

## SCIENCE COMMUNICATION

# Environmental Science Adrift in the Blogosphere

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One of the latest challenges to face science communicators is the rise of weblogs or blogs; “frequently updated websites consisting of personal observations, excerpts from other sources, typically run by a single person, and usually with hyperlinks to other sites; online journals or diaries” (1). Writing or maintaining a weblog (blogging) has become a hugely popular Internet phenomenon. There are now more than 11.7 million weblogs, and it is estimated that this number is doubling every 5 months (2) with one new weblog being created every second (3).

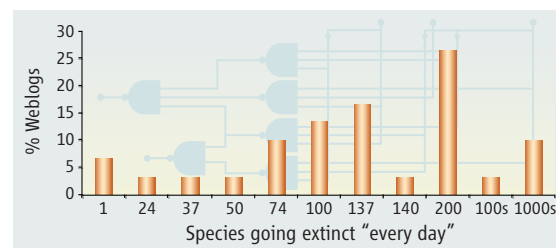
When linked together into intertwining communities or blogospheres, weblogs provide a communication platform of incredible power and complexity. Information and opinions are exchanged, transformed, and reworked with astounding rapidity across international boundaries and time zones (2).

Discussions in the traditional news media about the blogging phenomenon have ranged from the untapped potential of the blogosphere for collaborative learning (4) and the power and reach of weblogs to the public relations potential for voluntary sector operations (5). Not only is the Internet emerging as a vehicle for enhanced civic involvement (6), but many weblog users judge weblogs to be highly credible, even more so than traditional print media or other online sources (7). Although the general public is embracing weblogs, many scientists are not, possibly because of the association of blogging with Internet chat-rooms or even the fear of intellectual property theft (7).

Accurate representation of environmental science is vitally important for the current and continued support of public policy. Currently, there are roughly 400,000 weblogs featuring discussions on environmental and conservation-related issues, which makes it difficult to assess the general quality of scientific information on weblogs (table S1). To provide a snapshot of scientific representation in the blogosphere, we explored current predictions for global extinction rates as cited within 30 sites (see figure above). There is still uncertainty, but the scientific consensus puts the maximum predicted rate between 74 and 150 species going extinct every day [27,000 to 55,000

per year (8)]. Roughly 40% of the sites we examined indicated that extinctions are occurring at rates greater than 200 per day (73,000 per year). The daily extinction rates ranged from one to several thousand per day!

Whereas scientists are used to spotting and correcting errors in traditional communication media, many remain unaware of the blogging discourse. If environmental scientists ignore online communication platforms such as weblogs, we run the risk of creating a generation of eco-illiterate consumers and voters at a crucial



**A representation of global species extinction estimates in the blogosphere.** The 30 weblogs on daily extinction rates were identified by Google Blog Search and search phrases “extinct per day” and “extinct every day.”

time for the Earth’s diminishing resources. How should we respond to the challenges and opportunities presented by the blogosphere? We suggest the following responses, which are potentially applicable to all scientific disciplines.

Environmental scientists should actively engage in blogging to increase the presence of informed opinions in the blogosphere. Research supervisors should encourage students to blog while providing training in science communication and dissemination. Senior scientists should set up their own high-profile weblogs to help allay fears that blogging is somewhat disreputable. Blogging should be part of a portfolio of public engagement activities, even to the extent of including blogging as part of a researcher’s job specification. Examples of excellent, informative sites can readily be found (table S2), but more are needed.

Environmental research groups and peer groups should create weblogs for the discussion of new ideas and the dissemination of research findings. Such weblogs could act as platforms for brainstorming new concepts and generating ideas (9). The interactive characteristics of weblogs could also provide an alternative mechanism for gaining feedback in the early stages of a research project. Additionally, group weblogs could be used for publicizing and

Weblogs are a growing global phenomenon with important consequences for science policy and communication. A survey of blogs on environmental topics shows that they vary greatly in accuracy, which indicates a need for participation by informed scientists.

interpreting peer-reviewed literature.

Environmental scientists should use weblogs for reporting and commenting on international conferences. For example, the IDS Climate Change and Disasters Group effectively used their weblog to report back live from the United Nations 2005 Climate Change Conference in Montreal (10).

Field-based environmental scientists should blog as a mechanism for inspiring future environmentalists and to provide a real-time platform for sharing their expertise. Blogging is an excellent way to communicate the excitement of working and living in the field. Furthermore, new wireless communication systems and solar technology now make real-time blogging possible from the remotest of locations.

Some commentators have suggested that weblogs will only increase in popularity among the scientific community once a peer review mechanism has been implemented (9). As this is highly unlikely to happen and because much of the appeal of blogging lies in its spontaneity and interactivity, we believe that researchers should not adopt a wait-and-see policy. As citizen-scientists, we have a responsibility to contribute informed opinions to environmental debates and to develop a collective presence in the blogosphere, thereby increasing its inherent credibility. With sites that make the process of creating a weblog quick and easy (11), environmental science no longer needs to be adrift in the blogosphere.

## References and Notes

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## Supporting Online Material

[www.sciencemag.org/cgi/content/full/312/5771/201/DC1](http://www.sciencemag.org/cgi/content/full/312/5771/201/DC1)

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