

Newsletter

Volume 10 Number 3 October 1996

PRESIDENT'S MESSAGE

Welcome to the October issue of the IAA newsletter. You may have wondered if it ever would arrive. Several activities have delayed publishing this one.

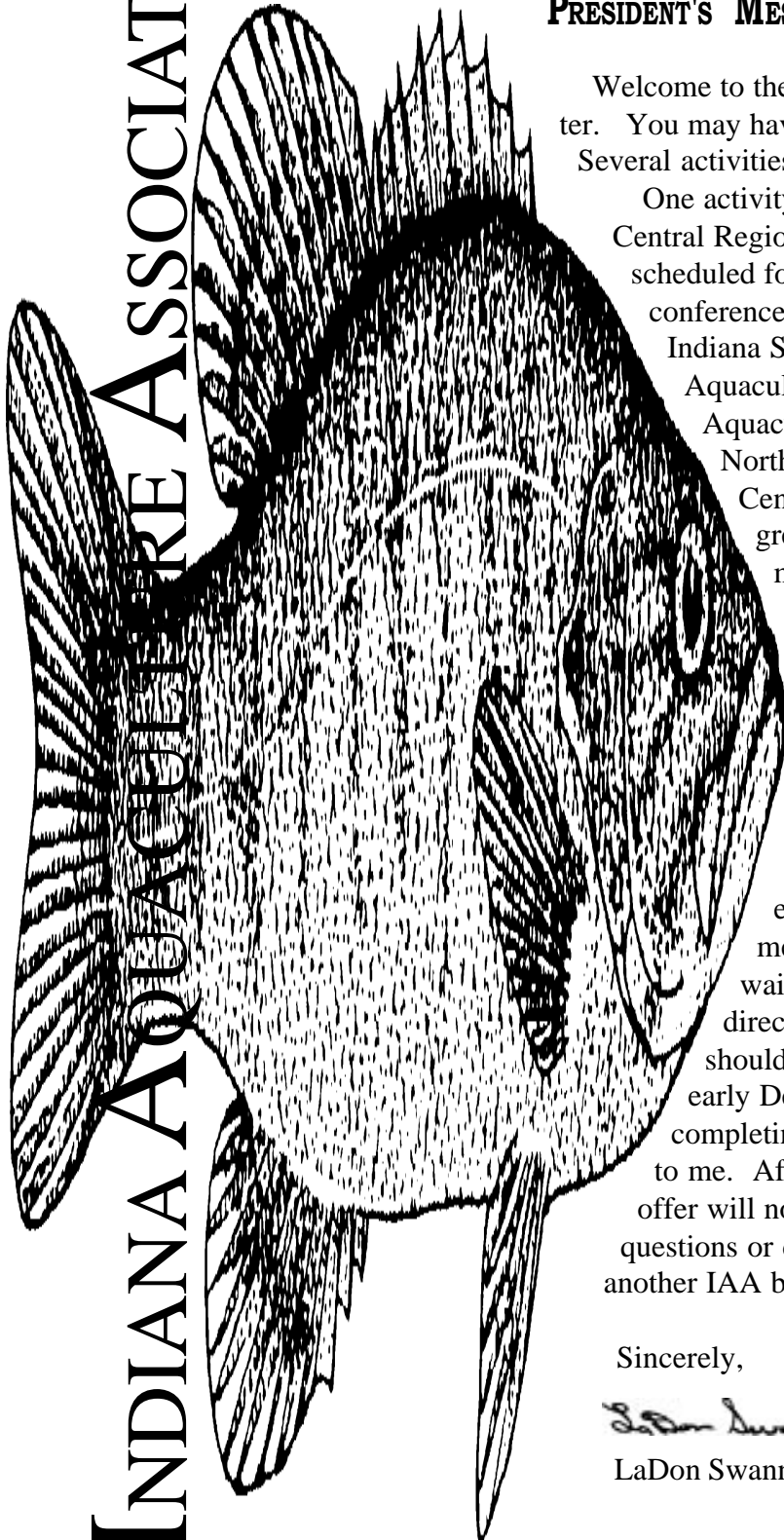
One activity has been planning the North Central Regional (NCR) Aquaculture Conference scheduled for February 6-7, 1997. The two day conference is co-sponsored by the Illinois-Indiana Sea Grant Program, the Indiana Aquaculture Association, the Illinois Aquaculture Industry Association and the North Central Regional Aquaculture Center. The NCR conference will be a great opportunity to expand our normal winter meeting held in February. There will be four sessions to allow participants to increase their knowledge and understanding of how to become a more profitable farmer.

Final registration fees have not yet been determined, but I expect a registration price of \$50-75. However, IAA members and IAIA member's registration costs will be waived if you mail the registration form directly to me. The conference brochure should be mailed to IAA members by early December. Therefore, don't delay in completing the registration and returning it to me. After the registration deadline this offer will no longer be in effect. If you have questions or concerns, feel free to contact me or another IAA board member.

Sincerely,



LaDon Swann



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Calendar

February, 1997

North Central Regional Aquaculture Conference.

February 6-7, 1997. Indianapolis, IN. Contact: LaDon Swann, 317-494-6264.

North Central Regional Aquaculture Center Planning Meeting.

February 8-9, 1997. Indianapolis, IN. Contact: LaDon Swann, 317-494-6264.

World Aquaculture Society Meeting.

February 20-23, 1997. Seattle, WA. Contact: 206-485-6682.

March, 1997

The International Boston Seafood Show.

March 18-20, 1997. The Hynes Convention Center, Boston, MA
Contact: 207-842-5504.

Aquaculture Rules Modified

Gary Armstrong

Indiana Department of Natural Resources

Private aquaculture businesses, or fish farmers, deal in a wide variety of fish for food and for stocking purposes. Some of these fish could pose environmental problems, including fish disease or genetic risks, if they were purposely, or accidentally, released into public waters. To protect public fisheries, a permit system for fish producers has been in place for many years.

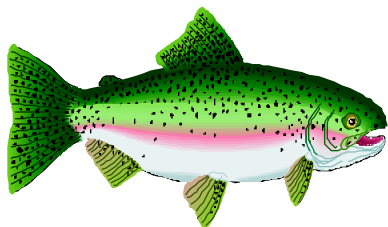
Beginning August 1, 1996, the administrative rules regulating the importation and sale of fish were modified. The change modifies the Haulers and Suppliers Permit to allow five additional species to be handled by persons holding a valid Haulers and Suppliers Permit. These species are brown trout, hybrid striped bass, rainbow trout, tiger muskellunge and tilapia. Persons handling these fish will not be required to obtain an Aquaculture Permit, but will be required to abide by special conditions attached to the Haulers and Suppliers Permit.

Indiana Law requires a Haulers and Suppliers Permit be obtained before a person imports live fish for sale or produces live fish for sale. This permit will continue to be a free permit, issued annually

for one calendar year. This permit allows the aquaculturist to handle 33 species of fish without restrictions, and the five species listed above subject to conditions imposed by the Department. A list of these conditions will be provided with each Haulers and Suppliers Permit beginning when permits are issued next year.

The Aquaculture Permit, which is also free, continues to be available for species not listed as approved species for the Haulers and Suppliers Permit. Persons currently holding an Aquaculture Permit for any of the species listed above may continue to operate under the existing Aquaculture Permit.

Copies of the new rules follow. If not made permanent, these rules will expire at the end of July, 1997. A public hearing to make these rules permanent is scheduled for October 9, 1996, at 7:00 PM, Indianapolis time, in the auditorium of the Indiana Government Center South, 402 W. Washington Street, Indianapolis. For more information, please contact State Hatchery Headquarters at 317-342-5527, or send comments to State Hatchery Headquarters, 2650 SR 44, Martinsville, IN 46151.



SECTION 23.

(a) Except as provided in subsection (e), a person must obtain a fish importation permit under this SECTION before a person imports any live fish for sale or release.

(b) An application for a fish importation permit must be submitted by an applicant at least ten (10) days in advance of the proposed date of importation.

(c) An applicant must establish that a fish is to be imported:

- (1) is free of any communicable disease;
- (2) will not become a nuisance; and
- (3) will not damage a native wild species or a domestic species of animal or plant.

(d) A person is exempted from this SECTION who possesses fish other than those listed in 310 IAC 3.6-6-7 and who is either engaged in:

- (1) importing live fish exclusively for confinement and exhibit in a zoo or another public display; or
- (2) supplying live fish for use in the aquarium pet trade.

(e) Live fish of the following species other than genetically altered fish, may be imported without obtaining a permit under this SECTION:

- (1) Black crappie.
- (2) Blue catfish.
- (3) Bluegill.

- (4) Bluntnose minnow
- (5) Bowfin
- (6) Buffalo
- (7) Bullhead
- (8) Burbot
- (9) Carp
- (10) Channel catfish
- (11) Fathead minnow
- (12) Flathead catfish
- (13) Freshwater drum
- (14) Golden shiner
- (15) Goldfish
- (16) Green sunfish
- (17) Hybrid sunfish
- (18) Largemouth bass
- (19) Mosquitofish
- (20) Muskellunge
- (21) Northern pike
- (22) Paddlefish
- (23) Redear sunfish
- (24) Rock bass
- (25) Smallmouth bass
- (26) Striped bass
- (27) Sucker
- (28) Walleye
- (29) Warmouth
- (30) White bass
- (31) White catfish
- (32) White crappie
- (33) Yellow perch

SECTION 22.

(a) A fish haulers and suppliers permit must be obtained under this SECTION before a person:

- (1) imports live fish from another state or another country for sale; or
- (2) produces live fish for sale.

(b) An application for a permit must be completed on a departmental form.

(c) A permit expires on Decem-

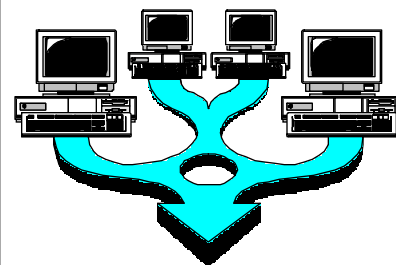
ber 31 for the year of its issuance.

(d) Subject to conditions imposed on the permit by the department, a permittee may import, produce, or sell live fish of the species listed under SECTION 23(e) and the following species:

- (1) Brown trout.
- (2) Hybrid striped bass.
- (3) Rainbow trout.
- (4) Tiger muskellunge.
- (5) Tilapia.

(e) A person is exempted from this SECTION who possesses fish other than those listed in 310 IAC 3.1-6-7 and who either:

- (1) is engaged in producing, importing, or selling live fish exclusively for use in the aquarium pet trade; or
- (2) holds a bait dealer's license under IC 14-2-7-16 and is engaged exclusively in the sale of live fish for bait.



**IAA is Now
on the World Wide Web**
[www.ansc.purdue.edu/aquanic/
iaa.htm](http://www.ansc.purdue.edu/aquanic/iaa.htm)

If you have events you want included in the IAA Newsletter contact: LaDon Swann, Illinois-Indiana Sea Grant Program, 1026 Poultry Building, Purdue University, West Lafayette, IN 47907-1026.

Correspondance Course through Mississippi State University INTRODUCTION TO AQUACULTURE

Often persons wish to learn more about aquaculture beyond a conference or workshop or reading materials. The following is a description of an aquaculture correspondence course that may be of interest to extension colleagues and clientele with an interest in aquaculture.

Commercial aquaculture in the US is a rapidly expanding agricultural enterprise, with a farm value in 1992 of \$840 million. Aquaculture products represent an increasing proportion of the US seafood consumed, and are expected to continue to do so. While prices for seafood products in general have risen, aquaculture product prices have remained steady, making aquaculture products less expensive relative to seafood in general. These trends, combined with increased consumer consciousness of health concerns, have resulted in rising consumer demand for aquaculture products.

Mississippi leads the nation in water acres devoted to the most important aquaculture product grown in the US, channel catfish. Other species are also grown in the state, and the future will see expansions in the scopes of these industries, as well as the emergence of new species as viable commodities in Mississippi and elsewhere.

OBJECTIVE

This course is intended to provide you with a foundation for understanding the principles of aquatic ecology, fish biology, engineering, economics and marketing that will be required to successfully culture any aquatic animal, or to assist fish producers with technical information and educational programs.

CONTENT

The course is divided into 15 units, each with a series of lesson assignments that you will complete and submit through the mail for grading and evaluation. Progression to succeeding units will require satisfactory completion of all prior chapters.

TOPICS

1. Introduction and Historical Perspective
2. The Aquatic Environment
3. Fish Biology and Physiology
4. Marketing
5. Site Selection
6. Facility Design and Layout
7. Water Quality Management
8. Fish Health Management
9. Catfish Production
10. Trout Production
11. Baitfish Production
12. Crawfish Production
13. Other Commercial Species
14. Harvesting and Transport
15. Business Management

PROCEDURES

The basic approach to this correspondence course is as

follows:

- * Register and receive a study guide containing lesson assignments and instructions.
- * Purchase a textbook (source listed in study guide).
- * Work at your own pace in independent study.
- * Complete lesson assignments and mail to Continuing Education Department. These will be graded and returned to you.
- * Continue working systematically through lessons. At end of lesson 7 you will take a proctored mid-term exam.
- * Complete lessons 8-15, then take a proctored final exam.
- * Receive academic or professional development credits.

CREDIT

You may enroll in either of two options:

- 1) Academic credit (3 hours undergraduate credit) in the Department of Wildlife and Fisheries, or
- 2) Non-credit/Professional Development, with a certificate of completion.

Students majoring in fisheries or aquaculture at MSU cannot receive academic credit for this course. These students may enroll in credit option 2 for Professional Development, but the credit cannot be applied toward their major degree requirements.

REGISTRATION

Registration is open throughout the year, and is not restricted to regular school term schedules.

Registration materials and instructions may be obtained by contacting the Continuing Education Department at 601/325-2652.

COSTS

The registration fee is 150.00, plus the cost of the textbook (about 20.00). Textbooks must be purchased directly from the MSU Bookstore, and details are provided in the registration packet available from Continuing Education. The only other cost involved is postage for mailing unit lessons and tests back to the instructor for grading and evaluation.

INSTRUCTOR

The course instructor is Dr. Marty Brunson, Extension Leader and Professor, Department of Wildlife and Fisheries, Mississippi State University. Dr. Brunson is the Extension Fisheries and Aquaculture Specialist with the Cooperative Extension Service, MSU, and works closely with aquaculture producers and other industry concerns statewide.

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Mississippi State, MS 39762
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fax: 601-325-8750

Disease in Tilapia has Infected Humans

As many of you are likely aware there have been several recent stories that first appeared in CDC Morbidity and Mortality Weekly Report (8/2) and more recently in the Toronto Starr (8/28) newspaper on several cases of a reported invasive infection in humans of *Streptococcus iniae* originating from handling fresh whole tilapia. The Starr article referred to mad fish disease and a recent UPI article 9/17 used the terminology "people can be infected with a potentially deadly type of bacteria while cleaning or preparing fish - especially tilapia bred in aquaculture fishponds across the U.S...." One death has been reported but evidence that the bacterium alone was the cause is still uncertain, however, the bacterium was isolated from the patient. There has been some limited coverage by CNN and other TV stations.

Those most exposed have been Asians who purchase live tilapia and take fish home for cleaning. An open cut provides a potential mode of entry for the bacterium potentially found on the exterior of fish. The reports feeding the media are coming from a microbiologist at a hospital in Canada. I have spoken with Canadian public health offi-

cial and they have expressed concern about the language in articles and have to date only issued a Guide for Handling Fresh Fish. They are conducting studies on tilapia imported from the US to check for the presence of this bacterium. It is unknown whether this is a newly emerging disease or one that has been around in humans and not detected until now.

Patients who have been diagnosed with this infection, typically have a history of having been stuck by a spine or bone while preparing fresh, whole fish. And then within 24 hours develop some pain, swelling, redness and fever. Antibiotics have cleared up human infections but the best way to avoid this bacteria is to handle tilapia carefully. Advice from doctors has included wearing kitchen gloves to provide a barrier to prevent potential penetration of bacterium into the skin. The bacterium is reported to be extremely rare in humans and although it's important to take precautions when handling fresh, whole tilapia, consumption won't hurt you. It's not contagious from person to person and handling cooked fish, serving cooked fish and eating cooked fish presents no problem.

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c/o Ladon Swann, editor
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