

New CTSA manuals available...see page 5

IAC determines year 13 priorities

The Center for Tropical and Subtropical Aquaculture's Industry Advisory Council (IAC) met in February to determine the priorities for CTSA's thirteenth year projects. The council members reviewed 31 pre-proposals submitted from a variety of sources ranging from researchers to farmers, each of them focused on specific problems facing aquaculture. Two intense days of discussion and thoughtful consideration resulted in the IAC's selection of 10 priority areas that seek to address the most pressing challenges as well as the most exciting opportunities in aquaculture today.

Three of the priority areas are projects initiated in previous years that have demonstrated their benefit to the development of commercial aquaculture. These continuing priorities are:

1. Library Aquaculture Workstation
2. Extension and Training in the U.S.-Affiliated Pacific Islands
3. National Coordinator for Aquaculture New Animal Drug Applications

The seven new priorities were presented to the Technical Committee (TC), whose members include the region's top extension specialists and researchers. The committee's primary task was to develop problem statements for the seven new priority areas. CTSA employs a project work group method to develop proposals based on these problem statements. Readers who are interested in participating in the project work group for any new priority should contact Jean McAuliffe at CTSA by calling (808) 259-3167, faxing (808) 259-8395 or emailing jmcauliffe@teligentmail.com. Proposals were solicited from project work groups on April 4, 1999. The deadline for proposals is June 4, 1999.

The following is a brief overview of the seven new priority areas.

Disease Management and Virology Service for Hawaiian Aquaculture

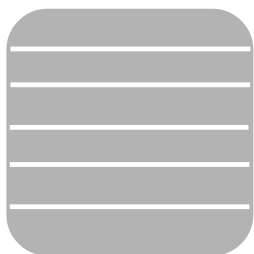
This priority area incorporates multiple objectives that reflect the wide range of disease management issues facing the aquaculture industry today. Several of these objectives focus on the need for continued support of shrimp producers in establishing additional family lines and species of high-health penaeid shrimp. The plan to achieve this objective includes providing quarantine, stock management, and inspection services to high-health shrimp producers in the state.

In addition, this priority expands beyond shrimp to address the growing concern of viral diseases in marine and freshwater ornamentals. Imported fishes carrying viral diseases have been the suspected source of recent high mortalities in some freshwater ornamental species. This has significantly increased the need for properly trained personnel and facilities to conduct fish virus culture isolation and identification work. Appropriate quarantine and testing of imported fish must be implemented in order to protect Hawaii's growing ornamental business from suffering additional losses.

Marine Food Fish Seedstock Production

As the cultivation of foodfish in Hawaii grows in popularity, continued research and development of improved seedstock takes on even more importance. The objectives of this priority area focus on providing suffi-

see priorities, page 6



PRAISE PAGES

The Pacific Regional Aquaculture Information Service for Education (PRAISE) compiles PRAISE Pages as a recurring feature of Regional Notes. PRAISE Pages lists journal articles on a topic of interest to Regional Notes readers. For more information on any listing, contact:

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This issue's topic: Breeding Guppies



Successful Propagation in Seawater of the Guppy *Poecilia reticulata* with Reference to High Salinity Tolerance at Birth

Shikano, Takahito and Yoshihisa Fujio. 1997. Fisheries Science. Tokyo, vol. 63, no. 4, pp. 573-575.

Production of a YY Female Guppy, *Poecilia reticulata*, by Endocrine Sex Reversal and Progeny Testing

Kavumpurath, S. and T. J. Pandian. 1993. Aquaculture. Vol. 118, no. 3-4, pp. 183-189.

Water Quality Fluctuations in a Closed Recirculating System for the Intensive Culture of the Guppy, *Poecilia reticulata* (Peters) Kaiser, H., T. G. Paulet and F. Endemann. 1998. Aquaculture Research. Vol. 29, no. 8, pp. 611-615. August 1998.

Masculinization of *Poecilia reticulata* by Dietary Administration of Synthetic or Natural Androgen to Gravid Females Kavumpurath, S. and T. J. Pandian. 1993. Aquaculture. Vol. 116, no. 1, pp. 83-89.

Breeding of Aquarium Fishes Francis, T., B. Ahilan, MdK. Rahman and V. Sundarraj. 1996. Fish Chimes. Vol. 15, no. 11, pp. 27-31.

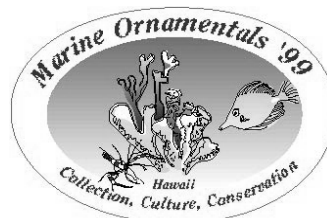
Livebearers: The Unrelated Family Jinkings, K. 1997. Aquarist & Pondkeeper. Vol. 62, no. 6, pp. 6-10. September 1997.

Possible Applications of Modern Fish Larviculture Technology to Ornamental Fish Production Dhert, P., L. C. Lim, P. Candreva, H. Van Duffel and P. Sorgeloos. 1997. Aquarium Sciences and Conservation. Vol. 1, no. 2, pp. 119-128. June 1997.

Application of Sex Reversal Technology in Ornamental Fish Culture Piferrer, F. and L. C. Lim. 1997. Aquarium Sciences and Conservation. Vol. 1, no. 2, pp. 113-118. June 1997.

Sexual Dichromatism and Temporary Color Changes in the Reproduction of Fishes Kodric-Brown, A. 1998. American Zoologist. Vol. 38, no. 1, pp. 70-81.

The Importance of Mate Copying and Cultural Inheritance of Mating Preferences Brooks-Roberts. 1998. Trends in Ecology and Evolution. 13 (2)45-46. February 1998.



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**November 16-19, 1999
Hilton Waikoloa Village
Kailua-Kona, Hawaii**

Register early and SAVE!
(*before August 1, 1999)*

Abstracts due - July 31, 1999

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PRAISE PAGES



MARINE ORNAMENTALS '99

CTSA fish project produces manuals

CTSA is pleased to announce the publication of three new aquaculture manuals produced as part of the CTSA project titled "Expansion and Diversification of Freshwater Tropical Fish Culture, Year Two." The overall goal of this project is to demonstrate to Hawaii aquaculturists the feasibility of ornamental fish production as a viable alternative cash crop. The manuals go a long way in fulfilling the project's primary focus; to provide technical assistance to farmers in their efforts to make the cultivation of freshwater tropical fish a successful venture.

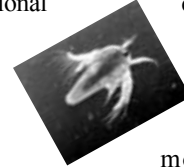
Once a farmer succeeds in culturing a quality product, he must determine the most efficient, cost-effective method of delivering the product to his waiting customers.



CTSA publication Number 131, *Shipping Practices in the Ornamental Fish Industry* by Brian Cole, Clyde S. Tamaru, Rich Bailey, Christopher Brown, and Harry Ako, provides vital information on the packing and shipping methods essential for ensuring the successful transport of live tropical fish. It provides detailed instructions on:

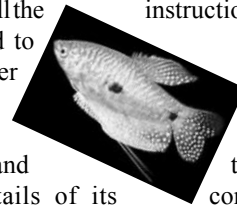
- freight considerations
- shipping practices
- types of containers
- how many fish to pack per container
- how to pack the fish
- use of shipping additives
- care and handling of incoming fish shipments

CTSA publication Number 133, *Enrichment of Artemia for Use in Freshwater Ornamental Fish Production*, by Clyde Tamaru, Harry Ako, Restituto Paguirigan Jr., and Lance Pang, explores a method of improving the nutritional quality of a commonly-used live feed, *Artemia* nauplii. The manual provides detailed information and enrichment procedures that will result in a more nutritious feed for the fish larvae.



The manual covers both small and large scale hatching as well as both homemade and commercial enrichment preparations.

CTSA publication Number 135, *A Manual for Commercial Production of the Gourami, Trichogaster trichopterus, A Temporary Paired Spawner*, by Brian Cole, Clyde S. Tamaru, Richard Bailey, and Christopher Brown, provides all the instruction an aquaculturist would need to culture this popular freshwater tropical fish. The manual begins with a detailed introduction to the gourami and then continues with all the details of its commercial production. A special section covers the critical aspects of disease prevention, treatment, and management.



A copy of these manuals can be obtained while supplies last by contacting Alcian Clegg at CTSA by phone (808) 259-3168, by fax (808) 259-8395, or by email at aclegg@teligentmail.com.

<http://library.kcc.hawaii.edu/CTSA>





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IAC and TC elect officers

Elections were held at the February 1999 CTSA Industry Advisory Council (IAC) and Technical Committee (TC) meetings to select officers for the coming year. We are pleased to announce the following results.



Dr. Rick Spencer was elected to a sixth term as IAC chairman. He has been a member of the IAC since its inception in 1988. Dr. Spencer earned a doctorate in oceanography from the University of Hawaii. He is a limited partner in Hawaiian Marine Enterprises, a Kahuku-based firm

that cultures and markets edible seaweed, clams, and freshwater ornamental fish.



Dr. Christopher Brown was elected chairman of the Technical Committee. He replaces Dr. Harry Ako, who served five terms as chairman. Dr. Brown, a University of Hawaii professor since 1989, earned a doctorate in biology from the University of Delaware. In addition to his professorship, Dr. Brown is also the University of Hawaii aquaculture coordinator.



IAC members elected Richard Croft vice chairman, a post he previously held for six consecutive terms from 1992 through 1997. Croft replaces Michael Crisostomo, who will continue to serve in the IAC general membership. An IAC member since 1990, Croft owns Pohnpei Natural Products, which cultivates and sells sea sponges and locally made soaps and shell products.



The Technical Committee elected Simon Ellis vice chairman. He replaces David Crisostomo, who served three terms as vice chairman. Ellis has a Master of Science in Fisheries and Aquaculture from Louisiana State University. Since January 1997, he has been the Regional aquaculture extension agent for the U.S.-Affiliated Pacific Islands.

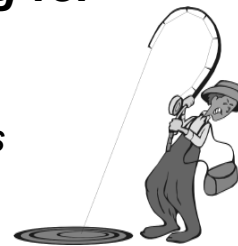
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Solidifying Hawaii's Freshwater Ornamental Aquaculture Industry

As with marine ornamentals, freshwater ornamentals present a promising opportunity for Hawaii's aquaculture industry. But at a time when extensive efforts are needed to develop freshwater ornamental technologies, a lack of adequate investment in research, extension, and infrastructure is threatening the continued growth and improved quality of the industry. This project will work to fill this gap by planning and supervising demonstration and growout trials of selected freshwater ornamental fish, determining best methods of improving pigmentation of fish using locally produced algae, and providing technical support to farmers in the form of workshops, verbal consultations, written materials, and site visitations.

We're fishing for your...

- * *comments*
- * *suggestions*
- * *story ideas*
- * *news items*



We welcome your feedback and suggestions for articles for future issues of Regional Notes, which is issued quarterly. Contact Jean McAuliffe at:

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Thank you!

