

Dynamics of Some Rare Species of Plants on Excessly Moistened Plants of Vegetation of the Moscow Region

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The article provides materials on a number of protected plant species in Moscow and the Moscow region, growing in over-wetted areas of forest, damp glades and in swamps. For a number of plants, long-term observations of the dynamics of their numbers are carried out. The connection of fluctuations in the abundance of a number of plants with weather conditions, primarily the amount of precipitation during the summer period, has been established.

Moneses uniflora was found in excessively moist areas of middle-aged pine and birch forests with an admixture of alder gummy. The main satellites of the same flower are *Ramischia secunda*, *Carex caespitosa*. In 2007, *Moneses* met in numerous groups. After dry 2010, a sharp decline in its numbers began, in 2018 only a few specimens were found.

On the territory of Moscow, *Equisetum variegatum* is marked on the Shchukinsky peninsula in a wet middle-aged birch forest with an admixture of pine. Its main satellites are *Lycopus europaeus*, *Phragmites australis*, *Pyrola minor*, *Carex hirta*.

Polemonium coeruleum is found on forest glades, gap, or forest edges, most of which are with excessive moisture. Its usual companion is *Filipendula ulmaria*.

In the Moscow region, *Trollius europaeus* is abundant in glades and along forest edges, where its main companions are meadow-forest and meadow species, usually dominated by *Chaerophyllum aromaticum*, *Urtica dioica*. Over 10 years of observation, the number of generative individuals *Trollius* gradually decreased, reaching a minimum in 2017.

The main satellites of *Hierochloe odorata* are meadow-forest and meadow species, significantly fewer alder and grass-marsh species. The main satellite of *Hierochloe* is *Angelica sylvestris*.

In the Moscow region, Matteuccia struthiopteris populations have been found by us both in the floodplains of rivers and streams, and on dry lands. Matteuccia is most abundant in depressions in relief, where there is usually constant excessive moisture. Matteuccia satellites are most often Aegopodium podagraria, Galeobdolon luteum and places of Ficaria verna.

The usual companion of Ranunculus lingua is Equisetum fluviatile. After a dry year, the number of buttercup decreases sharply, and recovery is slow.

Polygonum bistorta in the Moscow region reaches its greatest abundance in areas where meadow-forest and meadow species prevail in the grass cover. Common satellites of the Polygonum are Alchemilla vulgaris, Alopecurus pratensis, Urtica dioica, Filipendula ulmaria.

The greatest abundance of Thelypteris palustris reaches in areas where alder and marsh species dominate in the grass cover. The main companion of Thelypteris is Phragmites australis.

The number per unit area of plant species studied by us is largely dependent on weather conditions, primarily on the amount of precipitation of the previous year, as well as on the dynamics of grass cover associated with the cessation of cattle grazing and haymaking in these.