapovednik, administered by the Goskomekologii Rosii [State Ecology Committee of Russia] and constituting 1.1% of the territory, one regional nature park (4.2%), one Republic-status and six State regional-status reserves (2.8%), and 20 natural monuments (0.2%).

"Ostrov Vrangelya" Zapovednik was established in 1976. It covers an area of 795,650 ha and includes the Wrangel and Gerald Islands. On Wrangel Island there are found relictual populations of more than 70 species, of plants of ancient Beringia. At one time, this land extended over hundreds of kilometers north of the ancient Asiatic continent and formed an integral entity with the American continent via the Bering Bridge". Plant species of both continents are found side by side on this preserve. Thus, six American species have been found that do not grow anywhere else in Asia. Arctic endemism is at its highest on Wrangel Island, with 25 endemic species.

The land animals on the preserve are represented by only six species: the polar bear, the arctic fox, the Siberian and the Vinogradov lemmings, the musk buffalo, and the reindeer. According to some sources, wolves from the continent have been on the island. The Vinogradov lemming is an island endemic at the species level, as is the sub-species hooped lemming. The endemism of ornithofauna is not pronounced. Special sub-species of the Icelandic sandpiper and polar guillemot nest here.

Wrangel Island is a “maternity ward” for some 300-400 polar bear females who annually bed themselves in their snow caves on the slopes of the low mountains. The highest density of such birthing lairs is found on five sites of the preserve: on the Bezymyannye Mountains, the Vostochnoye (Eastern) plateau, Gavai, the Medvezhya (bear) River, and the interfluvial area of the Neizvestnaya and Pestsovaya rivers. The world’s largest walrus grounds are formed in ice-free years on Cape Bloss and the sandbar Davydova Kosa.

Nesting colonies of many thousands of white geese and Brent geese congregate annually on the rivers Tundrovaya, Gusinaya and in the Tundra Akademii. Here, the pink seagull, a very rare Red Data Book species, can be seen, and on Cape Zapadnyi and Cape Warring colonies of eider duck and rookeries are found. A population of the musk buffalo is found on Wrangel Island, introduced in 1976. At present its numbers in excess of 200. A herd of domestic reindeer has lived on the island since the 1930’s.

According to paleontological data, the last mammoths lived on the island already in the Holocene epoch (8,000 – 5,000 years ago). Bones and tusks can frequently be found on the open ground. It is also thought that a population of wild reindeer had lived on the island fairly recently. The protection of the arctic flora and fauna on the preserve includes twelve Red-Book species of animals and two species of plants.

The Republican zakaznik “Lebedinyi” (Anadyrskiy Raion) was established in 1984, has an area of 400,000 ha and is located in the interfluvial area of the rivers Anadyr’ and Mayn. Here, the plant complex is represented by brush-type elfin cedar tundra, hilly marshes, sedge-cotton grass tundra, thickets of brush alder, and tall willow reeds. Lakes are abundant, frequently connected to each other by meandering flows, which makes for very favorable conditions for nesting, molting and feeding of a multitude of waterfowl: the whooper swan, the white-fronted goose, the bean goose, the lesser white-fronted goose, the pintail duck, the shoveler, the wigeon, the teal. Typical for the land animals found in the reserve are the moose, the wild reindeer, and the brown bear. Also encountered are the wolf and the wolverine. Protection for the entire animal world is provided on the reserve. Of particular importance are the nesting areas of the whooper swan and other rare migratory birds.

The State regional reserves occupy an area of 1,400,000 ha. These include the following: The “Avtatkuul” Zakaznik (Bering Raion), established in 1971 and occupying an area of 250,000 ha. Its territory includes extensive marsh meadows and coastal marine tundra. Numerous swamps and lakes provide resting-places for waterfowl during their migrations and nesting periods. Pintail duck, the wigeon, white-fronted goose and bean goose are numerous. Also protected are the nesting areas of three types of swans (the American, the tundra swan and the whooper swan), the white-necked goose, the willow-tail seagull, the Brent goose, the Canadian crane, the shoveler sandpiper and other migratory birds.

The “Tumanskiy” Zakaznik of 389,000 ha was established in 1971. Its territory is typical tundra of marine coastal zones. The reserve provides resting and feeding places for the birds of the tundra during their migrations and nesting periods. Protection is provided for large nesting colonies of the eider ducks, the Brent goose, the white-necked goose and the swans. Found all over the reserve are the Canadian crane, the bean goose, the lesser white-fronted goose, the pintail duck, and the Charadriiforme birds.

The “Tundrovyi” Zakaznik (Anadyrskiy Raion) of 500,000 ha was established in 1971. It provides protection for waterfowl during their migration and nesting periods. Birds indigenous to the tundra are found on the reserve. Protection is provided for the nesting places of the bean goose, the white-fronted goose, the Canadian crane, the swans, the shoveler sandpiper, the wigeon, Charadriiforme birds, and other migratory birds. From among the predatory animals, fox, wolf, and wolverine are encountered and, in the summer, brown bears make their appearance.

Saving Russia's Far Eastern Taiga : Deforestation, Protected Areas, and Forests 'Hotspots'

The “Ust’-Tanyurerskiy” Zakaznik (Anadyrskiy Raion) was established in 1974. It occupies an area of 450,000 ha. It belongs to the Nizhneandyrskiy geobotanical Raion and thus represents the transitional zone between the forest tundra and the southern hypoarctic tundra. The landscape is characterized by hilly sedge-cotton grass tundra with sphagnous cranberry swamps in areas of thermokarstic sagging. There is an abundance of lakes in various stages of eutrophication alternating with shrubbed mesophyllic grasslands. Swans (the whooper and the tundra kind) are abundant, as are ducks and sandpiper. Protection is provided for the nesting grounds of swans, the bean goose, the white-fronted goose, Charadriiformes and other migratory birds. The Canadian crane nests here in large numbers.

The “Chaunskaya Guba” Zakaznik was established in 1974 and expanded in 1995 (it is composed of the former reserve, “Teyukuul’”, with an area of 200,000 ha and the section “Ust’-Chaun” of the former permanent unit of the [IPBS] with an area of 10,500 ha). It is situated on the eastern and southeastern shores of the Chaunskaya Guba and its landscape is typical marine zone tundra. Special emphasis is placed on the protection of waterfowl and Charadriiformes.

The “Omolonskiy” Zakaznik (on the boundary of the Bilibinskiy Raion and the Magadan Oblast’) was established in 1980 on 160,000 ha (32,000 of which are in the Chukotskaya Autonomous Oblast’) with the objective of protecting and restoring the population of moose and sable. It is the only reserve situated in the zone of larch taiga. It provides protection to the moose, wolverine, wolf, brown bear, sable and the snowshoe hare. Future plans include an expansion of the boundaries of the reserve and restructuring it as a national park.

On January 27, 1993, a regional nature - ethnographic park, “Beringia,” was established on Chukotka. The 3,000,000 ha park is situated on the territories of the Providenskiy and Chukotskiy Raions. Its objective is the preservation and enhancement of the unique Bering-Sea hunting culture of the indigenous population (the Chuckchi and Eskimos), protection of the biological diversity of the rare and typical representatives of the plant and animal life, and preservation of the natural state of the fragile Chukotka landscape. The following sites are included in the park:

The islands Arakamchenchen (with its walrus breeding grounds, one of the largest on the Chukotka peninsula, and its hot thermal springs) and Ittygran (known for its “Whale Lane”, an ancient architectural monument built some five centuries ago out of the bones of Greenland’s whales). The basin of the Chegutun’ River (with the very rare, Red-Book species of bighorn sheep found on its upper reaches).

The islands Litke and Bennet, the Lavrentiy Bay, and a multitude of other territories are slated to receive zapovednik status. The territory of the park is a refuge and a habitat for unique communities of animals and plants. Relictual and Red-Book representatives of flora and fauna are observable everywhere. Numerous species of rare migratory waterfowl nest there (Canadian crane, the white and the fronted goose, sandpipers). Entire colonies of nesting birds and rookeries are found on the coast alongside of breeding grounds and resting places for marine mammals. The adjacent marine water areas are home to walruses, the [akiba], seals, bearded seals, whales (gray, humpback, beluga, Minke’s, Orca and others).

There are some 20 nature monuments on Chukotka with a combined area of 13,700 ha. These are mostly [chozeni]-poplar stand in river valleys, territories of ancient settlements, habitats of rare species and unique animal communities, relictual botanical communities of plants, and certain natural landscapes. The condition of the nature monuments is a cause for considerable concern. Originally under the jurisdiction of the Magadan and Chukotka Raion Council of the All-Russian Nature Conservation Society, the natural monuments lost their affiliations with official protection after the departure of Chukotka from the Magadan Oblast’ in 1992 and the breakup of the Raion Council of the All-Russian Nature Conservation Society.

The maintenance of the preserves and reserves is becoming increasingly difficult. This is particularly apparent on Wrangel Island – the most inaccessible and geographically isolated from the continental part of Chukotka. And the responsibility for the only populated spot on the island, the village of Ushakovskoye, is the responsibility of the preserve. Supplying the settlement with all the necessities of life (manufactured goods and foodstuffs, heating and electricity, communications, utilities, etc.) is obviously beyond the meager budget of the preserve. The deteriorating socio-economic conditions on the island produced a flood of complaints from the populace. The okrug authorities interpreted this in a very peculiar fashion: they decided that the only proper solution to the accumulation of problems was to return the preserve into the jurisdiction of the Chukotskiy Autonomous Okrug.

The financing of the zoological zakaznik “Lebedinyi”, which has federal status, is also very inadequate. It does not even appear as a separate item in the budget of the administration of the Game department. The director of the reserve and the only ranger receive their salaries with great delays. Of the six regional reserves, only three (the “Chaunskaya Guba,” “Omolonskiy” and “Ust’-Tanyurerskiy”) have a protective staff (of one ranger each) who get their miserly pay at irregular intervals. All the SPNTs suffer from chronic lack of water and land transport, spare parts, track-lubricating materials, communication equipment, field gear, etc. In effect, the most valuable spots of the Chukotka preserves have been left defenseless.

On the other hand, this very same crisis, accompanied as it is by a mass exodus of the population coupled with a reduction in industrial production and shipping activity, tends to give the natural ecosystems of Chukotka a certain amount of breathing space, thus reducing the feeling of urgency about the need to create new nature conservation territories. One must not relax, however, because the untapped mineral and hydrocarbon resources are in full view of not only Russian but also foreign industrial circles as well. It is only logical to anticipate a new industrial expansion of Chukotka that will be directed at intensified procurement of all types of raw material, and not only on land but also from the marine shelf zone.

In order to preserve Chukotka’s ecosystems that are the most valuable because of their biodiversity, it is essential that a number of preemptive actions be undertaken, the most important of which is the creation of new preserves, national parks and reserves