

AQUANEWS

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

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OVERVIEWS

This quarter continues to be a busy time for all involved in the CRSP, both on the administrative and technical side.

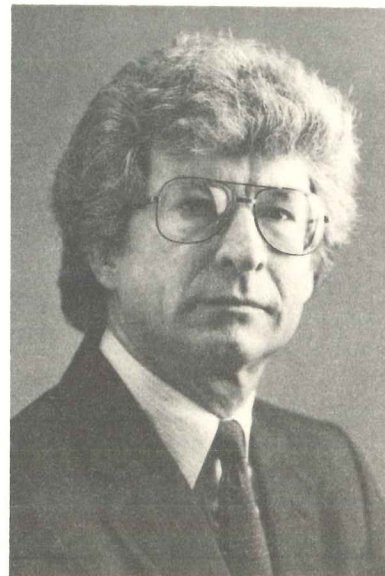
CRSP management continues to devote a major effort to the triennial review now scheduled for completion in December. In the interim, the PMO is working intensely on incorporating the recommendations of the AID Management Review, the External Evaluation Panel, and the CRSP participants into a proposal for funding continuation.

On the technical side, management and synthesis of the CRSP data base is receiving the highest priority. The PMO has recently added a staff member (see new appointments) to be responsible for management of the data base. The CRSP Board of Directors will appoint a Data Synthesis Team at its October meeting.

Jim Lannan
Program Director ■

LITERATURE SERVICE IMPLEMENTED

All six of the CRSP projects are now taking advantage of the new current literature service provided by the Program Management Office. Several projects are in isolated areas and do not have access to university resources. A survey form sent to each project helped identify individual needs for information and led to implementation of the following policy: The Program Management Office will provide 1) bibliographic information from various sources (ASFA Abstracts, International Development & Research Center bibliogra-



Dr. R. Oneal Smitherman
(See editorial on page 3)

phies, FAO publications, etc., 2) photocopied content pages from specified journals, 3) occasional special topic articles, and 4) notices of newly published information on aquaculture. Information requested will be sent monthly. Host country staff may either request reprints from the author(s), or request the information from their respective P.I.s. Project P.I.s are encouraged to supply the information as time and individual budget constraints allow.

It is hoped that this policy will help keep host country staff up to date on aquaculture/fisheries information. Any suggestions for improvement of service will be welcomed. ■

Plans are already underway for the CRSP Pond Dynamics/Aquaculture 1986 Annual Meeting. The meeting will be held March 16-21, 1986 at the University of California Lake Arrowhead Conference Center, located in the mountains east of Los Angeles, California. The isolated nature of the facility will augment the retreat aspect of this years meeting.

The EEP Report confirmed other recommendations that the research planning take place biennially to allow more time for thorough preparation. Although research planning will not be the focus of the 1986 meeting, CRSP participants should still expect to participate in some groundwork research planning. Data synthesis will be the primary focus of this years meeting. This meeting will be the first opportunity to evaluate results of CRSP experiments and base future workplans on these results. A tentative agenda includes individual project overviews and progress, a round table discussion on project management, and a presentation by the new data synthesis team. Registration forms have been sent to project members. Further information will be sent as plans are finalized.

CRSP PUBLICATIONS

Technical Report

It is important to begin publishing CRSP research results. Since not all projects have completed the first experimental cycle, the entire baseline information cannot be compiled. To expedite the publication process the PMO will publish the report in two volumes. Volume 1 will summarize the physical characteristics of each site, including data collected in preparation for the first experimental cycle. Volume 2 will present the compilation of data from the wet and dry season experiments.

Information for the completion of volume 1 has been received by the PMO and compilation of the volume has begun. After review, editing and printing processes, it should be available by late Fall 1985.

The CRSP Third Cycle Work Plan is now available from the Program Management Office. The document has been mailed to all CRSP members. Participants who do not receive the work plan should notify Carman McBride in the Program Management Office.

AQUACULTURE IN KENYA

(Note: Aquanews welcomes news of other aquaculture projects and related fisheries activities. The following information was submitted by Mr. Boyd A. Haight, FAO Fishfarming Extensionist.)

In 1982 a United Nations Development Program (UNDP) Preparatory Assistance Mission concluded that there was immediate need for rapid and intense assistance for development of rural small-scale fish farming in the Lake Victoria Basin of Kenya. Efforts to develop fish farming in this area had failed, mainly due to the lack of an effective fish farming extension service. Fish production in existing ponds was very low, due to management deficiencies. In 1983 the Lake Basin Development Authority (LBDA) trained 54 fish farming extensionists with support from the FAO Technical Cooperation Program. After an extensive inventory of existing fish ponds, the information was used to guide the rehabilitation of fish ponds under a project funded by UNDP supplemented by a generous donation from the Belgian Survival Fund. As of 1984, the project had accomplished a great deal, including: creation of fish farming extension services in 43 divisions of 7 districts in Nyanza and western provinces; inventory showing 5139 ponds in low-level production and 1360 ponds abandoned; rehabilitation of 427 ponds in production through improvement of pond construction and management and provision of pure T. nilotica fingerling; construction and stocking with tilapia of 423 new ponds, with a waiting list of 2100 farmers requesting assistance in building new ponds; and construction of two fry production centers.

GUEST EDITORIAL

"Strain Differences in Tilapia"

R. Oneal Smitherman
Technical Advisory Committee

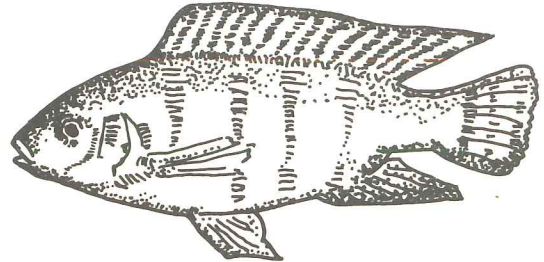
Recent evaluation of our collaborative research program has raised the issue of stock purity, possible contamination of Tilapia nilotica by other species at some CRSP project sites being indicated. This is certainly of legitimate concern and stock identifications at each location should be ascertained through techniques of electrophoresis to supplement the standard meristic, morphometric and pigmentation descriptions.

Data are being generated which indicate that the T. nilotica stocks at each site, even if uncontaminated by other species, may differ significantly in performance. At Auburn University, a comparison has been made of Egypt, Ghana and Ivory Coast strains under similar environmental conditions. The Egypt strain (31°N) was significantly ($P=.05$) more cold-tolerant than Ghana (6°N) and Ivory Coast (10°N) strains. Growth of Egypt fish was significantly faster than that for Ghana and Ivory Coast, when ponds received swine manure as the main nutrient source; however, Egypt was not superior to Ivory Coast when the main nutrient source was a 32% protein pelleted catfish feed.

These observations on genotype-environment interactions make it quite clear that we must know more about the ancestry of each strain of experimental fish. Not only must we be concerned about the origin and purity of each stock, we must know the breeding history of the population introduced to each research site. Further, our researchers must exercise reasonable care that breeding populations are of adequate size to obviate altered performance in experimental fishes through inbreeding.

After the current cycle of experiments at the several research sites, an investigation of the origin and history of T. nilotica stocks at each Pond Dynamics/Aquaculture CRSP project should be completed to determine degree of kinship among stocks, likelihood of contamination by other species, and needs to replace populations with those of improved quality. Such a study of T. nilotica populations might include live samples being transferred to a common laboratory for electrophoretic identifica-

tion and potentially for a comparative study of reproduction, viability and growth in ponds. An evaluation of this nature for diverse strains or stocks of a tilapia species at a single location (environment) would be unique, and allow the Pond Dynamics/Aquaculture CRSP to continue providing leadership in international research.



Tilapia nilotica

CRSP PERSONNEL NEWS

--Dr. Karl Lagler, Co-Principal Investigator of the University of Michigan/Thailand CRSP project, passed away in August of 1985. His participation in this and other projects world-wide will be sorely missed.

--Dr. Donovan Moss of Auburn University has been appointed to the CRSP Board of Directors (formerly Executive Council). Dr. Moss is Professor and Associate Director of the International Center for Aquaculture at Auburn.

--Dr. Kevin Hopkins, Asst. Program Manager, will supervise the Data Management and Synthesis Activities. Kevin's PhD is from Auburn University. Before coming to Oregon State, he worked for ICLARM in the Philippines and in Kuwait.

--Kent Carpenter has replaced Dr. Jim Woessner as Research Associate of the University of Hawaii/Philippines project. A PhD candidate from the University of Hawaii, Kent has recently been a Graduate Research Assistant and Research Intern at the University of Hawaii. He has had experience overseas working as an environmental scientist in Saudi Arabia, and as a Peace Corps volunteer in the Philippines.

(Personnel News, cont. p. 4)

--Felicien Rwangano was recently appointed as the new host country Research Associate for the Oregon State University/Rwanda project. From 1977-1983 he was Chief of Work for the Laboratory for Cellular Biology at the Institut Pedagogique National. Since 1983 he has been a part-time research assistant on the Project Agricole Kigali at the National University of Rwanda (UNR). He has a B.S. Degree in Agronomy from the UNR.

--Sompong Hiranwat and Somport Inkatawewat are the new host country Research Associates for the University of Michigan/Thailand project.

Welcome aboard to all these new project members, and we will look forward to meeting you at the annual meeting in March.

--Dr. C. Kwei Lin, Research Associate at the University of Michigan/Thailand CRSP, will be attending the Asian Freshwater Fish Culture Symposium in Beijing, China in October. He will be giving a paper on "Mass Culture of Rotifers and Chironomid Larvae for Fish Larvae Feed".



POND DYNAMICS/AQUACULTURE CRSP CALANDAR

October 17-18, 1985 - Board of Directors Meeting, Bodega Bay, CA
December, 1985 - AID Triennial Review, Washington, D.C.
March 16-20, 1986 - Annual Meeting - Lake Arrowhead, California

Program Manager James E. Lannan
Assistant Program Manager
and Newsletter Editor Nancy Brown

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AQUANEWS

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