

International Shrimp Health Workshop



*Featuring
Dr. Donald Lightner
and other International
Disease Experts*

**Organized by the Department of Fisheries, Brunei Darussalam
and Integrated Aquaculture International**

integrated
AQUACULTURE
INTERNATIONAL

**In collaboration with
Universiti Brunei Darussalam**



**August 13-15, 2007
Brunei Darussalam**

Introduction

Disease continues to be the single most important challenge facing shrimp farmers. Impacts can include mortality, slow growth, reproductive failure, poor feed conversion, variable sizes, and blemished products. With today's competitive prices, even minor disease losses can result in severe financial hardship. Successful health programs rely on thorough biosecurity, proper diagnostic procedures, early detection, and sound management responses.



Participants

It is critical for producers, diagnostic technicians, and policy makers to stay abreast of the latest advances in the fast breaking field of shrimp health management. This program is designed for participants with a wide range of disease expertise. No in-depth knowledge of shrimp disease is necessary. All are welcome and encouraged to attend.



Registration

Brunei residents: USD 50
Non-Brunei residents: USD 100

Registration Fees (to be paid at the door): include seminar, tour, and workshop; printed materials; bus transportation; 3 lunches, and one dinner.



Space is limited, to assure a seat, please send the following information by Aug, 1, 2007:
Name, Company/Affiliation, Address, Phone Number of each person attending.
Email this information to: wanidawati.tamat@fisheries.gov.bn
or georgec@integratedaquaculture.com

Venue: Orchid Garden Hotel • Bandar Seri Begawan

- **Special Rate:** 120 Brunei dollars per night net, inclusive of buffet breakfast, airport transfer (with 24 hour notice), and WIFI internet access in lobby and restaurant.
- **Reservation without prepayment:** Notify hotel by email (ogh@brunet.bn), telephone (+673-233-0812), or fax (+673-233-5444) of your name, dates of arrival and departure (as well as flights and times if you need airport transfer), intended method of payment (cash or credit card), and affiliation with **“Shrimp Health Workshop”**.



Dr. Donald Lightner – widely recognized as a world authority on shrimp diseases. Dr. Lightner will be accompanied by other disease experts such as Dr. Leigh Owens, Rita Redman, Dr. Kerry Claydon, Wanidawati Tamat and Dr. George Chamberlain.

Agenda

This 3-day seminar and workshop is designed to provide participants with an understanding of the global status of shrimp diseases and effective strategies for health management, facilities for diagnosing diseases and for breeding and producing in a biosecure setting, and diagnostic procedures that can be applied at the farm level. The events are scheduled as follows:

Program

Monday, August 13th

International shrimp disease seminar

- 8:30-10:00** **Opening Ceremony**
- 10:00-10:30** **Coffee/Tea break**
- 10:30-11:15** Overview of the global penaeid shrimp disease situation by Dr. Donald Lightner, University of Arizona, USA
- 11:15-12:00** Management of shrimp diseases in Australia by Dr. Leigh Owens, James Cook University, Australia
- 12:00-12:30** Question/Answer Panel
- 12:30-13:30** **Lunch**
- 13:30-14:00** Sample collection, fixation, and processing procedures by Wanidawati Tamat, Department of Fisheries, Brunei Darussalam
- 14:00-14:30** Principles and procedures of PCR and histopathology diagnostics by Dr. Kerry Claydon, Integrated Aquaculture International, Brunei Darussalam
- 14:30-15:00** Frontiers of diagnostic research—a glimpse at the future by Dr. Leigh Owens, James Cook University, Australia
- 15:00-15:30** **Coffee/Tea Break**
- 15:30-16:00** Issues and Concerns When Developing a Biosecurity Plan for a Facility, Country or Region by Dr. Donald Lightner, University of Arizona, USA

August 13th: In a series of lectures, International experts will brief participants on the history and current status of shrimp diseases, effective management strategies, and use of diagnostic tools such as conventional PCR, real time PCR, and histopathology. There will be ample opportunity for questions and discussion.

August 14th: To relate the lectures to the production process, the second day will be devoted to a comprehensive tour of facilities including a diagnostic laboratory, primary quarantine facility, secondary quarantine facility, nucleus breeding center, broodstock multiplication center, hatchery, and growout farm.

August 15th: Specimens collected during the tour will be examined in a hands-on laboratory workshop that will teach techniques such as field recognition of external symptoms, use of wet mount microscopy, and sample fixation procedures for PCR and histopathology.

- 16:00-16:30** Procedures for producing and breeding SPF *P. monodon* and *L. stylirostris* by Dr. George Chamberlain, Integrated Aquaculture International
- 16:30-17:00** Question/Answer Panel
- 17:00** **Adjourn**

Tuesday, August 14th

Bus tour of diagnostic, quarantine, breeding, and culture facilities

- 8:00** **Board buses at hotel**
- 8:30-9:30** Tour nucleus breeding facilities at Aquaculture Development Centre
- 9:45-10:45** Tour raceways, ponds, nutrition tanks, and secondary quarantine facility at Broodstock Development Centre
- 11:00-12:00** Tour histology and real time PCR with robotics at Diagnostic Laboratory in Muara
- 12:30-2:00** **Lunch**
- 2:00-3:00** Drive to Semaun Aquaculture Sdn. Bhd.
- 3:00-4:30** Tour farm
- 4:30-5:30** Drive back to Hotel



Wednesday, August 15th

Hands on lab on disease diagnosis and fixation

- 8:00** **Board buses at hotel**
- 8:30** Arrive at Universiti Brunei Darussalam
- 9:00-9:30** Lecture on basic procedures for field and laboratory examination of specimens by Dr. Don Lightner
- 10:00-12:30** Hands on review of external and microscopic symptoms of larval and juvenile shrimp by Don Lightner
- 12:30-14:00** **Lunch**
- 14:00-15:00** Fixation demos: a - in Davidson's AFA for routine histology; b - in 90% ethanol for molecular testing; c - in glutaraldehyde for TEM. by Rita Redman
- 15:00-15:30** Packing and shipping samples to local or remote diagnostic labs. Safety issues and quality assurance by Rita Redman
- 15:30-16:00** Preparation of samples for routine histology: a - methods for larvae and PLs; b - the "gut-gill panorama" method for juveniles and adults by Rita Redman
- 16:00-16:30** Demos of routine histology methods - sectioning, staining, coverslipping, and record keeping by Rita Redman
- 16:30-17:00** Question/Answer Panel
- 17:00** **Board buses for return to hotel**
- 19:30** **Farewell Dinner and Certificate Presentations**

