

Aquaculture 1

Fin Fish

Where are they cultivated

- World wide
 - Tropics
 - Sub-tropics
 - Temperate
- All waters
 - Marine
 - Brackish (estuarine)
 - Freshwater

What is grown

- Approx 50 main groups / species
 - 15 freshwater
 - 5 brackish
 - 22 marine

Tropics

- Freshwater
 - Tilapia, Catfish, Barramundi, Pacu, *Arapaima* etc
- Brackish
 - Milkfish, Mulletts
- Marine
 - Yellowtail, Snappers, Groupers, Pompano, Rabbitfish, Barramundi Cod (Tuna)

Sub-tropics

- Freshwater
 - Tilapia, Eels, Carps, Catfish, Bass, Sunfish, Perch
- Brackish
 - Eels, Mulletts, Flounders, Ayu
- Marine
 - Turbot, Bass, Breams, Drums, Soles, Flounders

Temperate

- Freshwater
 - Trout, Carp, Eels, Perch, Char, Catfish, Pike, Sturgeon (Salmon)
- Brackish
 - Eels, Mullet
- Marine
 - Turbot, Halibut, Cod, Breams, Bass, Soles, Salmon (Trout)

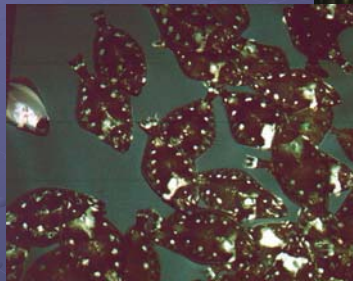
The species

● Turbot



The species

● Halibut



The species

● Cod



The species

● Bass



The species

● Breams



Photos: Debellus, Writz, Espino

The species

● Drums



Photos: Herrera, Neuschwander

The species

- Barramundi Cod



Photo: Steene

Importance

- Atlantic Salmon dominates
 - World production
 - 1.02 million tonnes pa
 - £ 2 billion pa
 - UK production
 - 128 000 tonnes pa
 - £ 280 million pa

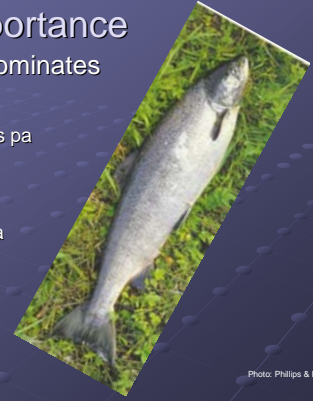


Photo: Phillips & Rix

Sources of seed

- Wild collection
- Hatchery



Salmon fry in hatchery



Growing methods

- Ponds



Photos: Slaski

Growing methods

- Ponds
- Onshore tanks



Growing methods

- Ponds
- Onshore tanks
- Cages



Salmon fish farm



Feed pipes to salmon cages



Harvesting

- Netting



Harvesting

- Netting
- Suction harvest



Photo: Grubb



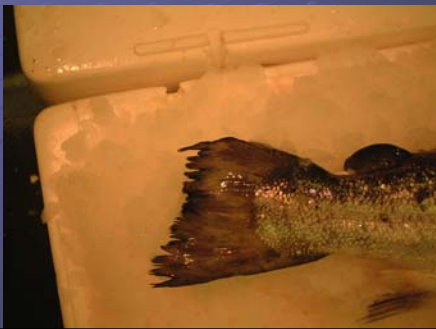
Grading Salmon



Tail of wild fish



Tail of cultured fish



Marine off-shore

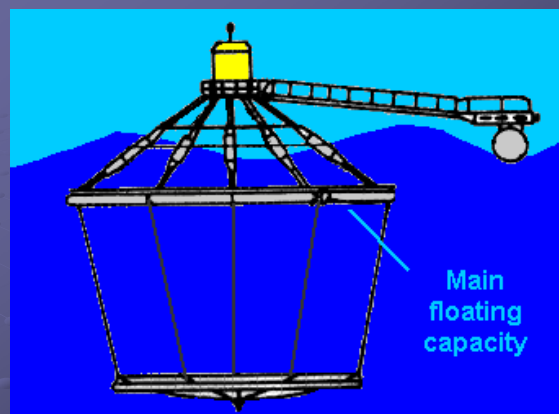




Photo Grubb



Photo Grubb



Coastal fish cages S.E. Asia

Photo Shariff



Polluted water

Photo Shariff