

# Fork length

## Newsletter

The Monitoring Newsletter  
for the Tuna Fisheries of the Western and Central Pacific Ocean — Issue #7 — November 2007

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(This edition is also available on the Oceanic Fisheries Programme website at: <http://www.spc.int/OceanFish/Docs/Statistics/index.asp>).  
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Welcome to another edition of *Fork Length*. We have broadened Fork Length's focus to include the many different aspects of the work that contributes to the proper scientific monitoring of oceanic species in the western and central Pacific Ocean. The newsletter will no longer be confined to the work of shipboard observers and port samplers, but will now include articles on all aspects of the oceanic fisheries data system, including collecting and managing information as well as reporting.

In future editions we'll review the different data types that make up a comprehensive tuna data system. To get things started, this edition includes an article on unloadings data, which are recorded by industry and help to verify catch and effort information (i.e. logsheets). Unfortunately, the collection of unloadings data needs to be improved, especially for some of the domestic longline fleets. In an effort to bring attention to the problem, we look at some of the uses of these data and discuss how they can be collected.

The article on page 10 describes how the national monitoring programme in the Marshall Islands have tackled the responsibilities of meeting both their national and regional data obligations. They have addressed earlier problems and are now producing great results. If you've ever wondered how other programmes in the region go about their work, take some time out to read about how things are done in Micronesia.

We've tried to provide something for everyone — whether you're sampling, collecting information from industry or other sources, or have been tasked with either managing or reporting on the data that your national fishery offices collect. Don't miss our first-ever photography competition for observers and port samplers. The prize is a generous one, and details of the competition can be found on page 7.

Enjoy *Fork Length*!



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## DATA COLLECTION

### Industry data

#### UNLOADINGS DATA: WHAT IS IT?

Some data provide information about individual fish. Other data are collected to provide information about what is happening on a larger scale. One important data type — unloadings data — shows the total weight of each fish species taken off the vessel following each fishing trip. Longline unloadings data also show the total *number* of fish that were unloaded.

There are other terms for unloadings data; the most common is transshipment data. The definitions given by the Merriam-Webster online dictionary offer some insight into how these terms differ. **Unload** — "...to take off; deliver (2): to take the cargo from ...". **Transship** — "...to transfer for further transportation from one ship to another..." It may be helpful to see transshipment (vessel to vessel whether at sea or in port) as a subset of unloadings. The Western and Central Pacific Fisheries Commission (WCPFC) considers the unloading process to be something that takes place between a fishing vessel and either one or several carrier vessels, fishing vessels or unloading facilities, which will process or further dispatch the catch. These terms are likely to evolve, especially as WCPFC focuses its attention on improving transshipment procedures.

#### Why is it collected?

Unloadings data are required for each fishing trip operating in the region (that is, 100% coverage is required). The true value of unloadings data is that it can be used to validate other data types, especially logsheet information. It also has the potential to be more accurate than logsheet data. At least two parties have an interest in ensuring that unloadings data are accurate — the fisher or vessel operator who doesn't want to be paid too little, and the buyer or fish processor who doesn't want to pay too much. The needs of both parties help ensure that accurate data are recorded. Furthermore, the regionally agreed ban on high-seas transshipment gives better access to unloading vessels, allowing national fisheries staff access to cross-check and verify the unloading information in a way that isn't possible for catch and effort data. Collecting unloadings data can also help to highlight vessels that are not currently providing logsheets, which in turn has the potential to shed light on any illegal, unreported and unregulated (IUU) vessels.

#### How is it collected?

Unloadings data should be collected for all gear types (i.e. longline, purse seine and pole-and-line), but the approach to recording and collecting the data may be different. For longliners the fishing company generally records the actual measured weight of *each individual tuna* during the packing process. This information — the individual weights of exported fish — is also known as "Packing List Data". The fishing company collects this information for their own purposes so it should be readily available. The main challenge with longline unloadings data is *ensuring that every fish that was unloaded is accounted for*. This is especially true for fish that are not immediately exported after unloading, but may be marketed differently (i.e. sent to a cannery, the local fish market, or taken home by the crew). There are two regional standard unloadings forms for recording unloadings information: the standard longline unloadings form and the longline unloadings destination form. The longline unloadings destination allows coastal states to collect economic statistics, which is often a national data reporting requirement.

The transient and sporadic nature of purse-seine vessel unloadings can test the data collection procedures in port state fisheries divisions; data collectors must be organised and ready to go as soon as the first vessels arrive in port. Generally, purse-seine unloadings data are supplied to fisheries departments by the carrier vessel (through its agent), or during the final clearance before exiting. A standard regional purse-seine unloadings form



Unloading purse-seine catch

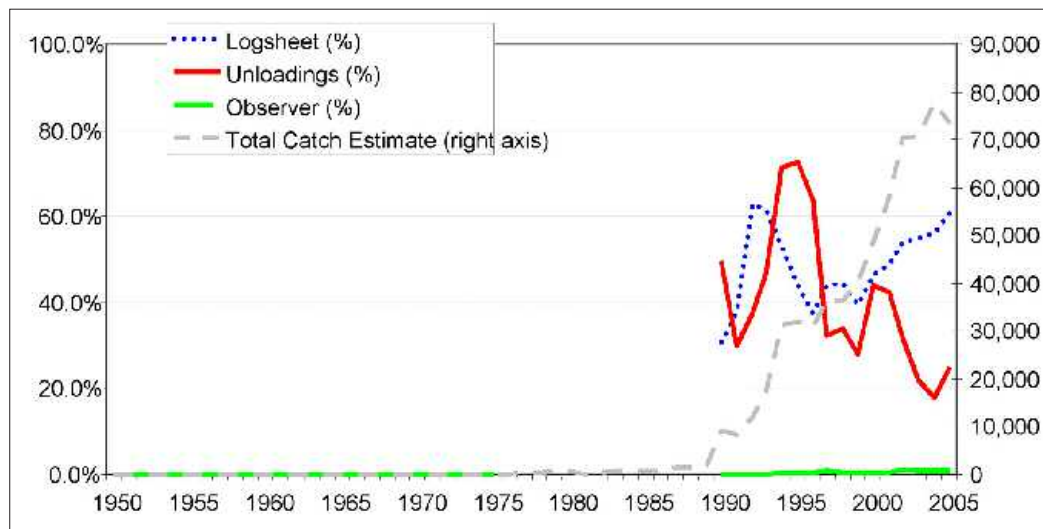
formatted by the data collection committee (DCC) is available online, along with other regional forms:

<http://www.spc.int/oceanfish/Html/Statistics/Forms/index.htm>

But, it remains common for carrier vessels to submit a "mate's receipt" when asked for unloadings information. While it is always better to work towards collecting the data using the standard form — this ensures all necessary information, as revised and reviewed by the DCC, is collected — the mate's receipt does provide much of the required unloadings information. Finally, pole-and-line regional unloadings forms are also available and are used mostly by the domestic pole-and-line fleet in the Solomon Islands.

### How well are we doing?

The longline unloadings coverage remains low, especially for the domestic longline fleet (see graph below). Much work still needs to be done in Pacific Island countries to improve the coverage of unloadings data. WCPFC, through its Scientific and Technical and Compliance committees, is currently reviewing the use, purpose and need for unloadings and transshipment data, and it is expected that unloadings data will become a WCPFC data obligation in the near future.



Data coverage for domestic longline fleets

### Sampling data

#### • BIOLOGY OF STRIPED MARLIN

by R. Keller Kopf\*

Since 2006, observers throughout the southwest Pacific have collected samples — from 268 striped marlin — for age, growth, and reproductive studies. The project is aimed at determining the location and timing of spawning, age-at-maturity, size-at-age, and annual growth rates of striped marlin in the southwest Pacific. Sample collections were initiated in New Zealand and Australia but have expanded into the tropical Pacific with the assistance of SPC and longline observers in New Caledonia and Fiji.

Samples from New Caledonia and Fiji have been particularly important because they include rarely seen juvenile striped marlin and also spawning females. A big thank you goes to the Fijian observer programme (which have been vital to the project's success) for its focused efforts on collecting young striped marlin.

Preliminary data suggest that striped marlin spawn near 25°S from September through January, and the species may live beyond 12 years of age. Project sampling will continue through 2008, so please contact Keller Kopf or [observer@spc.int](mailto:observer@spc.int) if you are interested in helping. T-shirts and other awards are available.

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**Cross-section of dorsal fin, spine number 5 from a 106 kg female striped marlin. Note the three clearly visible bands on the outer edge of the spine.**

## Observer stomach sampling identifies new squid species

Observers from around the region have been asked to help with sampling stomachs from mainly tuna, but also other fish. Stomach samples help scientists understand more about what fish eat, how they behave and the oceanographic environments they prefer. By collecting stomach samples from mainly tuna, but also other pelagic species, observers can help scientists explore what types of things tuna eat, how much they eat and how they and other pelagic species interact. In this article we look at one pelagic species that lives in the same environment as tuna and often interacts with it. While the stomach samples from this fish are revealing interesting results, observers are reminded that scientists require samples from all species, especially tuna, so that they can gain a better knowledge of how species that inhabit the same pelagic ecosystem as tuna interact.

It may not be the prettiest species you'll ever encounter on a longline vessel, but the lancetfish (*Alepisaurus* sp.) may turn out to be the most interesting. Examination of the stomach contents of a number of lancetfish has brought important information to light. Surprisingly, the prey ingested during feeding can be found whole and intact inside these stomachs, having suffered no significant damage from the digestion process, which takes place mostly in the intestines. These lightly digested prey are easier for scientists to identify, especially when compared with the more heavily digested stomach contents seen in other pelagic species such as tuna. The stomach samples taken from lancetfish are now being used as "reference prey", meaning they can help scientists to identify similar but more extensively damaged prey found in the stomachs of other

fish. In this indirect manner, lancetfish are helping to improve our knowledge of the diet of tuna and other commercial pelagic species.

Lancetfish stomach contents have also helped to shed light on some of the remote and more inaccessible areas of the ocean. The lancetfish's abil-



**Top: Lancet fish stomach contents showing juvenile reef fish**

**Bottom: A new squid species. Family Sepiolidae**  
Photo: R. Young

ity to consume and retain prey from these out-of-the-way areas has recently led to the discovery of new species. The stomach of a lancetfish collected by Charles Cuewapuru when fishing in New Caledonian waters contained three whole, well-preserved squids that lab assistants could not identify. After consultation with a squid expert in Hawaii, it was found that these are new species previously unknown to science. Countless more unknown marine species are present in the ocean, and stomach sampling is proving to be one way of collecting these species. Just as importantly, lancetfish stomachs also capture the fragile and soft juvenile stages of many of the common marine species, including pelagic and reef fishes. This is crucial information that will help improve our knowledge of commercial species.

The last lancetfish secret to be revealed is the pleasure they seem to get from eating their mates! It's not uncommon for lab technicians at SPC's stomach sampling laboratory to find lancetfish inside lancetfish inside other lancet fish.

Please continue to collect and ship more stomach samples. Stomach sampling kits are available from SPC and a financial reward is given for each

sample received. More information is available from your observer coordinator. Perhaps your stomach sample will be the next one to reveal a new species to the world!



**A selection of stomach contents taken from a lancetfish**

### Summary of stomach sampling to date

Observer Programme	Number sampled and at SPC	Number examined, entered in the database	Number that need to be examined	Number sampled and not yet received at SPC
Cook Islands	34		34	
French Polynesia	105	67	38	
FSM	51		81	30*
New Caledonia	60		60	
SPC <sup>1</sup>	2275	307	1968	
Samoa	13		13	
Fiji			100	100*
<b>Total</b>	<b>2538</b>	<b>374</b>	<b>2294</b>	<b>130</b>

<sup>1</sup>PNG tagging trip

\*Rec'd Oct' 07

## Species Identification manual published

The introduction of the "Marine Species Identification Manual for Horizontal Longline Fishermen" was a great step forward for tuna data collection. It is a high quality document with professionally painted fish pictures (the majority done by Hawaiian artist Les Hata, see photo).

The manual includes all of the major pelagic species that interact with longline vessels in the Pacific area. Each page of the manual shows a painting, the 3-letter FAO species code, a line diagram with the main identification features, as well as the common

name in four different languages. The manual has been distributed to both observers and domestic longline vessels in the Pacific, and has helped to improve the collection of information recorded on both logsheets and observer forms.



The publication was a collaborative effort by many people, with the outstanding contribution being made by the hard working at-sea observers. The information collected by a multitude of observers over a number of years was used to define the list of species included in the manual. If you're an at-sea observer and have recorded information or taken photographs on the type of species that interact with longline vessels, your work is included in this publication.

**Your contribution is both acknowledged and appreciated — thank you!**

### USING THE MANUAL

Some species in the manual are only described to the group code level (that is a collection of similar fish, or fish from the same scientific family). Group codes are helpful when the full species code is not known or cannot be established. It is not always possible to fully identify a species. This may happen if there has not been enough time to see the species, if it was struck off before it was landed or had some identification features removed (i.e. cut or bitten off). Group codes are also effective if an observer does not have enough experience to fully recognise the species.

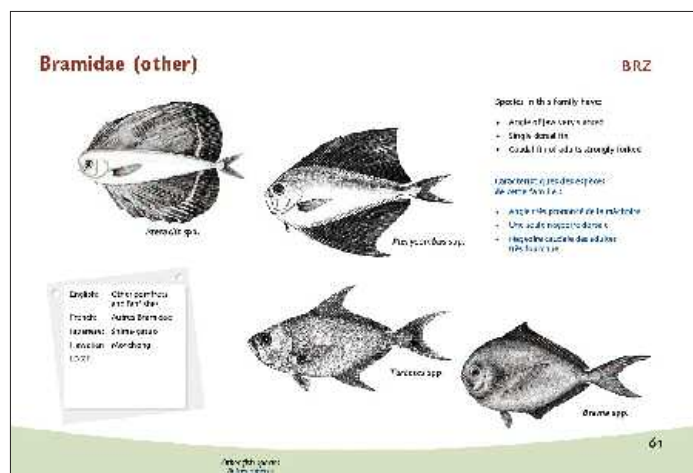
If it's not possible to record a full species code then try to record a group code. Whenever possible, avoid recording only the very basic species code UNS — (unspecified species), as this gives very little information. However, there will be times when the UNS species code will be the only one that is appropriate to use. If you do record UNS or group species codes, try to provide a further description of the species by doing one of the following:

- 1) Taking some photographs of the specimen.
- 2) Bringing the specimen or parts of the specimen back to shore for further identification.
- 3) Drawing the species and writing a full description in the written report. Don't shy away from this - you may be surprised how revealing your drawing can be even if you have no faith in yourself as an artist. With this information your debriefer and/or national coordinator may be able to help you establish the full species name.

Some of the "rarer" species that will be encountered periodically on longline vessels may not be pelagic (open ocean) species but rather deepwater

### Useful Group Codes

<b>BIL</b>	Billfish
<b>MAR</b>	Marlin
<b>MAM</b>	Marine Mammals
<b>DLP</b>	Dolphins
<b>ODN</b>	Toothed whales
<b>MYS</b>	Baleen whales
<b>WLE</b>	Whales
<b>TTX</b>	Turtles
<b>RMV</b>	Manta and Devil Rays
<b>BIZ</b>	Birds
<b>SKH</b>	Sharks
<b>SPN</b>	Hammerhead sharks
<b>THR</b>	Thresher sharks
<b>ALI</b>	Lancetfish
<b>MOP</b>	Sunfish
<b>TRP</b>	Dealfish



The group code BRZ (for pomfrets and other fan fishes) is described in the longline species manual.



**Flying gurnard**



or bottom dwelling (benthic) species that have gone astray. These non-pelagic species are not available in the longline species manual, but many will be described in the soon-to-be-published SPC deepwater species guides. An example of a benthic species that recently interacted with a longline vessel is this flying gurnard (*Dactyloptena orientalis*), which was observed by Steve Beverly.

Observers in some national programmes may encounter more deepwater species than others, especially if their vessels regularly fish close to seamounts. Try to identify all rare species. Each national observer programme should aim to build up a reference folder showing the rarer species that have been encountered. This will help when it comes to training both the active observers and any new observers to join the team in later years.

## Photography competition

*Photographs taken by observers were found to be useful when compiling the identification manual. It is also helpful to have good photographs for training purposes, and for enhancing publications and reports on observer work. To encourage observers to take more photographs SPC & FFA are running a photo competition for field staff (observers and port samplers), with three digital cameras offered as the main prizes. There will be more than one chance to win, as the competition will be repeated in the future, but the subject topic will be different. You can see the full details of the first competition on page 8.*

### Some tips for taking photos at sea

- Keep the sun behind you;
- Avoid taking photos in the mid-day sun;
- Watch out for shadows (especially your own) covering the fish. Bright cloudy days are best for photography. Otherwise, it is best to take the photo in full shade with a flash or in full sun without a flash. Avoid taking pictures in half sun, half shade;
- Use a contrasting background. Blue and green tarpaulins are recommended and a pile of netting is great if it is not the same colour as the fish;
- Allow for some space around the fish if using a disposable camera (the viewer is somewhat misleading). Whenever possible, focus in as close to the object as possible, so that there are no other distracting objects in the frame;
- Try to take as many photos as you can. Take them from different angles as well as close-ups so that later on you will have a choice of photos to pick from. You may only end up with one or two good photographs even though you take 10 or more. Even professional photographers throw away more than 90% of their photos;
- Ideally, a ruler should be placed in the photo so the size of the fish can be gauged. If you have no ruler then place a well-known object such as a cigarette pack or pencil so that the fish size can easily be compared;
- If possible, place a label with information about date, time position, etc., near enough to the photographed object for it to appear in the photo. But not somewhere that gets in the way or distracts from the main subject of the photo;
- The international convention is that fish are placed with their head to the left of the photograph.

## RULES AND REGULATIONS

1. Photographs of the following three subjects can be submitted:
  - Tuna — A single photo or a series of photos (three maximum)
  - Billfish — A single photo or a series of photos (three maximum)
  - Purse-seine brailing—A single picture or a series of pictures (five maximum);
2. A single photograph or a sequence of pictures of the same subject will make up one competition entry. A maximum of three pictures for each entry can be submitted for tuna and billfish, and a maximum of five for purse-seine brailing;
3. The participant (the photographer) must have completed an FFA/SPC basic observer training course or be a recognised SPC port sampler;
4. Entries will be judged for both clarity and artistic value. The intention of the competition is to generate good photographs for training purposes and possibly fishery reports. Participants should keep this in mind when taking their photographs;
5. A participant can submit up to three entries per competition. Any person found to be submitting more than three entries will be disqualified from the current and future competitions;
6. The photograph can be either a digital or a hardcopy photograph. Digital photos must be at least 300 dpi;
7. All photographs must be submitted to SPC by 1 April 2008 (date of the email for electronic submissions and the date of postmark for standard photographs sent in the mail). Observer coordinators are asked to assist competitors in sending email entries to [obsphotocomp@webmail.spc.int](mailto:obsphotocomp@webmail.spc.int);
8. All entries must be marked with the "name of the subject/name of the participant" (e.g. Tuna/Dike Poznanski). That is the file name for electronic entries, or should be marked on the back of the photograph for hard copy entries);
9. All entries must come with a completed competition entry form, signed by the national or sub-regional observer coordinator. (Competition entry forms will be available from observer coordinators and are always available by request from [observer@spc.int](mailto:observer@spc.int));
10. In the unlikely event that none of the submitted photographs are thought to merit the prize it will be held over and added to the next photographic competition;
11. Only photographs taken during 2007 and up until 31 March 2008 should be submitted;
12. Photographs that have been previously submitted to SPC/FFA will not be considered;
13. A shortlist of the top 20 entries for each subject will be selected by the Statistics Section of SPC and the Observer Programme of FFA. The winning photographs will be selected from the shortlist by an invited judge;
14. One digital camera will be offered for what is judged to be the best photograph or series of photographs in each subject area;
15. The judgement of SPC and FFA will be final;
16. Winners will be announced in the next (8th) edition of the *Fork Length* newsletter and/or by email to national observer coordinators on 1 June 2008;
17. All submitted photographs remain the property of SPC and FFA and will not be returned at the end of the competition. Should the photograph be used in future SPC/FFA publications, acknowledgement to the photographer will be given;
18. The digital camera prize will have a maximum value of USD 200. The make and model of the camera will be chosen by SPC and announced with the result of the competition. SPC will not replace the digital camera prize with an equivalent monetary amount. T-shirts and caps may also be given as runner-up prizes.





## Time Out: Questions and answers with Fijian port samplers

- How many trained port samplers are there in Fiji?  
*There is a team of 10 trained port samplers. The samplers also work as at-sea observers and take up the port sampling work when not observing.*
- How many unloading ports are there in Fiji?  
*There are four: Main port, Muaiwalu Jetty, Fiji Fish Jetty (all in Suva) and Levuka on Ovalau Island.*
- How do you get to the port of unloading?  
*Transport is provided from the port samplers' homes to the unloading port by the Ministry of Fisheries.*
- What type of vessels do you sample?  
*Offshore longline vessels, distant-water long-line vessels and some purse-seine vessels that call into Levuka.*
- What is the target coverage level?  
*20%.*
- How many days a week is port sampling done?  
*three to four days.*
- How many vessels are sampled during a day?  
*Usually between one and three.*
- Do you use callipers or measuring tapes to measure fish?  
*Aluminium callipers.*
- Where are the callipers stored?  
*At the unloading port.*
- Is the vessel's hold checked?  
*Yes, always.*
- Do you have anything to share with other port samplers in the region?  
*Always be at the port before the vessel starts to unload. Be careful with the length measurement and species code, and bring your species identification manual with you every time.*



Fijian port samplers Eroni Bautani and Sailosi Naiteqe take time out.

## DATA MANAGEMENT

### The Marshall Islands Oceanic Monitoring Programme

*with Manasseh Avicks, Dike Poznanski and Berry Muller*



A full-time team of eight staff and 20 contract samplers are employed in the oceanic division of the Marshall Islands Marine Resources Authority (MIMRA). The team work to ensure that the Republic of the Marshall Islands (RMI) fulfils its flag, coastal and port state data provision responsibilities to the Western and Central Pacific Fisheries Commission (WCPFC), while keeping in mind their own national data needs as established by the RMI's 1997 Marine Resources Act. This work is achieved alongside their reporting and compliance roles. Sam Bati (Deputy Director), Xavier Myazoe (Deputy Chief Licensing Officer), Berry Muller (Chief Oceanic Officer), Slam Kalen (Assistant Licensing Officer), Manasseh Avicks (Observer Coordinator) and Dike Poznanski (Assistant Observer Coordinator) are all

involved. From their office in Majuro, the staff monitors a national fleet of five Marshallese purse-seine vessels (that landed 41,000 metric tonnes of tuna in 2006)<sup>1</sup> and 223 foreign-licensed vessels (that caught 12,919 metric tonnes of tuna in the Marshall Islands' exclusive economic zone — EEZ — during 2006). They also oversaw approximately 750 longline unloadings and 100 purse-seine unloadings in 2006 as part of their port state responsibilities.

A first-time visitor to MIMRA is struck by how close their offices are to the action. Situated on an islet within the atoll, their workplace is only steps away from the unloading port, with locally based foreign longliner vessels unloading their fish almost on MIMRA's doorstep. These longliners have links to China and the Federated States of Micronesia (FSM), and appear at the local "fish base" approximately every 10 days, eager to



**MIMRA staff, from left to right and top to bottom: Xavier, Berry, Eminra, Slam, Motelang, James and Manasseh. (Dike is on the back page)**



<sup>1</sup>. Data from Annual Report — Part I Information on Fisheries, Research, and Statistics — Republic of the Marshall Islands presented to WCPFC — SC3.

unload their catch of large bigeye and yellowfin tunas, which will be air-freighted to Japan for the sashimi market. Despite the proximity of the main office to the longline unloading port, MIMRA made the decision to appoint and permanently locate a new Port Sampler Supervisor (James Elio) at the base. His presence has already had a noticeable effect on the collection of data from this locally based fleet. James has built a relationship with the fishing agents and his presence is a daily reminder to them of their reporting requirements. This Marshallese initiative is one that other countries in the region could consider. James, in cooperation with the Port Sampling Assistant (Lomodro Jobas), collects the longline logsheets from either the fishing captain or the fleet manager before the vessel unloads its catch.

This team, supported by the port samplers, then proceeds to sample 100% of the vessels that unload, and 100% of the fish that are unloaded. In fact, while the regional target for port sampling coverage is 20%, MIMRA has shown their initiative and set a national target of 100% coverage. Their motives are to improve data collection, to better capture data discrepancies, and to highlight any illegal, unreported and unregulated fishing (IUU) vessels. Unloading is synchronised with the commercial airline schedule, so the aluminium callipers are put to work on most Mondays, Wednesdays and Fridays. It's a full day's commitment from the team (08:00 h to 17:00 h) and may extend to a 12-hour day if the fish are really biting.

The collection of logsheet and port sampling data is complemented by the collection of unloadings data. While the regional standard longline unloadings form is in use, the collection method is somewhat unique. The data are recorded electronically by the local fishing agent, and the MS Excel file is then forwarded by the agent to MIMRA via email. Finally, with the help of SPC the information is imported directly into the tuna fisheries database (TUFMAN). Even though the data are recorded electronically, the benefit of having an on-site staff member to remind fleet managers to send their Excel files in a timely manner can't be underestimated. James is also responsible for completing the Fishing Trip and Port Visit Log for the locally based fleet. These data are used as baseline information and help ensure that RMI achieves full coverage for coverage for logsheet, unloadings and port sampling data.

The Marshall Islands strongly enforces the regional ban on transshipment at sea, while actively encouraging the transient purse-seine fleet to unload in Majuro to allow some of the positive economic benefits to flow to the local community. The re-opening of the local loining plant in October 2007 will also ensure that purse-seine unloading will continue in the future. It's easy for locals to follow the movements of the purse seiners as they make their way in and out of the main lagoon to unload. At night their presence is even more obvious, as the bright deck and cabin lights light up the lagoon. While local residents may be generally aware of the vessels' movements, MIMRA staff carefully monitor all



Longline boats line up at the “fishbase” in Marshall Islands



licensed vessels from the moment they move into the EEZ. Following mandatory reporting by telex, a vessel's arrival into the port of Majuro is clearly marked on the large office whiteboard that dominates the oceanic division office. Despite a strong computing environment, the office whiteboard remains the method of choice to ensure the whole team is aware of which vessels are in port, and which tasks need to be completed. Vessels full with fish and eager to unload are first met by port inspection officers, who carry out national boarding procedures using the locally created boarding checklist form. This work is carried out by the licensing team with support from experienced observers.

Purse seiners moor a short distance away from the "fish base". Transport to the vessels is provided by vessel skiffs during unloading hours (07:00 hrs - 22:00 hrs). Port samplers (who are locally known and legally referred to in RMI as observers) are assigned to every unloading purse-seine vessel, unless the vessel has been sampled by an at-sea observer. Length-frequency sampling is in keeping with the regional norm of 20% coverage, and regional standard purse-seine port sampling forms are used. A national monitoring form (the Purse Seine to Carrier Report Form) tallies the net movements and highlights any discrepancies between the vessel unloading tonnages and those of the MIMRA observer. The vessel unloading tonnages are recorded by the vessel on their mate's receipt, and these are collected by the sampling observer or the port inspection officer.

More detailed fishery information is collected by the observer programme. The Marshall Islands has a strong and growing national observer programme, and it may be the only place in the Pacific where the current Director of Fisheries has actually carried out an observer trip. This insight and MIMRA's acceptance of the benefits of a national observer programme along with their adherence to the regional observer policy has helped them develop a strong observer programme that meets national needs and fulfils regional obligations.



**Majuro's busy lagoon (top)**  
**MIMRA's Director Glen Joseph on board**  
**the F/V Zhong Yuan Yu 944 (bottom)**

Although established in 1995, the national observer programme became effective following the recruitment of an overseas Observer Coordinator to inject experience and onsite advice to the programme. Manasseh Avicks (a Solomon Islander) was chosen and recruited in late 2003 in a joint initiative between MIMRA and SPC. The appointment of Manasseh has had a positive impact on the Marshall Islands observer programme, with consistent improvements in the number of trips and the sampling coverage. In addition to the valuable experience Manasseh brought from outside RMI, the local knowledge of Dike Poznanski, the Assistant Observer Coordinator, has also helped in developing and shaping the local observer programme.

Trained RMI observers typically board two different types of vessels. Most new observers start their careers with a trip on locally based foreign longliners. These vessels generally stay at sea for around 10 days; while the trips aren't long, conditions are far from luxurious. There are cockroaches, and the day's menu can be as much of a personal challenge as the language barrier. However, they also get a chance to board purse-seine vessels with far superior living conditions. As Majuro is a busy purse-seine unloading port, and RMI is a signatory to the sub-regional observer programmes (the United States Multilateral Treaty and the FSM Arrangement), purse-seine trips make up a large proportion of any local observer's trips.

Marshallese observers don't just encounter fish. Being stationed at a major transshipment port, they may well meet some of their regional peers who end their observer trips in the port of Majuro. The Flame Tree Hotel is a recognised haunt for transient observers seeking to share experiences, and a warm Pacific welcome is extended to all visiting observers. Unfortunately, this welcome has been abused on occasion, and it is not MIMRA's responsibility to help out irresponsible observers. As Manasseh puts it "Everybody gets one chance. We are happy to

help people out, but observers will be politely directed back to their fishing agent or their own national observer coordinator if they abuse their welcome". The follies of a few can affect the reputation of all observers; hopefully in the future, all transient observers will behave in a manner that respects both their host's welcome and their colleagues' professional reputations.

The Marshall Islands observer programme is performing well. They have benefited from a high number of basic observer trainings, and past problems relating to keeping trained observers on the team are slowly being resolved. With debriefing in place and a clear intention to meet regionally recommended coverage levels, and excellent ongoing support from their Director, RMI's national observer programme is currently one of the most dynamic in the region. The broader oceanic fisheries team has also worked consistently over the last few years to improve the collection and management of information required to monitor migratory oceanic species, and have made impressive improvements: logsheet and unloadings data coverage has increased exponentially and is now close to 100%. When asked what their secret was they replied "It has to come from the heart".

## Tuna Data Workshop

The inaugural Tuna Data Workshop (TDW-1) took tuna statistics staff away from their desks for one week, brought people together, and allowed them the time and space to reflect on tuna data systems while enjoying the congenial settings of SPC's conference centre. Presentations from SPC and FFA staff provided background material and up-to-date information to generate discussion and to stimulate problem-solving in small working groups. The workshop concentrated on data collection; topics included the reasons for collecting data, national and regional data obligations, types of data to collect, "best practices" for tuna data systems, and tuna fishery data collection system problems and solutions.

The workshop produced a checklist (see page 14) for establishing or reviewing tuna fishery data collection systems.

The full report of the workshop is available from the Global Environment Fund's Pacific Islands Oceanic Fisheries Management project website <http://www.ffa.int/gef/node/31>. The Global Environment Fund was the main sponsor of the workshop.

A second Tuna Data Workshop (TDW-2) is scheduled for the first quarter of 2008. The

**Participants of the first Tuna Data Workshop**



second workshop will build on the experiences of the first workshop, with data dissemination or data reporting, becoming the main focus. The workshop's main objective will be for participants to acquire the understanding and skills necessary to produce annual catch estimates for their national fleets, which is their main data-reporting obligation to the WCPFC. TDW-2 will help participants explore the data methodologies that are best suited to their own national tuna data

system. Much like TDW-1, the workshop will use a combination of presentations, group discussions and exercises to help participants acquire the skills needed to produce National Fishery Reports for the WCPFC Scientific Committee meetings. It is also expected that time spent at the workshop will give participants a better understanding of the best practises for scientific monitoring of their oceanic fish stocks at the national level.

#### TUNA DATA SYSTEM CHECKLIST

1. Obligations for collecting data\*
2. Functions of data to be collected are described
3. Protocols/methods for collection/submission\*
4. Reference to data collection forms to be used\*
5. Required "coverage" of data\*
6. Resources and training required are available (e.g. where does funding come from)
7. Schedule for the provision of data\*
8. Consequences for non-compliance in collection and provision of data\*
9. Contact points for data\*
  - Who records the data
  - Who provides the data (e.g. Fishing Company representative)
  - Who receives the data (Fisheries Division staff member)
  - The respective liaison points in regards to problems with data
  - Procedures for liaising with respect to problems with data\*
10. Quality control procedures (in the data collection system; e.g. audit/reviews)
11. Feedback mechanisms from data management (mechanisms/procedures for data management staff to liaise with data collection staff, e.g. on data quality issues)
12. Data security issues in data collection (addressing both Fisheries Division and Fishing Companies concerns)
13. Mechanism for integrating/sharing data collection systems with other countries

*\* indicates items suggested for inclusion in conditions for fishing access*

## DATA DISSEMINATION

### Current stock assessment results delivered at the Third WCPFC Scientific Committee Meeting

#### WHAT TUNA WERE CAUGHT IN 2006?

The provisional catch of tuna in the Convention Area (the Convention for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean) for 2006 was estimated at 2,189,985 mt, the second highest annual catch recorded, and only slightly

less than the record in 2005 (2,204,335 mt). About 70% of the catch (1,537,524 mt) was skipjack tuna, which was the highest ever, continuing the trend of consecutive record catches since 2002. The





yellowfin catch (426,726 mt - 19%) was about 5% lower than in 2005, but still around the average catch level for the period since 2000. The Convention Area bigeye catch for 2006 (125,874 mt - 6%) was also lower than in 2005, but slightly higher than the average catch level for the period since 2000.

#### WHAT IS THE CURRENT STATUS OF TUNA STOCKS IN THE CONVENTION AREA?

The results of a recent stock assessment indicated that the "bigeye stock is not currently in an overfished state; however, exploitation rates are high and current levels of catch are not sustainable in the medium term". In response to these results, the WCPFC Scientific Committee recommended a 25% reduction in fishing mortality (fishing effort) to prevent the stock from being overfished. In simple terms, this means that while there are still enough bigeye in the western and central Pacific Ocean (WCPO) to maintain their total numbers by reproduction, there are only barely enough, and there are high risks that by continuing to catch the same number of bigeye the overall total number of bigeye might be reduced in the coming years, especially if changes in some environmental factors (such as water temperature) were to cause more natural deaths or reduce reproduction.

The stock assessment results maintain that "the yellowfin stock in the WCPO is not in an overfished state although there is a considerable probability that overfishing is occurring. Any future increase in fishing mortality would not result in any long-term increase in yield and may move the yellowfin stock to an overfished state". This means that current yellowfin catches are at the maximum level that can be supported by the stock over the long term. Any further increase in fishing effort is likely to reduce the stock's ability to sustain the current catch level.

The total skipjack catch in 2006 was estimated to be 1,537,000 mt — the highest on record. While no formal stock assessment was conducted this year, all indicators suggest that "the skipjack tuna stock of the WCPO is not overfished owing to recent high levels of recruitment and a modest level of exploitation relative to the stock's biological potential". This means that the skipjack stock is still in a healthy state. The recent high levels of catch have been attained by an increase in recruitment and higher levels of fishing effort by the purse-seine fleet.

The 2006 South Pacific albacore catch was estimated to be about 68,000 mt. Most of the catch is taken by longline, and albacore represents a significant component of the catch by domestic longline fisheries. The latest stock assessment for albacore indicates that the current catch levels are sustainable and the stock could support higher yields. However, increased catches may reduce the abundance of species and, consequently, catch rates for the longline fishery may fall below economically viable levels.

#### MEETING OUTPUTS

Six specialist working groups make up the WCPFC Scientific Committee. These are the Biology, Ecosystem and Bycatch, Fish Technology, Methods, Stock Assessment and the Statistics Specialist Working Group. While outputs from all these working groups do have relevance for scientific monitoring staff the most relevant group is the Statistics Specialist Working Group (ST-SWG). We have reported on some of the meeting outputs here.

#### Overviews of Gaps / Issues with Data

The list of outstanding data that was recently submitted to the WCPFC was presented. It was noted that important data gaps still exist and include data from the Indonesian and Philippines domestic fisheries as well as the distant-water longline fishery. The impact of data gaps (including late and/or absent data) on the stock assessments result and, thus, the ability of the WCPFC to provide the best available advice was discussed. Access to a database that will highlight important data gaps should be available from the WCPFC website in the coming year.



### Regional Observer Programme

The scientific objectives and priorities for the proposed Regional Observer Programme (ROP), as well as data standards, were discussed and accepted by the ST-SWG (see below). At the end of the discussion, over 100 data standards or data fields were accepted as the starting point by the group. However, a large number of data standards still require discussion and this will be done through the Intercessional Working Group, or the WCPFC. We hope to report on this in the next edition of *Fork Length*.

For now the accepted scientific objectives and priorities for the ROP are to:

1. Record the species, fate (retained or discarded) and condition at capture and release (e.g. alive, barely alive, dead etc) or the catch of target and non-target species; depredation effects; and interactions with other non-target species, including species of special interest (i.e. sharks, marine reptiles, marine mammals and sea birds);
2. Collect data to allow the standardization of fishing effort, such as gear and vessel attributes, and fishing strategies. etc;
3. Sample the length and other relevant measurements of target and non-target species;

4. Sample other biological parameters, such as gender, stomach contents, hard parts (e.g. otoliths, first dorsal bone), tissue samples, and collect data to determine relationships between length and weight, and processed weight and whole weight;
5. Record information on mitigation measures utilised and their effectiveness; and
6. Record information on the catch and fishing effort during baitfishing, when baitfishing is undertaken by the tuna fishing vessel.

### Procedures for the provision of annual catch estimates and effort and size data

These procedures were fine-tuned and updated by the ST-SWG. The latest edition of these important data procedures is available as Appendix IV of the Third Regular Session of the Scientific Committee (SC3) report.

### Data confidentiality, security, and dissemination

It is likely that the WCPFC will put into place the new information security policy that was presented and discussed at SC3. New revisions to the rules and procedures for access to and the dissemination of data were accepted by the ST-SWG.

## Data summaries

### Summary of completed observer trips for all observer programmes\*

2005 Observer Programme	Gear	Number of Trips
Fiji	L	39
Federated States of Micronesia	L	8
Kiribati	L	1
Marshall Islands	L	26
New Caledonia	L	4
French Polynesia	L	17
Papua New Guinea	L	20
Palau	L	1
Tonga	L	1
Solomon Islands	P	9
FSM Arrangement	S	51
Federated States of Micronesia	S	11
Kiribati	S	1
Marshall Islands	S	17
Papua New Guinea	S	135
Solomon Islands	S	35
US Treaty	S	15

<b>2006 Observer Programme</b>	<b>Gear</b>	<b>Number of Trips</b>
Fiji	L	27
Federated States of Micronesia	L	11
Kiribati	L	3
Marshall Islands	L	63
New Caledonia	L	7
French Polynesia	L	20
Papua New Guinea	L	14
Tonga	L	19
Western Samoa	L	2
FSM Arrangement	S	56
Federated States of Micronesia	S	7
Kiribati	S	13
Marshall Islands	S	19
Papua New Guinea	S	138
US Treaty	S	14

### Summary of port sampling data\*

<b>2005 - Country</b>	<b>Port</b>	<b>Gear</b>	<b>Vessels</b>	<b>SKJ</b>	<b>YFT</b>	<b>Size Sampling</b>			<b>TOT</b>
						<b>BET</b>	<b>ALB</b>	<b>OTH</b>	
American Samoa	Pago Pago	L	104	1,233	2,120	824	17,874	570	22,621
Cook Islands	Avatiu	L	2	0	45	21	13	67	146
Fiji	Levuka	L	55	134	127	47	25,376	0	25,684
	Levuka	S	3	3,988	239	123	0	0	4,350
	Suva	L	93	1,467	19,212	4,995	46,586	20,310	92,570
	Fiji Total			5,589	19,578	5,165	71,962	20,310	122,604
FSM	Pohnpei	L	26	0	1,290	905	19	1	2,215
	Pohnpei	S	4	600	0	0	0	0	600
	FSM Total			600	1,290	905	19	1	2,815
Marshall Islands	Majuro	L	40	0	3,489	4,872	8	10	8,379
	Majuro	S	12	5,993	610	368	0	17	6,988
	Marshall Islands Total			5,993	4,099	5,240	8	27	15,367
New Caledonia	Koumac	L	9	0	2,445	498	14,399	2,860	20,202
	Noumea	L	8	0	1,621	188	3,490	1,407	6,706
	New Caledonia Total			0	4,066	686	17,889	4,267	26,908
Niue	Alofi	L	6	191	163	18	400	93	865
French Polynesia	Papeete	L	59	66	6,056	7,191	21,387	7,922	42,622
Palau	Koror	L	147	0	44,603	24,126	31	1,208	69,968
Tonga	Nuku'alofa	L	15	137	3,176	1,923	6,913	7,861	20,010
Samoa	Apia	L	41	1,330	3,914	1,350	30,369	3,881	40,844

<b>2006 - Country</b>	<b>Port</b>	<b>Gear</b>	<b>Vessels</b>	<b>SKJ</b>	<b>YFT</b>	<b>Size Sampling</b>			<b>TOT</b>
						<b>BET</b>	<b>ALB</b>	<b>OTH</b>	
American Samoa	Pago Pago	L	99	1,244	1,421	917	21,771	757	26,110
Fiji	Levuka	L	41	386	11	6	22,339	0	22,742
	Suva	L	13	220	3,116	707	3,587	5,163	12,793
	Fiji Total			606	3,127	713	25,926	5,163	35,535
FSM	Pohnpei	S	34	7,894	21	0	0	0	7,915
Marshall Islands	Majuro	L	50	0	21,586	22,781	3	1,298	45,668
		S	30	13,271	977	506	0	0	14,754
	Marshall Islands Total			13,271	22,563	23,287	3	1,298	60,422
New Caledonia	Koumac	L	13	0	3,969	343	16,484	3,049	23,845
	Noumea	L	2	0	244	29	278	130	681
	New Caledonia Total			0	4,213	372	16,762	3,179	24,526
Niue	Alofi	L	1	101	188	112	541	420	1,362
French Polynesia	Papette	L	54	49	2,289	4,526	34,821	8,690	50,375
Palau	Koror	L	152	1	39,201	37,812	26	1,712	78,752
	Malakal	L	106	0	9,269	5,717	1	164	15,151
	Palau Total			1	48,470	43,529	27	1,876	93,903
Tonga	Nuku'alofa	L	15	1,238	4,566	2,383	12,255	5,152	25,594
Samoa	Apia	L	13	44	756	146	1,907	193	3,046

\* All data received and registered at SPC by Sept 2007



## TRAINING

### Random sampling of purse-seine catches

Large numbers of individual fish are caught and landed by purse-seine vessels. It is not physically possible for samplers to measure every one of these fish. To get around this problem, purse-seine fish are generally sampled **randomly**. Random sampling is a vital competency for every purse-seine sampler and every active sampler should be able to demonstrate physically and convey verbally the important aspects of this technique when required. Are you sure that you are carrying out your random sampling correctly? Do you think you would pass a competency test?

Please take the time now to review the correct procedures for random sampling. Talk about random sampling with your colleagues and your coordinators. Describe to them exactly how you are carrying out your random sampling. They can help you decide if you are doing it correctly. One reason that random sampling must be carried out correctly is because only one fish among thousands in the ocean is sampled, therefore a small sampling mistake may be multiplied thousands of times when the information is used to calculate the whole tuna population.

For random sampling, samplers are normally asked to take five fish from every brail/net that they sample. The key to random sampling is to always collect the first fish that come to hand. The main difficulty with carrying out this technique is that as random sampling continues, samplers can unconsciously build up a prejudice about which type of fish they think they should choose next. They may think, "I haven't recorded any small skipjack yet", and then go ahead and unconsciously select that fish. Clear your mind and collect the next fish as if

it was the first fish you sampled that day. It is not feasible to carry out sampling while blindfolded, but this is ideally how sampling should be carried out.

**Never** choose a fish because you think it hasn't shown up on your data form recently. If you've seen some bigeye tuna in the catch, but have not measured any during your sampling session, that's okay. Do not worry about the results you get.

**If you have carried out your random sampling correctly your results will always be right**

**NEVER** be tempted to collect a fish because:

- you haven't sampled that species yet;
- you haven't sampled that size of fish yet (either very large or very small fish);
- it looks good;
- it's easier to lift out than other fish.

Do not let the crew select the fish for you. They have not been trained to carry out random sampling and are quite likely to make an incorrect selection (i.e. they might choose the largest fish). Try to come up with your own random sampling technique and stick to it. Some suggested random sampling methods include: Selecting an area of the net, preferably an area close to you, and grabbing all the fish whose tails point towards you; or selecting a small area of the net and taking all the fish that land there; or selecting an area of the net and grabbing all the fish whose heads point towards you.



**Avoid pre-selecting or choosing fish when random sampling**

One other thing to remember, however, is that when you select a particular area of the net to sample from, give some thought as to how or why the fish got to that area. If they have the same chance as every other fish in that brail to get to that area, regardless of their species or size, then it is a good area to sample from. If, however, only smaller fish can reach that area — perhaps because it is a corner — then this is not a good area to sample from.

There may be some physical restrictions to carrying out random sampling properly, such as when the brailing is too fast or the fish are too large to remove. If these physical restrictions exist,

try to reduce the number of species that are sampled (normally five). If it is still not possible to carry out random sampling, explain this on

your sampling form and either stop sampling or choose a different sampling protocol (i.e. non-random species sampling).

**RANDOM SAMPLING IS IMPORTANT.**  
**TAKE THE TIME TO LEARN THE TECHNIQUE AND TO CARRY IT OUT PROPERLY.**

## New recruits

*by Siosifa Fukofuka*

Eighty-eight new observers have joined our ranks since 2004; below is an outline of the training courses that have been held since then.

Country	Start Date	Number of participants	Number of certified observers
Marshall Islands	Jan-05	14	10
Federated States of Micronesia*	Apr-05	12	9
PNG	Jul-05	20	16
Samoa*	Aug-05	10	9
Marshall Islands	Feb-06	15	7
Palau	Jun-06	12	12
PNG	Jul-06	16	15
Marshall Islands*	Feb-07	9	5
Tonga	Aug-07	8	5

\*Sub-regional courses

**A look around the wheelhouse during basic training in the Marshall Islands**



## • Marshall Islands

25 January–11 February 2005

Fourteen trainees attended the training after passing the selection test. Ten trainees were certified with SPC/FFA certification.

**Back row:** Manasseh Avicks (MIMRA Coordinator), Siosifa Fukofuka (SPC), Gordon Paul, Leban Jelton, Lino Thompson, Dickson Betti, Laan K. Loran, Karl Staisch (FFA)

**Front row:** Chris Alberttar, Waisiki Baleikorocau, Embi Ruben, Franny Zacharaia



## • Federated States of Micronesia Course

18 April–6 May 2005

Nine new observers received SPC/FFA certification. Two participants were from Palau, two from Nauru and eight from FSM. Staff from the US National Marine Fisheries Service (NMFS) in Hawaii assisted with the course, especially with the identification of species of special interest and de-hooking presentations.

**Learning to dehook turtles**



## • Papua New Guinea

4–21 July 2005

In July 2005, 20 participants, selected from a pool of over 1000 applicants, attended a course conducted by SPC, FFA and the PNG National Fisheries College (NFC).

This basic observer course was the seventh conducted in PNG by SPC/FFA since 1996. Trainees attended the course for five weeks with three weeks for the observer component carried out by SPC/FFA and two weeks for sea safety, fire fighting and first aid carried out by NFC.

Sixteen observers were eventually certified. Three female participants attended the course and two were certified.



**Back row:** Joe Arceneaux (NMFS), Jareemiah Kuau, Lindsay Kovero, Douglas Kenats, Simon Tibli, Michael Chamoko, Walter Rusiat, Kaluwin Pondros, Groverto Kukuh, Miller Loras, Udill Jotham, Karl Staisch (FFA), Siosifa Fukofuka (SPC); **Front row:** Cosmas Hecko, Garry Elias, Ilaitia Taudarepa, Lyndsay Mundri, Emil Billy, Suluet Elaizah, Kerry Ragagalo, Elsie Gemelaia, Keith Agen, Sylvia Lohumbo



## • Samoa

*29 August–16 September 2005*

**Back row:** Michael Forsyth, Matele Ievali,  
Kimaere Biteiti (Kiribati), Steven Ve'a Neufeldt,  
Mijieli Vakatubou (Fiji),  
Kirennang Tokiteba (Fiji)

**Front row:** Sataraka Solomona,  
June Kwanairara (Solomon Islander – FFA),  
Patrick Itara (Kiribati)



## • Marshall Islands

*13 February–3 March 2006*



**Front row:** Oriana Villar (NMFS),  
Lenest Debrum, Leto Toto, Cliff Phillip,  
Atran Samuel, Caston Caleb, Johnny Debrum

**Back row:** Helmer Mote, Alington Abij,  
Frank Ward, Fred Mckay, Faliton Aisea,  
Paulwin Jennop, Johnny Debrum,  
Caston Caleb, Sashimi Debrum,  
Paulton Mote, Lawremce Jitiam

## • Palau

*12–30 June 2006*



**Back row:** Johnny Sambal, Moses Nestor,  
Kitridge Worstwick (Yap),  
Masubed Tkel, Dominic Kyota

**Second row:** Fred Ramarui, Ricky Narruhn  
(Pohnpei), Ian Tervet, Samuel Ldesel,  
Jesse Rumong, Allen Maldangesang

**Front row:** Jim Kloalechad, Erwin Edmond  
(Pohnpei), Moses Nestor, Rngei Taima

## • Papua New Guinea

*12–28 July 2006*

Sixteen trainees attended the courses. Most trainees were previously employed as port samplers based out of the six PNG unloading ports (Madang, Rabaul, Kavieng, Wewak, Port Moresby and Lae). Fifteen participants completed the course.

**Back Row:** Karl Staisch (FFA), Rakum Tumaleng,  
Ashley Barol, Lawrence Pero, Elizah Lucas, Towai  
Pelly, Ben Oli, Mathew Suarkia, Gauwa Gedo,  
Dawn Golden (NMFS), Siosifa Fukofuka (SPC)

**Front Row:** Joyce Akaru (NFA), Jacinta, Robert  
Rarap, George Pomat, Sulueta Elaizah, John Igua  
Dickson Ronney, Daniel Sau  
**Absent:** Ataban Gibson



## • Marshall Islands

28 February–20 March 2007

**Tuna longliner unloading in Majuro. New trainees (FSM and Marshalls) watch the Marshall Islands port sampler Lomodro Jibas at work measuring tuna.**



## • Tonga

1–22 August 2007

The basic observer training course carried out in Tonga was noteworthy for a number of reasons. The main trainer (Siosifa Fukufuka) was Tongan, of course, but FFA was represented by Ambrose Orianihaa (and not Karl Staisch) for the first time.

Also, PNG had the foresight to send one of their own senior observers, Glen English, to the training to contribute as a trainer as they develop their own path towards a national capacity for observer training.

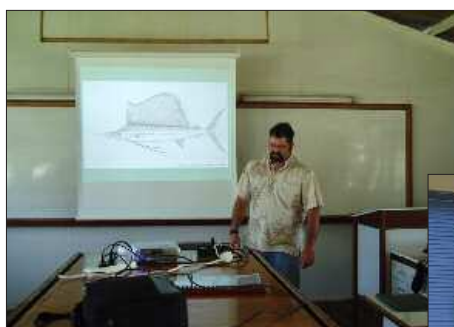
**Standing:** Glen English (PNG), Mehesala Tupou, Sione Manu, Tonga Tuiano, Taani He, Ambrose Orianihaa (FFA)

**Front row:** Siosifa Fifita, Moses Mateaki, Penisoni Ve, Siosifa 'Amanaki

**Absent:** Sione Mahe



## • Assistance from the Hawaiian Observer Programme (NOAA National Marine Fisheries Service)



**Left:** Stuart Arceneaux (Joe) going through billfish identifications, PNG course 2006  
**Right:** Dawn Golden in Class, FSM course - Pohnpei 2005



Trainers and debriefers from Honolulu provided assistance for most of the above training courses, especially in the identification and handling of marine mammals and sea turtles. *Fork Length* would like to acknowledge their contribution to the SPC/FFA observer courses, keeping both the trainees and the SPC/FFA trainers up-to-date on these important subjects.

Some debriefers who assisted with the training were Adam Baily, Colleen, Oriana Villa and Tom Swenarton.

## • Wallis and Futuna has two new observers

*by Charles Cuewapuru*

After passing the pre-selection test conducted locally by the "Service de l'Économie Rurale et de la Pêche du Territoire de Wallis et Futuna" two new observer candidates were flown to New Caledonia to take part in longline observer training. The course was held by SPC (with Charles Cuewapuru as the main trainer) and the local marine school. The training course was run during November (2006) and consisted of two weeks of class work followed by a 15-day dishing trip onboard the local longline fleet.

At the end of their training, the observers flew back to Wallis and Futuna, where it is hoped they will play an important role in the observation of the new exploratory fishing campaign that is expected to start up. This exploratory fishing, by a commercial company, hopes to gauge the potential for the commercial fishing of pelagic fish (including pomfrets), deepwater snappers and groupers. Because none of these stocks have ever legally been fished intensively for profit, the work of the observers will allow scientists to survey the fishery both before, during and after this potential new fishery is developed.



**Keller Kopf (Charles Sturt University) explains sampling techniques to the new Wallis and Futuna recruits Salua Wilfrid and Valetino Polelei**

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## Around the region

It looks like tuna are not the only migratory species in the Pacific Islands. Below are staff from the region who have recently taken up new monitoring-related positions, as well as other travelling staff.



**Left: Congratulations and good luck to Karl Staisch on his appointment as the new WCPFC Observer Programme Coordinator**

**Middle: Palau's recently promoted Port Sampling Supervisor (Rimirch Katosang, left) and the new Observer Coordinator (Ian Tervet – on the right) busy with port sampling paper work.**

**Right: The newly appointed Solomon Island Observer Coordinator – Derek Suimae**



**Left: Hudson Wakio who has quickly become comfortable in his new position as the Solomon Island National Tuna Data Coordinator**

**Middle: FFA's new Observer Programme Manager, Tim Park.**

**Welcome back to the region Tim**

**Right: Alfred Lebehn, FSM (left) and Dike Poznanski, RMI (right) who were on attachment with the Statistics and Monitoring Section of the Oceanic Fisheries Programme in Sept 2007**