

# Biology of European Minnow (*Phoxinus phoxinus*, Pisces: Cyprinidae) in High Mountain Lakes, the Rila Mountains, Bulgaria

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**Abstract:** The study lakes are located in the Sedemte Ezera Cirque, North-West Rila Mountains, Bulgaria, at altitudes between 2095 and 2243 m a.s.l. European minnow (*Phoxinus phoxinus*) is the only fish species maintaining a sufficient abundance of naturally reproduced populations in the lakes. Its populations consisted of 5 age groups (from 0+ to 4+). The age groups 1+ and 2+ were most numerous. About 59% of the individuals reached sexual maturity at the age of 1+, at minimum body length of 35 mm and minimum weight of 0.6 g. Females prevailed in all the lakes. The linear growth of the minnow populations in the four lakes was considered as very low when compared with other 20 populations within the species range. Mean weights, calculated at the same length values according to the equation  $\log W = \log a + b \log L$ , were used as condition indices of different populations.

**Key words:** age structure, sex ratio, maturity, growth rate, condition.