THE CONVERSION OF PIKEPERCH YEARLING (SANDER LUCIOPERCA) FROM NATURAL TO DRIED DIET UNDER OPERATING CONDITIONS

Provozní ověření efektu převodu rychleného plůdku candáta obecného (Sander lucioperca) na suché krmné směsi

J. JANOŠTÍK, R. NĚMEC, T. BRABEC, R, KOPP, J.MAREŠ

Abstract: The aim of this study was to verify the conversion of pikeperch (Sander lucioperca) from natural to dried diet. The rearing experiment was performed in Velký Dvůr fish farm from 12th of June to 2nd of July 2009. Pikeperch yearlings with a total length (TL) of 48.84 mm and body weight (w) of 0.89 g were obtained from the Mírový pond and transferred to artificial channels equipped by bottom water outlet. Water temperature varied from 17 to 22°C, oxygen saturation of water did not fall bellow 80%. UV lamp and filtration was used to maintain suitable water quality. Fish density was 3.28 individuals per litre. Experimental feeding strategy for conversion was co-feeding (artificial diet with the addition of living natural diet in the beginning of the experiment). Zooplankton from the natural ponds was used as a source of living natural diet. Granulated fish diet was applied by band self-feeder. Two differently coloured fish diets were used during the experiment, Skretting F 1A Pro agua Brut 57/15 1 mm (57% protein, 15% fat – brown colour) and Coppens Troco Crumble HE 1556, 0.8-1.2 mm (56% protein, 15% fat – orange colour). Feeding ratio was 5% of fish stock. Fish achieved average body weight of 1.45 g and total length of 57.9 mm. The number of fish that underwent the conversion successfully reached 4256 individuals (52% at Skretting variant) and 2604 individuals (32% at Coppens variant), respectively. Detectable cannibalism did not exceed 5% however the losses were up to 15%.

Key words: pikeperch, yearling, co-feeding, controlled conditions.

Acknowledgment:

This study was supported by the Research plan No. MSM6215648905 "Biological and technological aspects of sustainability of controlled ecosystems and their adaptability to climate change", which is financed by the Ministry of Education, Youth and Sports of the Czech Republic. Futhermore we would like to acknowledge the support of NAZV project no. QH 71305 "Development of new methods of rearing selected promising species for aquaculture using non-traditional technologies".

Contact address:

Jiří Janoštík¹, Ing. Roman Němec², Ing. Tomáš Brabec¹, Ing. Radovan Kopp¹, Ph.D., doc.Dr.Ing. Jan Mareš¹, ¹Oddělení rybářství a hydrobiologie, Mendelova zemědělská a lesnická univerzita v Brně, Zemědělská 1, 613 00 Brno, Česká republika, ²Rybníkářství Pohořelice, a.s., Vídeňská 717, 691 23 Pohořelice, Česká republika, e-mail: xjanosti@node.mendelu.cz, brabto@seznam.cz, fcela@seznam.cz, mares@mendelu.cz