



Fish Health Section Newsletter



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Volume 8

January-March 1980

Number 1

*8(1) 1980
By LAWS pp. 9-15
1. Conversion error on 1974 book p. 2
2. Fungus control method. Transl p. 4*

*Terms begin
Sept (concurrent
AFS meet)*

EXCOM

The semi-annual meeting of the American Fisheries Society Executive Committee (EXCOM) was held on March 12-13 in Knoxville, Tennessee. Fish Health Section President, Doug Mitchum prepared the following meeting summary for our newsletter:

- 1) The Fisheries Educators Section will investigate the possible preparation of a Manual of Fisheries Techniques-similar to the Wildlife Society Techniques Manual.
- 2) The problem of Sections knowing who their new members are was discussed. Complaints from new members regarding lack of recognition have been received by the various Sections and the parent Society. In order to solve this problem, the parent Society will now send each Section a list of members on a monthly basis for the first 9 months of each year, then one list at the end of the year. Each Section can then send each new member a membership card and Newsletter on a monthly basis. A monthly check for dues received will also be sent to each Section. The cost of printing the membership lists will be prorated and billed to each Section.
- 3) The formation of a new Marine Fisheries Section was approved. Officers will now be elected, and the Section will become a voting member of the AFS-EXCOM when membership reaches 200 (very soon now).
- 4) A petition signed by 29 AFS members regarding the possible formation of a new Fisheries Management Section was discussed. At present, 25 signatures are required to petition. It was motioned that the parent Society establish a minimum number of individuals required for existence of a Section. This was opposed, and a committee was appointed to study the problem.
- 5) A proposal to form a new Fisheries Management Journal was discussed. An opinion survey of fisheries administrators was mostly for formation, but there was concern regarding funds, possible lack of manuscripts, and possible termination of publication after a few years. The EXCOM vote on the proposal to form the journal was 5 yes's, 0 no's, 6 abstain's. The Fisheries Management Publication Committee was instructed by AFS President Dick Stroud to study the proposal further, and send an unbiased questionnaire to the AFS membership.

(OVER)

6) After much discussion, the EXCOM voted to allow the State of Kentucky to add a \$15.00 fee to the registration for the annual AFS meeting in Louisville to pay for costs of holding the meeting. Therefore, for active members, pre-registration costs will total \$35.00 (\$40.00 at the door).

7) The EXCOM passed a motion to have a mail ballot prepared for general membership vote to amend the AFS Bylaws to require a minimum of 100 signatures (rather than 25) for candidates to be considered for general AFS office.

8) A Committee on Internationalism is reviewing the feasibility of establishing an international AFS Chapter, Section, or Division-based on a Sigma Xi model.

9) The AFS Executive Secretary (Carl Sullivan) stated that the parent Society as a whole praises, recognizes and supports FHS certifications of Fish Health Inspectors and Fish Pathologists.

10) The Executive Secretary also reported that the AFS is working diligently for passage of the D-J Expansion Fund legislation and that much progress has been made. He urges each AFS member to write their representatives in Washington D.C.

11) A motion to establish a Building Fund for the AFS was tabled at this time.

12) The AFS has proposed to take over publication of The Progressive Fish-Culturist and make it an publication of the Fish Culture Section. A motion was passed (6-5) that if the parent Society does take over this publication, that it be limited to only fish culture papers.

13) The EXCOM voted that the remaining 513 AFS Bicentennial Silver Medallions containing 1 fine oz. of silver, again be offered for sale, one per member, at \$30.00 each, through September 1980. At that time another decision will be made on the price of any remaining medallions.

IT'S BETTER LATE THAN NEVER

A horrible conversion error can be found in Hoffman and Meyer 1974, Parasites of Freshwater Fishes, A Review of Their Control and Treatment, TRH Pub. Co., page 22, line 15--1,500 ppm (malachite green) should be 66 ppm. Or, he who does nothing, makes no mistakes.
Submitted by Glenn L. Hoffman, Stuttgart, AR 72160.

COMMITTEE APPOINTMENTS

Dr. Harry L. Holloway, Jr., University of North Dakota - Technical Procedures Committee.

Dr. David Conroy, Venezuela - Professional Standards Committee.

Dr. Dale Meryman, Brandon, Florida - Continuing Education Committee.

FHS WORKSHOP

Fourth Biennial Workshop of the Fish Health Section/American Fisheries Society and the 21st Western Fish Disease Conference. June 24-26, 1980 in Seattle, Washington (for reservation-registration-travel information contact Don Amend, TAVOLEK, 2779 152nd Ave., N.E. Redmond, WA 98052).

Tuesday, June 24, 1980**Introduction**

- 7:30a.m. Registration
 8:45a.m. Introduction: President of Fish Health Section, Doug Mitchum, Wyoming Department of Fish and Game
 9:00a.m. Keynote address: Dr. Carl Sinderman, National Marine Fisheries Service

Contributed Papers

- 9:40a.m. Pollution and Associated Diseases of Marine Fish in Puget Sound. Dr. Bruce McCain, National Marine Fisheries Service
 10:00a.m. Pathology and Control of Proliferative Kidney Disease. Dr. Hugh Ferguson, University of Guelph
 10:20a.m. Break
 10:40a.m. Current Status of Fish Protection Regulations in North America. Dr. Robert Busch, Rangen Research
 11:00a.m. Alaska's New Fish Disease Control Program. Dr. Roger Grischkowsky, Alaska Department of Fish and Game
 11:20a.m. Histopathological Response of Cutthroat Trout in Yellowstone National Park to Infection with *Dephyllobothrium cordiceps* Larva. Terry Otto, Rangen Research
 11:40a.m. Current Status of Lymphocystis, Dermal Sarcoma/Fibroma, and Related Diseases in Walleye in Western Canada. Dr. Russell Kelly, Freshwater Institute, Canada
 12:00 Lunch

Invited Papers

- 1:30p.m. Advances in Fish Immunology. Dr. Lanny Udey, University of Miami
 2:15p.m. Advances in Fish Vaccines. Dr. Douglas Anderson, Fish and Wildlife Service
 3:00p.m. Break
 3:30p.m. Advances in Fish Parasitology. Dr. Glenn Hoffman, Fish and Wildlife Service
 4:15p.m. Advances in Physiological Assessment of Fish Health. Dr. Carl Schreck, Oregon State University

Wednesday, June 25, 1980**Contributed Papers**

- 8:00a.m. Current Status of IHN Virus Disease in the Hagerman Valley of Idaho. Andrew Morton, Rangen Research
 8:20a.m. A Micro-modified Procedure for Diagnosis and Conformation of Viral Diseases in Salmonid Fishes. Dolores Blair, Rangen Research.
 8:40a.m. Erythroid Hyperplasia and the Production of Abnormal Erythroblasts During Chronic-erythrocytic Necrosis Virus Infection. John McMillan, Fish and Wildlife Service.
 9:00a.m. Susceptibility of Walleye Fry to Infection by IHN and IPN Virus. Dr. James Carlisle, Cornell University

- 9:20a.m. Sensitivity of Five Piscine Cell Lines for Isolation of IHN Virus from Naturally Infected Salmonid Fishes. James L. Fendrick, Oregon State University
 9:40a.m. Detection and Abolishment of Furunculosis. Steven Robert and Dr. G. W. Klontz, University of Idaho
 10:00a.m. Break
 10:20a.m. Atypical *Aeromonis salmonicida* from Australia. Dr. Trevor Trust, University of Victoria
 10:40a.m. Studies on the Pathogenesis of Vibriosis in Salmonids. Mike Schiewe, National Marine Fisheries Service
 11:00a.m. Analysis of the Virulence of Ethylmethane-sulfonate Induced and Spontaneous Mutants of *V. anguillarum*. Steve Newman, Bio-Med Research
 11:20a.m. Virulence Factors Associated with *Vibrio anguillarum*. Jorge Crosa, University of Washington
 11:40a.m. Behind the Scenes in Chemical/Drug Registration. Harry VanMeter, Fish and Wildlife Service
 12:00 Lunch

Invited Papers

- 1:30p.m. Advances in Viral Diseases. Dr. Kenneth Wolf, Fish and Wildlife Service
 2:15p.m. Advances in Fish Disease Diagnostics. Dr. John Rohovec, Oregon State University
 3:00p.m. Break
 3:30p.m. Advances in Fish Disease Control. Dr. Fred Meyer, Fish and Wildlife Service
 4:15p.m. Advances in Bacterial Diseases. Dr. Emmett Shotts, University of Georgia
 6:30p.m. No Host Social Hour
 8:00p.m. Awards Banquet
 Master of Ceremonies: James Warren
 After Dinner Speaker: Mr. Salmon (Dr. Gordon Bell)

Thursday, June 26, 1980

- Western Fish Disease Conference Round Table Discussion
 8:00a.m. Session I - Bacterial Diseases
 Moderator: Dr. Trevor Evelyn, Biological Station, Canada
 10:00a.m. Break
 10:20a.m. Session II - Viral Diseases
 Moderator: Dr. Daniel Mulcahy, Fish and Wildlife Service
 12:00 Lunch
 1:30p.m. Session III - Parasitic Diseases
 Moderator: Dr. Harold Wolf, California Department of Fish and Game
 3:00p.m. Break
 3:30p.m. Session IV - Non-infectious Diseases
 Moderator: Jim Wood, Washington Department of Fisheries

MORE ON A PROPOSED MEETING WITH IAAAM

From President Doug Mithcum:

In response to communications (direct and indirect) with Fred Meyer, Tony Novotny and others, I have appointed Fred P. Meyer, Director, National Fishery Research Laboratory, P.O. Box 818, LaCrosse, WI 54601, to determine and coordinate the desirability of the FHS membership to meet with the International Association of Aquatic Animal Medicine (IAAAM) and possible other groups in 1981 or 1982 (refer to FHS/AFS Newsletter Vol. 7, (3&4), 1979). At present, the FHS meets biennially (we will meet in Seattle in 1980), but there is a possibility we may begin to meet annually if proposed bylaws are approved by the membership. I hereby request all FHS members to express their feelings on this matter in writing to Fred by April 30, 1980. If enough members feel such a meeting is desirable, the President and the Executive Committee can contact the IAAAM with a proposal.

FUNGUS CONTROL

Partial Translation by James Hoffman. Jan. 1980.

Gottwald. St. 1967

Treating pike eggs for Saprolegnia infestation with methylene blue (Die Behandlung mit Methylenblau bei Saprolegniabefal von Hechteiern). Deutsche Fish. Zeit. 14(6): 161-164.

1. Spawn fish only when the water temperature is above 7° C.
2. Treat eggs once with 20 ppm methylene blue, then every 2 days with 5 ppm. This is economically feasible.
3. Eggs so treated had practically no fungus. Control lots had many clumps of fungus.

Submitted by Glenn L. Hoffman, Stuttgart, AR.

CATFISH

Catfish Processed in Processing Plants

Year	Live Weight (Pounds)	Revenue Received by Farmers
1969	3,201,000	\$
1976	18,978,000	10,029,000
1977	22,125,000	12,836,000
1978	30,179,000	16,483,000
1979	40,636,000	24,947,000

Information from James W. Ayers. Presented during Aquaculture '80.

A REMINDER

FHS members are reminded that nomination of individuals who have consented to run for FHS Executive Committee positions will be considered by the Nominating Committee if they are received by May 15, 1980. AND, if they are supported by the signatures of 10 FHS members in good standing. Nominations should be sent to DR. T. P. T. Evelyn, Chairman, Nominating Committee, c/o Pacific Biological Station, Nanaimo, B.C. Canada V9R 5K6.

D-J EXPANSION

Dingell-Johnson Expansion bills H.R. 6074; S. 1631, are presently being considered. Although much is at stake (VERY MUCH!), few letters of support are thought to have been sent to Senators and Congressmen. Please write and let them hear from you!

AQUAVET

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According to the Washington Post (Feb. 6, 1980), the Commerce Department has paid \$109,760 to develop Aquavet programs (two) in the last three years. Private matching grants equaled \$45,690. This year Aquavet will receive \$30,000. The news article mentioned that the Aquavet program was started to head off epidemics and the program emphasis is "the growing of fish for meat purposes."

According to literature received Aquavet consists of a month long series of seminars and lab sessions and an option of participating in a two-month research program at one of various cooperating research laboratories.

The Department of the Interior has also supported training in fish health. Should federal activities such as these be included in a single program?

AQUACULTURE '80 HIGHLIGHTS FCS/AFS, WMS, CFA

MARCH 5-9, 1980, NEW ORLEANS

Fish Culture Section

A panel on fish health addressed various aspects of our discipline. Stan Hudson, H-D Fish Farm, Cheney, Kansas, gave his insights to what employers are looking for in a fish health employee. He said that specialized employment is uncommon on fish farms and that sales of several million dollars would be needed to justify such a position. Normally an employee concerned with fish health would have diverse responsibility and have particular abilities including a well integrated personality, the ability to get along, knowledge of common fish disease, where to find information, and knowledge of various factors that influence fish disease.

(OVER)

J. David Erickson, Clear Springs Trout Co., Buhl, Idaho, addressed FHS activities relative to commercial trout farming. From his abstract:

"Some of the needed activities to enhance fish health programs are: (1) agreements on quarantines; (2) notification and disease reporting systems; (3) research activities in aquaculture; (4) demonstrations of fish health technology; and (5) development and modification of state regulations. The question may be asked as to what role the Fish Health Section currently plays in these activities. A description of fish health would include most of those mentioned; it is fair to say, however, that the membership has not been actively involved in these activities. The current situation presents an opportunity to the Fish Health Section and the aquaculture industry to develop technology within the scope of fish health.

The role of the Fish Health Section as a rule-making and certification group must obviously be broadened to attract the interests of aquaculturists; input from the private sector is greatly needed."

Joe McCraren, FWS, Washington, D.C., in place of Galen L. Buterbaugh, summarized the federal attitude and role. He considered activities of APHIS, FWS, NOAA, EPA, FDA, TVA AND Corps of Engineers. The figures and details of this talk will likely appear soon in a written report.

W. A. Rogers, Auburn University, covered the relationship of the Fish Health field to the aquaculture industry-academic and research area. He reported on a survey to fish culturists as to what they thought the response from the academic-research area should focus on. From the abstract:

"Drug clearance and finding new drugs to use was the category mentioned most. Water quality problems leading to disease outbreak and bacterial diseases were the next most mentioned problems. Training diagnosticians and providing more diagnostic service and field assistance in management, nutrition, etc. before diseases occurred and dissemination of available information was the next most mentioned response. Other problems were external parasites followed by natural habitat improvement or pollution abatement, brown blood disease, intestinal parasites, and toxic algae. Only one mention was made that a vaccine would be useful. One response from shellfish-crayfish area indicated that a survey of diseases of these groups was needed."

James Warren, FWS, Genoa, Wisconsin, reported on the Great Lakes Private Fish Health Protection Cooperative (GLPFHPC). From his abstract:

"The GLPFHPC is designed to be the private sector counterpart of the interagency Fish Disease Control Committee of the Great Lakes Fishery Commission. Through the GLPFHPC, private fish producers have a strong voice during the planning stages of fish health protection programs and regulations, and are in a better position to develop agreements with the U.S. Fish and Wildlife Service, the eight Great Lakes states and the Province of Ontario. The organization is developing a comprehensive

cooperative fish health protection program which may include indemnification provisions providing effective financial protection for members faced with the necessity of eradicating serious fish diseases. The organization works intimately with the Great Lakes Fish Disease Control Committee and there is hope that improved communications with conservation agencies may lead to opportunities to rear fish on contract for special projects.

Paper presentations of the FCS which would interest FHS membership (not to slight anyone not mentioned) included "Gas Bubble Disease from Aeration", by John Colt, U.C. Davis; "Fish Biologics Availability", by D.P. Anderson et al., Leetown; and "Principles of Health Maintenance", by John Plumb, Auburn University.

Catfish Farmers of America Workshop

A section of fish health covered two papers with the authors both absent but Harry Dupree doing his best as substitute. The first paper by Andrew J. Mitchell, FWS, Stuttgart, Arkansas, concerned continuing educational needs for diagnosticians. Several "new" pathogens were reviewed. The second paper by Glenn Hoffman, Stuttgart, Arkansas, reviewed the Asian tapeworm, Bothriocephalus acheilognathi, with emphasis on management in baitfish culture. Management techniques included methods of disinfection, use of Masoten for intermediate hosts and use of di-n-butyl tin oxide in feed. The CFA workshop included management papers on nitrite toxicity by C.E. Boyd and Bill Hollerman, Auburn, University; J.R. Tomasso et al., Department of Biology, Memphis State University; Hydrogen sulfide dynamics by E.L. Torrans and H. Clemens, University of Oklahoma; autoallergic reactions in tilapia by R.R. Stickney and Anne Henderson-Arzapalo, Texas A&M University; Anthelmintics against Bothriocephalus by Doreen Jezek and W.A. Rogers, Auburn University.

World Mariculture Session

The disease session of the WMS meeting included:

"Antiprotozoan Immunization Studies in the Channel Catfish", Beverly Goven, Tavolek, Inc., Redmond, Washington, among other results, catfish were protected by injection of ciliary from Tetrahymena pyriformis.

"Ectoparasitic Fauna of Glass and Black Stages of American Eel", John Crane and Arnold Eversole, Clemson University. Survey and management implications.

"Factors Affecting Hemolysin and Protease in A. hydrophila Cultures", Barbara Thompson et al., Department of Microbiology, LSU. Various culture additives some enhanced but iron depressed protease and hemolysin.

"Marine Turtles and Chemotherapeutics", J.K. Leong et al., NMFS, Galveston, TX. Various chemicals normally used in fish culture evaluated for toxic effects and control potential.

(OVER)

"Hybrid Striped Bass Netting and Hauling Stress", J.R. Tomasso et al., FWS, Marion, Alabama. Hypochloremia, elevated corticosteroid levels, 25 mg/l, MS-222 and 10 g/l salt helped.

Other papers of interest included, "Histological Observations of the Hepatopancreas in Juvenile Lobsters Subjected to Dietary Stress" (poster), R. Rosemark et al. University of California, Bodega Bay; "Calcium and pH Requirements in Bullfrog Larvae Culture", Gail Marshall et al., LSU.

NEW DRUG REGISTRATION

Registration requirements are nearing completion for Ro5-0037, a potentiated sulfonamide developed by the Hoffman-La Roche Company. FWS involvement with the compound dates back to 1969 when early tests showed the compound effective in controlling furunculosis. The National Fish Health Research Laboratory-Leetown, West Virginia, and the Fish Farming Experimental Station-Stuttgart, Arkansas, have provided most of the efficacy research required for FDA approval. Clinical trials were completed this past year involving more than 900,000 salmon and trout at 10 Federal, State, and private fish hatcheries located in different sectors of the country. These and other FWS data will soon be submitted to FDA for use by the company in obtaining a New Animal Drug Application (NADA) for marketing purposes.

Submitted by Harry Van Meter, FWS, Washington D.C.

RAINBOW TROUT AS A DRUG CARRIER

The crew at the Willow Beach National Fish Hatchery have been feeding fingerling rainbow trout to the on-site adult Colorado squawfish for several years. Therefore, when it came time to de-worm them it seemed logical to encapsulate the anthelmintic, di-n-butyl tin oxide, place it in the trout and feed it to the squawfish.

Roger Hammond, endangered species biologist, fed eight adult squawfish in this manner for three consecutive days. Each fish received a total of 250 mg/kilogram and the treatment was a success. Tapeworms were released on all three days, with no deleterious effect to the squawfish. The tapeworm was tentatively identified as Ophiotaenia fragilis by Dr. E. James Landers, Arizona State University. For further information contact Ron Major, Hatchery Biologist, USFWS, P.O. Box 39, Pinetop, Arizona 85935.

BUSINESS MEETING - SEATTLE WORKSHOP

A business meeting will be held immediately after the last paper on Tuesday afternoon (June 24, 1980). Each committee is expected to present a report at this business meeting and the President Doug Mitchum recommends each committee hold a meeting Monday afternoon (June 23, 1980) for any last minute additions to their report.

BYLAWS

*Terms begin
Sept (concurrent with
annual AFS meet)*

Below you will find proposed bylaws for the FHS which include several changes from our current bylaws. Major changes include: 1) membership requirements for all officers, committee members, and Board of Certification members; 2) responsibility for annual report shifted from President-Elect to President; 3) reduction of Executive Committee and general meeting quorum requirements to make conductance of Section business more practically possible; 4) assignment of earlier due dates on nomination of officer candidates to facilitate timely completion of elections; 5) change from biennial to annual fish health workshops and meetings to promote making the FHS a more viable and cohesive Section and to make achievement of goals and objectives more attainable; 6) change in bylaws amendment procedures to bring them in line with the American Fisheries Society constitution and bylaws.

As President-Elect, I have worked closely with Past-President Ron Goede and President Doug Mitchum to make bylaws changes necessary to further accomplishments of the Section. These proposed bylaws have been thoroughly reviewed and edited by AFS constitutional consultant Dr. Dan Coble. Dr. Coble did an exemplary job and made many good suggestions. I wish to thank him for his efforts and for his responsiveness in completion of the task.

Please make time to review these bylaws as soon as possible and cast your vote. If these bylaws are approved in this vote, I will seek AFS executive committee approval to adopt them by the time of our workshop in Seattle. Thank you for taking the time to review and vote on this important aspect of Section business.

Dennis E. Anderson
President-Elect

FISH HEALTH SECTION

of the
American Fisheries Society

Bylaws

Section 1. Name: The name of this organization shall be FISH HEALTH SECTION of the American Fisheries Society as provided for by the Constitution and Bylaws of the Society as amended.

Section 2. Objectives: The general objectives of the Fish Health Section shall be those of the American Fisheries Society described in Article I of the Constitution of the Society with the following specific objectives set forth for the Fish Health Section:

a. To maintain an association of persons involved in safeguarding the health of fish.

b. To focus attention on fish health problems by making available to the public appropriate news items, results of completed research, and other educational information.

c. To stimulate the application of effective fish health protection practices by communicating with, cooperating with, and supporting governmental and private organizations interested in developing sound fish health programs.

Section 3. These objectives shall be pursued by:

a. Compiling and disseminating proceedings, notes, or abstracts from fish disease conferences and technical sessions on fish health topics to Section members, to interested elements of the parent Society, and to the public.

b. Submitting to the officers of the parent Society an annual report on the status of serious fish health problems, significant progress made in fish disease control, and recommendations for Society action as appropriate.

c. Promoting development and use of standardized, reliable techniques for detection and diagnosis of certain diseases of fish.

d. Developing professional standards, certification procedures, and a peer review system as needed to identify professional competence and ethical practices.

Section 4. Membership: Membership in the Fish Health Section shall be composed of Society members in good standing who pay Section dues. All officers, committee members, and members of the Board of Certification must be members of the Section. Each Section member is entitled to one vote on all matters requiring the approval of the membership.

Section 5. Officers: The officers of the Section shall be a President, a President-Elect, and a Secretary-Treasurer.

a. All officers shall be elected by mail ballot, as provided below, for a term of one year and shall serve without salary or other compensation from the Society or Section.

b. No member shall hold the same office, except that of Secretary-Treasurer, for more than one consecutive term.

*Please
re-include
sec-treas*



c. Candidates for office shall be nominated by the Nominating Committee.

d. In the event of a vacated position, the Executive Committee shall appoint a qualified replacement to complete the unexpired term.

Section 6. Duties of Officers:

a. President: The President shall serve as Chairman of the Executive Committee and shall preside at meetings of the Section, appoint all committees, and serve as ex officio member thereof except as limited herein. The President or his designated alternate shall represent the Fish Health Section to the parent Society. The President shall make such appointments and perform such other duties as are authorized and necessary to meet the objectives of the Section. With assistance from the President-Elect and the Executive Committee, the President shall prepare an annual report on the status of serious fish diseases, advances in disease control, and on Section activities to the Executive Committee of the Society in time for inclusion in the agenda of their semi-annual meetings.

b. President-Elect: The President-Elect shall perform the duties of the President in the absence of the President. The President-Elect shall serve as the Rules Officer of the Section to (1) assure Section compliance with these Bylaws, (2) coordinate the adoption of any changes to the Bylaws, and (3) maintain liaison with the Constitutional Consultant of the parent Society. The President-Elect shall accede to and shall be installed as President of the Section at the annual meeting of the Society or at a meeting of the Section if these meetings are suitably scheduled to accommodate installation ceremonies.

c. Secretary-Treasurer: The Secretary-Treasurer shall safeguard the funds of the Section, receive membership fees from the Chairman of the Membership and Balloting Committee and others, and receive and account for income from sales of publications, fund raising efforts, and other sources. The Secretary-Treasurer shall serve as Chairman of the Finance Committee, pay all bills, keep an itemized account of receipts and disbursements, prepare a semi-annual financial report for the Executive Committee of the Section, and prepare an annual financial report for the membership. Reports to the parent Society shall be prepared and submitted as requested.

The Secretary-Treasurer shall order a plaque mounted Past President's Certificate from the Executive Director of the parent Society at least ten weeks before an annual meeting, sign it upon receipt, and deliver it to the President-Elect for presentation to the outgoing President at an (annual) meeting. ✓

Section 7. Executive Committee:

a. The Executive Committee shall consist of the elected officers of the Fish Health Section, the Nominating Committee Chairman, and the immediate past president as voting members. The chairmen of the other standing committees shall be ex officio or non-voting members and shall be invited to Executive Committee meetings to present committee reports and participate in discussion of Section business.

b. The Executive Committee shall have authority to determine policy and conduct business consistent with objectives of the Section. The Executive Committee may authorize the disbursement of Section funds for specific clerical tasks and other operational expenses. No

real property or capital equipment may be purchased with Section funds without the approval of the membership.

c. The Executive Committee shall maintain an awareness of serious fish health problems, significant advances in fish disease control, and shall prepare appropriate resolutions for parent Society action. The Executive Committee is responsible for aiding the President in preparation of the Section's annual report to the Society.

d. Meetings of the Executive Committee may be held whenever the President, or the President-Elect, as his designated alternate, and a majority of the voting members of the committee can assemble to conduct Section business. Business and voting of the Executive Committee may be conducted by mail.

Section 8. Standing Committees: The President shall appoint Section members in good standing to the following Standing Committees, whose activities shall not duplicate nor conflict with committee work or projects of the Society:

a. Nominating Committee: The Nominating Committee shall consist of a chairman and two members. The Chairman shall be elected by the membership, by mail ballot, in the regular election. The candidates shall be the two appointed committee members currently serving. In the event that one or both committee members decline or cannot become candidates for the chairmanship, the Executive Committee shall select consenting qualified candidates.

The Nominating Committee shall nominate a slate of at least two candidates for each Section office for an annual election. Nominations shall be submitted in writing to the Membership Committee chairman, with the consent of the nominees, by June 1st of each year. Petitions signed by at least ten Section members in good standing that recommend nominations of a consenting individual shall be considered by the Nominating Committee if submitted to the chairman by April 15th.

b. Newsletter and Publications Committee: The Newsletter and Publications Committee shall consist of a chairman and four members appropriately selected for their ability to support the objectives of the Section through the print media. The committee shall prepare, edit, and arrange for the distribution of a quarterly Newsletter and shall promptly publish announcements received from Section officers and committee chairmen. The committee shall develop recommendations for editorial policy and serve as the point of contact for the development, preparation, publication, and distribution of special publications arising from projects of the Section.

c. Membership and Balloting Committee: The Membership and Balloting Committee shall consist of a chairman and one member, both of whom shall be responsible for maintaining an active membership campaign and accommodating the enrollment of new members. The chairman shall collect those membership fees not submitted directly to the Society and coordinate the deposit of these funds in the accounts of the Section maintained by the Secretary-Treasurer. The committee is responsible for timely preparation, mailing, and tabulation of all mail ballots circulated to the membership and for prompt reporting of results to the President.

Ballots for the annual election of officers, nominating committee chairman, and members of the board of certification, shall be mailed to the membership by no later than July 1st. Candidates shall be

elected by a majority or plurality of the mail ballots returned to the Membership and Balloting Committee by August 1st. In the event of tie votes, the Executive Committee shall be polled and a winner determined by their vote. This procedure may be applied to tie votes on other voting issues as needed.

d. Technical Procedures Committee: The Technical Procedures Committee shall consist of a chairman and four members. The committee shall strive to develop measures that lead to the use of standard, reliable, and sensitive technical procedures for detection, diagnosis, and confirmation of fish diseases and for enhancing the health of fish. The committee shall prepare information for public use. Publications must first be approved by the Executive Committee, and matters dealing with editorial policy, style, funding, publishing, and distribution shall be coordinated with the Newsletter and Publications Committee or the Executive Committee as appropriate. The Technical Procedures Committee shall be composed of recognized technical specialists.

e. Professional Standards Committee: The Professional Standards Committee shall consist of a chairman and four members. The committee shall be responsible for developing and maintaining a system for recognizing professional competence in the fish health field. Committee activities shall be coordinated with the Board of Professional Certification of the Society.

A five-member Board of Certification, which shall be elected by the membership by mail ballot, shall be a sub-unit of the Professional Standards Committee, shall execute the professional certification programs of the Section, and it shall take its direction from the Professional Standards Committee chairman. Candidates for the Board shall be nominated by the Nominating Committee under the procedures designated for the nomination of officers described in these Bylaws. No Section member who has had his or her Professional Certification revoked for cause may serve on the Board. Board members shall be elected to staggered terms of three years. Board vacancies shall be filled by appointment of a qualified replacement by the Executive Committee, and the appointee shall complete the term of the Board member he or she replaces. The Board shall elect a chairman after each annual election, who shall coordinate Board activities with the chairman of the Professional Standards Committee. The Board must act on all new and renewal applications for certification received by the chairman at least semi-annually. The business and voting of the Board of Certification may be conducted by telephone or mail when Board meetings are not held.

f. Finance Committee: The Finance Committee shall consist of a chairman who is the Secretary-Treasurer and two members who are the chairman of the Membership and Balloting Committee and the Newsletter and Publications Committee. The Finance Committee shall prepare an itemized budget for the Section that will foster financial solvency of the Section and designate the allocation of Section funds. This budget shall cover a calendar year timed to allow incoming officers and chairmen the final quarter for preparation of the financial report for the year ending and a budget for the year beginning. Final budget figures must be developed by the Finance Committee and approved by the Executive Committee by March 31st.

g. Awards Committee: The Awards Committee shall consist of a chairman and two members selected by the President for three-year staggered terms. The senior member shall be the chairman. The Awards

Committee shall be responsible for nominating candidates for the S. F. Snieszko Distinguished Service (DS) Award, the highest award of the Fish Health Section, presented for the purpose of honoring individuals for outstanding accomplishment in the field of fish health. This award need not be presented every year and more than one presentation can be made when appropriate.

The chairman of the Awards Committee shall solicit nominations for the DS Award from the Section membership by providing the Newsletter Editor an announcement by December 1st, describing the purpose of the Award and where nominations should be sent. Receipt of nominations from the Section membership shall close on February 1st.

The Awards Committee shall screen nominations from the membership and select candidates for the DS Award based on merit. The Awards Committee chairman shall submit names of candidates, in order of preference, along with copies of supporting documents for each, to the Section President for Executive Committee vote no later than three months before the meeting at which awards are to be presented.

Upon notification of an approval vote by the Executive Committee, the chairman of the Awards Committee shall arrange with the Society for preparation of appropriately framed or plaque mounted award certificates.

The procedure for presentation of awards shall be:

1. At the meeting banquet or other suitable time, the Section President shall call on the Awards Committee chairman to name the award recipient and read pertinent biographical information.
2. The President shall present the certificate.
3. The local arrangements committee for the meeting shall arrange for a photographer to record the presentation and shall forward photographs of awards presentation to the Editor of the Newsletter in a timely manner.

Section 9. Meetings:

- a. The Section shall convene one or more fish health workshops and business meetings annually. Business meetings may be held any time a quorum consisting of the President or President-Elect or both and fifteen members are present.
- b. Business meetings of the Section may be called by the Executive Committee provided the membership is given written notice of such meetings at least thirty days in advance, and a quorum as described in paragraph 9a. is convened.
- c. Section meetings shall be open to the public and any publications or proceedings resulting from such meetings shall be made available to anyone at prices to be set by the Executive Committee based on recommendations from the Newsletter and Publications Committee.

Section 10. Projects: Funding of special projects such as symposia, publications, continuing education for enhancing professional capabilities must be arranged, at least tentatively before such special projects can be approved by the Executive Committee. On approval of the Executive Committee, special projects shall be assigned to an appropriate Standing Committee for coordination and supervision. The

Executive Committee may approve the expenditure of Section funds derived from special projects outside of the annual budget. Special project receipts are to be maintained separate from membership fees by the Secretary-Treasurer.

Section 11. Fees: Annual membership fees for the succeeding calendar year shall become due on December 31st and are delinquent thereafter. The Executive Committee shall determine annually the fee to be assessed.

Section 12. Amendments to the Bylaws:

a. Amendments to these Bylaws may be brought to a vote of the membership by a petition signed by not less than ten members in good standing or after majority vote approval by the Executive Committee.

b. On notification by the President, the Membership and Balloting Committee chairman shall prepare and process a mail ballot regarding proposed Bylaws changes. The membership at large must be given thirty days in which to return Bylaws ballots.

c. Amendments shall be adopted when a two-thirds (2/3) majority votes favorably on a proposal. Amendments shall not become effective until approved by the Society in accordance with the Bylaws of the Society.

Bylaws Ballot

As a member of the Fish Health Section of the American Fisheries Society I vote: (circle one)

FOR

AGAINST

the FHS bylaws as proposed and presented by President-Elect Dennis E. Anderson in the January-March 1980 issue of the FHS Newsletter.

Return this ballot by May 1, 1980, to:

Paul W. Janeke
Fish Disease Control Center
POB 917
Fort Morgan, CO 80701

*Sent to
cc in
4-14-80*

S. K. Johnson
Department of Wildlife and Fisheries
Texas A&M University
College Station, TX 77843



Glenn L. Hoffman
Fish Farm Exp Sta,
Stuttgart, AR 7216