

# BirdLife International Statement to the 20<sup>th</sup> session of the WCPFC Scientific Committee (SC20)

### August 2024, Manila, Philippines.

BirdLife International thanks the WCPFC Secretariat for organising the 20<sup>th</sup> meeting of the Scientific Committee and thanks our hosts the Philippines. We also thank Members for their continued efforts to identify improved seabird bycatch mitigation measures and are pleased to see that most members have resumed their observer programs.

BirdLife International expresses sincere appreciation to New Zealand for regulating best practice seabird bycatch mitigation measures in its domestic surface longline fleet. This important action is an acknowledgement of the scientific evidence for the most effective mitigation measures available and will result in the reduction of seabird mortality in its fleets. We are buoyed by this excellent news and hope that other WCPFC Members will follow the leadership of New Zealand to take meaningful action to reduce unnecessary seabird mortality.

### ASKS OF THE SCIENTIFIC COMMITTEE

#### 1. REVIEW OF CMM2018-03 SEABIRD CONSERVATION AND MANAGEMENT MEASURE:

Require 3/3 seabird bycatch mitigation measures North of 23°N and South of 25°S. That is, Branch Line Weighting (LW) + Tori Line (TL) + Night Setting (NS), OR the standalone measures of hook shielding devices (HSD) or underwater bait setters (UBS) – as advised by ACAP as best practice.

Importantly, the Scientific Committee must agree on a clear definition of night setting in the revised CMM (See <u>SC20-EB-IP-24</u>). Specifically, clarity of advice is required for sets that occur entirely in darkness, versus straddling sets (where a portion of total hooks set enter the water in the daytime, which currently are non-compliant with night setting as a mitigation option). This includes considering:

- a) that some vessels have the capability to change gear mid-set, that is from Tori Line (TL) + Night Setting (NS) to TL + Branch Line Weighting (LW).
- b) Clarify that provided every hook is set in darkness, either LW or TL remain a requirement.
- c) Clarify that straddling sets are considered daylight sets, and therefore both LW + TL apply for the entirety of the set.
- d) Report straddling sets as two separate fishing operations along with all associated mitigation use and bycatch information.

The Scientific Committee must take into consideration that for line weighting – for straddling sets or otherwise –verification of the line weighting specifications is necessary to ensure mitigation measure configurations are effective.

BLI ask SC20 to take note of Information Paper SC20-EB-IP-XX presenting results from new research on the risk of North Pacific Albatrosses to fisheries bycatch, and recommend to the SC to:

- a) Prioritize increasing observer coverage of the longline fleets of Japan (particularly the small offshore fleet; 10-19 gross register tonnage) and Taiwan.
- b) Mandate adoption of best-practice seabird bycatch mitigation measures in all North Pacific longline fleets, particularly the fleets of the US, Japan and Taiwan, particularly in high-risk areas and seasons.

#### 2. COMPLIANCE AND MONITORING:

Recognise the urgent need to strengthen the monitoring and reporting framework to ensure that information on the effectiveness of all CMMs is available to inform future revisions.



### NORTH PACIFIC ALBATROSSES

BirdLife International highlights the Information Paper<u>SC20-EB-IP-23</u> presenting new research from Clay et al. on albatross bycatch in the North Pacific. The study uses >1,200 albatross tracks from eleven populations of three species (short-tailed, Laysan, and black-footed) to provide an ocean-basin-scale assessment of bycatch risk. Species distribution model predictions of bird densities for each population and breeding stage with Automatic Identification Systems (AIS) data on pelagic longline fishing effort were generated and an indices of bycatch risk presented. Albatross distribution models had strong predictive power (mean [range] area under receiver operating characteristic curve: 0.91 [0.75-0.98]). Bycatch risk from pelagic longline fisheries was identified in the central and northwest subtropical Pacific that occurred mostly during breeding (winterspring); though the months with elevated risk differed according to population and fishing vessel flag state. There was considerable (88%) overlap with pelagic longline fishing effort occurred in the High Seas where observer coverage is extremely low (<5%) and use of bycatch mitigation is variable. Three flag states (Japan, USA and Taiwan) were responsible for >90% of total risk.

The results indicate that improved monitoring and increased adoption of and compliance with best-practice mitigation measures in high-risk fleets in the North Pacific would reduce future conflicts between fisheries and albatrosses. This research highlights the need for increasing observer coverage of the longline fleets of Japan (particularly the small offshore fleet; 10-19 gross register tonnage) and Taiwan. Importantly, the results demonstrate the necessity of adopting best-practice seabird bycatch mitigation measures in all North Pacific longline fleets, particularly the fleets of the US, Japan and Taiwan.

#### **NIGHT SETTING**

BirdLife International and the Humane Society International (HSI) Australia submitted Information paper SC20-<u>SC20-EB-IP-24</u> for the Scientific Committee's consideration on ensuring clarity in the wording about night setting in a revised CMM for seabird bycatch mitigation. What constitutes night or day is not in question. The question is what the mitigation obligations are when a set spans both daylight and darkness.

Arguably, the obligations of employing night setting as a mitigation measure are clear, however this may include the assumption that line weights are not able to be introduced mid-set. While not all vessels will have the capacity to switch hook configurations mid-set, some fleets may have this capability. This means that the SC must contemplate the logical resulting options of requiring 3/3: LW + TL + NS, or the standalone measures of hook shielding devices (HSD) or underwater bait setters (UBS) – as advised by ACAP as best practice to avoid any ambiguity in interpretation of night setting obligations, or in a revised CMM that allows for two mitigation options to clarify that provided every hook is set in darkness, either LW or BSL remain a requirement, that straddling sets are considered daylight sets, and therefore both LW + TL apply for the entirety of the set, and there is a need to report straddling sets as two separate fishing operations along with all associated mitigation use and bycatch information.

#### MONITORING COMPLIANCE AND REPORTING

BirdLife is pleased to see observer coverage is recovering following several years of low, and in some cases, no observer coverage. However, we again emphasize that the ongoing low levels of observer coverage are continuing to undermine the integrity of the WPCFC to demonstrate that Members are fulfilling their obligations. We have repeatedly called for an increase in observer coverage. At 5% - the current observer coverage requirement will not produce the quality or quantity of data necessary to properly manage the fishery and its



impacts to non-target species. Indeed, the probability of detecting statistically rare events, such as interactions with seabirds is hampered by ongoing low observer coverage. BirdLife has <u>repeatedly emphasized</u> that there is a divide between Members that demonstrate ability to meet the obligations for seabird bycatch mitigation under CMM 2018-03, and those that do not (Table 1).

BirdLife International once again reiterates the urgent need for increased observer coverage using human observers and electronic monitoring to improve the accuracy and confidence in estimates of seabird bycatch rates in WCPFC fisheries, and ultimately to demonstrate progress toward responsibilities under the UN Fish Stocks Agreement.

### **MEMBER ANNUAL REPORTS**

Members are advised that BirdLife International will post these questions on the ODF and/or will raise them during agenda Item 2.3.

Member	Question
Chinese Taipei	BLI thanks Chinese Taipei for reporting on seabird bycatch, we note that there is good implementation of seabird bycatch mitigation measures south of 30°S, although nearly 50% of the observed mitigation measures are TL and TL south of 30°S, what actions are Chinese Taipei undertaking to communicate with these vessels that this combination are not compliant with CMM 2018-03?
Japan	BLI are pleased to see that observers are now back on-board Japanese vessels. For areas north of 23°N, the bycatch rate is concerningly high, 0.247 and 0.216 for >20GRT and <20GRT respectively. While 13.1% of observed effort are non-compliant with seabird bycatch mitigation, ¾ of the effort are employing tori lines and MOD – given the high BPUE, it seems that this combination of mitigation measures is not effective for reducing bycatch, what is Japan's plan to address this bycatch in the North Pacific, noting the findings presented in <u>SC20-EB-IP-23</u> ?
	BLI also notes that 23.1% of observed effort south of 30°S are non-compliant (NS + MOD and MOD only) with CMM2018-03, as are 30.4% of effort fishing between 25°S and 30°S. This is an improvement from 2020 and earlier reporting periods, and appears to be driven by an increase in line weighting being used – can Japan share how many vessels in its fleet are equipped with weighted lines and how safety concerns have been overcome?
New Caledonia	BLI thanks New Caledonia for reporting seabird bycatch from observer reports. In Table 4 of the report, observed captures are listed as between 23°N and 30°S. Can New Caledonia please advise what mitigation measures are being used by the vessels fishing south of 25°S, as there are seabird bycatch mitigation measures required (weighted lines or tori lines are required 25°S-30°S)? If New Caledonia would open to port-based engagement to improve tori line implementation, BLI would be eager to discuss establishing a programme in Noumea.
New Zealand	BLI thank New Zealand for their reporting, it is very useful to see fisher reported bycatch in addition to observer reported. We also congratulate NZ for regulating 3/3 seabird bycatch mitigation measures in its surface long line fleet. We note that reported BPUE is very high (0.374; Table 2) even with 3 out of 3 mitigation measures reportedly used. In NZ's report, it is stated that the majority of the vessels that were responsible for captures were not using branch line weighting, can NZ please clarify if those vessels that were using LW and reported seabird bycatch were meeting the LW standards in the domestic legislation, and if so, will the



	new regulations include an update of the LW specifications to meet ACAP Best Practice to address the current misalignment in specifications?
United States	BLI note and thank the USA for mandating TL in the deep-set fishery north of 23N. We believe this will lead to a reduction in bycatch. We also note the high bycatch rate despite using multiple measures (Table 1), including 49 Black-footed albatross, and also note the risk from US fisheries identified in <u>SC20-EB-IP-23</u> . Only Branch Line weighting (denoted as WB in the report) is being used alongside methods that are not effective, and in the case of Blue dyed Bait (BDB) and management of offal discharge (MOD) use is advised against. Given that there is high compliance with implementing mitigation measures, does the USA have plans to update options for methods that include demonstrably effective methods and omit ineffective ones, and by when? When will the USA submit seabird bycatch data in the format defined in CMM 2018-
	03? E.g, Table 4 in the USAs report.
Vanuatu	BLI thank Vanuatu for reporting this information, with only 1% of hooks observed it is difficult to extrapolate bycatch rates, however it is concerning the rate of seabird bycatch for 2023 at 0.160 birds / 1000 hooks. What is Vanuatu planning to do to ensure that vessels with VU flag are implementing the seabird bycatch mitigation measures?
	Noting <u>SC20-EB-IP-26</u> , which highlights overlap of Vanuatu flagged vessels with the Endangered Antipodean Albatross.
	There is no figure displaying the effort of fishing by latitude for 2023 in the report – however, in previous years reporting there is a large amount of longline effort south of 25°S. Can Vanuatu please clarify why there is no reporting on seabird bycatch mitigation measures for the area south of 25°S as required in table 2 (page 28-29)?



Partnership for **nature** and **people** 

BirdLife International | Pacific Secretariat 10 McGregor Rd | GPO Box 18332 | Suva | Fiji Web www.BirdLife.org Stephanie Borrelle, PhD (she/her)Marine & Pacific Regional CoordinatorKo te kaiwhakaahaere ā-Rohe o Te Moananui-ā-KiwaPhone +(64)211362531EmailStephanie.Borrelle@BirdLife.org



Table 1: Bycatch mitigation compliance in 2018 -2023. Years and areas where the CCM failed to meet the 5% observer coverage, thus where reported interactions with seabirds are unreliable, are highlighted in red. The fishing year 2022 is shaded in green. *Very high bycatch rates (>0.05) and where there was no observer coverage are highlighted in yellow.* 

Country	Year	Observed effort (% of total hooks)	-	South of 30°S (% observed effort using 2/3 mitigation measures)		observed effort using 2/3	Total observed birds caught (+ Fisher reported when included)
Australia 2018 2019 2020 2021	2018	11.2 (south of 30° S) 10.2 (30°S-25°S) 11.2 (25°S-23°N)	No	100		N/A	14
	2019	12.1 (south of 30° S) 12 (30°S-25°S) 10.9 (25°S-23°N)	No	10	0	N/A	11 + 101
	2020	9.8 (south of 30 ° S) 10.2 (30°S-25°S) 9.8 (25°S-23°N)	No	No 100		N/A	11 + 42
	2021	9.9 (south of 30 ° S) 10.2 (30°S-25°S) 9.5 (25°S-23°N)	No	100		N/A	10 + 58
	2022	9.6 (south of 30 ° S) 10.2 (30°S-25°S) 10 (25°S-23°N)	No	100		N/A	10 +71
202	2023	8.9 (south of 30° S) 9.4 (30*S-25*S) 9.9 (25*S-23*N)	No	10	0	N/A	4 + 49
2	2018	3.48 (south of 30° S) 4.59 (23°N-30°S) 15.15 (north of 23° N)	Mitigation not reported	Unknown	<mark>Unknown</mark>	<mark>Unknown</mark>	7
	2019	<mark>0 (south of 30° S)</mark> 6.3 (23°N-30°S) 15.15 (north of 23° N)	Mitigation not reported	Unknown	Unknown	Unknown	6
	2020	8.97 (south of 30° S) 9.19 (23°N-30°S) <mark>0 (north of 23° N)</mark>	Yes	100	100	100	6



ATIONAL	nature and people								
	2021	9.42 (south of 30° S) 7.06 (23°N-30°S) 0 (north of 23° N)	Yes	100	100	100	0		
	2022	39.33 (south of 30 ° S) <mark>0 (23°N-30°S)</mark> 6.41 (north of 23 ° N)	Yes	100	100	100	0		
	2023	12.94 (south of 30°S) 10.28 (23°N-30°S)	Yes	100	100	NA	23		
Chinese Taipei	2018	<mark>3.6 (south of 30 ° S)</mark> 5.1 (30°S-25°S) 6.4 (north of 23 ° N)	Yes	93.6	100	87.6	14		
	2019	6 (south of 30° S) 12.5 (30°S-25°S) 5.3 (25°S-23°N) 2.6 (north of 23°N)	Yes	70	91.1†	87.5	21		
2	2020	6.5 (south of 30 ° S) 9.8 (30°S-25°S) 4.7 (25°S-23°N) 5.3 (north of 23 ° N)	Yes	59.1	100	97	46		
2021		6.3 (south of 30 ° S) 6.6 (30°S-25°S) 6.9 (25°S-23°N) 5.2 (north of 23 ° N)	Yes	90	100	98.7	10		
	2022	10.7 (south of 30° S) 2.6 (30°S-25°S) 6.5 (25°S-23°N) 5.3 (north of 23°N)	Yes	93.5	100	100	99		
202		3.6 (south of 30° S) 4.4 (30°S-25°S) 3.9 (25°S-23°N) 0.5 (north of 23° N)	Yes	71.3	4.4	0.5	10		
Japan* Vessels >20GRT/<20GRT	2018§	2.4 / NA (south of 30 ° S) 4.0 / 3.1 (30°S-23°N) 2.8/ 1.7 (north of 23 ° N)	No (3.7% compliant across all areas)	Unknown	<mark>Unknown</mark>	Unknown	160		
	2019§	17.9 / NA (south of 30 ° S) 19.5 / NA (30°S-25°S)	Yes	42	6.4	74.8	1665		



nature	and people					
	4.0 / 3.9 (25°S-23°N)					
	3. 4 / 3.2 (north of 23 ° N)					
	5.5 / NA (south of 30 ° S)					
2020	8.5 / NA (30°S-25°S)	Vec	76.4	Unknown	5.2	43
2020		103	70.4	OTIKIOWI	<mark></mark>	
	0 / 0.1 (north of 23 ° N)					
2021		Yes	Unknown	Unknown	Unknown	Unknown
			<mark>Unknown</mark>			
2022		Yes		<mark>Unknown</mark>	<mark>Unknown</mark>	Unknown
		Yes	77	69.6	86.9	
2023						403
2018	13.1 (south of 30 ° S)	Yes	95	N/A	N/A	98
2019	8.4 (south of 30 ° S)	Yes	100	N/A	N/A	56
2020	9.9 (south of 30 ° S)	Yes	97.8	N/A	N/A	24
2021	11.7 (south of 30 ° S)	Yes	93	N/A	N/A	53
2022	5.4 (south of 30 ° S)	Yes	93	N/A	N/A	60
2023	3.2 (south of 30° S)	Yes	100	N/A	N/A	19
2018	20.4 (across all areas)	No	N/A	1	.00	249
2019	21.03 (across all areas)	No	N/A	100		226
2020	15.87 (across all areas)	No	N/A	100		188
2021	19.12 (across all areas)	No	N/A	1	100	
2022	21.68 (across all areas)	No	N/A	1	.00	209
2023						
	2020 2021 2022 2022 2023 2018 2019 2020 2021 2022 2023 2018 2019 2020 2021	3. 4 / 3.2 (north of 23° N)           5.5 / NA (south of 30° S)           8.5 / NA (30°S-25°S)           0 / 0.3 (25°S-23°N)           0 / 0.1 (north of 23° N)           2021           0 / NA (south of 30° S)           2021           0 / NA (south of 30° S)           0 / NA (south of 30° S)           0 / 0 (25°S-23°N)           0 / 0 (c5°S-23°N)           0 / 0 (north of 23° N)           0 / 0 (north of 23° N)           0 / 0 (south of 30° S)           0 / 0 (c5°S-23°N)           0 / 0 (c5°S-23°N)           0 / 0 (north of 23° N)           2022           0 / NA (south of 30° S)           0 / 0 (north of 23° N)           2023           13.4 / NA (south of 30° S)           2018           13.1 (south of 30° S)           2019           2018           2019           8.4 (south of 30° S)           2021           11.7 (south of 30° S)           2022           5.4 (south of 30° S)           2023           3.2 (south of 30° S)           2021           11.7 (south of 30° S)           2022           5.4 (south of 30° S)     <	$\frac{4.0 / 3.9 (25^{\circ}S-23^{\circ}N)}{3.4 / 3.2 (north of 23^{\circ}N)}$ $\frac{5.5 / NA (south of 30^{\circ}S)}{5.5 / NA (30^{\circ}S-25^{\circ}S)}$ $\frac{5.5 / NA (30^{\circ}S-25^{\circ}S)}{0 / 0.3 (25^{\circ}S-23^{\circ}N)}$ $\frac{0 / 0.3 (25^{\circ}S-23^{\circ}N)}{0 / 0.1 (north of 23^{\circ}N)}$ $\frac{0 / NA (south of 30^{\circ}S)}{0 / 0 (25^{\circ}S-23^{\circ}N)}$ $\frac{0 / 0 (north of 23^{\circ}N)}{0 / 0 (north of 23^{\circ}N)}$ $\frac{0 / NA (south of 30^{\circ}S)}{0 / 0 (25^{\circ}S-23^{\circ}N)}$ $\frac{0 / NA (south of 30^{\circ}S)}{0 / 0 (25^{\circ}S-23^{\circ}N)}$ $\frac{0 / NA (south of 30^{\circ}S)}{0 / 0 (25^{\circ}S-23^{\circ}N)}$ $\frac{13.4 / NA (south of 30^{\circ}S)}{0 / 0 (north of 23^{\circ}N)}$ $\frac{13.4 / NA (south of 30^{\circ}S)}{14.7 / NA (30^{\circ}S-25^{\circ}S)}$ $\frac{2023}{2023}$ $\frac{13.4 / NA (south of 30^{\circ}S)}{14.7 / NA (30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S)}{14.7 / South of 30^{\circ}S)}$ $\frac{13.4 / South of 30^{\circ}S}{14.7 / South of 30^{\circ}S}$ $\frac{13.4 / South of 30^{\circ}S}{14.7 / South of 30^{\circ}S}$ $\frac{13.4 / South of 30^{\circ}S}{14.7 / South of 30^{\circ}S}$ $\frac{13.4 / South of 30^{\circ}S}{14.7 / South of 30^{\circ}S}{14.7 / South of 30^{\circ}S}$ $\frac{13.4 / South of 30^{\circ}S}{14.7 / South of 30^{\circ}S}{17}$ $13.4 / South of 30^$	4.0/3.9 (25*5-23*N)       3.4/3.2 (north of 23 ° N)         3.4/3.2 (north of 23 ° N)       5.5 / NA (south of 30 ° S)         2020       8.5 / NA (30*5-25*S)       Yes         0/0.1 (north of 23 ° N)       0/0.1 (north of 23 ° N)       Yes         0/0 (25*5-23*N)       0/0 (25*5-23*N)       Yes         0/0 (25*5-23*N)       0/0 (25*5-23*N)       Yes         0/0 (00 (25*5-23*N))       Yes       Unknown         0/0 (25*5-23*N)       0/0 (25*5-23*N)       Yes         0/0 (00 (00 for 32 ° N))       Yes       Unknown         0/0 (25*5-23*N)       0/0 (25*5-23*N)       Yes         0/0 (00 (00 for for 32 ° N))       Yes       Unknown         0/0 (25*5-23*N)       Yes       95         2023       13.4 / NA (south of 30 ° S)       Yes       95         2018       13.1 (south of 30 ° S)       Yes       95         2018       13.1 (south of 30 ° S)       Yes       97.8         2021       11.7 (south of 30 ° S)       Yes       93         2022       5.4 (south of 30 ° S)       Yes       93         2023       3.2 (south of 30 ° S)       Yes       93         2021       11.7 (south of 30 ° S)       Yes       93         2023	4.0 / 3.9 (25'S-23'N)         3.4 / 3.2 (north of 23 ° N)           5.5 / NA (south of 30 ° S)         8.5 / NA (30'S-25'S)         Yes           0 / 0.1 (north of 23 ° N)         76.4         Unknown           0 / NA (south of 30 ° S)         9.0 (1 (north of 23 ° N))         Yes           0 / NA (south of 30 ° S)         0.4 (NA (30'S-25'S))         Yes         Unknown           0 / NA (south of 30 ° S)         0.4 (NA (30'S-25'S))         Yes         Unknown           0 / 0 (orth of 23 ° N)         Yes         Unknown         Unknown           0 / NA (south of 30 ° S)         0.4 (NA (south of 30 ° S))         Yes         Unknown           2022         0 / NA (south of 30 ° S)         Yes         Unknown         Unknown           0 / 0 (orth of 23 ° N)         Yes         Unknown         Unknown           0 / 0 (orth of 23 ° N)         Yes         Unknown         Unknown           2022         2.8 / 3.4 (25'S-23'N)         Yes         77         69.6           2033         13.4 / NA (south of 30 ° S)         Yes         95         N/A           2018         13.1 (south of 30 ° S)         Yes         97.8         N/A           2020         9.9 (south of 30 ° S)         Yes         93         N/A           2	4.0/3.9 (25'S-23'N)         3.4/3.2 (north of 23° N)           3.4/3.2 (north of 23° N)         Yes         76.4         Unknown         5.2           2020         S.5 / NA (30'S-25'S)         Yes         76.4         Unknown         5.2           2021         0.4 / NA (30'S-25'S)         Yes         Unknown         5.2         100 (north of 23° N)         0/0.1 (north of 23° N)         Yes         Unknown         Unknown         Unknown         0.4 (NA (30'S-25'S))         Yes         Unknown         Unknown         Unknown         Unknown         0.0 (north of 23° N)         Yes         Unknown         Unknown

\* Reports effort north of 23° N and 23° N – 30° S areas combined, only reported for Hawai'i fleet.

§ Japan report no mitigation use in the 25°N – 30°S area because bycatch mitigation requirements for this area came into force in January 2020 under CMM 2018-03.



Table 2. Effort observed and reported seabird captures in 2018 - 2023 [South of 30°S]. Entries in red do not meet WCPCF observer coverage requirements for 5% observer coverage or spatial representation. *Very high bycatch rates (>0.05) are highlighted in yellow.* 

			Fishing effort	Observed se	]		
Country	Year	Number of vessels	Number of hooks ('000s)	% hooks observed	Capture number	Capture rate (birds/1000 hooks)	Raised Mortalities
Australia	2018	37	3084	11.2	8	0.02	71
	2019	33	2537	12.1	8	0.03	66
	2020	30	1721	9.8	9	0.01	9
	2021	30	1890	9.9	7	0.00	8
	2022	31	2071	9.70	3	0.02	31
	2023	28	2338	8.9	4	0.01	23
China	2018	19	5025	3.48	Unknown	Unknown	0
	2019	22	2312	0	Unknown	Unknown	0
	2020	26	3121	9.42	1	0.00	9
	2021	23	6511	8.97	0	0.00	0
	2022	52	2286	39.33	0	0.00	0
	2023	47	572	12.94	0	0.00	0
Chinese Taipei	2018	44	6508	3.6	0	0.00	0
	2019	41	9577	6.0	7	0.01	125
	2020	58	10172	6.5	4	0.01	81
	2021	38	4852	6.3	1	0.00	15
	2022†	21	5394	10.7	3	0.01	27
	2023	22	<b>6061</b>	3.6	8	0.04	224
Japan	<mark>2018</mark>	<mark>27</mark>	<mark>7003</mark>	<mark>2.4*</mark>	<mark>37</mark>	<mark>0.22</mark>	1520
(vessels > 20	<mark>2019</mark>	<mark>27</mark>	<mark>5388</mark>	<mark>17.9</mark>	<mark>1140</mark>	<mark>1.19</mark>	6385
GRT)	<mark>2020</mark>	<mark>21</mark>	<mark>3705</mark>	<mark>5.5</mark>	<mark>13</mark>	<mark>0.06</mark>	233
	2021	23	4332	0.0	Unknown	Unknown	0
	2022	22	2978	0.0	Unknown	Unknown	0
	<mark>2023</mark>	<mark>23</mark>	<mark>3725</mark>	<mark>13.4</mark>	<mark>41</mark>	<mark>0.08</mark>	305
New Zealand	<mark>2018</mark>	<mark>33</mark>	<mark>2233</mark>	<mark>13.1</mark>	<mark>98</mark>	<mark>0.34</mark>	750
	<mark>2019</mark>	<mark>28</mark>	<mark>1978</mark>	<mark>8.4</mark>	<mark>56</mark>	<mark>0.34</mark>	671
	<mark>2020</mark>	<mark>28</mark>	<mark>1949</mark>	<mark>9.9</mark>	<mark>24</mark>	<mark>0.12</mark>	242
	<mark>2021</mark>	<mark>28</mark>	<mark>1535</mark>	<mark>11.7</mark>	<mark>53</mark>	<mark>0.30</mark>	454
	<mark>2022</mark>	<mark>22</mark>	<mark>1271</mark>	<mark>5.4</mark>	<mark>60</mark>	<mark>0.87</mark>	1107
	<mark>2023</mark>	<mark>20</mark>	<mark>1591</mark>	<mark>3.2</mark>	<mark>19</mark>	<mark>0.37</mark>	595

\*Observer coverage may be low due to some data having been removed.

+ Preliminary data



Table 3. Fishing effort observed and reported seabird captures 2018- 2023 [between 25°S - 30°S]. Entries in red do not meet WCPCF observer coverage requirements for spatial representation. *Very high bycatch rates (>0.05) are highlighted in yellow.* 

			Fishing effor	Observed se	abirds hooked		
Country	Year	Number of vessels	Number of hooks ('000s)	% hooks observed	Capture number	Capture rate (birds/1000 hooks)	Raised Mortalities
Australia	2018	27	2917	10.2	5	0.017	50
	2019	26	3264	12.0	3	0.008	26
	2020	22	3990	10.2	2	0.005	20
	2021	21	2607	10.2	1	0.004	10
	2022	22	2583	9.3	6	0.025	65
	2023	21	3386	9.4	2	0.006	20
China*	2018	335	140011	4.59	1	0.00015	21
	2019	339	159311	6.3	6	0.0006	96
	2020	349	152900	7.06	5	0.00046	70
	2021	308	140511	9.19	0	0	0
	2022	263	122494	6.41	0	0	0
	2023	335	86500	10.28	23	0.00259	224
Chinese Taipei	2018	61	11982	5.1	5	0.008	96
	2019	45	6637	12.5	11	0.013	86
	2020	99	15393	9.8	0	0	0
	2021	38	4672	6.6	1	0.003	14
	2022	27	3776	2.6	0	0	0
	2023+	27	3326	4.4	0	0	0
l	2018*	154	20655	3.1	7	0.011	227
Japan (Vessels >	2019	9	844	19.5	4	0.0005	0
20GRT)	2019	9	844	4	4	0.005	4
2001(1)	2020	14	1563	8.5	0	0	0
	2021	12	938	0	Unknown	Unknown	0
	2022	9	732	0	Unknown	Unknown	0
	2023	11	1009	14.7	1	0.007	7
1	2018	-	-	-	-	-	-
Japan	2019	148	20580	3.9	1	0.001	21
(Vessels <	2020	<mark>130</mark>	<mark>16083</mark>	<mark>0.3</mark>	<mark>2</mark>	<mark>0.039</mark>	627
20GRT) 23°N – 25°S	2021	114	18195	0	Unknown	Unknown	0
only	2022	124	16567	0	Unknown	Unknown	0
01117	2023	114	15994	3.4	3	0.006	96

\* Combined data for  $23^{\circ}N - 25^{\circ}S$  and  $25^{\circ}S - 30^{\circ}S$ 

+ Preliminary data



Table 4. Fishing effort observed and reported seabird captures in 2018 – 2023 [North of 23°N]. Non-compliant observer coverage rates are in red, and very high bycatch rates (>0.05) are highlighted in yellow.

		_	Fishing effort		Observed se		
		Number of	Number of	% of hooks	Capture	Capture rate	Raised
Country	Year	vessels	hooks	observed	number	(birds/1000	Mortalities
			('000s)			hooks)	
China	<mark>2018</mark>	<mark>10</mark>	<mark>779</mark>	<mark>15.15</mark>	6	<mark>0.05</mark>	39
	2019	9	144	8.33	0	0	0
	2020	10	745	0	0	0	0
	2021	17	959	0	unknown	unknown	0
	2022	9	183	0	unknown	unknown	0
	2023	0	0	0	0	0	0
Chinese Taipei	2018	521	26,173	6.4	5	0.003	79
	2019	603	31,792	2.6	2	0.002	64
	2020	205	28,843	5.3	46	0.03	865
	2021	109	16,724	5.2	59	0.068	1137
	2022	122	18,134	5.3	88	0.092	1668
	2023+	161	23315	0.5	0	0	0
lanan	<mark>2018</mark>	<mark>36</mark>	<mark>11,842</mark>	<mark>2.8</mark>	<mark>61</mark>	<mark>0.186</mark>	2203
Japan (Vessels >	<mark>2019</mark>	<mark>36</mark>	<mark>11,239</mark>	<mark>3.4</mark>	<mark>83</mark>	<mark>0.223</mark>	2506
20GRT)	2020	42	13,860	0	Unknown	unknown	0
2001(1)	2021	37	13,297	0	Unknown	unknown	0
	2022	33	11,353	0	Unknown	unknown	0
	<mark>2023</mark>	<mark>25</mark>	<mark>12,309</mark>	<mark>4.9</mark>	<mark>150</mark>	<mark>0.247</mark>	3040
Japan	<mark>2018</mark>	<mark>209</mark>	<mark>50,681</mark>	<mark>1.7</mark>	<mark>55</mark>	<mark>0.064</mark>	3244
(Vessels <	<mark>2019</mark>	<mark>208</mark>	<mark>49,639</mark>	<mark>3.2</mark>	<mark>437</mark>	<mark>0.278</mark>	13800
20GRT)	<mark>2020</mark>	<mark>216</mark>	<mark>57,123</mark>	<mark>0.1</mark>	<mark>28</mark>	<mark>0.703</mark>	40157
	2021	187	57,659	0	Unknown	unknown	0
	2022	223	50,981	0	Unknown	unknown	0
	<mark>2023</mark>	<mark>195</mark>	<mark>48353</mark>	<mark>2.0</mark>	<mark>208</mark>	<mark>0.216</mark>	10444
USA	2018*	142	54630	20.5	192	0.02	1093
(Hawai'i only)	<mark>2019</mark>	<mark>137</mark>	<mark>19,732</mark>	<mark>17.6</mark>	<mark>166</mark>	<mark>0.05</mark>	987
(nawari only)	2020	131	18,057	19.9	114	0.03	542
	2021	130	17,123	20.6	156	0.04	685
	<mark>2022</mark>	<mark>130</mark>	<mark>14,025</mark>	<mark>21.3</mark>	<mark>184</mark>	<mark>0.06</mark>	842
	2023	135	16669	21.8	70	0.02	333

\* Reports effort north of 23° N and 23° N – 30° S areas combined.

+ Preliminary data