Aloha Readers! This is the first issue of your statewide aquaculture newsletter. It provides information about members of our community and their organizations, including their activities and the issues and challenges they face. Everyone is invited to let us know what the newsletter does or can do for you; you are also very much invited to send written contributions and photos. We hope to publish quarterly, mainly by email distribution, with some additional possibilities. Contributions can be sent to the editor at any time, and he will get back to you about plans for the next issue. Although we have "lead organizations" taking responsibility for production (see the sidebar on this page), we hope for broad participation from the community, including organizations that have their own newsletters. You may have things you'd like to share with the general community, summarized or not from your publication. We hope you enjoy this first effort, and we hope to hear from you.

Statewide Aquaculture Newsletter Launched

Although the federal government has not finished its development of standards for certified organic aquaculture in the U.S., there is interest and action on the issue among farmers in Hawaii and nationwide. Organic agriculture in Hawaii will be featured at the 15th Annual Membership Meeting of the Hawaii Organic Farmers Association (HOFA) on Sunday, October 7, 9:30 AM to 1:30 PM at the Keauhou Yacht Club in Kona. The session is free and open to the public; its theme is Farm to Market: Meeting Hawaii’s Growing Appetite for Organics. It will feature a general business meeting, informational tables and merchandise, and presentations by Whole Foods Market, Fresh From the Farm, and United Natural Foods, Inc. For more information, call 808 969-7789, or email hofa@hawaiiorganicfarmers.org. Visit HOFA on line at: www.hawaiiorganicfarmers.org.

Job Opportunities - Marine Fish Hatchery

Maui Fresh Fish LLC will be starting up a marine fish hatchery in Maui by the first quarter of 2008. The hatchery is nearly completed and will concentrate on spawning and rearing the deep water snapper opakapaka. Positions of Hatchery Manager and Assistant Hatchery Manager will become available around January 2008. The Hatchery Manager should have experience in algae culture, intensive rotifer culture, copepod culture, and marine fish larvae culture. The Assistant Hatchery Manager should have some experience in one or more of the above technologies. Salary is dependent upon experience. Interested applicants should email a cover letter and resume to edcichon@gmail.com.
The President’s Letter

Dear HAA Members:

First and foremost, I would like express a fond “aloha” and sincere “mahalo” to Dean Toda who recently left the Aquaculture Development Program after many years of outstanding service to ADP and HAA, to pursue a private sector opportunity. Dean has been actively involved with the HAA Board for more than a decade and has been the man behind the scene who has prepared the HAA Board minutes and treasury reports, has tracked all aquaculture related legislation at the capitol for HAA responses, has helped prepare our Board and general membership meeting agendas and our legislative testimony, has handled HAA’s membership renewal announcements and records, has represented ADP and HAA at numerous State Farm Fairs, hotel and restaurant shows, and Ag Days and Science & Tech Days at the legislature, has provided much of the logistical support for HAA’s annual conferences and general membership meetings, and so much more both large and small. I wish Dean the best of success in his new adventure but he will be surely missed by myself and the rest of HAA.

With the big void being left by Dean’s departure, this would be a great time for additional members to become more involved with HAA’s all-volunteer Board and in various association activities. The Board’s many responsibilities are carried out by committees that are open to participation by all members. Help is needed with maintaining and updating our web site, in preparing articles for the new Hawaii aquaculture newsletter, in meeting with legislators and promoting aquaculture legislation, in reviewing and commenting on state and national legislation and policy, and in planning for and organizing HAA’s general membership meeting, annual conference, and workshops in cooperation with UH Sea Grant, ADP, and others. As we move forward with HAA’s activities over this next year, please consider working with the Board in carrying out one or more of the association’s activities. Your assistance will be greatly appreciated and will help to make our association stronger and better represent our Hawaii aquaculture industry.

I will try to keep all of you informed of upcoming activities and of where your assistance would be appreciated. Please consider contributing a few hours of your time to HAA during the upcoming year to help support those activities that are of particular interest to you. Our next activities will be our general membership meeting, joint sponsorship of one or more workshops, and preparing for the upcoming legislative session.

Best wishes to all, Ron Weidenbach

8th Annual HAA Conference Educates and Nourishes Community

A total of 108 participants attended HAA’s conference this year, held on Thursday, July 12th at Kapiolani Community College. The themes of the conference were hatcheries and biosecurity. Presentations covered biosecurity, design and permitting issues, quality control and operating issues, financing alternatives, and a discussion of issues related to aquaculture at the national level. This year, a special effort was made by the organizers to bring in speakers with broad international experience to provide our local community with an opportunity for exposure to the principles and practices that have contributed to the development and success of large scale aquaculture industries. Speakers included commercial sector aqua-

(continued on page 4)
Open Ocean Aquaculture in Congress, An Update
by John Corbin

Despite the old adage, "you don't want to know how sausage or politics are made," knowing what is going on with aquaculture in Washington DC can be important to our livelihoods in the Islands.

The short of it is there has been strong interest and action by the Bush administration in recent years to support establishment of a focused marine aquaculture development program in the National Oceanic and Atmospheric Administration (NOAA), US Department of Commerce (USDOC). This includes the new idea of authorizing the implementation of a permitting/leasing regime for farming the vast US Exclusive Economic Zone (EEZ) - 3 nautical miles to 200 nautical miles from shore. Legislation has been introduced this year to the Senate (bill S. 1609) and the House of Representatives (bill H.R. 2010) and Hawaii's Senator Daniel Inouye, a champion of national aquaculture, is a co-sponsor of the Senate version.

What will the legislation do? Briefly, it would: authorize USDOC to develop a process to issue permits and leases for farms in the EEZ, establish environmental requirements for farms, authorize a long-term research and development program in NOAA for marine aquaculture, and provide for enforcement of rules and regulations governing farm operation. If the legislation ultimately passes, NOAA will prepare rules for public review that will govern the planning and detailed implementation of the law.

While the final word is not available at this writing, the legislation probably will not pass in 2007, given the crowded congressional agenda. This despite it being the top priority of the Secretary of Commerce - the same Secretary that called Hawaii "the Silicon Valley of aquaculture." Next year is an election year, so many important issues will be center stage, including aquaculture.

Ultimately, what could passage mean for the country and for Hawaii? One of the driving reasons for the Program is the growing and now widely recognized need to decrease seafood imports and increase domestic supplies from fisheries and aquaculture. The US currently imports 80% of the seafood it consumes and is increasingly dependent on volatile foreign sources to meet demand. We are no different, Hawaii imports over 70% of its seafood.

If the NOAA Program is established what could it mean for Hawaii aquaculture? As a leading state for marine aquaculture research and education by a variety of public (University of Hawaii) and private institutions (the Oceanic Institute and private companies), greater amounts of federal dollars for aquaculture could be realized. Hatchery methods development for new local species will benefit both land and ocean farmers, as well as giving public fisheries managers a tool for stock enhancement. Being an island state with exposed open ocean sites near shore, essential cost-effective research on cage technologies and farm operations can be done here all year round. We have the infrastructure and the scientists and most important we have two successful commercial farms leading the national charge offshore.

For more information on the legislation and the Program, look at the NOAA Aquaculture Program web site at www.nmfs.noaa.gov/aquaculture/. HAA is tracking this legislation and will be providing input. Your comments and support can be registered through the HAA President and Board and Hawaii's Congressional delegation.

Editor's Note: John Corbin, recently retired as long-time Manager of the Aquaculture Development Program, has been tracking the progress of this issue for the HAA.

HAA Officers and Contact Information

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Hawaii Aquaculture Association, continued

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culturists from such places as Europe, Belize, and Indonesia.

The formal program ended with the presentation by HAA’s president, Ron Wiedenbach, of a special legislative proclamation to John Corbin commemorating his years of service as head of the Aquaculture Development Program to the aquaculture community and to the State.

The conference was followed by the customary Taste of Aquaculture reception. Local aquaculture products were prepared as heavy pupus by chefs from Roy’s, Hiroshi’s, and Sansei, featuring lobster, prawns, kampachi, abalone, halibut, and tilapia. Both the conference and the reception were well received by the attendees. A total of 67 respondents to a survey filled out at the end of the conference gave it an overall rating of 9.69 out of a possible 10. Comments from respondents cited the venue, topics, and selection of speakers as strong points of the conference and decried the lack of time for questions imposed by an overly ambitious schedule.

Chef (l), Corbin (r), tilapia plate (b)

J. Corbin (l) and R. Weidenbach (r)

A Good Short Fact Sheet for Fish Farmers on VHS

In Hawaii, fortunately, we know viral hemorrhagic septicemia of fishes (VHS) only from secondhand reports. It is a viral disease of wild and cultured fish that can show dramatic (hemorrhagic skin) symptoms, or none at all while the fish carries it. The disease cannot affect humans and fish carrying it are safe to eat. It has, however, done some spreading in the Great Lakes region, and there are calls for action to prevent its spread. Read more from the Ontario Ministry of Natural Resources at: www.mnr.gov.on.ca/mnr/fishing/VHS.html.

September ReefTalk:

Warm and Cold Seawater Applications at the Natural Energy Laboratory of Hawaii Authority

Wonder what really goes on at the former OTEC facility? Jan War, Operations Manager at the Natural Energy Laboratory of Hawaii Authority (NELHA) will outline NELHA’s fantastic ocean technology odyssey from the beginning to today. Innovative applications of cold sea water for aquaculture, cooling spaces, water bottling and deep sea creatures never seen before will be discussed by Mr. War using colorful photos. When: Tuesday, September 25, 2007 6:30-8:30 P.M. Where: Thelma Parker Memorial Library (Waimea) Contact Sara Peck for questions or further information: peck@hawaii.edu, 808 329-2861.
The Hawaii Aquaculture Extension Program is your statewide extension service. We support the development and sustainability of aquaculture business in Hawaii by providing information, education, and technical assistance to existing businesses, potential entrepreneurs and the general public.

The Program is sponsored by the UH Sea Grant College Program, the Aquaculture Development Program of the Hawaii Dept. of Agriculture, and the UH College of Tropical Agriculture and Human Resources.

### Extension Facilitates HAA

**Consideration of NOAA RFP**

Is grant-getting a zero-sum game (more for you means less for me)? - Sometimes not. Are there too many initials in the title of this note? - Possibly. The first question and many more were aired during a very productive workshop/meeting on September 12 at Windward CC.

First, a bit of history. Nearly two years ago, a good portion of our aquaculture community attended the Hawaii Aquaculture Summit to consider the benefits of increased internal communication and cooperation. One major point of agreement specified that information about funding opportunities should be widely shared among industry, research, and government and that these sectors should consider how best to respond.

The National Oceanic and Atmospheric Administration recently published this year's Request for Proposals on marine aquaculture. The Board of Directors of the Hawaii Aquaculture Association viewed this occasion as "an opportunity for Hawaii to present a unified front with regard to research and development efforts required to remove bottlenecks to industry growth." Accordingly, they invited their members and other stakeholders to a workshop intended to "foster that coordinated response." The session was facilitated by Clyde Tamaru (personally requested by NOAA to help) and Kathleen McGovern-Hopkins of the extension program, and HAA member and private sector consultant Joe Tabrah.

The specifications of the RFP were presented, along with some of their practical implications. The total amount of funds available is $8 million over two years; it is envisioned that half of this may be accessed in the form of relatively large projects, at about $0.5 M per year at each of 3 or 4 regional work sites.

(continued on page 6)

### New Sea Grant Agent Arrives in American Samoa

Ephraim Temple is UH Sea Grant’s new aquaculture extension agent in American Samoa. He started his duties on August 1 in the middle of moving with his family from Oregon. They arrived in American Samoa on August 15 and are as settled in as possible until their shipping container arrives. John Gonzales served as the American Samoa agent until August. The short transition time and help from Darren Okimoto has made the transition quick and Temple is already heavily involved in projects Darren and John began.

Temple Received a B.S. in zoology from UH-Manoa and a masters in fisheries science with a minor in marine resource management from Oregon State University. His thesis described the delivery of antibiotics to larval marine and freshwater fish. He and his wife, Melinda, have two children, Ella and Isaac. Ella, 3, is already learning Samoan words like aiga (family) and mea ‘ai (food), and Isaac, 1, is learning how to mimic the thumping bass coming from the constant stream of aiga buses passing the house.

Sea Grant began its full-time presence in American Samoa in 2002 with full support of Congressman Faleomavaega. The Sea Grant agent is responsible for helping aquaculture to grow in the islands by working directly with farmers to improve management practices and showcase their farms to potential participants. He will also teach at the American Samoa Community College to influence the next generation of Samoan marine scientists and fish farmers.

Facilitated by Clyde Tamaru (personally requested by NOAA to help) and Kathleen McGovern-Hopkins of the extension program, and HAA member and private sector consultant Joe Tabrah.

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Many Kudos to Dean  by Leonard Young, Acting Manager, ADP

After nearly twenty years, Dean Toda has left the Aquaculture Development Program for the private sector. Dean has been instrumental in the organization of the annual Hawaii Aquaculture Association (HAA) meetings including the coffee breaks, luncheons, and successful after meeting receptions involving guest chefs, who provided innovative and luscious aquaculture product tasting. Additionally he has served as its Secretary/Treasurer. Who among the HAA will step forward to help with these duties? Dean will be volunteering to continue with HAA until the end of this year.

Among his duties was the annual Farm Bureau’s Farm Fair booth for aquaculture featuring displays and live ornamental fish, prawns, shrimps, Chinese catfish or tilapia. During the annual Hospitality and Foodservice Expo shows he secured products to show off the aquaculture products produced within the State. He spearheaded ADP’s involvement with the Sam Choy Poke Contest. Aqua Flashes and other information releases were provided with long hours of list preparation and media releases to our farmers. Regular and impromptu information surveys were often done single handedly by Dean in this office.

My fondest memory of Dean’s impact is his 5 P’s -- price, product form, perception, placement and promotion… not necessarily in order of any preference or importance. This was his approach to marketing and marketing promotion that I remember. We thank you, Dean Toda, for your many years of dedication and hard work in helping to develop our aquaculture industry. We wish you wealth and success in the private sector.

The Aquaculture Development Program (ADP) provides a wide range of support for Hawaii’s aquaculture industry. ADP is a planning, development and problem-solving organization, whose goals are to get production and service businesses started, and once started - to help ensure their success through active assistance.

Contact ADP at:
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The breadth and diversity of this collaboration is unprecedented in our community. Whatever the outcome of the proposal applications, we can hope that this precedent and experience will let the community see more of its common interest.
The Pacific Aquaculture and Coastal Resources Center (PACRC) at the University of Hawaii at Hilo, under the direction of Dr. Kevin Hopkins, is now completing its second year in operation. As most readers know, PACRC has a marine site located in the Keaukaha community in Hilo and a freshwater site located at the UH Hilo Agriculture Farm. Both sites have taken some time to get into shape, with a lot of construction and testing needed even after the main construction was officially completed in late 2005. Like all research institutions or aquaculture sites, it has also gone through a shake down period to develop and test the animal husbandry systems. These steps are nearly completed, thanks in part to the excellent efforts and persistence of the two PACRC Aquaculture Technicians, Matt Barton and Mike Haring. PACRC also acknowledges the strong support of the University of Hawaii Sea Grant College Program, which has worked as a partner in the development of Center personnel, facilities and events.

Several research efforts are underway at the two sites. The Pearl Research and Training Program continues to condition pearl oyster broodstock for spawning sometime during the fall semester. CTSA will also be supporting development of Hawaiian bivalve species as a joint project between Sea Grant and PACRC, with Dr. Robert Howerton as the PI. A first spawning attempt will be conducted in October using the Hawaii oyster, *Ostrea sandwichensis*, in collaboration with Dr. Teresa Lewis of HIMB, who has been a key partner in bivalve culture development efforts. A new effort underway is the culture of Hawaiian species of macroalgae (limu), a joint effort of Maria Haws and Dr. Karla MacDermid, a marine botanist at UHH. Efforts continue on spawning and grow-out of Russian sturgeon, with another expected shipment of eggs this fall. In addition to these efforts, several UH-Hilo graduate students in the Tropical Conservation Biology and Environmental Science (TCBES) Masters program are conducting research on a variety of topics, including herbivory studies of sea urchins, sturgeon genetics, otolith aging of opelu, and salinity tolerance of native damselflies.

One of the missions of PACRC is to connect university students to opportunities for hands-on projects and training, demonstrations and research activities related to aquaculture and coastal resources management. UHH undergraduate students, primarily from the aquaculture program in the College of Agriculture, Forestry and Natural Resources Management, and from the Marine Sciences program regularly frequent the site for classes and projects. Students, including interns from the Pacific Internship Programs for Exploring Science (PIPIES), which is coordinated by PACRC under the direction of Carmen Perez-Frayne and Uluwehi Ching, receive professional level aquaculture training and actively take part in the daily operations of the center. PACRC would like to take the opportunity to thank the students who provide the "student power" that makes operating...
PACRC, continued

the center and conducting research possible given the fairly limited number of staff. Undergraduate and graduate students at PACRC this fall semester include (in alphabetical order): Marshall Cacoulis, Brandon Chapin, Monika Frazier, Roland Frayne, Daren Gariques, Joao Gariques, Kelly Green, Brian Kettl, Karma Kissenger, Julius Lucky, Blake McNaughton, Javez Mooteb, Nathaniel Muller, Greg Osterman, Mark Saunders, Lori Tango, Sierra Tobiasen and Matang Ueanimatang.

Now that PACRC is open for business, local educational and community groups have been quick to take advantage of the demonstration facilities. Over 250 individuals have taken part in tours, summer classes through Na Pua Noeau or various educational activities over the last year. In April, Ocean Day Hawai‘i 2007, a collaboration that promises to be an annual event with community groups and sponsors such as Hawai‘i Sea Grant and local businesses, drew over 500 people of all ages and sizes to an information day focused on the conservation of ocean and coastal resources, including hands-on activities presented by the Hawai‘i Division of Aquatic Resources, NOAA Marine Debris, and cultural presentations by local Keaukaha community members. On-going efforts with Keaukaha schools has resulted in local class visits and several educational projects set up in collaboration with teachers and students.

PACRC appreciates the support received by the entire aquaculture community and looks forward to collaborations in the years to come.