

Genetics in support of fisheries and aquaculture management

17-19 September Faro, Portugal



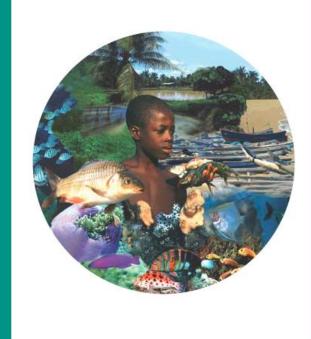
From individuals to ecosystem-based management: implementation of genetics and integration with other approaches

- Background reading not compulsory!
- Apply knowledge and understanding from course
- Brief Presentation
- Break into 3 equally-sized groups
- 15 minutes to address question: <u>how can genetic/genomic tools facilitate Ecosystem-</u> <u>based management?</u>
- Rapporteur from each group 2-3 minute plenary to Group

INTERACTIVE AND PLENARY SESSION

The ecosystem approach to fisheries

Issues, terminology, principles, institutional foundations, implementation and outlook FAO FISHERIES TECHNICAL PAPER 443





Ecosystem-Based Fisheries Management

The U.S. National Oceanic and Atmospheric Administration and the Food and Agriculture Organization (FAO) define ecosystem-based management as:

...an approach that takes major ecosystem components and services (both structural and functional) into account in managing fisheries. It values **habitat**, embraces a **multispecies** perspective, and is committed to understanding **ecosystem** processes. Its goal is to rebuild and sustain **populations**, **species**, **biological communities**, **and marine ecosystems** at high levels of productivity and biological diversity so as not to jeopardize a wide range of goods and services from marine ecosystems while providing food, revenue, and recreation for humans Importance of **Biological Integrity** (individuals, populations, species, communities and ecosystems)

- Different biological levels of integrity
- Interactions: biotic and abiotic
- Human/societal dimension
- Function and Marine Ecological Status
- KEY PAPERS: Goodwin et al., 2017; Trochta et al;, 2018 [FAO – Technical Paper 143 – *Detailed background only*]