



# THE TRIBUTARY

A Newsletter of the Western Division,  
American Fisheries Society



American Fisheries Society  
Western Division

Volume 14, No. 2/March 1989

Western Division officers have been quite busy. My goal is to have an officer at all chapter meetings to

which we were invited. It has not been possible for me to attend all of these meetings due to job responsibilities. Everyone from the president to the secretary-treasurer has been involved in chapter visits. I attended the Alaska and Montana chapters so far. President-elect Cay Goude attended the Cal-Neva meeting and reported that it was a great success. The theme was Aquatic Resources in the 1990s and there was a special symposium on the role of hatcheries in the year 2020.

Secretary-treasurer Don Chase was scheduled to go to the Arizona-New Mexico chapter meeting in Silver City but was unable to attend because the interstate was closed and the planes were not flying. Past-president Al Mills and Cay attended the mid-year WAFWA meeting and reported a very cooperative attitude and an outlook for a bright future with our combined meetings. In the near future, Cay and I plan to attend the society mid-year EX-

## THE PRESIDENT'S CORNER

COM meeting March 8-12.

The WDAFS/WAFWA joint annual meeting will be held at the Sheraton Towers

Hotel in Seattle July 3-8, 1989. Program chair Cay Goude is working closely with WAFWA in developing the program. She has an excellent program planned and Frank Halfmoon, chairman of the Native American Fisheries Committee has developed a symposium on native American fisheries to run concurrently with the WDAFS/WAFWA meeting at the same location.

Dave Burns, chairman of the Western Division Environmental Concerns Committee, has developed a list of interested committee members and reviewed the Interior Water Policy along with the Stream Flow & Water Development Committee, cochaired by Dudley Reiser and Tom Wesche. These two committees also reviewed the AFS policy statement on the effects of livestock grazing on riparian and stream ecosystems written by C. L. Armour, D. A. Duff and W. Elmore. The paper

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## SOCIETY NEWS

### ANNUAL AWARDS

It's time to consider award nominations for those fisheries colleagues who seldom (if ever) get just recognition for all their hard work and dedication.

Awards are one of the real "win-win" situations we can be involved in. All it takes is a phone call, a letter or a brief nomination form filled out to get the job started. It doesn't cost you a cent (except perhaps postage) and someone special can be finally recognized by friends and colleagues for their hard work.

An Awards Nomination form is included in this issue of the Tributary for convenience, or simply sit down and take five to write a letter of nomination for

someone deserving. Send your award nominations to Immediate Past President and Awards Chairman Al Mills, 615 E. Center Street, Orem, Utah 84057, 801/224-5294 (home) or 801/377-5780 (work). (See page 8 for an awards nomination form.)

### WDAFS LOGO CONTEST

We've decided that a new logo for the Western Division Newsletter is in order — perhaps something that better fits our image than those comfortable old salmonids! What better way to accomplish this than to hold a contest! All Western Division members are eligible. The new logo should be about the same size as the old one. We'd like to see original art, computer

graphics, clip art, whatever you think might work. Let's keep in mind our freshwater, saltwater, warmwater, coldwater, invertebrate, vertebrate, international roots and put together a jim-dandy logo!

Submit all entries to me before the July meeting in Seattle. I'll haul all the art work to the Seattle meeting for review by attendees and officers. We'll pick the best three for a vote by the general membership in the fall/winter issue and have a new logo for 1990. We'll think of some appropriate prize for the winner. **editor**

### **AFS FISH PINS**

AFS Western Division fish pins are available at special rates for sale at Chapter functions, for use as highly regarded (internal or external) awards, gifts to resource agency leaders and other supportive dignitaries, raffle prizes at fund raising efforts, etc. These unique pins come in three different design and color patterns featuring a Chinook Salmon, Cutthroat Trout or Largemouth Bass. The pins have been designed and constructed specifically for WDAFS by William Spear Design of Juneau, Alaska.

These pins are available to you for slightly more than the cost of production and the WDAFS will work with your Chapter on costs depending on their intended use. They are of such high quality they are offered on a guaranteed satisfaction basis or full money is refunded. Any proceeds from the sales of these pins are used entirely for AFS purposes. Please contact Immediate Past President Al Mills, 615 E. Center Street, Orem, Utah 84057, 801/224-5294 (home) or 801/377-5780 (work) for additional information or requests.

### **NEW V.P.**

Congratulations to our newly elected Western Division AFS vice-president Dave Burns of the Idaho Chapter. We had two excellent candidates vying for the office. Our sincere thanks and appreciation to John Baughman of the Colorado Wyoming Chapter for filling the office on an interim basis pending the outcome of the special election. Western Division leadership will undoubtedly hear much more from John in the years ahead.

### **FISHWATCH**

Under the leadership of the AFS, a consortium of groups representing commercial, sport and tribal fishing interests is being organized to champion the conservation of fish habitat. The coalition agreed to the name Fishwatch. Consensus was reached that Fishwatch should focus initially on two broad fisheries habitat

issues: loss of wetlands and water pollution.

The AFS will serve as the administrative arm of Fishwatch. An executive committee of five was established, including Stan Moberly (chairman), Ralph Rayburn (vice-chairman) and Gil Radonski (secretary-treasurer). The AFS will handle the administrative chores of the treasurer.

### **AFS ELECTRONIC BULLETIN BOARD**

Every AFS member may have immediate access to important Society news through the AFS Computer User Section's electronic bulletin board. The board has been operating as a service to Section members since January 1988 but is now open to all members. To access the board dial (313) 996-1456 with your computer modem and sign on. If you have problems connecting, voice help is available from SYSOP (Tony Frank) weekdays at (313) 994-3331 from 8 a.m. to 4 p.m. central time. There is a questionnaire for new users to fill out online and then you are free to explore the board, read and respond to messages or to download files. Online help is available by typing H at the prompt. Any AFS subunit that wishes to open a conference area should contact the SYSOP.

### **SULLY'S STATUS**

Carl Sullivan is recovering from major surgery to remove a large cancerous tumor from his stomach. Assuming there are no complications, Sully can expect to emerge from post operative recovery and return home in early March. Doctors expect he will be able to return to a limited work schedule after a six week convalescence at home. He would appreciate your thoughts and prayers. Cards, letters and flowers may be sent to 5410 Grosvenor Lane, Suite 110, Bethesda, MD 20814-2199.

### **J. FRANCES ALLEN SCHOLARSHIP**

Applications are being accepted until April 30, 1989 for the J. Frances Allen Scholarship. This is a one-time award of \$2,500, for a female doctoral student whose research is in the area of fisheries science. This scholarship was established in 1986 in honor of Dr. Allen, a pioneer of women's involvement in AFS and in the field of fisheries. The qualified applicant must be a female Ph.D. student and an AFS member as of December 1988. The award announcement will be made at the annual AFS meeting in September 1989. For complete application information write to J. Frances Allen Scholarship, AFS, 5410 Grosvenor Lane, Bethesda, MD 20814-2199.

## FISHERIES SCIENTIST CERTIFICATION

The AFS Fisheries Scientist Certification process continues to move methodically forward and now lists 1,204 Certified Fisheries Scientists and 46 Associate Fisheries Scientists. Approximately 16.5 percent of AFS members are Certified Fisheries Scientists. The percentage certified by state range from a low of 4 percent to highs of 36 and 33 percent in West Virginia and Arkansas respectively. For information on the certification programs write to Toni Brome at 5410 Grosvenor Lane Bethesda, MD 20814.

## 1988 DISTINGUISHED SERVICE AWARD

Bob White, AFS President, has notified Tony Novotny of his selection as the sole recipient of the AFS Distinguished Service Award for 1988. This award is in recognition of his long and active involvement in many AFS activities. He has devoted years of interest, energy, a positive attitude and support to the AFS. This award is well deserved. We fisheries folks are very excited for you Tony and we congratulate you!

## 1989 WDAFS COMMITTEE CHAIRS

Nominations	Alvin Mills	801/377-5780
Resolutions	Dennis Tol	702/623-3676
Audit	Glenn Phillips	406/444-2406
Program/Arrangements	Cay Goude	916/978-4613
Bylaws	Tom G. Powell	303/484-2836
Membership	Dave Burns	208/634-8151
Awards	Alvin Mills	801/377-5780
Newsletter	Roger Ovink	503/752-4271
Riparian	Don Martin	208/334-9498
Endangered Species	Don Sada	702/784-6769
Editorial Guidelines	Bob Gresswell	307/344-7381
Fisheries Economics	Virgil Moore	208/334-3791
Habitat Inventory	William Helm	801/750-2543
Public Lands	open	
Water Development/ Streamflow	Dudley Reiser	415/283-7077
(co-chair)	Tom Wesche	307/766-2143
Marine Fisheries	Lou Carufel	907/474-2360
Native Amer. Fisheries	Frank Halfmoon	503/231-6749
Trade Show	Thomas Johnson	206/385-4045
Fund Raising	Alvin Mills	801/377-5780

## THIS AND THAT AROUND THE WEST

### ILLEGAL UTAH FISH INTRODUCTIONS

During routine fall gillnet surveys at Scofield Reservoir, UDWR biologists captured a four pound walleye. Scofield, the "second best" trout fishery in Utah, is currently managed as a family fishery and stocked with fingerling trout. Walleye, a very successful predator on soft-rayed fishes, have been documented as the dominant species in walleye-trout interactions. Trout populations existing with walleye must therefore be sustained by catchable-size trout introductions. Because of suitable walleye spawning areas in Scofield, walleye could become the dominant species in Scofield within 10 years or less.

Illegal transplants of fish can be disastrous to existing fish populations, both game and non-game species. Utah has recently experienced numerous illegal stockings — many with detrimental results. Options for management after illegal stockings are expensive: stock catchables or chemical treatment. The public should be made more aware of the serious problems illegal transplants create. Better education and a more caring attitude by a small group of specialized anglers could save fishery managers a lot of headaches and the public a lot of money and lost fishing opportunities.

### WHAT'S IN A NAME?

If you're having a tough time accepting the western trout name changes, consider the fun they seem to be having back east with the common names of hybrid sport fish: the cross between a sauger and a walleye is a "saugeye" (I like "wallger" better) the cross between a muskellunge and a norther pike is a "tiger musky" (why not a "musky tiger?"). And the cross between a white bass and a striped bass is a "wiper" (no, they don't come with variable speed control!).

### SOLAR LAKE AERATION

The Fisheries Research Section of the B.C. Ministry of the Environment is examining the possibility of using a solar-powered system for aerating a winterkill lake. The first trial, using a continuously operating system, was not successful in increasing lake oxygen concentrations. A new system, designed to operate only during daylight hours, should deliver more mixing energy to the lake. For more information, contact Ken Ashley at 604/660-1812.

## FISH POLLUTION?

Fish consumption advisories were the primary focus of the May 16-17, 1988 Niagara Falls meeting of the Fisheries Administrators Section. States bordering the Great Lakes believe they are doing a responsible and thorough job of advising the public in matters of consuming fish tainted with pollutants. Through the Great Lakes Fisheries Commission and other routine contacts, the affected states are coordinating efforts to deal with the problem in a way that will inform and protect the public without excessive and unnecessary alarm. Meanwhile, nongovernmental interests are preparing to issue their own fish consumption advisory utilizing a risk assessment method. The FAS hopes to resolve the differences in approach without the public being bombarded with substantially different warnings about the quality of the fish they eat.

## INTERESTING MANAGEMENT CONCEPT

In June 1987, the Honorable Vincent Kerrio, Minister of Natural Resources, established a citizen's advisory group called the Ontario Fisheries Advisory Council (OFAC). The Council was established in conjunction with the implementation of a resident sport fishing license.

The OFAC makes recommendations directly to the Minister:

- To advise the Minister on expenditures of Ontario's fisheries management program.
- To appraise current fisheries management programs carried out by the ministry and recommend methods to improve them.
- To review proposed major fisheries programs and provincial policies prior to adoption.
- To investigate and advise on new or potential sources of revenue under the fisheries program.
- To make reports and/or release information on the angling public after approval by the Minister.
- To make recommendations on matters outside those he refers to the Council.

The Council consists of eleven members and a Chairman/Scientific Advisor. Three Special Interest groups are recognized by a member selected by each of the following organizations: the Northern Ontario Tourist Outfitters Association, the Ontario Fish Producers Association and the Ontario Federation of Anglers and Hunters. The other eight members were selected on the basis of proven commitment to, and involvement in, the natural resources of Ontario. The members come from across the province but do not specifically represent an area of the province.

## FISH VALUES

The *Net Economic Value of Fishing in Montana* has some interesting statistics concerning the new willingness to pay of stream and lake anglers in Montana. The 1985 information on which it was based was modeled (using a regional Travel Cost Model) into a demand equation that yielded the following information:

### State Average Net Economic Value

	<u>Lake Fishing</u>	<u>Stream Fishing</u>
Per Trip	\$89	\$113
Per Angler Day	\$70	\$102
Per Recreation Visitor Day (12 hrs.)	\$342	\$280

The annual aggregate value of Montana's stream and lake fishing is \$122 million and \$93 million respectively. The typical resident angler spent \$48 per trip and the nonresident angler typically spent \$360 per trip. The net economic values presented above would have to be increased by these expenditure figures in order to obtain the total economic value. The report by John Duffield, John Loomis and Rob Brooks is one of a series that includes deer hunting, elk hunting and antelope hunting.

## SEAFOOD CONSUMPTION

Americans consumed a record 154 pounds of seafood per person in 1987, breaking the 1986 record of 147 pounds, according to the National Marine Fisheries Service. Since 1982, the per capita consumption has climbed 25 percent.

A total 3.7 billion pounds of edible fish and shellfish were consumed by the population. A record consumption of fresh and frozen fish, primarily shrimp, along with near record consumption of canned fish, mostly tuna, helped boost the per capita figure.

According to NMFS marketing experts, a trend of steadily increasing fish and shellfish consumption since the 1970s, and news that eating fish may help prevent heart disease and other ailments has helped seafood consumption. Improved marketing of quality fresh and frozen fish by air to mid-western cities was another factor in the increase.

To receive current copies of  
**The Tributary**, be sure to notify  
WDAFS of any address change.

*President's Corner, continued from page 1 —*

"Survey of Instream Flow issues In North America" by Dudley and Tom, will be published in the March/April issue of Fisheries.

Chairman Don Martin and I have discussed the decision to go nationwide with the Riparian Management Competition. Originally it was a friendly competition between the U.S. Forest Service and the Bureau of Land Management. We plan to expand it to multi-agency competition and include the private sector. Don and his committee are developing mechanisms and criteria for this transition with potentially thousands of applications. The first nationwide competition will be held next year. More on that later.

### **BALLARD LOCKS BACKGROUND\***

The MMPA, signed into law in 1972, was the first U.S. legislation establishing a comprehensive program to conserve marine mammals. The MMPA is clearly the result of the diverse interest that helped shape it — from commercial fishermen to biologists and conservationists. The Act acknowledges that marine mammals play an important role in marine ecosystems and that they are significant for biological, recreational and aesthetic reasons. It notes the adverse impact that human activities have had on some populations, and the need to restore those that have been depleted.

Conflict between the fishing industry and the environmental community on certain MMPA issues, and a recent court ruling on NMFS authority to issue permits under certain circumstances, has resulted in a reexamination of the MMPA.

Industry and environmentalists formed a working group to provide a "fix" acceptable to both and presented it at the May 10 House Fish and Wildlife Subcommittee hearing on reauthorization. At this time, NOAA, the Marine Mammal Commission (MMC) and other Federal agencies involved with the MMPA and reviewing this proposal to determine if it is feasible.

As Congress considers the reauthorization of the MMPA, attention will focus on interactions between marine mammals and commercial fisheries and whether the MMPA as it stands now can be interpreted to resolve these conflicts.

Recently, court interpretations of certain aspects of the MMPA have brought about changes in the conditions under which the DOC issues permits for the take of marine mammals incidental to fishing operation in the U.S. EEZ (Kokechik Fishermen's Association V. Secretary of Commerce). As a result, no marine mammal incidental take permits, foreign or domestic, can be issued for one marine mammal species unless all

species likely to be taken are known to be above their optimum sustainable population (OSP) levels. That standard cannot be met by most fisheries including the east coast mackerel fishery.

The U.S. government supports reform which will allow the incidental take of marine mammals by domestic and foreign fishermen provided that such takes will not disadvantage a marine mammal population.

*\*Editor's Note: For those of you not familiar with the Ballard Locks, it is located in Washington state. Sea lions at the locks have reportedly been consuming vast quantities of steelhead trout over the last few years. Current USFWS efforts have been aimed at relocating sea lions far from the locks — "Operation Goodbye!" As of this date, apparently not far enough for some seal lions.*

### **NONPOINT POLLUTION UPDATE**

For the second consecutive year, Congress has failed to provide funding necessary to deal with the most pervasive threat to water quality in America — nonpoint source pollution. The recently passed EPA appropriations bill for fiscal year 1989, which contains funds for clean water programs, included no money for nonpoint pollution control programs. Nonpoint source pollution, runoff from agricultural and urban areas, is the source of over half the pollutants found in the nation's waters.

Last year Congress authorized \$400 million over four years to help states implement a new program to determine the extent various nonpoint sources affected local waters and how to control them. Without appropriated funds however, this and other critically needed programs are little more than words on paper.

### **SFO DREDGE SPOIL AGREEMENT**

After months of controversy, the Corps of Engineers (COE) and the EPA announced recently that they have agreed upon an ocean disposal site for the 7 million cubic yards of dredge spoils from the Port of Oakland Project.

United Anglers, Citizens for a Better Environment, the Oceanic Society, Save the Bay Association and the Pacific Coast Federation of Fishermen's Association joined forces to oppose the plan favored by the COE to dump the spoils just off of Alcatraz Island into San Francisco Bay.

After months of negotiations this coalition reached an agreement to stop the planned dumping at Alcatraz which would have severely damaged the Bay environment and its sport and commercial fisheries. Instead, dredge spoils which meet toxicity guidelines will be carried to an ocean site 24 miles southwest of the Golden Gate.

## GREAT LAKES INVADERS

The Great Lakes Fishery Commission (GLFC) and fishery management agencies are very concerned about the introduction of yet another foreign species to the Great Lakes. The Northern European river ruffe (*Gymnocephalus cernuum*) was found in Lake Superior's Duluth Harbor in 1987. The river ruffe is a perch-like fish native to Northern Europe, and has entered the Great Lakes through the discharge of ballast water from ocean-going vessels.

The Great Lakes ecosystem has suffered serious damage from exotic organisms, most notably the sea lamprey that devastated fishing in the Upper Lakes. Ballast water is of particular concern because of the amount and frequency of release and because organisms in ballast water come from many of the world's most polluted harbors. These organisms are frequently aggressive, adaptable and undesirable. Control of ballast water introductions need not be difficult nor expensive. Experts favor an approach that would require ocean-going vessels to exchange their ballast water at sea before entering the Great Lakes.

## BLUEPRINT FOR THE ENVIRONMENT

"Blueprint" has been presented to President Bush and other officials. "Blueprint" consists of over 700 recommendations the federal government should take on environmental problems ranging from global warming to ocean pollution. The need to improve management and reorganization of federal fisheries programs was included in the report. For further information on Blueprint contact Clay Peters, Executive Director, Blueprint for the Environment, 1400 16th Street, N.W., Washington, D.C. 20036, 202/797-6650.

## RIPARIAN HABITAT AWARDS

During the winter of 1988, WDAFS invited the BLM and the USFS to demonstrate which of their administrative units had the most "on the ground" riparian habitat management. The purpose of the invitation was to encourage the BLM and the USFS to strive for excellence in riparian habitat management, document case histories that may be used to illustrate the values of healthy riparian systems and approaches for restoration and recognize managers, resource specialists and public land users for their efforts in maintaining, restoring and improving riparian ecosystems.

Former WDAFS riparian committee chair, Bruce Smith, spawned the idea of excellence awards in riparian habitat management. A committee consisting of BLM, USFS and AFS members and representatives

from the International Association of Fish and Wildlife Agencies, Jack Barryman, the Issac Walton League, Maitland Sharp, the Wildlife Management Institute and Lonnie Williamson, developed the following evaluation criteria:

1) Entries had to document riparian habitat management efforts where resource values and benefits were improved.

2) Land use plans, research projects, handbooks or technical guidelines and program type of stipulations were not eligible.

3) A "riparian invitation" form was to be completed by each entry. Only information (and pictures) requested on the form were considered.

4) Winning units were selected on the basis of total accumulative points scored (110 points possible). Project evaluations were made by a Riparian Excellence subcommittee of the WDAFS Riparian Committee. This subcommittee was chaired by Don Martin, and its members included representatives of State Fish & Wildlife Agencies from Oregon, Montana and Idaho.

188 projects were submitted for evaluation. Of those, there were 20 award recipients for the BLM and 10 award recipients in the USFS. A Most Outstanding Award was given for each agency. The remainder of the awards were given for Special Recognition. In the scoring breakdown, the most outstanding projects scored over 100 points. The Special Recognition category contained scores between 80 and 90.

The Bonita Creek Project in the Gila Resource Area, Safford District, Arizona, was the Most Outstanding in the BLM due to its large-scale watershed approach in a desert ecosystem. It involved 265 acres of riparian habitat. 32,600 acres were involved in the total watershed and 15 miles of stream were affected. There were numerous conflicting uses: mining, grazing, municipal water supply, federal threatened and endangered species, state threatened species, abundant cultural sites, mixed ownership and recreation. There were a multitude of disciplines, user groups, agencies and volunteers involved in the project. Problems and objectives were well defined and had been implemented and are ongoing. The public benefits are being improved and fisheries resource values are increasing. Financial commitments have been made and "on the ground" improvements are occurring. Public involvement and exposure has been substantial with all media.

The Most Outstanding project in the USFS was the 15 Mile Creek Project on the Barlow Ranger District of the Mt. Hood National Forest in Oregon. It's management program is of large-scale and is a true watershed approach. It involved 400 acres of riparian area, 45,000

acres of federal land, 105,000 acres of private land and 130 miles of stream. There were numerous conflicting uses in the drainage: grazing, timber harvest, road construction, water diversion, stream channelization and agricultural practices. Its problems and objectives were well quantified, especially its fisheries objectives. A broad spectrum of special assistants and user groups were involved in the project's development and implementation. Quantifiable, fisheries and riparian objectives are being implemented and future actions are planned and committed. The financial position of the project implementation is quite strong. There has been a high degree of public involvement and exposure.

The other BLM and USFS projects receiving special recognition are listed below. The WDAFS Executive Committee has decided to continue the Demonstration of Excellence in Riparian Management awards. It was decided at the Albuquerque Executive Committee Retreat to expand the categories of the Riparian Excellence program to include all federal, state and local agencies, as well as private organizations. The mechanics and criteria for program implementation are currently being determined. There are lots of good projects being implemented out there "on the ground" but a large amount of work remains to be done.

#### AWARDS OF SPECIAL RECOGNITION BUREAU OF LAND MANAGEMENT

- Dillon Resource Area, Butte District, Montana
  - Wall Creek Range/Wildlife Management Plan
  - Dixon Mtn. Allotment Management Plan
  - Muddy Creek Allotment Management Plan
- Medicine Lodge Resource Area, Idaho Falls District, Idaho
  - South Fork Snake River Project
- Big Butte Resource Area, Idaho Falls District, Idaho
  - Birch Creek Project
  - Sawmill Creek Project
- Jarbridge Resource Area, Boise District, Idaho
  - East Fork Bruneau River Project
- Snake River Resource Area, Burley District, Idaho
  - Shoshone Creek Project
- Deschutes Resource Area, Prineville District, Oregon
  - Bear Creek Project
- Central Oregon Resource Area, Prineville District, Oregon
  - Camp Creek Project
  - South Fork Crooked River
- Beaver River Resource Area, Cedar City District, Utah
  - Birch Creek Project
- Vernal District, Utah
  - Pariette Wetlands Wildlife Management Area Project
- Alturas Resource Area, Susanville District, California
  - Fitzhugh Creek Project
- Wells Resource Area, Elko District, Nevada
  - Tabor Creek Project

- Green River Resource Area, Rock Spring District, Wyoming
  - Sand Grazing Project
  - Tenmile Marsh Project
  - Bone Draw Project
  - Currant Creek/Sage Creek Project

#### AWARDS OF SPECIAL RECOGNITION U. S. FOREST SERVICE

- Mimbres Ranger District, Gila N.F., New Mexico
  - Comprehensive Fisheries/Riparian Recovery of McKnight Creek Project
- Estacada Ranger District, Mt. Hood N.F., Oregon
  - Fish Creek Drainage Rehabilitation Project
- Barlow Ranger District, Mt. Hood N.F., Oregon
  - Rock Creek Riparian Habitat Project
- Zigzag Ranger District, Mt. Hood N.F., Oregon
  - Still Creek Rehabilitation Program
- Elk City District, Nezperce3 N.F., Idaho
  - Crooked River Fish Habitat Improvement Project
- Wallowa Valley Ranger District, Wallowa-Whitman N.F., OR
  - Joseph Creek Subbasin, Grande Ronde River Drainage Project
- North Fork John Day Ranger District, Umtilla N.F., Oregon
  - Clear Creek-Granite Creek Anadrmous Fish Rehabilitation Project
- Long Creek Ranger District, Malheur N.F., Oregon
  - Camp Creek Project
- Crooked River National Grassland, Ochoco N.F., Oregon
  - Willow Creek Project

#### TAXONOMY REVISITED

The validity of *Salmo* as a generic name for several western North American trout species has been questioned in recent years. Taxonomists now agree that native "*Salmo*" trouts of northern Pacific Ocean drainages are more closely allied with Pacific salmon *Oncorhynchus* spp. than with Atlantic and Eurasian *Salmo* species.

A separate problem has concerned the specific name for rainbow trout (and its anadromous form, steelhead), which presently is called *Salmo gairdneri*. Taxonomists now believe that rainbow trout and the "Kamchatkan" trout *Salmo mykiss* of Asia form a single species, for which *mykiss* has nomenclatural priority. The Names of Fishes Committee thus has adopted *Oncorhynchus mykiss* as the scientific name of this species.

The North American species affected by these changes are as follows: Apache trout becomes *Oncorhynchus apache*, cutthroat trout becomes *O. clarki*, Gila trout becomes *O. gilae*, golden trout becomes *O. aguabonita*, Mexican golden trout becomes *O. chrysogaster*, rainbow trout becomes *O. mykiss*.

## OHIO RIVER BASIN REVISITED

The largest inland oil spill in history stimulated many questions about the effects it has had on the fish populations of the Monongahela and Ohio Rivers. The Fish Commission and the Pennsylvania Department of Environmental Resources (DER) have been assessing the effects of the spill since the day it happened — January 2, 1988. Initial testing of fish tissue samples coordinated by the Ohio River Valley Water Sanitation Commission (ORSANCO) revealed that some components of the spilled diesel fuel were present in the flesh of certain fish species. However, public health experts determined that these compounds posed no threat to human health. More recent testing showed little remaining diesel fuel compounds in fish from either river.

Investigations are continuing to determine the damage to the fish populations. A survey of the various lock chambers on the Mon, Ohio and Allegheny Rivers was completed last September and results will be compared to 20 years of past records. The Fish Commission and DER will meet with Ashland Oil Company in the near future to discuss appropriate penalties. A federal grand jury indictment has recently charged Ashland with two criminal counts of violating the federal Clean Water Act and Refuse Act by negligently discharging pollutants and refuse matter into the Mon without a permit. For more information contact Dave Wolf, Pennsylvania Fish Commission, P.O. Box 1673, Harrisburg, Pennsylvania 17105-1673, 717/657-4518.

## HERE COME THE MUSKIES

The Washington Department of Wildlife has just introduced tiger muskies into Mayfield Lake (Lewis County, Washington). The type of fish introduced into the lake needed to be predacious, adaptable to cold water, unable to reproduce and not able to migrate. The musky fits this description. The musky is a hybrid of the northern pike and muskellunge and native in Ontario and the north central United States. Although introduction has taken place in 29 states, this is the first introduction on the west coast.

## WETLAND WATER TREATMENT ADVANCES

Biologists have long been aware that wetland systems clean and purify water. Now, the city of Arcata, California, has put this knowledge to use in its sewage processing system. After initial processing in a conventional mechanical plant, where solids are removed and disinfected, solid waste is then distributed throughout city parks as fertilizer. The remaining waste water is filtered through 62 hectares (154 acres) of

ponds, lagoons and marshes before being pumped, clear as crystal, into Humbolt Bay. Some of the treated water is pumped into the city's fish hatchery, which produces steelhead, chinook and coho salmon. Several other U.S. cities are looking closely at this innovative system.

## MEETINGS, SEMINARS, SHORT COURSES & PUBLICATIONS

### CURRENT EVENTS

**March 21-23.** The Pacific Fisheries Biologists' 51st annual meeting in Parksville, British Columbia. The theme of the meeting is "Science — Pure and Practical." Topics covered in the technical sessions will include oceanography, environmental protection, enhancement, fisheries, aquaculture and non-biological factors in biological decision.

**April 2-7.** Second International Conference on Marine Debris. Alemoana Americana Hotel, Honolulu, Hawaii. For information contact Richard S. Shomura, Southwest Fisheries Center, Honolulu Laboratory, 2570 Dole St., Honolulu, HI 96822. 808/943-1229.

**April 16-18.** 14th Symposium on Aquatic Toxicology and Hazard Assessment, Atlanta Hilton, Atlanta, Georgia. For information contact Wayne G. Landis, CRDEC, Aberdeen Proving Grounds, MD 21010-5423, 301/671-2764.

**May 9-12.** "National Symposium on Practical Approaches to Riparian Resource Management," will be held at the Montana Convention Center, Holiday Inn, Billings, Montana. The symposium will focus on "how to manage." For a preliminary program and symposium details contact Glenn Phillips, Montana Department of Fish, Wildlife and Parks, Helena, Montana 59620, 406/444-2406.

**May 21-27.** 13th Annual Meeting of the Early Life History Section of AFS and the 13th Annual Larval Fish Conference. For information contact Andrea Frank, Mote Marine Laboratory, 1600 City Island Park, Sarasota, FL 34236, 813/388-4441.

**May 22-25.** The 40th Tuna Conference will be held at the UC Lake Arrowhead Conference Centre, Lake Arrowhead, California. Contact Michael Hinton, 619/546-7033 for more information.

**May 23-24.** "Symposium on the California Halibut." The symposium will be held at John Olgin Auditorium, Cabrillo Marine Museum, San Pedro, California. For details contact John Sunada, Symposium coordinator, CDF&G, 330 Golden Shore, Suite 50, Long Beach, California 90802, 213/590-5169.

**June 17-23.** Annual meeting of the American Society of Ichthyologists and Herpetologists. For information contact Dr. Margaret Bradbury, Dept. of Biology, San Francisco State University, 1600 Holloway, San Francisco, CA 94132.

**June 27-30.** American Water Resources Association Symposia "Headwaters Hydrology" and "Indian Water Rights and Water Resources Management." University of Montana, Missoula, Montana. For information contact Dr. Donald F. Potts, School of Forestry, University of Montana, Missoula, MT 59812, 406/243-6622.



July 5. "Symposium on Indian Fisheries" is being sponsored by WDAFS, Native American Fisheries Committee. The symposium will be held at the Sheraton Towers, Seattle, Washington. For more information contact Frank Halfmoon, Committee Chairman, Symposium on Indian Fisheries, P.O. Box 14929, Portland, Oregon 97214, 503/231-6749.

July 3-8. Joint Meeting of the Western Association of Fish and Wildlife Agencies and the Western Division of the American Fisheries Society, Sheraton Hotel and Tower, Seattle, Washington. For more information contact Pat Dwyer, 27 Border Lane, Bozeman, Montana 59715, 406/283-7077.

September 2-8. AFS Annual Meeting will be held at the Captain Cook Hotel, Anchorage, Alaska. The Alaska Chapter has made extensive travel arrangements with Delta Airlines that will allow individuals traveling to the meeting substantial discounts. For information contact Randy Bailey, USFWS, 1011 East Tudor Rd., Anchorage, Alaska 99503-6199.

September 9-13. 79th annual meeting of the International Association of Fish and Wildlife Agencies. Ramkota Inn, Pierre, South Dakota. For information contact Mark J. Reece, International Association of Fish and Wildlife Agencies, 444 N. Capitol St., NW, Suite 534, Washington, D.C. 20001, 202/624-7890.

September 18-19. Wild Trout IV will be held in Yellowstone NP, Mammoth, Wyoming. The symposium, held every five years, will address the needs, management and biology of wild trout and salmon populations. For information contact Frank R. Richardson, 404/331-3588 or Gardner Grant, 914/428-5553.

## RIPARIAN DISKS

An IBM compatible computer diskette containing over 600 riparian references is available from the Idaho State Office of the BLM. It features ASCII files for quick inclusion in most word processors. If you would like a copy, send a formatted IBM compatible diskette, either 5 1/4 or 3 1/2 inch to Riparian Bibliography, Bureau of Land Management (930), Idaho State Office, 3380 Americana Terrace, Boise, Idaho 83706.

If you have any pertinent literature that you would like tossed in the system please sent it to the same address.

## NOAA PUBLICATIONS

"NOAA Estuary-of-the-Month Seminar" Series Numbers 5 (Chesapeake Bay) and 8 (Puget Sound). These two free NOAA publications deal with the issues, resources, status and management of these two vital estuaries. To order, write NOAA, Estuarine Programs Office, 1825 Connecticut Avenue, N.W., Room 625, Washington, D.C. 20235.

## INSTREAM FLOW NEWS

*Rivers: Studies in the Science, Environmental Policy and Law of Instream Flow* is a new, quarterly, interdisciplinary journal to be released in 1989. Professionals in the area of fisheries biology, engineering, policy and law are encouraged to submit original



## WESTERN DIVISION AMERICAN FISHERIES SOCIETY AWARD NOMINATION FORM

AWARD: Excellence \_\_\_\_ Outstanding Chapter \_\_\_\_  
Conservation Achievement \_\_\_\_ Student of the Year \_\_\_\_

Nominee: \_\_\_\_\_

Address: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_

Phone: \_\_\_\_\_

### NOMINATION STATEMENT:

Attach a typed statement explaining why this individual or agency is deserving of an award. Please explain fully the accomplishments or series of career accomplishments that distinguishes this nominee. Include information on other awards and honors received, AFS offices held, etc. Attach any pertinent news clippings, letters or documents.

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ State: \_\_\_\_ Zip: \_\_\_\_

Phone: \_\_\_\_\_

research and scholarly review articles focusing on the questions of assessing instream flow needs, developing instream flow policies and resolving instream flow conflicts. Manuscripts should be typed, double-spaced and not exceed 25 pages. The quality of scholarship is ensured through a stringent refereeing procedure.

Please send manuscripts and requests for more information to Susan E. Lamb, Editor, *Rivers*, 3024 Phoenix Dr., Fort Collins, CO 80525, 303/226-6225.

## AQUATIC ANIMAL HEALTH

The Fish Health Section of AFS has created the new *Journal of Aquatic Animal Health* to serve the North American and international community of scientists concerned with the health of aquatic organisms. This peer-reviewed journal will consider papers dealing with any marine or freshwater species and covering all areas of aquatic animal health.

Authors wishing to submit manuscripts to the journal may obtain additional details and a "Guide for Authors" from Dr. W. A. Rogers, Editor, Journal of Aquatic Animal Health, Department of Fisheries and Allied Aquaculture, Auburn University, Alabama 36849. Society members wishing to subscribe to the journal should sent \$25.00 (\$28.00 outside the U.S.) to AFS headquarters (5410 Grosvenor Lane, Suite 110, Bethesda, Maryland 20814).

# 1989 WDAFS Annual Meeting & Conference

The joint meeting of the Western Association of Fish and Wildlife Agencies and the Western Division of the American Fisheries Society, will be held at the Sheraton Hotel and Tower, Seattle, Washington, July 3-8, 1989.

The theme of the conference is "Sharing a Common Legacy." Environmental and natural resource conflicts and opportunities almost always involve multiple interests who share the responsibility for the well being of our natural resources. How we handle this responsibility is our legacy to future generations. This conference is one means of moving toward the objectives of provid-

ing for continuing wise use of fishery and wildlife resources and exploring ways to better work together to achieve this.

Technical sessions have been designed to correspond to the theme. Abstracts for the presented papers must be received by April 1, 1989. They should be sent to Cay Goude, Program Committee Chair, 10685 Jackson Road, Sacramento, CA 95830, or call 916/362-8373 (home) or 916/978-4613 (work). Preference will be given to those papers that address the meeting theme and contribute to our understanding of the challenge.

## CONFERENCE SCHEDULE

### July 3, Monday

- RETREAT. Contact Don Chase.

### July 4, Tuesday

- 3 talks to be arranged by Don Chase.
- Business meeting.

### July 5, Wednesday

Three concurrent technical sessions:

8 AM to 12 NOON:

- Fishery Genetics and Fishery Management, Steve Leider
- Large & Small River Fishery Management, Lou Carufel
- Contributed Papers, Cindy Deacon Williams

1 PM to 5 PM:

- Computer Applications in Fishery Science, Don Chase
- Climatic Changes & Effects on Aquatic Resources, Robert Lackey
- The Significance of Hydrology for Stream Function, Tom Taylor

### July 6, Thursday

1 PM to 5 PM:

- Endangered Species/Nongame, Lary Eng
- Contributed Papers, Ken Hashagen

### July 7, Friday

8 AM to 5 PM:

- Continuing Education, Time Management (limit of 25)

8 AM to 12 NOON:

- Native American Fisheries, Frank Halfmoon
- Fish Diseases, Dave Drake

1 PM to 5 PM:

- Two technical sessions to be determined

### July 8, Saturday

8 AM to 12 NOON:

- Continuing Education, Time Management

The Western Division is planning to hold a continuing education class in conjunction with our annual meeting (July 7 & 8). The class, **Focus On Time Management**, will be taught by Jerry Johnson with the Franklin Institute.

The course includes a total approach to controlling the various pressures that compete for your time. Every participant in the seminar receives a one-year Franklin Day Planner System. The cost will be determined at a later date; however, it is anticipated to be \$100 to \$125. Contact Ken Hashagen, 916/323-7324, for further information.

HELP! We need at least two more technical session chairs. Anyone interested in chairing a session please contact Cay C. Goude, 10685 Jackson Rd., Sacramento, CA 95830, or call 916/362-8373 (home) or 916/978-4613 (work).

## Abstract Information

Abstracts must state clearly the study's objective, principal results and conclusions, but are not to exceed 200 words. Final accepted papers must be received by May 1, 1989 in order to be included in the meeting publication.

All submission of materials or any questions should be directed to Cay Goude, 10685 Jackson Road, Sacramento, CA 95830, or call 916/362-8373 (home) or 916/978-4613 (work).

Pre-registration fee .....	\$95.00
Registration fee on site .....	\$115.00
Tillacum Tour .....	\$35.00

July 4th boat tour of Seattle waterfront, Salmon feast on Blake Island, view of fireworks from mouth of Elliot Bay. Registration on a first-come-first-served basis.

Send pre-registration fees to:

Janine Fenton, Assistant Director  
Washington Dept. of Wildlife  
Capiol Way, North  
Olympia, WA 98501-1091

For more information contact Rich Poelker, 206/753-2921

Please put "WDAFS pre-registration" on outside of envelope.

## **MYSID SYMPOSIUM**

The Symposium of Mysids and Their Impacts on Fisheries II was held as a special session during the Parent AFS meeting held in Toronto, September 2-15, 1988. Similar to the Fort Collins symposium, a semi-fancy copy of the agenda with abstracts was provided and all 50 to 100 were taken. Copies can still be made if desired. More importantly, Eric Bergersen and Tom Nexler are up to their otoliths as editors coordinating the peer-review phase of 20 manuscripts to be included in an AFS special publication in their Special Symposium Series. They expect to be camera-ready by next fall. Eric and Tom would like to extend their appreciation to the Western Division for continued assistance in the proceedings publication efforts. Persons interested in copies of the symposium agenda and abstracts may contact Tom Nesler at Colorado Division of Wildlife, 317 W. Prospect, Fort Collins, Colorado 80526, 303/484-2836 or Eric Bergersen at Colorado Coop. Fish Research Unit, 201 Wagar, Colorado State University, Fort Collins, Colorado 80523, 303/491-1415.

## **WALLEYE BIBLIOGRAPHY**

As a result of a cooperative effort from the Ontario Ministry of Natural Resources and the Minnesota Department of Natural Resources, a Walleye and Sauger bibliography was published in 1988. The bibliography is an update of previous works, namely Addison and Ryder (1970), and Colby, et. al. (1979). The bibliography was developed on Wordstar (MicroPro Corp.) and dms4Cite (Sidereal Technologies, Inc.).

Canadian residents please write to Dr. P. J. Colby, Ontario Ministry of Natural Resources, Fisheries Research, P.O. Box 5000, Thunder Bay, Ontario P7C 5G6. U.S.A. residents write to Mark Ebbers, Minnesota Department of Natural Resources, 500 Lafayette Road, St. Paul, Minnesota 55155.

## **MARKING AND TAGGING PUBLICATION**

"Marking and Tagging of Aquatic Animals: An Indexed Bibliography" by Lee Emery and Richard Wydoski, published as Resource Publication No. 165 by the U.S. Fish and Wildlife Service in 1987, is a helpful reference containing 1,436 citations of published articles dealing with marking and tagging of fish and other aquatic animals. Copies can be obtained from the Publications Unit, USFWS, Matomic Building, Room 148, Washington, D.C. 20240 or may be purchased from the National Technical Information Service (NTIS), 5283 Port royal Road, Springfield, Virginia 22161.

## **STREAM SALMONID ENHANCEMENT**

A very useful enhancement guide for stream salmonids, "Stream Enhancement Guide" (1980), jointly prepared by the Federal and Provincial governments, is no longer available as a complimentary copy from the Recreational Fisheries Branch in Victoria. Outstanding requests are now being directed to Crown Publications, 546 Yates St., Victoria, British Columbia, Canada V8W 1K8. The cost is \$5.00 Canadian.

## **WETLAND INFORMATION**

Proceedings of the October 4-7, 1987 Conference on Increasing Wetland Resources are available from the National Wildlife Federation which sponsored the conference. Send \$25.00 to Barbara Haas, Director, Corporate Conservation Council, NWF, 1412 16th Street, NW, Washington, D.C. 20036. Make checks payable to "CCC Wetlands Proceedings."

**SUPPORT YOUR WESTERN DIVISION  
ATTEND  
THE 1989 WDAFS/WAFWA  
JOINT CONFERENCE  
JULY 3 - 8, SEATTLE, WASHINGTON**

## **TRIBAL FISHERIES SUPERVISOR**

Tribal Fisheries Supervisor/Coordinator. \$27,000-\$30,000 per year depending on qualifications and experience. Duties include administering current and procuring new contracts; maintaining and expanding cooperative efforts with other Fish and Wildlife agencies both on- and off- reservation; supervising and coordinating fisheries department. The applicant must have and M.S. is fisheries biology or related field with 3 years experience; Indian preference. For more information contact Mike Rowe, Fisheries Department, Shoshone-Bannock Tribes, P.O. Box 306, Fort Hall, ID 83203, 208/238-3914.

## **JOBSOURCE**

The Wildlife Society and American Fisheries Society are jointly sponsoring JOBSOURCE, an up-to-date and detailed bank of national and international vacancies in salaried and volunteer positions in fisheries, wildlife and related natural resource fields. An innovative computer program quickly sorts through and locates positions that match each individual's interest and qualifications. JOBSOURCE is a unique and effective mechanism for prospective employers as well as persons looking for new career opportunities. Call 1-800-727-JOBS for assistance.

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## BOATING INFORMATION

A boater's source directory has been published by the BOAT US Foundation with free copies available by writing BOAT US, 880 South Pickett Street, Alexandria, Virginia 22304, 703/823-9550. The pocket-sized directory contains addresses for state boating offices, gives information on boating courses and licensing, tells about boat registrations, marine examinations, accident reporting and tells how to order navigation aids.

## MISSOURI RIVER SYMPOSIUM

The North Central Division of AFS has just published the proceedings of the Missouri River symposium. "The Missouri River: The Resources, Their Uses and Values," special publication number 8, describes the past history of the Missouri River, energy flow, economic development, regulation of mainstem reservoirs, mitigation and more. This publication is available for \$7.00 by writing Vaughn L. Paragamian, Fisheries Research Biologist, Dept. of Natural Resources, Manchester Trout Hatchery, R.R. #2, Box 269, Manchester, IA 52057.

## FISHERIES SOFTWARE

The Colorado Division of Wildlife, Aquatic Research Section, has two computer programs that may be of interest to Western members. Both operate on IBM or compatible machines. The Fishery Evaluation Program (FEP) operates within dBase III+ protocol, which must be available on the machine. The Creel Survey Analysis Program (C-SAP) is written in Turbo Pascal and will stand alone.

For further information contact Bill Babcock, Colorado Division of Wildlife, 317 West Prospect, Fort Collins, Colorado 80526.

**The Tributary** is distributed to 3000 WDAFS members and exists as a forum to present fisheries-related information. As the editor, I cannot accomplish this goal unless YOU participate! The WDAFS will publish three editions of **The Tributary** in 1989. Deadlines for submission of articles for **The Tributary** are February 15 (for the Winter issue), June 1 (for the Spring issue) and October 15 (for the Fall issue). If you have information you would like included in **The Tributary**, send it to:

**ROGER W. OVINK, TRIBUTARY EDITOR**

P.O. Box 428  
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