



Cambridge, 19-20 Jul 2010  
SC meeting

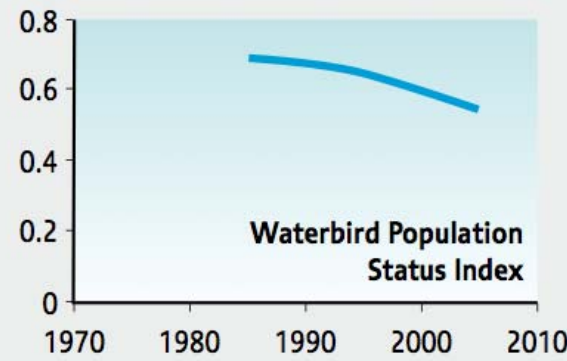
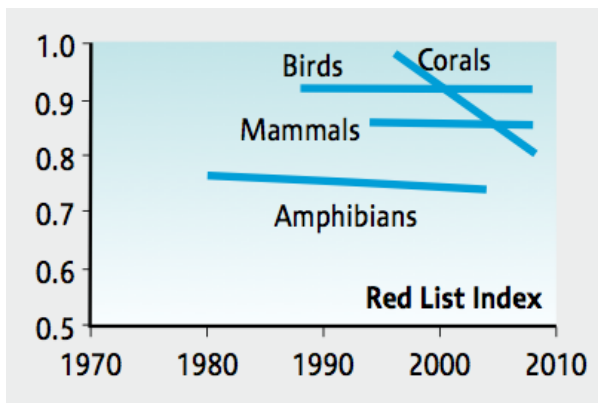
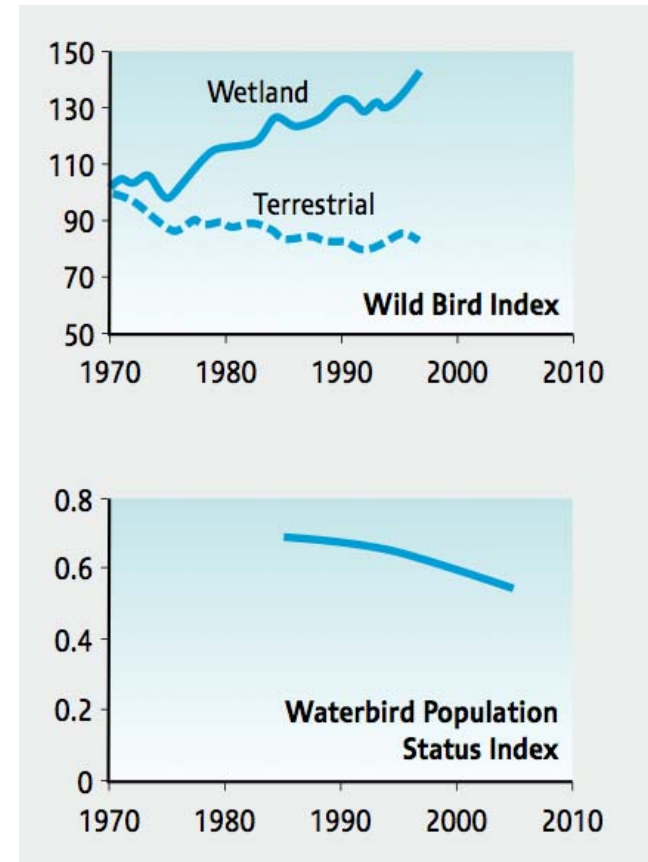
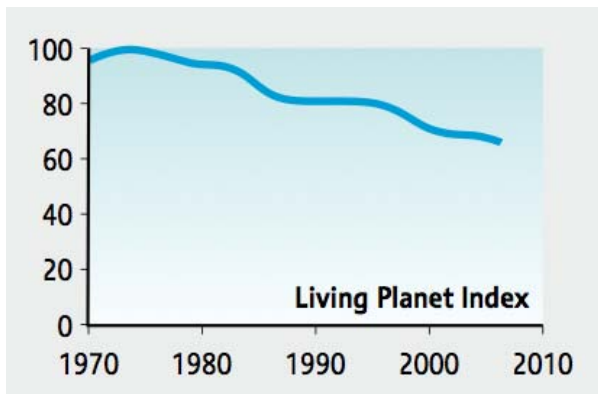
# Implementing GEO-BON: Plans for monitoring terrestrial biodiversity at the species level

Henrique Miguel Pereira  
Center for Environmental Biology, University of Lisbon



# The problem

- ▶ We still have limited knowledge of what is happening to biodiversity at the global scale



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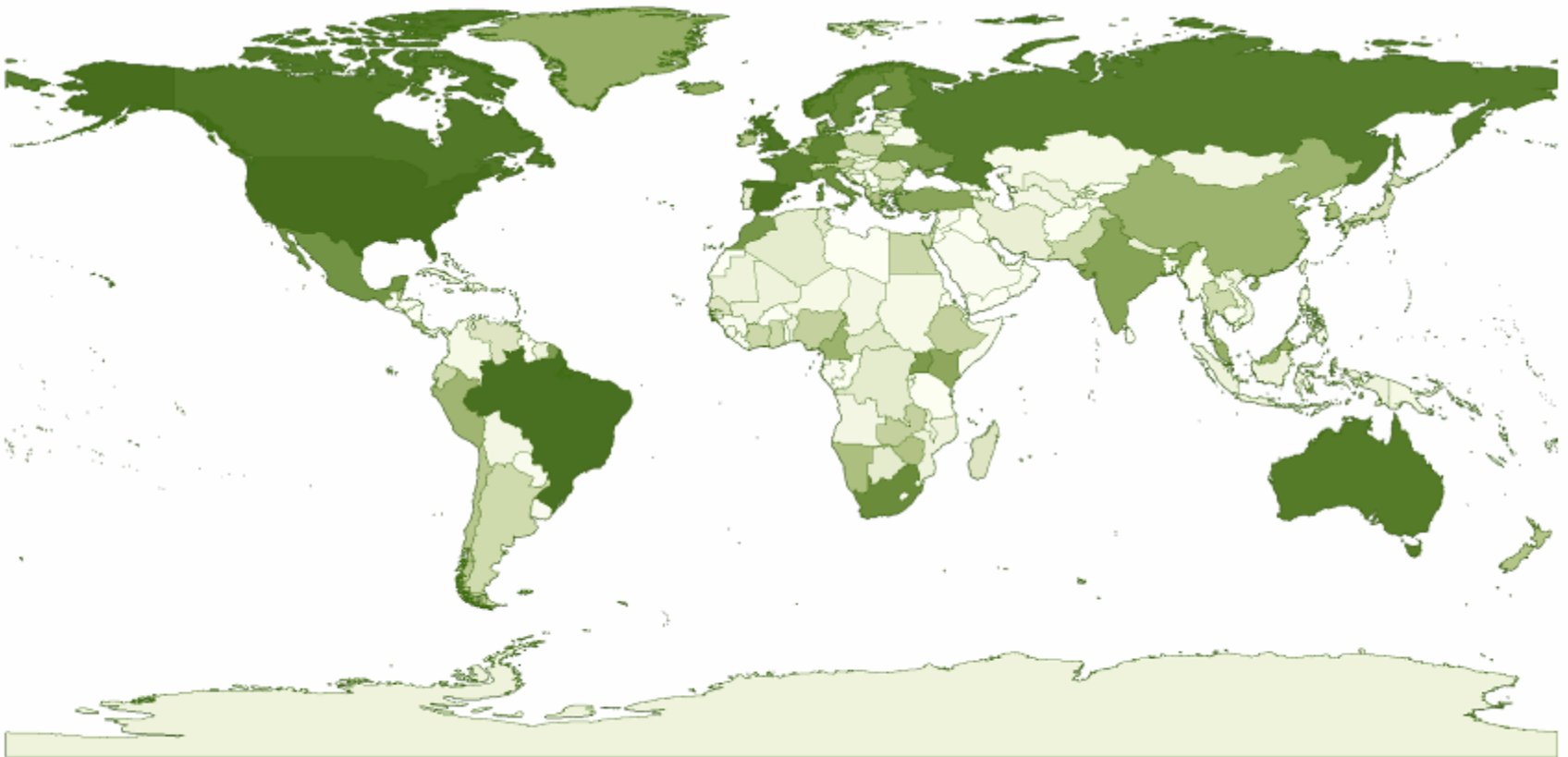
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# Living Planet Index: Species Populations per Country

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Values ranging from 0 (brightest color) to 368 (darkest color)



# Goals of GEO-BON

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- ▶ Global monitoring changes in species distribution and abundance
    - ▶ Selected taxa
      - ▶ Birds, Other Terrestrial Vertebrates, Butterflies, and Plants
    - ▶ Monitor both common and threatened species in each group
    - ▶ Harmonization and protocol guidance of abundance data
    - ▶ Sampling scheme taxa based (extensive site coverage) and not site based
    - ▶ Rather than duplicating existing in-situ monitoring efforts, GEO BON seeks to complement and coordinate these efforts
    - ▶ Integrate spatial species monitoring with spatial data on
- 
- ▶ 5 drivers of ecosystem services

# A common framework

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## ▶ Goal:

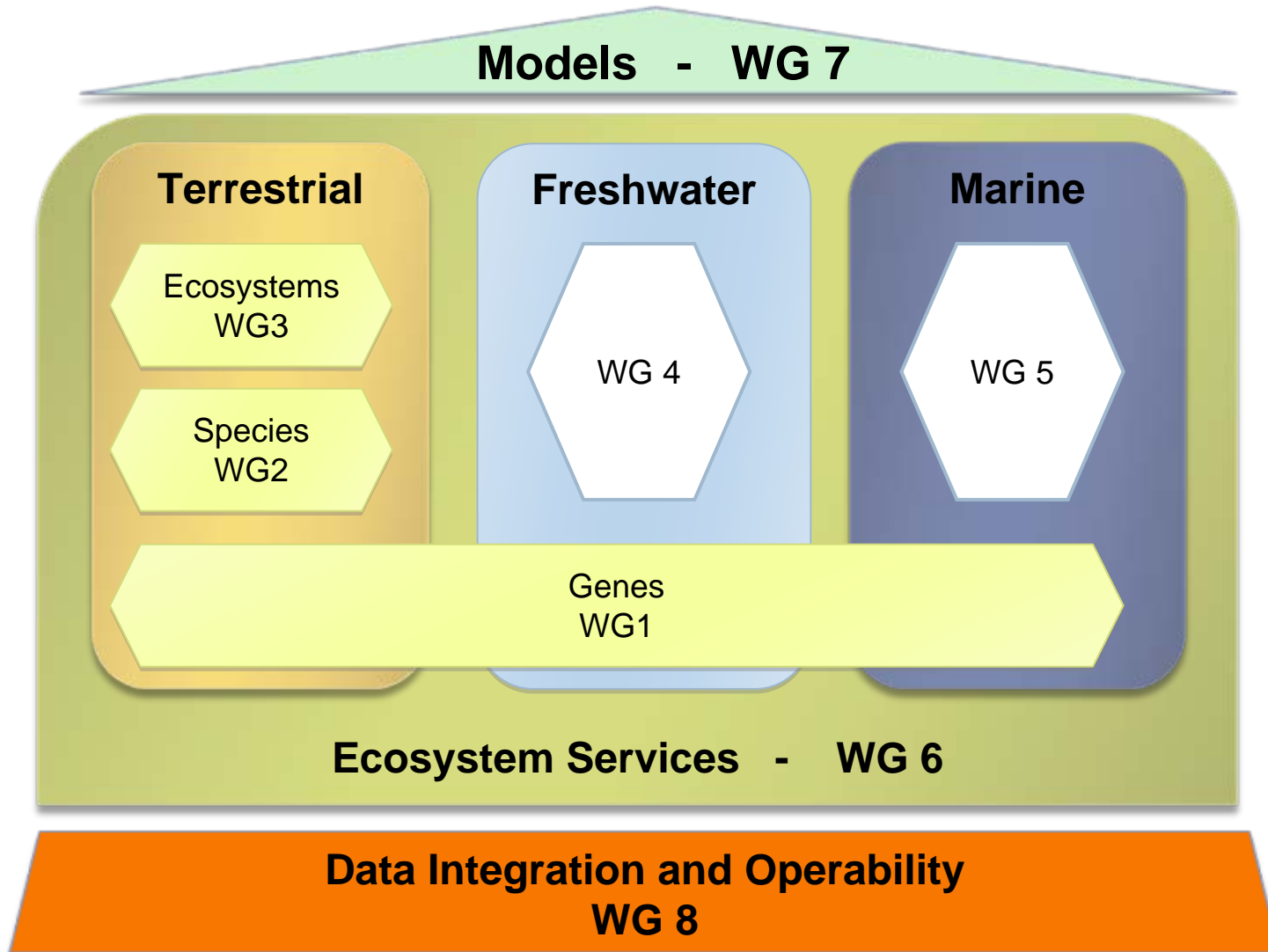
- ▶ Trends and SE for each species population in the target groups
  - ▶ Per country
  - ▶ Per environmental stratum
  - ▶ Grid based
- ▶ Common versus threatened species
- ▶ Intensive versus extensive
- ▶ Using historical data

# Next steps

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- ▶ (1) Publish book and website on standard protocols
  - ▶ Springer has agreed to publish a book with the results of this workshop, which will be developed in collaboration with WG5 Ecosystem Services and WG 3 Terrestrial Ecosystems
- ▶ (2) Publish one FEE letter on why we need to develop terrestrial species monitoring and one PLOS paper on the strategy.
- ▶ (3) Develop regional pilot projects in Africa, South America and Asia, involving 5 countries in each region, to implement bird, mammal, plants and butterflies monitoring schemes

# Linkages to other WGs



# Implementation Partners

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- ▶ Birdlife International, International Waterbird Census, North America Bird Conservation Initiative
- ▶ IUCN, WWF, Conservation International, NatureServe, ZSL
- ▶ USGS
- ▶ Butterfly Conservation Europe, North America Butterfly Association
- ▶ Royal Botanic Gardens, Missouri Botanical Garden, Natural History Museum, Muséum National d'Histoire Naturelle, Komarov Botanical Institute, New York Botanical Garden
- ▶ NEON, ILTER, Australian Centre for Ecosystem Analysis and Synthesis, Terrestrial Ecosystem Research Network, EBONE, LifeWatch
- ▶ GBIF
- ▶ CBD
- ▶ Diversitas
- ▶ And others

# Coordination and schedule

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- ▶ Working groups would be established for each activity during 2010-2011
- ▶ Regional workshops would be organized in 2011 and 2012
- ▶ Implementation 2012-2020
- ▶ Major trend analysis by 2014 in Europe/North America and by 2018 in the rest of the world

# Barriers

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- ▶ Data property rights
- ▶ Differences in sampling designs and monitoring protocols
- ▶ Agreement on responsibilities for monitoring in each nation and how the budget should be shared among developing and developed nations