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**Strengthening of South East Asian
Aquaculture Institutions**

A Progress Report

1 July - 31 December 1985

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by

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I. Summary

Progress on this grant since June 1984 has occurred in three main areas:

- (1) Revision of the workshop document
- (2) Clarification of the computer models
- (3) Presentation and publication of data at a major conference
- (4) Continuation of the experimental work in Bangkok.

Each of these areas is detailed below.

II. Workshop document

It was originally planned that the workshop document be completed and published by January 1985. This has not been possible. An additional editor (David Ottey, Ph.D. candidate at UM) was hired to review and improve the manuscript. His review led to the discovery that parts of the document had been taken from other published material, and that the publications had not been properly cited. A major effort was undertaken to ascertain that the material included was properly referenced, and this led to much delay. Currently, the document is revised and distributed to reviewers for evaluation as a Great Lakes Research Division Special Publication. This publication should be available by May 1985. The manuscript has been substantially improved, with major overview sections, is fully referenced, and is much improved over earlier drafts.

III. Clarification of Computer Models

The computer models for each of the five species have been reviewed and fully documented in the past few months. Dr. Lee Fuiman, a graduate of UM, has done much of this work. The models are now fully documented, so that each parameter and its units are listed at the start of each model. Also, the models have been made to run automatically with a menu and choice

of model to run. They have also been improved by listing a table of output for the run which includes the individual growth rate, the number remaining alive, the total yield, and the D.O. level in the pond (if D.O. was included in the model) for each week of the culture period. We are currently planning to do sensitivity analysis and write up the models into another document, which should be completed in the fall. This document may be combined with the workshop document and submitted for publication at that time. A diskette for use on an Apple computer is included with this progress report.

IV. Presentation of Data at a Major Conference

Dr. William Chang recently attended the Second International Conference on Warmwater Aquaculture and presented a paper entitled "Models of production systems for commonly cultured fishes of southeast Asia". The paper will also be published in the conference proceedings. A copy of that paper is included in this document (Appendix 1).

V. Experimental Work in Bangkok

The experimental work in Bangkok is also continuing as indicated in the progress report of June 1984. The major progress has been the completion of the project on Tawes (which is now being written for publication), and the successful induction of breeding in sand gobies. These projects are continuing into 1985, and the salary plans and subjects for these projects are included in Appendix 2.

In conjunction with the experimental work and the strengthening of the aquaculture training in Thailand, Dean Wit Tarnchalanukit is planning to visit the University of Michigan in April 1985. His visit will be for three main purposes: (1) To update us on progress of the experimental

projects, (2) To review the workshop document, and (3) To visit a number of U.S. universities to become familiar with the personnel and facilities at each site. As dean of the Faculty of Fisheries at Kasetsart University, Wit will have many encounters with these institutions in the future, and his personal familiarity with them will be of great benefit to him and his colleagues. Tentative plans are for him to visit UM, Michigan State University, Auburn University, the University of Washington, Oregon State University, and the University of Hawaii.

Appendices

Appendix 1. Publication.