



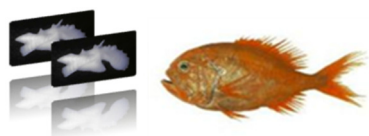
Australian Government  
Australian Fisheries Management Authority

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# FINAL REPORT

The provision of fish ageing and length frequency services for  
the SESSF, 2014 – 2017



**Fish Ageing Services Pty Ltd**



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# *Final Report- The provision of fish ageing and length frequency services for the SESSF, 2014–2017*

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## **Executive Summary**

Fish Ageing Services (FAS) is contracted by the Australian Fisheries Management Authority (AFMA) to provide age and associated length data for species caught in the Southern and Eastern Scalefish and Shark Fishery (SESSF). In 2016/2017 samples of otoliths and vertebrae were received from the Integrated Scientific Monitoring Program (ISMP). This report provides a status update on the age estimation of the nominated species required for ageing during 2016/17 and provides a summary of the registration and ageing data generated over the full duration of this project.

For the period 1<sup>st</sup> August, 2014 to the 30<sup>th</sup> May 2017, a total of 41,063 otolith and vertebrae samples from 35 different species were registered with in the FAS sample record database. Of these 12,218 were from the 2016 calendar year. Collection targets for the 2016 calendar year were exceeded for five priority species within the SESSF. More specifically, collection targets were exceeded in the SETF for Danish Seine caught School Whiting, Orange Roughy and trawl caught Tiger Flathead. In the GABTF, the collection target was exceeded for Deepwater Flathead. In the GHATF the collection target was exceeded for Gummy Shark.

Over the duration of this project a total of 33,547 age estimates were made from SESSF species collected between August 1<sup>st</sup>, 2014 to December 31<sup>st</sup>, 2016 and from historical collections of otoliths collected prior to the commencement of this project. During the 2016/17 financial year a total of 11,613 otolith samples from 5 species were prepared and aged. This number includes historical samples of School Whiting, Gummy Shark, Orange Roughy, Bight Redfish and Deepwater Flathead. The resultant and age frequencies are reported separately for each species with estimates of ageing precision. For Deepwater Flathead and Bight Redfish, where only samples collected in the 2016 calendar year were aged, the length and age frequency of the previous year's ageing are also included in this report for comparison.

Key words: otolith, vertebrae, age, SESSF, ISMP, FAS



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## Background

In August 2014, Fish Ageing Services Pty Ltd (FAS) was contracted by the Australian Fisheries Management Authority (AFMA) for the duration of three years to provide age and related length data for species caught in the Southern and Eastern Scalefish and Shark Fishery (SESSF). The main objective of the project was to provide age and associated length profiles of SESSF species routinely sampled by the Integrated Scientific Monitoring Program (ISMP).

## Need

The continued ageing of otoliths and associated analysis of length-frequency data contributes to the time-series of data held for this fishery, and improved stock assessments. Improved assessment provides for a more detailed understanding of the dynamics and status of fish stocks, enabling AFMA to better meet ESD objectives. Characterising the status of a fishery reduces the need for a highly precautionary approach to prevent overfishing.

This final report was prepared to provide management with details on the numbers of otoliths collected and aged relative to the required targets for the 2016 calendar year and to provide summaries of the otoliths/vertebrae registered and aged for all years of this project.

## Objectives and Milestones

The objectives of this project are:

- To prepare and examine the otoliths (teleosts) and vertebrae (shark) samples provided by AFMA observer program in a manner that is consistent with the standardised methods and procedures used in the past.
- To provide age estimate data for the priority species across relevant sectors of the SESSF.
- To document the methods and procedures used (including quality control protocols), and to record the level of compliance with those methodologies in the milestone and final reports.
- To provide ageing information to AFMA via scheduled progress reports and annual reports.
- To attend SESSF Rag Assessment Group (SESSFRAG) meetings and any further relevant RAG meetings (as deemed appropriate by AFMA).
- To store and report on ageing data in a manner that is consistent with existing formats to ensure compatibility with historical records.
- To archive current and historical otolith and vertebrae samples in a manner that is consistent with existing formats to ensure access and re-examination at any point in time.

To provide age composition data and analysts for stock assessment and research purposes.

## *Milestones*

Progress to achieving this project's objectives is measured by the completion of milestones, which were outlined in the contract. The following milestones have been set for this project:

### **Milestone 1 (August 1<sup>st</sup> 2014) - Achieved**

At the start of the contract provide all historical SESSF ageing data and otolith archive list to AFMA/RAG's

### **Milestone 2 (December 20, 2014) – Achieved**

End of 2014 Calendar Year Report - Provide update of otolith collections and status of ageing for 2014 calendar year (Jan-Nov) and prepare a proposed ageing plan for the 2015 stock assessment cycle.

### **Milestone 3 (May 31, 2015) – Achieved**

2015/16 End of Financial Year Report - Report on the final collections for the 2014 calendar year and present results on the species identified in the agreed ageing plan.

### **Milestone 4 (December 20, 2015) – Achieved**

End of 2015 Calendar Year Report - Provide update of otolith collections and status of ageing for 2015 calendar year (Jan-Nov) and prepare a proposed ageing plan for the 2016 stock assessment cycle.

### **Milestone 5 (May 31, 2016) – Achieved**

2015/16 End of Financial Year Report - Report on the final collections for the 2015 calendar year and present results on the species identified in the agreed ageing plan.

### **Milestone 6 (December 20, 2016) – Achieved**

End of 2016 Calendar Year Report - Provide update of otolith collections and status of ageing for 2016 calendar year and prepare a proposed ageing plan for the 2017 stock assessment cycle.

### **Milestone 7 (15 May, 2017) – Achieved**

Draft Final Report - Integrated final report summarising the collections and ageing work undertaken for the duration of the project, including detailed summaries of the 2016 calendar year data.

### **Milestone 8 (31 May, 2017) – Current**

Final Report submitted.

This report fulfils FAS obligations for the Milestone due 31<sup>st</sup> May, 2017. This report summarises progress to date specifically:

- Input collection information and biological data into database for samples received for the 2016 calendar year.
- Age and length frequency data reporting for SESSF priority species caught in the 2016 calendar year that were supplied to FAS and were considered a priority for ageing.
- Age and length frequency data reporting from historical gummy shark, School Whiting and Orange Roughy collections of vertebrae and otoliths.
- Registration and ageing summaries for the calendar years 2014-2016 and the age and length frequencies for each calendar year by species and sector/fishery.

## Methods

### Age reading plan for 2016 otolith collections

#### *Sector targets for 2016*

Table 1 details the otolith ageing targets for each priority species in each fishery sector. These numbers are based on the analysis of optimum sample size for age (Krusic-Golub *et al*, 2008).

The actual 2016/17 ageing plan was developed in consultation with AFMA and the various SESSF working assessment groups throughout the 2016/17 financial year. It is developed with consideration of the priorities discussed during the 2016 resource assessment meetings and the estimated numbers of otoliths that will be available for each species.

It was agreed that the following SESSF species were considered as priority for ageing;

#### Tier 1 Assessment Species 2017 – High Priority

- Gummy shark
  - Ageing historical and current samples (approximately n=3500)
- Orange roughy
  - Age samples from otoliths collected during the 2012 and 2016 AOS surveys (n=1635)
- Bight Redfish
- Deepwater Flathead
- School Whiting
  - Re-age as samples from many years between 1992 and 1997 as possible using sectioned otoliths; up to a total number of 4600
  - Age approximately 500 samples from 2016

#### Tier 3 Assessment Species 2017 – High Priority

- John Dory (age all samples collected since late 2014)

As a consequence, the 2016/17 ageing work plan (Table 2) was developed based on these priorities and the numbers of otoliths available at that time.

**Table 1. Number of otoliths required for age estimation by each species and sector.**

Sector	Species	Gear / Stock	Target
SETF	Blue grenadier	Non-Spawning	900
		Spawning	1200
	Blue warehou	Eastern	450
		Western	450
	Blue-eye trevalla	Trawl	550
	Gemfish	Eastern	650
		Western	500
	Hapuka		400
	Jackass Morwong	Eastern	600
		Western	600
	Ling	Trawl	800
	Orange Roughy		1000
	Redfish		800
	Ribaldo		300
	School Whiting	Danish seine	290
		Trawl	290
	Silver Warehou		900
	Tiger Flathead	Danish seine	700
		Trawl	450
GHATF	Blue-eye Trevalla	Hook	800
	Hapuka	Hook	400
	Ling	Hook	800
	Ribaldo	Hook	300
	School Shark		500
	Gummy Shark		500
GABTF	Bight Redfish	Trawl	600
	Deepwater Flathead	Trawl	560
ECDW	Alfonsino	Trawl	600
<b>Total</b>			<b>16,890</b>

Note: the numbers required for ageing in this table can be different to the otolith collection targets for the ISMP. They are driven by the longevity of the species and the amount of age classes usually present in the fishery, whereas the ISMP targets are fisheries and effort driven.

**Table 2. Agreed 2016/2017 ageing plan**

Sector	Species	2017	Rational
Trawl	Alfonsino		No fishing 2015 & 16
	Blue Grenadier	Removed	No fishing by major stake holder 2015 & 16. Only 350 samples for 2016 - do following year
	Blue-Eye Trevalla		
	Blue warehou		
	Tiger Flathead		
	Gemfish - East		
	Gemfish West		
	Jackass Morwong		
	John Dory	580	Tier 3 proposed in 2017 - Age remaining samples from 2014 and 2015 and all from 2016. 338 to be aged from collections 2014-2015. No samples provided so far in 2016
	Mirror Dory		
	Ocean Perch		
	Orange Roughy	1635	Eastern Stock Assessment - Samples from 2012 and 2016 AOS survey
	Pink Ling		
	Redfish	Removed	Tier 1 in 2017 - currently only 31 registered expect no more than 100 so ageing not informative
	Ribaldo		
	School Whiting	4980	Age 2016 samples (380) and various historical otoliths (4600) that were originally aged from whole otoliths.
	Silver Trevally		
	Silver Warehou		
GHAT			
	Pink Ling		
	Blue-eye Trevalla		
	Ribaldo		
	Hapuka		
	Gummy Shark	3655	Completed October 2016
	School Shark		
GAB			
	Deepwater Flathead	500	Complete annual ageing target 2016/17
	Bight Redfish	500	Complete annual ageing target 2016/17
	Gemfish GAB		
	Jackass Morwong		
	Blue Grenadier		
	TOTAL	11850	

## ***Otolith collection***

The ISMP provided paired otoliths in envelopes which detailed the biological and capture data for each sample. Vertebrae were supplied to FAS as a frozen core taken from the cervical section of the vertebral column. The core samples usually contained between 3-4 connected vertebrae. They were either contained within individual envelopes or snap locked bags which detailed the biological and capture data of each sample.

## ***Otolith registration***

All otoliths received by FAS were registered into a database. Otolith samples arrive at FAS batched by shot or species, which are usually small groups of 20-50 otolith pairs. These are given a sequential batch number by species. All batches supplied by the ISMP from fish sampled in the 2016 year are detailed in Appendix 1. Each sample was assigned a unique specimen number constructed from the following information:

- Species names – each species has a unique code.
- Batch – number sequential given to each group of otoliths, of a given species, received at FAS
- Sample number – sequential number for each fish in a batch indexed at 1.

The concatenation of species code, batch number and sample number allows FAS staff to identify the details of that specimen (e.g. date and area of capture, sex and other biological information).

The biological data from all otolith collections were entered into a database regardless of whether the samples were required for ageing.

## ***Otolith weight***

All otoliths were weighed to the nearest 0.001 grams on an electronic balance.

## ***Otolith storage***

Otoliths samples were securely and safely stored onsite for current registered pairs and sectioned samples. Secure offsite storage was utilised for sister otoliths, registered otoliths not required in this current ageing year and those for which the ageing process had been completed.

## ***Preparation of otoliths and vertebra for age estimation***

Otoliths and vertebrae were prepared and aged according to standard FAS procedures and protocols. The FAS procedures are modified from Morison *et al.* (1998). A full description of the sample preparation, age reading and quality assurance methods used in this project is provided in Appendix 2.

All SESSF species, with the exception of eastern and western gemfish, alfonsino, school and gummy shark, orange roughy and the dory species are aged by reading transverse otolith sections. Gemfish, John and mirror Dory and alfonsino otoliths are read whole. Orange roughy are aged by reading longitudinal sections and School and Gummy shark by reading transverse vertebrae sections.

### **Transverse Sectioning**

Sagittal otoliths were embedded, in rows of four or five (depending on species) with the primordium aligned, in blocks of Polyplex Clear Ortho Casting Resin. Each otolith was sectioned individually on the transverse axis. Four sections, approximately 300 µm thick, were cut through the otoliths centres with a modified high-speed gem cutting saw with a 250 µm thick diamond impregnated blade. Sections from each sample were



cleaned, dried and mounted on clear glass microscope slides (50 x 76 mm) under glass coverslips using resin. Using this method up to 5 otoliths can be prepared for ageing at one time.

### **Longitudinal Sectioning**

Otoliths were arranged in two rows of five in blocks of resin using the same techniques as described above. Otoliths were sectioned individually on the longitudinal axis. From each otolith, up to three sections are taken (approximately 350 µm in thickness) to ensure the primordium of each otolith was included within the section. Sections were cleaned and mounted in the same method used for the transverse sections.

### **Vertebrae Preparation**

To process the shark samples three vertebrae were cut from the frozen core. The tissue was carefully trimmed from each of the vertebrae using a scalpel. When the majority of the tissue had been removed, the vertebrae were immersed in White King Concentrated Bleach. The active ingredients are sodium hypochlorite (10%) solution and sodium hydroxide (1.3%) which bleaches the vertebrae and removes tissue inaccessible via a scalpel. The immersion time varies between five and thirty minutes depending on the size of the vertebrae being bleached. Larger samples require a longer soak time in the solution. After bleaching, the vertebrae were rinsed through a series of three water baths to remove all traces of the bleach solution and then oven dried at 55 degrees Celsius. The cleaned and dried vertebrae were placed in labelled envelopes and stored awaiting further processing when required.

Vertebrae were embedded in the same Polyplex Clear Ortho Casting Resin used for the otoliths. The maximum length of a vertebra in the anterior-posterior axis that can be embedded is 11 millimetres, due to the depth of the embedding mould and the blade clearance on the sectioning machine. Vertebra greater than 11 millimetres in length required one end to be trimmed. A diagonal cut was taken using a hi-speed Dremel© tool using a plastics blade so that the total length of the vertebrae was approximately 10-11 millimetres. A diagonal groove was also cut at one end of each vertebra to allow resin to flow into the lower articular face. Vertebrae were then embedded in two rows of four with the articular face upwards.

Blocks containing vertebrae were then sectioned, and mounted using the same techniques described for transverse otolith sections.

## ***Reading of otoliths***

### **Transverse and longitudinal sections**

Transverse sections were viewed with Leica M80 stereo dissecting microscopes using transmitted light. Magnification was species dependant and ranged between 7.5x to 63x magnification.

### **Whole otoliths**

Whole otoliths were immersed in water and viewed against a black background with Leica M80 stereo dissecting microscopes using reflected light.

### **Transverse vertebrae sections**

Slides of sectioned vertebrae were examined using a Leica M80 stereo dissecting microscope using reflected light delivered from a fibre optic Leica light source (CLS 150 XE). Samples are examined at a magnification of 0.75 times.

## ***Quality Assessment/Quality Assurance***

Prior to the commencement of ageing the current year's samples, readers complete a competency reading (or calibration reading) by reading between 50-150 samples selected from a calibration set. The calibration set is a selection of samples/slides that have previously been aged and the results of the aging accepted. The two estimates are compared and a measure of accuracy (Intra average percentage error) is estimated. From the paired age readings, regression plots of age 1 against age 2 are produced. If the precision estimates are within predetermined limits and there is no evidence of bias, then the reader is free to start reading the current (new) set of samples. If the reader fails the competency test then they are re-trained and re-tested until they produce results within the acceptable limits.

To determine precision within the new readings and to test for reader drift, for each species a total of 25% of the samples originally aged were selected and re-read a second time. The intra average percentage error (IAPE) is estimated and the precision is investigated by the examining age difference tables and age bias plots. Again, if the precision and bias it deemed to be unacceptable the reader is re-trained, re-tested before the whole set is re-read. Age estimates are only accepted once the re-reads indicate that there is no bias between readings and the ageing precision is within accepted limits.

## **Results**

### ***Otolith and vertebrae registration***

A total of 12,218 otolith samples from 25 different species collected by the ISMP SESSF during 2016 were registered in the FAS database (Appendix 4 – SETF collection by species, sector, zone and stockAppendix 7 – High Seas by species.).

### ***Otolith and vertebrae registration of priority species***

For the 2016 calendar year 12,218 otoliths and vertebrae were registered by FAS Pty Ltd (Table 3). Of these:

- 9,812 otoliths were sampled from SESSF priority species
  - 8,322 otoliths were sampled from the SETF
  - 1,361 were from the GHATF
  - 0 were from the ECDW
  - 1,361 were from the GABT
- A further 496 otoliths were registered from collections of non-priority species within the SETF, 190 from the High Seas (HS), 488 otolith samples from the GABTF and 226 otolith samples from the GHATF.

A total of 1,269 School and Gummy Shark vertebrae have been supplied to FAS and registered. Of these 75% are from those collected in 2016 with the remaining having a date-of-capture in 2015.

Over the duration of this project FAS staff has registered 41,063 otoliths and shark vertebrae. The majority of samples have come from SESSF quota species collected between July 2014 and 30<sup>th</sup> April 2017; non-quota or non-priority species and historical otoliths collections from AFMA, CSIRO and Australian Antarctic Division (AAD) have also been recorded and archived (Appendix 8 – Total number of SESSF samples registered within each calendar year for the duration of this project.)

## *Achievement of 2016 collection targets*

The 2016 registrations met or exceeded the targets required for ageing for 5 priority species / gear or stock combinations (see Table 3).

- SETF – School Whiting
  - Danish Seine 394 *cf* target of 290
- SETF –Tiger Flathead
  - Trawl 834 *cf* target 450
- SETF – Orange Roughy 3043 *cf* target 1000
- GHATF – Gummy Shark
  - Gill Net 889 *cf* target 500
- GABTF – Deepwater Flathead 862 *cf* target 500

Percentage of achievement of collection targets for these species ranged between:

- 2.2% to 304.3% for the SETF sector
- 0% to 355.6% for the GHATF sector
- 83.2% to 143.7% for the GABF sector

Collection targets below 50% were reported for:

- SETF: Blue Grenadier (Spawning), Gemfish (Eastern), Blue Warehou (Western), Blue-eye Trevally (Trawl), Redfish (Trawl), Jackass Morwong (Eastern and Western) and Hapuka (Trawl).
- GHATF: Hapuka (Hook), Ling (Hook), Blue-eye Trevally (Hook) Ribaldo (Hook) and School Shark (Hook).

**Table 3. Number of otoliths registered at FAS from the 2016 collections, by sector and zone compared with the target. Cells shaded green indicate  $\geq 75\%$  of the collection target has been met. Cells shaded orange  $\geq 50\% < 75\%$  of the collection target has been met. Cells shaded red indicates  $< 50\%$  of the collection target has been met. Unshaded cells indicate no target was set for 2016.**

Sector	Species	Gear / stock	Target	Total to date	% Collected
<b>SETF</b>	Blue grenadier	Non-spawning	900	637	70.8
		Spawning	1200	30	2.5
	Gemfish	Eastern	650	190	29.2
		Western	500	335	67.0
	Blue warehou	Eastern	450	225	50.0
		Western	450	10	2.2
	Blue-eye trevalla	Trawl	550	50	9.1
	Ling	Trawl	800	751	93.9
	Ribaldo	Trawl	300	178	59.3
	Silver warehou	Trawl	900	554	61.6
	Redfish	Trawl	1000	146	14.6
	Jackass Morwong	Eastern	300	111	37.0
		Western	300	125	41.7
	School Whiting	Trawl	290	252	86.9
		Danish seine	290	394	135.9
	Tiger Flathead	Trawl	450	834	185.3
		Danish seine	700	439	62.7
	Orange roughy	Trawl	1000	3043	304.3
	Hapuka	Trawl	400	18	4.5
	<i>Additional non-priority species</i>			496	
<b>GHATF</b>	Hapuka	Hook	400	0	0.0
	Ling	Hook	800	113	14.1
	Blue-eye trevalla	Hook	800	0	0.0
	Ribaldo	Hook	300	16	5.3
	School Shark	Gill Net	250	172	68.8
		Hook	250	1	0.4
	Gummy Shark	Gill Net	250	889	355.6
		Hook	250	170	68.0
	<i>additional non-priority species</i>	Hook			
<b>GABF</b>	Deepwater Flathead	Trawl	600	862	143.7
	Bight Redfish	Trawl	600	499	83.2
	<i>Additional non-priority species</i>			488	
<b>ECDW</b>	Alfonsino	Trawl	600	0	0.0
	<i>Additional non-priority species</i>				
HS	<i>Non-priority species</i>			190	
<b>Total</b>			<b>15930</b>	<b>12218</b>	

## ***Otolith preparation and ageing***

To the end of April 2017, all the available samples from the high priority species required for ageing this financial year, other than John Dory and Orange Roughy have been prepared and aged. The John Dory otolith samples collected during between late 2014 and the end of 2016 are all processed and are ready to be aged. While this species was considered priority, there are insufficient funds remaining in the project to allow these samples to be aged. Should FAS be contracted to provide ageing data post June 2017, we would be in the position to do the ageing on this species before the upcoming 2017 assessments. The ageing of Orange Roughy is a complex and time-consuming process. Currently all samples have been prepared and ageing is due to commence 1<sup>st</sup> June 2017. It is expected that the majority of samples will be aged by the end of June. All age estimates completed prior to the 30<sup>th</sup> May 2017 will be summarised in the final report. The remaining estimates will be reported in the updated report made available to the SESSFRAG data meeting which is usually scheduled early in the 2017/18 financial year.

For species where the amount collected significantly exceeded the required collection targets, all samples were still registered, their biological data was entered and the samples stored at our offsite storage facility. If required in the future, a representative sample can then be selected for ageing. In total, 10,086 age estimates have been made on otoliths and vertebrae during 2016/17. The majority of these age estimates were from historical samples collected prior to 2016 (Gummy Shark and School Whiting). The remaining 1124 Orange Roughy that have been prepared will be aged by June 30<sup>th</sup> 2017.

In total 33,547 age estimates from 15 species have been provided over the duration of this project. The numbers of samples aged per financial year is provided in Appendix 9 – Total number of SESSF samples aged by FAS for the duration of the project

## ***Historical School Whiting otolith collection and data aged during 2016/17***

Historically School Whiting have been aged using whole otoliths immersed in water and examined under reflected light. It was recognised that this technique tends to under-estimate the older age classes and can in some instances over-estimate younger age-classes. For this reason, FAS has been using sectioned otoliths to determine the age of School Whiting since 2008. Estimates prior to 2008 were made using whole otoliths. As part of this contract, a variation was made to examine the age composition of historical samples. The otoliths used for this component of the study were sub-sampled from the otolith archive. A total of 4,108 samples were aged from sections with year-of-capture from 1991 to 2006 from both trawl and Danish Seine gear type. The selections of these samples are presented in Table 8 and Table 9.

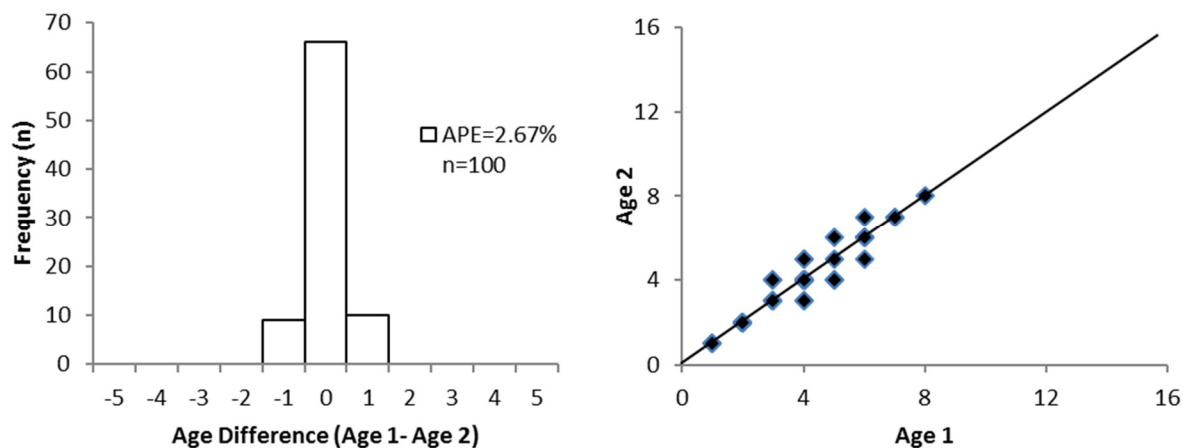
## ***Historical Gummy shark***

Approximately 9000 gummy shark vertebrae collected between 1994 and 2006 by Terry Walker (previously Department of Environment and Primary Industries, Victoria) were made available to Fish Ageing Services. As a part of the variation to the contract in 2010, sufficient funds were provided to clean a sub-sample of 1600 gummy vertebrae. Of these, a sub-sample was aged from 1995, 1997, 2002 and 2003. These data are presented in Table 19.

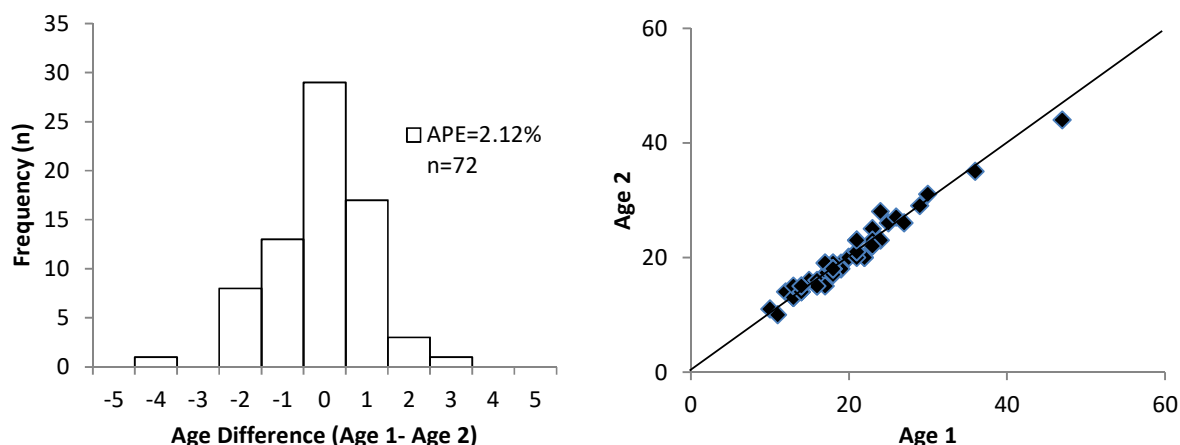
## Calibration Readings by Species

Results of the competency/calibration process for each species, which is completed before any new ageing occurs, is shown below:

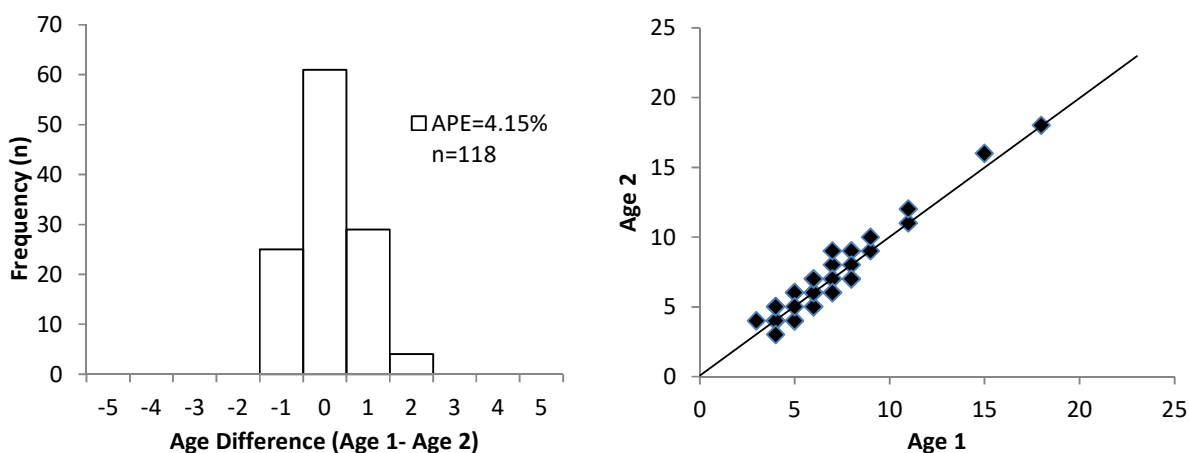
### School Whiting (*Silago flindersi*)



### Bight Redfish (*Centroberyx gerrardi*)



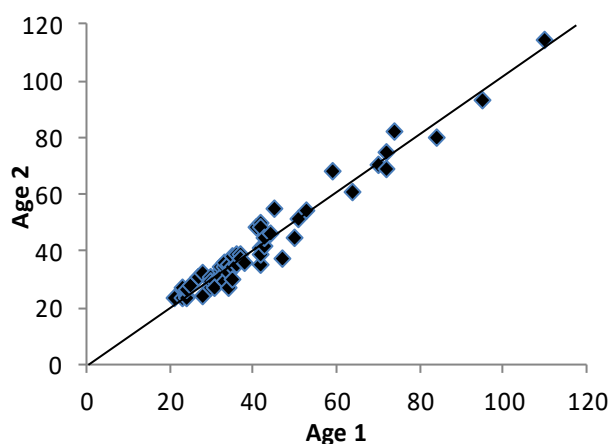
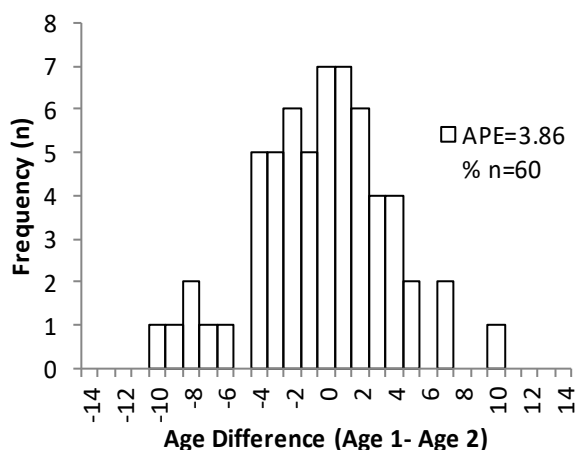
### Deepwater Flathead (*Neoplatycephalus conatus*)



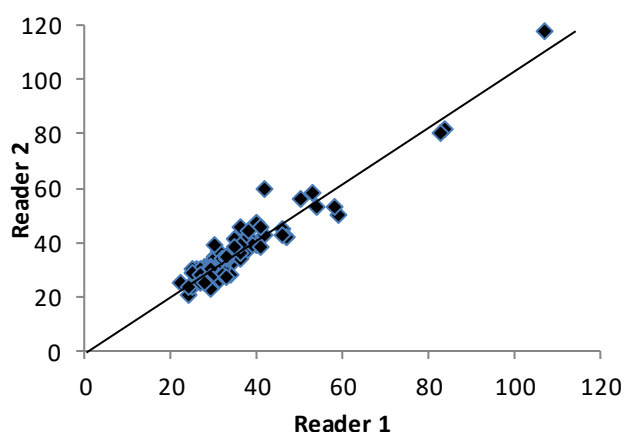
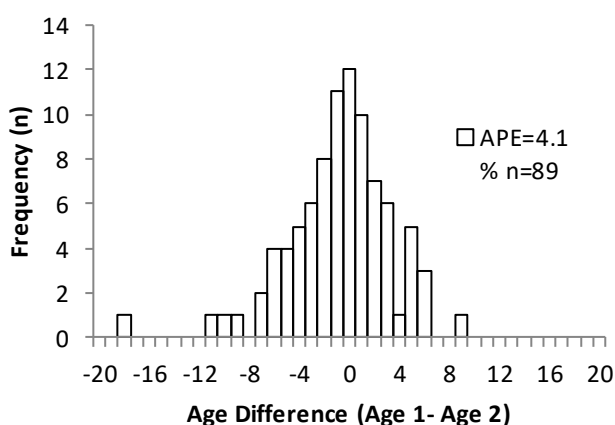
### Gummy Shark (*Mustelus antarcticus*)

This is the first time that these species have been aged in Australia using sectioned vertebrae, as such no calibration set exists. A calibration set will be randomly selected from the aged series presented in this report.

### Orange Roughy (*Hoplostethus atlanticus*)



As stipulated in the Horn *et al* (2016), each time orange roughy otoliths are required to be aged by either Australian or New Zealand, a secondary reader from the other country is expected to read a small sub-sample. This is to ensure that ageing data between countries is directly comparable and to ensure that precaution is taken to reduce the risk of drift in the interpretation of reading Orange Roughy otoliths. Peter Horn from the National Institute of Water and Atmospheric Research (NIWA) in New Zealand has aged a sub-set of 100 otoliths from the current sample. Results between the comparison of the competency readings and the comparison between readers (inter calibration) are shown below.



## **Species Summaries**

### **Presentation of data**

Tables of otoliths collected and aged by zone are presented for each species.

Data for each species is represented graphically with age and length-frequencies from the otolith sampled. The length-frequencies reported is only from those otoliths sampled and the age frequencies are from the raw ageing data. Each species is separated by fishery, stock or sector where appropriate and analysis was not split between sexes for any of the species. The numbers of lengths and ages provided in the figures will not necessarily match those in the tables because some samples were provided without length and not all samples prepared could be aged. Precision and accuracy estimates are provided once for each species and are not separated by fishery, stock, sector or sex.

For each species, length and age frequency of the previous year that ageing was completed has been provided for comparison. The age and length frequencies for all other years that ageing data was produced are presented in Appendix 11– Length and age frequencies by species produced during the project (not including 2016).



## Orange roughy (37255009) *Hoplostethus atlanticus*

**Table 4. Orange Roughy collection zone/area details**

Roughy	Zone Codes	ISMP Codes	Alpha Zone	Area/Capture/Port	Lon1	Lon2	Lat1	Lat2	Lat3	Lat4
OR10		*	Eastern	East Tas	146.367	155	39.5	39.5	43	43
OR20			Southern	Southern All	140	146.367	42	42	45	45
OR20			Southern	Southern All 2	146.367	149.5	43	43	45	45
OR30			Western	Western All	138.133	146.367	35	35	42	42
OR40			Cascade	Cascade Plateau	149.5	155	43	43	45	45
OR50			NERemote	North Eastern Remote	146.367	164	33.58	33.58	39.5	39.5
OR55			ECDW	East Coast Deepwater						
OR70			STasRise	South Tasman Rise	140	155	45	45	48	48
OR90			SRemote	Southern Remote						
OR60			GAB	GAB unspecified	115.133	138.133	31	31	41	41
OR61			GABORFarWest	Far West Great Australian Bight						
OR62			GABORWest	West Great Australian Bight						
OR63			GABORCentral	GAB Central						
OR64			GABOREast	East Great Australian Bight	130	140	32	32	41	41
OR65			GABAlbany	Albany	118	118.5	32	32	41	41
OR66			GABEsperance	Esperance	123.5	126.2	32	32	41	41
OR20			Southern	Maatsuyker	146	146.5	44	44	44.5	44.5
OR20			PedraBranca	Pedra Branca	146.5	147.75	44	44	44.5	44.5
OR10			Eastern	St Helens	148.733	148.783	41.21	41.21	41.25	41.25
OR10			Eastern	St Patricks Hill	148.667	148.833	41.47	41.47	41.57	41.57
OR40			Cascade	Cascade Plateau	150.2	150.5	43.9	43.9	44.1	44.1

\*ISMP codes written on the otolith envelopes can be a mix of SESSF codes and area capture

**Table 5. Registration and ageing data for Orange Roughy otolith samples collected from the AOS surveys**

	Zone							
	OR10	OR20	OR30	OR40	OR50	OR55	OR60	HS
2012 – Registered	1112							
2012 – Prepared/Aged	1009							
2013 – Registered	503							
2013 – Aged								
2016 – Registered	635							
2016 – Prepared/Aged	635							

Note: ageing is currently being completed

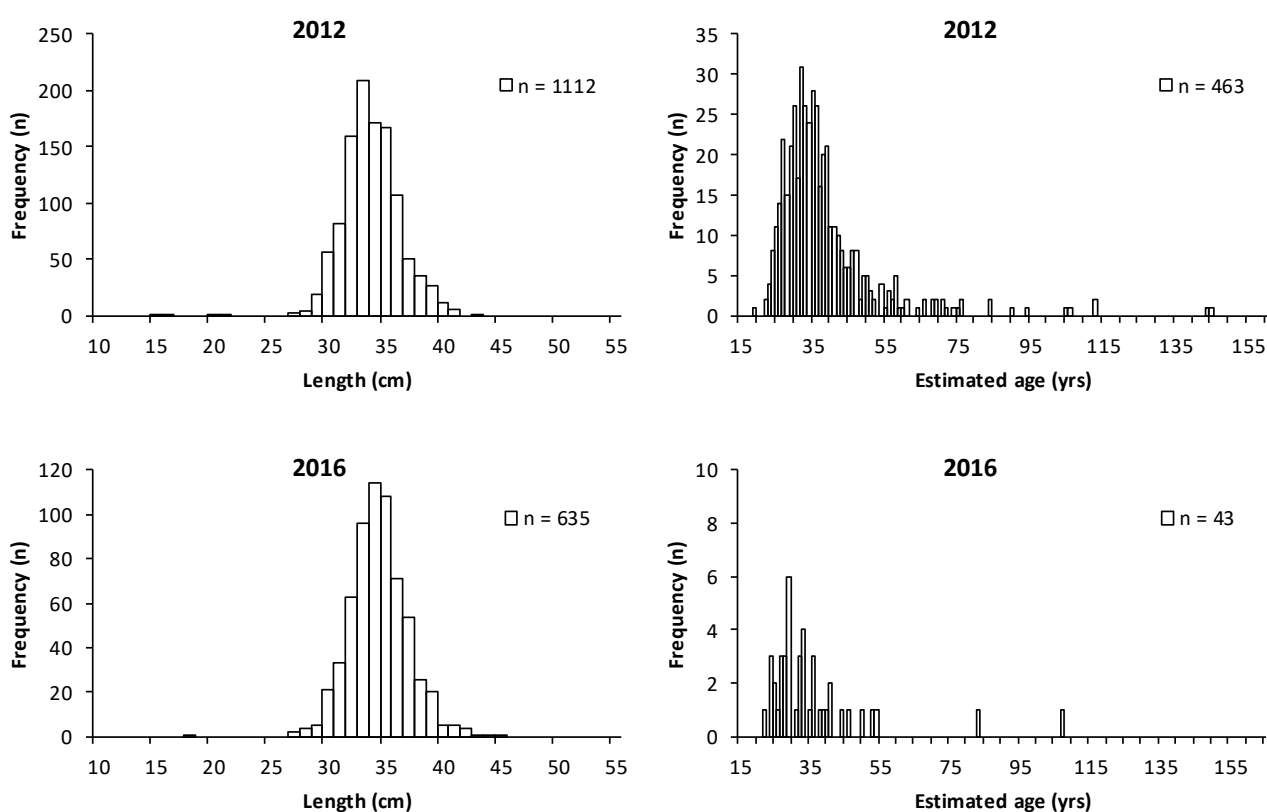
**Table 6. Collection data for ISMP Orange Roughy otolith collections 2015 and 2016 (not including AOS survey otoliths)**

	Zone										
	OR10	OR20	OR30	OR40	OR50	OR55	OR60	SESSF20	SESSF40	SESSF70 (HS)*	Total
2015	1813	94		130				61	25	191	2314
2016	589	11	114							55	769

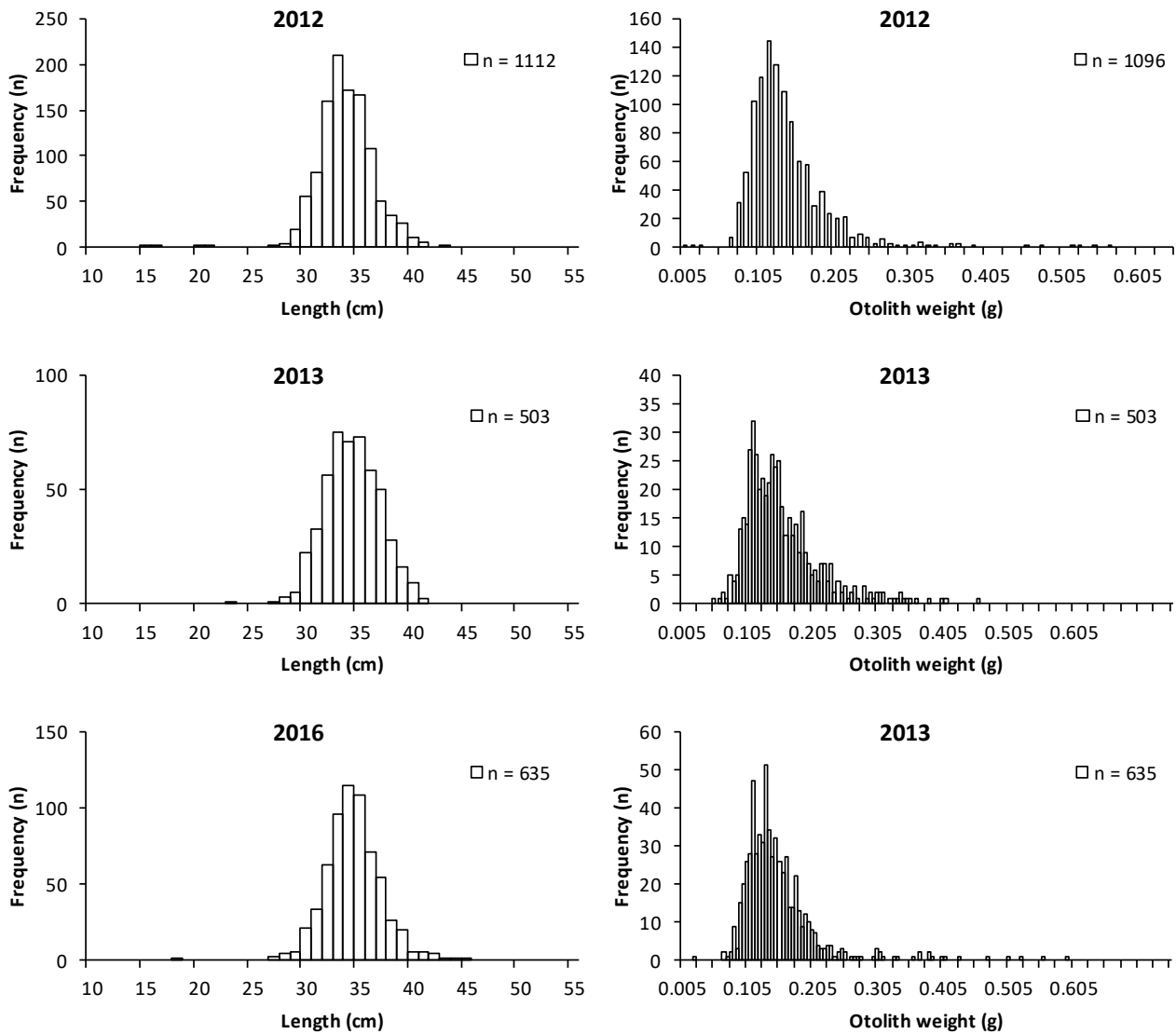
(HS) – High Seas outside of ECDW zone

**Table 7. Age and length summary for 2012, 2013 & 2016 AOS Orange Roughy otolith samples**

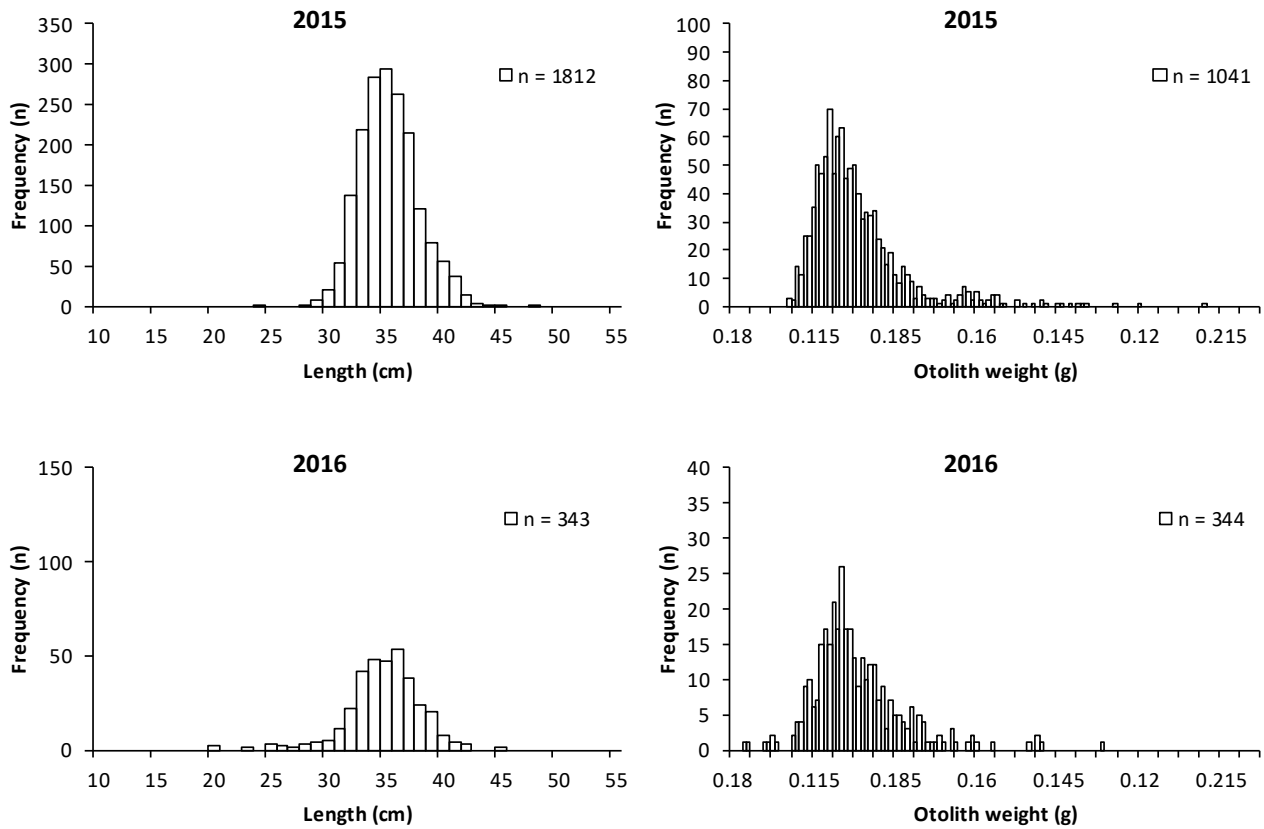
	2012	2013	2016
Min length (cm)	15	23	16
Max length (cm)	43	41	45
Min Age (yrs)	TBA	N/A	TBA
Max Age (yrs)	TBA	N/A	TBA
Age Mode/s (yrs)	TBA	N/A	TBA



**Figure 1. Length and age frequency for Orange Roughy samples aged at the time of reporting. The number of samples that have been prepared for each sampling year is 1059 and 635 for 2012 and 2016, respectively.**



**Figure 2. Length and otolith weight frequencies for AOS collected from EastTAS Orange Roughy for 2012, 2013 & 2016**



**Figure 3. Length and otolith weight frequencies for ISMP collected from EastTAS (OR10) Orange Roughy for 2015 and 2016**

## School Whiting (37330014) *Sillago flindersi*

### Age and length data

**Table 8. Registration and ageing data for historical School Whiting otolith samples, Gear Type = Danish Seine.**

		Zone			Total
	Danish Seine	SF10	SF20	SF60	
Registered	1991		100		100
Aged	1991		100		100
Registered	1992		722		722
Aged	1992		420		420
Registered	1993		1069		1069
Aged	1993		275		275
Registered	1994		935		935
Aged	1994		385		385
Registered	1995		704		704
Aged	1995		298		298
Registered	1996		612		612
Aged	1996		279		279
Registered	1998		728		728
Aged	1998		101		101
Registered	2001		254		254
Aged	2001		254		254
Registered	2002	103	203		306
Aged	2002	53	81		134
Registered	2003		284		284
Aged	2003		284		284
Registered	2004		609		609
Aged	2004		372		372
Registered	2005		393		393
Aged	2005		393		393
Registered	2006	129	135		264
Aged	2006	129			129
Registered	2015		43	574	822
Aged	2015		20	56	76
Registered	2016			370	370
Aged	2016			105	105

**Table 9. Registration and ageing data for historical School Whiting otolith samples, Gear Type = Trawl.**

		Zone			
	Trawl	SF10	SF20	SF60	Total
Registered	2001	101	142		243
Aged	2001	101	55		156
Registered	2002	53	200		253
Aged	2002	50	200		250
Registered	2003	41	150		191
Aged	2003	41	150		191
Registered	2004	87			87
Aged	2004	87			087
Registered	2016		41	220	261
Aged	2016		41	203	244

**Table 10. Age and length summary for historical School Whiting otolith samples, Gear Type = Danish Seine.**

Danish Seine															
	1991	1992	1993	1994	1995	1996	1998	2001	2002	2003	2004	2005	2006	2015	2016
Min length (cm)	13	13	11	14	12	14	13	13	13	11	12	14	13	14	14
Max length (cm)	21	24	22	25	23	23	22	24	21	21	23	22	22	23	24
Min Age (yrs)	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1
Max Age (yrs)	4	5	4	7	7	6	5	6	5	4	5	5	4	6	8
Age Mode/s (yrs)	2	2	2	3	3	3	2	2	2	2	2	2	2	2	3

**Table 11. Age and length summary for historical School Whiting otolith samples, Gear Type = Trawl.**

Trawl				
	2002	2003	2004	2016
Min length (cm)	13	13	11	14
Max length (cm)	21	24	22	25
Min Age (yrs)	1	1	2	2
Max Age (yrs)	4	5	4	7
Age Mode/s (yrs)	2	2	2	3

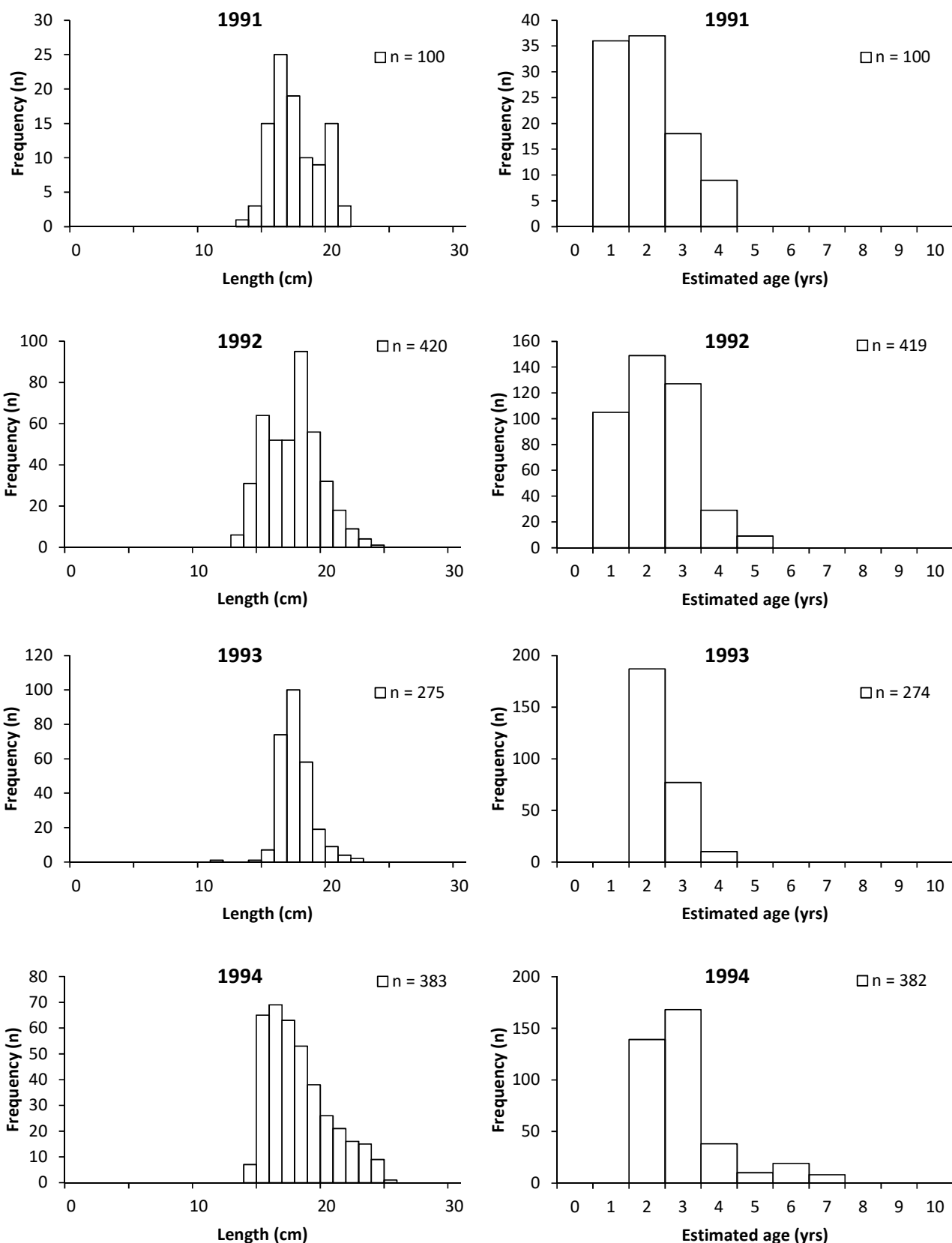


Figure 4. Length and age frequency for 1991 to 1994 for School Whiting samples, Gear Type = Danish Seine.

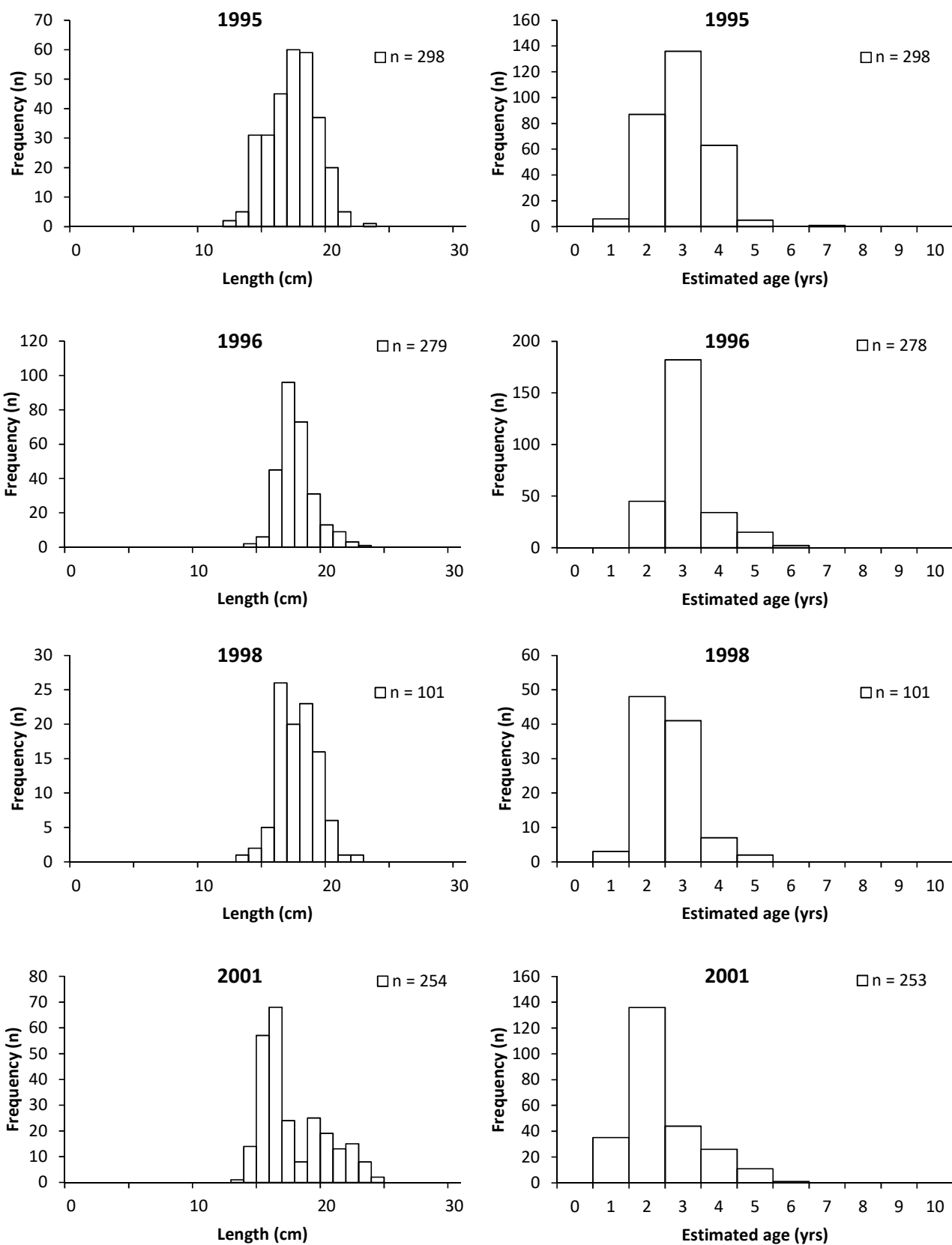


Figure 5. Length and age frequency for 1995, 1996, 1998 and 2001 for School Whiting samples, Gear Type = Danish Seine.



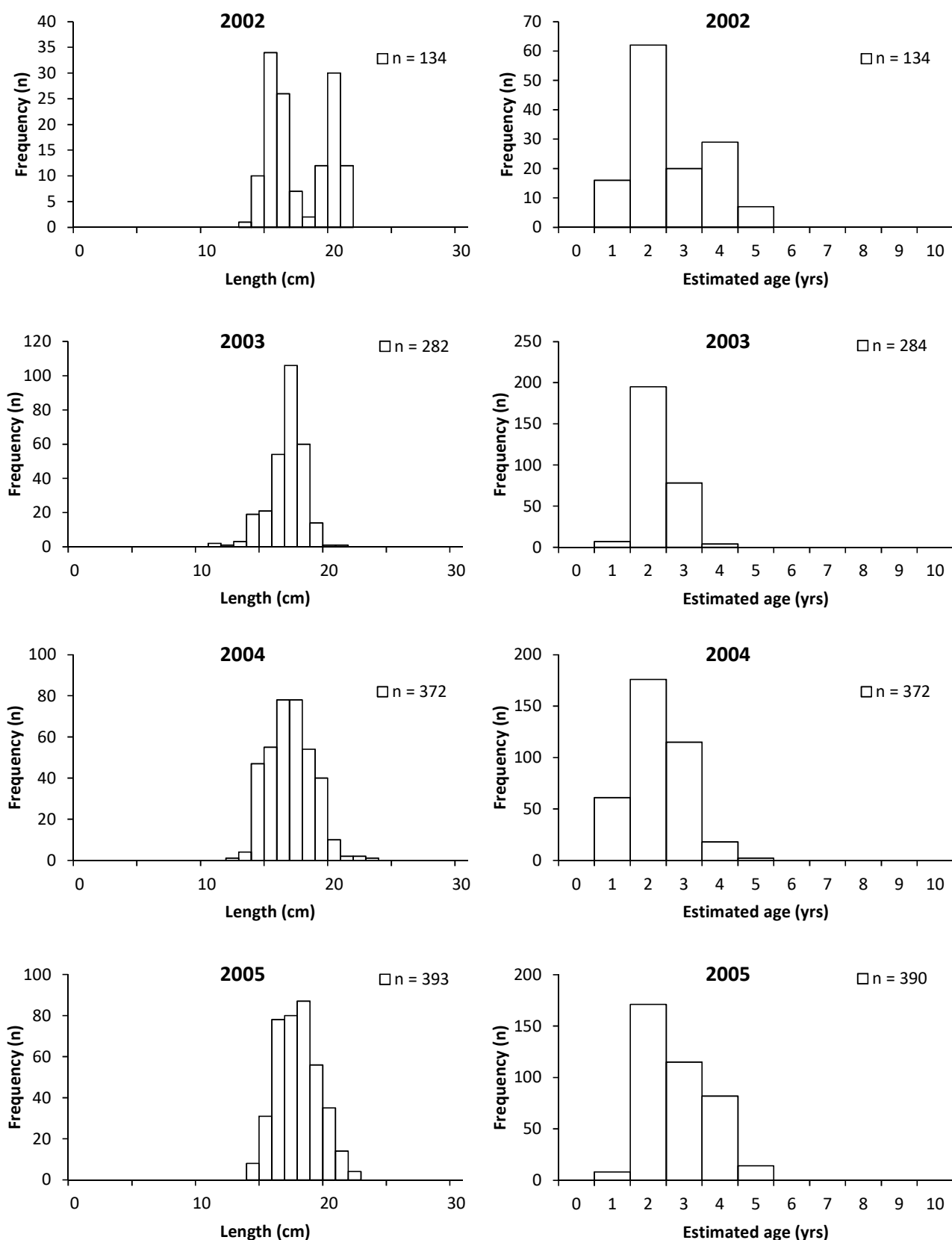


Figure 6. Length and age frequency for 2002 to 2005 for School Whiting samples, Gear Type = Danish Seine.

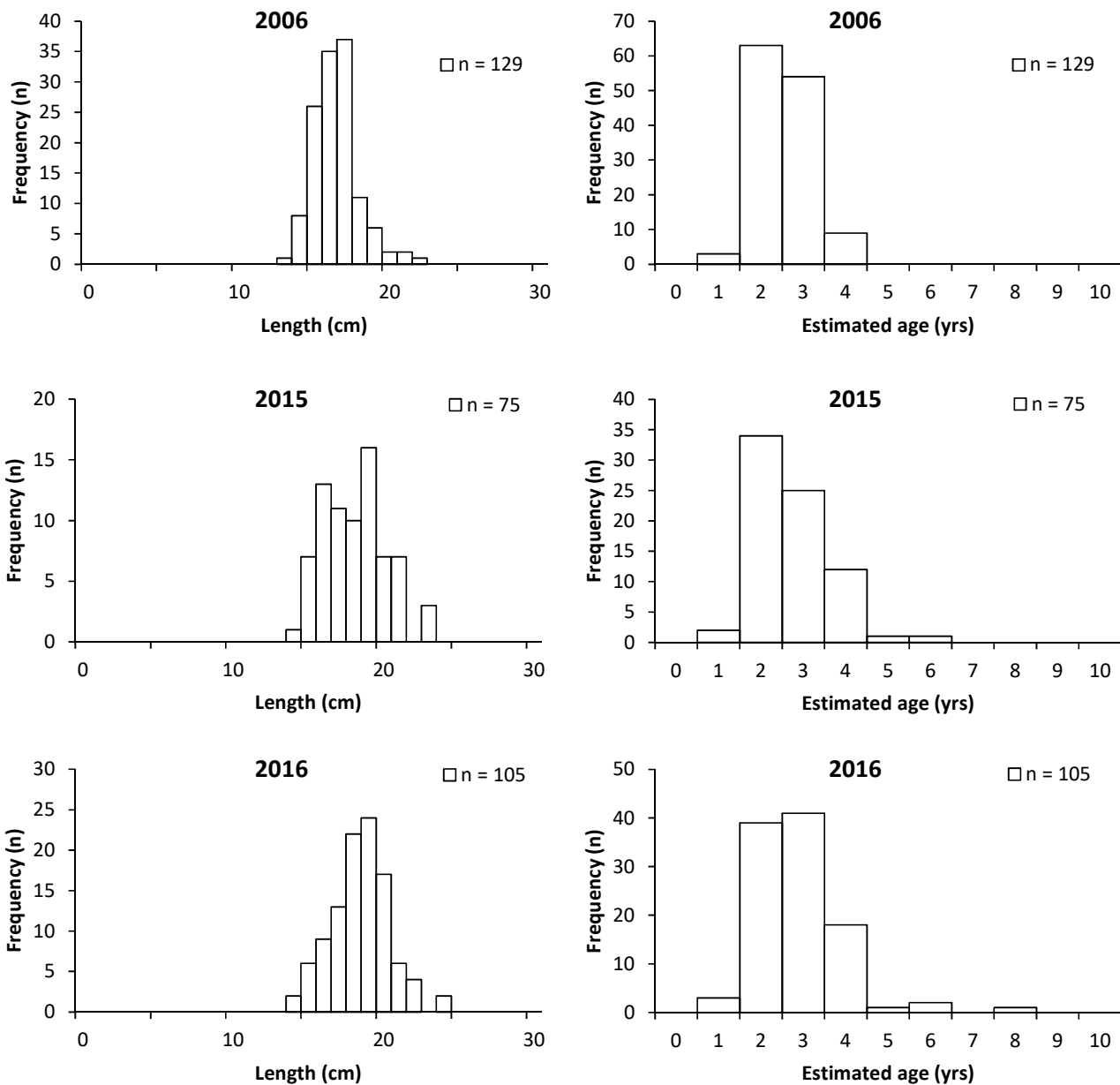


Figure 7. Length and age frequency for 2006, 2015 and 2016 for School Whiting samples, Gear Type = Danish Seine .

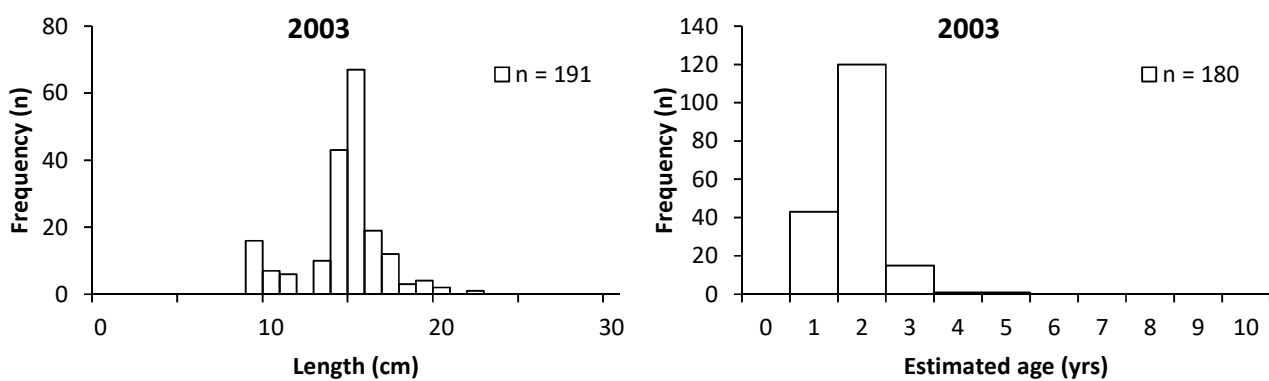


Figure 8. Length and age frequency for 2003 or School Whiting samples, Gear Type = Trawl.

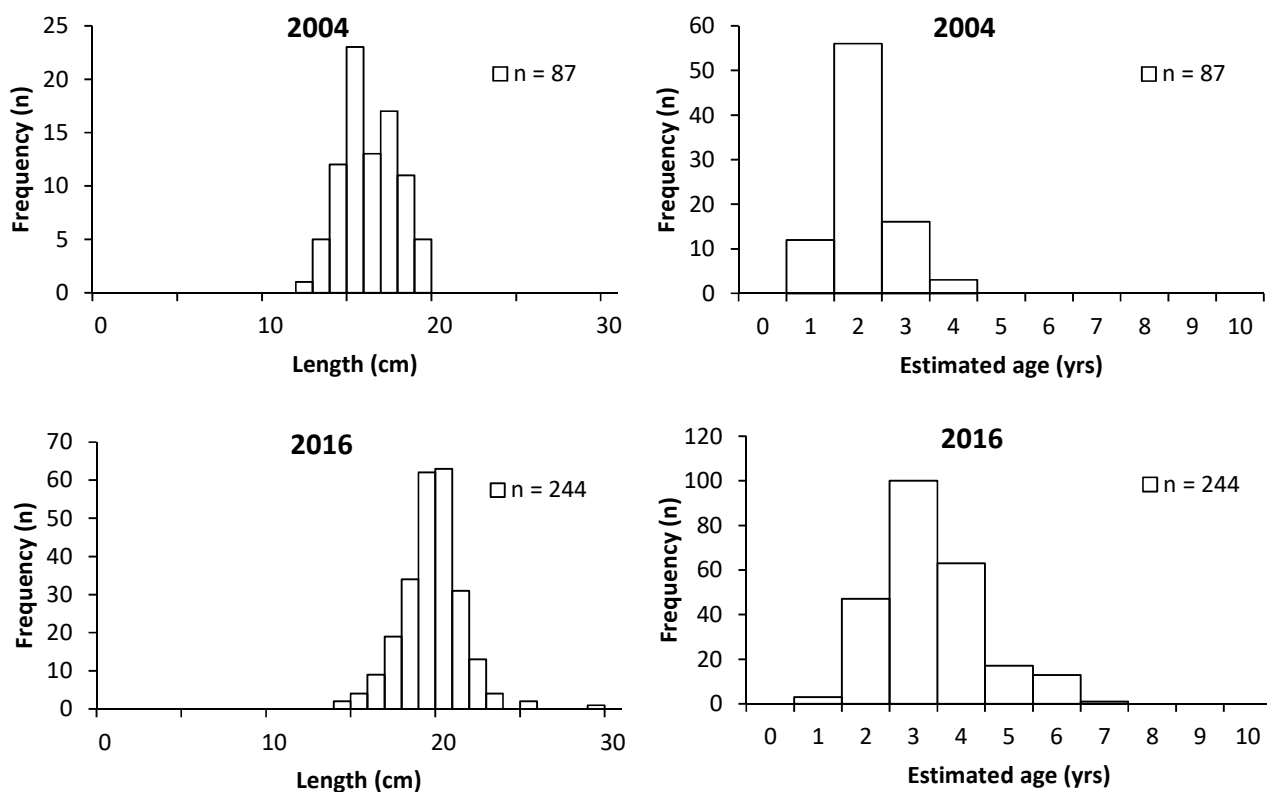


Figure 9. Length and age frequency for 2004 and 2016 for School Whiting samples, Gear Type = Trawl.

### Precision and accuracy

Repeat reading of 1240 otoliths produced an APE of 2.81% with 86% of the readings agreed and 100% of the readings within +/- 1 year. No bias between readings was observed.

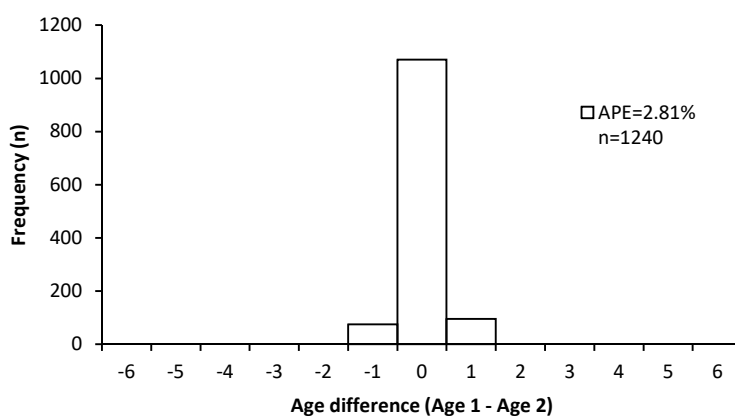
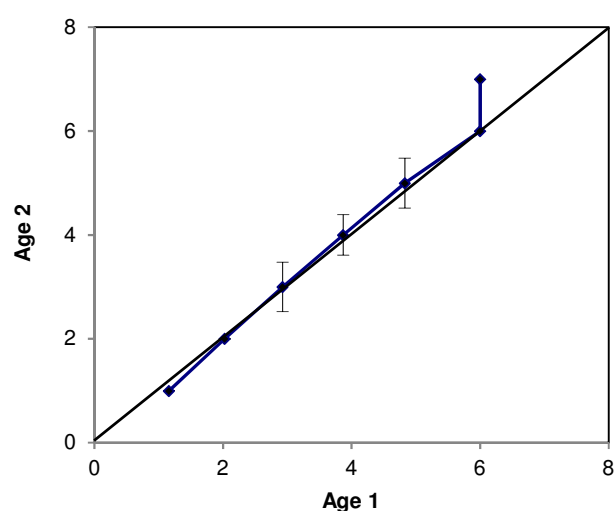


Figure 10. Difference plot of School Whiting primary reading (Age 1) minus secondary reading (Age 2).

**Table 12. Age difference table between School Whiting primary reading (Age 1) and secondary reading (Age 2).**

Difference (Age 1 - Age 2)	1	2	3	4	5	6	7	8	N	% Agreed	% ± 1
-5									0		
-4									0		
-3									0		
-2									0		
-1	18	29	24	2	2				75		
0	94	493	368	89	20	6			1070	86	100
1		14	57	16	7		1		95		
2									0		
3									0		
4									0		
5									0		
<b>N</b>	<b>112</b>	<b>536</b>	<b>449</b>	<b>107</b>	<b>29</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>1240</b>		



**Figure 11. Age bias plot comparing School Whiting primary age (Age 1) against secondary age (Age 2). Error bars are 95% CI. Black line indicates the line of agreement.**

## Deepwater Flathead (37296002) *Neoplatycephalus conatus*

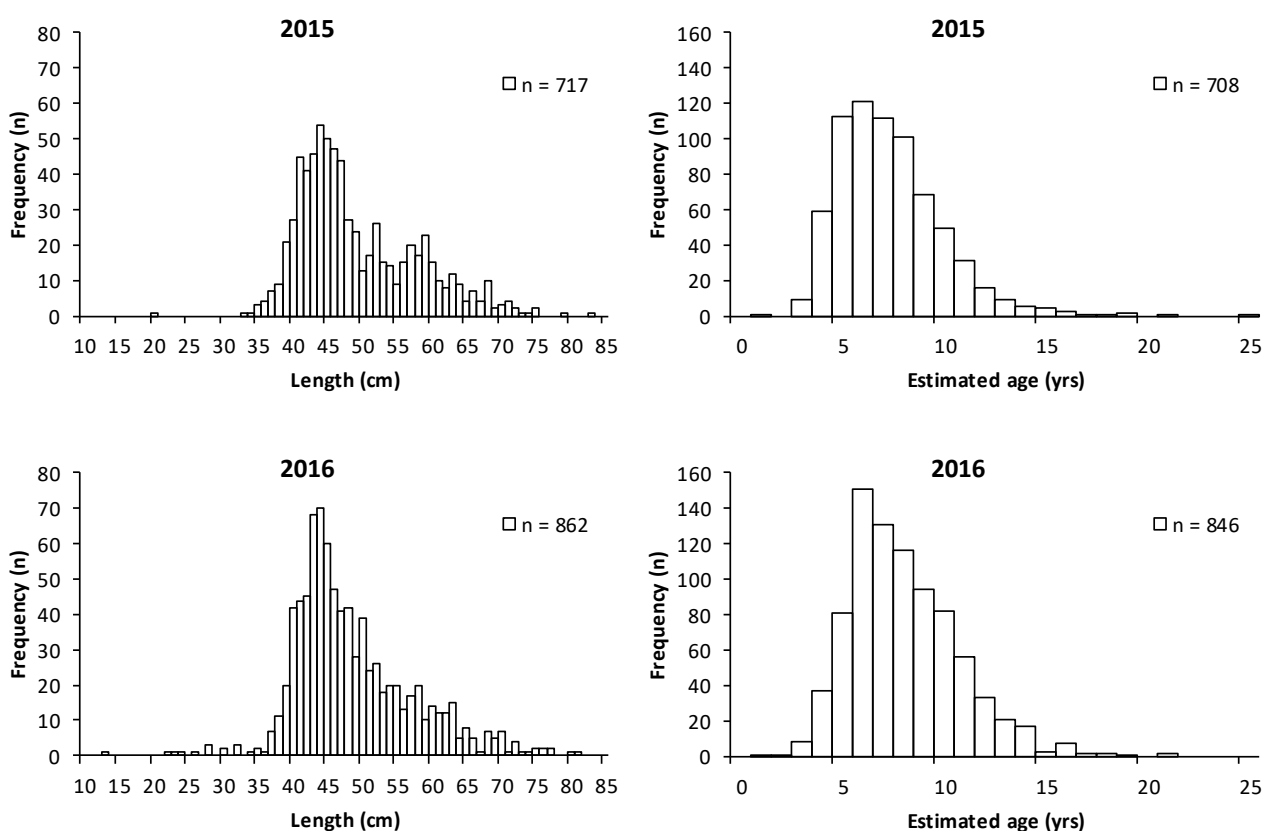
### Age and length data

**Table 13. Registration and ageing data by SESSF zone for 2016 Deepwater Flathead otolith samples.**

	Zone												Total	Target
	10	20	30	40	50	60	70	81	82	83	84	Unk		
Registered					2				180	680			862	560
Aged					2				180	680			862	560

**Table 14. Age and length summary for 2015 and 2016 Deepwater Flathead otolith samples.**

	2015	2016
Min length (cm)	20	13
Max length (cm)	83	81
Min Age (yrs)	1	1
Max Age (yrs)	25	21
Age Mode/s (yrs)	6	6



**Figure 12. Length and age frequency for 2015 and 2016 Deepwater Flathead otoliths samples.**

### Precision and accuracy

Repeat reading of 214 otoliths produced an APE of 2.84% and 60% of the readings agreed. No bias between readings was observed.

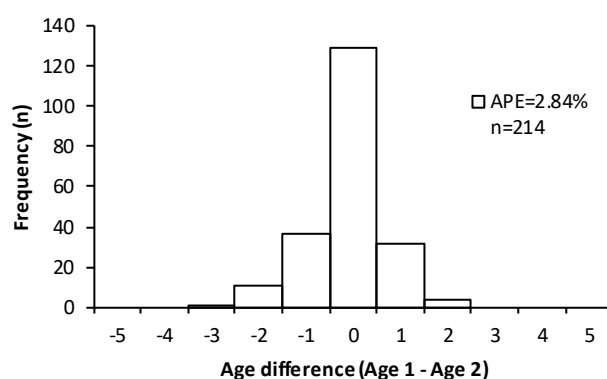


Figure 13. Difference plot of Deepwater Flathead primary reading (Age 1) minus secondary reading (Age 2).

Table 15. Age difference table between Deepwater Flathead primary reading (Age 1) and secondary reading (Age 2).

Difference (Age 1 - Age 2)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	21	N	% Agree d	% ± 1
-4																					1		
-3								1													11		
-2							3	3	2			1	2										
-1				1	1	3	5	5	7	3	1	5	2	2			1		1		37		
0	0	1	0	1	6	9	31	21	19	13	14	4	4	2	2	1	0	1	0	0	129	60	93
1						2	1	3	6	6	7	1		2	2		1			1	32		
2								1			1				2						4		
3																							
4																							
N	1		2	7	14	40	34	34	22	23	11	8	6	6	1	2	1	1	1	1	214		

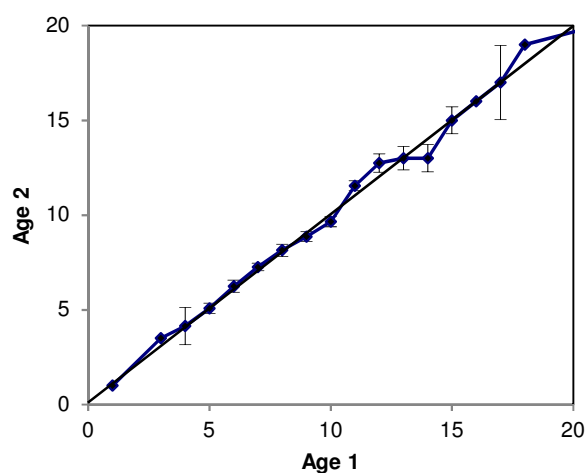


Figure 14. Age bias plot comparing Deepwater Flathead primary age (Age 1) against secondary age (Age 2). Error bars are 95% CI. Black line indicates the line of agreement.

## Bight Redfish (37258004) *Centroberyx gerrardi*

### Age and length data

Table 16. Registration and ageing data by SESSF zone for 2016 Bight Redfish otolith samples.

	Zone												Total	Target
	10	20	30	40	50	60	70	81	82	83	84	Unk		
Registered										500			500	570
Aged										500			500	570

Table 17. Age and length summary for 2015 and 2016 Bight Redfish otolith samples.

	2015	2016
Min length (cm)	19	16
Max length (cm)	45	50
Min Age (yrs)	4	4
Max Age (yrs)	51	62
Age Mode/s (yrs)	19	17

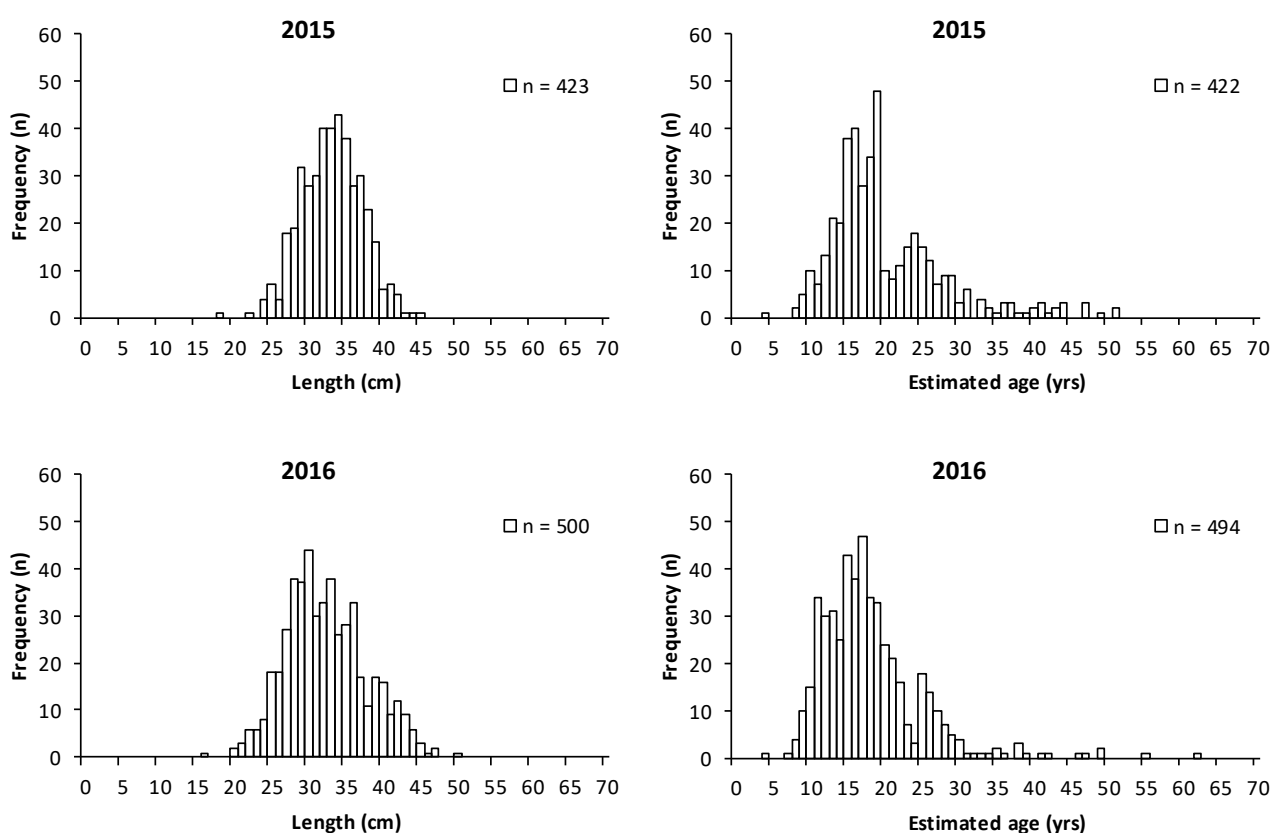


Figure 15. Length and age frequency for 2015 and 2016 Bight Redfish otoliths samples.

### Precision and accuracy

Repeat reading of 128 otoliths produced an APE of 2.41% and 40% of the readings agreed, 81% were within 1 year. No bias between readings was observed.

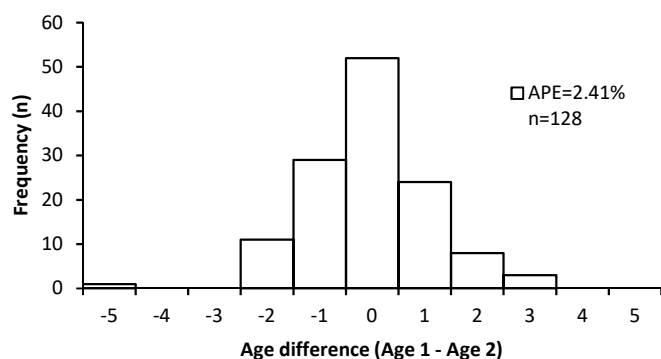


Figure 16. Difference plot of Bight Redfish primary reading (Age 1) minus secondary reading (Age 2).

Table 18. Age difference table between Bight Redfish primary reading (Age 1) and secondary reading (Age 2).

Difference (Age 1 - Age 2)	4	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	25	26	27	28	29	30	31	32	33	34	35	38	39	49	N	% Agreed	% ±1				
-5																																		1	1			
-4																																		0				
-3																																		0				
-2																																		11				
-1	1				5	2	1	2	2	1	6	1	2				1				2											1	1	1	29			
0	1	5	2	4	4	3	1	3	7	5	3	1	3	1	0	0	2	2	2	2	1	0	0	0	0	0	0	1	0	0	0	0	51	40	81			
1				1	3	3	1				1	2	2			1	3	3	1	1	1				1											24		
2							1	1			1				1							1	1											1	8			
3													1							1				1											3			
4																																		0				
5																																		0				
N	1	2	5	4	13	11	6	4	9	10	15	6	5	5	5	3	1	4	3	6	2	2	0	0	0				2	1	1	2	128					

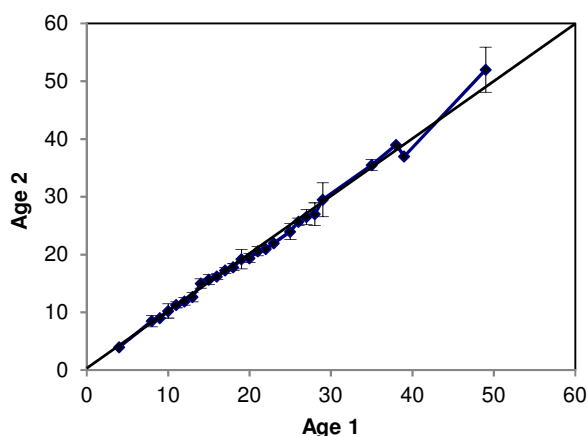


Figure 17. Age bias plot comparing Bight Redfish primary age (Age 1) against secondary age (Age 2). Error bars are 95% CI. Black line indicates the line of agreement.



## Gummy Shark (37017001) *Mustelus antarcticus*

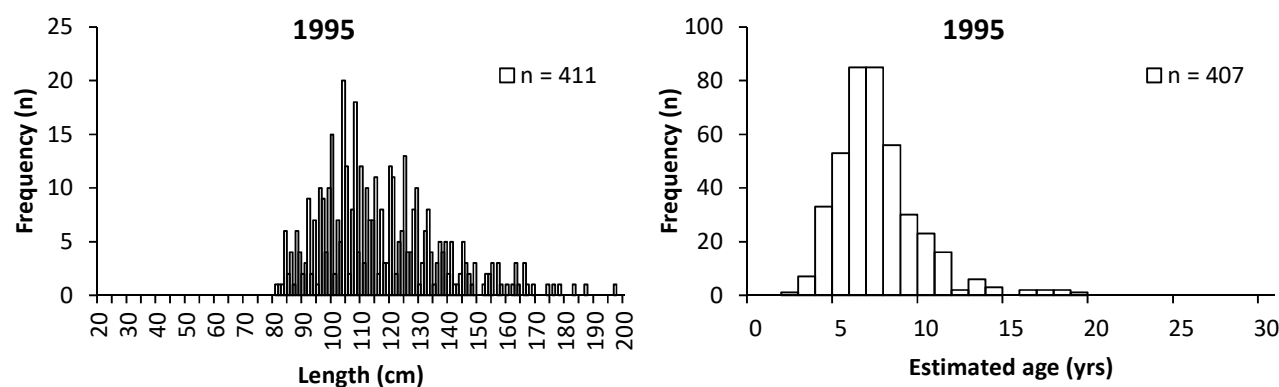
### Age and length data

**Table 19.** Registration and ageing data by SESSF zone for vertebrae samples from the historical collection and the current Gummy Shark vertebrae registered at FAS.

Shark Zone												
Year	UNK	BS	CSA	EBS	ESA	ET	SAV	WA	WBS	WSA	Total	
1995		246			62			11		93	412	
1997	67				115					16	198	
2002	146										146	
2003	229										229	
2010				220					11		231	
2011		35	161	353	50	36	8		100		743	
2012		37	107	168	55	102	4		23		496	
2013				437	9				90		536	
2014			75	166		14	51			2	308	
2015				366							366	
Total	442	72	246	343	1710	291	152	63	11	224	111	3665

**Table 20.** Age and length summary for 1995, 1997, 2000 and 2003 Gummy Shark samples.

	Year									
	1995	1997	2002	2003	2010	2011	2012	2013	2014	2015
Min length (cm)	81	73	70	78	78	50	59	76	70	76
Max length (cm)	197	193	175	175	173	170	187	157	172	128
Min Age (yrs)	2	2	2	2	2	1	1	2	2	2
Max Age (yrs)	19	19	16	16	16	14	18	11	16	8
Age Mode/s (yrs)	6	6	6	5	3	5	4	4	4	5



**Figure 18.** Length and age frequency for 1995 Gummy Shark samples from combined zones and gear types. Lengths are measured as Total Length (TL)

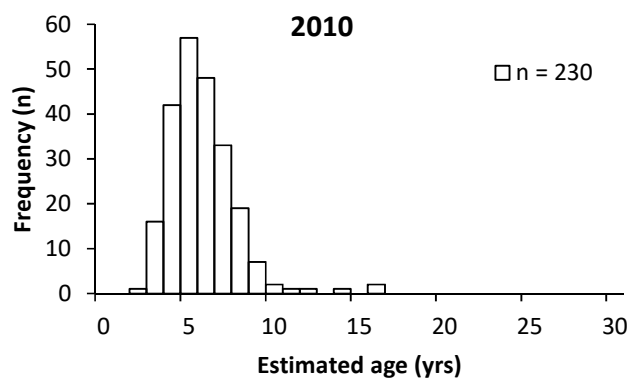
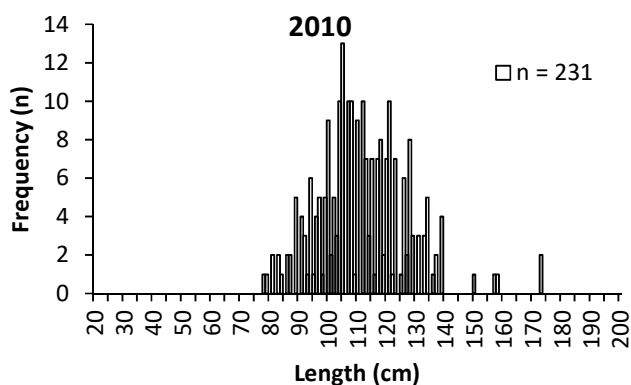
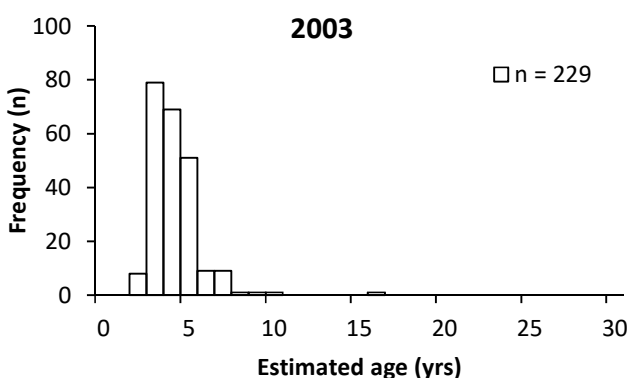
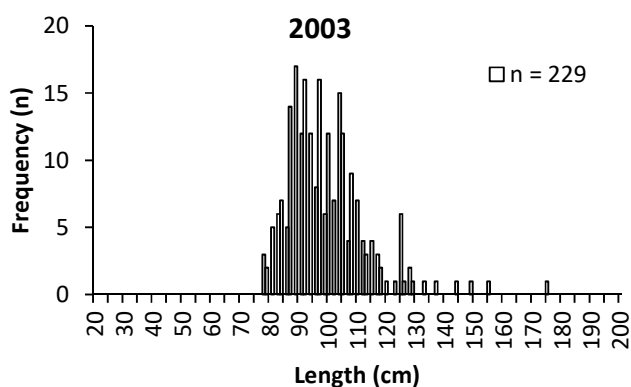
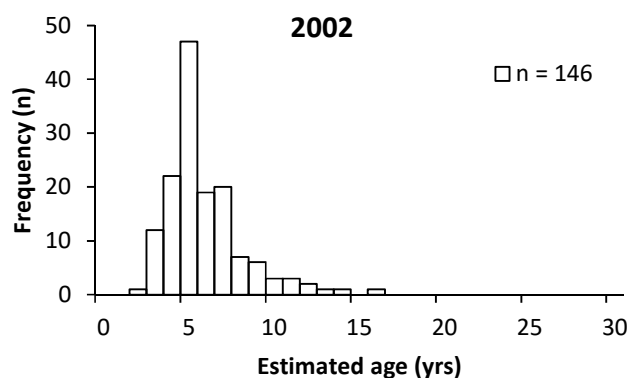
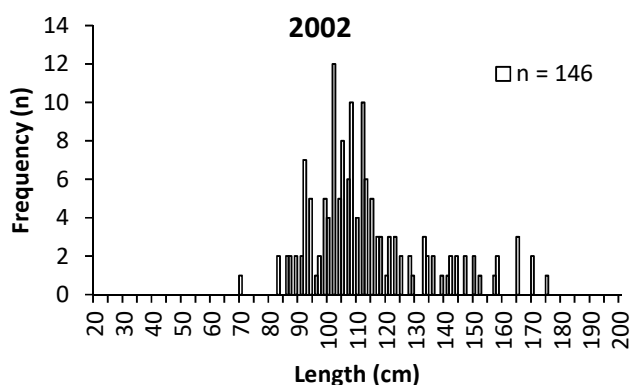
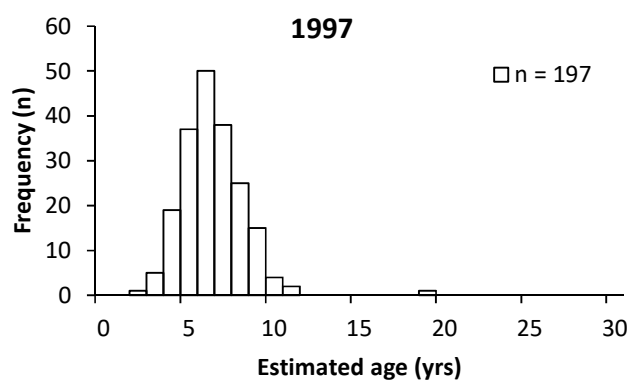
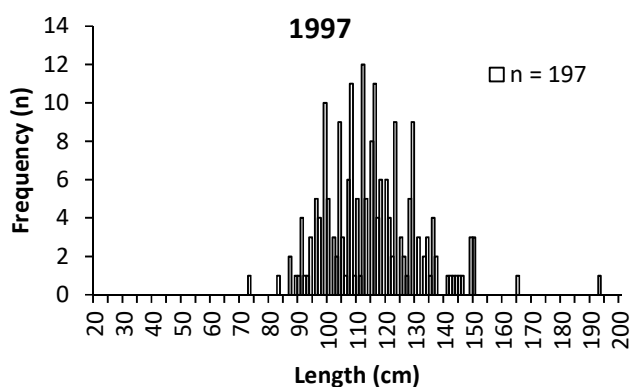


Figure 19. Length and age frequency for 1997, 2002, 2003 and 2010 Gummy Shark samples from combined zones and gear types. Lengths are measured as Total Length (TL)

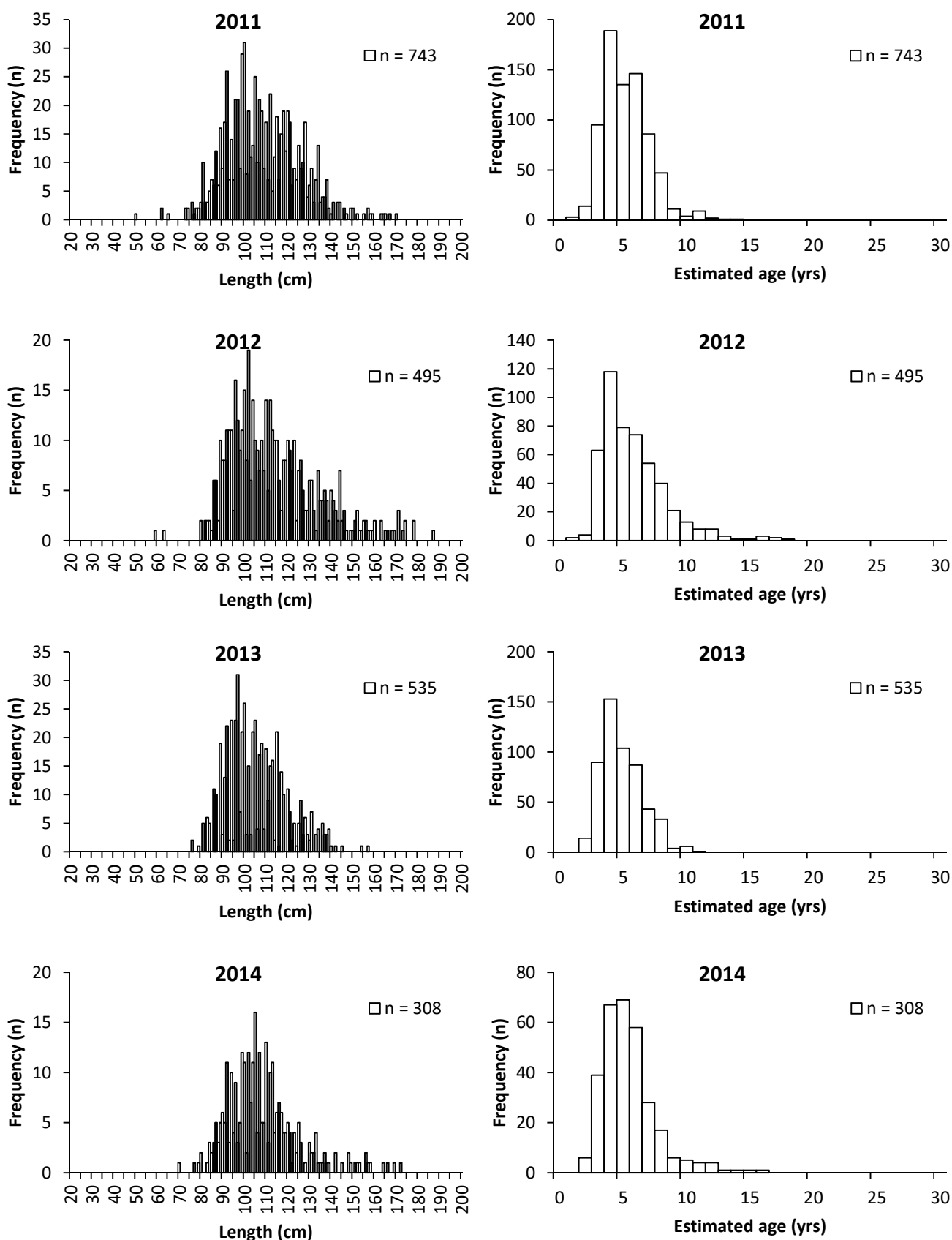


Figure 20. Length and age frequency for 2011 to 2014 Gummy Shark samples from combined zones and gear types. Lengths are measured as Total Length (TL)

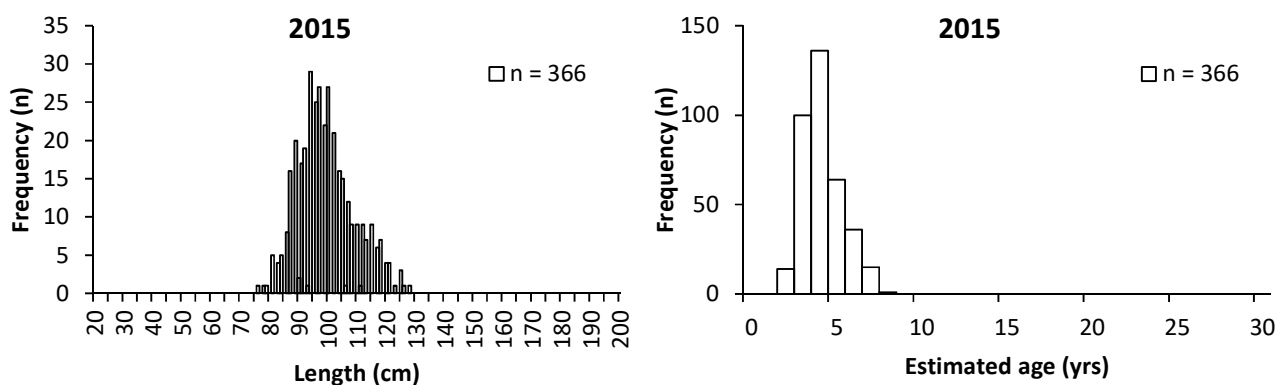


Figure 21. Length and age frequency for 2015 Gummy Shark samples from combined zones and gear types. Lengths are measured as Total Length (TL)

### Precision and accuracy

Repeat reading of 919 vertebrae produced an APE of 3.02% and 70% of the readings agreed, 96% were within 1 year. No bias between readings was observed.

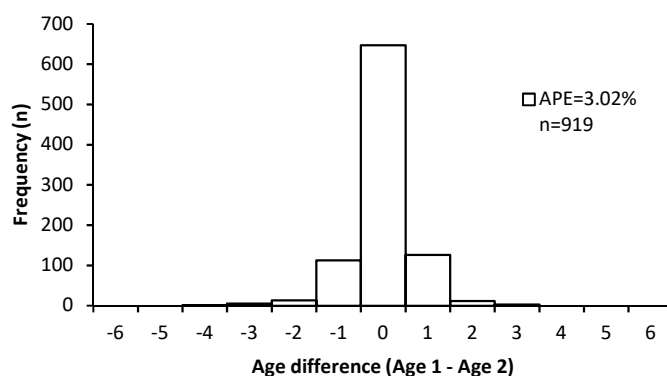
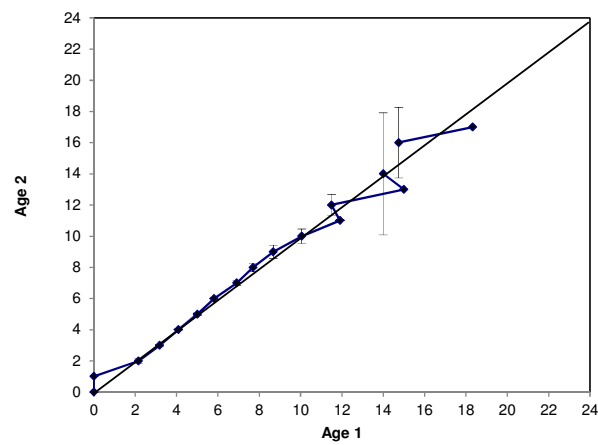


Figure 22. Difference plot for Gummy Shark primary reading (Age 1) minus secondary reading (Age 2).

Table 21. Age difference table between Gummy Shark primary reading (Age 1) and secondary reading (Age 2)

Difference (Age 1 - Age 2)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	18	19	20	21	N	% Agreed	% ±1
-5																					0		
-4																					0		
-3					1			1			2						1				5		
-2			1		3	2	1	1	1	1	2		1								13		
-1		3	20	34	19	12	14	3	1	4	1	1						1			113		
0		15	98	171	137	105	56	37	10	8	5	1	1	1		1	1				647	70	96
1				14	24	39	20	14	5	3	1	4					2				126		
2					1	3	2	3	2	1											12		
3								2									1				3		
4																					0		
5																					0		
N	0	18	119	219	185	161	93	61	19	17	11	6	2	1	0	4	3	0	0	0	919		



**Figure 30. Age bias plot comparing Gummy Shark primary age (Age 1) against secondary age (Age 2). Error bars are 95% CI. Black line indicates the line of agreement.**

## RAG Attendance

Kyne Krusic-Golub has participated in the following 2016/2017 RAG meetings since the last milestone report (Robertson and Krusic-Golub, 2016) was submitted.

- SESSFRAG– Western orange roughy workshop – 16<sup>th</sup> March, 2107.

## Recommendations

The ISMP needs to ensure otoliths and vertebrae are sent to FAS in a timely manner in order for ageing to occur within the appropriate timeframe. Some samples are arriving at FAS with missing information like date-of-capture. This is necessary for data integrity for both FAS and reporting to AFMA.

## Conclusion

For the duration of this project Fish Ageing Services has registered a total of 41,063 samples and provided 33,547 age estimates. From those otoliths collected by the ISMP during the 2016 calendar year FAS have currently received 12,218 samples of which 9,812 were from SESSF priority species collected throughout the various SESSF zones.

- For the 2016 calendar year collected otoliths targets were exceeded for five priority species / gear / stock combinations.
- Sample targets for the remaining priority species were not met (<100%). Percentage of achievement of collection targets for these species ranged between:
  - 2.2% to 304.3% for the SETF sector
  - 0% to 355.6% for the GHATF sector
  - 83.2% to 143.7% for the GABF sector
- The collection targets for School and Gummy Shark during 2016 were set at 500 per species. During 2016 211 School Shark and 1058 Gummy Shark were sent to FAS, the majority of these samples had a date-of-capture in 2016. These samples have been cleaned and stored according to FAS protocol.

Collection targets below 50% were reported for:

- SETF: Blue Grenadier (Spawning), Gemfish (Eastern), Blue Warehou (Western), Blue-eye Trevally (Trawl), Redfish (Trawl), Jackass Morwong (Eastern and Western) and Hapuka (Trawl).
- GHATF: Hapuka (Hook), Ling (Hook), Blue-eye Trevally (Hook) Ribaldo (Hook) and School Shark (Hook).
- A total of 11,162 age estimates were made from eight different SESSF teleost and elasmobranch species. This number includes historical samples that were aged during the 2016 calendar year from both School Whiting and Gummy Shark. This number only includes samples which were successfully aged, and excludes those that were prepared, examined and unable to be aged (approximately 5%). Of the 11,162 samples aged, 1635 Orange Roughy ages will be completed by the end of June 2017 as part of this project.

## Benefits / Management Outcomes

This report has been prepared to provide AFMA with information on the completion of the SETF, GHATF and GABTF otolith collections made between the 1<sup>st</sup> August 2014 and the 31<sup>st</sup> May 2017 and to provide a summary of results from the ageing work conducted for the duration of the project.

## References

Horn, P.L., Tracey, D.M., Doonan, I.J. and Krusic-Golub, K. (2016). Age determination protocol for orange roughy (*Hoplostethus atlanticus*). New Zealand Fisheries Assessment Report 2016/03. ISSN 1179-5352 (online)

Krusic-Golub, K., Stokie, T.K., Trinnie, F., and Bell J. (2008) Final report on the ageing work on key SESSF species from the 2006 sampling year. Final report to Australian Fisheries Management Authority. Project No. R05/1059 99 pp. Published by Fisheries Research Branch, Fisheries Victoria, Department of Primary Industries, Queenscliff, Victoria, 3225

Morison, A.K., Robertson, S.G., and Smith, D.C. (1998). An integrated system for production fish ageing: Image analysis and quality assurance. North American Journal of Fisheries Management 18, 587–598.

Robertson, S.G. and Krusic-Golub, K. (2016). Milestone # 6. The provision of fish ageing and length frequency services in the Southern and Eastern Scalefish and Shark Fishery, 2014–2017. *End of Calendar Year 2016 Report to the Australian Fisheries Management Authority*. Fish Ageing Services Pty Ltd

## Appendix 1 – Individual batch data for samples registered for the Project.

### *Sector – SETF*

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Blue grenadier	0802	Section otolith	19	SF20	Trawl	Non-Spawning		James Kerlin	01-Dec-12
SETF	Blue grenadier	0805	Section otolith	25	SF20	Trawl	Non-spawning		James Kerlin	17-Dec-13
SETF	Blue grenadier	0806	Section otolith	51	SF20	Trawl	Non-Spawning	Lakes Entrance	Lady Miriam	01-Jan-14
SETF	Blue grenadier	0807	Section otolith	19	SF20	Trawl	Non-Spawning	Lakes Entrance	Lady Miriam	08-Feb-14
SETF	Blue grenadier	0808	Section otolith	16	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	07-Jun-14
SETF	Blue grenadier	0809	Section otolith	17	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	10-Jul-14
SETF	Blue grenadier	0810	Section otolith	34	SF20	Trawl	Non-Spawning	Lakes Entrance	Lady Miriam	01-Jun-14
SETF	Blue grenadier	0811	Section otolith	500	SF40	Trawl	Spawning		Empress Pearl	01-Jul-14
SETF	Blue grenadier	0812	Section otolith	9	SF40	Trawl	Non-Spawning		Diana	05-Feb-14
SETF	Blue grenadier	0813	Section otolith	20	SF40	Trawl	Non-Spawning		Saxon Progress	15-Mar-14
SETF	Blue grenadier	0814	Section otolith	19	SF40	Trawl	Non-Spawning		Saxon Progress	13-Mar-14
SETF	Blue grenadier	0815	Section otolith	16	SF40	Trawl	Non-Spawning		Saxon Progress	15-Mar-14
SETF	Blue grenadier	0817	Section otolith	25	SF40	Trawl	Non-Spawning		Empress Pearl	04-Apr-14
SETF	Blue grenadier	0818	Section otolith	17	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	30-May-14
SETF	Blue grenadier	0819	Section otolith	3	SF40	Trawl	Non-Spawning		Diana	06-Feb-14
SETF	Blue grenadier	0820	Section otolith	3	SF40	Trawl	Non-Spawning		Diana	09-Feb-14
SETF	Blue grenadier	0821	Section otolith	28	SF20	Trawl	Non-Spawning		Lady Miriam	15-Feb-14
SETF	Blue grenadier	0822	Section otolith	21	SF40	Autoline	Non-Spawning		Petuna Endeavour	01-Jan-14
SETF	Blue grenadier	0825	Section otolith	10	SF50	Trawl	Non-Spawning		Zeehan	13-Jun-14
SETF	Blue grenadier	0826	Section otolith	25	SF50	Trawl	Non-Spawning		Zeehan	13-Jun-14
SETF	Blue grenadier	0827	Section otolith	25	SF50	Trawl	Non-Spawning		Castella Rosa	17-Jun-14
SETF	Blue grenadier	0828	Section otolith	17	SF20	Trawl	Non-Spawning	Lakes Entrance	Tullaburga	18-Aug-14
SETF	Blue grenadier	0829	Section otolith	1	SF10	Trawl	Non-Spawning		Guisseppa	06-Aug-14
SETF	Blue grenadier	0832	Otolith - Annual	10	SF50	Trawl	Non-Spawning		Moir Elizabeth	05-Oct-14
SETF	Blue grenadier	0833	Otolith - Annual	23	SF20	Trawl	Non-Spawning	Lakes Entrance	Tullaburga	13-Oct-14
SETF	Blue grenadier	0834	Otolith - Annual	25	SF20	Trawl	Non-Spawning		Rubicon	02-May-14
SETF	Blue grenadier	0835	Otolith - Annual	20	SF20	Trawl	Non-Spawning		Melisa	16-Aug-14
SETF	Blue grenadier	0836	Otolith - Annual	8	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	27-Sep-14
SETF	Blue grenadier	0837	Otolith - Annual	17	SF20	Trawl	Non-Spawning	Lakes Entrance	Tullaburga	22-Sep-14
SETF	Blue grenadier	0838	Otolith - Annual	12	SF10	Trawl	Non-Spawning		Rockfish 1	30-Sep-14
SETF	Blue grenadier	0840	Otolith - Annual	110	SF40	Trawl	Non-Spawning		Empress Pearl	01-Nov-14
SETF	Blue grenadier	0841	Section otolith	23	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	08-Jan-15



Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Blue grenadier	0842	Section otolith	54	SF40	Trawl	Non-Spawning		Empress Pearl	01-Mar-15
SETF	Blue grenadier	0843	Section otolith	16	SF50	Trawl	Non-Spawning		Empress Pearl	16-Mar-15
SETF	Blue grenadier	0844	Section otolith	42	SF30	Trawl	Non-Spawning		Rubicon	01-Mar-15
SETF	Blue grenadier	0845	Section otolith	32	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	21-Feb-15
SETF	Blue grenadier	0846	Section otolith	35	SF50	Trawl	Non-Spawning		Moir Elizabeth	31-Jan-15
SETF	Blue grenadier	0847	Section otolith	43	SF40	Trawl	Non-Spawning		Castella Rosa	01-Apr-15
SETF	Blue grenadier	0848	Section otolith	29	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	15-Apr-15
SETF	Blue grenadier	0849	Section otolith	35	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	05-May-15
SETF	Blue grenadier	0850	Section otolith	25	SF50	Trawl	Non-Spawning		Zeehan	01-Apr-15
SETF	Blue grenadier	0851	Section otolith	33	SF20	Trawl	Non-Spawning		James Kerlin	01-Apr-15
SETF	Blue grenadier	0852	Section otolith	9	SF20	Trawl	Non-Spawning		Shira	05-Jul-15
SETF	Blue grenadier	0853	Section otolith	161	SF40	Trawl	Spawning		Empress Pearl	01-Jul-15
SETF	Blue grenadier	0854	Section otolith	173	SF40	Trawl	Spawning		San Tongaroa	01-Jul-15
SETF	Blue grenadier	0855	Section otolith	17	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	05-Jun-15
SETF	Blue grenadier	0856	Section otolith	17	SF20	Trawl	Non-Spawning	Lakes Entrance	Tullaberga	06-Jul-15
SETF	Blue grenadier	0857	Section otolith	16	SF20	Trawl	Non-Spawning	Lakes Entrance	Tullaberga	29-Jun-15
SETF	Blue grenadier	0858	Section otolith	14	SF10	Trawl	Non-Spawning		Illawarra Star	30-Jul-15
SETF	Blue grenadier	0859	Section otolith	142	SF40	Trawl	Spawning		San Tongaroa	01-Jul-15
SETF	Blue grenadier	0860	Section otolith	20	SF40	Trawl	Non-Spawning		Silent Victory	01-Oct-15
SETF	Blue grenadier	0861	Section otolith	3	SF10	Trawl	Non-Spawning		Susie J	15-Jul-15
SETF	Blue grenadier	0862	Section otolith	41	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	09-Mar-15
SETF	Blue grenadier	0863	Section otolith	23	SF20	Trawl	Non-Spawning	Lakes Entrance	Tullaberga	10-Aug-15
SETF	Blue grenadier	0864	Section otolith	42	SF50	Trawl	Non-Spawning		V.J.	15-Nov-15
SETF	Blue grenadier	0865	Section otolith	12	SF20	Trawl	Non-Spawning		Shira	30-Nov-15
SETF	Blue grenadier	0866	Section otolith	28	SF20	Trawl	Non-Spawning		Tullaburga	24-Nov-14
SETF	Blue grenadier	0868	Section otolith	28	SF30	Trawl	Non-Spawning		Lady Miriam	12-Feb-16
SETF	Blue grenadier	0870	Section otolith	65	SF50	Trawl	Non-Spawning		Castella Rose	01-Mar-16
SETF	Blue grenadier	0871	Section otolith	15	SF30	Trawl	Non-Spawning		Saxon Onward	26-May-16
SETF	Blue grenadier	0872	Section otolith	38	SF50	Trawl	Non-Spawning		Zeehan	01-Feb-16
SETF	Blue grenadier	0873	Section otolith	20	SF50	Trawl	Spawning		Muir Elizabeth	09-Jul-16
SETF	Blue grenadier	0874	Section otolith	15	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	30-Jun-16
SETF	Blue grenadier	0875	Section otolith	2	SF30	Trawl	Non-Spawning		Saxon Onward	04-Jun-16
SETF	Blue grenadier	0876	Section otolith	26	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	25-Aug-16
SETF	Blue grenadier	0877	Section otolith	54	SF50	Trawl	Non-Spawning		Castella Rosa	13-Oct-16
SETF	Blue grenadier	0878	Section otolith	20	SF40	Trawl	Non-Spawning		S.Rocco	24-Nov-16
SETF	Blue grenadier	0879	Section otolith	25	SF40	Trawl	Non-Spawning		Silent Victory	30-Nov-16
SETF	Blue grenadier	0881	Section otolith	50	SF50	Trawl	Non-Spawning		Game Reason	30-Dec-16
SETF	Blue grenadier	0882	Section otolith	20	SF20	Trawl	Non-Spawning		Imlay	11-Dec-16
SETF	Blue grenadier	0938	Section otolith	16	SF20	Trawl	Non-Spawning	Lakes Entrance	James Kerlin	26-Oct-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Blue grenadier	0939	Section otolith	36	SF20	Otter trawl	Non-Spawning		Imlay	18-Nov-15
SETF	Blue grenadier	0940	Section otolith	61	SF30	Trawl	Non-Spawning		Tullaburga	01-Jan-16
SETF	Blue grenadier	0941	Section otolith	48	SF20	Trawl	Non-Spawning		James Kerlin	01-Feb-16
SETF	Blue grenadier	0942	Section otolith	70	SF40	Trawl	Non-Spawning		Empress Pearl	01-Feb-16
SETF	Blue grenadier	0943	Section otolith	10	SF50	Trawl	Non-Spawning			01-Sep-15
SETF	Blue grenadier	0944	Section otolith	10	SF40	Trawl	Non-Spawning			01-Oct-15
SETF	Blue grenadier	0945	Section otolith	10	SF50	Trawl	Non-Spawning			01-Oct-15
SETF	Blue grenadier	0946	Section otolith	20	SF50	Trawl	Non-Spawning		Moir Elizabeth	06-Nov-15
SETF	Blue grenadier	0947	Section otolith	10	SF50	Trawl	Non-Spawning		Moir Elizabeth	11-Jan-16
SETF	Blue grenadier	0948	Section otolith	10	SF50	Trawl	Non-Spawning		Moir Elizabeth	09-Feb-16
SETF	Blue grenadier	0949	Section otolith	10	SF50	Trawl	Spawning		Moir Elizabeth	06-Jun-16
SETF	Blue grenadier	0950	Section otolith	10	SF50	Trawl	Non-Spawning		Moir Elizabeth	10-May-16
SETF	Blue grenadier	0951	Section otolith	10	SF50	Trawl	Non-Spawning		Moir Elizabeth	26-Apr-16
SETF	Blue grenadier	0952	Section otolith	10	SF50	Trawl	Non-Spawning		Moir Elizabeth	15-Mar-16
SETF	Blue-eye trevalla	0943	Section otolith	10	SF20	Trawl	Trawl		Lady Miriam	01-Nov-12
SETF	Blue-eye trevalla	0944	Section otolith	4	SF20	Trawl	Trawl		Lady Miriam	01-Dec-12
SETF	Blue-eye trevalla	0950	Section otolith	3	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	13-Jun-14
SETF	Blue-eye trevalla	0951	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	30-Jun-14
SETF	Blue-eye trevalla	0952	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	04-Jul-14
SETF	Blue-eye trevalla	0953	Section otolith	5	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	01-Jul-14
SETF	Blue-eye trevalla	0954	Section otolith	4	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	22-Jun-14
SETF	Blue-eye trevalla	0956	Section otolith	14	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	01-May-14
SETF	Blue-eye trevalla	0957	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	19-May-14
SETF	Blue-eye trevalla	0959	Section otolith	75	SF30	Trawl	Trawl		Diana	01-May-14
SETF	Blue-eye trevalla	0960	Section otolith	34	SF40	Trawl	Trawl		Diana	01-Feb-14
SETF	Blue-eye trevalla	0963	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	23-Jul-14
SETF	Blue-eye trevalla	0968	Section otolith	7	SF40	Trawl	Trawl	Lakes Entrance	Tullaburga	11-Aug-14
SETF	Blue-eye trevalla	0969	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	08-Sep-14
SETF	Blue-eye trevalla	0972	Otolith - Annual	1	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	06-Oct-14
SETF	Blue-eye trevalla	0975	Otolith - Annual	1	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	10-Nov-14
SETF	Blue-eye trevalla	0976	Otolith - Annual	2	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	06-Dec-14
SETF	Blue-eye trevalla	0978	Section otolith	6	SF40	Trawl	Trawl		Empress Pearl	01-Mar-15
SETF	Blue-eye trevalla	0980	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	09-Feb-15
SETF	Blue-eye trevalla	0985	Section otolith	2	SF40	Trawl	Trawl		Castella Rosa	10-Apr-15
SETF	Blue-eye trevalla	0990	Otolith - Annual	1	SF20	Trawl		Lakes Entrance	James Kerlin	23-Nov-14
SETF	Blue-eye trevalla	0991	Otolith - Annual	1	SF20	Trawl		Lakes Entrance	Tullaburga	17-Nov-14
SETF	Blue-eye trevalla	0992	Otolith - Annual	2	SF20	Trawl		Lakes Entrance	James Kerlin	01-Dec-14
SETF	Blue-eye trevalla	0993	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	30-Mar-15
SETF	Blue-eye trevalla	0994	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	30-Apr-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Blue-eye trevalla	0995	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	05-May-15
SETF	Blue-eye trevalla	0996	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	19-May-15
SETF	Blue-eye trevalla	1000	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	08-Jun-15
SETF	Blue-eye trevalla	1001	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	15-Jun-15
SETF	Blue-eye trevalla	1002	Section otolith	17	SF30	Trawl	Trawl	Lakes Entrance	Tullaburga	18-Nov-15
SETF	Blue-eye trevalla	1003	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	05-Oct-15
SETF	Blue-eye trevalla	1004	Section otolith	2	SF40	Trawl	Trawl		Empress Pearl	23-Feb-16
SETF	Blue-eye trevalla	1007	Section otolith	3	SF20	Trawl	Trawl	Lakes Entrance		02-Jun-16
SETF	Blue-eye trevalla	1008	Section otolith	2	SF40	Trawl	Trawl			01-Sep-15
SETF	Blue-eye trevalla	1009	Section otolith	2	SF40	Trawl	Trawl			01-Oct-16
SETF	Blue-eye trevalla	1010	Section otolith	2	SF50	Trawl	Trawl			01-Oct-15
SETF	Blue-eye trevalla	1011	Section otolith	2	SF50	Trawl	Trawl		Moir Elizabeth	16-Nov-15
SETF	Blue-eye trevalla	1012	Section otolith	2	SF50	Trawl	Trawl		Moir Elizabeth	11-Jan-16
SETF	Blue-eye trevalla	1013	Section otolith	3	SF50	Trawl	Trawl		Zeehan	08-Mar-16
SETF	Blue-eye trevalla	1014	Section otolith	2	SF50	Trawl	Trawl		Moir Elizabeth	30-Apr-16
SETF	Blue-eye trevalla	1015	Section otolith	2	SF50	Trawl	Trawl		Moir Elizabeth	10-May-16
SETF	Blue-eye trevalla	1016	Section otolith	1	SF50	Trawl	Trawl		Moir Elizabeth	05-Feb-16
SETF	Blue-eye trevalla	1017	Section otolith	1	SF50	Trawl	Trawl		Zeehan	08-Feb-16
SETF	Blue-eye trevalla	1018	Section otolith	1	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	05-Sep-16
SETF	Blue-eye trevalla	1019	Section otolith	4	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	11-Nov-16
SETF	Blue-eye trevalla	1020	Section otolith	19	SF30	Trawl	Trawl	Lakes Entrance	Castella Rosa	21-Nov-16
SETF	Blue-eye trevalla	1021	Section otolith	2	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	01-Dec-16
SETF	Deepwater Flathead	0274	Section otolith	19	SF50	Trawl	Trawl		Zeehan	01-Mar-14
SETF	Deepwater Flathead	0283	Section otolith	5	SF50	Trawl	Trawl		V.J.	15-Nov-15
SETF	Dory, John	0105	Section otolith	14	SF20	Trawl	Eastern		James Kerlin	01-Dec-12
SETF	Dory, John	0106	Section otolith	16	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Dory, John	0107	Section otolith	32	SF20	Trawl	Eastern		Tullaburga	01-Nov-12
SETF	Dory, John	0119	Otolith - Annual	25	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	26-Jan-14
SETF	Dory, John	0120	Otolith - Annual	14	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	23-May-14
SETF	Dory, John	0121	Otolith - Annual	16	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	09-Jun-14
SETF	Dory, John	0122	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	18-Jun-14
SETF	Dory, John	0123	Otolith - Annual	22	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	05-Jul-14
SETF	Dory, John	0124	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	25-Jul-14
SETF	Dory, John	0125	Otolith - Annual	19	SF20	Danish Seine	Eastern	Lakes Entrance	Rhylan	17-Aug-14
SETF	Dory, John	0126	Otolith - Annual	18	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	22-Sep-14
SETF	Dory, John	0127	Otolith - Annual	14	SF20	Danish Seine	Eastern	Lakes Entrance	Nephelle	24-Sep-14
SETF	Dory, John	0128	Otolith - Annual	25	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	27-Oct-14
SETF	Dory, John	0129	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Nov-14
SETF	Dory, John	0130	Otolith - Annual	10	SF20	Trawl	Eastern		Shira	28-Dec-14

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Dory, John	0131	Section otolith	18	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	23-Jan-15
SETF	Dory, John	0132	Section otolith	1	SF30	Trawl	Eastern		Rubicon	24-Mar-15
SETF	Dory, John	0133	Section otolith	15	SF60	Trawl	Eastern	Lakes Entrance	Marley Point	15-Feb-15
SETF	Dory, John	0134	Section otolith	20	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	23-Feb-15
SETF	Dory, John	0135	Section otolith	25	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Mar-15
SETF	Dory, John	0136	Section otolith	12	SF60	Danish Seine	Eastern	Lakes Entrance	Miranda Bay	24-Apr-15
SETF	Dory, John	0137	Section otolith	18	SF20	Danish Seine	Eastern	Lakes Entrance	Marley Point	02-May-15
SETF	Dory, John	0138	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	04-May-15
SETF	Dory, John	0139	Section otolith	29	SF20	Danish Seine	Eastern	Lakes Entrance	Nungurner	27-May-15
SETF	Dory, John	0140	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	01-Sep-15
SETF	Dory, John	0141	Otolith - Annual	20	SF20	Danish Seine	Eastern	Lakes Entrance	Marley Point	20-Sep-15
SETF	Dory, John	0142	Otolith - Annual	15	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	03-Aug-15
SETF	Dory, John	0144	Section otolith	14	SF20	Danish Seine	Eastern	Lakes Entrance	Wellington Cape	09-Nov-15
SETF	Dory, John	0145	Section otolith	14	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	21-Oct-15
SETF	Dory, John	0146	Section otolith	23	SF20	Danish Seine	Eastern	Lakes Entrance	Nephelle	22-Sep-16
SETF	Dory, John	0147	Section otolith	18	SF20	Danish Seine	Eastern	Lakes Entrance	Panagia	22-Jul-16
SETF	Dory, John	0148	Section otolith	21	SF20	Danish Seine	Eastern	Lakes Entrance	Veronica S	25-Aug-16
SETF	Dory, John	0149	Section otolith	20	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	29-Aug-16
SETF	Dory, John	0150	Section otolith	19	SF20	Danish Seine	Eastern	Lakes Entrance	Anne Louise	02-Apr-16
SETF	Dory, John	0151	Section otolith	25	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	25-May-16
SETF	Dory, John	0152	Section otolith	23	SF20	Danish Seine	Eastern	Lakes Entrance	Nephelle	22-Sep-16
SETF	Dory, John	0153	Section otolith	18	SF20	Danish Seine	Eastern	Lakes Entrance	Panagia	22-Jul-16
SETF	Dory, John	0154	Section otolith	21	SF30	Trawl	Eastern	Lakes Entrance	Tullaburga	24-Oct-16
SETF	Dory, John	0155	Section otolith	25	SF20	Trawl	Eastern	Lakes Entrance	Anne Louise	20-Nov-16
SETF	Dory, Mirror	0135	Otolith - Annual	25	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Dory, Mirror	0136	Otolith - Annual	15	SF20	Trawl	Eastern		Tullaburga	01-Nov-12
SETF	Dory, Mirror	0137	Otolith - Annual	15	SF20	Trawl	Eastern		James Kerlin	01-Dec-12
SETF	Dory, Mirror	0150	Otolith - Annual	12	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	16-Jun-14
SETF	Dory, Mirror	0151	Otolith - Annual	16	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	29-Jun-14
SETF	Dory, Mirror	0152	Otolith - Annual	22	SF20	Danish Seine	Eastern	Lakes Entrance	Anne Louise	22-Jun-14
SETF	Dory, Mirror	0153	Otolith - Annual	21	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	25-Jul-14
SETF	Dory, Mirror	0154	Otolith - Annual	40	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	01-Jul-14
SETF	Dory, Mirror	0155	Otolith - Annual	30	SF10	Trawl	Eastern		Illawarra Star	06-Aug-14
SETF	Dory, Mirror	0156	Otolith - Annual	27	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	15-Sep-14
SETF	Dory, Mirror	0157	Otolith - Annual	18	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	18-Aug-14
SETF	Dory, Mirror	0158	Otolith - Annual	15	SF20	Danish Seine	Eastern	Lakes Entrance	Nephelle	15-Aug-14
SETF	Dory, Mirror	0159	Otolith - Annual	1	SF10	Trawl	Eastern		Guisseppa	06-Aug-14
SETF	Dory, Mirror	0160	Otolith - Annual	10	SF20	Trawl	Eastern		Melisa	15-Aug-14
SETF	Dory, Mirror	0161	Otolith - Annual	25	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	22-Sep-14

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Dory, Mirror	0162	Otolith - Annual	25	SF20	Danish Seine	Eastern	Lakes Entrance	Veronica S	24-Sep-14
SETF	Dory, Mirror	0163	Otolith - Annual	25	SF20	Danish Seine	Eastern	Lakes Entrance	Veronica S	12-Oct-14
SETF	Dory, Mirror	0164	Otolith - Annual	15	SF40	Trawl	Eastern		Empress Pearl	19-Nov-14
SETF	Dory, Mirror	0165	Otolith - Annual	22	SF20	Danish Seine	Eastern	Lakes Entrance	Anne Louise	31-Oct-14
SETF	Dory, Mirror	0166	Otolith - Annual	15	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Nov-14
SETF	Dory, Mirror	0167	Otolith - Annual	22	SF20	Danish Seine	Eastern	Lakes Entrance	Rhylan	14-Nov-14
SETF	Dory, Mirror	0168	Otolith - Annual	17	SF40	Trawl	Eastern	Lakes Entrance	Tullaburga	21-Dec-14
SETF	Dory, Mirror	0169	Otolith - Annual	19	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	12-Dec-14
SETF	Dory, Mirror	0170	Otolith - Annual	19	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	15-Dec-14
SETF	Dory, Mirror	0171	Otolith - Annual	40	SF20	Trawl	Eastern		Shira	28-Nov-14
SETF	Dory, Mirror	0172	Otolith - Annual	13	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	23-Jan-15
SETF	Dory, Mirror	0173	Otolith - Annual	18	SF40	Trawl	Western		Empress Pearl	01-Mar-15
SETF	Dory, Mirror	0174	Otolith - Annual	10	SF20	Trawl	Eastern		Tullaburga	11-Feb-15
SETF	Dory, Mirror	0175	Otolith - Annual	11	SF30	Trawl	Eastern		Rubicon	01-Mar-15
SETF	Dory, Mirror	0176	Otolith - Annual	13	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	16-Feb-15
SETF	Dory, Mirror	0177	Otolith - Annual	55	SF50	Trawl	Western		Moir Elizabeth	01-Jan-15
SETF	Dory, Mirror	0178	Otolith - Annual	3	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	05-May-15
SETF	Dory, Mirror	0179	Otolith - Annual	5	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	19-May-15
SETF	Dory, Mirror	0180	Otolith - Annual	19	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Jun-15
SETF	Dory, Mirror	0181	Otolith - Annual	17	SF40	Trawl	Western		Tullaburga	21-Dec-14
SETF	Dory, Mirror	0182	Otolith - Annual	19	SF20	Trawl	Eastern		James Kerlin	12-Dec-14
SETF	Dory, Mirror	0183	Otolith - Annual	19	SF20	Trawl	Eastern		James Kerlin	15-Dec-14
SETF	Dory, Mirror	0184	Otolith - Annual	2	SF40	Trawl	Western		San Tongaroa	19-Jul-15
SETF	Dory, Mirror	0185	Otolith - Annual	7	SF10	Trawl	Eastern		Rockfish 1	15-Mar-15
SETF	Dory, Mirror	0186	Section otolith	19	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	26-Oct-15
SETF	Dory, Mirror	0187	Section otolith	29	SF20	Trawl	Eastern		James Kerlin	01-Feb-16
SETF	Dory, Mirror	0188	Section otolith	7	SF40	Trawl	Western		Empress Pearl	01-Feb-16
SETF	Dory, Mirror	0189	Section otolith	20	SF30	Trawl	Eastern		Saxon Onward	01-May-16
SETF	Dory, Mirror	0190	Section otolith	5	SF40	Trawl	Western			01-Sep-15
SETF	Dory, Mirror	0191	Section otolith	5	SF50	Trawl	Western			01-Sep-15
SETF	Dory, Mirror	0192	Section otolith	5	SF40	Trawl	Western			01-Oct-15
SETF	Dory, Mirror	0193	Section otolith	5	SF50	Trawl	Western			01-Oct-15
SETF	Dory, Mirror	0194	Section otolith	4	SF50	Trawl	Western		Zeehan	24-Nov-15
SETF	Dory, Mirror	0195	Section otolith	5	SF50	Trawl	Western		Moir Elizabeth	07-Dec-15
SETF	Dory, Mirror	0196	Section otolith	5	SF50	Trawl	Western		Zeehan	27-Jan-16
SETF	Dory, Mirror	0197	Section otolith	5	SF50	Trawl	Western		Moir Elizabeth	08-Feb-16
SETF	Dory, Mirror	0198	Section otolith	5	SF50	Trawl	Western		Moir Elizabeth	07-Mar-16
SETF	Dory, Mirror	0199	Section otolith	5	SF50	Trawl	Western		Moir Elizabeth	05-Apr-16
SETF	Dory, Mirror	0200	Section otolith	5	SF50	Trawl	Western		Moir Elizabeth	10-May-16

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Dory, Mirror	0201	Section otolith	5	SF50	Trawl	Western		Moir Elizabeth	14-Jun-16
SETF	Dory, Mirror	0202	Section otolith	27	SF20	Danish Seine	Eastern	Lakes Entrance	Southern Hunter	15-Oct-16
SETF	Dory, Mirror	0204	Section otolith	26	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	01-Jun-16
SETF	Dory, Mirror	0205	Section otolith	25	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	02-Apr-16
SETF	Dory, Mirror	0206	Section otolith	23	SF60	Danish Seine	Eastern	Lakes Entrance	Anne Louise	17-Jun-16
SETF	Dory, Mirror	0207	Section otolith	4	SF30	Trawl	Eastern	Lakes Entrance	Tullaburga	28-Nov-16
SETF	Dory, Mirror	0208	Section otolith	32	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	16-Oct-16
SETF	Dory, Mirror	0209	Section otolith	42	SF30	Trawl	Eastern	Lakes Entrance	Tullaburga	01-Oct-16
SETF	Dory, Mirror	0210	Section otolith	13	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	21-Nov-16
SETF	Flathead, Yank	0002	Section otolith	1	SF10		Eastern		Francesca	21-Feb-15
SETF	Flathead, Yank	0003	Section otolith	1	SF10	Trawl	Eastern		Shelley H	18-May-15
SETF	Gemfish	0598	Otolith - Annual	5	SF20	Trawl	Eastern		Lady Miriam	01-Nov-12
SETF	Gemfish	0601	Otolith - Annual	40	SF50	Trawl	Western		Zeehan	01-Mar-14
SETF	Gemfish	0603	Otolith - Annual	32	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	26-Jan-14
SETF	Gemfish	0604	Otolith - Annual	13	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	08-Feb-14
SETF	Gemfish	0605	Otolith - Annual	19	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	07-Jun-14
SETF	Gemfish	0606	Otolith - Annual	66	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	10-Jul-14
SETF	Gemfish	0607	Otolith - Annual	54	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	18-Jun-14
SETF	Gemfish	0608	Otolith - Annual	25	SF50	Trawl	Western		Zeehan	13-Jun-14
SETF	Gemfish	0609	Otolith - Annual	37	SF50	Trawl	Western		Castella Rosa	18-Jun-14
SETF	Gemfish	0610	Otolith - Annual	13	SF50	Trawl	Western		Castella Rosa	18-Jun-14
SETF	Gemfish	0614	Otolith - Annual	24	SF50	Trawl	Western		Zeehan	01-Mar-14
SETF	Gemfish	0615	Otolith - Annual	34	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	22-Jan-14
SETF	Gemfish	0616	Otolith - Annual	25	SF40	Trawl	Western		Saxon Progress	01-Mar-14
SETF	Gemfish	0617	Otolith - Annual	7	SF40	Autoline	Western		Diana	01-Feb-14
SETF	Gemfish	0624	Otolith - Annual	11	SF20	Trawl	Eastern		Tullaburga	18-Aug-14
SETF	Gemfish	0625	Otolith - Annual	8	SF10	Trawl	Eastern		Guisseppa	06-Aug-14
SETF	Gemfish	0628	Otolith - Annual	2	SF40	Trawl	Western		Petuna Endeavour	29-Aug-14
SETF	Gemfish	0629	Otolith - Annual	4	SF30	UNK	Eastern		Silent Victory	18-Nov-14
SETF	Gemfish	0630	Otolith - Annual	20	SF20	Trawl	Eastern		Melisa	15-Aug-14
SETF	Gemfish	0631	Otolith - Annual	15	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	22-Sep-14
SETF	Gemfish	0632	Otolith - Annual	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	27-Sep-14
SETF	Gemfish	0633	Otolith - Annual	5	SF50	Trawl	Western		Moir Elizabeth	04-Oct-14
SETF	Gemfish	0634	Otolith - Annual	51	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	13-Oct-14
SETF	Gemfish	0636	Otolith - Annual	30	SF40	Trawl	Western		Empress Pearl	19-Nov-14
SETF	Gemfish	0639	Otolith - Annual	24	SF20	Trawl	Eastern		Tullaburga	24-Nov-14
SETF	Gemfish	0640	Otolith - Annual	15	SF20	Trawl	Eastern		Shira	29-Nov-14
SETF	Gemfish	0642	Otolith - Annual	20	SF20	Trawl	Eastern		James Kerlin	08-Jan-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Gemfish	0643	Otolith - Annual	20	SF40	Trawl	Western		Empress Pearl	01-Mar-15
SETF	Gemfish	0644	Otolith - Annual	18	SF30	Trawl	Eastern		Rubicon	25-Mar-15
SETF	Gemfish	0645	Otolith - Annual	32	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	21-Feb-15
SETF	Gemfish	0646	Otolith - Annual	30	SF10	Trawl	Eastern		Rockfish 1	17-Jan-15
SETF	Gemfish	0647	Otolith - Annual	1	SF10	Trawl	Eastern		Anne Marie IV	07-Feb-15
SETF	Gemfish	0648	Otolith - Annual	55	SF50	Trawl	Western		Moir Elizabeth	01-Jan-15
SETF	Gemfish	0653	Otolith - Annual	40	SF20	Trawl	Eastern		Tullaburga	01-Feb-15
SETF	Gemfish	0654	Otolith - Annual	9	SF40	Trawl	Western		Castella Rosa	01-Apr-15
SETF	Gemfish	0655	Otolith - Annual	5	SF10	Trawl	Eastern		Guisseppa	17-Feb-15
SETF	Gemfish	0656	Otolith - Annual	34	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	15-Apr-15
SETF	Gemfish	0657	Otolith - Annual	24	SF10	Trawl	Eastern		Shoalhaven	06-Feb-15
SETF	Gemfish	0658	Otolith - Annual	15	SF20	Trawl	Eastern		Shira	06-Jul-15
SETF	Gemfish	0659	Otolith - Annual	52	SF50	Trawl	Western		Zeehan	11-Apr-15
SETF	Gemfish	0660	Otolith - Annual	17	SF20	Trawl	Eastern		James Kerlin	01-Apr-15
SETF	Gemfish	0661	Otolith - Annual	4	SF10	Trawl	Eastern		Anne Marie IV	17-May-15
SETF	Gemfish	0662	Otolith - Annual	4	SF10	Trawl	Eastern		Anne Marie IV	19-Oct-15
SETF	Gemfish	0663	Otolith - Annual	155	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	06-Jul-15
SETF	Gemfish	0664	Otolith - Annual	52	SF10	Trawl	Eastern		Melisa	02-Jul-15
SETF	Gemfish	0665	Otolith - Annual	34	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	05-Jun-15
SETF	Gemfish	0666	Otolith - Annual	75	SF10	Trawl	Eastern		Shoalhaven	29-Jun-15
SETF	Gemfish	0667	Otolith - Annual	72	SF10	Trawl	Eastern		Illawarra Star	01-Jul-15
SETF	Gemfish	0668	Otolith - Annual	10	SF10	Trawl	Eastern		Rockfish 1	15-Jul-15
SETF	Gemfish	0669	Otolith - Annual	12	SF10	Trawl	Eastern		Guisseppa	12-Jun-15
SETF	Gemfish	0670	Otolith - Annual	50	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	29-Jun-15
SETF	Gemfish	0671	Otolith - Annual	42	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	10-Aug-15
SETF	Gemfish	0672	Otolith - Annual	52	SF10	Trawl	Eastern		Guisseppa	12-Jun-15
SETF	Gemfish	0673	Otolith - Annual	20	SF30	Trawl	Eastern		Silent Victory	25-Oct-15
SETF	Gemfish	0674	Otolith - Annual	72	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	08-Jul-15
SETF	Gemfish	0675	Otolith - Annual	20	SF50	Trawl	Western		V.J.	15-Nov-15
SETF	Gemfish	0676	Otolith - Annual	20	SF40	Trawl	Western		Silent Victory	27-Oct-15
SETF	Gemfish	0677	Otolith - Annual	4	SF40	Trawl	Western		Empress Pearl	15-Mar-15
SETF	Gemfish	0678	Otolith - Annual	1	SF10	Trawl	Eastern		Rockfish 1	08-May-15
SETF	Gemfish	0679	Section otolith	45	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	26-Oct-15
SETF	Gemfish	0680	Section otolith	21	SF30	Trawl	Eastern	Lakes Entrance	Tullaburga	18-Nov-15
SETF	Gemfish	0681	Section otolith	59	SF10	Trawl	Eastern		Shoalhaven	01-Jul-15
SETF	Gemfish	0682	Section otolith	50	SF10	Trawl	Eastern		Shoalhaven	01-Jun-15
SETF	Gemfish	0683	Section otolith	9	SF20	Trawl	Eastern		James Kerlin	01-Feb-16
SETF	Gemfish	0684	Section otolith	35	SF40	Trawl	Western		Empress Pearl	01-Feb-16
SETF	Gemfish	0686	Section otolith	3	SF10	Trawl	Eastern		Anne Marie IV	13-Apr-16

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Gemfish	0687	Section otolith	22	SF30	Trawl	Eastern		Lady Miriam	12-Feb-16
SETF	Gemfish	0688	Section otolith	43	SF50	Trawl	Western		Zeehan	01-Feb-16
SETF	Gemfish	0689	Section otolith	15	SF50	Trawl	Western		Zeehan	13-Mar-16
SETF	Gemfish	0690	Section otolith	35	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	30-Jun-16
SETF	Gemfish	0691	Section otolith	21	SF30	Trawl	Eastern		Saxon Onward	04-Jun-16
SETF	Gemfish	0692	Section otolith	60	SF50	Trawl	Western		Muir Elizabeth	01-Jul-16
SETF	Gemfish	0693	Section otolith	47	SF10	Trawl	Eastern		Rockfish	01-Jul-16
SETF	Gemfish	0696	Section otolith	20	SF10	Trawl	Eastern		Anne Marie V	01-Jun-16
SETF	Gemfish	0697	Section otolith	15	SF50	Trawl	Western		Moir Elizabeth	11-Jan-16
SETF	Gemfish	0698	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	08-Feb-16
SETF	Gemfish	0699	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	23-Feb-16
SETF	Gemfish	0700	Section otolith	20	SF50	Trawl	Western		Moir Elizabeth	07-Mar-16
SETF	Gemfish	0701	Section otolith	2	SF50	Trawl	Western		Moir Elizabeth	26-Apr-16
SETF	Gemfish	0702	Section otolith	21	SF50	Trawl	Western		Moir Elizabeth	06-Jun-16
SETF	Gemfish	0703	Section otolith	13	SF50	Trawl	Western			01-Sep-15
SETF	Gemfish	0704	Section otolith	8	SF40	Trawl	Western			01-Oct-15
SETF	Gemfish	0705	Section otolith	13	SF50	Trawl	Western			01-Oct-15
SETF	Gemfish	0706	Section otolith	20	SF50	Trawl	Western		Moir Elizabeth	06-Nov-16
SETF	Gemfish	0707	Section otolith	10	SF40	Trawl	Western		Moir Elizabeth	24-Nov-16
SETF	Gemfish	0708	Section otolith	33	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	25-Aug-16
SETF	Gemfish	0709	Section otolith	20	SF50	Trawl	Western		Castella Rosa	01-Nov-16
SETF	Gemfish	0710	Section otolith	20	SF40	Trawl	Western		S.Rocco	24-Nov-16
SETF	Hapuka	0135	Otolith - Annual	1	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	10-Nov-14
SETF	Hapuka	0141	Section otolith	1	SF50	Trawl	Trawl		V.J.	15-Nov-15
SETF	Hapuka	0142	Section otolith	2	SF50	Trawl	Western			01-Sep-15
SETF	Hapuka	0143	Section otolith	2	SF40	Trawl	Western			01-Oct-15
SETF	Hapuka	0144	Section otolith	1	SF50	Trawl	Western		Castella Rosa	10-Nov-15
SETF	Hapuka	0145	Section otolith	1	SF50	Trawl	Western		Zeehan	03-Dec-15
SETF	Hapuka	0146	Section otolith	1	SF50	Trawl	Western		Moir Elizabeth	25-Jan-16
SETF	Hapuka	0147	Section otolith	1	SF50	Trawl	Western		Zeehan	27-Jan-16
SETF	Hapuka	0148	Section otolith	1	SF50	Trawl	Western		Castella Rosa	15-Mar-16
SETF	Hapuka	0149	Section otolith	2	SF50	Trawl	Western		Moir Elizabeth	06-Apr-16
SETF	Hapuka	0150	Section otolith	1	SF50	Trawl	Western		Zeehan	10-May-16
SETF	Hapuka	0151	Section otolith	1	SF50	Trawl	Western		Moir Elizabeth	19-May-16
SETF	Hapuka	0152	Section otolith	2	SF50	Trawl	Western		Moir Elizabeth	06-Jun-16
SETF	Hapuka	0153	Section otolith	2	SF50	Trawl	Western		Moir Elizabeth	08-Feb-16
SETF	Hapuka	0154	Section otolith	1	SF50	Trawl	Western		Zeehan	11-Mar-16
SETF	Jackass Morwong	0369	Section otolith	18	SF20	Trawl	Eastern	Lakes Entrance	Tullaberga	03-Aug-15
SETF	Jackass Morwong	0370	Section otolith	18	SF20	Trawl	Eastern	Lakes Entrance	Tullaberga	08-Sep-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Jackass Morwong	0371	Section otolith	7	SF20	Trawl	Eastern		Imlay	14-Mar-15
SETF	Jackass Morwong	0372	Section otolith	4	SF50	Trawl	Western		V.J.	15-Nov-15
SETF	Jackass Morwong	0577	Section otolith	11	SF20	Danish Seine	Eastern		Tambo Bay	01-Dec-12
SETF	Jackass Morwong	0578	Section otolith	14	SF20	Trawl	Eastern		Lady Miriam	01-Nov-12
SETF	Jackass Morwong	0579	Section otolith	18	SF20	Trawl	Eastern		James Kerlin	01-Dec-12
SETF	Jackass Morwong	0582	Section otolith	11	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Jun-14
SETF	Jackass Morwong	0583	Section otolith	17	SF20	Danish Seine	Eastern	Lakes Entrance	Anne Louise	22-Jun-14
SETF	Jackass Morwong	0584	Section otolith	9	SF20	Danish Seine	Eastern		Southern Hunter	27-Nov-13
SETF	Jackass Morwong	0585	Section otolith	17	SF20	Danish Seine	Eastern	Lakes Entrance	Southern Hunter	11-Jan-14
SETF	Jackass Morwong	0586	Section otolith	2	SF10	Trawl	Eastern		Illawarra Star	30-Jan-14
SETF	Jackass Morwong	0587	Section otolith	12	SF30	Trawl	Eastern		Lady Miriam	11-Feb-14
SETF	Jackass Morwong	0588	Section otolith	16	SF30	Danish Seine	Eastern	Lakes Entrance	Southern Hunter	15-Feb-14
SETF	Jackass Morwong	0589	Section otolith	8	SF50	Trawl	Western		Zeehan	21-Mar-14
SETF	Jackass Morwong	0590	Section otolith	25	SF40	Trawl	Western		Empress Pearl	05-Apr-14
SETF	Jackass Morwong	0591	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	23-May-14
SETF	Jackass Morwong	0596	Otolith - Annual	17	SF20	Danish Seine	Eastern	Lakes Entrance	Nephelle	24-Sep-14
SETF	Jackass Morwong	0597	Otolith - Annual	5	SF50	Trawl	Western		Moir Elizabeth	04-Oct-14
SETF	Jackass Morwong	0598	Otolith - Annual	11	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	06-Oct-14
SETF	Jackass Morwong	0599	Otolith - Annual	16	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	13-Oct-14
SETF	Jackass Morwong	0600	Otolith - Annual	1	SF20	Danish Seine	Eastern		Ilana	31-Oct-14
SETF	Jackass Morwong	0601	Otolith - Annual	25	SF60	Danish Seine	Eastern		Wellington Cape	12-Nov-14
SETF	Jackass Morwong	0608	Otolith - Annual	17	SF20	Danish Seine	Eastern	Lakes Entrance	Marley Point	29-Sep-14
SETF	Jackass Morwong	0609	Otolith - Annual	17	SF20	Danish Seine	Eastern	Lakes Entrance	Wellington Cape	27-Oct-14
SETF	Jackass Morwong	0610	Otolith - Annual	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	01-Nov-14
SETF	Jackass Morwong	0611	Otolith - Annual	15	SF20	Danish Seine	Eastern	Lakes Entrance	Kendean	14-Nov-14
SETF	Jackass Morwong	0612	Otolith - Annual	17	SF20	Trawl	Eastern	Lakes Entrance	Castella Rosa	16-Nov-14
SETF	Jackass Morwong	0613	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	Castella Rosa	02-Dec-14
SETF	Jackass Morwong	0614	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	12-Dec-14
SETF	Jackass Morwong	0615	Otolith - Annual	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	21-Dec-14
SETF	Jackass Morwong	0616	Section otolith	17	SF20	Danish Seine	Eastern	Lakes Entrance	Anne Louise	06-Jan-15
SETF	Jackass Morwong	0617	Section otolith	15	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	23-Jan-15
SETF	Jackass Morwong	0618	Otolith - Annual	30	SF20	Trawl	Eastern		Shira	28-Nov-14
SETF	Jackass Morwong	0619	Otolith - Annual	16	SF20	Danish Seine	Eastern	Lakes Entrance	Rylan	03-Dec-14
SETF	Jackass Morwong	0620	Section otolith	9	SF10	Trawl	Eastern		Anne Marie IV	04-Mar-15
SETF	Jackass Morwong	0621	Section otolith	47	SF30	Trawl	Eastern		Rubicon	01-Mar-15
SETF	Jackass Morwong	0622	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	09-Feb-15
SETF	Jackass Morwong	0623	Section otolith	22	SF30	Trawl	Eastern	Lakes Entrance	Tullaburga	09-Feb-15
SETF	Jackass Morwong	0624	Section otolith	14	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	23-Feb-15
SETF	Jackass Morwong	0625	Section otolith	21	SF20	Danish Seine	Eastern	Lakes Entrance	Kendean	22-Feb-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Jackass Morwong	0626	Section otolith	55	SF20	Trawl	Eastern		Tullaburga	01-Feb-15
SETF	Jackass Morwong	0627	Section otolith	5	SF20	Danish Seine	Eastern		Nephelle	17-Feb-15
SETF	Jackass Morwong	0630	Section otolith	17	SF20	Danish Seine	Eastern	Lakes Entrance	Rhylan	01-Mar-15
SETF	Jackass Morwong	0631	Section otolith	15	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Mar-15
SETF	Jackass Morwong	0632	Section otolith	16	SF20	Danish Seine	Eastern	Lakes Entrance	Veronica S	16-Apr-15
SETF	Jackass Morwong	0633	Section otolith	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	15-Apr-15
SETF	Jackass Morwong	0634	Section otolith	16	SF20	Danish Seine	Eastern	Lakes Entrance	Kendean	01-May-15
SETF	Jackass Morwong	0635	Section otolith	16	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	04-May-15
SETF	Jackass Morwong	0636	Section otolith	29	SF50	Trawl	Western		Zeehan	01-Apr-15
SETF	Jackass Morwong	0637	Section otolith	14	SF20	Trawl	Eastern		James Kerlin	01-Apr-15
SETF	Jackass Morwong	0638	Section otolith	23	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Jun-15
SETF	Jackass Morwong	0639	Section otolith	1	SF60	Danish Seine	Eastern		Miranda Bay	19-Nov-15
SETF	Jackass Morwong	0640	Section otolith	19	SF20	Trawl	Eastern		Shira	01-Nov-15
SETF	Jackass Morwong	0641	Section otolith	18	SF60	Danish Seine	Eastern		Ilana	18-Dec-15
SETF	Jackass Morwong	0642	Section otolith	23	SF20	Danish Seine	Eastern	Lakes Entrance	Anne Louise	26-Oct-15
SETF	Jackass Morwong	0643	Section otolith	6	SF30	Otter trawl	Eastern		Imlay	17-Nov-15
SETF	Jackass Morwong	0644	Section otolith	22	SF30	Trawl	Eastern		Tullaburga	01-Jan-16
SETF	Jackass Morwong	0645	Section otolith	26	SF20	Trawl	Eastern		James Kerlin	01-Jan-25
SETF	Jackass Morwong	0646	Section otolith	31	SF20	Danish Seine	Eastern	Lakes Entrance	Neries	11-Dec-15
SETF	Jackass Morwong	0647	Section otolith	9	SF30	Danish Seine	Eastern		Rhylan	04-Mar-16
SETF	Jackass Morwong	0648	Section otolith	4	SF30	Trawl	Eastern		Silent Victory	23-Apr-16
SETF	Jackass Morwong	0650	Section otolith	20	SF50	Trawl	Western		Castella Rose	13-Mar-16
SETF	Jackass Morwong	0652	Section otolith	5	SF50	Trawl	Western		Zeehan	25-Feb-16
SETF	Jackass Morwong	0653	Section otolith	13	SF60	Danish Seine	Eastern		Ilana	07-Jan-16
SETF	Jackass Morwong	0654	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	17-Apr-16
SETF	Jackass Morwong	0656	Section otolith	11	SF30	Trawl	Eastern		Saxon Onward	02-Jun-16
SETF	Jackass Morwong	0657	Section otolith	7	SF10	Trawl	Eastern		Anne Marie V	30-Jun-16
SETF	Jackass Morwong	0658	Section otolith	2	SF30	Trawl	Eastern		Saxon Onward	02-Jun-16
SETF	Jackass Morwong	0659	Section otolith	10	SF50	Trawl	Western			01-Sep-15
SETF	Jackass Morwong	0660	Section otolith	10	SF50	Trawl	Western			01-Nov-15
SETF	Jackass Morwong	0661	Section otolith	10	SF50	Trawl	Western		Zeehan	24-Nov-15
SETF	Jackass Morwong	0662	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	07-Dec-15
SETF	Jackass Morwong	0663	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	11-Jan-16
SETF	Jackass Morwong	0664	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	15-Feb-16
SETF	Jackass Morwong	0665	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	07-Mar-16
SETF	Jackass Morwong	0666	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	05-Apr-16
SETF	Jackass Morwong	0667	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	19-May-16
SETF	Jackass Morwong	0668	Section otolith	10	SF50	Trawl	Western		Moir Elizabeth	06-Jun-16
SETF	Ocean Perch, Inshore	0017	Section otolith	1	SF40		Western			01-Oct-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Ocean Perch, Offshore	0097	Section otolith	18	SF20	Trawl	Eastern		Sarda	01-Dec-12
SETF	Ocean Perch, Offshore	0103	Section otolith	5	SF50	Trawl	Western		Zeehan	22-Mar-14
SETF	Ocean Perch, Offshore	0104	Section otolith	7	SF40	Trawl	Western		Saxon Progress	14-Mar-14
SETF	Ocean Perch, Offshore	0105	Section otolith	4	SF10	Trawl	Eastern		Rockfish	12-Feb-14
SETF	Ocean Perch, Offshore	0107	Section otolith	32	SF10	Trawl	Eastern		Illawarra Star	09-Apr-14
SETF	Ocean Perch, Offshore	0109	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	07-Jun-14
SETF	Ocean Perch, Offshore	0110	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	05-Jul-14
SETF	Ocean Perch, Offshore	0111	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	30-Jun-14
SETF	Ocean Perch, Offshore	0112	Section otolith	4	SF20	Danish Seine	Eastern		Veronica S	21-Aug-14
SETF	Ocean Perch, Offshore	0114	Section otolith	18	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	16-Sep-14
SETF	Ocean Perch, Offshore	0115	Section otolith	14	SF10	Trawl	Eastern		Francesca	01-Jun-14
SETF	Ocean Perch, Offshore	0116	Section otolith	2	SF10	Trawl	Eastern		Guiseppea	06-Aug-14
SETF	Ocean Perch, Offshore	0118	Otolith - Annual	4	SF20	Danish Seine	Eastern		Ilana	30-Oct-14
SETF	Ocean Perch, Offshore	0119	Otolith - Annual	5	SF10	Otter trawl	Eastern		Francesca	11-Oct-14
SETF	Ocean Perch, Offshore	0120	Otolith - Annual	2	SF10	Trawl	Eastern		Rockfish 1	30-Sep-14
SETF	Ocean Perch, Offshore	0121	Otolith - Annual	20	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	29-Sep-14
SETF	Ocean Perch, Offshore	0122	Otolith - Annual	18	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	20-Oct-14
SETF	Ocean Perch, Offshore	0123	Otolith - Annual	10	SF10	Otter trawl	Eastern		Cap Star	12-Nov-14
SETF	Ocean Perch, Offshore	0124	Otolith - Annual	17	SF20	Danish Seine	Eastern	Lakes Entrance	Rylan	03-Dec-14
SETF	Ocean Perch, Offshore	0125	Section otolith	17	SF40	Trawl	Western		Empress Pearl	01-Mar-15
SETF	Ocean Perch, Offshore	0126	Section otolith	17	SF10	Trawl	Eastern		Francesca	25-Jan-15
SETF	Ocean Perch, Offshore	0127	Section otolith	14	SF40	Trawl	Western		Castella Rosa	01-Apr-15
SETF	Ocean Perch, Offshore	0128	Section otolith	1	SF10	Trawl	Eastern		Anne Marie IV	29-Mar-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Ocean Perch, Offshore	0129	Section otolith	20	SF30	Trawl	Eastern		Rubicon	01-Mar-15
SETF	Ocean Perch, Offshore	0130	Section otolith	15	SF30	Trawl	Eastern		Rubicon	01-Mar-15
SETF	Ocean Perch, Offshore	0132	Section otolith	1	SF10	Trawl	Eastern		Illawarra Star	10-Feb-15
SETF	Ocean Perch, Offshore	0133	Section otolith	7	SF10	Trawl	Eastern		Guiseppea	17-Feb-15
SETF	Ocean Perch, Offshore	0134	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	06-Apr-15
SETF	Ocean Perch, Offshore	0135	Section otolith	11	SF20	Trawl	Eastern		James Kerlin	17-Apr-15
SETF	Ocean Perch, Offshore	0136	Section otolith	1	SF10	Trawl	Eastern		Anne Marie IV	17-May-15
SETF	Ocean Perch, Offshore	0137	Section otolith	10	SF10	Trawl	Eastern		Cap Star	12-Nov-14
SETF	Ocean Perch, Offshore	0138	Section otolith	17	SF20	Danish Seine	Eastern		Rhylan	03-Dec-14
SETF	Ocean Perch, Offshore	0139	Section otolith	4	SF50	Trawl	Western		Empress Pearl	16-Mar-15
SETF	Ocean Perch, Offshore	0140	Section otolith	16	SF10	Trawl	Eastern		Rockfish 1	15-Jul-15
SETF	Ocean Perch, Offshore	0141	Section otolith	3	SF50	Trawl	Western		V.J.	16-Nov-15
SETF	Ocean Perch, Offshore	0142	Section otolith	3	SF10	Trawl	Eastern		Susie J	15-Jul-15
SETF	Ocean Perch, Offshore	0143	Section otolith	9	SF10	Trawl	Eastern		I.S.	11-Feb-15
SETF	Ocean Perch, Offshore	0144	Section otolith	23	SF20	Trawl	Eastern		Shira	30-Nov-15
SETF	Ocean Perch, Offshore	0145	Section otolith	30	SF20	Trawl	Eastern		Tullaburga	23-Sep-15
SETF	Ocean Perch, Offshore	0146	Section otolith	21	SF10	Trawl	Eastern		Rockfish 1	13-Jan-16
SETF	Ocean Perch, Offshore	0147	Section otolith	2	SF30	Trawl	Eastern		Tullaburga	16-Jan-16
SETF	Ocean Perch, Offshore	0148	Section otolith	15	SF20	Trawl	Eastern		James Kerlin	06-Feb-16
SETF	Ocean Perch, Offshore	0149	Section otolith	19	SF20	Danish Seine	Eastern		Rhylan	03-Mar-16
SETF	Ocean Perch, Offshore	0151	Section otolith	7	SF60	Danish Seine	Eastern		Ilana	07-Jan-16
SETF	Ocean Perch, Offshore	0152	Section otolith	8	SF40	Trawl	Western			01-Sep-15
SETF	Ocean Perch, Offshore	0153	Section otolith	8	SF50	Trawl	Western			01-Sep-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Ocean Perch, Offshore	0154	Section otolith	8	SF40	Trawl	Western			01-Oct-15
SETF	Ocean Perch, Offshore	0155	Section otolith	8	SF50	Trawl	Western			01-Oct-15
SETF	Ocean Perch, Offshore	0156	Section otolith	8	SF40	Trawl	Western		Moira Elizabeth	24-Nov-15
SETF	Ocean Perch, Offshore	0157	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	06-Nov-16
SETF	Ocean Perch, Offshore	0158	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	07-Dec-15
SETF	Ocean Perch, Offshore	0159	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	11-Jan-16
SETF	Ocean Perch, Offshore	0160	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	15-Feb-16
SETF	Ocean Perch, Offshore	0161	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	07-Mar-16
SETF	Ocean Perch, Offshore	0162	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	05-Apr-16
SETF	Ocean Perch, Offshore	0163	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	10-May-16
SETF	Ocean Perch, Offshore	0164	Section otolith	8	SF50	Trawl	Western		Moira Elizabeth	06-Apr-16
SETF	Ocean Perch, Offshore	0166	Section otolith	13	SF10	Trawl	Eastern		Rockfish 1	01-Jul-16
SETF	Ocean Perch, Offshore	0634	Section otolith	10	SF50	Trawl	Eastern		Game Reason	30-Dec-16
SETF	Orange Roughy	0284	Section otolith	40	SF20	Trawl	Trawl		Lady Miriam	01-Dec-12
SETF	Orange Roughy	0288	Section otolith	64	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	23-Jul-14
SETF	Orange Roughy	0293	Otolith - Annual	25	SF40	Trawl	Trawl		Empress Pearl	23-Nov-14
SETF	Orange Roughy	0301	Section otolith	25	SF40	Trawl	Trawl		Castella Rosa	01-Apr-15
SETF	Orange Roughy	0302	Section otolith	94	SF30	Trawl	Trawl	Pedra	Saxon Onwards	21-May-15
SETF	Orange Roughy	0303	Section otolith	15	SF30	Trawl	Trawl	Cascade	San Tongaroa	01-Jun-15
SETF	Orange Roughy	0306	Section otolith	525	SF30	Trawl	Trawl	St Helen's Hill	Empress Pearl	01-Jun-15
SETF	Orange Roughy	0307	Section otolith	185	SF30	Trawl	Trawl	St Helen's Hill	Saxon Progress	01-Jun-15
SETF	Orange Roughy	0308	Section otolith	44	SF30	Trawl	Trawl	Cascade	Saxon Onwards	01-May-15
SETF	Orange Roughy	0310	Section otolith	38	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	19-May-15
SETF	Orange Roughy	0311	Section otolith	75	SF30	Trawl	Trawl	St Helen's Hill	Saxon Onwards	05-Jun-15
SETF	Orange Roughy	0312	Section otolith	50	SF30	Trawl	Trawl	St Helen's Hill	Saxon Onwards	10-Jun-15
SETF	Orange Roughy	0313	Section otolith	28	SF30	Trawl	Trawl	St Helen's Hill	Empress Pearl	20-Jun-15
SETF	Orange Roughy	0314	Section otolith	23	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	08-Jun-15
SETF	Orange Roughy	0315	Section otolith	261	SF30	Trawl	Trawl		Saxon Progress	01-Jul-15
SETF	Orange Roughy	0316	Section otolith	14	SF30	Trawl	Trawl	Cascade	San Tongaroa	19-Jun-15
SETF	Orange Roughy	0317	Section otolith	57	SF30	Trawl	Trawl	Cascade	San Tongaroa	01-Jun-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Orange Roughy	0318	Section otolith	359	SF30	Trawl	Trawl	St Helens Hill	Saxon Onwards	01-Aug-15
SETF	Orange Roughy	0320	Section otolith	330	OR10	Trawl	Trawl	St. Helens Hill	Empress Pearl	01-Jun-15
SETF	Orange Roughy	0321	Otolith - Annual	24	SF40	Trawl	Trawl		Empress Pearl	25-Feb-16
SETF	Orange Roughy	0322	Section otolith	219	OR30	Trawl	Trawl		Empress Pearl	01-Jun-16
SETF	Orange Roughy	0323	Section otolith	75	OR30	Trawl	Trawl		Saxon Onward	28-May-16
SETF	Orange Roughy	0324	Section otolith	25	OR10	Trawl	Trawl	St Helens Hill	Empress Pearl	01-Jun-16
SETF	Orange Roughy	0325	Section otolith	55	HS70	Trawl	Trawl		Saxon Onward	
SETF	Orange Roughy	0326	Section otolith	220	OR10	Trawl	Trawl	St Helens Hill	Empress Pearl	01-Jun-16
SETF	Orange Roughy	0327	Otolith - Annual	509	OR10	STAOS	Trawl	St Helens Hill	Thomas Harrison	01-Jul-12
SETF	Orange Roughy	0328	Otolith - Annual	603	OR10	STAOS	Trawl	St Patricks Head	Thomas Harrison	01-Jul-12
SETF	Orange Roughy	0329	Otolith - Annual	403	OR10	STAOS	Trawl	St Helens Hill	Empress Pearl 01/2013	01-Jul-13
SETF	Orange Roughy	0330	Otolith - Annual	100	OR10	STAOS	Trawl	St Patricks Head	Empress Pearl 01/2013	01-Jul-13
SETF	Orange Roughy	0331	Otolith - Annual	482	OR10	STAOS	Trawl	St Helens Hill	Empress Pearl 01/2013	01-Jul-16
SETF	Orange Roughy	0332	Otolith - Annual	153	OR10	STAOS	Trawl	St Patricks Head	Empress Pearl 01/2013	01-Jul-16
SETF	Orange Roughy	0334	Section otolith	50	OR10	Trawl	Trawl		Saxon Onward	11-Aug-16
SETF	Orange Roughy	0335	Section otolith	11	OR20	Trawl	Trawl	Lakes Entrance	James Kerlin	01-Dec-16
SETF	Orange Roughy	0336	Section otolith	114	OR30	Trawl	Trawl		Saxon Onward	01-Aug-16
SETF	Oreo, Smooth	0029	Section otolith	2	SF30	Trawl	Eastern	Cascade	Saxon Onwards	26-May-15
SETF	Oreo, Spiky	0006	Section otolith	11	SF30	Trawl	Eastern	Cascade	Saxon Onwards	25-May-15
SETF	Oreo, Spiky	0008	Section otolith	8	SF30	Trawl	Eastern		Saxon Onwards	14-Aug-15
SETF	Oreo, Spiky	0010	Section otolith	15	SF40	Trawl	Western		Empress Pearl	23-Nov-14
SETF	Pink Ling	0861	Section otolith	15	SF50	Trawl	Trawl		Zeehan	01-Mar-14
SETF	Pink Ling	0862	Section otolith	9	SF40	Trawl	Trawl		Saxon Progress	01-Mar-14
SETF	Pink Ling	0863	Section otolith	24	SF40	Trawl	Trawl		Empress Pearl	01-Apr-14
SETF	Pink Ling	0864	Section otolith	24	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	22-May-14
SETF	Pink Ling	0865	Section otolith	13	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	02-Jun-14
SETF	Pink Ling	0866	Section otolith	23	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	30-Jun-14
SETF	Pink Ling	0867	Section otolith	23	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	05-Jul-14
SETF	Pink Ling	0868	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	25-Jul-14
SETF	Pink Ling	0869	Section otolith	50	SF50	Trawl	Trawl		Castella Rosa	01-Jun-14
SETF	Pink Ling	0870	Section otolith	17	SF20	Danish Seine	Trawl	Lakes Entrance	Miranda Bay	07-Sep-14
SETF	Pink Ling	0871	Section otolith	11	SF10	Trawl	Trawl		Guiseppea	06-Aug-14
SETF	Pink Ling	0872	Section otolith	27	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	15-Sep-14
SETF	Pink Ling	0873	Section otolith	8	SF20	Danish Seine	Trawl	Lakes Entrance	Rhylan	17-Aug-14
SETF	Pink Ling	0874	Section otolith	14	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	18-Aug-14

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Pink Ling	0875	Section otolith	21	SF20	Danish Seine	Trawl	Lakes Entrance	Nungurner	17-Aug-14
SETF	Pink Ling	0876	Section otolith	24	SF40	Trawl	Trawl	Lakes Entrance	Tullaburga	11-Aug-14
SETF	Pink Ling	0879	Section otolith	20	SF30	Otter trawl	Trawl		Silent Victory	19-Nov-14
SETF	Pink Ling	0880	Section otolith	70	SF40	Trawl	Trawl		Empress Pearl	21-Nov-14
SETF	Pink Ling	0882	Section otolith	16	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	16-Sep-14
SETF	Pink Ling	0883	Section otolith	12	SF20	Danish Seine	Trawl	Lakes Entrance	Panagia	28-Sep-14
SETF	Pink Ling	0884	Section otolith	5	SF10	Trawl	Trawl		Rockfish 1	30-Sep-14
SETF	Pink Ling	0885	Section otolith	14	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	06-Oct-14
SETF	Pink Ling	0886	Section otolith	3	SF20	Danish Seine	Trawl		Ilana	30-Oct-14
SETF	Pink Ling	0887	Section otolith	21	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	20-Oct-14
SETF	Pink Ling	0888	Section otolith	20	SF20	Trawl	Trawl	Lakes Entrance	Castella Rosa	21-Oct-14
SETF	Pink Ling	0889	Section otolith	16	SF20	Trawl	Trawl	Lakes Entrance	Castella Rosa	01-Nov-14
SETF	Pink Ling	0890	Section otolith	23	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	23-Nov-14
SETF	Pink Ling	0891	Section otolith	25	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	24-Nov-14
SETF	Pink Ling	0892	Section otolith	22	SF20	Trawl	Trawl	Lakes Entrance	Castella Rosa	02-Dec-14
SETF	Pink Ling	0894	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	22-Jan-14
SETF	Pink Ling	0896	Section otolith	22	SF30	Trawl	Trawl		Lady Miriam	01-Feb-14
SETF	Pink Ling	0897	Otolith - Annual	15	SF20	Trawl	Trawl		Melisa	15-Aug-14
SETF	Pink Ling	0898	Otolith - Annual	26	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	15-Dec-14
SETF	Pink Ling	0899	Section otolith	26	SF20	Danish Seine	Trawl	Lakes Entrance	Nungurner	06-Jan-15
SETF	Pink Ling	0900	Section otolith	27	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	23-Jan-15
SETF	Pink Ling	0901	Section otolith	27	SF40	Trawl	Trawl		Empress Pearl	01-Mar-15
SETF	Pink Ling	0902	Section otolith	16	SF50	Trawl	Trawl		Empress Pearl	16-Mar-15
SETF	Pink Ling	0903	Section otolith	18	SF40	Trawl	Trawl		Castella Rosa	01-Apr-15
SETF	Pink Ling	0904	Section otolith	41	SF30	Trawl	Trawl		Rubicon	01-Mar-15
SETF	Pink Ling	0905	Section otolith	17	SF30	Trawl	Trawl	Lakes Entrance	Tullaburga	09-Feb-15
SETF	Pink Ling	0906	Section otolith	26	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	09-Feb-15
SETF	Pink Ling	0907	Section otolith	25	SF50	Trawl	Trawl		Moir Elizabeth	01-Jan-15
SETF	Pink Ling	0913	Section otolith	12	SF40	Trawl	Trawl		Castella Rosa	01-Apr-15
SETF	Pink Ling	0914	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	02-Mar-15
SETF	Pink Ling	0915	Section otolith	30	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	05-May-15
SETF	Pink Ling	0916	Section otolith	22	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	06-Apr-15
SETF	Pink Ling	0917	Section otolith	5	SF20	Danish Seine	Trawl	Lakes Entrance	Kendean	01-May-15
SETF	Pink Ling	0918	Section otolith	6	SF20	Danish Seine	Trawl	Lakes Entrance	Panagia	02-May-15
SETF	Pink Ling	0919	Section otolith	8	SF20	Danish Seine	Trawl	Lakes Entrance	Marley Point	02-May-15
SETF	Pink Ling	0920	Section otolith	28	SF50	Trawl	Trawl		Zeehan	01-Apr-15
SETF	Pink Ling	0921	Section otolith	33	SF20	Trawl	Trawl		James Kerlin	01-Apr-15
SETF	Pink Ling	0922	Section otolith	25	SF10	Trawl	Trawl		Rockfish 1	08-May-15
SETF	Pink Ling	0923	Section otolith	29	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	26-May-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Pink Ling	0924	Section otolith	14	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	02-Jun-15
SETF	Pink Ling	0925	Section otolith	2	SF20	Trawl	Trawl		Imlay	16-Apr-15
SETF	Pink Ling	0926	Section otolith	10	SF20	Trawl	Trawl		Shira	05-Jul-15
SETF	Pink Ling	0927	Section otolith	9	SF10	Trawl	Trawl		Rockfish 1	15-Jul-15
SETF	Pink Ling	0928	Section otolith	13	SF20	Trawl	Trawl	Lakes Entrance	Anne Louise	14-Jun-15
SETF	Pink Ling	0929	Section otolith	25	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	01-Jul-15
SETF	Pink Ling	0930	Section otolith	12	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	05-Jun-15
SETF	Pink Ling	0931	Section otolith	21	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	01-Sep-15
SETF	Pink Ling	0932	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	10-Aug-15
SETF	Pink Ling	0933	Section otolith	39	SF50	Trawl	Trawl		V.J.	01-Nov-15
SETF	Pink Ling	0935	Section otolith	4	SF10	Trawl	Trawl		Susie J	
SETF	Pink Ling	0936	Section otolith	1	SF50	Trawl	Trawl		Veronica S	17-Nov-15
SETF	Pink Ling	0937	Section otolith	6	SF20	Trawl	Trawl		Shira	30-Nov-15
SETF	Pink Ling	0938	Section otolith	37	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	21-Oct-15
SETF	Pink Ling	0939	Section otolith	20	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	05-Oct-15
SETF	Pink Ling	0940	Section otolith	2	SF20	Scottish seine	Trawl		Kendean	12-Feb-16
SETF	Pink Ling	0941	Section otolith	61	SF20	Trawl	Trawl		James Kerlin	01-Feb-16
SETF	Pink Ling	0942	Section otolith	5	SF10	Trawl	Trawl		Illawarra Star	03-Feb-16
SETF	Pink Ling	0943	Section otolith	70	SF40	Trawl	Trawl		Empress Pearl	01-Feb-16
SETF	Pink Ling	0944	Section otolith	14	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	08-Dec-15
SETF	Pink Ling	0945	Section otolith	1	SF30	Trawl	Trawl		Lady Miriam	11-Feb-16
SETF	Pink Ling	0946	Section otolith	11	SF30	Trawl	Trawl		Silent Victory	25-Apr-16
SETF	Pink Ling	0947	Section otolith	24	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	23-Jan-16
SETF	Pink Ling	0948	Section otolith	1	SF20	Trawl	Trawl		Rhylan	03-Mar-16
SETF	Pink Ling	0949	Section otolith	25	SF30	Trawl	Trawl		Silent Victory	05-Apr-16
SETF	Pink Ling	0950	Section otolith	25	SF50	Trawl	Trawl		Castella Rose	01-Mar-16
SETF	Pink Ling	0952	Section otolith	25	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	01-Jun-16
SETF	Pink Ling	0953	Section otolith	28	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	14-Apr-16
SETF	Pink Ling	0954	Section otolith	10	SF50	Trawl	Trawl		Moir Elizabeth	09-Jul-16
SETF	Pink Ling	0956	Section otolith	10	SF30	Trawl	Trawl		Silent Victory	16-May-16
SETF	Pink Ling	0957	Section otolith	10	SF40	Trawl	Trawl			01-Sep-15
SETF	Pink Ling	0958	Section otolith	8	SF50	Trawl	Trawl			01-Sep-15
SETF	Pink Ling	0959	Section otolith	10	SF40	Trawl	Trawl			01-Nov-15
SETF	Pink Ling	0960	Section otolith	8	SF50	Trawl	Trawl			01-Nov-15
SETF	Pink Ling	0961	Section otolith	10	SF40	Trawl	Trawl		Moir Elizabeth	24-Nov-15
SETF	Pink Ling	0962	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	10-Nov-15
SETF	Pink Ling	0963	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	07-Dec-15
SETF	Pink Ling	0964	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	07-Mar-16



Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Pink Ling	0965	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	05-Apr-16
SETF	Pink Ling	0966	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	10-May-16
SETF	Pink Ling	0967	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	06-Jun-16
SETF	Pink Ling	0968	Section otolith	8	SF50	Trawl	Trawl		Castella Rosa	09-Feb-16
SETF	Pink Ling	0969	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	11-Jan-16
SETF	Pink Ling	0970	Section otolith	20	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	02-Jul-16
SETF	Pink Ling	0971	Section otolith	33	SF20	Danish Seine	Trawl	Lakes Entrance	Wellington Cape	06-Aug-16
SETF	Pink Ling	0972	Section otolith	19	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	18-Aug-16
SETF	Pink Ling	0973	Section otolith	20	SF20	Danish Seine	Trawl	Lakes Entrance	Neries	01-Sep-16
SETF	Pink Ling	0974	Section otolith	23	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	12-Sep-16
SETF	Pink Ling	0976	Section otolith	23	SF50	Trawl	Trawl		Castella Rosa	01-Oct-16
SETF	Pink Ling	0977	Section otolith	10	SF30	Trawl	Trawl		Saxon Onward	12-Aug-16
SETF	Pink Ling	0978	Section otolith	13	SF40	Trawl	Trawl		S.Rocco	25-Nov-16
SETF	Pink Ling	0980	Section otolith	4	SF20	Trawl	Trawl		Shira	01-Nov-16
SETF	Pink Ling	0981	Section otolith	25	SF20	Trawl	Trawl		Imlay	13-Aug-16
SETF	Pink Ling	0982	Section otolith	10	SF30	Trawl	Trawl		Silent Victory	10-Nov-16
SETF	Pink Ling	0983	Section otolith	20	SF50	Trawl	Trawl		Game Reason	31-Dec-17
SETF	Pink Ling	0984	Section otolith	40	SF40	Trawl	Trawl		S.Rocco	01-Nov-16
SETF	Pink Ling	0985	Section otolith	17	SF30	Trawl	Trawl	Lakes Entrance	Tullaburga	24-Oct-16
SETF	Pink Ling	0986	Section otolith	12	SF20	Danish Seine	Trawl	Lakes Entrance	Wellington Cape	30-Oct-16
SETF	Pink Ling	0987	Section otolith	27	SF20	Danish Seine	Trawl	Lakes Entrance	Miranda Bay	10-Nov-16
SETF	Pink Ling	0988	Section otolith	12	SF20	Danish Seine	Trawl	Lakes Entrance	Kendean	10-Nov-16
SETF	Pink Ling	0989	Section otolith	15	SF20	Danish Seine	Trawl	Lakes Entrance	Marley Point	10-Nov-16
SETF	Redfish	0431	Section otolith	51	SF20	Trawl	Trawl		Lady Miriam	01-Nov-12
SETF	Redfish	0432	Section otolith	17	SF60	Danish Seine	Trawl		Nungurner	01-Nov-12
SETF	Redfish	0433	Section otolith	25	SF20	Trawl	Trawl		Tullaburga	01-Nov-12
SETF	Redfish	0435	Section otolith	25	SF20	Trawl	Trawl		Melisa	05-Feb-14
SETF	Redfish	0436	Section otolith	25	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	10-Feb-14
SETF	Redfish	0437	Section otolith	9	SF10	Trawl	Trawl		Anne Marie IV	21-May-14
SETF	Redfish	0438	Section otolith	34	SF10	Trawl	Trawl		Francesca	26-Jun-14
SETF	Redfish	0439	Section otolith	11	SF20	Trawl	Trawl	Lakes Entrance	Anne Louise	22-Jun-14
SETF	Redfish	0440	Section otolith	33	SF20	Trawl	Trawl	Lakes Entrance	Anne Louise	16-Jul-14
SETF	Redfish	0441	Section otolith	30	SF20	Trawl	Trawl	Lakes Entrance	Anne Louise	28-May-14
SETF	Redfish	0442	Section otolith	2	SF10	Trawl	Trawl		Illawarra Star	26-Feb-14
SETF	Redfish	0443	Section otolith	24	SF10	Trawl	Trawl		Illawarra Star	30-Jan-14
SETF	Redfish	0444	Section otolith	12	SF10	Trawl	Trawl		Illawarra Star	09-Apr-14
SETF	Redfish	0445	Section otolith	32	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	09-Sep-14
SETF	Redfish	0446	Section otolith	15	SF20	Trawl	Trawl		Rubicon	03-May-14
SETF	Redfish	0447	Section otolith	64	SF10	Trawl	Trawl		Shoalhaven	01-May-14

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Redfish	0448	Section otolith	25	SF10	Trawl	Trawl		Imlay	06-Aug-14
SETF	Redfish	0449	Section otolith	45	SF20	Trawl	Trawl		Shoalhaven	22-Jul-14
SETF	Redfish	0450	Section otolith	22	SF10	Trawl	Trawl		Francesca	01-Oct-14
SETF	Redfish	0451	Section otolith	20	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	13-Oct-14
SETF	Redfish	0452	Section otolith	12	SF20	Danish Seine	Trawl		Ilana	30-Oct-14
SETF	Redfish	0453	Section otolith	21	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	10-Nov-14
SETF	Redfish	0454	Section otolith	5	SF10	Trawl	Trawl		Anne Marie IV	18-Dec-14
SETF	Redfish	0455	Section otolith	28	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	06-Dec-14
SETF	Redfish	0456	Section otolith	8	SF10	Otter trawl	Trawl		Cap Star	12-Nov-14
SETF	Redfish	0457	Section otolith	15	SF10	Trawl	Eastern		Anne Marie IV	05-Mar-15
SETF	Redfish	0458	Section otolith	65	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	01-Feb-15
SETF	Redfish	0459	Section otolith	2	SF10	Trawl	Eastern		Francesca	08-Jan-15
SETF	Redfish	0460	Section otolith	3	SF10	Trawl	Eastern		Francesca	17-Jan-15
SETF	Redfish	0461	Section otolith	45	SF10	Trawl	Eastern		Francesca	01-Jan-15
SETF	Redfish	0462	Section otolith	5	SF10	Trawl	Eastern		Francesca	08-Feb-15
SETF	Redfish	0463	Section otolith	11	SF10	Trawl	Eastern		Anne Marie IV	29-Mar-15
SETF	Redfish	0464	Section otolith	9	SF10	Trawl	Trawl		Anne Marie IV	19-Oct-14
SETF	Redfish	0465	Section otolith	62	SF10	Trawl	Eastern		Illawarra Star	01-Feb-15
SETF	Redfish	0466	Section otolith	28	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	09-Mar-15
SETF	Redfish	0467	Section otolith	23	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	04-May-15
SETF	Redfish	0468	Section otolith	56	SF10	Trawl	Eastern		Anne Marie IV	01-Apr-15
SETF	Redfish	0469	Section otolith	2	SF20	Trawl	Eastern		James Kerlin	21-Apr-15
SETF	Redfish	0470	Section otolith	1	SF10	Trawl	Eastern		Francesca	21-Feb-15
SETF	Redfish	0471	Section otolith	11	SF10	Trawl	Eastern		Anne Marie IV	17-May-15
SETF	Redfish	0472	Section otolith	25	SF10	Trawl	Eastern		Rockfish 1	08-May-15
SETF	Redfish	0473	Section otolith	48	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	12-May-15
SETF	Redfish	0474	Section otolith	25	SF10	Trawl	Eastern		Shoalhaven	06-Feb-15
SETF	Redfish	0475	Section otolith	14	SF10	Trawl	Eastern		Wendy Belle	04-Mar-15
SETF	Redfish	0476	Section otolith	92	SF10	Trawl	Eastern		Shoalhaven	29-Apr-15
SETF	Redfish	0477	Section otolith	7	SF10	Trawl	Eastern		Shelley H	18-May-15
SETF	Redfish	0478	Section otolith	30	SF10	Trawl	Eastern		Francesca	28-May-15
SETF	Redfish	0479	Section otolith	7	SF20	Trawl	Eastern		Imlay	16-Apr-15
SETF	Redfish	0480	Section otolith	10	SF10	Trawl	Eastern		Shelley H	30-Mar-15
SETF	Redfish	0481	Section otolith	37	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	21-Sep-15
SETF	Redfish	0482	Section otolith	8	SF10	Trawl	Eastern		Anne Marie	24-Oct-15
SETF	Redfish	0483	Section otolith	30	SF20	Trawl	Eastern		Shira	01-Nov-15
SETF	Redfish	0484	Section otolith	4	SF10	Trawl	Eastern		Francesca	06-Dec-15
SETF	Redfish	0485	Section otolith	18	SF10	Trawl	Eastern		Giuseppa	04-Dec-15
SETF	Redfish	0486	Section otolith	14	SF10	Trawl	Eastern		Rockfish 1	19-Nov-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Redfish	0487	Section otolith	15	SF10	Trawl	Eastern		Shira	20-Jan-16
SETF	Redfish	0488	Section otolith	10	SF10	Trawl	Eastern		Shira	20-Jan-16
SETF	Redfish	0489	Section otolith	21	SF10	Trawl	Eastern		Francesca	01-Feb-16
SETF	Redfish	0490	Section otolith	5	SF20	Scottish seine	Eastern		Kendean	12-Feb-16
SETF	Redfish	0491	Section otolith	31	SF10	Trawl	Eastern		Anne Marie IV	01-Apr-16
SETF	Redfish	0492	Section otolith	4	SF20	Danish Seine	Eastern		Rhylan	03-Mar-16
SETF	Redfish	0493	Section otolith	10	SF10	Trawl	Eastern		Shira	20-Mar-16
SETF	Redfish	0494	Section otolith	25	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	03-Oct-16
SETF	Redfish	0495	Section otolith	25	SF60	Danish Seine	Eastern	Lakes Entrance	Anne Louise	27-Nov-16
SETF	Ribaldo	0208	Section otolith	35	SF20	Trawl	Trawl		Lady Miriam	01-Dec-12
SETF	Ribaldo	0211	Section otolith	32	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	23-Jul-14
SETF	Ribaldo	0212	Section otolith	25	SF50	Trawl	Trawl		Castella Rosa	17-Jun-14
SETF	Ribaldo	0215	Section otolith	20	SF40	Trawl	Trawl		Empress Pearl	06-May-14
SETF	Ribaldo	0217	Section otolith	6	SF50	Trawl	Trawl		Zeehan	22-Mar-14
SETF	Ribaldo	0218	Section otolith	6	SF40	Trawl	Trawl		Saxon Progress	14-Mar-14
SETF	Ribaldo	0219	Section otolith	14	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	16-Sep-14
SETF	Ribaldo	0221	Otolith - Annual	15	SF40	Trawl	Trawl		Empress Pearl	23-Nov-14
SETF	Ribaldo	0223	Otolith - Annual	5	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	08-Jan-15
SETF	Ribaldo	0224	Otolith - Annual	18	SF40	Trawl	Eastern		Empress Pearl	01-Mar-15
SETF	Ribaldo	0225	Otolith - Annual	2	SF30	Trawl	Eastern		Rubicon	25-Mar-15
SETF	Ribaldo	0230	Otolith - Annual	24	SF40	Trawl	Western		Castella Rosa	01-Apr-15
SETF	Ribaldo	0232	Otolith - Annual	44	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	30-Mar-15
SETF	Ribaldo	0233	Otolith - Annual	19	SF50	Trawl	Western		Zeehan	10-Apr-15
SETF	Ribaldo	0234	Otolith - Annual	31	SF40	Trawl	Trawl		Empress Pearl	01-Feb-16
SETF	Ribaldo	0235	Section otolith	20	SF30	Trawl	Trawl		Emperess Pearl	27-Jun-16
SETF	Ribaldo	0236	Section otolith	10	SF50	Trawl	Trawl			01-Oct-15
SETF	Ribaldo	0237	Section otolith	16	SF50	Trawl	Trawl		Moir Elizabeth	01-Nov-16
SETF	Ribaldo	0238	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	11-Jan-16
SETF	Ribaldo	0239	Section otolith	6	SF50	Trawl	Trawl		Moir Elizabeth	08-Feb-16
SETF	Ribaldo	0240	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	15-Mar-16
SETF	Ribaldo	0241	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	26-Apr-16
SETF	Ribaldo	0242	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	10-May-16
SETF	Ribaldo	0243	Section otolith	8	SF50	Trawl	Trawl		Moir Elizabeth	06-Jun-16
SETF	Ribaldo	0245	Section otolith	27	SF40	Trawl	Trawl		S.Rocco	25-Nov-16
SETF	Ribaldo	0246	Section otolith	28	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	01-Dec-16
SETF	School Whiting	0222	Section otolith	20	SF60	Danish Seine	Danish Seine		Coovara	01-Jan-14
SETF	School Whiting	0223	Section otolith	18	SF60	Danish Seine	Danish Seine		Ilana	01-Jan-14
SETF	School Whiting	0224	Section otolith	27	SF60	Danish Seine	Danish Seine		Nungurner	01-Dec-12

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	School Whiting	0225	Section otolith	16	SF60	Danish Seine	Danish Seine		Anne Louise	01-Nov-12
SETF	School Whiting	0226	Section otolith	17	SF60	Danish Seine	Danish Seine		Kendean	01-Jan-13
SETF	School Whiting	0227	Section otolith	23	SF60	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	27-May-14
SETF	School Whiting	0228	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nungurner	02-Feb-14
SETF	School Whiting	0229	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	02-Jun-14
SETF	School Whiting	0230	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	02-Jun-14
SETF	School Whiting	0231	Section otolith	72	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	01-Jun-14
SETF	School Whiting	0232	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	04-Jul-14
SETF	School Whiting	0233	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	28-Jul-14
SETF	School Whiting	0234	Section otolith	20	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nephelle	15-Aug-14
SETF	School Whiting	0235	Section otolith	18	SF60	Danish Seine	Danish Seine	Lakes Entrance	Panagia	03-Aug-14
SETF	School Whiting	0236	Section otolith	21	SF60	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	04-Aug-14
SETF	School Whiting	0237	Otolith - Annual	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	21-Jul-14
SETF	School Whiting	0238	Otolith - Annual	16	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	19-Jul-14
SETF	School Whiting	0239	Otolith - Annual	80	SF60	Scottish seine	Trawl		Wellington Cape	27-Sep-14
SETF	School Whiting	0240	Otolith - Annual	25	SF60	Danish Seine	Danish Seine		Metris	01-Aug-14
SETF	School Whiting	0241	Otolith - Annual	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Wellington Cape	24-Sep-14
SETF	School Whiting	0242	Otolith - Annual	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Veronica S	29-Sep-14
SETF	School Whiting	0243	Otolith - Annual	30	SF10	Otter trawl	Trawl		Francesca	01-Oct-14
SETF	School Whiting	0244	Otolith - Annual	22	SF20	Danish Seine	Danish Seine		Ilana	03-Nov-14
SETF	School Whiting	0245	Otolith - Annual	18	SF60	Danish Seine	Danish Seine		Ilana	03-Nov-14
SETF	School Whiting	0246	Otolith - Annual	110	SF60	Danish Seine	Danish Seine		Wellington Cape	
SETF	School Whiting	0247	Otolith - Annual	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	19-Oct-14
SETF	School Whiting	0248	Otolith - Annual	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	19-Oct-14
SETF	School Whiting	0249	Otolith - Annual	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Panagia	26-Oct-14
SETF	School Whiting	0250	Otolith - Annual	21	SF60	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	02-Nov-14
SETF	School Whiting	0251	Otolith - Annual	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Panagia	10-Nov-14
SETF	School Whiting	0252	Otolith - Annual	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	16-Nov-14
SETF	School Whiting	0253	Otolith - Annual	14	SF60	Scottish seine	Trawl		Metis	25-Aug-14
SETF	School Whiting	0254	Otolith - Annual	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	03-Dec-14
SETF	School Whiting	0255	Otolith - Annual	24	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nungurner	10-Dec-14
SETF	School Whiting	0256	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Marley Point	08-Jan-15
SETF	School Whiting	0257	Section otolith	18	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nungurner	19-Jan-15
SETF	School Whiting	0258	Section otolith	205	SF50	Danish Seine	Danish Seine		Coovara	01-Mar-15
SETF	School Whiting	0259	Section otolith	18	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	03-Feb-15
SETF	School Whiting	0260	Section otolith	8	SF10	Trawl	Trawl		Anne Marie IV	07-Feb-15
SETF	School Whiting	0261	Section otolith	20	SF10	Trawl	Trawl		Francesca	01-Jan-15
SETF	School Whiting	0262	Section otolith	30	SF20	Trawl	Trawl		Miranda Bay	06-Feb-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	School Whiting	0263	Section otolith	28	SF10	Trawl	Trawl		Francesca	08-Feb-15
SETF	School Whiting	0265	Section otolith	21	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nephelle	23-Feb-15
SETF	School Whiting	0266	Section otolith	24	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nungurner	22-Mar-15
SETF	School Whiting	0267	Section otolith	20	SF60	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	25-Apr-15
SETF	School Whiting	0268	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nungurner	04-May-15
SETF	School Whiting	0269	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Marley Point	04-May-15
SETF	School Whiting	0270	Section otolith	8	SF20	Danish Seine	Danish Seine		Ilana	24-Apr-15
SETF	School Whiting	0271	Section otolith	62	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	19-May-15
SETF	School Whiting	0272	Section otolith	42	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	26-May-15
SETF	School Whiting	0273	Section otolith	14	SF20	Trawl	Trawl		Imlay	16-Apr-15
SETF	School Whiting	0274	Section otolith	10	SF60	Danish Seine	Danish Seine		Marley Point	31-Mar-15
SETF	School Whiting	0275	Section otolith	20	SF60	Danish Seine	Danish Seine		Coovara	16-Mar-15
SETF	School Whiting	0276	Section otolith	114	SF20	Trawl	Danish Seine	Lakes Entrance	Tullaberga	01-Jun-15
SETF	School Whiting	0277	Section otolith	40	SF60	Danish Seine	Danish Seine		Veronica S	30-Jul-15
SETF	School Whiting	0278	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	04-Jun-15
SETF	School Whiting	0279	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	06-Jul-15
SETF	School Whiting	0280	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nephelle	10-Jul-15
SETF	School Whiting	0281	Section otolith	26	SF60	Danish Seine	Danish Seine	Lakes Entrance	Veronica S	02-Sep-15
SETF	School Whiting	0282	Section otolith	22	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	10-Aug-15
SETF	School Whiting	0283	Section otolith	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Veronica S	10-Aug-15
SETF	School Whiting	0284	Section otolith	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nungurner	13-Sep-15
SETF	School Whiting	0285	Section otolith	40	SF60	Scottish seine	Trawl		Miranda Bay	12-Aug-15
SETF	School Whiting	0286	Section otolith	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Wellington Cape	24-Aug-15
SETF	School Whiting	0287	Section otolith	1	SF60	Trawl	Trawl		Anne Marie V	24-Oct-15
SETF	School Whiting	0288	Section otolith	28	SF10	Trawl	Trawl		Francesca	01-Dec-15
SETF	School Whiting	0289	Section otolith	34	SF60	Danish Seine	Danish Seine		Miranda Bay	01-Nov-15
SETF	School Whiting	0290	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	08-Nov-15
SETF	School Whiting	0291	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	29-Oct-15
SETF	School Whiting	0292	Section otolith	27	SF60	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	13-Oct-15
SETF	School Whiting	0293	Section otolith	35	SF20	Danish Seine	Danish Seine		Wellington Cape	19-Nov-15
SETF	School Whiting	0294	Section otolith	6	SF60	Danish Seine	Danish Seine		Rhylan	19-May-15
SETF	School Whiting	0295	Section otolith	4	SF60	Danish Seine	Danish Seine		Wellington Cape	13-Jun-15
SETF	School Whiting	0296	Section otolith	21	SF10	Trawl	Trawl		Francesca	02-Feb-16
SETF	School Whiting	0297	Section otolith	24	SF20	Danish Seine	Danish Seine		Veronica S	24-Feb-16
SETF	School Whiting	0298	Section otolith	11	SF20	Scottish seine	Trawl		Kendean	12-Feb-16
SETF	School Whiting	0299	Section otolith	20	SF20	Danish Seine	Danish Seine		Nephelle	20-Nov-15
SETF	School Whiting	0300	Section otolith	24	SF60	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	15-Dec-15
SETF	School Whiting	0301	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Marley Point	10-Jan-16

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	School Whiting	0302	Section otolith	24	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nephelle	02-Mar-16
SETF	School Whiting	0303	Section otolith	30	SF60	Danish Seine	Danish Seine		Anne Louise	03-Mar-16
SETF	School Whiting	0304	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Nephelle	19-Feb-16
SETF	School Whiting	0305	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	07-Feb-16
SETF	School Whiting	0306	Section otolith	30	SF60	Trawl	Trawl		Wellington Cape	01-May-16
SETF	School Whiting	0307	Section otolith	40	SF60	Trawl	Trawl		Wellington Cape	01-Jun-16
SETF	School Whiting	0308	Section otolith	30	SF60	Trawl	Trawl		Nephelle	05-May-16
SETF	School Whiting	0309	Section otolith	34	SF60	Trawl	Trawl	Lakes Entrance	Tullaberga	13-Jun-16
SETF	School Whiting	0310	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Anne Louise	14-May-16
SETF	School Whiting	0311	Section otolith	25	SF60	Trawl	Trawl	Lakes Entrance	Anne Louise	05-Apr-16
SETF	School Whiting	0312	Section otolith	27	SF60	Trawl	Trawl	Lakes Entrance	Miranda Bay	05-Mar-16
SETF	School Whiting	0313	Section otolith	17	SF60	Trawl	Trawl	Lakes Entrance	Panagia	02-Jun-16
SETF	School Whiting	0314	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Wellington Cape	20-Jul-16
SETF	School Whiting	0315	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Neries	02-Aug-16
SETF	School Whiting	0316	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	03-Oct-16
SETF	School Whiting	0317	Section otolith	16	SF60	Danish Seine	Danish Seine	Lakes Entrance	Panagia	29-Aug-16
SETF	School Whiting	0318	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	07-Sep-16
SETF	School Whiting	0319	Section otolith	30	SF60	Danish Seine	Danish Seine		Wellington Cape	17-Sep-16
SETF	School Whiting	0320	Section otolith	70	SF60	Danish Seine	Danish Seine		Coovara	01-Nov-16
SETF	School Whiting	0321	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Southern Hunter	26-Oct-16
SETF	School Whiting	0322	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Wellington Cape	04-Nov-16
SETF	School Whiting	0323	Section otolith	17	SF60	Danish Seine	Danish Seine	Lakes Entrance	Kendean	11-Nov-16
SETF	School Whiting	0324	Section otolith	30	SF60	Danish Seine	Danish Seine		Marley Point	01-Dec-16
SETF	Tiger Flathead	0713	Section otolith	66	SF20	Scottish seine	Trawl		Anne Louise	01-Jan-14
SETF	Tiger Flathead	0714	Section otolith	50	SF20	Danish Seine	Danish Seine		Coovara	01-Jan-14
SETF	Tiger Flathead	0715	Section otolith	18	SF60	Danish Seine	Danish Seine		Ilana	01-Jan-14
SETF	Tiger Flathead	0717	Section otolith	17	SF20	Trawl	Trawl		James Kerlin	01-Dec-12
SETF	Tiger Flathead	0721	Section otolith	50	SF20	Trawl	Trawl		James Kerlin	01-Dec-13
SETF	Tiger Flathead	0722	Section otolith	30	SF20	Danish Seine	Trawl		Nungurner	18-Dec-13
SETF	Tiger Flathead	0723	Section otolith	40	SF20	Danish Seine	Danish Seine		Anne Louise	01-Dec-12
SETF	Tiger Flathead	0725	Section otolith	31	SF10	Trawl	Trawl		Anne Marie IV	22-May-14
SETF	Tiger Flathead	0726	Section otolith	20	SF10	Trawl	Trawl		Francesca	21-Jun-14
SETF	Tiger Flathead	0727	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	30-Jun-14
SETF	Tiger Flathead	0728	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Lady Miriam	29-Jun-14
SETF	Tiger Flathead	0729	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	25-Jul-14
SETF	Tiger Flathead	0730	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	19-Jul-14
SETF	Tiger Flathead	0731	Section otolith	16	SF20	Danish Seine	Trawl	Lakes Entrance	Southern Hunter	16-Jul-14
SETF	Tiger Flathead	0732	Section otolith	18	SF20	Danish Seine	Trawl	Lakes Entrance	Southern Hunter	25-May-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Tiger Flathead	0733	Section otolith	18	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	22-May-14
SETF	Tiger Flathead	0734	Section otolith	16	SF20	Danish Seine	Trawl	Lakes Entrance	Southern Hunter	11-Jan-14
SETF	Tiger Flathead	0735	Section otolith	18	SF10	Otter trawl	Trawl		Illawarra Star	26-Feb-14
SETF	Tiger Flathead	0736	Section otolith	142	SF30	Trawl	Trawl		Lady Miriam	01-Feb-14
SETF	Tiger Flathead	0737	Section otolith	10	SF10	Otter trawl	Trawl		Illawarra Star	09-Apr-14
SETF	Tiger Flathead	0738	Section otolith	24	SF10	Trawl	Trawl		Illawarra Star	30-Jan-14
SETF	Tiger Flathead	0739	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	15-Sep-14
SETF	Tiger Flathead	0740	Section otolith	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Ilana	05-Aug-14
SETF	Tiger Flathead	0741	Section otolith	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Nephelle	15-Aug-14
SETF	Tiger Flathead	0742	Section otolith	20	SF20	Danish Seine	Danish Seine		Nephelle	15-Aug-14
SETF	Tiger Flathead	0743	Section otolith	99	SF20	Danish Seine	Danish Seine		Veronica S	01-Aug-14
SETF	Tiger Flathead	0744	Otolith - Annual	10	SF60	Scottish seine	Trawl		Wellington Cape	22-Sep-14
SETF	Tiger Flathead	0745	Otolith - Annual	10	SF60	Danish Seine	Danish Seine		Marley Point	25-Sep-14
SETF	Tiger Flathead	0746	Otolith - Annual	148	SF20	Danish Seine	Danish Seine		Ilana	01-Oct-14
SETF	Tiger Flathead	0747	Otolith - Annual	55	SF10	Trawl	Trawl		Francesca	01-Oct-14
SETF	Tiger Flathead	0748	Otolith - Annual	29	SF10	Trawl	Eastern		Anne Marie IV	19-Oct-14
SETF	Tiger Flathead	0749	Otolith - Annual	25	SF30	Trawl	Trawl		Silent Victory	19-Nov-14
SETF	Tiger Flathead	0750	Otolith - Annual	10	SF60	Danish Seine	Danish Seine		Wellington Cape	
SETF	Tiger Flathead	0751	Otolith - Annual	16	SF20	Trawl	Trawl		Shoalhaven	22-Jul-14
SETF	Tiger Flathead	0752	Otolith - Annual	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Marley Point	16-Sep-14
SETF	Tiger Flathead	0753	Otolith - Annual	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Wellington Cape	19-Oct-14
SETF	Tiger Flathead	0754	Otolith - Annual	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Kendean	14-Nov-14
SETF	Tiger Flathead	0755	Otolith - Annual	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Miranda Bay	01-Nov-14
SETF	Tiger Flathead	0756	Otolith - Annual	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	31-Oct-14
SETF	Tiger Flathead	0757	Otolith - Annual	16	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	27-Oct-14
SETF	Tiger Flathead	0758	Otolith - Annual	8	SF10	Otter trawl	Trawl		Cap Star	12-Jan-14
SETF	Tiger Flathead	0759	Otolith - Annual	10	SF20	Trawl	Trawl		Shira	28-Nov-14
SETF	Tiger Flathead	0760	Otolith - Annual	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Marley Point	15-Dec-14
SETF	Tiger Flathead	0761	Otolith - Annual	17	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	15-Dec-14
SETF	Tiger Flathead	0762	Otolith - Annual	28	SF10	Trawl	Trawl		Anne Marie IV	18-Dec-14
SETF	Tiger Flathead	0763	Otolith - Annual	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	21-Dec-14
SETF	Tiger Flathead	0764	Otolith - Annual	5	SF60	Scottish seine	Trawl		Metis	25-Aug-14
SETF	Tiger Flathead	0765	Section otolith	16	SF20	Danish Seine	Danish Seine	Lakes Entrance	Anne Louise	06-Jan-15
SETF	Tiger Flathead	0766	Section otolith	12	SF20	Danish Seine	Danish Seine	Lakes Entrance	Kendean	20-Jan-15
SETF	Tiger Flathead	0767	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	23-Jan-15
SETF	Tiger Flathead	0768	Section otolith	28	SF10	Trawl	Trawl		Anne Marie IV	04-Mar-15
SETF	Tiger Flathead	0769	Section otolith	26	SF30	Trawl	Trawl		Rubicon	01-Mar-15
SETF	Tiger Flathead	0770	Section otolith	30	SF20	Danish Seine	Danish Seine		Nephelle	18-Feb-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Tiger Flathead	0771	Section otolith	22	SF10	Trawl	Trawl		Francesca	08-Feb-15
SETF	Tiger Flathead	0772	Section otolith	7	SF10	Trawl	Trawl		Francesca	17-Jan-15
SETF	Tiger Flathead	0773	Section otolith	33	SF10	Trawl	Trawl		Francesca	01-Jan-15
SETF	Tiger Flathead	0774	Section otolith	15	SF10	Trawl	Trawl		Anne Marie IV	29-Mar-15
SETF	Tiger Flathead	0775	Section otolith	27	SF10	Trawl	Trawl		Anne Marie IV	07-Feb-15
SETF	Tiger Flathead	0776	Section otolith	16	SF40	Trawl	Trawl		Castella Rosa	11-Apr-15
SETF	Tiger Flathead	0777	Section otolith	30	SF20	Trawl	Trawl		Tullaburga	14-Feb-15
SETF	Tiger Flathead	0778	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	23-Feb-15
SETF	Tiger Flathead	0779	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Kendean	22-Feb-15
SETF	Tiger Flathead	0780	Otolith - Annual	16	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	24-Nov-14
SETF	Tiger Flathead	0781	Otolith - Annual	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Rhylan	03-Dec-14
SETF	Tiger Flathead	0783	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	03-Mar-15
SETF	Tiger Flathead	0784	Section otolith	17	SF60	Danish Seine	Danish Seine		Nungurner	22-Mar-15
SETF	Tiger Flathead	0785	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Veronica S	16-Apr-15
SETF	Tiger Flathead	0786	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Panagia	02-May-15
SETF	Tiger Flathead	0787	Section otolith	13	SF10	Trawl	Trawl		Francesca	21-Feb-15
SETF	Tiger Flathead	0788	Section otolith	28	SF10	Trawl	Trawl		Anne Marie IV	17-May-15
SETF	Tiger Flathead	0789	Section otolith	70	SF20	Trawl	Trawl		James Kerlin	01-Apr-15
SETF	Tiger Flathead	0790	Section otolith	34	SF20	Danish Seine	Danish Seine		Ilana	24-Apr-15
SETF	Tiger Flathead	0791	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	12-May-15
SETF	Tiger Flathead	0792	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Kendean	26-May-15
SETF	Tiger Flathead	0793	Section otolith	12	SF10	Trawl	Trawl		Wendy Belle	04-Mar-15
SETF	Tiger Flathead	0794	Section otolith	15	SF10	Trawl	Trawl		Shelley H	18-May-15
SETF	Tiger Flathead	0795	Section otolith	31	SF10	Trawl	Trawl		Francesca	01-May-15
SETF	Tiger Flathead	0796	Section otolith	10	SF20	Trawl	Trawl		Imlay	16-Apr-15
SETF	Tiger Flathead	0797	Section otolith	74	SF20	Trawl	Trawl		Shira	04-Jul-15
SETF	Tiger Flathead	0798	Section otolith	17	SF20	Danish Seine	Danish Seine		Tullaburga	13-Jun-15
SETF	Tiger Flathead	0799	Section otolith	17	SF20	Danish Seine	Danish Seine		James Kerlin	05-Jun-15
SETF	Tiger Flathead	0800	Section otolith	20	SF20	Trawl	Trawl	Lakes Entrance	Veronica S	29-Jul-15
SETF	Tiger Flathead	0801	Section otolith	20	SF20	Trawl	Trawl	Lakes Entrance	Veronica S	29-Jul-15
SETF	Tiger Flathead	0802	Section otolith	16	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	03-Aug-15
SETF	Tiger Flathead	0803	Section otolith	26	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	01-Sep-15
SETF	Tiger Flathead	0804	Section otolith	22	SF20	Danish Seine	Danish Seine	Lakes Entrance	Kendean	14-Sep-15
SETF	Tiger Flathead	0805	Section otolith	34	SF10	Trawl	Trawl		Anne Marie V	24-Oct-15
SETF	Tiger Flathead	0806	Section otolith	1	SF50	Trawl	Trawl		V.J.	15-Nov-15
SETF	Tiger Flathead	0807	Section otolith	5	SF10	Trawl	Trawl		Susie J	15-Jul-15
SETF	Tiger Flathead	0808	Section otolith	35	SF40	Trawl	Trawl		Silent Victory	01-Oct-15
SETF	Tiger Flathead	0809	Section otolith	115	SF20	Danish Seine	Danish Seine		Ilana	01-Oct-15
SETF	Tiger Flathead	0810	Section otolith	35	SF10	Trawl	Trawl		I.S.	10-Feb-15

Final Report on the age estimation services for the SESSF, 2014-2017. (Milestone 8)



Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Tiger Flathead	0811	Section otolith	28	SF10	Trawl	Trawl		Francesca	01-Dec-15
SETF	Tiger Flathead	0812	Section otolith	32	SF60	Danish Seine	Danish Seine		Miranda Bay	01-Nov-15
SETF	Tiger Flathead	0813	Section otolith	25	SF20	Danish Seine	Danish Seine		Nungurner	16-Jan-15
SETF	Tiger Flathead	0814	Section otolith	38	SF20	Trawl	Trawl		Shira	01-Nov-15
SETF	Tiger Flathead	0815	Section otolith	55	SF30	Trawl	Trawl		Imlay	01-Nov-15
SETF	Tiger Flathead	0816	Section otolith	18	SF10	Trawl	Trawl		Giuseppa	04-Dec-15
SETF	Tiger Flathead	0817	Section otolith	42	SF60	Danish Seine	Danish Seine		Ilana	18-Dec-15
SETF	Tiger Flathead	0818	Section otolith	18	SF60	Danish Seine	Danish Seine		Ilana	18-Dec-15
SETF	Tiger Flathead	0819	Section otolith	128	SF60	Trawl	Trawl		Metis	01-Jan-16
SETF	Tiger Flathead	0820	Section otolith	24	SF20	Danish Seine	Danish Seine	Lakes Entrance	Wellington Cape	25-Oct-15
SETF	Tiger Flathead	0821	Section otolith	16	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	07-Oct-15
SETF	Tiger Flathead	0822	Section otolith	45	SF10	Trawl	Trawl		Shira	01-Jan-16
SETF	Tiger Flathead	0823	Section otolith	1	SF60	Danish Seine	Danish Seine		Wellington Cape	13-Jun-15
SETF	Tiger Flathead	0824	Section otolith	8	SF60	Danish Seine	Danish Seine		Rhylan	19-May-15
SETF	Tiger Flathead	0825	Section otolith	90	SF30	Otter trawl	Trawl		Imlay	01-Nov-15
SETF	Tiger Flathead	0826	Section otolith	46	SF30	Trawl	Trawl		Tullaburga	01-Jan-16
SETF	Tiger Flathead	0827	Section otolith	11	SF10	Trawl	Trawl		Francesca	02-Feb-16
SETF	Tiger Flathead	0828	Section otolith	10	SF20	Scottish seine	Trawl		Kendean	12-Feb-16
SETF	Tiger Flathead	0829	Section otolith	120	SF30	Trawl	Trawl		Lady Miriam	01-Feb-16
SETF	Tiger Flathead	0830	Section otolith	80	SF20	Danish Seine	Danish Seine		Miranda Bay	01-Apr-16
SETF	Tiger Flathead	0831	Section otolith	35	SF10	Trawl	Trawl		Rockfish 1	01-Apr-16
SETF	Tiger Flathead	0832	Section otolith	54	SF20	Danish Seine	Danish Seine		Rhylan	01-Mar-16
SETF	Tiger Flathead	0833	Section otolith	5	SF60	Danish Seine	Danish Seine		Anne Louise	03-Mar-16
SETF	Tiger Flathead	0834	Section otolith	10	SF30	Trawl	Trawl		Silent Victory	24-Apr-16
SETF	Tiger Flathead	0835	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	23-Jan-16
SETF	Tiger Flathead	0836	Section otolith	25	SF20	Trawl	Trawl	Lakes Entrance	James Kerlin	22-Feb-16
SETF	Tiger Flathead	0837	Section otolith	25	SF20	Danish Seine	Danish Seine	Lakes Entrance	Neries	06-Feb-16
SETF	Tiger Flathead	0838	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Neries	04-Mar-16
SETF	Tiger Flathead	0839	Section otolith	40	SF10	Trawl	Trawl		Illawarra Star	24-Mar-16
SETF	Tiger Flathead	0840	Section otolith	35	SF60	Trawl	Trawl		Wellington Cape	01-May-16
SETF	Tiger Flathead	0841	Section otolith	20	SF60	Trawl	Trawl		Wellington Cape	01-Jun-16
SETF	Tiger Flathead	0842	Section otolith	10	SF10	Trawl	Trawl		Shira	20-Mar-16
SETF	Tiger Flathead	0843	Section otolith	39	SF60	Danish Seine	Danish Seine		Ilana	07-Jan-16
SETF	Tiger Flathead	0844	Section otolith	84	SF30	Trawl	Trawl		Saxon Onward	01-Jun-16
SETF	Tiger Flathead	0845	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaberga	25-May-16
SETF	Tiger Flathead	0846	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Veronica S	08-May-16
SETF	Tiger Flathead	0847	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Marley Point	06-Apr-16
SETF	Tiger Flathead	0848	Section otolith	20	SF10	Trawl	Trawl		Shoalhaven	31-Jan-16

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Tiger Flathead	0849	Section otolith	10	SF30	Trawl	Trawl		Silent Victory	16-May-16
SETF	Tiger Flathead	0850	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	29-Aug-16
SETF	Tiger Flathead	0851	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Veronica S	25-May-16
SETF	Tiger Flathead	0852	Section otolith	17	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	11-Jul-16
SETF	Tiger Flathead	0853	Section otolith	17	SF20	Danish Seine	Danish Seine	Lakes Entrance	Southern Hunter	15-Oct-16
SETF	Tiger Flathead	0854	Section otolith	40	SF20	Danish Seine	Danish Seine		Coovara	28-Nov-16
SETF	Tiger Flathead	0855	Section otolith	30	SF20	Danish Seine	Danish Seine		Southern Hunter	20-Sep-16
SETF	Tiger Flathead	0856	Section otolith	70	SF20	Danish Seine	Danish Seine		Ilana	01-Sep-16
SETF	Tiger Flathead	0857	Section otolith	28	SF30	Trawl	Danish Seine	Lakes Entrance	Tullaburga	24-Oct-16
SETF	Tiger Flathead	0858	Section otolith	17	SF30	Danish Seine	Danish Seine	Lakes Entrance	Nereis	30-Oct-16
SETF	Tiger Flathead	0859	Section otolith	14	SF30	Trawl	Trawl		Silent Victory	29-Nov-16
SETF	Tiger Flathead	0860	Section otolith	69	SF20	Trawl	Trawl		Shira	01-Nov-16
SETF	Trevally, White (Silver)	0017	Otolith - Annual	2	SF10	Trawl	Eastern		Anne Marie IV	10-Dec-14
SETF	Trevally, White (Silver)	0018	Section otolith	1	SF10	Trawl	Eastern		Shelley H	18-May-15
SETF	Trevally, White (Silver)	0018	Section otolith	5	SF10	Trawl	Eastern		Anne Marie V	30-Jun-16
SETF	Trevally, White (Silver)	0019	Section otolith	2	SF10	Trawl	Eastern		Illawarra Star	11-Feb-15
SETF	Warehou, Blue	0659	Section otolith	34	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Warehou, Blue	0660	Section otolith	22	SF20	Trawl	Eastern		Tullaburga	01-Nov-12
SETF	Warehou, Blue	0661	Section otolith	8	SF20	Trawl	Eastern		Lady Miriam	01-Nov-12
SETF	Warehou, Blue	0668	Section otolith	34	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Warehou, Blue	0669	Section otolith	22	SF20	Trawl	Eastern		Tullaburga	01-Nov-12
SETF	Warehou, Blue	0670	Section otolith	8	SF20	Trawl	Eastern		Lady Miriam	01-Nov-12
SETF	Warehou, Blue	0671	Section otolith	29	SF60	Danish Seine	Eastern	Lakes Entrance	Miranda Bay	01-Jun-14
SETF	Warehou, Blue	0672	Section otolith	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	10-Jul-14
SETF	Warehou, Blue	0673	Section otolith	17	SF60	Danish Seine	Eastern	Lakes Entrance	Anne Louise	20-Jul-14
SETF	Warehou, Blue	0674	Otolith - Annual	9	SF20	Trawl	Eastern	Lakes Entrance	Lady Miriam	21-Jul-12
SETF	Warehou, Blue	0675	Otolith - Annual	5	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	25-Jul-12
SETF	Warehou, Blue	0676	Otolith - Annual	3	SF50	Trawl	Western		Moir Elizabeth	05-Oct-14
SETF	Warehou, Blue	0677	Otolith - Annual	17	SF60	Danish Seine	Eastern	Lakes Entrance	Anne Louise	05-Oct-14
SETF	Warehou, Blue	0678	Otolith - Annual	13	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	02-Nov-14
SETF	Warehou, Blue	0679	Otolith - Annual	34	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Warehou, Blue	0680	Otolith - Annual	22	SF20	Trawl	Eastern		Tullaburga	04-Nov-12
SETF	Warehou, Blue	0681	Otolith - Annual	8	SF20	Trawl	Eastern		Lady Miriam	04-Nov-12
SETF	Warehou, Blue	0682	Otolith - Annual	34	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Warehou, Blue	0683	Otolith - Annual	30	SF60	Danish Seine	Eastern	Lakes Entrance	Nungurner	12-Dec-14
SETF	Warehou, Blue	0684	Otolith - Annual	5	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	12-Dec-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Warehou, Blue	0685	Section otolith	9	SF20	Mesh net	Eastern	Lakes Entrance	Christine Claire	13-Jan-15
SETF	Warehou, Blue	0686	Section otolith	36	SF60	Danish Seine	Eastern	Lakes Entrance	Nungurner	19-Jan-15
SETF	Warehou, Blue	0687	Section otolith	33	SF60	Danish Seine	Eastern	Lakes Entrance	Kendean	03-Feb-15
SETF	Warehou, Blue	0688	Section otolith	18	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	16-Feb-15
SETF	Warehou, Blue	0689	Otolith - Annual	5	SF20	Trawl	Eastern	Lakes Entrance	Tullaberga	17-Nov-14
SETF	Warehou, Blue	0690	Section otolith	37	SF20	Trawl	Eastern	Lakes Entrance	Tullaberga	09-Mar-15
SETF	Warehou, Blue	0691	Section otolith	28	SF60	Danish Seine	Eastern	Lakes Entrance	Wellington Cape	28-Apr-15
SETF	Warehou, Blue	0692	Section otolith	41	SF60	Danish Seine	Eastern	Lakes Entrance	Wellington Cape	01-May-15
SETF	Warehou, Blue	0693	Section otolith	14	SF20	Danish Seine	Eastern		Ilana	24-Apr-15
SETF	Warehou, Blue	0694	Section otolith	29	SF20	Danish Seine	Eastern	Lakes Entrance	Panagia	18-May-15
SETF	Warehou, Blue	0695	Section otolith	22	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	20-May-15
SETF	Warehou, Blue	0696	Section otolith	1	SF20	Trawl	Eastern		Imlay	16-Apr-15
SETF	Warehou, Blue	0697	Section otolith	67	SF60	Danish Seine	Western		Marley Point	31-Mar-15
SETF	Warehou, Blue	0698	Section otolith	94	SF60	Trawl	Eastern	Lakes Entrance	Nungurner	01-Jun-15
SETF	Warehou, Blue	0699	Section otolith	110	SF60	Danish Seine	Eastern	Lakes Entrance	Panagia	30-Jul-15
SETF	Warehou, Blue	0700	Section otolith	34	SF60	Danish Seine	Eastern	Lakes Entrance	Nungurner	10-Aug-15
SETF	Warehou, Blue	0701	Section otolith	34	SF20	Danish Seine	Eastern	Lakes Entrance	Wellington Cape	13-Sep-15
SETF	Warehou, Blue	0702	Section otolith	16	SF60	Danish Seine	Eastern	Lakes Entrance	Kendean	16-Aug-15
SETF	Warehou, Blue	0703	Section otolith	7	SF20	Trawl	Eastern		Imlay	14-Mar-15
SETF	Warehou, Blue	0704	Section otolith	27	SF40	Trawl	Western		Silent Victory	28-Oct-15
SETF	Warehou, Blue	0705	Section otolith	19	SF60	Danish Seine	Eastern		Rhylan	19-May-15
SETF	Warehou, Blue	0706	Section otolith	12	SF20	Trawl	Eastern		Shira	28-Nov-15
SETF	Warehou, Blue	0707	Section otolith	7	SF20	Mesh net	Eastern	Lakes Entrance	Cape Everard	05-Nov-15
SETF	Warehou, Blue	0708	Section otolith	20	SF60	Danish Seine	Eastern	Lakes Entrance	Panagia	20-Oct-15
SETF	Warehou, Blue	0709	Section otolith	8	SF60	Danish Seine	Eastern		Wellington Cape	13-Jun-15
SETF	Warehou, Blue	0710	Section otolith	2	SF20	Trawl	Eastern		James Kerlin	07-Feb-16
SETF	Warehou, Blue	0711	Section otolith	8	SF20	Danish Seine	Eastern		Veronica S	24-Feb-16
SETF	Warehou, Blue	0712	Section otolith	35	SF60	Danish Seine	Eastern	Lakes Entrance	Kendean	19-Dec-15
SETF	Warehou, Blue	0713	Section otolith	25	SF60	Danish Seine	Eastern	Lakes Entrance	Miranda Bay	13-Dec-15
SETF	Warehou, Blue	0714	Section otolith	51	SF60	Danish Seine	Eastern	Lakes Entrance	Nungurner	28-Feb-16
SETF	Warehou, Blue	0715	Section otolith	17	SF60	Danish Seine	Eastern	Lakes Entrance	Neries	07-Mar-16
SETF	Warehou, Blue	0716	Section otolith	8	SF20	Mesh net	Eastern	Lakes Entrance	Cape Everard	07-Apr-16
SETF	Warehou, Blue	0717	Section otolith	26	SF20	Mesh net	Eastern	Lakes Entrance	Cape Everard	01-Jun-16
SETF	Warehou, Blue	0718	Section otolith	51	SF10	Trawl	Eastern		Shoalhaven	15-Jun-16
SETF	Warehou, Blue	0719	Section otolith	2	SF83	Trawl	Western		S.Phoenix	01-Jun-16
SETF	Warehou, Blue	0720	Section otolith	17	SF60	Danish Seine	Eastern	Lakes Entrance	Panagia	01-Apr-16
SETF	Warehou, Blue	0721	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaberga	13-Jun-16
SETF	Warehou, Blue	0722	Section otolith	17	SF60	Danish Seine	Eastern	Lakes Entrance	Panagia	07-May-16
SETF	Warehou, Blue	0723	Section otolith	1	SF20	Mesh net	Eastern	Lakes Entrance	Christine Claire	20-Jun-16

Final Report on the age estimation services for the SESSF, 2014-2017. (Milestone 8)

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Warehou, Blue	0724	Section otolith	8	SF50		Western		Moira Elizabeth	10-May-16
SETF	Warehou, Blue	0725	Section otolith	2	SF20	Mesh net	Eastern	Lakes Entrance	Cape Everard	10-Nov-16
SETF	Warehou, Blue	0726	Section otolith	8	SF30	Trawl	Eastern	Lakes Entrance	Tullaburga	28-Nov-16
SETF	Warehou, Silver / Spotted	0558	Section otolith	16	SF20	Trawl	Eastern		Tullaburga	01-Nov-12
SETF	Warehou, Silver / Spotted	0559	Section otolith	14	SF20	Trawl	Eastern		Lady Miriam	01-Dec-12
SETF	Warehou, Silver / Spotted	0562	Otolith - Annual	15	SF30	Trawl	Eastern		Silent Victory	18-Nov-14
SETF	Warehou, Silver / Spotted	0563	Section otolith	30	SF30	Trawl	Eastern		Lady Miriam	01-Feb-14
SETF	Warehou, Silver / Spotted	0564	Section otolith	7	SF50	Trawl	Western		Moira Elizabeth	22-Feb-14
SETF	Warehou, Silver / Spotted	0565	Section otolith	13	SF40	Trawl	Western		Saxon Progress	01-Mar-14
SETF	Warehou, Silver / Spotted	0566	Section otolith	27	SF40	Trawl	Western		Empress Pearl	07-Apr-14
SETF	Warehou, Silver / Spotted	0567	Section otolith	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	30-May-14
SETF	Warehou, Silver / Spotted	0568	Section otolith	15	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	07-Jun-14
SETF	Warehou, Silver / Spotted	0569	Section otolith	17	SF60	Danish Seine	Eastern	Lakes Entrance	Miranda Bay	28-Jun-14
SETF	Warehou, Silver / Spotted	0570	Section otolith	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	10-Jul-14
SETF	Warehou, Silver / Spotted	0571	Section otolith	25	SF50	Trawl	Western		Zeehan	13-Jun-14
SETF	Warehou, Silver / Spotted	0572	Section otolith	25	SF50	Trawl	Western		Castella Rosa	19-Jun-14
SETF	Warehou, Silver / Spotted	0573	Section otolith	14	SF60	Danish Seine	Eastern	Lakes Entrance	Miranda Bay	10-Jun-14
SETF	Warehou, Silver / Spotted	0574	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	18-Aug-14
SETF	Warehou, Silver / Spotted	0575	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	08-Sep-14
SETF	Warehou, Silver / Spotted	0576	Otolith - Annual	17	SF20	Trawl	Eastern	Lakes Entrance	Tullaburga	22-Sep-14
SETF	Warehou, Silver / Spotted	0577	Otolith - Annual	10	SF50	Trawl	Western		Moira Elizabeth	04-Oct-14
SETF	Warehou, Silver / Spotted	0578	Otolith - Annual	28	SF40	Trawl	Eastern		Empress Pearl	21-Nov-14
SETF	Warehou, Silver / Spotted	0579	Otolith - Annual	1	SF10	Trawl	Eastern		Rockfish 1	30-Sep-14
SETF	Warehou, Silver / Spotted	0580	Otolith - Annual	10	SF20	Trawl	Eastern		Shira	30-Nov-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Warehou, Silver / Spotted	0581	Otolith - Annual	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	06-Dec-14
SETF	Warehou, Silver / Spotted	0582	Otolith - Annual	10	SF40	Trawl	Eastern	Lakes Entrance	Tullaburga	21-Dec-14
SETF	Warehou, Silver / Spotted	0583	Section otolith	24	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	08-Jan-15
SETF	Warehou, Silver / Spotted	0584	Section otolith	25	SF40	Trawl	Western		Empress Pearl	01-Mar-15
SETF	Warehou, Silver / Spotted	0585	Section otolith	18	SF30	Trawl	Eastern		Rubicon	01-Mar-15
SETF	Warehou, Silver / Spotted	0586	Section otolith	16	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	21-Feb-15
SETF	Warehou, Silver / Spotted	0587	Section otolith	25	SF50	Trawl	Western		Moir Elizabeth	01-Feb-15
SETF	Warehou, Silver / Spotted	0588	Section otolith	20	SF20	Trawl	Eastern		Tullaburga	12-Feb-15
SETF	Warehou, Silver / Spotted	0589	Otolith - Annual	14	SF60	Danish Seine	Eastern	Lakes Entrance	Miranda Bay	10-Jun-14
SETF	Warehou, Silver / Spotted	0590	Section otolith	17	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	30-Apr-15
SETF	Warehou, Silver / Spotted	0591	Section otolith	50	SF50	Trawl	Western		Zeehan	01-Apr-15
SETF	Warehou, Silver / Spotted	0592	Section otolith	6	SF20	Trawl	Eastern		James Kerlin	01-Apr-15
SETF	Warehou, Silver / Spotted	0593	Section otolith	32	SF20	Trawl	Eastern	Lakes Entrance	James Kerlin	25-May-15
SETF	Warehou, Silver / Spotted	0594	Section otolith	5	SF20	Trawl	Eastern		Imlay	16-Apr-15
SETF	Warehou, Silver / Spotted	0595	Section otolith	39	SF40	Trawl	Western		Geelong Star	01-Jun-15
SETF	Warehou, Silver / Spotted	0596	Section otolith	6	SF60	Danish Seine	Eastern	Lakes Entrance	Nungurner	04-Jun-15
SETF	Warehou, Silver / Spotted	0597	Section otolith	20	SF40	Trawl	Western		Empress Pearl	24-Jul-15
SETF	Warehou, Silver / Spotted	0598	Section otolith	8	SF20	Trawl	Eastern		Imlay	14-Mar-15
SETF	Warehou, Silver / Spotted	0599	Section otolith	10	SF40	Trawl	Western		Silent Victory	01-Oct-15
SETF	Warehou, Silver / Spotted	0600	Section otolith	1	SF30	Trawl	Eastern		Silent Victory	25-Oct-15
SETF	Warehou, Silver / Spotted	0601	Section otolith	9	SF40	Trawl	Western		San Tangaroa	01-Jul-15
SETF	Warehou, Silver / Spotted	0602	Section otolith	10	SF40	Trawl	Western		Silent Victory	27-Oct-15
SETF	Warehou, Silver / Spotted	0603	Section otolith	1	SF20	Danish Seine	Eastern		Ilana	10-Oct-15

**Final Report on the age estimation services for the SESSF, 2014-2017. (Milestone 8)**

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Warehou, Silver / Spotted	0604	Section otolith	24	SF20	Trawl	Eastern		Rubicon	15-Aug-15
SETF	Warehou, Silver / Spotted	0605	Section otolith	18	SF40	Trawl	Western		Empress Pearl	01-Feb-16
SETF	Warehou, Silver / Spotted	0606	Section otolith	2	SF20	Scottish seine	Eastern		Kendean	12-Feb-16
SETF	Warehou, Silver / Spotted	0607	Section otolith	15	SF20	Trawl	Eastern		James Kerlin	01-Feb-16
SETF	Warehou, Silver / Spotted	0608	Section otolith	2	SF30	Trawl	Eastern		Silent Victory	24-Apr-16
SETF	Warehou, Silver / Spotted	0609	Section otolith	10	SF30	Trawl	Eastern		Saxon Onward	27-May-16
SETF	Warehou, Silver / Spotted	0610	Section otolith	11	SF10	Trawl	Eastern		Shira	21-Mar-16
SETF	Warehou, Silver / Spotted	0611	Section otolith	32	SF50	Trawl	Western		Zeehan	01-Feb-16
SETF	Warehou, Silver / Spotted	0612	Section otolith	26	SF60	Danish Seine	Eastern	Lakes Entrance	Panagia	12-Mar-16
SETF	Warehou, Silver / Spotted	0613	Section otolith	25	SF60	Danish Seine	Eastern	Lakes Entrance	Southern Hunter	09-Mar-16
SETF	Warehou, Silver / Spotted	0614	Section otolith	8	SF83	Trawl	Western		S.Phoenix	01-Jul-16
SETF	Warehou, Silver / Spotted	0615	Section otolith	2	SF10	Trawl	Eastern		Rockfish	17-Jul-16
SETF	Warehou, Silver / Spotted	0616	Section otolith	8	SF40	Trawl	Western			01-Sep-15
SETF	Warehou, Silver / Spotted	0617	Section otolith	8	SF50	Trawl	Western			01-Sep-15
SETF	Warehou, Silver / Spotted	0618	Section otolith	8	SF40	Trawl	Western			01-Oct-15
SETF	Warehou, Silver / Spotted	0619	Section otolith	8	SF50	Trawl	Western			01-Oct-15
SETF	Warehou, Silver / Spotted	0620	Section otolith	8	SF40	Trawl	Western		Moir Elizabeth	24-Nov-01
SETF	Warehou, Silver / Spotted	0621	Section otolith	8	SF50	Trawl	Western		Moir Elizabeth	10-May-16
SETF	Warehou, Silver / Spotted	0622	Section otolith	8	SF50	Trawl	Western		Moir Elizabeth	06-Jun-16
SETF	Warehou, Silver / Spotted	0623	Section otolith	8	SF50	Trawl	Western		Moir Elizabeth	06-Nov-16
SETF	Warehou, Silver / Spotted	0624	Section otolith	8	SF50	Trawl	Western		Moir Elizabeth	07-Dec-16
SETF	Warehou, Silver / Spotted	0625	Section otolith	8	SF50	Trawl	Western		Castella Rosa	11-Jan-16
SETF	Warehou, Silver / Spotted	0626	Section otolith	8	SF50	Trawl	Western		Zeehan	08-Feb-16

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
SETF	Warehou, Silver / Spotted	0627	Section otolith	8	SF50	Trawl	Western		Castella Rosa	07-Mar-16
SETF	Warehou, Silver / Spotted	0628	Section otolith	8	SF50	Trawl	Western		Moir Elizabeth	05-Apr-16
SETF	Warehou, Silver / Spotted	0629	Section otolith	108	SF50	Trawl	Western		Castella Rosa	01-Oct-16
SETF	Warehou, Silver / Spotted	0630	Section otolith	74	SF30	Trawl	Eastern		Silent Victory	01-Dec-16
SETF	Warehou, Silver / Spotted	0631	Section otolith	20	SF40	Trawl	Eastern		S.Rocco	25-Nov-16
SETF	Warehou, Silver / Spotted	0632	Section otolith	36	SF30	Trawl	Eastern		Silent Victory	01-Nov-16
SETF	Warehou, Silver / Spotted	0633	Section otolith	30	SF20	Trawl	Eastern		Imlay	01-Aug-16
SETF	Warehou, Silver / Spotted	0634	Section otolith	14	SF30	Trawl	Eastern		Silent Victory	10-Nov-16
SETF	Warehou, Silver / Spotted	0635	Section otolith	17	SF30	Trawl	Eastern		Tullaburga	28-Nov-16

## Sector – GABF

Sector	Species Name	Batch	Preparation method	N	Zone	Gear	Fishery	Location	Vessel	DOC
GABTF	Bight Redfish	0228	Section otolith	150	SF83	Otter trawl	Trawl		S Pheonix	01-Jan-14
GABTF	Bight Redfish	0230	Section otolith	30	SF83	Trawl	Trawl		Voyager P	01-Mar-14
GABTF	Bight Redfish	0231	Section otolith	110	SF83	Trawl	Trawl		Territory Pearl	01-May-14
GABTF	Bight Redfish	0232	Section otolith	21	SF82	Trawl	Trawl		Territory Pearl	01-May-14
GABTF	Bight Redfish	0233	Section otolith	35	SF82	Trawl	Trawl		Territory Pearl	10-May-14
GABTF	Bight Redfish	0235	Section otolith	155	SF82	Trawl	Trawl		Explorer S	01-Sep-14
GABTF	Bight Redfish	0236	Section otolith	220	SF83	Trawl	Trawl		Silver P	01-Nov-14
GABTF	Bight Redfish	0237	Section otolith	140	SF83	Trawl	Trawl		Silver P	01-Dec-14
GABTF	Bight Redfish	0238	Section otolith	209		Trawl	Trawl			01-Mar-15
GABTF	Bight Redfish	0239	Section otolith	40	SF83	Trawl	Trawl		Noble Pearl	01-Nov-15
GABTF	Bight Redfish	0240	Section otolith	27	SF82	Trawl	Trawl		Explorer S	28-Nov-15
GABTF	Bight Redfish	0241	Section otolith	23	SF83	Trawl	Trawl		Explorer S	13-Nov-15
GABTF	Bight Redfish	0242	Section otolith	12	SF82	Trawl	Trawl		Explorer S	02-Dec-16
GABTF	Bight Redfish	0243	Section otolith	103	SF83	Trawl	Trawl		Explorer S	01-Dec-15
GABTF	Bight Redfish	0244	Section otolith	13	SF82	Trawl	Trawl		Explorer S	02-Dec-15
GABTF	Bight Redfish	0245	Section otolith	189	SF83	Trawl	Trawl		Explorer S	01-Feb-16
GABTF	Bight Redfish	0246	Section otolith	63	SF83	Trawl	Trawl		S. Phoenix	01-Jul-16
GABTF	Bight Redfish	0247	Section otolith	247	SF83	Trawl	Trawl		Explorer S	01-Nov-16
GABTF	Blue Grenadier	0804	Section otolith	9	SF82	Trawl	Non-spawning		Voyager P	08-Mar-14
GABTF	Blue Grenadier	0816	Section otolith	38	SF83	Trawl	Non-Spawning		Explorer S	15-Apr-14
GABTF	Blue Grenadier	0823	Section otolith	10	SF82	Trawl	Non-Spawning		Territory Pearl	26-Jan-14
GABTF	Blue Grenadier	0824	Section otolith	50	SF82	Trawl	Non-Spawning		Explorer S	28-Jan-14
GABTF	Blue Grenadier	0830	Otolith - Annual	5	SF83	Otter trawl	Non-Spawning		Explorer S	21-Sep-14
GABTF	Blue Grenadier	0831	Otolith - Annual	50	SF82	Trawl	Non-Spawning		Explorer S	22-Nov-14
GABTF	Blue Grenadier	0839	Otolith - Annual	98	SF84	Trawl	Non-Spawning		Explorer S	09-Nov-14



Sector	Species Name	Batch	Preparation method	N	Zone	Gear	Fishery	Location	Vessel	DOC
GABTF	Blue Grenadier	0867	Section otolith	50	SF82	Trawl	Non-Spawning		Explorer S	14-Dec-15
GABTF	Blue Grenadier	0869	Section otolith	13	SF83	Trawl	Non-Spawning		Explorer S	07-Feb-16
GABTF	Blue Grenadier	0880	Section otolith	55	SF82	Trawl	Non-Spawning		Explorer S	14-Nov-16
GABTF	Blue-eye Trevalla	0984	Section otolith	25	SF84	Drop line	Hook		Petuna Endeavour	24-Jan-15
GABTF	Deepwater Flathead	0271	Section otolith	76	SF83	Trawl	Trawl		Voyager P	01-Mar-14
GABTF	Deepwater Flathead	0272	Section otolith	158	SF83	Otter trawl	Trawl		S Pheonix	01-Jan-14
GABTF	Deepwater Flathead	0273	Section otolith	200	SF83	Trawl	Trawl		Territory Pearl	01-May-14
GABTF	Deepwater Flathead	0275	Section otolith	253	SF82	Trawl	Trawl		Explorer S	01-Sep-14
GABTF	Deepwater Flathead	0276	Section otolith	6	SF82	Otter trawl	Trawl		Explorer S	11-Oct-14
GABTF	Deepwater Flathead	0278	Otolith - Annual	10	SF83	Trawl	Trawl		Silver P	01-Dec-14
GABTF	Deepwater Flathead	0279	Otolith - Annual	39	SF83	Trawl	Trawl		Silver P	02-Dec-14
GABTF	Deepwater Flathead	0280	Otolith - Annual	222	SF83	Trawl	Trawl		Silver P	01-Nov-14
GABTF	Deepwater Flathead	0281	Section otolith	227		Trawl	Trawl			01-Mar-15
GABTF	Deepwater Flathead	0282	Section otolith	113	SF83	Trawl	Trawl		Noble Pearl	01-Nov-15
GABTF	Deepwater Flathead	0284	Section otolith	109	SF83	Trawl	Trawl		Noble Pearl	01-Nov-15
GABTF	Deepwater Flathead	0285	Section otolith	122	SF83	Trawl	Trawl		Explorer S	01-Nov-15
GABTF	Deepwater Flathead	0286	Section otolith	93	SF83	Trawl	Trawl		Explorer S	01-Dec-15
GABTF	Deepwater Flathead	0287	Section otolith	1	SF83	Trawl	Trawl		Explorer S	17-Nov-15
GABTF	Deepwater Flathead	0288	Section otolith	47	SF82	Trawl	Trawl		Explorer S	22-Nov-15
GABTF	Deepwater Flathead	0289	Section otolith	188	SF83	Trawl	Trawl		Explorer S	01-Feb-16
GABTF	Deepwater Flathead	0290	Section otolith	2	SF50	Trawl	Trawl		Zeehan	25-Feb-16
GABTF	Deepwater Flathead	0291	Section otolith	117	SF83	Trawl	Trawl		S. Phoenix	01-Jul-16
GABTF	Deepwater Flathead	0292	Section otolith	180	SF82	Danish Seine	Danish Seine		Gail Jeanette	01-Nov-16

Sector	Species Name	Batch	Preparation method	N	Zone	Gear	Fishery	Location	Vessel	DOC
GABTF	Deepwater Flathead	0293	Section otolith	375	SF83	Trawl	Trawl		Explorer S	01-Nov-16
GABTF	Dory, Mirror	0203	Section otolith	1	SF82	Trawl	Western		Saxon Phoenix	04-Jul-16
GABTF	Gemfish	0599	Otolith - Annual	19	SF82	Trawl	Western		Voyager P	08-Mar-14
GABTF	Gemfish	0602	Otolith - Annual	18	SF82	Trawl	Western		Territory Pearl	16-May-14
GABTF	Gemfish	0623	Otolith - Annual	36	SF82	Trawl	Western		Explorer S	31-Mar-14
GABTF	Gemfish	0626	Otolith - Annual	31	SF82	Otter trawl	Western		Explorer S	01-Sep-14
GABTF	Gemfish	0627	Otolith - Annual	30	SF82	Trawl	Western		Explorer S	11-Oct-14
GABTF	Gemfish	0637	Otolith - Annual	10	SF82	Trawl	Western		Silver P	26-Nov-14
GABTF	Gemfish	0638	Otolith - Annual	40	SF83	Trawl	Western		Explorer S	19-Dec-14
GABTF	Gemfish	0652	Otolith - Annual	10	SF84	Drop line	Western		Petuna Endeavour	26-Jan-15
GABTF	Gemfish	0685	Section otolith	17	SF83	Trawl	Western		Explorer S	01-Feb-16
GABTF	Gemfish	0694	Section otolith	6	SF82	Trawl	Western		S. Phoenix	04-Jul-16
GABTF	Gemfish	0695	Section otolith	9	SF83	Trawl	Western		S. Phoenix	01-Jul-16
GABTF	Gemfish	0711	Section otolith	3	SF82	Trawl	Western		Explorer S	13-Nov-16
GABTF	Jackass Morwong	0580	Section otolith	205	SF82	Trawl	Western		Territory Pearl	01-May-14
GABTF	Jackass Morwong	0592	Section otolith	7	SF83	Otter trawl	Western		S Pheonix	17-Jan-14
GABTF	Jackass Morwong	0593	Section otolith	65	SF83	Otter trawl	Western		S Pheonix	01-Jan-14
GABTF	Jackass Morwong	0595	Otolith - Annual	129	SF82	Otter trawl	Western		ES	01-Sep-14
GABTF	Jackass Morwong	0602	Otolith - Annual	6	SF83	Trawl	Western		Silver P	24-Nov-14
GABTF	Jackass Morwong	0603	Otolith - Annual	10	SF83	Trawl	Western		Silver P	27-Nov-14
GABTF	Jackass Morwong	0604	Otolith - Annual	3	SF83	Trawl	Western		Silver P	30-Nov-14
GABTF	Jackass Morwong	0605	Otolith - Annual	20	SF82	Trawl	Western		Silver P	26-Nov-14
GABTF	Jackass Morwong	0606	Otolith - Annual	41	SF83	Trawl	Western		Silver P	01-Dec-14
GABTF	Jackass Morwong	0607	Otolith - Annual	9	SF83	Trawl	Western		Silver P	01-Dec-14
GABTF	Jackass Morwong	0649	Section otolith	34	SF83	Trawl	Western		Explorer S	01-Feb-16
GABTF	Jackass Morwong	0655	Section otolith	48	SF83	Trawl	Western		S.Phoenix	01-Jul-16
GABTF	Ocean Perch, Offshore	0165	Section otolith	1	SF83	Trawl	Western		Saxon Phoenix	06-Jul-16
GABTF	Orange Roughy	0292	Otolith - Annual	644	SF84	Trawl	Trawl	Eastern GAB	Saxon Onwards	01-Aug-14
GABTF	Orange Roughy	0299	Otolith - Annual	7	SF83	Trawl	Trawl		Explorer S	01-Sep-14

**Final Report on the age estimation services for the SESSF, 2014-2017. (Milestone 8)**

Sector	Species Name	Batch	Preparation method	N	Zone	Gear	Fishery	Location	Vessel	DOC
GABTF	Orange Roughy	0300	Otolith - Annual	17	SF82	Trawl	Trawl		Explorer S	01-Sep-14
GABTF	Orange Roughy	0305	Otolith - Annual	7	SF83	Trawl	Trawl		Explorer S	01-Sep-14
GABTF	Pink Ling	0979	Section otolith	38	SF82	Trawl	Trawl		Explorer S	14-Nov-16
GABTF	Ribaldo	0229	Otolith - Annual	35	SF84	Drop line	Western		Petuna Endeavour	24-Jan-15
GABTF	Shark, School	0150	Vertebrae	38	ESA		Gill Net		Jean Bryant	
GABTF	Tuna, Southern Bluefin	0084	Section otolith	6	SF84	Purse seine	Trawl		Maria Luisa	01-Feb-15
GABTF	Tuna, Southern Bluefin	0085	Section otolith	13	SF84	Tow cage	Trawl		Cyorama	01-Mar-15
GABTF	Tuna, Southern Bluefin	0086	Section otolith	7	SF84	Tow cage	Trawl		Cyorama	07-Feb-15
GABTF	Warehou, Blue	0727	Section otolith	4	SF82	Trawl	Western		Explorer S	13-Nov-16

## Sector – GHATF

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Alfonsino	0067	Section otolith	2	SF40	Autoline	Hook		Diana	07-Feb-14
GHATF	Blue-eye trevalla	0938	Section otolith	63	SF50	Hook	Hook		Sarda	01-Dec-12
GHATF	Blue-eye trevalla	0939	Section otolith	58	SF20	Hook	Hook		Sarda	01-Nov-12
GHATF	Blue-eye trevalla	0940	Section otolith	16	SF20	Hook	Hook		Sarda	01-Nov-12
GHATF	Blue-eye trevalla	0941	Section otolith	17	SF20	Hook	Hook		Sarda	01-Dec-12
GHATF	Blue-eye trevalla	0958	Section otolith	16	SF40	Autoline	Hook		Diana	01-Feb-14
GHATF	Blue-eye trevalla	0961	Section otolith	18	SF84	Drop line	Hook		Petuna Endeavour	01-Mar-14
GHATF	Blue-eye trevalla	0962	Section otolith	15	SF50	Drop line	Hook		Petuna Endeavour	13-Mar-14
GHATF	Blue-eye trevalla	0964	Section otolith	74	SF84	Drop line	Hook		Petuna Endeavour	01-Mar-14
GHATF	Blue-eye trevalla	0965	Section otolith	48	SF50	Autoline	Hook		Sarda	01-Feb-14
GHATF	Blue-eye trevalla	0966	Section otolith	46	SF40	Autoline	Hook		Petuna Endeavour	01-Jan-14
GHATF	Blue-eye trevalla	0970	Otolith - Annual	16	SF40	Autoline	Hook		Petuna Endeavour	29-Aug-14
GHATF	Blue-eye trevalla	0971	Otolith - Annual	6	SF84	Autoline	Hook		Petuna Endeavour	02-Nov-14
GHATF	Blue-eye trevalla	0979	Section otolith	12	SF30	Drop line	Hook		Petuna Endeavour	28-Feb-15
GHATF	Blue-eye trevalla	0981	Section otolith	118	HS70	Autoline	Hook	Gascoyne	Petuna Endeavour	01-Mar-15
GHATF	Blue-eye trevalla	0982	Section otolith	122	SF50	Drop line	Hook		Petuna Endeavour	01-Jan-15
GHATF	Blue-eye trevalla	0983	Section otolith	48	SF50	Drop line	Hook		Petuna Endeavour	01-Jan-15
GHATF	Blue-eye trevalla	0986	Section otolith	89	SF30	Drop line	Hook		Petuna Endeavour	01-Feb-15
GHATF	Blue-eye trevalla	0987	Section otolith	30	SF40	Drop line	Hook		Petuna Endeavour	02-Mar-15
GHATF	Blue-eye trevalla	0988	Section otolith	9	HS70	Drop line	Hook	Taupo	Petuna Endeavour	12-Jun-15
GHATF	Blue-eye trevalla	0989	Section otolith	18	HS70	Autoline	Hook	Barco	Petuna Endeavour	17-Jun-15
GHATF	Blue-eye trevalla	1004	Section otolith	5	SF20	Trawl	Trawl	Lakes Entrance	Tullaburga	08-Dec-15
GHATF	Gemfish	0600	Otolith - Annual	18	SF50	Autoline	Western		Sarda	01-Feb-14
GHATF	Gemfish	0611	Otolith - Annual	50	SF84	Drop line	Western		Petuna Endeavour	01-Mar-14
GHATF	Gemfish	0612	Otolith - Annual	9	SF50	Drop line	Western		Petuna Endeavour	13-Mar-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Gemfish	0613	Otolith - Annual	5	SF40	Autoline	Western		Diana	06-Feb-14
GHATF	Gemfish	0618	Otolith - Annual	49	SF82	Trawl	Western		Explorer S	18-Jan-14
GHATF	Gemfish	0619	Otolith - Annual	10	SF82	Otter trawl	Western		Territory Pearl	29-Jan-14
GHATF	Gemfish	0620	Otolith - Annual	4	SF40	Autoline	Western		Petuna Endeavour	01-Jan-14
GHATF	Gemfish	0621	Otolith - Annual	2	SF50	Autoline	Western		Sarda	19-Feb-14
GHATF	Gemfish	0622	Otolith - Annual	1	SF83	Otter trawl	Western		S Pheonix	21-Jan-14
GHATF	Gemfish	0635	Otolith - Annual	11	SF84	Autoline	Western		Petuna Endeavour	01-Nov-14
GHATF	Gemfish	0649	Otolith - Annual	12	SF40	Drop line	Western		Petuna Endeavour	01-Jan-15
GHATF	Gemfish	0650	Otolith - Annual	41	SF50	Drop line	Western		Petuna Endeavour	01-Jan-15
GHATF	Gemfish	0651	Otolith - Annual	7	SF40	Drop line	Western		Petuna Endeavour	02-Mar-15
GHATF	Hapuka	0133	Section otolith	4	SF50	Drop line	Hook		Petuna Endeavour	13-Mar-14
GHATF	Hapuka	0134	Section otolith	25	SF84	Drop line	Hook		Petuna Endeavour	01-Mar-14
GHATF	Hapuka	0138	Section otolith	1	SF50	Drop line	Hook		Petuna Endeavour	19-Jan-15
GHATF	Hapuka	0139	Section otolith	25	SF50	Drop line	Hook		Petuna Endeavour	01-Jan-15
GHATF	Hapuka	0140	Section otolith	9	SF84	Drop line	Hook		Petuna Endeavour	01-Jan-15
GHATF	Ocean Perch, Offshore	0098	Section otolith	52	SF20	Hook	Eastern		Sarda	01-Nov-12
GHATF	Ocean Perch, Offshore	0102	Section otolith	37	SF40	Autoline	Eastern		Diana	01-Feb-14
GHATF	Ocean Perch, Offshore	0106	Section otolith	8	SF40	Autoline	Western		Petuna Endeavour	01-Jan-14
GHATF	Ocean Perch, Offshore	0108	Section otolith	2	SF50	Autoline	Western		Sarda	17-Feb-14
GHATF	Ocean Perch, Offshore	0117	Otolith - Annual	2	SF40	Hook	Western		Petuna Endeavour	29-Aug-14
GHATF	Ocean Perch, Offshore	0131	Section otolith	5	SF40	Drop line	Western		Petuna Endeavour	15-Jan-15
GHATF	Pink Ling	0859	Section otolith	31	SF40	Autoline	Hook		Diana	01-Feb-14
GHATF	Pink Ling	0860	Section otolith	104	SF84	Drop line	Hook		Petuna Endeavour	01-Mar-14
GHATF	Pink Ling	0877	Section otolith	47	SF40	Autoline	Hook		Petuna Endeavour	01-Aug-14
GHATF	Pink Ling	0878	Section otolith	45	SF84	Autoline	Trawl		Petuna Endeavour	01-Nov-14
GHATF	Pink Ling	0881	Section otolith	32	SF20	Autoline	Trawl		Diana	16-Sep-14
GHATF	Pink Ling	0893	Section otolith	15	SF40	Autoline	Hook		Petuna Endeavour	01-Jan-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Pink Ling	0895	Section otolith	6	SF50	Autoline	Hook		Sarda	01-Feb-14
GHATF	Pink Ling	0908	Section otolith	94	SF40	Drop line	Hook		Petuna Endeavour	01-Jan-15
GHATF	Pink Ling	0909	Section otolith	32	SF40	Drop line	Hook		Petuna Endeavour	02-Mar-15
GHATF	Pink Ling	0910	Section otolith	16	SF30	Drop line	Hook		Petuna Endeavour	01-Feb-15
GHATF	Pink Ling	0911	Section otolith	32	SF30	Drop line	Hook		Petuna Endeavour	03-Mar-15
GHATF	Pink Ling	0912	Section otolith	28	SF50	Drop line	Hook		Petuna Endeavour	01-Jan-15
GHATF	Pink Ling	0934	Section otolith	4	SF30	Long line	Hook		Diana	
GHATF	Pink Ling	0951	Section otolith	73	SF40	Autoline	Hook		Diana	08-Feb-16
GHATF	Pink Ling	0955	Section otolith	20	SF30	Autoline	Hook		Instagator	05-Jul-16
GHATF	Pink Ling	0975	Section otolith	20	SF30	Autoline	Hook		Instagator	15-Jul-16
GHATF	Ribaldo	0209	Section otolith	17	SF50	Hook	Hook		Sarda	01-Dec-12
GHATF	Ribaldo	0210	Section otolith	11	SF20	Hook	Hook		Sarda	01-Nov-12
GHATF	Ribaldo	0213	Section otolith	8	SF50	Autoline	Hook		Sarda	01-Feb-14
GHATF	Ribaldo	0214	Section otolith	48	SF40	Autoline	Hook		Petuna Endeavour	01-Jan-14
GHATF	Ribaldo	0216	Section otolith	50	SF84	Drop line	Hook		Petuna Endeavour	01-Mar-14
GHATF	Ribaldo	0220	Otolith - Annual	29	SF40	Autoline	Hook		Petuna Endeavour	01-Aug-14
GHATF	Ribaldo	0226	Otolith - Annual	32	SF30	Drop line	Eastern		Petuna Endeavour	01-Feb-15
GHATF	Ribaldo	0227	Otolith - Annual	9	SF50	Drop line	Western		Petuna Endeavour	21-Jan-15
GHATF	Ribaldo	0228	Otolith - Annual	87	SF40	Drop line	Western		Petuna Endeavour	01-Jan-15
GHATF	Ribaldo	0231	Otolith - Annual	40	SF84	Autoline	Hook		Petuna Endeavour	01-Nov-14
GHATF	Ribaldo	0244	Section otolith	16	SF30	Autoline	Hook		Instagator	15-Jul-16
GHATF	Shark, Gummy	0097	Vertebrae	18	EBS	Gill net	Gill net		Lonehand	01-Feb-14
GHATF	Shark, Gummy	0098	Vertebrae	16	EBS	Gill net	Gill net		Mustelus	01-Feb-14
GHATF	Shark, Gummy	0109	Vertebrae	14	ET	Gill net	Gill net		Fig Tree Bay	01-Mar-14
GHATF	Shark, Gummy	0110	Vertebrae	29		Gill net	Gill net		Mary H	
GHATF	Shark, Gummy	0111	Vertebrae	51	CSA	Gill net	Gill net		Jean Bryant	01-Mar-14
GHATF	Shark, Gummy	0112	Vertebrae	50	SAV	Gill net	UNK		Western Light	01-Apr-14
GHATF	Shark, Gummy	0113	Vertebrae	2	WSA	Hook	Hook		Shark Raider	01-Apr-14
GHATF	Shark, Gummy	0114	Vertebrae	5	EBS	Gill net	Gill net		Pegasus IV	01-Apr-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Shark, Gummy	0120	Vertebrae	24	CSA	Hook	Hook		Kiella	01-May-14
GHATF	Shark, Gummy	0121	Vertebrae	1	EBS	Gill net	Eastern		Unknown	03-Nov-14
GHATF	Shark, Gummy	0122	Vertebrae	3	CSA	Gill net	Western		Cutting Edge	13-Sep-14
GHATF	Shark, Gummy	0123	Vertebrae	33	ET	Gill net	Eastern		Fig Tree Bay	
GHATF	Shark, Gummy	0124	Vertebrae	36	CSA	Gill net	Western		Lutarna	
GHATF	Shark, Gummy	0125	Vertebrae	32	ESA	Gill net	Western		Mary H	
GHATF	Shark, Gummy	0126	Vertebrae	18	ESA	Gill net	Western		Mary H	
GHATF	Shark, Gummy	0127	Vertebrae	34	EBS	Gill net	Eastern		Western Light	
GHATF	Shark, Gummy	0128	Vertebrae	17	SAV	Gill net	Western		Mustelus	
GHATF	Shark, Gummy	0129	Vertebrae	16	EBS	Mesh net	Eastern	Lakes Entrance	Investigator	18-Dec-10
GHATF	Shark, Gummy	0130	Vertebrae	25	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	09-Dec-10
GHATF	Shark, Gummy	0131	Vertebrae	20	EBS	Mesh net	Eastern	Lakes Entrance	Andrew K	19-Dec-10
GHATF	Shark, Gummy	0132	Vertebrae	18	EBS	Mesh net	Eastern	Lakes Entrance	Morrie D	10-Nov-11
GHATF	Shark, Gummy	0133	Vertebrae	18	EBS	Mesh net	Eastern	Lakes Entrance	Charisma	11-Nov-11
GHATF	Shark, Gummy	0134	Vertebrae	15	EBS	Mesh net	Eastern	Lakes Entrance	Charisma	24-Oct-11
GHATF	Shark, Gummy	0135	Vertebrae	22	EBS	Mesh net	Eastern	Lakes Entrance	Erin J	14-Oct-11
GHATF	Shark, Gummy	0136	Vertebrae	11	EBS	Mesh net	Eastern	Lakes Entrance	Andrew K	03-Apr-11
GHATF	Shark, Gummy	0137	Vertebrae	20	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	09-May-11
GHATF	Shark, Gummy	0138	Vertebrae	13	EBS	Mesh net	Eastern	Lakes Entrance	Charisma	03-Apr-11
GHATF	Shark, Gummy	0139	Vertebrae	25	EBS	Mesh net	Western	Lakes Entrance	Cape Everard	03-Mar-11
GHATF	Shark, Gummy	0140	Vertebrae	30	EBS	Mesh net	Eastern	Lakes Entrance	Christine Claire	07-Mar-11
GHATF	Shark, Gummy	0141	Vertebrae	18	EBS	Gill net	Eastern		Andrew K	17-Feb-11
GHATF	Shark, Gummy	0142	Vertebrae	14	EBS	Gill net	Eastern		Cape Everard	15-Mar-11
GHATF	Shark, Gummy	0143	Vertebrae	25	EBS	Gill net	Eastern		Christine Claire	06-May-11
GHATF	Shark, Gummy	0144	Vertebrae	3	EBS	Gill net	Eastern		Charisma	01-Apr-11
GHATF	Shark, Gummy	0145	Vertebrae	1	EBS	Gill net	Eastern		Christine Claire	05-Jun-11
GHATF	Shark, Gummy	0146	Vertebrae	1	EBS	Gill net	Eastern		Charisma	15-Jun-11
GHATF	Shark, Gummy	0147	Vertebrae	1	EBS	Gill net	Eastern		Christine Claire	14-Apr-13
GHATF	Shark, Gummy	0148	Vertebrae	1	EBS	Gill net	Eastern		Cape Everard	04-Jan-14

Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Shark, Gummy	0149	Vertebrae	1	EBS	Gill net	Eastern		Christine Claire	12-May-14
GHATF	Shark, Gummy	0150	Vertebrae	1	EBS	Gill net	Eastern		Darryl R	28-Apr-14
GHATF	Shark, Gummy	0151	Vertebrae	2	WBS	Gill net	Eastern		Christine Claire	01-Feb-13
GHATF	Shark, Gummy	0152	Vertebrae	1	EBS	Gill net	Eastern		Darryl R	27-May-14
GHATF	Shark, Gummy	0153	Vertebrae	3	WBS	Gill net	Western		Sharben	01-Mar-13
GHATF	Shark, Gummy	0154	Vertebrae	2	EBS	Gill net	Eastern		Cape Everard	01-Apr-14
GHATF	Shark, Gummy	0155	Vertebrae	9	EBS	Gill net	Eastern		Cape Everard	01-Mar-14
GHATF	Shark, Gummy	0156	Vertebrae	4	EBS	Gill net	Eastern		Cape Everard	01-Apr-14
GHATF	Shark, Gummy	0157	Vertebrae	9	EBS	Gill net	Eastern		Christine Claire	01-Jan-15
GHATF	Shark, Gummy	0158	Vertebrae	25	EBS	Mesh net	Eastern	Lakes Entrance	Sharben	19-Dec-13
GHATF	Shark, Gummy	0159	Vertebrae	24	EBS	Mesh net	Eastern	Lakes Entrance	Rhylan	19-Dec-13
GHATF	Shark, Gummy	0160	Vertebrae	25	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	12-Jan-15
GHATF	Shark, Gummy	0161	Vertebrae	41	EBS	Mesh net	Eastern	Lakes Entrance	Neries	24-Feb-15
GHATF	Shark, Gummy	0162	Vertebrae	66	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	28-Jul-14
GHATF	Shark, Gummy	0163	Vertebrae	40	EBS	Mesh net	Eastern	Lakes Entrance	Sharben	23-Dec-14
GHATF	Shark, Gummy	0165	Vertebrae	50	EBS	Mesh net	Eastern		Cape Everard	09-Mar-15
GHATF	Shark, Gummy	0166	Vertebrae	37	EBS	Mesh net	Eastern	Lakes Entrance	Neries	06-Apr-15
GHATF	Shark, Gummy	0167	Vertebrae	39	EBS	Mesh net	Eastern	Lakes Entrance	Lutarna	25-May-15
GHATF	Shark, Gummy	0168	Vertebrae	50	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	07-Sep-15
GHATF	Shark, Gummy	0169	Vertebrae	26	EBS	Mesh net	Eastern	Lakes Entrance	Erin J	02-Jul-15
GHATF	Shark, Gummy	0170	Vertebrae	38	EBS	Mesh net	Eastern	Lakes Entrance	Lutarna	15-Jun-15
GHATF	Shark, Gummy	0171	Vertebrae	25	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	15-Jun-15
GHATF	Shark, Gummy	0172	Vertebrae	26	EBS	Mesh net	Eastern	Lakes Entrance	Christine Claire	02-Jul-15
GHATF	Shark, Gummy	0173	Vertebrae	50	EBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	16-Nov-15
GHATF	Shark, Gummy	0174	Vertebrae	51	EBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	07-Dec-15
GHATF	Shark, Gummy	0175	Vertebrae	38	EBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	11-Jan-16
GHATF	Shark, Gummy	0176	Vertebrae	33	EBS	Gill net	Gill Net	Lakes Entrance	Christine Clare	29-Oct-15
GHATF	Shark, Gummy	0177	Vertebrae	39	EBS	Gill net	Gill Net	Lakes Entrance	Sharben	29-Oct-15
GHATF	Shark, Gummy	0178	Vertebrae	50	EBS	Gill net	Gill Net	Lakes Entrance	Erin J	11-Feb-16



Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Shark, Gummy	0179	Vertebrae	50	EBS	Gill net	Gill Net	Lakes Entrance	Lutarna	02-Dec-15
GHATF	Shark, Gummy	0180	Vertebrae	170	CSA	Hook	Hook		Kiella	01-Jan-16
GHATF	Shark, Gummy	0181	Vertebrae	50	ESA		Gill Net		Jean Bryant	
GHATF	Shark, Gummy	0182	Vertebrae	50	EBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	03-Mar-16
GHATF	Shark, Gummy	0183	Vertebrae	40	EBS	Gill net	Gill Net	Lakes Entrance	Lutarna	12-Apr-16
GHATF	Shark, Gummy	0184	Vertebrae	50	EBS	Gill net	Gill Net	Lakes Entrance	Lutarna	10-May-16
GHATF	Shark, Gummy	0185	Vertebrae	33	EBS	Gill net	Gill Net	Lakes Entrance	Erin J	22-Jul-16
GHATF	Shark, Gummy	0186	Vertebrae	50	EBS	Gill net	Gill Net	Lakes Entrance	Morrie D	21-Jul-16
GHATF	Shark, Gummy	0187	Vertebrae	35	EBS	Gill net	Gill Net	Lakes Entrance	Sharben	21-Aug-16
GHATF	Shark, Gummy	0188	Vertebrae	35	EBS	Gill net	Gill Net	Lakes Entrance	Christine Clare	19-Sep-16
GHATF	Shark, Gummy	0189	Vertebrae	35	EBS	Gill net	Gill Net	Lakes Entrance	Erin J	19-Sep-16
GHATF	Shark, Gummy	0190	Vertebrae	42	EBS	Gill net	Gill Net	Lakes Entrance	Erin J	18-Oct-16
GHATF	Shark, Gummy	0191	Vertebrae	39	EBS	Gill net	Gill Net	Lakes Entrance	Jean Bryant	17-Oct-16
GHATF	Shark, Gummy	0192	Vertebrae	51	EBS	Gill net	Gill Net	Lakes Entrance	Nina	14-Nov-16
GHATF	Shark, Gummy	0193	Vertebrae	32	EBS	Gill net	Gill Net	Lakes Entrance	Ace Of Hearts	02-Dec-16
GHATF	Shark, Gummy	0194	Vertebrae	36	EBS	Gill net	Gill Net	Lakes Entrance	Lutarna	02-Dec-16
GHATF	Shark, School	0086	Vertebrae	30	EBS	Gill net	Gill net		Mustelus	01-Feb-14
GHATF	Shark, School	0087	Vertebrae	4	ET	Gill net	Gill net		Fig Tree Bay	01-Mar-14
GHATF	Shark, School	0088	Vertebrae	12	WBS	Gill net	Gill net		Jean Bryant	01-Mar-14
GHATF	Shark, School	0089	Vertebrae	11	WBS	Unknown method	UNK		Western Light	01-Apr-14
GHATF	Shark, School	0090	Vertebrae	18	ET	Hook	Hook		St Bernadette	01-Feb-14
GHATF	Shark, School	0091	Vertebrae	16	ET	Hook	Hook		St Bernadette	01-Jan-14
GHATF	Shark, School	0092	Vertebrae	21	CSA	Hook	Hook		Shark Raider	01-Apr-14
GHATF	Shark, School	0093	Vertebrae	2	SAV	Gill net	Gill net		Pegasus IV	01-Apr-14
GHATF	Shark, School	0098	Vertebrae	10	CSA	Hook	Hook		Kiella	01-May-14
GHATF	Shark, School	0099	Vertebrae	18	ESA	Hook	Hook		Kiella	01-May-14
GHATF	Shark, School	0137	Vertebrae	5	EBS	Mesh net	Eastern	Lakes Entrance	Neries	06-Apr-15
GHATF	Shark, School	0138	Vertebrae	39	EBS	Mesh net	Eastern	Lakes Entrance	Erin J	25-May-15
GHATF	Shark, School	0139	Vertebrae	38	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	25-May-15

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Sector	Species Name	Batch	Preparation	N	Zone	Gear	Fishery	Location	Vessel	DOC
GHATF	Shark, School	0140	Vertebrae	18	EBS	Mesh net	Eastern	Lakes Entrance	Sharben	06-Apr-15
GHATF	Shark, School	0141	Vertebrae	39	EBS	Mesh net	Eastern		Cape Everard	09-Mar-15
GHATF	Shark, School	0142	Vertebrae	2	EBS	Mesh net	Eastern	Lakes Entrance	Christine Claire	02-Jul-15
GHATF	Shark, School	0143	Vertebrae	10	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	07-Sep-15
GHATF	Shark, School	0144	Vertebrae	56	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	17-Aug-15
GHATF	Shark, School	0145	Vertebrae	26	EBS	Mesh net	Eastern	Lakes Entrance	Erin J	17-Aug-15
GHATF	Shark, School	0146	Vertebrae	6	EBS	Mesh net	Eastern	Lakes Entrance	Cape Everard	15-Jun-15
GHATF	Shark, School	0147	Vertebrae	9	WBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	16-Nov-15
GHATF	Shark, School	0148	Vertebrae	67	EBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	11-Jan-16
GHATF	Shark, School	0149	Vertebrae	1	CSA	Hook	Hook		Kiella	01-Jan-16
GHATF	Shark, School	0151	Vertebrae	5	EBS	Gill net	Gill Net		Cape Everard	07-Dec-15
GHATF	Shark, School	0152	Vertebrae	72	EBS	Gill net	Gill Net	Lakes Entrance	Lutarna	12-Apr-16
GHATF	Shark, School	0153	Vertebrae	11	EBS	Gill net	Gill Net	Lakes Entrance	Ace Of Hearts	02-Dec-16
GHATF	Shark, School	0154	Vertebrae	5	EBS	Gill net	Gill Net	Lakes Entrance	Morrie D	21-Jul-16
GHATF	Shark, School	0155	Vertebrae	1	EBS	Gill net	Gill Net	Lakes Entrance	Sharben	21-Aug-16
GHATF	Shark, School	0156	Vertebrae	1	EBS	Gill net	Gill Net	Lakes Entrance	Cape Everard	03-Mar-16
GHATF	Shark, School	0157	Vertebrae	1	EBS	Gill net	Gill Net	Lakes Entrance	Erin J	18-Oct-16
GHATF	Tiger Flathead	0716	Section otolith	16	SF20	Hook	Eastern		Ilana	01-Dec-12

## Sector – ECDW

Sector	Species Name	Batch	Preparation method	Samples	Zone	Gear	Fishery	Location	Vessel	DOC
ECDW	Alfonsino	0068	Otolith - Annual	68	HS71	Trawl	Trawl		Southern Champion	01-Sep-14
ECDW	Alfonsino	0069	Otolith - Annual	40	HS71	Trawl	Trawl		Southern Champion	01-Nov-14
ECDW	Alfonsino	0070	Otolith - Annual	27	HS71	Trawl	Trawl		Southern Champion	01-Oct-14
ECDW	Alfonsino	0071	Otolith - Annual	107	HS70	Trawl	Trawl		Voyager P	01-Jul-12
ECDW	Bight Redfish	0234	Section otolith	2	HS70	Long line	Hook		Diana	01-Jul-14
ECDW	Blue-eye trevalla	0967	Section otolith	19	HS70	Trawl	Trawl		Diana	01-Jul-14
ECDW	Blue-eye trevalla	0973	Otolith - Annual	2	HS71	Trawl	Trawl		Southern Champion	17-Sep-14
ECDW	Blue-eye trevalla	0974	Otolith - Annual	14	HS71	Trawl	Trawl		Southern Champion	01-Oct-14
ECDW	Blue-eye trevalla	0977	Otolith - Annual	25	HS70	Trawl	Trawl		Voyager P	01-Jul-12
ECDW	Cardinal Fish, Telescopic/Black	0005	Otolith - Annual	1	HS71	Trawl	Trawl		Southern Champion	25-Nov-14
ECDW	Cardinal Fish, Telescopic/Black	0006	Otolith - Annual	6	HS71	Trawl	Trawl		Southern Champion	17-Sep-14
ECDW	Gemfish	0641	Otolith - Annual	3	HS71	Long line	Hook		Diana	09-Jul-14
ECDW	Groper, Bass	0002	Section otolith	3	HS70	Long line	Hook		Diana	01-Jul-14
ECDW	Groper, Bass	0003	Otolith - Annual	2	HS70	Trawl	Trawl		Voyager P	16-Jul-14
ECDW	Hapuka	0136	Otolith - Annual	1	HS71	Trawl	Trawl		Southern Champion	31-Oct-14
ECDW	Hapuka	0137	Otolith - Annual	4	HS71	Trawl	Trawl		Southern Champion	23-Nov-14
ECDW	Imperador	0003	Otolith - Annual	1	HS70	Trawl	Trawl		Voyager P	03-Jul-14
ECDW	Jackass Morwong	0594	Otolith - Annual	137	HS70	Drop line	Eastern	Gascoyne	Diana	01-Jul-14
ECDW	Kingfish, Yellowtail	0005	Section otolith	60	HS70	Long line	Hook		Diana	01-Jul-14
ECDW	Orange Roughy	0285	Section otolith	20	HS70	Trawl	Trawl		Saxon Onwards	24-Jun-14
ECDW	Orange Roughy	0286	Section otolith	29	HS70	Trawl	Trawl		Saxon Onwards	27-May-14
ECDW	Orange Roughy	0287	Section otolith	28	HS70	Trawl	Trawl		Saxon Onwards	19-Jun-14
ECDW	Orange Roughy	0289	Section otolith	38	HS70	Trawl	Trawl		Voyager P	01-Jul-14
ECDW	Orange Roughy	0290	Section otolith	29	HS70	Trawl	Trawl		Voyager P	26-Jun-14
ECDW	Orange Roughy	0291	Section otolith	76	HS70	Trawl	Trawl		Voyager P	01-Jul-14
ECDW	Orange Roughy	0294	Otolith - Annual	7	HS71	Trawl	Trawl		Southern Champion	08-Nov-14
ECDW	Orange Roughy	0295	Otolith - Annual	35	HS71	Trawl	Trawl		Voyager P	04-Jun-14
ECDW	Orange Roughy	0296	Otolith - Annual	52	HS71	Trawl	Trawl		Southern Champion	01-Sep-14

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Sector	Species Name	Batch	Preparation method	Samples	Zone	Gear	Fishery	Location	Vessel	DOC
ECDW	Orange Roughy	0297	Otolith - Annual	10	HS71	Trawl	Trawl		Southern Champion	01-Oct-14
ECDW	Orange Roughy	0298	Otolith - Annual	79	HS70	Trawl	Trawl		Voyager P	01-Jul-14
ECDW	Orange Roughy	0304	Otolith - Annual	79	HS70	Trawl	Trawl		Voyager P	01-Jul-14
ECDW	Orange Roughy	0309	Section otolith	62	HS70	Trawl	Trawl	High Seas	Saxon Onwards	01-Jun-15
ECDW	Orange Roughy	0319	Section otolith	129	HS70	Trawl	Trawl	High Seas	Saxon Onwards	01-Jul-15
ECDW	Oreo, Spiky	0003	Otolith - Annual	10	HS71	Trawl	Trawl		Southern Champion	01-Sep-14
ECDW	Oreo, Spiky	0004	Otolith - Annual	5	HS71	Trawl	Trawl		Southern Champion	18-Oct-14
ECDW	Pelagic Armorhead	0010	Otolith - Annual	4	HS71	Trawl	Trawl		Southern Champion	01-Sep-14
ECDW	Pelagic Armorhead	0011	Otolith - Annual	7	HS71	Trawl	Trawl		Southern Champion	21-Nov-14
ECDW	Pelagic Armorhead	0012	Otolith - Annual	6	HS70	Trawl	Trawl		Voyager P	13-Jul-14
ECDW	Ribaldo	0222	Otolith - Annual	10	HS71	Trawl	Trawl		Southern Champion	26-Sep-14
ECDW	Rubyfish, Cosmopolitan	0002	Section otolith	19	HS70	Trawl	Trawl		Southern Champion	20-Jul-14
ECDW	Rubyfish, Cosmopolitan	0003	Otolith - Annual	51	HS71	Trawl	Trawl		Southern Champion	01-Oct-14
ECDW	Rubyfish, Cosmopolitan	0004	Otolith - Annual	16	HS71	Trawl	Trawl		Southern Champion	01-Nov-14
ECDW	Trumpeter, Striped	0006	Section otolith	4	HS70	Long line	Hook		Diana	01-Jul-14
ECDW	Warehou, Violet	0003	Section otolith	23	HS70	Trawl	Trawl		Southern Champion	01-Jul-14
ECDW	Warehou, Violet	0004	Section otolith	5	HS70	Trawl	Trawl		Diana	01-Jul-14
ECDW	Warehou, Violet	0005	Otolith - Annual	10	HS71	Trawl	Trawl		Southern Champion	19-Sep-14
ECDW	Warehou, Violet	0006	Otolith - Annual	63	HS71	Trawl	Trawl		Southern Champion	01-Oct-14
ECDW	Warehou, Violet	0007	Otolith - Annual	5	HS71	Trawl	Trawl		Southern Champion	01-Nov-14

## Sector HS

Sector	Species Name	Batch	Preparation method	Samples	Zone	Gear	Fishery	Location	Vessel	DOC
HS	Alfonsino	0072	Section otolith	25	HS70	Trawl		Madagascar Ridge	Atlas Cove	22-Dec-15
HS	Alfonsino	0073	Section otolith	25	HS70	Trawl		Madagascar Ridge		31-Dec-15
HS	Alfonsino	0074	Section otolith	40	HS70	Trawl		Madagascar Ridge	Atlas Cove	01-Jan-16
HS	Blue-eye trevalla	1006	Section otolith	15	HS70	Long line	Hook		Petuna Endeavour	01-Apr-16
HS	Jackass Morwong	0651	Section otolith	20	HS70	Long line	HS		Diana	01-May-16
HS	Kingfish, Yellowtail	0006	Section otolith	5	HS70	Long line	HS		Diana	26-May-16
HS	Ocean Perch, Offshore	0150	Section otolith	10	HS70	Long line	Hook		Petuna Endeavour	01-Apr-16
HS	Oreo, Spiky	0005	Section otolith	1		Trawl			Voyager P	08-Jul-12
HS	Oreo, Spiky	0007	Section otolith	15		Trawl			Saxon Onwards	19-Jun-15
HS	Oreo, Spiky	0009	Section otolith	6		Trawl			Voyager P	07-Jul-12
HS	Warehou, Violet	0008	Section otolith	50	HS70		HS	Madagascar Ridge		01-Jan-16

## Appendix 2 - Methods & Standards in Fish Ageing used by FAS

### *Overview*

FAS directors and staff work under the *Occupational Health and Safety Act 2004* and all our methods comply with *Occupational Health and Safety Regulations 2007*. For each method, the appropriate Job Safety Analysis has been completed and the potential risks assessed.

There are no official standards (nationally or internationally) in the field of fish ageing. All the methods that are employed by FAS have been developed over years of experience in the field of fish ageing and are modified from those used at the Central Ageing Facility (Morison *et al* 1998). These methods have been used successfully to age over 250 different species and are internationally recognised.

Many of the processes and protocols developed for the routine ageing of shark and teleosts species used throughout the world were pioneered by FAS Directors. All preparation and reading techniques have been designed for efficiency in preparation time and to maintain consistency within and between readers and species.

Fish Ageing Services Pty Ltd has developed international links with leading researchers in the field of fish ageing and is consistently reviewing best practise in the field of production ageing. FAS use state-of-the-art equipment. The microscopes and dissecting microscopes used are all research grade Leica Microsystems. The software is custom written in Visual Studio.

### *Sample Extraction*

All otoliths and vertebrae samples have been removed from the specimen prior to FAS receiving them.

### *Sample Registration*

All otoliths extracted by or provided to FAS are registered in a database. Each sample is assigned a unique specimen number. The specimen number is constructed from the following information:

- Species names – each species has a unique code.
- Batch – number sequential given to each group of otoliths, of a given species, received at FAS
- Sample number – sequential number for each fish in a batch indexed at 1.

The concatenation of species code, batch number and sample number allows FAS staff to identify the details of that specimen (e.g. date and area of capture, sex and other biological information).

The biological data from all otolith collections are entered into a database

### *Otolith weight*

All otoliths are weighed to the nearest 0.001g on an electronic balance on registration.

Otolith weight is a useful diagnostic tool in assessing potential errors in age estimates and for examining patterns of otolith growth. Otolith weight has a strong relationship with fish size and age.

In long-lived species, the relationship of otolith weight against estimated age may show an increased slope if the ages have been underestimated. Large variation about the relationship may indicate a lack of precision

in the estimates. Also, an outlying data point in the otolith weight/age relationship may indicate incorrect assignment of age and/or length and otolith weight measurements.

### ***Vertebrae Preparation***

Vertebrae are supplied to FAS as a frozen core taken from the cervical section of the vertebral column. To prepare these for sectioning, three vertebrae are cut from the frozen core. The tissue is carefully trimmed from each of the vertebrae using a scalpel. When the majority of the tissue has been removed, the vertebrae are immersed in White King Concentrated Bleach. The two active ingredients are sodium hypochlorite (10%) solution and sodium hydroxide (1.3%) which bleach the vertebrae and removes tissue inaccessible via a scalpel. The immersion time varies between five and thirty minutes depending on the size of the vertebrae being bleached. Larger samples require a longer period in the solution. After bleaching, the vertebrae are rinsed through a series of three water baths to remove all traces of the bleach solution. Vertebrae samples are then oven dried at 55 degrees Celsius and placed in labelled envelopes for further processing.

Vertebrae are embedded in the same Polyplex Clear Ortho Casting Resin used for the otoliths. The maximum length of a vertebra in the anterior-posterior axis that can be embedded is 11 millimetres, due to the depth of the embedding mould and the blade clearance on the sectioning machine. Where vertebrae are greater than 11 millimetres in length they are trimmed with a hi-speed Dremel tool using a plastics blade to a length of approximately 10-11 millimetres. A diagonal groove is cut at one end of the vertebra to allow resin to flow into the lower articular face. If the vertebra has been cut down to fit the mould, the end that has been trimmed is cut diagonally. Vertebrae are then embedded in two rows of four with the articular face upwards.

Blocks containing vertebrae are then sectioned, and mounted using the same techniques described for transverse otolith sections.

### ***Otolith storage***

Otoliths are stored in four forms:

1. Sectioned otoliths
2. Sister otoliths
3. Otoliths registered but not required for ageing during current project
4. Historic otoliths not registered in database.

### ***Samples required for active projects***

Otoliths and Vertebrae samples are securely and safely stored, reducing the risk of irretrievable loss, as samples cannot be collected retrospectively.

A fireproof cabinet provides a secure onsite store for:

1. Registered Otolith pairs and dried vertebrae.

Samples are stored onsite until it is sectioned and used for ageing.

2. Sectioned and read samples

Sectioned samples are stored onsite for one year after ageing.

## *Archival store*

Secure offsite storage is used for:

1. Sister otoliths/vertebrae

Once samples have been prepared (i.e. sectioned or aged) the remaining sample from that specimen are moved to an offsite secured storage facility.

2. Registered otoliths not required in current project/year

If samples are identified as not required in the current project these samples are moved to off-site secure store.

3. Historic otoliths not registered in database

Historic otoliths are archived (species, area of capture and year) and then removed to the off-site secure store

4. Sectioned otoliths

After 12 months the slides of sectioned otoliths are moved to the offsite store.

5. Otoliths and sections can be returned to the original client at any time.

The off-site storage facility provides:

- Alarmed pest controlled units.
- 24-hour access
- 24hr / 7-day CCTV camera surveillance
- Pin coded access.

## *Preparation of otoliths*

There are three types of otolith processing that is employed by FAS; transverse otolith sectioning, longitudinal otolith sectioning and whole otolith reads.

### **Transverse Sectioning**

Sagittal otoliths are embedded, in rows of four or five (depending on species) in blocks of Polyplex Clear Ortho Casting Resin ensuring that the primordium of each otolith is line. Each otolith is sectioned individually on the transverse axis. Four sections, approximately 300µm thick, are cut through the otoliths centres with a modified high speed gem-cutting saw with a 250µm thick diamond impregnated blade. Sections from each sample are cleaned, dried and mounted on clear glass microscope slides (50 x 76 mm) under glass coverslips using resin. Using this method up to 5 otoliths can be prepared for ageing at one time.

### **Longitudinal Sectioning**

Otoliths are arranged in two rows of five in blocks of resin using the same techniques as described above. Otoliths are sectioned individually on the longitudinal axis. From each otolith, up to three sections are taken (approximately 350µm in thickness) to ensure the primordium of each otolith was included within the section. Sections were cleaned and mounted in the same method used for the transverse sections.



## *Age Reading*

### **Whole otoliths**

Reading whole otoliths requires the otolith to be immersed in water against a black background and viewed with reflected light.

### **Sectioned otoliths**

Sectioned otoliths are examined using transmitted light. Each section of the otolith is inspected, and the section with the clearest zone pattern is chosen for ageing. This is usually, but not necessarily the section closest to the primordium (the biological centre of the otolith).

### **Sectioned Vertebra**

Slides of sectioned vertebrae are examined using a Leica M80 stereo dissecting microscope using reflected light delivered from a fibre optic Leica light source (CLS 150 XE). Samples are examined at 0.75 x magnification. The position of each zone is marked on the image along the articular face of the vertebra.

### **Counts and Measurements**

The age of a sample is determined by counting the sequence of alternating translucent and opaque zones from the primordium to the otolith edge.

Otoliths are read using research grade Leica microscopes. Annual age estimates for most species are made using a dissecting microscope. Otoliths prepared for daily age reading are viewed at magnifications up to 63x using a compound microscope.

To avoid the introduction of bias, the magnification at which otoliths are read usually remains consistent within a species. Occasionally, readers will increase or decrease the magnification to resolve the structure of unclear otoliths.

To avoid the potential for biasing age estimates, all counts are made without knowledge of fish size, sex and location. Once age estimates are completed, the ageing data is combined with the biological and capture data for subsequent analyses.

### **Data acquisition**

A customised image analysis system is used to age sectioned and whole otoliths. This system counts and measures manually marked increments and collects an image from each sample aged.

A CCD digital camera is mounted onto the dissecting microscope (Leica MZ80) and a live image is displayed on the monitor. Using the image analysis system, a transect is drawn on the otolith image from the primordium to the edge of the sample. The positions of the opaque zones along this transect and the otolith edge is marked with a screen cursor. Additional structures such as sub-annual zones or transition points can also be marked. The numbers of zones marked and the measurements from the primordium to each subsequent mark along the transect are exported to a Microsoft database.

In addition, the otolith image is automatically captured and exported, along with the x and y coordinates of the marked zones, into an image database. Images are captured in the Joint Photographic Group (JPG) format.

### **Precision and accuracy**

FAS employ worldwide accepted methods for quality assessment/quality control and estimating precision of ages estimated. These methods are consistent with the quality assurance, practices and procedures that are used by other national and international ageing laboratories.

Before the reading of a set of otoliths begins, for each given species a reference set of samples is read. The reference set consists of a sub-sample of previously read otoliths from that particular species. These calibration sets are continuously updated as new samples are aged. Ageing of the samples commences only once an acceptable level of precision and accuracy are achieved (species specific indices). If acceptable levels are not achieved readers are retrained. This provides a measure to ensure that samples are interpreted in the same manner as previously reported.

Repeated readings of otoliths provide measures of intra-reader and inter-reader variability. The purpose of the re-reading otoliths is to provide an indication of error associated with the estimates, not an agreed age. Re-reads do not validate the assigned ages but provide an indication of magnitude of the error to be expected within a set of age estimates. These differences are due to variations in interpretation of the otolith zones.

Beamish and Fournier (1981) developed an index of average percent error (IAPE), which is probably the most widely used method for quantifying this variation.

If the sample of otoliths being aged is less than 100, then the whole sample will be re-read a second time. If the sample size is greater than 100 then a sub-sample of 25% will be re-aged. From the repeat readings an IAPE is calculated and age bias plots, age difference tables and regression analysis are also produced to investigate precision.

A bootstrap technique is applied to individual error estimates to establish confidence intervals around the IAPE. Five thousand data sets (each the same size as the original) will be generated with replacement from the original repeat reading data set, and an IAPE calculated for each group. The mean of these replicate IAPE's is the mean bootstrap IAPE. Confidence intervals around the bootstrapped IAPE are determined by using 5% and 95% quantiles from the array of bootstrapped IAPEs.

Re-read data is combined with relevant biological data and reported to the client (if a standard technical report is requested)

In addition to QA/QC for age estimation, FAS will apply Quality Standards to ensure:

- Sample and data integrity
- The project is delivered on time
- That the project is delivered to the required quality specifications.

## ***Data management and storage***

*Data management should include a description of the data to be produced by the research and show details on the following aspects:*

- ***Data security or privacy issues, applying to the data.***
- ***Nominated data custodian, clearly identifying the party responsible for this data.***

Data is stored using two strategies to prevent loss. These are:

- All data is stored in a network attached Redundant Array of Independent Disks (RAID), configured as RAID 5 storage. This has the benefit that a disk failure within the array does not compromise the data.
- All data is stored off site at [www.seekdotnet.com](http://www.seekdotnet.com) (the service provider for FAS). This protects the data against major disaster (for example, fire or theft).

All ageing data generated through the course of this project will be provided annually to AFMA in the form of a milestone and draft and final end-of-financial year report.

Length-at-age data is the main data generated by FAS. Other information including biological data and sampling details associated with the samples will also be stored. This data will be maintained in Microsoft Access and SQL databases. Access to any data generated through this project will only be provided to third party individuals or organisations with written authorisation by the client.

All data associated with this project will be routinely archived off site to ensure data integrity. Access to these data will be provided on a password protected basis with read-only permissions.

FAS are also able to provide data systems which are compatible with end user's needs. An example of this system includes online data delivery to CSIRO modellers. This innovation was employed in May 2009, when data from the SESSF Ageing work plan 2007–09 was uploaded to a secure website. Registered access, provided by the FAS allowed CSIRO scientists and AFMA managers access this data immediately it completed the Quality Assurance procedure. This innovation ensures a timelier delivery of data than was previously possible.

These systems will be developed by FAS. These systems will be proactively modified tailoring the delivery of results to the target audience. The flexibility introduced by these data systems will enhance the capability of AFMA and the end data users to address issues relating to age composition within SESSF fisheries.

These systems will allow access to the following information:

- Current and historical datasets
- A real-time view of what has been collected and where sampling deficiencies may exist
- Current age composition and raw length-at-age data.

New data systems will continue to be tailored to end user's requirements, including scientists, modellers and managers to provide high data quality and more efficient data delivery. This will be done as part of FAS commitment to providing efficiencies that were previously unavailable using the CAF model of operation.

### ***Data custodian***

Simon Robertson is the data custodian. Tailored data reports have been provided throughout the course of this project which includes full metadata descriptions.

## Appendix 3 – SESSF collections by sector and zone

Number of otoliths registered at FAS for 2016 collections, by sector and zone.

Sector	Zone																Total
	SF10	SF20	SF30	SF40	SF50	SF60	SF82	SF83	OR10	OR20	OR30	HS70	WBS	EBS	CSA	ESA	
SETF	454	1749	899	545	1342	1021		10	2545	11	408	55					9039
GHATF			56	73									9	1002	171	50	1361
GABTF					2		287	1301								38	1628
HS												190					190
<b>Total</b>	<b>454</b>	<b>1749</b>	<b>955</b>	<b>618</b>	<b>1344</b>	<b>1021</b>	<b>287</b>	<b>1311</b>	<b>2545</b>	<b>11</b>	<b>408</b>	<b>245</b>	<b>9</b>	<b>1002</b>	<b>171</b>	<b>88</b>	<b>12218</b>

## Appendix 4 – SETF collection by species, sector, zone and stock

Number of otoliths registered from collections made on SETF quota species during 2016, summarised by sector/stock and area.

	Zone																	
Species Name	SF10	SF20	SF30	SF40	SF50	SF60	SF82	SF83	OR10	OR20	OR30	HS70	WBS	EBS	CSA	ESA	Total	
Blue grenadier		109	106	125	327												667	
Non-Spawning		109	106	125	297												637	
Spawning					30												30	
Blue-eye trevalla		10	19	6	15												50	
Dory, John		192	21														213	
Eastern		192	21														213	
Dory, Mirror		152	66	17	49	23											307	
Eastern		152	66			23											241	
Western				17	49												66	
Gemfish	70	77	43	73	262												525	
Eastern	70	77	43														190	
Western				73	262												335	
Hapuka				2	16												18	
Western				2	16												18	
Jackass morwong	7	43	48		125	13											236	
Eastern	7	43	48			13											111	
Western					125												125	
Ocean Perch, Offshore	34	34	2	24	90	7											191	
Orange Roughy				24					2545	11	408	55					3043	
Pink ling	5	351	84	153	158												751	
Redfish	87	34				25											146	
Ribaldo		28	20	58	72												178	
School whiting	21	52				573											646	
Danish Seine		24				370											394	
Trawl	21	28				203											252	
Tiger flathead	161	556	329			227											1273	
Danish Seine		350	45			44											439	
Trawl	161	206	284			183											834	
Warehou, Blue	51	64	8		8	102		2									235	
Warehou, Silver / Spotted	13	47	153	62	220	51		8									554	
Eastern	13	47	153	20		51											284	
Western				42	220			8									270	
Trevally, White (Silver)	5																5	
Eastern	5																5	
Ocean Perch, Inshore				1													1	
Western				1													1	
Grand Total	454	1749	899	545	1342	1021		10	2545	11	408	55					9039	

## Appendix 5 – GHATF collections by species, zone and stock

Number of otoliths registered from collections made on GHATF quota species during 2016, summarised by sector/stock and area.

Zone																	
Species Name	SF10	SF20	SF30	SF40	SF50	SF60	SF82	SF83	OR10	OR20	OR30	HS70	WBS	EB5	CSA	ESA	Total
Pink ling			40	73													113
Ribaldo			16														16
Shark, Gummy														839	170	50	1059
Hook															170		170
Gill Net														839		50	889
Shark, School													9	163	1		173
Hook															1		1
Gill Net													9	163			172
Grand Total			56	73									9	1002	171	50	1361

Note: Two Deepwater Flathead were caught in zone SF50

## Appendix 6 – GABTF by species, and zone

Number of otoliths registered from collections made on GABTF species during 2016, summarised by sector/stock and area Note: Two Deepwater Flathead were caught in zone SF50.

	Zone			Total
	SF82	SF83	SF84	
<b>Bight redfish</b>		499		499
<b>Blue grenadier</b>	55	13		68
Non-Spawning	55	13		68
<b>Dory, Mirror</b>	1			1
Western	1			1
<b>Gemfish</b>	9	26		35
Western	9	26		35
<b>Jackass morwong</b>		82		82
Western		82		82
<b>Ocean Perch, Offshore</b>		1		1
<b>Pink ling</b>	38			38
<b>Shark, School</b>				38
Gill Net				38
<b>Deepwater flathead</b>	180	680		862
<b>Warehou, Blue</b>	4			4
<b>Grand Total</b>	<b>287</b>	<b>1301</b>		<b>1626</b>

## Appendix 7 – High Seas by species.

Number of otoliths registered from collections made from the High Seas fishery during 2016

	Zone HS
	190
Alfonsino	90
Blue-eye trevalla	15
Jackass morwong	20
Kingfish, Yellowtail	5
Ocean Perch, Offshore	10
Warehou, Violet	50
Total	190

## Appendix 8 – Total number of SESSF samples registered within each calendar year for the duration of this project.

	Year of Capture							UNK	Total
	2010	2011	2012	2013	2014	2015	2016		
<b>Alfonsino</b>			<b>107</b>		<b>137</b>	<b>50</b>	<b>40</b>		<b>334</b>
Trawl			107		135	50	40		332
Hook					2				2
<b>Bight redfish</b>					<b>863</b>	<b>415</b>	<b>511</b>		<b>1789</b>
Trawl					861	415	511		1787
Hook					2				2
<b>Blue grenadier</b>			<b>19</b>	<b>25</b>	<b>1389</b>	<b>1209</b>	<b>685</b>		<b>3327</b>
Non-Spawning			19	25	889	733	655		2321
Spawning					500	476	30		1006
<b>Blue-eye trevalla</b>			<b>193</b>		<b>430</b>	<b>521</b>	<b>59</b>		<b>1203</b>
Trawl			39		191	50	44		324
Hook			154		239	471	15		879
<b>Cardinal Fish, Telescopic/Black</b>					<b>7</b>				<b>7</b>
Trawl					7				7
<b>Deepwater flathead</b>					<b>983</b>	<b>717</b>	<b>862</b>		<b>2562</b>
Danish Seine							180		180
Trawl					983	717	682		2382
<b>Dory, John</b>			<b>62</b>		<b>223</b>	<b>238</b>	<b>213</b>		<b>736</b>
Eastern			62		223	238	213		736
<b>Dory, Mirror</b>			<b>55</b>		<b>511</b>	<b>204</b>	<b>279</b>		<b>1049</b>
Eastern			55		494	100	241		890
Western					17	104	38		159
<b>Flathead, Yank</b>						<b>2</b>			<b>2</b>
Eastern						2			2
<b>Gemfish</b>			<b>5</b>		<b>936</b>	<b>1350</b>	<b>526</b>		<b>2817</b>
Eastern			5		382	1066	190		1643
Western					551	284	336		1171
Hook					3				3
<b>Groper, Bass</b>					<b>5</b>				<b>5</b>
Trawl					2				2
Hook					3				3
<b>Hapuka</b>					<b>35</b>	<b>42</b>	<b>12</b>		<b>89</b>
Trawl					6	7	12		25
Hook					29	35			64
<b>Imperador</b>					<b>1</b>				<b>1</b>
Trawl					1				1
<b>Jackass morwong</b>			<b>43</b>	<b>9</b>	<b>1017</b>	<b>595</b>	<b>272</b>		<b>1936</b>
Eastern			43	9	484	522	85		1143
Western					533	73	167		773
HS							20		20
<b>Kingfish, Yellowtail</b>					<b>60</b>		<b>5</b>		<b>65</b>
Hook					60				60
HS							5		5
<b>Ocean Perch, Inshore</b>						<b>1</b>			<b>1</b>
Western						1			1
<b>Ocean Perch, Offshore</b>			<b>70</b>		<b>289</b>	<b>262</b>	<b>154</b>		<b>775</b>
Trawl			70		240	257	144		711
Hook					49	5	10		64

Table continued next page.



## Appendix 8 – Total number of SESSF samples registered within each calendar year for the duration of this project (continued).

	2010	2011	2012	2013	2014	2015	2016	2017	UNK	Total
<b>Orange Roughy</b>			<b>1152</b>	<b>503</b>	<b>1246</b>	<b>2314</b>	<b>1373</b>		<b>55</b>	<b>6643</b>
Trawl			1152	503	1246	2314	1373		55	6643
<b>Oreo, Smooth</b>						<b>2</b>				<b>2</b>
Eastern						2				2
<b>Oreo, Spiky</b>			<b>7</b>		<b>30</b>	<b>34</b>				<b>71</b>
Trawl			7		30	34				71
<b>Pelagic Armorhead</b>					<b>17</b>					<b>17</b>
Trawl					17					17
<b>Pink ling</b>					<b>947</b>	<b>942</b>	<b>820</b>	<b>20</b>	<b>8</b>	<b>2737</b>
Trawl					744	740	707	20	4	2215
Hook					203	202	113		4	522
<b>Redfish</b>			<b>93</b>		<b>511</b>	<b>698</b>	<b>146</b>			<b>1448</b>
Danish Seine			17		12		29			58
Trawl			76		499	698	117			1390
<b>Ribaldo</b>			<b>63</b>		<b>303</b>	<b>285</b>	<b>184</b>			<b>835</b>
Trawl			35		128	122	168			453
Hook			28		175	163	16			382
<b>Rubyfish, Cosmopolitan</b>					<b>86</b>					<b>86</b>
Trawl					86					86
<b>School whiting</b>			<b>43</b>	<b>17</b>	<b>675</b>	<b>1153</b>	<b>646</b>		<b>110</b>	<b>2644</b>
Danish Seine			43	17	446	880	394		110	1890
Trawl					229	273	252			754
<b>Shark, Gummy</b>	<b>61</b>	<b>234</b>		<b>55</b>	<b>309</b>	<b>589</b>	<b>786</b>		<b>249</b>	<b>2283</b>
Gill net	61	234		55	283	589	616		249	2087
Hook					26		170			196
<b>Shark, School</b>					<b>142</b>	<b>253</b>	<b>159</b>		<b>38</b>	<b>592</b>
Gill net					59	253	158		38	508
Hook					83		1			84
<b>Tiger flathead</b>			<b>73</b>	<b>80</b>	<b>1208</b>	<b>1460</b>	<b>1273</b>		<b>10</b>	<b>4104</b>
Danish Seine			40		492	498	439		10	1479
Trawl			17	80	716	962	834			2609
Hook			16							16
<b>Trevally, White (Silver)</b>					<b>2</b>	<b>3</b>	<b>5</b>			<b>10</b>
Eastern					2	3	5			10
<b>Trumpeter, Striped</b>					<b>4</b>					<b>4</b>
Hook					4					4
<b>Tuna, Southern Bluefin</b>						<b>26</b>				<b>26</b>
Trawl						26				26
<b>Warehou, Blue</b>			<b>240</b>		<b>135</b>	<b>783</b>	<b>239</b>			<b>1397</b>
Eastern			240		132	689	225			1286
Western					3	94	14			111
<b>Warehou, Silver / Spotted</b>			<b>30</b>		<b>360</b>	<b>398</b>	<b>522</b>			<b>1310</b>
Eastern			30		253	178	284			745
Western					107	220	238			565
<b>Warehou, Violet</b>					<b>106</b>		<b>50</b>			<b>156</b>
Trawl					106					106
HS							50			50
<b>Grand Total</b>	<b>61</b>	<b>234</b>	<b>2255</b>	<b>689</b>	<b>12967</b>	<b>14546</b>	<b>9821</b>	<b>20</b>	<b>470</b>	<b>41063</b>

## Appendix 9 – Total number of SESSF samples aged by FAS for the duration of the project by year of collection.

Species	Year						Total
	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	
Alfonsino							0
Bight redfish			217	845	422	495	1979
Blue grenadier				<b>1354</b>	<b>1178</b>		<b>2532</b>
<i>Non-spawning</i>				859	703		1562
<i>Spawning</i>				495	475		970
Blue-eye trevalla							0
<i>GHAT</i>							0
<i>SEFT</i>							0
Deepwater flathead			292	971	708	846	2817
Dory, John	92	422	204	132			850
Dory, Mirror	169	328	256	109			862
Gemfish				<b>933</b>	<b>1326</b>		<b>2259</b>
<i>Eastern</i>				380	1076		1456
<i>Western</i>				553	250		803
Hapuka							0
Jackass Morwong			<b>413</b>	<b>987</b>			<b>1400</b>
<i>Eastern</i>			293	450			743
<i>Western</i>			120	537			657
Ocean Perch, Offshore							0
Orange Roughy						1635	1635
Pink ling		<b>1464</b>	<b>526</b>	<b>944</b>	<b>801</b>		<b>3735</b>
<i>GHAT</i>		715	333	202	200		1450
<i>SEFT</i>		749	193	742	601		2285
Redfish				509	637		1146
Ribaldo							
<i>GHAT</i>							
<i>SEFT</i>							
School whiting				<b>675</b>	<b>1089</b>	<b>4533</b>	<b>1764</b>
<i>Danish Seine</i>				446	702	3605	4753
<i>Trawl</i>				229	387	928	1544
Shark, Gummy						3654	3654
Shark, School							
Tiger flathead		218	783	1230	1165		3396
Warehou, Blue							0
Warehou, Silver / Spotted		188	475	322			985
<b>Total N</b>	<b>261</b>	<b>2620</b>	<b>3166</b>	<b>9011</b>	<b>7326</b>	<b>11163</b>	<b>33547</b>

Note1: samples aged each financial predominantly consist of those samples collected the previous calendar year, however may also include those age estimates made from archived otoliths prior to the commencement of this project

Note 2. Historical Gummy Shark and School Whiting sourced from a number of years dating back to 1991.

Note 3: The Orange Roughy samples (1635) shown in red have been prepared and the ageing will be completed by June 30<sup>th</sup> 2017.



## Appendix 10. Total number of School and Gummy Shark processed for the duration of the project

School and Gummy Shark collected over duration of the project.

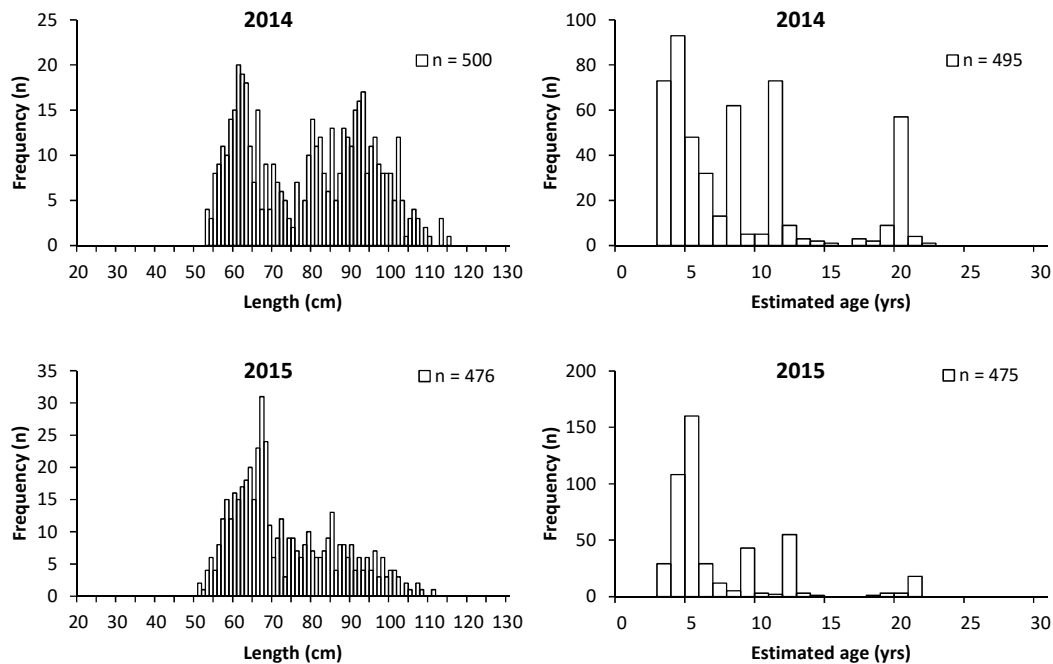
		Shark Zone							Total
		CSA	EBS	ESA	ET	SAV	WBS	WSA	
<b>Gummy Shark</b>		<b>284</b>	<b>1748</b>	<b>100</b>	<b>47</b>	<b>79</b>	<b>22</b>	<b>2</b>	<b>2282</b>
	2010		61						61
	2011		234						234
	2013		50				5		55
	2014	78	165		14	50		2	309
	2015		589						589
	2016	170	615						785
	UNK	36	34	100	33	29	17		249
<b>School Shark</b>		<b>32</b>	<b>436</b>	<b>56</b>	<b>38</b>	<b>2</b>	<b>28</b>		<b>592</b>
	2014	31	30	18	38	2	23		142
	2015		248				5		253
	2016	1	158						159
	UNK			38					38
<b>Total</b>		<b>316</b>	<b>2184</b>	<b>156</b>	<b>85</b>	<b>81</b>	<b>50</b>	<b>2</b>	<b>2874</b>

## Appendix 11– Length and age frequencies by species produced during the project (not including 2016).

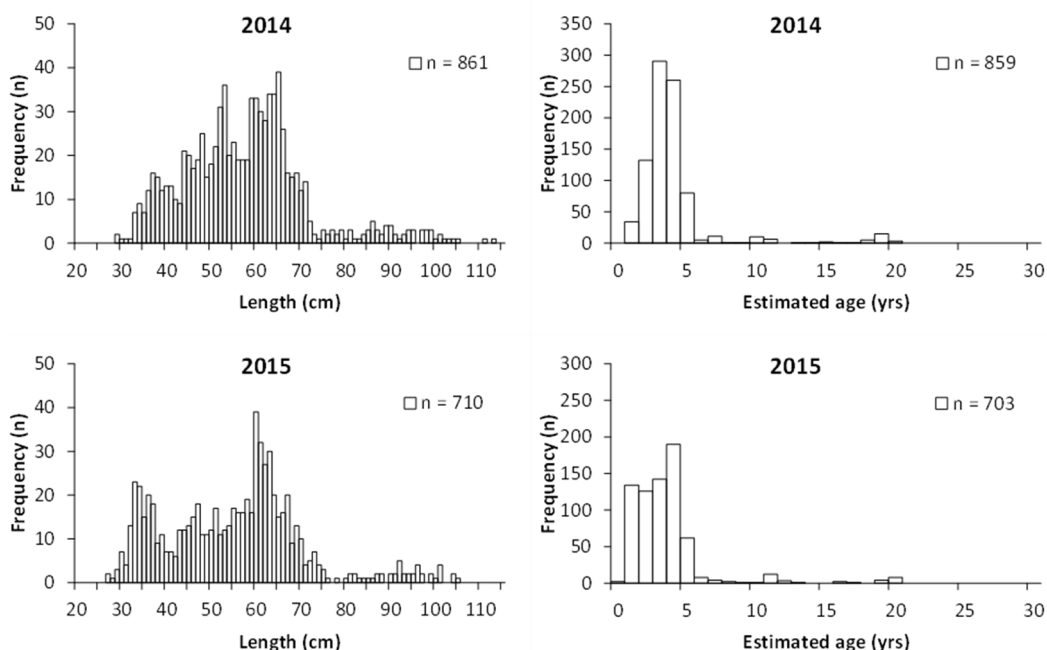
### Alfonsino

No ageing completed for the duration of the contract (2015-2017). Last ageing data available from otoliths collected in 2013.

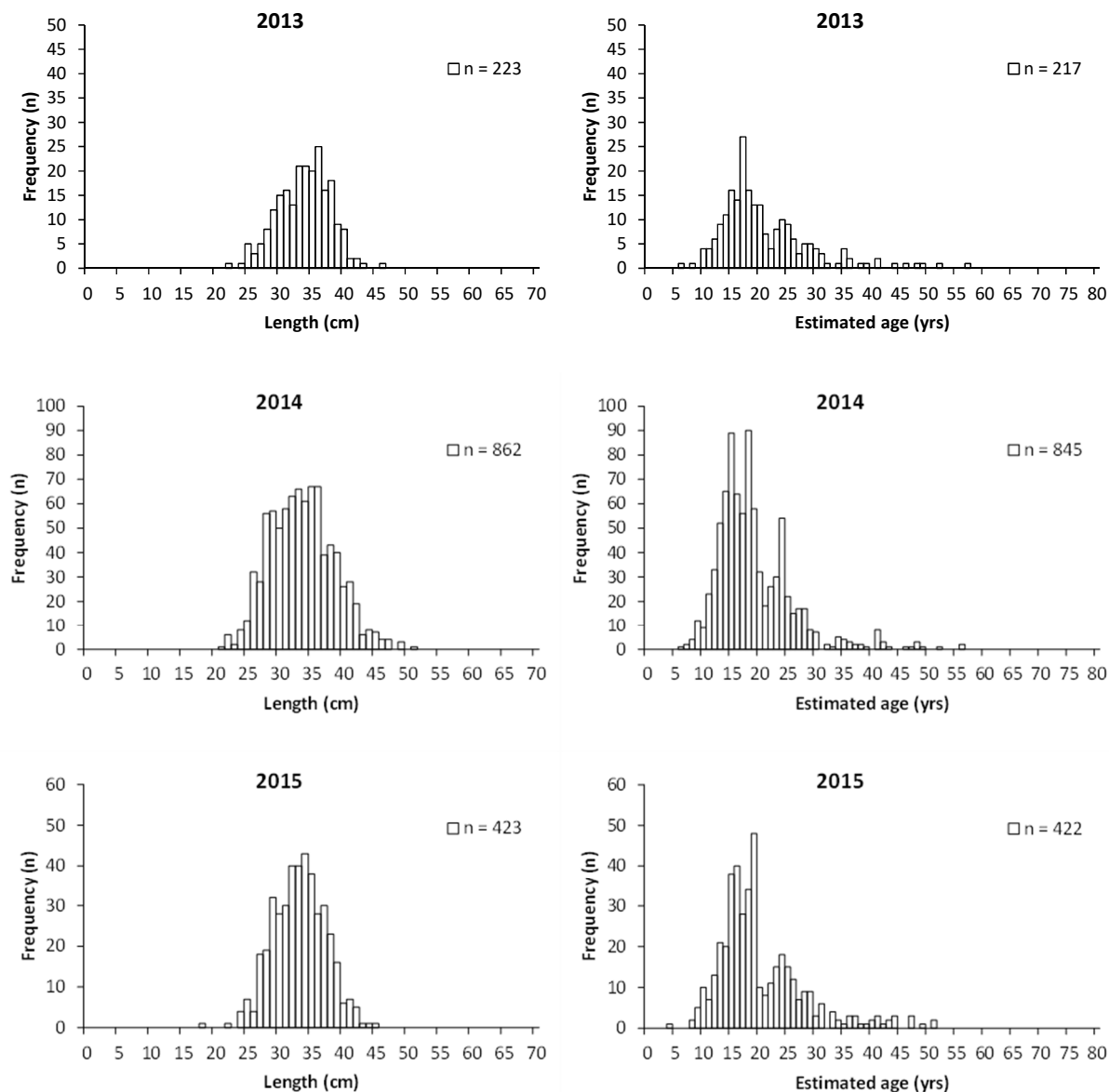
### Blue Grenadier – Spawning



### Blue Grenadier – Non-Spawning



## Bight Redfish



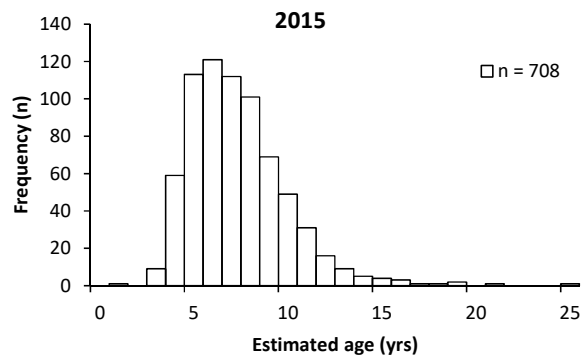
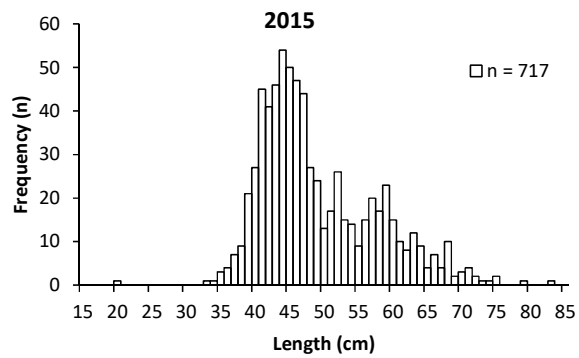
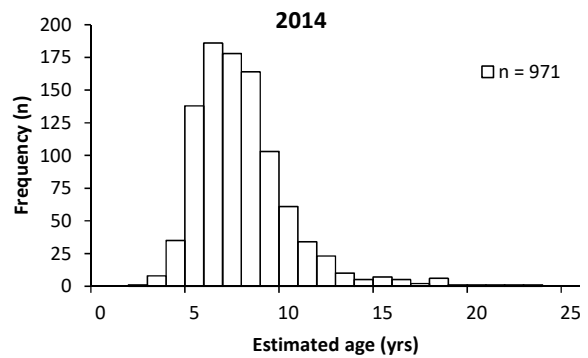
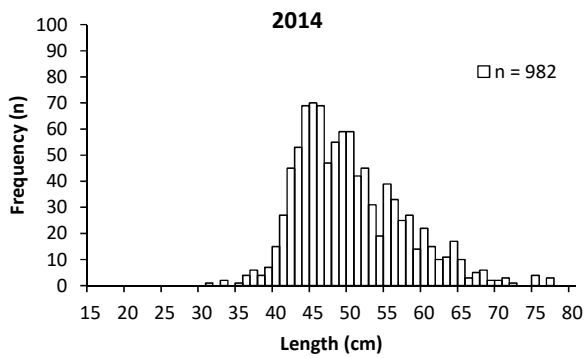
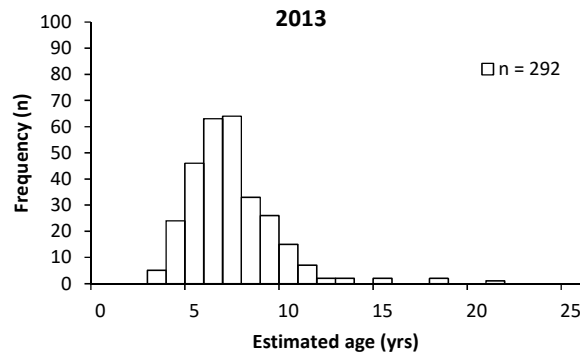
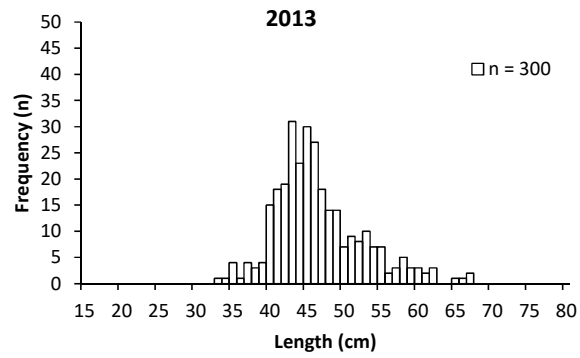
## Blue-eye Trevalla

No ageing completed for the duration of the contract (2015-2017). Last ageing data available from otoliths collected in 2009.

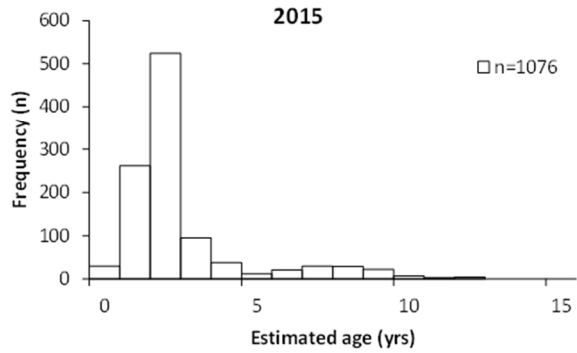
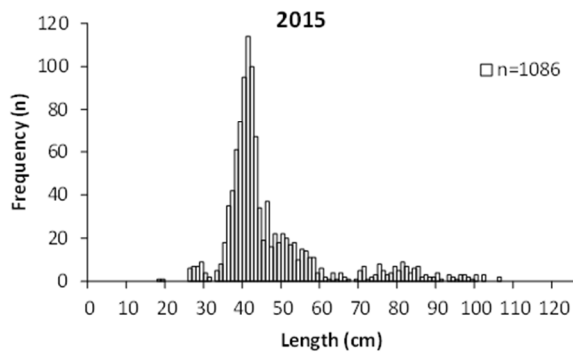
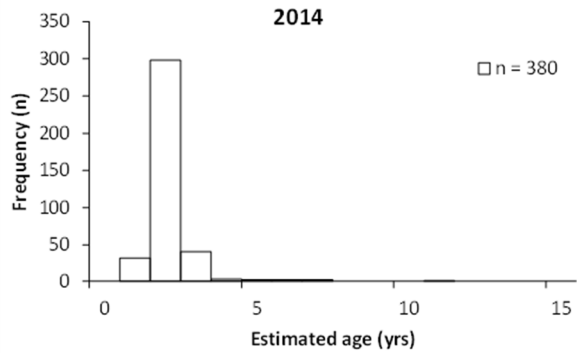
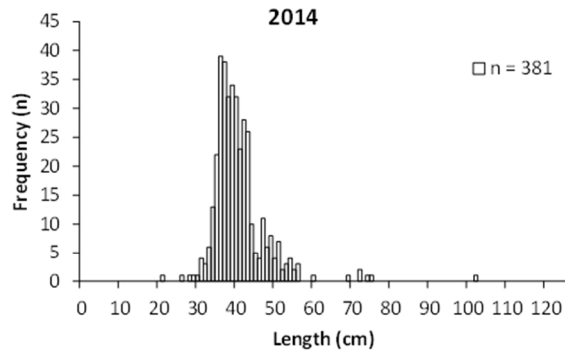
## Blue Warehou – Eastern & Western

No ageing completed for the duration of the contract (2015-2017). Last ageing data available from otoliths collected in 2011.

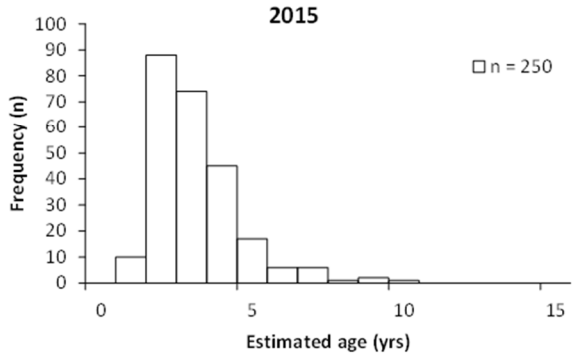
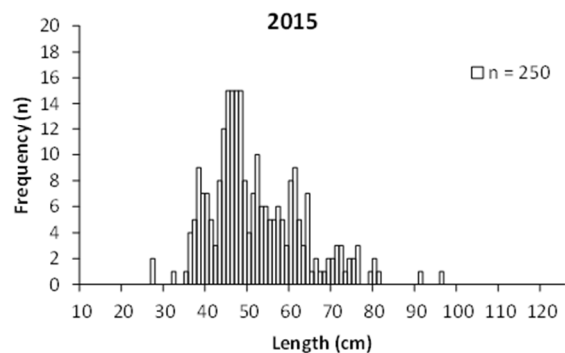
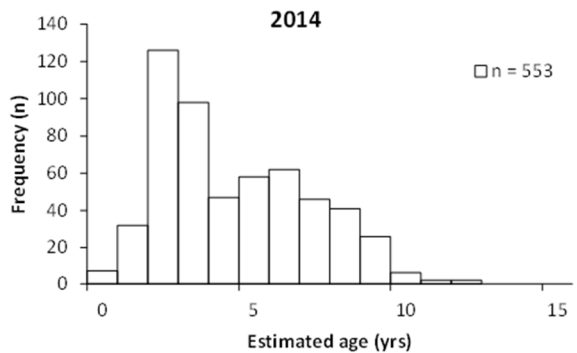
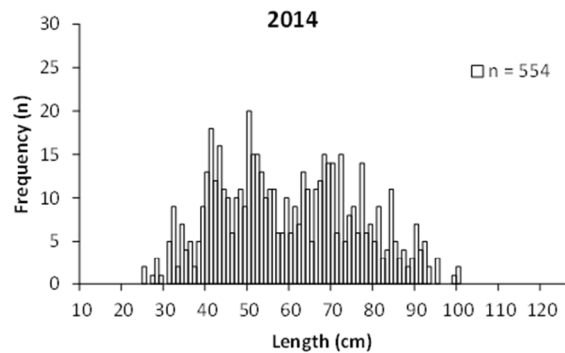
## Deepwater Flathead



## Eastern Gemfish



## Western Gemfish





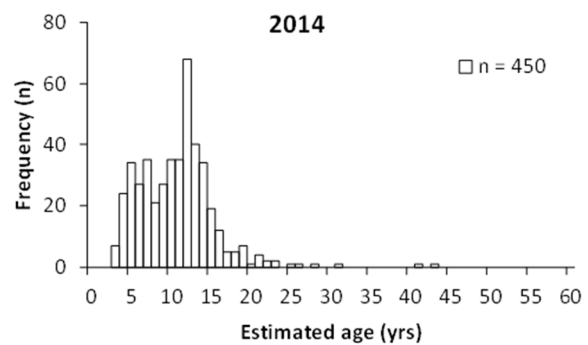
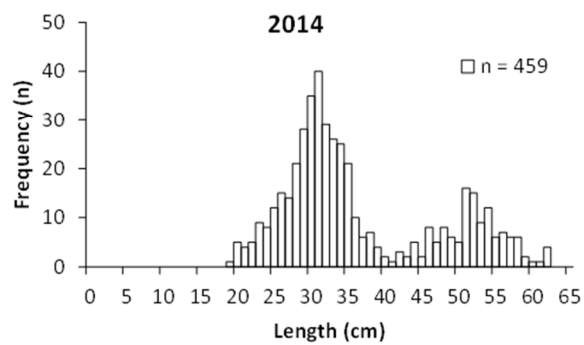
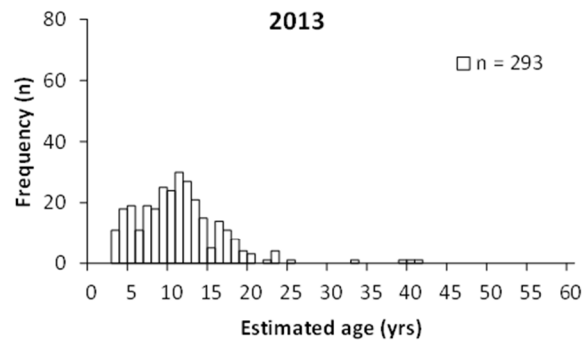
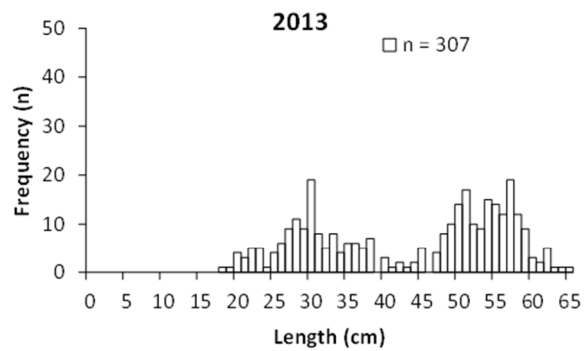
### **Gummy shark**

All historical and current ageing completed during 2016/17 and presented in the species summary section.

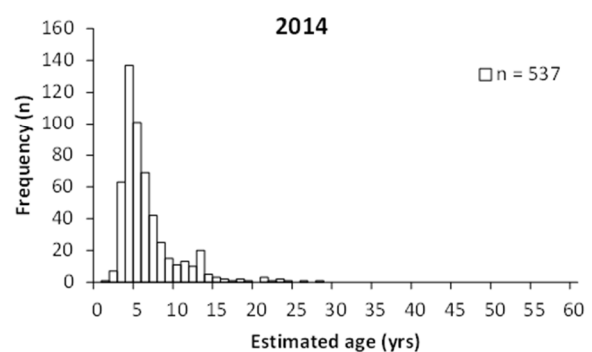
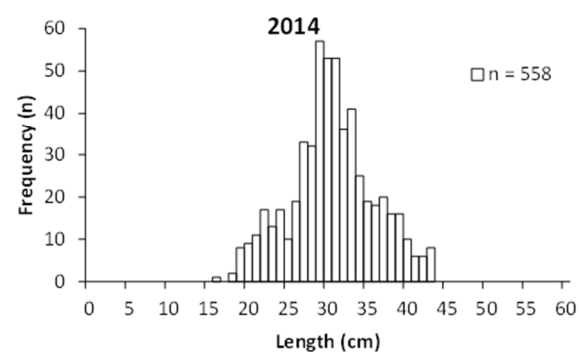
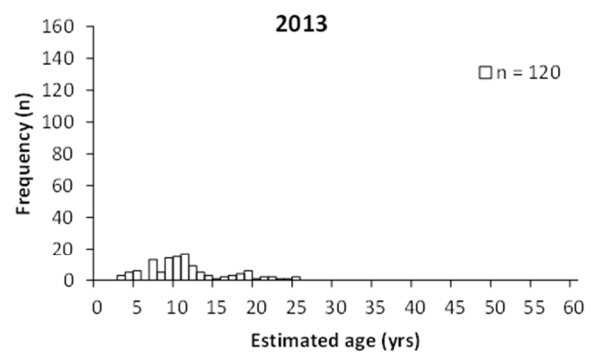
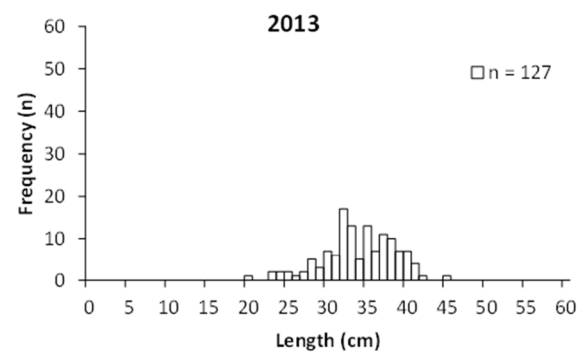
### **Hapuka**

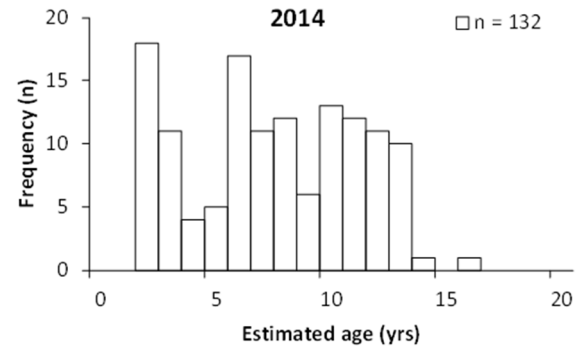
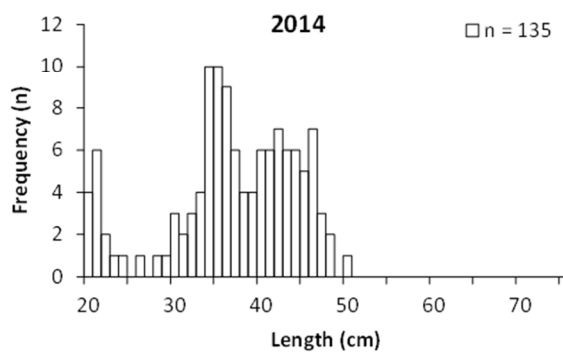
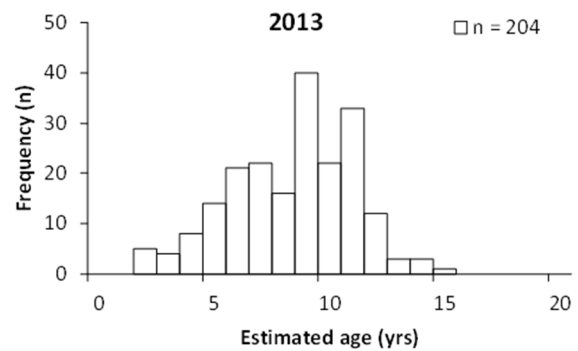
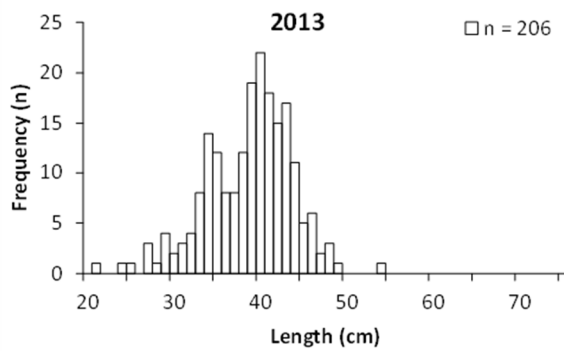
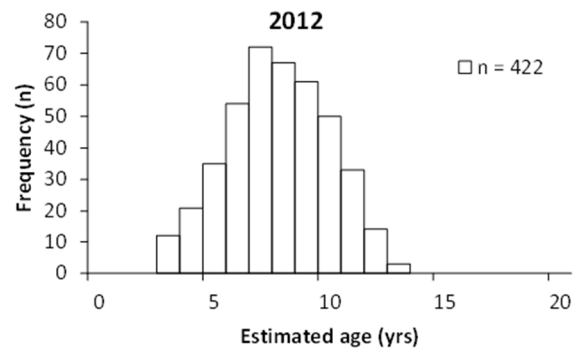
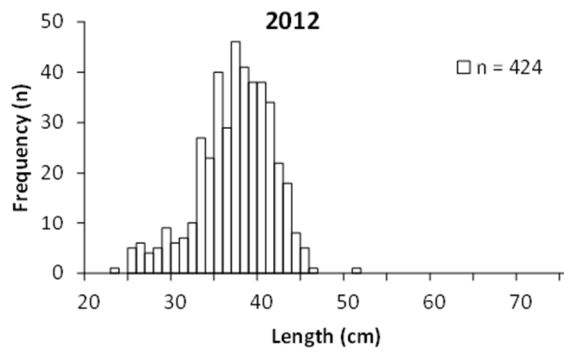
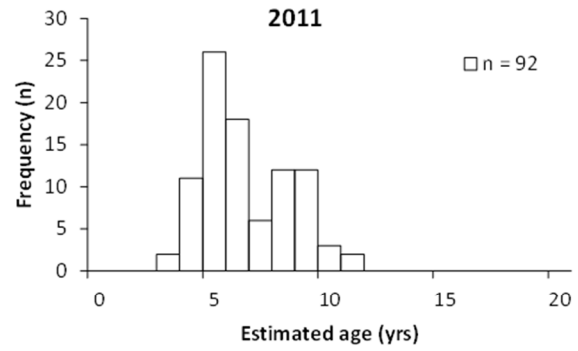
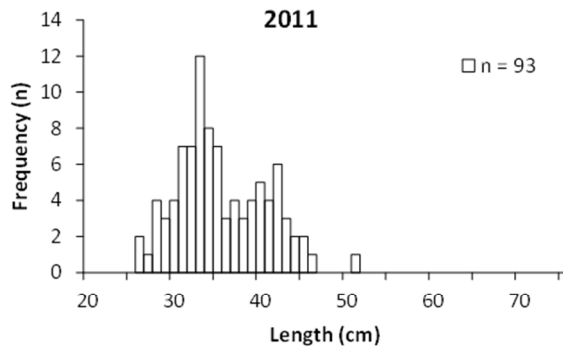
No ageing completed for the duration of the contract (2015-2017). Last ageing data available from otoliths collected in 2009.

## Jackass Morwong - East

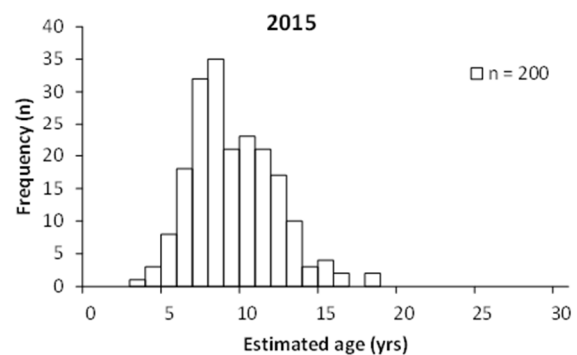
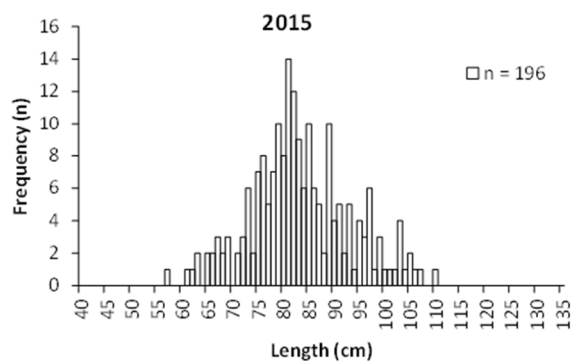
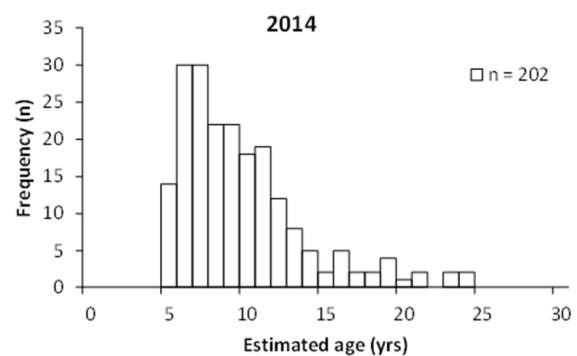
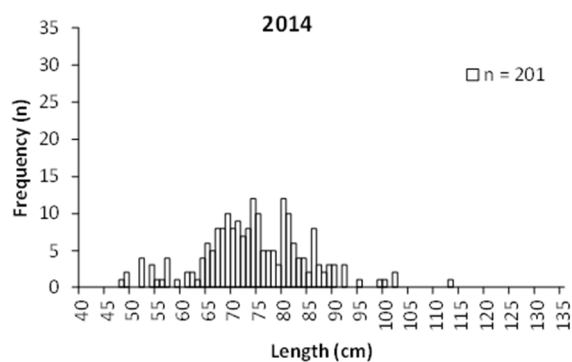
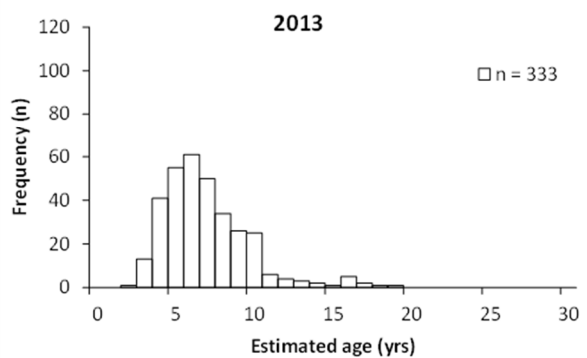
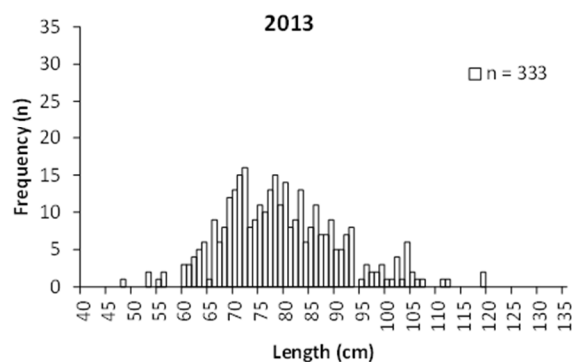
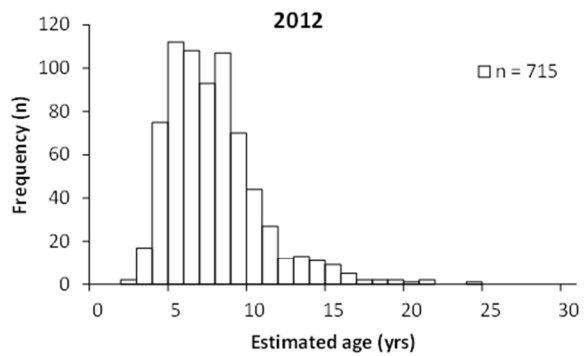
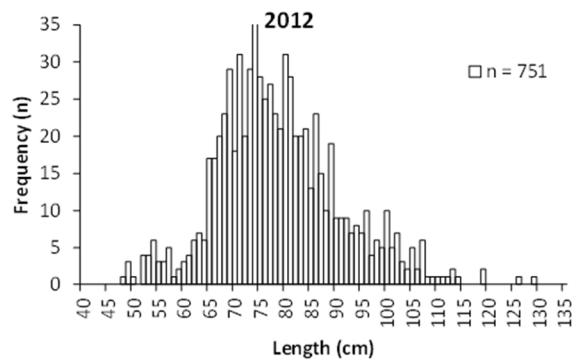


## Jackass Morwong – West

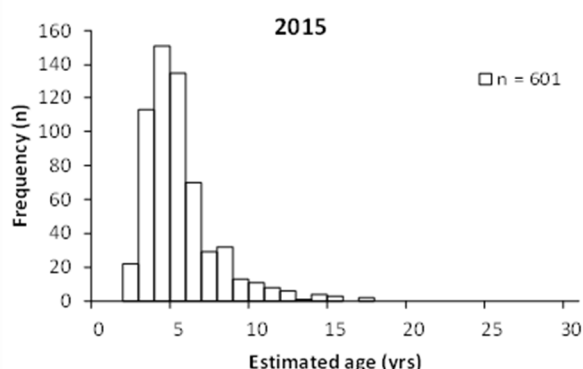
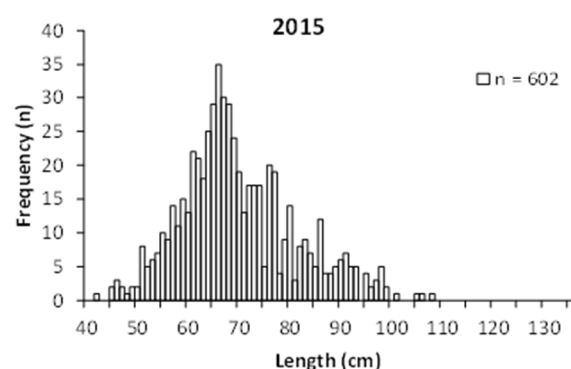
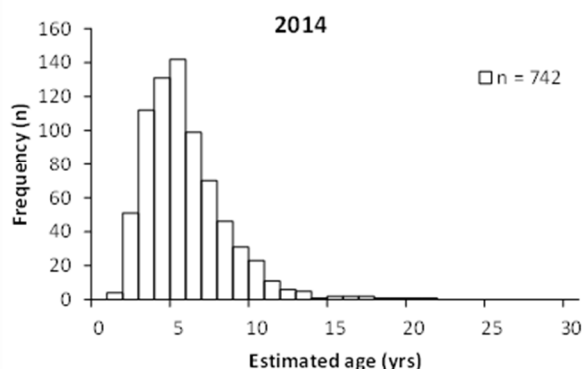
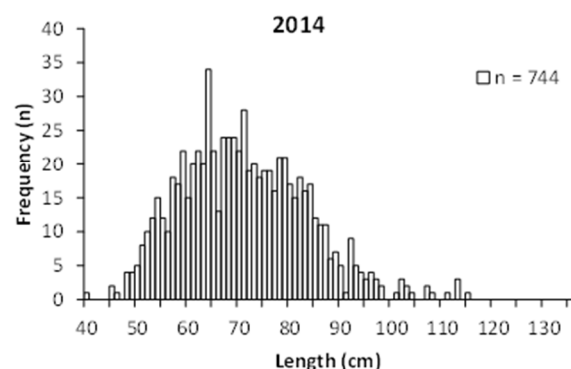
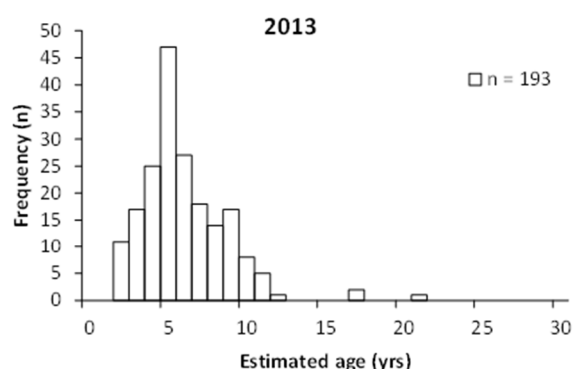
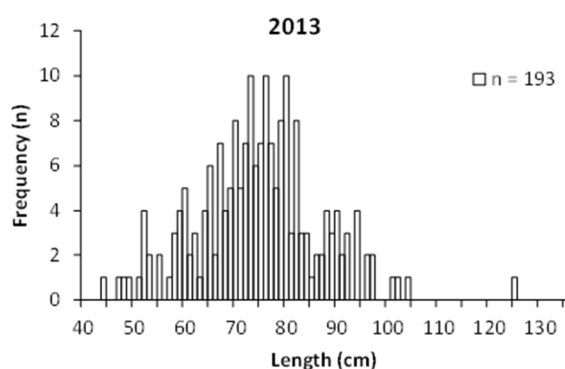
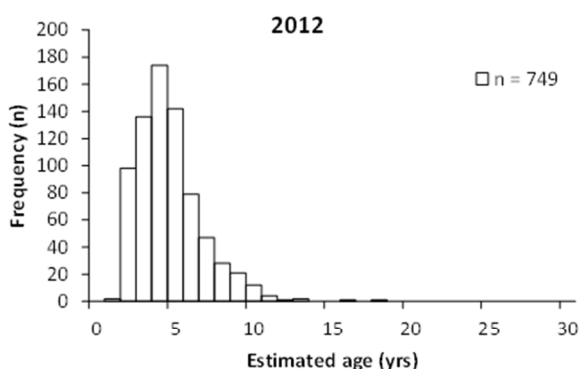
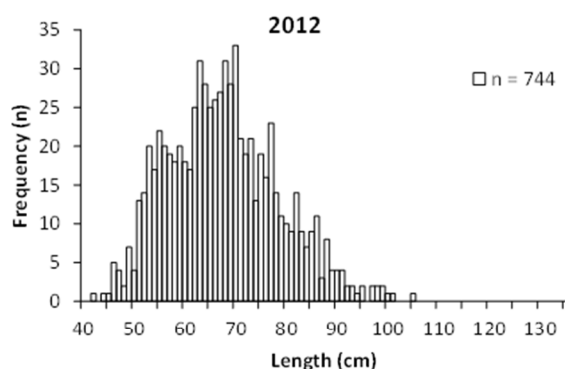




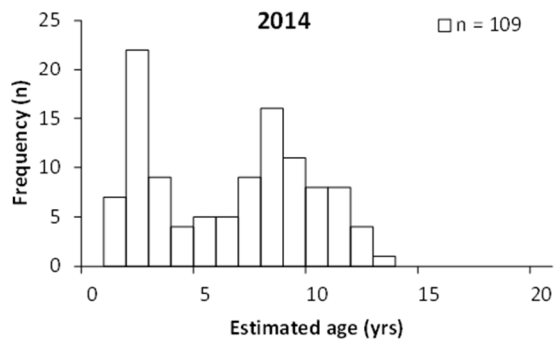
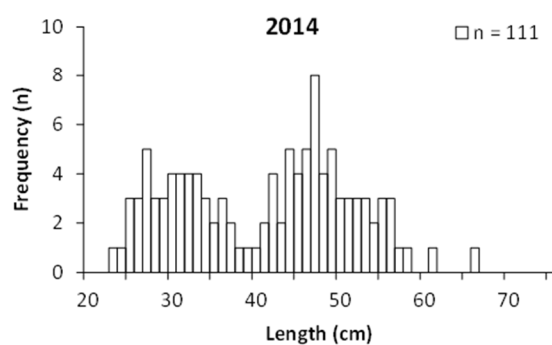
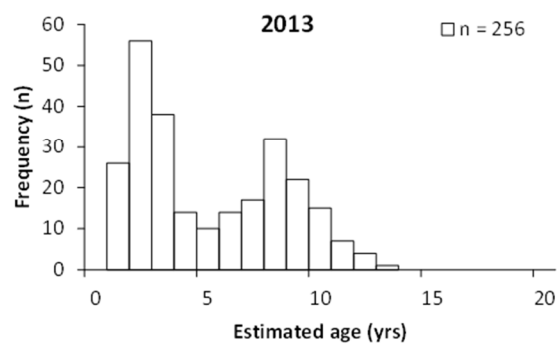
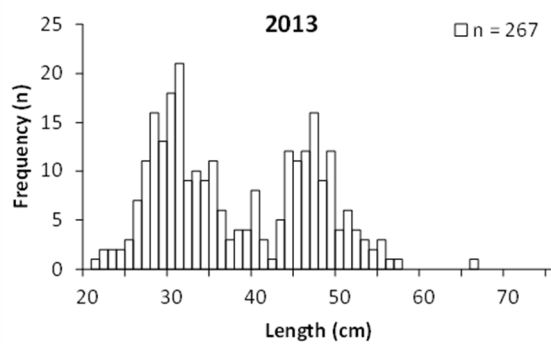
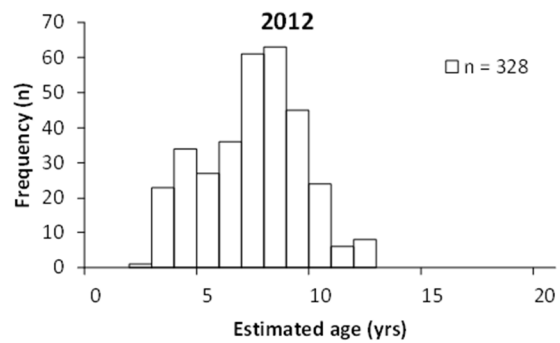
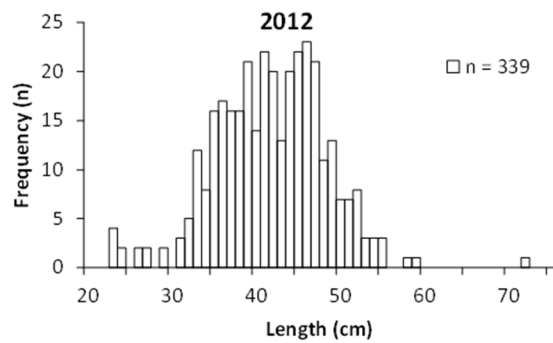
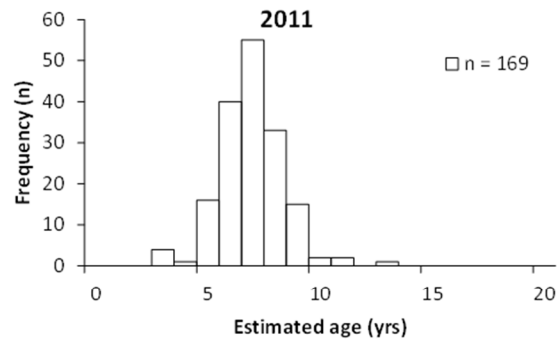
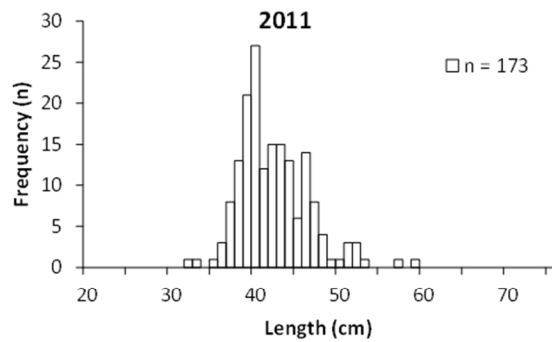
## Pink Ling – GHATF



## Pink Ling – Trawl



## Mirror dory



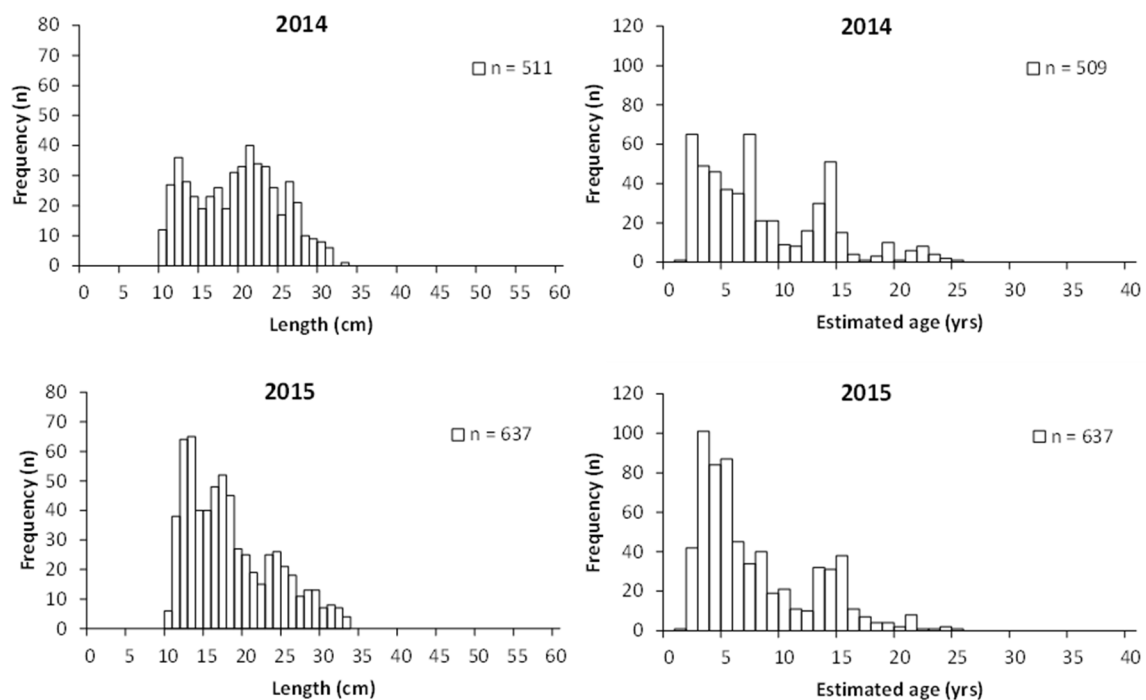
## Offshore ocean perch

No ageing completed for the duration of the contract (2015-2017). Last ageing data available from otoliths collected in 2013.

## Orange Roughy – Eastern Tasmania

No ageing completed for 2014/5 and 2015/16 of the contract. Ageing being completed late 2016/17.

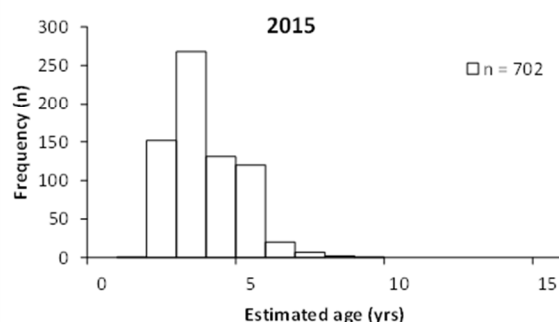
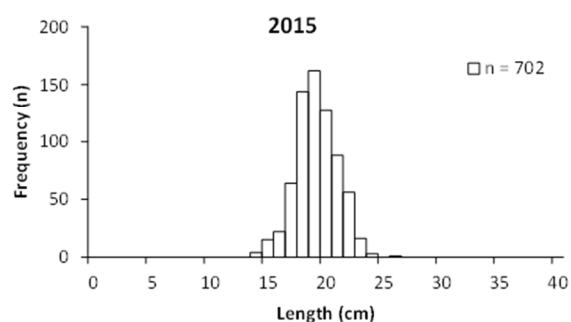
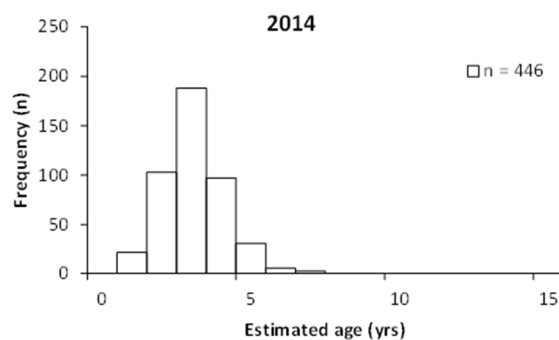
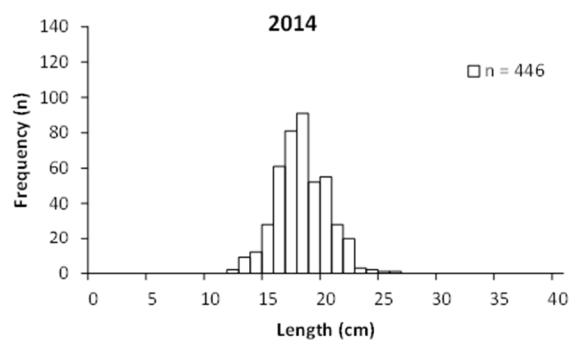
## Redfish



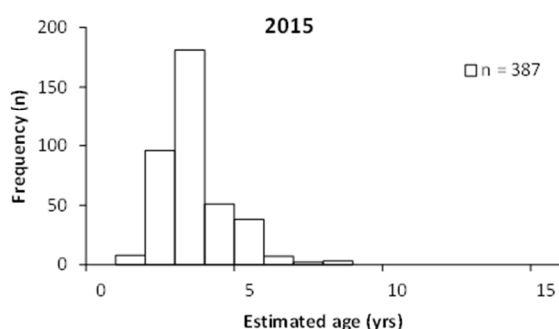
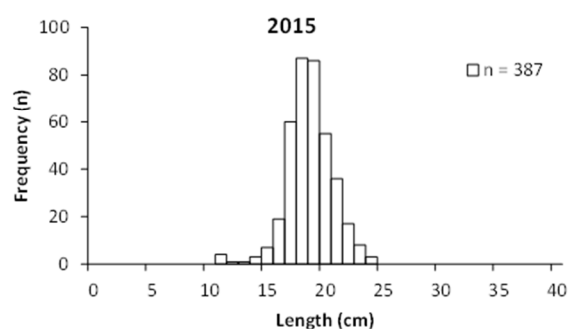
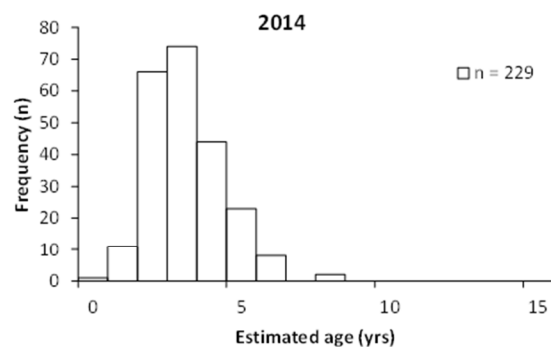
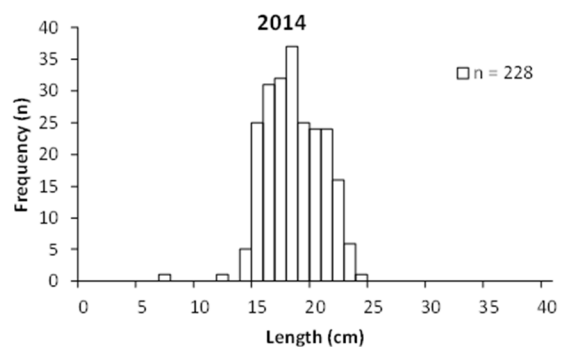
## Ribaldo

No ageing completed for the duration of the contract (2015-2017). Last ageing data available from 2007.

## School Whiting – Danish Seine

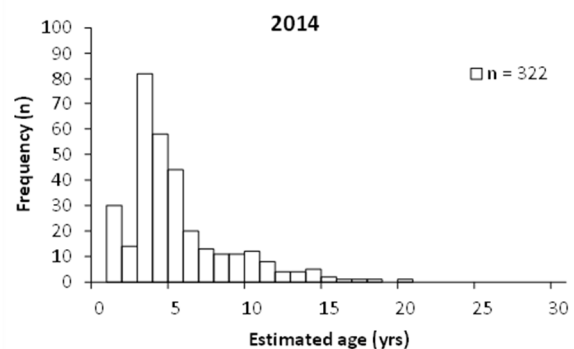
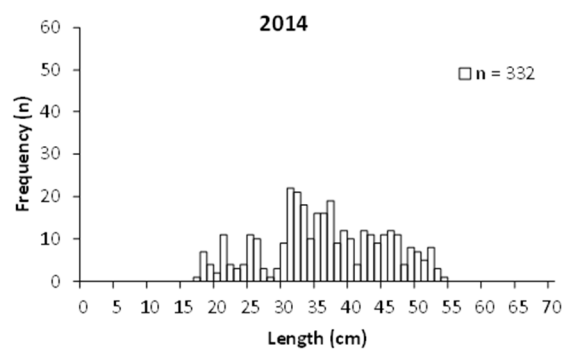
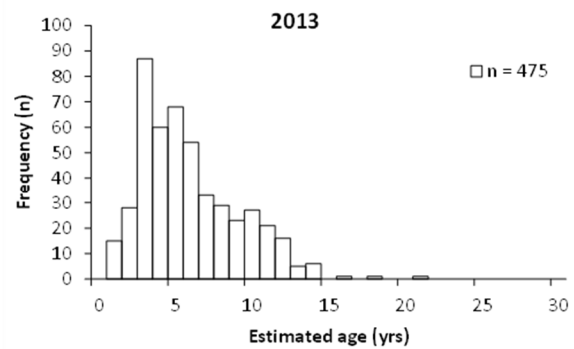
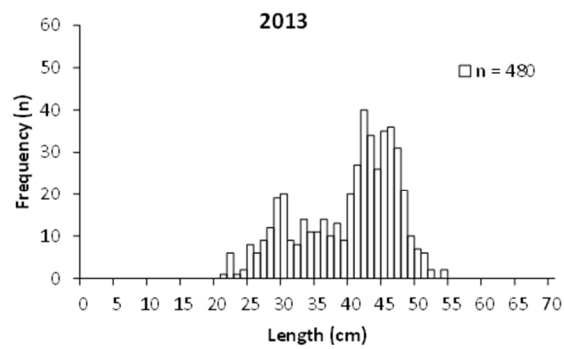
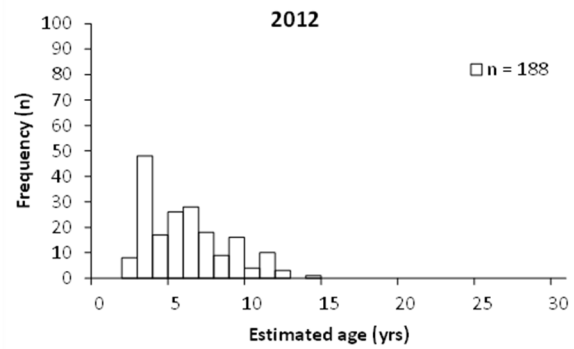
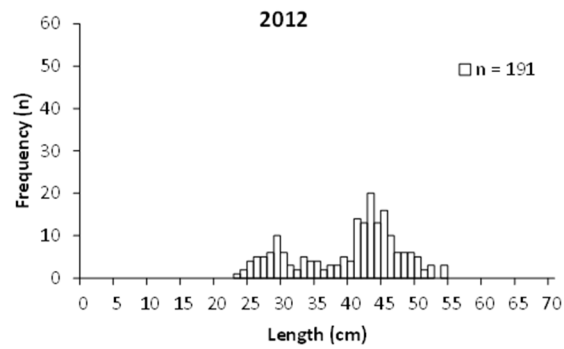


## School Whiting – Trawl fishery





## Silver Warehou – Eastern and western



## Silver trevally

No ageing completed for Silver Trevally

## Tiger Flathead

