

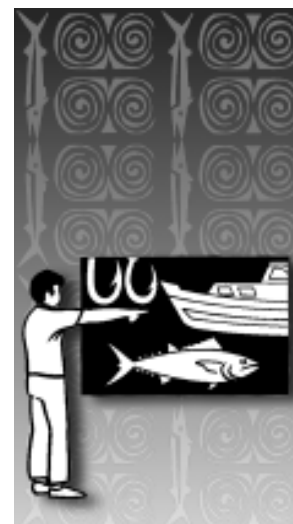


*Secretariat of the
Pacific Community*
MARINE RESOURCES DIVISION

Fisheries Education and TRAINING

Number 26 — November 2007

I N F O R M A T I O N B U L L E T I N



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NOTE FROM THE EDITOR

Welcome to the latest issue of the information bulletin, "Fisheries Education and Training".

First, we present a feature article which provides a brief overview of a stock assessment workshop for fisheries officers that SPC recently hosted. Then SPC Fisheries Development Officer Steve Beverly shares with us his recent experiences with a longline assistance project in the Cook Islands.

As usual, you will find news articles from training institutions in our region. For example, on page 7 there is information about the new certificate programme of study in Sustainable Fisheries, beginning in the first semester in 2008 at the University of the South Pacific. Also available in this issue is the 2008 training calendar for the New Zealand School of Fisheries.

Finally, the bulletin concludes with news of some of the recent initiatives of the SPC Nearshore Fisheries Development and Training Section.

I hope you will enjoy this 26th Fisheries Education and Training bulletin. I look forward to an increase in regional contributions for the coming issues.

Happy reading!

Michel Blanc, SPC Fisheries Training Adviser
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Stock assessment workshops for the Oceanic Fisheries Management Project

Oceanic Fisheries Programme, SPC

You may be aware that SPC recently hosted two stock assessment workshops for fisheries officers from countries and territories in the western and central Pacific region. The workshops were originally instigated as one component of the larger Oceanic Fisheries Management Project, which is funded by the Global Environment Facility (GEF). The workshops were expanded to include non-project member countries as well, using other funding sources including the Western Pacific Regional Fisheries Management Council and the Japanese Government-funded 'WCPFC Project on Capacity Building in Fisheries Statistics, Regulation and Enforcement for Small Island Developing States'. This article provides a brief overview of the workshops.

The workshops were held at SPC headquarters in Noumea from 25 to 30 June (Workshop 1) and 2 to 7 July (Workshop 2). Workshop 1 was attended by 10 participants and Workshop 2 by 11 participants, from across the western and central Pacific. Countries and territories attending included Palau, FSM, Guam, Marshall Islands, Nauru, Kiribati, Papua New Guinea, New Caledonia, Vanuatu, Fiji, Samoa, Tonga, Niue, Cook Islands, French Polynesia, Wallis and Futuna, Philippines and Solomon Islands. Workshop facilitators from SPC included Brett Molony, Adam Langley, Simon Nicol, John Hampton and myself. FFA kindly contributed to the workshops through presentations and inputs provided by two members of their fisheries management team, Samasoni Sauni and Steve Shanks. Considerable support was also generously provided by many other staff from the SPC Oceanic Fisheries Programme (OFP), most notably Helene Ixeko.

Workshop 1 was essentially a condensed version of the 2006 workshop, and was mostly for fisheries officers who had not attended that workshop or could not be accommodated in the second workshop (due to limited computing facilities). It concentrated on providing essential background theory (e.g. species biology, oceanographic impacts, modelling theory) and then moved into more intensive sessions on individual parameter estimation methods. The final two days included a session on ecological risk assessment and a group exercise. The latter required participants to develop and deliver a PowerPoint presentation that demonstrated an understanding of stock assessment theory and the implications of recent assessments for fishery management in their specific regions.

Workshop 2 was designed mainly as a follow-up for participants from the 2006 workshop. The first three days reviewed material from the 2006 workshop and presented a new session on oceanographic impacts on fisheries and assessments, and ensured that participants were able to move forward from that knowledge base. The final three days concentrated on providing participants with an understanding of the importance and use of tagging data in stock assessments, the importance of catch rate standardisations within the assessment process, and analyses of the management options that generally proceed stock assessments. The final-day exercise required participants to work in groups and use a two-region multi-gear model to undertake analyses of management options for a hypothetical fishery scenario. This exercise required participants to show an understanding of both stock assessment and management options analysis theory.

Based on participant surveys, daily verbal exams and revision, the final-day presentations and OFP's assessment of individual participants' performance throughout the workshops, both workshops were considered to have been successful in meeting their original objectives. As in 2006, the participants showed themselves to be highly motivated and very hard-working, and it was a pleasure to work with them over that period. Participant feedback from survey forms was particularly useful in highlighting areas where the workshops might be improved for the next time they are held.

It will be important for long-term capacity building that, where possible, the 2007 participants are provided the opportunity to attend future workshops. In addition, loss of knowledge in between workshops (due to a lack of revision) was identified as a key impediment to the success of this endeavour. SPC hopes to gain funding that will allow the development of an online training/revision facility to assist participants in revising and consolidating their understanding of stock assessment in between workshops.

A significant number of the participants will be attending the Scientific Committee 3 (SC3) in Honolulu in August. We would encourage those countries and territories that have not yet decided on their delegation composition to provide the opportunity to officers who attended this year's workshops to attend SC3, where their newly gained knowledge of stock assess-

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ment will be put to good use. Please note that both Brett Molony and I will be attending SC3 with the intent of using that opportunity to work further with this year's workshop participants and build upon their stock assessment knowledge and understanding. We would expect that their increased understanding of stock assessment theory and of the assessments produced by OFP will significantly facilitate your country or territory's participation in SC3, as well as assist in decision-making at a domestic level. Further workshops should continue to strengthen the capacity to participate in these processes.

A full report of the workshops, including intended improvements to be made in 2008, is available as a working paper on the WCPFC website (<http://www.wcpfc.int/>). It is listed under 'Meetings', under

the 'General Papers' category for the Scientific Committee 3 meeting, document number GN WP-14, entitled 'SPC. Report on the 2007 Stock Assessment Workshops for the Oceanic Fisheries Management Project'.

Please don't hesitate to contact me if you have any questions regarding the workshop.

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Longline assistance project in the Cook Islands

Nearshore Development and Training Section, SPC

Fisheries Development Officer (FDO) Steve Beverly spent July and August in the Cook Islands — seven weeks in Rarotonga and one week in Aitutaki — helping the domestic longline fleet.

The Rarotonga-based domestic longline fleet, consisting of five operational vessels at the time of this project, was well established but was experiencing difficulties due to rising operating costs, rising freight rate costs for exporting fish, declining catch rates, crew problems, and problems associated with maintaining a fleet of older vessels in a remote location. The owners needed advice on what to do to ameliorate

the situation in the short and long term. The fledgling Aitutaki-based fleet — two small boats — was just getting started and needed assistance on vessel layout, gear design and fishing techniques.

At the time of this project, there were 21 licensed Cook Island vessels (not counting the two smaller boats based in Aitutaki), eight of which were based in Rarotonga. Of these, only five were operational. The others had mechanical or crew problems. SPC's Fisheries Development Officer (FDO), Steve Beverly, worked with four of the five operational boats plus the two smaller Aitutaki-based boats. The boats fishing in the northern group were not considered in this project.

Upon arrival in Rarotonga, the FDO met with the Secretary of the Ministry of Marine Resources, Ian Bertram, and the heads of the domestic fishing companies, including Cook Islands Fish, Ltd — Josh Taio, Manager (boats F/V *Ana*, F/V *Lady Mary*), and Landholdings, Ltd — Bill Doherty, Manager (boats F/V *Aulola*, F/V *Bounty*, F/V *Gypsy Trader*) (Fig. 1).



Figure 1. F/V Bounty

During the first four weeks of the project, the FDO made four regular trips on the Rarotonga-based boats: *Bounty*, *Aulola*, *Ana* and *Lady Mary*, in that order. Details of the five operational boats can be found in Table 1.

Some generalisations can be made about these five boats: all are small- to medium-sized (<18 m), all are older (average age 32 years), and the average fish hold capacity is just around 4 mt. Because of these physical characteristics the boats share some commonalities. They have a very limited range and very limited fishing and fish hold capacities, so the fishing area in which they operate is small compared with the overall EEZ they are fishing within. The result is a reduction in the amount of effort, compared with medium-size longline boats (>18 m), which are more typical for the fresh tuna and swordfish fisheries. Also, because they are older, these boats will be plagued by maintenance problems. On the other hand, because they are smaller and older, the initial investment to get into the fishery is not as great as it would be for a newer, larger boat. An additional advantage is that annual slipping and maintenance can be done in Rarotonga, rather than in Fiji or Tahiti, as would be the case if the boats were larger.

All five of these boats fished more or less the same way during this project. All had monofilament longline systems with ample gear to set around 1000 to 1200 hooks daily, and all of them did shallow night sets using squid and/or sardines for bait and chemical lightsticks. They fished within sight of Rarotonga, from 10-95 km (6-60 mi) for some boats and from 20-100 km (12-60 mi) for other boats, depending on their licence. They usually did five sets on each trip, setting around 3000 to 5000 hooks total. Landholdings' boats (*Aulola*, *Bounty*, and *Gypsy Trader*) returned to port after three sets to offload fish to Ocean Fresh, the local retail market operated by Landholdings, where all of Landholdings' fish were sold.

After offloading the fish, they returned to sea for two more sets. Cook Islands Fish's boats (*Ana* and *Lady*

Mary) generally stayed at sea for all five sets and fish were either exported or sold directly to Blue Pacific Foods Ltd, another company in Rarotonga. They returned to port on Saturday morning to meet a Rarotonga-Los Angeles flight that departed each Saturday evening. The catch of all five boats during this project consisted mostly of broadbill swordfish with some bigeye tuna, yellowfin tuna, albacore, wahoo and mahi mahi. All fish were landed fresh as gilled and gutted (G&G), headed and gutted (H&G), or fully dressed fish. Both companies subscribed to Orbimage remote sensing charts that show sea surface temperature (SST) and sea surface height (SSH) to enhance fish findings. The captains and crew of the five boats were almost entirely Fijian nationals working in the Cook Islands on work permits, or as resident alien workers. Two Filipinos were also working as crew.

The FDO accompanied the captains and crew on four regular swordfish longline trips, during which 15 sets were made. Catch and effort details can be seen in Table 2. In total, 195 fish were caught, including 40 swordfish, 15 bigeye tuna, 49 albacore, 71 mahi mahi, 2 striped marlin, 5 wahoo, 9 short-billed spearfish, 1 sailfish, 1 yellowfin tuna, and 1 opah. Swordfish comprised about 20% of the catch by numbers but about half by weight and much more than half of the value (estimated) of the total catch. Mahi mahi comprised 36% of the catch and albacore about 25% of the catch by numbers. Bigeye tuna comprised 7% of the catch by numbers but they were generally not of exportable size (i.e. were <30 kg). All other species comprised 12% of the catch by numbers.

On the F/V *Ana* a tagged swordfish was caught. On the same trip a loggerhead turtle was also caught, and the crew got first-hand experience in proper turtle handling and release protocols. The loggerhead was released apparently alive and vigorous but with a 3.6 sun Japan tuna hook still lodged in its tongue (Fig. 2). The FDO and crew attempted (without success) to remove the hook and eventually decided that they could do the job but not without killing or seriously

Table 1: Details of Rarotonga's domestic longline fleet.

Boat	LOA (m)	Beam (m)	Depth (m)	GRT	Hull	Year built	Engine (hp)	Fish capacity	Licence type
<i>Ana</i>	14.7	4.3	1.7	32.8	steel	1970	270	4 mt ice	6 nm
<i>Aulola</i>	11.8	4	1.4	na	steel	1977	109	4 mt ice	12 nm
<i>Bounty</i>	14.4	3.7	1.7	32.8	steel	1970	180	4 mt ice	12 nm
<i>Gypsy Trader</i>	12.8	3.7	1.8	10	steel	1978	130	4 mt ice	6 nm
<i>Lady Mary</i>	16	4.26	1.26	34.8	fibreglass	1982	370	4 mt chilled sea water (CSW)	12 nm

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Table 2: Catch and effort for 15 observed swordfish sets on Rarotonga-based domestic boats.

Boat	# sets	# hooks	Bait	Number of fish	kg	CPUE (number per 100 hooks)	CPUE (kg per 100 hooks)
<i>Bounty</i>	3	3500	Sardine/squid	31	725	0.9	22.4
<i>Aulola</i>	3	3600	Sardine/squid	33	600	0.9	17.4
<i>Ana</i>	5	4500	squid	81	1850	1.8	41.1
<i>Lady Mary</i>	4	2800	squid	50	1775	1.8	63.4
Total	15	14,400		195	4950	1.35	34.4



Figure 2: Loggerhead turtle being released alive and well from F/V Ana.

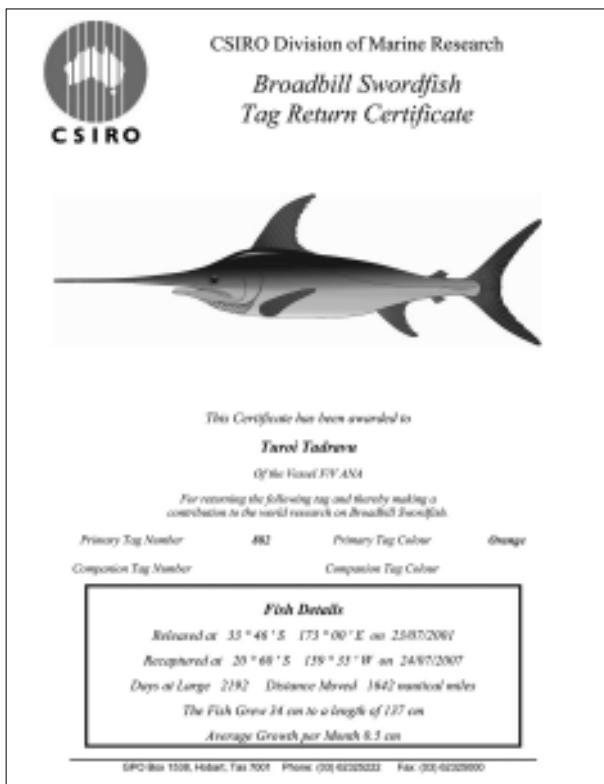


Figure 3: Certificate received from CSIRO for returning a tag from a swordfish.

injuring the turtle. They also learned about tags. The crew member who first noticed the tag on the swordfish received a certificate and reward from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia (Fig. 3). Some good lessons were learned in responsible fishing.

The FDO made one trip on an Aitutaki boat, Baxter Brothers' *Mary J* (Fig. 4). Another boat in Aitutaki, Mike Henry's *Orongo*, wasn't equipped with fishing gear. *Mary J* was equipped with a home-made mini longline reel (made by Clive Baxter) that held enough line for about 200 hooks (Fig. 5). Before departing on *Mary J*, the FDO made floatlines so that a tuna set could be made. The crew had been setting right on the surface, attaching floats directly to the mainline. On the day the FDO arrived in Aitutaki the crew caught 230 kg of mahi mahi on just 180 hooks using this method. They were keen to catch tuna as the local market in Aitutaki was saturated with mahi mahi. One trip was undertaken with the FDO. *Mary J* did one tuna set of 150 hooks just to the west of Aitutaki. Right as hauling started the boat broke down, taking on water in the engine room. The starter was flooded so the main engine would not start. The captain had to call for help.

Fortunately, *Mary J* was equipped with a full complement of safety gear, including a 406 EPIRB. It was also fortunate that the EPIRB did not have to be used. After trying to restart the engine unsuccessfully, the captain gave out a distress call (not a mayday but directly to a land station) as the boat was in no immediate danger of sinking. Even though the engine room continued to take on water, the bilge pump was keeping up. The call was patched through to the owner of the only boat on Aitutaki that could have mounted a search and rescue, *Orongo*, which set out immediately and eventually found the *Mary J* and took it under tow just as it was getting dark. During the first four hours of the tow, the captain kept in constant radio contact with *Orongo*,

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directing them how to steer so that the mainline could be hauled. Three young, strong deckhands pulled the entire line by hand. *Mary J* ended up with 12 fish weighing approximately 150 kg (1 opah, 4 yellowfin tuna, and 7 mahi mahi). The boats arrived back at the wharf at around midnight, safe and sound. *Mary J*, however, was out of service for the short term so the FDO returned to Rarotonga. This sea safety incident highlighted the need for continued vigilance and offered good lessons on why it is important to be prepared

for any eventuality. Fortunately, the owners of *Mary J* and *Orongo* were very well prepared.

At the conclusion of the project, the FDO presented his findings along with recommendations, in the form of a PowerPoint presentation, to MMR and to the vessel owners at a meeting at MMR headquarters.



Figure 4: F/V *Mary J*.



Figure 5: Clive Baxter's home-made mini longline reel.





Faculty of Islands and Oceans offers a new programme in sustainable fisheries

University of the South Pacific (USP), School of Marine Studies

Introduction

The University of the South Pacific's Faculty of Islands and Oceans — through the School of Marine Studies — will be offering a new certificate programme of study in Sustainable Fisheries, beginning the first semester in 2008. The certificate programme is a component of the Sustainable Fisheries Programme, which also includes a diploma and degree in Sustainable Fisheries, which will be offered later. The certificate programme is a full academic year (two semesters) programme, comprising 6 prescribed courses (5 core courses and one elective).

Programme rationale and goals

The programme was initiated subsequent to the approval of the School of Marine Studies' proposal by the regional Heads of Fisheries (HOF) meeting in April 2006. The programme was developed in close collaboration and consultation with other faculties and departments of the University of the South Pacific, SPC, national fisheries departments, the Nelson School of Fisheries in New Zealand, and the Commonwealth Secretariat.

The programme was introduced to replace the former SPC/Nelson Fisheries Officers' course. As such, it is designed to be consistent with the most recent SPC/Nelson Fisheries Officers' course programme (2004), which itself was based on recommendations made as part of a comprehensive review of fisheries officers' training needs in the region. The programme will be supported and complemented by a four-week Practical Safety and Fishing course that SPC will continue to run annually. The SPC course may be cross-credited to the Certificate in Sustainable Fisheries programme through the normal USP accreditation procedures.

The programme was developed in recognition of the:

- lack of tertiary training programmes and opportunities in the region for Pacific Island nationals, to enable them to obtain recognised formal tertiary qualifications in the area of sustainable fisheries development and management;
- important role that fisheries play in providing the livelihood and social and economic well being of Pacific Island countries; and

- deteriorating condition of marine resources and the environment in the Pacific Islands, due to the irresponsible use and overexploitation of marine resources, and ineffective management practices.

The School of Marine Studies recognises the need for a long-term solution to national capacity building, and through this programme will:

- promote the concepts and principles of "sustainability" as a basis for fisheries development and management in the region;
- provide appropriate and recognised tertiary training opportunities and qualifications for Pacific Island nationals;
- develop and enhance the capacity of Pacific Island communities and nationals to develop and manage their marine resources and environment in a more responsible and sustainable manner; and
- permit incremental learning, career progression and professional development in fisheries management.

The principal focus of the programme is the sustainable fisheries or ecosystem approach, which provides a more holistic approach to fisheries development and management in Pacific Island countries. It integrates fisheries, environmental and socioeconomic objectives, and more precautionary approaches in decision-making regarding the use and management of marine resources. In essence, it requires the integration of science and social science, economics, environmental protection and conservation, and national and community participation in decision-making processes relating to the development and management of marine resources.

Programme outcomes

The programme provides students with in-depth knowledge and understanding of:

- the status and challenges of sustainable fisheries development and management in the Pacific Islands;
- the principles of sustainable development and how these can be applied and implemented at the local

level to ensure sustainable development and management of marine resources and the environment;

- the marine environment and ecosystem and the important role they play in sustainability of marine resources;
- the role of good governance, communication and extension in sustainable development and management of marine resources;
- the relationship or link between a viable fishing industry, a healthy fish stock and a healthy environment;
- fish capture technologies and their impact on marine resources and the environment;
- aquaculture and post-harvest fisheries and their potential role in sustainable development and management of marine resources; and
- the role of science and social science and their applications in the sustainable development and management of marine resources in the Pacific Islands.

Graduates of this programme should be able to find jobs in the fisheries, maritime, environment and tourism sectors, as well as in non-governmental organisations and community-based institutions that are involved in marine resources development, management and conservation.

Programme outline

Level/year: Certificate programme (6 courses only)

Core courses:

- MS112: Introduction to Sustainable fisheries
- MS207: Natural Resources Governance & Extension Tech.
- MS111: Introduction to Marine Science
- EC 100: Introduction to Economics
- BI108: Animal Biology

One of the following:

- MS206: Maritime Techniques
- MS204: Tropical Seafood
- IS100: Computing fundamentals
- GE108: Geographical Techniques
- MA102: Mathematic for science
- BI102: Plant Biology

(Or other Courses required Science/Arts prerequisites with approval of Head of School)

Scholarship awards

The Commonwealth Secretariat, through USP, will be funding a number of scholarships to enable Commonwealth member countries' candidates to pursue a certificate programme in Sustainable Fisheries at USP. An advertisement on these scholarship awards will be available soon through various Commonwealth Secretariat and USP points of contact.

Information contact

For more information, please contact:

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Detailed programme information can also be accessed on USP's School of Marine Studies website:
<http://www.usp.ac.fj/marine/>



Industry Advisory Group

New Zealand School of Fisheries - Nelson Marlborough Institute of Technology (NMIT)

In order to ensure that the programmes and courses being offered are in line with industry needs, the New Zealand School of Fisheries has an Industry Advisory Group.

The Industry Advisory Group typically meets twice a year. These meetings are an opportunity for the School to be told what is happening with industry and for the School to brief industry on developments and what is in the pipeline. Discussions are invariably constructive. Members of the Advisory Group come from all sectors of the maritime and fishing industries.

The Chair of the Advisory Group is Patrick Smith, the HR Manager from Sealord Group Ltd. Other members include representatives from Abel Tasman Wilson's Experiences, Guards Fisheries Interislander Group, Maritime New Zealand, Port Nelson Fishermen's Association, Sealord, SITO, Strait Shipping, Solutions in Seafood, Survey Nelson, Talleys and Whale Watch.

The most recent meeting was held at the School on 9 October. Thirteen members were present plus staff from the NZ School of Fisheries and NMIT. The meeting covered a wide range of topics. Industry updates included the continuing lack of skilled employees, the need to attract new employees into the seafood and maritime sectors, and the need to be able to provide career pathways. The School said that despite the difficult external environment it was having a good year. Everyone was pleased to hear that the new Cadet Course (NMIT Certificate in Marine Studies) is going well, as this is the basis of any career pathway and provides one answer to some of the challenges being faced by industry. The NZ School of Fisheries also outlined pending changes in the funding of tertiary education and pending new courses. The latter include Fast Rescues Boat Training and the Second Mate Foreign Going qualification. Both of these courses are expected to be available in 2008.



Alastair Robertson's Farewell

New Zealand School of Fisheries - Nelson Marlborough Institute of Technology (NMIT)

The School recently farewelled Alastair Robertson into the next journey of his life — his retirement.

For a generation of New Zealand fishers, Alastair's patience, good humour and wise counsel got them through a very difficult period of their lives — that of going back to the classroom in pursuit of a maritime licence.

As Master (Foreign Going), longline fisherman and blue water sailor, Alastair knew the sea well and had a unique way of passing his knowledge on to others, in a way they could understand and remember. He also enjoyed a reputation through the Pacific as a tutor who cared for his students and was passionate about improving fisheries for Pacific Islanders.

Alastair's teaching and administrative career took him through a period of huge change — both in education and in the fishing industry. As Head of School in the early 1990s, Alastair supervised the relocation of the New Zealand School of Fisheries to its current premises, the fourth such move in the School's history.

While his sympathies were always with the small independent fisher, Alastair treated all his students equally, and always tried to instil in them what was expected of a professional mariner.

His farewell was marked by several warm tributes from colleagues he had worked alongside in ASTE, the tertiary teachers' union. This was recognition by his fellow tutors of what they knew but which was not generally appreciated — the amount of unsung, behind the scenes work that Alastair did for and on behalf of others.

Alastair has left huge shoes to fill and we are unlikely to find another tutor quite like him. However, standards he set and the principles he stood for will continue to be those that the School strives to live by.

All of us at the New Zealand School of Fisheries wish him a long and happy retirement.



Training calendar for the New Zealand School of Fisheries Courses & start dates:

2007:

- AB certificate, start 26 Nov (1 week)
- Advanced Deckhand fishing, start 29 Nov (2 weeks, 2 days)
- Advanced Firefighting, start 26 Nov (5 days)
- Marine Engineer Class 6, start 26 Nov (5 days + 1 exam day)
- Proficiency in Survival Craft, start 12 Nov (5 days)
- Restricted Radar, start 3 Dec (5 days)
- Restricted Radiotelephone Operator Certificate contact school for dates (1 day)
- STCW 95 Basic Training Course, start 3 Dec (7 days)
- Survival Craft Course, start 19 Nov (2 days)

2008:

- AB Certificate, start 4 Feb, 31 Mar, 26 May, 11 Aug, 13 Oct (1 week)
- Advanced Deckhand Fishing, start 11 Feb, 7 Apr, 2 Jun, 18 Aug, 20 Oct (2 weeks, 2 days)
- Advanced Firefighting, start 10 Mar, 7 Jul, 10 Nov (5 days)
- Basic Firefighting, start 3 Mar, 9 Jun, 18 Aug (5 days)
- Certificate in Marine Studies (Cadet), start 11 Feb, 1 Sep (12 weeks)
- GMDSS, start 18 Feb, 30 Jun, 24 Nov (7 days)
- GRTOC, start 14 Apr, 1 Oct (2 and a half day)
- Marine Engineer Class 3, start 25 Feb, 25 Aug (15 weeks)
- Marine Engineer Class 4, start 25 Feb, 22 Sep (11 weeks)
- Marine Engineer Class 5, start 25 Aug (2 weeks)
- Marine Engineer Class 6, start 25 Feb, 26 May, 25 Aug, 17 Nov (5 days + 1 exam day)
- Master Deep Sea Fishing Vessel, old mates tickets start 17 Mar (17 weeks), new mates tickets start 12 May (9 weeks) both include ancillary courses
- Mate Deep Sea Fishing Vessel, 11 Feb (22 weeks)
- NZ Inshore Launchmaster, start 31 Jan, 1 May, 31 Jul, 23 Oct (5 weeks + 2 days First Aid)
- NZ Local Launch Operator, start 31 Jan, 1 May, 31 Jul, 23 Oct (4 weeks + 2 days First Aid)
- NZ Offshore Master, start 5 Feb, 21 Jul (14 weeks)
- NZ Offshore Watchkeeper, start 5 Feb, 21 April, 21 Jul (10 weeks)
- NZOM Unlimited, Units 6912 and 6913, start 12 May, 28 Oct (4 weeks)
- NZCM Upgrade to NZOM, start 26 Mar, 8 Sep (7 weeks)
- Proficiency in Survival Craft, start 3 Mar, 23 Jun, 8 Dec (5 days)
- Restricted Radar, start 3 Mar, 10 Mar, 2 Jun, 16 Jun, 25 Aug, 1 Sep, 24 Nov (5 days)
- Restricted Radiotelephone Operator Certificate, contact school for dates (1 day)
- Stability Upgrade, start 25 Feb, 20 Oct (2 days)
- ISM Course, start 27 Feb, 22 Oct (2 days)
- STCW 95 Basic Training Course, start 24 Jan, 14 Feb, 5 May, 16 Jun, 4 Sep, 24 Nov (7 days)
- Survival Craft Course, start 11 Feb, 7 Apr, 2 Jun, 18 Aug, 20 Oct (2 days)
- Workplace First Aid, start 31 Jan, 1 May, 31 Jul, 23 Oct (2 days)

Contact Information: New Zealand School of Fisheries, 309 Hardy Street, Nelson, New Zealand

Visiting Engineering Students

New Zealand School of Fisheries - Nelson Marlborough Institute of Technology (NMIT)

New Zealand School of Fisheries (NMIT) recently hosted a class of marine engineering students from the Leeward Islands in Tahiti. As part of their course, students are required to gain work experience in another country. Nelson was chosen as a result of previous

visits to the NMIT campus by Tahitian education officials. The students found Nelson to be a busier place than their home island but rose to the challenge and spent a useful two weeks in a variety of marine engineering workplaces around the port.



Tonga Government restructures training institutions to target employment opportunities Jul 20, 2007.

Tonga Maritime Polytechnic Institute, TMPI

The Tonga Maritime Polytechnic Institute, TMPI, or e-HauFokololo-o, was set up in the 1980s as a training institution to cater for the need for trained personnel in the shipping and related industries.

The TMPI offers the youth of the country an opportunity to prepare for a career in the shipping industry, in both local and international waters.

The training of seafaring personnel includes Master Certificate Class 5 and Class 4, with plans to also offer Class 3 when requisite facilities and instructors are available. Marine engineering is also taught in addition to the on-deck skills needed on board the ships.

According to the principal of the institute, 'Oto Va'inga Misi, graduates of the programmes readily find employment at the various shipping companies serving Tonga and the Pacific.

TMPI graduates are serving in the ferry service between Wellington and the South Island of New Zealand, some are on ships that sail between Australia, New Zealand and the Pacific Islands, and others have ventured further afield to Europe and the rest of the world. The institute also conducts specialised training that caters to specific requirements of the shipping trade. This includes advanced safety training and also training of crew for gas transporting vessels.

The training programme of the institute also includes classes for local fishers and small boat operators so that they become familiar with basic navigation and safety and communications procedures and instruments.

Mr Misi estimates that the institute graduates over 150 people from its maritime programme each year, with most, if not all, finding employment in Tonga or overseas, or operating their own small businesses.

TMPI is an option for school leavers who want to pursue their interest in shipping and marine industries. Mr Misi said that they take in people who have passed the Tonga School Certificate, although people with some on-board experience can also attend their various programmes.

The institute have evolved to meet the changing needs of the country and has taken on other responsibilities and associations. It shares the same compound and facilities with, and is a part of, the Tonga Institute of Science and Technology, TIST, which offers trade and technical training and some certificate and diploma programmes.

To further bind the training function to the challenge of youth unemployment, TMPI and TIST are no longer under the jurisdiction of the Ministry of Education, but are under the mandate of the new Ministry of Training, Employment, Youth and Sports.

The combination of maritime and trade and technical training under one institution will greatly assist the country in its effort to prepare the country's youth for employment, and train its workforce in the most systematic and costeffective way.

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"Start Your Fishing Business" training in the Cook Islands, Tonga, Samoa and Kiribati - an update

As you are probably aware from reading our previous articles, SPC, with financial assistance from the Commonwealth Secretariat, is assisting the region with the establishment of a pool of certified trainers in small fishing business planning and management (Start Your Fishing Business programme). This project aims to increase private sector participation in the development of coastal fisheries in PICTs by improving the entrepreneurial skills of existing or prospective small business owners.

The Start Your Fishing Business (SYFB) course and materials, based on the International Labour Organization (ILO) "Start Your Business" model, were initially tailor-made to suit the specific needs of the Papua New Guinea (PNG) artisanal fisheries sector and have been successfully delivered in PNG since 2003. The SYFB training concept was then exported to Solomon Islands and Vanuatu, where nationals have been trained to become certified trainers and now deliver these courses to small fisheries business owners.

This year, SPC, the Commonwealth Secretariat and their counterpart institutions in PNG have worked on expanding the network of competent SYFB trainers to four other countries: Cook Islands, Tonga, Samoa and Kiribati. A similar gradual training methodology was used and the initial phase of the project was the delivery

of a sub-regional training of trainers (TOT) SYFB course for 12 participants in Apia, Samoa in April 2007 (see SPC Fisheries Newsletter #121). After attending the TOT course, and in order to become accredited by ILO as SYFB trainers, the apprentice-trainers are required to deliver one SYFB course to their target audience, under the supervision of master trainers.

As part of the TOT course, participants produced an action plan for the subsequent phases of the project. From mid-July to August 2007, participants in the initial TOT course, except the participant from Kiribati, successfully ran their trial courses in their respective countries. In-country training of entrepreneurs (TOE) workshops were organised as shown in the table below.

Country	Workshops	Master Trainer	Date
Tonga	Ha'apai	Brenda Sainol	16-27 July 2007
Tonga	Vava'u	Brenda Sainol	1-14 August 2007
Samoa	Apia	Peter Piawu	16-27 July 2007
Cooks	Cook Islands	Brenda Sainol	20-31 August 2007
Kiribati	Tarawa	Peter Piawu	Postponed to December 2007

This capacity building programme was successfully completed by making possible the accreditation of 11 Pacific Islanders as ILO/SYFB trainers by their supervisors, the PNG-SBDC master trainers.

SPC is keen to export the SYFB training concept to other Pacific Island countries. It is envisaged that SPC will continue to seek the Commonwealth Secretariat's financial support for the further extension of the SYFB trainer network in the region.



Master Trainer Peter Piawu (standing) during classroom training session.



Participants produced an action plan for the subsequent phases of the project.

Vanuatu Maritime College to host the next SPC "Practical Safety and Fishing course for fisheries officers"

Vanuatu Maritime College (VMC) in Santo, Vanuatu

In July 2007, SPC invited applications for participants to the SPC Practical Safety and Fishing course for fisheries officers, at the Vanuatu Maritime College (VMC) in Santo, Vanuatu. Eleven fisheries officers from nine regional countries (Cook Islands, Nauru, Niue, Palau, PNG, Samoa, Solomon Islands, Tonga, and Wallis and Futuna) will benefit from this training opportunity. Course duration will be four weeks, starting 1 October 2007.

The objective of the course is to provide hands-on training in environmentally and economically sustainable fishing methods to Pacific Island fisheries officers. The training will enable them to assist fishing communities and fishing enterprises in developing sustainable and profitable fishing operations. Areas covered include:

- tuna catching methods (especially small-scale pelagic longlining and mid-water fishing methods);
- basic navigation and seamanship;

- vessel operations and management;
- vessel and crew safety;
- onboard handling and preservation of catch to export standards;
- information on bycatch mitigation;
- small-scale bait fishing gear and methods; and
- deep-water snapper fishing gear and methods.

The course is organised in cooperation with the VMC and SPC's Nearshore Fisheries Development and Training Section. During the four-week course, SPC Fisheries Development Officer William Sokimi will be in Santo to act as a resource person.



The quality of staff and training facilities at the Vanuatu Maritime College, as well as the richness of local fishing grounds, make Santo a great venue for this event.

Development of an innovative training programme: the Fisheries Evidence Training and Investigation Course (FETIC) for Pacific Island Fisheries Officers

This new training course is the result of a joint initiative between the Pacific Islands Forum Fisheries Agency (FFA), the Australian Fisheries Academy (AFA) and SPC. The FETIC program is customised from the Australian Basic Evidence Training and Investigation Course (BETIC) programme, which is a major component of the nationally accredited Certificate III in the Seafood Industry (Fisheries Compliance).

The project aims at developing a training programme that will enhance Pacific Island fisheries officers' skills in:

- fisheries management principles and legislation;
- monitoring of fish catches;
- patrol operations, including methods and resources; and
- investigation techniques, including evidence gathering, note taking, chain of evidence, interviewing and statement taking, brief preparation, and court procedures.

Early in 2007, the Port-Adelaide-based AFA was contracted by SPC to develop a training curriculum for Pacific Island fisheries compliance officers. AFA liaised with staff of the FFA Fisheries Operations Unit to adapt the Australian BETIC course to the Pacific context and develop lesson plans, learners' materials and assessment guidelines. A complete training package was ready by the end of July, and AFA staff were ready to deliver a three-week pilot course at the PNG National Fisheries College in Kavieng (6—24 August 2007). Sixteen fisheries officers were selected by FFA.

A report on the 2007 FETIC programme will be published in the next Fisheries Newsletter.



A tailor-made course on the new ISO 22000 standard and its implications

Vincent Talbot, a freelance consultant from the Institut de la Qualité in New Caledonia, was invited by the SPC Nearshore Fisheries Development and Training Section (NFDTS) to develop a tailor-made course for staff from various local institutions dealing with or interested in seafood safety issues, including HACCP principles and the new ISO 22000 standard. Overall, the course was designed to enable participants to gain

a good understanding of the new ISO 22000 standard and its implications. It involves quality management, external and in-house communications, designating responsibility, implementing crisis management, continual improvement, good health practices and differentiating between prerequisite programmes (PRP), operational prerequisite programmes (OPRP) and Critical Control Points (CCP).



Participants of the one-day course held at SPC

The one-day course was held at SPC in Noumea on Monday 8 February 2007. Post-course feedback from the trainer and the 10 participants — covering seven government administrations and organisations (including SPC) — was very positive, particularly with regards to the training methodology and resource materials. At the end, participants left with a greater understanding of ISO 22000 standards but many felt that this very intensive course should preferably be delivered in two days.



Sashimi tuna handling workshop in the Northern Province of New Caledonia

In March, SPC Fisheries Development Officer Steve Beverly conducted a sashimi tuna handling workshop for captains and crew of Pêcheries de Nouvelle-Calédonie (PNC) in the Northern Province of New Caledonia (Fig. 1).

PNC has a fleet of eight aluminium longliners that operate out of Pandop Harbour in Koumac (Fig. 2). All of their fish is processed at Pêcheries du Nord's processing facility at Pandop Harbour. Fish are

graded as either A grade or grade B soon after being unloaded from the boats. Captains and crews are paid based on fish grade. An A grade fish earns more for the boat than a B grade or a reject fish. This fact was impressed on the captains and crew as they learned the fine points of fish handling to ensure that they land more A grade fish and, thus, get more in their pay packets. A copy of SPC's manual, *Onboard handling of sashimi grade tuna*, was given to each workshop participant.



Figure 1 (left): Fish handling workshop at Pandop Harbour.
Figure 2 (right): One of PNC's longline boats, F/V Karaavha 8, at Pandop Harbour.

Canoe building workshop in Nauru

In May, SPC, in collaboration with the Nauru Fisheries and Marine Resources Authority (NFMRA), hosted a workshop in Nauru on canoe building.

SPC's Fisheries Development Officer (FDO) William Sokimi assisted with setting up the canoe building training component by organising tools and building materials in preparation for the workshop, which was conducted by Kiribati-based boatbuilder Mike Savins.

Nine local boatbuilders from the communities of Anetan, Anibare, Bauda, Boe, Denig and Meneng were trained in modern canoe building techniques by Mike Savins. SPC ordered building materials and tools for the workshop while NFMRA provided the venue and managed the logistics. At the end of the training, four canoes had been built: three one-man FAO KIR 7 (4.7 m) design (Fig. 1) and one two-man FAO KIR 6 (6.5m) design (Fig. 2).



Figure 2: KIR 6 two-man canoe



Figure 1: KIR 7 one-man canoe

Sea safety posters for Tokelau and Nauru

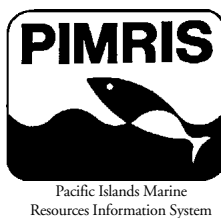
At the request of the fisheries departments in Tokelau and Nauru, SPC has produced its small boat safety checklists in the vernacular language of each country. In line with Mike McCoy’s 1991 recommendation that “education through publicity campaigns, repeated and reinforced over a long period of time...seems to offer the best chance for improving the safety at sea for artisanal fishermen”, SPC’s Nearshore Fisheries Development and Training Section relentlessly promotes small boat safety in the Pacific. After producing a number of awareness-raising materials in English and French in the late 1990s, the Section has started to translate the same

materials into the vernacular language of its member countries and territories. The Tokelau (below left) and Nauru (below right) checklists have been printed in both poster form and A4 size. While the posters will be displayed in government offices and villages, it is intended that the laminated A4 placards will be distributed to individual fishers as an ongoing reminder of the things to do and the safety items to take onboard before going to sea. Work is underway to produce a Cook Islands-specific safety checklist in the Maori language. This will accompany the small boat regulations currently being developed in that country.



The Tokelau (left) and Nauru (right) checklists have been printed in both poster form and A4 size.

PIMRIS is a joint project of four international organisations concerned with fisheries and marine resource development in the Pacific Islands region. The project is executed by the Secretariat of the Pacific Community (SPC), the Pacific Islands Forum Fisheries Agency (FFA), the University of the South Pacific’s Pacific Information Centre (USP-PIC), and the Pacific Islands Applied Geoscience Commission (SOPAC). This bulletin is produced by SPC as part of its commitment to PIMRIS. The aim of PIMRIS is to improve the availability



of information on marine resources to users in the region, so as to support their rational development and management. PIMRIS activities include: collection, cataloguing and archiving of technical documents, especially ephemera (“grey literature”); evaluation, repackaging and dissemination of information; provision of literature searches, question-and-answer services and bibliographic support; and assistance with the development of in-country reference collections and databases on marine resources.