# Dissertations Initiative for the Advancement of Limnology and Oceanography: DIALOG III and IV

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http://www.aslo.org/dialog.html

## LONG TERM GOALS

Originally founded in 1994, the Dissertations Initiative for the Advancement of Limnology and Oceanography (DIALOG) program seeks to (1) facilitate interdisciplinary, inter-institutional and international aquatic science research, understanding and collaborations; (2) reduce the historical, institutional and philosophical barriers that limit the exchange of information among aquatic scientists; and (3) expedite the transition from Ph.D. student to independent researcher.

## OBJECTIVES

DIALOG is an educational and human resource program. It targets aquatic scientists and those in related disciplines who have recently obtained their Ph.D. degrees and wish to pursue interdisciplinary aquatic science research. To accomplish its stated goals, the program objectives are to:
(1) Compile and publish submitted Ph.D. dissertation abstracts to provide a concise overview of current research over the range of biologically related aquatic science.
(2) Convene a symposium every two years to facilitate interdisciplinary, inter-institutional, and international understanding and collaborations among participants; and
(3) Develop and maintain a centralized data base for characterization and tracking of recent Ph.D. recipients to better identify human-resource trends and needs.

## APPROACH

Using mailings, handouts, and a web site, the program is announced as widely as possible to reach all potential participants. All program and symposium application procedures are accomplished through the web site (www.aslo.org/dialog.html).
1. Dissertation Compilation:
To be included in the dissertation compilation individuals are asked to complete a brief demographic profile and submit a 1-page dissertation abstract. Citations/abstracts are compiled and made available through the web page and the citations are also published in the next edition of the *ASLO Bulletin* (published by the American Society of Limnology and Oceanography).
2. Symposium Participation:
In addition to submitting the demographic profile and the dissertation abstract, if individuals wish to be considered for symposium participation, they are also asked to; 1. submit a 2-page CV (with list

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of peer-reviewed publications); 2.A 1-page essay answering the question "Why do you want to attend the DIALOG symposium? (addressing applicant's career goals; interdisciplinary interests; ways in which participation would enhance his/her professional growth; and what s/he could contribute to the symposium); 3.1/2-page essay answering the question "What do you consider to be the most interesting/challenging/important issue in limnology or oceanography today?" and two letters of recommendation. Based on the application materials, a committee of six academic researchers met in the spring of 1999 and selected 43 participants to attend the third DIALOG symposium in October 1999. During the symposium each participant will present a poster and a 10-minute overview of his or her Ph.D. dissertation research, with an additional 5 minutes for questions/discussion. Participants will also form working groups to discuss emerging aquatic science research, education, and policy issues. Funding-agency representatives (see below) will present perspectives on interdisciplinary and international aquatic science research programs and building a successful career.
3. Data Analysis:
Information submitted by program applicants and the results of surveys completed by symposium participants are compiled in a database and used to characterize program participants and to assess trends. Follow-up studies and comprehensive analysis of data will be conducted to assess professional/career progression of participants and the long-term outcomes of the program.

This program is also supported by funding from NASA (Ocean Biogeochemistry Program and Atmospheric Chemistry and Ecology Branch of Mission to Planet Earth Program); NOAA (Coastal Oceanography and National Sea Grant College Programs); NSF (Ecosystem Studies Program, Biological Oceanography Program, International Program, and Office of Polar Programs); and the European Commission.

**WORK COMPLETED**

A total of 166 dissertation abstracts were received for the DIALOG III Program, with 92 individuals applying for the DIALOG III symposium. This represents an increase in submissions compared with the DIALOG II Program (98 abstracts submitted with 87 applying for the symposium), even though the eligibility period for DIALOG III was shorter (24 months for DIALOG III, compared with 34 months for DIALOG II).

These numbers indicate that many individuals are taking advantage of the opportunity to "register" their dissertations, even if they are not interested in the symposium. Dissertation abstracts are immediately posted on the ASLO web page (www.aslo.org/dialog.html), and each issue of the *ASLO Bulletin* includes dissertation citations and e-mail addresses of those submitting abstracts since the previous Bulletin deadline.

The 166 program participants were citizens of the following countries: Argentina (3); Australia (1); Austria (1); Belgium (1); Brazil (5); Canada (8); Chile (1); China (4); Denmark (1); Egypt (1); Finland (1); France (3); Germany (12); Greece (1); India (2); Indonesia (1); Israel (2); Italy (2); Japan (7); Kenya (1); Korea (1); The Netherlands (4); New Zealand (5); Norway (1); Poland (2); Russia (3); Sweden (9); Switzerland (1); Turkey (1); United Kingdom (3); and United States (78).

Of the 166 DIALOG III participants, 92 completed their Ph.D. at U.S. institutions, including 16 citizens of other countries (2 Brazilians, 2 Canadians, 2 Chinese, 1 Dutch, 3 Germans, 1 Israeli, 1

Korean, 2 Russians, 1 Swedish and 1 Swiss). Two U.S. citizens completed their degrees outside the U.S. (one in Sweden and one in Denmark).

The 78 U.S. citizens had the following characteristics:

- 39 female, 39 male;
- 25 limnologists, 53 oceanographers;
- 7 underrepresented minorities (5 Hispanic, 1 African American, 1 native American/Alaskan);
- 64 were on postdoctoral or other temporary positions; 10 had permanent positions (2 of 10 were permanent, "soft money" positions); 3 were unemployed; and 1 made no response;
- 51 held positions within academia; 15 within government; 1 within industry; and 11 "other".

The 88 citizens of other countries had the following characteristics:

- 30 female, 58 male;
- 39 limnologists, 49 oceanographers;
- 64 were on postdoctoral or other temporary positions; 20 had permanent positions (four of 19 were permanent, "soft money" positions); 4 were unemployed;
- 59 held positions within academia; 14 within government; 2 within industry; and 13 "other".

**RESULTS**

Forty three symposium participants were selected from the 92 applicants; all 43 accepted. With so many qualified candidates, many factors in addition to excellence in research were considered and many worthy individuals had to be turned away to maintain the "critical size" for fostering long-term interactions. Selection was based on scientific training, dissertation topic and execution, interdisciplinary experience and interests, letters of recommendation, and program balance.

The symposium will take place October 17-24 at the Bermuda Biological Station for Research. Participants will make both oral and poster presentations of their Ph.D. research and participate in small working groups to consider current and emerging issues in aquatic science education and research.

The DIALOG Program is a long-term investment in human-resources and science infrastructure. Direct and indirect results should benefit the aggregate research community, as well as our society, which increasingly depends on research results for understanding and managing aquatic systems and resources. The DIALOG symposium reaches approximately 40 new PI's at a pivotal point in their research careers. Based on their comments, the symposium changed the way participants think, communicate, and approach their research. The science community and the general population will benefit from the perspectives these new PI's bring back to their home institutions and share with their students and colleagues. This group should act as a catalyst to move the entire field in exciting new, interdisciplinary directions. In the words of one participant, "As the 'Global Village' continues to grow and research funding continues to shrink, it is important that we strive for more cooperation and collaborative research approaches to address future science needs and directions … [because of DIALOG] it will be easier to form collaborations that cross international and [other] borders." (James L. Pinckney) The DIALOG program has indeed served as a catalyst for the community and the network of interactions should continue to expand and interconnect in ever-changing ways as new colleagues, students and ideas are added to the mix.

## IMPACT

The most interesting and important questions in aquatic and other sciences today are increasingly interdisciplinary. In addition, we find that our scientific community and society as a whole are increasingly global, interdependent, and interactive. Therefore the very concept of the DIALOG program is pertinent and timely as it facilitates the vital exchange of knowledge, ideas, and science that is necessary in this new scientific climate and global community. The symposium, in particular, brings together scientists, at a pivotal point in their research careers, from across the full spectrum of biologically relevant aquatic science, from a variety of scientific backgrounds, from various institutions, and from different countries and cultures. This dynamic mix then participates in an intensive seven-day symposium where all participants gain an overview of the work of the others and are exposed to different ways of thinking about and conducting research. The collegial bonds and lines of communication formed will remain throughout their professional careers to sustain, stimulate, and enhance their work. The scientific community and the general population can only benefit from the perspectives these "new" scientists bring back to their home institutions (and countries) and then go on to share with their students and colleagues. Based on actual comments from earlier symposium participants we know that the experience significantly changed the way they think, communicate, and approach their research. This group should act as a catalyst to move the entire field in exciting new, interdisciplinary directions which will address the aquatic science issues of the future. The DIALOG program is a long-term investment in human-resources and science infrastructure. As it continues and its scope widens, it will, directly and indirectly, continue to positively impact the aggregate research community and through that, society in general as we increasingly depend on research results for understanding and managing vital aquatic systems and resources.

## TRANSITIONS

1. Participants in earlier DIALOG symposia have been involved in interdisciplinary (including some international) research collaborations; an international student exchange program at two institutions; the organization of several workshops and meeting sessions; and the ongoing communication throughout the entire group about research, education and science policy issues via an electronic distribution list. We have also learned that this core group has expanded as information and insights gained through the program are shared with students, postdoctoral associates, and colleagues.
2. The dissertation compilation (available on the web site and compiled into a printed publication after each symposium) has been and is continuing to be used by journal editors and program officers to identify reviewers; by meeting organizers to identify speakers and session chairs; by scientists and administrators to get an overview of the latest research and to identify potential postdoctoral researchers and job applicants; and by fellow students, researchers, and new entrants to the aquatic science community.
3. The demographic information is providing a profile of the newest entrants to the aquatic science community--their gender, age, ethnicity, citizenship, Ph.D.-granting institutions and subsequent employers, and disciplinary interests. This information should enable a variety of interest groups to better track the aquatic science community (which has been difficult to profile, due to the large number of degree-granting institutions, departments in which an aquatic scientist might reside, and variety of key words under which aquatic science falls in general science databases).

**RELATED PROJECTS**

None

**PUBLICATIONS**

Weiler, C.S. 1999. Dissertations Initiative for the Advancement of Limnology and Oceanography (DIALOG III): Ph.D. Dissertation Abstracts and Program Summary. 167 pp

Weiler, C.S. 1998. Congratulations recent Ph.,D. recipients! *ASLO Bulletin* 7(1):11.

Weiler, C.S. 1998. DIALOG III Program. *ASLO Bulletin* 7(1):11.

Weiler, C.S. 1998. DIALOG III. *ASLO Bulletin* 7(2):13-14.

Weiler, C.S. 1998. Congratulations recent Ph.D. recipients! *ASLO Bulletin* 7(2):14.

Weiler, C.S. 1998. Congratulations recent Ph.D. recipients! *ASLO Bulletin* 7(3):8.

Weiler, C.S. 1998. DIALOG III Symposium. *ASLO Bulletin* 7(3):8.

Weiler, C.S. 1999. Congratulations recent Ph.D. Recipients! *ASLO Bulletin* 8(1): 24-25.

Weiler, C.S. 1999. DIALOG III. *ASLO Bulletin* 8(1):25.

Weiler, C.S. 1999. DIALOG IV Program. *ASLO Bulletin* 8(2):11.

Weiler, C.S. 1999. Dissertation Citations from recent Ph.D. recipients. *ASLO Bulletin* 8(2):11-13.

In addition to the ASLO Bulletin, DIALOG Program announcements also appeared in *EOS*, *Oceanography*, *Estuarine Research Federation Newsletter* and *SIL New.s*

WWW http://www.aslo.org/dialog.html