



## **Low endemism in algaeflora due to specific limnological features of Lake Teletskoye (South Siberia, Russia)**

**E. Mitrofanova** (1), V. Kirillov (1), R. Romanov. (2)

(1) Institute for Water and Environmental Problems SB RAS, 1, Molodezhnaya St., Barnaul 656099, Russia, (emit@iwep.asu.ru), (2) Central Siberian Botanical Gardens SB RAS, 101, Zolotodolinskaya St., Novosibirsk 630090, Russia, (root@botgard.nsk.ru)

Algae due their nature are the cosmopolitans in the majority and specific endemism is not so typical for them as for vascular plants (Safonova, 1987). In Lake Teletskoye algal flora five conventional endemic species were found (Huber-Pestalozzi 1942; Poretsky & Sheshukova 1953), including *Cymbella kolbei* Sheshukova, *C. subundulata* Sheshukova, *Nitzschia hustedtii* Sheshukova, *Surirella lepnevae* Poretsky & Sheshukova and *S. asperima*, all of them are typical bottom forms. *C. kolbei* was detected in phytoplankton (Mitrofanova 2000) and *S. asperima* in the bottom sediments (Skabitchevskaya 2000) only once. In the last years these species were not observed in benthos and periphyton. In the Baikal for its pelagic zone 8 % of endemic-species are marked (Kozhova, 1987), for the whole open lake - 28 %, and algae endemism is spread here as far as the genres (Skabichevsky, 1978). The specific feature of Lake Teletskoye is that its valley is similar to a fluvial one, and as a result, it differs markedly from the other deep and large lakes by duration of water residence time. The ratio of the lake volume and the mean annual inflow for the period of 1975-1990 shows that the water of Lake Teletskoye is renewed every 5.3 years (Kalugin et al. 2000). For the Baikal this period varies from 89 to 509 years for different depressions (Vetrov & Kusnetsova 1997). Besides, one of the features of Lake Teletskoye is the ratio between the lake surface area and the area of its catchment basin - 1:91, for the Baikal it is only 1:17. Probably, that is the reason of the lack of endemic species in Lake Teletskoye algaeflora, perhaps due to the high water residence time and the dramatic effect of its catchment basin on flora formation. On the whole, endemism is usually found in isolated reservoirs and their catchments. The investigation was executed under support of the President of the Russian Federation for supporting of leading scientific schools

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