Comparison of EU and US Fishery management Systems

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European Commission

Why comparing the EU and the US?

- **Need to put the CFP and its performance into perspective**
- **US Fishery Management under the Magnusson-Stevens Act, close to the CFP in level of complexity**
- **US experience (positive and negative) a useful example**

CFP/MSA many elements in common…

- Started as a result of declaration of 200-mile EEZs
- Objectives: biological, economic and social
- Regionalized policy: Regional Advisory Councils
- Management largely based on single-stock TACs
- Discard reduction policies introduced in recent times
- High level of complexity

…and some important differences:

- Recreational fisheries included in the US
- Fisheries by native communities in the US
- Very different EEZs and international dimension

The Magnusson-Stevens Act (1976)

The most recent version, re-authorized in 2007, includes seven purposes:

- 1.Acting to **conserve fishery resources**
- 2.Supporting enforcement of international fishing agreements
- **3.Promoting fishing** in line with conservation principles
- 4.Providing for the implementation of fishery management plans (FMPs) which achieve optimal yield
- 5.Establishing Regional Fishery Management Councils to steward fishery resources through the preparation, monitoring, and revising of plans which (A) enable stake holders to participate in the administration of fisheries and (B) consider social and economic needs of states.
- **6.Developing underutilized fisheries**
- 7.Protecting essential fish habitats

*Additionally, the law calls for **reducing bycatch** and establishing fishery information monitoring systems*

…Not so different from Article 39 TFEU

Implementation: The 10 National standards

1 – MSY and overfishing

2 – Scientific Information

3 – Management Units

4 – Allocations

5 – Efficiency

6 – Variations and Contingencies

7 – Costs and Benefits

8 – Communities

9 – Bycatch

10 – Safety of Life at Sea

(Compulsory but flexible: developed through guidelines).

Plus other legislation:

Endangered Species Act

National Marine Sanctuaries Act

National Ocean Policy

Scientific advice and policy

- US National standard 2 – Scientific information: Scientific information should include an evaluation of its **uncertainty**.
- US National Standard 6 – Variations and Contingencies: Conservation and management measures shall take into account and allow for **variations …**
- Both require:

"A flexible management regime that contains a range of management options"

- EU multiannual management plan for Baltic stocks requires:

Amendments to biomass thresholds, adopted by co-decision by Council and Parliament

Stock evaluation: do they do better? (NOAA Fisheries research budget 2016: US$537)

Overview of **FSSI stocks** through June 30, 2017

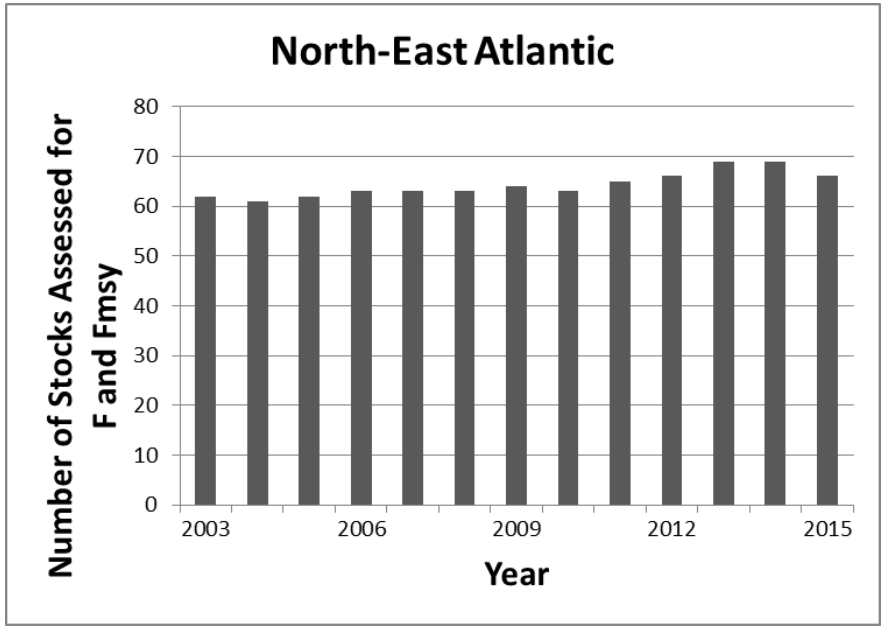
Overfishing Status	Number of Stocks	Overfished Status	Number of Stocks
Known Status	**178**	**Known Status**	**170**
Not Subject to Overfishing	157	Not Overfished (includes 2 stocks approaching an overfished condition)	140
Subject to Overfishing	21	Overfished	30
Unknown Status	**20**	**Unknown Status**	**29**

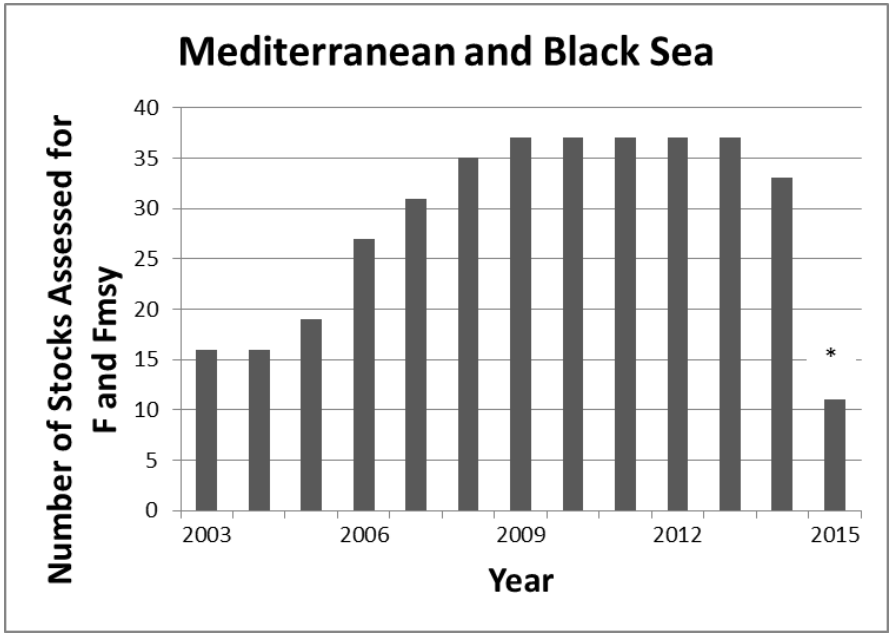
Overview of **non-FSSI stocks** through June 30, 2017

Overfishing Status	Number of Stocks	Overfished Status	Number of Stocks
Know Status	**137**	**Known Status**	**65**
Not Subject to Overfishing	128	Not Overfished (includes 2 stocks approaching an overfished condition)	56
Subject to Overfishing	9	Overfished	9
Unknown Status	**138**	**Unknown Status**	**210**

Source: National Marine Fisheries Service, NOAA

Percentage of stocks evaluated





Source: Communication of the Commission on fishing opportunities for 2018

Policy objectives: MSY

US National standard 1 – Optimum yield:

"Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry".

Fmsy, a target or a limit?

- - After MSA reauthorization of 2007, optimum yield is: "Fmsy as reduced by social, economic or ecological factors"
- - But flexibility on the level of reduction

EU objective: MSY

Subject to time limit (2020)

Target/limit not specified but in the first multiannual plan (Baltic):

- Fmsy as a limit in normal conrcumstances (lower part of the range)
- and a target in special circumstances: upper part of the range

What is overfishing?
Policy objectives and expectations

US National standard 1: maximum yield

'Overfishing' means F > Fmsy

'Overfished' stock means biomass <½ Bmsy

EU policy:

Overfished is fished at F > Fmsy

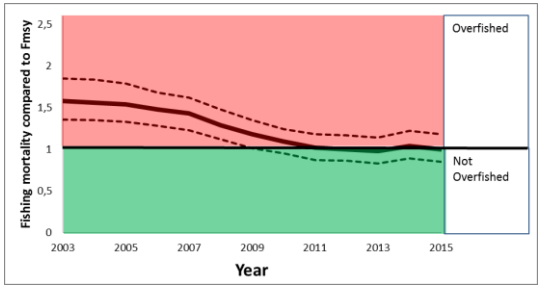
Aspirational objective of biomass 'above Bmsy'

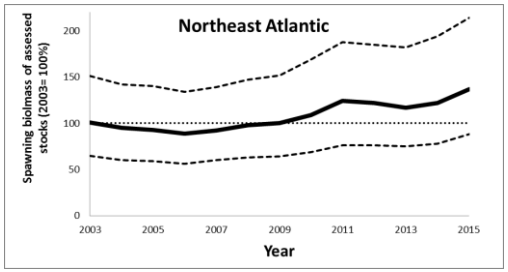
Multispecies management in the US?

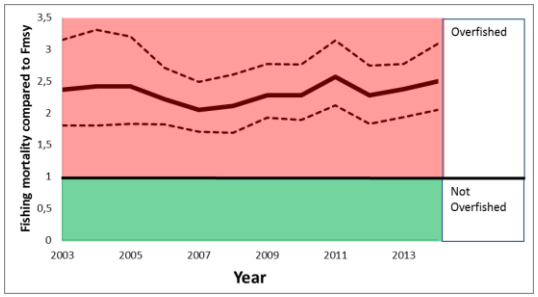
By and large, single stock management, but:

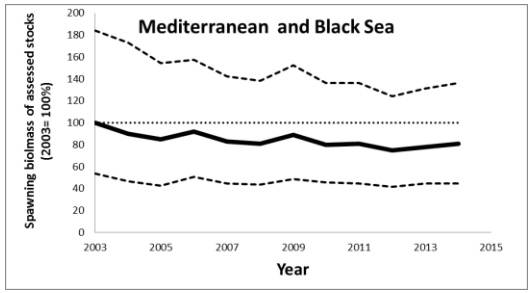
- Advice incorporates (where known) ecosystem considerations.
- TACs for some forage fish stocks, taking account of ecological role as food for predators
- Overall cap on all TACs: limitation of total fishing pressure on the ecosystem: the case of Alaska.
- Management by species aggregates or 'stock portfolio': research done but no application.

Stock status (EU)









NE Atlantic: 66 assessed stocks:

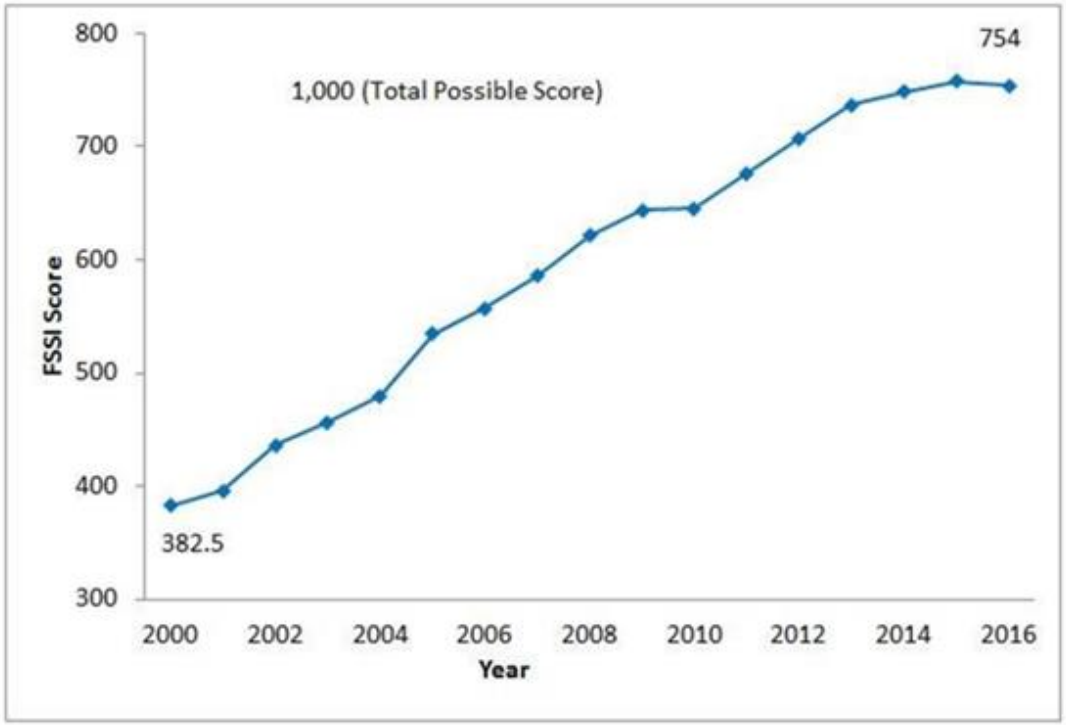
- 39 (59%) exploited within Fmsy levels
- Biomass levels, up by 35% from 2003 to 2015

Mediterranean, only 35 stocks assessed

- Biomass levels down 20% from 2003 to 2015

Source: Communication of the Commission on fishing opportunities for 2018

Stock status (US)



NOAA's Fish Stock Sustainability Index:
199 stocks representing 85% of catches

Overfishing (F>Fmsy):

- 316 stocks with known status
- 286 (91%) not subject to overfishing
- 30 (9%) subject to overfishing

Overfished (B<1/2 Bmsy):

- 235 stocks of known status
- 197 (84%) stocks not overfished
- 38 (16%) stocks overfished

Source: NOAA Fisheries. Status of Stocks 2016
http://www.nmfs.noaa.gov/stories/2017/04/docs/noaa_sos_2016_final_web_1_1_.pdf

Exploitation level: turning biomass into sustainable harvest (US)

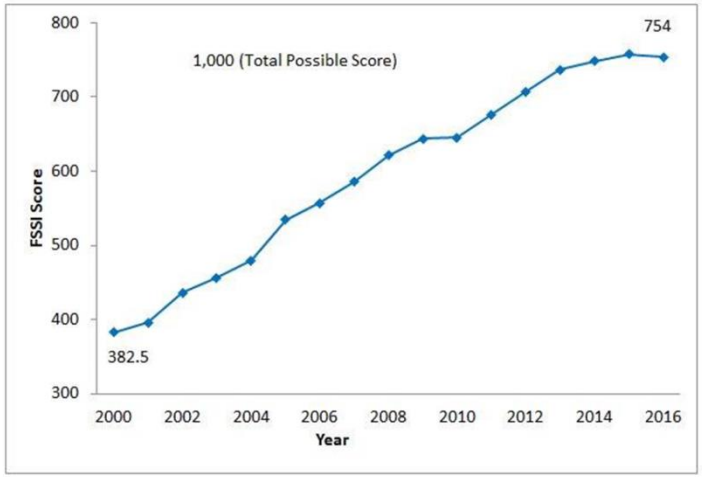
Difficult to estimate but:

- NOAA provisional data on New England groundfish fishery in 2016…**15.5%** (NMFS website, 2017)
- In 2010, **37%** of the aggregate catch limit was caught (Rothschild *et al*., 2014)
- Greater Atlantic groundfish in 2015: **34.6%** (from NOAA data)
- Pacific groundfish fisheries in 2015: **44%** (from NOAA data)*

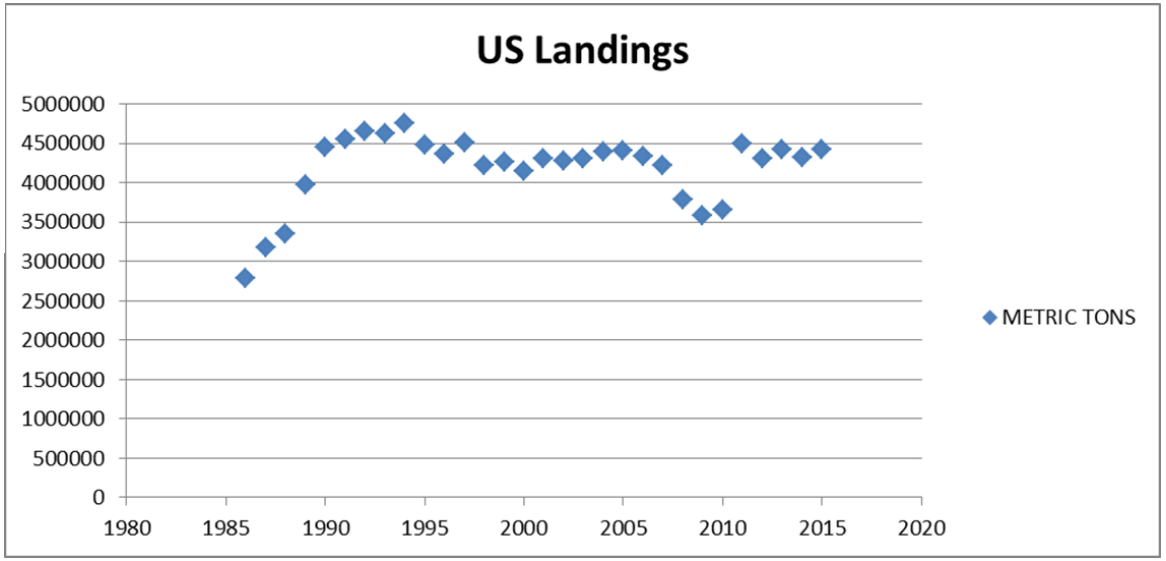
(Why?: Choke species, low economic value, environmental limitations…)

(*) sardine 74%, petrale sole 94%, sablefish 81%)

Turning biomass into yield (US)



Reduction of overfished stocks, increase in biomass…but landings stable



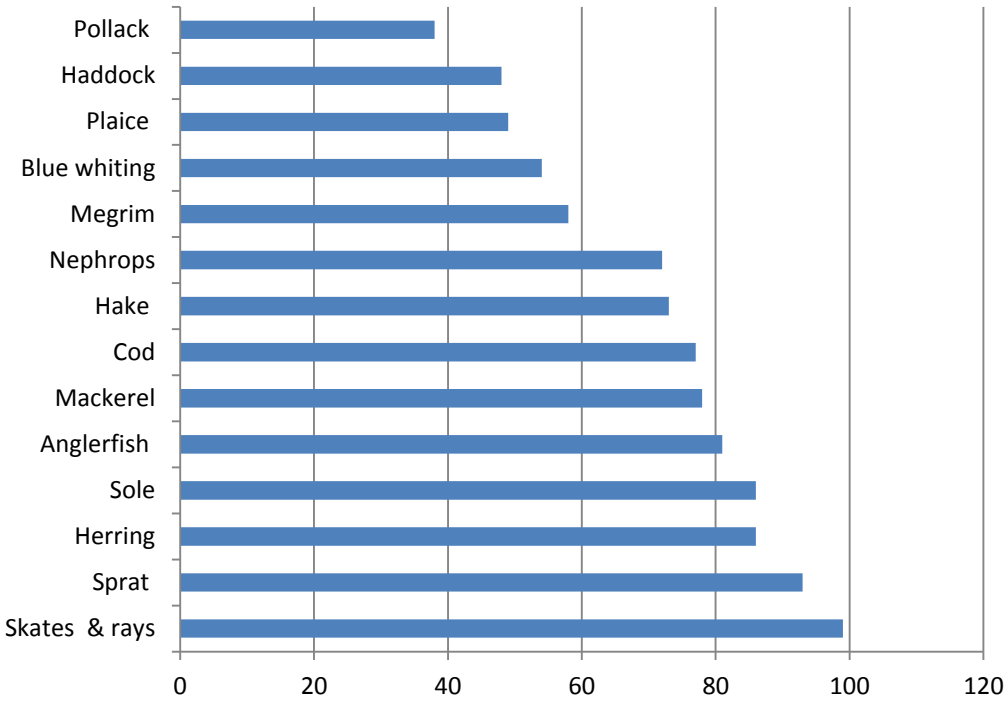
"U.S. imports of edible fishery products in 2016 were valued at $19.5 billion, up 3.5 percent from 2015. The quantity of ***edible imports was 2,628,178 metric tons****, an increase of 25,487 tons (up 1.0 percent) from the quantity imported in 2015" (NOAA, IMPORTS AND EXPORTS OF FISHERY PRODUCTS ANNUAL SUMMARY, 2016. (REVISED 7/19/2017)*

Quota consumption EU

Overall consumption (TACs adjusted after swaps):

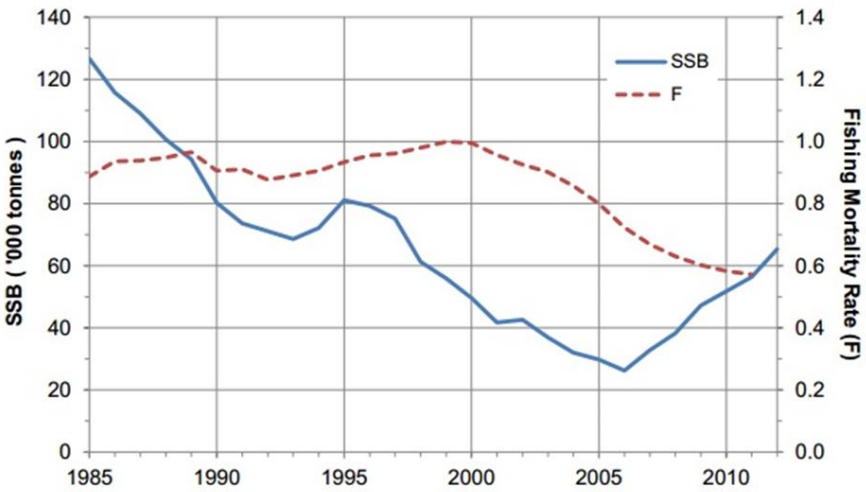
2014…….82%
2015…….77%
2016…….73%

Why?
Choke species?
Lower swaps?
Other?

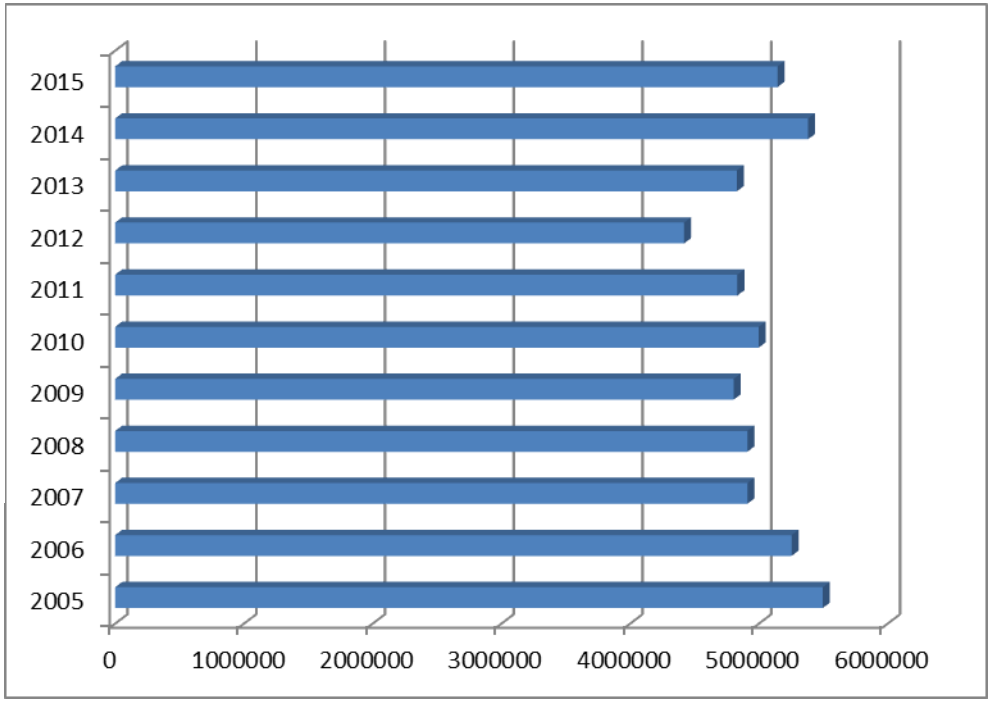


Source: Commission's Catch Reporting

Turning biomass into yield (EU)

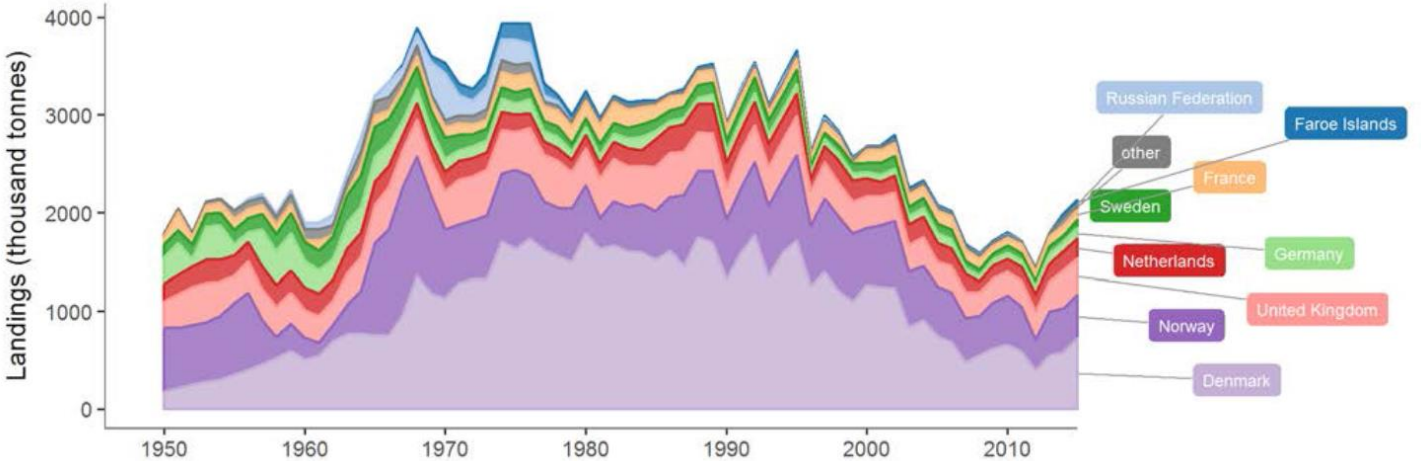


Evolution of F and SSB (NE Atlantic)



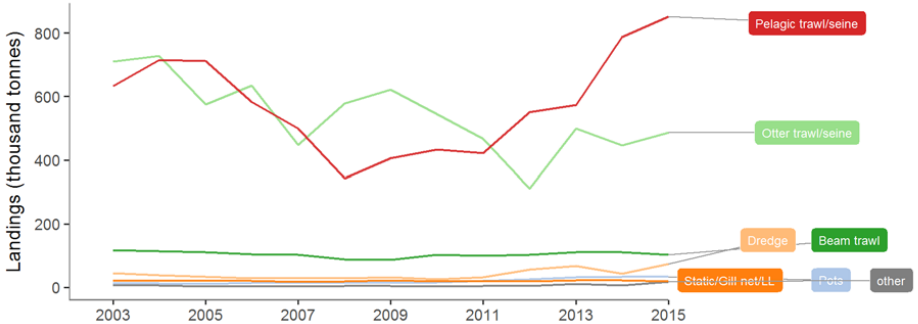
Total landings EU-28 (Eurostat)

Turning biomass into yield: the North Sea



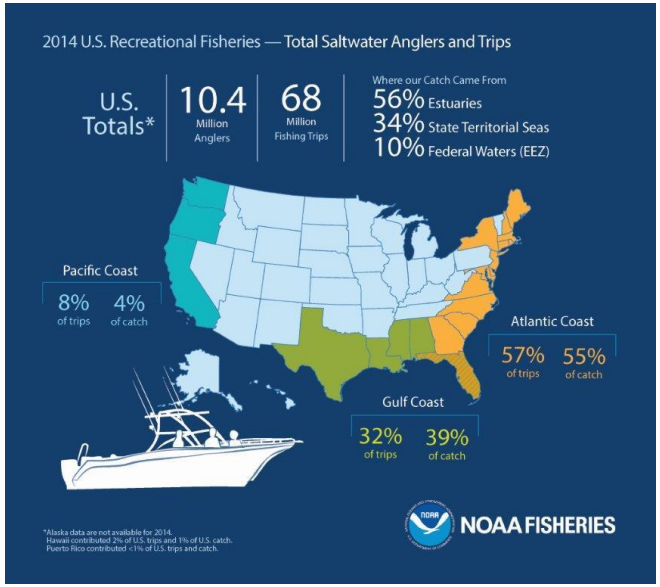
Historical Nominal Catches 1950-2010, Official Nominal Catches 2006-2015. Accessed 2017/July. ICES, Copenhagen.

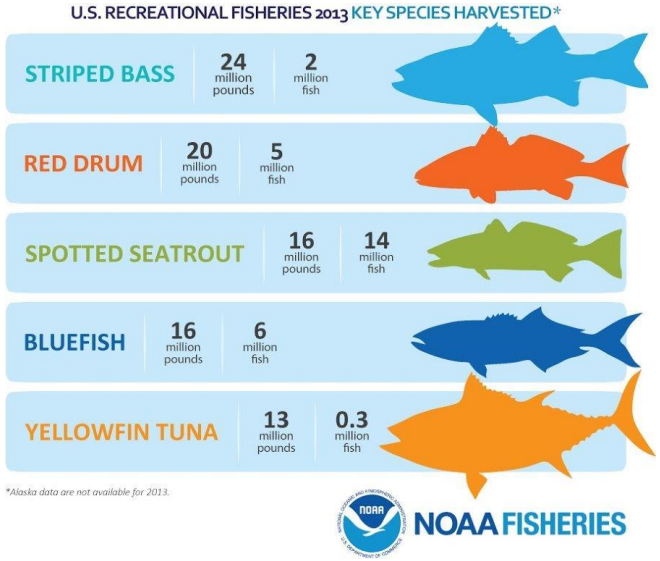
Source: ICES Greater North Sea Ecoregion – Fisheries overview, 2017



STECF 16-20, Accessed 2017/March. doi:10.2788/502445

Management of recreational fisheries





- **Management under National Standard 1**
- **Subject to data collection (catch, effort, economics)**
- **Allocation recreational/commercial, based on 'economically efficient' criteria**
- **…but serious problems of data completeness and enforcement**

In the EU: 8 million anglers spending €8 billion a year (Hyder *et al*. 2014)

Discard policy

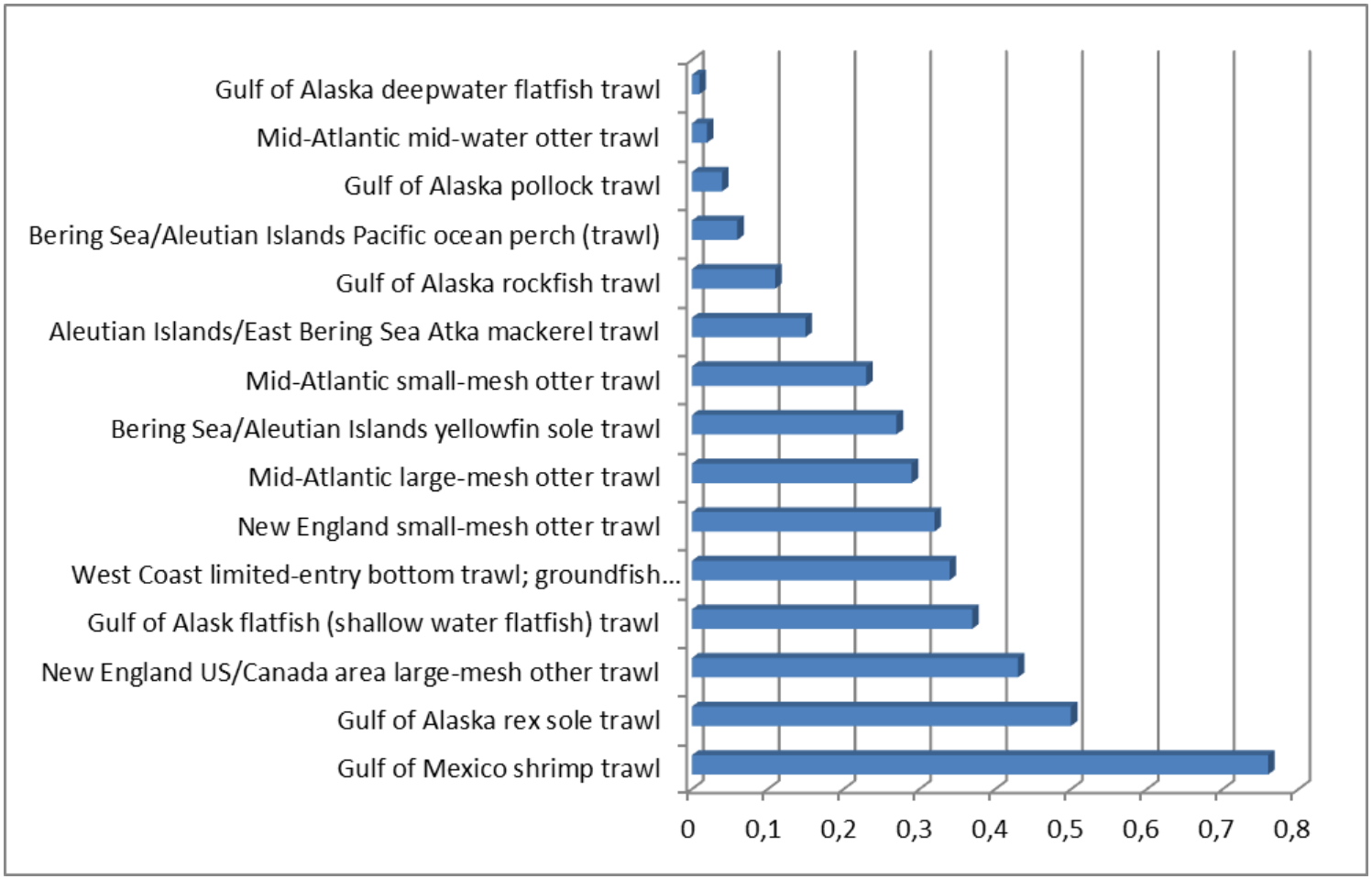
US National standard 9 – Bycatch:

"Conservation and management measures shall, to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch".

EU Article 15 of Regulation 1380/2013:

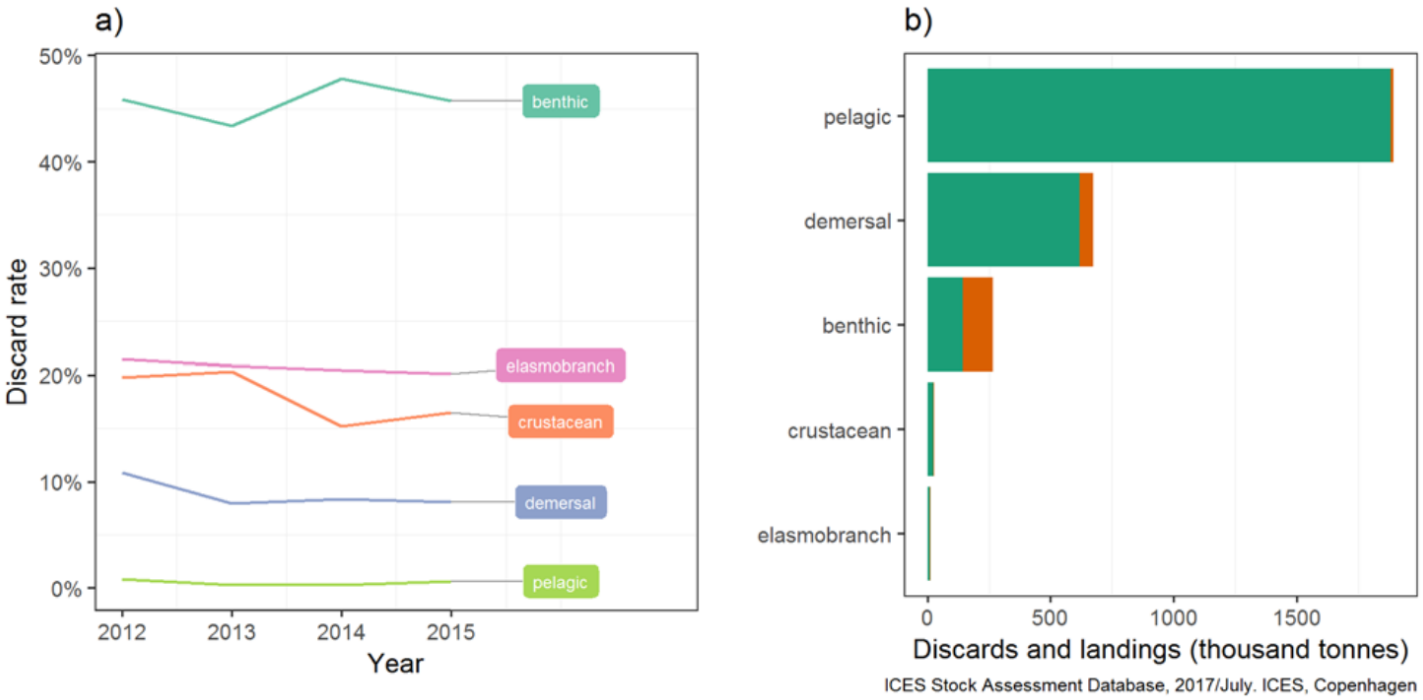
"All catches of species which are subject to…shall be brought and retained on board the fishing vessels, recorded, landed and counted against the quotas…"

Very variable discard levels (US)



Source: U.S. National Bycatch Report. First Edition Update 2. February 2016

...like in the EU



Source: ICES Greater North Sea Ecoregion – Fisheries overview, 2017

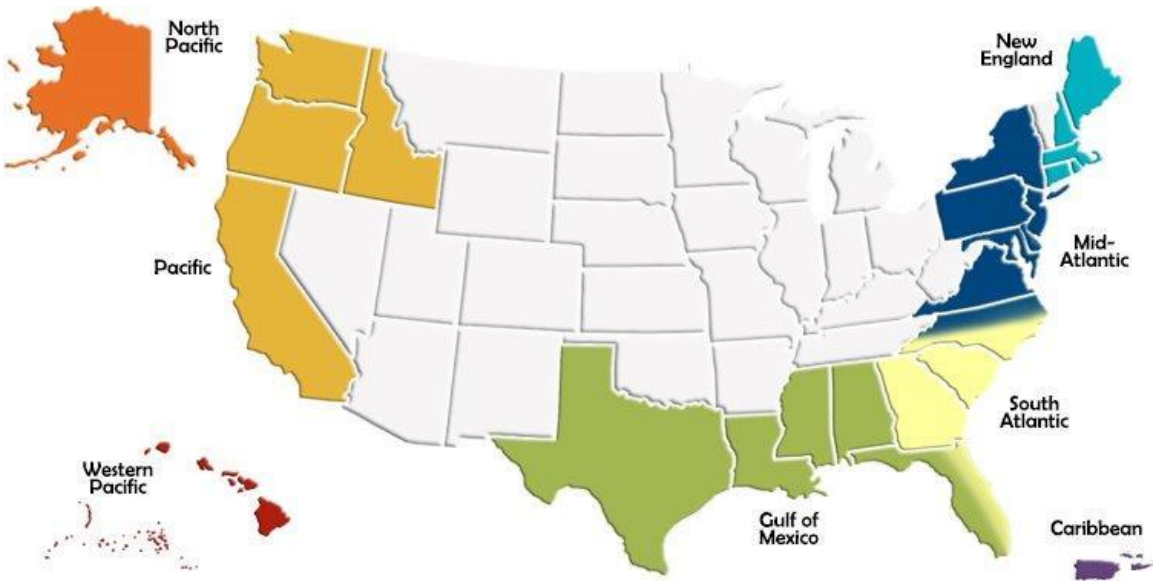
US Discards: are they reduced?

Bycatches vs. Landings in 78 selected US fisheries

Region	Fish bycatch	Fish landings	% bycatch
Greater Atlantic	140219	738953	19%
Southeast	243558	156063	156%
Alaska	279161	4545327	6%
West coast	15562	643331	2%
Pacific islands	10628	33277	32%
Totals	689128	6116951	11%

Source: U.S. National Bycatch Report. First Edition Update 2. February 2016

A regionalized policy: The US 8 Regional Advisory Councils



MSA requires them to:

- Develop and amend Fishery Management Plans

- Convene committees and advisory panels and conduct public meetings

- Develop research priorities in conjunction with a Scientific and Statistical Committee

- Select fishery management options

- Set annual catch limits based on best available science

- Develop and implement rebuilding plans

US regional advisory councils

Recommendations on <u>ALL</u> aspects of the policy.

Scientific advice, provided by attached "Science and Statistical Committees"

High rate of acceptance of recommendations by Federal Government.

Capacity to strike private deals

But very variable level of quality and influence.

North Pacific (Alaska) Council, the 'gold standard'

European Commission

US fisheries management in a wider context

The Endangered Species Act (1973)

- **159 endangered or threatened species (mammals, turtles, sharks, salmon)**
- **Designation of critical habitats**
- **Rebuilding plans**

National Marine Sanctuaries Act (2000)

- **14 Marine Protected Areas: over 2 million km2**
- **Limited fisheries permitted**

US National Ocean Policy (2010)

- **Ecosystem approach**
- **Coastal and Marine Spatial Planning**
- **Resilience and adaptation to climate change**

Summary

Incorporating uncertainty in policy	Low	High
Scientific evaluation	2/3 (Atlantic/Baltic)	90% main stocks
F objective	Fmsy target or limit (?)	Fmsy limit (flexible)
B objective	Aspirational 'above Bmsy'	Above ½ Bmsy
Recreational fishing	Not included	Included
Overfishing reduction	Recent, partial	Longer, more complete
TAC consumption	Relatively high but…	Low
Discard objective	Fixed across the board	Flexible
Discard reduction	?	Extremely variable
Impact of Advisory Councils	Low	High