

The Monument of Nature, Veshensky Great Oak, Russia

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Rostov administrative region is situated at the steppe zone of Russia, at the south of this country, and in fact it is an area of intensive agriculture. As a result, the territory of natural ecosystems has been progressively reduced, and existing territories of wild nature are under intensive anthropogenic pressure. In the northern districts of the Rostov region the percentage of surviving natural communities are somewhat higher.

There is an oak tree (*Quercus robur* L.) of immense size which grows at the state territory of the M.A. Sholokhov Museum-Reserve. This is the area where the famous Russian writer and Nobel Prize Winner, Mikhail Sholokhov worked and created his novel "Tikhly Don" ("The Quiet Don"). The Museum-Reserve, including the zone of protected natural landscapes, covers the area of 38,236 hectares. It occupies territories of two administrative districts – Sholokhovsky and Bokovsky.

The climate here is moderately dry, with 440 mm of precipitation per year. The average monthly temperature of air in July is +21-+22° C; in January it reaches -8-9° C. The frost free period is 165 days or less. The flora and fauna are diverse, due to the rich diversity of landscapes because they have received protection. Besides having zones of multi-species grass and feather-grass steppe, there are communities of sandy steppe, floodland forests along river valleys, watershed and ravine forests, specific types of alder, birch and aspen forests at sands, planted forest cultures of Scotch pine (*Pinus sylvestris*), and water meadows and chalk denudations. The afforestation of Sholokhovsky district, at which the main part of the Museum-Reserve is situated, reaches 12% (while the average one on Rostov region is only 3.4 %). Totally, more than 1500 taxa of plants, 318 species of mushrooms and more than 2300 species of animals occur at this territory. There are 57 species of plants and animals considered to be threatened and rare, and listed in the Red Data Book of Russia.

At present there are four local botanical monuments of nature, which rather completely reflect the landscape and biological diversity of the left side area of the Don River. And the oak-patriarch is one of these monuments. It obtained official status through registration and protection since 1977. The tree grows at the second terrace of the Don River in the central part of Sholokhovsky district, 4 km north of Stanitsa (Cossack village), Veshenskaya, at the watershed of streams Gorokhovsky and Chernovsky. The general relief is plane, cut by a valley of a shallow stream. The soils are sandy or sandy-loam and soil-forming bedrocks are loess loams and clay. This is a territory of the Kolundaevsky forestry of the Veshensky Forest State Enterprise.

The tree is 25.2 m high, with trunk diameter 2.5 m in at breast height (7.6 m girth), and a crown diameter of 28 m. At a height of 1.9 m the tree is forked into two trunks (1.4, and 1.6 m consequently). Total volume of timber is 42 cubic m.



Schoolgirls near the great Veshinsky oak.

Such large specimens of oaks can be seen nowhere else at Rostov region. That is why this unique natural phenomenon deserves special protection not only at the regional, but also at the federal level. This tree is very attractive and has been developing normally. Earlier it was considered that the tree is more than 400 years old (Turchin, Sholokhov, 1997). But according to the newest data, fulfilled by researchers of Voronezh State Forest-Technical Academy, its age is not more than 250 years old (Malikov, Chernyshov, 2004). In recent years the condition of this tree has worsened, apparently due to anthropogenic pressure and drying up of the Gorokhovskiy stream. Close by to the oak-patriarch two old oaks of smaller size reaching 21.5 m high and 98 cm in diameter. Near at hand there are other good oaks, not so large but also interesting. They might represent the next generation of the old mother oak, and the tree currently continues to produce acorns.

The oak grows at the south-east border of its natural distribution. It may be concluded that it is of an ancient forest. It occurs in a specific type of forest which grows as a belt along a stream, with a rather rich set of trees and shrubs. The tree grows not in a pure oak stand or oak wood (in Russia such oak wood is called “dubrava”), but at the edge of broadleaved forest, formed by several tree species. It may be considered to be at the edge of floodland alder forest, but the borders of forest types are not clearly obvious.

About 60% of reserved territory around the old oak (1.3 hectares) is occupied by alder forest, connected with wet places along the stream, where *Alnus glutinosa* dominates. There are also *Fraxinus excelsior*, more less commonly *Populus tremula*, *Acer campestre*, *Pyrus communis*, and *Quercus robur*. This shrubby layer is formed by *Padus avium*, *Acer tataricum*, *Prunus spinosa*, *Crataegus curvis-*



Veshensky great oak.

pala, and *Euonymus verrucosus*. The grassy layer is well developed and meadow vegetation covers 20% of the territory around the tree, and at the edge of forest and shrubby thicket. There are also sands with planted trees of *Pinus sylvestris* and the natural vegetation of sandy steppe.

The acorns are collected by the local Veshensky Forest Enterprise, but mostly in small amounts, for purposes of ecological education of schoolchildren and to be planted at a special small plot. The tree is often visited by many people, not only by local Cossacks, but also coming from far away, participants of conferences and common tourists.

We hope that the Veshensky Great Oak is of interest for the Members of the International Oak Society and for the International Dendrology Society and deserves consideration to be included in the European database. It would be useful to confirm or clarify its age using the radio-carbon method of identification.

Literature used:

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