# A FEW REMARKS ABOUT PARADOXES IN HYDROBIOLOGY


## Summary

The hydrobiological literature abounds in phenomena that are difficult to explain at the present state of knowledge. They have been named paradoxes; among them the most frequently discussed of which are the drift, plankton and Allen paradoxes. The first concerns the lack of noticeable losses in benthos density in upper stream sections despite continuous movement of invertebrates downstream with river current. These migrations are caused by both active swimming of animals towards the current, for example while escaping before predators, and passive floating downstream with water current. The second paradox concerns plankton, i.e. the occurrence of a very high number of alga species, even in a small drop of water, which contradicts the competitive exclusion principle, that of one species in one niche. Finally, the Allen paradox: the term describes consumption that many times exceeds the production of food resources, which was recorded in attempts to estimate fish consumption and food production, mainly of invertebrates, in a stream in New Zealand. This paradox testifies to imprecision of estimates of consumption or production of food resources, or both these parameters simultaneously. The author points out the main problems related with each of these paradoxes.