

International Conference on

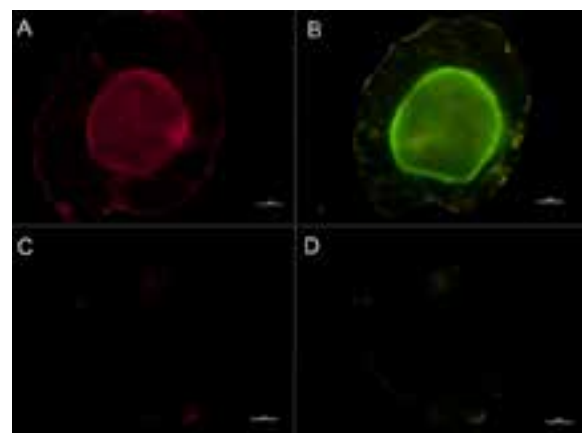
AQUACULTURE & MARINE BIOLOGY

June 25-27, 2018 | Rome, Italy

Mass-marking of European eels (*Anguilla anguilla* (L.)) with calcein, and the procedure effectiveness vs. alizarin red S option

Piotr Hliwa, Katarzyna Stanczak, Katarzyna Mierzejewska and Jaroslaw Krol
University of Warmia and Mazury in Olsztyn, Poland

The necessity of evaluation the effectiveness of fish stocking activity is the crucial element in sustainable fishery. The basic method commonly used for this purpose is the mark and recapture technique. An experiment to test the applicability of calcein for mass-marking the glass eel (montee) and the procedure efficiency in comparison with common bath-marking in alizarin Red S is presented here. The glass eel specimens of 0.27 g on average ($SD \pm 0,034$ g) were immersed in fluorochromes solutions; the calcein (Cal) of concentration 400 ppm for 8 hours and Alizarin Red S (ARS) of concentration 200 ppm for 4 hours. For both fluorochromes used, the prevalence of marked otoliths in sample was close to 100%. The survival rate of fish in both experimental rearing groups achieved 100%. There were no significant differences (One-way ANOVA, LSD Fisher post-hoc test, $p > 0.05$) between tested groups in weight and length of post-experimental fish.



Biography

Piotr Hliwa is an employee of the Faculty of Environmental Sciences at University of Warmia and Mazury in Olsztyn (Poland). His research interests are fish reproduction, influence of biotic/abiotic factors to reproduction system, fish marking and tagging techniques, fish population study. He has published more than 70 papers in reputed journals.

phliwa@uwm.edu.pl

Notes: