

TO: Mary Fabrizio, President
FROM: Doug Dixon, President **Bioengineering Section**
DATE: February 25, 2008

I. Motion Report

No Motions requested

II. Activity Report

New Section officers were installed at our annual meeting in San Francisco. New officers include:

Doug Dixon, President
Marcin Whitman, Past-President
Ted Castro-Santos, Vice President
Michael Love, Secretary-Treasurer

(A) Summary of Outcomes and Accomplishments Organized by Focus Area in Strategic Plan:

AS2.3a

Bioengineering established an ad hoc Emerging Technology committee in 2007. This committee provides strategic support and technical guidance for those who are pursuing either the development of new fish passage and intake protection technologies or the use of existing technologies in unusual and innovative conditions (e.g., as fish collection devices or as barriers to fish passage). The committee is accomplishing this by assisting innovators, reviewing concepts, fostering communication, providing a forum for highlighting new technologies, and identifying potential funding sources. The initial committee is under the chairmanship of Lynn Reese of the U.S. Army Corps of Engineers (USACE) with support from Ned Taft (Alden Research Laboratory), Jock Conyngham (Engineer Research and Development Center, USACE), Doug Dixon (Electric Power Research Institute), Larry Swenson (National Marine Fisheries Service), and Marcin Whitman (California Department of Fish & Game) has drafted interim bylaws describing its mission, objectives, operating structure, and technology evaluation criteria. Two innovative technologies were reviewed in 2007 and results of the assessment are being used to modify the committee's interim bylaws and operating procedures. Committee membership will rotate beginning in 2008 at which time new members with education in fisheries science and professional experience in the development, evaluation, and use of fish passage, protection and restoration technologies will be called upon to serve.

Bioengineering also established an ad hoc committee to develop a "Unified Codeset" to support aquatic telemetry monitoring. Radio and acoustic telemetry have become essential tools in the development and improvement of fish passage solutions. With the development of pulsed codes, it has become possible to monitor multiple, even hundreds of unique codes simultaneously on a single frequency. To date, manufacturers have each developed their own codes, which can only be decoded by their own receivers. This has prevented end-users from selecting which transmitters or receivers best suit their needs: having invested in a given receiver users become obligated to purchase tags from that same manufacturer. The Section is attempting to develop a 'Unified Codeset' that will provide a solution to this

problem. In an ad hoc committee effort that involves both developers and end users, the Bioengineering Section hopes to arrive at consensus over Codeset specifications, including the number and width of pulses, as well as the intervals between them. If successful, this Codeset may serve as a standard for all manufacturers to design receivers around, encouraging competition among providers, collaboration among users, and improving flexibility in study designs. The ad hoc committee is being chaired by Ted Castro-Santos, USGS Conte Anadromous Fish Laboratory, tcastrosantos@acad.umass.edu; (413) 863-3838

ITO 2.1a

Bioengineering Section held its 5th Symposium at the 2007 AFS Annual Meeting in San Francisco. This major symposium has been held on a 5-year basis although a more frequent 3-year basis is under consideration. A total of 42 papers covering subjects such as fish passage, intake screening, restoration, and modeling were presented. Many of the presentations will be published in a proceedings to be available as an AFS publication in 2009. The Section continues to work on publishing the proceedings from its 4th Bioengineering Symposium held in 2002 in Baltimore. This proceeding will be published through AFS in 2009 (although alternative publication formats such as a dedicated issue of NAJFM or TAFS is also under consideration by the Section's EXCOM and editor).

The Section has not planned a symposium for Ottawa 2008; however, if a critical mass of papers are submitted under "contributed bioengineering", the Sections' EXCOM will provide moderators and assist the Ottawa organizers in scheduling the presentations.

ITO 4.2, MS3.1. Units to develop or enhance their Web sites and/or discipline-specific electronic mailing lists with particular emphasis on outreach to other users.

Our section website, while operating, is in need of updating and changes are planned for 2008.

The Section's list-serve, while operable, is poorly maintained and potentially inconsistent with active annual BES membership. In 2008, the Section's EXCOM will establish a new format and procedures for maintaining its membership mailing list.

Other Goals Entries:

The Section's Bylaws, primarily from recommendations by AFS's constitutional consultant Gwen White, and with some relatively minor recommended changes by the current EXCOM, will be voted on by the Section once current membership is verified and an updated Section membership list is created.

(B) Recommendations or Suggestions for Future Consideration: None at present

Section Finances:

¹Beginning Balance (30 Sept. 2006)

\$ 100.00

Income	
Transfers In (Citizens & Northern Bank)	\$25,476.06
<u>Dues 2006</u>	<u>\$ 920.00</u>
Subtotal	\$26,396.06
Expenses	
Sponsor, Diadromous Fishes Symposium	\$ 500.00
Bank Account Maintenance Fees	\$ 61.00
<u>Misc.</u>	<u>\$ 18.00</u>
<u>Subtotal</u>	<u>\$ 579.00</u>
Ending Balance (31 August 2007)	\$25,917.06*

¹ The Society opened an online account with Bank of America to better manage its treasury; for simplicity this statement used the new account as the basis for the report, and funds from the closed account are shown as a transfer.

* As of 3 September 2007, this is the current account balance.