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OBJECTIVES AND PRIORITIES FOR DATA TO BE COLLECTED BY OBSERVERS FOR FISHERIES OTHER THAN PURSE-SEINE AND LONGLINE

WCPFC-SC3-ST SWG/WP-2

SPC[1]

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OBJECTIVES AND PRIORITIES FOR DATA TO BE COLLECTED BY OBSERVERS FOR FISHERIES OTHER THAN PURSE-SEINE AND LONGLINE

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Secretariat of the Pacific Community
Noumea, New Caledonia

Introduction

In the Summary Report of the second regular session of the WCPFC Scientific Committee, under Data and Information, Observer Programme, Recommendations, it states the following:

> *42. The Committee endorsed these recommendations together with accompanying notes, as follows:*
>
> *Recommendation: Objectives (Longline and Purse Seine) - That there are five scientific objectives that should be considered in the development of the regional observer program, all of which are high priority:*
>
> *a. To record the species, fate (retained or discarded) and condition at capture and release (e.g. alive, barely alive, dead etc) of the catch of target and non-target species; depredation effects; and interactions with other non-target species including species of special interest (i.e. sharks, marine reptiles, marine mammals and sea birds);*
>
> *b. To collect data to allow the standardisation of fishing effort, such as gear and vessel attributes, fishing strategies, the depths of longline hooks, FAD use and setting activities of purse seiners, and other factors affecting fishing power;*
>
> *c. To sample the length and other relevant measurements of target and non-target species;*
>
> *d. To sample other biological parameters, such as gender, stomach contents, hard parts (e.g. otoliths, first dorsal bone), tissue samples and collect data to determine relationships between length and weight, and processed weight and whole weight;*
>
> *e. To record information on mitigation measures utilised and their effectiveness.*
>
> *43. Recommendation: Objectives (other methods) - That the Secretariat commissions the drafting of objectives and priorities for data to be collected by observers for fisheries other than purse-seine and longline, for consideration of the Statistics SWG at its next meeting.*

This document presents proposed objectives for fisheries other than purse seine and longline, as per paragraph 43 of the Summary Report of SC2.

Catch levels by gear type

Table 1 presents the catches in the WCPFC Statistical Area during 2005 by gear type. The most important gear types in terms of the catch, other than purse seine and longline, were pole-and-line (9.6%), handline (4.3%) and troll ().4%); poti marara and driftnet contributed negligible amounts.

Catches by unclassified gear types (3.1%) were taken primarily in Japan, Indonesia and the Philippines.

Table 1. Catches in the WCPFC Statistical Area during 2005, by gear type

Gear Type	Tonnes	%
Purse seine	1,590,655	72.2%
Longline	231,638	10.5%
Pole-and-line	211,704	9.6%
Handline	95,242	4.3%
Troll	5,752	0.3%
Poti marara	692	0.0%
Driftnet	154	0.0%
Unclassified	67,896	3.1%
Total	2,203,733	100.0%

Observer programmes may not be important or appropriate for poti marara nor driftnet, due to the low catch and logistical constraints, and are not considered further. Recreational and artisanal fisheries, and multi-purpose vessels in Australia and New Zealand, have been ignored.

Pole-and-line

For pole-and-line, the average proportion of non-target species in the catch (i.e., species other than albacore, bigeye, skipjack and yellowfin), as determined from observer data currently held by the SPC Oceanic Fisheries Programme (OFP), has varied among fleets. For the Japanese fleet operating in tropical waters, non-target species have accounted for only 0.4% of the total catch (based on 98.0 tonnes of observed catch), while for the Solomon Islands fleet, non-target species have accounted for 4.7% of the total catch (based on 341.0 tonnes of observed catch). The non-target species caught by the Solomon Islands fleet included primarily rainbow runner (*Elagatis bipinnulata*), mahi mahi (*Coryphaena hippurus*) and silky sharks (*Carcharhinus falciformis*).

There were no records of catches of seabirds, marine reptiles or marine mammals by pole-and-line in tropical waters at the time of the review conducted by Bailey et al. (1993), nor in observer data currently held by the OFP.

No information is available regarding catches of non-target species taken by the Japanese pole-and-line fleet in temperate waters of the North Pacific; however, given the ability of pole-and-line vessels to examine and select schools to fish, the level is probably low.

Variation in the size of fish caught by pole-and-line is low, with a coefficient of variation of fish length of less than 15% for all species combined, based on observer data held by the OFP.

Proposed objectives for the collection of data by observers onboard pole-and-line vessels are as follows:

a. To record, collect and sample data as for longline and purse seine; and

b. To record information on the catch and fishing effort during baitfishing, when baitfishing is undertaken by the pole-and-line vessel.

Handline

For handline in the Philippines, port sampling data indicate that yellowfin, blue marlin, bigeye and albacore account for 86.1%, 7.8%, 3.5% and 1.1% of the landed catch respectively, while black marlin, sailfish, swordfish, opah (*Lampris guttatus*) and unidentified species, combined, account for 1.5%. However, these data do not cover discards and it is expected that sharks and other non-target species are also caught by handline.

No information is available on the catch of marine reptiles or marine mammals by handline in Indonesia and the Philippines.

Yellowfin length frequencies based on port sampling data from the Philippines show modal progressions over a broad size range.

Proposed objectives for the collection of data by observers onboard handline vessels are as follows:

a. To record, collect and sample data as for longline and purse seine.

Troll

For South Pacific troll, catches of non-target fish species are negligible; observer data covering trips on twenty vessels indicate that the catch of skipjack, the most frequently-caught non-target species, represents only 0.8% of the total catch, while the catch of all other non-target species (excluding skipjack) account for about 0.1% of the total catch (Labelle, 1993).

However, seabirds, such as Australasian gannets, mollymawks and wandering albatrosses, often show an interest in troll lures; in over 4,000 observed days fished in the South Pacific troll fishery, five mollymawks were caught in the Sub-Tropical Convergence Zone, of which three were released alive (Bailey et al., 1996). There are no records of marine reptiles or marine mammals being caught by troll.

Albacore length frequency histograms for troll-caught fish usually show three distinct modes in the South Pacific, which are suspected to result from discrete spawning events, with year to year variation in the positions of the modes (Labelle, 1993). The lengths of albacore caught by troll can vary depending on the season and geographic area (P. Sharples, pers. comm.).

Proposed objectives for the collection of data by observers onboard troll vessels are as follows:

a. To record, collect and sample data as for longline and purse seine.

References

Bailey, K., P.G. Williams & D. Itano. 1996. By-catch and discards in Western Pacific tuna fisheries: a review of SPC data holdings and literature. Technical Report No. 34. Oceanic Fisheries Programme, South Pacific Commission, Noumea, New Caledonia.

Labelle, M. 1993. A review of the South Pacific albacore troll fishery, 1985–92. Technical Report No. 32. Tuna and Billfish Assessment Programme, South Pacific Commission, Noumea, New Caledonia.