Proteus Partners Meeting 2013

Houston, TX, USA


Future direction of the Integrated Biodiversity Assessment Tool (IBAT)

Priority Conservation Areas and Integrated Data

Jon Hutton, IBAT Chair

ibat | FOR BUSINESS
Integrated Biodiversity Assessment Tool

proteus
partners for a wiser world

ibat | FOR BUSINESS
Integrated Biodiversity Assessment Tool

The IBAT brings together protected area data *and* spatial data about threatened and endangered species

It is a product of a unique partnership….

BirdLife INTERNATIONAL
CONSERVATION INTERNATIONAL
IUCN
UNEP
WCMC

ibat | FOR BUSINESS
Integrated Biodiversity Assessment Tool

Decisions affecting critical natural habitats are informed by the best scientific information and in turn decision makers support the generation and maintenance of that scientific information.

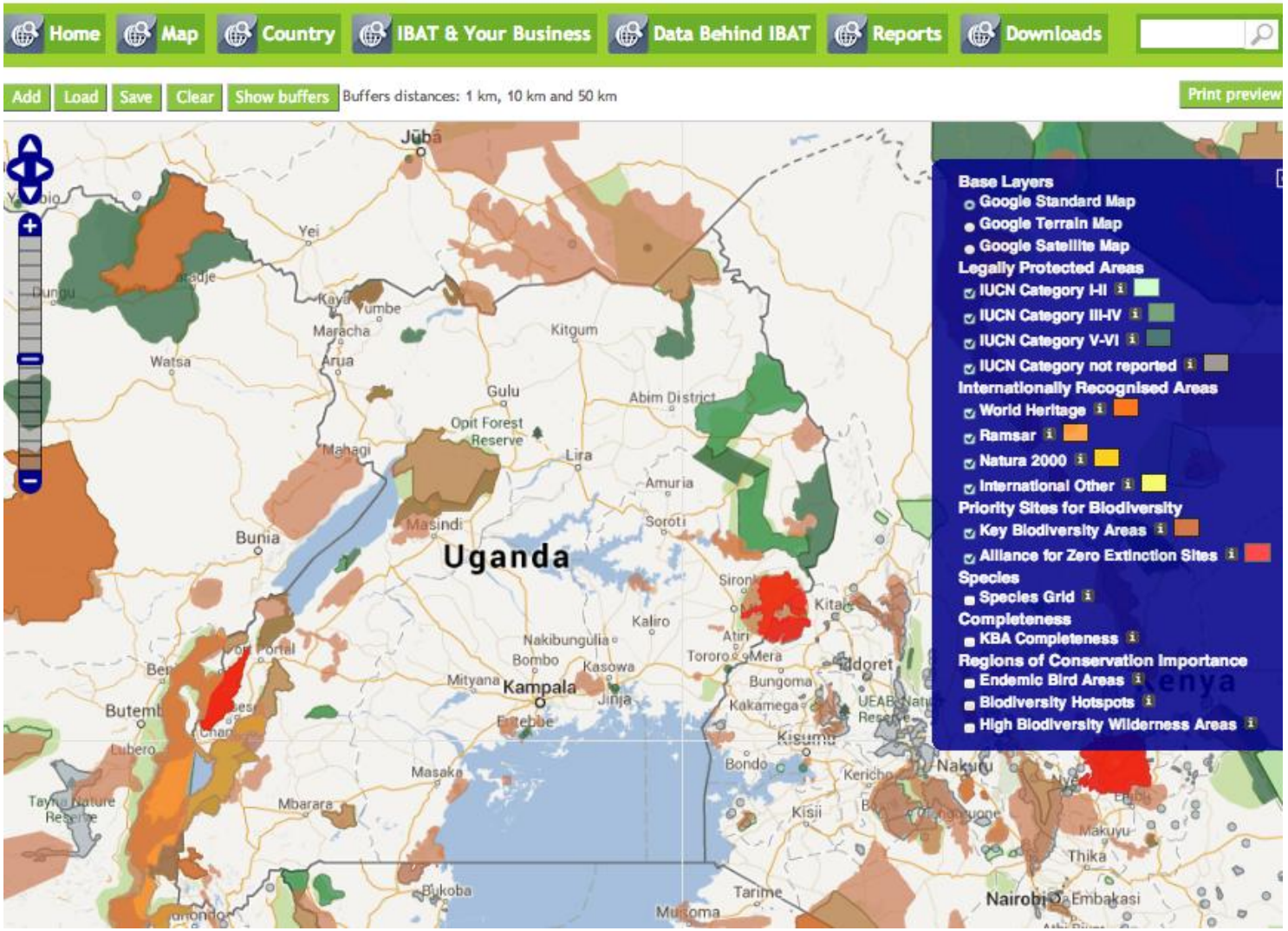
BirdLife INTERNATIONAL
CONSERVATION INTERNATIONAL
IUCN
UNEP WCMC

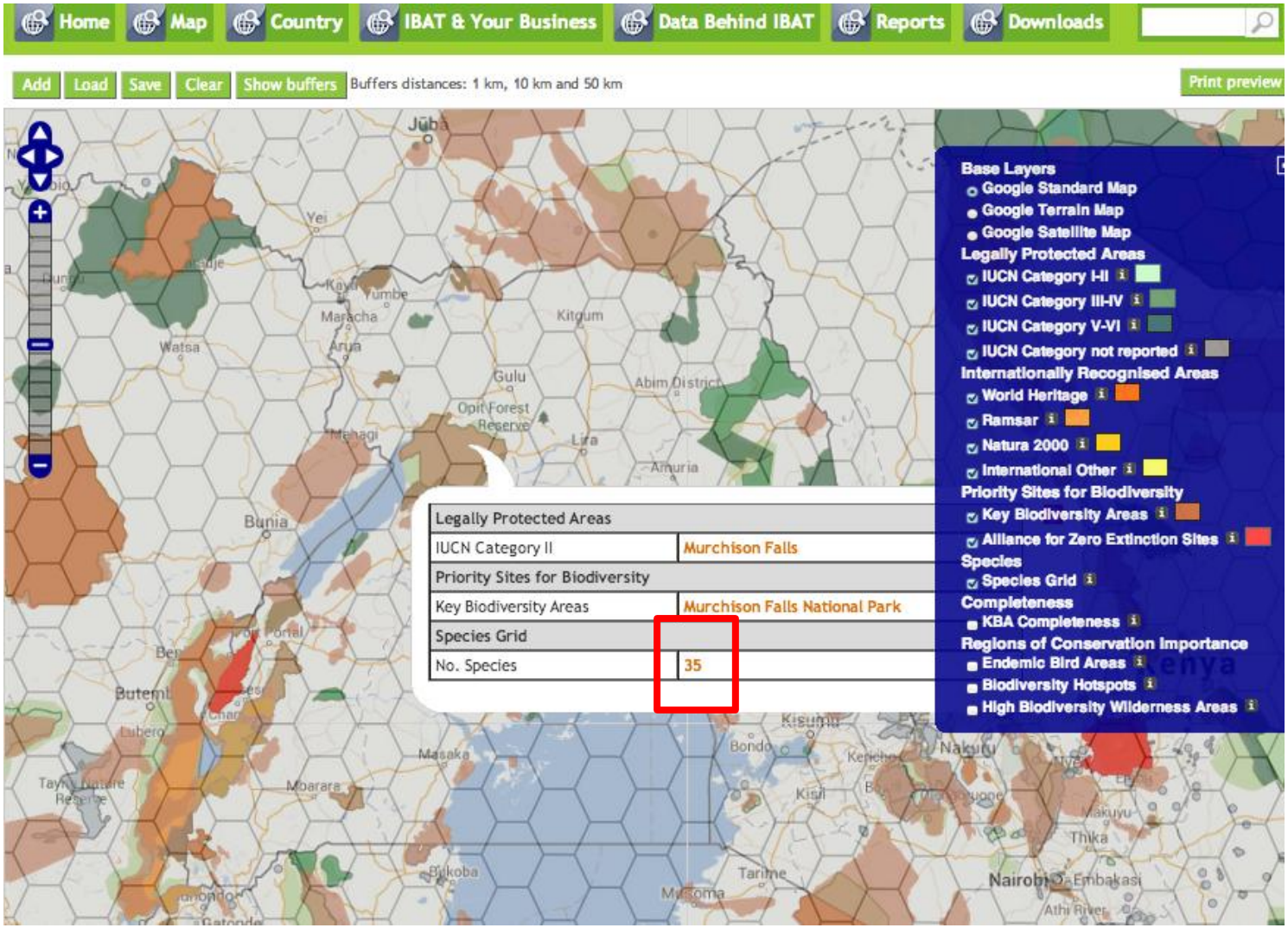
From a Proteus perspective…

IBAT is the principal vehicle for delivery of Objective 2:

Information on sites of global importance for biodiversity

- World Heritage Sites, Ramsar Sites etc
- National Protected Areas IUCN Category I-VI
- Key Biodiversity Areas
- Threatened/Endangered Species location (grid)


Home
Map
Country
IBAT & Your Business
Data Behind IBAT
Reports
Downloads
Add
Load
Save
Clear
Show buffers
Buffers distances: 1 km, 10 km and 50 km
Print preview
Base Layers
Google Standard Map
Google Terrain Map
Google Satellite Map
Legally Protected Areas
IUCN Category I-II
IUCN Category III-IV
IUCN Category V-VI
IUCN Category not reported
Internationally Recognised Areas
World Heritage
Ramsar
Natura 2000
International Other
Priority Sites for Biodiversity
Key Biodiversity Areas
Alliance for Zero Extinction Sites
Species
Species Grid
Completeness
KBA Completeness
Regions of Conservation Importance
Endemic Bird Areas
Biodiversity Hotspots
High Biodiversity Wilderness Areas
Uganda
Kampala
Jinja
Entebbe
Masaka
Mbarara
Kisumu
Nakuru
Nairobi
Kenya
Jūba
Yei
Kitgum
Gulu
Lira
Abim District
Opit Forest Reserve
Amuria
Soroti
Masindi
Bunia
Watsa
Arua
Maracha
Yumbe
Mahagi
Nakibungulia
Bombo
Kasowa
Mityana
Kaliro
Atiri
Tororo
Mera
Iddoret
Bungoma
Kakamega
Bondo
Kisii
Kericho
Tarime
Bukoba
Muisoma
Thika
Embakasi
Lubero
Tayna Nature Reserve


Home
Map
Country
IBAT & Your Business
Data Behind IBAT
Reports
Downloads
Add
Load
Save
Clear
Show buffers
Buffers distances: 1 km, 10 km and 50 km
Print preview
Base Layers
Google Standard Map
Google Terrain Map
Google Satellite Map
Legally Protected Areas
IUCN Category I-II
IUCN Category III-IV
IUCN Category V-VI
IUCN Category not reported
Internationally Recognised Areas
World Heritage
Ramsar
Natura 2000
International Other
Priority Sites for Biodiversity
Key Biodiversity Areas
Alliance for Zero Extinction Sites
Species
Species Grid
Completeness
KBA Completeness
Regions of Conservation Importance
Endemic Bird Areas
Biodiversity Hotspots
High Biodiversity Wilderness Areas
Legally Protected Areas
IUCN Category II
Murchison Falls
Priority Sites for Biodiversity
Key Biodiversity Areas
Murchison Falls National Park
Species Grid
No. Species
35
Juba
Yei
Kitgum
Gulu
Lira
Bunia
Nakuru
Nairobi
Kenya

Total number of Globally Threatened (CR, EN, VU), Near Threatened (NT) and Data Deficient (DD) species 35.

Please note the following important statement regarding interpretation.

The threatened species grid layer found in IBAT for Business is derived directly from the species distribution maps produced as part of each individual Red List assessment. The species distribution maps, commonly referred to as "limits of distribution" or "field guide" maps, aim to provide the current known distribution of the species within its native range. The limits of distribution are determined by using known occurrences of the species, along with knowledge of habitat preferences, remaining suitable habitat, elevation limits, and other expert knowledge of the species and its range. A polygon displaying the limits of a species distribution is essentially meant to communicate that the species likely only occurs within this polygon, but it does not mean that it is distributed equally within that polygon or occurs everywhere within that polygon.

The Red List deals with species of widely varying range sizes - from restricted range species limited to a single 1 km^2 site to species whose ranges exceed many hundreds of thousands of square kilometers, despite possibly being quite rare within that vast range. Therefore, one must be conscious of these factors when using the Globally Threatened Species Grid within IBAT. When one clicks on a grid cell within IBAT and reveals the species underlying that grid cell, they are revealing species whose "limits of distribution" intersect with that grid cell. This should not be confused with actual occurrence; rather, this should be interpreted as *possible* occurrence.

Should a user wish to explore a specific species' distribution map, the species list contains a link that will display the limits of distribution map (Range map) for that single species.

Taxonomic group	Species	IUCN Red List	Factsheet
Birds	*Balaeniceps rex* Shoebill	VU	
Birds	*Circus macrourus* Pallid Harrier	NT	
Birds	*Coracias garrulus* European Roller	NT	
Birds	*Ficedula semitorquata* Semi-collared Flycatcher	NT	
Birds	*Francolinus streptophorus* Ring-necked Francolin	NT	
Birds	*Gallinago media* Great Snipe	NT	
Birds	*Gyps africanus* White-backed Vulture	EN	
Birds	*Gyps rueppellii* Rueppell's Vulture	EN	
Birds	*Limosa limosa* Black-tailed Godwit	NT	
Birds	*Necrosyrtes monachus* Hooded Vulture	EN	
Birds	*Neotis denhami* Denham's Bustard	NT	
Birds	*Ploceus spekeoides* Fox's Weaver	NT	
Birds	*Polemaetus bellicosus* Martial Eagle	NT	

BirdLife INTERNATIONAL | Species | Search | Go

email a friend | printable version

Species
- Home
- Search
- Programme of work
- Download maps
- Taxonomy
- References
- Publications
- Terms and definitions
- Climate Change

Data zone
- Home
- Species
- Sites (IBAs)
- Endemic Bird Areas
- State of the world's birds
- Country profiles
- Marine e-Atlas
- Citizen Science
- CBD support
- BirdLife Forums
- Seabird Tracking

NT Ring-necked Francolin *Francolinus streptophorus*

Justification
Recent data for this species are lacking. However, it has apparently declined in both range and abundance and is now suspected to have a moderately small population. The reasons for this decline remain unknown, and it is presumably continuing. For these reasons, the species has been classified as Near Threatened. If it is found that the population is smaller and the decline more rapid than suspected, the species may qualify for a higher threat category.

Taxonomic source(s)
Dowsett, R. J.; Forbes-Watson, A. D. 1993. *Checklist of birds of the Afrotropical and Malagasy regions*. Tauraco Press, Li
Sibley, C. G.; Monroe, B. L. 1990. *Distribution and taxonomy of birds of the world*. Yale University Press, New Haven, USA.

Identification
35 cm. Typical francolin with a dark brown back, dark flank stripes, bold white supercilium extending to the nape, red-brown face and neck sides, white throat and a black and white spotted collar. Has yellow legs. **Similar spp.** recalls Crested Francolin *Francolinus sephaena* but that species has red legs and lacks the bold flank stipes. Collar of Crested is less defined, and it lacks the red-brown face. **Voice** utters two, soft, dove-like *coos*

Distribution and population
Francolinus streptophorus has a disjunct distribution, with populations in **Burundi, Cameroon, Kenya, Rwanda, Tanzania** and **Uganda**. The stronghold was assumed to be in Uganda, where the species was thought to be common in suitable habitat. However, a paucity of recent records has raised suspicions that it is not common or widespread there. Recent records from Uganda all come from the west (Carswell *et al*. 2005), where it is regularly recorded from Murchison Falls National Park (M. Mills *in litt*. 2006, D. Pomeroy *in litt*. 2006). It is recorded sporadically in western Kenya (Lewis and Pomeroy 1989) and is reportedly fairly common in Tanzania. There are no recent records from Cameroon and recent attempts to locate it failed (Languy in prep.). It is recorded from Ruvubu National Park in Burundi (G. Citegetse *in litt*. 2006) and has apparently been recorded in Rwanda (Stevenson and Fanshawe 2002).

Key facts	
Current IUCN Red List category	Near Threatened
Family	Phasianidae (Grouse, pheasants and partridges)
Species name author	Ogilvie-Grant, 1891
Population size	6000-15000 mature individuals
Population trend	Decreasing
Distribution size (breeding/resident)	216,000 km^2
Country endemic?	No
Links to further information	
- Additional Information on this species - Climate change species distributions	

UNEP WCMC

System announcement: Protected Area, KBA and Species data sets updated

ibat | FOR BUSINESS
Integrated Biodiversity Assessment Tool

The World Database of Protected Areas (WDPA), October 2012 release has been incorporated into IBAT. This data set now contains information on 195,953 protected areas (with 173,361 represented with boundaries and 22,476 represented as single point locations). **Read** about the main changes.

The World Biodiversity Database (WBDB) October 2012 release has also been incorporated into IBAT. This provides data on 12,568 Key Biodiversity Areas (KBAs), with 11,177 represented by boundaries & 1391 represented by point locations. A subset of 578 of these KBAs are also AZE (Alliance for Zero Extinction) sites. **Read** about the main changes.

And finally, the species gird has been updated to the October 2012 release of the IUCN Red List of Threatened Species. The species grid includes species where a range map is available and the species has been classified in one of the following categories: Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) and Data Deficient (DD). **Read** about the main changes.

Posted by Martin Sneary on 2012-12-12 18:30:58

New feature: set your own buffer distances

ibat FOR BUSINESS
Integrated Biodiversity Assessment Tool

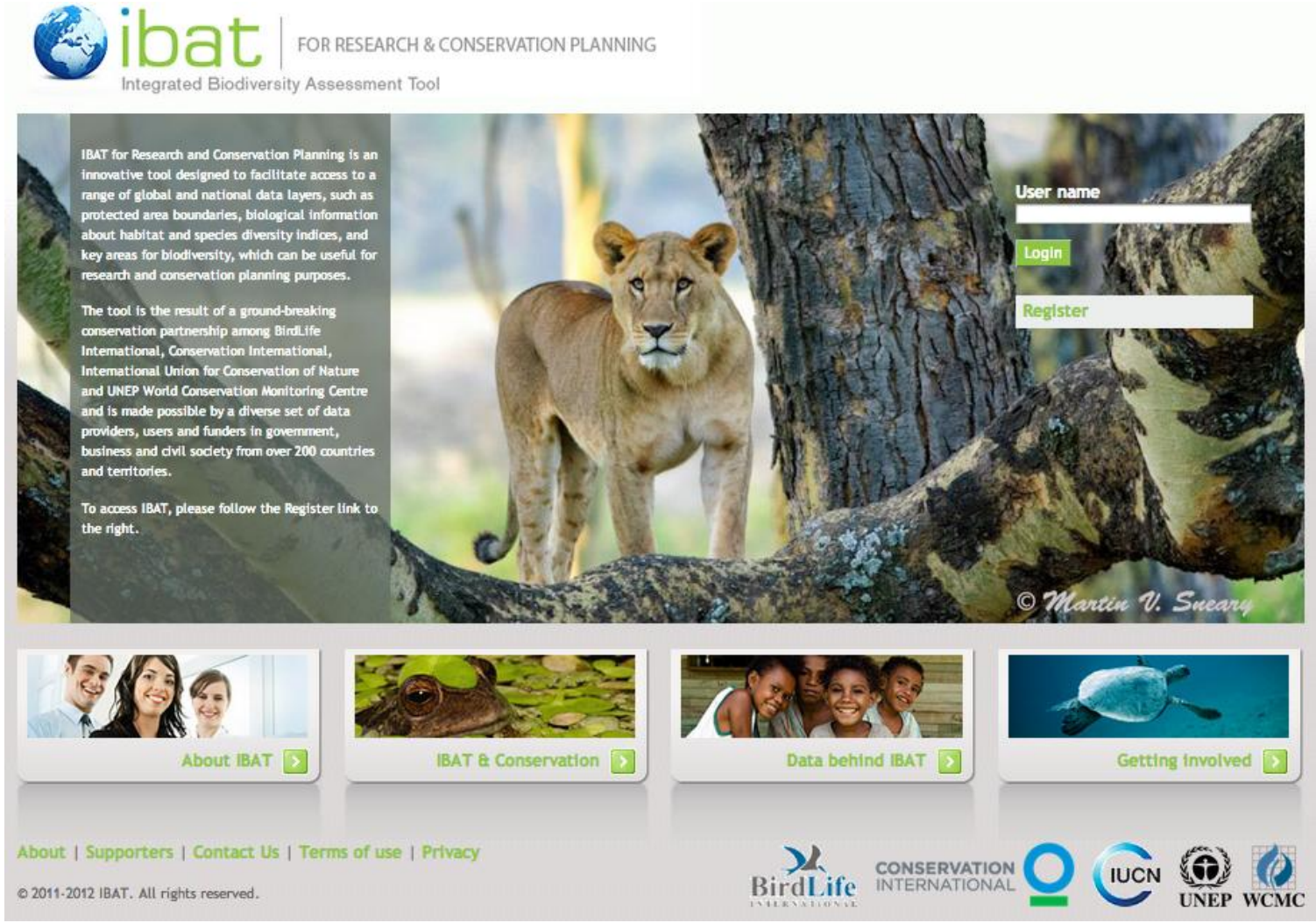
As part of our ongoing investment to improve IBAT in line with feedback from our user base, the reports have been modified such that you can set the number of buffers and the distance used for each buffer. There's a new option titled "Preferences" found under the "Manage Account" section (click on your user name above the right-hand end of the banner to access). Through "Preferences" you configure the number of buffers you wish to use in the report as well as the distance (in km) for each buffer. Learn more by downloading the **Guide to Configuring Report Buffers**.

I very much hope that IBAT continues to be of value to your business. If you have any questions, or would welcome a tour of the new features, then please do not hesitate to send me an **email**.

Posted by Martin Sneary on 2013-03-03 18:55:11

UNEP WCMC

Developing a new global standard…


ibat
FOR RESEARCH & CONSERVATION PLANNING
Integrated Biodiversity Assessment Tool
IBAT for Research and Conservation Planning is an innovative tool designed to facilitate access to a range of global and national data layers, such as protected area boundaries, biological information about habitat and species diversity indices, and key areas for biodiversity, which can be useful for research and conservation planning purposes.
The tool is the result of a ground-breaking conservation partnership among BirdLife International, Conservation International, International Union for Conservation of Nature and UNEP World Conservation Monitoring Centre and is made possible by a diverse set of data providers, users and funders in government, business and civil society from over 200 countries and territories.
To access IBAT, please follow the Register link to the right.
User name
Login
Register
© Martin V. Sweary
About IBAT
IBAT & Conservation
Data behind IBAT
Getting involved
About | Supporters | Contact Us | Terms of use | Privacy
© 2011-2012 IBAT. All rights reserved.
BirdLife INTERNATIONAL
CONSERVATION INTERNATIONAL
IUCN
UNEP
WCMC

UNEP WCMC

IBAT External Review 2013

Principal Findings…

The IBAT Partnership…

How do the Partners view the IBAT partnership?

Very positively.

What does each Partner want to get from IBAT?

Increasing business use of biodiversity data, at the same time returning funds for reinvestment in data support.

Should IBAT involve additional Partners?

Potentially, but not for the immediate future

Data layers…

How fit for purpose are current IBAT data?

Generally very good. Some changes would be useful to align with IFC Critical Habitat.

Should IBAT contain additional data?

While there is a demand for marine data, the core set of key datasets is currently a strength and their improvement is a higher priority than addition of new datasets.

Should new data mean new tools?

The IBAT partners should avoid tool proliferation. However, new modules/versions could be introduced as 'IBAT+' with an additional cost.

Technology and Functionality…

Are the IBAT's mapping functions, downloads, reporting and other services fit for purpose?

IBAT functionality can be improved, but website content and functionality should be streamlined.

Are the current IBAT website and technology appropriate and fit for purpose?

The current website is cluttered and the technology outdated. Non-core elements of the website should be removed and different versions of the IBAT combined.

Business interests…

How do IBAT subscribers view the IBAT partnership?

Generally very positively as an authoritative 'one-stop shop' for global biodiversity data

How does the IBAT help with safeguard policies, risk management procedures and project screening?

IBAT provides essential information, but it falls short of its potential to support Critical Habitat assessment (IFC PS6), which is fast becoming the global standard for biodiversity risk assessment.

What services are needed but not provided by IBAT?

Many companies need interpretation to use biodiversity data effectively. Additional services could be provided by the IBAT Partners and/or they could be 'outsourced' to trained and 'certified' consultants.

Competition…

Is there potential for the IBAT to be compromised by other initiatives?

Not at the moment, but as the data becomes more widely distributed this could happen. There is a need to make more transparent the costs of data production, curation and provision that are borne by the Alliance partners.

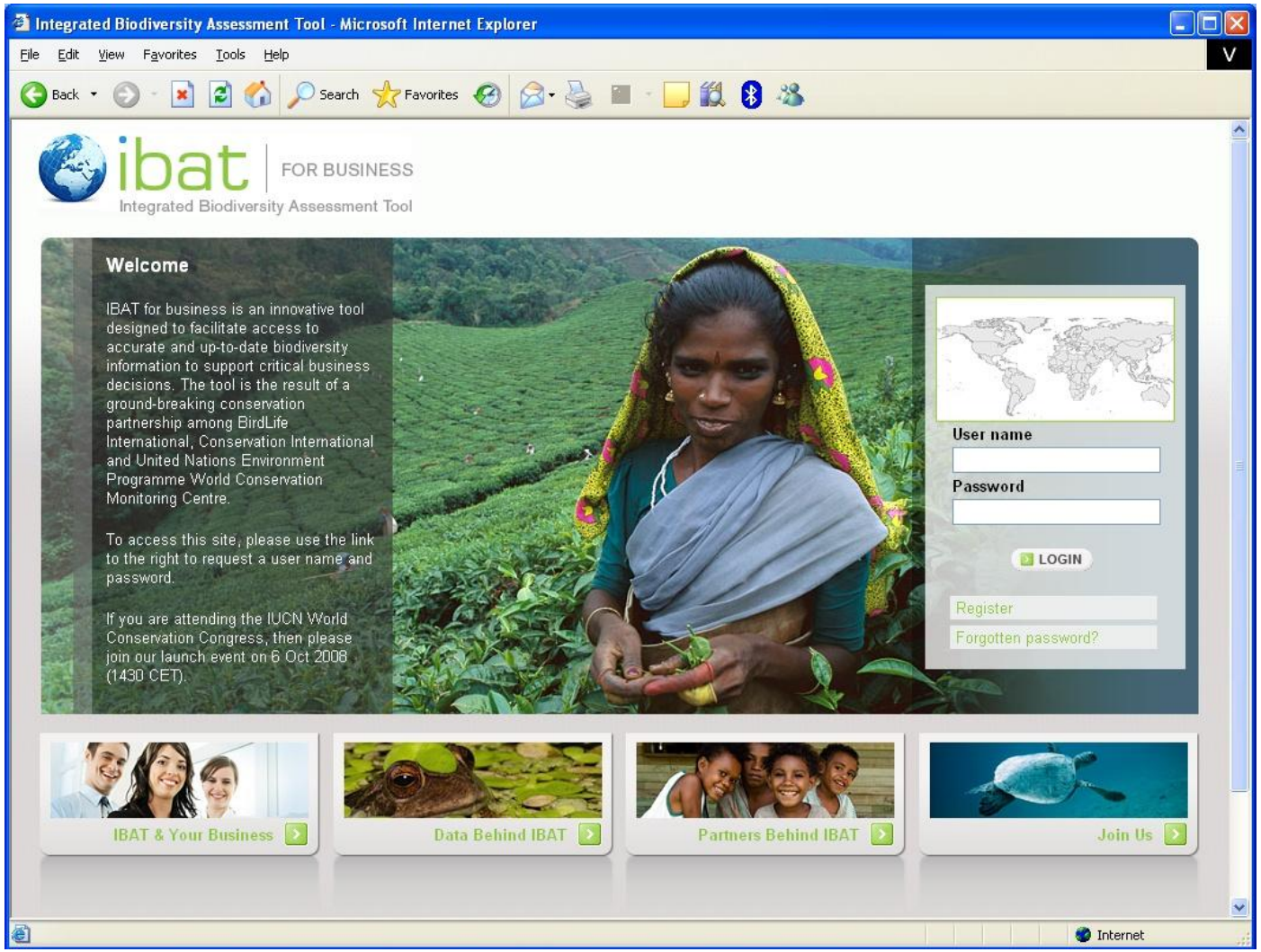
How can use of IBAT be extended to consultancies without compromising the business model?

The Partners wish to see the IBAT used widely and it may be appropriate to partner with reputable consultants, offering them partnership, training and 'certification'.

Conclusion..

- The IBAT is the result of a unique collaboration and after 6 years the Alliance retains the same objectives.
- Improvements are needed to website/functionality *inter alia* to meet needs around IFC PS6.
- A stronger marine focus is needed using relevant data held within the Alliance.
- The Alliance needs to consider how to extend access to more users, including consultants.
- UNEP-WCMC will continue to support Proteus partners with interpretation, but a range of options are to be considered for the wider community.

UNEP WCMC



www.ibatforbusiness.org

UNEP WCMC

Proteus Partners Meeting 2013

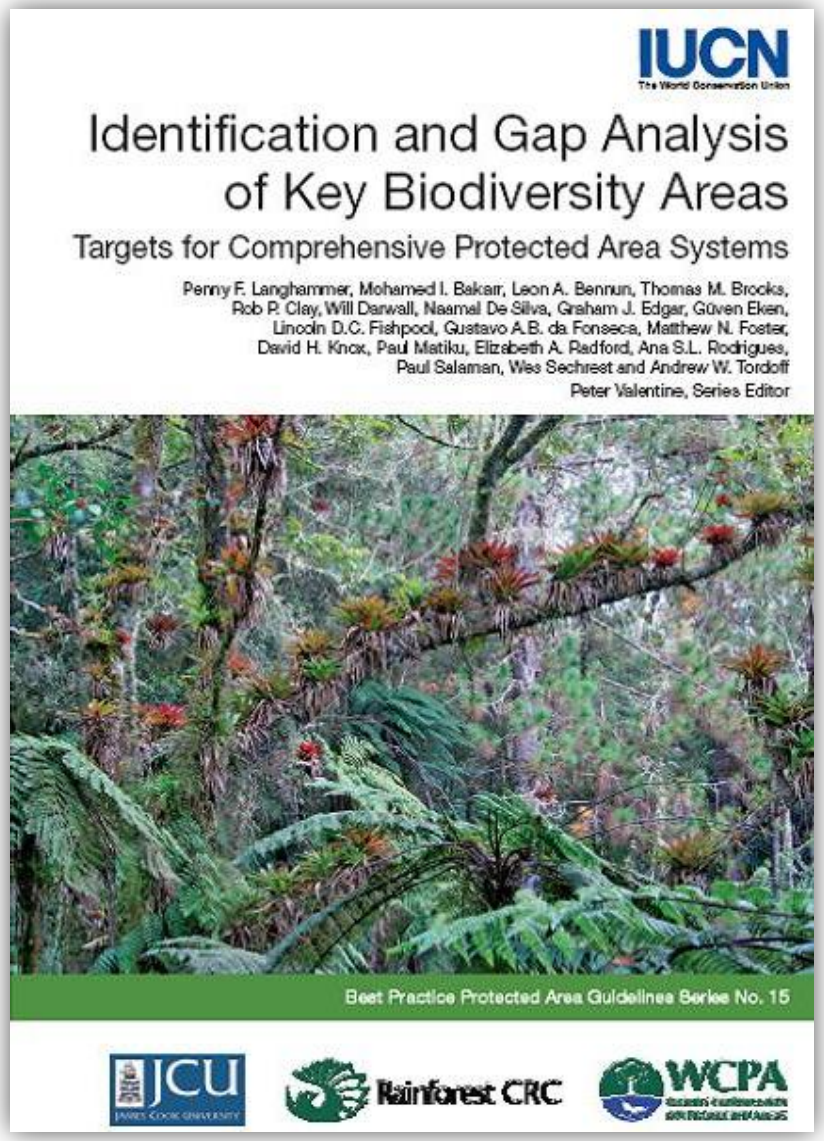
Houston, TX, USA


Development of a global standard for Key Biodiversity Areas, and its relationship with other IUCN knowledge products

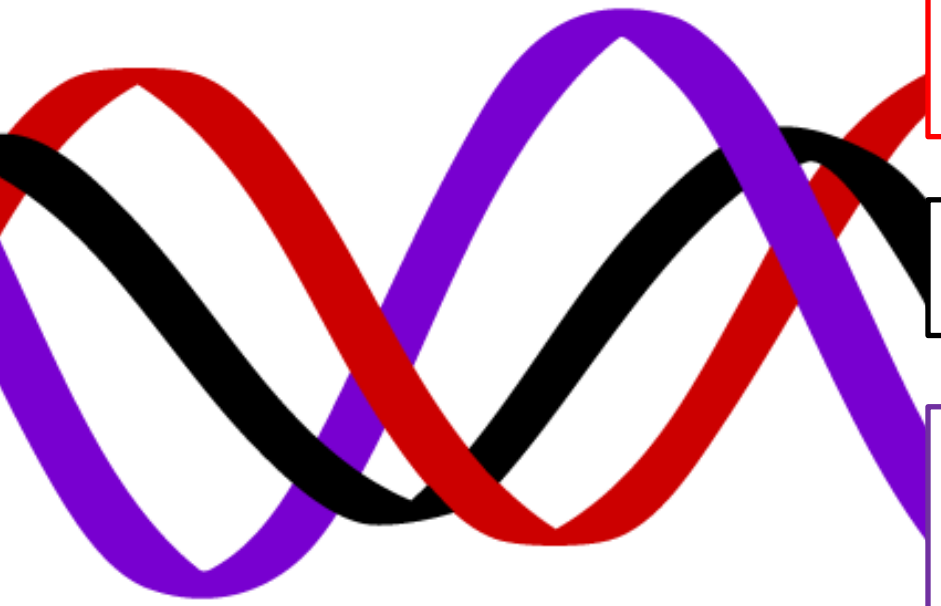
Thomas Brooks

Head, Science & Knowledge

IUCN



IUCN's triple helix



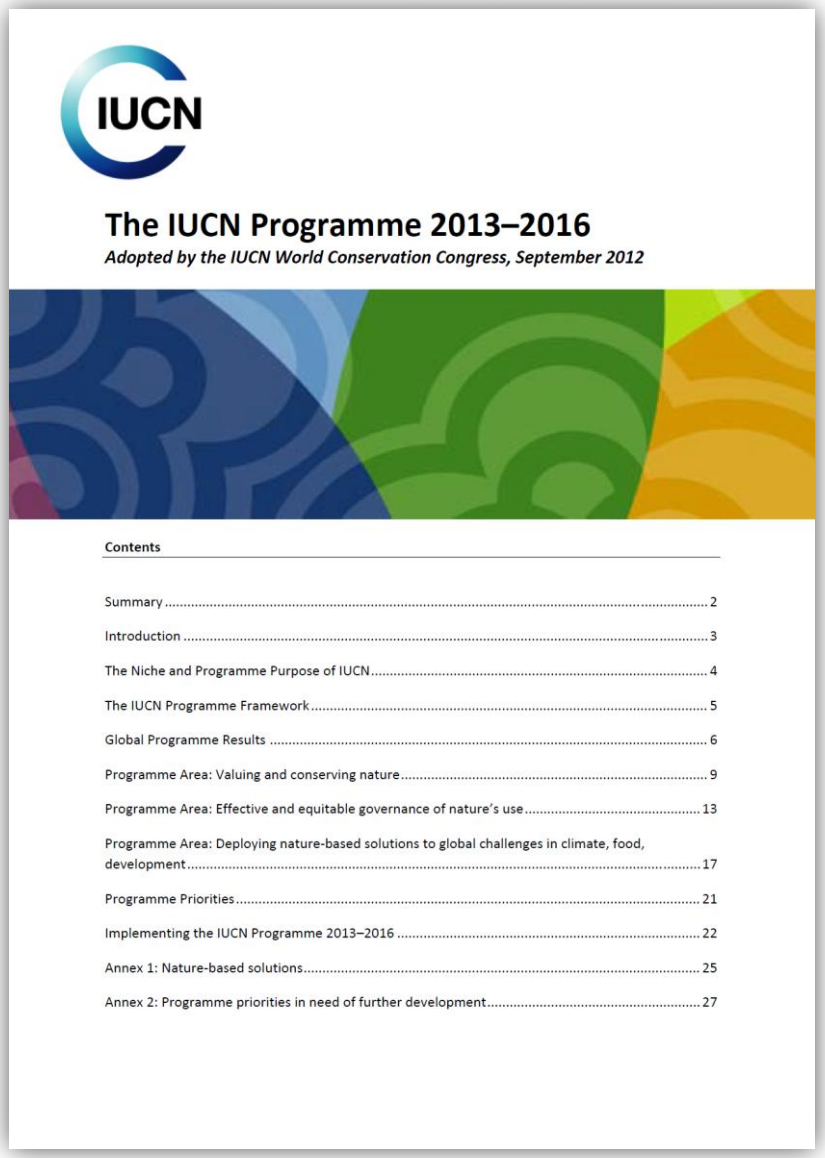
Membership: 90 governments, 123 government agencies; 102 international NGOs, 867 national NGOs

Secretariat: ~1,000 staff, HQ in Switzerland, offices in 45 countries

Commissions: ~10,000 voluntary experts in six networks:

Commission on Ecosystem Management
Commission on Education and Communication
Commission on Environmental Economic and Social Policy
Species Survival Commission
World Commission on Environmental Law
World Commission on Protected Areas

Four business lines in 2013–6 IUCN Programme



IUCN

The IUCN Programme 2013–2016

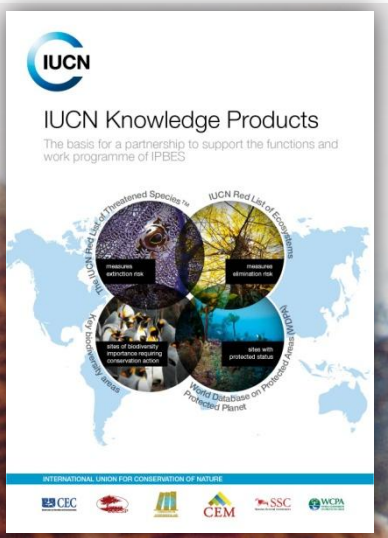
Adopted by the IUCN World Conservation Congress, September 2012

Contents

1) Providing knowledge products
2) Delivering results on the ground
3) Strengthening policy and governance
4) Engaging and leveraging the union

Knowledge “baskets”, or “ngaa kete aronui”

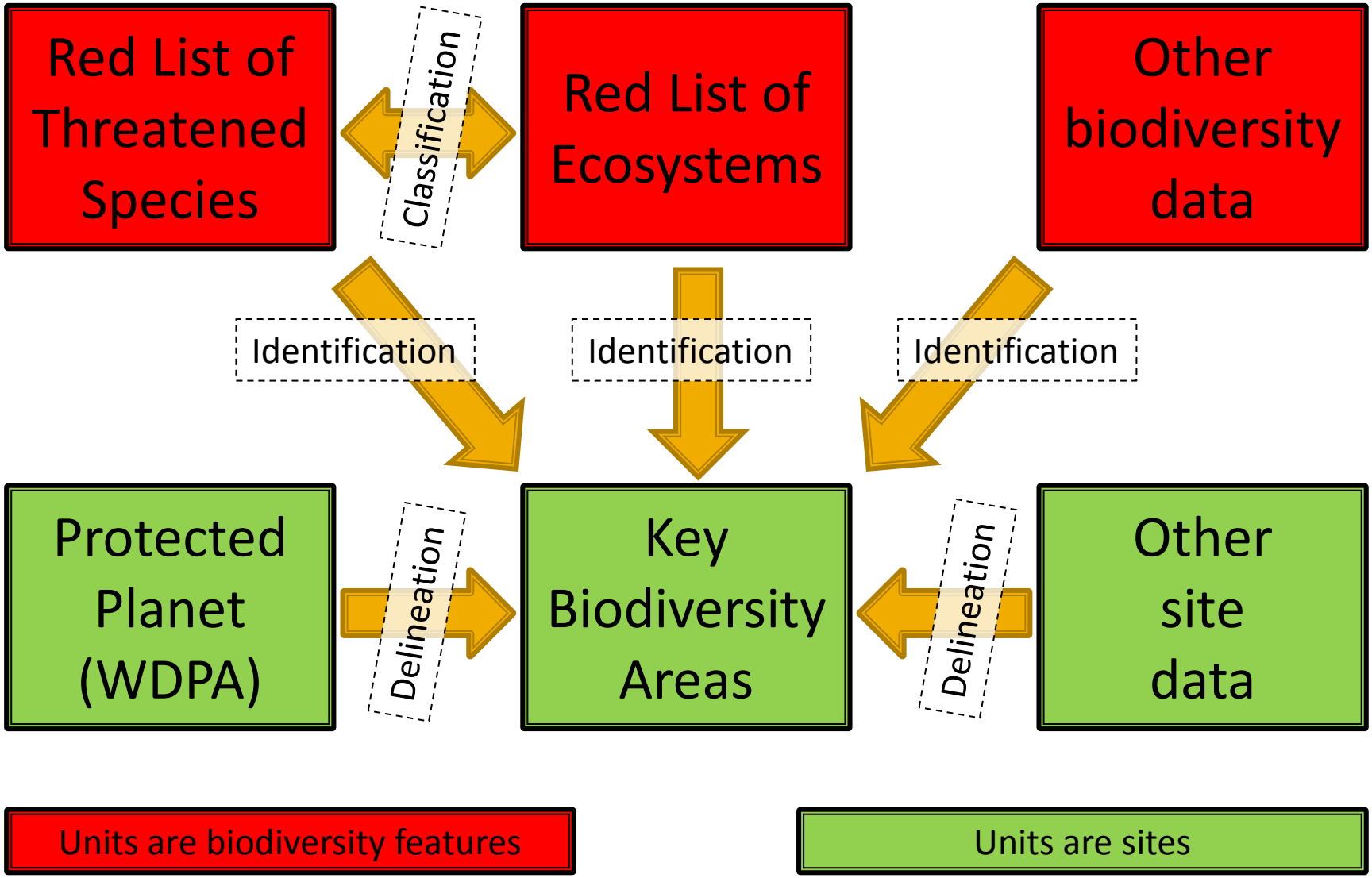
©J. Alcorn



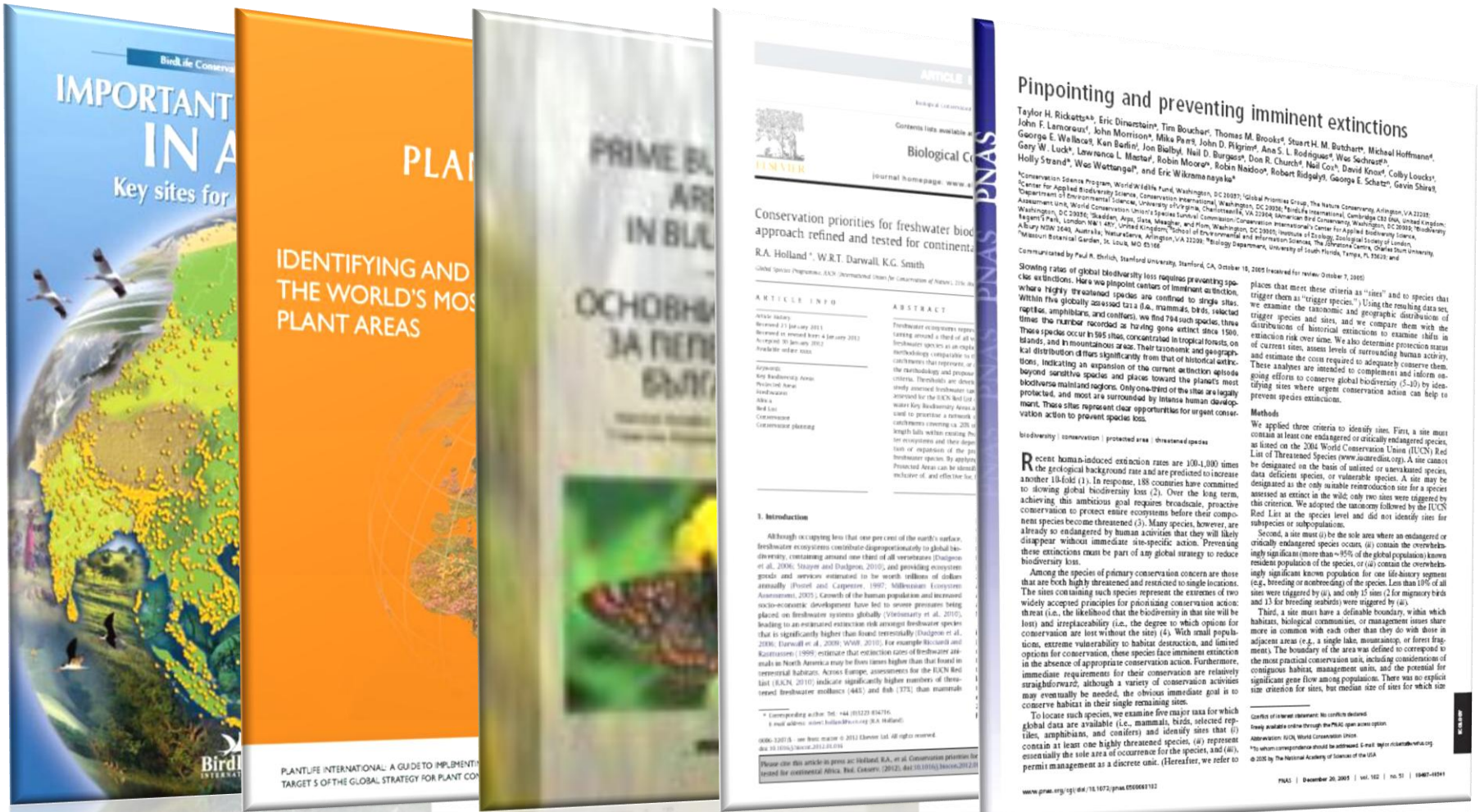
Six flagship knowledge products mobilized through IUCN

Development of standards and processes	Knowledge product	Development of data, tools, products, & capacity
Advanced, already widely published and agreed	Red List of Threatened Species	Advanced, datasets comprehensive globally for many taxa, ecosystems, and countries
	Protected Planet (powered by the WDPA)	
Undergoing active consolidation and revision	Key Biodiversity Areas	
	Red List of Ecosystems	Prototype test datasets only
At inception phase	Human Dependency on Nature Framework	
	Natural Resource Governance Framework	

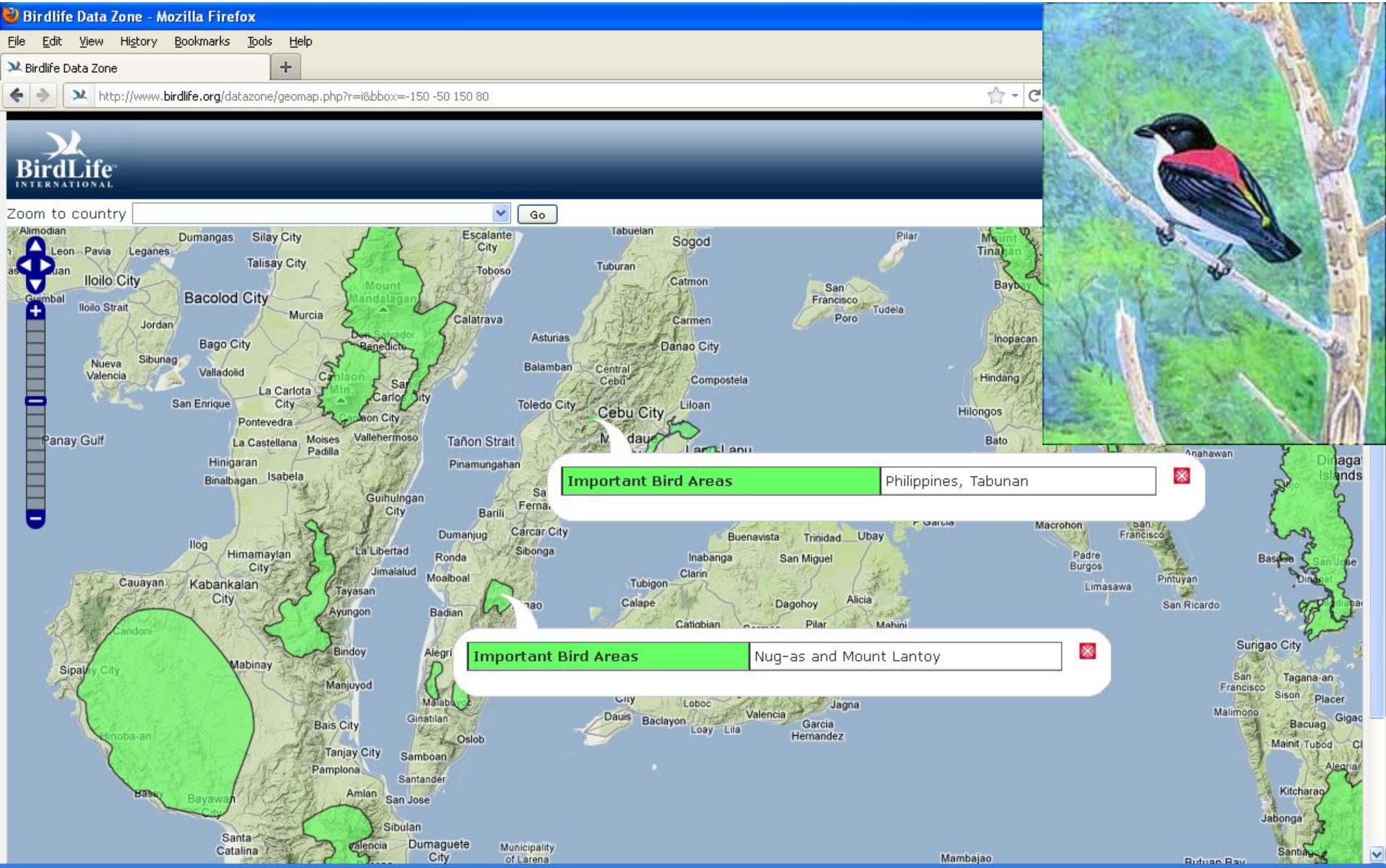
Relationships among the knowledge products



Numerous approaches for identifying Xxx sites



Example IBAs: Nug-as and Tabanan, in the Philippines



Disadvantages of the proliferation of approaches for identifying important sites

- Policy confusion
- Discrepancies in application between different taxonomic groups and different regions
- Underrepresentation of less charismatic taxonomic groups
- Delineation challenges – different boundaries
- Duplication of efforts

IUCN WCCRES3.013

REQUESTS the SSC, working in partnership with IUCN members, to **convene a worldwide consultative process to agree a methodology to enable countries to identify Key Biodiversity Areas**, drawing on data from the IUCN Red List of Threatened Species and other datasets, building on existing approaches

CBD Aichi Target 11

COP 10 MOP 5
Nagoya, Japan 2010

Life in Harmony, into the future
いのちの共生を、未来へ

By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, **especially areas of particular importance for biodiversity** and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes

Joint taskforce

Five technical working groups:

1) A. Criteria & B. Delineation
2) Thresholds
3) Governance
4) End-user applications
5) Marine (joint with GOBI)

http://www.iucn.org/biodiversity_and_protected_areas_taskforce/

Thanks to:

Regional consultation process

1A: KBA criteria (draft): sites contributing significantly to the global persistence of...

A. ...threatened biodiversity (1, Species; 2, Ecosystems)

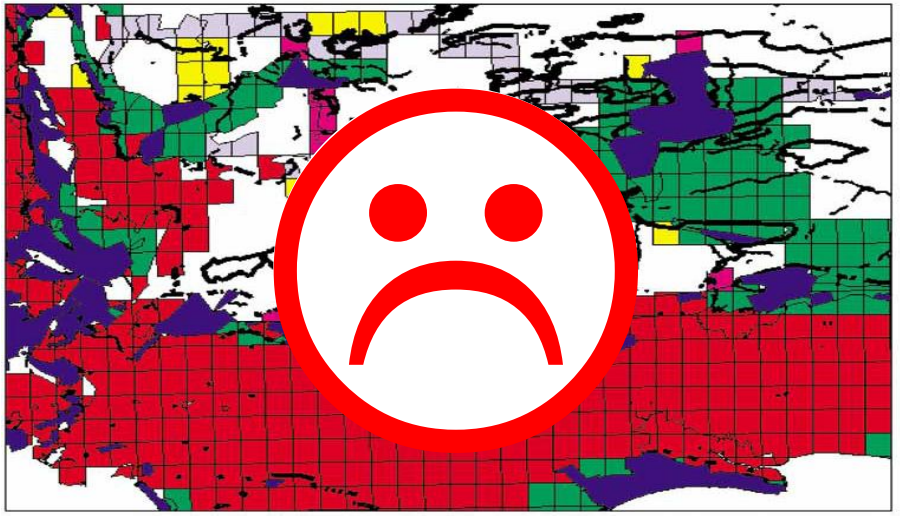
B. ...geographically restricted biodiversity (1, Species; 2, Assemblages; 3, Ecosystems)

C. ...biodiversity through their ecological integrity (1, Intact species assemblages; 2, Relatively intact and regionally distinct a, assemblages and b, ecosystems)

D. ...outstanding biological processes (1, Evolutionary processes; 2, Aggregations and congregations; 3, Ecological processes)

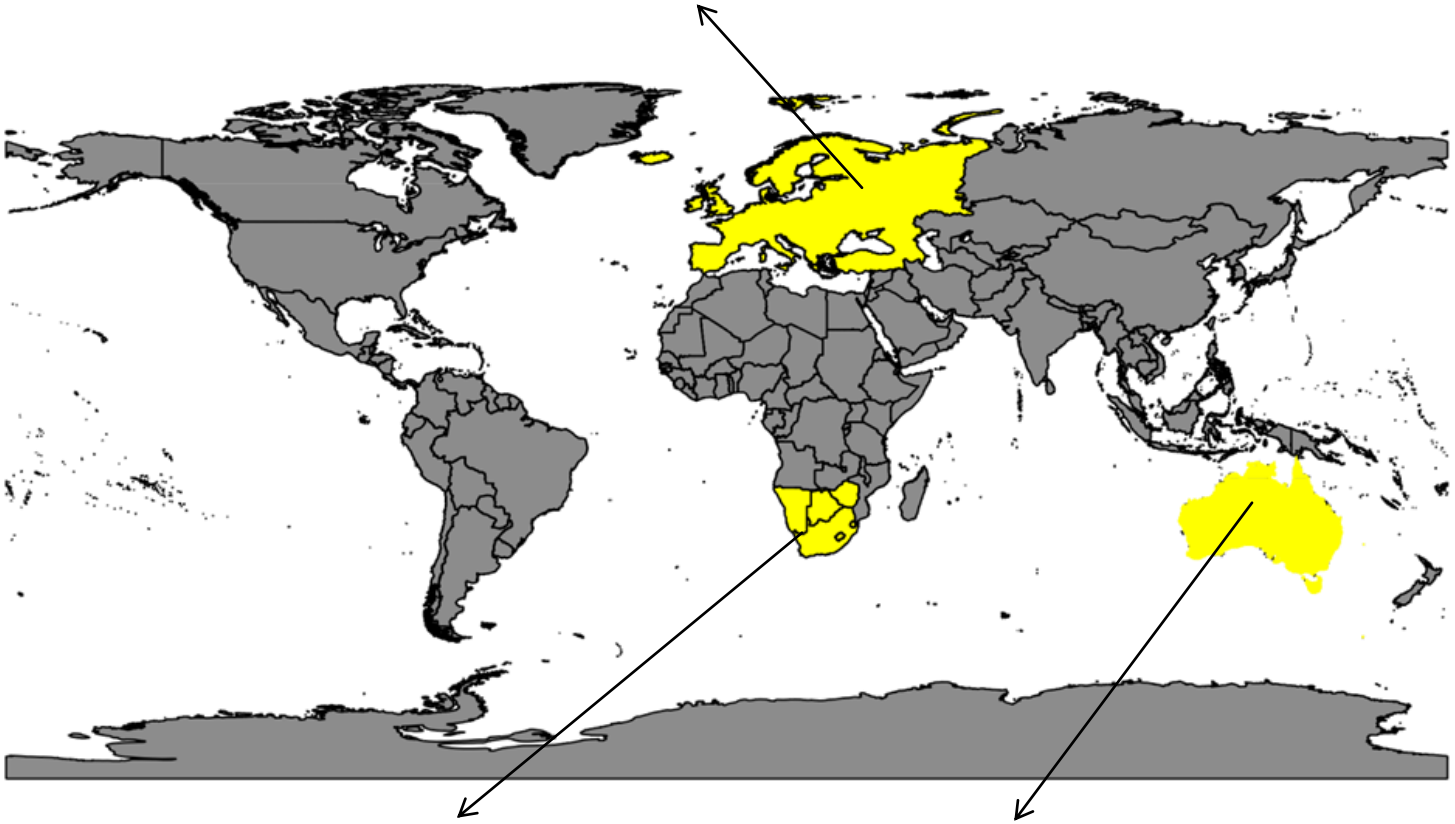
E. ...biodiversity as determined by quantitative analysis

1B: KBA delineation (what is a “manageable site”?)



2: KBA thresholds (in progress)

European Atlas of Breeding Birds



Southern Africa Bird Atlas

Altas of Australian Birds

3: KBA governance (draft): how might different constituencies interact with KBAs?

IUCN secretariat & commissions

- *Capacity building*
- *Technical support*
- *Data validation*
- *Reports & research*

National assessors, e.g., IUCN members and others

Collect and maintain best available biodiversity information and use IUCN standard to identify key biodiversity areas

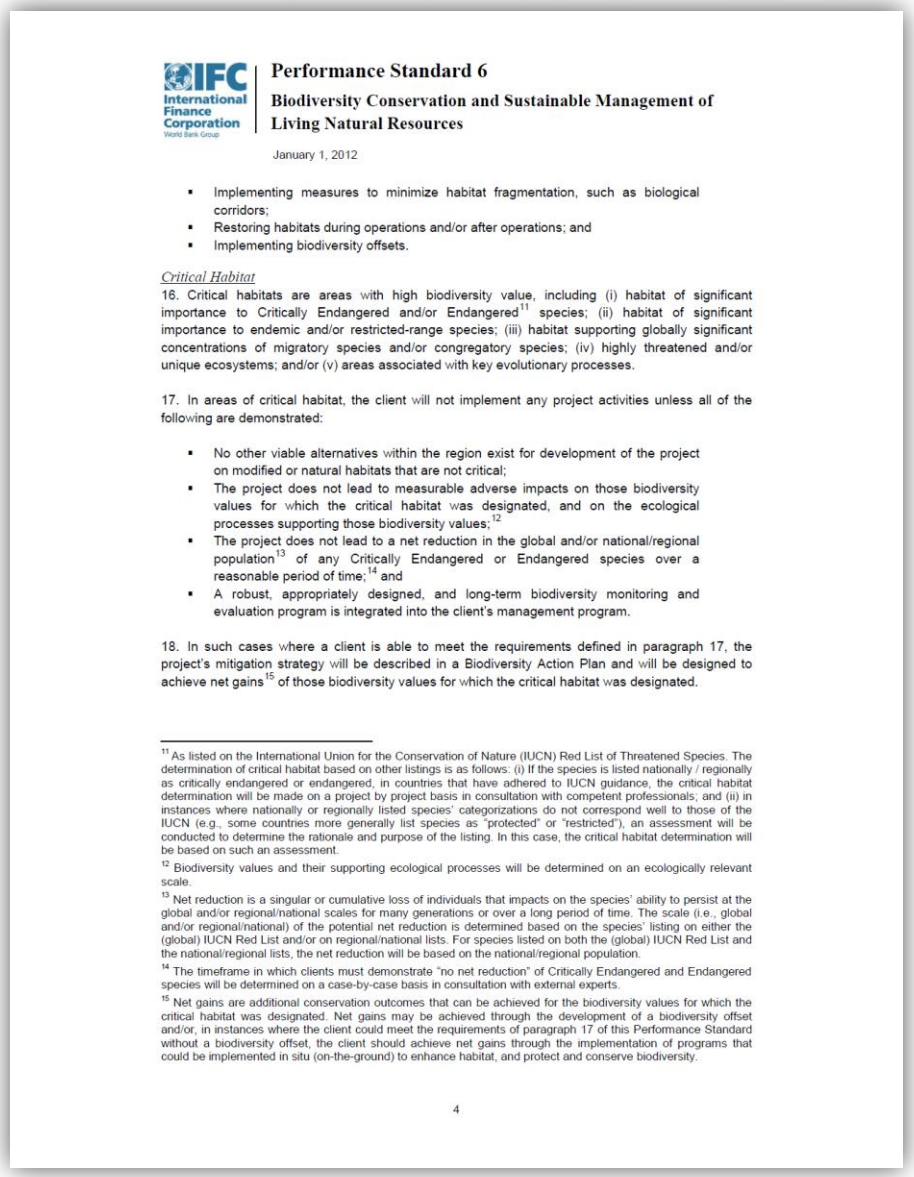
End-users, e.g., IUCN members and others

Take decisions affecting biodiversity guided by knowledge of key biodiversity areas

4: KBA end-use applications (in progress)

Intergovernmental treaties (e.g., CBD esp. Aichi Target 11, Ramsar, CMS, WHC)	Industry/industry associations (including certification bodies)
Intergovernmental agencies (e.g., UNDP)	Investors
Intergovernmental coalitions (e.g., EU, Africa Union, Micronesia Challenge)	Cultural and spiritual institutions
International Financial Institutions (e.g., World Bank, IFC, IADB, ADB)	National conservation and development NGOs
Donors (e.g., USAID, CEPF)	Climate change community
Multinational companies and industry associations	Ecosystem services community
International conservation and development NGOs (e.g., WWF)	Restoration community
National and local government conservation agencies	Indigenous peoples

A subset of KBAs will represent Critical Habitat under IFC PS6



IFC International Finance Corporation World Bank Group

Performance Standard 6

Biodiversity Conservation and Sustainable Management of Living Natural Resources

January 1, 2012

- Implementing measures to minimize habitat fragmentation, such as biological corridors;
- Restoring habitats during operations and/or after operations; and
- Implementing biodiversity offsets.

Critical Habitat

16. Critical habitats are areas with high biodiversity value, including (i) habitat of significant importance to Critically Endangered and/or Endangered[11] species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.

17. In areas of critical habitat, the client will not implement any project activities unless all of the following are demonstrated:

- No other viable alternatives within the region exist for development of the project on modified or natural habitats that are not critical;
- The project does not lead to measurable adverse impacts on those biodiversity values for which the critical habitat was designated, and on the ecological processes supporting those biodiversity values;[12]
- The project does not lead to a net reduction in the global and/or national/regional population[13] of any Critically Endangered or Endangered species over a reasonable period of time;[14] and
- A robust, appropriately designed, and long-term biodiversity monitoring and evaluation program is integrated into the client's management program.

18. In such cases where a client is able to meet the requirements defined in paragraph 17, the project's mitigation strategy will be described in a Biodiversity Action Plan and will be designed to achieve net gains[15] of those biodiversity values for which the critical habitat was designated.

[11] As listed on the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species. The determination of critical habitat based on other listings is as follows: (i) If the species is listed nationally / regionally as critically endangered or endangered, in countries that have adhered to IUCN guidance, the critical habitat determination will be made on a project by project basis in consultation with competent professionals; and (ii) in instances where nationally or regionally listed species' categorizations do not correspond well to those of the IUCN (e.g., some countries more generally list species as "protected" or "restricted"), an assessment will be conducted to determine the rationale and purpose of the listing. In this case, the critical habitat determination will be based on such an assessment.

[12] Biodiversity values and their supporting ecological processes will be determined on an ecologically relevant scale.

[13] Net reduction is a singular or cumulative loss of individuals that impacts on the species' ability to persist at the global and/or regional/national scales for many generations or over a long period of time. The scale (i.e., global and/or regional/national) of the potential net reduction is determined based on the species' listing on either the (global) IUCN Red List and/or on regional/national lists. For species listed on both the (global) IUCN Red List and the national/regional lists, the net reduction will be based on the national/regional population.

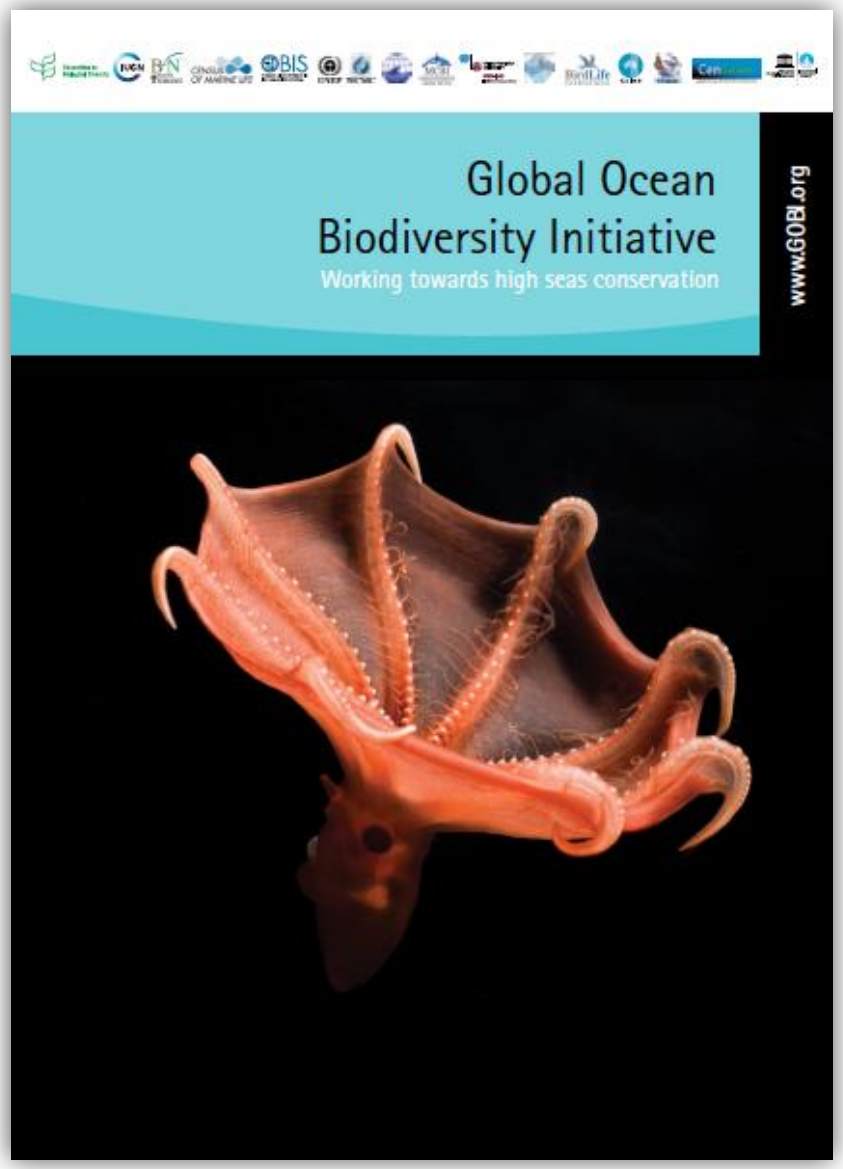
[14] The timeframe in which clients must demonstrate "no net reduction" of Critically Endangered and Endangered species will be determined on a case-by-case basis in consultation with external experts.

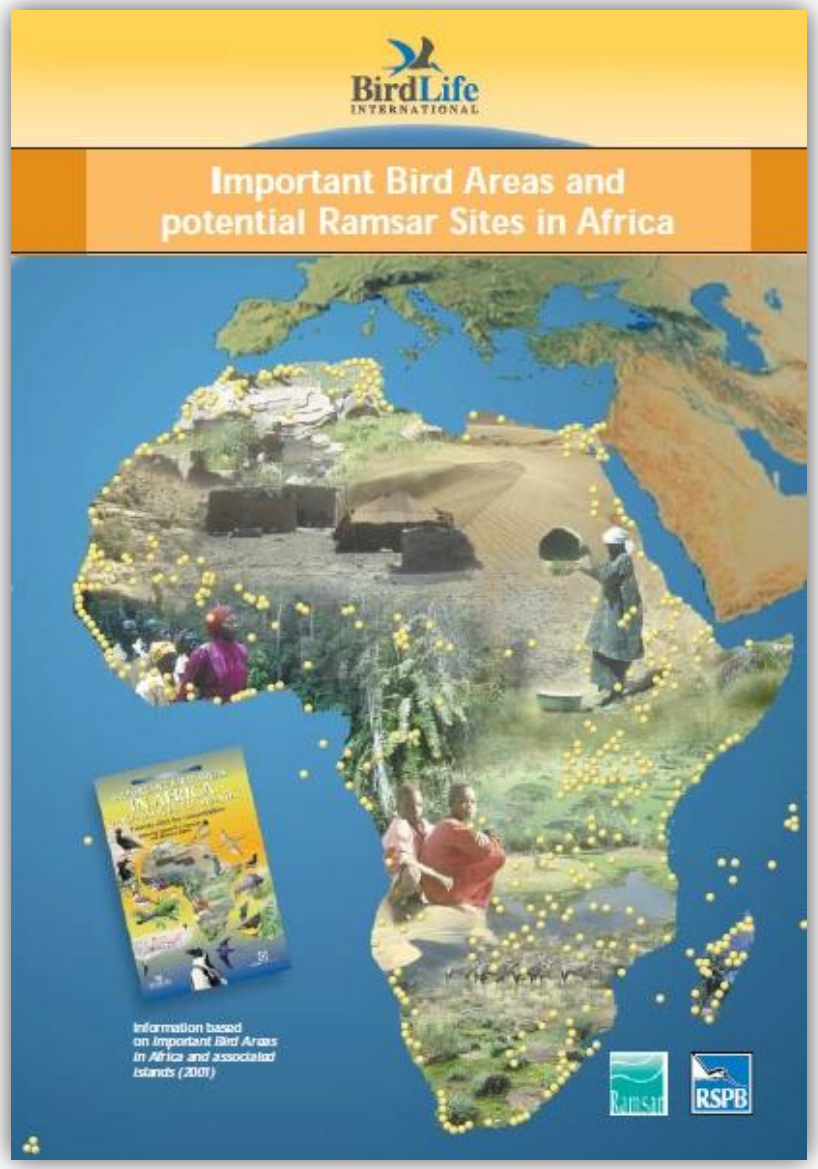
[15] Net gains are additional conservation outcomes that can be achieved for the biodiversity values for which the critical habitat was designated. Net gains may be achieved through the development of a biodiversity offset and/or, in instances where the client could meet the requirements of paragraph 17 of this Performance Standard without a biodiversity offset, the client should achieve net gains through the implementation of programs that could be implemented in situ (on-the-ground) to enhance habitat, and protect and conserve biodiversity.

4

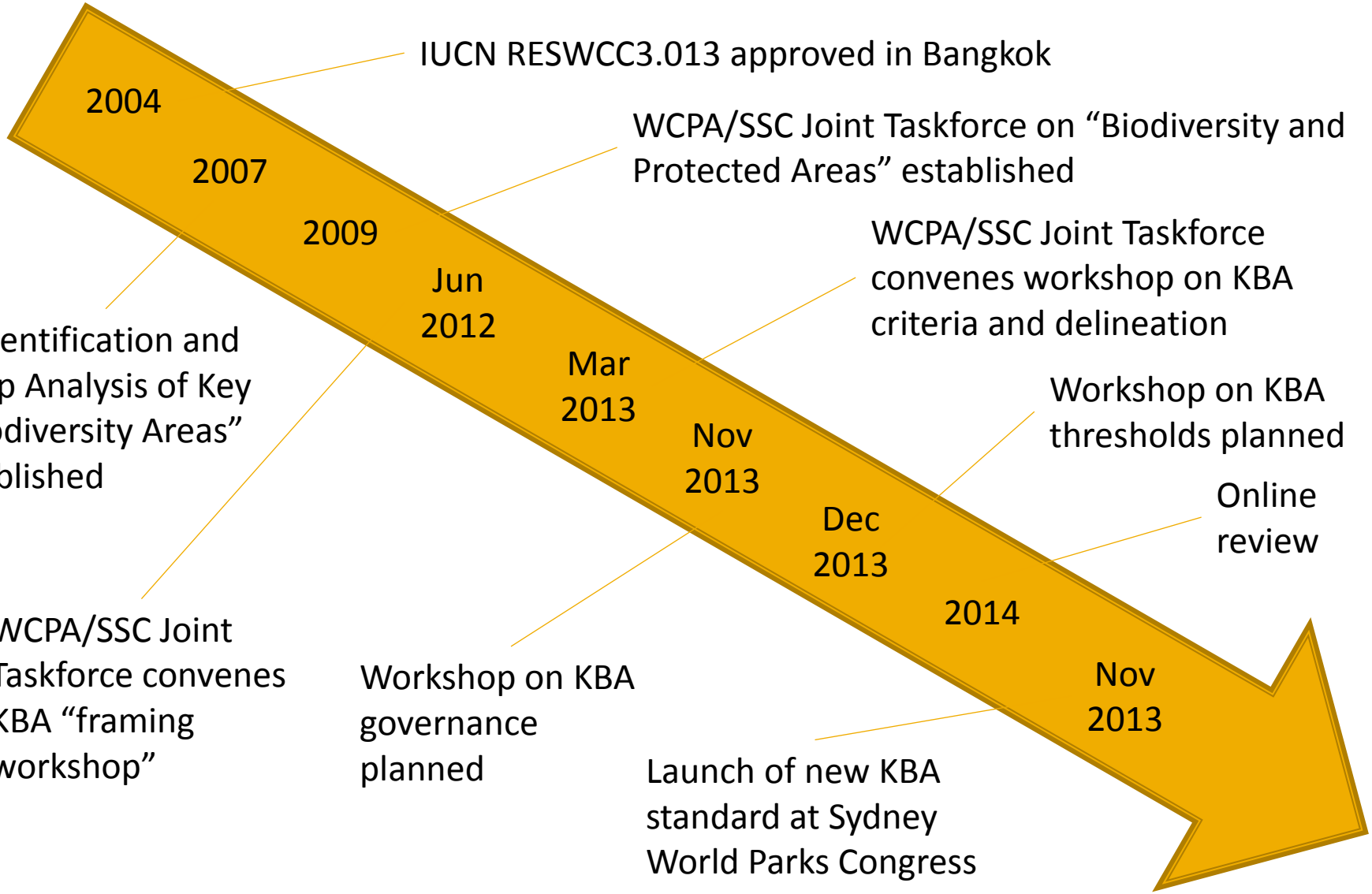
IFC PS6 Critical Habitat criteria	KBA criteria
Critically Endangered and/or Endangered species	(Subset of) Threatened species (A1)
Endemic and/or restricted-range species	Geographically restricted species & assemblages (B1, B2)
Migratory species and/or congregatory species	Aggregations and congregations (D2)
Highly threatened and/or unique ecosystems	Threatened, and geographically restricted, ecosystems (A2, B3)
Key evolutionary processes	Evolutionary process (D3)

5: Marine sites





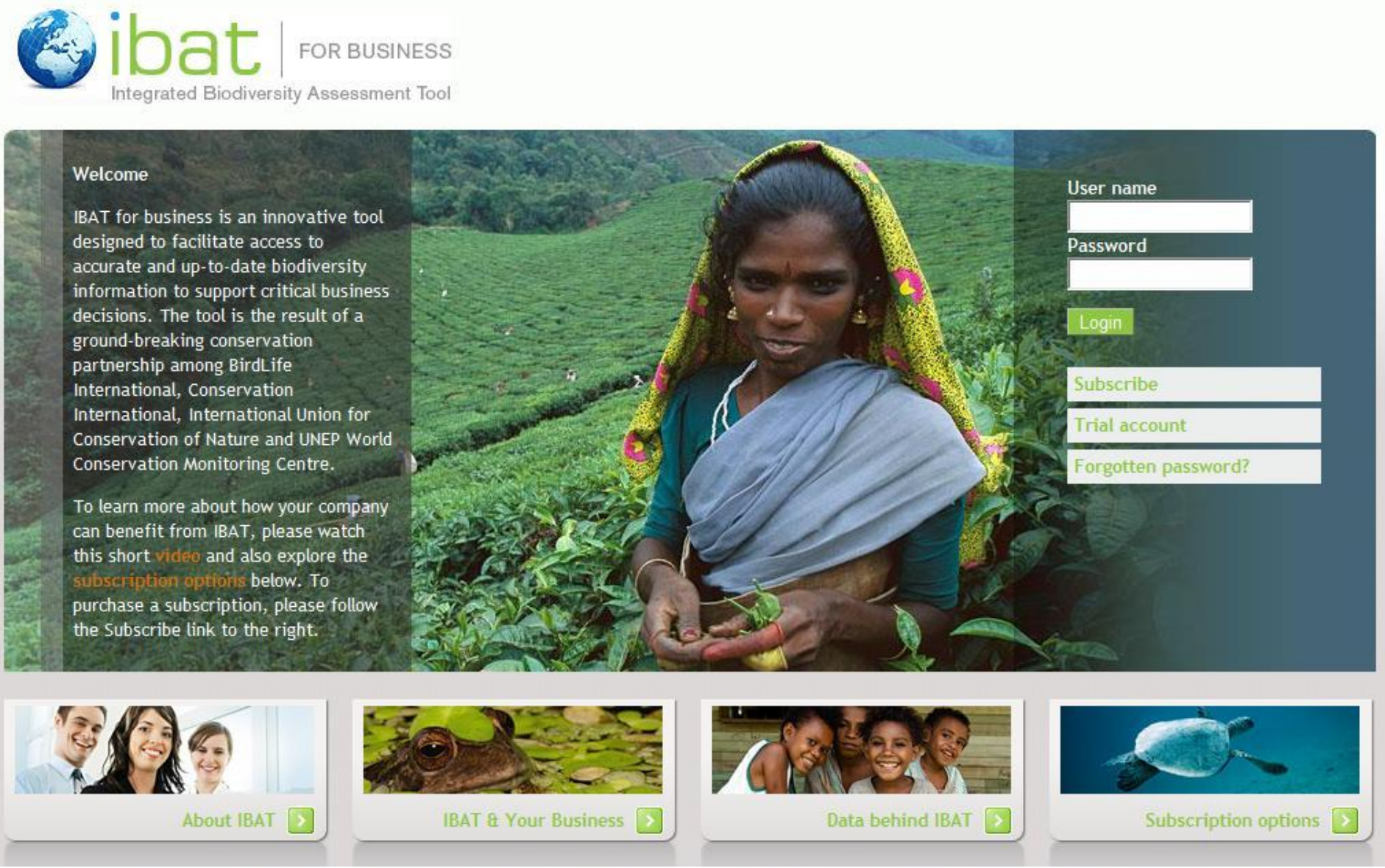
Joint taskforce timeline



What will be launched at the Nov 2014 Sydney World Parks Congress?

- Booklet documenting the new standard, criteria, and thresholds
- Electronic guidelines, providing scientific and technical rationale, and detailing access to the large volumes data mobilized by existing approaches
- Portfolio of case studies of end-user applications

Mobilizing and maintaining data for KBAs (and other knowledge products)



Summary characteristics of KBAs

KBAs are...	Conversely, they do not...
Sites contributing significantly to the global persistence of biodiversity	Prescribe any formal designation or management scheme
Identified using scientifically robust and globally standard criteria and thresholds	Require perfect data – they are identified pragmatically, using the best available data
Identified for biodiversity at all levels (follows CBD definition of "biodiversity")	Exclude any specific levels of biodiversity (e.g., genetic, ecosystem)
Delineated based on "manageability" (land use and environmental pattern)	Equate with regions (e.g., hotspots, ecoregions) or grid cells
Identified through nationally (regionally) legitimate processes	Get identified by "top-down" by any global institutions (e.g., IUCN)
Designed to harmonize existing approaches (e.g., IBAs, IPAs, AZE, etc)	Compete with or subtract value from these existing approaches
Input data into end-use applications in many sectors	Represent systematic conservation priorities *per se* (but they do inform them)

Proteus Partners Meeting 2013

Houston, TX, USA


Development of a Global Red List of Ecosystems

Jon Paul Rodríguez
Deputy Chair, IUCN Species Survival Commission
Lead, IUCN Red List of Ecosystems Thematic Group
Proteus Annual Meeting
18 June 2013

IVIC
INSTITUTO VENEZOLANO DE INVESTIGACIONES CIENTÍFICAS
PROVITA
IUCN
SSC
Species Survival Commission
CEM
MAVA
FONDATION POUR LA NATURE
GORDON AND BETTY MOORE FOUNDATION

IFC Performance Standards on Environmental and Social Sustainability

Effective January 1, 2012

IFC International Finance Corporation
World Bank Group

IFC Performance Standards on Environmental and Social Sustainability

Effective January 1, 2012

IFC International Finance Corporation World Bank Group

Performance Standard 6

Biodiversity Conservation and Sustainable Management of Living Natural Resources

Effective January 1, 2012

IFC International Finance Corporation
World Bank Group

The IUCN Red List of Threatened Species™ 2012.2

Log In | FAQ | Contact | Terms of use | IUCN.org

RED LIST

:: About :: Initiatives :: News :: Photos :: Partners :: Sponsors :: Resources

DONATE NOW!

Enter Red List search term(s) GO OTHER SEARCH OPTIONS

LEAST CONCERN LC | NEAR THREATENED NT | VULNERABLE VU | ENDANGERED EN | CRITICALLY ENDANGERED CR | EXTINCT IN THE WILD EW | EXTINCT EX

GIANT AUSTRALIAN CUTTLEFISH
Sepia apama

© Roger T. Hanlon

Amazing Species

A users' guide to The IUCN Red List web site
03 April 2009 - In October 2008, the IUCN Red List web site was given a brand new look. The new site has more functionality than ever before. This also means that the site has more detailed search pages that... more

Tiger conservation supported by 2012 Rolex Award
31 January 2013 - Sergei Bereznuk is a recipient of a 2012 Rolex Award for Enterprise that will support the conservation of the Amur Tiger (*Panthera tigris* ssp. *altaica*), which is listed... more

Biodiversity's Ticking Time Bomb: Understanding and Addressing the Problem of Invasive Species in Europe
31 January 2013 - On 21 February 2013, IUCN and BirdLife, with the support of the European Habitats Forum, will organize a high-level debate at the European Parliament in Brussels to discuss the issue of... more

Saving Saola from snares
30 January 2013 - An initiative created by the Saola Working Group of IUCN's Species Survival Commission (SSC) and the World Wildlife Fund (WWF) Greater Mekong Programme has removed and destroyed... more

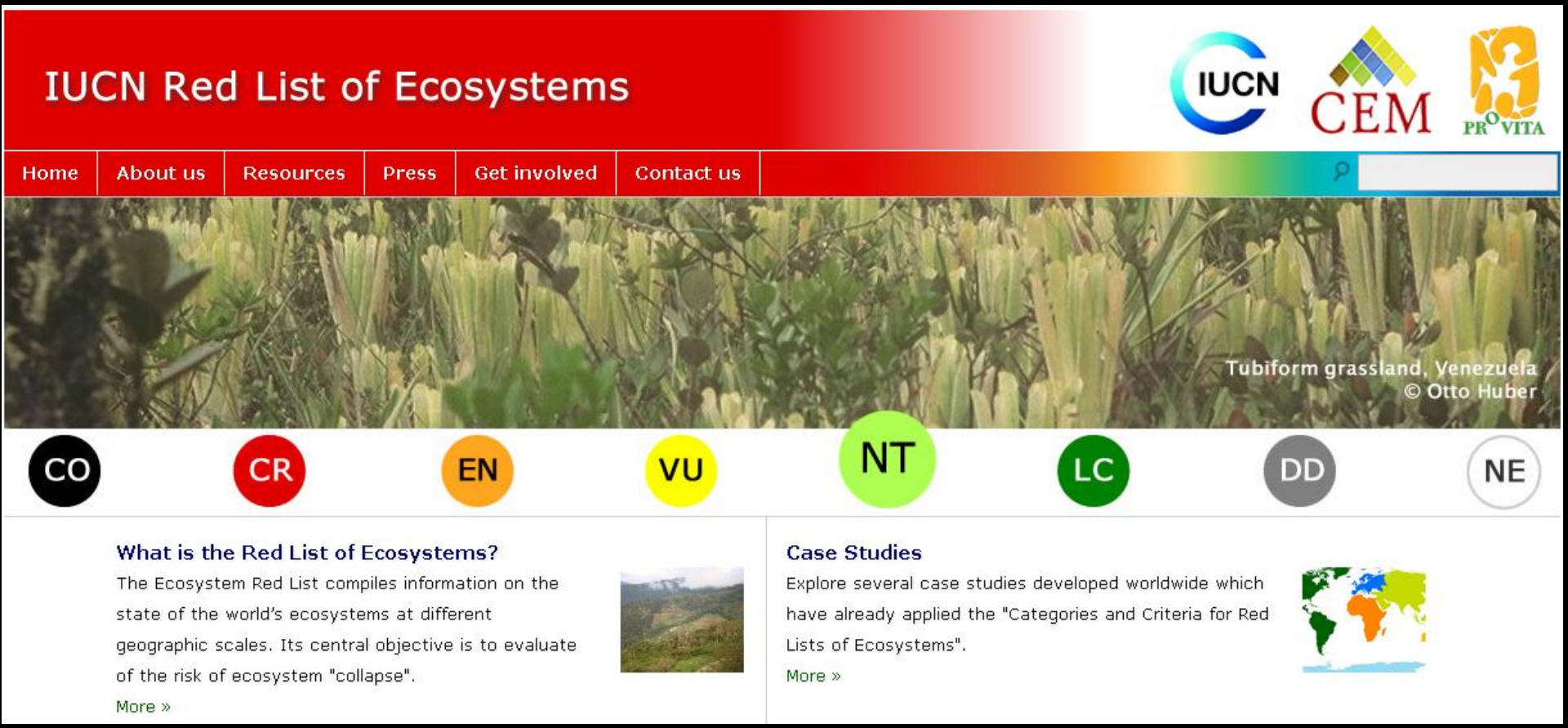
Tracking sharks with the Rolex Awards for Enterprise
22 January 2013 - Barbara Block, a renowned marine scientist received a 2012 Rolex Award for Enterprise. Her award will be used to monitor the activity of sharks off the coast of California and increase... more

Follow @Amazing Species

IUCN Red List of Threatened Species

http://www.iucnredlist.org/

www.iucnredlistofecosystems.org



- Documents, support, case studies, communications.
- English, Spanish and French.

1990s: major paradigm shift

- Species assigned to categories on the basis of quantitative criteria and thresholds.

- Separation of risk assessment (scientific exercise) from definition of conservation priorities (societal process).

Georgina M. Mace

Quantitative criteria: new categories for IUCN red lists

Russell S. Lande

Population decline

Small range: fragmented / decline / fluctuation

Reproductive population small and declining

Very small or restricted population

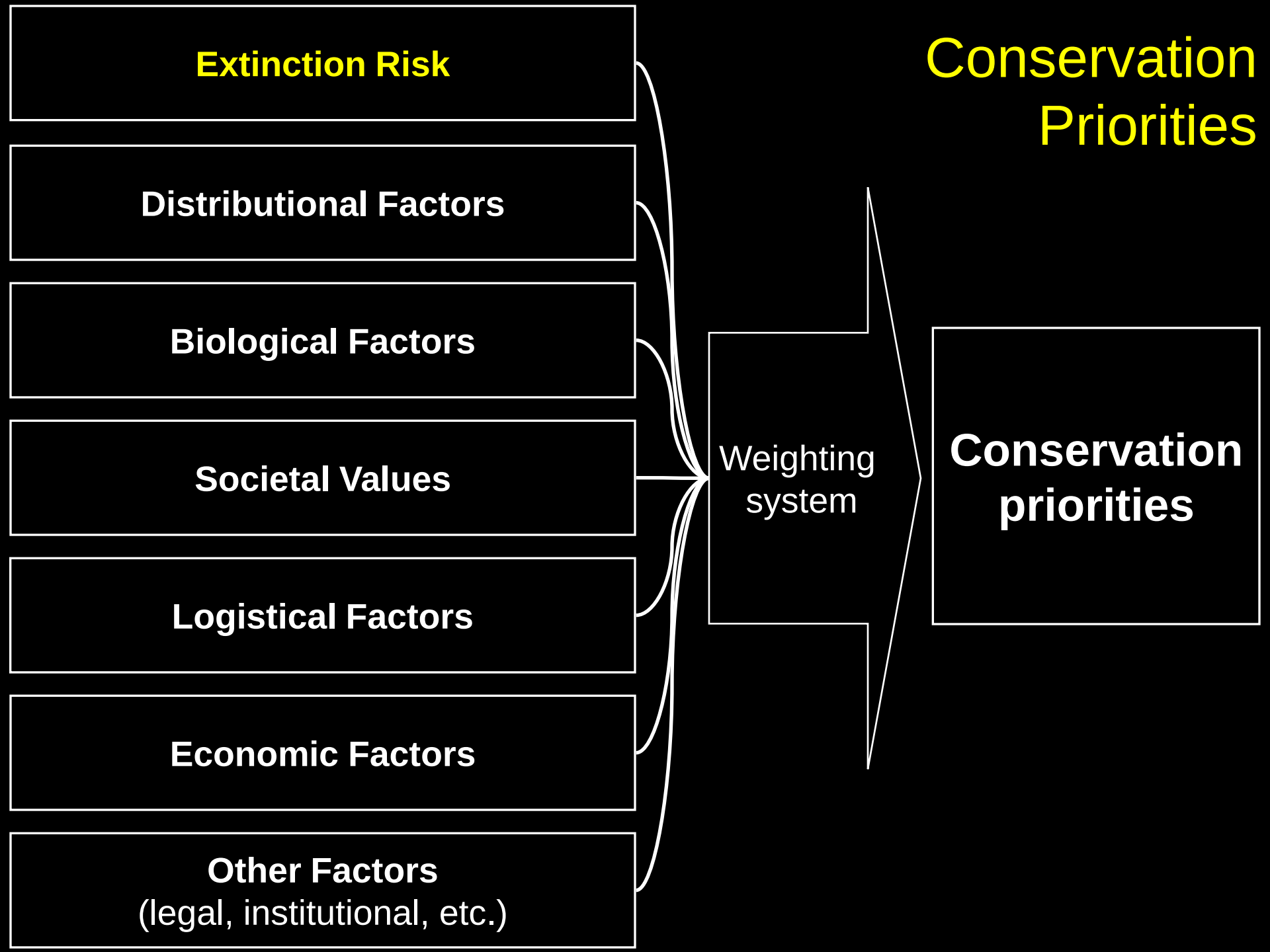
Quantitative assessment

Thresholds

Critically endangered

Endangered

Vulnerable


Extinction Risk
Distributional Factors
Biological Factors
Societal Values
Logistical Factors
Economic Factors
Other Factors
(legal, institutional, etc.)
Weighting system
Conservation priorities
Conservation Priorities

Extinction risk vs. conservation priorities

Troupial
Icterus icterus

Anopheles sp.

http://pathmicro.med.sc.edu/parasitology/mal8.jpg
http://ucce.ucdavis.edu/files/filelibrary/5434/19394.jpg

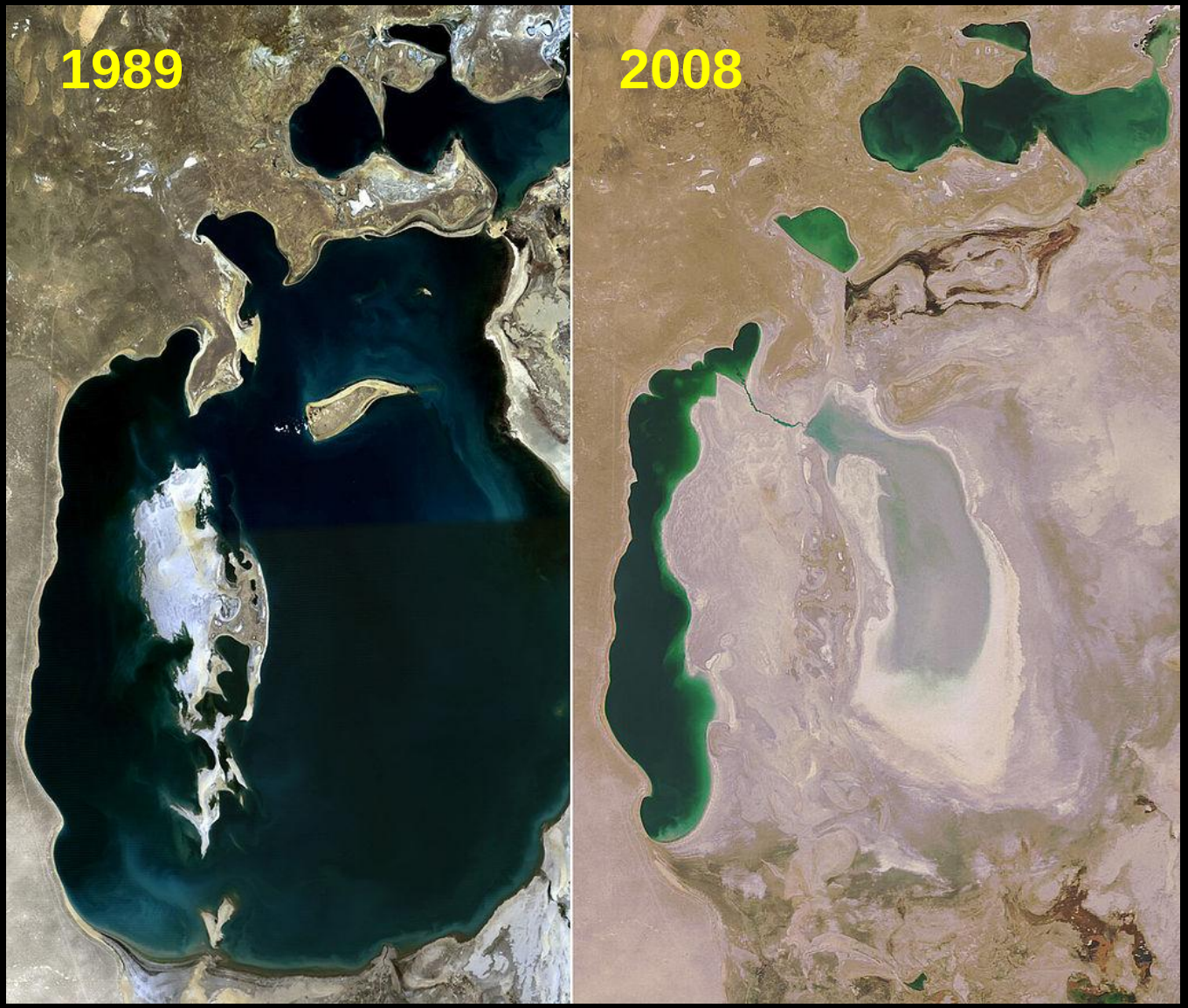
The concept of ‘risk’ for ecosystems

RISK – the probability of a bad outcome over a specified time frame.

Bad outcome: ecosystem collapse.

- Endpoint to ecosystem decline:
  - Ecosystems rarely disappear or go “extinct” (cf. species).
  - “Collapse”: transformation of identity, loss of defining features (characteristic biota and function), replacement by a novel ecosystem.

Aral Sea: a collapsed ecosystem



http://commons.wikimedia.org/wiki/File%3AAral_Sea_1989-2008.jpg

Aral Sea: a collapsed ecosystem

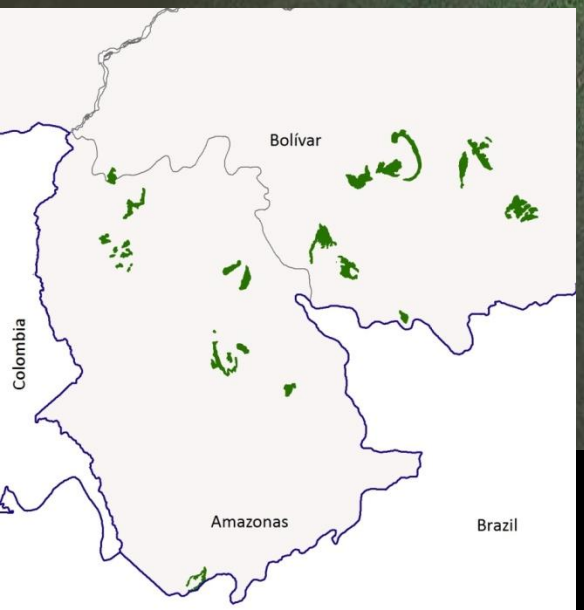
http://commons.wikimedia.org/wiki/File%3AAralShip.jpg

Aral Sea: a collapsed ecosystem

- One of the four largest lakes.
- Characteristic native biota: 12 freshwater fishes, diverse invertebrate fauna (~150 spp.), costal wetlands used by migratory birds..
- 2005: 28 aquatic species, coastal wetlands gone, volume and area reduced to fraction of original, salinity increased 10X.
- Human health impacted by dust clouds.

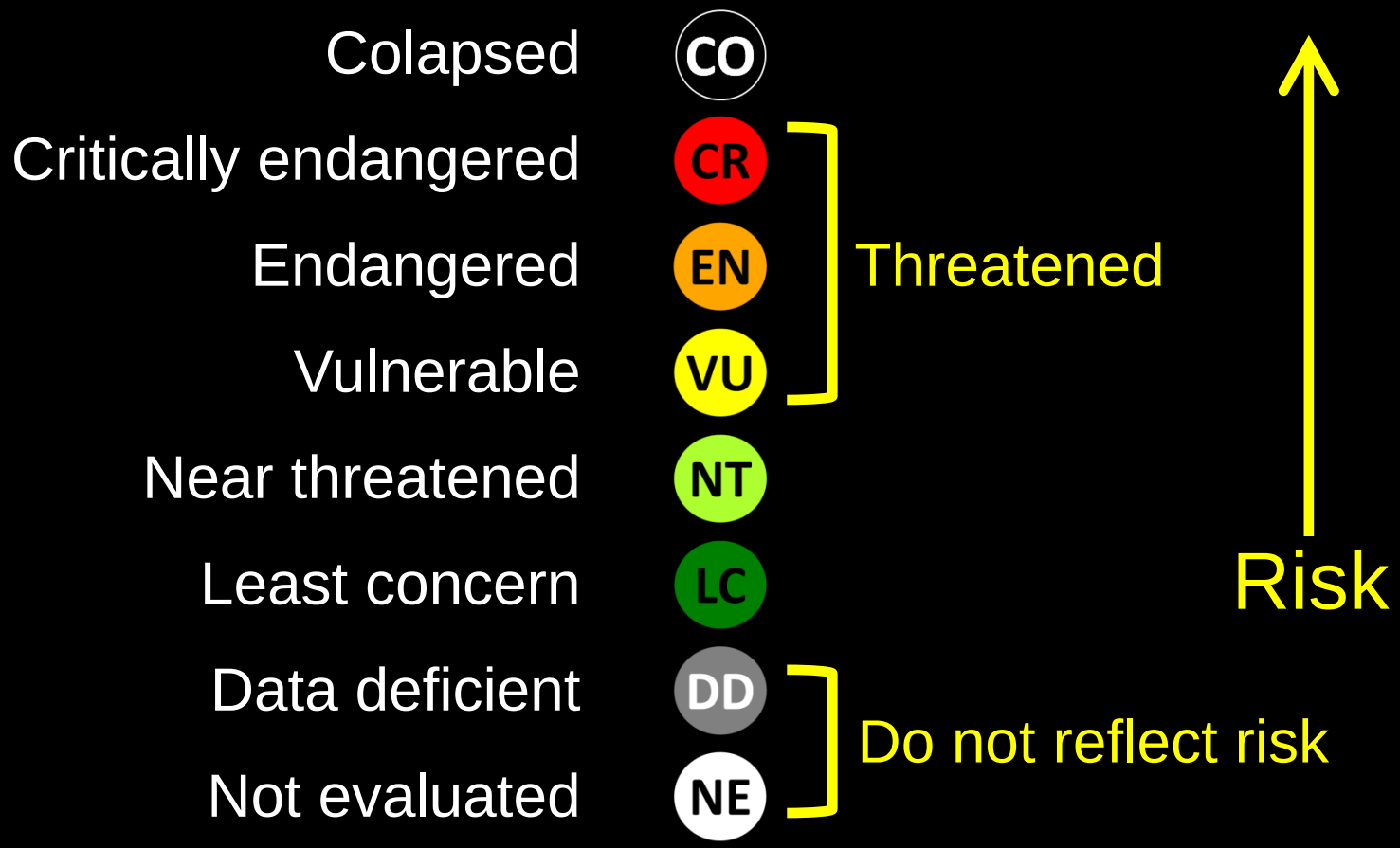
Venezuelan tepuis: no imminent risk

LC



Román Rangel, Cerro Roraima

Categories of IUCN Red Lists of Ecosystems



Ecosystem assessment process

No global classification, ecosystems may be defined at various scales (raindrops – oceans).

Approach:

i) Adopt widey accepted conceptual definition (Tansley 1935).

ii) Apply a risk assessment method applicable to any classification and spatial scale.

iii) Promote development of a global ecosystem classification.

iv) Require documented ecosystem descriptions as part of each risk assessment.

Describing ecosystems for assessment

Conceptual definition:
(4 key elements, Tansley 1935)

1. Characteristic assemblage of biota.
2. Associated physical environment.
3. Processes & interactions between components:
   - among biota,
   - between biota and environment.
4. Spatial extent.

Description template:
Classification (IUCN habitats, etc.)

1. List defining biotic features.
2. Identify defining abiotic features.
3. Describe key ecosystem drivers.
4. Maps (time series, projections):
   - past, present, future.

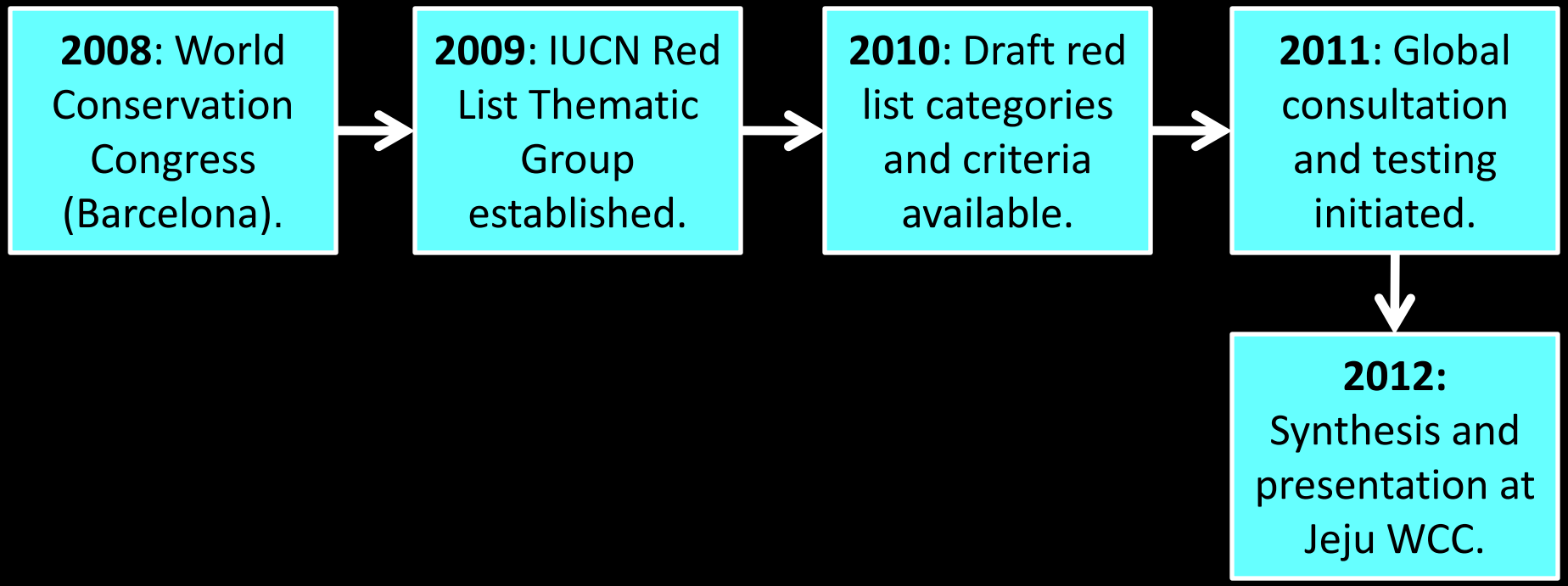
PS 6: Habitat is defined as …

… a terrestrial, freshwater, or marine geographical unit or airway that supports assemblages of living organisms and their interactions with the non-living environment.

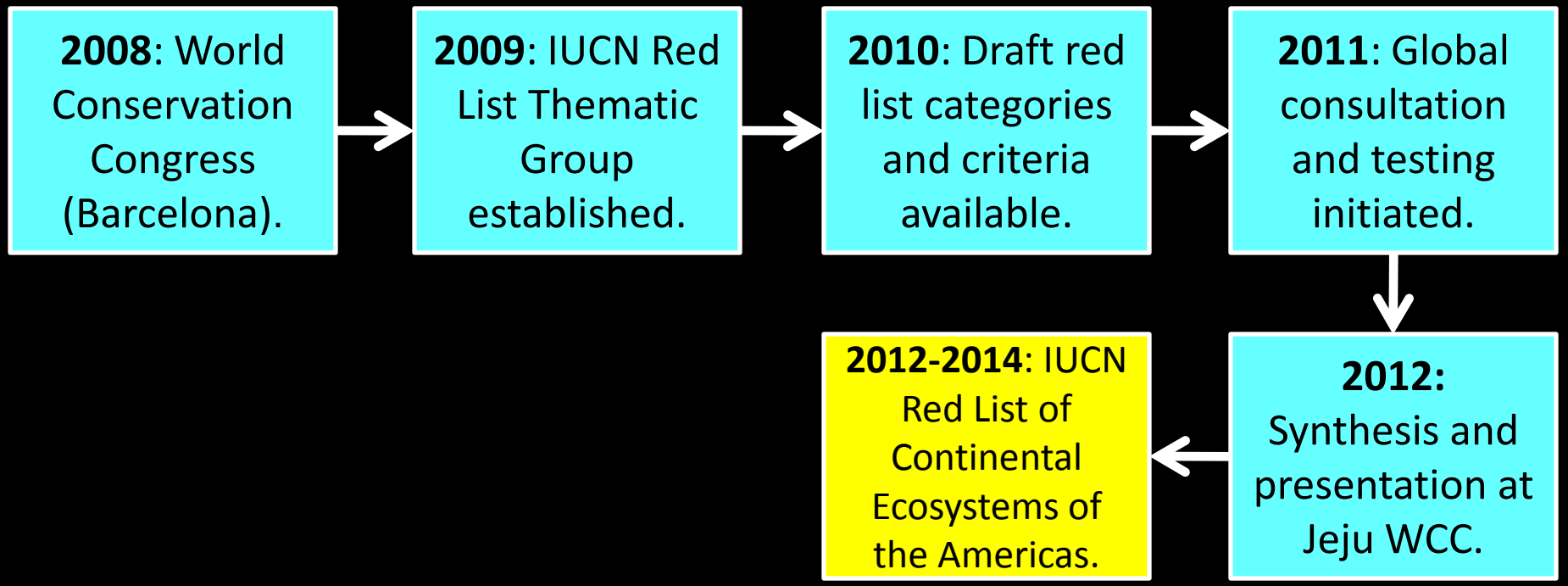
PS 6: Critical habitats are …

… areas with high biodiversity value, including
… highly threatened and/or unique ecosystems.

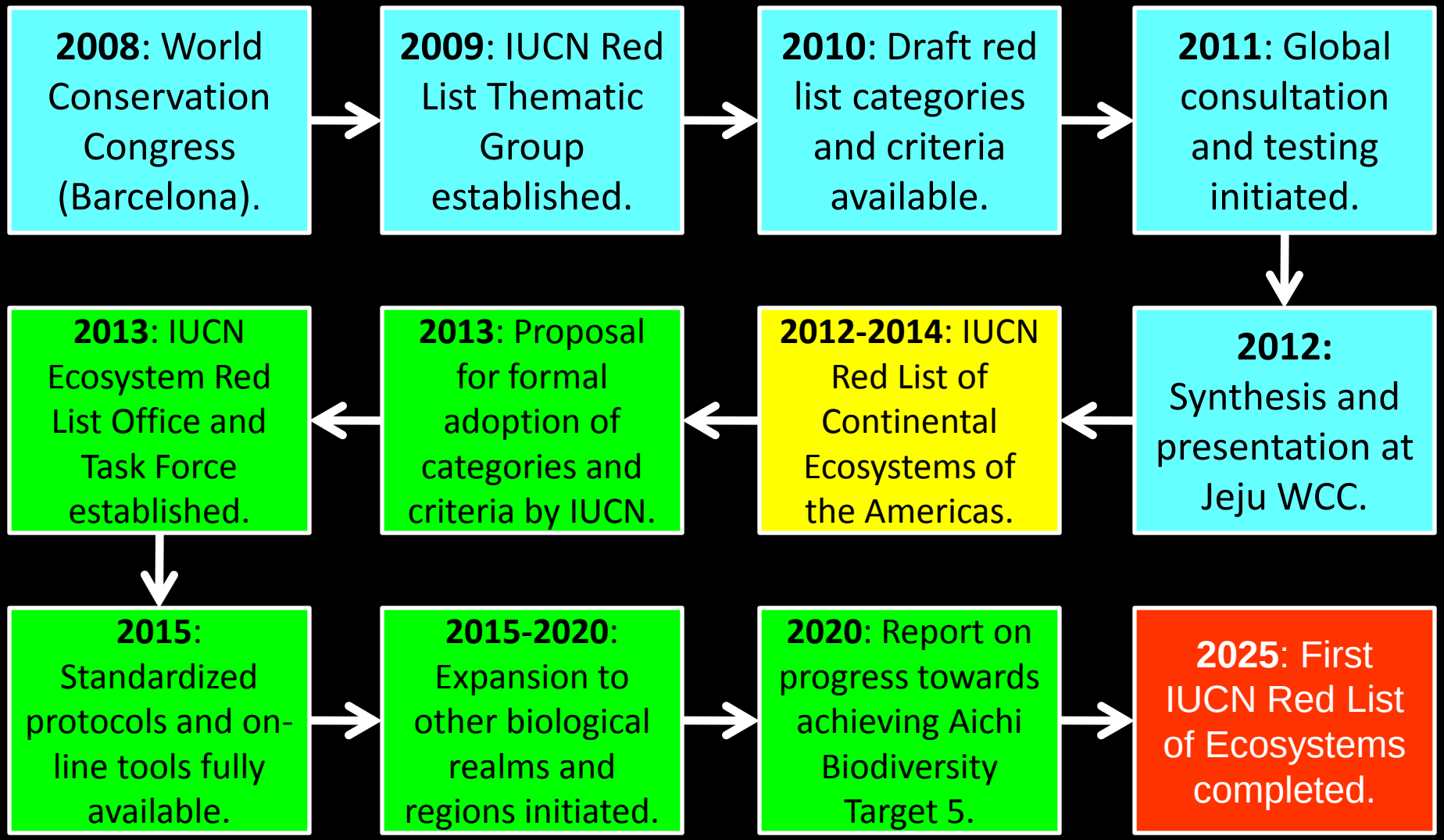
Past, present and future
of the IUCN Red List of Ecosystems



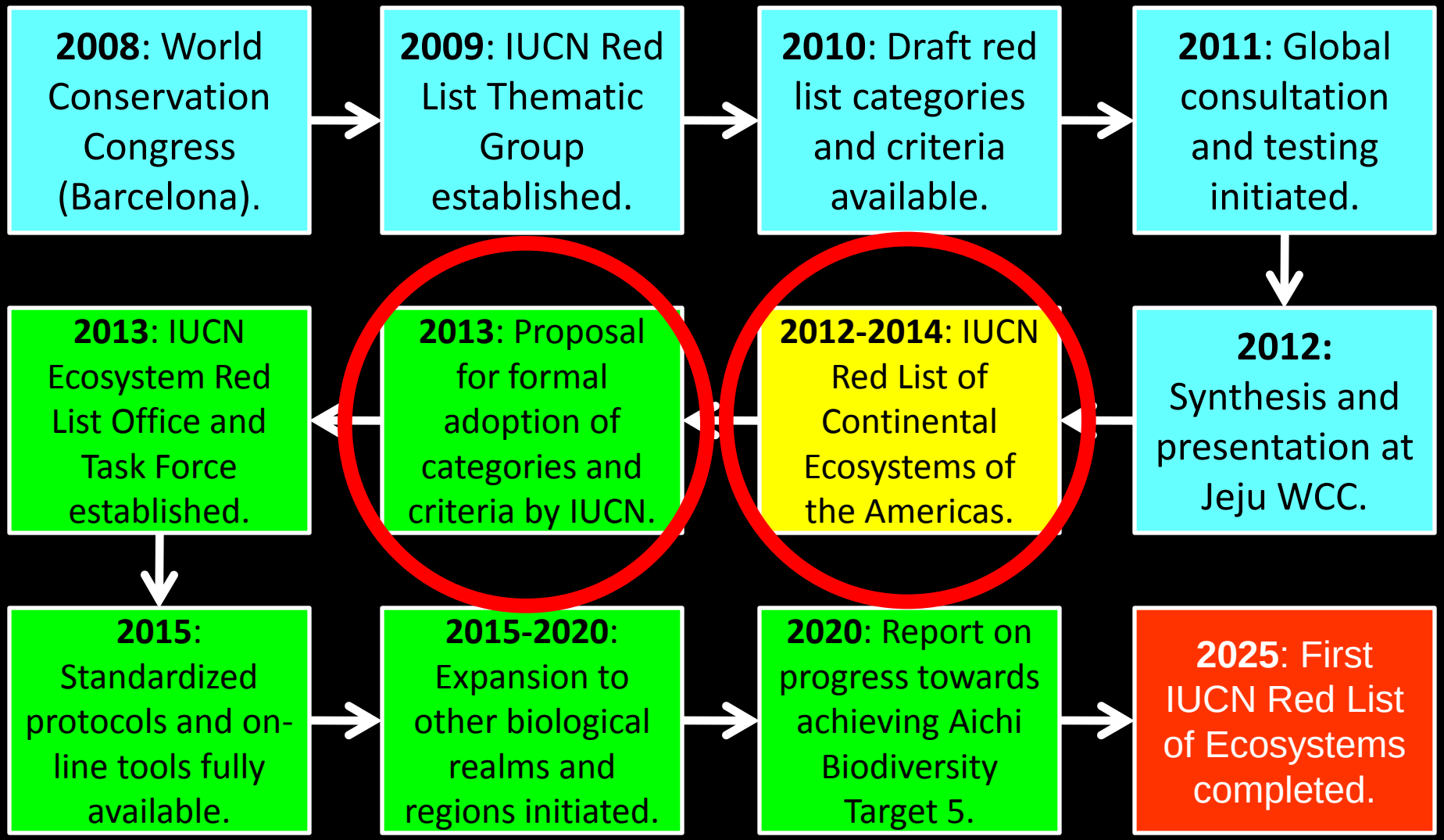
Past, present and future
of the IUCN Red List of Ecosystems



Past, present and future
of the IUCN Red List of Ecosystems



Past, present and future
of the IUCN Red List of Ecosystems



PLoS ONE 8(5): e62111 (2013)

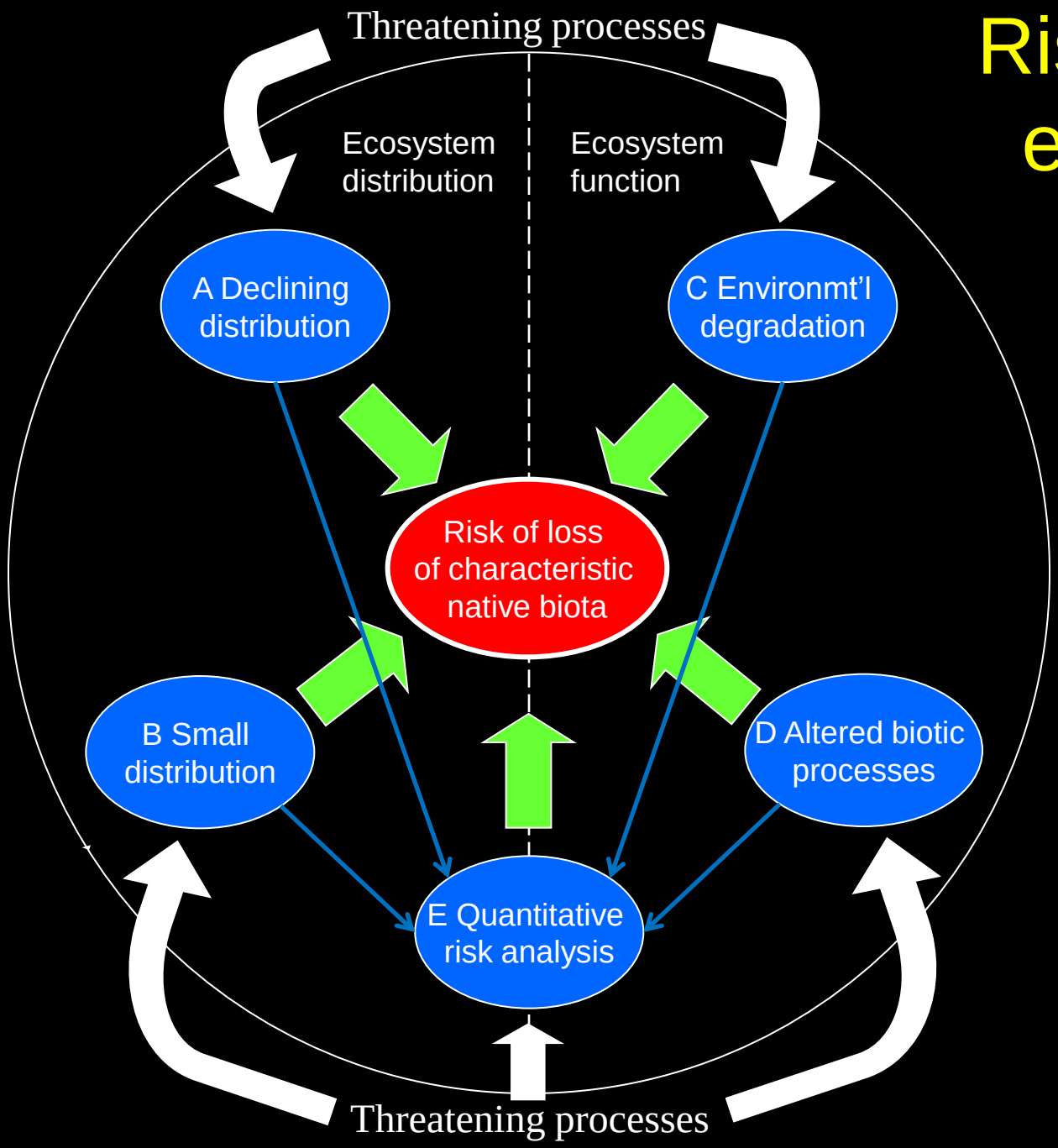
OPEN ACCESS Freely available online

PLOS | ONE

Scientific Foundations for an IUCN Red List of Ecosystems

David A. Keith[1,2*], Jon Paul Rodríguez[3,4,5,6], Kathryn M. Rodríguez-Clark[3], Emily Nicholson[7], Kaisu Aapala[8], Alfonso Alonso[9], Marianne Asmussen[3,5], Steven Bachman[10], Alberto Basset[11], Edmund G. Barrow[12], John S. Benson[13], Melanie J. Bishop[14], Ronald Bonifacio[15], Thomas M. Brooks[6,16], Mark A. Burgman[17], Patrick Comer[18], Francisco A. Comín[19], Franz Essl[20,21], Don Faber-Langendoen[16], Peter G. Fairweather[22], Robert J. Holdaway[23], Michael Jennings[24], Richard T. Kingsford[1], Rebecca E. Lester[25], Ralph Mac Nally[26], Michael A. McCarthy[7], Justin Moat[10], María A. Oliveira-Miranda[4], Phil Pisanu[15], Brigitte Poulin[27], Tracey J. Regan[7], Uwe Riecken[28], Mark D. Spalding[29], Sergio Zambrano-Martínez[3]

Risk model for ecosystems



- Threats to defining features (distribution, biota & function).
- Multiple mechanisms (causes of threat).
- 4 symptoms (of decline) = 4 criteria.
- Plus one overarching criterion (probability of collapse).

Scientific Foundations for an IUCN Red List of Ecosystems

(Keith *et al*. 2013, PLoS ONE)

- 20 case studies:
  - 7 marine & coastal
  - 2 freshwater
  - 11 terrestrial

IUCN Red List of Continental Ecosystems of the Americas:

top-down

+

bottom-up

GORDON AND BETTY MOORE FOUNDATION

ConocoPhillips

Top-down:

- Continental coverage.
- Map of potential and current ecosystems.
- Map of change (2000, 2010).
- Led by Commissions + secretariat.

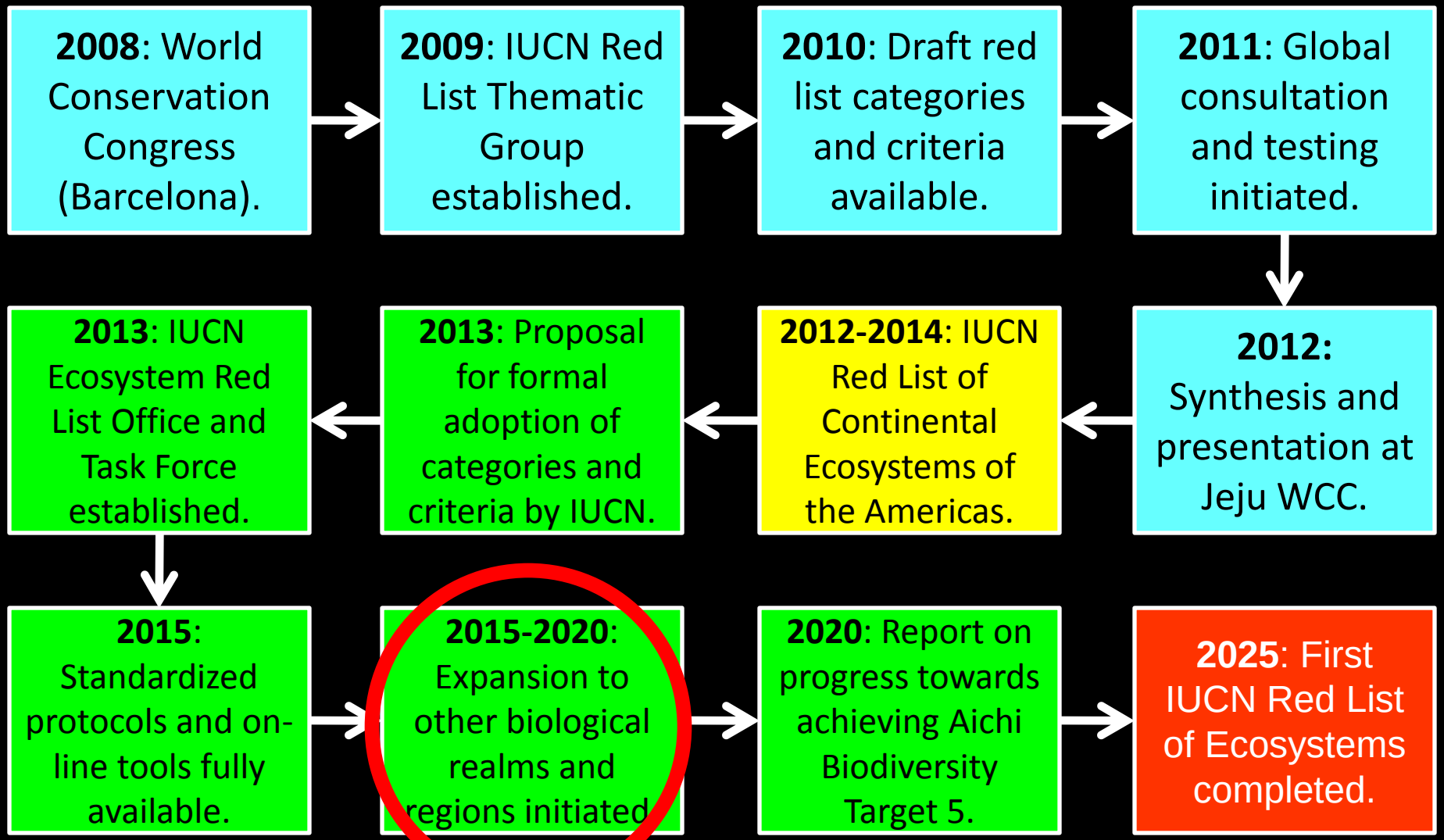
Bottom-up:

- Seven countries.
  - Governments + NGOs/academia.
- Ask policy-makers what they need.
- Flexible maps and classification.
  - Led by local organizations.

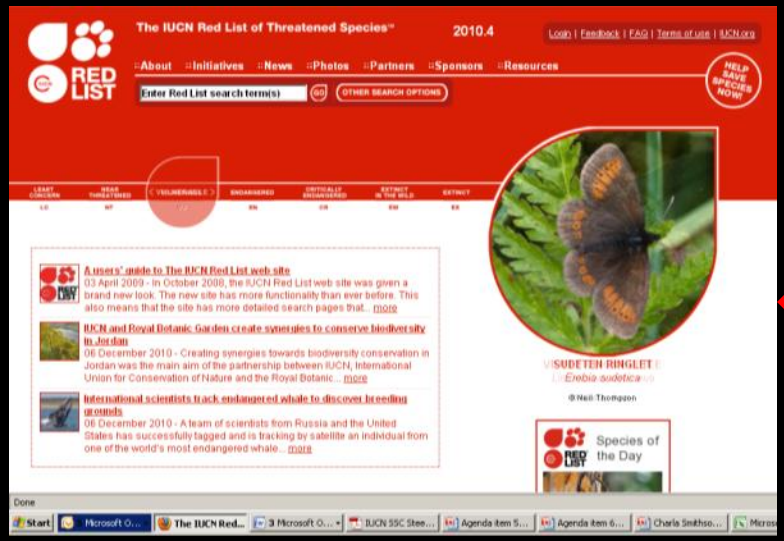
Outcomes (2014):

- Terrestrial ecosystems continentally and nationally.
- Freshwater ecosystems in two/three major watersheds.
- Top-down vs. bottom-up visions.
- Publications, media, training, etc.

Past, present and future
of the IUCN Red List of Ecosystems

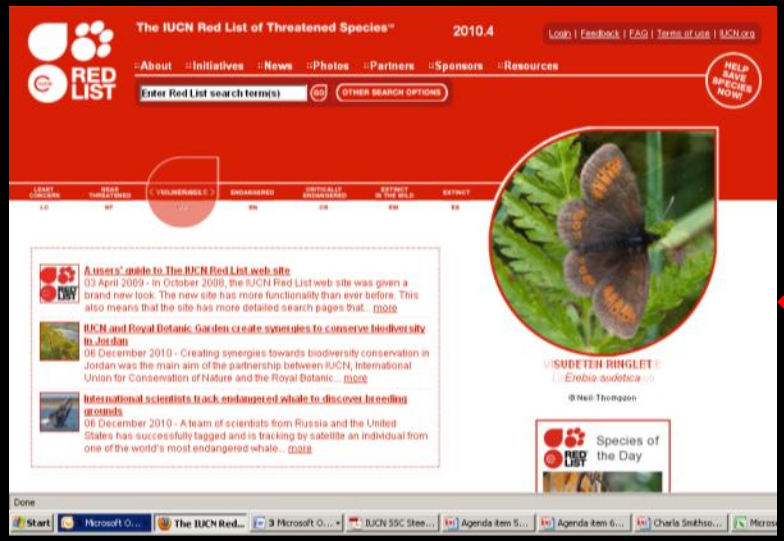


Data integration and access



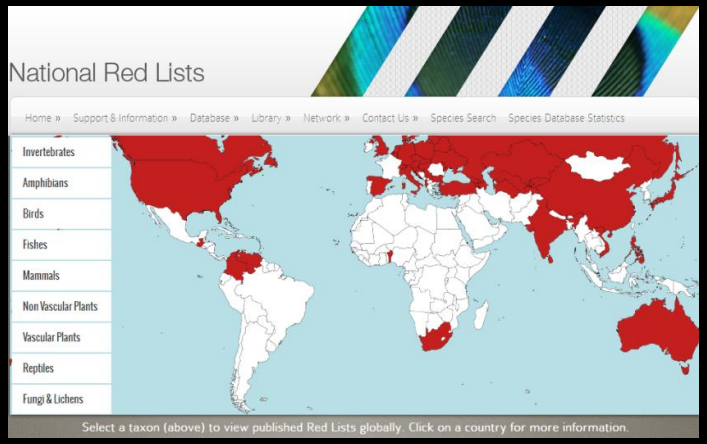
Global

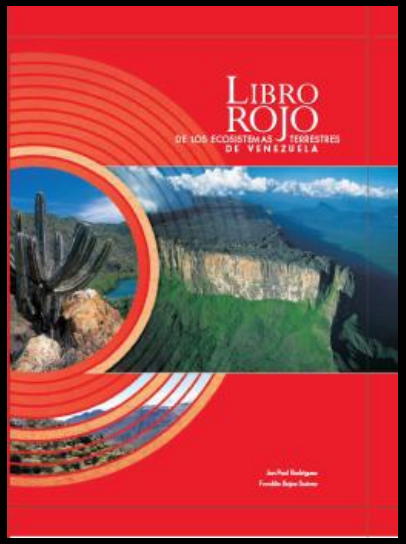
Data integration and access



Global

National





National


World Database On Protected Areas
incorporating the UN List of Protected Areas
Email:
Password:
Forgotten Password?
Log In
Home
Maps
Search
Download
Statistics
Now Available: 2010 WDPA Annual Release
Quick Protected Area Search:
Start typing then select from list
Search
The WDPA Supporters
The WDPA is powered by softwa
y ESRI and Safe Software
Terms of Use | Site Ma
Contact | Take Down Policy | Feedback
UNEP
WCMC
WCPA
The IUCN Red List of Threatene
RED LIST
Enter Red List search term(s)
Contact us
VU
NT
Case Studies
Explore several case studi
have already applied the '
Lists of Ecosystems".
More »
National Red List
Home »
Support & Information »
Database »
Library »
Network »
Contact Us »
Species Search
Species Database Statistics
Invertebrates
Amphibians
Birds
Fishes
Mammals
Non Vascular Plants
Vascular Plants
Reptiles
Fungi & Lichens
Select a taxon (above) to view published Red Lists globally. Click on a country for more information.
National
National

A growing network

IUCN Red List of Ecosystems

@redlisteco

www.iucnredlistofecosystems.org

Proteus Partners Meeting 2013

Houston, TX, USA