MARTIN RIDDLE

Australia has contributed more than 350 000 observations to OBIS. Many more species from Australia's Antarctic Territory will be added, such as this orange cup sponge (*Gellius* sp.) when the Census of Antarctic Marine Life begins in 2007.

Biodiversity database

The Ocean Biogeographic Information System (OBIS) is a rapidly developing international marine science information service. Its main purpose is to manage and distribute biodiversity data that is being captured by the global Census of Marine Life Program. OBIS already provides public access to approximately 9 million taxonomic records and a variety of informatics tools, such as maps, images and models. By the end of the Census in 2010, the system will be a fully distributed, 4-D (the three dimensions of space plus time) global atlas of marine biological information, operated through a series of dispersed, but federated OBIS nodes (or web sites).

Almost from the inception of OBIS in 2002, the Australian Antarctic Division has contributed data to the system, through its Australian Antarctic Data Centre (AADC). Thus far, Australia's participation in the OBIS network has resulted in the contribution of over 350 000 Antarctic biodiversity observations covering taxa such as seals, whales and seabirds. The number and type of Antarctic species observations exposed through OBIS is set to explode in the next few years, as the Australian-led Census of Antarctic Marine Life (CAML) field project gets underway in 2007 (see page 21).

Species data and other marine observations sourced from CAML research will be channeled to OBIS, mainly through an Antarctic-themed node established in Belgium by the Scientific Committee for Antarctic Research (SCAR). This SCAR-OBIS node will collate data from the whole Antarctic region. Any Antarctic data originating from Australian research will also be accessible via the Australian Regional OBIS node which was established in late 2005. This node will present information from an Australian regional perspective and include data from museums, fisheries activities and ecological studies.

The AADC anticipates working in partnership with the CSIRO and the National Oceans Office, who manage the Australian node, to improve the quality and quantity of data entering OBIS from our region, and to develop new software tools for presenting data on the Australian OBIS web site. Of particular importance is the development of an on-line, regional taxonomic register of species names. This tool will allow us to compare observations and correctly identify when taxa of the same type are given different names. The names register will list synonyms, alternate names and provide a taxonomic hierarchy for all marine species discovered in the region.

Information available through OBIS will aid our understanding of collective patterns in biodiversity, such as species relationships, food web structure, and effects of climate change on ecosystems. OBIS will also be used to reveal interesting spatial and temporal biodiversity patterns, generate new hypotheses about global marine ecosystems, and guide future marine field expeditions. The on-line, digital atlas developed by OBIS is expected to underpin societal and governmental decisions on how to harvest and conserve marine life.

Further information
OBIS <http:// www.obis.org>
OBIS (Australia) <http:// www.obis.org.au>
SCAR-OBIS <http:// www.scarmarbin.be>

—KIM FINNEY
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