



NEWSLETTER

of the Introduced Fish Section
American Fisheries Society

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James P. Clugston, Editor

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FROM THE PRESIDENT

As most of you are aware, the annual meeting of the American Fisheries Society will be held from 14-18 September in Providence, Rhode Island. I look forward to seeing most of you at the meeting. The Introduced Fish Section meeting is scheduled on Wednesday afternoon from 1:30 - 3:00 pm in the Williams Room in the Holiday Inn. I urge as many of you attend as possible.

Jim McCann (chairman) and Chris Kohler have agreed to serve as the nominating committee for this year's election of officers. Please forward any nominations to Jim at P.O. Box 700, Kearneysville, WV 25430.

Many thanks to those people who served on the Chinese Carp Committee. Their final report appears in this newsletter.

Walt Courtney has agreed to serve on the Tilapia Committee. He will be addressing the acceptance and/or rejection of the new generic names proposed by Ethelwynn Trewavas. I am sure he would welcome any input from the membership.

David Philipp has indicated that he will continue to serve as chairman of the Committee on the Genetic Conservation and Manipulation of Fish, and that Chuck Krueger, Gary Thorgaard, and Bob Wattendorf all plan to continue as members. David indicated that the committee has a manuscript entitled "Fisheries Genetics: Where Should We Be Going" which is scheduled to appear in the June issue of Fisheries. He also has informed me that the committee has instituted the proceedings to form a Fisheries Genetics Section within AFS. If such a section is formed it might preclude the need for this committee.

Jay Stauffer

REPORT - CHINESE CARP COMMITTEE

We conducted a survey of research organizations, State agencies, and commercial producers concerning the production of and research on grass carp, with the intent of assessing the role and impact of the triploid grass carp today. Of 102 questionnaires sent, 57 (56%) were returned: 29 from State agencies, 16 from research groups, and 12 from commercial producers. The questionnaire was mailed in late summer of 1985 and information compiled in November 1985. The following is a synopsis of the information. Additionally, we used a survey issued by Dawn Jennings and James McCann (U.S. Fish and Wildlife Service, Gainesville, FL) to determine which states were re-considering restrictions on grass carp since the advent of the triploid.

Production of Grass Carp

Seven research or State agencies and 6 commercial farms are producing grass carp. Total production capacity is 35.5 million fry and 14.5 million fingerings, but commercial producers account for 93% and 76%, respectively, of that capacity.

Of 9 facilities producing triploids, 5 are commercial and 3 are research stations -- Lee County Hyacinth Control District, FL; University of Florida, Gainesville; and North Carolina State University, Raleigh. Florida is the only state agency producing triploid grass carp. All 9 facilities have the capability to provide (therefore to assess) 100% triploidy. South Carolina does not produce but is equipped to verify 100% triploidy. Verification invariably consists of analysis by Coulter Counter with channelizer; one research unit uses flow cytometry and one producer examines blood smears microscopically.

Research Profile

Respondents were asked to reply to questions on certain research topics pertaining to grass carp by indicating whether that research was currently underway, planned, or completed.

-- At least half of commercial producers were conducting or had conducted research on broodstock selection, broodstock conditioning, and injection schedules. Only 2 of 16 research units and 2 of 29 states had or would conduct similar research.

-- Half of all grass carp producers did or will do research on techniques to induce triploidy; the bulk of these studies are with heat or cold induction, or both. One producer indicated they had completed research on tetraploid broodstock. All of the research agencies producing triploids are investigating induction methods; Florida and Washington indicated they had completed research on induction methods.

-- Commercial producers were twice as likely to have done research on larval rearing and growout methods as research or State installations.

-- All commercial producers of triploids, 2 research units, and 8 states have or are conducting work on ploidy verification.

-- Research units and State agencies are much more active in feeding and growth studies and investigations on stocking rates and efficacy than commercial producers.

-- State agencies have much more active roles in studies on the environmental impact of grass carp, both diploid and triploid.

Overview and Comments

Respondents were asked to identify critical problems concerning grass carp and areas where research was needed. Space was also provided for comments.

Research Units

Of equal concern was the cost of triploids (for use in research), production techniques for triploids, and the ecological impact of grass carp on native systems. The latter was identified most often as a research subject as well as studies on stocking and efficacy, verification of sterility, and certification procedures.

States

Almost every state responding expressed concern about the ecological impact of introduced grass carp. Therefore coincident concerns and suggested areas of research were the following: production, assessment, and certification procedures for 100% triploidy; unequivocal proof of sterility; requisite stocking densities and procedures for vegetation control.

Most comments briefly described current research efforts, many of which were cooperative ventures among states or agencies. One comment suggested that the triploid was "only two decades too late."

Commercial

Producers of grass carp most often regarded non-standard guidelines or legalization procedures across the U.S. as the major problem. Suggested research areas included triploid production, verification, and sterility; disease related issues were also important research topics.

Not surprisingly, comments were divided about the need for a triploid fish in the first place. One grower remarked that triploids were a solution to archaic ideas about the grass carp and one regarded the emphasis on producing a sterile fish as an unnecessary insurance against problems which do not exist, potentially creating a large business opportunity for a few growers. Comments of this nature were limited to producers who were not growing triploids. Triploid producers were concerned about the red tape surrounding the implementation of triploid stocking programs.

Certification

Concerns about certification were expressed by all potential users and producers of the triploid. Who would support a national certification program? Seven of 11 respondents from research establishments, 17 of 22 from State agencies, and 5 of 10 commercial producers were in favor of national certification.

Reconsidering Grass Carp

Some states have reconsidered importation restrictions on the grass carp since the advent of the triploid, but all which have done so require 100% triploids. States in which grass carp were banned but now allow stocking of triploids with a permit include Florida, Georgia, Kentucky, Nebraska, North Carolina, and Virginia. States actively considering the use of triploids but which have not legalized importation include California, Delaware, Illinois, Nevada, New York, South Dakota, and Washington. States currently allowing use of grass carp have little incentive to investigate the triploid; the remaining states have not yet considered it.

Standish K. Allen, Jr. Chairman

Robert J. Wattendorf

CONTROLLED WILDLIFE SERIES

Most are aware of the diversity of state and federal laws on the shipment of wildlife and plants (especially those controlling exotic and transplanted fish). To help eliminate some confusion, a three volume guide to U.S. Wildlife laws and permit procedures entitled "Controlled Wildlife" has been published with support from the U.S. Fish and Wildlife Service and Pet Industry Joint Advisory Council. The first volume, Federal Permit Procedures, summarizes and explains the requirements of 15 permit-requiring wildlife laws. The second, Federally Controlled Species, lists protected species and the laws which protect them. The third volume, State Wildlife Regulations, presents information on state laws that control the taking, possession, transfer and sale of wildlife, fish, and plants. The three volume set can be purchased for \$165.00 from: Association of Systematic Collections, c/o Museum of Natural History, University of Kansas, Lawrence, Kansas 66045.

BIOLOGICAL OPINION ON TRIPLOID GRASS CARP

The U.S. Fish and Wildlife Service, in a "Biological Opinion" on triploid grass carp, issued on December 2, 1985, stated that there appears to be no reason to prohibit the stocking of triploid grass carp in either closed or open water systems. The opinion is based on recent unpublished research at the University of California at Davis, California, that indicated female triploid grass carp are functionally sterile and that the sperm of male triploid grass carp is probably nonfunctional.

The opinion was written in response to a request by South Carolina. State fish and wildlife agencies that wish to use federal aid funds for the introduction of exotic species into a natural ecosystem must receive a favorable "Biological Opinion" from the Service. The triploid grass carp opinion was forwarded to all Service Regional Offices to be used if other states wish to use Wallop-Breaux or other Federal funds for studies on this fish. The opinion essentially is a legal document and not intended to promote triploid grass carp.

DISCOUNTS AVAILABLE FOR TRAVEL TO ANNUAL MEETING

Airfare discounts are now available for those planning to attend the 116th Annual Meeting of AFS in Providence, Rhode Island, September 14-18. Local Arrangements Chairman Dick Sisson (Southern New England Chapter) and AFS Raffle Chairman Carl Burger (Alaska Chapter) have negotiated an agreement with American Airlines that will give you a 40% discount off American's regular coach fares and a 25% discount off Piedmont's regular coach fares. Both discounts require only a 7-day advance purchase and apply to fares to either Providence or Boston. (The discount does not apply to ultrasavers, etc.)

If you fly American or Piedmont, it will directly benefit AFS. How? American Airlines has already donated two free tickets to Anchorage for this year's "Alaska Grand Prize" that we will raffle in Providence. We will earn additional free airline tickets for the raffle if a sufficient number of us fly American or Piedmont to the meeting. This incentive agreement applies to any type of ticket you decide to buy--even ultrasavers, as long as you fly American or Piedmont. So help yourself to the best fares you can find on these two carriers, and at the same time, help AFS!

To order your reservations, you (or your travel agent) must call American at this number: (800) 433-1790. To get the discount on regular coach fares and/or to have your travel (whatever type of ticket it may be) count towards earning free tickets for AFS, you must tell the reservations clerk to credit your travel to "Star Number S11502." (If you decide to travel solely on Piedmont, be sure to book it through American Airlines so that your travel can be credited to our American star number account

to earn free tickets.) Even if only a portion of your travel is on American or Piedmont, it will still help AFS so long as that travel is credited to the star number account. (For those flying to Boston only, be advised that Bonanza Bus Lines runs a shuttle service from Logan Airport to their Providence terminal, located within one block of the Biltmore Hotel meeting site. Cost is \$14 roundtrip.)

SKINNER MEMORIAL FUND RAFFLE UPDATE

The AFS Raffle Committee continues to obtain prizes and donations for the Skinner Memorial Fund Raffle to be held at the Annual Meeting in Providence. The major prizes obtained so far include a virtual all-expense-paid trip for two persons to Alaska (airfare included) for fishing and sightseeing during the month of June 1987, and a two-week pheasant and waterfowl hunt in South Dakota (thanks to the Upper Missouri River Chapter) during fall, 1986. Other potential grand prizes include a \$1500 vacation package with airfare to Mexico (Baja, California) through the efforts of the Cal-Neva Chapter, and a Florida vacation with some guided fishing. The Raffle Committee anticipates pre-sale of tickets prior to this year's annual meeting. There will be financial incentives for those subunits that participate in the pre-sale. If you can obtain a prize suitable for this year's raffle (fishing and hunting gear, sports and camping equipment, wildlife artwork, guided trips, etc., are a few examples), please contact Carl Burger, AFS Raffle Chairman, 4237 James Drive, Anchorage, Alaska, 99504.

CAREER OPPORTUNITIES CENTER ANNOUNCEMENT

The Education Section of the American Fisheries Society will sponsor a Career Opportunities Center from September 15 to 17, 1986, at the 116th annual meeting of the Society at Providence, Rhode Island. EMPLOYERS in State, Federal, or private organizations should send information about actual or anticipated jobs to the COC Chairman. Please send any other appropriate information or pamphlets about the organization. The career center may be used for interviewing potential employees. JOB SEEKERS should send a resume to the COC Chairman. Vacancy and resume submissions are encouraged in July and August 1986. All files will be available at the meeting. Send materials to Dr. Boyd Kynard, Chair ES/COC, Massachusetts Cooperative Fishery Research Unit, Holdsworth Hall, University of Massachusetts, Amherst, MA 01003. Phone: (413) 545-0398.

NEWS ITEMS

-- Texas Parks and Wildlife Department biologists said two separate examinations, using electrophoretic techniques, confirmed a new state record largemouth bass was a Florida strain rather than a northern strain or integrate between the two. The

bass, which broke a five year old record, was caught in Lake Pinkston on February 16 and weighed 16 pounds and 14.5 ounces. (Texas Parks and Wildlife News, April 2, 1986.

-- Santee Cooper Public Service Authority, South Carolina, has undertaken an experimental project to produce triploid grass carp for aquatic weed control. The South Carolina Wildlife and Marine Resources Department issued a special permit that allows the Authority to obtain diploid grass carp from Arkansas and culture these fish under department monitoring. The research will be conducted in culture facilities at the Winyah Steam Plant near Georgetown (South Carolina Wildlife, March-April, 1986, Vol. 33, No. 2).

AFS POSITION ON INTRODUCTIONS

The most recent issue of Fisheries (Vol.11, No. 2) contains a modified version of the Society's position on introduced aquatic species. This position statement will be presented to the AFS Executive Committee for approval at the 1986 annual meeting in Providence, Rhode Island. Please review carefully and send comments, by July 1, 1986, to Paul Brouha, Chairman, Environmental Concerns Committee, 7426 Westwood Park, Falls Church, VA 22046.