

# Workshop on Status and Trends in Aquatic Genetic Resources

A basis for international policy

8–10 May 2006

Victoria, British Columbia, Canada



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# Workshop on Status and Trends in Aquatic Genetic Resources

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Victoria, British Columbia, Canada

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# Preparation of this document

This document represents the proceedings of the *Workshop on Status and Trends in Aquatic Genetic Resources: a Basis for International Policy*, held in Victoria, British Columbia, from 8 to 10 May 2006. The workshop and invited experts were supported by the FAO Commission on Genetic Resources for Food and Agriculture; organization and local support was provided by the World Fisheries Trust. The proceedings were compiled and technically edited by D.M. Bartley of the FAO Fisheries and Aquaculture Department (Rome), B.J. Harvey of the World Fisheries Trust (Canada) and R.S.V. Pullin, FAO consultant (Philippines). The cover drawing was prepared by Emanuela D'Antoni, FAO Fisheries and Aquaculture Department; general assistance was provided by Pilar González-Villegas.

# Abstract

This document contains the proceedings of the Workshop on Status and Trends in Aquatic Genetic Resources: a Basis for International Policy, convened in Victoria, British Columbia, Canada, from 8 to 10 May 2006. Experts in the fields of aquaculture, biotechnology, fishery genetics, international development and international policy contributed scholarly reviews on the status of aquatic genetic resources and trends in their conservation and use in capture fisheries and aquaculture, and identified key policy issues, priorities and implications for the international development community, FAO and the FAO Commission on Genetic Resources for Food and Agriculture.

Fish genetic resources (FiGR) comprise all finfish and aquatic invertebrate genetic material that has actual or potential value for capture fisheries and aquaculture. In capture fisheries, both inland and marine, more species are becoming endangered and more stocks overexploited. Management of FiGR can help maintain and rebuild these fisheries. Deep-sea fisheries and modern genetic technologies are emerging areas that require attention. Aquaculture is expanding rapidly and now accounts for about 50 percent of the aquatic foods that are directly consumed by humans. Although genetic resources and technologies are playing a part in this expansion, they have not yet been used to extents comparable to their use in agriculture.

There is an urgent need to develop international policies for FiGR, and the breadth and complexity of capture fisheries and aquaculture present significant challenges to this process. However, the status and trends of FiGR use and conservation need to be assessed as a basis for sound policies. The workshop identified areas where further work is needed and the major activities that will be important to develop.

Information on FiGR was identified as a key issue. At present, it is incomplete, scattered and unstandardized. For wide use, information on FiGR should be global, authoritative, free and objective.

Although tremendous progress has been made in the genetic improvement, genetic stock identification and genomics of aquatic species, much further work is needed:

- to assess the status of FiGR in capture fisheries and aquaculture;
- to improve the capacities of scientists, technical persons, governments and industry;
- to improve facilities for characterizing FiGR;
- to develop genetically improved farmed types of aquatic species;
- to develop appropriate policy instruments on use and conservation of FiGR;
- to improve general awareness and levels of knowledge about FiGR; and
- to prioritize species, geographic areas and production systems on which to expend resources for conservation and use of FiGR.

**Bartley, D.M.; Harvey, B.J.; Pullin, R.S.V. (eds).**

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