

*Абхмат*  
*Мир Энциклопедий*

# Nature Reserves

The Most Beautiful and Renowned

# OF RUSSIA





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3-33

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Quite a number of books have been published about the zapovedniks of Russia (which are strictly protected State nature reserves) but so far most of those books have been scientific. There are very few colourful popular publications, which can be readily understood by a broad readership. The creators of this book have worked hard to make their contribution to fill this gap. The easy, narrative text immerses readers into the world of preserved nature, giving the feeling that they are travelling within those beautiful areas. At the same time one can get to know the history of the zapovedniks, which was often difficult and dramatic. However, it is not enough to merely read about nature. It is also essential for understanding to see that nature. The wonderful photographs of landscape and wildlife, taken by our leading nature photographers, also form a significant and exciting part of this book. The authors and publishers of this book believe that when readers see and understand the beauty of our Russian Nature Reserves — their forests, mountains and tundra; their steppelands and coastlines — they will feel at one with nature. Realising its riches, they will want to make their own contribution to the good cause of nature conservation.

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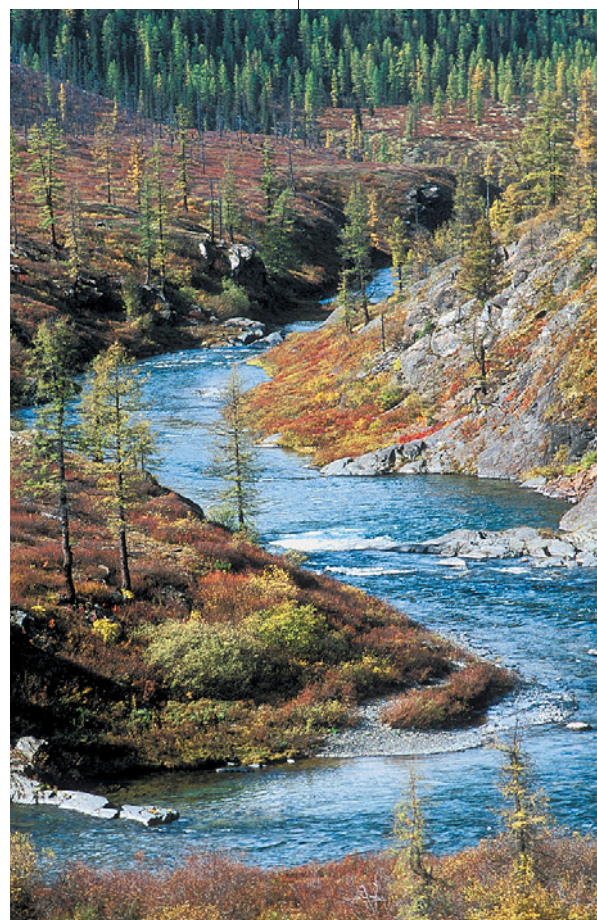
## FOREWORD

**T**here is a long-standing history of nature conservation in Russia, dating back to the Kievan Rus, when there were already forests, especially preserved for hunting. The first private nature reserves appeared on the territory of the Russian Empire in the 1870s and 1880s. The first zapovedniks (strictly protected State nature reserves) — Sayansky and Barguzinsky — were set up in the Sayan Region in 1915 and in the Baikal Region in 1916. More than 50 zapovedniks had been established in Russia by 1935. Their estimated number reached 128 in 1951. The Russian nature conservation system was unique even in those years. Currently, there are 101 zapovedniks and 39 national parks (which have been set up in the last twenty years) in Russia.

Their network covers every region and comprises every possible type of landscape — from the Arctic tundra of Taimyr Peninsula to sand deserts of Tuva; from the Kamchatka geysers and volcanoes to the waters of the Sea of Japan.

It is certainly impossible to tell everything about the zapovedniks in one book. Therefore, several key zapovedniks from different regions and landscape zones have been chosen for inclusion into the book. Those included present the most striking examples of forest, tundra, mountain, sea and geologic nature reserves. Quite a number of the zapovedniks are old and venerable. They have “lived” their history alongside the contemporary history of the country (since the constitution of the USSR). However, there are “young” zapovedniks, which were organized only 10 or 20 years ago. There are also descriptions of some regions where zapovedniks have not yet been established, but we hope that the presentation of those regions in this book will push on the process of their conservation. The complete list of all Russian Zapovedniks and National Parks is displayed at the end of the book. More descriptive and scientific details can be found in special publications, for example, in the volume series “USSR Zapovedniks” (M.; “Mysl”, 1985–1990) and the two-volume edition “Zapovedniks of Siberia” (M., “Logata”, 1999–2000).

The Lena River-head. Baikalo-Lensky Zapovednik.



Forest conservation was legally first set in as early as the times of Peter the Great; when the special “Forest Guard” was established. In 1888 the first Forest Regulations Decree was adopted. The Decree “About the Protection of Natural Monuments, Gardens and Parks” was adopted in 1921. The Zapovedniks’ (Nature Conservancy) Committee was set up in 1933 (it was attached to the Presidium of the All-Russia Central Executive Committee). The Chief Zapovedniks’ Management was established in 1938 (under the Auspices of the Council of People’s Commissars of the USSR).





**The Gavrilovskie Islands.**

The Russian North adjoins the Atlantic and experiences the warming effect of the Gulf Stream on the Murmansk coast of the Barents Sea. This is the realm of sea birds, which stud the edges of cliffs of the protected islands.



The herring gull is the symbol of the sea coast and the whole lake area of the Russian North.



## THE NORTH AND CENTRAL RUSSIA

The Russian Plain, one of the greatest in the world, stretches from Lapland south to the Black Sea. Numerous large, tranquil rivers intersect the Plain in various directions, running southwards – to the Black and the Caspian Seas, or northwards and westwards – to the Barents, the White and the Baltic Seas. The Plain used to be covered by thick mixed forest (limes, oaks, elms, maples, firs, pines), but Man has changed it dramatically, having cut down the forests and altered their composition, drained the marshes, ploughed up the steppes and meadows. Nowhere else but in the Midland area of Russia has nature experienced such a large-scale degeneration in industrial landscape in the 20th century. Also, in the second half of the 20th century, pressure on nature in the Russian North increased dramatically. This affected a great number of lakes and marshes, natural fresh water filtrates and reservoirs, as well as the coastal areas of the White, Barents and Baltic Seas, which had been abundant in sea bird breeding sites and spawning grounds, including “the queen”, Atlantic salmon.

Views of the Russian Plain landscapes as they used to be, 300 – 500 years ago, can only now be appreciated in nature preserves. The first state nature reserves, or *zapovedniks* (as they are called in Russia), which are, in fact, strictly protected nature areas (hereinafter referred to as either “nature reserve”, or “zapovednik”) were established between 1925–1927. They took under their protection island areas of ancient oak groves and model steppe areas (“*Les na Vorksle*”, “*Galichya Gora*”, “*Voronezhsky*”). More nature reserves were added to these in 1930–1937: *Tsentralno-Lesnoy*, *Khopersky*, *Oksky*, *Tsentralno-Chernozemny* and *Mordovsky* Zapovedniks. In 1945 *Prioksko-Terrasny* Zapovednik was set up. The first state nature reserves in the north of Russia – *Laplandsky*, *Kandalakshsky*, *Kivach* Zapovedniks – were organized in 1930–1931. The national parks appeared in the mid 1980s (many of which were set up between 1990–1992). At present there are 28 zapovedniks and 17 national parks in Northern and Central Russia.





↑ Where the granite coast runs down to the sea and the coastal boulders look like rams' heads, where there are lots of crevices and secluded niches, you can observe black graceful birds with a white "mirror" on the wing and scarlet legs. They are black guillemots, the member of auk bird group, a special family and order of northern sea birds (auks, guillemots, puffins and others), which form dense colonies, together with kittiwakes, on the islands of the Barents Sea.

## KANDALAKSHSKY ZAPOVEDNIK

### *In the Land of Salmas, Luodas\* and Bird Colonies*

The sea islands beyond the Arctic Circle. The land of wind, water and stone. Huge granite blocks, "rams' heads", polished by the surf. Variegated mats composed of moss, lichen, crowberry, ledum and other dwarf evergreens. Elfin wood tangle of juniper and low pine trees crooked and flattened by the wind. Intoxicating sea air replete with the calls of gulls and terns. And the very northern sea, sometimes rough and noisy, occasionally tender and peaceful; black-blue or steel-blue, complementing the leaden-coloured sky, white-water waves or cheerful, sparkling patches of sunlight. Hundreds of wooded and rocky islands; thousands of small treeless flat islets (*luodas*) scattered along the coast of Karelia and the Kola Peninsula in the waters of the White and Barents Seas. These are all bird islands, the land of northern birds which come back here in large flocks to breed in a short Polar summer and — having increased two or three times in number — flee again over the lands and seas to the South — some birds to the Mediterranean, some others to the equator or even further — to the south of Africa or even the icy shield of Antarctica.

\* "salma" in the Karelian language means "a sea strait between islands"; "luoda" means "a small rocky woodless island".

There is nobody but the guarding wardens on these protected islands on long polar nights. There are only flashes of aurora borealis which illuminate with vibrating lights the white plain of the frozen sea and the dark patches of wooded islands scattered around. Spring comes to the White Sea area only in late May. Then flowing and ebbing tides start their visible movement cycle. Flocks of eiders approach the shores at the end of May, and the islands resound with calling gulls. Multitudes of ground and sea birds will soon reach the islands, filling the water, the ground and the sky.

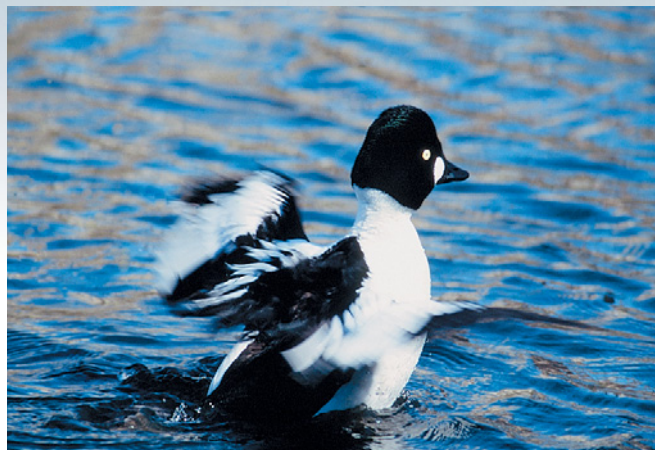






↑ The Arctic terns make a long passage to the Arctic from the Antarctic, covering about twenty thousand kilometers twice a year.

↔ There are numerous wild woody islands dissected by inlets and firths in the northern part of the Karelian shore in the Kandalakshsky Bay. Here, at a great distance from people, eiders, goldeneyes and other ducks can breed peacefully.



Sea birds had flourished here for many thousands of years before Man came to the shores of the northern seas. Then “the paradise islands” turned into traps where birds lost their whole brood every year, though following instinct they still kept coming back to their nesting place. Eiders were killed because of their extremely soft and warm down, the collection of which became a popular trade, pushing this amazing sea duck to the brink of extinction.

The *Kandalakshsky Zapovednik*, the first marine nature reserve in Russia, was set up in 1932 as the original conservation ground for eiders. It included the group of islands headed by Ryashkov Island and a big wooded island called Veliky (“Great”) situated in the Kandalakshsky Bay of the White Sea; also, in the Barents Sea, the Sem’ Ostrovov Archipelago (“Seven Islands”); with Kharlov Island being the largest) and the Gavrilovskie and Ainovye Islands. Very soon the mission of the zapovednik was expanded to preserving and studying all local sea animals and birds. In addition to this, the zapovednik was meant to protect the fragile beauty of the islands in the north of Russia.

The zapovednik begins at the town of Kandalakshy, from where small boats leave for Ryashkov Island. There are huts on this island where the nature reserve



Males of Common goldeneye (*on the left*) and Common eider (*on the right*) are the most remarkable ducks on the bays and straits of the White Sea.



Kandalaksha is a nice name and comes from the Karelian word “laksha”, which means “a bay”, and “Kandy”, the name of the river flowing into this bay. A lot of other lovely words have come into Russian from the Karelian language: *luoda, salma, laydy, lambina*.



## *The North and Central Russia*



wardens live. Scientists and biology students coming to assist them stay there from spring to autumn. The island is not large (about 2.5 km long and less than 1km wide) and is located in the centre of the innumerable group of islands in the northern part of the Kandalakshsky Bay. In appearance it is a typical “Northern” – the land of crooked pine trees on rocky ridges, covered by white reindeer lichen also known as caribou moss, Alpine bearberry, dwarf birch thickets, ledum, cloudberries, crowberries and enormous moraine boulders coated with green moss. Only on the marshland near

↔ The green of pine trees and cowberry grounds, the white of reindeer lichen and the red mats of Alpine bearberry leaves are the colours of the White Sea autumn.

↓ The preserved Ryashkov Island.







## The North and Central Russia



Pine woods of the White Sea area, Karelia and Lapland are inhabited by Siberian tits, redpolls, bramblings, redwings. Bright birds with large beaks — parrot crossbills and pine grosbeaks — can be found here. The willow grouse feed on island berrying grounds.



the lakes do tall narrow pine trees, grey with lichen, reach for the sky.

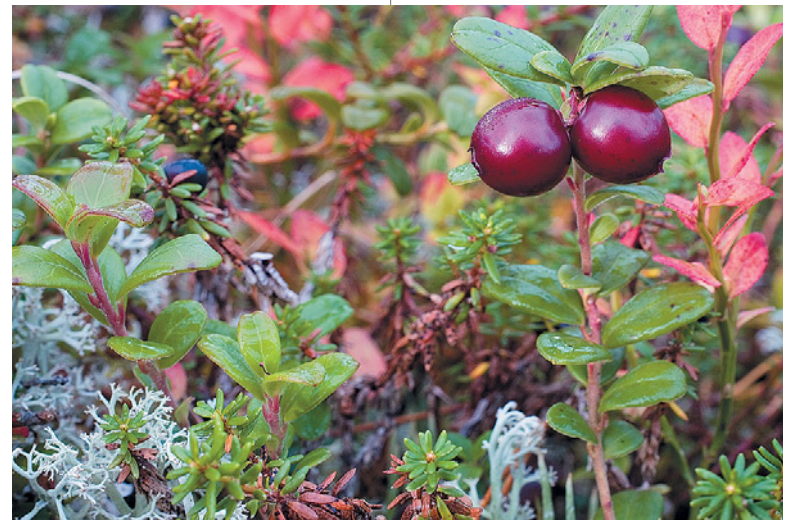
A hundred kilometers to the south of the Ryashkov Archipelago astride the line of the Polar Circle, there is Veliky Island, the southern outpost of the zapovednik. It's a large piece of Karelian land (the length of the island is about 20 km) with rocks, spruce forests, lakes and swamps where feet sink in the soft mattress of moss and bilberry. Capercaillies, goshawks and ural owls nest in this taiga corner of the nature reserve; moose and bears can be commonly encountered. In autumn brown trout (*kumzha*) move up the brooks and streams into the interior of the islands to spawn in fresh water lakes called bulltrout lambinas. In straits and inlets around Veliky Island, especially in the "Babye Sea", you can always catch sight of ringed and bearded seals. They sometimes leave water and rest on exposed above water stones during the tide off. People are occasionally lucky to see a half-whale — half-dolphin known as white whale.

Quite another world; different nature, can be observed on the protected islands near the Murmansk shore of the Barents Sea (the Gavrilovskie and the group of Seven Islands). Here, the granite cliffs confront the waves pursued by the Arctic winds. No trees at all. No spruce or pine trees. Only stones and tundra covered in reindeer lichen, and dwarf evergreens — crowberry; Alpine bearberry and mountain avens (*Dryas*); sometimes just crustose lichen. Shore cliffs and flat heads of islands are studded with birds — kittiwakes, guillemots, puffins, shags — there are many thousands of them here.

Crowberry ( top ),  
Cowberry ( centre ),  
Alpine bearberry ( bottom ).

### On the next double-page:

The Karelian shore of the Kandalakshsky Bay and the view of the preserved island Veliky. The ebbing tide reveals a stony littoral zone with *Fucus* and *Laminaria* brown algae, *Balanus* barnacles and lugworms.



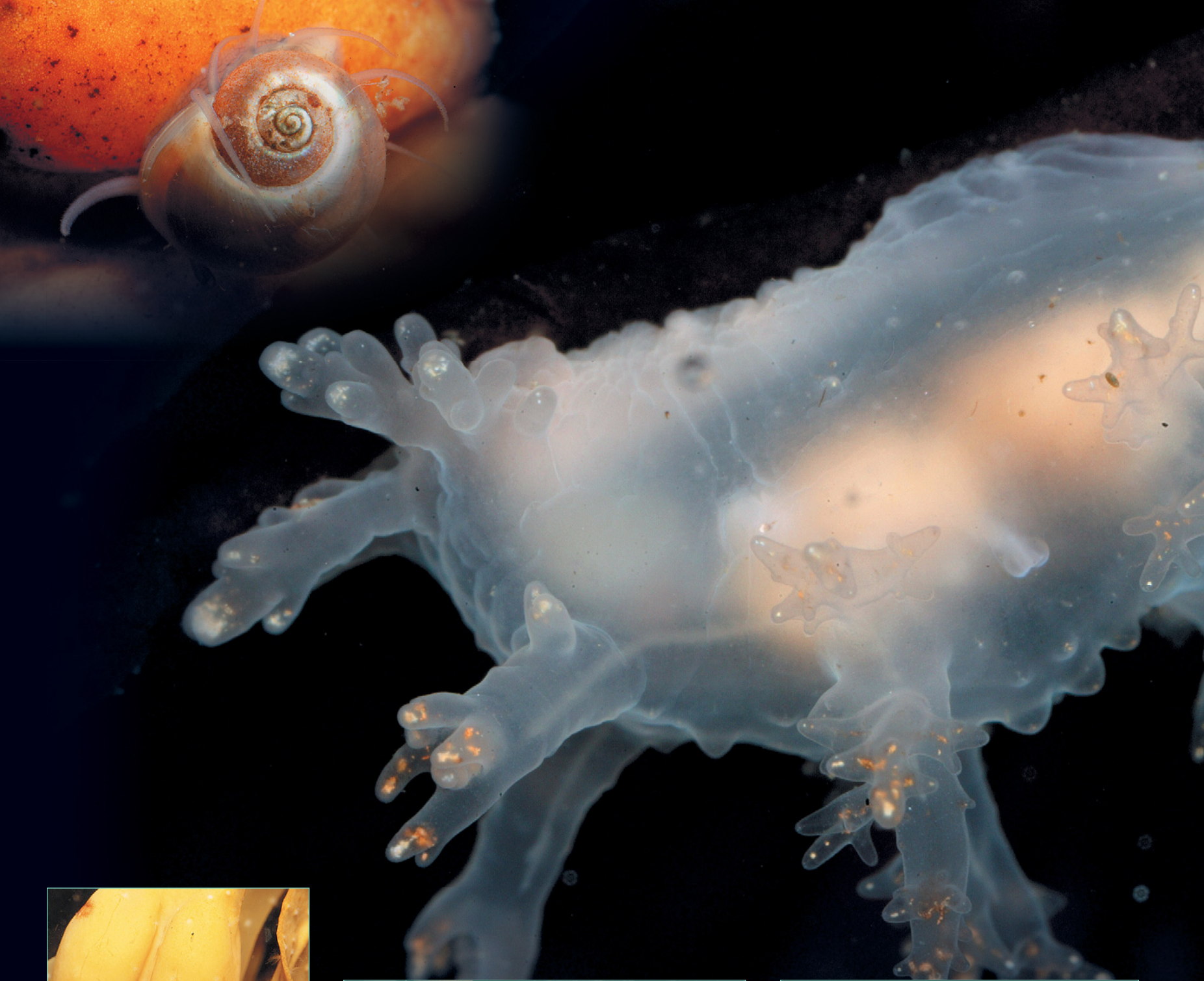
















## UNDERWATER LIFE OF THE WHITE SEA

The White Sea is famous for its great diversity of submarine life, which can be watched without a scuba or a wet suit, just wandering around the littoral zone (which is a part of the seabed, revealed when the water recedes) at low tide. White shells of *Balanus* barnacle make the stones flashy while agglomerations of mussels form darker patches. Starfish, stuck in the seaweeds, strike the eye. Under each lifted stone there are tiny *Gammarus* crayfish whirling around. Large stones keep interwoven slippery *Fucus* fronds. Their utricular "fruit" burst like firecrackers when you step on them. The wet sand is covered in what looks like tiny volcanoes. Inside such a "volcano" there is its master and constructor – a lugworm covered in cilia. There are water fountains which gush up to ten centimetres high. These are long-necked clams – the *Mya* mollusks – which, when disturbed, constrict their white valves and shoot water through the siphon. If you scuba dive, you can see multitudes of different starfish, sea urchins, sea anemones, sponges as well as all sorts of fish. Eye-catching, marvelous gelatinous creatures hover in the water on semitransparent plica flippers. They are small swimming sea slugs called sea angels, or clones.

← Pteropod mollusk of genus *Dendronotus*.

From left to right:

*Littorina* mollusk on the fucus "fruit";  
Starfish *Asterias Rubens*;  
Pteropod mollusk of genus *Coryphella*;  
A Hyperid amphipod Hyperiidæ;  
The near-bottom fish *Pholis Gunnelus*.







The roar of the surf and the howling of the wind are intervened by a loud polyphony of birds, which suddenly dart off the cliffs and rush to the water where they swim and dive for their food — the fish.

In the extreme north-west of Murman, in the waters of the Varanger Fiord Bay near the Norwegian border lie the two more preserved islands — Bolshoy and Maly Ain-oye. Unlike the “Seven Islands” there are almost no cliffs on them. Ascetic north-erners are astonished by luxuriant flower grounds of the golden globeflower, violet geranium and red campion, fireweed

↑ Guillemots, shags and kittiwakes (*left picture, on the nest*) are the main inhabitants of breeding bird colonies on the protected islands of the Barents Sea. Many thousands of bird pairs breed on sheer cliffs of Kharlov Island and the Gavrilovskie Islands.





## The North and Central Russia

and white chamomile. Thousands of gulls, terns, eiders and puffins nest here. Sometimes you can't step without squashing an egg or a chick. The flag species among the reserve birds on the Ainovye Islands is the Atlantic puffin, a member of the northern auk family of birds. It is a harlequin of the bird world: with a funny coloured "face" and a huge bright flat beak for which the puffin gained its name: "the northern parrot".

Puffins dig holes and side-tunnels in the peat layer of the islands where they breed. Many puffin pairs make a kind of underground labyrinth in the soil. Then they head for the sea where they swim and dive, using their wings like penguins, to catch fish.



Not only the birds but also their nests fill the cliffs. Guillemot's eggs lie just on bare stones. However, due to their pear-like shape and therefore having the shifted centre of gravity, they don't fall down if struck by the wing but start spinning. Chicks stay on the ledges for some time and then fearlessly jump down the cliffs – light and downy – to find themselves floating on the water, where they will spend many days and weeks until they can finally start to fly.

↔ Black guillemots.

Razorbills (*bottom left*).

A puffin with its prey (*bottom right*).



The name "Ainovye" comes from Finnish "haina saari" which means "hay islands". Historically, the Norwegians, Russian monks and later the Finns, who owned this land between 1918 – 1945, harvested the grass on these islands. Even in the 19th century there were dwellings of the Trifono-Pechengsky monastery on the southern coast of Bolshoy Ainov Island.





*The North and Central Russia*



## TSENTRALNO-LESNOY ZAPOVEDNIK

### *Thick Wild Woods and Mires of the Valdai Region*



In 1990 the Valdaisky National Park (with the area of 158.5 thousand hectares), the largest in Europe, was established on the Novgorod part of the Valdai Region.

The idea of conserving a large wild coniferous wood in the very heart of Russia matured as long ago as the beginning of the 20th century. An expedition by the Smolensk zoologist, G.L.Grave, went in search of a virgin woodland in 1926. As a result, a forest land was chosen in the west of the Tver Oblast, on Valdai Elevation, where a large undisturbed “island” of spruce forest, surrounded by up-river swamps, was found amid birch and pine woods.

↓ “Staroselsky Mokh”  
(Staroselsky Moss)  
swamp.







## The North and Central Russia

⇒ A sundew and its victim (a mosquito).

It was a piece of the ancient Okovsky Forest, mentioned in the most ancient chronicle, “Tale of Bygone Years”, which dates back to the period between the 10th and 12th centuries. Here, to the north of the Nelidovo railway station, the *Tsentralno-Lesnoy* (which means “Forests of Central Rus-

There are six up-river swamp areas on the reserve territory (and the surrounding buffer zone). “Katin Mokh” (Katin Moss), covering about 4 thousand hectares, and “Staroselsky Mokh” (Staroselsky Moss), occupying about 600 hectares, are the biggest. A large swamp is a special world, with its small lakes and brooks; underwater streams, clearings and groves. The depth of sphagnum moss – green, albescent, red or ginger in patches – heaves and sways. The red-green swamp linen is “woven” with small islands of swamp plants’ flowers and berries: cotton grass, cloudberry, bog-whortleberry and cranberry. Ducks are adherent to the hollows and lakes; cranes and various northern shore birds nest here. The swamp edge is feeding grounds for capercaillies, black grouse and willow grouse. Brown bears and moose are also frequent visitors here.

sia”) Zapovednik was set up in 1931. It was later granted by UNESCO the biosphere status.

The history of the reserve is full of dramatic events. In autumn 1941, the territory of the reserve happened to be in the German troops’ occupation zone. The zapovednik’s administrative centre was plundered; the research collections, the manuscripts, the museum and the library were lost. A new research group was only formed in 1948 but in three years the nature reserve was abrogated. In 1951 – a sadly memorable year – 88 of 128 of the country’s zapovedniks were liquidated, according to the decree of the Council of Ministers. The total area of nature reserves was reduced by more than eleven times. The reserve land was transferred for forestry management. The *Tsentralno-Lesnoy* Zapovednik was restored only in 1960, however, it had lost a third of its original land.

The zapovednik is often called “firry”, as spruce and mixed – spruce and deciduous – woods take more than half of its territory. Where the woods are boggy with green moss mat, you feel as if you have arrived in an enchanted tangled forest of a fairy tale. The hill ridges and slopes are strewn with bilberries; there are starflowers, beadruby and twinflowers catching the eye all around. The hill tops are crowned with giant spruce trees in two or three girths, more than forty meters high. Tall elms, maples and limes prop up the spruce heads. A great deal of southern herbage, where nemoral species dominate over boreal and taiga ones, can be observed here: lungwort, glague (Aegopodium), mercury.

In the somber spruce forest some light patches come into view – “windows” – where old trees were blown down by strong winds. More than half of rare taiga plant species relate to dead and fallen wood. Friable damp wood is a perfect place for regal spruce trees to root. They grow on such a wood throne without any fear of drought or being grass shaded. Animals also like such wind-fallen tree “windows”. Moose come contentedly to browse. Bears treat themselves to the berries in rasp-



Cranberry on the swamp. Strings of red and black currant are a pleasure to the eye in lowlands in late summer. Bilberries ripen in the wood and cloudberries become juicy, red and yellow on the swamps. Blueberries and cranberries grow ripe when autumn comes.

