Science-based management of fish resources in Iceland

Jóhann Sigurjónsson, Director General Marine Research Institute, Reykjavik, Iceland

Conference on New partnerships between Iceland and the Caribbean Small Island Developing States Bridgetown, Barbados, 25-27 March 2008





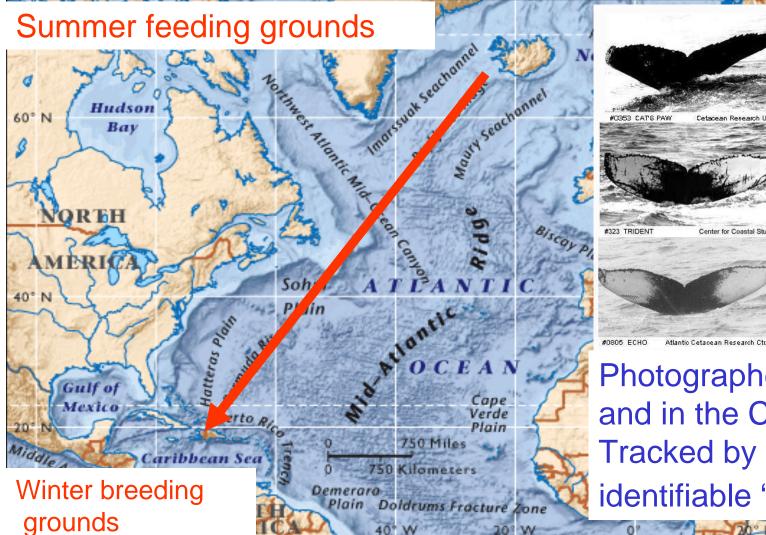
# Science-based management of fish resources in Iceland

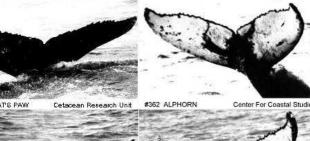
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## Humback whale migration from Iceland to the Caribbean









Center for Coastal Studies #319 COLT

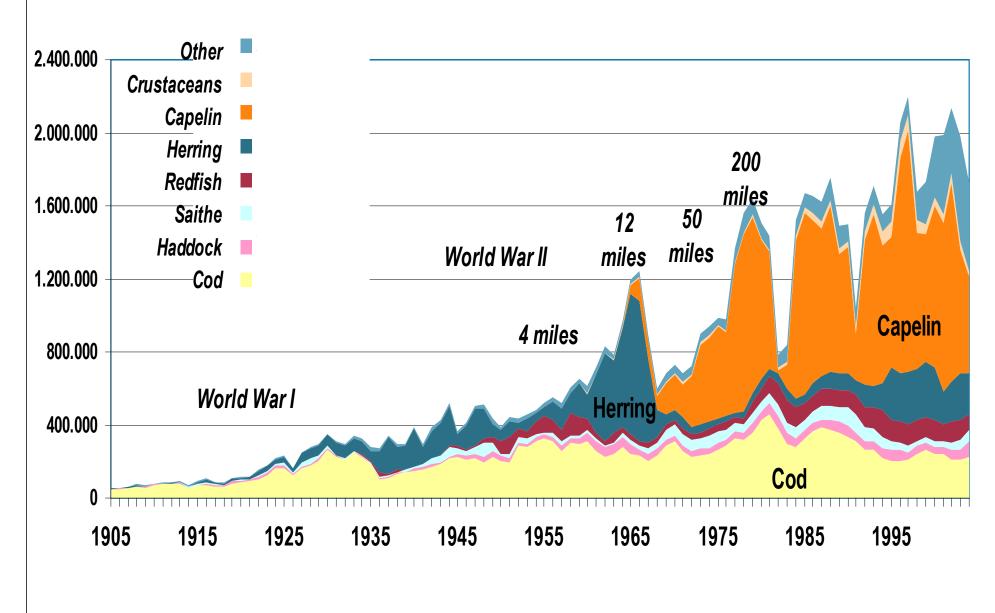
Center for Coastal Studie

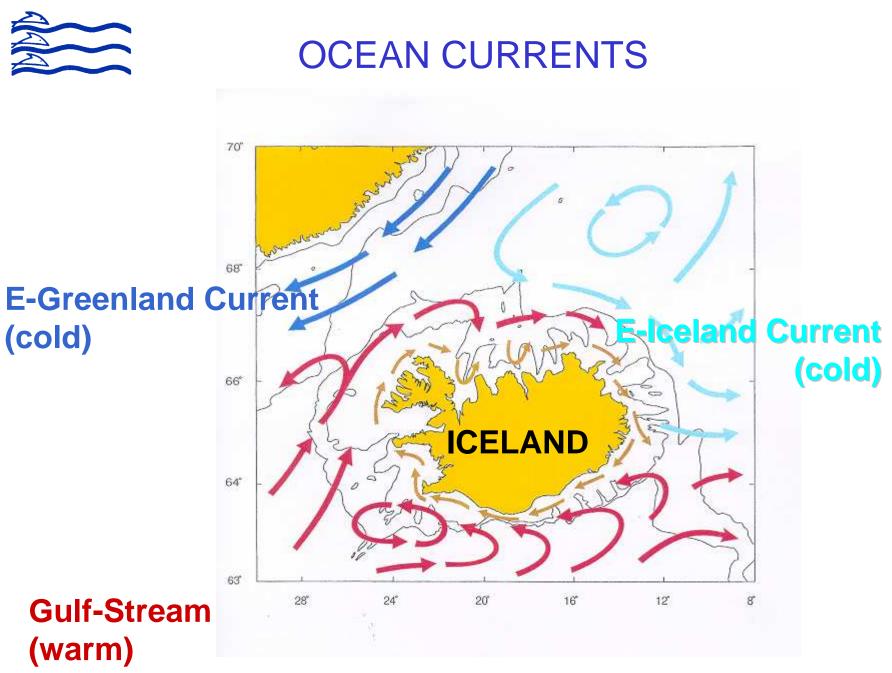


#0668 CASCADE Atlantic Cetacean Research Cti

Photographed off Iceland and in the Caribbean Tracked by individually identifiable "fingerprints" 20° E







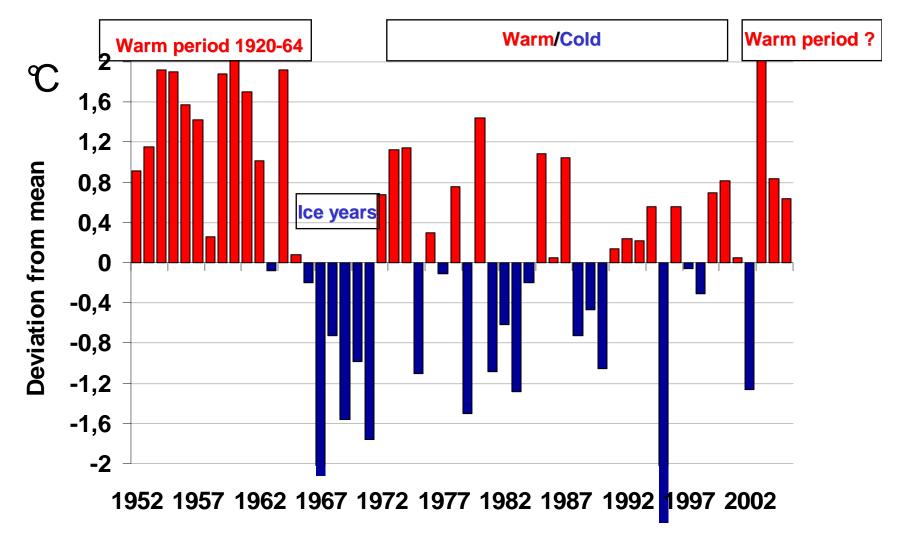


## THE INFRASTRUCTURE

- <u>Research/Advice</u>
- <u>Environmental</u> factors affecting stock development
- <u>Stock</u> structure and productivity
- Advice on TACs
  - > Marine Research Institute
  - International Council for the Exploration of the Sea (ICES)
- > Stakeholder involvement

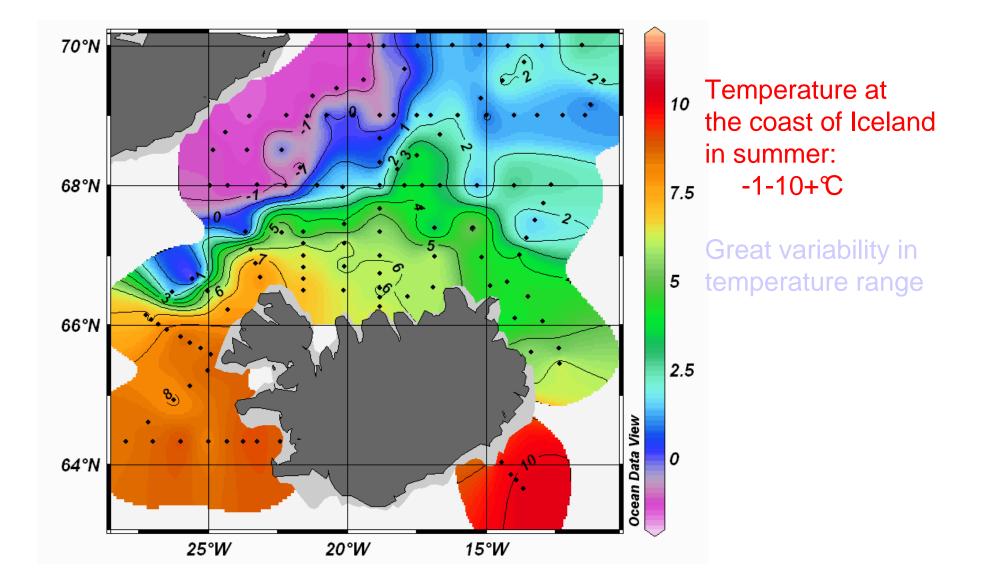
- <u>Management</u>
  <u>framework</u>
- <u>ITQ's</u> introduced in 1984, later further developed
- Effective <u>monitoring and</u> <u>enforcement</u> of regulations
  - > Ministry of Fisheries and Agriculture
  - > Fisheries Directorate
  - > Icelandic Coast Guard
- > Transparency



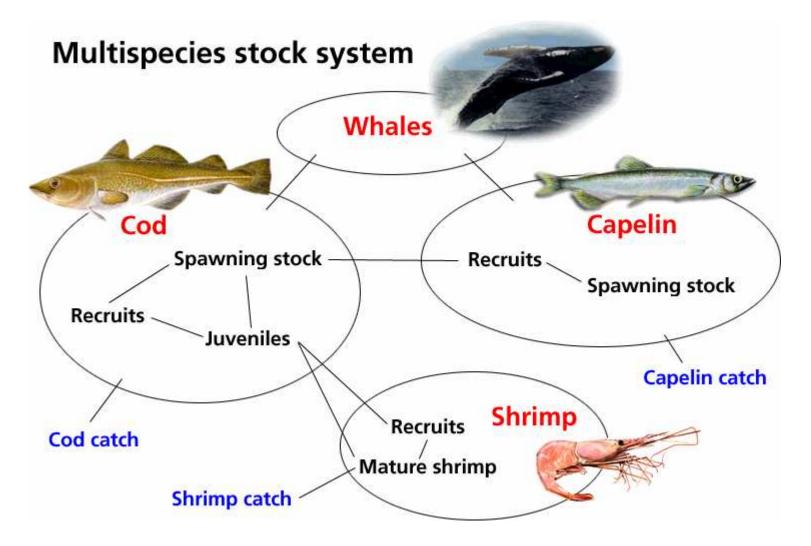


#### Iceland Seas - August 2007

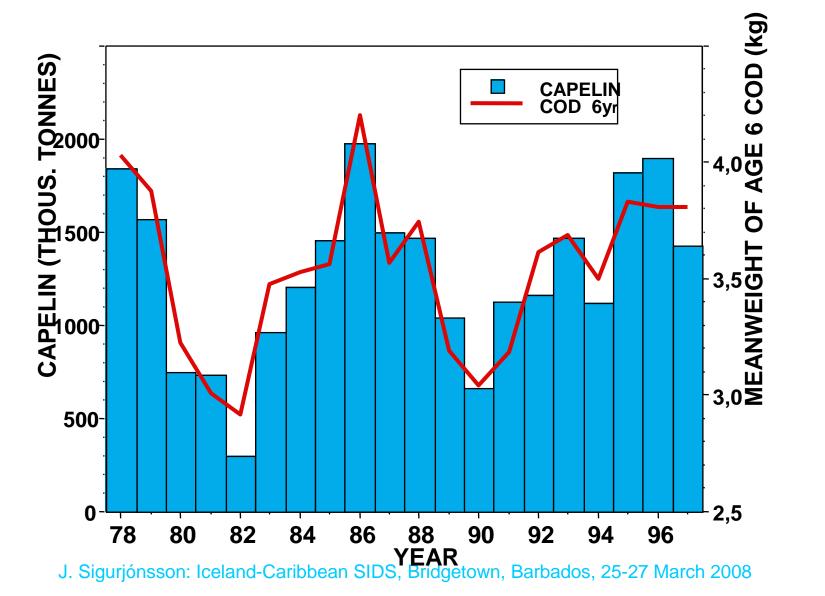
#### Sea temperature at 50m depth













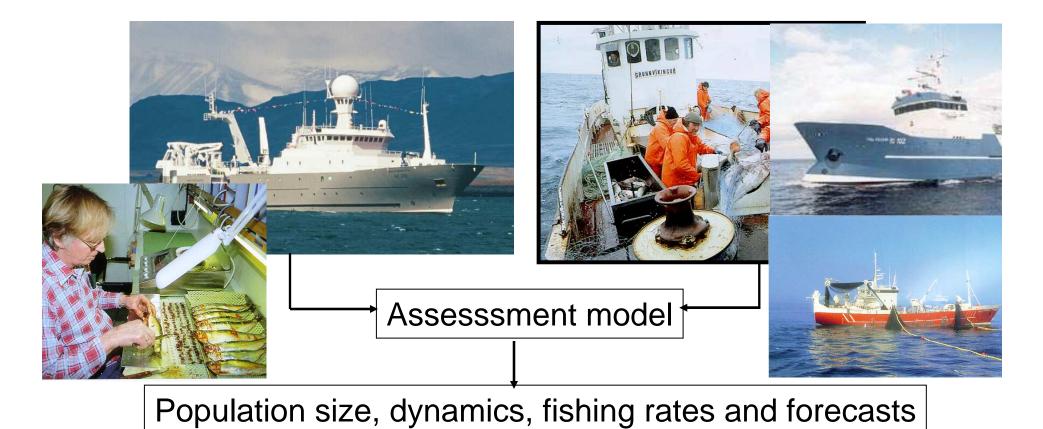
# Who shall eat the capelin, man, cod, the humpback whale ? And how much ?



#### FISH STOCK ASSESSMENT AND ANNUAL ADVICE

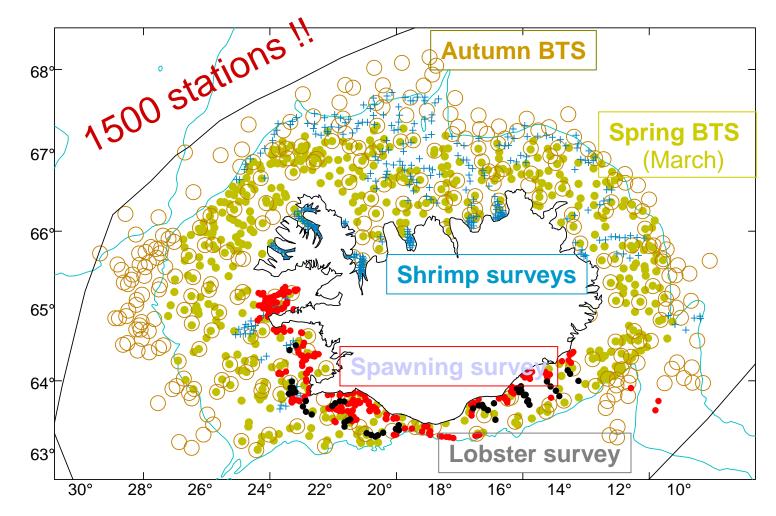
- Fishery-independent methods Fishery-dependent methods
  - Surveys

Fishery-dependent methods - Sample catches or landings



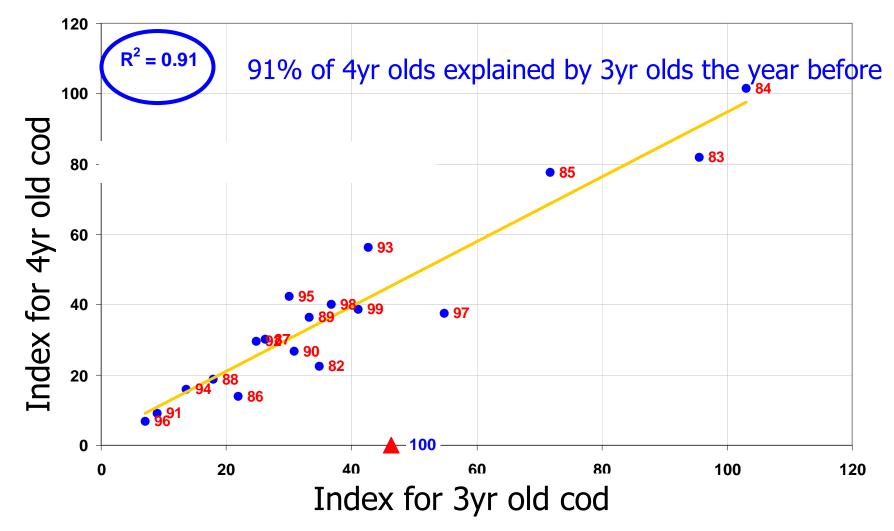


#### ANNUAL STOCK MONITORING SURVEYS



Measured J. Signifonsson Side Caribbean SIDS, Bridgetown, Barbabbs, 25-27 March 2008. fish

### GROUND FISH SURVEY: 3 YEAR OLD COD AND 4 YEAR OLD FOLLOWING YEAR



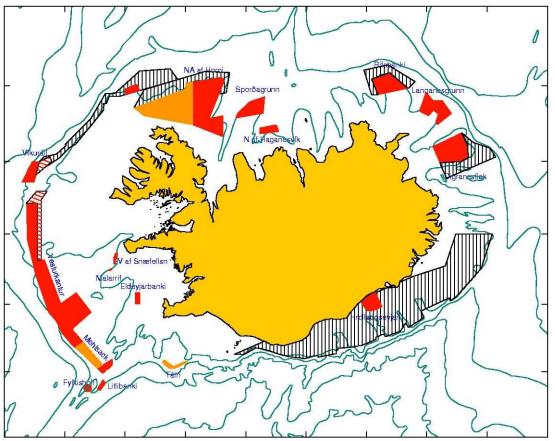


- TAC's, setting catch limits
- Mesh size, gear type
- Season length and timing
- Closed areas

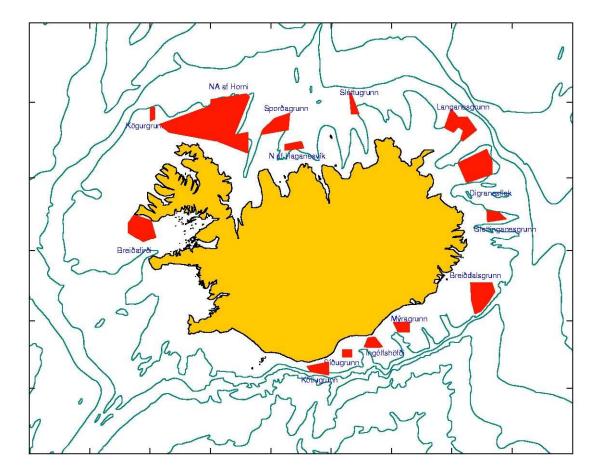


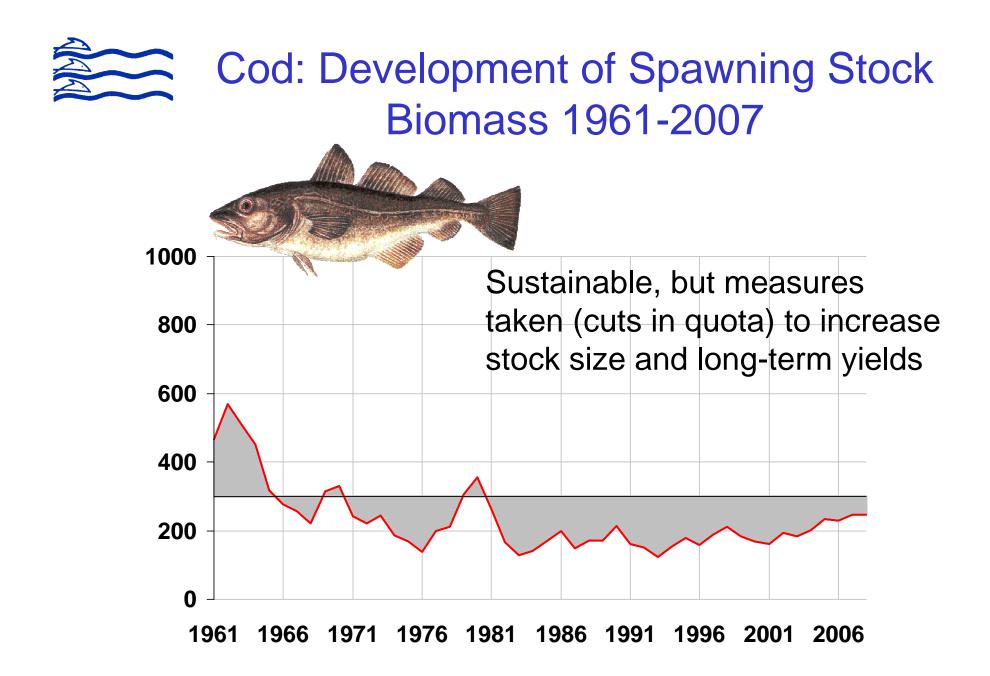
#### CLOSED AREAS: BOTTOM TRAWL

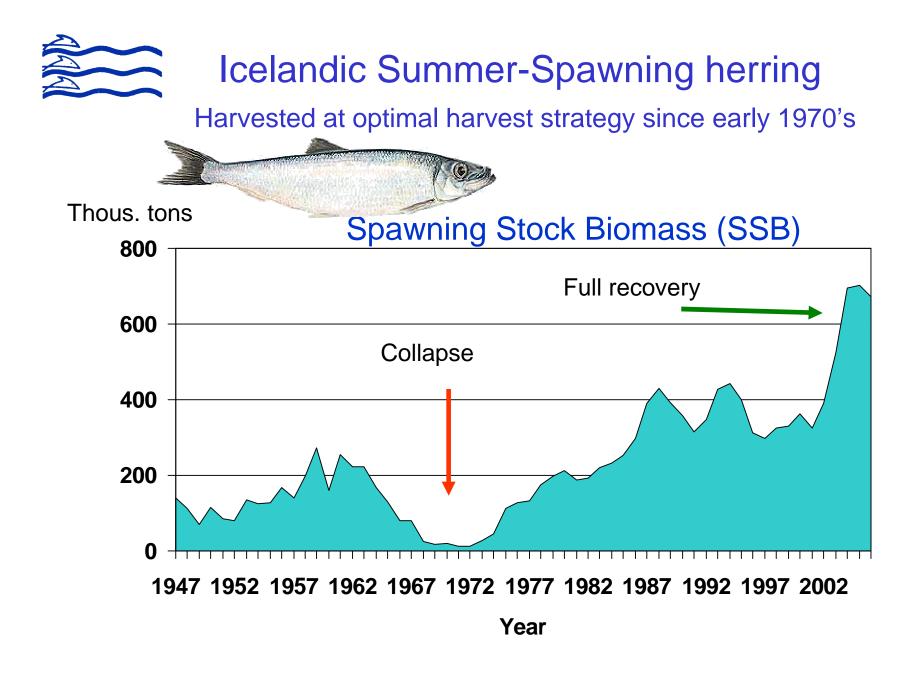
For protection of juvenile fish And unwanted bi-catches



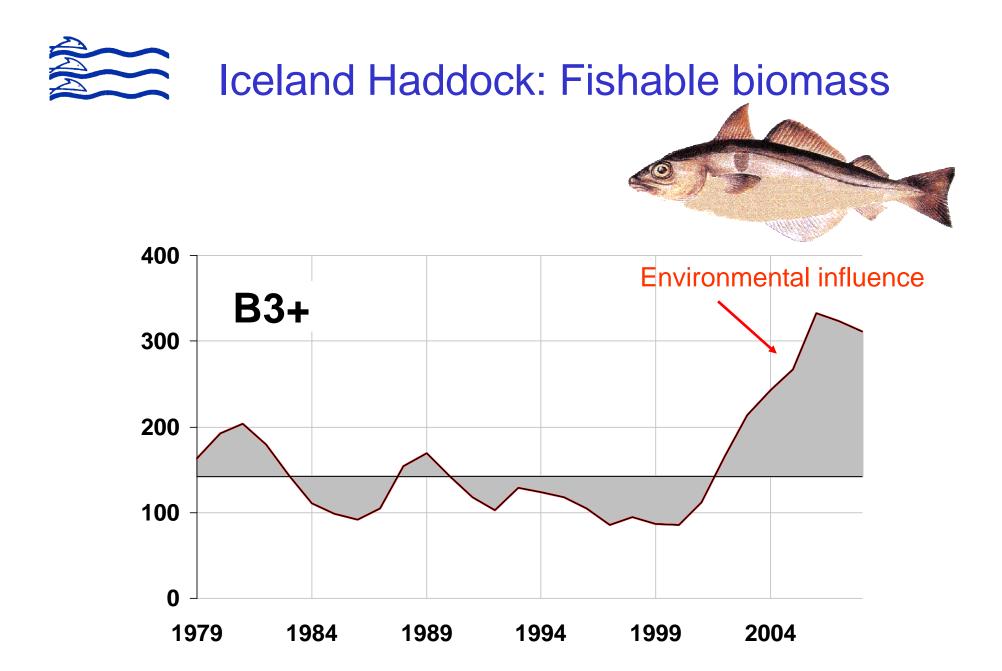








J. Sigurjónsson: Iceland-Caribbean SIDS, Bridgetown, Barbados, 25-27 March 2008





## IN CONCLUSION

- <u>World is not perfect</u> progress still made
- The concept of <u>science-based management</u> is widely accepted in Iceland, although practical details are always debated
- <u>Communication</u> is the key element to obtain sufficient involvement and participation of all stakeholders
- Such an approach requires wide ranging research and monitoring
  - this needs to be understood by all stakeholders, including authorities



## IN CONCLUSION

- The potential lies in <u>better utilisation</u> of our fish resources
- E.g. lesser fishing effort can:
  - Easily yield 10-20% more cod in Iceland
  - Much higher cpue, lower cost
- Regard needs to be taken to <u>multispecies</u> <u>aspects</u> - even marine mammals are part of the ecosystem!
- Important to establish <u>long-term sustainable</u> <u>harvest strategies</u> with a <u>wider ecosystem view</u>



#### THANK YOU !!