

# Communiqué of the Inter-Academy Panel Biodiversity Conference

Alastair Fitter & Georgina Mace

Royal Society

University of York/Imperial College

# The science of biodiversity

- Biodiversity is declining globally and locally
- Biodiversity determines whether an ecosystem can deliver the broad range of services on which all people depend
  - Some services less dependent on biodiversity in short term (e.g. biomass production, flood protection)
  - In a changing environment, biodiversity enhances resilience
- Delivery of multiple services from land increasingly necessary: requires optimisation of multiple services not maximisation of a single service
  - Increasingly urgent as food production may need to increase by up to 200% over next 50 years alongside increasing demand for water and energy, carbon storage etc
  - Multiple service delivery requires high biodiversity
- There are clear priorities for biodiversity and ecosystem management to meet the most important and vulnerable services
  - cf. EASAC report
  - <http://royalsociety.org/EASAC-Ecosystem-services-and-biodiversity-in-Europe/>

# Value of biodiversity

- Biodiversity has intrinsic value
  - Biodiversity conservation needs to have its own agenda and priorities
- Biodiversity also part of natural capital
  - distinct from manufactured, knowledge, human, social capital
  - new methods of valuation need to be brought into economic mainstream
  - inclusive wealth per capita currently declining in many countries because natural capital not valued
  - misleading and will have perverse consequences

# Linked agendas

- Biodiversity loss, climate change, ecosystem change and food security are linked problems
- Solutions are closely related and must be addressed jointly and coherently
- New and inter-disciplinary research is urgently needed to provide solutions – message to all IAP members
- Solving biodiversity loss must be achieved at all scales from local to global