



Ecological Society of America
1990 M St, NW, Suite 700
Washington, DC 20036

January 18, 2012

Re: NSB report on digital research data sharing and management

The Ecological Society of America (ESA) is the professional society of 10,000 ecological scientists. We appreciate the opportunity to provide feedback on the National Science Board's (NSB) recent report on digital research data sharing and management. The Society recently also provided public comments to the Office of Science and Technology Policy's (OSTP) Request for Information on public access to digital data resulting from federally funded scientific research (<http://www.esa.org/pao/policyStatements/Letters/ESAdigitaldata2012.pdf>).

As a publisher of peer-reviewed ecological journals for over 90 years, ESA policies and capabilities support data sharing and archiving. The Society concurs with the NSB report's premise that sharing and management of digital research data is fundamental to the nation's science and engineering enterprise. ESA supports the goals and recommendations of the NSB report.

In particular, we would like to comment on a few of the challenges and recommendations identified in the report:

- *Data sharing and data management policies must acknowledge and provide for disciplinary nuances.*

Stakeholders should have input in developing policies and standards within the various research communities. Short embargo periods for required sharing of data linked to publications could help researchers complete multiple analyses and publications based on a single dataset.

- *Reproducibility of scientific findings requires that digital research data be searchable and accessible.*

As ESA noted in its comments to OSTP, federal agencies should examine existing standards already in use in the private sector to determine if any may be applicable in the development of federal data standards. To ensure appropriate attribution and credit, data should be published in such a way that they are traceable to authors, to related publications and to funders. For example, digital object identifiers could be used for authors and funding sources could be included in metadata.

ESA policies and capabilities support the report's recommendation (#1) that federal agencies, along with individual scientific communities establish and foster data sharing policies. ESA provides means for data publication and citation through *Ecological Archives*, which publishes data papers, supplements and digital appendices for our journals. This archive allows authors to make available

supporting materials such as methodological details, data tables, photographs and supplemental discussion. ESA requires data archiving for papers published in our journal *Ecological Monographs* while data archiving is currently encouraged but voluntary for our other journals.

Recommendation (#4) concerns the maintenance of digital data and suggests a panel of stakeholders convene to explore and develop a range of potential long-term business models. Such an activity would fit well with ESA's prior initiatives in this arena. Sponsored by the NSF, the Society organized a series of workshops that explored common data sharing policies among scientific societies, the needs for data registries and repositories and obstacles and incentives to share data. For more information about the data sharing workshops, please see:
http://www.esa.org/science_resources/programs/datasharing_workshops.php

Thank you for the opportunity to offer our comments on this important issue. We appreciate the work of the NSB in helping to advance progress on strong digital research data policies and look forward to continuing to contribute to that process.

Sincerely,

A handwritten signature in dark ink, reading "Katherine S. McCarter" with a long horizontal flourish extending to the right.

Katherine S. McCarter
Executive Director and Publisher