

# *Plants in our life*



The natural reserve is a piece of some landscape (the taiga, steppe, mountains) that has remained as much as possible unaffected by man. It is a territory where the only representative of Nature – Homo Sapiens (man capable of reasoning) is not allowed to have any activity. The Ugansky Reserve, which was established 15 year ago in Central Priobye (the mid-Ob area), encompasses biotopes similar to those of the adjoining forest and marhlands. The same pine, aspen and cedar grow here. The wolverine, capercaillie and wild duck from the reserve do not differ from those inhabiting, say, the Vakha or Balyk-rivers. As for the peculiar features present in any to the eye of specialists. The natural reserve is research assistants study its flora and fauna under the natural conditions. All the gathered information is represented in official accounts, scientific articles and popular essays.

In 1982, May 31, the Council of Ministers of the RSFSR passed a resolution on the establishment of the reserve “Ugansky” on the area of 648,6 hectares. The reserve is surrounded by a protection zone 2 km wide, the total area of which comes out to 98,9 hectares.

The State Environmental Reserve “Ugansky” is a scientific-research institute of nature preservation, the principal concern of which is to protect and investigate natural processes and phenomena of the ecosystems, characteristic of Central Priobye.

The central buildings of the reserve are situated in the settlement of Ugut, Surgut district.

The territory of the reserve covers a part of the river-basins of the Nyogusyakh and Maly Ugan, which are right-hand tributaries of the Bolshoi Ugan flowing into the Ob.

It is under their canopy that the future dark coniferous forest starts growing. Having reached the age of 120 year or more, the birch and aspen have an intensive fall. Their canopy gets thinned out which allows the dark coniferous species get access to the upper layer.

This phenomenon has a favourable effect on the growth of the second, dark coniferous layer where the cedar prevails. The undergrowth is now 10-17 m high and 110-120 year old.

In the eastern part of the natural reserve (the Maly Ugan is area) are generally occupied with undershrub true-moss pineries. These woods are composed off all-age stand. The canopy layer consists of pines 20-22m of height, sometimes of cedar and single larches. The undergrowth of such woods is dominated by dark coniferous species. However, in the case of recurrent lower fires the cedar and the spruce disappear from the undergrowth and give place to the pine. The long-term absence of fires contributes to the ousting of the pine and in the long run to the restoration of the native spruce-cedar woods. The shrub layer there is scarce, if any. The undershrub layer is dominated by the ledum, bilberry, cowberry. The common hair moss.

The commonest shrubs of the flood-plains are the velvetosier, bird cherry tree, black and red currants, roza majalis. Isolated trees are often twined round by the bush liana *Atragene speciosa* reaching up to 3-4 m of height. One metre-high bushes of *Matteuccia struthiopteris* render some speciality to the thickets. The herbaceous species that grow along the river channels include the canary reed grass, several kinds of the sedge, corn mint, the great nettle and other.

The cedar is one of the main wood-formers in the reserve. It proves to be ecologically adaptable as it is frost-hardy (up to  $-60^{\circ}\text{C}$ ) and tolerant to drought and spring floods; these qualities make the range of soils it grows on quite various: well-drained, water-logged, wet. The cedar is very shade-bearing when young, but grows more light-demanding in the period of seed-bearing. All these properties enable the cedar to form both mixed and woods under different conditions of growth.

Spruce-cedar forests with the inclusion of the silver fir represent the final stage of the plant stand's renewal after fires. Such woods are generally composed of all-age stand sometimes admixed with small-leaved species. The trees of the canopy layer are 180-200 years of age. The undergrowth consists of the same dark coniferous species, the cedar dominating. As the upper layer dies off, the undergrowth gains an opportunity to grow and fill the newly-formed gaps. The shrub layer is composed of the most widespread species – *Rosa acicularis*, the mountain ash, *Lonicera pallasii*, raspberry. The undershrub layer is dominated by the cowberry, *Linnaea borealis*, bilberry, may lily, *Trientalis europaea*, copperleaf, *Equisetum sylvaticum*.

In spite of its stability, such a wood structure is typical only of rather small woodlands of the reserve. This fact can be explained by disastrous fires that spread along Central Priobye in the past century. As a consequence, the major part of the present-day watershed areas is covered by derivative woods. Sites of forest fires are most often overgrown with small-leaved species, such as the aspen and birch. They have a high seed productivity and a good capacity for seed dispersal. The aspen and birch grow quickly and are very adaptable to the extreme conditions of the open spaces.

The Nyogusyakh rises from the reserve's marshlands and takes in many inflows. Its length within the area of the natural reserve is 400 km.

The north-eastern boundary of the reserve goes along the Maly Ugan. Its largest tributaries are the Kolkochenyagun and the Vuyayany.

All in all, on the territory of the Ugansky Preserve there have been discovered 165 species, 14 versions and 16 forms of lichens related to 23 families and 45 genera.

The species entered into the Red Book of the RSFSR and present on the territory of the reserve are: the lichen *Lobaria pulmonaria*, the orchid *Epipogium aphyllum*, and 2 fungus species – The giant club and *Hericium coralloides*. *Lobaria pulmonaria* and both the species of fungi are quite common in the reserve. *Epipogium aphyllum* occurs in dark coniferous forests, but it is not rich in numbers.

A few plant species are found at the northern boundary of their habitat and that's why are rare. Among them are: the martagon lily, long rooted onion, *Listera ovata*, bog orchis ladies sleeper.

According to the geobotanic division into districts, the reserve's territory is part of the Salymo-Ugansk area of the central subzone. This area's vegetation is characterized by the predominance of spruce-cedar woods with silver firs on the watersheds, while the less drained middle parts of interstream areas are occupied by domed oligotrophic bogs. The woodland and marshland vegetation types quite often merge one into the other.

The most parts of watershed areas are covered by the true-moss spruce-cedar woods and their derivatives.