Mosses

Mosses can be found in various environments and often form the dominant plant cover in a given area. These inconspicuous plants have developed many adaptations that enable them to survive where other plants would struggle. Mosses grow in forests, peat bogs, dry and wet areas, on rocks and tree trunks, and even deep underwater. They vary in appearance, leaf shape, and sporangium structure. Worldwide, there are about 15,000 species of mosses, while in our country, there are 680.

Mosses can be divided into three subclasses. The first one is peat mosses with a characteristic stem structure, from which branches protrude, forming a head at the top. The branches can be thin or thick, and the leaves attached to them have various shapes. Peat is formed from the dead remains of peat mosses. Additionally, they are an effective water reservoir because, besides small cells involved in photosynthesis, they have large dead cells that store water.

The second group consists of granite mosses, the largest of which - common haircap moss - can reach 30 cm. From an upright stem covered with pointed, bristly leaves, a long seta grows, on which a sporangium is located, adorned with a decorative cap with long hairs. Often, colorful cups, which are clusters of reproductive organs, can be observed at the top of the leafy stem. The reproductive cells of mosses only connect in droplets of water, so the connection is only possible during rain or dew.

The largest group of mosses is true mosses. Thick and soft carpets in young pine forests are built by haircap moss and fork moss. Gray-green cushions are formed by silver moss. Oval-leaved merzyki develop in moist places. Rokiet lun moss and curly moss cover tree trunks and stones, while brush moss, characterized by long hairs at the ends of its leaves, grows on roofs and walls. Sickle moss grows in very wet places, even in water itself. Very rare species, reminiscent of the glacial period, such as the hoary haircap moss, three-toothed plait-moss, and woolly bog-moss, are most commonly found in peat bogs.

Many mosses are rare and endangered species, so they have been included in the list of protected plants under the species protection regulation. All peat mosses and other species, especially those associated with peat bogs and forests, are under partial protection. Eight species of mosses are under strict protection.

Mosses play an important role. They are pioneer organisms because they settle where there is still no place for other plants to attach or where there are no nutritional ingredients. They also provide a habitat for many small organisms such as algae, protozoa, mites, and insects, creating small ecosystems together with them.