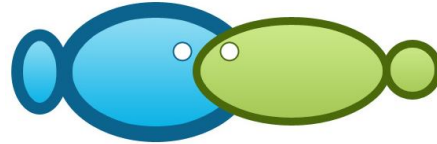


**AACL Bioflux, Volume 6(1)**  
**January 15, 2013**



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Németh S., Horváth Z., Felföldi Z., Beliczky G., Demeter K., 2013 The use of permitted ectoparasite disinfection methods on young pike-perch (*Sander lucioperca*) after transition from over-wintering lake to RAS. AAFL Bioflux 6(1):1-11.

Beliczky G., Havasi M., Németh S., Bercsényi M., Gál D., 2013 Environmental load of wels (*Silurus glanis*) fed by feeds of different protein levels AAFL Bioflux 6(1):12-17.

Györe K., Józsa V., Gál D., 2013 The distribution of crayfish (Decapoda: Astacidae, Cambaridae) population in Cris and Mures rivers crossing the Romanian-Hungarian border. AAFL Bioflux 6(1):18-26.

Savin C., Pasarin B., Patriche N., Talpes M., Cristea V., Tenciu M., 2013 Preliminary research on the anammox process and control of nitrogen compounds in a recirculating aquaculture system. AAFL Bioflux 6(1):27-33.

Györe K., Józsa V., Gál D., Lengyel P., 2013 Fish faunal studies in the Körös river system. AAFL Bioflux 6(1):34-41.

Hermosilla J. J., Tamura Y., Okazaki D., Hoshino Y., Moteki M., 2013 Size distribution and growth patterns of gobies in habitats associated with a natural estuary of inner Tokyo Bay, central Japan. AAFL Bioflux 6(1):42-69.

Note: Acvapeda 2012 – Part 2 -  
will be published in AAFL Bioflux 6(2)/2013

**International Standard Serial Number**  
**Online ISSN 1844–9166; Printed ISSN 1844-8143**

**Published by Bioflux – six issues/year (bimonthly)**

The journal includes original papers, short communications, and reviews on Aquaculture (Biology, Technology, Economy, Marketing), Fish Genetics and Improvement, Aquarium Sciences, Fisheries, Ichthyology, Aquatic Ecology, Conservation of Aquatic Resources and Legislation (in connection with aquatic issues) from wide world.

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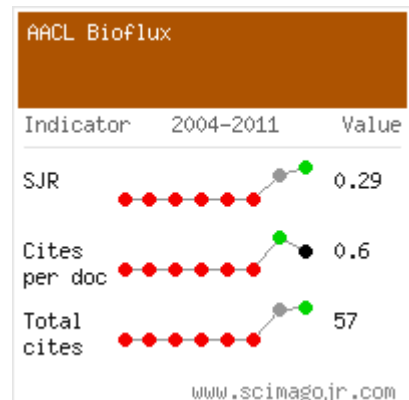
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