Food Cycles in Sphagnous Bogs

by

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(with 1 fig.)

Sphagna produce the bulk of the plant production in bogs. Yet extremely few consumers of the sphagna are known. We found (SMIRNOV 1958, 1959) that there are no abundant species of animals specialized on the nutrition by the emersed sphagna. We also undertook the collection of the population of the submersed sphagnum to find if there are animals consuming it. The results of this part of work are published here.

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As a typical water body overgrown by the submersed sphagnum the borrow pit on the raised bog on the northern shore of the lake Poletskoye was chosen (73 km West from Moscow). This borrow pit was 20 years old. It is almost entirely overgrown by *Sphagnum riparium* ÅNGSTR. with only small spaces of clear water. All the samples were taken from the same place of this borrow pit. The depth in the place of sampling is 1.8 m, the surface pH in summer 6.4. The sphagnum is submersed with only the heads emerging and standing 1—2 cm one from another. The length of the submersed parts is about 70 cm, the upper 12 cm are green, lower the leaves become brown. Under 50 cm the brown leaves and branches fall off.

Numerous algae are present among the sphagnum: filamentous *Oedogonium* sp., *Mougeotia* sp., *Gymnozyga moniliformis* EHRENB., desmids- *Staurastrum, Cosmarium, Xanthidium, Pleurotaenium,* naviculoid diatoms, protococcous *Oocystis borgei* SNOW. In places *Calla palustris* L. and sedges grow on the sphagnum. On the shores