

# AQUANEWS

THE NEWSLETTER OF THE POND DYNAMICS/AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

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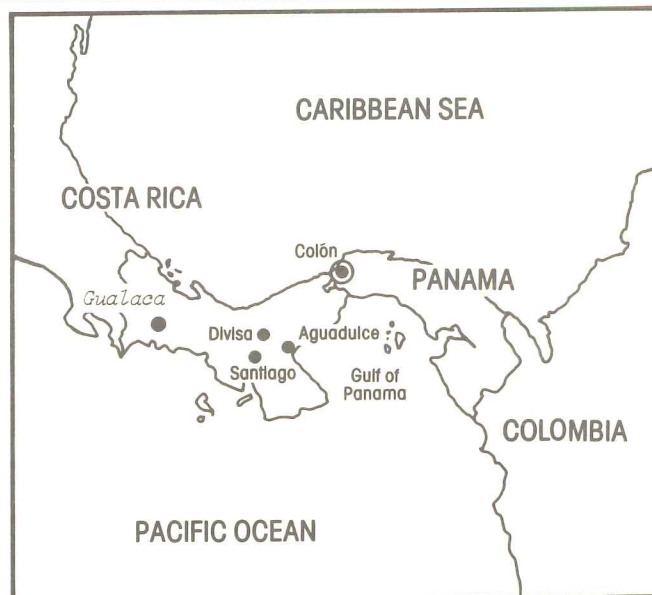
## OVERVIEWS

Throughout its brief existence, we have attempted to promote the CRSP as a three-way partnership in research between the U.S. universities, their counterpart agencies or institutions in the host countries, and USAID. Although research collaboration came easily between institutions, the marriage of USAID mission agendas with research collaboration has evolved more slowly. However, recent events are indicative of the value of this partnership.

CRSP participants from Michigan State University recently joined with USAID-Jakarta and the Faculty of Fisheries, Institut Pertanian Bogor (IPB) in a curriculum and research planning exercise for IPB.

In Thailand, the partnership between the National Inland Fisheries Institute (NIFI), the University of Michigan (UM) and USAID/Bangkok has become so effective that the latter has recently pledged funds to offset the reductions in centrally funded USAID programs such as CRSPs. Our hats are off to NIFI Director Dr. Thiraphan Bhukaswan, Dr. C. Kwei Lin, UM Research Associate in Thailand, and Dr. John Foti, Foreign Agriculture Officer in the USAID Mission, for cementing this strong working relationship.

--James E. Lannan  
Program Director



## CRSP UPDATE

### The Auburn/Panama/Gualaca Project

The Auburn/Panama freshwater project originally intended for the station at Divisa, Panama was initiated in Gualaca, Panama in February 1985. The move was necessary because the ponds at the Divisa Station intended for CRSP use were diverted to fingerling production to satisfy increasing demands from Panamanian farmers for fingerlings.

Gualaca is located in western Panama, in the province of Chiriqui, the agricultural center of Panama. The research station was built one mile south of Gualaca where a Panama Institute for Farming and Animal Science Research (IDIAP) facility with a chemical analysis lab was in operation with land available for pond construction. IDIAP also has livestock holding facilities nearby so opportunities exist for research in

(Continued p.2)



(Update, cont.)

animal-fish culture. Another advantage of the site is the copious supply of clear mountain water.

The research station is comprised of 33 earthen ponds of 800 m<sup>2</sup>, a water analysis lab, a feed formulation lab, a wet lab for aquaria studies, a drive-in fish holding area with 16 concrete tanks equipped with gravity fed running water, space for a fish hatchery, and a dormitory for students. The station is administered by DINAAC (The National Directorate of Aquaculture), but also functions as part of the Gualaca IDIAP facility.

Dr. Ronald Phelps of Auburn University and Dr. Richard Pretto of the Ministry of Agriculture in Panama are co-P.I.s of the project. David Teichert-Coddington of Auburn was hired as U.S. Research Associate and began residence in



*Research Associate David Teichert-Coddington (2nd from right) and station staff.*

Panama in February 1985. David works with the manager of the station and host country research associate, Medardo Peralta. Assistance in laboratory analysis and data collection is provided by biologists Ricardo Rios and Nelly Serrano.

The Gualaca station is located on acidic soils with moderately high water permeability. As a result, a fertile growing environment for tilapia is difficult to stimulate and maintain, and seepage is a problem in some ponds. Though troublesome, these pond site character-

istics are not unique to Gualaca. Two studies are underway to hopefully provide more information on these problems. A water budget study was initiated to better understand water loss. Six ponds are monitored closely; watershed is measured and the rainfall and runoff monitored. Evaporation and seepage rates are also determined. The highly acidic soils also influence the availability of minerals in the water column. A study is underway to investigate the interaction between soil and water chemistry as regards phosphorous and iron. Correlations between water loss and fish production, and water and soil quality variables will be determined at the end of each CRSP study.

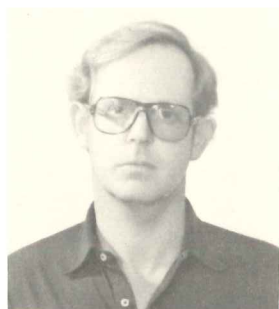
In addition to CRSP research, the Gualaca station was mandated to supply fingerlings to the Chiriqui region as well as conduct research on the grow-out of fish. As part of that mandate, a long-term study was begun this year on the growth of the shrimp Macrobrachium rosenbergii with tilapia under different nutrient regimes and stocking densities. Gualaca will also play a key role in a three year project to be funded by USAID-BARD that will deal with the sex reversal and breeding of red tilapia.



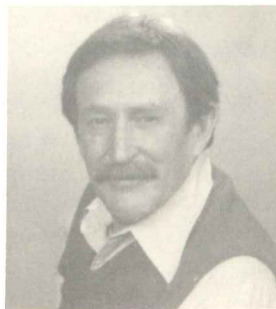
## NEW EEP MEMBERS

The CRSP External Evaluation Panel (EEP) is responsible for carrying out periodic external reviews of program accomplishments and progress. The panel is composed of impartial senior scientists selected worldwide by the Board of Directors and approved by the Joint Commission on Agricultural Research & Development (JCARD). The original panel, including Dr. James Avault (Louisiana State University), Dr. Kenneth Chew (University of Washington), Dr. Richard Neal (then of ICLARM, currently with USAID), and Dr. Ziad Shehadeh (Institute for Scientific Research, Kuwait), completed the first triennial review of the CRSP in 1985. The intensive review was accomplished by project site visits and meetings with all CRSP participants. Other commitments have prompted the resignations of three members over the past two years. Original member Ken Chew has been joined by the following recently appointed members:





*Peter Edwards*



*Homer Buck*

**Dr. Peter Edwards** is Associate Professor of Aquaculture at the Asian Institute of Technology in Bangkok, Thailand. He was born in England and received his undergraduate degrees in General Biology and Botany in Liverpool, and his Ph.D. in Botany from the University of Texas, Austin. He has been at the Asian Institute of Technology since 1976, and has also been honorary lecturer at the Institute of Aquaculture, University of Stirling, Scotland since 1980. His research interests include the recycling of organic wastes into fish, the development of small scale rural aquaculture, and integrated farming.

**Dr. Homer Buck** will also be serving on the Panel. Since 1964 he has been leader of the Sam A. Parr Fisheries Research Center of the Illinois Natural History Survey, adjunct professor in the Dept. of Animal Science, and member of the graduate faculty of the Univ. of Illinois. Dr. Buck will be retiring from these positions in September except for some ongoing research at the Survey, and plans to devote more time to outside activities such as the EEP. As an aquatic biologist, Dr. Buck's research interests include: use of manures, hydrogen peroxide-treated straw, and other agriculture by-products as sources of carbon and energy for fish/prawn polycultures; use of ratios of stable carbon isotopes as tracers in the aquaculture food web; and evaluation of hybrid crappies as sport fishes.

Welcome aboard to both these new CRSP participants! ■

## ASIAN FISHERIES FORUM

The First Asian Fisheries Forum was held in Manila during 25-31 May, 1986. The registered attendees numbered approximately 160 foreign participants, 105 Philippines delegates, 70 observers, and 50 students. Forty-six countries were represented and about 200 scientific and technical papers presented. Univ. of Hawaii (UH) and Univ. of the Philippines in the Visayas (UP) Aquaculture CRSP participants who attended included: Dr. Arlo Fast, (UH P.I.), Dr. Kent Carpenter (UH Research Assoc.), Dr. Romeo D. Fortes (UP Res. Assoc.). Special project leaders attending included Dr. Yvonne Chiu, Ms. Cecilia Minsalan, Mr. Roman Sanares, and Ms. Leah Ver. Other research staff in attendance included Mr. Valeriano Corre, Ms. Rosy Janeo, Ms. Emelyn Pudadera, Ms. Guia Aaron, Mr. Victor Estilo, and Ms. Agnes Sastrillo. The research associate for the new USAID PSTC project at the UP Brackishwater Aquaculture Center, Mr. Terence Barry, also attended.

The CRSP was also represented by the other Asian projects. Research associate Dr. C. Kwei Lin (University of Michigan-Thailand) presented a paper; also in attendance were Co-PI Dr. Muhammad Eidman and research associate Dr. Chris Knud-Hansen (Michigan State University-Indonesia); and Dr. Kevin Hopkins (Oregon State University Program Management Office, Asst. Director). Both Kwei Lin and Chris visited the Iloilo CRSP site after the meetings. Papers presented by Philippines and Thailand CRSP participants will be published in Forum proceedings. ■

## MSU DEVELOPMENT PAPERS

The Department of Agricultural Economics at Michigan State University has announced the availability of several new publications in the MSU International Development Paper Series. Individuals in Third World countries and USAID officials may receive single copies free. For information on papers available and cost, write to: MSU International Development Papers, Dept. of Agricultural Economics, 7 Agriculture Hall, Michigan State University, East Lansing, MI USA 48824-1039. ■



## CRSP NEWS

**Ron Kinnunen**, Great Lakes Fisheries Extension Specialist, on short-term assignment from Michigan State University (MSU) to Indonesia, spearheaded 2.5 days of filming interviews with CRSP personnel in cooperation with support facilities and camera crew of the Television of the Republic of Indonesia (TVRI). Persons interviewed included Institut Pertanian Bogor (IPB) fisheries faculty in classroom teaching situations and CRSP personnel at work in fish ponds and laboratories. He also examined water-use (rice culture, laundry, fish pond culture, etc.) in the Bogor region. Written narrative was developed by TVRI specialists and used this past March with film segments for a 3-minute national evening TV news spot and a 15 minute program on the national TV network's evening educational program. They described the collaborative research program underway between the IPB and MSU, its achievement to date of doubling the average production in small-scale fish ponds in Indonesia, and spin-offs from the program for faculty and students at IPB. Copies of the programs were brought to MSU for development of tapes to use in the university's extension and public relations program. ■

Indonesia/Michigan State U.S. Co-P.I.s **Dr. Cal McNabb** and **Dr. Ted Batterson** hosted their counterpart Co-P.I. from the Insti-

tut Pertanian Bogor (IPB). **Dr. Muhammad Eidman**, Dean of the IPB Faculty of Fisheries, spent several days on campus following the CRSP 4th Annual Meeting in March. Dean Eidman and the two U.S. P.I.'s met with administrators from several international studies programs to discuss the potential for expanding cooperative programs between the IPB and MSU. Dean Eidman also conferred with people in academic and research programs in fisheries management, fish culture, and fish food technology, and visited on-campus and off-campus research facilities to evaluate training sites for IPB fisheries staff. ■

## MEETINGS

--**First Inter-American Congress of Aquaculture**, 14-21 September 1986, Salvador BA, Brazil. For information: Claudio M. Volcker, Organizing Committee, Rua Francisco Serrador, no. 2-5/702, CEP20031, Rio de Janeiro-RJ, Brazil. Telex 2131223.

--**Acuicultura '86**: Shrimp Aquaculture Conference and Trade Show of the Americas, Panama Convention Center, Atlapa, Republic of Panama, 26 September-5 October. For information: Conference and Trade Show Organizer, International Shrimp Research Center, 2317 International Trade Mart, No. 2 Canal St., New Orleans, LA USA 70130 (504) 529-2317. ■

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Program Manager . . . . . **James E. Lannan**  
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