

AQUANEWS

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

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OREGON STATE UNIVERSITY

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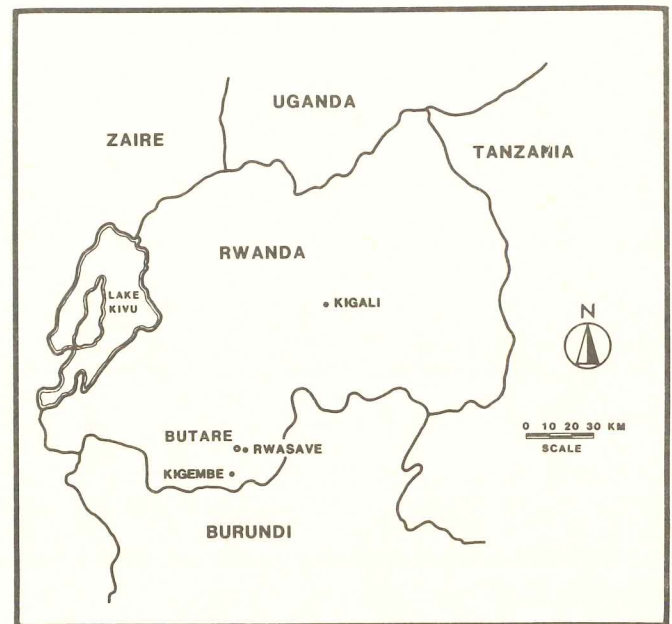
OVERVIEWS

This fall we have taken an important step toward assimilating the results of an initial set of pond dynamics experiments conducted at six host country research sites. Research teams for the six active CRSP projects have prepared technical and administrative reports describing last year's activities. For five of these projects, baseline data on the physical, chemical and biological characteristics of pond culture systems were reported. The next step is to process and analyze these data. By collecting research results in a single location, we are underscoring the most important element of our program: The Pond Dynamics CRSP is a cohesive program and not a collection of individual projects.

Another focus of program activity has been the initiation of program review and research planning activities. Our third Annual Research Planning Workshop is scheduled for this coming spring. The availability of our first series of technical reports will allow the CRSP Technical Advisory Committee to develop a generalized research plan that can be modified or refined by program participants at the upcoming meeting. The Committee anticipates that site-specific research issues will become increasingly important in our research planning. However, it is essential that we not lose sight of our global research mission to develop a greater understanding of pond dynamics through a cohesive collaborative research program.

We also have been preparing for an AID Triennial Review of our program scheduled to take place this spring. Our aim has

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MAINSTREAM THE RWANDA-OREGON STATE UNIVERSITY PROJECT

The CRSP project in Rwanda exemplifies a renewed interest in fish culture in this small, landlocked African country. Rwanda is the most densely populated country in Africa ($194/\text{km}^2$) and although food supply is currently adequate, a critical shortage of animal protein is predicted during the coming years. Marginal agricultural land, formerly available for grazing, is now needed for crop production. Some underutilized marshlands may be suitable for the development of fish culture systems. However, high altitude and low water temperatures present environmental conditions that are quite different from those in other African countries where fish culture has been successful.

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(OVERVIEWS Continued)

been to coordinate the review and our planning tasks to the extent possible, in order to reduce costs to the program. Key events in this coordinated schedule include:

- Host country site visits by representatives of the Executive Council, External Evaluation Panel and AID (December 1984 - February 1985)
- Meeting of the Technical Advisory Committee to develop generalized work plan for third cycle of pond dynamics experiments (December 10-11, 1984)
- Annual Research Planning Workshop (March 18-21, 1985, Honolulu, HI)
- AID Triennial Review of the Pond Dynamics/Aquaculture CRSP (April 15, 1985)

Jim Lannan
Program Manager

(RWANDA Continued)

A great interest in fish culture during colonial times led to the construction of several stations and numerous farm ponds in Rwanda, most of which were subsequently abandoned. During recent years, this interest has been revived with a commitment to developing a national fish culture program that is tailored to the needs of Rwanda. The CRSP research program is a key element in the development of this program. A second project, supported by AID and led by a team from Auburn University, provides complementary support in the areas of training, extension and fingerling production.

The CRSP research site is located in Rwasave, about 2 km from Rwanda's second city of Butare and about 130 km southwest of the capital city of Kigali. Butare is the location of the National University of Rwanda (UNR), the lead Host Country institution for the CRSP project. Dr. Valens Ndoreyaho, Dean of the Faculty of

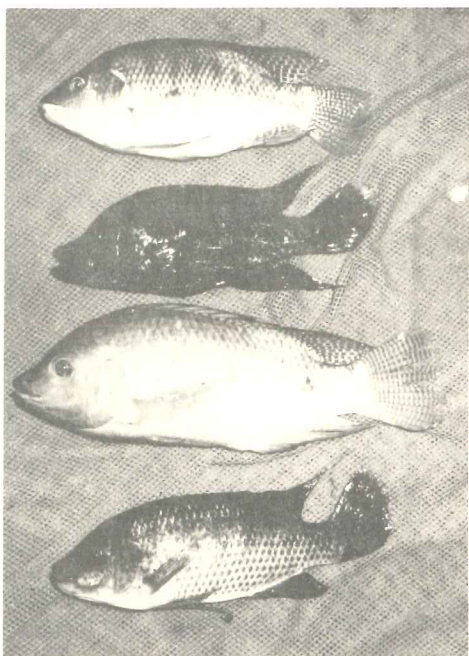
Agricultural Sciences at UNR, serves as the Host Country Principal Investigator for the project. Dr. Richard Tubb of Oregon State University is the U.S. Principal Investigator. The resident U.S. Research Associate, Dr. Boyd Hanson, is responsible for managing day to day activities at the project site.

Development of the UNR Fish Culture Station in Rwasave was initiated in December 1983, when the 20 hectare site was given to the University by Rwanda's Ministry of Agriculture. The site included a number of old fish ponds, although these were in poor condition and were too large to serve as research units. Dr. Hanson, in collaboration with UNR personnel, designed and supervised the construction of new facilities, suitable for CRSP activities. These new facilities include 20 6-acre research ponds, as well as breeding and rearing ponds. Also under construction is a 200-m² building, which will house offices, storage facilities and a laboratory. This construction is being financed by a grant to the Rwandan government from the European Development Fund.

Another major challenge in the initiation of the CRSP project in Rwanda was obtaining suitable Tilapia nilotica broodstock for the experiments outlined in the standardized research plan for the program. Although hybrid tilapia were



Workers constructing new ponds at the UNR facility in Rwasave.



Various species of tilapia.

available within Rwanda, special arrangements had to be made to obtain suitable fish through Auburn University, a partner in the Pond Dynamics/Aquaculture CRSP.

While overseeing research facility preparations, Dr. Hanson also has managed to teach courses in aquaculture and statistics. UNR has recruited a new faculty member to participate in the CRSP and is accommodating increased student interest in aquaculture research. The first set of CRSP pond dynamics experiments, scheduled to start early in 1985, will provide a valuable opportunity to build on this new enthusiasm. ■

INFORMATION EXCHANGE

* As reported in the last issue of AQUANEWS, there have been some personnel changes in the Indonesia-Michigan State University CRSP project. Bette Premo has now returned to the U.S. and is completing her work with the program. Cal McNabb and his wife Janet have taken up residence at the Bogor research site, where Cal is

supervising the installation of a water conditioning system. Dr. Ted Batterson of Michigan State University has joined the CRSP as Co-Principal Investigator and Dr. Charles Annett has been named as Bette's replacement. We also have received the good news that Dr. Eidman has recovered from his recent illness and has resumed his work as Host Country Principal Investigator.

* Jim Woessner, the U.S. Research Associate for the Philippines-University of Hawaii project reports that he and other CRSP participants at the Brackishwater Aquaculture Center (BAC) in Iloilo visited SEAFDEC late this summer. They were able to attend seminars by visiting researcher Dr. Gerald Schroeder, who has been measuring carbon isotope ratios as a means of characterizing food chains in ponds. Dr. Schroeder expressed interest in working with the CRSP team in tracking nutrient flow in the brackishwater ponds at the BAC.

* Kwei Lin, the U.S. Research Associate for the Thailand-University of Michigan project, has collaborated with Dr. Panu Tavarutmaneegul of Thailand's Department of Fisheries in the preparation of two papers to be presented at the 1985 Brigham Young University-Hawaii Campus 2nd International Conference on Warm Water Aquaculture. One paper is entitled "Cage Culture and Breeding of Sand Gobi in Thailand," and the other is entitled "Liming, Fertilization and Management of Acid-Sulfate Fish Ponds in Thailand."

* In addition to carrying out research tasks, U.S. Research Associate Bart Green has been putting in a lot of service time in Honduras. During a four-day aquaculture course for 28 assistant extension agents, Bart gave lectures on water quality, integrated aquaculture and pond construction. Lectures on integrated aquaculture also were given to groups of RENARE inspectors. Bart and his Host Country Counterpart, Ing. Pes. Hermes Alvarenga, also took part in a Peace Corps Fisheries program evaluation and planning meeting. ■

BULLETINS

- Dr. Ziad Shehadeh, Head of the Department of Aquaculture and Fisheries of the Kuwait Institute for Scientific Research, has agreed to serve as a member of the CRSP External Evaluation Panel. Dr. Shehadeh joins three other eminent aquaculture specialists who currently make up the panel: Dr. James Avault, Dr. Kenneth Chew and Dr. Richard Neal.
- The Program Management Office has prepared a new brochure on the Pond Dynamics/Aquaculture CRSP. This nine page document provides a succinct description of the program, including information on program background, the CRSP research plan, and a listing of program participants.
- The artificial propagation of the giant catfish (Pangasiandon gigas) this past year was a nationally celebrated event in Thailand and a major achievement for the Royal Thai Department of Fisheries (DOF). The giant catfish, which reaches lengths of 2 m and weights of more than 250 kg, is endemic to the Mekong River system of Indochina. This catfish has special cultural significance as the subject of many local myths and legends. In recent years, natural populations of the giant catfish have declined, suggesting that the species may be endangered. In April 1984, Thai fisheries biologists collected several million eggs from a single mature female. These were fertilized in vitro. The resulting several hundred thousand fingerlings were reared at the National Inland Fisheries Institute in Bangkok and released into the Mekong River system this past August.



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