



EDITORIAL

# Introducing the new multidisciplinary journal Aquaculture Environment Interactions

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Aquaculture production is expected to overtake wild fisheries as the major source of fish protein for humans in the course of this century (FAO 2008). This enormous expansion of aquaculture will multiply its interactions with the environment. The journal Aquaculture Environment Interactions (AEI; [www.int-res.com/journals/aei/](http://www.int-res.com/journals/aei/)) will provide an international and interdisciplinary forum for primary research on the ecology of aquaculture. AEI will publish scientific results obtained in this increasingly vital field, foster the sharing of information among scientists, the aquaculture industry and environmental managers, and contribute to improving the long-term sustainability of aquaculture activities.

Concept and scope of AEI were defined by an independent group of interested researchers: Tim Dempster, Marianne Holmer, Ioannis Karakassis, Ian Fleming, Pablo Sánchez-Jérez, Bengt Finstad and

Kenneth Black, in collaboration with Inter-Research (IR). Dempster and Holmer surveyed the literature and identified several hundred papers demonstrating environmental impacts and environmental dependencies of aquaculture published in 2007 and 2008 (Fig. 1). These studies were scattered across 100 different journals, because there was up to now no outlet available that focuses on aquaculture–environment interactions.

The scope of AEI encompasses studies on interactions between aquaculture and the environment from local to ecosystem scales, including:

- Pollution and nutrient inputs; bio-accumulation and impacts of chemical compounds used in aquaculture.
- Effects on benthic and pelagic assemblages or processes that are related to aquaculture activities.
- Interactions of wild fauna (invertebrates, fishes, birds, mammals) with aquaculture activities; genetic impacts on wild populations.
- Parasite and pathogen interactions between farmed and wild stocks.
- Comparisons of the environmental effects of traditional and organic aquaculture.
- Introductions of alien species; escape and intentional releases (seeding) of cultured organisms into the wild.
- Effects of capture-based aquaculture (ranching).
- Interactions of aquaculture installations with biofouling organisms and consequences of biofouling control measures.
- Integrated multi-trophic aquaculture; comparisons of re-circulation and 'open' systems.
- Effects of climate change and environmental variability on aquaculture activities.
- Modelling of aquaculture–environment interactions; assessment of carrying capacity.
- Interactions between aquaculture and other industries (e.g. tourism, fisheries, transport).

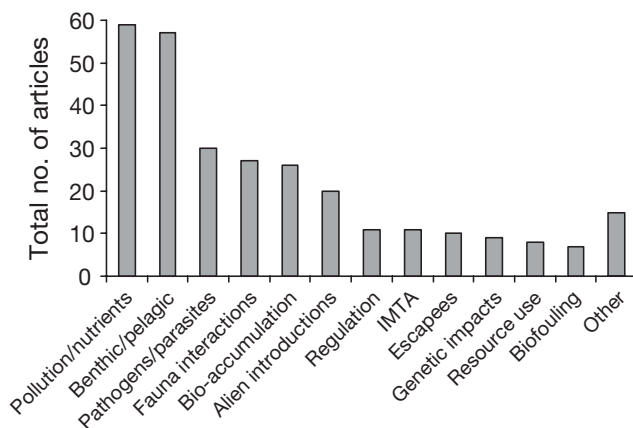


Fig. 1. Peer-reviewed articles published in 2007 and 2008 in the scope of the Inter-Research journal Aquaculture Environment Interactions. IMTA: integrated multi-trophic aquaculture

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- Policy and practice of aquaculture regulation directed towards environmental management; site selection, spatial planning, Integrated Coastal Zone Management, and eco-ethics (Kinne 1997).

AEI will publish Research Articles, Notes, Reviews, As I See It articles (opinion pieces), Comments and Reply Comments (critiques of articles published in the journal; see Kinne 2002), and Theme Sections (collections of articles that provide a synthesis of research on key areas; proposals for a Theme Section should be submitted to the Editors-in-Chief).

Peer review for manuscripts submitted to AEI is managed using an online system, and 3 to 4 reviews will be solicited for each manuscript. We strive to limit the duration of initial review to 2 months. AEI volumes are 'built' online: articles will appear as soon as their content has been approved by the author(s),

usually within 1 month after acceptance. Articles that the Contributing Editors and reviewers identify as groundbreaking will be published as Feature Articles. Initially, all AEI issues are published with Open Access.

We are confident that AEI will quickly become a global leader for the publication of primary research on the interactions between aquaculture and the environment.

#### LITERATURE CITED

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