

# Otter Ferry Seafish Ltd.



**Alastair Barge**  
Managing Director

- Company started by Ronald Barge and Iain McCrone in 1967
- One of the four oldest fish farms in Scotland and one of the two independent
- 5 species farmed in commercial scale and more than 10 in experimental
- Leading company in aquaculture innovation and development of new species technology



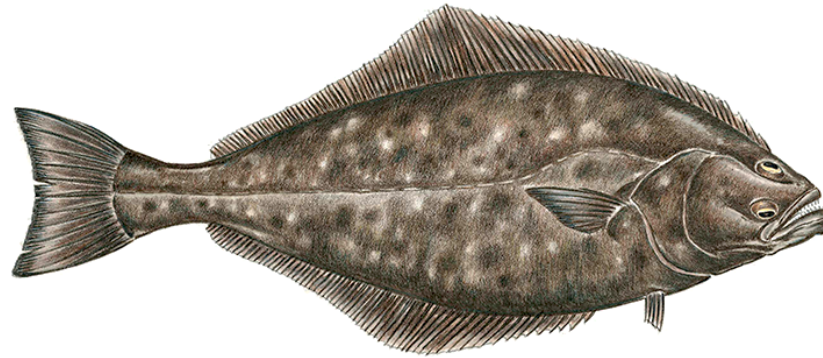
Ronald Barge and Iain McCrone;  
Founders of OFS

- ✓ Water quality
- ✓ Fresh water supply
- ✓ Access
- ✓ Accommodation
- ✓ Electricity



There is no such thing as a  
“perfect site”

# History – Key milestones



1967  
Trout

1973  
Salmon

1980  
Salmon  
expansion

1985-1995  
Salmon  
broodstock

1991  
Halibut

1998 – 2005  
Halibut  
decline

2010  
Halibut  
expansion

2009  
+ Wrasse

2014  
+ Lumpfish



## Lobster

- Cannibalistic

## Turbot

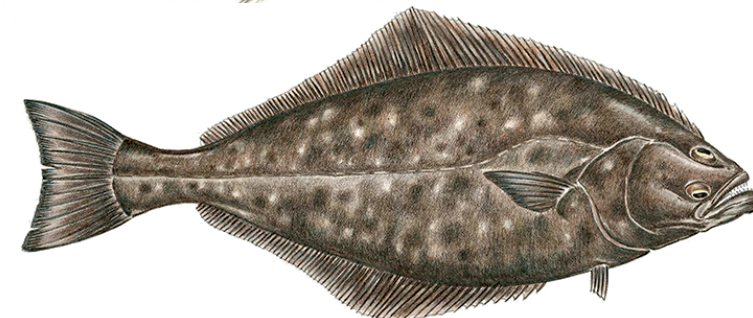
- Slow growth

## Cod

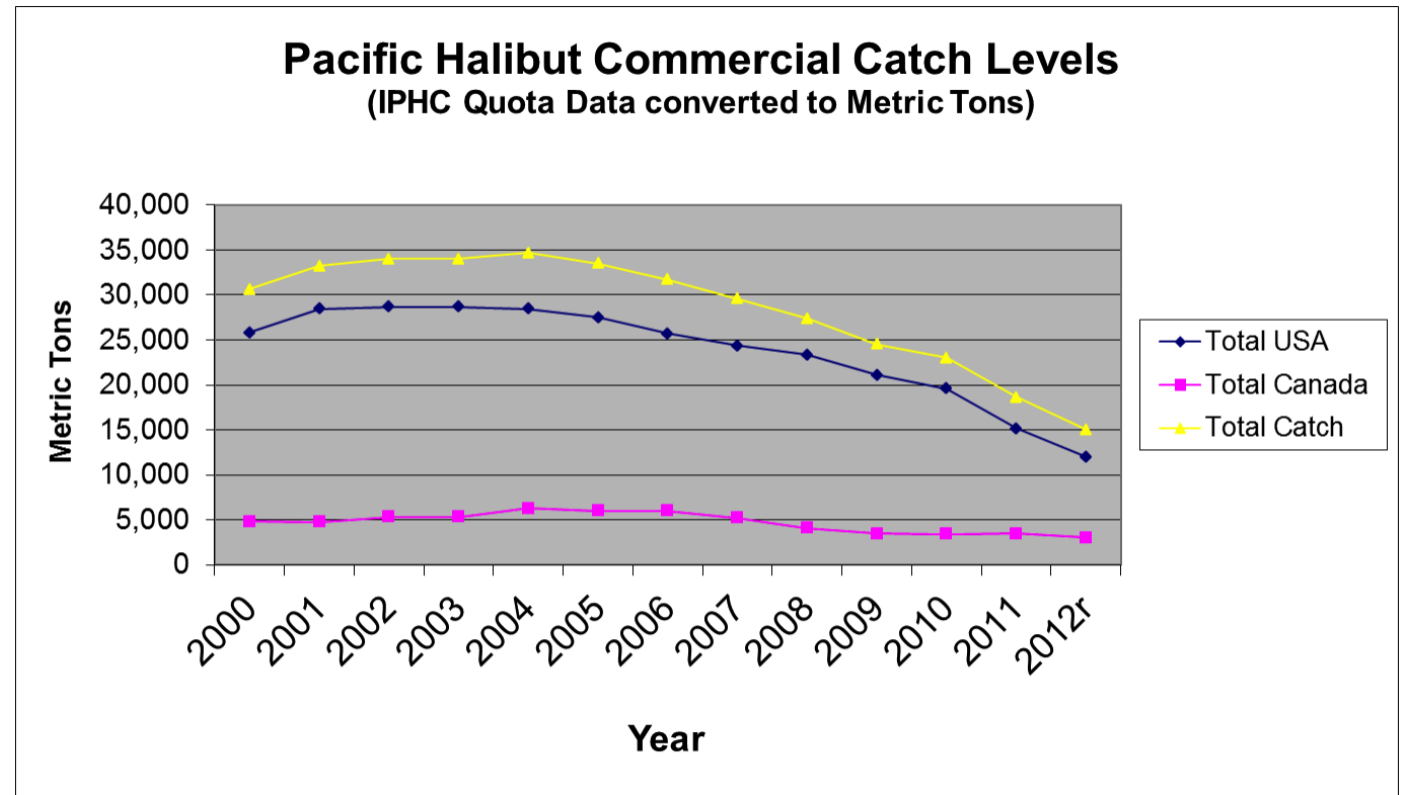
- Low market price
- Low flesh yield

## Halibut

- High FCR
- High flesh yield
- Fast growth
- High market price
- Declining wild catch



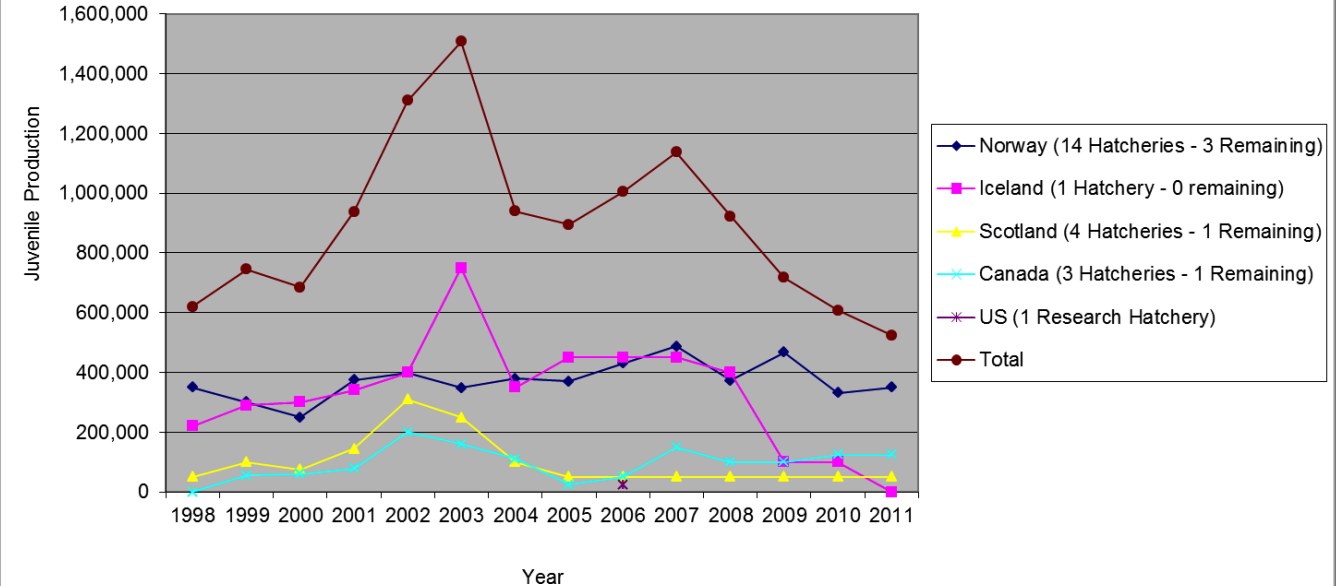
- Reduced catch levels
- Increased market need
- Endangered species
  
- High FCR
- High flesh yield
- Fast growth
- High market price



- 1991: British halibut association
  - 5 hatcheries – 10 on-growers
- 1993: OFS production: 2 juveniles/year
- 1998: 140,000 juveniles/year
  - Hatchery expansion to Lephinmore site
- 1999 – 2004: declining production to 10,000 juveniles/year

## World Atlantic Halibut Juvenile Production 1998 - 2011

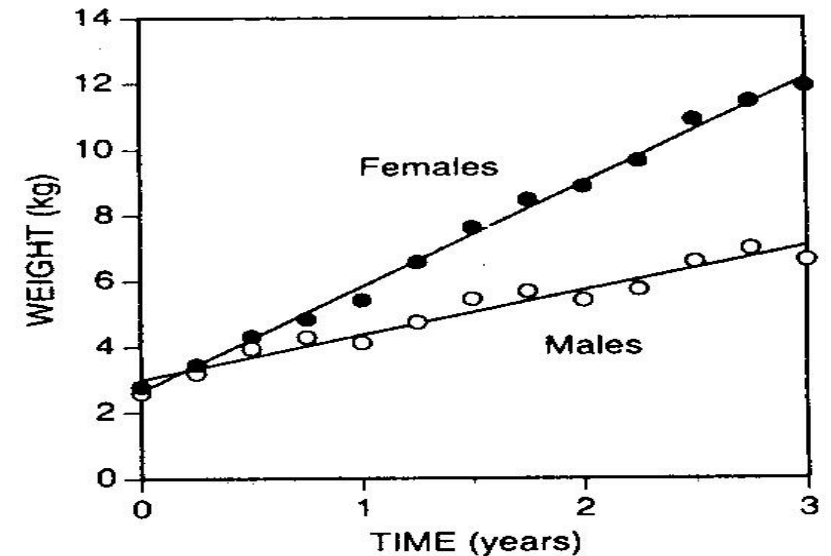
(Source: production reports, published statistics and personal communication)



- **2004: Global halibut production decline**, due to:
  - Use of domestic broodstock instead of wild
  - Use of dry feed instead of wet
- 2006: recruitment of F1 broodstock and production of 40,000 juveniles/year, but only 2 remaining on-growers in the UK

2006 established Gigha halibut

- **2010: Production of monosex halibut** with the Institute of Aquaculture (UoS)



RESEARCH ON METHODOLOGIES FOR THE PRODUCTION OF MONOSEX ATLANTIC HALIBUT, *HIPPOGLOSSUS HIPPOGLOSSUS* IN THE UK

Cowan M., Davie A., Penman D. & Migaud H.<sup>1</sup>

Mapping the sex determination locus in the Atlantic halibut (*Hippoglossus hippoglossus*) using RAD sequencing

[Christos Palaiokostas](#),<sup>#1</sup> [Michaël Bekaert](#),<sup>#1</sup> [Andrew Davie](#),<sup>#1</sup> [Mairi E. Cowan](#),<sup>1</sup> [Münever Oral](#),<sup>1</sup> [John B. Taggart](#),<sup>1</sup> [Karim Gharbi](#),<sup>2</sup> [Brendan J. McAndrew](#),<sup>1</sup> [David J. Penman](#),<sup>#1</sup> and [Hervé Migaud](#)<sup>1</sup>

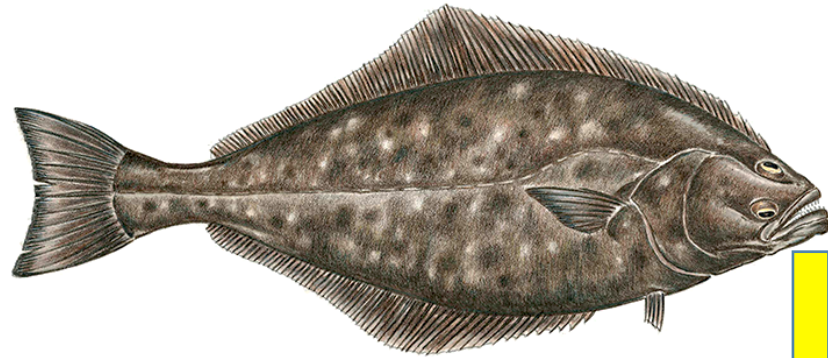
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- 2006: Creation of Gigha halibut and vertical integration of halibut production
- One year old juveniles are moved to Gigha island for the on-growing phase



# History – Key milestones



## Sustainable supply of cleaner fish to the Scottish Salmon industry

- Project initiated in 2010
- 500 wild caught broodstock in 3 photoperiod regimes
- Successfully deployed >100,000 juvenile wrasse in salmon cages
- Spawning time did not overlap with halibut production
- Overall system improvement



- Project initiated on 2014
- Successfully deployed >500,000 juvenile lumpfish in salmon cages



- Halibut
  - 100,000 juveniles
- Wrasse
  - 400,000 juveniles
- Lumpfish
  - 400,000 juveniles





OTTER FERRY  
SEAFISH





Grade	% OF HARVEST	DELIVERED £/ KG
1-2	1	5.04
2-3	9	9.87
3-5	34	11.55
5-7	39	12.65
7-9	17	13.73
smoked	5%	









- F2 generation 100 females
- Icelandic Canadian Scottish
- Neo males / Allfemale stock
- Single photoperiod .
- Regular recruitment Gigha .
- Additional photo period
- PEOPLE



Gigha Halibut- A Taste of Heaven.mp4