



Announcements

Permits for importing or shipping snails

The USDA Animal and Plant Health Inspection Service (APHIS) now requires a permit for importation or interstate transport of aquatic snails, freshwater or marine. The University of Florida has sorted out important points of the program, which include: "Shippers will acquire permits ... Applications are made to ship an identified genus and species to a state, not an individual receiver. USDA-APHIS contacts the state to determine whether that state allows the species ... the receiver is encouraged to have a copy on file ... shipments ... (without) a permit are subject to seizure (etc.) ... No permit will be issued for the genus Pomacea (apple snails), except for *P. bridgesii* ..." For additional information contact Dr. L. Carmen Soileau at lena.c.soileau@aphis.usda.gov, or telephone 301-734-5302.

From a UHH press release: *UH Hilo Business class develops Web site for local business* Students from the College of Business and Economics at the University of Hawaii at Hilo recently partnered with KopeKope Espresso Cafe to develop a Web site for the

business. Dean Marcia Sakai invites local businesses to contact the college if they would like to try a similar collaboration. See the complete press release at www.uhh.hawaii.edu/news/press/view/486/.

Information Sources

The *Agribusiness Incubator Program* of the UH College of Tropical Agriculture and Human Resources (aip.hawaii.edu) "seeks to serve agriculture businesses throughout the State .." by working closely to assess current status, arranging technical and business planning and assistance, aiming to help "take their company to the next level." They understand that "The average agribusiness is more adept at growing than selling their products." Get contacts (and application form) on the web site or contact your friendly extension specialist. Aquaculture businesses have been specifically invited.

Updates

Seafood and Health, continued Gary Fornshell, of University of Idaho Extension, has written a clear and concise (1 page) compilation of the sometimes conflicting public

Readers' contributions are invited with aloha, and much appreciated, though not all can be used. They may be mailed, faxed or emailed to the editor at this address. Contributors understand that materials may be edited for space and other considerations. This newsletter is part of a cooperative project funded by the University of Hawaii Sea Grant College Program, the UH Cooperative Extension Service, and the State of Hawaii Aquaculture Development Program.

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information on seafood health and contamination issues, "Public Confusion Over Seafood." The bottom line, as has been stated here and elsewhere, is that the health benefits outweigh risks after serious analysis, and folks should become well informed about their choices. See or download the article at www.webs.uidaho.edu/aquaculture/newsletters/Aqua2006.pdf. This is still important because misinformation continues to be produced. A recent online article, not referenced here, described the discharge from net pen farming reasonably accurately but then closed the paragraph by saying that the waste can contaminate ground water, which is impossible by definition. This was shortly followed by a statement that farmed salmon are injected with a synthetic dye to enhance flesh color. This sounds rather worse (and expensive) than the actual inclusion of the biological pigment astaxanthin in the feed to enhance color. The pigment is factory-produced for the large amount of salmon feed used in the world, but is the same molecule that colors the flesh of wild salmon, derived from their diet.

Aquaculture Business and State Governments An extension service client in Hawaii recently pointed out, as some farmers have done in earlier years, that the state suffers a "lack of availability and species diversity for brood stock." The inquiry continued, "Does the state have some multi-agency committee addressing and coordinating this, and suggesting new species ...?" The answer at present is no, but the potential benefits and progress from such a situation extend well beyond broodstock, and have begun in Maryland. Thanks to Don Webster of U. of Maryland Cooperative Extension for his update on developments mentioned in this newsletter last year (www.uhh.hawaii.edu/~pacrc/bigisaquapg/

BIANewsletter/BIAN79.pdf). The "Review Board and Coordinating Council have been formed and are meeting. Our Aquaculture Coordinator now serves as the initial contact point .. for all aquaculture permits .. tracked by that office to ensure that they don't sit without action. ... The Aquaculture Coordinating Council has 17 members specified in the legislation. Frankly, I could not have hoped for a better group. All state agencies are represented, as well as three units of the University. There are three aquaculture industry reps and three commercial fishermen. All are top notch... There are appointments from both the Maryland Senate and House of Delegates. Both of these are excellent and very supportive of getting things done ... We have added additional active members from agencies and institutions as needed for expertise. ... We want to be able to listen to all points of view before making decisions that are reasonable and backed up by science. ... The Maryland legislation that set these up came from the Task Force... bringing in expertise from states like Florida and Alaska in an Aquaculture Development Conference .. many state politicians .. attended it. I think that helped to get the final legislative package through with no significant modifications, even though there were some who wanted to modify greatly."

Hawaii Products in International News

The first of three items here is about sturgeon, a fish whose culture technology is progressing in the state, with a handful of farms in various R&D stages. The on line BBC article, "Sturgeon farmers cash in on caviar," (news.bbc.co.uk/2/hi/business/4946058.stm) talks a little about white sturgeon in California (not one of the species of interest in Hawaii), but is an es-

pecially good brief introduction to the history of the caviar market and sturgeon culture and biology in general. Highlights include: current caviar prices (retail) at \$70 per ounce for white sturgeon, up to \$180 for beluga; the long natural adult maturation (to egg producing) period of 15 years and more, reduced to substantially less than 10 in captivity (nearer to 5 in Hawaii - not in the article). Extreme numbers for a business plan. Thanks to Taira Yoshimura for the referral.

The second product is well into production and sales, as well as "ag tourism," a developing possibility for many Hawaii farm products. Honolulu Magazine, in "Down on the ...Seahorse Farm?" describes the more-than-8-year history and current activity of Ocean Rider Inc. at the Hawaii Natural Energy Laboratory in Kona (www.honolulumagazine.com, but only subscribers can read current articles on line). Once found in all oceans, wild seahorses are under intense fishing pressure, with about 20 million taken each year, mostly for Eastern medicinal products, but substantial numbers for the aquarium trade. The company raises 14 species, all eye-catching and many in spectacular colors, the biggest seller being the "mustangs" (the Atlantic *Hippocampus erectus*). The males carry the babies in a pouch, and "they'll eat right from your hand," says Carol Cozzi-Schmarr, who runs Ocean Rider with her husband Craig. The company ships live animals with a detailed guarantee of live arrival, but does not ship within the state of Hawaii, in order to guard against release of these non-native species. You can see all this and more on the public tours they now offer, in the afternoons Tuesday through Saturday. See www.seahorse.com or call 808 329-6840. There are few other opportunities for the public to tour aquaculture production facilities, though the Natural Energy Laboratory

of Hawaii Authority offers public presentations about the companies at the Kona facilities, in the administrative compound, on Tuesday, Wednesday and Thursday from 10:00 to 11:30 A.M. Call (808) 329-7341 or email nelha@nelha.org.

Finally, Hawaii's leadership in Open Ocean Aquaculture is featured in Popular Science for March 2006 (www.popsci.com/popsci/science/3c24573fa430a010vgnvcm1000004eeebccdrerd.html). In an article titled "The Farmer Goes to Sea," we are given background on the depletion of wild fisheries, including specifically the moi in Hawaii, several points of view on the potentials of open ocean fish farming, some detail on Cates International's moi cages off Oahu, and some spectacular views of a similar cage at Kona Blue off Keahole Point on the Big Island. Highlights include the contrast between these operations and nearshore shallow water cage culture (much better dilution of wastes offshore), the recent federal government permitting of aquaculture in the U.S. Exclusive Economic Zone (EEZ, 3 to 200 miles offshore), and the note that of the 35 such cages so far built by the producing company, about half have gone to other countries, with a list of about 13 having some OOA experimentation going on. There is also historical perspective about moi culture in Hawaiian fish ponds and a few words about an envisioned future cage that drifts with currents while under some degree of remote control. Thanks, Kona Blue >>

