Chemical Pollution of the Eastern Gulf of Finland

Grigory Frumin

Institute of Limnology Russian Academy of Sciences, 9 Sevastyanov Str., 196105, St.-Petersburg, Russia Tel +7-812-2989157 Fax +7-812-2987327 e-mail: lake@spb.org.ru

<u>Abstract</u>

In order to evaluate the current state of the Eastern Gulf of Finland a comprehensive investigation of its pollution by harmful and toxic substances was carried out in 1994-1997. The results indicate a considerable pollution of the gulf waters by chlororganic substances (absorbable organic halogens), heavy metals, phenols and oil products. Our researches have shown that at the present time the water quality of surface layers of the gulf, as a rule, is characterized as contaminated, while layers of water near bottom can be characterized as very polluted. A new index is suggested for estimation of biochemical self-purification capacity of water. Values of the index obtained for different parts of the gulf led to the conclusion that the gulf's capability for biochemical self-purification is relatively low.