Workshop on understanding and making use of data outputs from the IUCN PanAfrica FW Biodiversity Assessment
• Reminder why we need information on FW species
• Types of data collated
• Understanding the Red List Categories and Criteria
• Navigating the IUCN Red List Website
• Conducting a species search on the IUCN Red List
• Downloading results of a Red List species search
• Downloading species distributions as shape files
• Understanding how species distribution maps are created
• The online Biobrowser - overview
• Some basic spatial analyses
• Application of data to improved PA design
• Key Biodiversity Areas (KBAs)
• Application to EIAs
Species information collated

- For each species we collated:
  - Taxonomy
  - Distribution - digital maps
  - Population
  - Habitat and Ecology
  - Major threats
  - Utilisation by people
  - Red List status
  - Bibliography....

- Expert reviewed
- Threatened and non threatened species recorded

<table>
<thead>
<tr>
<th>Species Group</th>
<th># species assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishes</td>
<td>2831</td>
</tr>
<tr>
<td>Molluscs</td>
<td>614</td>
</tr>
<tr>
<td>Odonates</td>
<td>709</td>
</tr>
<tr>
<td>Crabs</td>
<td>107</td>
</tr>
<tr>
<td>Plants</td>
<td>1357</td>
</tr>
<tr>
<td>Combined</td>
<td>5618</td>
</tr>
</tbody>
</table>
The IUCN Red List Assessment: An estimate of **extinction risk**

What is the likelihood of a species becoming extinct in the near future, given current knowledge about population trends, range, and recent, current or projected threats?
Red List Categories of Threat

- Extinct (EX)
- Extinct in the Wild (EW)
- Critically Endangered (CR)
- Endangered (EN)
- Vulnerable (VU)
- Near Threatened (NT)
- Least Concern (LC)
- Data Deficient (DD)
- Not Evaluated (NE)
A taxon is **THREATENED** when the best available evidence indicates that it meets any of the criteria for either **Critically Endangered**, **Endangered** or **Vulnerable**.

<table>
<thead>
<tr>
<th>Critically Endangered (CR)</th>
<th>Considered to be facing an extremely high risk of extinction in the wild</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endangered (EN)</td>
<td>Considered to be facing a very high risk of extinction in the wild</td>
</tr>
<tr>
<td>Vulnerable (VU)</td>
<td>Considered to be facing a high risk of extinction in the wild</td>
</tr>
</tbody>
</table>

Which category?

Use quantitative criteria (or thresholds) to distinguish between these threatened categories.
A taxon that has been evaluated against the criteria but and does not qualify for a **Threatened** category and is not **Extinct** or **Extinct in the Wild** is either:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Near Threatened (NT)</strong></td>
<td>When it is close to qualifying for a threatened category, or is likely to qualify in the near future.</td>
</tr>
<tr>
<td><strong>Least Concern (LC)</strong></td>
<td>When it does not qualify for a threatened category or Near Threatened. <strong>Widespread</strong> and <strong>abundant</strong> taxa are included in this category.</td>
</tr>
<tr>
<td><strong>Data Deficient (DD)</strong></td>
<td>When there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. (Taxonomic, lack of information, unknown distribution). It does <strong>NOT</strong> mean it is not threatened</td>
</tr>
</tbody>
</table>
Red List Categories for Threatened species

**Critically Endangered (CR)**

CR taxa are considered to be facing an extremely high risk of extinction in the wild

**Endangered (EN)**

EN taxa are considered to be facing a very high risk of extinction in the wild

**Vulnerable (VU)**

VU taxa are considered to be facing a high risk of extinction in the wild
### Nature of the Criteria

#### CRITERIA

| A | Population reduction |
| B | Restricted geographic range |
| C | Small population size & decline |
| D | Very small or restricted population |
| E | Quantitative analysis |

#### THREATENED CATEGORIES

- Critically Endangered (CR)
- Endangered (EN)
- Vulnerable (VU)

Quantitative thresholds
See 1 page summary sheet for full criteria thresholds:

<table>
<thead>
<tr>
<th>Use any of the Criteria A–E</th>
<th>Critically Endangered</th>
<th>Endangered</th>
<th>Vulnerable</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Population reduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>≥ 90%</td>
<td>≥ 70%</td>
<td>≥ 50%</td>
</tr>
<tr>
<td>A2, A3 &amp; A4</td>
<td>≥ 80%</td>
<td>≥ 50%</td>
<td>≥ 30%</td>
</tr>
</tbody>
</table>

A1. Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible AND understood AND have ceased, based on and specifying any of the following:

(a) Direct observation
(b) An index of abundance appropriate to the taxon
(c) A decline in area of occupancy (AOO), extent of occurrence (EOO) and/or habitat quality
(d) Actual or potential levels of exploitation
(e) Effects of introduced taxa, hybridization, pathogens, pollutants, competition or parasites.

A2. Population reduction observed, estimated, inferred, or suspected in the past where the causes of reduction may not have ceased OR may not be understood OR may not be reversible, based on (a) to (e) under A1.

A3. Population reduction projected or suspected to be met in the future (up to a maximum of 100 years) based on (a) to (e) under A1.

A4. An observed, estimated, inferred, projected or suspected population reduction (up to a maximum of 100 years) where the time period must include both the past and the future, and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible, based on (a) to (e) under A1.

B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1. Extent of occurrence (EOO)</td>
<td>&lt; 100 km²</td>
</tr>
<tr>
<td>B2. Area of occupancy (AOO)</td>
<td>&lt; 10 km²</td>
</tr>
</tbody>
</table>

AND at least 2 of the following:

(a) Severely fragmented, OR
   Number of locations: ≤ 1
   < 5
   < 10
(b) Continuing decline in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals.
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals.

C. Small population size and decline

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of mature individuals</td>
<td>&lt; 250</td>
</tr>
</tbody>
</table>

AND either C1 or C2:

C1. An estimated continuing decline of at least:
   (up to a max. of 100 years in future)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Frequency</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of mature individuals in each subpopulation</td>
<td>&lt; 50</td>
<td>&lt; 250</td>
</tr>
</tbody>
</table>

OR

C2. A continuing decline AND (a) and/or (b):

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Frequency</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>% individuals in one subpopulation</td>
<td>90–100%</td>
<td>95–100%</td>
</tr>
</tbody>
</table>

(b) Extreme fluctuations in the number of mature individuals.

D. Very small or restricted population

Either:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of mature individuals</td>
<td>&lt; 60</td>
</tr>
</tbody>
</table>

AND

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted area of occupancy</td>
<td>OR</td>
</tr>
</tbody>
</table>

D1. Typically: AOO < 20 km² or number of locations < 5

D2. < 1,000

E. Quantitative Analysis

<table>
<thead>
<tr>
<th>Indicating the probability of extinction in the wild to be:</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 50% in 10 years or 5 generations (100 years max.)</td>
<td>&gt; 25% in 20 years or 5 generations (100 years max.)</td>
</tr>
</tbody>
</table>
Criteria A - Population Reduction:

<table>
<thead>
<tr>
<th>Sub-criteria</th>
<th>CR</th>
<th>EN</th>
<th>VU</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 Past decline (&amp; ceased)</td>
<td>&gt; 90 %</td>
<td>&gt; 70 %</td>
<td>&gt; 50 %</td>
</tr>
<tr>
<td>A2 Past decline (&amp; NOT ceased)</td>
<td>&gt; 80 %</td>
<td>&gt; 50 %</td>
<td>&gt; 30 %</td>
</tr>
<tr>
<td>A3 Future decline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4 Past &amp; future</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Time frame: **3 generations or 10 years** which ever is longer! (max 100 years)
Decline based on any of:

(a) Direct observation (not for sub-criterion A3 – future reduction)

(b) An index of abundance appropriate to the taxon.

(c) A decline in:
   • area of occupancy;
   • extent of occurrence; and/or
   • quality of habitat.

(d) Actual or potential levels of exploitation.

(e) The effects of:
   • introduced taxa
   • hybridization
   • pathogens
   • pollutants
   • competitors
   • parasites
Freshwater

The Freshwater Biodiversity Unit of the IUCN’s Species Programme aims to put in place a factual basis for efforts to conserve and manage freshwater biodiversity.

An estimated 126,000 described species rely on freshwater habitats, including species of fishes, molluscs, reptiles, insects, plants, and mammals. With the inclusion of undescribed species, this number could rise to over one million species in relation to area of mainly high in many freshwater groups. Freshwater fishes comprise almost 6% of all fishes and freshwater molluscs about 25% of all molluscs. An estimated 15,000 fish (including brackishwater species), 4,300 amphibians, 5,600 Odonata (dragonflies and damselflies), and 5,000 mollusc species depend on freshwater habitats. Other major groups dependent upon freshwater include reptiles, insects, plants, and mammals.

The importance of freshwater species, ecosystems and services to human livelihoods and well-being is increasingly being recognised, and the FBU works in a number of areas to provide the information to support decisions for the protection of wetland species and livelihoods.

To conserve and manage freshwater biodiversity, the FBU works in conjunction with the SSC’s Specialist Groups (including the IUCN/SSC/Freshwater Fish Specialist Group; the Dragonfly Specialist Group and the Mollusc Specialist Group), the Species Information Service, the Global Amphibian Assessment Programme, regional scientists, experts in freshwater biodiversity and policy makers. We have a key partnership with Conservation International’s Science & Knowledge division, with which we are working to undertake regional and global freshwater assessments.

For further information on any of our projects, please visit our website.
**IUCN Red List Status**

Continental Africa supports a significant proportion of the world's freshwater species, with fishes particularly well represented.

**Estimated numbers of extant inland water-dependent species by major taxonomic group**

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Number of described species</th>
<th>Number of species in Africa</th>
<th>% of global total found in Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishes</td>
<td>~15,000</td>
<td>2331</td>
<td>19%</td>
</tr>
<tr>
<td>Molluscs</td>
<td>~ 5,000</td>
<td>554</td>
<td>12%</td>
</tr>
<tr>
<td>Odonates</td>
<td>5,880</td>
<td>709</td>
<td>12%</td>
</tr>
<tr>
<td>Crabs</td>
<td>c.1,300</td>
<td>117</td>
<td>9%</td>
</tr>
</tbody>
</table>

Of the 4,526 species endemic to Continental Africa, one fifth are threatened with extinction. The study found that 21% of all freshwater taxa are globally threatened, including 22% of fishes, 28% of molluscs, 23% of crabs, 25% of aquatic plants and 9% of dragonflies and damselflies. These results are the latest released during the International Year of Biodiversity, highlighting the perilous state of our natural environment.

**Summary of the IUCN Red List Category classifications at the global scale by taxonomic groupings**

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Total</th>
<th>EX</th>
<th>EW</th>
<th>CR</th>
<th>EN</th>
<th>VU</th>
<th>NT</th>
<th>LC</th>
<th>DD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishes</td>
<td>2788</td>
<td>0.1%</td>
<td>0%</td>
<td>4%</td>
<td>5%</td>
<td>13%</td>
<td>3%</td>
<td>57%</td>
<td>19%</td>
</tr>
<tr>
<td>Molluscs</td>
<td>338</td>
<td>3%</td>
<td>0%</td>
<td>9%</td>
<td>12%</td>
<td>7%</td>
<td>6%</td>
<td>34%</td>
<td>30%</td>
</tr>
<tr>
<td>Odonates</td>
<td>625</td>
<td>0%</td>
<td>0%</td>
<td>25%</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
<td>72%</td>
<td>16%</td>
</tr>
<tr>
<td>Crabs</td>
<td>117</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>9%</td>
<td>12%</td>
<td>2%</td>
<td>56%</td>
<td>20%</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>471</td>
<td>0%</td>
<td>0.2%</td>
<td>6%</td>
<td>5%</td>
<td>13%</td>
<td>8%</td>
<td>48%</td>
<td>18%</td>
</tr>
</tbody>
</table>
Geographic Patterns

Centres of species richness

Species distribution maps for fishes, molluscs, crabs and odonates were overlaid to identify those river basins holding the highest richness of species for each taxonomic group.
Aphyosemion thyti

Taxonomy [top]

<table>
<thead>
<tr>
<th>Kingdom</th>
<th>Phylum</th>
<th>Class</th>
<th>Order</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANIMALIA</td>
<td>CHORDATA</td>
<td>ACTINOPTERYGII</td>
<td>CYPRINODONTIFORMES</td>
<td>NOTHOBRANCHIDAE</td>
</tr>
</tbody>
</table>

Scientific Name: Aphyosemion thyti
Species Authority: Radzi & Huber, 1979
Taxonomic Notes: Eugenius (Aphyosemion)

Assessment Information [top]

Red List Category & Criteria: Vulnerable B1ab(ii)+2ab(ii) [v3.1]
Year Assessed: 2003
Assessors: Moejans, T.
Contributors:

Justification:
Aphyosemion (Metaeaphyosemion) thyti is known from fewer than 10 localities in the Mosendjo-Kamono area, in the Louasse-Niani River system, southwestern Congo-Brazzaville. The species is threatened by deforestation caused by timber exploitation. Both the EOO and AOO qualify for the Vulnerable status.
**Geographic Range**

**Range Description:** A lowland Goura endemic, found in the Mossa-Congo-Komoro area, in the Louesso-Niari River system, southwestern Congo.

**Countries:**
- Congo

**Range Map:** [Click map to see full version]

---

**Population**

**Population:** No information available.

**Population Trend:** Unknown

---

**Habitat and Ecology**

**Habitat and Ecology:** Aphyosemion thyrsis found in brooks and small streams in the hilly rainforest (Widemann et al. 1996). It is a benthophilic, non-migratory species. Aphyosemion thyrsis is not a seasonal killifish. This species is difficult to maintain in aquarium (Huber 1996).

**Systems:** Freshwater

---

**Threats**

**Major Threat(s):** The species is threatened by deforestation caused by timber exploitation.

---

**Conservation Actions**

**Conservation Actions:** None known.

---


**Disclaimer:** To make use of this information, please check the [Terms of Use].

**Feedback:** If you see any errors or have any questions or suggestions on what is shown on this page, please fill in the feedback form so that we can correct or extend the information provided.
Use of Red List data

Download document ‘Guidelines for appropriate use of Red List data’
Key Facts, e.g.:
• Not just threatened species on the Red List
• Not all species are assessed
• The Red List assessment is a measure of extinction risk only
• The Red List is not, on its own, a system for setting conservation priorities

Appropriate use of the Red List, e.g.:
• Informing development of national threatened species lists, action plans etc.
• Guiding site level evaluation, the Red List is a key input for an EIA.
• Determining extinction rates across globally and comprehensively assessed species categories

Inappropriate use of the Red List, e.g.:
• Automatically linking a legislative response (e.g. banning trade) to the inclusion of a species in a particular Red List category
• Relying solely on the global Red List status for local planning (e.g., Developing a harvest plan for a local plant population based solely on the global Red List status)
• Assuming that the IUCN Red List provides a comprehensive picture of all the species that are threatened.
How to search the Red List website

Go to - www.iucnredlist.org

Two search options:
1. Simple species name search
2. Detailed search
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

Whales & dolphins need more protected areas
06 September 2011 - A new book, Marine Protected Areas for Whales, Dolphins and Porpoises is released, calling for accelerated efforts to conserve marine mammals by protecting a greater area of the ocean... more

Species on the Edge of Survival - The ultimate guide to nature in need
30 August 2011 - Why is the Javan Rhino one of the world’s most threatened large mammals? What efforts are underway to help conserve the 47 remaining Floresan Mockingbirds of Ecuador? Why is there a... more

Removing rats, restoring islands
23 August 2011 - A unique international project partnership involving IUCN Member organizations, the Royal Society for Protection of Birds, The Nature Conservancy and the US Fish & Wildlife Service is... more

Spiny-flanked Chameleon
Ticroceros laetissimus
© Kristal A. Tolle
<table>
<thead>
<tr>
<th>Species</th>
<th>Status</th>
<th>Pop. trend</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Tor putitora</em> (Putitor Mahseer)</td>
<td>Endangered A4acde</td>
<td>Decreasing</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Hypsoblata meswilik</em> (Hump Backed Mahseer)</td>
<td>Endangered B2ab(3)(i,ii)(iv)</td>
<td>Decreasing</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Puntius chrysogaster</em> (Dark mahseer)</td>
<td>Vulnerable B2ab(i,ii,iii,iv)</td>
<td>Decreasing</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Tor kulakai</em> (Dwarf mahseer)</td>
<td>Endangered B1ab(iii)+2ab(ii)</td>
<td>Unknown</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Tor yuwanensis</em></td>
<td>Endangered A1ac, B1+2e</td>
<td>Needs updating</td>
<td>ver 2.3</td>
</tr>
<tr>
<td><em>Tor aster</em></td>
<td>Vulnerable D2</td>
<td>Unknown</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Tor pregoensis</em> (Jungha Mahseer)</td>
<td>Near Threatened</td>
<td>Decreasing</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Tor barakao</em></td>
<td>Data Deficient</td>
<td>Unknown</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Tor kudiree</em> (Black Mahseer)</td>
<td>Endangered A2acde</td>
<td>Decreasing</td>
<td>ver 3.1</td>
</tr>
<tr>
<td><em>Tor tor</em> (mahseer)</td>
<td>Near Threatened</td>
<td>Decreasing</td>
<td>ver 3.1</td>
</tr>
</tbody>
</table>
**Hypsokobus mussulch** (Hump Backed Mahseer)
Status: Endangered   B2ab(iii,v)  ver 3.1
Pop. trend: decreasing

**Puntius celyrnicus** (Dark mahseer)
Status: Vulnerable   B2ab(i,ii,iv,v)  ver 3.1
Pop. trend: decreasing

**Tor ator**
Status: Vulnerable   D2   ver 3.1
Pop. trend: unknown

**Tor barakae**
Status: Data Deficient   ver 3.1
Pop. trend: unknown

**Tor bhurao** (Black Mahseer)
Status: Endangered   A2acde   ver 3.1
Pop. trend: decreasing

**Tor kelkare** (Ovarf mahseer)
Status: Endangered   B1ab(iii)+2ab(iii)   ver 3.1
Pop. trend: unknown

**Tor malabaricus** (Malabar Mahseer)
Status: Endangered   A2acde+3cde+4acde   ver 3.1
Pop. trend: decreasing

**Tor pogonius** (Jungla Mahseer)
Status: Near Threatened   ver 3.1
Pop. trend: unknown

**Tor putitora** (Puttor Mahseer)
Status: Endangered   A1acde   ver 3.1
Pop. trend: decreasing

**Tor tor** (mahseer)
Status: Near Threatened   ver 3.1
Pop. trend: decreasing
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

Whales & dolphins need more protected areas
06 September 2011 - A new book, Marine Protected Areas for Whales, Dolphins and Porpoises is released, calling for accelerated efforts to conserve marine mammals by protecting a greater area of the ocean... more

Species on the Edge of Survival - The ultimate guide to nature in need
30 August 2011 - Why is the Jarar Rhino one of the world's most threatened large mammals? What efforts are underway to help conserve the 47 remaining Pterodactyls Mockingbirds of Ecuador? Why is there a... more

Removing rats, restoring islands
23 August 2011 - A unique international project partnership involving IUCN Member organizations, the Royal Society for Protection of Birds, The Nature Conservancy and the US Fish & Wildlife Service is... more
Selected Systems
Freshwater

Selected Taxonomy
ACTINOPTERYGI

Location Modifiers
Native

Selected Locations
East Asia

Click the "Run Search" button below to run your search using the criteria displayed above.
Keywords
- Threats

1. Residential & commercial development
2. Agriculture & aquaculture
3. Energy production & mining
4. Transportation & service corridors
5. Biological resource use
6. Human intrusions & disturbance
7. Natural system modifications
8. Invasive & other problematic species & genes
9. Pollution
10. Geological events
11. Climate change & severe weather
12. Other options

Your Search Criteria
- Selected Threats
  - 5.4.1 Intentional use: (subsistence/small scale)
  - 5.4.2 Intentional use: (large scale)
- Selected Taxonomy
  - Actinopterygii
- Location Modifier
  - Native
- Selected Locations
  - East Asia
- Selected Systems
  - Freshwater

Click the "Run Search" button below to run your search using the criteria displayed above.
<table>
<thead>
<tr>
<th>Taxon Name</th>
<th>Status</th>
<th>Pop. trend</th>
<th>ver.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Acheilognathus macropterus</em></td>
<td>Data Deficient</td>
<td>unknown</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acheilognathus tonkinensis</em></td>
<td>Data Deficient</td>
<td>unknown</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Bagarius yarrelli</em></td>
<td>Near Threatened</td>
<td>decreasing</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Bagarius yunnanensis</em></td>
<td>Data Deficient</td>
<td>unknown</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acipenser baerii</em> (Siberian Sturgeon)</td>
<td>Endangered</td>
<td>A2bcd+Abcd</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acipenser dabryanus</em> (Yangtze Sturgeon)</td>
<td>Critically Endangered</td>
<td>A2bcd</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acipenser mikadoi</em> (Sakhalin Sturgeon)</td>
<td>Critically Endangered</td>
<td>A2code</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acipenser ruthenus</em> (Sterlet)</td>
<td>Vulnerable</td>
<td>A2code</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acipenser schrencki</em> (Amur Sturgeon)</td>
<td>Critically Endangered</td>
<td>A2bd</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Acipenser sinensis</em> (Chinese Sturgeon)</td>
<td>Critically Endangered</td>
<td>A2bcd,B2ak(i,i,iv,v),C2a(ii)</td>
<td>5.1</td>
</tr>
<tr>
<td><em>Asabariliis alibiceps</em> (Silvery White Fish)</td>
<td>Endangered</td>
<td>B1a0(i,i,v)+2a0(i,v)</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Asabariliis andersoni</em></td>
<td>Critically Endangered</td>
<td>B1a0(i,i,v)</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Asabariliis polyepis</em> (Big White Fish)</td>
<td>Endangered</td>
<td>B1a0(i,i,v)+2a0(i,i,v)</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Bauschichthys dabryi</em> (Humpback)</td>
<td>Least Concern</td>
<td>decreasing</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cydnichthys tenuis</em></td>
<td>Least Concern</td>
<td>unknown</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Capoichthys moiferi</em> (Mud Carp)</td>
<td>Near Threatened</td>
<td>decreasing</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cypinus fuscigenus</em></td>
<td>Critically Endangered</td>
<td>A2bcde</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cypinus micratus</em> (Dianchi Carp)</td>
<td>Critically Endangered</td>
<td>B1ab(i,ii,iv)+2ab(i,ii,iv)</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cypinus qionghaiensis</em></td>
<td>Critically Endangered</td>
<td>A2bcd,B1ab(i,ii,v)+2ab(i,ii,v)</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cyprinella maculatum</em></td>
<td>Least Concern</td>
<td>unknown</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cyprinella traillii</em></td>
<td>Least Concern</td>
<td>unknown</td>
<td>3.1</td>
</tr>
<tr>
<td><em>Cyprinella trinaquina</em></td>
<td>Least Concern</td>
<td>unknown</td>
<td>3.1</td>
</tr>
</tbody>
</table>
How to download results of a species search

- Create an account
- Save your search
- Export your search results
Acheilognathus macropterus
Status: Data Deficient
Pop. trend: unknown

Acheilognathus tokiyae
Status: Data Deficient
Pop. trend: unknown

Acipenser baeri (Siberian Sturgeon)
Pop. trend: decreasing

Acipenser dabryanus (Yangtze Sturgeon)
Pop. trend: decreasing

Acipenser mikadoi (Sakhalin Sturgeon)
Status: Critically Endangered A2c+d (2003)
Pop. trend: decreasing

Saved Searches
Saved searches are permanently stored in your user account. Once a search is saved, you may also export the results for offline use, or provide a link for others to access your saved search.

You must be logged in to use this feature.

Login
Login

You must log in to access advanced IUCN Red List functionality. Please enter your email address and password below.

Email address: 
Password: 
Login

Create Account or Request New Password

If you do not have an IUCN Red List user account, or if you have forgotten your password, please enter your email address below. A password will be sent to the address you provide.

Email address: 

We agree to respect your privacy. Please see our privacy policy.
Saved Searches

Saved searches are permanently stored in your user account. Once a search is saved, you may also export the results for offline use, or provide a link for others to access your saved search.

- East Asian fw fish

Add your current search

User Information

You have submitted contact information and can access all user services. To view information, visit the user information page.
EMAIL:
You requested an export for the following saved search:
  * East Asian fw fish
Your export has been completed. Please log in to the IUCN Red List website at [http://www.iucnredlist.org/info/login](http://www.iucnredlist.org/info/login) and download your exported data.
Correct and incorrect use of the Red List

Saved Searches

Saved searches are permanently stored in your user account. Once a search is saved, you may also export the results for offline use, or provide a link for others to access your saved search.

- East Asian fish
  - Exported on 13 September 2011

Add your current search

User Information

You have submitted contact information and can access all user services. To view or change your information, visit the user information page.

Export Results

Your search results have been exported. Please use the links below to download the export in your preferred format(s).

- Comma-Separated Values (CSV)
- Extensible Markup Language (XML)

Please note that the Red List data may change over time. The exported data is current as of 13 September 2011. To obtain the latest data, use the button below; your exported data will be replaced with the most current data.

Refresh Exported Data
The results contain the following: taxonomy, authority, synonyms, common names (Eng, Fre, Spa), Red List category, Red List criteria, Red List criteria version, Year assessed, Population trend, Petitioned (yes or no)
How to download species distributions as shape files
Spatial Data Download

The 2010 IUCN Red List of Threatened Species contains assessments for almost 60,000 species, of which about 28,000 have spatial data. This spatial data collection provides below is the comprehensively assessed taxonomic groups such as amphibians, mammals, threatened corals, groupers, wrasses, angelfish, butterflyfish, sea snakes, seagrasses, and mangroves. Spatial data is also provided for many of the reptile species that have been assessed. Other groups will be added to this collection once they are mapped. It is important to note that some species listed as Data Deficient are not mapped. These data are made freely available to the public to help inform conservation planning and other decision-making processes. For more information about the assessment process, please see the IUCN Red List website (http://www.iucnredlist.org/technical-documents/assessment-process).

The data are held in shapefiles, the ESRI native format and contain the known range of each species. Ranges are depicted as polygons. DBF files accompanying each polygon contain taxonomic information, and contain information on distribution status, sources and other details about the maps (see metadata document). To limit the size of the shapefiles that are available to download, the higher taxonomy is not included in the data sets, only the genus and species name.

The higher taxonomy including the current Red List Category information is available under each section, in excel format (these are the same data you would get if you ran a search on the Red List website and exported the results as a CSV file), and you are able to join this file with the shapefiles when downloaded.

For ease of distribution and downloading the data is divided by taxonomic groups.

The data is available both in ESRI File Geodatabase format and the ESRI Shapefile format and held in geographical coordinates. Please note that the files are large, and download times could be quite lengthy.

While this data is made freely available to the public, please note that unfortunately we cannot provide technical support for use of the data in analyses or general GIS support.
Data Links

<table>
<thead>
<tr>
<th>Mammals</th>
<th>Birds</th>
<th>Groupers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphibians</td>
<td>Angelfish</td>
<td>Wrasses</td>
</tr>
<tr>
<td>Corals</td>
<td>Butterflyfish</td>
<td>Mangroves</td>
</tr>
<tr>
<td>Raptiles</td>
<td>Parrotfish</td>
<td>Seagulls</td>
</tr>
</tbody>
</table>

Mammals

The ranges are available as a single data set (file Geodatabase) for all mammals or broken out into smaller data sets as shapefiles. The ranges are broken out by grouping families containing predominantly marine and terrestrial species.

The terrestrial file includes all mammals, excluding species in the families Otaridae, Phocidae and Odobenidae (i.e. all seals, sea lions and walrus), Baleenidae, Balaenopteridae, Delphinidae, Eschrichtiidae, hiidae, Monodontidae, Neobalaenidae, Phocoenidae, Physeteridae, Platanistidae, and Ziphiidae (all whales, dolphins and porpoises), and everything in the Order Sirenia (manatees and dugongs). The latter families are included in the Marine shapefile.

All mammals - 2010 (zip file, 355.7 MB)
Mammals - terrestrial (zip file, 374 MB)
Mammals - marine (zip file, 355.4 MB)

See metadata document for further information.

Mammals - full taxonomy and Red List status (note that there are more species in this list than are mapped and the list does not include subspecies or subpopulations). The list presented as a Red List search result with links to each species fact sheet can also be found by clicking on this permalink: http://www.iucnredlist.org/apps/redlist/search/link/4cc84a88-1fd94435.
Species Distribution Maps
Species are mapped to 7079 sub-catchments
A combination of Expert knowledge, point data and published data were used to map known and inferred ranges.
The BioBrowser
The layers Tab lets you select the freshwater datasets.
Clicking on a catchment provide info on species and links to Red List
Searching for a species by name…

...produces a range map...

...and information and links to the Red List.
There are a number of pre-defined queries such as listing all threatened species in a catchment.
Some Basic Analysis
Using the shapefiles
GIS species overlays:

Can identify areas of high species richness...
...priorities for conservation based on threatened species...
...priorities based on endemism...
...and areas to invest to increase our knowledge.
Shortfalls in freshwater conservation planning
Niasse Game Reserve

United Republic of Tanzania

Rivers used as boundary markers

Mozambique
Identifying Key Biodiversity Areas (KBAs) for freshwaters.
What are KBAs?

• Sites of global significance for biodiversity conservation
• Identified using globally standard criteria and thresholds
• Criteria relate to the vulnerability and irreplaceability of sites
What is their purpose?

• Gap analysis of the coverage of protected areas
• Allows strategic expansion for the coverage of species
• Provides a focus for work and funding – i.e. Critical Ecosystem Partnership Fund
Methodology for Freshwater KBAs

• **Step 1**: Define the **geographic boundaries** within which to identify important sites.
• **Step 2**: Define the wider **ecological context** of the designated assessment area.
• **Step 3**: Identify and **map** the distribution of **inland water** habitat types.
• **Step 4**: Assemble an inventory of the **distribution** and **conservation status** of priority aquatic taxa.
• **Step 5**: Apply species based site **selection criteria**.
• **Step 6**: Ensure **full representation** of inland water habitats among those sites selected.
• **Step 7**: Ensure inclusion of **keystone species**.

**GOAL**: To select **ALL** sub-catchment of importance using standard criteria.
Stage 1 – ID qualifying sub-catchments

• **Criterion 1.** A site is known or thought to hold a significant number of one or more **globally threatened species** or other species of conservation concern.

• **Criterion 2.** A site is known or thought to hold non-trivial numbers of one or more species (or infraspecific taxa as appropriate) of **restricted range**.

• **Criterion 3.** A site is known or thought to hold a significant component of the group of species that are **confined** to an appropriate **biogeographic unit** or units.

• **Criterion 4a.** A site is known or thought to be **critical** for any **life history stage** of a species.

• **Criterion 4b.** A site is known or thought to hold more that a **threshold number** of individuals of a **congregatory species**.
Developing the site selection criteria
A site is known or thought to hold a significant number of one or more **globally threatened species** or other species of conservation concern.
Criterion 2

- A site is known or thought to hold non-trivial numbers of one or more species (or infraspecific taxa as appropriate) of restricted range.
Criterion 3

- A site is known or thought to hold a significant component of the group of species that are confined to an appropriate biogeographic unit or units.
Phase 2 – overlaps with existing PAs/KBAs

- Rationalise KBA and PA boundaries
- Identify shortfalls in existing PA cover
- Coverage variable across the continent
- Within priority sub-catchments circa 16% of river length within a PA
- Management often not targeting freshwater habitats/species
- In South Africa only 50% of rivers within PAs were intact
Systematic Conservation Planning

Can use tools such as MARXAN or ZONATION to prioritise sites.

GOAL: To PRIORITISE sub-catchment for action.
Phase 3 - stakeholder consultation

- Site boundaries
- Context within catchment activities
- Social considerations
- Site or Catchment?
FOCAL AREA

CATCHMENT MANAGEMENT ZONE

CRITICAL MANAGEMENT ZONE

DECREASING LEVELS OF PROTECTION

FOCAL AREA

CRITICAL MANAGEMENT ZONE

CATCHMENT MANAGEMENT ZONE
Alliance for Zero Extinction

Subset of KBAs.

Site that hold the last remaining populations of Critically Endangered or Endangered species.

Pan-Africa assessment has helped identify 42 potential AZE sites for freshwater species.

http://www.zeroextinction.org/
Impacts of development
Site of potential dam/mine etc
Downstream connectivity used to list species
Using Red List Assessments to inform site surveys

IUCN Red List data (when available) can help EIA’s and other site survey work in a number of ways. For example an EIA survey at a potential site for a mine, may identify many freshwater species, and by:

- incorporating the IUCN Red List category for each species will put the species into a global conservation context. Many of the species may be globally threatened with extinction.
- using information on the species global range provided by the Red List Assessment, those species endemic to the site, wider catchment or country can be identified.
- using other data from the Red List Assessment e.g. information on the species ecology, habitat needs, migratory habits, global range etc. possible mitigation measure can be informed.
- using species utilisation information, species that are important to local livelihoods or even national economies can be identified.
Summary of potential application of outputs to your work

• Regional planning
• Funding focus
• On the ground cons projects – such as EFLows
• IRBM
• Donor safeguards
• Private sector site selection
• EIAs
• PA design for FW systems
• ......