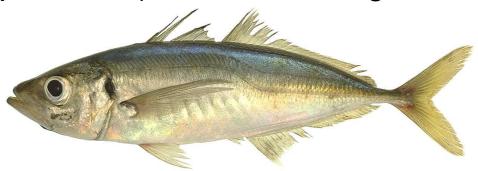


Report of the Horse Mackerel, Mediterranean Horse Mackerel and Blue Jack Mackerel (*Trachurus trachurus*, *T. mediterreaneus and T. picturatus*) Otolith Exchange 2015



Mahé K., Jurado A., Garcia Guerreiro A., Massaro A., Dueñas C., Lopez E., Mullins E., Lanteri L., Ferreira M.J., Elleboode R., Mannini A., Antolinez A., Delfs G., Casciaro L., O'Cuaig M., Torres P., Dijkman A., Bellamy E., Eriksen K., Carbonara P., 2015. Report of the Horse Mackerel, Mediterranean Horse Mackerel and Blue Jack Mackerel (*Trachurus trachurus*, *T. mediterreaneus and T. pictatus*) Otolith Exchange 2015. 30pp.

Table of contents

1. Introduction	4
2. Participants	4
3. Sampling collection	5
4. Reading procedure	6
5. Results	6
5.1. Precision 5.1.1. Trachurus mediterraneus 5.1.2. Trachurus picturatus 5.1.3. Trachurus trachurus 5.2. Relative bias (Accuracy) 5.2.1. Trachurus mediterraneus 5.2.2. Trachurus picturatus 5.2.3. Trachurus trachurus	7 8 8 8
6. Images of reference	10
6.1. Trachurus trachurus	13
7. Abstract	14
8. References	15
Appendix 1 : List of participants	16
Appendix 2: Details results of Trachurus trachurus	18
Appendix 3: Details results of Trachurus picturatus	22
Annendix 4: Details results of Trachurus mediterraneus	26

1. Introduction

The Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS) meeting in February 2014 recommended a large exchange in 2014 and a workshop for 2015 (ICES, 2014). The planning group indicated that Kelig Mahe (IFREMER, France) and Pierluigi Carbonara (COISPA Tecnologia & Ricerca, Italy) will be responsible to organising a *Trachurus* species (*Trachurus trachurus*, *T. mediterreaneus* and *T. picturatus*) otolith exchange and workshop. There were 3 age reading workshops (1999, 2006 and 2012) which were preceded by one exchange.

2. Participants

19 readers from 8 countries participated at this exchange (Tab. 1).

Table 1: List of the readers.

Reader	Name	Country	Institution
1	Alba Jurado	Spain	Instituto Español de Oceanografia
2	Alexandra Garcia Guerreiro	Portugal	IMAR/University of Azores
3	Andrea Massaro	Italy	CIBM
4	Clara Dueñas	Spain	Instituto Español de Oceanografia
5	Eduardo Lopez	Spain	Instituto Español de Oceanografia
6	Eugene Mullins	Ireland	Marine Institute
7	Luca Lanteri	Italy	University of Genoa
8	Maria João Ferreira	Portugal	IPMA
9	Romain Elleboode	France	Institut Français de Recherche pour l'Exploitation de la Mer
10	Alessandro Mannini	Italy	Italian Society for Marine Biology
11	Ana Antolinez	Spain	Instituto Español de Oceanografia
12	Gertrud Delfs	Germany	Thünen Institute of Sea Fisheries
13	Loredana Casciaro	Italy	COISPA
14	Macdara O'Cuaig	Ireland	Marine Institute
15	Pedro Torres	Spain	Instituto Español de Oceanografia
16	Andre Dijkman	Netherland s	Wageningen IMARES
17	Elise Bellamy	France	Institut Français de Recherche pour l'Exploitation de la Mer
18	Pierluigi Carbonara	Italy	COISPA
19	Kirsti Eriksen	Norway	Institute of Marine Research

Appendix 1 presents the complete listing of the participants in the *Trachurus* species otolith exchange.

Sampling collection 5

3. Sampling collection

A total of 550 fish was sampled from 2003 to 2014 (2003, 2004, 2005, 2006, 2007, 2009, 2011 and 2014) from both Atlantic and Mediterranean area (Tab. 2):

- ❖ 95 *Trachurus mediterraneus* sampled in the three geographical areas by COISPA (Italy) and IEO (Spain)
- ❖ 134 *Trachurus picturatus* sampled in the three geographical areas by IEO (Spain), COISPA (Italy) and DOP (Portugal)
- ❖ 321 *Trachurus trachurus* sampled in the three geographical areas by IFREMER (France), DISTAV (Italy), TI-SF (Germany) and IEO (Spain)

Table 2: Samples	distribution	bv 7	Trachurus s	pecies	(number	corresp	onding to	map).
		- , -			(

			Atlanti	ic Ocean			Med	iterranear	sea Sea	
Species	Eastern Channel VIId (1)	Celtic Sea VIIh	Bay of Biscay VIIIc (3)	Azores XII (4)	Portugu ese waters IXa (5)	Tenerife (6)	Alboran Sea (7)	South Adriatic Sea (8)	Ligurian Sea (9)	Total
T. mediterraneus			35		10			50		95
T. picturatus				71		50		13		134
T. trachurus	50	154					20		97	321



Figure 1: Map of *Trachurus* species sampling areas (*Source*: Google Map 2015).



Reading procedure 6

The samplings came from both the harbor and the survey. The otolith sections and whole otoliths were used during the 2014/2015 exchange but only *Trachurus trachurus* was sampled with both techniques (Table 3).

Species	Otolith section	Whole otolith
Trachurus mediterraneus		95
Trachurus picturatus		134
Trachurus trachurus	201	120
Total	154	349

Table 3: Samples distribution by *Trachurus* species and by preparation method of otolith.

4. Reading procedure

One image each otolith was uploaded WebGR (http://webgr.azti.es/ce/search/myce). All participants received all informations to participate to this exercise in the WebGR tool. The WebGR tool was used to this exchange. The use of WebGR tool for the exchange has somes advantages: (i) it can facilitate and accelerate the whole exchange process, (ii) annotated images are obtained for every otolith which enables to compare age readings directly and to identify possible sources of bias (iii) it is very easy for the chairman to compile the results. However, the use of WebGR tool for the exchange present some limits: (i) the WebGR tool is not very intuitive tool (ii) the WebGR could be jammed (iii) it is not always possible to upload a large batch of images (problem with the format of the csv file with Windows 7).

The age was assigned taking into account the number of the transparent rings. Moreover the date of capture, the sex and total length were visible by the readers.

All data were extracted of the WebGR and after agreements between age-readers were calculated using the Guus Eltink spreadsheet (Eltink, 2000).

5. Results

The spreadsheet (Eltink, 2000) was completed according to the instructions contained in Guidelines and Tools for Age Reading Comparisons by Eltink *et al.* (2000). Modal ages were calculated for each otolith red, with percentage agreement, mean age and precision coefficient of variation as a definition (for each otolith):

- \bullet percentage agreement = 100x(no. of readers agreeing with modal age/total no. of readers).
- \diamond precision c. v. = 100x(standard deviation of age readings/mean of age readings).

Results 7

5.1. Precision

The precision¹ analyse with Coefficient of Variation (CV) and percent of agreement to modal age for otoliths sets according to the *Trachurus* species was presented in the Table 4. Among three *Trachurus* species, all data showed the very low precision with the percent agreement between 47 and 56% and the CV from 29 to 69.

Table 4: Reading's precision by *Trachurus* species.

Trachurus species	Otoliths number	Readers number	Age range	Percentage of Agreement	CV
T. mediterraneus	95	15	0/12	47.1%	43.8%
T. picturatus	133	13	0/15	48.9%	69.0%
T. trachurus	309	17	0/15	55.8%	28.7%

5.1.1. Trachurus mediterraneus

The results of otoliths readings of *Trachurus mediterraneus* showed a better precision in the Mediterranean area than those obtained in the sampling areas from the Atlantic Ocean (Tab. 5).

Table 5: Reading's precision of *Trachurus mediterraneus* by sampling areas.

Sampling areas	Otoliths number	Readers number	Age range	Percentage of Agreement	CV
VIIIc	35	15	0/10	39.3%	40.2%
IXa	10	15	0/6	41.2%	41.7%
South Adriatic Sea	50	15	0/12	53.6%	46.7%

5.1.2. Trachurus picturatus

The results of otoliths readings of *Trachurus picturatus* showed a lower precision in the Azores area than those obtained in the other sampling areas due to especially the old specimen in this area (Tab. 6).

Table 6: Reading's precision by *Trachurus picturatus* by sampling areas.

Sampling areas	Otoliths number	Readers number	Age range	Percentage of Agreement	CV
Azores	70	13	0/15	35.3%	36.0%
Tenerife	50	12	0/5	60.1%	89.3%
South Adriatic Sea	13	12	0/1	79.3%	168.8%

¹ Precision is defined as the variability in the age readings. The precision's errors in age readings are better described by the coefficient of variation (CV) by age group. This measure of precision is independent of the closeness to the true age (ICES, 2007).



Results 8

5.1.3. Trachurus trachurus

The results of otoliths readings of *Trachurus trachurus* showed a better precision in the Atlantic Ocean (VIId and VIIh) than those obtained in the sampling areas from the Mediterranean Sea (Alboran and Ligurian sea) (Tab. 7). Moreover, in the Ligurian Sea, the analysis between otoliths section and whole otoliths showed the same level of precision (Tab. 7).

Table 7: Reading's precision by *Trachurus trachurus* by sampling areas.

Sampling areas	Otoliths number	Otolith preparation	Readers number	Age range	Percentage of Agreement	CV
VIId	50	Section	16	2/15	55.7%	16.8%
VIIh	154	Section	16	1/14	63.8%	25.9%
Alboran Sea	20	Whole	17	1/3	50.1%	69.7%
Ligurian Sea	45	Section	13	1/14	44.6%	32.6%
Ligurian Sea	50	Whole	14	1/10	44.0%	28.9%

5.2. Relative bias (Accuracy)²

The minimal requirement for age reading's consistency is the absence of bias among readers and through time. The hypothesis of an absence of bias between two readers or between a reader and the modal age estimated can be tested non-parametrically with a one-sample Wilcoxon signed rank test.

5.2.1. Trachurus mediterraneus

It should be noted that there are certainly of bias between some readers and modal age for *Trachurus mediterraneus* otoliths. There were no observed bias between five readers (5/15 readers, 33%) and the modal age (Tab. 8).

² In absence of calcified structures of known age, the age readings can be compared to modal age, which is defined as the age determined for an individual structure whose most of the readers have a preference. Relative bias can be defined as a systematic over- or underestimation of age compared to the modal age. The age reading comparisons to modal age provide a low estimate of relative bias compared to absolute bias, when most readers have a similar serious bias in age reading (ICES, 2007).



Report of the Horse Mackerel, Mediterranean Horse Mackerel and Blue Jack Mackerel (*Trachurus trachurus*, *T. mediterreaneus and T. pictatus*) Otolith Exchange 2015

Results 9

Table 8: Inter-reader bias test and reader against modal age bias test of *Trachurus mediterraneus* otoliths (-: no sign of bias (p>0.05); *: possibility of bias (0.01<p<0.05); **: certainty of bias (p<0.01)).

	ader bia Spain	Spain	Ireland	Italy	France	Italy	Germany			Portugal	Spain	Spain	Italy	Spain	- 1
	Reader 15	Reader 1	Reader 14	Reader 3	Reader 9	Reader 10	Reader 12	Reader 6	Reader 2	Reader 8	Reader 4	Reader 5	Reader 7	Reader 11	Rea
Reader 15															
Reader 1	**														
Reader 14	**	**													
Reader 3	*	_	**												
Reader 9	**	*	**	**											
Reader 10	**	**	**	**	_										
Reader 12	*	**	**	**	**	**									
Reader 6		**	**	**	**	**	_								
Reader 2	**	**	**	**	_	_	**	**							
Reader 8		**	**	*	**	**	**	**	**						
Reader 4	*	**	**	**	**	**	_	_	**	**					
Reader 5	_	**	**	*	**	**	_	**	**	_	*				
Reader 7	**	_	**	*	_	**	**	**	_	**	**	**			
Reader 11	_	**	**	**	**	**	**	*	**	*	*	*	**		
Reader 13	_	**	**	_	**	**	**	**	**	_	**	*	**	**	

5.2.2. Trachurus picturatus

It should be noted that there are certainly of bias between some readers and modal age for *Trachurus picturatus* otoliths. There were no observed bias between two readers (2/13 readers, 15%) and the modal age (Tab. 9).

Table 9: Inter-reader bias test and reader against modal age bias test of *Trachurus mediterraneus* otoliths (-: no sign of bias (p>0.05); *: possibility of bias (0.01<p<0.05); **: certainty of bias (p<0.01)).

	Germany	Spain	France	Portugal	Portugal	Italy	Italy	Ireland	Ireland	Spain	Spain	Italy	Spain
	Reader 12	Reader 4	Reader 9	Reader 8	Reader 2	Reader 10	Reader 3	Reader 6	Reader 14	Reader 1	Reader 5	Reader 7	Reader 1
Reader 12													
Reader 4	**												
Reader 9	_	**											
Reader 8	**	**	**										
Reader 2	**	**	**	**									
Reader 10	**	**	**	**	*								
Reader 3	*	**	_	**	**	**							
Reader 6	**	_	**	**	_	**	**						
Reader 14	**	**	**	**		**	**	*					
Reader 1	_	**	_	**	**	**	_	**	**				
Reader 5	**	**	**	**	**	**	**	**	**	**			
Reader 7	**	**	**	**	**	_	**	**	**	**	**		
Reader 11	**	**	**	**	**	**	**	*	**	**	**	**	

5.2.3. Trachurus trachurus

It should be noted that there are certainly of bias between some readers and modal age for *Trachurus mediterraneus* otoliths. There were no observed bias between five readers (5/17 readers, 29%) and the modal age (Tab. 10).

Table 10: Inter-reader bias test and reader against modal age bias test of *Trachurus trachurus* otoliths (-: no sign of bias (p>0.05); *: possibility of bias (0.01<p<0.05); **: certainty of bias (p<0.01)).

IIII I I U	er bias te								Later to the	A .	0 .	D	D	0 .	0.1	MI	16 - 1
	France	France	Spain	Spain	Ireland		Germany		letherland		Spain	Portugal			Italy	Norway	Italy
	Reader 9	Reader 17	Reader 15	Reader 1	Reader 14	Reader 3	Reader 12	Reader 6	Reader 16	Reader 11	Reader 4	Reader 2	Reader 8	Reader 5	Reader 7	Reader 19	Reader 1
Reader 9																	
Reader 17	**																
Reader 15	**	**															
Reader 1	**	**	**														
Reader 14	**	**	**	**													
Reader 3	**	*	**	_	**												
Reader 12	**	**	_	**	**	**											
Reader 6	**	**	**	_	**	_	**										
Reader 16	**	**	**	_	**	_	**	_									
Reader 11	**	**	**	**	**	**	**	**	**								
Reader 4	**	**	**	**	**	**	**	**	**	*							
Reader 2	_	*	**	_	**	_	**	**	**	**	**						
Reader 8	**	**	_	**	**	**	_	**	**	*	**	**					
Reader 5	**	*	**	_	**	_	**	**	*	**	**	_	**				
Reader 7	**	_	**	**	**	**	**	**	**	**	**	**	**	**			
Reader 19	**	**	**	**	**	**	**	**	**	**	**	_	**	**	**		
Reader 13	**	**	_	**	**	**	_	_	**	_	_	**	_	_	**	**	
Reader 13	**	**	_	**	**	**		_	**	_	_	**		_	**		**
L age	**	**	**	_	**	_	**	_	_	**	**	**	**	_	**	**	**

6. Images of reference

Seven otoliths (7/550, 1.3%) presented 100% agreement.

6.1. Trachurus trachurus

Among all otoliths of *Trachurus trachurus* (n=309), there were only five otoliths presented 100% agreement between readers. These five otoliths came from VIIh area (Celtic Sea) and the observed age was 1 year old.



Figure 2 : *Trachurus trachurus* otolith image (EB_14_B6_C4_Or_0004.jpg) from the Celtic Sea (VIIh) with 100% of agreement, 1 year old (from 16 readers). Total length was 10 cm. This specimen caught April 2014.

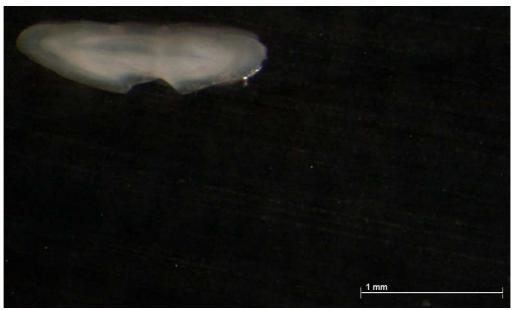


Figure 3 : *Trachurus trachurus* otolith image (EB_14_B6_C5_OCr_0001.jpg) from the Celtic Sea (VIIh) with 100% of agreement, 1 year old (from 16 readers). Total length was 10 cm. This specimen caught April 2014.

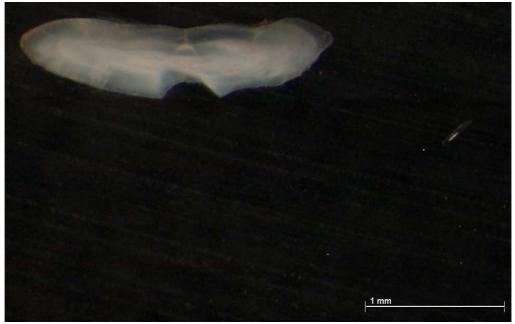


Figure 4 : *Trachurus trachurus* otolith image (EB_14_B6_C5_OCr_0002.jpg) from the Celtic Sea (VIIh) with 100% of agreement, 1 year old (from 16 readers). Total length was 11 cm. This specimen caught April 2014.

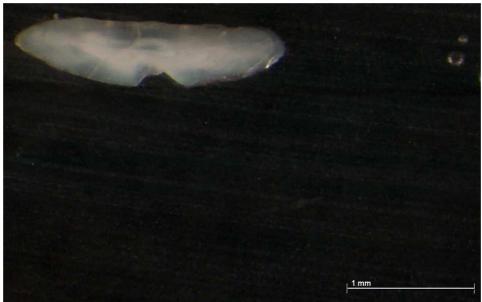


Figure 5: *Trachurus trachurus* otolith image (EB_14_B6_C5_OCr_0003.jpg) from the Celtic Sea (VIIh) with 100% of agreement, 1 year old (from 16 readers). Total length was 11 cm. This specimen caught April 2014.



Figure 6: *Trachurus trachurus* otolith image (EB_14_B6_C5_Or_0001.jpg) from the Celtic Sea (VIIh) with 100% of agreement, 1 year old (from 16 readers). Total length was 10 cm. This specimen caught April 2014.

6.2. Trachurus picturatus

Among all otoliths of *Trachurus picturatus* (n=132), there were only two otoliths presented 100% agreement between readers. These two otoliths came from South Adriatic Sea and the observed age was 0 year old.



Figure 7: *Trachurus picturatus* otolith image (COISPA – 4967.jpg) from South Adriatic sea with 100% of agreement, 1 year old (from 13 readers). Total length was 10 cm. This specimen caught July 2013.

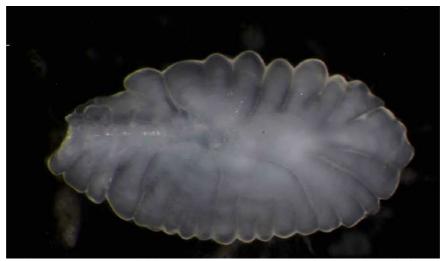


Figure 8 : *Trachurus picturatus* otolith image (COISPA – 4973.jpg) from South Adriatic sea with 100% of agreement, 0 year old (from 13 readers). Total length was 11 cm. This specimen caught July 2013.

6.3. Trachurus mediterraneus

Among all otoliths of *Trachurus mediterraneus* (n=95), there were no otoliths presented 100% agreement between readers.

Abstract 14

7. Abstract

The ICES Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS) identified the need of the Horse Mackerel, Mediterranean Horse Mackerel and Blue Jack Mackerel (*Trachurus trachurus*, *T. mediterreaneus and T. picturatus*) otolith exchange to take place in 2015. It was the forth exchange. The IFREMER institute and the COISPA Tecnologia & Ricerca, Italy, coordinated this exchange. A total of 550 fish was sampled from the Atlantic Ocean (Eastern Channel, Celtic Sea, Bay of Biscay, Azores, Portuguese waters and Tenerife) and the Mediterranean Sea (Alboran Sea, South Adriatic Sea and Ligurian Sea). 19 readers from 8 countries (France, Germany, Spain, Ireland, Italy, Portugal, Netherlands and Norway) participated to this exchange. Among three *Trachurus* species, all data showed the very low precision with the percent agreement between 47 and 56% and the CV from 29 to 69%. The precision analysis showed the same level of precision between otolith sections and whole otoliths from the Ligurian Sea.

8. References

Eltink, A. T. G. W., Newton, A. W., Morgado, C., Santamaria, M. T. G., Modin, J., 2000. Guidelines and Tools for Age Reading. (PDF document version 1.0 October 2000) Internet: http://www.efan.no

Eltink, A. T. G. W., 2000. Age reading comparisons. (MS Excel workbook version 1.0 October 2000) Internet: http://www.efan.no

ICES. 2005. Report of the Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS), 1-4 March 2005, Oostende, Belgium. ICES CM 2005/ACFM:15. 149 pp.

ICES. 2006. Report of the Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS), 28 February–3 March 2006, Rostock, Germany. ICES CM 2006/ACFM:18. 62 pp.

ICES. 2007. Report of the Planning Group on Commercial Catch, Discards and Biological Sampling (PGCCDBS), 5–9 March 2007, Valetta, Malta. ACFM:09. 115p.

ICES. 2014. Report of the Planning Group on Commercial Catches, Discards and Biological Sampling (PGCCDBS), 17–21 February 2014, Horta (Azores), Portugal. ICES CM 2014 / ACOM: 34. 103 pp.

Appendix 1 : List of participants

Country	Participants in exchange	Email	expertise level T. mediterraneus	expertise level T. pitcuratus	expertise level T. trachurus
Italy	Loredana Casciaro	casciaro@coispa.it	L	none	none
	Pierluigi Carbonara	carbonara@coispa.it	Н	none	Н
	Luca Lanteri	luca.lanteri@libero.it	M	none	M
	Alessandro Mannini	A.Mannini@unige.it	M	none	M
	Fulvio Garibaldi	garibaldi.f@libero.it	M	none	M
	Andrea Massaro	andreamassaro@live.it	M	L	M
France	Kélig Mahé	kelig.mahe@ifremer.fr	none	none	none
	Elise Bellamy	Elise.Bellamy@ifremer.fr	Н	Н	Н
	Romain Elleboode	romain.elleboode@ifremer.fr	Н	Н	Н
Germany	Gertrud Delfs	gertrud.delfs@ti.bund.de	none	none	medium
	Christoph Stransky	christoph.stransky@ti.bund.de	none	none	none
	Jens Ulleweit	jens.ulleweit@ti.bund.de	none	none	none
Ireland	Eugene Mullins	eugene.mullins@marine.ie	none	none	Н
	Macdara O'Cuaig	macdara.ocuaig@marine.ie	none	none	Medium- still in training
Netherlands	André Dijkman	andre.dijkman@wur.nl	none	none	M
	Bolle, Loes	loes.bolle@wur.nl	none	none	none
Norway	Kirsti Børve Eriksen	kirstibe@imr.no	none	none	
	Jane Godiksen	jane.godiksen@imr.no	none	none	L
Spain	Begoña Villamor	begona.villamor@st.ieo.es	none	none	none
	Clara Dueñas	clara.duenas@st.ieo.es	L (1 year-200 otoliths)	none	H (10 years- 25000 otoliths)
	Ana Antolinez	ana.antolinez@st.ieo.es	L (1 year-100 otoliths)	none	L (1 year- 500 otoliths)
	Eduardo Lopez	eduardo.lopez@vi.ieo.es	M (2 years-1000 otoliths)	none	M (2 years- 800 otoliths)
	Mª Teresa García Santamaría	teresa.garcia@ca.ieo.es	L	M	L
	Alba Jurado Ruzafa	alba.jurado@ca.ieo.es	L	М	L
	Pedro Torres	pedro.torres@ma.ieo.es	none	none	none
	Jesus costa	jesus.acosta@ma.ieo.es	L	none	Н
Portugal	Alexandra	agarcia@uac.pt	none	M	none

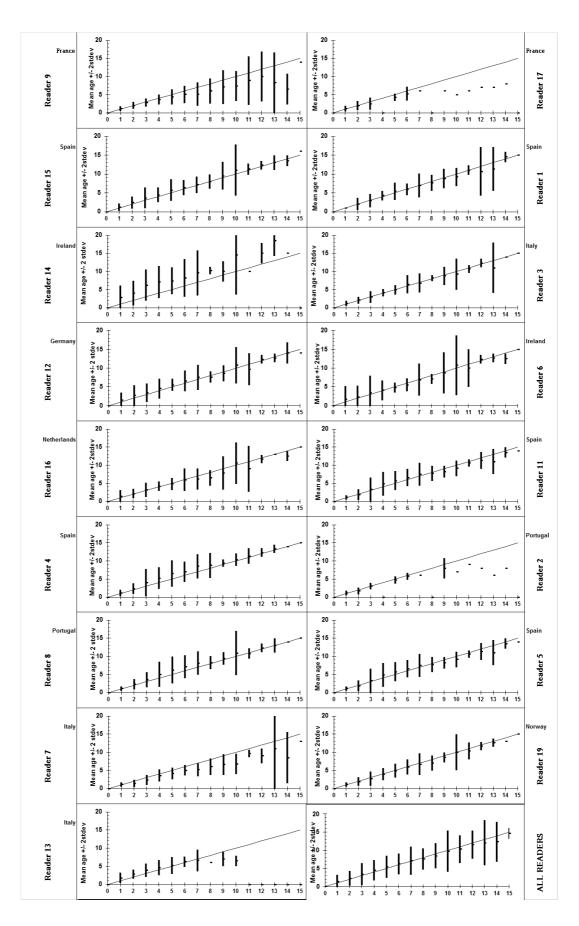
	Garcia				
Poland	Tomasz Nermer	tnermer@mir.gdynia.pl	none	none	Н
Denmark	Aage Thaarup	att@aqua.dtu.dk	none	none	Н
Portugal	Maria João Ferreira	mjferreira@ipma.pt	L (1 year-200 otoliths)	L (1 year-200 otoliths)	H (13 years- 26000 otoliths)

Appendix 2: Details results of Trachurus trachurus

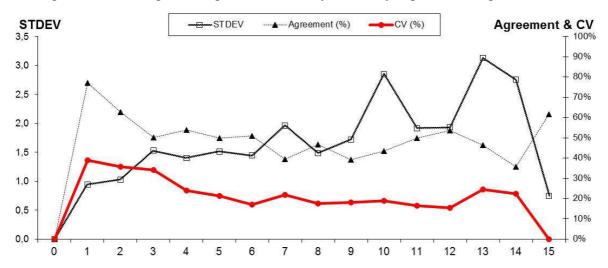
The number of age readings, the coefficient of variation (CV), the percentage of agreement and the RELATIVE bias are presented by MODAL age for each age reader and for all readers combined. A weighted mean CV and a weighted mean percent agreement are given by reader and all readers combined. The CV's by MODAL age for each individual age reader and all readers combined indicate the precision in age reading by MODAL age. The weighted mean CV's over all MODAL age groups combined indicate the precision in age reading by reader and for all age readers combined.

	NUMBER (OI AOL																	
	MODAL	France	France	Spain	Spain	Ireland	Italy			letherland		Spain	Portugal		Spain	Italy	Norway	Italy	
	age	Reader 9	Reader 17	Reader 15	Reader 1	Reader 14	Reader 3	Reader 12	Reader 6	Reader 16	Reader 11	Reader 4	Reader 2	Reader 8	Reader 5	Reader 7	Reader 19	Reader 13	TOT
	0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	41	7	45	13	41	27	47	46	43	47	47	9	46	36	10	21	20	54
	3	62 50	6	64 49	60	46 24	63	68 50	68 51	68 52	68 52	68 52		67	67 51	67	67 51	26 26	94 71
	4	27	10	27	42 24		44 24	25	27	27	27	26	11	46 26	26	49 27	26	13	36
	5	39	4	39	33	11 26	35	38	39	38	39	39	4	38	39	37	39	14	54
	6	20	4	21	20	11	20	21	21	21	21	21	4	21	21	20	21	8	29
	7	20	1	20	20	13	20	21	21	21	21	21	1	20	21	20	21	5	28
	8	7	- 1	8	8		6	8	8	8	8	8	- 1		8	7	8	1	10
	9		2	10	9	4	8				10	10	2	8	10		10		
	10	10	1	9	9	4	9	10 9	10 9	10 9	9	9	1	10 9	9	10 8	9	2	13
		8	1	7	6	1	6	7	8	7	8	8	1	8	8	6	8	-	12
	11	3	1	3	3	2	3	3	3	3	3	3	1	3		3	3		_
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d mean	15 0-15 RANKING PERCENT MODAL age 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 0-15 RANKING RELATIVE MODAL age 0 1 1 2 13 14 15 15 15 16 7 RANKING RELATIVE 16 7 8 9 10 11 12 13 14 15 15 15 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	25,3% 7 AGE AGI France Reader 9	22,6% 3 REEME France Reader 17	27,7% 10 ENT Spain Reader 15 Spain Reader 15 55% 63% 63% 65% 63% 63% 63% 65% 63% 90% 90% 90% 90% 90% 90% 90% 90% 90% 90	Spain 100% 4 4 2 5 6 6 7 6 7 6 6 7 6	Ireland Reader 14	2 Italy Reader 3 85% 67% 67% 67% 60% 65% 44% 65% 100% 66% 40% 100% 609,7% 1 Italy Reader 2 0,15 0,09 0,00 0,00 0,00 0,00 0,00 0,00 0,0	Germany Reader 12 - 74% 44% 50% 28% 67% 67% 67% 67% 67% 67% 67% 0% 0% 0% 0,57 13 Germany Reader 12 - 0,43 0,71 0,46 0,56 0,55 0,57 0,52 - 0,38 - 0,40 0,72 0,33 - 0,33	17 Ireland Reader 6 78% 65% 49% 49% 49% 45% 43% 425% 67% 66% 30% 100% 67% 3 Ireland Reader 6 0,65 0,31 0,47 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,18 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,10 0,07 -0,07	13 Jetherland Reader 16 -77% 65% 60% 67% 66% 71% 14% 14% 40% 67% 29% 67% 100% 59,9% 7 Jetherland Reader 16 -0,37 0,12 0,17 0,15 -0,18 -0,15 -0,15 -0,15 -0,15 -0,15 -0,20 0,56 -2,00 -0,30 0,00	Spain Reader 11 1 85% 145% 145% 145% 145% 145% 145% 145% 14	Spain Reader 4 1 2 8 3 5 4 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1 Portugal Reader 2 Portugal R	8 Portugal Reader 8 91% 70% 59% 55% 63% 45% 55% 63% 67% 33% 100% 100% 100% 100,52 1,00 1,21 1,10 0,25 0,40 0,83 0,40 0,83 0,00	Spain Reader 5 - 92% 69% 45% 45% 43% 43% 67% 60% 50% 11 Spain Reader 5 - 0.08 - 0.13 0.24 0.88 0.74 0.88 0.74 0.88 0.74 0.88 0.74 0.89 - 0.80 - 0.80 - 0.80 - 0.80 - 0.38 - 0.67 - 22,00	9 Italy Reader 7 - 90% 31% 37% 48% 48% 5% 10% 0% 0% 0% 0% 0% 0% 0% 16 Italy Reader 7 - 0,10 -0,66 -0,63 -0,41 -0,89 -1,00 -1,85 -2,40 -2,240 -3,25 -1,33 -3,00 -2,00	Norway Reader 19 90% 644% 614% 62% 62% 638% 66% 388% 40% 56% 100% 58,1% 10 Norway Reader 19 -0,10 -0,10 -0,10 -0,10 -0,31 -0,08 -1,00 -0,40 -0,40 -0,40 -0,40 -0,40 -0,63 -0,33 -0,33	Italy Reader 13 40% 31% 23% 69% 43% 50% 60% 0% 37,3% 15 Italy Reader 13 0,75 0,81 0,92 0,62 0,21 0,25 0,21 0,25	AL

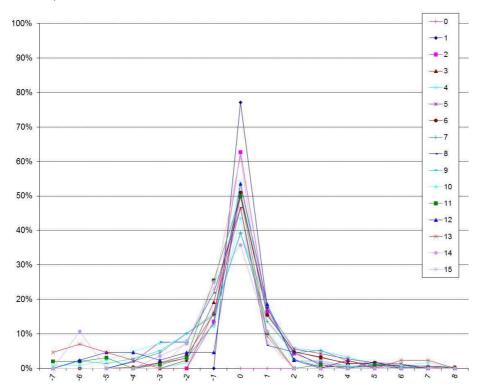
In the age bias plots below the mean age recorded +/- 2stdev of each age reader and all readers combined are plotted against the MODAL age. The estimated mean age corresponds to MODAL age, if the estimated mean age is on the 1:1 equilibrium line (solid line). RELATIVE bias is the age difference between estimated mean age and MODAL age.



The coefficient of variation (CV%), percentage of agreement and the standard deviation (STDEV) are plotted against MODAL age. CV is much less age dependent than the standard deviation (STDEV) and the percentage of agreement. CV is therefore a better index for the precision in age reading. Problems in age reading are indicated by relatively high CV's at age.



The distribution of the age reading errors in percentage by MODAL age as observed from the whole group of age readers in an age reading comparison to MODAL age. The achieved precision in age reading by MODAL age group is shown by the spread of the age readings errors. It appears to be no RELATIVE bias, if the age reading errors are normally distributed. The distributions are skewed, if RELATIVE bias occurs.

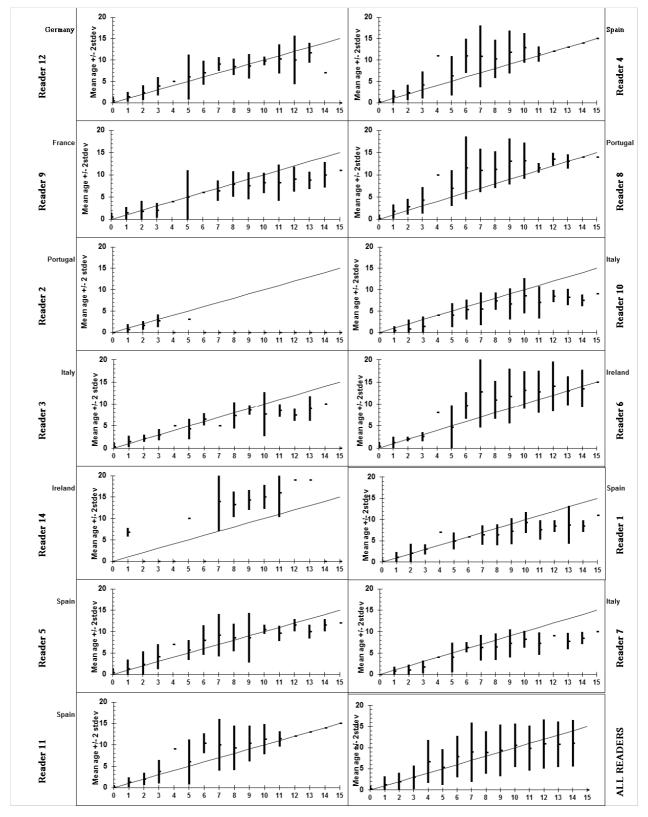


Appendix 3: Details results of Trachurus picturatus

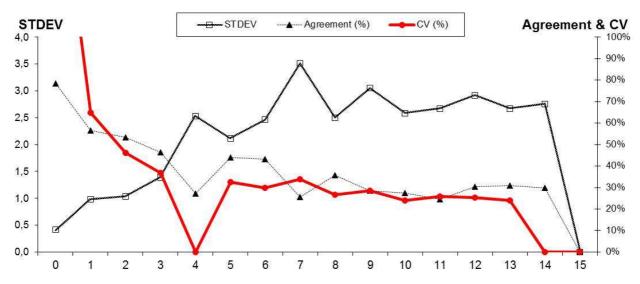
The number of age readings, the coefficient of variation (CV), the percentage of agreement and the RELATIVE bias are presented by MODAL age for each age reader and for all readers combined. A weighted mean CV and a weighted mean percent agreement are given by reader and all readers combined. The CV's by MODAL age for each individual age reader and all readers combined indicate the precision in age reading by MODAL age. The weighted mean CV's over all MODAL age groups combined indicate the precision in age reading by reader and for all age readers combined.

		NUM	BER OF	AGE R	EADIN	GS										
		MODAL	Germany	Spain	France	Portugal	Portugal	Italy	Italy	Ireland	Ireland	Spain	Spain	Italy	Spain	
		age	Reader 12						0 Reader 3		Reader 14					TOTAL
		1	25 28	25 27	25 28	25 28	24 17	25 28	25 27	25 28	4	24 28	25 27	25 28	25 28	298 326
		2	16	16	16	16	14	15	15	16	-	16	16	15	16	187
		3	7	7	7	7	7	7	6	7	-	7	6	7	7	82
		4	1	1	1	1	-	1	1	1	-	1	1	1	1	11
		5	3	3	3	3	1	2	3	3	1	3	3	3	3	34
		6	2	3	3	2	-	3	2	3	-	3	3	3	3	30
		7	4	5	5	4	-	4	2	5	3	5	5	4	5	51
		8	10 11	12 13	12 13	12 12	-	6 11	5	12 13	3	12 13	12 13	11 13	12 13	120 133
		10	4	6	6	6		5	3	6	2	6	6	6	6	62
		11	4	5	5	5	-	5	2	5	2	5	5	5	5	53
		12	2	2	2	2	-	2	2	2	1	2	2	2	2	23
		13	3	4	4	4	-	4	2	4	1	4	4	4	4	42
		14	1	2	2	2	-	2	1	2	-	2	2	2	2	20
1	T-4-1	15	424	1	1	1		1	404	1	- 24	1	1	1	1	4.404
'	Total	0-15	121	132	133	130	63	121	101	133	21	132	131	130	133	1481
		COF	FFICIEN	T OF V	ΔΡΙΔΤ	ION (C)	۱/۱	1					1			
		MODAL	Germany	Spain	France		Portugal	Italy	Italy	Ireland	Ireland	Spain	Spain	Italy	Spain	ALL
		age	Reader 12													Readers
		Ö	125%	276%	106%	234%	0%	0%	149%	115%	-	270%	115%	0%	346%	191,5%
		1	40%	51%	48%	46%	94%	118%	43%	51%	7%	57%	92%	69%	47%	64,9%
		2	38%	37%	68%	32%	30%	135%	19%	12%	-	51%	63%	56%	37%	46,2%
		3	28%	38%	41%	35%	28%	79%	21%	21%	-	19%	35%	44%	37%	36,8%
		5	A A O/	360/	60%	20%	-	350/	270/	- E 10/-	-	20%	20%	130/	110/	22 69/
		6	44% 20%	36% 18%	60% 0%	29% 31%	-	35% 22%	27% 11%	54% 16%	-	20% 0%	20% 22%	43% 9%	44% 11%	32,6% 29,8%
		7	9%	34%	18%	22%	-	35%	0%	32%	25%	18%	27%	24%	30%	33,8%
		8	12%	22%	18%	19%	-	14%	20%	20%	11%	19%	19%	24%	28%	26,7%
		9	17%	21%	20%	20%	-	27%	6%	26%	8%	21%	34%	23%	20%	28,7%
		10	5%	13%	14%	16%	-	24%	33%	16%	9%	13%	5%	12%	15%	23,9%
		11	17%	8%	25%	5%	-	27%	8%	19%	18%	15%	9%	18%	8%	25,9%
		12	28%	0%	16%	5%	-	8%	9%	20%	-	8%	6%	0%	0%	25,3%
		13	10%	0%	11%	6%	-	12%	16%	13%	-	25%	8%	12%	0%	23,9%
		14	-	0%	14%	0%	-	9%	-	6%	-	8%	6%	8%	6%	-
		15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Weighted		0-15 ANKING	47,3% 5	76,8% 12	48,4% 6	67,2% 10	35,1% 3	56,8% 8	56,4% 7	44,3% 4	10,8%	75,6% 11	58,3% 9	31,7% 2	89,2% 13	69,0%
,																
		PERC	CENTAG	E AGR	EEME	NT										
		MODAL	Germany	Spain	France	Portugal	Portugal	Italy	Italy	Ireland	Ireland	Spain	Spain	Italy	Spain	
		age	Reader 12	Reader 4	Reader 9	Reader 8	Reader 2	Reader 1	0 Reader 3	Reader 6	Reader 14	Reader 1	Reader 5	Reader 7	Reader 11	ALL
		0	60%		52%	84%	100%	100%	68%	56%	-	88%	56%	100%	92%	79%
				88%												
		1	61%	56%	57%	32%	53%	43%	37%	82%	0%	68%	56%	68%	71%	56%
		2	61% 56%	56% 81%	57% 31%	32% 44%	53% 64%	43% 7%	37% 80%	82% 94%	-	56%	38%	20%	69%	53%
		2	61% 56% 57%	56% 81% 57%	57% 31% 29%	32% 44% 43%	53% 64% 43%	43% 7% 29%	37% 80% 67%	82% 94% 57%	-	56% 71%	38% 50%	20% 14%	69% 43%	53% 46%
		2 3 4	61% 56% 57% 0%	56% 81% 57% 0%	57% 31% 29% 100%	32% 44% 43% 0%	53% 64% 43%	43% 7% 29% 100%	37% 80% 67% 0%	82% 94% 57% 0%		56% 71% 0%	38% 50% 0%	20% 14% 100%	69% 43% 0%	53% 46% 27%
		2 3 4 5	61% 56% 57% 0% 33%	56% 81% 57% 0% 67%	57% 31% 29% 100% 33%	32% 44% 43% 0% 33%	53% 64% 43% - 0%	43% 7% 29% 100% 50%	37% 80% 67% 0% 67%	82% 94% 57% 0% 33%	- - - 0%	56% 71% 0% 33%	38% 50% 0% 67%	20% 14% 100% 67%	69% 43% 0% 33%	53% 46% 27% 44%
		2 3 4 5 6	61% 56% 57% 0% 33% 50%	56% 81% 57% 0% 67% 0%	57% 31% 29% 100% 33% 100%	32% 44% 43% 0% 33% 0%	53% 64% 43% - 0%	43% 7% 29% 100% 50% 67%	37% 80% 67% 0% 67% 50%	82% 94% 57% 0% 33% 0%	- - - 0%	56% 71% 0% 33% 100%	38% 50% 0% 67% 33%	20% 14% 100% 67%	69% 43% 0% 33% 0%	53% 46% 27% 44% 43%
		2 3 4 5	61% 56% 57% 0% 33%	56% 81% 57% 0% 67%	57% 31% 29% 100% 33%	32% 44% 43% 0% 33%	53% 64% 43% - 0%	43% 7% 29% 100% 50% 67% 50%	37% 80% 67% 0% 67% 50%	82% 94% 57% 0% 33% 0% 0%	- - - 0%	56% 71% 0% 33% 100% 20%	38% 50% 0% 67% 33% 40%	20% 14% 100% 67% 67% 75%	69% 43% 0% 33% 0% 40%	53% 46% 27% 44%
		2 3 4 5 6 7	61% 56% 57% 0% 33% 50% 0%	56% 81% 57% 0% 67% 0% 40%	57% 31% 29% 100% 33% 100% 20%	32% 44% 43% 0% 33% 0% 0%	53% 64% 43% - 0% -	43% 7% 29% 100% 50% 67%	37% 80% 67% 0% 67% 50%	82% 94% 57% 0% 33% 0%	- - - 0% - 0%	56% 71% 0% 33% 100%	38% 50% 0% 67% 33%	20% 14% 100% 67%	69% 43% 0% 33% 0%	53% 46% 27% 44% 43% 25%
		2 3 4 5 6 7 8	61% 56% 57% 0% 33% 50% 0% 80%	56% 81% 57% 0% 67% 0% 40% 33%	57% 31% 29% 100% 33% 100% 20% 50%	32% 44% 43% 0% 33% 0% 0% 17%	53% 64% 43% - 0% -	43% 7% 29% 100% 50% 67% 50% 17%	37% 80% 67% 0% 67% 50% 0% 40%	82% 94% 57% 0% 33% 0% 0% 25%	- - 0% - 0% 0%	56% 71% 0% 33% 100% 20% 33%	38% 50% 0% 67% 33% 40% 33%	20% 14% 100% 67% 67% 75% 36%	69% 43% 0% 33% 0% 40% 42%	53% 46% 27% 44% 43% 25% 36%
		2 3 4 5 6 7 8	61% 56% 57% 0% 33% 50% 0% 80% 45%	56% 81% 57% 0% 67% 0% 40% 33% 31%	57% 31% 29% 100% 33% 100% 20% 50% 23%	32% 44% 43% 0% 33% 0% 0% 17% 8%	53% 64% 43% - 0% - -	43% 7% 29% 100% 50% 67% 50% 17% 0%	37% 80% 67% 0% 67% 50% 0% 40% 60%	82% 94% 57% 0% 33% 0% 0% 25% 38%	- - 0% - 0% 0%	56% 71% 0% 33% 100% 20% 33% 15%	38% 50% 0% 67% 33% 40% 33% 46%	20% 14% 100% 67% 67% 75% 36% 31%	69% 43% 0% 33% 0% 40% 42% 38%	53% 46% 27% 44% 43% 25% 36% 29%
		2 3 4 5 6 7 8 9	61% 56% 57% 0% 33% 50% 0% 80% 45% 75%	56% 81% 57% 0% 67% 0% 40% 33% 31% 17%	57% 31% 29% 100% 33% 100% 20% 50% 23% 17%	32% 44% 43% 0% 33% 0% 0% 17% 8% 0%	53% 64% 43% - 0% - -	43% 7% 29% 100% 50% 67% 50% 17% 0% 20%	37% 80% 67% 0% 67% 50% 0% 40% 60% 33%	82% 94% 57% 0% 33% 0% 0% 25% 38% 0%	- - 0% - 0% 0% 0% 0%	56% 71% 0% 33% 100% 20% 33% 15% 67%	38% 50% 0% 67% 33% 40% 33% 46% 50%	20% 14% 100% 67% 67% 75% 36% 31% 0%	69% 43% 0% 33% 0% 40% 42% 38% 50%	53% 46% 27% 44% 43% 25% 36% 29% 27%
		2 3 4 5 6 7 8 9 10 11 12	61% 56% 57% 0% 33% 50% 0% 80% 45% 75% 25% 50% 33%	56% 81% 57% 0% 67% 0% 40% 33% 31% 17% 80% 100%	57% 31% 29% 100% 33% 100% 20% 50% 50% 0% 0%	32% 44% 43% 0% 33% 0% 17% 8% 0% 40% 0% 50%	53% 64% 43% - 0% - -	43% 7% 29% 100% 50% 67% 50% 17% 0% 20% 0%	37% 80% 67% 0% 67% 50% 0% 40% 60% 33% 0% 0%	82% 94% 57% 0% 33% 0% 25% 38% 0% 20% 50%	- - 0% - 0% 0% 0% 0%	56% 71% 0% 33% 100% 20% 33% 15% 67% 0% 0%	38% 50% 0% 67% 33% 40% 33% 46% 50% 20% 50%	20% 14% 100% 67% 67% 75% 36% 31% 0% 0% 0%	69% 43% 0% 33% 0% 40% 42% 38% 50% 80%	53% 46% 27% 44% 43% 25% 36% 29% 27% 25% 30% 31%
		2 3 4 5 6 7 8 9 10 11 12 13	61% 56% 57% 0% 33% 50% 0% 80% 45% 75% 25% 50%	56% 81% 57% 0% 67% 0% 40% 33% 31% 17% 80% 100% 100%	57% 31% 29% 100% 33% 100% 20% 50% 60% 0% 0%	32% 44% 43% 0% 33% 0% 17% 8% 0% 40% 0% 50%	53% 64% 43% - 0% - - -	43% 7% 29% 100% 50% 67% 50% 0% 20% 0% 0% 0%	37% 80% 67% 0% 67% 50% 0% 40% 60% 33% 0%	82% 94% 57% 0% 33% 0% 05% 38% 0% 20% 50% 50%	- - 0% - 0% 0% 0% 0% 0% 0%	56% 71% 0% 33% 100% 20% 33% 15% 67% 0% 0% 0%	38% 50% 0% 67% 33% 40% 33% 46% 50% 20% 50% 0%	20% 14% 100% 67% 67% 36% 31% 0% 0% 0% 0%	69% 43% 0% 33% 0% 40% 42% 38% 50% 80% 100% 100%	53% 46% 27% 44% 43% 25% 36% 29% 27% 25% 30%
		2 3 4 5 6 7 8 9 10 11 12 13 14	61% 56% 57% 0% 33% 50% 0% 80% 45% 75% 25% 50% 33%	56% 81% 57% 0% 67% 0% 40% 33% 31% 17% 80% 100% 100%	57% 31% 29% 100% 33% 100% 50% 50% 23% 17% 0% 0% 0%	32% 44% 43% 0% 33% 0% 17% 8% 0% 40% 50% 100% 0%	53% 64% 43% - 0% - - - - - - -	43% 7% 29% 100% 50% 67% 50% 17% 0% 0% 0% 0% 0%	37% 80% 67% 0% 67% 50% 0% 40% 60% 33% 0% 0% 0%	82% 94% 57% 0% 33% 0% 25% 38% 0% 20% 50% 50% 0%	- - 0% - 0% 0% 0% 0% 0% 0% - - -	56% 71% 0% 33% 100% 20% 33% 15% 67% 0% 0% 0%	38% 50% 0% 67% 33% 40% 33% 46% 50% 20% 50% 0%	20% 14% 100% 67% 67% 75% 36% 31% 0% 0% 0% 0%	69% 43% 0% 33% 0% 40% 42% 38% 50% 80% 100% 100%	53% 46% 27% 44% 43% 25% 36% 29% 27% 25% 30% 31%
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Weighted		2 3 4 5 6 7 8 9 10 11 12 13 14 15 0-15 ANKING RELA MODAL age 0 1 2 3 4 5 6 7 8 9 10 11 12 13	61% 56% 57% 0% 33% 50% 60% 80% 45% 75% 50% 33% 0 - 54,5% 4 ATIVE BI Germany Reader 12 0,40 0,43 0,31 0,86 1,00 1,00 2,00 0,40 -0,45 -0,25 -0,75 -2,00 -1,33	56% 81% 57% 0% 67% 0% 40% 33% 31% 17% 100% 100% 100% 50,6% 3 AS Spain Reader 4 0,12 0,48 0,38 1,14 7,00 1,33 5,00 3,80 2,25 2,85 2,83 0,40 0,00 0,00	57% 31% 29% 100% 33% 1000% 50% 22% 50% 0% 0% 0% 0% 0% 177 0% 0% 0% 0% 39,1% 11 France Reader 9 0,48 0,43 -0,25 -1,00 0,00 -0,00 -0,00 -0,00 -1,46 -1,83 -2,80 -4,25	32% 44% 43% 0% 0% 17% 8% 0% 60% 17% 8% 0% 100% 50% 100% 38,5% 12 Portugal Reader 8 0,16 0,75 0,81 1,29 6,00 2,00 5,50 4,00 3,17 4,00 3,17 0,60 0,00	53% 64% 43% - 0%	43% 7% 29% 100% 50% 67% 50% 67% 0% 0% 0% 0% 0% 0% 178 10 Italy Reader 1 0,00 -0,57 -1,20 -1,57 0,00 -1,67 -1,50 -0,67 -1,50 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,50 -0,67 -1,40 -0,67 -1,50 -0,67 -1,70 -0,70	37% 80% 67% 50% 67% 50% 40% 60% 33% 0% 0% 0% 51,5% 7 Italy 0 Reader 3 0,32 0,48 0,20 0,00 1,00 -0,67 0,50 -2,00 -0,60 -0,40 -2,33 -2,50 -4,50 -4,00	82% 94% 57% 0% 33% 0% 0% 25% 38% 0% 50% 50% 50% 50% 50,6% 5 Ireland Reader 6 0,44 0,29 0,06 -0,43 4,00 -0,33 3,67 5,80 2,92 2,77 3,17 1,80 2,00 0,00	- 0% - 0% - 0% - 0% - 0% - 0% - 0% - 0%	56% 71% 0% 33% 100% 20% 33% 15% 67% 0% 0% 0% 0% 52,3% 6 Spain Reader 1 0,13 0,14 0,13 0,00 3,00 0,00 0,00 -0,60 -1,57 -3,4,25	38% 50% 0% 67% 33% 40% 50% 20% 0% 0% 0% 0% 0% 0% 44,3% 9 Spain Reader 5 0,44 0,22 0,38 1,17 3,00 0,67 2,00 2,20 0,58 -0,46 0,50 -1,40 -0,50 -3,00	20% 14% 100% 67% 67% 67% 75% 36% 31% 0% 0% 0% 0% 49,2% 8 Italy Reader 7 0,00 -0,25 -0,93 -1,29 0,00 -1,00 0,33 -0,75 -1,55 -1,57 -1,83 -3,80 -3,20 -5,25	69% 43% 0% 43% 0% 40% 33% 60% 40% 42% 38% 50% 80% 100% 100% 100% 2 Spain Reader 11 0,08 0,25 0,00 0,71 5,00 1,00 4,33 3,00 1,33 1,31 1,33 0,40 0,00 0,00	53% 46% 27% 44% 43% 25% 29% 27% 25% 30% 31% 30% 50,0% ALL 0,21 0,28 -0,03 0,04 2,73 0,38 1,93 1,96 0,87 0,38 0,56 -1,11 -1,13 -2,19
Weighted		2 3 4 5 6 7 8 9 10 11 12 13 14 15 0-15 ANKING RELA MODAL age 0 1 2 3 4 5 6 7 8 9 10 11 11 15 0-15 15 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	61% 56% 57% 0% 33% 50% 6% 80% 45% 75% 50% 33% 0% - 54,5% 4 ATIVE BI Germany Reader 12 0,40 0,43 0,31 0,86 1,00 1,00 1,00 1,00 1,00 0,40 -0,45 -0,25 -0,75 -2,00	56% 81% 57% 0% 67% 0% 40% 33% 31% 17% 80% 100% 100% 50,6% 3 AS Spain Reader 4 0,12 0,48 0,38 1,14 7,00 1,33 5,00 3,80 2,25 2,83 0,40 0,00 0,00 0,00	57% 31% 29% 100% 33% 100% 20% 50% 23% 17% 0% 0% 0% 0% 39,1% 11 France Reader 9 0,48 0,43 -0,25 -1,00 0,00 -0,60 -0,08 -1,46 -1,83 -2,80 -3,04 -4,25 -4,00	32% 44% 43% 0% 0% 0% 17% 8% 0% 0% 60% 17% 8% 0% 100% 50% 100% 38,5% 12 Portugal Reader 8 0,16 0,75 0,81 1,29 6,00 2,00 4,00 3,17 4,00 3,17 4,00 3,17 0,60 1,50 0,00 0,00	53% 64% 43% - 0%	43% 7% 29% 100% 50% 67% 50% 67% 0% 0% 0% 0% 0% 0% 178 10 State of the control	37% 80% 67% 50% 0% 67% 50% 0% 60% 33% 0% 0% 0% 0% 0% 0% 0% 0- 51,5% 7	82% 94% 57% 0% 0% 0% 0% 25% 38% 0% 50% 50% 50% 50% 50,6% 5 Ireland Reader 6 0,44 0,29 0,06 -0,43 4,00 -0,33 3,67 5,80 2,92 2,77 1,80 2,00 -0,50	- 0% - 0% - 0% - 0% - 0% - 0% - 0% - 0%	56% 71% 0% 0% 33% 100% 20% 33% 15% 67% 0% 0% 0% 52,3% 6 Spain Reader 1 0,13 0,14 0,13 0,00 3,00 0,00 -0,60 -1,58 -1,77 -0,67 -3,40 -3,50 -4,25 -5,50	38% 50% 0% 67% 33% 40% 50% 33% 46% 50% 0% 0% 0% 0% 44,3% 9 Spain Reader 5 0,44 0,22 0,38 1,17 3,00 0,67 2,00 2,20 0,58 -0,46 -0,50 -1,40 -0,50 -1,40 -0,50 -3,00 -2,50	20% 14% 100% 67% 67% 67% 75% 36% 31% 0% 0% 0% 0% 49,2% 8 Italy Reader 7 0,00 -0,25 -0,93 -1,29 0,00 -1,00 -1,03 -0,75 -1,55 -1,77 -1,83 -3,80 -3,00 -5,25 -5,50	69% 43% 0% 40% 33% 0% 40% 42% 38% 50% 80% 100% 100% 100% 2 Spain Reader 11 0.08 0.25 0.00 0.71 5.00 1,00 4,33 3,00 1,33 1,31 1,33 0,40 0,00 0,00	53% 46% 27% 44% 43% 25% 29% 27% 25% 30% 31% 30%
Weighted	R	2 3 4 5 6 7 8 9 10 11 12 13 14 15 0-15 ANKING RELA MODAL age 0 1 2 3 4 5 6 7 8 9 10 11 12 13	61% 56% 57% 0% 33% 50% 0% 80% 45% 75% 25% 50% 33% 0% 54,5% 4 ATIVE BI Germany Reader 12 0,40 0,43 0,31 0,86 1,00 1,00 2,00 0,40 -0,45 -0,25 -0,75 -2,00 -1,33 -7,00	56% 81% 57% 0% 67% 0% 40% 33% 31% 17% 100% 100% 100% 50,6% 3 AS Spain Reader 4 0,12 0,48 0,38 1,14 7,00 3,80 1,33 5,00 3,80 2,25 2,85 2,83 0,40 0,00 0,00	57% 31% 29% 100% 33% 1000% 50% 22% 50% 0% 0% 0% 0% 0% 177 0% 0% 0% 0% 39,1% 11 France Reader 9 0,48 0,43 -0,25 -1,00 0,00 -0,00 -0,00 -0,00 -1,46 -1,83 -2,80 -4,25	32% 44% 43% 0% 0% 17% 8% 0% 60% 17% 8% 0% 100% 50% 100% 38,5% 12 Portugal Reader 8 0,16 0,75 0,81 1,29 6,00 2,00 5,50 4,00 3,17 4,00 3,17 0,60 1,50 0,00	53% 64% 43% - 0%	43% 7% 29% 100% 50% 67% 50% 67% 0% 0% 0% 0% 0% 0% 178 10 Italy Reader 1 0,00 -0,57 -1,20 -1,57 0,00 -1,67 -1,50 -0,67 -1,50 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,40 -0,67 -1,50 -0,67 -1,40 -0,67 -1,50 -0,67 -1,70 -0,70	37% 80% 67% 50% 67% 50% 40% 60% 33% 0% 0% 0% 51,5% 7 Italy 0 Reader 3 0,32 0,48 0,20 0,00 1,00 -0,67 0,50 -2,00 -0,60 -0,40 -2,33 -2,50 -4,50 -4,00	82% 94% 57% 0% 33% 0% 0% 25% 38% 0% 50% 50% 50% 50% 50,6% 5 Ireland Reader 6 0,44 0,29 0,06 -0,43 4,00 -0,33 3,67 5,80 2,92 2,77 3,17 1,80 2,00 0,00	- 0% - 0% - 0% - 0% - 0% - 0% - 0% - 0%	56% 71% 0% 33% 100% 20% 33% 15% 67% 0% 0% 0% 0% 52,3% 6 Spain Reader 1 0,13 0,14 0,13 0,00 3,00 0,00 0,00 -0,60 -1,57 -3,4,25	38% 50% 0% 67% 33% 40% 50% 20% 0% 0% 0% 0% 0% 0% 44,3% 9 Spain Reader 5 0,44 0,22 0,38 1,17 3,00 0,67 2,00 2,20 0,58 -0,46 0,50 -1,40 -0,50 -3,00	20% 14% 100% 67% 67% 67% 75% 36% 31% 0% 0% 0% 0% 49,2% 8 Italy Reader 7 0,00 -0,25 -0,93 -1,29 0,00 -1,00 0,33 -0,75 -1,55 -1,57 -1,83 -3,80 -3,20 -5,25	69% 43% 0% 43% 0% 40% 33% 60% 40% 42% 38% 50% 80% 100% 100% 100% 2 Spain Reader 11 0,08 0,25 0,00 0,71 5,00 1,00 4,33 3,00 1,33 1,31 1,33 0,40 0,00 0,00	53% 46% 27% 44% 43% 25% 29% 27% 25% 30% 31% 30% 50,0% ALL 0,21 0,28 -0,03 0,04 2,73 0,38 1,93 1,96 0,87 0,38 0,56 -1,11 -1,13 -2,19

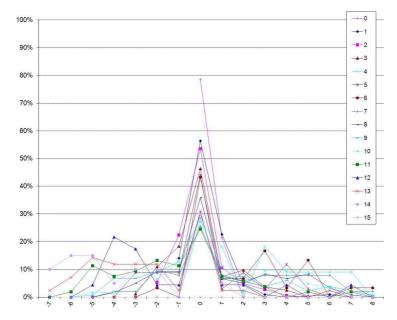
In the age bias plots below the mean age recorded +/- 2stdev of each age reader and all readers combined are plotted against the MODAL age. The estimated mean age corresponds to MODAL age, if the estimated mean age is on the 1:1 equilibrium line (solid line). RELATIVE bias is the age difference between estimated mean age and MODAL age.



The coefficient of variation (CV%), percentage of agreement and the standard deviation (STDEV) are plotted against MODAL age. CV is much less age dependent than the standard deviation (STDEV) and the percentage of agreement. CV is therefore a better index for the precision in age reading. Problems in age reading are indicated by relatively high CV's at age.



The distribution of the age reading errors in percentage by MODAL age as observed from the whole group of age readers in an age reading comparison to MODAL age. The achieved precision in age reading by MODAL age group is shown by the spread of the age readings errors. It appears to be no RELATIVE bias, if the age reading errors are normally distributed. The distributions are skewed, if RELATIVE bias occurs.

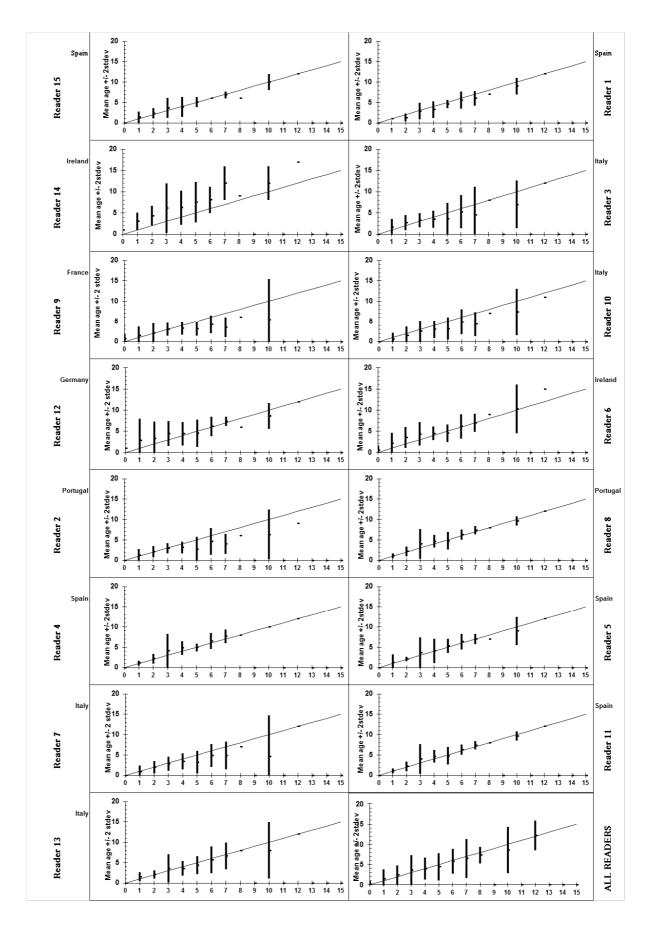


Appendix 4: Details results of Trachurus mediterraneus

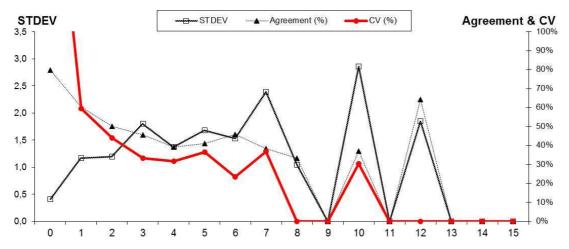
The number of age readings, the coefficient of variation (CV), the percentage of agreement and the RELATIVE bias are presented by MODAL age for each age reader and for all readers combined. A weighted mean CV and a weighted mean percent agreement are given by reader and all readers combined. The CV's by MODAL age for each individual age reader and all readers combined indicate the precision in age reading by MODAL age. The weighted mean CV's over all MODAL age groups combined indicate the precision in age reading by reader and for all age readers combined.

F	NUMBE					C	James -	Ca	leal	Dod	Dod	C	C	James -	C	Ja I. ·	
-	MODAL age	Spain Reader 15	Spain Reader 1	Ireland Reader 14	Italy 1 Reader 3	France Reader 9	Italy Reader 1	Germany		Portugal Reader 2		Spain Reader 4	Spain Reader 5	Italy Reader 7	Spain Reader 11	Italy Reader 13	TOTAL
- 1	0	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	59
	1	10	10	10	7	10	8	10	10	10	10	10	10	10	10	9	144
	2	12	10	12	11	12	10	12	12	12	12	12	12	12	12	12	175
	3	19	17	20	18	19	19	19	20	20	20	20	20	20	20	20	291
	4	12	11	12	12	11	10	12	12	12	9	12	12	12	12	12	173
-	5	13	11	13	11	12	9	13	13	13	12	13	13	13	13	13	185
-	6	13	13	13	12	13	11	13	13	13	13	13	13	13	13	13	192
-	7	6	6	6	4	6	6	5	6	5	6	6	6	6	6	6	86
-	8 9	1	1	1	1	1 -	1	1	1	1	1	1	1	1	1	1	15
H	10	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	43
-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
- 1	12	1	1	1	1		1	1	1	1	1	1	1	1	1	1	14
	13	-	- :				- :			- :	- :	- :	- :	- :	- :	- :	
	14	-	-	-	-	-	-	-		-	-	-	-	-	-	-	_
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
otal	0-15	94	87	95	83	89	82	93	95	94	91	95	95	95	95	94	1377
												,					
(ICIENT (
	MODAL	Spain	Spain	Ireland	Italy	France	Italy	Germany		Portugal	Portugal	Spain	Spain	Italy	Spain	Italy	ALL
H	age																Reade
-	0	0%	0%	0%	0%	87%	0%	0%	115%	0%	0%	0%	0%	0%	0%	0%	215,3%
\perp	1	50%	0%	35%	55%	72%	119%	92%	61%	66%	35%	29%	73%	82%	29%	34%	59,5%
\vdash	3	28% 33%	37% 36%	27% 48%	33% 25%	60% 26%	72% 52%	59% 33%	35% 32%	32% 22%	35% 58%	27% 50%	14% 54%	37% 31%	27% 46%	25% 49%	43,9%
-	4	33%	36%	48% 32%	25%	26%	35%	33%	18%	22%	33%	17%	37%	29%	46% 17%	49% 25%	33,4% 31,8%
\perp	5	13%	11%	31%	51%	26%	43%	36%	23%	58%	13%	10%	16%	42%	23%	25%	36,5%
-	6	0%	19%	19%	37%	26%	32%	19%	24%	36%	11%	15%	15%	29%	10%	29%	23,6%
	7	6%	15%	17%	74%	35%	35%	7%	16%	31%	19%	11%	9%	36%	7%	24%	36,9%
	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	10%	11%	17%	40%	90%	39%	18%	28%	48%	6%	0%	19%	108%	6%	43%	30,3%
	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14	-	-	-	-	-	-	-	6%	-	-	-	-	6%	-	-	-
	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
nea	0-15	22,1%	20,8%	29,7%	35,4%	39,2%	49,7%	36,8%	32,9%	34,8%	29,2%	23,2%	30,8%	38,8%	23,3%	30,5%	43,89
	RANKING	2	1	6	11	14	15	12	9	10	5	3	8	13	4	7	,.,
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<u> </u>		NTAGE		EMEN													
	MODAL	Spain	Spain	Ireland	Italy	France	Italy	Germany		Portugal	Portugal	Spain	Spain	Italy	Spain	Italy	
L	age	Reader 15						0Reader 12									ALL
-	0	100%	100%	0%	100%	33%	100%	0%	50%	100%	100%	100%	100%	100%	100%	100%	80%
	1	70%	100%	0%	57%	80%	38%	40%	30%	40%	80%	90%	90%	50%	90%	44%	60%
-	2	75%	30%	0%	45%	33%	30%	50%	17%	58%	58%	67%	92%	50%	67%	75%	50%
-	3	63%	53%	0%	72%	58%	21%	32%	20%	75%	40%	55%	35%	65%	60%	40%	46%
\perp	5	58% 85%	55% 64%	17% 8%	33% 9%	45% 8%	20% 33%	58% 23%	67% 62%	33% 8%	22% 58%	42% 77%	25% 46%	25% 23%	50% 69%	33% 38%	39% 41%
\vdash	6	100%	69%	23%	25%	15%	36%	38%		0.70		54%	62%	38%			46%
-	7	83%		0%		10 /0	JU 70			380/			UL /0			15%	
	8				()%	0%			15% 50%	38%	77% 67%		67%		77% 67%	15% 50%	38%
	•	0%	33% 0%		100%	0% 0%	17%	60%	50%	0%	67%	50%	67% 0%	17%	67%	50%	38% 33%
	9	0%	0%	0%	100%	0% 0%							67% 0%				38%
	9 10		0%	0%	100%	0%	17% 0%	60% 0%	50% 0%	0% 0%	67% 100%	50% 100% -	0%	17% 0%	67% 100%	50% 100%	
		-	0%	0%	100%	0%	17% 0%	60% 0%	50% 0% -	0% 0% -	67% 100%	50% 100%	0%	17% 0% -	67% 100%	50% 100% -	33%
	10	-	0%	0%	100% - 0%	0%	17% 0% - 0%	60% 0% - 33%	50% 0% - 0%	0% 0% -	67% 100%	50% 100% - 100%	0% - 67%	17% 0% - 33%	67% 100% - 67%	50% 100% -	33%
	10 11	33%	0% - 33% -	0% - 33% -	100% - 0% -	0% - 0% -	17% 0% - 0% -	60% 0% - 33%	50% 0% - 0% -	0% 0% - 0% -	67% 100% - 67%	50% 100% - 100% -	0% - 67% -	17% 0% - 33% -	67% 100% - 67%	50% 100% - 67% -	33% - 37% -
	10 11 12 13 14	33%	0% - 33% - 100%	0% - 33% -	100% - 0% -	0% - 0% -	17% 0% - 0% - 0%	60% 0% - 33% - 100%	50% 0% - 0% -	0% 0% - 0% -	67% 100% - 67%	50% 100% - 100% - 100%	0% - 67% - 100%	17% 0% - 33% - 100%	67% 100% - 67%	50% 100% - 67% -	33% - 37% -
	10 11 12 13	33%	0% - 33% - 100%	0% - 33% -	100% - 0% -	0% - 0% -	17% 0% - 0% - 0%	60% 0% - 33% - 100%	50% 0% - 0% -	0% 0% - 0% -	67% 100% - 67%	50% 100% - 100% - 100%	0% - 67% - 100%	17% 0% - 33% - 100%	67% 100% - 67%	50% 100% - 67% -	33% - 37%
nea	10 11 12 13 14 15 0-15	33% - 100% - - - 74,5%	0% - 33% - 100% 59,8%	0% - 33% - 0% 7,4%	100% - 0% - 100% - - - 43,4%	0% - 0% 36,0%	17% 0% - 0% - 0% - 10% - 29,3%	60% 0% - 33% - 100% - - 38,7%	50% 0% - 0% - 0% - - 33,7%	0% 0% - 0% - 0% - - - 42,6%	67% 100% - 67% - 0% - - - 58,2%	50% 100% - 100% - 100% - - - - 65,3%	0% - 67% - 100% - - - 57,9%	17% 0% - 33% - 100% - - 44,2%	67% 100% - 67% - 100% - - - 69,5%	50% 100% - 67% -	33% - 37% - 64% -
	10 11 12 13 14	33% - 100% - - - 74,5%	0% - 33% - 100% - -	0% - 33% - 0% -	100% - 0% - 100% - -	0% - 0% - - - -	17% 0% - 0% - 0%	60% 0% - 33% - 100% -	50% 0% - 0% - 0% - -	0% 0% - 0% - 0% -	67% 100% - 67% - 0% -	50% 100% - 100% - 100% - -	0% - 67% - 100% - -	17% 0% - 33% - 100% -	67% 100% - 67% - 100% - -	50% 100% - 67% - 100% - -	33% - 37% -
	10 11 12 13 14 15 0-15 RANKING	- 33% - 100% - - - - 74,5%	0% - 33% - 100% 59,8%	0% - 33% - 0% 7,4%	100% - 0% - 100% - - - 43,4%	0% - 0% 36,0%	17% 0% - 0% - 0% - 10% - 29,3%	60% 0% - 33% - 100% - - 38,7%	50% 0% - 0% - 0% - - 33,7%	0% 0% - 0% - 0% - - - 42,6%	67% 100% - 67% - 0% - - - 58,2%	50% 100% - 100% - 100% - - - - 65,3%	0% - 67% - 100% - - - 57,9%	17% 0% - 33% - 100% - - 44,2%	67% 100% - 67% - 100% - - - 69,5%	50% 100% - 67% - 100% - -	33% - 37% - 64% - -
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In the age bias plots below the mean age recorded +/- 2stdev of each age reader and all readers combined are plotted against the MODAL age. The estimated mean age corresponds to MODAL age, if the estimated mean age is on the 1:1 equilibrium line (solid line). RELATIVE bias is the age difference between estimated mean age and MODAL age.



The coefficient of variation (CV%), percentage of agreement and the standard deviation (STDEV) are plotted against MODAL age. CV is much less age dependent than the standard deviation (STDEV) and the percentage of agreement. CV is therefore a better index for the precision in age reading. Problems in age reading are indicated by relatively high CV's at age.



The distribution of the age reading errors in percentage by MODAL age as observed from the whole group of age readers in an age reading comparison to MODAL age. The achieved precision in age reading by MODAL age group is shown by the spread of the age readings errors. It appears to be no RELATIVE bias, if the age reading errors are normally distributed. The distributions are skewed, if RELATIVE bias occurs.

