RACs (evaluacion., consejo, problemas de datos y otras acciones…)
Anglerfish (*L. piscatorius & L.budegassa*) in Subarea VII & Divisions VIIIa,b,d,e

azti tecnalia

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OVERVIEW

1.Presentación de los fallos o faltas de los que adolece la evaluación

2.Presentación /recordatorio general del estado del stock y el ultimo consejo de gestión

3.Identificación de las acciones necesarias para la mejora de la evaluación. Plan de Acción.

4.Conclusiones

2. Main issues: Review of available data and data quality)

Before Benchmark

Issue	Problem/Aim	Work needed / possible direction of solution	Data needed to be able to do this: are these available / where should these come from?	External expertise needed at benchmark type of expertise / proposed names
Basic data	No standardized commercial tuning data is available	Standardization of commercial tuning data by lengths	Raw data from logbooks and the length distributions for that fleet. Data should be available from member states	NO

Issue	Problem/Aim	Work needed / possible direction of solution	Data needed to be able to do this: are these available / where should these come from?	External expertise needed at benchmark type of expertise / proposed names
Discards	Enforcement of laws about minimum landing weight (0.5 kg) changed totally the retention ogive and the landings length distribution.	Try to reconstruct the length distribution of specimens bellow 0.5 kg in the catch or remove the historical data of fish below 0.5 kg from the catch matrix	Discard estimates from all the involved countries	No (- RAC incolvement: Basically, I think that RACs can not help much as data should be available at the Fisheries Institutes. It will be maybe good to remember the importance of a good (number of samples and sample size). This is, maybe RAC member could facilitate sampling on board to get discard data which are really important for this stock)

2. Review of available data and data quality

Before Benchmark

Issue	Problem/Aim	Work needed / possible direction of solution	Data needed to be able to do this: are these available / where should these come from?	External expertise needed at benchmark type of expertise / proposed names
Tuning series	No standardized commercial tuning data is available	Standardization of commercial tuning data by lengths	Raw data from logbooks and the length distributions for that fleet. Data should be available from member states	No needed (-RAC involvement. Maybe qualitative information , as for example , technological creeping can be given by Industry.)

Issue	Problem/Aim	Work needed / possible direction of solution	Data needed to be able to do this: are these available / where should these come from?	External expertise needed at benchmark type of expertise / proposed names
Biological Parameters	Growth pattern unknown or poorly known	Research on anglerfishes growth pattern. Could come from tag/recapture experiments, analysis of length distributions from surveys.	Workshop to be conducted by ICES in 2011. Results are not likely to be applicable to a benchmark in 2012 due to time constraints.	No
Assessment model	It depends on data available. If all the data with the needed length distributions is available a length structured model could be used. If only landings data and some tuning series are available a production model could be used.	All the above plus exploratory analysis from stock coordinators		NO

2. Review of available data and data quality

Issue	Problem/Aim	Work needed / possible direction of solution	Data needed to be able to do this: are these available / where should these come from?	External expertise needed at benchmark type of expertise / proposed names
Biological Parameters	Split of the landings between both species of anglerfish not known for some countries and suspect of not being correctly done some years due to differences between species proportion among different countries fishing the same grounds.	Have the historical detailed information on methods used by each country. Historically apply the split between species from the best identified method/country/fleet (i.e. the proportions in landings of countries splitting the species due to market reasons…).	Available directly from historic data or from Member States	No need
	Sex ratio and maturity of anglerfish only from an European project done in 1996-98	Compilation of the data collected under DCF and analysis for new sex-ratio and maturity parameters (COST)	Raw data from DCF,	NO

2. Review of available data and data quality

At benchmark: Important to understand results fo WKFLAT

Country	Improvement			
SPAIN	Revision of landed lengths by metiers for possibility of using them in models no structured in ages			
FRANCE	Revision of landed lengths by metiers for possibility of using them in models no structured in ages			
UK	Revision of landed lengths by metiers for possibility of using them in models no structured in ages			
IRELAND	Revision of landed lengths by metiers for possibility of using them in models no structured in ages			
BELGIUM				

- The model (L.piscatorius):
- A Schaeffer type model (ASPIC, Prager, 1994) was used on the following dataset:
- •Landings from 1984 to 2010;
- •Cpues from the Vigo fleet split in two series: 1986–1998 and 1999–2010 (changes in fishing power related to technical improvement in the fleet are suspected as cpues have drastically increased for all species caught in the late 1990s);
- •Cpues from the French benthic fleet in the Celtic Sea (FR-FU04) from 1986 to 2010;
- •Biomass index from the French EVHOE survey from 1997 to 2010.

- Resultados (L.piscatorius):
- The strong pattern shown by the retrospective analysis can be explained by the lack of contrast of the data. In the absence of a response from the biomass to either an increase or a decrease in catch, the parameters cannot be estimated precisely. This is shown in Figure 5.4 where the indices follow the trends in the landings.

- Conclusion
- In view of the instability of the model, it was decided that it could not be used as a basis for management advice.

- # The model 1 (L.budegassa):
- A Schaeffer surplus production model (ASPIC, Prager, 1994) was used on the following dataset:
- •Landings from 1984 to 2010 for the single species and both species com-bined.
- •Cpues from Vigo fleet split in two series: 1986–1998 and 1999–2010 (chang-es in fishing power related to technical improvement in the fleet are sus-pected as cpues have drastically increased for all species caught in the late 1990s).
- •Cpues from the French benthic fleet in the Celtic Sea (FR-FU04) from 1986 to 2008.
- •Biomass index from the EVHOE-WIBTS-Q4 from 1997 to 2010.
- The indices were selected on the basis of their correlation and their coverage of the distribution area.
- .

- The model 2 (L.budegassa):
- Length based stock synthesis model
- A stock synthesis model (NOA Fisheries Toolbox, 2011) was explored using the fol-lowing datasets:
- •Landings from 1984 to 2010 for L. budegassa.
- •Biomass index from the French EVHOE survey (EVHOE-WIBTS-Q4) from 1997 to 2010.
- .

- Resultados (L.budegassa): 1 modelo
- . As the surplus production model was unable to converge using a number of different input options, there are no results available.

- Resultados (L.budegassa): 2 modelo
- In view of the instability of the surplus production model as well as the short time-series of landings, lack of commercial cpue index and biological information, it was decided that neither the surplus production nor stock synthesis could be used as a basis for management advice at this time. It was recommended to explore and develop the stock synthesis model.

De ICES: Anglerfish (L.piscatorius & L.budegassa) Divisions VIIb–k and VIIIa,b,d

Consejo para 2013, Data Limited Stocks: Captura < 24 800 t

Lophius piscatorius

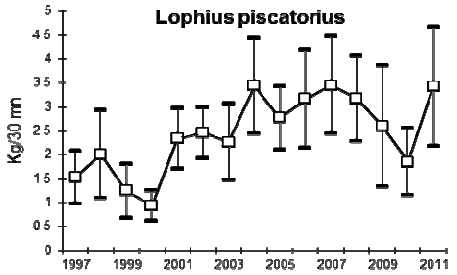
	F (Fishing Mortality)		
	2009–2010	2011	
MSY (F_{MSY})	?	?	Not available
Precautionary approach (F_{pa},F_{lim})	?	?	Not available

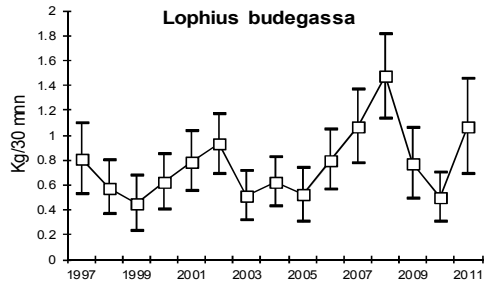
	Total Stock Biomass	
	2007–2011	
MSY ($B_{trigger}$)	?	Unknown
Precautionary approach (B_{pa},B_{lim})	?	Unknown
Qualitative evaluation	↘	Decreasing

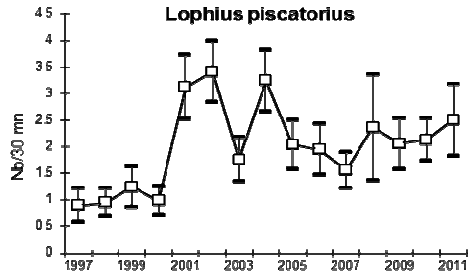
Lophius budegassa

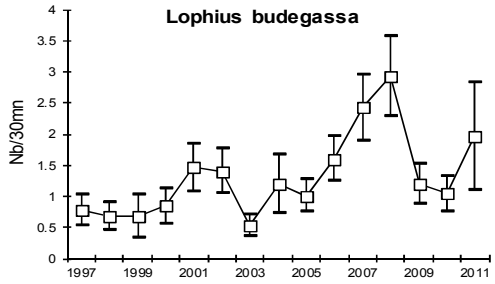
	F (Fishing Mortality)		
	2009–2010	2011	
MSY (F_{MSY})	?	?	Not available
Precautionary approach (F_{pa},F_{lim})	?	?	Not available

	Total Stock Biomass	
	2007–2011	
MSY ($B_{trigger}$)	?	Unknown
Precautionary approach (B_{pa},B_{lim})	?	Unknown
Qualitative evaluation	↘	Decreasing



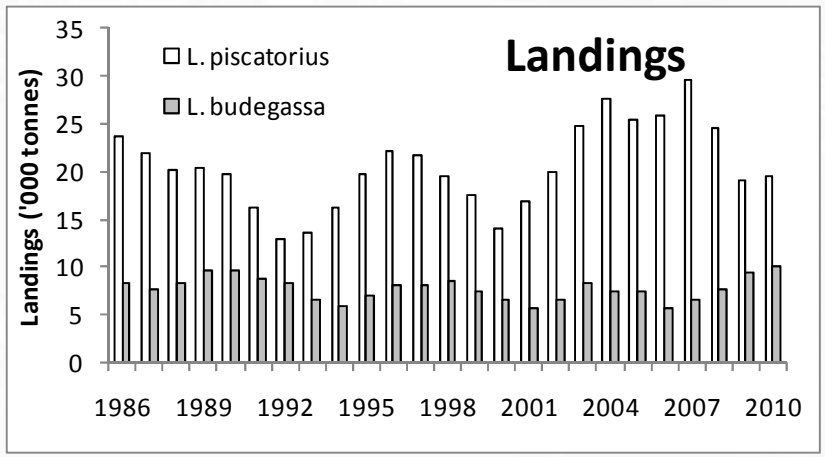






* En general, las tendencias del stock son estables, aumentando durante 2000s, disminuyendo en años recientes

* Indicaciones de que los descartes de peces pequeños han aumentado en los ultimos años, pero no hay estimas fiables.



From ICES presentation to NWWRAC: Anglerfish (L.piscatorius & L.budegassa) Divisions VIIb–k and VIIIa,b,d

Descargas de 2010 – 29 700 t (descartes son desconocidos)
Descargas españolas no están disponibles para el 2011

Se usa el indice de biomasa de una campaña como indicador del stock:
* L. piscatorius:
(Promedio de los ultimos 2 años) es 14% más bajo que (promedio de los 3 años anteriores)
14% disminucion sobre las descargas recientes (promedio 2008-10): 19 700 t

* L. budegassa:
(Promedio de los ultimos 2 años) es 20% más bajo que (promedio de los 3 años anteriores)
20% disminucion sobre las descargas recientes (promedio 2008-10): 6 900 t

1. Ventana de incertidumbre: 14% disminucion para L.pisc y 20% disminucion para L.bude
2. Margen de precaucion: no se aplica , ya que hay una disminucion estable del esfuerzo en las principales pesquerias.
Result: 24 800 t

CATEGORISATION (WKFRAME, WKLIFE)

Cat. 3,: stocks for which survey-based assessments indicate trends: This category includes stocks for which survey indices (or other indicators of stock size such as reliable fishery-dependant indices; e.g. lpue, cpue, and mean length in the catch) are available that provide reliable indications of trends in stock metrics such as mortality, recruitment, and biomass.

Survey Indices (EVHOE) used for advice.

- Conclusions:

- Various formulations of SS3, ASPIC and a custom surplus production model were applied to the data for these species both separately and combined. Although the SS3 model shows some promise and should be pursued further, it was not ready at this time to be used as an assessment. ASPIC fits appeared to be unstable. There was no basis at this time to change from the current trends based assessment. For L. piscatorius a new standardization of the Basque fleet was presented, however there were some concerns about the model formulation and this requires further exploration before it can be used as an index of stock abundance

- Post benchmark and WGHMM2012:

- Spain has changed the methodology for giving the Spanish landing and effort data to the ICES working groups, allowing only the use of official landings, discards and effort. This is hampering even more the likelihood of having an analytic assesment for northern anglers due to the lack of historical fisheries indices like Vigo, Coruña and Ondarroa trawlers.