

Working Group 7: In-situ / remote sensing integration through modelling

Membership (nominal and active)

* = 'active members', i.e. those who contributed to or provided feedback on drafts of the implementation plan section, and/or participated at Asilomar, and/or have been involved in WG7-related activities post-Asilomar.

Simon Ferrier (Lead, CSIRO, Australia)*, Rob Alkemade (PBL, Netherlands)*, Susana Baena (Kew Gardens, UK)*, Graeme Buchanan (RSPB, UK)*, Dan Faith (Australian Museum, Australia)*, Martin Herold (University of Jena, Germany), Michael Jennings (University of Idaho, USA)*, Walter Jetz (Yale University, USA)*, Jeremy Kerr (University of Ottawa, Canada)*, John Leathwick (NIWA, New Zealand), Terry Parr (CEH, UK)*, Roland Pitcher (CSIRO, Australia)*, Florencia Sangermano (Clark University, USA)*, Jörn Scharlemann (WCMC, UK)*, Paul Somerfield (Plymouth Marine Laboratory, UK), Woody Turner (NASA, USA)*

Current activities

Working Group 7 has struggled to maintain cohesiveness and momentum since Asilomar, partly because of competing demands on members' time (especially the lead!), but also because of uncertainty regarding the ongoing role of GEO BON working groups in seeking funds, and establishing high-level partnerships – both crucial prerequisites to commencement of the work proposed in the Implementation Plan (see 'Barriers to progress' below).

While none of the eight activities specified in WG7's section of the Implementation Plan has yet commenced formally (i.e. with dedicated funding and/or formally established partners), individual WG members are making some progress on aspects of this work through other means, for example:

- Several WG7 members (Walter Jetz, Woody Turner, Simon Ferrier, Florencia Sangermano) are now actively involved in an NCEAS 'Environment and Organisms' Working Group, identified in the GEO BON Implementation Plan as performing a key role in preparing and providing the base environmental layers required to model global change in compositional diversity.
- These same members are also involved in a BioSync Working Group associated with the Map of Life initiative lead by Walter Jetz (WG7 member) and Rob Guralnick (University of Colorado), also identified in the Implementation Plan as performing a key role in integrating global species distribution models and range maps for use in modelling global change in compositional diversity.
- Simon Ferrier and Dan Faith are preparing an 'early product' output for inclusion in the GEO BON showcase at the November GEO Ministerial. This is using recently completed analyses for the Australian continent to demonstrate a new approach to estimating global change in compositional diversity through integrated modelling of in-situ and remote sensing data (as proposed in the Implementation Plan).
- Simon Ferrier has also been invited to write a Viewpoint article for BioScience (to be submitted by mid-Aug) on global challenges and opportunities for using modelling to integrate in-situ and remote sensing data as part of GEO BON (this invitation resulted from the Implementation Plan being read by the Chief Editor of BioScience).

Priorities for 2010/11, deliverables, and milestones

All eight activities proposed in the Implementation Plan are indicatively scheduled to commence in 2010/11. However, detailed deliverables and milestones for these activities have

not yet been developed. Only one of the activities is scheduled for completion before the end of 2011 – i.e. *Activity 7.3.1 Comprehensively review model-based integration needs, capabilities, opportunities and priorities* – and this should therefore probably be treated as the highest priority for commencement.

Barriers to progress and proposed solutions

Barriers to progress: Lack of clarity regarding the ongoing role of GEO BON working groups (relative to the GEO BON Steering Committee and ‘secretariat’) following development of the Implementation Plan (which was the original reason for forming these groups) – particularly around issues of funding, and establishment of high-level partnerships – i.e. to what extent will GEO BON funding be sought, and major partnerships established, through a single, coordinated ‘whole of GEO BON’ approach, as opposed to eight parallel efforts?

Suggested solution: The GEO BON Steering Committee should formulate, and communicate, a clear position on the respective roles of the Steering Committee, the ‘secretariat’, and the working groups around issues of funding, and establishment of high-level partnerships.

Key partnerships that need to be developed

DIVERSITAS BioDiscovery program, UNEP-WCMC, GBIF, IUCN, Map of Life Initiative, etc, etc.