Acquisition, validation, quality control and access to biodiversity data -

Training course for less experienced users of data products

Defining biodiversity in policy

An introduction on the use of biodiversity in policy

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Definitions

Policy: "*non-binding, guiding principles, usually for specific sectors (e.g. fisheries, forestry) that outline the government's intentions in relation to international obligations and national development*"

Legislation: "statutory law'

For this workshop we will use 'policy' to refer to legislation as well as general principles, agreements, obligations.

Policy can operate at various levels

- Local
- Regional (multiple definitions e.g. national vs EU)
- National
- Supranational (e.g. EU)
- International

National Policy UK example:

Primary legislation: *An Act of Parliament creates a new law or changes an existing law. An Act is a Bill approved by both the House of Commons and the House of Lords and formally agreed to by the reigning monarch (known as Royal Assent).* **e.g. UK Marine & Coastal Access Act (2009)**

Secondary (Delegated) legislation: *"concerned with detailed changes to the law made under powers from an existing Act of Parliament. (usually via Statutory instruments but also Rules or Codes of Practice).* **e.g. byelaw for temporary fishery closure.**

CORNWALL INSHORE FISHERIES AND CONSERVATION AUTHORITY

MARINE AND COASTAL ACCESS ACT 2009

Fal Shellfish Fishery

River Fal emergency byelaw March 2015

Regulations: *a binding legislative act that must be applied in its entirety across the EU.* e.g. REGULATION 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport

Directives: *a legislative act that sets out a goal that all EU countries must achieve. It is up to the individual countries to decide how* ***(via transposition).*** e.g. MSFD, WFD.

Decisions: *A "decision" is binding on those to whom it is addressed (e.g. an EU country or an individual company) & is directly applicable.* e.g. Commission Decision (September 2010) on criteria and methodological standards on good environmental status of marine waters

Recommendations: *A "recommendation" is not binding. A recommendation allows the institutions to make their views known and to suggest a line of action without imposing any legal obligation on those to whom it is addressed.*

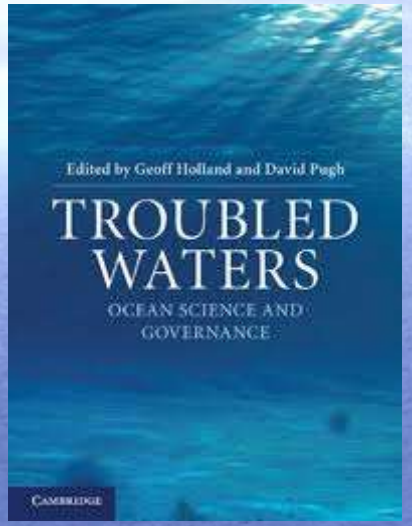
Opinions*: allows the institutions to make a statement in a non-binding fashion, in other words without imposing any legal obligation on those to whom it is addressed. An opinion is not binding.*

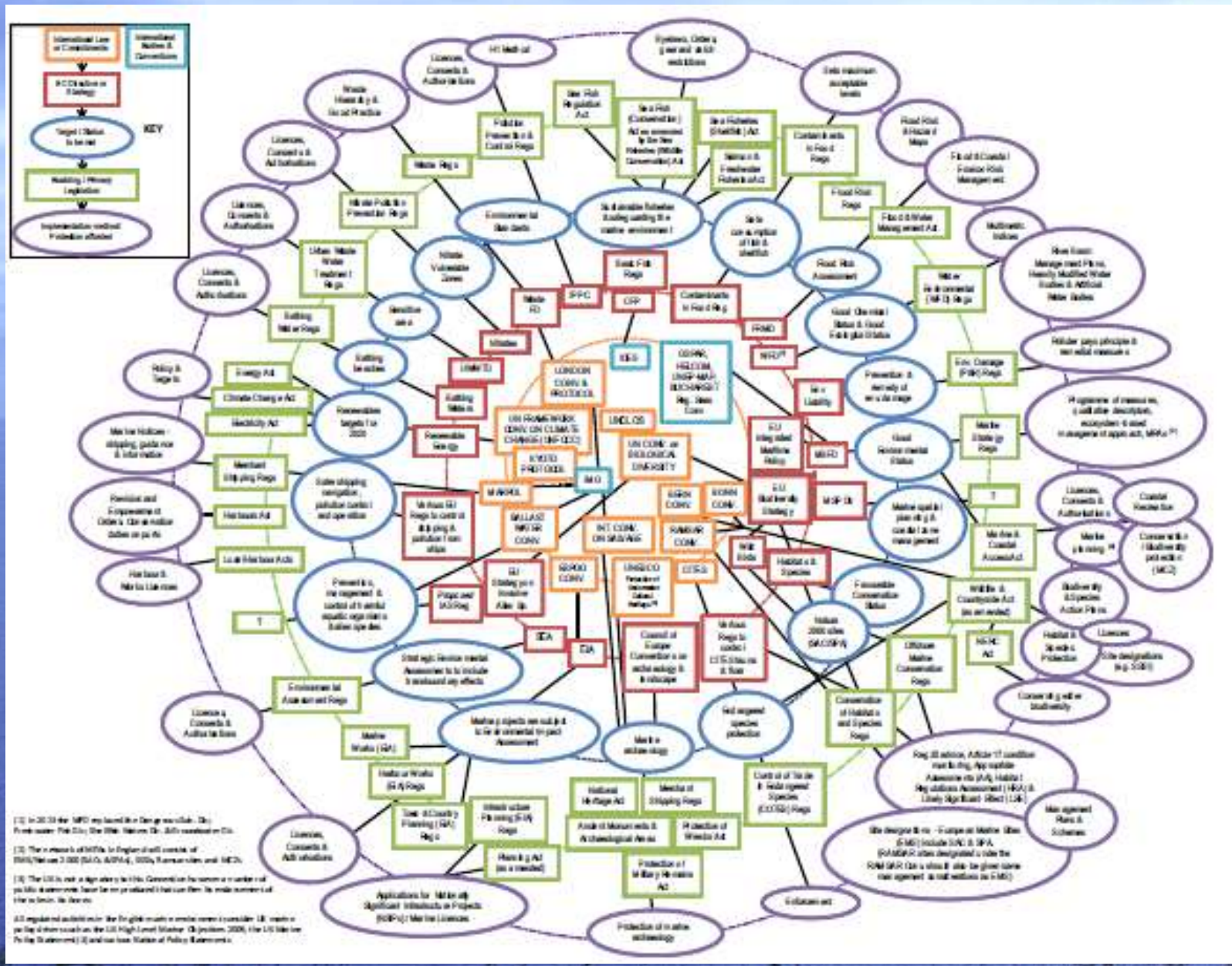
http://europa.eu/eu-law/decision-making/legal-acts/index_en.htm

- Complex, controversial (UN, ICJ), hot topic (CC, high seas exploitation, territorial claims, whaling)
- Treaties, protocols, conventions etc.
- Marine environment examples include:
  - *The Convention for the Protection of the Marine Environment of the North-East Atlantic (Ospar Convention)*
  - *The United Nations Convention on the Law of the Sea (UNCLOS).*

Training Manual on International Environmental Law

http://www.unep.org/environmentalgovernance/Portals/8/documents/training_Manual.pdf





Biodiversity:

- Term “biological diversity” 1st used 1968 (A Different Kind of Country by Raymond F. Dasmann).

- Term “biodiversity” coined by Walter Rosen 1985

- ‘biodiversity’ popularised by Wilson (BioDiversity, 1988, Ed. E. O. Wilson)

- Term “*transformed from a bit of scientific esoterica into a buzzword of popular culture. In 1988, biodiversity did not appear as a keyword in Biological Abstracts, and biological diversity appeared once. In 1993, biodiversity appeared 72 times, and biological diversity 19 times*” (David Takacs, The Idea of Biodiversity: Philosophies of Paradise,1996).

Biodiversity:

- Enshrined in law in Convention on Biological Diversity (1992):

Article 2: The variability among living organisms from all sources […] and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems

- CBD important to scientists / conservationists BUT:
  - Gallup survey 2007: 64% of EU citizens had either never heard of the word (34 %) or had no idea what it meant (30 %).
  - "a grim litany of near complete failure" (2010 targets) + failure of MPA 2012 targets (De Santo, E, 2013. J. Env. Man.124: 137-146)

Biodiversity:

- Growth in legislation:

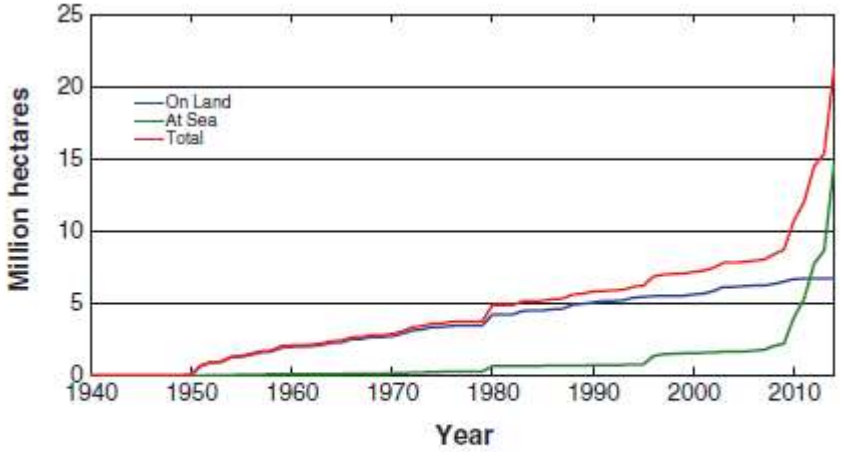
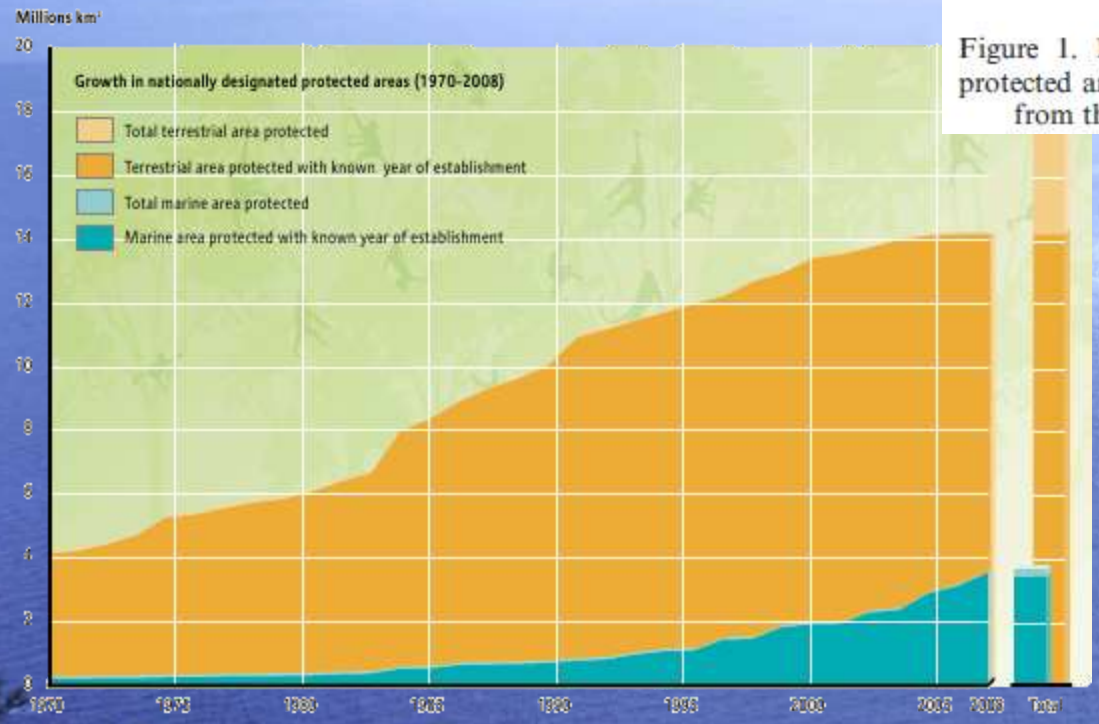


Figure 1. Extent of UK nationally and internationally important protected areas: on-land and at-sea, 1950 to 2014. This is reproduced from the JNCC website: http://jncc.defra.gov.uk/page-4241.

Source: UNEP-WCMC (2010) Global Biodiversity Outlook 3.



Source: Frost et al 2016. Aquat. Cons. Mar. & Fresh. Eco. DOI: 10.1002/aqc.2628

Biodiversity data needs, policy:

- Marine (Spatial) Planning (spatially explicit information)
- Marine Protected Areas (designation, location, management, state and impact assessment)
- Marine Resource Management (e.g. fisheries)
- Target / objective setting including baselines(indicators, response to drivers/pressures, time-series)
- General legislative implementation (‘evidence-informed’ policy)

Example:

- Basic data layers (species distribution data) for protected areas and conservation planning

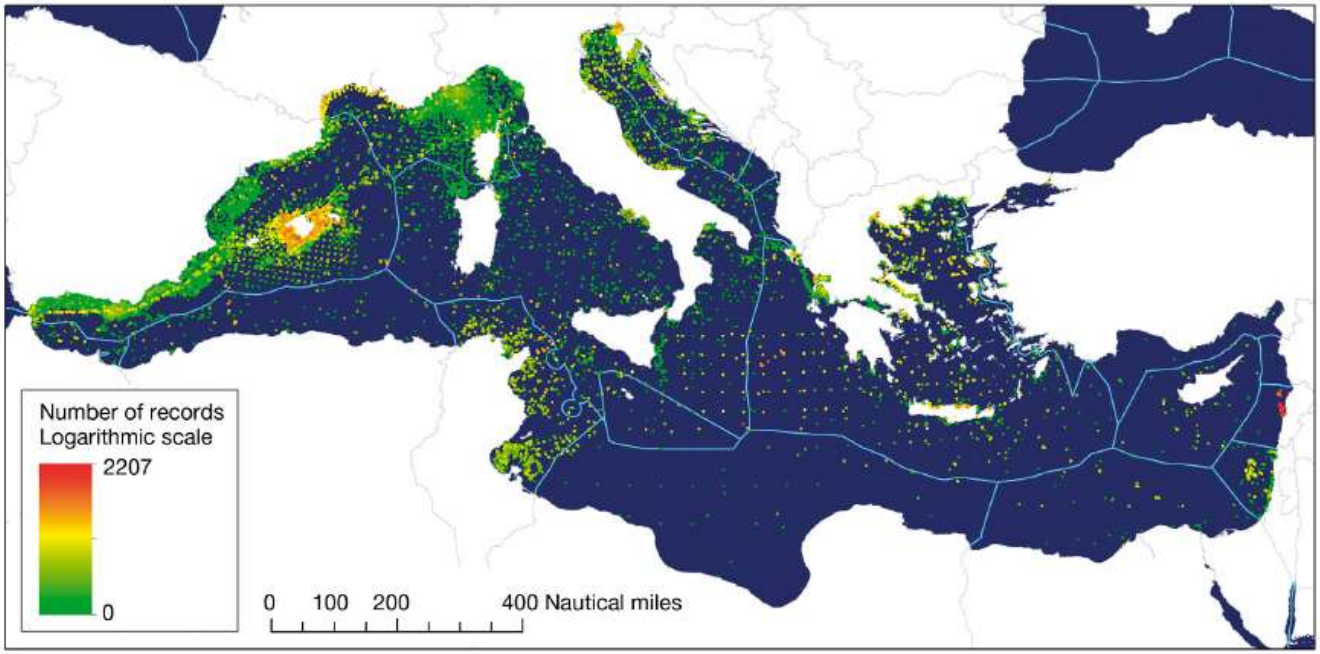


Fig. 4. Number of data records available for the Mediterranean Sea based on the Ocean Biogeographic Information System. Source: www.iobis.org/mapper

Levin et al (2014). Biodiversity data requirements for systematic conservation planning in the Mediterranean Sea. MEPS: 508: 261–281

To be continued….

- Final lectures will look in more detail at use of data for policy with focus on MSFD and marine protected areas.