

Editorials

Globalization of Environmental Research

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With this January 2007 issue of *Environmental Science and Pollution Research* (ESPR), the journal begins its 14th year of publication. We will continue to see many advances in the journal throughout this year. The implementation and continual refinement of our Electronic Submission System (ESS) has resulted in a significant increase in the number of submissions the journal is receiving. Our Subject Area Framework continues to be refined by this increase in manuscript submissions. Indeed, the demand for more individuals to serve as 'Submission Editors', and the increasing need of more scientists to serve as referees in new emerging areas of environmental science provide substantial evidence that there is occurring a global emergence of environmental research.

Research Issues Versus Origin Countries

Recently we took the opportunity of examining the number of countries and institutions submitting research manuscripts to ESPR. We examined six issues of the journal from the time period 2000–2001 versus six issues from the time period 2005–2006. Although we counted essentially the same number of countries (30 versus 31, respectively) submitting research manuscripts in both time periods, it was the number of research institutions represented that was significantly different (69 versus 127, respectively). Another major difference was that in the 2000–2001 time period very few manuscript were received from Southeast Asia, the Middle East, Eastern Europe, Africa, or South America. In 2005–2006 we received and published manuscripts from China, Hong Kong, India, Singapore, Philippines, Turkey, Iran, Iraq, Israel, Egypt, Hungary, Slovenia, Russia, Czech Republic, Lithuania, Brazil, and many more. We are seeing more institutions from throughout the world engaging in environmental research. Much of this research is for knowledge about the impact of human societies on our environment. In many cases it is originating from new institutional programs in countries that now realize the importance of environmental research as rapid population growth and economic development intensifies the stresses humans place on the biosphere and ecosystems.

Each year in the January issue of *Discover Magazine*, the top 100 science stories are described [1]. For 2006 (January 2007 issue), 20 of the 100 science stories were on the envi-

ronment, and included articles on energy, biology, genetically modified organisms, conservation, and policy; all research articles that would have been accepted by ESPR under our Subject Area Framework. In the 27 November 2006 issue of *Chemical and Engineering News* (a publication of the American Chemical Society), an analysis of the scientific literature was published [2]. The article noted that the sources of papers abstracted by CAS over the past twenty years have changed significantly with a decrease in the percentage of papers from United States and Western European Institutions, and major increases in the percentage of papers from institutions in China, India, and Japan, all similar to the trends we have seen for ESPR.

ESPR's Role in the Globalization Process

We are convinced that ESPR is playing a role in the globalization of environmental research. If so, how can we as environmental scientists supporting a journal dedicated to environmental science and pollution research continue to encourage this globalization? Here are some steps and some suggestions that we are taking with our journal:

1. **Frequency.** We must increase the number of issues that ESPR publishes each year. In 2003, the increase in the number of publishable manuscript received by the journal resulted in the decision to publish two additional issues of ESPR each year (for a total of six). We have now decided to increase the number of issues to seven for 2007. And this may not be sufficient, but the journal must balance the number of manuscripts published with the cost of subscriptions.
2. **Quality.** We must continue our efforts to publish the best of the manuscripts we receive. This is a challenge because as journal administrators, we are dependent upon individuals who are willing to serve as Submission Editors, Subject Area Experts within our Framework, and referees. We must have available to us the expertise to judge whether an abstract should be accepted, and hence the manuscript submitted for peer review.
3. **Shorter manuscripts.** We must continue to encourage shorter manuscripts. We know that authors like to show all of the research they have conducted on a project, but

much of their data are not necessary to substantiate innovative research. This past year, we implemented the **Research Communication** as a new approach to capturing innovative ideas, ground-breaking results, and novel methodologies in environmental and pollution research [3]. The concept has been accepted, and we are now publishing these Research Communications; two examples are presented in this issue [4,5]. They do not exceed two journal pages, they are peer reviewed, and their brief abstracts are cited in our indexing services. This approach allows ESPR to publish more high quality and innovative manuscripts per issue. It also is a communication form ideal for publishing the manuscripts very fast in the printed edition of ESPR.

4. We need to encourage more **Review Articles** of priority research topics supported within our Subject Area Framework (see also the CALL on p. 2A in this issue). Other than research papers, this type allows the neighboring scientist and even the (very) interested layman to get introduced in an unknown or less known field. In this way, it supports the interdisciplinary and network thinking. It provides access to huge literature resources and reveals new approaches and interfaces. You can see two review articles on completely different topics in this January issue [6,7]; but you can also see the small number [8–16] of review papers ESPR published in 2004–2006.
5. Lastly, we need to continue encouraging the submission of **Commentaries** (see [17]) and **Discussion Articles** (see [18–21]), as a means of providing a broader understanding of important concepts and emerging research areas, and as a means of initiating scientific discussions, respectively. For example, we continue to invite Commentaries on alternative sources of energy (see this issue [22]), as well as Discussion Articles (see this issue [23]).
6. In the September 2006 issue of ESPR, Hollert, Hecker, and Xu published an **Editorial** on Framework Area 1: *Terrestrial Ecology and Biology/Soil and Sediments: Toxicology-related Subjects* [24]. The survey cited more than 70 papers that have been published in ESPR that were relevant to the Framework Area 1. Such overviews are very helpful to young investigators because they highlight the current research AND identify areas where additional research is needed. Moreover, these types of reviews allow the Principal Editors to introduce the men and women who play key roles as Submission Editors, Subject Area experts, and referees.

The Editorial on Framework Area 2 'Aquatic Chemistry and Biology' will appear in the March issue.

We invite all of our readers to submit editorials, commentaries, conference and symposia reports, subject areas reviews, and their latest research manuscripts. It is through this 'exchange' of scientific information, data, and views that we encourage the globalization of environmental research. It is hoped that through the globalization of environmental research we will find solutions to the environmental problems that plague our planet and that will enhance the quality of life for all organisms that depend upon this biosphere!

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