

Bioecology Of Lemna Minor Vaelodea Canadensis Spread In Namangan Region

Ergasheva Xilolakhon Erkinjonovna

Doctor of philosophy in Biological Sciences of Namangan State University (PhD), associate professor.

Jalilova Dilfuza Umarali qizi,

Jo'rayev Otabek Sobitxon o'g'li

Master students of Namangan State University

Annotation: the article contains information about the spread of Lemna minor and Elodea canadensis, spread in Namangan region, bioecology. Agrotechnics of Lemna minor and Elodea canadensis, described in the characteristics of medicinal. The usefulness aspects of hydrofit plants growing in Namangan region are revealed.

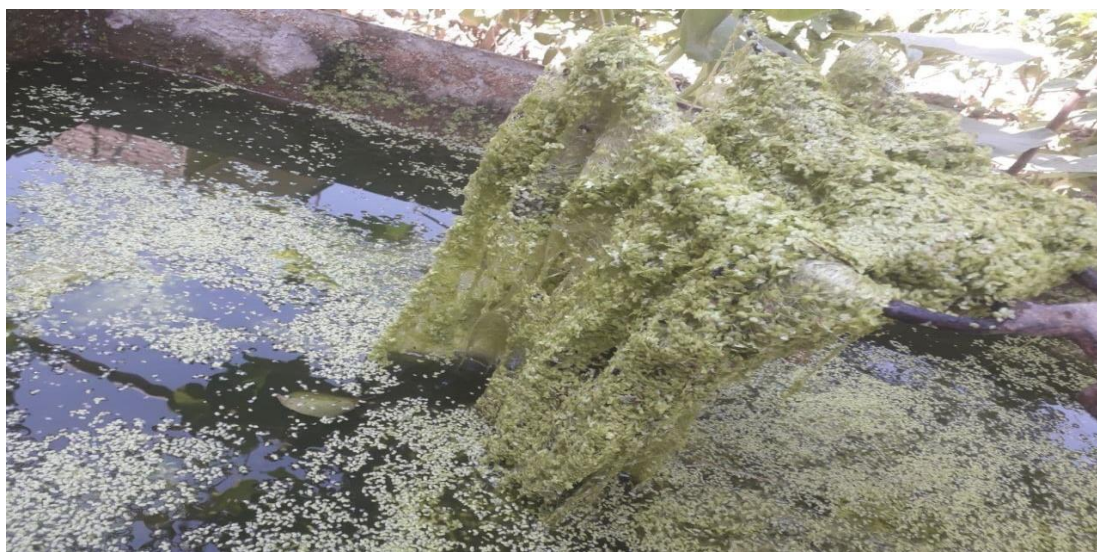
Keywords: Araceae, biomass, aquarium, temperature, microscope, waxy layer.

Currently, high plants are widely used in animal nutrition, in the preparation of various medicines for humans, and serious attention is paid to them. Among all plants, a lot of biomass and medicinal substances can be obtained even from hydrofit plants. An example of this can be attributed a small ryaska - Lemna minor plant. The composition of this plant in the dried state includes 30% in natural conditions, up to 45% protein when grown under special conditions. And in terms of the amount of irreplaceable amino acids, this plant stands higher than corn. This means that the hydrofit plants growing in the conditions of ea Uzbekistan also have a non-lingering composition and medicinal properties from other plants, and that they can obtain a high biomass through the magnification of the areas in which they are distributed. In other regions, including the Namangan region, many aquatic plants are distributed, in which the small ryaska - Lemna minor is also we can meet.

Botanical description: it is a perennial high water plant belonging to the Araceae family and grows floating on the surface of the water. One, two, three or four leaves of Lemna minor (picture 1) hang in the water and have one root. With the growth of more leaves, the plant is divided and turned into separate plants. The stem is 1 - 2 cm in length, the leaves are oval - shaped in length 1-8 mm and width 0.6-5 mm three sometimes five veins and have air bubbles that help to flow. It is mainly vegetative, that is, it has the property of reproduction by division. In rare cases, it blooms, and its flowers make up 1mm. It is a medicinal water plant that is resistant to cold and hot air, growing in the waters of any puddle rich in organic substances [1]. Birds are of great importance in distributing the plant to new places. Sticky tubers allow birds to patlariva and stick to their feet, and in this way begin to multiply in New pools. Ryaska in the process of photosynthesis releases a large amount of gislarod, and her role in the purification of water bodies is also high. According to the scientific literature, as a result of the experiments conducted in the 70 - ies of the last century, it was shown that in the conditions of Uzbekistan this plant can yield up to 260 tons per hectare.

Chemical composition: fats, carbohydrates, klechatka, asparagine and glutamine acids, phospholipids, flavanoids, nitrogen compounds, triterpene compounds, additives, polysaccharides, sulfolipids, bromine, iodine, phosphorus, calcium, silicon, magnesium, copper, iron, manganese, cobalt, nickel, titanium, vanadium, radium, gold and vitamins V group, a, RR are present in [2]. [3] Agrotechnics: for the cultivation of Ryaska can use puddles, empty lying lakes, river tributaries, artificial and natural pools. It forms a thick layer on the water, thereby preventing the development of pests grasses. For its optimal growth conditions, the pH values should be from 6,5 to 8. Lemna minor can grow at a temperature from 6 to 330 C. The growth rate of their kalonias is high and forms carpets on the water bet. When the temperature in the temperate regions passes to a temperature below 6-70 C, the plants sink under water, passing into a small, dense aggregate state. In order to obtain a high biomass, water is left in the standard of mineral or cultural fertilizers. At the same time, in order to achieve a good result, it is necessary to control it, harvest its harvest in time. This ensures optimal growth of the plant, high yield. You can give it to animals, poultry, fish, even in the case of a hangover, dried. In running water, ryaska does not multiply. Its natural growth sites are the

standing waters. In general, for the cultivation of duck grass, a certain management effort will be needed. Small duck grass can fly under the influence of the wind, so it will be necessary to plant them in long vator ponds perpendicular to the wind. The depth of the puddles should be at least 20 cm. At the same time, there must be a place where water does not overflow, after all, it is washed off with the addition of water. An increase in the amount of lead in the water content leads to a decrease in the relative growth rate of the Lemna minor. Lemna has a good advantage in the economical cleaning of wastewater due to the fact that the minor is resistant to temperature, has a rapid growth and is easy to collect. It is used in many countries for the purification of wastewater of urban and industrial enterprises. After a certain period of growth, the plant is grown and used as a feed for livestock, and this feed is a rich source of protein. Heavy metals as a result of anthropogen factors such as the extraction and burning of fossil fuels should not be reused, but should be appropriately utilised as Lemna minor, which is harvested from industrial areas where heavy metals accumulate in waters, soils, and sediments[4]. It is important to remove them from the environment, since heavy metals have a carcinogenic effect in humans, they are stored for a long time in nature and accumulate in living organisms. Lemna minor has also been shown to remove microflocating agents such as pharmaceuticals [1] and benzothriols from wastewater [3]. As shown in the literature, it is noted that Lemna minor give different yields. Grown in sufficient conditions, it is possible to extract up to 73 tons of dry matter per hectare per year. The content of protein in ordinary duck grass varies from 20 to 40% depending on the season, the nutritional content of water and environmental conditions. It does not form very complex tissue structures and therefore has a fiber content of less than 5%. Basically, all its tissues can be used as a feed for fish and poultry meat. Experimental studies have shown that lemna is able to completely replace the soy bean supplement in the diet of the minor duck. It can be grown directly on a farmer's farm, as a result of which the cost of production will be slightly lower. Therefore, the use of ordinary duck grass as an additional food in the broiler diet is much more useful from an economic point of view[2]. Further reviews have shown that expensive sesame oil cakes in the chicken diet can be partially replaced with Lemna minor, which increases the growth indicators of the broiler. Despite this, due to the low content of digestible proteins in the lemnamenor, it is used in the broiler diet only as an additional food. Medicinal properties: in the scientific literature and internet data, ryaska has been treating many diseases in folk medicine for many years as a medicinal plant. Ryaska is used as an anti-inflammatory and pain reliever, as an anti-inflammatory and anti-inflammatory. Nastoyka is widely used in the treatment of diseases of the oral cavity and upper respiratory tract. It is used as an iodine-rich plant in the treatment of white spots on the skin, purulent wounds.





Picture. Lemna minor (a condition that is grown as a certain environment generates) Another of the aquatic plants is the Elodea canadensis, which grows in cool waters. For the first time the plant of Elodea was brought to Europe with parachutes and ships in 1842 year, first to Scotland. Since then, Elodea began to rush in the waters of Europe, and came to Russia. In natural conditions, elodea grows in the reservoirs of North and South America. There are more heat-loving and cold-resistant types. The growing plant multiplies very quickly, squeezing the remaining plants. Therefore, it is also called the plague of water. In the aquarium, this cockroach grows very well.

Botanical description: Elodea is a fast-growing perennial plant. It is long and supple, which grows to 2-3 m in length, and it also forms side buds. Its roots, stems, leaves and flowers are clearly distinguished. That is, his body is divided into sleeves. Elodea is often used to study the structure of cells. On its leaves, under the microscope, a clear movement of the cytoplasm is visible. It slows down and accelerates depending on the temperature. The roots of elodea are white thin (picture 2).





2-Picture. With the help of *Elodea canadensis*, the plant can be installed on the soil. In his body there will be buds of green or brown hue [3]. *Elodea* is not a free-floating plant it sticks to things under water through its roots. Its flowers are small and white in color. In the upper part of the water surface, flowing branches Bloom. To prevent the drowning of *elodea* flowers covered the surface of the gultogiberg with a waxy layer. The *elodea* plant blooms from may to October. Seedling flowers float freely on the surface of the water until they collide with the pollen flowers of *elodea*. The fruits of *elodea* are cylindrical or oval, filled with small seeds of its capsule. Through the pieces of *elodea*'s poya, its seeds constantly come to action.

Agrotechnics: *elodea*'s temperature in the aquarium is from + 15 0C to +220C. If the water is higher than + 240C, the growth of the plant slows down and dries up. Lighting is very important for the plant. If there is not enough light in the room in which the *elodea* is grown, fluorescent lamps are used [4]. They should be fully burned in the room for at least 10 hours. Turbid water can not cause discomfort to the plant. Because *elodea* is also used in water filtration. All the suspension is placed on the leaves, so the water that has become turbid also quickly passes into a transparent state. Also, in the process of growth, *Elodea* produces bacteriocidal substances that inhibit the development of harmful microorganisms in water. People who grow *elodea* should not forget that *elodea* lives in fresh waters. Even a small amount of water can destroy it. On the territory of the Namangan region, it is desirable to pay enough attention to both mesophyte and xerophyte plants, as well as to hydrophyte plants. When cleaning air from water plants, medicinal properties can also be used as landscape plants. In medicine, as an iodine-rich plant, the *Lemna minor* plant is used in the treatment of various skin diseases. Together with it, *Elodea* produces bacteriocidal substances that inhibit the development of harmful microorganisms in water. With the establishment of new ponds or with the productive use of boron ponds, water is recommended to obtain an even greater amount of biomass from plants. Thus, along with other plants, gidrophytes also have a high level of fertility and useful properties. It will also be possible to use it as a feed for livestock, since the *Lemna minor* plant has a high protein content.

Used literatures:

1. Ершов И.Ю. Гидрофильные растения природной флоры как объект садово-парковой культуры // Гидрофильный компонент в сравнительной флористике Бореальной Евразии. – Рыбинск, 2005. С. 37–58.
2. Щербakov А.В., Даушкевич С.С., Даушкевич Ю.В. Использование высшей водной растительности как индикатора загрязнений водотоков Московской области // Четвертая Всероссийская конференция по водным растениям. – Борок, 1995. С. 84–86.
3. Распопов И.М. Индикационные возможности макрофитов // V Всероссийская конференция по водным растениям «Гидророботаника – 2000». – Борок, 2000. С. 204–205.

-
4. Рахимова С., Рахимов А.Р. О некоторых биологических особенностях ряски малой (*Lemnaminor*L.) испироделы (*Spirodelapolyrhiza* (L.) Schleid), выращенных на сточной жидкости свиноводческого комплекса и птицефабрики // Первая Всесоюзная конф. 328 по высшим водным и прибрежно-водным растениям: Тез. докл. (Борок, 1977). – Борок, 1977. – С. 138–139.