Australian Heard Island and McDonald Island Toothfish & Icefish Fisheries

Surveillance Report

Conformity Assessment Body (CAB)	bio.inspecta (mandated by q.inspecta)
Assessment team	Alexander Morison
Fishery client	Austral Fisheries Pty Ltd and Australian Longline Fishing Pty Ltd
Assessment Type	Third Surveillance

Contents

1 Glossary

Acronym	Definition
AAD	Australian Antarctic Division
AFMA	Australian Fisheries Management Authority
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
EEZ	Exclusive Economic Zone
HIMI	Heard Island and McDonald Islands
MSC	Marine Stewardship Council
MSE	Management Strategy Evaluation
RSTS	Random Stratified Trawl Survey
SARAG	Sub-Antarctic Resource Assessment Group
SIOFA	Southern Indian Ocean Fisheries Agreement
SouthMAC	Sub-Antarctic Management Advisory Committee
SSB	Spawning Stock Biomass
t	metric ton
TAC	Total Allowable Catch

2 Executive summary

This surveillance audit of the Heard Island and McDonald Islands (HIMI) Patagonian toothfish and mackerel icefish fisheries was conducted remotely with interviews and or email exchanges with those listed in the audit plan or identified later as having relevant information. Information related to all three principles was reviewed with the focus on whether there have been any changes to the fishery that may have been an impediment to continued certification.

Both fisheries are on their 3rd Surveillance audits following re-assessments re-certification for Patagonian toothfish in 2017 and for mackerel icefish in 2016. No conditions were raised in these re-certifications for either species. These species had been on separate certificates with separate assessment timelines until 2017 when the two certificates were merged, and a common assessment timeline adopted.

For Principle 1, the 2019 stock assessment for Patagonian toothfish was presented to meetings of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in October 2019 and its findings are considered in full for this surveillance audit. The results of this updated assessment that have been considered by the Sub-Antarctic Resource Assessment Group (SARAG) indicate that the stock remains in a healthy condition.

The HIMI toothfish assessment now includes the reported catches by two non-Australian vessels that had fished on the same population of Patagonian toothfish as that of the certified fleet in waters adjacent to the Australian Exclusive Economic Zone (EEZ) around HIMI. These vessels fished in waters under the control of the Southern Indian Ocean Fisheries Agreement (SIOFA) which has now adopted some initial measures to limit catch and effort in these waters. No other changes were identified that were material to the status of either stock.

The assessment for mackerel icefish has been updated with the latest data from the Random Stratified Trawl Survey (RSTS) and revised catch limits were agreed by CCAMLR. Catches have remained below the Total Allowable Catch (TAC) for both species.

For Principle 2, updates of catch data showed no substantial change to the catch composition of either fishery and there have been no revisions to previous assessments of bycatch species.

Squid remains the predominant type of bait but alternative species of bait are also being trialled. A recommendation has been made for the collection of information on species and sources of all bait species.

For Principle 3, there have been only minor changes to management arrangements and personnel for the most recently completed fishing season, none of which are considered to affect the scores for any Performance Indicators.

A trial has been approved for changes to permitted offal dumping areas to allow its discharge in areas that are within the Australian EEZ but are still in deep water away from fished areas. Another trial has been approved for changes to trawl gear with the intention of reducing bycatch of skates and rays.

The CCAMLR season extension trial concluded in 2019, after analysis of the seabird bycatch rates during these periods. The trial was deemed successful, and the specifications of the season extension periods for longline fishing in CM 41-08 remain unchanged.

Although not affecting the 2019 fishery which has been evaluated here, there was a change to the requirement for vessels to carry two observers in 2020. AFMA were not able to deploy Australian two observers on some vessels going to HIMI this year because of COVID-19 related travel restrictions. As a result, the Statutory Fishing Right (SFR) conditions were amended to allow vessels to fish with one observer on board in 2020. The decision to make this change had to be taken at short notice and any compliance or other implications of this amendment will be evaluated when the results of the 2020 fishing season are reviewed at the next surveillance audit. Nevertheless, the other restrictions on fishing practices that remain in place, and with which the fleet has a strong record of compliance, and the fact that all vessels continue to have at least one observer on board, should ensure that there is not a substantially increased risk of unacceptable fishing activities by the fleet.

There were no conditions on the fishery and no new conditions were raised during the surveillance audit, but one recommendation has been made for the collection of additional information on any new bait species used.

Bio.inspecta finds that the HIMI Patagonian toothfish and mackerel icefish fisheries continue to meet the standards of the Marine Stewardship Council (MSC) and complies with the 'Requirements for Continued Certification.' Bio-inspecta recommends the continued use of the MSC certificate.

3 Report details

3.1 Surveillance information

Table 1 – Surveillance information		
1	Fishery name	
	Australian Heard Island and McDonald Island Toothfish & Icefish Fisheries	
2	Surveillance level and type	
	Level 2, reduced annual surveillance audits, off-site audit.	
3	Surveillance number	
	1st Surveillance	
	2nd Surveillance	
	3rd Surveillance	X
	4th Surveillance	
	Other (expedited etc)	
4	Proposed team leader	

	Mr. Alexander "Sandy" Morison, Lead Auditor and Principle 1 expert Mr. Morison is a consultant specialising in fisheries and aquatic sciences. He has over 30 years' experience in fishery science and assessment at state, national and international levels and has held senior research positions for state and national organizations in Australia. He has been contracted by the Australian Fisheries Management Authority to chair the Slope Fisheries Resource Assessment Group, the Shelf Fisheries Resource Assessment Group and is the Scientific Representative on the South East Fishery Management Advisory Committee. He has also been the scientific representative on other Resource Assessment Groups. Sandy has experience with the assessment of invertebrate, chondrichthyan and teleost fisheries including commercial and recreational fisheries in freshwater, estuarine and marine habitats and fisheries operating in tropical, temperate and polar environments. Mr. Morison has participated as part of a team undertaking MSC pre and full assessments for many fisheries including fisheries in Australia. He has been the Principle 1 expert for the MSC certification assessments or surveillance audits of assessments of the Heard Island and McDonald Islands (HIMI) Icefish Fishery, the HIMI Toothfish Fishery, the Macquarie Island Toothfish Fishery, the Kyoto Danish Seine Fishery, the Western Australian Rock Lobster Fishery and the Lakes and Coorong Fishery. Mr Morison is also trained as a lead auditor for MSC assessments. Mr Morison has particular expertise with fish age and growth and has been involved in the development and implementation of harvest strategies for several fisheries. He has over 20 publications in peer reviewed scientific journals (8 as senior author), 8 book chapters, and over 100 project reports, technical reports, client reports and papers in workshop and conference proceedings. **Mr. Morison meets the competency criteria in Annex PC for team leader as follows:** • He has an appropriate university degree and more than five years' experience in fisheries research of invertebrate species; • He has passed the MSC team leader training; •He has the required competencies described in Table PC1, section 2; • He has undertaken more than two fishery assessments as a team member in the last five years, and • He has experience in applying different types of interviewing and facilitation techniques and can effectively communicate with clients and other stakeholders. In addition, He has the appropriate skills and experience required to serve as a Principle 2 assessor as described in FCR Annex PC table PC3. • bio.inspecta Pty Ltd. confirms that Mr. Morison has no conflicts of interest in relation to the fishery under assessment.
6	Audit/review time and location
	bio.inspecta Pty Ltd conducted the annual surveillance audit via conference call on the 28th April 2020

7	Assessment and review activities
	The annual audit considered recent developments and monitors progress on recommendations made during the full assessment for continued certification. The remote meeting (by conference call) included participants such as the industry representatives, fishery managers, scientists, and stakeholders to gain a full understanding of the current state of the fisheries

3.2 Background

3.2.1 Principle 1 Update

Patagonian toothfish
The reported catch of Patagonian toothfish (*Dissostichus eleginoides*) from the HIMI fishery in the 2018 fishing season was 3,127 tonnes, below the determined TACs of 3,525 t for the 2018 and 2019 seasons (Table 2). Final catch data for the 2019 fishing season was 3,358 t (data from AAD).

Tagging of Patagonian toothfish at the prescribed rate and data on recapture continue to be incorporated in the stock assessment as a key data input on the status of Patagonian toothfish that are vulnerable to longline gear. The RSTS, however, continues to be undertaken to support estimates of juvenile Patagonian toothfish abundance and to collect data on population structure.

The assessment included updated observation data, estimated mortality from lost longlines (for the first time), catch from the adjacent SIOFA area, updated growth parameters, length–weight estimates and maturity estimates, and a simplified longline selectivity shape. The updated assessment model estimated virgin spawning stock biomass, B_0, at 70 519 tonnes (95% CI: 65 635–76 626 tonnes), with the estimated SSB status in 2019 of 0.51 (95% CI: 0.49–0.53).

The 2019 stock assessment was considered by the scientific and management processes of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and used to provide advice to the Commission for a catch limit of 3,030 tonnes for the following two years. This advice has been accepted by the Commission and was implemented by AFMA who set the total allowable catch (TAC) at this amount.

Patagonian toothfish in the HIMI fishery continue to be classified as not overfished and not subject to overfishing in the fishery status reports produced by the Australian Bureau of Agriculture and Resource Economics and Sciences (Patterson and Steven 2019).

The above information indicates that the stock exploited by the fishery continues to meet the requirements for certification.

Table 2. Catch limits, reported catch for the random stratified trawl survey (RSTS), trawl, longline and trap, estimated fishing-induced mortality from lost longline gear, reported or estimated catches in the SIOFA area, estimated IUU catch, and total removals in tonnes by calendar year for Division 58.5.2 (from Ziegler 2019).

Year [a]	Catch	Division 58.5.2 Reported catch					Gear	SIOFA	Estimated	Total
	limits	RSTS	Trawl	Longline	Trap	Total	loss	catch	IUU catch	removals
1996	297	0	0	0	0	0	0	0	3000	3000
1997	3800	0	1866	0	0	1866	0	0	7117	8983
1998	3700	1	3784	0	0	3785	0	0	4150	7935
1999	3690	93	3452	0	0	3545	0	0	427	3972
2000	3585	9	3556	0	0	3565	0	0	1154	4719
2001	2995	45	2942	0	0	2987	0	0	2004	4991
2002	2815	35	2717	0	0	2752	0	0	3489	6241
2003	2879	13	2580	270	0	2863	0	0	1274	4137
2004	2873	65	2218	566	0	2849	0	0	531	3380
2005	2787	21	2101	636	0	2758	0	0	265	3023
2006	2584	12	1785	659	72	2528	2	0	112	2641
2007	2427	12	1775	625	0	2412	4	0	0	2415
2008	2500	4	1614	825	0	2443	13	0	0	2455
2009	2500	20	1268	1173	13	2474	36	0	0	2502
2010	2550	28	1239	1216	32	2515	17	0	0	2529
2011	2550	6	1142	1317	33	2498	12	0	0	2508
2012	2730	41	1322	1356	0	2719	25	0	0	2735
2013	2730	8	555	2116	40	2719	15	0	0	2731
2014	2730	13	93	2638	0	2744	40	0	0	2780
2015	4410	26	180	4073	0	4279	50	0	0	4322
2016	3405	52	107	2640	0	2799	30	0	0	2825
2017	3405	20	3	3334	0	3357	27	0	0	3380
2018	3525	41	8	3091	0	3140	12	339	0	3488
2019	3525	NA	NA	NA	NA	NA	NA	NA	NA	3525 [b]

[a] Fishing seasons run from 1 December - 30 November of the following year. Here, years are denoted after the year with the majority of the season, e.g. 1996/97 is 1997.

[b] For the assessment, it was assumed that the catch limit for 2019 was fully taken, with a survey catch of 20 tonnes.

Mackerel icefish

Catches of Mackerel icefish (*Champsocephalus gunnari*) have continued to remain within the determined TACs and were 441 t in 2019, below the catch limit of 443 t. The fishery continues to operate with a single active vessel that is equipped to use both trawl gear (for fishing for mackerel icefish and to undertake the annual trawl survey) and longline gear (to fish for Patagonian toothfish).

The annual RSTS continued to be undertaken to support estimates of Mackerel icefish abundance and to collect data on population structure. The survey conducted in 2019 (

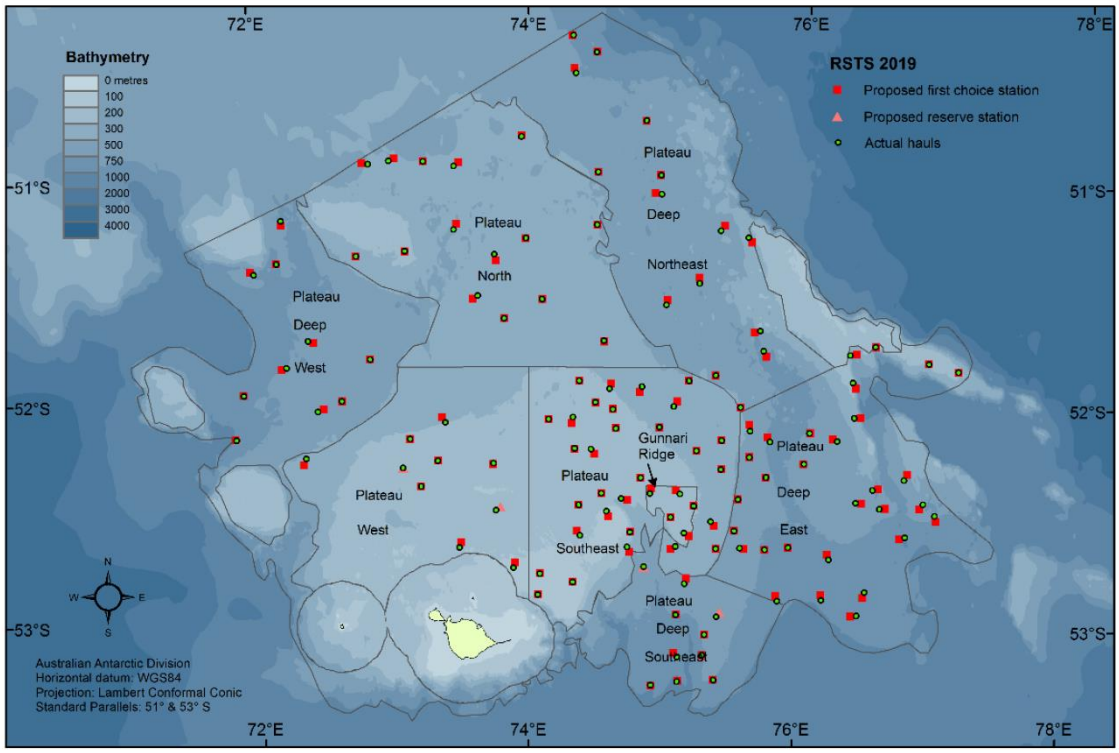

Figure 1) informed the assessment conducted in 2018 (Table 2, Figure 2) (Maschette et al. 2019) which recommended catch limits for the 2019/20 and 2020/21 seasons. There were two hauls in the survey from which very large catches were obtained which led to a multi-modal distribution of the bootstrapped biomass. Consistent with the previous advice provided by WG-FSA when such a situation had arisen these hauls were removed from the analysis, resulting in a unimodal distribution of the bootstrapped biomass.

Abundance of the short-lived (around 5 years) Mackerel icefish is subject to considerable inter-annual variability. This is reflected in the biomass estimates for the fishery (Table 1, Figure 3) and the associated TACs. The biomass can fall to low levels even in the absence of fishing.

The management advice in the latest assessment (Maschette et al. 2019) was as follows.

> "*The 2019 RSTS showed a large 2+ and 3+ cohort dominating the mackerel icefish population in Division 58.5.2. This preliminary assessment removes the 4+ cohort as it is unlikely that it will be available to the fishery in the coming years and only uses the 1+ - 3+ cohorts in the forward projections using the Generalized Yield Model. These projections indicate that catches of 527 t in the 2019/20 season and 406 t in the 2020/21 season, respectively, satisfy the CCAMLR decision rules.*
>
> *As in previous years, we recommend that management advice be set for the 2019/20 season based on this assessment, and a revised assessment be conducted based on survey data collected in 2020 since cohorts younger than age 3+ are not well selected by the survey gear.*"

Mackerel icefish continue to be classified as not overfished and not subject to overfishing in the fishery status reports produced by the Australian Bureau of Agriculture and Resource Economics and Sciences (Patterson and Steven 2019).

There were no conditions for Mackerel icefish under Principle 1 and the fishery continues to meet all the requirements for certification under this Principle.

Table 1. Estimates of abundance of Mackerel icefish in CCAMLR Division 58.5.2. The shown survey biomass estimate is the one-sided lower 95% confidence interval estimated using a bootstrap procedure (Compiled from CCAMLR Scientific Committee Reports and Fishery Reports 2005-2018).

Year	Survey abundance estimate (t)	Recommended TAC (t)
2005/06	4487	1210
2006/07	1300	42
2007/08	1576	220
2008/09	659	102
2009/10	5893	1658
2010/11	5123	78
2011/12	983	30 (research allowance only)
2012/13	3987	679
2013/14	6098	1267
2014/15	4861	309
2015/16	3556	482
2016/17	5490	561
2017/18	3901	526
2018/19	6018	443
2019/20	5539	527

Table 2. Abundance (tonnes) of mackerel icefish in Division 58.5.2 estimated by bootstrapping hauls from the 2019 random stratified trawl survey. SE = standard error; Lower CI & Upper CI = lower and upper confidence intervals respectively; LOS 95% CI = lower one-sided 95% confidence interval. * Bootstrap estimates after two large hauls had been removed from the Gunnari Ridge strata. (from Maschette et al. 2019).

Stratum	Mean	SE	Lower CI	Upper CI	LOS 95% CI
Gunnari Ridge	20231	12655	123	44097	183
Gunnari Ridge*	156	88	21	322	56
Plateau SE	6088	2211	2737	11017	3061
Plateau W	2601	678	1365	3878	1553
Pooled	28920	14246	7129	60666	8310
Pooled*	8845	2317	5109	13942	5539

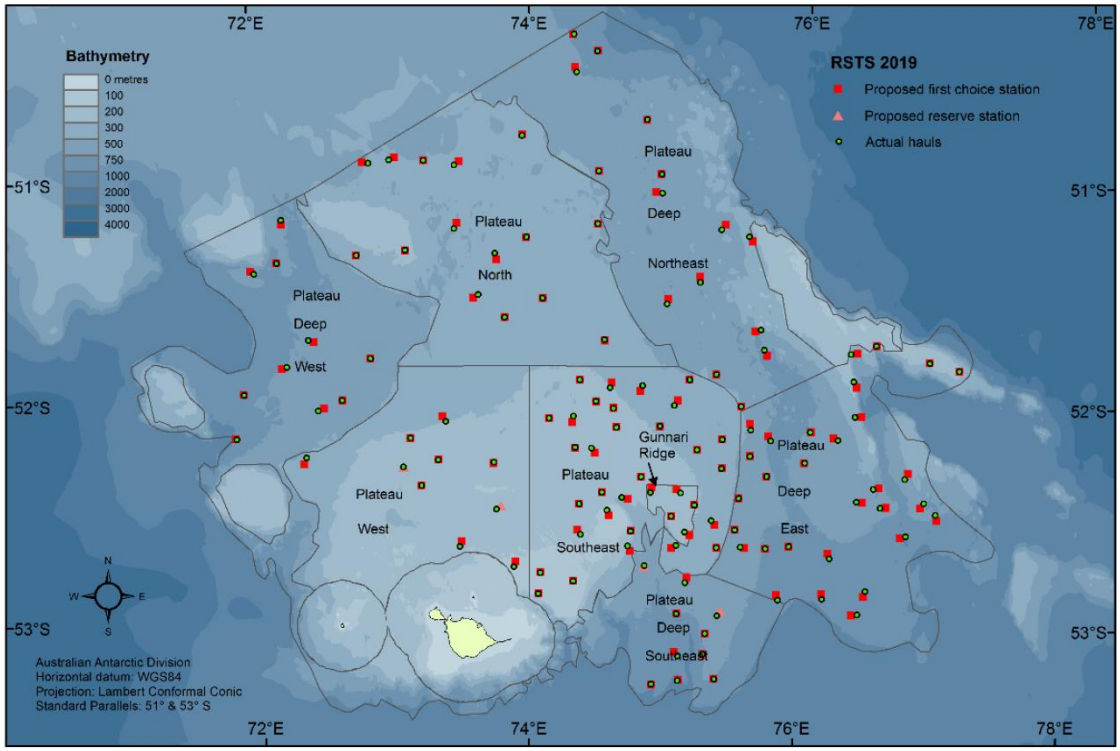

Figure 1. The distribution of sampling hauls within strata for the 2019 survey. Hauls on the main trawling ground (Ground B) are not shown (from Maschette et al. 2019).

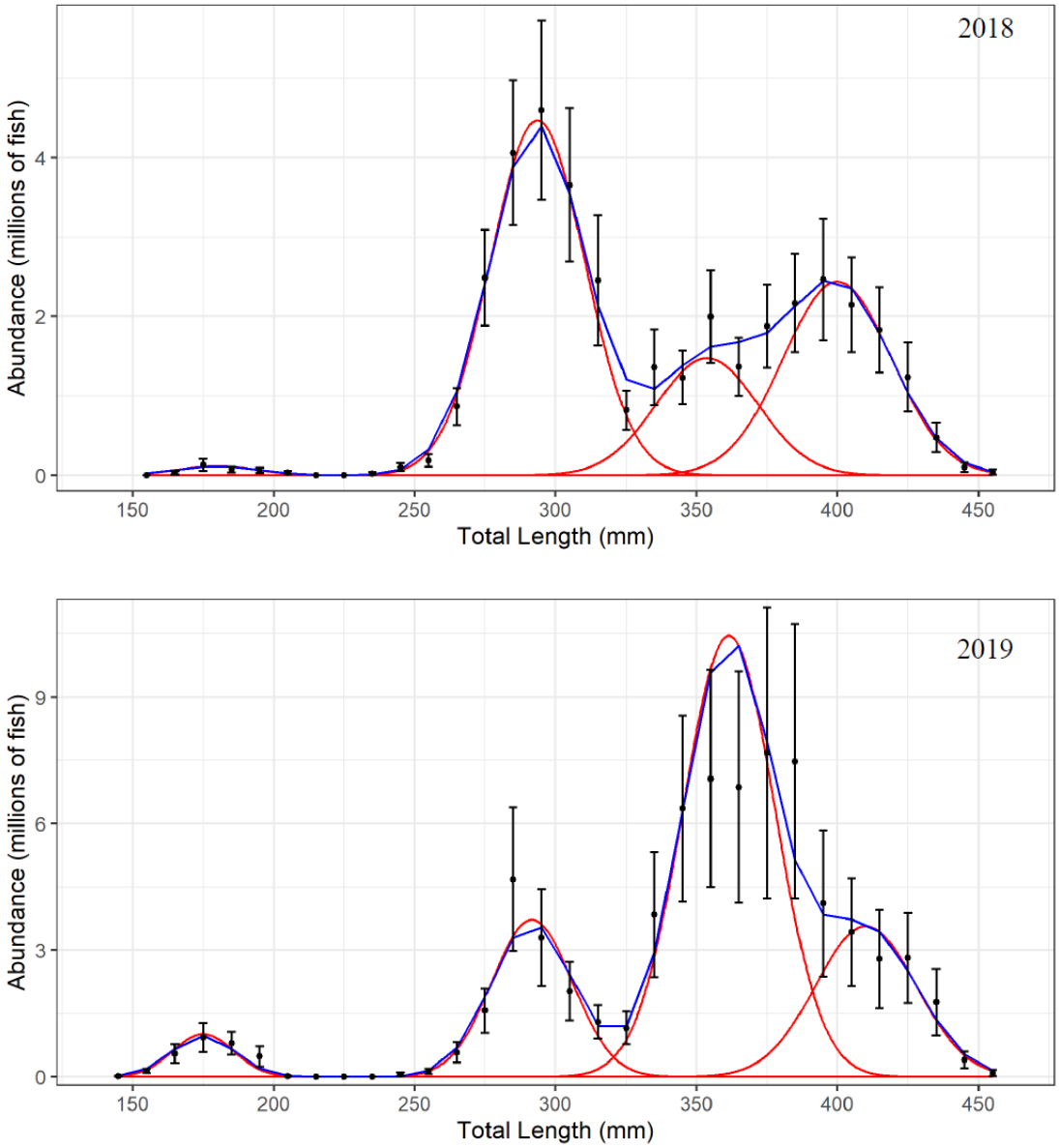

Figure 2. Observed and estimated length densities using CMIX for mackerel icefish in the surveys from April 2018 (upper panel) and April 2019 (lower panel). Shown are observed mean abundances at length (black circles, +SE), fitted total abundances at length (blue lines), and fitted abundances at length for the different components (red lines). (from Maschette et al. 2019).

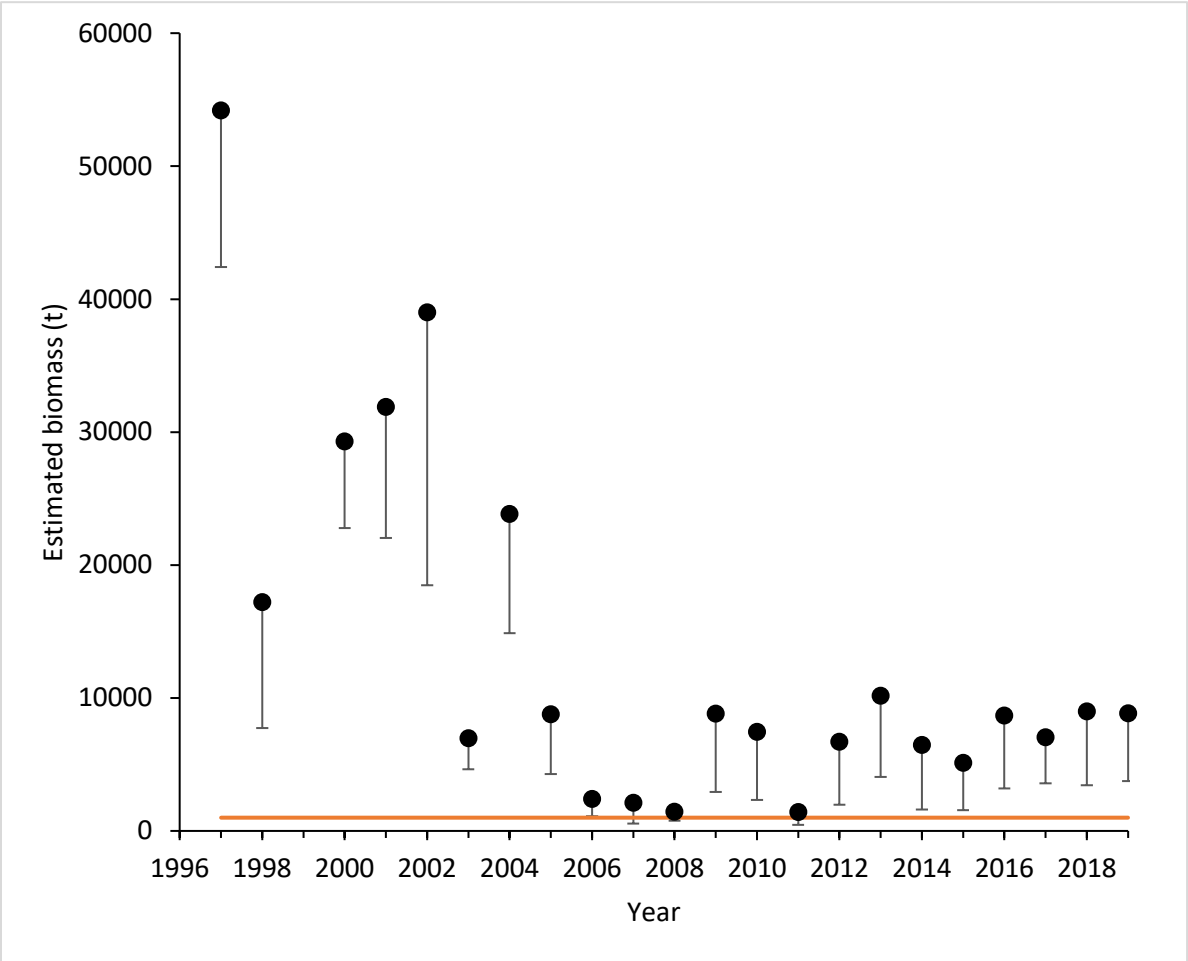

Figure 3. Mean and lower 95 percentile of the biomass of mackerel icefish derived from trawl surveys conducted at Heard Island and the McDonald Islands, and the Limit Reference Point (LRP) of 1000 tonnes (red horizontal line) (data from CCAMLR Fishery Reports 2010 – 2018 and D. Welsford pers. comm).

3.2.1 Principle 2 Update

Up to 2019, there continued to be two observers on board each vessel and each trip fishing in the HIMI toothfish and icefish fishery: one AFMA observer and one data collection officer to support the AFMA observer. These observers monitored 100% of fishing activities and continued to monitor both the retained and discarded catch.

There have been no major changes in the ecosystem impacts of either the toothfish or icefish components of the fishery since the re-assessment of the fishery. The areas fished have not changed to any significant degree.

There were only 4 vessels active in the fishery in 2019: three vessels fished using longlines only and one vessel fished using both longlines and trawls. Fishing effort by hooks (now the main fishing method) was 17,089,615 hooks in 2016/17 and 16,415,948 hooks in 2017/18 (Patterson and Steven 2019).

Bycatch is generally low and is primarily grenadier (*Macrourus* spp.) and Rajid rays (Table 3 and Table 4). It is regulated by biologically determined catch limits for particular taxa that have never been exceeded.

The longline fishery continues to have very low numbers of interactions with protected species (Table 5). The trawl fishery reported the capture of a single porbeagle shark as the only protected species interaction. Mitigation measures for longline fishing continue to be applied in accordance with CCAMLR Conservation Measures.

Across the whole fleet, arrow squid from New Zealand continues to be the main bait used (75% by weight). Trials of other bait types have also been undertaken using a variety of species and sources of finfish. If these other bait types become more prevalent, additional information on the species involved and their source fisheries will be needed to assess ongoing compliance with MSC certification requirements. A recommendation to this effect is provided in Section 4.13.

Table 3. Reported catch and catch limits (tonnes) for macrourids for fishing in Division 58.5.2. Catch limits are for all targeted fishing in Division 58.5.2 (see CM 33-03 for details). From 1997 to 2015, all macrourids were reported as a single taxon for the purpose of by-catch limits (data from AAD).

	Macrouridae				*M. caml* and *M. whitsoni*				*M. holotrachys* and *M. carinatus*			
Season	Catch Limit	Longline Catch	Trawl Catch	Total Catch	Catch Limit	Longline Catch	Trawl Catch	Total Catch	Catch Limit	Longline Catch	Trawl Catch	Total Catch
1997	-	0	0	0	-	-	-	-	-	-	-	-
1998	-	0	<1	<1	-	-	-	-	-	-	-	-
1999	-	0	<1	<1	-	-	-	-	-	-	-	-
2000	-	0	3	3	-	-	-	-	-	-	-	-
2001	-	0	<1	<1	-	-	-	-	-	-	-	-
2002	50	0	<1	<1	-	-	-	-	-	-	-	-
2003	465	3	<1	3	-	-	-	-	-	-	-	-
2004	360	28	0	28	-	-	-	-	-	-	-	-
2005	360	37	<1	37	-	-	-	-	-	-	-	-
2006	360	9	<1	9	-	-	-	-	-	-	-	-
2007	360	61	1	62	-	-	-	-	-	-	-	-
2008	360	19	0	19	-	-	-	-	-	-	-	-
2009	360	110	2	112	-	-	-	-	-	-	-	-
2010	360	100	2	101	-	-	-	-	-	-	-	-
2011	360	147	<1	147	-	-	-	-	-	-	-	-
2012	360	89	3	92	-	-	-	-	-	-	-	-
2013	360	154	0	154	-	-	-	-	-	-	-	-
2014	360	175	<1	175	-	-	-	-	-	-	-	-
2015	360	299	4	302	-	-	-	-	-	-	-	-
2016	-	-	-	-	409	78	1	80	360	220	0	220
2017	-	-	-	-	409	89	<1	90	360	235	<1	235
2018	-	-	-	-	409	100	4	104	360	253	<1	253
2019	-	-	-	-	409	101	4	105	360	249	<1	249

Table 4. Reported catch and by-catch limits (Rajids, Unicorn icefish *Channichthys rhinoceratus,* Grey rock cod *Lepidonotothen squamifrons* and other species) in Division 58.5.2. Catch limits are for the whole fishery (see CM 33-02 for details) (data from AAD).

Season	Rajids					*C. rhinoceratus*				*L. squamifrons*				Other species			
	Catch Limit	Longline Catch	Trawl Catch	Total Catch	Number Released	Catch Limit	Longline Catch	Trawl Catch	Total Catch	Catch Limit	Longline Catch	Trawl Catch	Total Catch	Catch Limit	Longline Catch	Trawl Catch	Total Catch
1997	-	0	<1	<1	0	-	0	<1	<1	-	0	<1	<1	-	0	<1	<1
1998	120	0	2	2	0	-	0	<1	<1	-	0	<1	<1	-	0	29	29
1999	-	0	2	2	0	-	0	0	0	-	0	<1	<1	-	0	3	3
2000	-	0	6	6	0	-	0	<1	<1	-	0	<1	<1	-	0	3	3
2001	50	0	4	4	0	-	0	<1	<1	-	0	3	3	-	0	107	107
2002	50	0	3	3	0	-	0	1	1	-	0	1	1	-	0	49	49
2003	120	5	7	13	0	-	0	<1	<1	-	<1	<1	<1	-	<1	4	4
2004	120	62	11	73	155	150	0	1	1	80	0	3	3	50	2	45	48
2005	120	70	3	73	8412	150	0	2	2	80	0	2	2	50	2	4	6
2006	120	17	12	29	3814	150	0	3	3	80	<1	5	5	50	<1	6	7
2007	120	8	10	18	7882	150	0	12	12	80	<1	10	10	50	<1	3	3
2008	120	13	8	21	9155	150	0	29	29	80	0	20	20	50	<1	8	9
2009	120	15	9	24	10291	150	0	46	46	80	0	26	26	50	5	3	8
2010	120	11	6	17	10382	150	0	26	26	80	0	48	48	50	4	1	5
2011	120	11	3	14	6838	150	0	23	23	80	0	26	26	50	5	2	7
2012	120	7	3	9	8484	150	0	42	42	80	0	34	34	50	4	6	10
2013	120	13	11	24	12605	150	0	25	25	80	<1	44	44	50	5	59	63
2014	120	16	<1	16	19565	150	0	<1	<1	80	<1	2	2	50	5	<1	5
2015	120	19	5	24	37863	150	0	1	1	80	0	2	2	50	26	<1	27
2016	120	20	1	22	32287	1663	0	9	9	80	<1	3	3	50	12	16	28
2017	120	30	2	31	43848	1663	0	2	2	80	<1	2	2	50	16	15	32
2018	120	21	1	23	31187	1663	0	2	2	80	<1	4	4	50	12	2	15
2019	120	25	<1	25	47657	1633	0	2	2	80	<1	<1	1	50	15	3	18

Table 5. Number of recorded protected species interactions for the HIMI longline fishery in the Australian EEZ for 2019 (source https://www.afma.gov.au/sustainability-environment/protected-species-management/protected-species-interaction-reports).

Common name	Total	Life Status		Interaction type
		Alive	Dead/injured	
Grey Petrel	1	0	1	Hooked
Southern Giant Petrel	1	1	0	Entangled
White-chinned petrel	3	-	3	Hooked/Entangled
Antarctic Sleeper Shark	1	1	-	Hooked/Entangled
Southern elephant seal	1	-	1	Hooked/Entangled

Results of the trials of extensions to the prescribed fishing periods have now been analysed (Ziegler et al. 2019) and were considered by the CCAMLR Working Group on Fish Stock Assessment (WG-FSA) in 2019. These trials evaluated the risk of seabird mortality during these trial extensions relative to that in the core season and existing season extensions. The rate of seabird mortality in the core fishing season and the existing post season extension from 15 September - 31 October, was less than 0.0001 birds per 1000 hooks (or less than 0.1 birds per million hooks). The rates of seabird mortality for the pre-season and two post season extension trials were comparable to that during the existing pre-season extension from 15-30 April.
As a result:

> *The Working Group noted that in the last three years all seabird mortalities occurred during the season extensions while seabird mortalities had occurred prior to that during the core season. It was unclear whether there was a temporal trend or pattern in seabird mortalities during the core season due to the rare nature of these mortality events.*

The Working Group noted the conclusion of the three season extension trials, with seabird mortality risk in the trial periods being highly uncertain but similar to one of the existing season extension periods. Therefore, the Working Group recommended that the specifications of the longline fishing season in CM 41-08 (CM 41-08, paragraph 3) remain unchanged.

There have been no major changes in the ecosystem impacts of the fishery since the re-assessment of the fishery. Catches of mackerel icefish have remained within the prescribed catch limits which are set at levels that allow a minimum of 75% escapement. The objective is that the abundance of the species under exploitation maintains a sufficient resource for the needs of dependant species (usually predators). This level of exploitation is considered unlikely to have an adverse effect on the status of retained, bycatch and ETP species, or on trophic function.

Seabird by-catch in the fishery targeting Mackerel icefish in Division 58.5.2 remains low; no seabird mortalities have been reported since 2010. There remain no observed incidents of marine mammal bycatch while fishing for Mackerel icefish.

3.2.2 Principle 3 Update

Since the last surveillance audit, Mr Brodie Macdonald has taken over the role as the manager of the HIMI fishery.

Although not affecting the 2019 fishery which has been evaluated here, there was a change to the requirement for vessels to carry two observers in 2020. AFMA were not able to deploy Australian observers on some vessels going to HIMI this year because of COVID-19 related travel restrictions. As a result, the Statutory Fishing Right (SFR) conditions were amended to allow vessels to fish with one observer on board in 2020. The decision to make this change had to be taken at short notice and has not been approved by CCAMLR. Any implications of this amendment will be evaluated when the results of the 2020 fishing season are reviewed at the next surveillance audit. Nevertheless, the other restrictions on fishing practices that remain in place, and with which the fleet has a strong record of compliance, and the fact that all vessels continue to have at least one observer on board, should ensure that there is not a substantially increased risk of unacceptable fishing activities by the fleet.

There has been approval for a trial of modified trawl gear in an attempt to reduce the catch of skates and rays when catching mackerel icefish. Although bycatch remains well below prescribed limits, it has been noted that bycatch catch rates are higher at the times when mackerel icefish are less densely aggregated. Changes are being sought in the event that mackerel icefish TACs increase in future which may see higher bycatch rates of skates and rays[1]. The effects of lighter footropes and smaller bobbin sizes will be trialled.

There has been agreement to a trial adjustment to the area in which fishing vessels will be permitted to discharge of offal. Conditions on SFRs have been adjusted to allow offal dumping in some specified deep-water areas that, although still within the EEZ, don't overlap with fishing areas.

With regard to fishing season extensions and seabird measures, the CCAMLR endorsed the Scientific Committee's advice that the specifications of the longline fishing season remain unchanged in CM 41-08 and also endorsed the advice that there should no longer be a requirement for any vessel to demonstrate full compliance with CM 25-02 in the previous

[1] This is a concern to industry as both the toothfish and icefish fisheries share the same bycatch limits.

season to access the season extension, noting Australia will continue to apply a high standard of seabird mitigation (SC-CAMLR-38, paragraphs 5.24 and 5.25) (CCAMLR 2019 para 5.75).

3.3 Version details

Table 8 – Fisheries program documents versions	
Document	Version number
MSC Fisheries Certification Process	**Version 2.1**
MSC Fisheries Standard	**Version 1.3**
MSC General Certification Requirements	**Version 2.3**
MSC Surveillance Reporting Template	**Version 2.0**

4 Results

4.1 Surveillance results overview

4.1.1 Summary of conditions

There are no existing conditions on either fishery and no new conditions have been required.

4.1.2 Total Allowable Catch (TAC) and catch data

Table 9 – Total Allowable Catch (TAC) and catch data – Patagonian toothfish				
TAC	Year	**2019**	Amount	**3,525 t**
UoA share of TAC	Year	**2019**	Amount	**3,525 t**
UoA share of total TAC	Year	**2019**	Amount	**3,525 t**
Total green weight catch by UoC	Year (most recent)	**2019**	Amount	**3,358 t**
Total green weight catch by UoC	Year (second most recent)	**2018**	Amount	**3,127 t**

Table 10 – Total Allowable Catch (TAC) and catch data – Mackerel icefish				
TAC	Year	**2019**	Amount	**527 t**
UoA share of TAC	Year	**2019**	Amount	**527 t**
UoA share of total TAC	Year	**2019**	Amount	**527 t**
Total green weight catch by UoC	Year (most recent)	**2019**	Amount	**441 t**
Total green weight catch by UoC	Year (second most recent)	**2018**	Amount	**514 t**

4.1.3 Recommendations

Recommendation: The clients should ensure detailed information is obtained about the species of bait used and their source fisheries to demonstrate that purchased bait continues to come from well-managed and healthy stocks.

4.2 Conditions

There are no existing conditions on either fishery and no new conditions have been imposed.

4.3 Client Action Plan

As there are no conditions there is no need for any client action plan.

4.4 Re-scoring Performance Indicators

No performance indicators have required re-scoring

5 Appendices

5.1 Evaluation processes and techniques

5.1.1 Site visits

The surveillance audit for 2020 comprised:

- An Audit Plan was provided to the client, management, and scientists before the meeting. The opening meeting included an exchange of information relevant to the surveillance audit.
- A meeting took place via conference calls on the 28th May 2020 with client representatives, scientists and managers of the fishery (Table 11). Other stakeholders were notified of the time and location of the meeting. They were invited to participate or submit comments in writing. No requests for meetings were received.

- Necessary documents were sent to the CAB by the client prior to and after the meeting.

Table 11 – Meeting Attendees		
Meeting Attendees	Role	Organisation
Alexander Morison	Lead auditor	Bio.inspecta
Rhys Arangio	Client representative	Austral Fisheries
Malcolm McNeill	Client representative	Australian Longline
Marty Johnson	Client representative	Australian Longline
Dr Philippe Ziegler	Stock assessment scientist	Australian Antarctic Division
Brodie Macdonald	Fishery Manager	Australian Fisheries Management Authority

5.1.2 Stakeholder participation

No stakeholders responded to invitations to be involved in the surveillance audit. No written submissions were received.

5.2 Revised surveillance program

The fishery was certified in 2017 with no conditions and a level 2. As the first re- certification of the fishery and no conditions were assigned a reduced surveillance level with only one auditor is permitted following CR v 2.0 7.23.4.2.

This and the previous surveillance audit were conducted off-site.

Following the new FCP v2.1 and Table 5 FCP v2.1 7.28 the surveillance level has been adjusted to a level 2 (Table 12).

Table 12– Fishery surveillance program				
Surveillance level	Year 1	Year 2	Year 3	Year 4
Level 2	Off-site surveillance audit (review of information)	Off-site surveillance audit	Off-site surveillance audit	On-site surveillance audit and reassessment site visit.

Table 13 – Timing of surveillance audit

Year	Anniversary date of certificate	Proposed date of surveillance audit	Rationale
Year 1	17 July 2018	31 August 2018	
Year 2	17 July 2019	1 October 2019	The schedule 11 weeks after the anniversary date was justified as the certificate anniversary date and the certificate transfer to bio.inspecta occurred around the same time
Year 3	17 July 2020	1 May 2020	To align with the scientific and management advise for the fishing season.
Year 4	17 July 2021	1 May 2021	To align with the scientific and management advise for the fishing season.

6 References

CCAMLR (2019). Commission for the Conservation of Antarctic Marine Living Resources. Report of the Thirty-eighth Meeting of the Commission. Hobart, Australia. 21 October – 1 November 2019.

Maschette, D, Nowarra, D and Welsford, DC (2019). A preliminary assessment for mackerel icefish (*Champsocephalus gunnari*) in Division 58.5.2, based on results from the 2019 random stratified trawl survey. WG-FSA-2019/02.

Patterson H, and Steven AH. (2019). Heard Island and McDonald Islands Fishery. pp 413-424 In: Patterson, H, Williams, A, Woodhams, J and Curtotti, R 2019, Fishery status reports 2019, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. CC BY 4.0. https://doi.org/10.25814/5d80431de3fae.

Ziegler, P. (2019). Draft integrated stock assessment for the Heard Island and McDonald Islands Patagonian toothfish (*Dissostichus eleginoides*) fishery in Division 58.5.2. WG-FSA-2019/32.

Ziegler, P., Lamb, T., Wotherspoon, S. and Dell, J. (2019). Report on fishing effort and seabird interactions during the season extension trials in the longline fishery for Patagonian toothfish (*Dissostichus eleginoides*) in Statistical Division 58.5.2. WG-FSA-2019/31.