

Appendix VII

**List of Participants at the FFA/SPC Workshop, Noumea June/July 1995 who
requested copies of the new versions of CEDA and LFDA**

Detailed Schedule of Training Course in

POPULATION DYNAMICS OF CULTURE-BASED RESERVOIR FISHERIES

Udon Thani Freshwater Fisheries Research and Development Centre

Monday

- 09:00 **Welcome and introduction to the course schedule**
(Opening ceremony. Introduction of the course schedule. Pre-course questionnaire)
- 10:00 Coffee break
- 10:30 **Key concepts in fish population dynamics**
(Population, cohort, equilibrium, different kinds of mortality, selection by fishing gear, single and multi-species systems, technical and biological interactions, capture and culture fisheries, population regulation, density-dependence and size-dependence)
- 12:00 Lunch
- 13:00 **Introduction to population dynamics of culture-based fisheries**
(Processes in stocked fish populations, a general model, insights into the dynamics of culture-based fisheries, implications for management)
- 14:30 Coffee break
- 15:00 **Data collection for the assessment of culture-based fisheries**
(What do we need to know for an assessment? Basic information about the fishery: number of fishermen, boats, gear types, seasonal and annual variation. Identification of fleets. Sampling catches for length frequency distributions. Sampling catches for marked fish.)
- 16:00 Close

Tuesday

- 09:00 **Estimation of gear selectivity**
(Why we need to know about gear selection, selective and unselective gear, estimating the selectivity of seine nets. Estimating the selectivity of gillnets. Adjusting length frequency samples for gear selection)
- 10:30 Coffee break
- 11:00 **Estimation of gill net selection**
(Demonstration, using an example from an Indonesian reservoir)
- 12:00 Lunch
- 13:00 **Mortality rates and fishing effort**
(Working with exponential mortality rates, catch curves, separating natural and fishing mortality, Pauly's empirical formula, size-dependent mortality)
- 14:20 Coffee break
- 14:40 **Estimation of fishing mortality, natural mortality, and selection from the recapture of marked fish in a Chinese reservoir**
(Introduction to Chinese reservoir fisheries. Recapture data as a substitute for age data. Analysis of mark-recapture data using cohort analysis. Demonstration on the computer, use of spreadsheets.)
- 16:00 Close

Wednesday

- 09:00 **Fish growth models**
(Fish growth in length and weight, length-weight relationships, the concept behind the VBGF, the conventional VBGF and how it is used, the density-dependent VBGF)
- 10:00 Coffee break
- 10:30 **Estimation of VBGF parameters from age or mark-recapture data**
(Spreadsheet demonstration)
- 11:30 Lunch
- 12:30 **Estimation of growth and mortality parameters from length-frequency data**
(Introduction to length-based methods. Demonstration of LFDA.)
- 13:30 **Practical: Analysis of length frequency data**
(Estimation of growth and mortality parameters for a sample data set.)
- 17:00 Close

Thursday

- 09:00 **Introduction to yield per recruit analysis, with application to Chinese reservoir**
(Mortality and growth determine the yield from a cohort. How different fishing patterns influence yield. Populations at dynamic equilibrium. First assessment of Chinese reservoir fishery.)
- 10:30 Coffee break
- 11:00 **Adaptive management to gain information on density-dependent parameters, full assessment of management options for culture-based fishery**
- 12:00 Lunch
- 13:00 **Participants plan a research programme for the assessment of a culture-based reservoir fishery**
(Four groups. Participants to select one reservoir for study, which should be known to at least one group member. Map of reservoir with landing sites, villages etc. What is known about the fishery? Past studies on reservoir and fishery. Objectives of the research programme. Planning of a realistic research programme, subject to constraints on staff time, budget etc. How would management recommendations from the programme be implemented?)
- 16:00 Close

Friday

- 09:00 **Presentations and discussion of planned research programmes**
- 10:30 Coffee break
- 11:00 **Synthesis of training course**
(Summary of workshop, an integrated view of culture-based fisheries, workshop evaluation questionnaire)
- 12:00 Lunch
- 13:00 Close

The name of participants

Name	Position	Office
1. Mr. Cherdchan Amattayakul	Director of Fresh Water Division	Fresh water Division
2. Mr. Pradit Sripataraprasit	Biologist 6	Fresh water Division
3. Mr. Somchai Sukollapum	Biologist 5	Chieng Mai Fresh Water Fisheries Development Centre
4. Mr. Wisanuporn Ratanatrivong	Biologist 5	Pisanulok Fresh Water Fisheries Development Centre
5. Mr. Suin Rithcharung	Biologist 6	Nakorn Sawan Fresh Water Fisheries Development Centre
6. Mr. Jirachai Juntana	Biologist 5	Udon Thani Fresh Water Fisheries Development Centre
7. Ms. Renu Sirimongkonthaworn	Biologist 6	Khon Kaen Fresh Water Fisheries Development Centre
8. Dr. Chumnarn Pongsri	Biologist 6	Khon Kaen Fresh Water Fisheries Development Centre
9. Ms. Jintana Dumrongtripob	Biologist 4	Ubonratchathani Fresh Water Fisheries Development Centre
10. Ms. Wannapa Somboonsumran	Biologist 5	Ayuthaya Fresh Water Fisheries Development Centre
11. Ms. Darunee Nuntamongkolkul	Biologist 6	Kanjana Buri Fresh Water Fisheries Development Centre
12. Mr. Thavorn Jirasoponrak	Biologist 6	Chon Buri Fresh Water Fisheries Development Centre
13. Ms. Suvena Banyen	Biologist 6	Surat Thani Fresh Water Fisheries Development Centre
14. Ms. Renu Wongsongsarn	Biologist 6	Udon Thani Fresh Water Fisheries Development Centre
15. Dr. Cherdsak Virapat	Biologist 6	Fisheries Engineering Division
16. Ms. Kanchanaree Phongcharae	Biologist	Fresh Water Division
17. Ms. Aree Intarasombat	Biologist 6	Fresh Water Division
18. Mr. Surasak Kunline	Biologist 5	Pattani Fresh Water Fisheries Development Centre
19. Mr. Chutipong Wongsongsarn	Biologist 6	Udon Thani Fresh Water Fisheries Development Centre
20. Ms. Ubonratana Sunthornratna	Biologist 5	Fresh Water Division
21. Mr. Suriya Saikrachang	Biologist 4	Fisheries Engineering Division

Name	Position	Office
22 Mr. Dhana Yingcharoen	Biologist 6	Fisheries Engineering Division
23. Mr. Supawat Komolmarl	Biologist 5	Fresh Water Division
24. Mr. Deeka Rattanachamnong	Biologist	Institutu of Research Fresh Water Fisheries
25 Mr. Boonsong Sricharoendham	Biologist	Institutu of Research Fresh Water Fisheries

MRAG Ltd.

Culture Fisheries Assessment Project
ODA Fisheries Management Science Programme

CERTIFICATE

This is to certify that Mr. Boonsong Sricharoendham has successfully completed a

TRAINING COURSE

ON

POPULATION DYNAMICS OF CULTURE-BASED FISHERIES

from 20 to 24 March 1995

at Udorn Thani Freshwater Fisheries Development Center
Udorn Thani, Thailand



Kai Lorenzen
Project Officer

CEDA / LFDA

The new versions of CEDA and LFDA demonstrated at the workshop on the Management of South Pacific Inshore Fisheries will shortly be released for general distribution through the Overseas Development Administration's Fisheries Management Science Programme. If you are interested in receiving a copy please indicate below by ticking CEDA, LFDA, or both, or alternatively write to:

Projects Administrator, MRAG Ltd., 8 Prince's Gardens, London, SW7 1NA
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Name and Position	Organisation and Address	CEDA	LFDA
Esaroma Ledua	Fisheries Division, MAFF, PO Box 358, Siwa Fiji	✓	✓
Ray Clarke, Fishery Development	National Marine Fisheries Service - PAO 2570 Dloe Street, Honolulu, Hawaii 96822.	✓	✓
S. Tuilancala	PO Box 358, Suva, Fiji Islands	✓	✓
M. Kimberly-Lowe MHI-MRI Coordinator	Department of Land and Natural Resources, Division of Aquatic Resources, 1151 Punchbowl Street, Rm. 330, Honolulu, HI 96822	✓	✓
Mose Pelasio Fisheries Advisory Officer	Department of Natural Resources and Environment, Fakaofu, Tokelau.	✓	✓
Brendon Pasisi Fisheries Adviser	Department of Agriculture, Forestry and Fisheries, PO Box 79, Alofi South, Niue Island.	✓	✓
Nick Rawlinson Fisheries Ecologist	CSIRO Marine Laboratories, PO Box 120, Cleveland, Queensland 4163, Australia.	✓	✓
Tony Mulipola Marine Biologist	PO Box 1874, Fisheries Division, Apia, Western Samoa.	✓	✓
Ian Bertram	Marine Resources, PO Box 116, Aitutaki, Cook Islands	✓	✓
Siamupini Iosefa Fisheries Assistant	PO Box 1874, Fisheries Division, Apia, Western Samoa.	✓	✓
Theo Isamu	Division of Marine Resources, Box 117, Koror, Palau 96940.	✓	✓
Etupati Ropeti	PO Box 1874, Fisheries Division, Apia, Western Samoa.	✓	✓
Philip Gu Resource Manager	PO Box 1608, Nuku'alofa, Tonga	✓	✓
David Ramm Senior Research Scientist	Fisheries Division, GPO Box 990, Darwin, NT 0801, Australia.	✓	✓

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Neil Trainer Manager, Resource Assessment and Monitoring.	Queensland Fisheries Management Authority, PO Box 344, Fortitude Valley, Q 4006, Australia.	✓	✓
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Gideon Tiroba	ICLARM Box 438, Honiara, Solomon Islands.	✓	✓
Mick Bishop	Australian Fisheries Management Authority, PO Box 376, Thursday Island, QLD 4875, Australia.	✓	✓
Andrew Smith	SPQEP, PO Box 240, Apia, Western Samoa.	✓	✓
Shinichiro Kakuma	Okinawa Fisheries Research Laboratory, 1-3-1 Nishizaki Itoman, Okinawa, Japan.	✓	✓
Bobby Tan General Manager	Sun Kee Pte Ltd., 3 Ellenborough Street #01-103, Singapore 0105.	✓	✓
Steve Lindsay	PO Box 1179, Kolonia, Polinpei, F.S 96941	✓	✓
Tom Graham Biologist	Division of Marine Resources, PO Box 117, Kiner, PL 96940, Palau.	✓	✓