



# NACA Newsletter

Published by the Network of Aquaculture Centres  
in Asia-Pacific, Bangkok, Thailand

ISSN 0115-8503

Volume XXII, No. 4  
October-December 2007

## Lao culture-based fisheries project gets underway



Meeting with local community in Xinxai Village, Paksan district, Bolikhamxay province.

NACA in conjunction with the Department of Primary Industries, Victoria (DPI, Vic), Australia, and the Department of Livestock and Fisheries (DoLF), Ministry of Agriculture and Forestry, Lao PDR, commenced R & D activities of the project on Culture Based Fisheries Development (CBF) in Lao PDR, funded by the Australian Center for International Agricultural Research (ACIAR). The project is of three years duration and with a budget of AUD\$398,000. The project has three major facets:

- Culture-based fisheries trials in reservoir coves and flood plain depressions;
- Breeding and genetic management plan on two selected indigenous species; and

- Capacity building in culture-based fisheries, artificial propagation, and broodstock management using molecular genetic techniques.

The project was inaugurated with a visit to the sites by NACA personnel (Prof. Sena S De Silva and Dr. Thuy Nguyen) and Dr. Brett Ingram of DPI, Vic, followed by an inaugural workshop held in Thalat, Vientiane Province, that included the participation of all DoLF and Provincial and District personnel of the project, and was Chaired by the Lao PDR Project Leader Mr. Bounthong Saphakdy.

During the visit to Lao PDR, NACA personnel also participated in the traditional fish releasing ceremony on the 13th of July in NamHoum reservoir.

## Expert Workshop on Aquaculture Certification, Brazil

The Expert workshop on Aquaculture Certification was held 31 July–3 August 2007 in Fortaleza, Brazil. The workshop was the second in a series of expert meetings to assist the development of guidelines for aquaculture certification, with a strong emphasis on aquaculture products from aquaculture producers in the Americas. The workshop involved 57 people from 13 countries in the Americas, Asia, and Europe, and follows from an earlier workshop held in 28-30 March in Bangkok, when the road map and first draft of the international guidelines were developed.

The first day of the workshop consisted by the series of presentations, mainly from the Americas, but also presentations from Vietnam and NACA secretariat on "Aquaculture certification special considerations for the small-scale aquaculture sector" (The list of presentations is available at: <http://www.enaca.org/modules/tinyd11/index.php?id=17>).

On the second day of the workshop, the draft Guidelines for Aquaculture Certification were presented and reviewed in detail. Much feedback was obtained on the draft, and the consultations continue and the outcomes of the Brazil workshop will be presented at the APFIC regional consultative workshop 18-20 September 2007 in Ho Chi Minh City, Vietnam, and the next guideline review to be conducted at Eighth Asian Fisheries Forum (8AFF) 20-23 November 2007 in Kochin, India.

## Strategies for Development of Asian Reservoir and Lake Fisheries Management

The DG of NACA and Mr. Arni Helgason, Country Director, Icelandic International Development Agency (ICEIDA), Sri Lanka Office signed a letter of agreement, on 20th August 07, for the provision of funds for the project, "Strategies for Development of Asian Reservoir and Lake Fisheries Management", at the Ministry of Fisheries and Aquatic Resources (MoFAR), Sri Lanka, witnessed by the Secretary, MoFAR and the Director General of the National Aquaculture Development Authority, Sri Lanka (NAQDA), Dr. D.E.M. Weera-koon. ICEIDA will provide US\$ 437,850 over a period of three years to NACA to coordinate the project activities, which would involve five Asian countries. However, some other countries have expressed the desire and willingness to be involved at their own expense. Updates on the project activities will be made on the NACA website and in the newsletter on a regular basis.

## EUS identified as cause of fish kills in Africa

According to SciDev.net, scientists have identified the mystery disease that killed fish in parts of the Zambezi River last year.

Researchers have identified the disease as Epizootic Ulcerative Syndrome (EUS), caused by a fungal pathogen. Infected fish develop large sores and die from secondary infections.

The researchers say this is the first known outbreak of the disease in Africa. But they still don't know how the pathogen got into the Zambezi, which flows through eight southern African countries.

The team of scientists included experts from the United Nations Food and Agriculture Organization, Thailand's

Inland Aquatic Animal Health Research Institute, and the Network of Aquaculture Centres in the Asia-Pacific.

For the full story, please visit the SciDev.net website at:

<http://www.scidev.net/News/index.cfm?fuseaction=readNews&itemid=3727&language=1>.

## NACA seeks shrimp farm specialists for assignments in Indonesia

NACA is seeking Indonesian and regional aquaculture specialists for short and long-term assignments to assist in an expanding aquaculture rehabilitation program in the province of Aceh, Indonesia. The specialists would be assigned to various upcoming positions within the Aceh program, including management of district shrimp farm rehabilitation projects, extension of better management practices, development of aquaculture farming groups and improvement of market chains for Aceh aquaculture products.

The ideal candidates would have experience in all these aspects, including project management, practical farm management or extension, community organization and shrimp market development. Indonesian language is also desirable, although not essential. Energy and commitment to work closely with communities to achieve successful farm rehabilitation and improve livelihoods is essential. Salaries will be based on NACA salary scales and experience, plus associated travel, insurance and living expenses. Interested candidates are invited to send an email containing a brief overview of experience, together with short CV, including the names of two referees, to [etesp@enaca.org](mailto:etesp@enaca.org).

## FDA detains five species of farm-raised seafood from China

The US Food and Drug Administration (FDA) on 28 June 2007 announced a broader import control of all farm-raised catfish, basa, shrimp, dace (a cyprinid), and eel from China.

During targeted sampling from October 2006 through May 2007, the FDA repeatedly found that farm-raised seafood imported from China were contaminated with antimicrobial agents such as nitrofurans, malachite green, gentian violet, and fluoroquinolone.

The FDA states these seafood products from China will be detained at the border until the shipments are proven to be free of residues from illegal drugs for protecting American consumers.

The FDA action includes conditions under which an exporter can be exempted from FDA's detention action by providing specified information to the agency. This information must demonstrate the exporter has implemented steps to ensure its products do not contain these substances and that preventive controls are in place.

Li Changjiang, Minister of the General Administration of Quality Supervision, Inspection and Quarantine, which oversees export and import quality, urged the FDA to let the exports go through after checking the sanitation certificates issued by China Entry-Exit Inspection and Quarantine (CIQ). China also detected many foodstuffs of poor quality among the US exports to the country every year, and those quality problems were properly handled in the principle of cooperation. Likewise, there might be isolated cases of Chinese enterprises exporting products with quality problems to the United States. Therefore, China could not "accept" the US decision to "indiscriminately" detain all aquaculture products.

Ministry of Commerce spokesman Wang Xinpei also urged foreign trade partners to accept Chinese products unless they violated contract terms or local regulations. He explained the requirement for evidence of safety

would inevitably increase export costs and stressed that China had greatly improved the quality of its seafood.

Source: FDA News: <http://www.fda.gov/bbs/topics/NEWS/2007/NEW01660.html>

InfoYu: <http://www.infoyu.net/News-Center/MarketTrade/07-7-2-77.html>

## 7th Symposium on Diseases in Asian Aquaculture

The Fish Health Section of the Asian Fisheries Society has recently opened its official website on the 7th Symposium on Diseases in Asian Aquaculture. This triennial symposium will be held during 22-26 June 2008. FHS invites the countries in Asia-Pacific region to express their interest to host the 8th Symposium on Diseases in Asian Aquaculture. For more information, please visit the symposium website at: <http://homepage.ntu.edu.tw/%7Edaaseven/>.

## Aquafeed Horizons Asia 2008

The preliminary program has been announced and registration has opened for Aquafeed Horizons Asia '08, a symposium to be held March 6, 2008, during Victam Asia 2008, at the Queen Sirikit National Convention Center, Bangkok, Thailand. The symposium is supported by the Thai Department of Fisheries.

"We are honored that Dr. Juadee Pongmaneerat, Senior Expert in Aquatic Animal Nutrition at Thai Department of Fisheries will open the workshop as she did last time in Bangkok", Suzi Fraser Dominy, Publisher of Aquafeed.com, the workshop organizers said. Her keynote address on aquafeed and aquaculture production and policies in Thailand will kick-off a packed day of presentations.

Dr. Dean Akiyama, Senior VP Charoen Pokphand Indonesia, Aquafeed Technology and Dr. Warren Dominy, Director, Aquatic Feed & Nutrition Department, Oceanic Institute, Hawaii will chair the one day meeting that will be strongly

## An evaluation of the role and impacts of alien finfish in Asian inland aquaculture

*A research paper authored by NACA personnel (\*), in conjunction with two others (Sena S. De Silva\*, Thuy T. T. Nguyen\*, Nigel W. Abery, Upali S. Amarasinghe in the international journal Aquaculture Research (Volume 37, pp1-17, 2006) is the second most downloaded publication of that journal within the last 36 months.*

### Abstract

Asia dominates global aquaculture production accounting for over 80 % of the total and the mainstay in Asian aquaculture is finfish. Over the years, Asia has experienced a number of inter-continental and intra-continental transfers/ introductions/ translocation of finfish species, between nations and watersheds, beyond their natural range of distribution, primarily for aquaculture development. In this article all such species are referred to as alien species. An attempt is made to evaluate the importance of the production of alien species in selected Asian nations, using statistics of the Food and Agriculture Organisation. Also, negative effects, if any, based on literature surveys, of alien species in relation to displacement of indigenous species, and on biodiversity and or genetic diversity together with associated pathogen transfers are evaluated. The major alien species, based on their significance to Asian inland aquaculture considered, are the tilapias, catfish, Chinese and Indian major carps, and common carp. It is estimated that currently alien species account for nearly 12% of the cultured finfish production (2.6 million t) in Asia, valued at US\$ 2.59 billion, and the contribution exceeds 40% when Asian countries excluding PR China are taken into consideration. Inland finfish aquaculture in some Asian nations, such as Indonesia and the Philippines, is predominated by alien species, and in some others, e.g. Bangladesh and India the contribution from alien species has been increasing steadily. It is suggested that overall alien finfish species have done little ecological harm to native flora and fauna. However, in the wake of increasing anthropogenic development taking place in watersheds the resulting environments are often made unconducive to indigenous species but not to some alien species, thereby potentially and indirectly making the latter invasive.

technical and will cover feed processing technology and cutting edge ingredient solutions to meet the challenges facing the industry in Asia Pacific.

Topics include:

- Aquafeed and aquaculture production and policies in Thailand
- Pheromone-based feeding attractants for sustainable aquaculture
- Promoting animal health through feed.
- Improving palatability in shrimp feeds.
- Starter diet production technology.
- Ingredient trends and effects on extrusion process.
- Technical advances in extruded shrimp feed.

The symposium, "Aquafeed Horizons Asia 2008", is the third Aquafeed.com conference in association with Victam international, and the second at Victam Asia, the region's leading feed show.

The preliminary program, sponsorship information, registration form and brochure are now available on the conference website at: [www.aquafeed.info](http://www.aquafeed.info) or contact: [conferences@aquafeed.com](mailto:conferences@aquafeed.com).



## Scientists join fight against frog diseases

CSIRO is collaborating with other Australian research institutions, and conservation groups, to identify new and emerging diseases affecting frog populations in Far North Queensland. CSIRO Livestock Industries' Australian Animal Health Laboratory (AAHL) in Geelong, the Frog Decline Reversal Project, Inc's (FDR project) Cairns Frog Hospital, Sydney's Taronga Zoo and James Cook University (JCU), will combine their research expertise and technologies to diagnose new frog diseases detected recently by the FDR project.

Funded by the Australian Government Department of the Environment and Water Resources, the three-year Amphibian Disease Project was initiated by FDR Project founder, Deborah Pergolotti.

"Since we began rescue and rehabilitation activities in 1998, we have discovered several new and undescribed disease issues in Far North Queensland amphibians including high levels of cancer, and die-offs and malformations in frogs and cane toads," Ms Pergolotti said.

According to AAHL's principal frog researcher, Dr Alex Hyatt, these diseases, or syndromes, have never been seen before and may present a threat to the long-term survival of native frogs.

"Frogs with specific syndromes will be screened by veterinary pathologists from AAHL, the JCU's Anton Breinl Centre and Taronga Zoo's Australian Registry of Wildlife Health (ARWH) to identify what pathogens are present, if they are infectious, and which are responsible for death and deformity," Dr Hyatt said.

JCU's Professor Rick Speare said the Project's integration of specialist skills and equipment will avoid unnecessary duplication and should provide a cost-effective procedure for identifying new frog diseases.

To initiate a record of diagnostic pathological results for these diseases, a Diagnostic Imaging Network System (DINS) - developed at AAHL in collaboration with Arcitecta Pty Ltd - will transfer images to a central database accessible to veterinary pathologists across Australia.

According to ARWH curator, Dr Karrie Rose, there are currently no efficient interactive databases like DINS in operation.

"Collectively the project will pioneer a new national way of handling diseases from the wild which, if proven successful, could be used as a model to initiate a broader diagnostic network in Australia for other wildlife," Dr Rose said.

Dr Hyatt said the new amphibian syndromes emerging in Far North Queensland are not the first diseases to have threatened Australia's frog populations. "In the late 1990s, Australian scientists discovered a debilitating frog fungus called chytrid fungus (*Batrachochytrium dendrobatidis*), which has been responsible for species extinctions and local population losses around the globe. Our experience with the chytrid fungus taught us that if you find a disease or virus early enough you have a much better chance of controlling it," he said.

## Artificial propagation of snow trout *Schizothorax zarudnyi* by Iranian experts

Locally known as 'Hamoon Mahi' in Iran, this species of carp (Cyprinidae) belongs to the subfamily Schizothoracinae, better known as the 'snow trouts'. These species are commonly found in cool water bodies through Iran and Afghanistan. The maximum recorded weight in Iran is 10 kg.

Attempts to artificially propagate this species were started by Zabihy and his colleagues from 2001 onwards, initially leading to production 147,000 eyed eggs by the Iranian Fisheries Research Organization (IFRO) and Iranian Fisheries Organization (IFO). Research has continued to March 2007, with successful production of more than 500,000 eyed eggs and 300,000 larvae

through use of synthetic hormones and hypophysis extract to facilitate the propagation process.

The recent successful effort has been financed as part of an international project Aquaculture Development in Sistan-Baluchestan 2005 – 2008 funded by the Italian Ministry of Foreign Affairs, Italian Cooperation (General Directorate Development Cooperation), UNDP (United Nation Development Program), SHILAT- IFO (Iranian Fisheries Organization), CIRSPE (Italian Research and Study Centre for the Fishery). The Iranian centres cooperating in this project were the Iranian Fisheries Research Organization (IFRO), Iranian Fisheries Organization (IFO), Fisheries of Sistan-Baluchestan,

Offshore Fisheries Research Center and the Coldwater Fishes Research Center (CFRC).

For more information about the project contact Mr M. Zabihy, mansoorzabhy@yahoo.com, zabihy@ifro-cfrc.net.



## NACA keynotes three international meetings

The DG of NACA, Professor Sena S De Silva was called upon to deliver three keynote addresses at three important meetings in the course of August.

He delivered a keynote address entitled, "Role of Aquaculture for Food Security in the Asia Pacific Region: Prospects & Constraints" at the Indonesia-Aquaculture, 2007, held in Bali, 31st July to 03 rd August attended by over 700 delegates, followed by the keynote address, "Meeting the Demands and Challenges of Globalization of Trade in Aquaculture: The Role of a Regional Inter-Governmental Body " at the meeting of the World Aquaculture Society, Asia-Pacific Chapter, held in Hanoi, Vietnam 05th to 08 th August, attended by over 1000 delegates from 30 countries, and finally, at the Tilapia 2007, held in Kuala Lumpur, Malaysia, 23rd to 27th August, entitled, " Tilapias in Asia: Are They Alien or Considered "Naturalized? ", attended by 350 participants from 39 countries.

All of the above keynote addresses (power points) are available in the respective web sites of the above meetings as well as in [www.enaca.org](http://www.enaca.org). It is important to note the diversity of the issues addressed that is indicative of the breadth of expertise available to NACA, which in turn has been a great advantage for the organization to forge ahead in regional and global issues related to aquaculture development.

## Culture, capture conflicts project review, Indonesia

The review of the project FIS/ 2002/111, "Culture, capture conflicts: sustaining fish production and livelihoods in Indonesian reservoirs", funded by the ACIAR of which the Principal Investigator is the current DG of NACA was independently reviewed between 03 to 08th of September. It is understood that the reviewer was satisfied with the work achieved and is likely to result in an extension phase for effecting the implementation of the co-management

plans developed to ensure sustainability of the cage culture activities of the three reservoirs, namely Saguling, Cirata and Jatiluhur in West Java and to improve the livelihoods of the artisanal fishers of the three reservoirs. It is expected that the lead agency for the next phase will be NACA, which will work in conjunction with Directorate General of Aquaculture, Ministry of Marine Affairs and Fisheries, Government of Indonesia.



*Stakeholder meeting with artisanal fishers of Cirata Reservoir.*

## Sign up to the coldwater aquaculture Yahoo! Tech Group

An electronic discussion group has been established to facilitate communication amongst stakeholders in coldwater aquaculture. The group is maintained by the NACA Regional Lead Centre for Coldwater Aquaculture, the Coldwater Fishes Research Centre of Iran.

The main goals of this discussion group are to collect and share information on scientific research projects, activities and programs in the field of coldwater aquaculture, fisheries, biodiversity and related matters that are underway in NACA member countries. Through sharing of information on their activities,

participants across the region will be able to stay abreast of new developments, locate international partners, collaborate in collection and sharing of data, and avoid duplication of effort. The discussion group is hosted through the Yahoo! Tech Group facility, and features an email newsgroup, file and photo repository, calendar of events and member directory.

The NACA Regional Lead Centre for Coldwater Aquaculture group invites all interested parties and individuals to sign up to the group and participate in the sharing of information on research activities in every corner of the region.

For this purpose, it would be appreciated if new members could submit a detailed profile on their past and present activities, and share useful information via the group's facilities, which are accessible through the links in the menu bars. Please note that the group information sharing facilities are only accessible to members of the group (membership is of course, free). To sign up as a member of the discussion group, please visit: [http://tech.groups.yahoo.com/group/naca\\_leadcenter\\_iran/](http://tech.groups.yahoo.com/group/naca_leadcenter_iran/) and click on the 'Join This Group!' button. If you would like further information, please contact Mr Ali Farzanfar at [afarzanfar@yahoo.com](mailto:afarzanfar@yahoo.com).

## Website publishing and administration training, Vietnam

The fourth training course on website publishing and administration was held at the Research Institute for Aquaculture No. 3 in Nha Trang City from 8-15 August. The four trainees were Mr Nguyen Hung Quoc (RIA 3), Ms Vu Thi Le (RIA 3), Mr Vu Xuan Dung (RIA 2) and Mr Phan Ngoc Huynh (RIA 3, currently working on a project involving the Mekong River Commission).

The course covered planning, design, construction and maintenance aspects of website management, as well as a basic grounding in backup procedures and internet security, which are critical aspects of sustainability in the internet world. The training course used the XOOPS Content Management System

as a reference web-publishing tool. XOOPS is a free open source software product that is written and expanded by an online community of programmers, webmasters, designers and users, who share their work and their experience for common benefit.

Both RIA 2 and RIA 3 plan to rebuild their websites using the XOOPS system, joining RIA 1 and the College of Fisheries at Can Tho University, which were participants in previous training courses. The use of a common system will enable staff of the different institutes to share their experience and collaborate in further development of their websites, as well as facilitating information exchange.



Left to right the RIA 2 and RIA 3 webmasters: Ms Vu Thi Le, Mr Nguyen Hung Quoc and Mr Vu Xuan Dung.

## Aquatic Animal Diseases Significant to Asia-Pacific: Identification Field Guide

NACA and the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) are pleased to release a new health-related field guide. The result of a collaborative activity among a number of fish health experts from various organizations in the Asia-Pacific region, it is aimed at improving the ability to diagnose diseases of significance to aquaculture and fisheries in the region.

NACA appreciates the leadership provided by DAFF in developing and publishing this field guide. It drew extensively from the experiences and previous and ongoing research activities in health management in Australia and other countries in Asia and thus joins the growing body of practical knowledge published for Asia-Pacific aquaculture and fisheries. This field guide provides fisheries and aquaculture managers, recreational fishers, border protection staff, environmentalists, students of



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NACA is a network composed of  
17 member governments in the  
Asia-Pacific Region.



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aquatic animal health, and fisheries management with a reference guide to support decisions on aquatic animal health. The regional field guide covers all diseases listed in the Quarterly Aquatic Animal Disease (QAAD) reporting system which includes all OIE listed diseases plus diseases of regional concern.

The guide is published in CD format and copies are available to government and research staff in NACA member countries on request. However, a CD image has been made available for download from the NACA website that you can use to create your own, and you can also browse the CD live on the NACA website – visit:

<http://www.enaca.org/modules/wfdownloads/singlefile.php?cid=5&lid=842>.