



January 12, 2012

Ted Wackler
Deputy Chief of Staff
Office of Science and Technology Policy
Attn: Open Government
725 17th Street, NW.
Washington, DC 20502

Submitted via e-mail to publicaccess@ostp.gov

Dear Mr. Wackler,

The Society for Conservation Biology (SCB), a global community of conservation professionals which publishes *Conservation Biology*, among other journals, submits these comments in response to the request by the Office of Science and Technology Policy (OSTP) for input on the Administration's interest in enhancing public access to scholarly publications resulting from federally funded research. The following comments echo similar concerns expressed by our sister societies in the Ornithological Council, a consortium of twelve scientific ornithological societies in the Western Hemisphere. However, as an international society with many members in developing countries who would greatly benefit from increased access to scientific publications, our comments differ in that we emphasize both the risks and potential benefits of open access.

Much of the literature in SCB's journals reports research funded in whole or in part with federal funding.

We share the Administration's view that increased access to scientific information benefits society. Scientists want to increase the dissemination and impact of the information they generate. We support broad access to the scientific and medical literature and have in fact established a task force on these issues that may be able to work with your office as you consider these questions in the future. We are concerned, however, about the impact of free access on scientific societies, and in particular, the idea that one model is appropriate to all scientific publishers, regardless of size, revenue, or current publishing model.

Ensuring Fair Public Access: The issues addressed here are part of the overall debate about ensuring that we learn as a society and apply our knowledge well, with the help, more than the hindrance, of our governments. In the debate between intellectual property rights and the benefit of public access, we would expect OSTP to help resolve the matter through recommendations to the Administration and to Congress for solutions that provide fair return on scholarly investment as well as fair access to that knowledge, data or analysis in publications or symposia, for the public good. This is also the essence of copyright and patent law – weighing limits on public access just enough to encourage



investment in creativity and research while providing for public beneficial use. As science and technology evolve it makes sense to review that balance from time to time.

We are grateful to OSTP and the House Committee on Science and Technology for convening the Scholarly Publishing Roundtable. The Scholarly Publishing Roundtable report acknowledges the differences among scientific societies, but we would like to emphasize that, scientific societies serve society in many other ways — such as nurturing the development of new scientists and offering impartial expertise to guide government policy — and it is critical that enhanced access to scholarly publications not be achieved by sacrificing these other important benefits to society. We suggest options to prevent those negative outcomes.

In the public notice, OSTP asked:

(1) Are there steps that agencies could take to grow existing and new markets related to the access and analysis of peer-reviewed publications that result from federally funded scientific research? How can policies for archiving publications and making them publically accessible be used to grow the economy and improve the productivity of the scientific enterprise? What are the relative costs and benefits of such policies? What type of access to these publications is required to maximize U.S. economic growth and improve the productivity of the American scientific enterprise?

We would like to begin by reminding OSTP of the costs of mandated, one-size-fits-all open access publishing. Many not-for-profit societies rely heavily on the revenue generated by the publication of journals. That revenue derives from membership dues, often with subscriptions included, and library subscriptions. We have already seen declining membership resulting from the fact that university students and faculty members have virtual open access because they can obtain online, full-content papers from hundreds of journals through their university libraries. The convenience of having one's one copy so as to avoid a trip to the library once had value; without that value, some forego membership. Library budgets at most universities and colleges – particularly the state-funded universities – have declined significantly over the past three years and that has caused a reduction in subscription revenue.

This is beginning to lead to fewer publishers and fewer papers published in the peer-reviewed literature. Papers may still be self-published, but self-publication is no substitute for peer-reviewed publications that have passed the scrutiny of expert review and editorial review. While peer-review is not perfect, its failures are relatively few and the vast majority of published papers are improved by this valuable process. Publication in established journals also increases accessibility because these papers are simply easier to find and are more likely to persist than those self-published on websites that may or may not be maintained over long periods of time.



Many not-for-profit societies typically do not have sufficient revenue to hire staff and undertake alternate activities that might generate revenue to replace the loss of publication revenue.

Recommendations to OSTP or the government to “grow existing and new markets related to the access and analysis of peer-reviewed publications that result from federally funded scientific research?”

- 1) **The Federal Government, in cooperation with other governments and other research and scientific analysis entities, such as the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) could underwrite the creation and maintenance of the online public access websites** so that societies such as ours can make more content more freely available. SCB and many others are now engaged in a global effort to make the best possible array of publications, data, and analysis of them available to the world’s leading scientists working together to advise international bodies, governments and others concerning decisions on and about climate change (IPCC) and biodiversity and ecosystem services (the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services - IPBES). OSTP should consult with these and other international bodies and the Library of Congress concerning how US agencies and the Library of Congress might best work together to expedite the creation of on-line access to publications and related decision-support tools via the most complete and effective access to publications and related analyses.
- 2) **OSTP could work with the Smithsonian Institution, the Library of Congress and others to create an online directory of public access websites** and a mechanism to maintain orphaned open access websites.
- 3) **OSTP could work with the Library of Congress, the Smithsonian and others to create an open-access citation system**, which is essential to realizing the full value of open access scientific literature. Readers of a paper can of course determine which papers were cited by that particular paper, but the ability to find subsequent papers citing that particular paper is still limited to those able to afford access to an online citation system such as the Thomson-Reuters Science Citation Index. And more than a mere citation system, a set of discipline-specific annotated bibliographic databases would be invaluable to anyone delving into the enormous body of literature.
- 4) **Ensuring Federal Decisions Are Informed by the Best Possible Scientific Publications and the Data underpinning them:** Finally, to ensure that the Federal Government has access to the best possible evidence for Federal decision-making, OSTP should address the question of bringing that data and analysis, such as are found primarily in peer reviewed journals, even if it was not originally Federally funded, into Federal processes and data bases when it is most needed, as in the Federal Executive and Legislative decision-making processes. SCB’s final recommendation in our December 2008 Recommendations to the Obama Administration and Congress was to restore, to the extent possible, the practice of paying potential interveners, such as scientific societies, academics, public



interest groups, and others in federal rulemaking proceedings for information that would likely not otherwise be as fully available to the agency. The Carter Administration had begun to do this by 1978 (e.g., in FERC and DOE proceedings) and began to expand it via Executive Order Number 12044. This was done in part in order to avoid unnecessary litigation and to arrive at better decisions sooner and more efficiently by building better administrative records that included a wider array of expert evidence early on. A rider approved by Congress stopped some forms of that practice. Peer review is now used by Federal agencies in some situations but that does not reach as many decisions as it could. Given evidence that better decisions depend on better records of decision, and that both depend on an objective understanding of what science knows, the Administration and Congress can change that and remove other impediments and proceed wherever possible to bring the best science to government and then more fully to the non-governmental and private sectors. Rather than be a net expense, if those firms or groups of firms standing to profit from the use of a Federal resource or permit could be required to build the small cost of such data acquisition and analysis into the price of their products or services that depend on Federal lands, resources, or permits, then the costs could be internalized appropriately, rather than borne entirely by the tax-payer, and still managed by the government under public scrutiny and in the public interest. This would both increase the support and use of publications and apply them in the public interest at a minimum of net public expense.

A greater appreciation of all of the issues raised in this process could be inspired by OSTP offering to brief the Congressional Research Service and Committee staffs and the Scientific Integrity Officers of each agency on these issues and alternative actions that OSTP is considering.

The Scholarly Publishing Roundtable, an ad hoc working group convened by OSTP and the House Committee on Science and Technology (January 2010), recognized that a twelve-month embargo might not be adequate for some scientific disciplines. Protecting the revenue associated with access to what is considered current or recent content might require delaying public access for several years unless ways are found to reward the producers more fully and more quickly, including some of the steps noted above. The cited half-life of the journals published by societies ranges from a few to as many as 10 years. If societies determine that revenue loss associated with access to papers not yet available in their own fee-free archives would be minimal, they may choose to decrease the duration of the embargo.

We also wish to remind OSTP of the cost associated with publication charges. The journals published by our many societies charge very low publication fees; such as \$100 per page and many will waive some or all of the publication cost if the author is unable to pay for publication. Unlike other societies that are able to maintain relatively low page charges because membership fees are sufficient to subsidize the cost of publication, our society charges on the order of \$80 per year (we are instituting an increase to that level



now) and we offer substantially reduced rates to students and young professionals and members in the developing world. Increased page charges would erode research grants and increased membership dues would likely result in fewer members, and, in turn, reduced membership revenue. As membership revenue is a substantial part of overall revenue, this decrease could jeopardize the existence of the society.

(2) What specific steps can be taken to protect the intellectual property interests of publishers, scientists, Federal agencies, and other stakeholders involved with the publication and dissemination of peer-reviewed scholarly publications resulting from federally funded scientific research? Conversely, are there policies that should not be adopted with respect to public access to peer-reviewed scholarly publications so as not to undermine any intellectual property rights of publishers, scientists, Federal agencies, and other stakeholders?

Any public access policy must include a provision that the original copyright holder retains all intellectual property rights conveyed by law. To the extent that a publications database is maintained by a federal agency, the agency should require that those accessing its holdings read and acknowledge the intellectual property rights of the holder. These acknowledgments should be maintained by the agency providing public access and made available to the copyright holder upon request.

(3) What are the pros and cons of centralized and decentralized approaches to managing public access to peer-reviewed scholarly publications that result from federally funded research in terms of interoperability, search, development of analytic tools, and other scientific and commercial opportunities? Are there reasons why a Federal agency (or agencies) should maintain custody of all published content, and are there ways that the government can ensure long-term stewardship if content is distributed across multiple private sources?

Had Congress wanted to mandate a central repository, it could have done so when reauthorizing the America COMPETES Act. Instead, the legislation directed the working group to look for standards to maximize interoperability and to take into account existing standards. We also note that the assumption that an agency repository will suffice in perpetuity is a faulty one. At this moment, the U.S. Geological Survey is terminating the National Biological Information Infrastructure. Some of the databases will be incorporated into other programs (though not necessarily made available to the public) and some will be lost.

That being said, there should be a registration system whereby every repository that holds federally funded papers is reachable through a central directory and a provision that if a



repository becomes orphaned, the central agency repository may take it over. Even then, the society should be permitted to first try to find another organization to maintain its holdings.

In our field, the development of metadata standards for data repositories is quite mature. From the development of the Darwin Core, first issued in 1998, to the 2009 release of the metadata standard, this body of standards now supports numerous extensions for use across organismal biology. It is recognized internationally and in wide use. Requiring this large body of literature to be deposited into a centralized database would impose an undue burden if that database uses different standards. It would also make it more difficult to retrieve data associated with the literature and vice versa.

(4) Are there models or new ideas for public-private partnerships that take advantage of existing publisher archives and encourage innovation in accessibility and interoperability, while ensuring long-term stewardship of the results of federally funded research?

(5) What steps can be taken by Federal agencies, publishers, and/or scholarly and professional societies to encourage interoperable search, discovery, and analysis capacity across disciplines and archives? What are the minimum core metadata for scholarly publications that must be made available to the public to allow such capabilities? How should Federal agencies make certain that such minimum core metadata associated with peer-reviewed publications resulting from federally funded scientific research are publicly available to ensure that these publications can be easily found and linked to Federal science funding?

This is an issue that our task force noted above may be able to assist OSTP in addressing but we have no specific recommendations at this point.

(6) How can Federal agencies that fund science maximize the benefit of public access policies to U.S. taxpayers, and their investment in the peer-reviewed literature, while minimizing burden and costs for stakeholders, including awardee institutions, scientists, publishers, Federal agencies, and libraries?

By making sure that agencies search, use and cite the applicable peer-reviewed journals and presentations at scientific symposia when the journal articles are not yet available, in each proposal for a Federal rule or guidance, and final Federal Register notice or available archive in support of such notice, and encouraging Congressional Committees and international bodies to do the same. And by covering, reimbursing or paying for the costs incurred and the value contributed by the authors and societies for such publications and presentations.

(7) Besides scholarly journal articles, should other types of peer-reviewed publications resulting from federally funded research, such as book chapters and conference proceedings, be covered by these public access policies?



In our field, conference proceedings (where they exist) rarely consist of the full text of a talk along with the associated slides or other media. Proceedings are more commonly a listing of talks and perhaps abstracts. Full-text or not, they are rarely peer-reviewed even though they may refer to peer reviewed literature. Because these talks present new information in many cases not yet in the published literature and new analysis of it, it may be useful to ensure that these materials be made open access or that any society or agency maintain a public access repository for these materials **by making sure that full costs of managing that process are met by a combination of governments and other entities with little delay or on a regular, contracted basis. In fact, in recent years many of SCB's symposium organizers have been required by SCB to answer the question "Which agencies would use the information to be conveyed in your proposed symposium and how?" We have done this to help choose the most symposia that are most useful for the policy and practice of conservation. For Federal and other agencies to help support an archiving and open access system for such presentations could be a very big contribution to both scientific societies and the agencies and personnel dealing with the issues addressed in such symposia.**

(8) What is the appropriate embargo period after publication before the public is granted free access to the full content of peer-reviewed scholarly publications resulting from federally funded research? Please describe the empirical basis for the recommended embargo period. Analyses that weigh public and private benefits and account for external market factors, such as competition, price changes, library budgets, and other factors, will be particularly useful. Are there evidence-based arguments that can be made that the delay period should be different for specific disciplines or types of publications?

As previously stated, the Scholarly Publishing Roundtable recognized that a twelve-month embargo might not be adequate for some scientific disciplines. Protecting the revenue associated with access to what is considered current or recent content might require delaying public access to some journals of some societies for several years, although SCB has many members and leader who very much want to work toward a much faster sharing of our publications with the public. The cited half-life of the journals published by some societies ranges from 4 to 10 years. They may eventually determine that a shorter embargo period will not reduce the level of paid access,. Establishing an upper limit or a sliding scale that takes into account the extent to which the society relies on journal revenue could be reasonable and fair, if these metrics are established in consultation with scientific societies.

That said, however, the best of both worlds may be achieved if OSTP can work with interested parties to find a way to help the producers recover the expected fair return on their investment more quickly. If this is the information age, then a 21st century version of the Interstate Commerce Commission to ensure fair public access to commerce in information may be warranted, and all those affected should be partners in the exercise.

Currently, there are numerous journals in organismal biology, wildlife biology, and ecology that have no public access, even for material that is decades old. This may be as much a function of the cost to convert older formats and maintain a website as it is about



the loss of revenue. Societies that do not have the financial resources to provide public access to older volumes should be given assistance to make access available.

Sincerely,

John M. Fitzgerald
Policy Director

