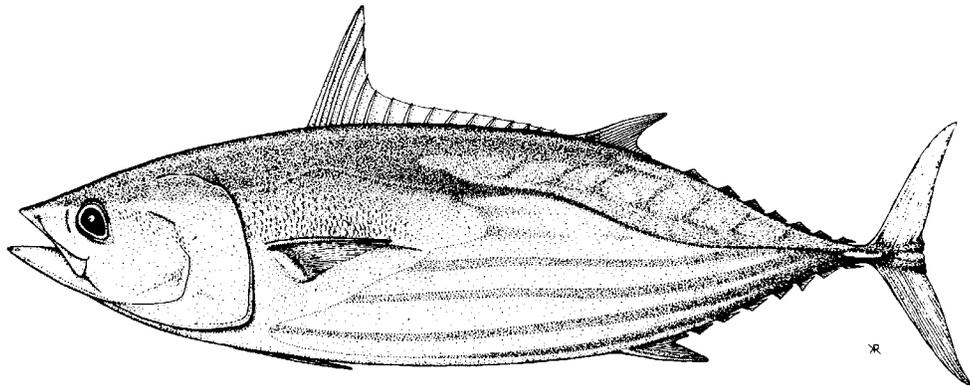


A REVIEW OF CATCH AND EFFORT LOGBOOKS  
FOR LONGLINE, POLE-AND-LINE AND PURSE SEINE

Tim Lawson and Peter Williams

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## INTRODUCTION

Participants at the Seventh Meeting of the Standing Committee on Tuna and Billfish (SCTB7), held from 5 to 8 August 1994 in Koror, Palau, made the following Recommendation:

*In order to simplify the submission of catch and effort data by tuna fishing vessels in the region, and to simplify the processing of catch and effort data, that all SPC and FFA member countries and territories strive to adopt standard logbooks, including future revisions of standard logbooks if and when they become available, for use both by domestic fisheries and foreign fishing vessels operating under access agreements.*

The meeting also formulated the following Action Item:

*That the SPC Oceanic Fisheries Programme review and, if necessary, revise the SPC catch and effort logbooks, in consultation with member countries and territories, the Forum Fisheries Agency and scientists from distant-water fishing nations.*

In response to the above Recommendation and Action Item, the Oceanic Fisheries Programme (OFP) reviewed the current SPC catch and effort logbooks for purse seine, pole-and-line and longline, which were originally prepared in 1984. The logbooks were revised with a view to their being adopted by the SPC island countries and territories. There was no attempt made to revise the logbooks so that they could be adopted by the SPC metropolitan governments of Australia, New Zealand and the United States of America, which have well-developed data collection and processing systems of their own, and which, unlike most of the small island states, do not rely on SPC for either the processing or analysis of logbook data.

The logbooks were revised on the basis of the usefulness of each field of data for research purposes, and the availability of each field of data from other sources, both of which, in turn, have been affected by recent changes in fishing techniques and in fishery management. These considerations are briefly touched upon in the following paragraphs.

The Oceanic Fisheries Programme (formerly the Tuna and Billfish Assessment Programme) has compiled logbook data covering foreign and domestic tuna fisheries in the region since 1982. The data have been provided on a variety of logbooks; in most cases, each logbook has been used for either a particular access agreement or a particular domestic fleet. While most of the data fields included on each of the various logbooks for a particular gear type have been similar, each logbook has contained some differences.

The usefulness of each of the fields of data on the logbooks for research purposes is, in most cases, well-known. While most of the fields that have been included on previous logbooks are essential for research, experience has shown that, contrary to expectations, certain fields are never used for research. For example, the average weights that have been recorded on purse seine and pole-and-line logbooks have not been used because they are difficult to interpret. The average weight is only a point estimate, whereas, more often than not, the catch includes a wide range of sizes. For this reason, when size data have been used for research, the size data have been obtained from either port sampling or observer programmes; such data can be used to determine the size distribution, rather than just a point estimate. Other data fields that have not been found useful for research include codes for school type on purse-seine logbooks that refer to swimming behaviour, or discard fields on longline logbooks that refer to species groups, as opposed to individual species.

Both port sampling programmes and observer programmes have expanded in recent years; therefore, certain types of data, such as size data and detailed information on fishing effort, are available from sources other than logbooks. Similarly, detailed information on vessel attributes, such as purse-seiner helicopter make and model, etc, are now available on the Regional Register maintained by the Forum Fisheries Agency (FFA), with annual updates for each vessel; it is no longer necessary to collect this type of information on logbooks.

With the development of port sampling programmes, a practice that must now be monitored on logbooks is the transfer of fish between wells on purse seiners. This must be done in order to assist port samplers to select wells from which the location and date of capture of the fish can be identified with precision.

Further, it has long been apparent that many logbooks are not filled out by crewmembers; rather, they are transcribed from the fishing master's logbook at the fishing company's headquarters or by the vessel agent. This practice is widespread, particularly among Asian fleets, and it should be recognised in the design of the logbook. Information concerning the person responsible for transcribing the logbook should be recorded on the logbook, in order to facilitate obtaining further information concerning the data recorded on the logbook, if this becomes necessary.

Some fields have been eliminated, while others have been added; however, in general, the revised logbooks are simpler to use than previous logbooks. One advantage of being simpler to use is that any attempts to improve the quality of reporting will have a greater effect. Government authorities can argue that since the logbooks have been made easier to use, there should be less resistance from the fishermen and fishing companies to providing all the data requested on the revised logbooks. In this regard, the provision of data on by-catches and discards should be highlighted. While, in general, the logbooks have been simplified, data fields for by-catches and discards have been retained. All efforts should be made to ensure the cooperation of the fishermen and fishing companies in providing information on by-catches and discards on a regular basis.

## 1995 REVISION OF THE LOGBOOKS

A draft version of this review was distributed for comment in January 1995 to 36 colleagues in all SPC member countries and territories, in distant-water fishing nations active in the region, and at the Forum Fisheries Agency (FFA). The comments that were received are presented in Appendix I.

Based on the comments received, it would appear that the simplification of the logbooks has met general acceptance. It was explicitly mentioned in the comments that this was a positive approach, and, while several suggestions were made to include additional items on the logbooks, the suggested additions were relatively minor.

The draft logbooks distributed in January 1995, were revised in May and June 1995 on the basis of the comments in Appendix I. The revised logbooks are presented in Appendix II. The logbooks in Appendix II should be considered as the '1995 Revision' of the logbooks. The logbooks presented in Appendix II will almost certainly undergo further revisions in the years to come, at the direction of the Standing Committee on Tuna and Billfish, and as the need arises. The following text considers in detail the 1995 Revision of the logbooks.

### *Size of the Longline, Pole-and-Line and Purse-Seine Logbooks*

The logbooks have been designed on paper of size A4 (21 x 29.7 cm). The lettering on the A4 logbooks is perhaps small in places, but size A4 paper is convenient in that the logbooks take up considerably less space than they would in size A3 (29.7 x 42 cm), which has been used for certain logbooks in the past. In any case, if size A3 is preferred, many copiers allow for A4 paper to be enlarged to A3 paper, at the press of a button.

### *Heading of the Longline, Pole-and-Line and Purse-Seine Logbooks*

Previous logbooks have included a heading at the top of the form with the name of the coastal state, such as 'Catch Report Form for the Waters of Federated States of Micronesia'. However, it was felt that such a title is redundant for the following reason. First, it can reasonably be assumed that the logbook covers fishing which took place under a permit or license issued by the coastal state to which the form was provided, otherwise the form would not have been provided to that coastal state. Second, the formats of permit numbers and licenses are unique to each coastal state in the region; therefore, the permit number or license is sufficient for identifying the coastal state.

One of the objectives of revising the logbooks is to introduce a standard logbook that can be used by all of the SPC island countries and territories, for both their domestic fleets and for foreign fleets with which they have access agreements. Negotiations for access agreements will be simplified if the parties can agree to use the current revision of the logbooks presented herein, instead of designing a separate logbook for each agreement, as has often occurred in the past.

It was considered that there was value in placing a heading on the logbooks so that they would be easily recognised as the standard logbooks revised by SPC at the direction of the Standing Committee on Tuna and Billfish. Otherwise, the alternatives would have been either to produce several versions of the logbooks, with different headings for each access agreement, or to delete the heading from the logbook altogether. However, it was felt that the former would defeat the purpose of a standard logbook, while the latter would not allow easy recognition of the logbook.

Several wordings were considered for the heading, including 'Standing Committee on Tuna and Billfish', 'Oceanic Fisheries Programme' and 'South Pacific Commission'. It was felt that 'Standing Committee on Tuna and Billfish' and 'Oceanic Fisheries Programme' would be too obscure. On the other hand, the logbooks were developed with input from several other national and regional organisations; therefore, it was not considered appropriate to use 'South Pacific Commission' in the header. Instead, it was felt that the words 'South Pacific Regional' — as in 'South Pacific Regional Purse-Seine Logbook' — would be the best reflection of both the intention and the development of the revised logbooks.

While it was felt that 'SPC' need not figure in the header, it was decided to include 'SPC' in the phrase 'Revised SPC May 1995', which appears in the top right-hand corner of the forms, to indicate where the form was drafted.

It is recognised that the 'logbooks' are not logbooks in the strict sense, with one sheet for each day and with the sheets bound together in book form. Nevertheless, the term 'logbook' is commonly used in the region, and the data reported on the 'logbooks' are commonly referred to as 'logbook data'. Therefore, the term 'logbook' has been used in the header.

### *Local Time versus UTC*

It has sometimes been suggested that all times recorded on the logbooks should be in universal time (UTC, formally Greenwich Mean Time), rather than local time or ship's time. The problem has been that the ship's time, which usually corresponds to the time at the port of departure, may or may not be adjusted to the local time after a vessel has crossed a time zone, whereas UTC is standard world-wide. However, if UTC were to be adopted for logbooks in the western Pacific, then all dates recorded on logbooks would also have to correspond to UTC. For example, set times for purse-seine sets in the waters of Papua New Guinea which take place between 6:00 and 9:59 in the morning, local time, would be recorded on logbooks as between 20:00 and 23:59, UTC, since Papua New Guinea is ten hours ahead of UTC. The correct date corresponding to the UTC time would therefore be the previous day, relative to the local date.

In order to avoid possible confusion in interpreting the dates recorded on the logbooks, all times on the revised logbooks are requested to be recorded in local time. If logbook times are required in UTC, for any reason, such as cross-checking positions recorded on logbooks with positions reported by transponders, then this can be easily accomplished on computer by converting local times to UTC or vice versa.

### *Translation of the Logbooks*

Most logbooks currently in use have been drafted in english only, although several are in english and another language. Certain fleets use various logbooks, both english only and bilingual. Logbooks which are in english only include those used by Japanese pole-and-line vessels and purse seiners, Korean longliners and purse seiners, and Taiwanese longliners and purse seiners. Logbooks which are in english and another language are used by Chinese longliners, Japanese longliners, and Taiwanese longliners and purse seiners. One of the logbooks used by Chinese longliners is almost completely in Cantonese, with almost no english.

With one exception, all logbooks currently in use by pole-and-line vessels and purse seiners are entirely in english. It is also apparent that many individuals who complete the logbooks for Asian pole-and-line vessels and purse seiners, i.e. either the vessel masters or the vessel agents, write reasonably well in english, since english comments are often found written on the logbooks. Thus it may not be necessary to translate the revised logbooks for pole-and-line and purse seine into other languages.

In contrast, many logbooks used by Asian longliners are bilingual, and english comments are almost never found on longline logbooks. It would therefore appear that bilingual versions of the revised longline logbook are necessary.

## LONGLINE LOGBOOK

### **Block One: Vessel Identification And Trip Information**

#### *Vessel Identification*

The six fields in the left-hand column of Block One (Name of Vessel, Name of Fishing Company, Country of Registration, Registration Number in Country of Registration, FFA Regional Register Number and Radio Call Sign) are for the identification of the vessel. Since a vessel can have

registration and permit numbers from several different authorities, the registration numbers requested on the form have been specified with their full names, i.e. 'Registration Number in Country of Registration' and 'FFA Regional Register Number'.

Previous forms have not included Name of Fishing Company. The quality of the data recorded on logbooks is sometimes related to the fishing company. Name of Fishing Company will be useful in obtaining further information concerning the data recorded on the logbooks, if necessary, and in identifying those companies which may require improvements in the quality of the logbook data that are recorded for their vessels.

Some previous forms have not included the radio callsign. However, inclusion of the radio callsign will help to resolve identification problems, which may arise due to recording errors in the vessel name or registration numbers.

#### *Fishing Permit or Licence Number*

It is intended that the logbook will be completed by both foreign and domestic fishing vessels operating in the waters of a given coastal state. Foreign vessels are assigned a permit number under either a bilateral or multilateral access agreement, while domestic vessels require a fishing license issued by the coastal state.

SPC has recently been provided with purse-seine logbooks covering Korean vessels on which the permit numbers for both the Federated States of Micronesia and Papua New Guinea have been recorded. These logbooks cover the fishing activities for the entire trip, including activities in both EEZs and on the high seas. Rather than completing separate logbooks for each coastal state, the logbook for a particular trip has been photocopied in its entirety and then sent to both coastal states. The revised logbooks contains ample space for recording more than one permit number.

#### *Name of Vessel Master, Name of Vessel Agent, and Signature of Vessel Master or Agent*

Many logbooks submitted to coastal states in the region by vessels fishing under access agreements have not been written by the vessel master. Rather, they have been completed by the vessel's agent in one of the transshipment ports in the region, or in the vessel's home country by the fishing company or the association to which the fishing company is a member. When this happens, the agent will transcribe information from the vessel master's personal logbook to the logbook which is to be provided to the coastal state. In these cases, it is necessary to know the name of the agent who completed the form, and the name of that person's agency, company or association, in order to obtain further information concerning the data recorded on the logbook, if necessary. The vessel master, however, is ultimately responsible for information recorded on the logbook provided to the coastal state; therefore, the name of the vessel master is still required.

#### *Longline Gear Information*

Longliners target different species by modifying the depth at which their gear is set. The longline gear information (Hooks Per Basket, Length of Branch-Line, Length of Float-Line, and Length Between Floats) can be used to estimate the depth fished.

#### *Trip Information*

The eight fields in the right-hand column of Block One (Number of Crew, Target Species, Year, Port of Departure, Date and Time of Departure, Port of Return and Date and Time of Return) are specific to each trip.

Number of Crew may be useful to coastal states for immigration purposes.

The draft version of the revised longline logbook contained detailed activity codes which attempted to identify fishing techniques and, hence, the target species. Identification of the target species is necessary for interpreting the catch rates of the various species that are caught. However, the codes were difficult to interpret; therefore, they were excluded from the revised logbook. Instead, it was decided to include Target Species as a distinct field. It remains to be seen whether this field will produce useful research data. It may be that targeting is too complex to be reported in a single field, and that targeting information is best collected by observers.

Port of Departure, Date and Time of Departure, Port of Return and Date and Time of Return are essential for following the movement of the vessel. There is no date format (such as "YYMMDD") given, since any ambiguities in the year or month can be resolved by referring to other fields on the logbook.

#### *Vessel Attributes*

Previous forms have included certain vessel attributes, such as gross registered tonnage. However, this information is now obtained on the application form for the Regional Register maintained by the Forum Fisheries Agency. The complete list of longliner attributes collected on the application form for the Regional Register is as follows:

- gross registered tonnage
- vessel power
- main line material
- main line length
- maximum number of baskets
- maximum number of hooks
- line shooter present?

Since this information is now available on the Regional Register, it has not been included on the proposed form.

### **Block Two: Catches**

#### *Date*

On previous longline logbooks, a page of the logbook corresponds to a calendar month, with each day already numbered on the logbook; for a given fishing trip, one logbook page has been provided for each calendar month that the vessel was at sea. However, this format does not allow for more than one longline set per day. The previous forms were designed for distant-water longliners, which never make more than one set per day. However, certain domestic longline fleets, such as the domestic Fijian longline fleet, sometimes begin one set early in the morning and the next set late at night on the same day. Therefore, the revised logbook has columns for month, day and set start time. Together, these

three fields can distinguish between two or more sets on the same day. A further advantage to the new format is that the page need not contain 31 lines, one for each day of the month. Instead, the revised form contains 21 lines, with the result that each line is considerably larger than on previous longline logbooks, including those printed on A3-size paper.

### *Position*

Previous longline logbooks have requested only the noon position, rather than the Noon or Start Position. However, if more than one set is made on a single day, as discussed above, then it does not make sense to record the noon position for each set. Instead, the position of the vessel when the crew begins putting the gear in the water should be recorded. Though still approximate, the start position will be a more accurate indicator of the position of the set than the noon position, if the crew is not actually setting or hauling the gear at noon.

### *Activity Code*

Previous logbooks have usually included codes for 'Fishing', 'At sea not fishing', and 'In port'. While more detailed codes recording various types of fishing techniques were considered, these were judged to be too difficult to interpret. Therefore, the following three activity codes were used: 'A set', 'A day at sea but not fished' and 'In port'.

### *Sea Surface Temperature*

Previous logbooks have usually included sea surface temperature, although the research value of sea surface temperature has not been firmly established. There are at present alternative sources of sea surface data available; therefore, sea surface temperature has been deleted from the revised logbook.

### *Set Start Time*

Set start time has been included in order to distinguish between multiple sets made on a single day. The instructions for the revised longline logbook specify that the 24-hour format should be used and that the time should be the local time.

### *Number of Hooks*

The Number of Hooks is the primary measure of fishing effort for longliners.

### *Catch by Species*

Previous longline logbooks have included fields for recording the catches of up to twelve different species or species groups. However, some of these species are only rarely caught by longliners in the tropical western and central Pacific Ocean. The following table indicates the frequency (percentage of sets with positive catch) with which certain species have been recorded on logbook data held at SPC (excluding data provided by Australia and New Zealand):

| SPECIES        | FREQUENCY |
|----------------|-----------|
| Bigeye         | 87.07     |
| Yellowfin      | 86.33     |
| Blue marlin    | 26.98     |
| Swordfish      | 15.61     |
| Albacore       | 10.92     |
| Shark          | 9.13      |
| Other          | 8.57      |
| Black marlin   | 7.52      |
| Striped marlin | 4.39      |
| Sailfish       | 2.93      |
| Bluefin        | 0.35      |
| Skipjack       | 0.23      |

Skipjack and bluefin have only rarely been recorded on logbooks held at SPC; therefore, columns for skipjack and bluefin have not been included on the proposed form. However, if necessary, catches of skipjack and bluefin can still be recorded in the columns for 'other' species (see below).

Most previous forms include a column for 'other' species in the retained catch, but they record only the number of fish caught and not the names of the species caught. In order to collect more precise information on the retained catch of 'other' species, the proposed form includes columns to record the catch of two additional species; the names of the additional species can be recorded in the space above each of the two columns. The retained catch will not usually include a great many species in addition to the nine species already specified on the proposed form; therefore, catch columns for two additional species should be sufficient in most cases.

In contrast to previous logbooks, columns for the number of discards for albacore, bigeye and yellowfin have been included explicitly, next to the columns for recording the retained catch for each of the three species. On previous forms, discards have been recorded only for the 'tuna' and 'other' species groups, rather than for the individual species. The inclusion of columns for discards for the three principal target species is necessary in order to obtain more reliable estimates of the amounts that are removed from the population, and thus more reliable estimates of catch rates.

A discard column is also included for sharks. Shark by-catch in the region is considerable, although only a small proportion of the shark catch, either retained or discarded, is currently recorded on logbooks. In order to encourage the recording of shark by-catch, the shark catch column has been placed in a more prominent position, next to the columns for the target species.

Discards columns for species other than the three principal target species and shark have not been included on the proposed form. Due to the wide variety of species that can potentially be discarded by longliners, the lack of space on the longline logbook, and the expectation that only incomplete information on discards of other species would be recorded on logbooks, this information is best collected through observer programmes.

#### *Page Total and Trip Total*

These rows are used during data entry and need not be completed by the vessel master or agent; therefore, they have been left shaded on the revised logbook.

## POLE-AND-LINE LOGBOOK

**Block One: Vessel Identification And Trip Information**

Block One of the Pole-and-Line Logbook is similar to that of the Longline Logbook, except that the longline gear information and Target Species are excluded.

*Bait Used*

Previous pole-and-line logbooks have sometimes included the type of bait used in Block One. However, this information has not been found to be useful for research purposes; therefore, it has been excluded from the revised logbook.

**Block Two: Catches***Date and Position*

On previous pole-and-line logbooks, a page of the logbook corresponds to a calendar month, with each day already numbered on the logbook; for a given fishing trip, one logbook page has been provided for each calendar month that the vessel was at sea. However, in order to be consistent with the revised longline and purse-seine logbooks, the format of the revised pole-and-line logbook has been adjusted so that the month and day are recorded on the logbook. As for the revised longline logbook, each page contains 21 lines, rather than 31, with an increase in the size of each line. Each line of the page corresponds to a day at sea. The Noon Position provides the approximate location of the day's activities.

*Activity Code*

Three activity codes are included on the proposed form: 'A day fished or searched', 'A day not fished or searched', and 'In port'. The reasons for 'A day not fished or searched' and 'In port' should be specified on the form.

At present, the only non-english-speaking pole-and-line fishing nation operating in the region is Japan. The pole-and-line logbooks currently used by the Japanese are in english, with no Japanese, and english comments are often found written of the forms. Therefore, it is anticipated that the request to specify the reason for 'a day not fished or searched' and 'in port', in english, should not present a major difficulty to most of the individuals who complete the form, i.e. either the vessel master or the vessel agent. In order to assist with specifying the reasons, examples of possible reasons for 'a day not fished or searched' and 'in port' are listed on the form. Even in those cases where the individual is completely unable to write in english, the most important information, the activity code itself, will still be recorded on the logbook.

The activity codes on previous forms (usually referred to as 'comment' codes) have attempted to distinguish between 'a day on which fish were caught' and 'a full day searched with bait onboard but no fish caught'. The proposed form incorporates the two into the single code, 'a day fished or searched'. This has been done because the activity code is used to determine fishing effort (usually in units of a day fished or searched), regardless of whether any catch resulted. The single code is simpler, yet preserves the information content of the logbook, and avoids the possibility of misinterpretation

common to previous forms, which has resulted from the attempt to distinguish between ‘fishing’ and ‘searching’.

Previous forms have included a code for ‘a full day searched with bait onboard but no fish caught’ to avoid the possibility that a day on which schools were sighted, but no bait was onboard, is recorded as a day of fishing effort. Days on which schools are sighted with no bait onboard should not be considered as a day of fishing effort, since even if a school is sighted, the fish cannot be caught because the school cannot be chummed. For this reason, the proposed form includes the wording ‘Please specify reasons: no bait; in transit; breakdown; bad weather’. The inclusion of the words ‘no bait’ as a reason for ‘a day not fished or searched’ will prevent days with no bait onboard from being considered as a day searched, even if schools were sighted.

### *Retained Catch*

Previous pole-and-line logbooks have usually included the average weight for each species caught, in columns next to the total amounts caught by species. However, as discussed above, the average weights recorded on logbooks have always been difficult to interpret, since quite often a range of sizes is caught. With port sampling programmes well-established in the region, and with observer programmes expanding, it was considered that average weights were no longer required, thus they are not to be found on the revised pole-and-line logbook.

Previous pole-and-line logbooks have not always allocated a separate catch column for bigeye, perhaps because bigeye catches by pole-and-line are thought to be rare. For example, an examination of the amount of bigeye declared in the ‘other species’ column on Japanese pole-and-line logbooks held at SPC shows that only 0.22 percent of all catches are reported as bigeye; for non-Japanese pole-and-line vessels, the figure is even smaller, 0.05 percent. However, this is probably a reporting problem, rather than a true representation of the catch of bigeye by pole-and-line. During the Regional Tuna Tagging Programme, 1989-1992, during which the species composition of the catch was determined by scientists onboard the tagging vessel — a Japanese-style pole-and-line vessel — the percentage of bigeye in the catch was 5.77 percent. The inclusion of a column for bigeye on the pole-and-line logbook will encourage better reporting of bigeye catches.

### *Discards*

Discards by pole-and-line are infrequent, but they do sometimes occur. To account for the albeit rare occurrences of discards, and to be consistent with the revised longline and purse-seine logbooks, discards have been included on revised pole-and-line form.

## PURSE-SEINE LOGBOOK

### **Block One: Vessel Identification And Trip Information**

Block One of the Purse-Seine Logbook is similar to that of the Longline Logbook, except for the following fields.

Fish Onboard at Start of Trip is essential for reconciling differences between catches recorded on the logbook and the amount unloaded at the end of the trip. It sometimes happens that vessels transshipping or unloading at a cannery will not unload the entire catch for various reasons, such as

lack of space on the carrier vessel, different destinations for each species and/or size class, etc. In such cases, the vessel will sometimes start fishing again, prior to unloading the entire catch from the previous trip. If the amount of fish onboard at the start of the trip is not taken into account, the amount unloaded at the end of the trip will over-estimate the catch reported on the logbook for the trip in question.

Year and Trip Number are used for maintaining the logbooks in chronological order in the filing systems at OFP and in coastal states. In the instructions, it is specified that a new form, with a new trip number, should be used after each unloading, even if the unloading is incomplete.

### *Vessel Attributes*

Previous forms have included certain vessel attributes, such as gross registered tonnage, helicopter make and model, etc. However, this information is now obtained on the application form for the Regional Register maintained by the Forum Fisheries Agency. The application forms for the Regional Register must be completed by each vessel on an annual basis; therefore, changes in vessel attributes for individual vessels can be monitored.

The complete list of purse seine attributes collected on the application form for the Regional Register is as follows:

- gross registered tonnage
- vessel power
- helicopter registration number
- helicopter model
- power block net pull
- purse winch bare drum line pull
- Doppler current meter present?
- bird radar present?
- net length
- net depth
- number of auxiliary boats

The development of indices of abundance from standardised catch rates for purse seine fisheries has been hampered because of the lack of information concerning changes in vessel technology. The information listed above will hopefully resolve this problem. Since this information is now available on the Regional Register, it has not been included on the proposed form.

Further, while the use of a helicopter, or even the presence of a helicopter, may vary from trip to trip, it was considered that detailed information concerning the use of helicopters is best collected by observers, rather than on logbooks.

## **Block Two: Catches**

### *Date, Activity and Position*

The first five columns of Block Two refer to the date (Month and Day), the activity (Activity Code) and the position (Noon or Set Position).

Since the implementation of purse seine logbooks under bilateral access agreements in 1979, all logbooks have shared a common format, such that each line on the logbook in Block Two has referred to either an individual set or, for days on which no set was made, the entire day. If one or more sets are made during the day, then one line is completed for each set, with the activity code recorded on each line indicating that a set was made, and the position indicating the position of the set to the nearest minute of latitude and longitude. If no sets are made during the day, then the activity code indicates if searching occurred on that day, or that the vessel is in port.

On occasion, it has been suggested that it might be useful to modify the format, such that for each line containing information for a set, an additional line is recorded which indicates the times at which searching started and stopped prior to the set. Under such a format, the activity code would indicate 'searching', rather than 'a day searched but no sets', and there would be a start time and a stop time to indicate when searching started and stopped. There would thus be two lines used on the logbook for each set, and, for days searched but on which no set was made, one line for each period during the day when searching started and then stopped.

The proposal to include a separate line for searching information assumes that the provision of detailed information on the search time prior to each set would result in a better estimate of the catch rate, i.e. in units of metric tonnes per hour of searching time, rather than metric tonnes per day fished or searched. However, this assumption is only partially correct. For schools that are not associated with floating objects ('free-swimming' or 'unassociated' schools), the searching time prior to the set can indeed be a useful measure of fishing effort that can, in turn, be used to estimate the catch rate in units of metric tonnes per hour searched. On the other hand, for schools associated with floating objects ('log' schools, schools associated with FADs or payaos, etc), the measure of searching time is complicated because after the floating object is located, it is often marked with a radio beacon and set upon at a later time, often at dawn the next morning. Between the time the floating object is located and the time the set actually takes place, the vessel can continue searching, marking other floating objects or setting on other associated or unassociated schools. In the case of associated schools, therefore, specific information is required on the searching time prior to the location of the floating object, rather than just the searching time prior to the set. Information on the searching behaviour, i.e. whether the vessel was searching for associated schools, unassociated schools, or both, is also required.

The full information required to estimate catch rates using the searching time, for both associated and unassociated schools, is too complex to be recorded on the purse-seine logbook. Instead, searching information is best collected by observers. Observer programmes in the region continue to expand. Since complete information on searching time is too complex to be included on the logbook and since information on searching time is available from observer programmes, the format of the revised purse-seine logbook was not modified.

The activity codes on the proposed logbooks are as follows: 'A set', 'A day with searching but no sets', 'A full day not fished or searched (Please specify reason)', and 'In port (Please specify port and reason)'. Other logbooks have included codes for the reason why days were not fished, such as 'Day not fished due to breakdown', 'Day not fished due to bad weather', etc. The various codes for days not fished have not been found to be useful for research purposes; the important element is the fact that the vessel did not search for fish, rather than the reason why the vessel did not search. Therefore, only one activity code has been included in the proposed form for days not fished.

On the other hand, it can be of interest while reading a logbook to know why a vessel did not fish, even though such information has no particular research value. It has been found that the reason why the vessel did not fish has often been recorded on the logbook in a few words on the line for the day in question, in addition to the activity code. This practice has been formalised on the proposed form with the request to 'Please specify reason', which is associated with the code for a day not fished.

Previous forms have not usually included an activity code for 'In port', perhaps because it has been assumed that the vessels will only enter port at the end of the trip. However, it can happen that a vessel will enter port for a brief period during the course of a trip, for various reasons, such as to drop off injured crew, repair equipment, etc.

#### *School Association*

Several purse-seine logbooks, particularly those for the American fleet, have included information on the swimming behaviour of the school under the heading 'school type', such as 'jumper', 'breezer', 'boiler', 'foamer', etc, most of which are descriptive of tuna schools feeding on bait at the surface. At the same, 'school type' on these logbooks has also included information on the type of association exhibited by the school, i.e. 'log school', 'drifting FAD', 'anchored FAD', etc.

The research value of the two types of information, swimming behaviour versus type of association, is quite different. It has been found that catch rates, species composition, the size of the fish caught, and the amount and species composition of the by-catch are all strongly related to the type of association. Swimming behaviour, on the other hand, has not been found to be related to any of the above. In recognition of this, 'school type' has been replaced with School Association Code on the proposed form. The logbook is simpler to complete, since the fishermen do not have to consider swimming behaviour.

The school association codes distinguish between 'unassociated' and six types of 'associated' schools, with another code for 'other' associations not covered by the six types. The importance of information concerning the distribution of tuna in relation to the distribution of baitfish is recognised with a code for 'Baitfish only (no log nor raft nor animal)'.

The codes for associated schools include a distinction between live marine mammals and whale sharks, and dead marine mammals and whale sharks. It is intended that associations with dead animals be noted with the code for 'Drifting log or debris or dead animal'.

#### *Set Start Time and Set Stop Time*

The Set Start Time and Set Stop Time are used to distinguish between individual sets on a given day. Some previous logbooks have recorded 'set number' in addition to the set start and stop times, with each set during a trip numbered sequentially; however, set start time and set stop time provide sufficient information to distinguish between sets, and to relate logbook data for individual sets to observer data.

#### *Catch by Species*

Previous purse-seine logbooks have usually included the average weight for each species caught in the set, in columns next to the total amounts caught by species. However, as discussed above, the average weights recorded on logbooks have always been difficult to interpret, since quite often a wide range of

sizes is caught. With port sampling programmes well-established in the region, and with observer programmes expanding, it was considered that average weights were no longer required, thus they are not to be found on the revised purse-seine logbook.

Retained by-catch (as opposed to discarded by-catch) can be recorded under 'other' species in the Retained Catch section. The inclusion of species codes for by-catch on the form was rejected for two reasons. First, the codes would take up a large amount of space on the form. Second, past experience has shown that species names written on the form are less prone to error than using species codes.

#### *Well Numbers*

The well numbers are used by port samplers to select the wells to be sampled. Typically, the sampler will select a well that contains either a single set, or multiple sets from the same time-area stratum, such that the time and place where the fish to be sampled were caught can be identified with precision.

#### *Discards*

It has sometimes been suggested that since the fishermen have rarely filled out the Discards columns, the Discards columns should be dropped from the logbook altogether. However, it is anticipated that the provision of information on discards will increasingly be viewed as a requirement that must be enforced. The Discards columns have therefore been maintained on the proposed form.

Previous logbooks have included Discards columns of such a narrow width as to give the impression that the information on discards was of only secondary importance. The Discards columns of the proposed form have thus been given a greater width. In fact, the size of the Discards section of the form is greater than that of the Retained Catch section.

The discard codes on the proposed form apply only to tuna, and they number only three: 'Fish too small', 'Fish damaged', and 'Vessel fully loaded'. Some previous logbooks have included a fourth discard code, 'Undesirable species'. However, it can be assumed that marlin and other species are discarded because they are undesirable species, while tuna are discarded for one of the other three reasons. Therefore, the discard code only applies to tuna, and the code 'Undesirable species' has been dropped.

#### *Units of Catch and Discards*

In the past, purse-seine logbooks have denoted the units of catch and discards at the top of the catch and discards columns, either with 'mt' for metric tonnes or 'st' for short tons. The inclusion of Units of Catch and Discards, with a choice of either metric tonnes or short tons, was done so that the form could be adopted for use by American purse seiners fishing in the region.

#### *Page Total and Trip Total*

Previous forms have not included Page Total or Trip Total, although both fields are calculated and recorded on the form during data processing at SPC. They have been left shaded on the present form to indicate that their completion by a crewmember is not mandatory.

### **Block Three: Well Transfers and Unloadings**

*Well Transfers and Transfers To or From Other Purse Seiners*

The transfer of fish among wells while at sea is known to be a common occurrence for certain fleets. Unfortunately, the transfer of fish among wells complicates the task of the port samplers, who must select wells which contain fish whose time and location of capture of the fish can be identified with precision. If information on well transfers is not recorded, then the time-area stratum of fish within a particular well determined from the Block Two information alone may result in error.

It sometimes happens that a purse seiner will transfer small amounts of fish to or receive small amounts of fish from another purse seiner while at sea. The revised form allows for the recording of such transfers.

*Unloadings to Cannery, Cold Storage or Carrier Vessels*

The revised form allows for the recording of the amounts unloaded to a cannery, a cold storage or a carrier vessel. It is assumed that all unloadings take place in port. The port of unloading is specified in this section, in addition to the Port of Return in Block One, since the port of unloading (e.g. Tinian) may be different from the port of return (e.g. Guam). More than one line is available to record unloadings, since a purse seiner may unload to both a cannery and one or more carrier vessels at the end of a trip.

The information concerning unloadings that are recorded on the logbook is not meant to be used to verify the catches recorded in Block Two, since both the catch and the unloadings information recorded on the logbook will usually be provided by the same source, the vessel master or agent. Instead, the unloadings data recorded on the logbook are to be used to track the fish at the end of the trip. Knowing that the fish were delivered to a cannery and/or transshipped to a carrier vessel will make it easier to obtain the independent unloadings data from the cannery or carrier vessel, which can then be used to verify the catch data recorded on the logbook.



APPENDIX I.  
COMMENTS ON THE DRAFT LOGBOOKS DISTRIBUTED IN JANUARY 1995

American Samoa

- No response.

Australia

- No response.

Cook Islands

- “Would it be possible to incorporate actual line position i.e. start of line position and end of line position? This information could be in place of noon position.”
- “The Regional Register number should be required somewhere. The vessel name and registration etc may change, but the RR will remain the same. This will help us keep track of the vessel.”

Federated States of Micronesia

- No response.

Fiji

- No response.

French Polynesia

- No response.

Guam

- No response.

Indonesia

- No response.

Japan

- “The comments are based on views of all our parties concerned, including scientists, administrators and industry people.”
- The following comment pertains to the Pole-and-Line Logbook:
- “The new items, ‘Bigeye’ in Retained Catch and ‘Discards’, are unnecessary because there are very few instances of discards and Bigeye catches in actual pole-and-line operations.”

- The following comments pertain to the Longline Logbook:
  - “In the item ‘Activity Code’, recording various codes on types of set is required such as ‘Deep Set’, ‘Shallow Set on Full Moon’, ‘Set with Light Sticks’ or so. These descriptions are too detailed. Such detailed information is sort of confidential for each fisherman and seems to be useless for the purpose of research or enforcement. Therefore, Japan requests the SPC to unify the code 1 - 4 into only one code ‘Set’.”
  - “The columns for ‘Yellowfin’, ‘Bigeye’ and ‘Blue Marlin’ need to be wider enough to record four or five digits, because catches of these species are relatively large. Therefore, it is appropriate to narrow the columns of ‘Sea Surface Temp.’ and ‘Activity Code’ in order to widen those columns.”
- The following comments pertain to the Purse-Seine Logbook:
  - “Japan is concerned that coastal states would introduce a new access fee calculation method using the price of bigeye in sashimi market, if the new item ‘Bigeye’ is added. Since the bigeye caught in purse seine operations is being sold at very low prices just like ‘Other’ species, it is inappropriate to calculate access fees based on the prices of bigeye in sashimi market. Therefore, an addition of the item ‘Bigeye’ is not acceptable to Japan, unless every coastal state is committed to keeping the current fee calculation method which reflects the actual condition of trade.”
  - “As for the addition of the items ‘Well Number’ and ‘Well Transfer’, Japan recognizes the usefulness of these data. However, well transfer takes place so many times that: recording process will be complicated; too many logsheets will be needed only for the item ‘Well Transfer’; the contents of the different wells will be often mixed. As a result, data are likely to become unreliable. Therefore, Japan requests the SPC to reconsider the introduction of these new items.”
  - “With respect to the ‘School Association Code’, it is appropriate to add codes, ‘Birds’ and ‘Vessel’.”
- The following comments pertain to all of the logbooks:
  - In the item of ‘Activity Code’, the description of the reason for ‘in port’ or ‘not fished’ is requested. However, since it is not possible for all vessels to write in English, Japan requests the SPC to introduce codes for the reasons. Japan’s draft of these codes is attached as an annex to this document, for your reference.

Reason Code for ‘Not Fished’

- 3-1 Transit
- 3-2 Accident
- 3-3 Bad Weather
- 3-4 Other reason

Reason Code for ‘In Port’

- 4-1 Tranship the Catch
- 4-2 Drop off Sick or Injured Crew Member
- 4-3 Replenish or Repair
- 4-4 Embarkation or Disembarkation of Observers
- 4-5 Other Reason”

- “It is necessary to indicate clearly somewhere that the Greenwich Mean Time, not the local time is used as the time for these logsheets.”
- “Regarding the item of ‘Species Code’ in ‘Other’, it is appropriate to add a code of ‘Others’, because there are a small number of species other than listed in ‘Species Code’.”

#### Kiribati

- No response.

#### Marshall Islands

- No response.

#### Nauru

- No response.

#### New Caledonia

- Verbal comment that the logbooks were acceptable. The *Service territoriale de la marine marchande et des pêches maritimes* has assisted SPC with the French translation of the Longline Logbook.

#### New Zealand

- All comments received from New Zealand pertained to the Longline Logbook.
- “Within the New Zealand fishing zone a number of small fishing vessels, less than 24 metres in length, make two or three longline sets per day. Each set made by these boats is from 100 to 500 hooks with a total line length of approximately 30 to 50 nautical miles. The daily recording system presented on these [draft SPC longline] forms would break down if similar modes of operation were adopted within the South Pacific.”
- “Target species estimates require more detailed records of vessel speed, line thrower rate, and prevailing wind strength, using intended set method could be misleading. A slow line thrower rate and a fast vessel speed could force a conventional set to fish shallow and vice versa. Further more a fishing master could take advantage of strong prevailing winds to let a conventional set fish shallow. Target species should still be recorded.”

- Pattern of bait set is associated with the species targeted. Many boats use several bait types in a set, or change the bait type in the middle of a set. The small box in block one is inadequate for this purpose.”
- Given the length of the longline set, we find start of set position a better record than the noon position. Many skippers set into the prevailing wind or with it. If the line length is known along with some basic weather information a quite accurate vector of set position can be established.”
- “Using the boat registry database is a good idea to reduce block one size.”
- “Shark by catch information may be able to be used in some form by management, however number and weight of all sharks combined seems of little value. Blue whaler, Mako and Thresher should at least be recorded separately in New Zealand conditions. Perhaps a review of the South Pacific Catch Statistics from observers may shed some light on the most likely species to include.”
- “The expansion of the activity codes is a good idea. Perhaps it could be increased slightly further to make up for the inadequacy of the bait box in block one. For example,

| <u>code</u> | <u>activity</u> | <u>bait</u> |
|-------------|-----------------|-------------|
| 2a          | deep set        | squid       |
| 2b          | deep set        | lure        |
| 2c          | deep set        | mixed bait  |
| 3d          | shallow         | saury”      |

- “No information has been collected about processed state of fish retained. For example are sharks finned, trunked or both; are billfish filleted, trunked or processed another way?”

#### Northern Mariana Islands

- No response.

#### Palau

- No response.

#### Papua New Guinea

- No response.

#### People’s Republic of China

- “The item of ‘School Association Codes’ on the Purse Seine Logbook, its meaning and definition are not so clear and would be difficult for fishermen to justify and submit such data. It would be better if this column be deleted or clearly explained.”
- “The column of ‘Sea Surface Temperature’ on the Longline Logbook, we thought it would be difficult for fishermen to carry out this task, it would be better to delete this item.”

Philippines

- No response.

Republic of China (Taiwan)

- “I distributed the new log sheets to Taiwan Tuna Association (TTA) and the owners and captains of the PS and LL vessels to ask for the comments after I received your draft forms of the logbooks. Yesterday I went to Kaohsiung and had a meeting with these people I mentioned above. They express their difficulty in filling in the items ‘trip no’, ‘well no’ and ‘well transfer’. If you have any comment of this result, You can contact with Mr. Charles C.P. Lee who works for TTA. His fax number is 886-07-8313304.” A fax requesting further comments and suggestions regarding the revised purse-seine logbook was sent to Mr Lee on 15 May 1995, but no response has been received.

Republic of Korea

- No response.

Russia

- “Proposed form of purse-seine logbook include all necessary data for further analysis.”

Solomon Islands

- No response.

Tokelau

- No response.

Tonga

- No response.

Tuvalu

- No response.

United States of America

Southwest Fisheries Science Center, National Marine Fisheries Service:

- “Asking for catches in metric tonnes [on the Purse Seine Logbook] while standard for non-U.S. fisheries, would place a burden on U.S. captain’s that could lead to errors in data reporting and seems unnecessary.”
- “Knowing the transfer vessel name seems necessary to track the final landing of the logged catches and is not on your [purse-seine] form.”

- “Discard reason code for undesirable species is not on your [purse-seine] form and most marlins are discarded for this reason (your form apparently does not care about the reasons for discards of non tuna species, I guess assuming that they are all undesirable species).”
- “Having a total at the end of the page and for the trip [on the Purse Seine Logbook] is an unnecessary burden.”
- “You have left the details of helicopters off of the [purse-seine] form and these data can change for each trip. Would this be caught in the regional register data base?”
- “SST is usually collected by U.S. captains but is not on either your [purse-seine] form or the FFA [Multilateral Treaty Catch Report] form.”
- “Your instructions for filling out the forms need to be more complete. Things like times and dates need to address local versus GMT and how to handle crossing of the date line, etc.”
- “It has been our experience that coding of species has led to errors. Captains seem more prone to spelling the species out if needed.”
- “There are some other types of information collected from some of our longline fisheries that are not on your form; 1) light stick colors used in each set, 2) bait use may be more than one type and different by set, 3) gear deployment statistics such as direction, 4) ganglion line length, 5) gear material (steel, mono, cotton, etc. 6) hook types used, 7) hook sizes used, 8) set start and finish times, 9) haul start and finish times.”

Honolulu Laboratory, National Marine Fisheries Service:

- The following comments pertain to the Longline Logbook:
- “From our point of view, the SPC form is a ‘monthly fishing vessel activity log’ more than a ‘logbook’. The differences are that you anticipate vessel captains transferring data (very carefully, given the small space provided) from their vessel records and that detailed fishing effort information is common for the entire month. Our logbooks are daily sheets which provide records of detailed fishing effort information as well as anticipating that the captains will write information directly onto the log form. Our scientists believe that there is sufficient change in fishing effort on a daily basis that this level of resolution is appropriate. Your monthly format also limits some level of detail that might be desired on other data items.

“That said, there is relatively little difference in the types of information the two forms collect. I for one appreciate that your log provides truly daily information whether the vessel fished or not, and that there are activity codes for different types of fishing. I do have reservations about some of those codes (e.g., what is a ‘conventional’ set?), but they provide more information than our logs. I suppose our ‘Target Species’ may be a facsimile of some of your activity codes. I also appreciate your logs having dates and ports of departure and arrival.

“Aside from the fact that your logs do not collect detailed daily effort information as ours (number of hooks between floats, length of mainline used, lightsticks, etc.), your logs also only

collect one position per day and do not specify the time or duration of actual fishing. They also do not include information on weather conditions (wind speed, wave height, etc.).

“Your logs require estimates of landed weight of fish (Kg Ret) while ours do not. We rely on observers and landings reports for weight information. However we are incorporating similar information into a joint State of Hawaii - NMFS logbook program for the Northwestern Hawaiian Islands (NWHI) bottomfish fishery. From our perspective, however, we would have included KgRet for swordfish, striped marlin, and blue marlin which are also important target species here, either for the longline fishery or the troll fishery.

“We require a higher level of species resolution than you do, with particular species being of more importance presumably in Hawaii than in the South Pacific (e.g., mahimahi and species of sharks). However if fishing vessel captains capture this information in your species 1, 2, 3 categories (and only three ‘secondary’ or other species), then the information is equivalent.

“As you know, identification of interactions with protected species is very important in the United States. Hence we have a separate section on the log for such information. A viable alternative (given your format) might be to have a separate protected species interaction log.”

Pelagic Fishery Research Program, University of Hawaii:

- “Generally, I think the revisions made by OFP staff on simplifying the logbooks are excellent and I hope they are adopted without difficulty. I fully agree that most of the detailed effort information can be collected by trained observers, leaving the Catch & Effort logbooks for basic reporting.”
  - The following comments pertain to the Purse-Seine Logbook:
  - “The quantification of searching effort is further confounded by the use of ‘bird radar’ which is very effective and sometimes used in lieu of actual observers with binoculars. This just adds to your argument that searching times by school association are too complex and inappropriate for logsheets, and should be left to observers.”
  - “I strongly support the inclusion of a subdivision of the ‘unassociated’ school code [to distinguish feeding from non-feeding schools] for a number of reasons. By anecdotal and direct observation, the importance of foraging by tuna on pelagic baitfish stocks to the western Pacific purse seine and pole-and-line fisheries is strongly evident. The relative amount of surface forage may have significant influences on CPUE for both fisheries, i.e. increase for purse seine and decrease for pole-and-line.
- “Years of data on purse seine catch and effort logs give no hint as to whether seining activity took place on feeding schools, or just breezing (inactive) schools, which is a pity. However, this information can be partially inferred from many logbooks if the categories of ‘splasher, boiler, foamer’ are listed which equate to a feeding school. However, the ‘breezer, rippler, jumper’ categories are not definitive, and can either describe feeding or non-feeding schools.

“The revised purse seine logbook drops all mention of school appearance (breezer, boiler, etc) which is good, as this information is not really relevant to fishery science. However, if we drop

these categories, then the importance of a listing for ‘unassociated-feeding’ vs ‘unassociated-non feeding’ is heightened.

“The topic of large-scale oceanographic influences on purse seine activity is finally becoming addressed in fisheries studies, including work by the US NMFS. The NMFS Southwest Fisheries Science Center in Honolulu has recently gone through a restructuring that put Dr Jeff Polovina in charge of a new section titled ‘Ecosystem and Environment’. He is keenly interested in looking at the effect of large-scale productivity on pelagic fisheries and is collaborating with John Hampton and Patrick Lehodey on this subject. He supports the inclusion of a ‘feeding school’ category on logsheets which give empirical evidence of productive oceanic zones.

“[The draft Internal Report] rejects the inclusion of an ‘unassociated, feeding’ category on logsheets due to a perceived burdensome level of complexity to industry. However, it is my personal experience and feeling that purse seine fishermen normally make this distinction already and are keenly aware of the importance of baitfish to their fishing success. The one Japanese seiner I made an observer trip on normally logged baitfish associated schools separate from other categories.

“The categories of ‘unassociated - not feeding’ and ‘unassociated, feeding’ are a bit confusing, as I think that large areas of boiling tuna schools that you run across in the western Pacific are there because of the baitfish, and are therefore ‘baitfish associated’ rather than ‘unassociated, feeding’. It is a semantic difference that can confuse fishermen.

“Also, tuna schools on a baitfish school often alternate between boiling, foaming, breezing, etc within a ten minute span, which has given observers fits when trying to categorize the school (another reason to drop those terms). When breezing, they may not have been actually feeding, but the school was still ‘baitfish associated’ in my opinion.

“Instead, I propose the categories highlight the fact that baitfish are be a real association type and ‘unassociated’ refer to schools that are really on their own.

“Therefore, I support the idea of the following School Association Codes:

- 1 Unassociated free school
- 2 Baitfish associated
- 3 Drifting log or debris or dead animal
- 4 Drifting raft or FAD or payao
- 5 Anchored raft or FAD or payao
- 6 Live marine mammal
- 7 Live whale shark or ray
- 8 Other”

· “For FFA and MMA observers, Set Stop Time refers to the time the skiff is retrieved, not when the net was retrieved, which may be taken to be the time the net is hauled prior to brailing.”

· “A discard code for ‘other’ and/or ‘undesirable species’ should be included as these categories will arise often with bycatch species.”

- “I support the inclusion of Species Codes for Wahoo and Dolphinfish due to their importance in other fisheries and to be consistent with the Longline Logbook. Whale shark should also be included to help document whale shark interaction.”
- “It would help to put in some bold vertical lines or double lines in a few places to ease filling out, such as on the outside of the ‘Retained Catch’ column or to set off the ‘Discards’ group. Alternately, the ‘Well Numbers’ column could be shaded slightly to break up the form.”
- The following comments pertain to the Longline Logbook:
- “Include field for live vs dead bait?”
- “The terminology ‘conventional set’ vs ‘deep set’ may be confusing if a vessel normally or conventionally sets deep, as many regional longliners do. Is there another, more definitive way to describe these set types?”
- “When I look at longline data, one of my biggest questions of fishing method is whether the lines are set and soak (i.e. fish) primarily during the day or night. However, this is not always easy to discern for someone who is not familiar with each longline fishery. Is there any way to easily incorporate this information on the logsheet?”
- “Sharks are usually finned, and I think some confusion will result if you have a ‘No retained’ vs ‘No Discarded’ column for sharks — that is, are finned sharks retained or discarded? Can you fit in three columns, i.e. ‘Ret for sale’ and ‘Finned/Discarded’ categories.”
- “It may be advisable to include in the Species Codes, the Breams, Taractcithys sp. and Brama brama, as they are sometimes retained as catch, and may become important to future fisheries, as we heard at the Brisbane observer workshop from AFMA representatives. Taractcithys are definitely retained and marketed in Hawaii from the Honolulu based longline fishery. Barracuda are also common enough in the catch to be listed, perhaps in preference to Rainbow Runner?”

#### Forum Fisheries Agency

- All comments received from FFA pertained to the Purse Seine Logbook.
- “**Form Instructions.** As the forms are trip based and much of the data relies on the definition of a trip. It is widely accepted that the end of a trip is to be any activities up to an unloading whether partial or complete, however this should be made clear in the form instructions or at negotiations? It may be worth looking at using the back page for codes and putting unloading data at the bottom of the form. Many of the instructions are redundant ie *Name of Vessel*: Print the full name of the fishing vessel.”
- “**Unloading Data.** The data associated with a trip includes the quantity of fish caught, how much was retained and how much discarded and finally how much was loaded. The unloading data is an integral part of the vessels trip data and should be collected together with the catch data. It is observer programmes and port sampling that should be used to *verify* this data but the data should still be recorded by the vessel master.”

- “**All time reports in GMT.** If all reports are in GMT, it is straightforward to convert to a local time. The reverse is not quite true since there is an element of uncertainty as to which time zone the reports are for.”
- “**Time of departure to be included for each activity.** This includes start and end of trip.”
- “**Noon Reports.** If reporting in GMT should the noon report be altered to a 0:00 hours report which would mean a daytime report and similar to historical data or should the vessels have a nightly report?”
- “**Set Stop Time.** The set stop time is used to calculate the time spent making a set. The potential for confusion here lies in if a set is made at the end of a day and the stop time is the following day. A check must be made to determine this before the duration can be calculated. A quick solution here is to record the start time of the activity and then simply the duration of the activity.”
- “**Registration Number.** With national authorities having a vessel register, FFA having a vessel register and DWFN’s having their own registration there is the possibility of confusion. Flag or Country of Registration Number on the form is more explicit.”
- “**Page Numbers.** The page numbers of the logsheet is useful for collating logsheets for one trip. To have the ability to enter Page 1 of 3 is a quick visual check to see if all the logsheets are together.”
- “**Weight of Catch Retained vs Discard.** On the form the columns specify Metric Tonnes as a heading and MT as a heading. This should be a consistent format - possibly (mt)?”
- “**Form Overall.**
  - The removal of unnecessary data items is a positive step. FFA should try and use these forms for the RFA if possible but we would have to have the unloadings data.
  - Is it acceptable for the agents to be completing the logsheets?
  - Why South Pacific Commission in the heading? This could be misleading under RFA and UST where the forms have to come back to FFA.
  - A comment was made to include Inmarsat No on the form for communication of queries relating to the form. This item should probably be recorded when the vessel registers.”

#### Vanuatu

- No response.

#### Western Samoa

- No response.



APPENDIX II  
1995 REVISION OF THE SOUTH PACIFIC REGIONAL LOGBOOKS

SOUTH PACIFIC REGIONAL LONGLINE LOGBOOK

SOUTH PACIFIC REGIONAL POLE-AND-LINE LOGBOOK

SOUTH PACIFIC REGIONAL PURSE-SEINE LOGBOOK