



JIM WILLIAMS
FISHERY RESEARCH LAB
GAINESVILLE FLORIDA

NEWSLETTER

of the Introduced Fish Section
American Fisheries Society

October 1992

Don Baltz, Editor

Volume 11, Number 3

NEWSLETTER CONTENTS

President's Corner; From the Editor; Files of the Game Warden; Fish Boom Bah; Roll on, Columbia, Roll on; Zander hot line, Mussel Watch; Alien species and economics; Management of upper Colorado River indigenous fishes; Have you seen...; 1992 minutes; Treasurer's Report;

PRESIDENT'S CORNER

Pride is one of the seven deadly sins. It is also a big reason why you all haven't been receiving the newsletter. Through a quirk in fate, Hiram Li was both President and Newsletter Editor and initiated a Symposium on introduced species management at Rapid City last year. Needless to say, he was overwhelmed. I (Hiram speaking) then was convinced by my peers to take part in a team effort to design an ecosystem management plan for eastern Oregon and Washington and submit it to Congress. The report will be out in July 1993. Mark Konikoff, the new President offered to help, but my pride got in the way and I did not relinquish the duties. Don Baltz volunteered to help and the newsletter should get back on schedule. Thanks Don. All who have paid their dues will get all the back issues. In the meanwhile, the section has not been idle. We have a project to make a 25 minute video on introduced aquatic species. John Cassani of the Grass Carp Committee has completed the first draft of "Managing Aquatic Vegetation with Grass Carp: a Practical Guide for Natural Resource Managers", which he edited. Contributors are as follows: Andrew Leslie, Jr., Rues S. Hestand III, John Cassani, Mark Bain, Randall Stocker, Fred Nibling, Robert Wattendorf and Clayton Phillippy.

FROM THE EDITOR

Let me introduce you to Don Baltz, your new newsletter editor. Don has published on the introduction of exotic species to the marine environment and has a recent publication in Ecological Applications on the resistance of a fish fauna to introductions. He is no stranger to the field.

In my last editorial, I wish to address the problem of colonial rule with respect to aquaculture. What do I mean? It is the spread of western influenced tilapia culture world wide. I became aware of this problem when Dr. Alex Fleckner expressed a desire to document the disappearing traditions of aquaculture in Southeast Asia. I was stunned. How can this be? Asians practically invented the approach. Alex discovered that the traditional use of indigenous species is dying out after touring southeast Asia as a side trip of a post-doctoral experience in New Zealand. People are shifting to tilapia farming as a result of agricultural aid programs from the west. Paulo Petri, a Brazilian ichthyologist told me that tilapia culture is being conducted in the Orinoco River Basin. Advantages of culturing native fishes are being ignored. I raise this as an issue, who in the world bank approves of such silly and even dangerous projects. Who does it serve? I doubt if the third

world benefits much, who in the first world stands to benefit? The TECH-NO-FIX attitude of resource management is pervasive. This attitude has not served us well and distracted us from holistic views of system interactions.

Files of the Game Warden.....Correspondent: Keith Hatch

On June 13, 1992 Warden Richard Colby and his agents intercepted a truck suspected of smuggling largemouth bass into Los Angeles and Orange Counties. They were mistaken, the fish were illegally transported channel catfish. Arrested was Mr. Fel Heh Hweng, an Asian version of Fireball Roberts, the noted stock car driver whose previous training was running "white lightning" past the Federal Alcohol agents in modified hot rods through the hills of Appalachia. Fireball Hweng had previous arrests for running tilapia in with a mixture of legally permitted largemouth bass. On July 12, 1992 Fireball crash his truck killing one person, injuring 16 and a truck full of apparently "hot" channel catfish. The transport of any live fish into California must be inspected to prevent the spread of fish disease and introduction of undesirable aliens. We must conclude that Fireball was one of the latter. (Modified from California Aquaculture Association Newsletter by H. Li).

Fish Boom Bah.....Correspondent: Dennis Lassuy

Fish Boom Bah or Can-O-Fish is the brain child of Eugene Hull, an ex-academic neurophysiologist, who if believed, claims that killifish hold the secrets to preventing aging, suspended animation of space travelers, and THE CURE FOR CANCER. He also suggests that spraying millions of fish eggs from the sky will eradicate mosquitos, like biotic cluster bombs. Right and where have we heard of similar claims? *Gambusia*, mayhap? This is like an aquatic version of *Jurassic Park*, the lack of a broad perspective because of technical pyrotechnics dazzle and blind the public. (from The Aquaculture News 7(2):13.

Roll on Columbia, Roll on.....Correspondent: Hiram Li

The northern squawfish has a bounty on its head (\$3.00/fish). Research indicated that the squawfish could be a major source of predation on juvenile salmonids. Now researchers believe that exotic species could be more of a problem. Recent work by the U.S. Fish and Wildlife Service's Tom Poe suggests that 22% of the smolt mortality can be attributed to smallmouth bass and walleye predation. Work by Poe and his colleagues, Roger Tabor and Rip Shively also suggest that smallmouth bass is far more voracious than squawfish. Now A Shad Advisory Committee has been formed by Washington and Oregon to determine what interactions occur between the American shad and native species. The shad is now one of the most numerous fishes in the Columbia River. (Excerpted in part from the Associated Press 28 Oct. 92).

Zander hot line.....Correspondent: Dennis Wright

Dennis Wright (Environmental Affairs Coordinator, Regulatory and Native Affairs, Central and Arctic Region, at the Freshwater Institute, Canada Department of Fisheries and Oceans) and his colleagues, William Franzin (Fish Habitat Research Division), Arthur Derksen (Manitoba Department of Natural Resources), and Kenneth Stewart (Department of Zoology, University of Manitoba) take great issue with Richard Anderson's claim that the introduction of zander would be a great boon to the fisheries of North America. Their criticisms are these: (1) data showing much higher growth rates and maximum size for zander over walleye are biased by latitude and in part by habitat. Zander in northern latitudes in freshwater grow similarly and are about the same size as walleye. (2) Zander fight like limp dishrags and are difficult to catch (R.A. Ryder, personal gripe to Dennis). (3) Zander poses a threat to indigenous walleye as competitors. (4) Zander, because they are more tolerant of warm water, pose a threat to indigenous, warmwater fishes not subject to walleye predation. (5) Introduction of Zander to and eutrophicated waters is the wrong way to look at fish-habitat problems: fix the habitat; don't introduce a fish (technofix solution--tech-NO-FIX?, editor's pun). As conditions in Lake Erie have improved, walleye stocks are "taking-off". (6) Introduction of disease and parasites are tremendous risks. (From a letter to the Editor in response to R.O. Anderson's article, "A case for zander, fish of the future?", *In-Fisherman Walleye Guide*, 1992).

"The alien species problem is by far the most important problem facing both Hawaii's environment and our agricultural economy and perhaps our entire economy". This quote was taken from a news clipping "Alien species threaten Hawaii's environment". It was taken from Alan Holt, director of science and stewardship, the Nature Conservancy of Hawaii. Together with the Natural Resources Defense Council, it is the first comprehensive study of the threat to the islands. Among the damages are an estimated \$300 million a year crop loss to agricultural pests, flash fires from fountain grass, an introduced, flammable weed; and the massive losses of biodiversity. Since the introduction of the introduced bacteria *Leptospira*, 66 cases of leptospirosis occurred including 2 deaths. The largest source of new exotics is in domestic airline baggage, but alien pests also hitch-hike on to domestic cargo and cut lumber.

In the Pacific northwest, Dr. Jack Lattin, an entomologist at Oregon State University, warns that importation of raw timber from Siberia and New Zealand to get an adequate timber supply for economically ailing log mills and plywood plants will subject native forests to unacceptable risks of alien pest infestations. Ironically much raw timber is available from private lands in the Pacific Northwest, but it is shipped to Japan. Where's the logic? (Taken in part from "Alien species threaten Hawaii's environment", *The New York Times*, The Environment, December 29, 1992).

Management of Upper Colorado River Indigenous Fishes.....Correspondent: Tom Nessler

A literature review and a survey of expert opinion was conducted by John Hawkins of the Larval Fish Laboratory, Colorado State University and Tom Nessler of the Colorado Division of Wildlife. Increases in the abundance of alien fishes in the upper Colorado River correspond with habitat alteration and discharge. Most exotic fishes are found in altered habitat. Except for predation, negative interactions between alien and indigenous species are only suggestive. Six introduced fishes of the greatest concern by the experts are the channel catfish, red shiner, northern pike, common carp, green sunfish and fathead minnow because of their widespread distribution and because their range is affected by flow alteration (regulation). The two species most cited as having the most problems with alien fishes are the Colorado squawfish and the razorback sucker, although all fish larvae were considered to be negatively affected by predation and competition. Experts frequently proposed that management attempt to eliminate and reduce introductions, and restrict stocking of non-native fishes. However, recognizing the difficult task this imposes and that flow related habitat changes are of primary importance, most experts believed that flow regulation was the most tractable management option to improve conditions for indigenous fishes. (From Hawkins, J.A. and T.P. Nessler, 1991. Nonnative fishes of the upper Colorado River basin: an issue paper. September 30, 1991).

Have you seen.....

Fletcher, D. and M. Hallock. 1991. Prohibited fish species in Washington as of January 18, 1991. Washington Department of Wildlife, Report # 92.10, 600 Capitol Way N, Olympia WA 98501-1091.

Nessler, T.P. and E.P. Bergersen. 1991. Mysids in Fisheries: hard Lessons from headlong introductions. American Fisheries Society Symposium 9, Bethesda MD.

Mussel-Watch

Leif Blake of the La Crosse laboratory (USFWS) reports that the zebra mussel is found in densities of 750,000 m² in Lake Erie. No native mussels can be found. The zebra mussel is found in the Illinois River near Calumet, Chicago and in Pool 8 of the Upper Mississippi River near La Crosse, Wisconsin.

Howard Krosch (Minnesota DNR) reports that zebra mussels are found in Pool 2 near St. Paul, Minnesota and that the St. Paul District of the Corps of Engineers have found zebra mussels in locks and chambers in the Mississippi River.

The Bureau of Reclamation has instituted an early detection program to detect the spread of zebra mussel to western rivers. This is being coordinated by the Applied Sciences Branch, Environmental Sciences Section, Denver. Any new sightings should be reported to

Reclamation's Zebra Mussel Program
P.O. Box 25007, Code:D-3742
Attn: Dr. Cal McNabb
Denver CO 80225-0007
(303) 236-6007

Minutes of the 13th Annual Introduced Fishes Section Business Meeting
American Fisheries Society Annual Meeting
14 September 1992, Rapid City, South Dakota
Alexander Zale, Secretary-Treasurer

President Hiram Li called the 13th Annual business Meeting of the Introduced Fish Section to order at 8:30 AM. A quorum of members was present (16).

President Li introduced President-Elect Mark Konikoff.

President Li asked for nominations for President-Elect and Secretary-Treasurer. Because no nominations were forthcoming, the membership list was circulated among the attendees to evaluate possible nominees. President Li promised to develop a slate of nominees with input from the membership.

President Li reported on the Section's review of the draft EIS regarding the proposed introduction of Pacific salmonids to the Delaware River. The Section's review indicated such introductions were not warranted.

Dennis Lassuy chaired a committee (Intentional Introductions Policy Review Committee, U.S. Fish & Wildlife Service) that commented on a range of options for reducing risks associated with intentional introductions. The recommendations are currently being compiled and will be submitted in a report to Congress.

President Li reported that John Cassani's manual on grass carp and their use is nearing completion. John is looking for reviewers and would welcome any assistance.

President Li reported on queries he had received concerning control of common carp on wildlife refuges. He suggested that carp control methods could constitute an interesting workshop topic for the 1993 Annual AFS meeting in Portland OR. James McCann mentioned how water control was used to manage carp in Lear Lake, IA, in the pst. Bob Wattendorf opined that such a workshop was a great idea and mentioned that researchers (at Auburn?) are currently investigating the use of a pellet containing rotenone to control carp. Al Zale concurred with Wattendorf's enthusiasm for the workshop and noted that other researchers are also examining the effectiveness of toxic pellets containing rotenone and other substances. President Li concluded that interest in such a workshop existed and promised to follow-up on this idea (note: he consulted Chuck Berry who was of the opinion that it would follow too quickly a recent workshop on carp control and there was little new progress in this field).

Mark Konikoff reported that recent controversy regarding the role of hatcheries in fisheries management (i.e., "hatchery bashing") had generated increased interest in a meeting examining such issues. The proposed meeting is being referred to as "Ozark II" and would be held in about 1.5 years. Mark asked if the Section should be involved in such a meeting. A motion to the affirmative was introduced seconded and approved. Dennis Lassuy indicated that he would work with Hal Schramm to get the Section involved.

The Treasurer's report was read by Al Zale and approved (copy attached).

Mark Konikoff was installed as President of the Section and Presented the Past President's certificate to Hiram Li.

President Konikoff referred to the pending AFS resolution concerning AFS membership on that panel.

Gary Grossman announced that a new European journal entitled *Ecology of Freshwater Fishes* is especially interested in submissions concerning introduced fishes.

Al Zale question whether the Section might be better served by having an appointed Newsletter Editor rather than having the President-Elect serve in that capacity (our bylaws allow either option). he suggested that the simultaneous burden of both duties may be excessive and thereby result in irregular production of newsletters. President Konikoff and Past-President Li agreed to work out the newsletter situation.

Treasurer's Report
14 September 1992

CREDITS		
Section Dues	11 SEP 91	\$924.90
Section Dues	25 NOV 91	\$264
Section Dues	07 FEB 92	\$508
Section Dues	21 MAY 92	\$288
Section Dues	04 SEP 92	\$ 48
Sub-total		\$2032.90

DEBITS		
Foreign Post (Newsletter)	27 NOV 92	\$ 31.22
Printing (Newsletter)	04 DEC 91	\$276.51
Past President Certificate and Plaque	25 MAR 92	\$ 43.50
Bulk Mail Annual Fee	20 May 92	\$ 75.00
Bank Charges	SEP 91-AUG 92	\$ 31.00
Sub-total		\$457.23

Total Credits \$2032.90
Total Debits 457.23
Balance as of 14 SEP 92 \$1575.67

The balance of \$1575.67 is on deposit at BancFirst, Stillwater, Oklahoma in Account Number 00907048390106 registered to AFS Introduced Fish Section.