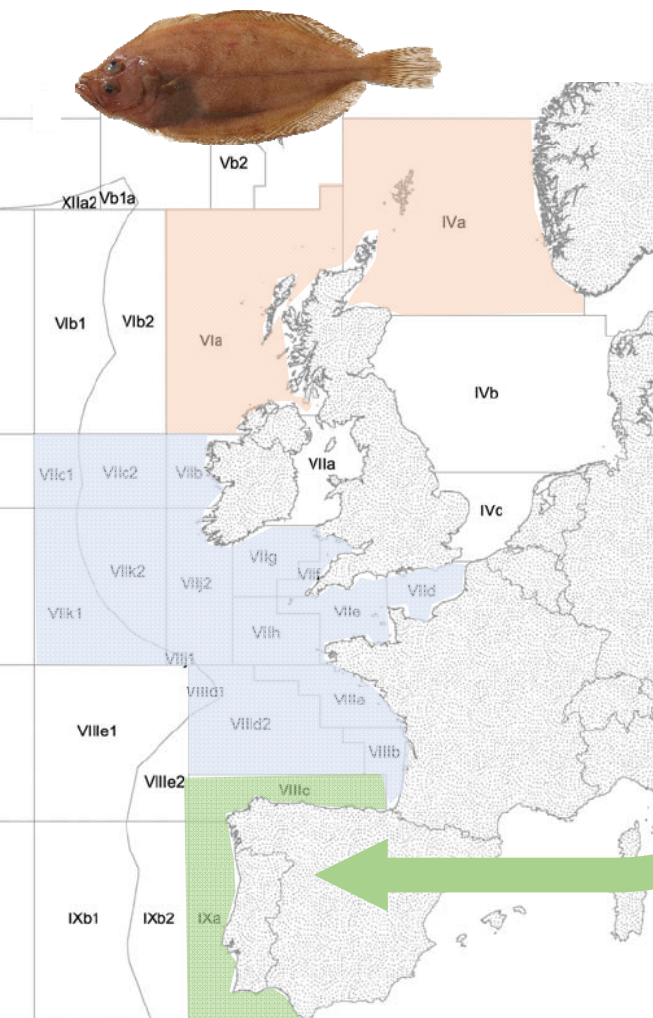


Results of the Megrin 8.c, 9.a exchange (SmartDots event: 277)

Jorge Landa (coordinator)
IEO-CSIC, Spain





EX & WK	1990-91	7.b-k, 8.abd
EX & WK	1997	7.b-k, 8.abd
EX & WK	2004	7.b-k, 8.abd
EX	2010	7.b-k, 8.abd
EX	2018-19	4.a, 6.a
EX	2020-21	8.c, 9.a

Background, Aims for EX

- This is the **first** EX in megrim 8.c, 9.a (Iberian Atlantic), small stock (~300 t /y).
- Several publications on megrim growth, **age corroboration** studies based on tracking cohorts and consistent age estimation criterion.
- **Aim:** test agreement, precision and relative accuracy.

Material and Methods

- **Whole otoliths** (usual structure) and images
- **7 readers** / 3 institutes (IEO, AZTI, IFREMER) / 2 countries
- New “**multistage** approach to calculate the **modal age**” has been used
- **120** otoliths, 2 strata (60 each semester)
- Fish length range (20-47 cm) represents the **range commercially captured** in this stock

Results

All readers

PA	CV	APE	Relative bias
68 %	14 %	9 %	-0.07

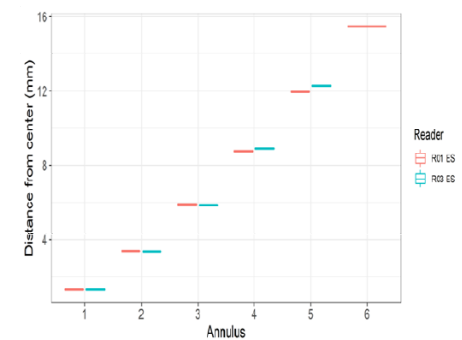
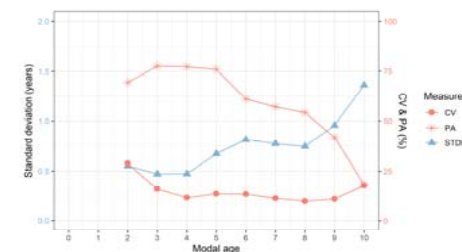
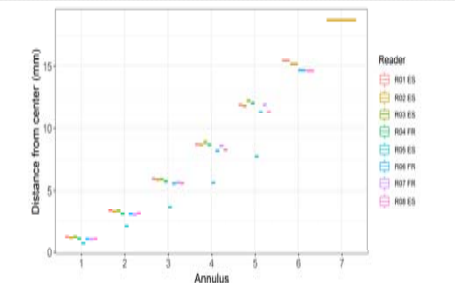
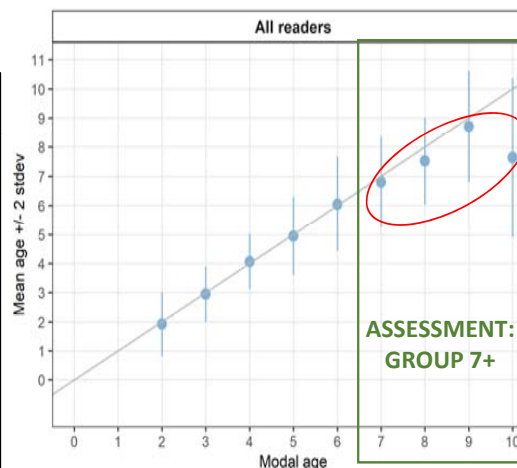
- Rel.bias increases from age 7 (ages with low samples & landings). Three readers (basic-intermediate experience) showed higher rel. bias and lower PA, mainly in ages ≥ 6 .
- Better results in 1st semester (PA: 74% / 62%)

Multiple Modes_traditional	Multiple Modes_multistage
14 %	0 %

Stock assessment readers

- Better results than for all readers

PA	CV	APE	Relative bias
82 %	11%	6 %	-0.10



Progress & main Recommendations

- **Similar-better results** in present EX than in previous EXs & Wks (almost all based on stock 7, 8abd).
- **All readers:** no noticeable problems in the age estimation and growth pattern in 8.c, 9.a, except the usual increasing difficulty of interpretation in older megrim due to increased otolith opacity. A **reference collection, training** in older ages and **continue calibration EXs** are recommended.
- **Stock assessment readers:** considering their **good results**, no specific recommendation for them.

Those **differences among stocks** from several EXs possibly due to:

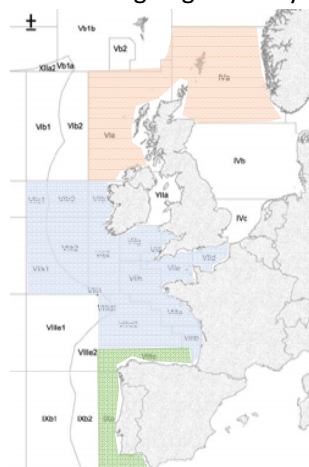
- different experience of readers in each stock
- different age range among stocks, with older megrim in northern stocks, that increases ageing difficulty.

State of the art in megrim EXs

Results of 2 megrim stocks EXs recently performed are currently available :

- **4.a, 6.a** (2018)
- **8.c, 9.a** (present)
- For **7.b-k,8.abd** (EX ongoing now) results are expected for the end of 2022

Therefore recent results of 3 stocks will be available soon that allow us to have an overview of the age estimation (precision/rel. accuracy) of megrim in the main areas



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