

Standardizing Biodiversity
IUCN – OASIS Workshop on Biodiversity Conservation Standards
April 19, 2007
IUCN Headquarters – Gland, Switzerland

<http://www.oasis-open.org/events/OASIS-IUCNWorkshop2007/slides/OASIS-IUCN-Workshop-Communique.pdf>

Tackling the need for bioinformatics standards in conservation

Access to the best available data and information on biodiversity is an increasingly essential pre-requisite for sustainable development, through strategic decision making for governments to improving the work of international policy setting processes, along with improving operating requirements for many businesses. Much of this biodiversity data, however, is either not available or easily accessible, or not “visible” in ways relevant to a variety of users – both within and outside of the conservation community. While gaps in our knowledge on biodiversity remain, far greater barriers of fragmentation, access, and interoperability (along with the cost of manually gathering and integrating data which is available) often prohibits effective use of the large body of knowledge we have generated on biodiversity, and in particular how these assets help to secure livelihoods and sustainable development.

Common standards for the collection and exchange of biodiversity data will allow users to effectively leverage the data and information assets we already have, and stimulate the creation of new biodiversity data. Similar to recent successes in mainstreaming data on climate change into global policy making, improved access to and use of biodiversity data can help drive effective decision making in support of conservation. The Biodiversity Conservation Standards initiative of IUCN and the Conservation Commons, in partnership with OASIS, aims to streamline and significantly improve the way conservation data and information is created, integrated and disseminated by addressing the challenge of developing global interoperable biodiversity standards - harmonizing existing efforts and addressing the gaps that remain. This Biodiversity Conservation Standards effort will also help to address the growing demand for easier integration of biodiversity data with corporate decision support systems.

On April 19, 2007, 25 participants from 18 organizations met at IUCN Headquarters in Gland, Switzerland, to address the need for improved standards in the collection, exchange, and use of biodiversity data. Organized in conjunction with the Conservation Commons and drawing participation from conservation NGOs, the scientific community, along with government agencies and intergovernmental organizations, the meeting generated a groundbreaking exchange of views on this critically important, yet poorly understood, area of bioinformatics research in support of conservation.

Participants heard that a number of recognized standards currently exist in the conservation community, such as the IUCN Management Categories for Protected Areas and common vocabulary/ontology for taxonomy developed by Biodiversity Information Standards ([TDWG](#)). Many of these standards have been adopted by a broad range of organizations. However adoption is by no means universal, and current efforts have often not addressed issues of data exchange standards – resulting in many systems using these important conservation values and standards which cannot easily interoperate.

Priority focus areas for the development of new structured data standards include species conservation status, management effectiveness categories/ontology for protected areas, priority conservation site descriptors and status, as well as common vocabularies for conservation action and best practice. This work will also build on open standards developed in other fields, leveraging existing innovations wherever possible for conservation. These standards include geospatial data standards (Open Geospatial Consortium), global and regional species taxonomy standards, on-line publishing and referencing, Service Oriented Architectures and others.

A decision was taken during this meeting to take the next step towards forming a Biodiversity Conservation Member Section under OASIS and develop a work programme for this group. Participants emphasized that to ensure success and the effectiveness of this work, existing biodiversity standards efforts must be built upon and leveraged wherever possible. A meeting is being organized to move forward on this issue taking place at the end of June, 2007. The meeting will be hosted by [The Nature Conservancy](#) in Arlington, Virginia (USA).

About OASIS

[OASIS](#) (Organization for the Advancement of Structured Information Standards) is a member-led, international non-profit standards consortium focused on global e-business. OASIS drives the development, convergence and adoption of e-business standards. OASIS was founded in 1993, and now operates with over 500 member organizations and 5,000 participants in 80 countries. There are over 60 OASIS Technical Committees producing royalty-free and RAND standards. The open OASIS technical process is expressly designed to promote industry consensus and unite disparate efforts. OASIS cooperates with over 50 other standards and industry organizations to reduce duplication and promote interoperability for OASIS Standards.

About IUCN

The [World Conservation Union](#) is the world's largest and most important conservation network. The Union brings together 82 States, 111 government and inter-governmental agencies, more than 800 non-governmental organizations and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership. The Union's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. The World Conservation Union is a multicultural, multilingual organization with 1000+ staff located in 62 countries. IUCN is headquartered in Switzerland.

About the Conservation Commons

The [Conservation Commons](#) is a growing international cooperative effort of conservation organizations, research agencies, scientific institutions, and businesses committed to removing barriers in access to biodiversity data, more effectively connect practitioners to data and information assets, and develop and adopt standards for integrating these assets to support the generation of knowledge and best practice. Based on three fundamental Principles now endorsed by over 70 organizations, the purpose of the Conservation Commons is to ensure open access and fair use of data, information, and knowledge on the conservation of biodiversity.