

Aquaculture

Wild Fisheries

Conservation

Globe

- Less seafood protein available for growing human population

- Less harvestable fishery biomass
- Fewer commercially significant species

- Reduced ecosystem complexity
- Transition to lower trophic level and single-species systems

Community

- Lower aquaculture-related employment due to loss of diversity and production

- Bottom-up food web disruption, reducing higher trophic level biomass

- Less biodiversity
- Loss of culturally significant species
- Local extinction

Population

- Lower genetic diversity and population fitness
- Higher inbreeding depression

- Shifts in ontogeny and phenology
- Allee effect
- Increase in overfishing due to smaller population sizes

- Smaller invertebrate population sizes

Organism

- Altered sex ratios
- Potential bioenergetic shifts

- Metabolic shift in pejus range
- Asynchronous spawning

- Negatively impacted gametogenesis, egg quality, and quantity

Importance of Sexual Reproduction