

THE SOUTH PACIFIC ISLANDS FISHERIES NEWSLETTER

No. 1

April, 1971

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Issued by the South Pacific Islands Fisheries Development Agency and United Nations Development Programme (Special Fund) Project, with the Food and Agriculture Organization of the United Nations as Executing Agency and the South Pacific Commission Co-operating Agency on behalf of participating Governments.

SOUTH PACIFIC ISLANDS FISHERIES DEVELOPMENT AGENCY

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1. EDITORIAL

With this, the first issue of the South Pacific Islands Fisheries Newsletter, we are flying a kite to see which way the wind sets.

At the Fourth South Pacific Commission Technical Meeting on Fisheries, Noumea, 21-29 October, 1970, and at the following SPIFIDA Fishery Consultative Committee Meeting, 30 October to 4 November, the need for an information system which would permit the Territories to keep up to date on developments in fisheries and marine biology, particularly as they relate to the reefs and lagoons, was strongly emphasized by the participants.

Such a document would hopefully give in concise form a running review of the initiation and progress of action programmes in all fields of fisheries relevant to the reefs and lagoons, their conservation and exploitation.

It was also agreed that territorial fisheries officers or government personnel concerned with fisheries development and administration should be asked to supply items of interest and that the Newsletter should get the widest circulation possible.

For a publication such as this to be of value, it must draw on sources of information and rely on the goodwill and active support of the people directly concerned with this range of activities. Accordingly, we are appealing in this first issue for a more positive approach to the problem by our colleagues in government and in the fishing game. Such successes as you have achieved or the failures you may have experienced may be of extreme interest and value to others working in the same field, to assist them in their development programmes and to help them avoid errors and omissions which would retard such programmes. The responsibility for the success of this Newsletter as a means of disseminating information and assisting your colleagues depends largely upon you yourself and we end this Editorial with a strong plea for your co-operation and assistance.

2. ADDRESS BY THE LATE AFIGA AFOAFOUVALE MISIMOA,
 SECRETARY-GENERAL, SOUTH PACIFIC COMMISSION, AT
 THE OPENING OF THE FIRST FISHERIES CONSULTATIVE
 COMMITTEE MEETING

Noumea, 30 October, 1970

Gentlemen:

This morning we are meeting with different hats. You are now attending the first Meeting of the Fisheries Consultative Committee established under the Plan of Operation for the South Pacific Islands Fisheries Development Agency.

As you know, it was our intention that this Meeting should have taken place in April last, but at that time there were insufficient representatives of territories nominated to make it worthwhile, so we decided to hold it following the Fisheries Technical Meeting.

The delay has been unfortunate from the viewpoint of getting started on the work for which the Agency has been established; but on the other hand you have had the benefit of the discussions over the past week which, I am sure, will enable you to contribute more to the questions which will now come before you. SPIFDA is a project which is substantially financed by the United Nations Development Programme, and in common with all such projects it is necessary to work under the rules for such projects prescribed in the Plan of Operation which has been approved and signed by the member Governments concerned.

The Fisheries Consultative Committee is one of the bodies for which provision is made in the Plan of Operation to ensure that SPIFDA meets the needs of the Pacific Island territories. Although this Consultative Committee is advisory in nature, I think you can be assured that its advice will be received by the Project Manager, by FAO and by UNDP with the greatest attention and respect. The other important measure provided for the protection of island interests is the appointment of the SPC Fisheries Officer as Co-Project Manager.

I have heard some criticism that this Agency is not under the management of the South Pacific Commission. I myself would, I think, have preferred this arrangement, but my understanding is that for this project such an arrangement was not acceptable to UNDP, and the Plan of Operation approved by governments provides for control to be exercised by FAO (with SPC as the Co-operating Agency). So we have the Project, and through the Project we have resources in money and skills which otherwise may have been impossible to obtain.

It is for us to see that we obtain the greatest possible value from these resources. This, I think, is the most important advice we need from you. Over the past few months some initial steps have been taken to initiate a Programme of Work drawn up by the Project Manager following enquiries made in Pacific territories, and with the concurrence of the Commission, FAO and UNDP. In consequence, consultants have been recruited to undertake certain work which was asked for by a number of territories.

You may not be in full agreement with all of these steps. If you are not then we would expect you to say so. If we had met in April it would have been possible to avoid this situation, but at that time many of the territories were not agreeable to your attending the Meeting, and we felt it was necessary to have as wide a representation as possible at this important first Meeting.

The Plan of Operation provides that meetings of the Consultative Committee shall be held at least once in each year. We would like to have more frequent meetings, but in the Pacific the cost of such meetings is very high, so I think we must limit ourselves to meetings once each year. Provided the United States law is changed to permit it, participating governments have agreed to an 8% increase in the SPC Budget next year. If this money is received, provision is made for the Commission to meet half the cost of fares for territorial delegates to the next meeting of this Committee. I sincerely hope that this money will become available, as I am sure it will make it easier for you to attend the next meeting.

I now have very much pleasure in declaring this first meeting of the Fisheries Consultative Committee open.

NOTE: Afioaga Afoafouvale Misimoa died suddenly on 18 February 1971 while on an official visit to the Gilbert and Ellice Islands Colony.

3. THE SOUTH PACIFIC ISLANDS FISHERIES DEVELOPMENT AGENCY: ITS ORIGINS AND DEVELOPMENT

The first indications of a widespread interest in, and concern with, development of the fisheries of the region was given at the Fisheries Conference held in Noumea, New Caledonia, by the South Pacific Commission from 14 to 22 May, 1952.

The Commission thereafter took steps to develop its knowledge of the problem and fisheries personnel were appointed to its staff. In February 1962, a Fisheries Technical Meeting was convened by the South Pacific Commission in Noumea, and on the basis of a recommendation adopted at this meeting, steps were taken by the Metropolitan Governments concerned to prepare a request for the United Nations Development Programme to furnish, under the Special Fund, arrangements, expertise and equipment to develop the fisheries of the territories within the sphere of influence of the South Pacific Commission.

Negotiations continued and specialist meetings were held, including a Technical Meeting on Fisheries convened by the South Pacific Commission from 4 to 13 June, 1968, in Noumea, and followed by a Working Party on South Pacific Fisheries Projects held at the East-West Center, Honolulu, Hawaii, from 26 to 30 August, 1968, and a concurrent seminar on Ichthyosarcotoxism in Papeete, French Polynesia.

In addition to these specialists meetings, the South Pacific Commission, at its successive Conferences and Sessions between 1962 and 1968, examined in some depth the problem and these deliberations had considerable bearing on the form and timing of the ultimate request to the United Nations Development Programme.

Arising from the recommendations of the various meetings, it was finally decided that an extensive project, concerned essentially with the development and rational management of the existing and potential resources of the reefs, atolls and lagoons, should be mounted and a request for Special Fund assistance was transmitted to the Governing Council of UNDP late in 1968.

Although the original concept had been for the establishment of a Pacific Islands Reef and Atoll Fisheries Development Institute and Training Centre, more mature consideration of the problem resulted in the request indicated in the paragraph above and it was decided that the development of the deep sea/pelagic fisheries should be on a basis of specific requests for assistance where and if required by the individual territories concerned.

The request for the establishment of a South Pacific Islands Fisheries Development Agency was approved and adopted by the Governing Council of the United Nations Development Programme in January 1969 and a Project Manager (Designate) was appointed on 1 February 1969 to prepare the Plan of Operation for the Project.

The draft Plan of Operation was cleared by FAO and submitted for signature by the participating Governments and UNDP in September 1969.

The Plan of Operation specifically designated the SPC as co-operating Agency on behalf of the signatory Governments and the nominal headquarters of the Project were established in the SPC headquarters, Noumea, New Caledonia.

After studying the Plan of Operation in February 1970, the Government of France proposed certain amendments to Chapter I, Purpose and Description, paragraphs 1.1 and 1.2. These proposals were circulated to Member Governments and the U.N. Agencies concerned and on 19 May, 1970, the definitive version of the Plan of Operation was approved and signed in New York by the Member Governments represented, UNDP and FAO and forwarded to the Government of Western Samoa for approval and signature.

Pending signature of the Plan of Operation, early steps were taken to discover the interest of world specialists in the various aspects and sub-projects of the Agency. Recruitment procedures were initiated by FAO in March 1970 with the issuing of Field Post Vacancy announcements.

The Plan of Operation for the project was signed by the Participating Governments in May-June 1970 and the project officially declared operational on 22 July 1970.

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4. SPIEDA FIRST FISHERY CONSULTATIVE COMMITTEE MEETING

The Plan of Operation of the Agency provides for the establishment of a Fishery Consultative Committee with specific terms of reference.

The First Meeting of the Fishery Consultative Committee was held in Noumea from 30 October to 4 November 1970. Attendance at the Fishery Consultative Committee First Meeting was facilitated by the SPC meeting half the return air fare costs for the participants at the preceding Fisheries Technical Meeting.

Members of the Committee were: Dr Stanley Swerdloff (American Samoa), Mr Albert Adams (Fiji), Professeur Francois Doumenge (French Polynesia and New Hebrides), Mr James Hughson (Gilbert and Ellice Islands Colony), M. Jean-Jacques Eude and M. Michel Legand (New Caledonia), Mr Gregory Graham (Territory of Papua and New Guinea), Mr Peter Wilson (Trust Territory of the Pacific Islands) and Mr William Travis (Western Samoa).

Also attending as Consultative Committee Members were Mr Alan Harris (SPC), Mr Michael Priestley (UNDP), Mr Nakaji Kojima (FAO), Mr Alan Tubb, Project Manager, and Mr Valentine Hinds, Project Co-Manager.

Consultants invited were Dr Ray George, Mr John Glude, Mr John Fyson and Dr Robert Clutter.

The Government of France was represented by M. Jean Emond.

The Meeting was formally opened by the Secretary-General of the South Pacific Commission and Mr Peter Wilson, the Representative from the Trust Territory of the Pacific Islands, was elected Chairman. Following the adoption of the Agenda and the appointment of Rapporteurs, the UNDP Representative gave a brief statement outlining UNDP procedures and operations. The FAO Representative also gave a brief statement outlining FAO's procedures and operations.* * *

The Committee considered that its terms of reference as set out in SPIFDA Plan of Operation, paragraphs 6.1 to 6.3, required clarification and, following a searching and detailed discussion, accepted the formal letter, whose contents are given below, signed jointly by the representatives of UNDP and FAO as a basis for its present and future operations.

"The Chairman,
Fishery Consultative Committee.

Dear Mr Chairman,

As you are aware, your Committee has asked the undersigned, as representatives of UNDP and FAO, to amplify and clarify the Committee's terms of reference as laid out in particular in para. 6.3 of the signed Plan of Operation.

It is our view that the Committee's rôle is not only to support the finally agreed programme of work and to secure the necessary counter-part support from the participating governments, but also to review,

comment and advise on the whole SPIFDA programme (including the design of sub-projects) within the framework of the Plan of Operation. These functions we consider to be of vital importance in this project which has to meet the varied requirements of territories widely scattered over a large area with diverse levels of development.

In particular, we see one of the key functions of the Committee is to review and comment on the detailed programme of work presented by the Manager and Co-Manager in order both to ensure that it is correctly orientated with regard to the needs and priorities of the region and also to provide for the maximum input to the project from the participating territories and the SPC.

In accordance with normal practice, the Project Manager will take full account of advice and comments expressed by the Consultative Committee, or, in the inter-sessional periods by the Chairman, in the formulation and implementation of the programme, obtaining the agreement of the FAO headquarters as required. In this connection it is understood that the Project Manager will be responsible for keeping all members of the Consultative Committee and other interested parties informed of the progress of the project.

Yours sincerely,

(Sgd) N. Kojima

Senior Officer
(Project Operations)

Department of

Fisheries,

FAO, Rome, Italy.

M. Priestley

Deputy Regional
Representative,

UNDP, Apia,

Western Samoa."

With the procedural matters appropriately dealt with, the Committee examined in detail the work programme of the Agency and based mainly on earlier requests from the territories selected several areas of interest and importance for immediate attention.

The Committee noted that some territories had expressed interest in such matters as squid fisheries, ice-silo operations, the Hawaiian hoop net and mackerel-scad fisheries but considered that these and similar possibilities for additional sub-projects might conveniently be held over for consideration at its second meeting.

The Agency was requested to give immediate attention to developing the programmes in connection with Aquaculture, Bêche-de-Mer, Spiny Lobsters, Marine Turtles, Fishing Boat Development (with particular reference to the use of ferro-cement), the Polynesian Pearl Shell Lure, and Reef and Lagoon Ecology and Management. (Ref: Report of the First Meeting of the Consultative Committee of SPIFDA, Noumea, November, 1970)

5. "WHERE DO YOU GO FROM HERE"

The following paragraphs are intended to give a running preview of the results arising firstly from the work of the specialist consultants and secondly, in due course, the objectives achieved in the several territories from the incorporation with their fisheries development activities of programmes based on the specialist recommendations.

It must be borne in mind however that certain of the following recommendations are tentative at this stage, arise from preliminary ideas developed during the early stages of some of the sub-projects and may be confirmed, modified or even rejected when the final report on the sub-project has been cleared. Meantime, the comments and ideas that follow are offered as talking points for discussion and comment and to indicate current trends in thinking and planning.

Marine Turtles

Based on his visits to Hawaii, Tahiti, the Samoas, New Caledonia, Tonga and Fiji during the period 7 September to 15 December 1970, Dr Hirth's final report is now available on request.

Urging the preparation of a "Turtle Field Manual" which should emphasize marine turtle identification, conservation and management, this report includes several specific recommendations for immediate action.

Notable among these are the proposals that Rose Atoll, off American Samoa, be declared a fully protected nature reserve; nesting censuses be initiated in French Polynesia, New Caledonia; tagging programmes be established in Fiji, New Caledonia, Western Samoa and French Polynesia, turtle rearing experiments be undertaken in Western Samoa and Fiji and an intensive study of turtle grass pastures to determine rates of productivity, utilization by turtles and other aspects of the ecology of these areas be established in Fiji.

[Note: Further development of these and additional proposals are anticipated after the completion of Dr Hendrickson's studies in Micronesia and TPNG, June-August 1971. Ed.]

Spiny Lobsters

During the period 20 October 1970 to 26 February 1971, Dr Ray George visited Fiji, the Samoas, Tonga, Territory of Papua and New Guinea, British Solomon Islands and New Hebrides. During his visit to TPNG, the Consultant was accompanied by Mr Craig MacDonald from the U.S. Trust Territory. Valuable data on the occurrence, distribution and fishery for the four major species of spiny lobster was collected and will be reported in detail in Dr George's final report which will also cover French Polynesia, Cook Islands and New Caledonia.

Preliminary findings, subject to final review, suggest that management procedures are not warranted unless

- a) the market value can be improved
- b) the quality of the product to the consumer is jeopardised.

It is proposed that the development of improved fishing methods be encouraged and that under certain conditions research could be directed towards the use of artificial shelters.

Steps should also be taken, at the administrative level, to document the development of the fishery and to gather data on catch and effort.

Boat-Building

Mr John Fyson, FAO Naval Architect, joined the team in December 1970 and immediately took over as Acting Director of the Agency. Later he visited Fiji and the Samoas, meantime coping with voluminous technical correspondence and enquiries. In February 1971 Mr Fyson transferred to more appropriate quarters in Suva where he will be based. Visits to Cook Islands, Trust Territory of the Pacific Islands and Guam are planned, to deal with specific technical problems.

While no general recommendations of widespread applicability have yet crystallized, Mr Fyson has contributed considerable expertise on specific problems confronting the boat-building industry in the region.

Aquaculture (Molluscs)

The first draft of John P. Glude's report, arising from visits to Guam, Micronesia and Gilbert and Ellice Islands, January - February 1971 contains a wealth of information which will be supplemented by future reports on Fiji, the Samoas, Cook Islands and French Polynesia.

Dr Glude's preliminary recommendations relate to the culture of both the edible oyster (several species) and Mother-of-Pearl shell. In their present form the recommendations offer specific comments on and programmes for individual islands e.g. a one-year test programme with the Japanese oysters on Ponape, Truk & Guam, the establishment of a 4-year training course and an edible oyster culture programme for the Palau Islands, with further research into the availability and response to "farming" of several endemic bivalves.

COMMENT

The above paragraphs reflect the rapidly crystallizing knowledge of the problems and needs of the territories but much yet remains to be learnt, defined and done.

The next step in the operation must be the close and critical examination by the territories themselves of

- a) the applicability of these recommendations to the particular territory,
- b) the extent to which the territory itself can accept and implement any recommendation, and what local resources it can apply,
- c) the amount and kind of assistance the territory requires for a successful programme of implementation.

Such an examination can be assisted by the aid-giving agencies, given the full co-operation of the territorial services.

THE BALL IS ALREADY IN YOUR COURT!

6. SCHEDULE OF CONSULTANT SERVICES

Consultants invited to attend the First Meeting of the Fishery Consultative Committee were: Dr R. W. George (Spiny Lobsters), Mr John Glude (Mollusc Culture), Mr John Fyson (Naval Architect) and Dr Robert Clutter (Reef and Lagoon Ecology). Dr Harold Hirth (Marine Turtles) had already been appointed and was on field duty.

With the exception of Mr Fyson, who transferred his office to Suva on 5 March 1971, all consultants were based on the Agency HQ in Noumea but in practice were continuously in travel status.

Recruitment into the operations of the Agency of these specialists was contingent upon their own prior commitments and their detailed work schedules were as follows:

(a) Marine Turtles

Consultant: Dr Harold Hirth, University of Utah

Appointed: 7 September 1970

Terminal date: 15 December 1970

Territories visited: Hawaii, French Polynesia, American Samoa, Western Samoa, New Caledonia, Fiji, Tonga

Reports: Final report now being processed.

(b) Spiny Lobsters

Consultant: Dr R. W. George, Museum of Western Australia

Appointed: 19 October 1970

Terminal date: 18 April 1971

Territories visited: Fiji, Western Samoa, American Samoa, Tonga, Papua-New Guinea, British Solomon Islands, New Hebrides, French Polynesia, Cook Islands, New Caledonia

Reports: Interim Tour Reports covering visits to (a) Fiji, Western Samoa, American Samoa, Tonga; (b) Papua-New Guinea, British Solomon Islands, New Hebrides; (c) French Polynesia, Cook Islands, New Caledonia, submitted. Final Report now being processed.

(c) Boat Building

Consultant: Mr John Fyson, Naval Architect, FAO

Appointed: 2 December 1970

Terminal date: -

Territories visited: New Caledonia, Fiji, American Samoa, Western Samoa, French Polynesia

(during the period 4 December 1970 - 22 February 1971 Mr Fyson served also as Acting Project Manager during the absence of the Project Manager on duty in Rome and on home leave)

Reports: Routine interim reports on work progress are submitted regularly.

(d) Mollusc Culture

Consultant: Mr John Gludé, Fish and Wild Life Service, Seattle

Appointed: 6 January 1971

Terminal date: 30 June 1971

Territories visited: Hawaii, Guam, Trust Territory of the Pacific Islands, Gilbert and Ellice Islands, Fiji, New Caledonia, Australia, New Zealand, American Samoa, Cook Islands, French Polynesia

Reports: Interim tour reports covering Guam, Trust Territory of the Pacific Islands, Gilbert and Ellice Islands, Fiji and New Caledonia have been submitted.

(e) Reef and Lagoon Ecology

Consultant: Dr Robert Clutter, University of Hawaii

Appointed: 6 January 1971

Terminal date: 20 September 1971

Territories visited: Scientific institutions in Europe, USA, Canada, Hawaii, Fiji, Australia (Pacific Science Congress), Western Samoa, New Caledonia

Note: Dr Clutter will be largely responsible for convening the SPIFDA Colloquium on Reefs & Lagoons, Noumea, 27 July - 2 August 1971/

Reports: Interim Travel reports covering visits to institutions in Europe, USA and Canada now coming to hand.

7. FISHING NEWS EXCHANGE

compiled by V. T. Hinds, Fisheries Officer,
South Pacific Commission

I had hoped that the response to my appeal for news for inclusion in this section would have been better. However, some territories have been co-operative and I hope that the short news items which are included here will be an encouragement to the others.

Kingdom of Tonga

John Pitman, Director of Agriculture, reports that a Japanese-built long-liner was purchased in Tokyo in December 1970 and was delivered to Tonga by an entirely Tongan crew under a Japanese fishing master, arriving at Nuku'alofa on February 15th. Her Majesty, Queen Mata'aho, named the vessel "EKIAKI" on February 19th, using a bottle of Saki, after His Majesty had described the meaning of the name as a Tongan Fishing Bird. Invited guests accompanied Their Majesties on a cruise round Nuku'alofa Harbour during which time they were served various Japanese fish dishes. The crew have been busily engaged making up new fishing gear and the vessel is expected to go into operation shortly.

The previous motor fishing vessel "PAKEINA" was handed over to the Tonga Shipping Agency for general duties immediately after the arrival of "EKIAKI".

Arrangements have been made with the Fisheries Department, Fiji, for two junior staff members of the Tongan Agricultural Department to receive training with the Fiji Fisheries Division for some months.

The U.S. Peace Corps are endeavouring to supply by July 1971 another Marine Biologist for Tonga together with a couple of fisheries extension staff, while the post of Fisheries Officer has been requested for the next financial year 1971/72.

Cook Islands

Dr Barry White reports that Mr Tom Marsters recently returned to Rarotonga after four months' fisheries training in Western Samoa and Fiji under a Fellowship arrangement with the United Nations Development Programme. This project was initiated by SPC in 1969. It appears that

there will be plenty of work for Tom to do with the number of new projects which are being set up in the Cook Islands at the moment. Five new fast fishing launches are expected to arrive in Rarotonga from the U.S. in late April and these are eagerly awaited by local Cook Island crews who are members of the Fishermen's Co-operative based at Rarotonga. They will be engaged in the Skipjack Fishery using the Mother-of-Pearl Shell Lure. The Co-operative have set up their own retail fish shop and a processing area and equipment for the extension of the freezer facility is on the water.

The research schooner "WESTWARD", which has been engaged in a marine biological and archeological expedition in South East Oceania since October 15, 1970, recently visited the Cook Islands. The "WESTWARD" is supported by the National Geographic Society, the Oceanic Foundation, the Bishop Museum and the Smithsonian Institute. Mr. Tap Pryor, Director of the Oceanic Foundation, and Dr. Wally Heath, Assistant Director of the Oceanic Institute and Director, Lummi Aquaculture Project at Bellingham, Washington, spent two weeks in the Cook Islands. The scientific team aboard visited Manaue Island and Aitutaki, looking for suitable sites for Aquaculture and the introduction of the Total Atoll Production system. It is anticipated that a pilot project will be started on the east side of Rarotonga and experts from the Oceanic Foundation and the Smithsonian Institute are currently planning the initiation of this project. Operations will be directed by a proposed Agency to be known as the Cook Islands Marine and Atoll Development Agency (CIMADA) which is expected to fund and operate the projects until such time as they can be turned over to local management in each island. Involved in the planning stages are Ray Dees, Hydroponic Engineer, Dr. Schedadeh, who has achieved success in the breeding of mullet under laboratory conditions, and Dr. Richard Poole, Oyster Biologist.

Wallis Island

M. Jean Michon has built locally and introduced into the lagoon fisheries the 23-foot Gulf Stream Texas Dory. This is much appreciated by the Wallisian crew and the boat is currently engaged in multiple trolling, trap fishing and hand-lining. Another type of boat successfully introduced into Wallis is the Raiatean Canoe from French Polynesia and five of these boats are currently under construction particularly for fishing in the lagoon and along the reefs. These are very fast and seaworthy canoes of very simple construction, marine plywood on wooden frames. A 20-foot Florida skiff has also been ordered from Whippy's boat yard in Suva. M. Michon will be very happy to receive any sketches, photographs, etc. of successful fish traps used in other areas and you may care to send these on to me and I will send them on to Wallis.

French Polynesia

The Fisheries Service of Tahiti under the direction of M. Sixte Stein is forging ahead with its aquaculture programme and I recently had the good fortune to spend a month in that territory visiting a number of projects. The fresh water prawn Macrobrachium lar is being cultivated in a series of ponds constructed by the Service in a valley close to Papeete supplied by clean mountain water. This project, which was started nine months ago, expects to have prawns ready for the market towards the end of this year. The ponds are stocked with young prawns taken from the numerous estuaries to be found around the high island of Tahiti. Currently these prawns fetch \$6 a kilo and as such are a luxury item. There is increasing interest amongst Tahitian entrepreneurs and new ponds have been excavated in other parts of the main island and currently are being stocked. One of the research projects being followed in the laboratories of the Fisheries Service is the rearing of larval prawns in tanks in the hopes that the technique may be established in order to supply young prawns to cultivators in the future. There is a pressing need for outside assistance in this particular project and it is hoped a world expert in this field may be able to visit Tahiti within the next few months.

The cultivation of edible oysters is proceeding very well, particularly at Tahaa Island to the north west of Tahiti where some 40 concessionaires expect to get their first harvest of oysters to market in late 1971. These cultivators have been supported to a considerable extent in the initial stages by the Fisheries Service who have collected spat and supplied small oysters and encouraged and advised the various stages up to the present. As the Tahitian cultivators become more experienced, they will completely take over the whole project and be self-supporting. This project has been under the direction of Sylvain Millaud.

Bill Reed continues the successful cultivation of Mother-of-Pearl Shell, the growing of half pearls and round pearls in suitable lagoons in the Tuamotus. After a number of teething problems, work has now accelerated and an important part of this valuable project is the actual restocking of lagoons with young shell which is essential for the future of the industry.

A unique form of night fishing for flying fish is practised at Papeete. The boats used are of marine plywood on wooden frames, 12 feet long, 4 feet wide. They are powered by 45 hp outboard engines, obtaining a speed up to 30 knots. There is only one crew who sits in a specially constructed cockpit let into the foredeck. The cockpit contains engine throttle and gear shift controls and the boat is steered by an athwart-ships tiller in front of the fisherman. The fisherman wears a plastic helmet upon which is set a powerful spot-beam powered by an independent Honda generator mounted behind the cockpit on the floor of the boat. The after 2/3rds of the vessel are open and into this section of the boat the flying fish are thrown from a long handle scoop net used by the fisherman.

Large garfish are also speared using a multi-prong 9-foot spear. The boat can carry 200 kgs of fish and works generally all night. An exceptional catch would be 600 flying fish but usually more often in the region of 100 to 200. The cost of a boat like this in Papeete, complete with motor and all fittings, is \$1,460. There are approximately 20 of these boats operating.

The Skipjack season in Papeete has not been of the very best this year and various reasons have been put forward for this including a general lowering in temperature. Interest has been expressed by some of the fishermen in taking their boats to Pago Pago in the off season to fish for Skipjack for sale to the canneries there. Currently, RAAHERE I and RAAHERE II, both Skipjack boats from Papeete, are operating out of Noumea. RAAHERE I started this enterprise in late 1970; RAAHERE II came to Noumea during March, 1971.

Fiji

Albert Adams reports that the first ferro-cement boat for the Kia Fishermen's Association, a 30-foot Cutter, was formed and plastered in four weeks, built upside down in the Fisheries Division compound, and subsequently rolled over and decked. The launching was due for April 9. The Peoples' Foundation for the South Pacific made a grant to the Kia Fishermen's Association for the purchase of fishing gear in 1970 and this has helped them to earn the money required for the construction of this new boat. Akuila Vuakaca, Senior Fisheries Assistant from Fiji, is reported to be doing extremely well on the course for Fisheries Officers from Overseas in the UK. Two further trainees from the South Pacific are also on this course with Akuila and they are both from Western Samoa. The course is expected to continue until September 1971 and a further course will be initiated in October for a further 12-month period. The Overseas Development Administration recently advised SPC about the new course and this information was circularized to all fisheries officers in February, 1971. If territories have suitable candidates, they should submit their names for the course without further delay.

So much for our news items this time. I shall be glad of your continued support for this section and shall be also pleased to have your comments as to the value of this type of news exchange. To those of you who have not so far contributed, try and do a little better in the future. We cannot distribute news unless you send in news. This section reflects your interest.

* * * * *

8. "SHADOWS BEFORE"

SPLFDA: Specialist Colloquium on Reefs and Lagoons

SPC Headquarters, Noumea, New Caledonia

27 July - 2 August 1971

South Pacific Commission:

Regional Symposium on Conservation of Nature, with Special
Reference to Reefs and Lagoons

SPC Headquarters, Noumea, New Caledonia

4- 14 August 1971

Pacific Science Congress

Canberra, A.C.T., Australia

18 - 31 August 1971

South Pacific Commission Conference and Session:

Noumea, New Caledonia

21 September - 6 October 1971

Second SPIFDA Fishery Consultative Committee Meeting

Noumea, New Caledonia

20 - 26 October 1971

1. The first step in the process of the investigation is the identification of the problem. This is done by the investigator who is assigned to the case. The investigator will then conduct a thorough search of the records to determine if there is any information that might be helpful in solving the problem.

[illegible]

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