- Arzberger P., P. Schroeder, A. Beaulieu, G. Bowker, K. Casey, L. Laaksonen, D. Moorman, P. Uhlir, P. Wouters. 2004a. Promoting Access to Public Research Data for Scientific, Economic, and Social Development. Data Science Journal 3, 135-152. www. jstage.jst.go.jp/article/dsj/3/0/135/_pdf
- Arzberger, P., P. Schroeder, A. Beaulieu, G. Bowker, K. Casey, L. Laaksonen, D. Moorman, P. Uhlir, and P. Wouters. 2004b. An International Framework to Promote Access to Data. Science 303:1777-1778. www.sciencemag.org/cgi/content/ full/303/5665/1777
- Conservation Commons. 2006. Joint Statement to the Parties to the Convention on Biological Diversity on Open Access to Biodiversity Data and Information conservationcommons.org/media/document/docuwdsvdq.pdf (See also www.conservationcommons. org/)
- IUCN. 2004. Sharing Information with Confidence -"The Biodiversity Commons": past experience, current trends and potential future directions. www. conservationcommons.org/media/document/docuh0xjc6.doc
- Max Planck Society. 2003. Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. www.zim.mpg.de/openaccess-berlin/berlindeclaration.html
- Ocean Biodiversity Informatics. 2005 Conference Statement (Hamburg 1st December 2004). www. vliz.be/obi/statement.php
- OECD Committee for Scientific and Technological Policy at Ministerial Level. 2004. Final Communique (29-30 January 2004): Science, Technology and Innovation for the 21st Century. www.oecd.org/ document/0,2340,en_2649_34487_25998799_1_1_ 1_1,00.html
- Open Society Institute. 2002. Budapest Open Access Initiative. www.soros.org/openaccess/read.shtml
- Research Councils UK. 2006. Updated position statement on access to research outputs. www.rcuk.ac.uk/cmsweb/downloads/rcuk/ documents/2006statement.pdf
- Wellcome Trust. 2005. Position statement in support of open and unrestricted access to published research www.wellcome.ac.uk/doc_WTD002766.html



GBIF and **Open Access**

GBIF

GLOBAL BIODIVERSITY INFORMATION FACILITY WWW.gbif.org

Secretariat Universitetsparken 15 DK-2100 Copenhagen Ø Denmark

Tel.: +45 35 32 14 70 Fax: +45 35 32 14 80 Email: info@gbif.org www.gbif.org



GBIF's Open Access Policy

GBIF's fundamental operating principle is free and open access to biodiversity data. To date, data providers in the GBIF network have mobilised over 125 million biodiversity records, which are freely and openly available at www.gbif.org for the benefit of science and society.

On 16 January 2006, the GBIF Governing Board adopted recommendations on open access to encourage research councils, other funding agencies and private foundations to:

- Promote that proposals for funding for biodiversity research include a plan for the maintenance and sharing of the digital biodiversity data generated in proposed projects; and
- Promote that species and specimen level data and associated metadata that are generated in funded projects are made publicly available through mechanisms cooperating with GBIF, within a specified period after completion of the supported research.

The rationale for the Governing Board's decision was that modern technologies have made the costs of data sharing marginal compared to the full costs of the research that generates the data. It is therefore wise to allow for further shared use of these data to benefit the widest possible range of users.

Why is Open Access to biodiversity data important?

Many biodiversity research projects generate datasets that are relevant for the wider scientific community, government natural resource managers, policy makers, and the public. The data are needed to address outstanding issues such as global climate change, the disappearance of species at the global level, and the 2010 target and indicators process.

The advantages of free and open data sharing have been documented (Arzberger et al. 2004a, 2004b, see overleaf). They include (but are not limited to): Fostering of new research, permitting the creation of new data sets when data from multiple sources are combined, reinforcing open scientific inquiry, encouraging diversity of analysis, and making possible the testing of new or alternative hypotheses.

Research data, in digital form, are increasingly being used in research endeavours beyond the original project for which they were gathered. This represents an unanticipated return on research investments made in the past, and is good reason to make open access to research data a worldwide policy.

Other open access initiatives

Many other organisations agree with GBIF that sharing data is good scientific practice and is necessary for the advancement of science, public awareness and education.

Expanded access to data sources could impressively increase the value to taxpayers of the more than \$650 billion spent annually by governments on all research disciplines (OECD 2004, see overleaf).

In December 2006, the OECD Council made a recommendation that public funding agencies should focus on promoting access to research data via digital, computer-readable formats. And, similarly to the GBIF Governing Board, the Council highlighted the need to consider data access and sharing regulations and practices in the formation of Member countries' science policies and programmes.

The UN **Convention on Biological Diversity** has called for more data and information for the effective implementation of its goals and work programmes. CBD COP Decision VIII/11, para. 3 invited:

Parties and other Governments, as appropriate, to provide free and open access to all past, present and future public-good research, assessments, maps and databases on biodiversity, in accordance with national and international legislation.

A number of similar recommendations and statements have been made by various governmental and intergovernmental bodies, as well as major conservation organisations, from around the world in recent years. A few of these are listed overleaf.

