

## Monitoring conservation outcomes inside and outside protected areas Stream 1, World Parks Congress, 17 November Monday 8:30-12:00

### Session chairs

- Eren Turak - Group on Earth Observations Biodiversity Observation Network (GEO BON) and NSW Office of Environment and Heritage (OEH) - [eren.turak@environment.nsw.gov.au](mailto:eren.turak@environment.nsw.gov.au)
- Noëlle Kumpel - Zoological Society of London (ZSL) - [noelle.kumpel@zsl.org](mailto:noelle.kumpel@zsl.org)

### Summary:

There are currently no widely-accepted, standardised, real-time indicators of the state of biodiversity that allow management effectiveness of protected areas to be measured in terms of biodiversity outcomes. This block will evaluate options for indicators (including whether they be species- or ecosystem-based and simple or derived) and monitoring systems (such as remote sensing to track land cover change, camera trapping or patrol-based monitoring by wildlife rangers, concession staff and local communities to detect species trends, and involvement of citizen scientists and new technological tools to assist in some of these efforts) that can be employed in an Essential Biodiversity Variables (EBVs) framework to track the state of biodiversity inside and outside protected areas. Higher-level indicators include relevant derivations of the Living Planet Index to show population trends and Important Bird and Biodiversity Area indices based on monitoring at sites. Many of these are protected areas of state, pressure and responses which use data from species of conservation concern.

### Session1

**Monday 17 November 8:30 am -10:00 am, Southee North room**

#### Section 1: Introductory presentations

- 8:30-8:40 A framework for monitoring inside and outside protected areas: Eren Turak, GEO Biodiversity Observation Network (GEOBON) and NSW Office Of Environment and Heritage (OEH), [eren.turak@environment.nsw.gov.au](mailto:eren.turak@environment.nsw.gov.au)
- 8:40-8:50 Outlook on monitoring status and trends of protected areas across the world by 2020 and beyond. Jonathan Baillie, Zoological Society of London, [Jonathan.Baillie@zsl.org](mailto:Jonathan.Baillie@zsl.org)

#### Section 2: Key topic presentations.

- 8:50- 9:00 In situ data collection for monitoring biodiversity outcomes inside and outside protected areas Melodie McGeoch, Monash University, [melodie.mcgeoch@monash.edu](mailto:melodie.mcgeoch@monash.edu)
- 9:00-9:10 Remote and *in situ* sensing networks: monitoring protected area effectiveness through integrated biodiversity observations and modelling . Woody Turner, NASA, [woody.turner@nasa.gov](mailto:woody.turner@nasa.gov)
- 9:10-9:20 Organising evidence for biodiversity: Informatics progress and challenges. Donald Hobern, Global Biodiversity Information Facility, [dhobern@gbif.org](mailto:dhobern@gbif.org)

- 9:20-9:30 Indicators (Driver Pressure State Impact Response (DPSIR) indicators at different scales). Lincoln Fishpool, Birdlife International, [Lincoln.Fishpool@birdlife.org](mailto:Lincoln.Fishpool@birdlife.org)
- 9:30-9:40 Adaptive monitoring (linking monitoring to adaptive management). David Keith, NSW Office of Environment and Heritage, [david.keith@environment.nsw.gov.au](mailto:david.keith@environment.nsw.gov.au)
- 9:40-9:50 Modelling and forecasting. Simon Ferrier, Commonwealth Scientific Industrial Research Organisation (CSIRO), [Simon.Ferrier@csiro.au](mailto:Simon.Ferrier@csiro.au)

### Section 3: Applications

These presentations will have two parts. Two minute speed presentations given will be given in the plenary followed by demonstration presentations where presenters move to a table assigned to them and use media and resources of their choice to present their work.

- 9:50-9:52 Introduction to applications (session chair)

#### Applications part 1: speed presentations

- 9:52-9:54 Tasmania's Monitoring and Reporting System for National Parks and Reserves – making monitoring relevant, reliable, accessible and resilient. Glenys Jones, Tasmania Parks & Wildlife Service, [glenysjones@netspace.net.au](mailto:glenysjones@netspace.net.au)
- 9:54-9:56 Global Forest Watch: Real-Time Monitoring and Action for the World's Protected Areas. Rachel Petersen, World Resources Institute USA, [rpetersen@wri.org](mailto:rpetersen@wri.org)
- 9:56-9:58 Showcasing SMART: a tool for improving effectiveness of wildlife protection. Alexa Montefiore, The SMART Partnership, [amontefiore@smartconservationtools.org](mailto:amontefiore@smartconservationtools.org) (Key topic: adaptive monitoring).
- 9:58-10:00 The role of citizen science in biodiversity monitoring. Chris Gillies, The Nature Conservancy, [chris.gillies@tnc.org](mailto:chris.gillies@tnc.org).
- 10:00-10:30 Break

### Session 2

#### Monday 17 November 10:30 am-12:00 pm Southee North room

##### Applications part 2: speed presentations (continued)

- 10:30-10:32 Potential for applying the Essential Biodiversity Variables Framework in Several Protected Areas. Margarita Goumas, Parks Australia, [Margarita.Goumas@environment.gov.au](mailto:Margarita.Goumas@environment.gov.au), and Eren Turak, NSW Office of Environment and Heritage, [eren.turak@environment.nsw.gov.au](mailto:eren.turak@environment.nsw.gov.au)
- 10:32-10:34 Global Freshwater Biodiversity Atlas. Jörg Freyhof, German Centre for Integrative Biodiversity Research (iDiv), [joerg.freyhof@idiv.de](mailto:joerg.freyhof@idiv.de)

- 10:34-10:36 A Biodiversity Indicators Dashboard: addressing challenges to monitoring progress towards the Aichi Biodiversity targets using disaggregated global data. Healy Hamilton, Natureserve, [Healy\\_Hamilton@natureserve.org](mailto:Healy_Hamilton@natureserve.org)
- 10:36-10:38 A broad scale multi-species fauna monitoring program using camera traps. Peter Stathis, NSW National Parks and Wildlife Service, [Peter.Stathis@environment.nsw.gov.au](mailto:Peter.Stathis@environment.nsw.gov.au)
- 10:38-10:40 An integrated monitoring system of Manu National Park: A low-cost tool for measuring success in achieving conservation goals. Ernesto Escalante, Servicio Nacional de Areas Naturales Protegidas (SERNANP), Peru, [eescalante@sernanp.gob.pe](mailto:eescalante@sernanp.gob.pe)
- 10:40-10:42 Rapid Biodiversity Assessments (BIORAP) Processes and Potential Biodiversity Conservation Benefits. Bruce Jefferies, [brucejefferies@xtra.co.nz](mailto:brucejefferies@xtra.co.nz)
- 10:42-10:44 Digital Observatory for Protected Areas (DOPA). Gregoire Dubois, European Commission - Joint Research Centre, [gregoire.dubois@jrc.ec.europa.eu](mailto:gregoire.dubois@jrc.ec.europa.eu)
- 10:44-10:46 Instant Wild: advances in conservation technology for monitoring conservation outcomes. Craig Bruce, Zoological Society of London, [craig.bruce@zsl.org](mailto:craig.bruce@zsl.org) and Jason Sierra, Seven Technologies Group [jason.sierra@7techgroup.com](mailto:jason.sierra@7techgroup.com) (Key topics: in-situ monitoring, remote sensing, indicators, adaptive monitoring).
- 10:46-10:48 The Aichi Targets Passport 2014: Monitoring progress towards the Aichi Biodiversity Targets. Brian MacSharry, United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC), [brian.macsharry@unep-wcmc.org](mailto:brian.macsharry@unep-wcmc.org)
- 10:48-10:50 Monitoring, outcome assessment and adaptive management of protected areas, cases from China. Wang Hao. Center for Nature and Society Peking University, Beijing, China. Email: [wanghao@pku.edu.cn](mailto:wanghao@pku.edu.cn)

10:50-11:20 **Applications Part 2:** Interactive presentations.

11:20 - 11:50 Section 4: Panel discussion

This discussion will enable comments to be made on all presentations. It will be guided by the panel (session chairs plus the key topic presenters) towards a synthesis.

**11:50 12:00 Section 5: Wrap up**

This presentation will aim to synthesise the ideas and methods from speed presentations and the panel discussion and link these to the introductory and key topic presentations. It will give an indication of what is likely to be presented to the stream leadership for integration as results in the sub-plenary.