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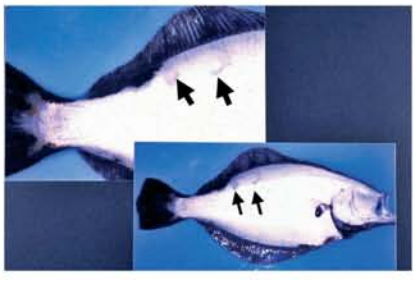
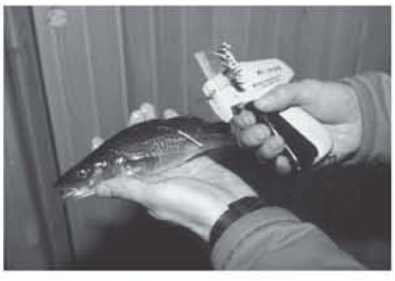
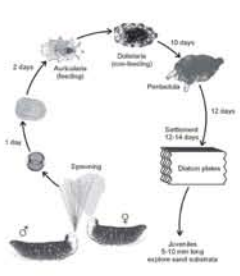
Marine ranching







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Preparation of this document

Under Component 6, "Assessment of sea ranching and marine hatchery enhancement", of the project Contribution of Fisheries to Food Security II (GCP/INT/643/JPN), international experts were selected to prepare five case studies and a summary on the use of hatchery-raised fish and invertebrates in increasing fishery production from marine and coastal areas.

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Abstract

With coastal fisheries in decline around the world, there is mounting concern about how long current sources of seafood can supply world needs. Governments, resource managers and those who make their livelihood on fishing are seeking better ways to improve fishing yields. Many seek greater emphasis on restocking and aquaculture-based stock enhancement as a way rapidly to replenish depleted fish stocks and increase fishery landings. This volume presents case studies that represent various scenarios and situations in using sea ranching and marine hatchery enhancement to generate income, re-establish fisheries and conserve aquatic biodiversity. The case studies include a global overview, an integrated development programme for marine stocking in Norway; stock enhancement of barrumundi in Australia for recreational fisheries; restocking sea cucumbers in Pacific Islands; sturgeon stocking programmes in the Caspian Sea with an emphasis on Iran; and an assessment of stocking effectiveness of flounder in Miyako Bay, Japan, through a fish market census. The studies demonstrate that stocking can clearly work in some cases to increase fishery landings, but that economic success will depend on many factors such as the management system, survival, culture costs and how the resource is valued. Sea ranching technologies and strategies need more scientific development before stocking can be generally accepted as an economically effective fishery management tool in coastal regions.

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Marine ranching.
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