

Problems in managing a slow-growing pikeperch (



Local fishery managers in Lake Sahajärvi tried to increase pikeperch yields by increasing the minimum allowed mesh size from 45 to 60 mm and size limit from 37 to 40 cm. However, due to the slow growth of pikeperch these measures may not be reasonable. Here, pikeperch yields were modelled with an age and size-structured yield-per-recruit model as a function of mesh size. Besides yields, also the proportion of minimum landing size and immature pikeperch caught with a different mesh size were evaluated. The results showed that maximum yields per recruit can be obtained with a 44 mm mesh size corresponding to yields of about 180 kg per 1000 age 2 pikeperch while with 60 mm mesh size the estimated yields are only 46 kg. The share of immature pikeperch is only 0.4% in 44 mm mesh size nets due to very small average size at maturity (24.8 cm TL) of both sexes. Because the observed growth is slow ($k = 0.11$ and $L_{\infty} = 65.28$ cm TL) and the density of pikeperch (BPUE in NORDIC nettings = 1200 g·net⁻¹) is high, the most reasonable management measure to improve growth and average size could be to radically decrease population density.

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