

# NOTICE OF PUBLICATION

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AQUAFISH COLLABORATIVE RESEARCH SUPPORT PROGRAM

## RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

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**Title:** Aquaculture Production and Biodiversity Conservation

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**Date:** February 24, 2009

Publication Number: CRSP Research Report **09-247**

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**Abstract:** This overview examines the status and trends of seafood production, and the positive and negative impacts of aquaculture on biodiversity conservation. Capture fisheries have been stabilized at about 90 million metric tons since the late 1980s, whereas aquaculture increased from 12 metric tons in 1985 to 45 metric tons by 2004. Aquaculture includes species at any trophic level that are grown for domestic consumption or export. Aquaculture has some positive impacts on biodiversity; for example, cultured seafood can reduce pressure on overexploited wild stocks, stocked organisms may enhance depleted stocks, aquaculture often boosts natural production and species diversity, and employment in aquaculture may replace more destructive resource uses. On the negative side, species that escape from aquaculture can become invasive in areas where they are nonnative, effluents from aquaculture can cause eutrophication, ecologically sensitive land may be converted for aquaculture use, aquaculture species may consume increasingly scarce fish meal, and aquaculture species may transmit diseases to wild fish. Most likely, aquaculture will continue to grow at significant rates through 2025, and will remain the most rapidly increasing food production system.

This abstract is excerpted from the original paper, which was published in *BioScience* 59(1):27-38.

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**CRSP RESEARCH REPORTS** are published as occasional papers by the Management Entity, AquaFish Collaborative Research Support Program, Oregon State University, 418 Snell Hall, Corvallis, Oregon 97331-1643 USA. The Aquaculture CRSP is supported by the US Agency for International Development under CRSP Grant No. EPP-A-00-06-00012-00. See the website at <[aquafishcrsp.oregonstate.edu](http://aquafishcrsp.oregonstate.edu)>.