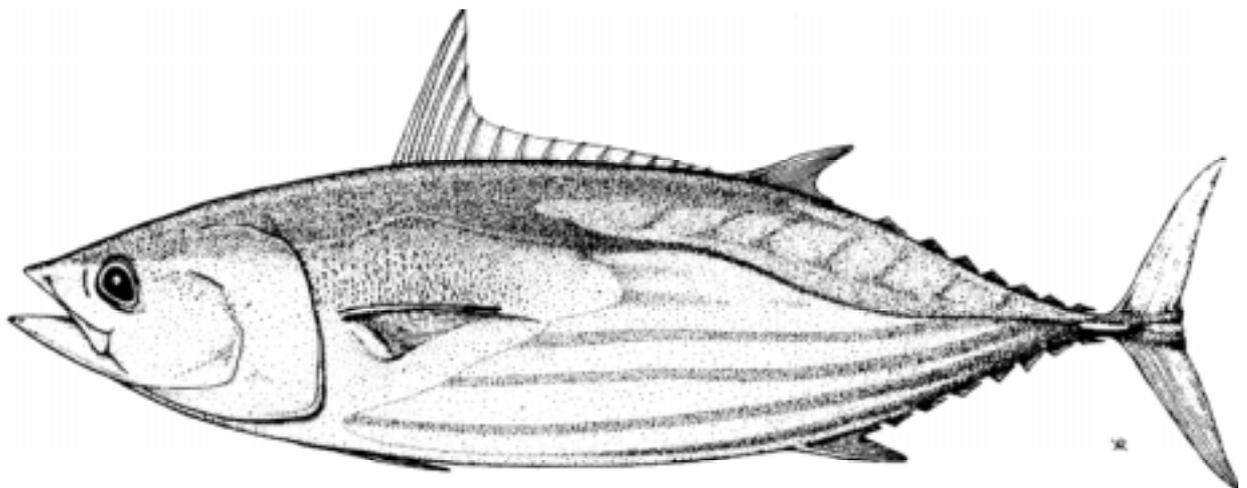




SCTB14 Working Paper

SWG-5

REVIEW OF JAPANESE CATCH AND EFFORT LOGSHEETS



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INTRODUCTION

The objectives of the Statistics Working Group (SWG) of the Standing Committee on Tuna and Billfish (SCTB) is to coordinate the collection, compilation and dissemination of data on tuna fisheries in the western and central Pacific Ocean. In regard to the coordination of data collection, it was agreed at the eleventh meeting of the SCTB, which was held from 28 May to 6 June 1998 in Honolulu, United States of America, to establish minimum standards for data collection forms and to review data collection forms that are in use in the region (Anon 1998). The SWG established minimum standards for catch and effort logsheets at the twelfth meeting of the SCTB, which was held from 16 to 23 June 1999 in Tahiti, French Polynesia (Anon 1999). The minimum standards are presented in Appendix I.

Catch and effort logsheets developed by the New Zealand Ministry of Fisheries and the Australian Fisheries Management Authority were reviewed at the first SWG Session on Data Collection Forms, which was held from 14 to 15 June 1999, immediately prior to SCTB12 (Anon 1999). Logsheets developed by the SPC/FFA Tuna Fishery Data Collection Forms Committee were reviewed at the second SWG Session on Data Collection Forms, which was held on 3 July 2000, immediately prior to SCTB13 (Anon 2000). During the second session, it was agreed that a small group would conduct an review of the Japanese logsheets and possibly other logsheets, and report their findings to SCTB14. Members of the group included Dr Shui-Kai Chang, Mr Al Coan, Dr Michael Hinton, Mr Tim Lawson, Mr Naozumi Miyabe, Dr Miki Ogura and Dr Robert Skillman. Translations of the Japanese longline, pole-and-line and purse-seine logsheets are presented in Appendix II.

COMPARISON OF JAPANESE LOGSHEETS AND MINIMUM STANDARDS

Appendix III presents a comparison of the Japanese logsheets and the minimum standards established by the SWG. The following points are of interest:

- The forms are used only by vessels registered in Japan; therefore, there is no field for the country of registration. Also, there is no field for the registration number. The call sign and license number are recorded, however, which, together with the vessel name, should be sufficient for identifying the vessel.
- There is no activity code for longline and pole-and-line, which could be used to monitor the vessel's position when in transit or not fishing due to breakdown or bad weather. The purse-seine logsheet has activity codes for searching and fishing, but not for transit, nor for not fishing due to breakdown or bad weather.
- The longline form has fields to record the catches of tuna, billfish and sharks, but all other species are recorded under "other fishes". Hence, it is not possible to separately record the catches of other major non-target species, such as wahoo, opah, escolar, lancetfish, etc., nor species of special interest, such as marine turtles. There are also no fields for discards of target species.
- The purse-seine form has fields to record six species of tuna, but all other species are recorded under "others". Hence, it is not possible to separately record the catches of other major non-target species, such as rainbow runner, shark species, decapod, etc., nor species of special interest, such as marine mammals or marine turtles. There are also no fields for discards of target species.

COMMENTS BY REVIEWERS

Mr Shui-Kai (Eric) Chang, Fisheries Administration, Council of Agriculture, Taipei, Taiwan

“We saw that all of the essential items except for the country of registration and registration number. But considering that these logsheets all contain the license number of the boat, and that they are designed for domestic use only, we think the license number can be a substitute for the missing two items and most of the desirable items were included in the logsheets, which meets the basic standards of the SCTB Statistics Working Group. Therefore we consider these logsheets quite satisfactory.

“We agree with you that in the purse-seine logsheet only two kinds of fishing activities might not be enough; more activity types should be included. In the catch report of longliners, it was very considerable to record the primary target species, the material and length of both main and branch lines, which provide the information of target effect. We also noted that a total of 19 fish species were listed which includes a lot more species than other logsheets, especially sharks. The intention of putting bycatch species into detail is very good. From our experience of poor reporting rate on bycatch information, we are quite interested in knowing how much the report rate on these items are! As to the pole-and-line logbook, because we don’t have this type of fishery in our country so we could only say that we think it is complete since it has combined most of the standards.

“To sum up, we consider these Japanese logsheets are well designed and are able to provide most of the information needed in the fishery industry.”

Mr Al Coan, Leader, Multipspecies Data Collection and Evaluation Program, La Jolla Laboratory, National Marine Fisheries Service, La Jolla, United States of America

Purse seine

“I found that all of the essential data are supplied on the logsheet except for country of registration and registration number. I am assuming though that the country of registration can be assumed Japan as this form is used for only Japanese vessels and that the registration number may be their license number. Other comments are that the dates and times are not specified GMT/UTC/local; there should be more activity codes such as drifting, in port, transiting, setting FADs, etc.; and it is not clear whether discards are to be included in the catch estimates (there is no space for recording them separately).”

Pole-and-line

“I found that all essential data are supplied on the logsheet except for country of registration, registration number, gross registered tonnage, and activity. Again, we can probably assume that country is Japan and registration number is license number. However, activity is needed. Other comments are that in the date for the daily fishing they specify Japan era date, whereas in all other places the type of date is not specified; noon positions are to the degree not to the minute; and it is unclear whether discards are to be included in the catch estimates (there is no space for recording them separately).”

Longline

“All essential data are supplied on the logsheet except for country of registration, registration number, time of set and position of set (only noon position). Also it is unclear as to whether the arrival port is the port of unloading and the arrival date is the date of arrival in the unloading port. Again, we can probably assume that country is Japan and registration number is license number. Other general comments are that the dates and times are not specified as local/GMT/UTC; positions are specified in degree only, not minutes; placement of catch in number and weight may lead to errors; it is unclear whether discards are to be included in the catch estimates (there is no space for recording them separately); and it is not clear whether processed weights or whole weights are used.”

Dr Michael Hinton, Inter-American Tropical Tuna Commission

Vessel Identification, all gear types:

Registration number. “It does not seem clear to me that the registration number referred to in this section is one of the numbers being requested as ‘license number’ on the various forms. I took ‘license number’ to refer to the *Vessel Identification, All gear types, Desirable*: ‘fishing permit or license number’.

Longline logbook:

“There should be a provision for recording ‘*Activity*’ as is the case for purse seine and baitboat vessels. Other activities that are of interest in judging fishing power are transit times, break downs, and time searching for places to fish vs. fishing.”

“The *essential* set information on date, time and position are not requested, rather the noon position is requested. The section should be set like that in the purse-seine logs, i.e. Set Position (Noon position when searching/elsewise).”

Target: 1 – Swordfish, 2 – Shark, 3 – Others: “This applies to the set level, not the trip level. I would recommend that it be placed adjacent to the ‘HPB’ and ‘Number of Hooks’ columns.”

Hooks between floats: “The instructions say ‘select most representative’ if different numbers were used in a set. This could lead to confusion – I think it would be better to make this the ‘select the most frequent’.”

Purse-seine logbook

“The *essential* information includes *Activity*, but the form includes notes and only two codes, searching (1) and fishing (2). Since the fact that a set is made identifies fishing, I would think the code currently assigned thereto should be for ‘*Other*’, with a note to provide additional related comments.”

“It is not clear how discards will be recorded, either as the difference between the total of catches and weight unloaded, or with individual records/lines used to indicate discards. Another way to say this is that it is not clear in the logbook instructions that *Catch* means whatever was in the net, whether retained or not.”

Pole-and-line logbook

“There does not appear to be a clear instruction or coding for *Activity*. This should include, as with seines and longline, break downs, transit, rough weather, etc.”

“It is not clear that the species of category ‘*Other*’ will be known. There should be codes/comments required for identification of other species.”

REFERENCES

Anonymous. 1998. Report of the Eleventh Meeting of the Standing Committee on Tuna and Billfish, 28 May – 6 June 1998, Honolulu, Hawaii, United States of America. Secretariat of the Pacific Community, Noumea, New Caledonia.

Anonymous. 1999. Report of the Twelfth Meeting of the Standing Committee on Tuna and Billfish, 16 – 23 June 1999, Tahiti, French Polynesia. Secretariat of the Pacific Community, Noumea, New Caledonia.

Anonymous. 2000. Report of the Thirteenth Meeting of the Standing Committee on Tuna and Billfish, 5 – 12 July 2000, Noumea, New Caledonia. Secretariat of the Pacific Community, Noumea, New Caledonia.

APPENDIX I. MINIMUM STANDARDS FOR TUNA FISHERY CATCH AND EFFORT LOGSHEETS

The following standards for tuna fishery catch and effort logsheets were determined at the SCTB Statistics Working Group Session on Data Collection Forms, held from 14 to 15 June 1999 in Papeete, French Polynesia, during the Twelfth Meeting of the Standing Committee on Tuna and Billfish.

The minimum standards are considered in the context of scientific research and the monitoring of catch and effort, and not in other contexts, such as management or surveillance. Hence, the minimum standards to be considered are not an exclusive set of data items to be included on logsheets. Other data items may be required for other purposes, but these are not considered here.

The data items are classified into two groups: “essential” and “desirable”. For the purposes here, “essential” data items are those that make up the set of minimum standards for the logsheet, while “desirable” data items are those not included in the minimum standard, but which may nevertheless be useful. The identification of a data item as either “essential” or “desirable” will be subjective, but the following approach may be appropriate.

“Essential” data items could be thought of as those which are the minimum necessary for (i) monitoring trends in catch and effort in tuna fisheries in the WCPO and (ii) assessing the stocks of tunas. In contrast, “desirable” data items could be considered as those in whose absence monitoring and assessment could still be carried out. Under these guidelines, the number of “essential” data items will be relatively small, while the number of “desirable” data items may be large.

VESSEL IDENTIFICATION

All gear types

The following items were considered to be *essential*:

Name of the vessel, country of registration, registration number: The registration number is the number assigned to the vessel in the country where the vessel is flagged. Each country has standard formats for registration numbers, which may include codes concerning the port of registration and the size class of the vessel. The SWG also considered the vessel’s Lloyds registration number; however, it was felt that it would not be suitable since (a) it is usually difficult to obtain and (b) many smaller vessels are not registered with Lloyds.

The following items were considered to be *desirable*:

International radio callsign, fishing permit or license number: The fishing permit or license number is the number assigned by the government of the country or territory in whose waters the vessel is fishing. The permit or license number is unique to each vessel and can be used for the purposes of vessel identification. It was noted that for purposes of vessel identification, the vessel name, country of registration and the international radio call sign could be considered equivalent to the vessel name, country of registration and the registration number.

Name of the fishing company that owns the vessel and name of the agent that represents the vessel in the port of unloading: These items may be useful in obtaining corrections or additional information concerning the data recorded on the logsheets.

VESSEL, GEAR AND TRIP ATTRIBUTES

All gear types

The following items were considered to be *essential*:

Port of departure, date of departure, port of unloading, date of arrival in port of unloading: These items can be used to cross-check the period covered by logsheet data and the period covered by landings data, such that landings data can be used to verify logsheet data.

The following items were considered to be desirable:

Time of departure, time of arrival: These items can be used to cross-check the period covered by logsheet data.

Longline

The following items were considered to be *essential*:

Gross registered tonnage: Monitoring of catch and effort is sometimes done separately for coastal, offshore and distant-water longline fleets. Vessel size is an important criterion in determining whether the vessel operates in coastal, offshore or distant-water areas. The SWG noted that GRT is calculated differently between nations. The SWG considered that a vessel's length could be considered equivalent to GRT, although it noted that length measurements are often subject to the similar problems of lack of standardisation.

Number of hooks between floats or number of hooks per basket: This measure is a proxy for average hook depth and, hence, is important in determining the effective effort for a given species. Actual baskets are rarely used nowadays; therefore "hooks between floats" may be preferred. The number of hooks between floats may vary within and between sets and so it was considered that more detail should be provided. However, (a) the number of hooks between floats reported for a given trip has been shown to be significant in determining effective effort, even though lacking in detail, and (b) it is perhaps more appropriate to obtain greater detail through observer programmes, rather than on logsheets completed by the crew.

The following items were considered to be *desirable*:

Length of mainline, number of floats or baskets, length of float line, length of branch line: These items can be used to determine the depth of hooks and, hence, effective effort.

Number of hooks per branch line, number of hooks per float: These items can be used to monitor fishing effort and targeting of sharks.

Mainline material, branchline material, presence of line shooter, engine power, rated speed of vessel, name of the captain or fishing master, reel capacity, number of reels, storage capacity: These items are related to fishing effort.

Storage method: Methods used to store the catch (i.e. ice, refrigerated sea water, air coil frozen, air blast frozen, brine frozen) can be used to determine whether the vessel operates in coastal, offshore or distant-water areas and, hence, can be useful for monitoring catch and effort.

Primary target species: This information can be used to interpret catches and catch rates and, hence, can be useful for monitoring catch and effort.

Pole-and-Line

The following item is proposed as *essential*:

Gross registered tonnage: See *longline* above.

The following items were considered to be *desirable*:

Number of crew, number of automatic poling devices, bait capacity, engine power, rated speed of vessel, presence of bird radar, name of the captain or fishing master, bait species, size of bait, number of poles, storage method: These items are related to fishing effort.

Purse Seine

The following item is proposed as *essential*:

Gross registered tonnage: See *longline* above.

The following items were considered to be *desirable*:

Net length, net depth, storage capacity, presence of helicopter, vessel engine power, skiff engine power, rated speed of vessel, name of the captain or fishing master: These items are related to fishing effort. (Additional information for vessels that engage in group seine operation may be needed; however, this was not considered.)

Amount of fish onboard at start of trip, amount of fish onboard after unloading: These items can be used to verify logsheet data with landings data.

Troll

The following item is proposed as *essential*:

Gross registered tonnage: See *longline* above.

The following items were considered to be *desirable*:

Number of lines, engine power, rated speed of vessel, storage capacity, source of sea surface temperature data, name of the captain, number of skiffs: These items are related to fishing effort. Sources of sea surface temperature data can include onboard thermometers; weather fax; and real-time satellite transmission

LONGLINE SETS

The following items were considered to be *essential*:

Date of set, time of set, position of set: The date and set time can be local time, ship's time or GMT/UTC, but must be consistent. The set time should refer to the start of setting the longline. The

set position should be in at least minutes of latitude and longitude. The use of codes for areas depicted on maps of the fishing grounds, rather than the position in latitude and longitude, may also be appropriate for some fleets. The set position can refer to the start of set, the end of set, or the average position, but should be consistent.

Number of hooks set: This item is a measure of fishing effort.

Number of fish caught per set, by species, total weight or average weight of fish caught per set, by species: The instructions should indicate whether whole weights or processed weights should be used, and for which species, and should be in accordance with the usual practice by the fleet. For example, bigeye and yellowfin are usually gilled and gutted, while albacore are kept whole. All target species and major non-target, associated or dependent (NAD) species, should be recorded. The catch of fish that are discarded dead or in poor condition should also be recorded, in addition to all fish that are retained.

The following items were considered to be *desirable*:

Catch and discards of minor non-target, associated or dependent (NAD) species: These items will allow the estimation of total removals.

Activity: This item can be used to verify the completeness of the data. It should be recorded for each set and for days on which no sets were made. For days on which no sets were made, the date and noon position should also be recorded. Activities can include, for example, “a set”; “no fishing due to gear breakdown”; “no fishing due to bad weather”; “in transit”; “in port”, etc.

End of set position, start of haul position, end of haul position (in addition to start of set position): These items can be used to correlate catch rates with oceanographic and bathymetric conditions.

End of set time, start of haul time, end of haul time (in addition to start of set time): These items can be used to determine soak times.

Bait species, use of dead or live bait: These items may affect catch rates.

Sea surface temperature and other oceanographic parameters: These items may affect catch rates.

POLE-AND-LINE DAYS FISHED

The following items were considered to be *essential*:

Activity: This item should be recorded for each day fished or searched and for days on which no fishing or searching took place. This item can be used to distinguish between days on which searching took place, but no fish were caught, and days on which no fishing or searching took place, and to verify the completeness of the data. Activities can include, for example, “a day fishing or searching with bait onboard”; “no fishing due to collecting bait”; “no fishing due to gear breakdown”; “no fishing due to bad weather”; “in transit”; “in port”, etc.

Date, noon position: The date and noon position must be recorded for all days. The noon position should be in at least minutes of latitude and longitude.

Weight of fish caught per day, by species: All target species and major non-target, associated or dependent (NAD) species, should be recorded. The catch of fish that are discarded dead or in poor condition should also be recorded, in addition to all fish that are retained.

The following items were considered to be *desirable*:

Catch and discards of minor non-target, associated or dependent (NAD) species: These items will allow the estimation of total removals.

Amount of bait onboard, hours fished or searched, sighting method: These items are related to fishing effort.

Average weight of fish caught per day, by species: This item may be informative in the absence of sampling by observers or port samplers.

School association: The species composition of the catch and the size of individuals is related to the type of association. All common types of school association should be recorded with specific codes, while uncommon types of association should be recorded with a code for “other” together with instructions to explain the “other” association on the logsheet. Common types of school association may include “drifting log, debris or dead animal”; “drifting raft, FAD or payao”; “anchored raft, FAD or payao”; “live whale or whale shark”; and “free-swimming” or “unassociated” schools.

PURSE-SEINE SETS

The following items were considered to be *essential*:

Activity: This item should be recorded for each set and for days on which no sets were made. This item can be used to distinguish between days on which searching took place, but no fish were caught, and days on which no fishing or searching took place, and to verify the completeness of the data. Activities can include, for example, “a set”; “a day searched, but no sets made”; “no fishing due to gear breakdown”; “no fishing due to bad weather”; “in transit”; “in port”, etc.

Date, position of set or noon position, time of set: If a set is made, then the date and position must refer to the set. If searching occurs, but no sets are made, then the date and noon position must be recorded. The date and set time can be local time, ship’s time or UTC, but must be consistent. The set time should refer to the time that the skiff was put in the water. The set position should be in at least minutes of latitude and longitude.

School association: The species composition of the catch and the size of individuals is related to the type of association. All common types of school association should be recorded with specific codes, while uncommon types of association should be recorded with a code for “other” together with instructions to explain the “other” association on the logsheet. Common types of school association may include “drifting log, debris or dead animal”; “drifting raft, FAD or payao”; “anchored raft, FAD or payao”; “live whale or whale shark”; and “free-swimming” or “unassociated” schools.

Weight of fish caught per set, by species: All target species and major non-target, associated or dependent (NAD) species, should be recorded. The catch of fish that are discarded dead or in poor condition should also be recorded, in addition to all fish that are retained.

The following items were considered to be *desirable*:

Catch and discards of minor non-target, associated or dependent (NAD) species: These items will allow the estimation of total removals.

Well numbers: This item can be used by port samplers to select wells to sample. Port samplers prefer to sample wells containing fish from sets for which the date, position and school association are similar.

Average weight of fish caught per set, by species: This item may be informative in the absence of sampling by observers or port samplers.

Sea surface temperature and other oceanographic and meteorological measures, such as depth of the thermocline, and wind speed or Beaufort wind scale. These items can affect effort and catch rates.

TROLL DAYS FISHED

The following items were considered to be *essential*:

Activity: This item should be recorded for each day fished and for days on which no fishing took place. This item can be used to distinguish between days fished on which no fish were caught and days not fished, and to verify the completeness of the data. Activities can include, for example, “a day fished”; “no fishing due to gear breakdown”; “no fishing due to bad weather”; “in transit”; “in port”, etc.

Date, noon position: The date and noon position must be recorded for all days. The noon position should be in at least minutes of latitude and longitude.

Number of fish caught per day and average weight, by species: All target species and major non-target, associated or dependent (NAD) species, should be recorded. The catch of fish that are discarded dead or in poor condition should also be recorded, in addition to all fish that are retained.

The following items were considered to be *desirable*.

Catch and discards of minor non-target, associated or dependent (NAD) species: These items will allow the estimation of total removals.

Number of lines trolled by vessel, number of lines trolled by skiffs, hours fished: These items can be used to measure fishing effort.

School association: The species composition of the catch and the size of individuals is related to the type of association. All common types of school association should be recorded with specific codes, while uncommon types of association should be recorded with a code for “other” together with instructions to explain the “other” association on the logsheet. Common types of school association may include “drifting log, debris or dead animal”; “drifting raft, FAD or payao”;

“anchored raft, FAD or payao”; “live whale or whale shark”; and “free-swimming” or “unassociated” schools.

Sea surface temperature, sea condition, wind speed and other meteorological conditions: These items can affect catch rates.

APPENDIX II. TRANSLATED JAPANESE CATCH AND EFFORT LOGSHEETS

Longline logsheet

Longline logsheet: instructions

Longline logsheet: table of shark species and diagram of longline gear

Pole-and-line logsheet

Pole-and-line logsheet: instructions

Purse-seine logsheet

Purse-seine logsheet instructions

The Japanese Catch Report (Log Sheet) for Tuna Longliner

The catch report is prepared in Japanese and the form shown here is not exactly the same one, but it was attempted to reproduce the original one in English. Instruction for the users is also given in Japanese.

Instructions in filling out catch report of longline fishery.

1. Catch report should be submitted for each fishing trip within 30 days of its completion. Fishing trip is defined as the duration between port calls with fishing activity. For offshore and coastal fisheries fishing trip is defined as between departure and arrival at domestic port when catches were not unloaded at foreign port.
2. Date reported : Fill date when catch report was reported.
3. Name of reporting person : List a name and telephone number of reporting person.
4. Departure and Arrival dates : Fill departure and arrival dates and names of port.
5. Days at sea : Number of days at sea spent in the fishing trip. Include departure and arrival days.
6. Number of sets : Total number of sets made in the fishing trip.
7. Name of boat, gross tonnage, license number, call sign : Fill respective characteristics.
8. Number of crews : Fill number of crews including foreign crews.
9. Kind of license : Select a kind of license.
10. Gear (Target) : Identify target. Tuna is included in others. When several targets were set, pick up one of the most important species.
11. Gear (Kind of main line) : Separate nylon gear from others.
12. Gear (Kind of branch line) : Separate nylon gear from others. Nylon gear could be defined such that most parts are made of nylon.
13. Gear configuration (Branch line length) : Length in meter between snap and hook. See Fig. 1.
14. Gear configuration (Float line length) : Length in meter from the float to the snap.
15. Gear configuration (Length between branch) : Length of main line in meter between successive branch lines.
16. Duration of trip : Give dates for the first and the last sets.
17. Date : Fill date when set was made.
18. Noon position : Fill latitude and longitude (in degree) at noon.
19. SST : Record sea surface temperature at noon with one decimal point, if available.
20. Hooks between floats : Specify number of hooks between floats (hooks per basket). If different hooks between floats were used in a single set, select most representative one.
21. Number of hooks : Fill number of hooks used in a set.
22. Catch by species for tunas, billfishes, sharks and other fishes : Fill number of catch by species in upper row and processed weight in kg in lower row. Refer to Table 1 for the classification of shark species.
23. Total landings : Fill total landings in processed weight in tons.
24. Amount of sales : Give an amount of sales in 10,000 yen on the first sheet, if possible.
25. Total number landed : Fill total number of catch by species on the first sheet.
26. Total landed product : Fill total catch by species in processed weight in tons on the first sheet.
27. Put the total number of log sheets and respective sheet number in the upper right corner.

Table 1 Classification of shark species.

Standard name	Local name
Blue shark	Mizubuka, Ao, Aota, Aobuka, Guda, Mizuzame
Salmon shark	Mouka, Rakudazame, Goushika, Nezumi, Rakuda
Shortfin mako shark	Ao, Aoyagi, Katsuzame, Katsuzame, Maira, Moro
Oceanic whitechip shark	Hiragashira, Mobuka, Nagarebuka
Thresher sharks	Onaga, Nezumi, Ginnezumi, Dobunezumi, Hataori, Chuuta

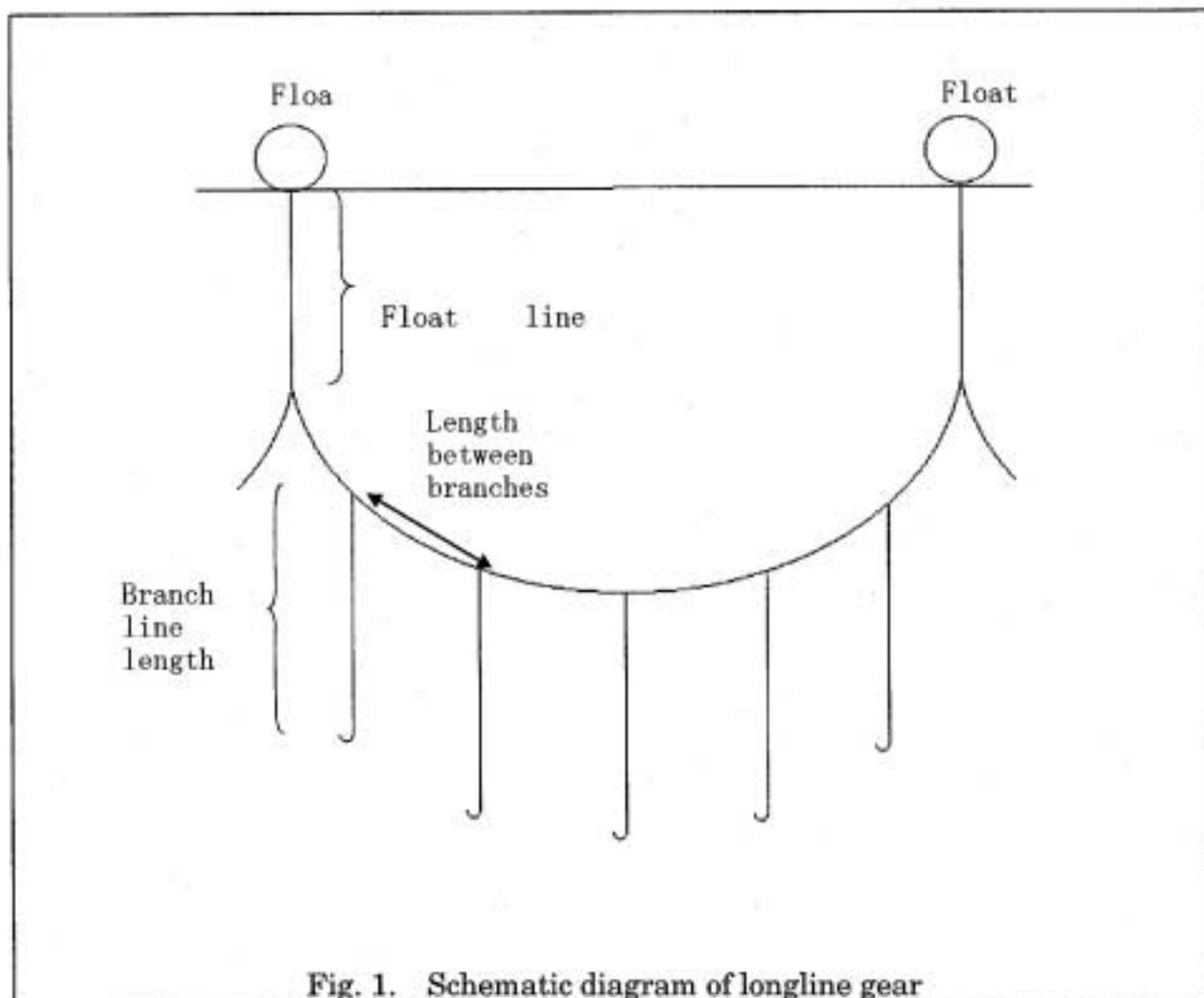


Fig. 1. Schematic diagram of longline gear

Japanese Pole and Line logbook

(blue)

Name of vessel

Address and name of fishing company or owner

Date of submitted

Name of captain

Name of responsible person and telephone number

Total catch and landing sales (YEN) by species

Area A (vessel identification)

3-4 Registered prefecture code

5-6 Registered tonnage (GT)

7-10 License number

11 Kinds of license;

1=offshore, 2=distant water (throughout year), 3=distant water (part time)

12-13 Cruise number

14-15 Number of crew

16-17 Number of poles

(and number of automatic pole devices, in parenthesis)

18-19 Prefecture code of the landing port

Area B (about the cruise)

Departure date and name of the port

Landing date and name of the port

Departure date from the bait station

Prefecture and name of the bait station

Area C (about the cruise)

71 Code

72-73 Number of days of cruise (from bait station to landing port)

74-75 Number of days of fishing

76-80 Total landing sales (ten thousand YEN)

Area D (noon position, surface water temperature, and catch weight by species and average body weight(=estimated))

One line for one fishing day (fishing day means day of searching and fishing, regardless of catch amount).

20-25 Date by Japanese era

26-32 Position in 1x1 (in degree) at noon

33-34 surface water temperature at noon

36-39 catch in weight of skipjack, in 0.1 mt

40-41 average weight of skipjack caught at the day, in 0.1 kg

42-45 catch in weight of albacore, in 0.1 mt

46-47 average weight of albacore caught at the day, in 0.1 kg

48-50 catch in weight of yellowfin, in 0.1 mt

51-52 average weight of yellowfin caught at the day, in 0.1 kg

53-55 catch in weight of bluefin, in 0.1 mt

56-57 average weight of bluefin caught at the day, in 0.1 kg

58-60 catch in weight of bigeye, in 0.1 mt

61-62 average weight of bigeye caught at the day, in 0.1 kg

63-65 catch in weight of frigate mackerel (*Auxis thazard*, *A. rochei*), in 0.1 mt

66-67 average weight of frigate mackerel caught at the day, in 0.1 kg

68-70 catch in weight of other fish, in 0.1 mt

The Japanese Catch Report (Log Sheet) for Tuna Purse Seiner

The catch report is prepared in Japanese and the form shown here is not exactly the same one, but it was attempted to reproduce the original one in English. Instruction for the users is also given in Japanese.

Instructions for filling out Catch Report for Tuna Purse Seiner

※sign should not be filled in. Governmental purpose only.

1. Company address and name, vessel name, gross tonnage, call sign, license number must be precisely recorded.
2. Type of school : select type of school. (I) log or floatsam is defined natural drifting object.
3. Departure date and port, arrival date and port, date reported, name of captain, home port, registered prefecture be filled.
4. Trip days : number of days spent for the trip including departure and arrival days.
5. Fishing days : number of fishing days (days with set made).
6. Number of sets : total number of sets made during the trip.
7. Number of searching days : total number of searching days (searched but not set).
8. Serial number of trip : serial number of trip for a fiscal year (not used).
9. Dimension of net : Give length and depth of net in meter.
10. Number of crew : Give a number of crew members including foreign crews.
11. Sets should be recorded with date, position, SST (with one decimal point), type of school, times of start and end of fishing, and catch (weight) by species (to nearest 100 kg). Time of start fishing is defined when the skiff is released, and similarly the end of fishing is when the skiff is unloaded to the mother boat. Catch by species should be estimated by the responsible crews. When searched but no set was made, record date and noon position and indicate searching.
12. The amount of unload be given in the bottom of the first log sheet.

APPENDIX III. COMPARISON OF JAPANESE LOGSHEETS AND MINIMUM STANDARDS

JAPANESE LONGLINE LOGSHEET

Upper-case = essential. Lower-case = desirable.

MINIMUM STANDARDS	LOGSHEET	OBSERVATIONS
VESSEL IDENTIFICATION:		
NAME OF THE VESSEL	yes	
COUNTRY OF REGISTRATION	n/a	Only used by Japanese vessels, so not applicable.
REGISTRATION NUMBER	no	
International radio call sign	yes	
Fishing permit or license number	yes	Six types of licenses.
Name of the fishing company	yes	Name of reporting person or company.
Name of the agent in the port of unloading	no	Most vessels unload in Japan, so may not be applicable.
VESSEL, GEAR AND TRIP ATTRIBUTES:		
PORT OF DEPARTURE	yes	
DATE OF DEPARTURE	yes	
PORT OF UNLOADING	partial	Port of arrival, not necessarily port of unloading.
DATE OF ARRIVAL IN PORT OF UNLOADING	partial	Port of arrival, not necessarily port of unloading.
Time of departure	no	
Time of arrival in port of unloading	no	
GROSS REGISTERED TONNAGE	yes	
NUMBER OF HOOKS BETWEEN FLOATS	yes	Recorded for each set, rather than the trip.
Length of mainline	no	
Number of floats or baskets	no	
Length of float line	yes	
Length of branch line	yes	Also has "length between branch lines".
Number of hooks per branch line	no	
Number of hooks per float	no	
Mainline material	yes	"Nylon" or "others".
Branch line material	yes	"Nylon" or "others".
Presence of line shooter	no	
Engine power	no	Presumably this can be obtained from the registration number.
Rated speed of vessel	no	Presumably this can be obtained from the registration number.
Name of captain or fishing master	yes	Name of captain.
Reel capacity	no	
Number of reels	no	
Storage capacity	no	
Storage method	no	
Primary target species	yes	"Swordfish", "shark" and "others". "Others" includes tuna.
LONGLINE SETS:		
DATE OF SET	yes	"YY MM DD".
TIME OF SET	no	
POSITION OF SET	partial	Noon position, rather than set position. To degree, rather than minute.
NUMBER OF HOOKS SET	yes	
NUMBER OF FISH CAUGHT PER SET	partial	Columns for 19 species and "others". Major NADs. No discards.
TOTAL WT OR AVG WT OF FISH CAUGHT PER SET	partial	Columns for 19 species and "others". Processed weights. No discards.
Catch and discards of minor NADs	partial	Six columns for sharks, but no field for name of other bycatch.
Activity	no	
End of set position	no	
Start of haul position	no	
End of haul position	no	
End of set time	no	
Start of haul time	no	
End of haul time	no	
Bait species	no	
Use of dead or live bait	no	
Sea surface temperature	yes	

JAPANESE POLE-AND-LINE LOGSHEET

Upper-case = essential. Lower-case = desirable.

MINIMUM STANDARDS	LOGSHEET	OBSERVATIONS
VESSEL IDENTIFICATION:		
NAME OF THE VESSEL	yes	
COUNTRY OF REGISTRATION	n/a	Only used by Japanese vessels, so not applicable.
REGISTRATION NUMBER	no	
International radio call sign	no	
Fishing permit or license number	yes	Three types of licenses.
Name of the fishing company	yes	Name of fishing company or owner.
Name of the agent in the port of unloading	no	Most vessels unload in Japan, so may not be applicable.
VESSEL, GEAR AND TRIP ATTRIBUTES:		
PORT OF DEPARTURE	yes	Also name of bait station.
DATE OF DEPARTURE	yes	Also departure date from bait station.
PORT OF UNLOADING	yes	
DATE OF ARRIVAL IN PORT OF UNLOADING	yes	
Time of departure	no	
Time of arrival in port of unloading	no	
GROSS REGISTERED TONNAGE	yes	
Number of crew	yes	
Number of automatic poling devices	yes	
Bait capacity	no	
Engine power	no	
Rated speed of vessel	no	
Presence of bird radar	no	
Name of captain of fishing master	yes	Name of captain.
Bait species	no	
Size of bait	no	
Number of poles	yes	
Storage method	no	
POLE-AND-LINE DAYS FISHED:		
ACTIVITY	no	
DATE	yes	Date by Japanese era.
NOON POSITION	partial	To nearest degree, rather than minute.
WEIGHT OF FISH CAUGHT PER DAY, BY SPECIES	partial	SKJ, ALB, YFT, BFT, BET, FRZ, other. No discards.
Catch and discards of minor NADs	no	No field for name of other species.
Amount of bait onboard	no	
Hours fished or searched	no	
Sighting method	no	
Average weight of fish caught per day, by species	yes	SKJ, ALB, YFT, BFT, BET, FRZ, other
School association	no	

JAPANESE PURSE-SEINE LOGSHEET

Upper-case = essential. Lower-case = desirable.

MINIMUM STANDARDS	LOGSHEET	OBSERVATIONS
VESSEL IDENTIFICATION:		
NAME OF THE VESSEL	yes	
COUNTRY OF REGISTRATION	n/a	Only used by Japanese vessels, so not applicable.
REGISTRATION NUMBER	no	
International radio call sign	yes	
Fishing permit or license number	yes	
Name of the fishing company	yes	Name of fishing company or owner.
Name of the agent in the port of unloading	no	Most vessels unload in Japan, so may not be applicable.
VESSEL, GEAR AND TRIP ATTRIBUTES:		
PORT OF DEPARTURE	yes	
DATE OF DEPARTURE	yes	
PORT OF UNLOADING	yes	Port of arrival, not necessarily port of unloading.
DATE OF ARRIVAL IN PORT OF UNLOADING	yes	Port of arrival, not necessarily port of unloading.
Time of departure	no	
Time of arrival in port of unloading	no	
GROSS REGISTERED TONNAGE	yes	
Net length	yes	
Net depth	yes	
Storage capacity	no	
Presence of helicopter	no	
Vessel engine power	no	
Skiff engine power	no	
Rated speed of vessel	no	
Name of captain or fishing master	yes	Also name of reporting person.
Amount of fish onboard at start of trip	no	
Amount of fish onboard after unloading	no	
PURSE SEINE SETS:		
ACTIVITY	partial	1 = searching. 2 = fishing. No codes for breakdown, bad weather, etc.
DATE	yes	Columns for year, month and day.
POSITION OF SET OR NOON POSITION	yes	To nearest minute.
TIME OF SET	yes	Time when skiff is released. Also time of end of fishing.
SCHOOL ASSOCIATION	yes	Codes for ten types of school, including FAD, but not "drifting FAD".
WEIGHT OF FISH CAUGHT PER SET, BY SPECIES	partial	Columns for six species. No field for name of other species. No discards.
Catch and discards of minor NADs	no	
Well numbers	no	
Average weight of fish caught, by species	no	
Sea surface temperature	yes	
Depth of thermocline	no	
Wind speed	no	
Beaufort wind scale	no	