



# News from African Protected Areas

Nouvelles des Aires Protégées en Afrique

N°52  
April 2012



*The IUCN Red List (list of threatened species all over the world) is a very important tool for decision makers involved in conservation issues.*

*Hereafter are presented a few abstracts issued from the analysis of the edition of the Red List that was published in 2008 (and has been regularly updated since then). This summary is meant to better understand what the List is about, how it works, what kind of issues it addresses, the main trends of Biodiversity etc.*

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Please kindly refer to [www.iucnredlist.org](http://www.iucnredlist.org) for more information.

Above: the Iberian Lynx *Lynx pardinus* is considered as a Critically Endangered Species and illustrates the first page of the analysis we refer to.

## WILDLIFE IN A CHANGING WORLD

### An analysis of the 2008 IUCN Red List of Threatened Species™

Edited by Jean-Christophe Vié, Craig Hilton-Taylor and Simon N. Stuart

#### 1) The IUCN Red List of threatened species: a key conservation tool

##### What is The IUCN Red List of Threatened Species?

The IUCN Red List of Threatened Species™ (or The IUCN Red List) has a long established history as the world's most comprehensive information source on the global conservation status of plant and animal species. It is based on an objective system of assessing the risk of extinction for a species. Species listed as Critically Endangered, Endangered or Vulnerable are collectively described as 'threatened'.

##### What information is included for each species?

The IUCN Red List is not just a register of names and associated threat categories. It is a rich compendium of information on the threats to the species, their ecological requirements, where they live, and information on conservation actions that can be used to reduce or prevent extinctions.

##### How is The IUCN Red List compiled?

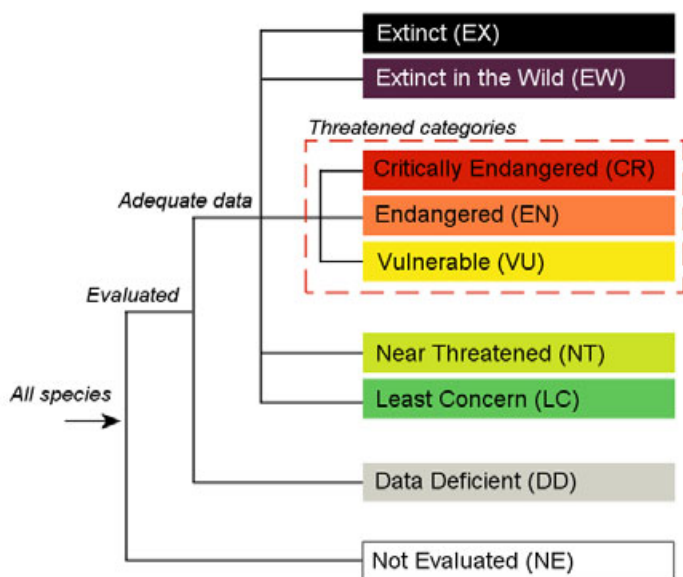
Species assessments on The IUCN Red List are generated through the knowledge of thousands of the world's leading species scientists through a peer review



process. Contributions are made by members of IUCN's Species Survival Commission, the IUCN Red List Partnership and other experts. Information management tools, collectively referred to as the Species Information Service (SIS), have been developed to collect, manage, process, and publish data on The IUCN Red List.

### What species are included in The IUCN Red List?

By 2008, 44,837 species have been assessed and 38% have been classified as threatened. Comprehensive assessments of every known species of mammal, bird, amphibian, shark, reefbuilding coral, cycad and conifer have been conducted. There are ongoing efforts to complete the assessment of all reptiles, all fishes, and selected groups of plants and invertebrates. Although, only a small proportion of the world's species has so far been assessed, this sample indicates how life on earth is faring, how little is known, and how urgent the need is to assess more species.



Structure of the Red List Categories.

### National and regional Red Lists

IUCN has developed guidelines for assessing the status of species at sub-global levels to enable the production of national and regional Red Lists. IUCN is increasingly undertaking national and regional Red List assessments and is collaborating on national Red List projects to incorporate their data into the global IUCN Red List.

### How is the information in The IUCN Red List used?

The IUCN Red List has a wide range of users including conservationists, policy makers, and businesses. Below are some examples of different uses:

**Indicator of Biodiversity Trends:** Governments have agreed various targets to reduce biodiversity loss and indicators are vital in tracking progress in achieving these. The IUCN Red List Index (RLI) provides such an indicator and reveals trends in the overall extinction risk of sets of species.

**Policymaking:** The IUCN Red List informs national legislation and multi-lateral environmental agreements. It is also used to prioritize financial allocation (e.g. by the Global Environment Facility).

**Conservation Planning:** Several conservation planning tools rely on The IUCN Red List, including Important Bird Areas, Important Plant Areas, Key Biodiversity Areas, Alliance for Zero Extinction sites, and systematic conservation planning.

**Public and Private Site Management:** The IUCN Red List is a screening tool for land development and can guide environmental impact assessments. The wealth of information on habitats and threats to species are used in biodiversity management plans and site rehabilitation plans.

**Red for Danger... Red as a 'Wake-up Call'?** Biodiversity loss is one of the world's most pressing crises with many species declining to critical levels. At the same time there is growing awareness of how biodiversity underpins human livelihoods. The IUCN Red List is a clarion call for the drive to tackle the extinction crisis. Many key conservation organizations and information websites rely on The IUCN Red List to help spread their message and educate the world about conservation issues.

### The IUCN Red List Website

The IUCN Red List is too large to publish as a book. However, it can be viewed in its entirety on [www.iucnredlist.org](http://www.iucnredlist.org), a website managed and maintained by the IUCN Species Programme. It is updated once a year.

## 2) State of the world's species

### A species rich world

The variety of species existing today is a product of 3.5 billion years of evolution, involving radiation, speciation, extinction and, more recently, the impacts of people. Current estimates of the number of species range from 5 to 30 million, with a best working estimate of 8 to 14 million; of these, only around 1.8 million have been described.

While scientists debate how many species exist, there are growing concerns about the rising tide of extinctions of both described and undescribed species due to human activities.

Although only 2.5% of the world's described species have been assessed so far, The IUCN Red List provides a useful snapshot of what is happening to species today and highlights the urgent need for conservation action.

### The 2008 IUCN Red List update

The 2008 update of The IUCN Red List includes 44,838 species, of which 869 (2%) are Extinct or Extinct the Wild; 16,928 (38%) are threatened with extinction (with 3,246 Critically Endangered, 4,770 Endangered and 8,912 Vulnerable); 3,513 (8%) are Near Threatened; while 5,570

(12%) have insufficient information to determine their threat status (Data Deficient).

The number of extinctions might well exceed 1,100 if the 257 Critically Endangered species tagged as 'Possibly Extinct' are considered.

The 2008 IUCN Red List update includes:

- A complete reassessment of the world's mammals, showing that nearly one-quarter (22%) of mammal species are globally threatened or Extinct, and 836 (15%) are Data Deficient.
- The addition of 366 new amphibians, many listed as threatened, and the confirmed extinction of two additional species, reaffirming the extinction crisis faced by amphibians; nearly one-third (31%) are threatened or Extinct and 25% are Data Deficient.
- A complete reassessment of the world's birds indicates that one in seven (14%) are threatened or Extinct; birds are one of the best-known groups with less than 1% Data Deficient.
- 845 species of warm-water reef-building corals have been added to the Red List, with more than one-quarter (27%) listed as threatened and 17% as Data Deficient.
- All 161 grouper species; over 12% are threatened with extinction because of unsustainable fishing; a further 30% are Data Deficient.
- All 1,280 species of freshwater crab, 16% of which are threatened with extinction, but 49% are Data Deficient.

The 2008 IUCN Red List also includes some notable new species, for example 14 tarantulas from India (8 of them threatened); 3 orchids from the Americas; a striking *Rafflesia* species (plants with enormous flowers) from the Philippines; and a bumblebee which has declined dramatically in North America, as have other key pollinators world-wide.

### Comparison to previous Red Lists – good news or bad news?

Given increased species coverage, from 41,415 species in 2007 to 44,838 in 2008, it is not surprising that the number of threatened species has increased from 16,116 to 16,928. However, the overall proportion threatened has dropped slightly.

This could be interpreted as good news, however, of the 223 species that experienced a genuine change in their Red List status between 2007 and 2008, 183 (82%) became more threatened, whereas 40 (18%) became less threatened.

The Red List Index for birds shows a steady and continuing deterioration in the status of the world's birds between 1988 and 2008. The index is based on species moving between Red List categories, and reflects the average Red List status of birds. Since 1988, 225 bird species have become more threatened, compared to just 32 species that have become less threatened.

Further evidence for increasing declines in biodiversity come from the amphibians. Despite a very limited review in 2008, seven species became more threatened in 2008; at least 42% of all species have declining populations, indicating that the number of threatened species will

probably increase in future, whereas less than 1% of amphibians show increasing trends.

It is not all bad news; species can recover with concerted conservation efforts. In 2008, 37 of the recorded improvements in status were for mammals. An estimated 16 bird species avoided extinction over the last 15 years due to conservation programmes. Conservation does work, but to mitigate the extinction crisis much more needs to be done, and quickly.

## 3) Broadening the coverage of Biodiversity assessments

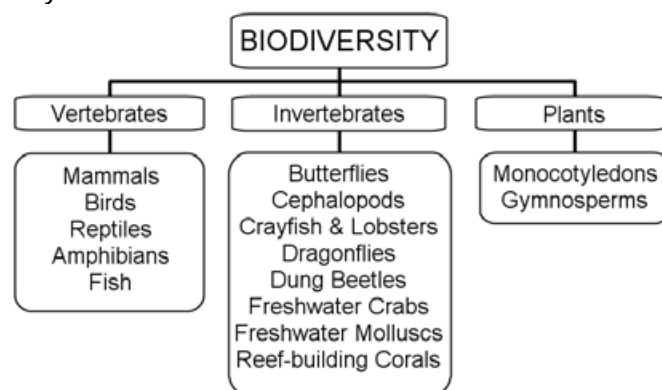
### The need for a broader view of biodiversity

To date, major conservation decisions and species-based indicators of biodiversity change have only included data on a restricted subset of species, and do not take into consideration the majority of biodiversity. The breadth of information provided to inform important global objectives like the various targets to reduce biodiversity loss, needs to be improved upon. Assessing the larger groups of less well-known organisms presents a major challenge, and a comprehensive survey of extinction risk for whole groups is often not feasible.

### A new approach

A new approach has been developed that takes a large random sample of particular species groups – just as when forecasting election results, a poll of voters is taken. This allows the determination of overall conservation status for a group, the broad-scale mapping of patterns of threat, the identification of the main drivers of threat, and shows what key actions are required to address decline in the group. This approach will lead to a better understanding of the status of global biodiversity, by incorporating data on vertebrates, invertebrates, and plants.

*Groups being assessed to broaden our understanding of biodiversity.*



### Evaluating trends in biodiversity

By conducting conservation assessments at regular intervals, changes in the threat status of species can be used to monitor trends in extinction risk. Using the sampled approach, the IUCN Red List Index is a global biodiversity indicator that can integrate vertebrate, plant



and invertebrate species from the terrestrial, freshwater, and marine systems.

### Status of the world's terrestrial vertebrates

Combining new assessments of reptiles, with the mammal amphibian and bird data, presents the most accurate picture of globally threatened terrestrial vertebrates hitherto. Twenty four percent of terrestrial vertebrates are threatened with extinction and, worryingly, the regions that have the most threatened species are usually the least well understood.

### The distribution of reptile threat

Assessment of a representative sample of reptiles has determined that at least 18% of species are threatened with extinction. The Indo-Malayan realm has the greatest diversity of reptile species, but also suffers high levels of deforestation and over-exploitation, resulting in the highest concentration of threatened species. However, the Neotropical realm, in particular the Caribbean islands and central South America, contains the most species with an extremely high risk of extinction (i.e., Critically Endangered).

### First globally representative invertebrate groups on the IUCN Red List

At least 16% of freshwater crabs are threatened with extinction and the majority of these are restricted-range species. The relatively high threat level of this group is thought to be a result of life history traits such as low reproductive output alongside human-induced fragmentation of their freshwater habitats.

A minimum total of 9% of dragonflies and damselflies are listed as threatened. This is lower than most other groups assessed to date. This group is, however, only a small invertebrate order, with above average dispersal ability and generally wide geographic distributions. The majority of the threatened species in this group inhabit streams and rivers, and this may be due to more specialized ecological requirements in conjunction with higher environmental pressures on flowing waters.

Healthy freshwater invertebrate populations are indicative of freshwater systems that are able to provide critical services to humans, such as flood control, and economic and livelihood benefits. However, river basin and wetland management is complex, as they are open systems with ill-defined boundaries.

### Varying levels of threat

Freshwater groups of many taxa are, on average, at higher risk than their terrestrial counterparts. However, habitat loss and degradation is the largest threat to all non-marine groups around the world. Where habitat loss is the primary cause of decline it could be assumed that there is a positive correlation between declines in vertebrate and non-vertebrate populations. Where threats such as exploitation or pollution exist, trends between different species in the same ecosystem will not necessarily be the same.

## 4) Species susceptibility to climate change impacts

There is growing evidence that climate change will become one of the major drivers of species extinctions in the 21st century.

But how do we know which species are most at risk? IUCN is developing assessment tools to identify the species that are most susceptible to climate change and the areas in which they occur.

### Why are some species more at risk from climate change than others?

Some species are much more susceptible to climate change impacts than others due to their life history, and their ecological, behavioural, physiological and genetic traits. The risk of extinction increases markedly when species experience both high susceptibility to climate change and large climatic changes.

### What are the biological traits that make species most susceptible to climate change?

IUCN has identified five groups of traits that are believed to be linked to increased susceptibility to climate change; these are:

- Specialized habitat and/or microhabitat requirements
- Narrow environmental tolerances or thresholds that are likely to be exceeded due to climate change at any stage in the life cycle.
- Dependence on specific environmental triggers or cues that are likely to be disrupted by climate change.
- Dependence on interspecific interactions that are likely to be disrupted by climate change.
- Poor ability to disperse to or colonize a new or more suitable range.

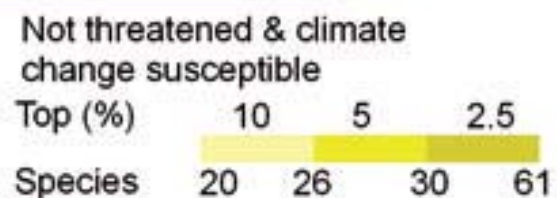
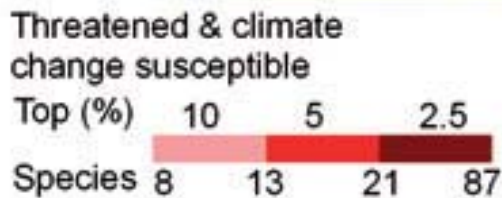
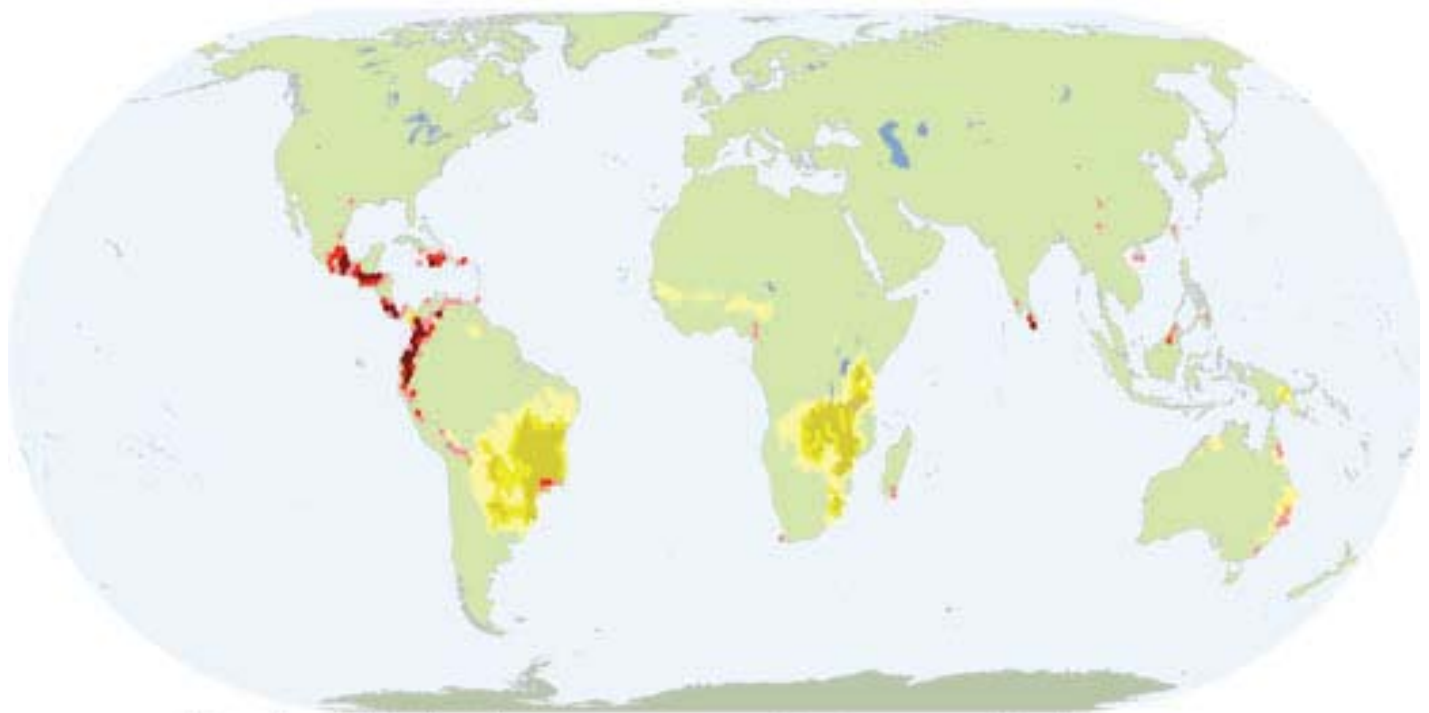
IUCN has collected information relating to these groups of traits for the world's birds (9,856 species), amphibians (6,222 species) and warm-water reef-building corals (799 species).

### How common are these traits in the amphibians, birds and corals?

Where species possess one or more traits associated with negative climate change impacts, we treat them as "climate change- susceptible". Through compiling scores for birds, amphibians and warm-water reef-building coral species, initial results suggest that up to 35%, 52% and 71% of these groups respectively could be susceptible to climate change.

### Are the "climate-change susceptible" species the same as those already identified as threatened on The IUCN Red List?

Not entirely. IUCN's work shows that 70-80% of birds, amphibians and corals that are already threatened are also "climate-change susceptible". Given exposure to large climatic changes, these species which also have least resilience to further threat, face the greatest risk of extinction. Of those that are not considered threatened, 28-71% are "climate-change susceptible".



Areas of highest concentration (top 10%, 5% and 2.5% globally) of amphibian species assessed as threatened and “climate-change susceptible” (reds), and not threatened but “climate-change susceptible” (yellows).

We recommend that these species, and the areas of their greatest concentrations, are given high conservation priority.

**Which areas have the highest concentrations of “climate-change susceptible” species?**

For amphibians and corals, we have identified where the greatest numbers and proportions of threatened and “climate-change susceptible” and non-threatened but “climate-change susceptible” species occur.

For amphibians, the largest of such areas for threatened and “climate-change-susceptible” species spans Mesoamerica and northwestern South America, while for non-threatened but “climate-change-susceptible” species, southern Brazil and its neighbouring countries, and a large region from east to central and southern Africa are identified as priorities.

For corals, high concentration areas occur mainly in the species rich ‘Coral Triangle’ (Indonesia, Philippines to the Solomon Island), although various other areas with lower species richness have high proportions of “climate-change-susceptible” species.

**How will IUCN use “climate-change susceptibility” assessments?**

In combination with spatial projections of future climate from General Circulation Models, assessments of “climate-change susceptibility” complement IUCN Red List assessments of extinction risk and serve as a ‘warning flag’ highlighting the need for intensive monitoring and potentially conservation action for the affected species.

*Already considered Vulnerable, Venezuelan forest species Cochranella antisthenesi has been assessed as “climate-change-susceptible”.*

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More on [www.iucnredlist.org](http://www.iucnredlist.org)



## Niger creates the largest protected area in Africa: the cultural and natural national reserve of Termit and Tin Toumma (RNCNTT)

### The largest protected area in Africa

More than a decade's efforts were crowned on March 6<sup>th</sup> this year when the Niger Government formally decreed the establishment of the Termit & Tin Toumma National Nature and Cultural Reserve. At 97,000 km<sup>2</sup> (37,450 sq. ml) the reserve is the largest single protected area in Africa, approximately the same size as Hungary or Portugal.

### A huge step forward for the conservation of some of the world's rarest species

The reserve will give much-needed protection to some of the world's most endangered species, including the addax antelope (*Addax nasomaculatus*), the dama gazelle (*Nanger dama*), the Barbary sheep (*Ammotragus lervia*) and a small population of the elusive Saharan cheetah (*Acinonyx jubatus*). The reserve also covers a large variety of desert habitats, ranging from mountains and valleys to grassy plains, open desert and sand seas.

### A long partnership process with multiple stakeholders

The fruit of a process initiated in 2004 under the guidance of Niger's Environment Ministry and UNEP's Convention on Migratory Species (CMS), work was initiated with funds

from the French Global Environment Facility (FFEM) and technical support from the Sahara Conservation Fund (SCF) and Belgium's Royal Institute for Natural Resources (IRSNB). Building on the results of a first phase of activities, a second round funded mostly by the European Union has now led to the reserve's creation. Local stakeholders have also been heavily involved in the process, including pastoralists living in the area who see the reserve's establishment and successful management as an opportunity to preserve their way of life and the natural resources on which they depend. Public awareness has been undertaken at many levels to create a collaborative framework, including with the oil industry that is exploiting the reserve's eastern border.

### A milestones has been reached but the road ahead is still a long one

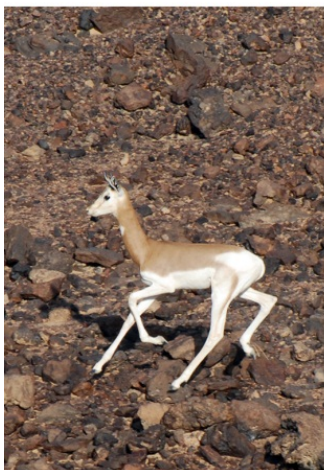
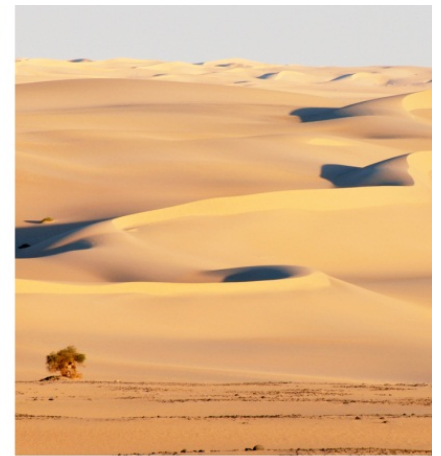
Witnessing the successful culmination of a long process is a major and positive event but it also marks the beginning of a new chapter because the new reserve will need strong support to be effective and to meet its conservation objectives to conserve its natural and cultural heritage for present and future generations.

### For more information, please visit the following web sites:

[www.cms.int](http://www.cms.int)

[www.ass-niger.org](http://www.ass-niger.org)

[www.saharaconservation.org](http://www.saharaconservation.org)



Termit & Tin Toumma National Nature and Cultural Reserve landscape and wildlife. Thomas Rabeil/SCF

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**Avian Flu in Africa: targeting vigilance**

*Marie-Noël de Visscher, Véronique Chevalier, Nicolas Gaidet-Drapiér*

In 2006, the detection of the avian influenza (flu) H5N1 virus in Africa caused great concern: the virus could spread to the whole continent, and then be reintroduced to Europe by migratory birds. Epidemiological surveillance programs were set up and national mechanisms strengthened with the support of international organizations. At the same time, research programs were

launched to describe and understand the virus transmission processes in Africa, and to assess the risks.

Among these programs, the GRIPAVI project is aimed at characterizing the circulation of avian influenza viruses and Newcastle disease in both wild birds and domestic poultry. It shows that the African continent is not free from risk and that vigilance should continue. By specifying the virus persistence mechanisms in Africa and identifying risk situations, it proposes avenues for targeting surveillance and control strategies and thereby making them more efficient.

More information:

[http://gripavi.cirad.fr/en/news/special\\_issue\\_of\\_perspectives](http://gripavi.cirad.fr/en/news/special_issue_of_perspectives)

To download on [www.papaco.org](http://www.papaco.org)

The “Weotenga report”: analyse and recommendations for better management and conservation of protected areas in Africa

**Training opportunity**

The joined UNESCO – Shell – Earthwatch business planning for natural WH site managers training is accepting applications for its October 2012 course.

Deadline is May 4<sup>th</sup>. All costs are covered, including transportation, and high level management support is required. The training includes a 12 month follow-up with a Shell mentor to help with the implementation of business planning processes at the site level. All the necessary information can be found here:

[http://www.earthwatch.org/europe/our\\_work/corporate/shell/whs\\_intro/](http://www.earthwatch.org/europe/our_work/corporate/shell/whs_intro/)

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Program Officer - Conservation Territories – Support to local NGOs  
Program Officer - Small Grants for Conservation (PPI) – Support to local NGOs  
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See [www.papaco.org](http://www.papaco.org)

*The opinions expressed in this newsletter do not necessarily reflect those of IUCN*