The Tributary

A Newsletter of the Western Division, American Fisheries Society

Volume 28, No. 2, July 2004

2004 Annual Meeting Wrap-up

Western Division of AFS and the Colorado/Wyoming and Bonneville Chapters

"Native Fish Management: Policies, Politics, and Practicalities"

Salt Lake City, UT

February 29 - March 4, 2004

By all measures, the Western Division's annual meeting held in Salt Lake City, February 29 to March 4, was a resounding success. When the Society started planning this meeting last year, we anticipated an attendance of 300 to 350 people. When the deadline for abstracts passed and we counted the submissions, we had more abstract submissions than we had projected attendance to be. While that was exciting news to the Local Arrangements and Program Committees, it also meant that we all had to virtually start over with meeting preparations. Quite frankly, we planned one meeting before the abstract deadline and then another after the registrations confirmed that this was going to be a well attended meeting.

What made the meeting so successful? I think that the joint meeting between the Whirling Disease Foundation and the Western Division allowed State and Federal agencies to send more employees to this meeting as they were getting two meetings for the price of one. Dave Kumlien and Jerri Bartholomew were a delight to work with throughout the planning process. I recommend that both organizations plan to meet together again in the future!

The Program Committee led by Dave Zafft, Colorado-Wyoming Chapter, tried a slightly different approach to developing the program. Dave recruited session chairs who then became the "Program Committee" and they held regular conference calls to brief and debrief others on progress in recruiting papers. Using this approach we only had one proposed symposium that did not develop.

The Local Arrangements Committee led by Eric Wagner, Bonneville Chapter, had the yeoman's job of helping with the hotel negotiations, arranging for offsite venues (which we outgrew!), social opportunities (such as the great skiing!) and of course the registration desk. Little recognized at times, this committee literally makes or breaks a meeting. State agencies made invaluable contributions to this meeting in staff time and other support. Steve Wolff organized the Registration desk differently this year. One difference was to hire a company to handle credit card charges. I had a number of comments that everyone who worked in the Registration Desk had a "can do" attitude that helped solve issues before they became problems.

I do not think the Registration folks ever got to see a single paper, but their work was seamless!

The Colorado-Wyoming and Bonneville Chapters collectively did an outstanding job on this meeting. We had over 40 Committee Chairs and Co-Chairs who literally ran this meeting. Whenever help was needed on any aspect of the meeting someone stepped up from one of the Chapters. Talk about pitching in!

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The Tributary *is distributed to 3,742 WDAFS members and exists as a forum to present fisheries-related information. The editor is Mark Brouder. If you have information you would like to have included in* **The Tributary**, *please contact us at;*

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Submissions for the next issue of **The Tributary** *are due around September 1, 2004.*

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President's Message - Couldn't be prouder…

The years 2003 and 2004 were great years for the Western Division and the Parent Society of the American Fisheries Society. And what makes these years even greater has been the wide array of expertise and vast amount of institutional knowledge that you all hold and have contributed each day, week, and month of the year to the fisheries resource. Everyone reading this (including you) has truly stated, "I am not asking what the Society can do for me, but have already asked what I can do for AFS!!" The Western Division's Committee Chairs, Chapter Officers, and Division Officers have done another outstanding job this year. I thank them all (and you, the reader) for your dedication to the resource and to the Society; the Western Division is truly a leader in the American Fisheries Society. I am sure that the future will be just as fruitful for AFS due to your dedication, professionalism, and foresight.

With that being said, here are some random thoughts from a very proud President….

1) The 2003 Western Division Annual Meeting in San Diego was a great success for science and our members who have a marine background. Agency travel restrictions hurt the bottom line, but the meeting went off without a hitch, was highly enjoyed by attendees and made a modest profit for the Division. Although it took some time to rectify the books and attendance was not as high as we would have liked, the program was extraordinary and well received…Mark Brouder (AZ); take a bow. The local arrangements were some of the best planned that I have ever been associated with at a meeting of this caliber. We all learned, networked and had fun in a fantastic place…Dave Manning (CA) and the Cal-Neva Chapter; take a bow. And for those that could not attend…well, let's just say you really missed out.

2) The Western Division budget was strained in 2003 and 2004. Although the 2002 WDAFS Annual Meeting in Spokane met its financial goal of a $10,000 profit, the 2003 San Diego Annual Meeting did not and the Division found itself in the unenviable position of having to decline financial requests we would normally have supported in the past. Although our overall finances were in good shape, the amount of potential outgoing money for grants and some Division operating expenses was less than needed and/or required. However, through the great works of your Executive Committee and Division Officers, we worked our way through this dilemma and brighter skies are on the horizon…Monica Hiner (CA), Don MacDonald (BC), Bill Bradshaw (WY) and Eric Knudsen (AL & WA); take a bow.

3) This Division has been in the forefront of making member communications a high priority for the American Fisheries Society. Over the past 2 to 4 years, your Executive Committee (made up of Chapter Officers, Committee Chairs and the Division Officers) has integrated monthly teleconferences and a Fall ExCom Meeting into our busy schedules, which is in addition to the bylaws required functions that surround the WDAFS and Parent AFS Annual Meetings...so all of our Chapter Presidents and Committee Chairs; take a bow. Couple that with Leadership Training opportunities, an improved "Tributary" newsletter, and a fantastic Western Division website and we have the makings of a tremendous communications machine...Mary Whalen (AK), Mark Brouder (AZ); take a bow. I hope that all of our members out there continue to take advantage of these opportunities. Of course, by reading this in the "Tributary", you are…so please pass this on to a colleague that may not be as enlightened as you.

4) The 2004 Western Division Annual Meeting in Salt Lake City has become the largest attended inland meeting ever for the Division; the attendance was well over 600…WOW!! Not only was the program amazing, but the facilities and other local arrangements made this a memorable event…Lynn Starnes (NM), Eric Wagner (UT) and Dave Zafft (WY); take a bow. This meeting was co-hosted by the Bonneville and Colorado/Wyoming Chapters and the profit was over $60,000. This will certainly go a long way to making the Division financially secure in 2004 and in the future. There is more information on this meeting contained in this edition of the Tributary…check it out!!

5) The past few years have been amazingly successful years for the Parent Society. Although the general membership has increased/decreased only modestly, the enthusiasm and energy of this membership has been wonderful. We are well on our way to finalizing our new AFS 5-Year Strategic Plan (look for it the next few months). The Parent AFS is financially stable, almost to the point of having a full year's worth of reserve funding…Betsy Fritz (AFS, Finances), Gus Rassam (AFS, Executive Director), and our AFS Governing Board; take a bow. The past four AFS Annual Meetings (St. Louis, Phoenix, Baltimore, and Quebec City) have set the bar very high for future AFS meetings. Speaking of that, I hope to see some of you this year in Madison, Wisconsin (August 22nd – 26th) and all of you next year in Anchorage, Alaska (September 11th – 15th, 2005). The Alaska Chapter and the Western Division are co-hosting in 2005…way to go folks!!

6) Congratulations to the Colorado/Wyoming Chapter. After much discussion and a great lineup of candidates, Colorado/Wyoming was selected by the Western Division's Award Committee as the 2004 Outstanding Chapter Award winner. This is the second time in three years that this Chapter has won this outstanding Western Division award. They now go on as our Division's representative for the American Fisheries Society's Chapter of the Year Award (Large Chapter)…Good Luck!!

Well, random thoughts can end quickly, so that is all from me for now. This is probably my last President's Message in the "Tributary", but I won't say goodbye because I know I still have lots of work to do in the coming years as a member of the Western Division's ExCom. I just look to WDAFS leaders such as Past-Presidents Bill Bradshaw, Eric Knudsen, and Don MacDonald and recognize that no one forced them out the door; they are still doing great work for the Division. I hope to do the same…have a great Summer!!

Tom McMahon
President

Fish Quiz

The USEPA's Environmental Monitoring and Assessment Program (EMAP) has evaluated the first three years of its probability survey of streams and rivers in the 12 conterminous western USA states (AZ, CA, CO, ID, MT, ND, NV, OR, SD, UT, WA, WY). From the 542 randomly-selected sites with fish, EMAP can infer the proportion of stream length occupied by each fish species. Since you are a fish biologist and knowledgeable about such matters, which five native fish species are the most commonly occurring across those states? And what are the three most commonly occurring nonnative fish species in the same region?

Send your replies to Gregg Lomnicky (lomnicky.gregg@epa.gov). The species, and persons providing the correct answers, will be announced in the next issue of ***The Tributary***.

2004 Meeting Wrap-up (continued)

When you have been around in this profession for 30+ years like me, I wonder at times whether the profession is better today than when I started my career. After working with the students at Utah State University who sponsored all of the Continuing Education classes, I am convinced that the next generation of fishery biologists is preparing to lead our profession well. We probably had a record number of students attend. Many worked in a variety of jobs to help defray registration and/or room costs. It was inspiring to me to see so many young professionals actively involved in the Western Division of the American Fisheries Society!

How successful was the meeting? For a meeting where we anticipated 300 to 350 attendees, we had 584 registrations. Wow. Almost double our planning target. Bill Bradshaw led the fund raising efforts for the meeting and procured $12,400 in donations. After all bills were paid the Western Division received $20,289 from proceeds. During early planning, we were concerned that sponsoring entities might incur a loss this year and we worked hard to control costs. Due to the great work of all involved all bills and obligations from the meeting have been paid and the meeting has been closed out. I want to thank everyone who came up to me and others to say that the Salt Lake City meeting and program was the best ever for the Western Division. Those comments sure make all the hard work worthwhile. I have thanked a few key people in the text above, but it takes a small army of volunteers to create and conduct a successful meeting. The Western Division is composed of people dedicated to the profession and to the Society. On behalf of all officers, thank you for your hard work and support.

In the next two months, I will be contacting Committee Chairs to see if they are interested in remaining in that position. I anticipate that I will need some new volunteers. If you are interested in volunteering for the Western Division, look through the web site at the committees and contact me at Lynn_Starnes@fws.gov if you are interested in serving on one or more committees.

Lynn Starnes
President Elect

Proposed Changes to WDAFS Bylaws: Your Vote is Needed!

The following Bylaws (*see page 4*) revisions are offered for your consideration. They have been reviewed and approved by the Division EXCOM and the AFS Constitutional Consultant. Most of the revisions represent editorial changes to bring them in alignment with the new AFS Constitution and to clarify their intent. There are two substantive amendments: one gives the Past President a vote on the EXCOM (Section IV. E.), and the other changes the quorum for EXCOM business from 4 of 5 officers to 3 of 5 officers (Section V. C.).

Please vote for these revisions using the enclosed mail ballot form. The ballots must be post marked by ***August 4, 2004***. If approved by the membership, they will take affect upon approval by the AFS Governing Board at its annual meeting in Madison, WI.

Joe Margraf
Chair, Bylaws Revision Committee

2004 ANNUAL MEETING AWARD WINNERS - SALT LAKE CITY, UT

2004 Riparian Challenge Award Winners (Left to Right) BLM - Carson City Field Office, Gifford Pnchot National Forest, and Nez Perce Tribe

Don McDonald accepts Award of Special Recognition for Shawn Chase

Eric Knudsen accepts Award of Special Recognition for Glen Contreras

Bill Bradshaw accepts Award of Merit for Dave Lentz

Monica Hiner accepts Award of Merit for George Guillan

REVISIONS TO BYLAWS - Please review and vote using enclosed ballot

BYLAWS OF THE WESTERN DIVISION OF THE AMERICAN FISHERIES SOCIETY

SECTION I. Name and Objectives.

A. Pursuant to the Constitution ~~and Bylaws~~ of the American Fisheries Society (hereinafter referred to as the Society) there has been established within the Society a Western Division (hereinafter referred to as the Division).

B. The objectives of the Division shall be those set forth in Aticle I of the Constitution of the Society, and shall be in particlar:

1. Provide a forum through the annual meeting for the exchange of technical and policy information common to and of interest to the Division membership.

2. Provide an opportunity through the annual meeting to promote understanding by regional, Federal, and state policy-makers of the nature and extent of fishery matters of concern to the Division membership.

3. Assist in the exchange of information in a timely manner to chapters and the general membership located within the Division.
4. Provide a vehicle for the active participation of individual members in Society business and professional activities.

SECTION II. Membership.

A. The membership of the Division shall be those Society members in good standing residing in the States of Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, U.S. Islands and Trust Territories in the West Pacific Ocean, Utah, Washington, and Wyoming in the United States of America; the Province of British Columbia and the Yukon Territory in Canada; Mexico; and individuals residing in other Divisions who elect to be members of the Western Division.

B. All members residing in the above-named States and Provinces are members of the Western Division unless they elect to be a member of another Division by notifying the Executive Director of the Society.

SECTION III. Officers and Representatives.

A. The officers of the Division shall be the President, President-Elect, ~~1st~~ Vice President, ~~and the~~ Secretary-Treasurer, and Past President.

B. Representatives for the Division in Society matters shall be the Division Representatives to the Society Governing Board and the Division Representative to the Society Nominating Committee.

C. All candidates must be members in good standing for at least two years immediately preceding their nomination. Also, they must have attended an annual meeting of the Division in one of the preceding three years.

D. The Division President, President-Elect, ~~and 1st~~ Vice President, and Past President shall serve for a period of one year, and shall be ineligible for ~~re-~~election to the ~~same~~ office of Vice President for a period of one year after the expiration of their term. The Secretary-Treasurer shall serve for a period of two years and shall be eligible for re-election for a maximum of two consecutive terms and shall be ineligible for re-election for a period of one year after the expiration of a second term.

E. As defined in ~~Article III.4 of~~ the AFS Constitution, the Division representatives to the Society Governing Board will be the President and President-Elect and will serve for a one-year term. In addition, a proxy may be designated should either of these officers be unable to attend a Governing Board meeting providing the Executive Director is notified in writing in advance of the meeting. This proxy may be any Past President or elected officer of the Division not currently a member of the Governing Board or acting as a proxy.

F. ~~In the event of postponement or cancellation of an annual meeting, the~~ The officers and representatives shall ~~continue to serve until the next general membership meeting~~ assume office at such time as the Society's officers are installed.

G. If an elected officer cannot complete the term of office, the Executive Committee is authorized to appoint a replacement until an election is held.

SECTION IV. Duties of Elected Officers and Representatives.

A. The President shall

1. Preside at all meetings.

2. Serve as Chair of the Executive Committee.

3. ~~Be~~ Serve as a member of the Society's Governing Board.

4. Appoint committee chairs and perform other functions as authorized.

5. Present reports of Division activities at the annual meeting of the Division, at meetings of the Society's Governing Board, and at annual meetings of the Society.

6. Automatically become Past President at the conclusion of the term of office.

B. The President-Elect shall

1. Assume the duties of the President if the President is absent or unable to act.

2. Serve as Co-Chair of the Program Committee.

3. Prepare and present a detailed budget for the next fiscal year for review by the Division's Executive Committee and membership approval at the annual meeting.

4. Be a member of the Society's Governing Board.

5. Automatically become President at the conclusion of the Society's annual business meeting.

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C. The Vice President shall

1. Assume the duties of the President-Elect if the President-Elect is absent, unable to act or assumes the Presidency.

~~2. Automatically become President-Elect at the conclusion of the Society's annual business meeting.~~

~~3~~2. Coordinate the activities of the Division standing and technical committees and serve as liaison between the committees and the Executive Committee.

~~4~~3. Ensure that committee products concerning advocacy and policy follow a review and action pathway through the Policy Review Committee, Environmental Concerns Committee, and/or the Executive Committee in accordance with the Division Advocacy Procedures and these Bylaws.

~~5~~4. Serve as Chair of the Membership Committee.

~~6~~5. Serve as a member of the Program Committee.

~~6. Automatically become President-Elect at the conclusion of the term of office.~~

D. The Secretary-Treasurer shall

1. Keep the official records of the Division, conduct its correspondence, and collect and be custodian for any fees or assessments authorized by these Bylaws or funds allotted to the Division by the Society.

2. Disburse funds only as authorized by either the membership or Executive Committee.

3. Submit a report on receipts and disbursements at the Division's annual meeting.

4. Perform other duties requested by the Society's Executive Director.

5. Submit the minutes of the annual meeting to the Society's Executive Director and the Division Executive Committee within 30 days following the meeting.

E. The ~~Immediate~~ Past President shall

~~1. Serve as an ex-officio (non-voting) member on the Division's Executive Committee.~~

1~~2~~. Serve as Chair of the Division Nominating Committee.

2~~3~~. Serve as Chair of the Division Awards Committee.

3~~4~~. Serve on the Policy Review Committee.

F. The Division Representative to the Society Nominating Committee shall

1. Search the ~~Western~~ Division membership for potential candidates for ~~to~~ Society officer~~ships~~ and aid in their nomination.

SECTION V. The Division Executive Committee.

A. The Division Executive Committee shall consist of the five elected officers (President, President-Elect, Vice President, Past President, and Secretary-Treasurer) and the President of each Chapter within the Division.

B. It is authorized to act for the Division between meetings and transact necessary business.

C. A quorum for an Executive Committee meeting shall consist of ~~four of the five~~ a majority of the elected officers and one-third of the Chapter Presidents. If unable to attend an Executive Committee meeting, ~~the~~ a Chapter President may appoint one of the Chapter officers to represent the Chapter, with full voting rights. If such substitution is made, the Division Secretary shall be notified prior to the meeting.

D. The Executive Committee meets in conjunction with the annual Division meeting and approximately midyear between annual meetings. Such meetings are open to Division members.

SECTION VI. Meetings.

A. The Division shall meet at least once a year at a time and place decided at least two years in advance.

B. Special meetings may be called by a two-thirds vote of the Executive Committee, or by the President with the approval of the Executive Committee.

C. When mutually agreeable, the Division may meet jointly with other organizations or with other units of the Society in accordance with the Standing Rules, Section C.

SECTION VII. Voting and Quorum.

A. Decisions at a meeting of the Division shall be by a majority of those voting except in the case of amendments to the Bylaws (see Section X), ~~or~~ suspension of the Standing ~~r~~Rules which requires a two-thirds majority, or as otherwise specified in the latest edition of Robert's Rules of Order.

B. A quorum at the annual meeting of the Division for the transaction of official business shall be at least 20 members in good standing.

C. Election of officers and the Division Representative to the Society Nominating Committee shall be by mail ballot or electronic ballot. The procedure for the conduct of the ~~mail~~ ballot shall be determined by the Executive Committee and executed by the Secretary.

SECTION VIII. Finances.

A. The Executive Committee may~~, with the prior approval of the Society Governing Board,~~ levy such special fees as may be necessary to meet any expenses of the Division.

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B. A current accounting of all funds shall be kept by the Secretary-Treasurer.

C. An audit of the financial records of the Division shall be made by an Audit Committee immediately prior to the annual meeting.

D. All financial transactions shall be accomplished in a businesslike manner in accordance with a budget approved at the annual meeting.

SECTION IX. ~~Division~~ Standing Committees.

A. ~~The following s~~Standing ~~c~~Committees, composed of Division members in good standing, shall be organized by the President together with their chairpersons within 30 days after the annual meeting. The activities of these committees are coordinated by the Division Vice President. Standing committees are to assist the President and the Executive Committee in the conducting the affairs of the Division. The chair of each standing committee shall report at the annual and midyear Executive Committee meetings and annual membership meeting. In the event a meeting is canceled, committee reports shall be published in the newsletter. The term of duty for members of standing committees shall extend from their appointment to the end of the following annual meeting, unless otherwise specified. Division committees shall work in close coordination with comparable committees of the Society.

B. The Division has established the following Standing Committees:

~~F.~~1. ~~An~~ Arrangements Committee. The Chair ~~plus~~ and at least three members shall be responsible for making all arrangements for the annual meeting, exclusive of program, to include lodging, meals, pre-registration, and registration, publicity and any other needed facilities or equipment.

~~C.~~2. Audit Committee. The Chair ~~plus~~ and at least two members shall audit the financial records of the Division and report to the Division at the annual meeting.

~~I.~~3. ~~The~~ Division Archivist. A committee of one shall be ~~is~~ responsible for organizing, maintaining, and storing the Division records.

~~H.~~4. ~~An~~ Environmental Concerns Committee. The Chair ~~plus a minimum of~~ and at least four members shall be responsible for researching issues referred to the Committee through the Vice President and developing appropriate responses in accordance with the Division advocacy procedures for Executive Committee action.

~~J.~~5. ~~A~~ Grants Funding and Investment Committee. The Chair and at least four members shall be responsible for making investment recommendations to the ~~Western~~ Division Excom, quarterly (minimum) review of the Grants Fund investments, and implementing the funding motion approved at the 2001 business meeting. ~~The committee consists of a Chair appointed by the President and at least 4 Division members.~~ Periodic review of the Division's grants funding criteria and fund-raising activities may be coordinated under the Grants Funding and Investment Committee through ad hoc committees appointed by the ~~Division~~ President.

~~G.~~6. ~~A~~ Membership Committee. The Chair ~~chaired by the~~ (Vice President) ~~and consisting of~~ and one member from each State and Province in the Division shall undertake to maintain the current membership and recruit new members from those eligible within the Division boundaries. The Chair will also serve on the Society Membership Committee.

~~A.~~7. ~~A~~ Nominating Committee. The Chair (~~the Immediate~~ Past President) ~~plus~~ and at least four members shall recommend a slate of candidates for offices of the Division, and representatives of the Division to serve on the Society Nominating Committee and Governing Board.

~~B.~~8. ~~A~~ Policy Review Committee . The Chair ~~plus~~ and at least four members (including the ~~Immediate~~ Past President) shall serve as council to the Executive Committee and provide review concerning internal and external policy and advocacy matters and public responses to those issues generated by the Division. The Chair shall also serve on the Society Resolutions Committee.

~~D.~~9. ~~A~~ Program Committee. ~~co-chaired by~~ The President-Elect and a member from the host state or province shall be appointed by the President as co-chairs. They and ~~plus~~ at least three members shall organize an annual program that will include technical sessions ~~for the presentation and discussion of the original~~ contributed posters and papers and invited symposia or workshops on topics relating to the field of fisheries.

~~E.~~10. ~~A~~ Time and Place Committee. The Chair plus two members shall consider and recommend the time and place of subsequent regular meetings.

SECTION X. Amendment of Bylaws, Standing Rules and Procedures.

~~The Bylaws of the Division may be amended by two-thirds majority vote provided, however, that the proposed amendment was circulated in writing to the membership 30 days prior to the annual meeting, and provided that interested members are given the opportunity to vote by mail if they cannot be present at the meeting. Amendments to the Bylaws of the Division do not become effective until reviewed by the Governing Board of the Society and written approval is received from the Executive Director.~~

1. The Bylaws are the defining document for the Division and take precedence over all other Standing Rules and procedures of the Division. The Bylaws cannot be suspended and cannot be changed without prior notice to members.

A. The Bylaws may be amended by a 2/3 majority of Active Members choosing to vote, provided that the proposed amendment(s) are circulated in writing to the membership at least 30 days prior to voting.

B. In accordance with the Society Constitution, an adopted amendment shall be reviewed by the Society's Constitutional Consultant for conformity with the Constitution, Rules and Procedures of the Society. The Constitutional Consultant presents the adopted amendment to the Society Governing Board for approval.

C. Amendments take effect when the Division receives written notice of

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REVISIONS TO BYLAWS (continued)

their approval by the Governing Board from the Executive Director.
2. Standing Rules are the next highest level of documentation of Division operations. They are generally established to facilitate the conduct of Division business, and to describe duties and responsibilities of officers and committees. They may be suspended or amended as follows.
A. The Standing Rules may be suspended during an Executive Committee meeting until the next annual or special Division meeting by a 2/3 majority of the Executive Committee.

B. The Standing Rules may be suspended for the duration of a meeting by a 2/3 majority of Active Members voting at an annual or special Division meeting.

C. The Standing Rules may be amended by a simple majority of Active Members voting at an annual or special Division meeting.

3. Procedures are the lowest level of documentation of Division operations. They are generally established to provide continuity in the conduct of Division business. The Procedures may be suspended or amended by a simple majority vote of the Executive Committ**ee.**

Please use the enclosed ballot to vote by August 4, 2004 on the proposed revisions to the Bylaws!!!

WDAFS 2005 Annual Meeting

Mark your calendars! The next annual meeting of the Western Division AFS will be co-convened with the parent American Fisheries Society and the Alaska Chapter in **Anchorage, September 11-15, 2005**. This could be the largest AFS meeting ever, with a tremendous plenary session, many diverse symposia, workshops, and contributed sessions, and fantastic social events. The Alaskan Planning Committee, chaired by Bill Wilson, has already made excellent progress on arranging for social and cultural gatherings that are sure to please your palette while you meet old acquaintances and make new friends. Of course, Alaska is the place to visit, and it's not too early to begin planning a vacation as part of your trip.

The 2005 Program is already shaping up as well. Some of the symposia topics already being planned include:

•*The 23rd Lowell Wakefield International Fisheries Sympsium: Biology, Management, and Economics of Pacific Rockfishes*

•*Capacity-based Modeling for Pacific Salmon Management*

•*The 2nd International Burbot Symposium*

•*The 2nd Anadromous and Catadromous fishes symposium*

•*Human Dimensions in Fisheries*

•*Hooking Injury/Mortality and the Physiological Response of Fish to Angling*

•*Native People's Fisheries*

•*The Theory and Practice of Aquatic Stewardship Education*

•*Geomorphology/Riverine Fish*

•*Balancing Environmental, Economic, Conservation, and Community Development in the Management of North Pacific Groundfish*

•*Effects of Trawling on Bottom Habitats*

•*The Salmon 2100 Project*

Watch for the First Call for Symposia and Papers, coming in the September issue of Fisheries, with all the details on preparing and submitting a contribution. That announcement will also contain preliminary local arrangements information, as well as initial ideas for planning tours and recreational opportunities.

Meeting Contacts

Local Arrangements: Bill Wilson; 907-271-2809
bill.wilson@noaa.gov

Program: Eric Knudsen; 360-856-5482
ericknudsen@gci.net

Joe Margraf; 907-474-6044
joe.margraf@uaf.edu

HOPE TO SEE YOU ALL IN ANCHORAGE!

Normative Science: *Subverting Development of Sound Fisheries Policy*[1]

by Robert Lackey[2]

The challenge accorded this panel is to identify specific says to improve the role of science in fisheries policy development and implementation. More to the point, how best should we, those of us who are scientists and providers of scientific information, enhance our contribution to fisheries management and policy.

Here is my take-home message: many of us who provide science to decision-makers, or provide science to anyone for that matter, should become more vigilant, more precise, more demanding, more rigorous in distinguishing between policy-neutral scientific information and policy-inculcated information.

Collectively, I am concerned that we are heading down a path in fisheries science that risks marginalizing scientific information and even, perhaps, much of our scientific enterprise.

Let me be explicit about two key points concerning the role of scientists in fisheries policy:

•First, fisheries scientists should contribute to policy analysis. Not only is it the right thing to do, we are obligated to do so. I do not hold favor with the idea that it is sufficient for scientists to only publish their findings in a journal article, which is analogous to putting their findings in a whisky bottle, pitching it over the side of the boat, and hoping that some policy maker will find it some day some how.

•Second, beyond simply being encouraged to contribute, sc ientists need to exercise great care in order to play an appropriate and clearly defined role in policy analysis and implementation.

Here is where it gets tricky for many of us. Exactly what is an appropriate role and how do we tell when we are off track? It goes far beyond the current mantra of providing the socalled "best available science." Further, scientists often contribute to resolving fisheries policy
issues that are played out amidst a complex, volatile mix of clashing values, differing preferences, and opposing, often mutually exclusive, societal priorities.

Most policy issues that our profession confronts require scientific information to help resolve, but how should science be incorporated? Think about some of the current hot fisheries policy issues:

-Banning, or at least limiting importation of aquarium fish. A multibillion dollar industry, but one that arguably threatens native fish fauna.

-Or, resuming whaling by Indian tribes, an issue pitting Endangered Species Act and Marine Mammal Protection Act protections against treaty obligations - with animal rights thrown in for good measure.

-Or, breaching, removing, or constructing dams and all the social, economic, and biological ramifications that accompany such issues.

-Or, answering the nasty question of allocating responsibility for the collapse of the northern cod fishery and whether individual scientists or managers should be held accountable.

-Or, on the freshwater side, removing exotic, but popular, game fish species — rainbows, brooks, and browns — from national parks and wilderness areas;

The list goes on.

But lets look at our science world from a decision maker's perspective. What characteristics of science and scientists are expected?

•First, the information provided by us, by scientists, should be germane to the policy question. Pretty easy, right? Not so! Most policy or management decisions pivot on only a few crucial pieces of scientific information. Quantity of information, no matter what its quality, is not a substitute for distilled answers to the few, key scientific questions.

•Second, the "information" (or as it is more commonly called these days, the "science") must be credible to all those participating in the policy or management dialog. Just being right scientifically is not sufficient from a policy perspective; the policy players, all the players, must accept the science being provided.

•Third, the science must be accurate. Providing accurate science seems a reasonable expectation, but much of what has been provided in fisheries has turned out to be wrong, or at least misleading. Think about the science provided in northern cod management in eastern North America, or salmon management in western North America. We do not like to admit it, but for many issues in fisheries science, we appear satisfied if we are right more often than not. We ought to say so.

•Finally, from a decision-maker's perspective, the degree of uncertainty associated with the science or information being provided requires an assessment or calibration from those providing scientific input. Uncertainty, probability of any type, is difficult for decision makers to consider, especially when the policy issue of concern will result in big winners and big losers.

The idealized process in which "science" smoothly informs "policy" only works in Fisheries Management 101. In the world in which most of us work, decision makers lament that science and scientists are too often characterized by imperfections. Among these apparent imperfections:

•First, the science provided to decision-makers or policy analysts is not germane, perhaps it is even near the mark; close, perhaps, but no cigar. What is provided may be great science, but it does not help resolve the policy question on the table. Often, it is not the crucial science that is desperately sought by policy makers.

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[1]Presented at the Symposium "Science in the Public Arena: The How and Why of Scientific Decision-Making" at the Annual Meeting of the Western Division of the American Fisheries Society, Salt Lake City, Utah, February 29 - March 4, 2004. The views and comments presented are those of the author and do not necessarily represent those of any organization.

[2]Dr. Lackey, senior fisheries biologist, is with the U.S. Environmental Protection Agency in Corvallis, Oregon (lackey.robert@epa.gov; 541-754-4607).

•Second, the science provided well may be the right science needed for good policy analysis, but the proverbial policy decision train has by necessity already left the station. Thus, the science can be relevant and appropriate, but arrives after the decision has been made.

•Third, you are wrong Mr. Scientist! The prediction or assessment provided turns out to be incorrect! It happens more frequently than most of us will admit. Unfortunately for the public, for those who pay our salaries, and for professional accountability, it usually takes many years to find this out. Meanwhile we have moved on to another job or retired.

•Fourth, the science provided is viewed as biased. Of course there is real bias in the scientific enterprise, but that which is only perceived as bias has the same effect, discounting it by at least some players in the decision making arena. In policy deliberations, a perception of bias can undermine the value and credibility of a scientist and impeccably done science.

•Fifth, and closely related to the bias imperfection, is the corrosive influence of entrepreneurial science. Yes, the entrepreneurial spirit exists in the world of science. All of us have to be entrepreneurs, at least to an extent, in order to market our research or scientific activities. Organizations may seek to pitch or slant science to gain members or grants, or otherwise enhance their competitive position.

•Sixth, the final imperfection, in the fisheries policy world, some so called "science" is imbued with policy preferences. This is potentially the most insidious kind of scientific corruption. In some forms, it is not obvious to policy makers or even many scientists. Such "science" has become a serious problem in my opinion.

I will spend the rest of my time on this final point, normative science, this perversion of science that has, at least in my recent experience, pervasively infected many fisheries policy deliberations. When I am talking about normative science I mean "information that is developed, presented, or interpreted based on an assumed, usually unstated, preference for a particular policy or class of policy choices." I believe that normative science is stealth policy advocacy.

But, just a minute. All science is affected by human values and, therefore, is it not impossible to make science value-free? Thus, is not all science actually normative? Certainly, science is a human enterprise so it does reflect the values of the participants, but science is a way of learning about the world and it is a way of learning that is characterized by transparency, reproducibility, and independence.

Or perhaps the entire normative science concern is simply a semantic issue and not all that important in the messy world of fisheries policy? Is it simply our profession's example of such questions as: "how many angels can dance on the head of a pin?" It is not!

Think back to your undergraduate philosophy class. Remember the simple but fundamental difference between scientific "is" and the policy "ought." Science deals with the "is" world (and the "was" and "will be" states of the world) as does the policy world, but the policy world also deals with the "oughts" and "shoulds." Science is, or should be in my view, bounded in the "is" world.

Let me be specific with an example: dams have a big effect on the size of salmon runs in the Pacific Northwest. One oft-debated option to help restore runs is to breach dams.

Scientists can assess, at least with a degree of confidence, the likely effects of removing, or preserving, a particular dam or set of dams, but there is no scientific imperative to remove, or maintain, any dam for any ecological reason, including salmon recovery. Of course, there are ecological consequences of each policy option and those consequences may even be catastrophic from a salmon perspective, but ecological consequences are simply one element that the public and decision-makers must weigh in making a policy choice. Understanding different ecological outcomes is what the public and decision makers need from us as they weigh policy alternatives, not our personal opinions on which policy option they ought to choose.

How should the science be reported? How should the likely effects of dam construction or removal be explained to the public and decision makers? In terms that are both clear and understandable. There are obviously many changes that will take place due to construction or removal of a dam. But what words would be used? What point of ecological reference? By what benchmark?

Often I hear words like "degradation." Or I hear words like "improvement." Or "good" or "poor." Forget these in science. Using such words implies a preferred ecological state, a desired condition, a preferred class of policy options. This is not science, it is policy advocacy. Subtle, perhaps unintentional, but still policy advocacy.

The appropriate "science" words are words such as "alteration" or "change" or "increase" or "decrease." These words describe the scientific information in ways that are policy neutral. In short, they convey no policy preference. This is the way to convey science in a policy neutral manner. Be clear, be candid, be brutally frank, but be policy neutral.

Conversely, normative science by its very nature conveys an implied policy preference. Often among some fisheries scientists, it is that unaltered ecosystems are inherently "good," or at least preferable to altered ecosystems. Unstated, but implied: the less altered, the better. But science leads us to no preferred state, nor to any inherently "good" condition. In short, there is no scientific imperative for adopting any policy option.

How widespread is normative science in fisheries science? Prevalent and insidious!

Examples: How often do you hear biological diversity measured solely based on native species? Usually! Except for someone doing really basic research, the decision to include, or exclude, exotic species is a policy choice, not a choice for scientists to make. That is not to say the native species and exotic species are interchangeable, they are not, but neither is inherently preferable in a scientific sense.

What about professional societies that assert that biological diversity is inherently good? Biological diversity might well be inherently important in understanding ecosystem structure and function, but you must invoke a value judgment to define biological diversity as inherently good or that high biodiversity is preferable, policy-wise, to low biodiversity.

And what about the widespread use of ecosystem health? Normative science! And, it is often passed off as real science to unsuspecting policy makers and the public. Sometimes, scientists will hide behind a cloak of scholarly deniability: "We analyzed the data using a precise definition of ecosystem health but others misused or misinterpreted the results. We cannot be responsible for how others use the results." Sure enough, but think what the average recipient of scientific information actually hears when data or assessments are packaged or presented under the rubric of ecosystem health. Healthy is good.

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Let me illustrate this assertion by dissecting the typical notion of ecosystem health. The human health metaphor is a powerful one. We all have some rough mental model of a healthy human or at least what is a healthy condition. At a minimum, we all know how we feel when we are sick.

So, if the same metaphor could be applied in ecological science and policy, it might also prove useful in clarifying policy options. The metaphor is certainly appealing. And it works well in policy debates. After all, if you can define your policy position as one of promoting ecosystem health, that relegates your opponent's position to one of arguing in favor of ecosystem sickness! And that is a real loser position to be in!

Further, there is an apparent scientific basis for ecosystem health, so perhaps society should let scientists decide what is healthy and what is not? To those of us who are scientists, this has a certain egocentric appeal.

But is "ecosystem health" a fair way to present science? It is not. Let's go back to your sense of what a healthy ecosystem is. Conjure up an image of some ecosystem that you consider healthy. What is it? My guess is that you visualized a pristine mountain lake, an old growth forest, an unaltered watershed, the back country of a national park, or perhaps a wilderness area.

Further, I will guess that few of you selected an alfalfa field, a recently logged hillside, an urbanized flood plain, or a downtown skateboard park.

As with notions of "degraded" or "damaged," the metaphor of "ecosystem health," or the relative importance ascribed to "natural" conditions vs. "altered" conditions need to be calibrated by societal values and preferences, not by those offered by scientists and technocrats.

One person's "damaged" ecosystem is another person's "improved" ecosystem. A "healthy" ecosystem can be either a malarial infested swamp or the same land converted to an intensively managed rice paddy. Neither condition can be seen as "healthy" except through the lens of an individual's values and preferences.

Should a healthy ecosystem be defined as the ecological state that existed at the beginning of the Holocene, just prior to 1492, or at the end of last week? The answer is a value judgment, a policy choice, the product of political deliberations, not a scientific decision. Certainly fisheries scientists, and other scientists, should assess the feasibility and ecological consequences of achieving each possible policy or management goal, but the choice is a societal one.

But, as anyone with experience in developing public policy will attest, the deliberative democratic process is messy. A key cause of this messiness is the fact that public opinion is often badly fractured with respect to ecological policy issues. In such a political climate, it is impossible to come to a broad consensus on what an appropriate goal ought to be. If the policy choices will result in distinct winners and losers, the political dynamic is likely to lead us into an ideological quagmire.

For example, in the far western United States, there are dozens of articulated visions (possible goals) on what salmon policy should entail. Achieving each salmon policy goal requires different actions and strategies and, politically, each creates different sets of winners and losers.

For salmon policy, and other divisive ecological issues, no institution of delegated governance has the power to force adoption of a clear, succinct policy goal. More typical is adoption of a policy that is sufficiently vague that few find it objectionable and it is usually enshrouded in a veil of normative science.

Politically, from what I have observed, the use of normative science cuts across the ideological spectrum. It seems no less common on the political Left or the Right, nor from the Greens nor from the Libertarians.

Perhaps I am simply calling for a higher level of semantic rigor from our profession. After all, to the general public, the terms environmental scientist environmentalist, and ecologist now have become almost interchangeable. Thus, it is a small step for elected officials and the public at large to view fisheries scientists as fish or fisheries advocates and cast us all among the myriad of other, pejoratively labeled "special interests groups."

Fair or not, it is true that scientists generally, at least as perceived by many people out there in the real world, are just another political advocacy group arguing for, or against, ratifying Kyoto, the Biodiversity Convention, or arguing in favor of, or against, marine protected areas. Just another political advocacy group signing petitions to remove, or preserve, a particular salmon-killing dam, all for reasons that sound like science, read like science, are presented by people who cloak themselves in the accouterments of science, but who are actually offering nothing but policy or political advocacy masquerading as science.

Let me wrap up with a few observations about our collective future. Like it or not, many of us get involved in controversial issues. Perhaps we should just give up and use science to advance our personal policy preferences? No! If policy makers cannot get policy-neutral science from us, where do they go?

When challenged, some scientists will acknowledge, "Yeah, you are right, but everybody nowadays uses science to advance their personal policy preferences, so you either do it yourself, or you unilaterally disarm in policy wars. Fair or not, that is the way it is these days."

But I say: "in a democracy, corny as it may sound in an era of electoral cynicism, it is the preferences of the people, largely through their elected representatives, weighing all the benefits, risks, costs, and uncertainties, that should make major ecological and fisheries policy decisions." It is not scientists operating as stealth advocates for their own, personal policy preferences.

Let me close with a proposed solution: we should develop within our profession a clear understanding of the interface between science and policy, an honest understanding, an understanding of the proper roles for science, scientists, and public and personal values and preferences.

To policy makers, I say: be alert. Scientific information is too important to successfully resolving important, divisive, and controversial fisheries issues to allow some scientists to marginalize science through its misuse. Do not allow the overzealous among us to corrupt the entire scientific enterprise.

And finally, to scientists, I say: get involved. Play the proper role, the appropriate role, but know and announce when you have stepped out of your science role into being a political advocate. Science has much to offer, but also has much to lose by doing otherwise.

For Further Reading:

Lackey, Robert T. 1999. The savvy salmon technocrat: life's little rules. Environmental Practice. 1(3): 156-161.

Lackey, Robert T. 2001. Values, policy, and ecosystem health. BioScience. 51(6): 437-443.

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Normative Science - *Lackey (continued)*

Lackey, Robert T. 2003. Appropriate use of ecosystem health and normative science in ecological policy. pp. 175-186. In: Managing for Healthy Ecosystems, David J. Rapport, William L. Lasley, Dennis E. Rolston, N. Ole Nielsen, Calvin O. Qualset, and Ardeshir B. Damania, editors, Lewis Publishers, Boca Raton, Florida, 1510 pages.

Lackey, Robert T. 2004. Societal values and the proper role of restoration ecologists. Frontiers in Ecology and the Environment. 2(2): 45-46.

Dr. Robert T. Lackey, senior fisheries biologist at the U.S. Environmental Protection Agency's research laboratory in Corvallis, Oregon, is also courtesy professor of fisheries science and adjunct professor of political science at Oregon State University. Since his first fisheries job 40 years ago mucking out raceways in a Sierra Nevada trout hatchery, he has dealt with a range of natural resource issues from positions in government and academia. His professional work has involved all areas of natural resource management and the interface between science and public policy. He has written 100 scientific and technical journal articles. His current professional focus is providing policy-relevant science to help inform ongoing salmon policy discussions. Dr. Lackey also has long been active in natural resources education, having taught at five North American universities. He continues to regularly teach a graduate course in ecological policy at Oregon State University and was a 1999-2000 Fulbright Scholar at the University of Northern British Columbia. A Canadian by birth, Dr. Lackey holds a Doctor of Philosophy degree in Fisheries and Wildlife Science from Colorado State University, where he was selected as the 2001 Honored Alumnus from the College of Natural Resources. He is a Certified Fisheries Scientist and a Fellow in the American Institute of Fishery Research Biologists.

WDAFS Mexican Fisheries Committee Update

Purpose

The WDAFS Mexican Fisheries Committee was established to provide benefits to Mexican fisheries professionals through a stronger association with the American Fisheries Society, its members, and services, and to promote the conservation and sustainability of Mexican fisheries resources.

Recent Committee activities have focused on two initiatives. First, Committee members have been instrumental in organizing a Mexican Fisheries Symposium, co-sponsored by WDAFS (see Call for Papers). Second, efforts have been underway to organize and establish an AFS Chapter in western Mexico. Mexican AFS members are preparing draft by-laws for the new Chapter, as well as a draft petition with which members will formally request the parent AFS to recognize the Chapter. The Mexican Fisheries Symposium planned for LaPaz in May, 2005 is envisioned as an opportunity for Mexican fisheries professionals to discuss AFS chapter organization and finalize the petition, if appropriate.

If you are interested in participating in these activities, contact one of the Committee Co-Chairs: Mauricio Ramirez Rodriguez (mramirr@ipn.mx), Oscar Sosa-Nishizaki (ososa@cicese.mx), or Eric Knudsen (ericknudsen@gci.net).

SYMPOSIUM ON FISHERY SCIENCES IN MEXICO

First Call for Papers

La Paz, Baja California Sur, Mexico

May 2-4, 2005

During the past decade, fishery science in Mexico has been confronted with the imperative necessity of achieving a rational and integrated exploitation of present and potential marine resources, all of these within the framework of responsible and sustainable fisheries. The science effort has focused on themes of overfishing, climate change, unemployment, traditional fishing, assessment models, overcapitalization, new methods, fishery management, new enterprises, co-management, marine protected areas, aquaculture, conservation, and national and international commercial treaties.

Considering that, the Symposium on Fishery Sciences in Mexico main objectives are: 1) gathering Mexican and international fishery scientists to promote communication and share their experiences and common interest in Mexico's fisheries, 2) contribute to the knowledge on biology and ecology of exploited resources, involving fishermen and managers, and 3) contribute scientific knowledge to sustainable development of Mexican fisheries.

The basic idea is to facilitate communication among scientists interested in Mexican fisheries, and provide an opportunity to promote understanding among regional and federal research and educational institutions, nongovernmental organizations, and state policy-makers, on conservation and fishery matters.

The Symposium will take place at La Paz city, Baja California Sur, Mexico, during May 4 through 6, 2005, at the Hotel Los Arcos. It is hosted by the Interdisciplinary Center of Marine Sciences - National Polytechnic Institute (CICIMAR-IPN), with the collaboration of the Center of Scientific Research and Graduate Education of Ensenada (CICESE), the Northwest Center for Biological Research (CIBNOR), the Mexico National Fishing Institute (INP), the World Wildlife Fund Gulf of California Program (WWF) and the American Fisheries Society, Western Division (AFS).

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SYMPOSIUM ON FISHERY SCIENCES IN MEXICO (continued)

The themes to be discussed during the Symposium are:

1. Assessment and dynamics of fishing resources
   a. Fisheries and exploited resources dynamics and status
   b. Research and resource assessment methods: benthos, demersals, and pelagics.
   c. New advances in methods on population dynamics and models.

2. Fishing efficiency
   a. Ecologic and economic efficiency
   b. Fisheries interaction
   c. Fishing techniques, methods and strategies
   d. Processing systems.

3. Potential resources
   a. Availability, technologies and markets

4. Abundance, oceanography, and climate change
   a. Environmental forcing and resources availability: climate, oceanography, pollution, erosion, etc.

5. Fisheries in the ecosystem context
   a. Fisheries impacts on the ecosystem
   b. Fisheries and conservation
   c. Resource management in the ecosystem context
   d. Methods of study and simulation models

6. Fisheries management
   a. Scientific bases for sustainable fisheries
   b. Fishing and environmental law for the management and conservation of living re sources
   c. Integral management strategies: co-management, active participation, committees, historical rights, coastal management.
   d. Alternatives for sustainable fisheries programs: The Gulf of California, the Gulf of Tehuantepec, the Gulf of Mexico.

7. Organization of Mexican fishery scientists

Abstracts for oral presentations or poster sessions should be submitted by January 31, 2005 by e-mail to: mramirr@ipn.mx Subject: Mex. Fish. Symposia. Participants can send more than one abstract and indicate your preference for oral or poster presentation.

A limited number of papers will be selected for publication in a selected international journal. Contributions should be submitted in an electronic format by e-mail or CD before June 6, 2005. The manuscript should be relevant for any of the conference topics. The papers will go through a peer review process prior to publication.

For further information on the meeting, or to volunteer to help with arrangements or the program, contact

Dr. Mauricio Ramirez at sympesq@ipn.mx

Notes from the Editor

Thank you to all the individuals who have contributed to this issue of ***The Tributary***. I especially want to thank Mary Whalen, former Tributary Editor, and Kathy Drake, Oregon Lithoprint, for their knowledge, assistance, and patience, for without both of them, I am not quite sure my first issue as the new ***Tributary*** editor would have been realized.