

Presentation of ICES Advice to Pelagic RAC

14th October 2009, Leiden, Netherlands

Manuela Azevedo
ACOM Vice-chair

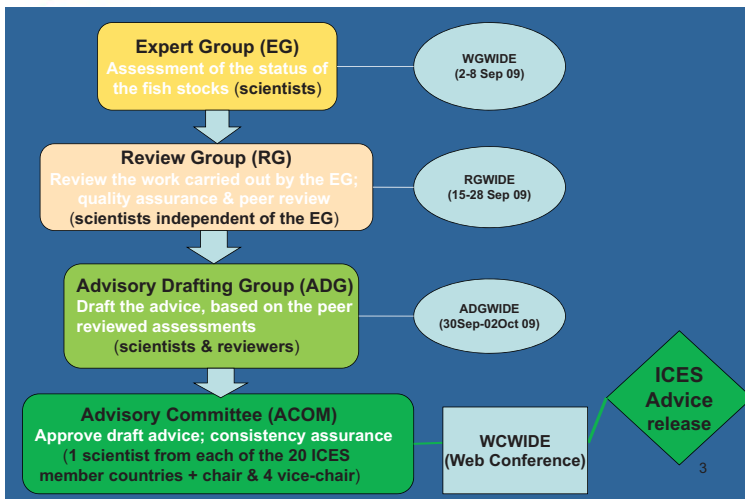
Working Group I

- Atlanto-scandian herring (*herr-noss*)
- NEA mackerel (*mac-nea*)
- Blue whiting (*whb-comb*)

Working Group II

- Western horse mackerel (*hom-west*)
- NS horse mackerel (*hom-nsea*)
- Southern horse mackerel (*hom-soth*)

Advisory Process



Herring



her-noss

Norwegian spring-spawning Herring (benchmark in 2008)

Reference points			
	Type	Value	Technical basis
Precautionary approach	B_{lim}	2.5 million t	MBAL
	B_{pa}	5.0 million t	$B_{lim} \cdot \exp(0.4 \cdot 1.645)$
	F_{lim}	not defined	-
Targets	F_{msy}	0.15	based on medium-term simulations
	F_{pa}	< 0.125	Management Plan

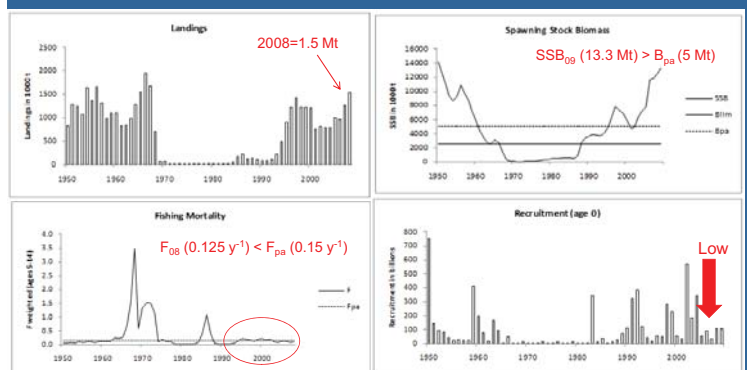
PA points unchanged since 1998.

- 1999: Long-term Management Plan agreed by EU, Faroe Island, Iceland, Norway and Russia

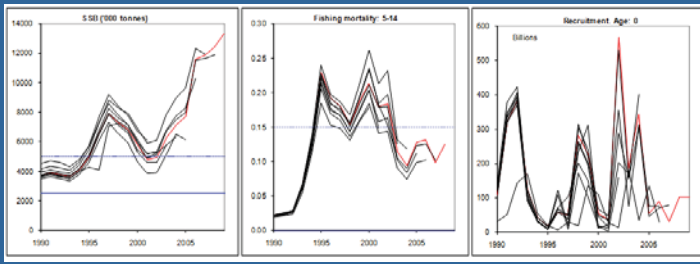
- ICES considers the agreed MP to be precautionary

her-noss

Norwegian spring-spawning herring



Historical stock trends



The assessment is consistent with last year assessment, which was a benchmark assessment

Catches in 2010 should not exceed 1 483 000 t

Basis: Landings (2009) = 1643 (=TAC); $F_{2009}^{(1)}$ = 0.119; SSB(2009) = 13.3 million t; SSB(2010) = 12.2 million t. The fishing mortality applied according to the agreed management plan ($F_{management\ plan}$) is 0.125.

Rationale	Landings (2010)	Basis	F(2010)	SSB(2011)	% SSB change ²⁾	% TAC change ³⁾
Zero catch	0	F=0	0.000	12.2	0%	-100%
Status quo	1483	F(2008)	0.125	10.8	-11%	-10%
Agreed management plan	157	F(management plan)*0.1	0.013	12.0	-2%	-90%
	389	F(management plan)*0.25	0.031	11.8	-3%	-76%
	770	F(management plan)*0.50	0.063	11.5	-6%	-53%
	1132	F(management plan)*0.75	0.094	11.1	-9%	-31%
	1353	F(management plan)*0.90	0.113	10.9	-11%	-18%
	1483	F(management plan)	0.125	10.8	-11%	-10%
Precautionary limits	1628	F(management plan)*1.1	0.138	10.7	-12%	-1%
	1822	F(management plan)*1.25	0.156	10.5	-14%	11%
Precautionary limits	1755	F_{pa}	0.150	10.5	-14%	7%

Landings weights in thousand tonnes, stock biomass weights in million tonnes. The shaded scenario is not considered consistent with the precautionary approach.

¹⁾ F_{pa} = Fishing mortality weighted by population numbers (age groups 5-14).

²⁾ SSB 2011 relative to SSB 2010

³⁾ Catch/landings 2010 relative to TAC 2009.

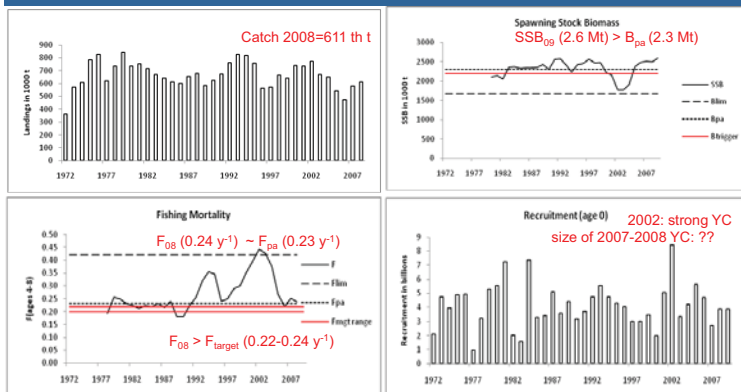
Mackerel



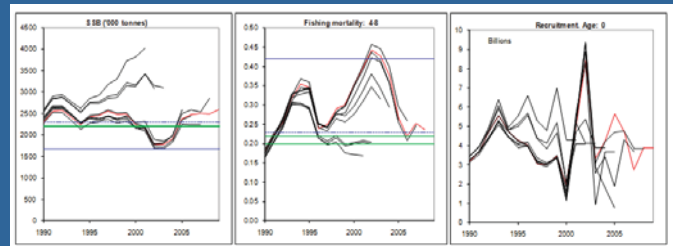
Northeast Atlantic mackerel (benchmark in 2007)

- Management Plan (2008)
- ICES considers the MP to be precautionary (TAC=total removals from the stock)

Reference points	Type	Value	Technical basis
Precautionary approach	B_{lim}	1.67 million t	B_{2011}
	B_{pa}	2.3 million t	Trigger reference point used in the precautionary management plan given above
	F_{lim}	0.42	F_{2011}
	F_{pa}	0.23	$F_{lim} * 0.55$ (CV 36%)
Targets	F_{target}	Between 0.20 and 0.22	Precautionary management plan given above
	$B_{management}$	> 2.2 million t	



Historical stock trends



Perception of the stock remains relatively unchanged.

Catches in 2010 between 527 000 t and 572 000 t

Basis: Catch(2009) = 830 (rounded from 832) (TAC plus discards plus 70 TAC overshoot plus 112 TAC set by Iceland plus 36 new unilateral Norway and Faroe Islands declared quota and minus 18 that the UK and Ireland have agreed not to fish); $F(2009) = 0.31$; $R_{08} = GM\ 72-06 = 3859$ million; $SSB(2009) = 2591$

$TAC_{08} = TAC_{09} = 605$ th t

Rationale	Catch (2010)	F(2010 & 2011)	Basis	SSB(2010) Spawning time	SSB(2011) Spawning time	Implied change in catch ¹	Implied change in TAC ²
Zero catch	0	0	F=0	2651	3090	-100%	-100%
Status quo	611	0.24	F 2008	2440	2406	-26%	+1%
Roll over TAC	605	0.23	TAC 2008	2442	2413	-27%	0%
	572	0.22	F(management plan upper bound) 0.22	2454	2448	-31%	-5%
	550	0.21	F(management plan mid point) 0.21	2462	2472	-34%	-9%
	527	0.20	F(management plan lower bound) 0.20	2470	2496	-37%	-13%
	726	0.29	+20% TAC (management plan upper bound)	2397	2285	-13%	+20%
	484	0.18	-20% TAC (management plan lower bound)	2486	2543	-42%	-20%
	996	0.42	+20% catch	2293	2012	+20%	63
	664	0.26	-20% catch	2420	2350	-20%	10

Weights in '000 t

¹Catches in 2010 relative to estimated catches in 2009

²Catches in 2010 relative to TAC 2009

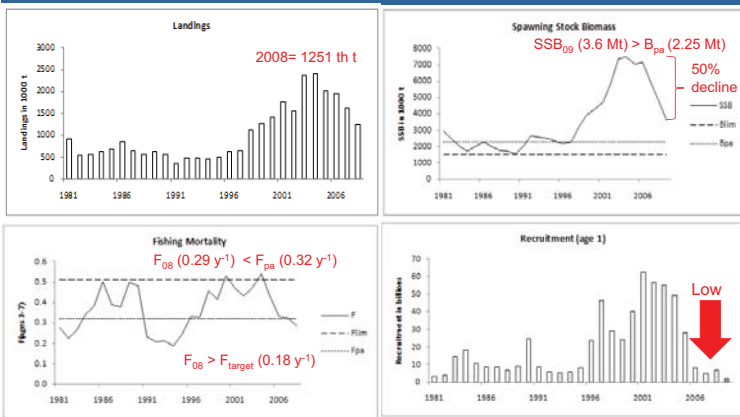
Shaded scenarios are not considered consistent with the management plan.

Blue whiting (proposed benchmark for 2011)

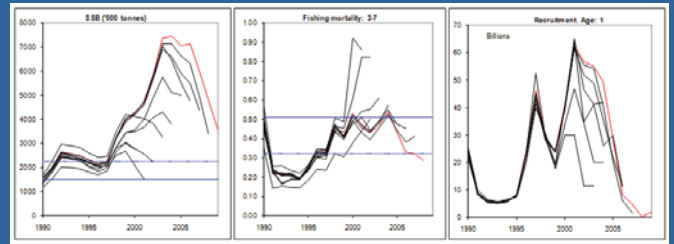
- Management Plan (1998-1999)
- ICES considers the MP to be precautionary

	Type	Value	Technical basis
Precautionary approach	B_{lim}	1.5 million t	B_{2005}
	B_{pa}	2.25 million t	$B_{lim} \exp(1.645 \cdot \sigma)$, with $\sigma = 0.25$.
	F_{lim}	0.51	F_{2005}
	F_{pa}	0.32	F_{2005} (1998)
Targets	F_v	0.18	= $F_{0.1}$ and target F in the agreed management plan
	B_v	> 2.25 million t	= trigger SSB for $F < 0.18$

(unchanged since 1998, targets added in 2008 on the basis of the agreed management plan; B_{2005} updated in 2009)



Historical stock trends



Upward revision of SSB (40% in 2008) and downward revision of F (13% in 2007)

Catches in 2010 of 540 000 t

Basis: Catch(2009) = 606 (Coastal States TAC + NEAFC allocation); Catch constraint, $F_{2009} = 0.17$; $SSB(2009) = 3586$; $SSB(2010) = 3041$; $R(2010,2011) = GM(1981-1996) = 8.83$ billion at age 1.

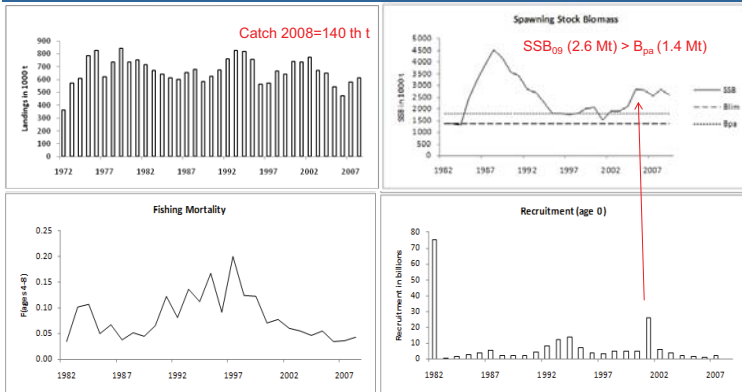
Rationale	Catch (2010)	Basis	F (2010)	SSB (2011)	%SSB change ¹	% TAC change ²
Zero catch	0	F=0	0	3168	-4%	-100
Status quo	816	F_{2008}	0.29	2353	-23%	+35%
Management Plan	540	Target F ($F=0.18$)	0.18	2627	-14%	-11%
High long-term yield	540	$F_{0.1}$	0.18	2627	-14%	-11%
Precautionary limits	94	$F_{2008} * 0.1$	0.03	3074	+1%	-84%
	229	$F_{2008} * 0.25$	0.07	2938	-3%	-62%
	441	$F_{2008} * 0.50$	0.14	2726	-10%	-27%
	636	$F_{2008} * 0.75$	0.22	2532	-17%	+5%
	891	$F_{pa} = F_{2008} * 1.14$	0.32	2279	-25%	+47%
	921	Maintain $SSB > B_{pa}$	0.33	2249	-26%	+52%

Horse mackerel



Trachurus trachurus

Western horse mackerel



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ICES considers the MP proposed by the P-RAC to be precautionary in the short term (proposed MP evaluated in 2007; provide the basis for advice for TACs in 2008-2010)

TAC in 2010 of 180 000 t (all areas where Western horse mackerel is caught)

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Stock	Status			Advice (total catch) for 2010
	Bpa	Fpa	MSY	
Norwegian spring-spawning herring	😊	😊	?	1 483 000 t
NEA mackerel	😊	😄	?	527 000 – 572 000 t
Blue whiting	😊	😊	😞	540 000 t
Western horse mackerel	😊	?	?	180 000 t
North Sea horse mackerel	SALY			< 18 000 t
Southern horse mackerel	?	?	?	< 25 000 t

Thank you for your attention!
 Comments and questions?

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