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Release of the 2006 IUCN Red List of Threatened Species reveals ongoing decline of the status of plants and animals

The number of known threatened species reaches 16,119. The ranks of those facing extinction are joined by familiar species like the polar bear, hippopotamus and desert gazelles; together with ocean sharks, freshwater fish and Mediterranean flowers. Positive action has helped the white-tailed eagle and offers a glimmer of hope to Indian vultures.

Geneva, Switzerland, 4 May 2006 (IUCN) – The total number of species declared officially *Extinct* is 784 and a further 65 are only found in captivity or cultivation. Of the 40,177 species assessed using the IUCN Red List criteria, 16,119 are now listed as threatened with extinction. This includes one in three amphibians and a quarter of the world's coniferous trees, on top of the one in eight birds and one in four mammals known to be in jeopardy.

The 2006 IUCN Red List of Threatened Species brings into sharp focus the ongoing decline of the earth's biodiversity and the impact mankind is having upon life on earth. Widely recognized as the most authoritative assessment of the global status of plants and animals, it provides an accurate measure of progress, or lack of it, in achieving the globally agreed target to significantly reduce the current rate of biodiversity loss by 2010.

"The 2006 IUCN Red List shows a clear trend: biodiversity loss is increasing, not slowing down," said Achim Steiner, Director General of the World Conservation Union (IUCN). "The implications of this trend for the productivity and resilience of ecosystems and the lives and livelihoods of billions of people who depend on them are far-reaching. Reversing this trend is possible, as numerous conservation success stories have proven. To succeed on a global scale, we need new alliances across all sectors of society. Biodiversity cannot be saved by environmentalists alone – it must become the responsibility of everyone with the power and resources to act," he added.

Melting icecaps ...

Polar bears (*Ursus maritimus*) are set to become one of the most notable casualties of global warming. The impact of climate change is increasingly felt in polar regions, where summer sea ice is expected to decrease by 50-100% over the next 50-100 years. Dependent upon Arctic ice-flows for hunting seals and highly specialized for life in the Arctic marine environment, polar bears are predicted to suffer more than a 30% population decline in the next 45 years. Previously listed by IUCN as a *conservation dependent* species, the polar bear moves into the threatened categories and has been classified as *Vulnerable*. (Clarifications on the IUCN Red List threat categories can be found in the Notes to Editors).

... dying deserts ...

Humankind's global footprint on the planet extends even to regions that would appear to be far removed from human influence. Deserts and drylands may appear relatively untouched, but their specially adapted animals and plants are also some of the rarest and most threatened. Slowly but surely deserts are being

emptied of their diverse and specialized wildlife, almost unnoticed.

The main threat to desert wildlife is unregulated hunting followed by habitat degradation. The dama gazelle (*Gazella dama*) of the Sahara, already listed as *Endangered* in 2004, has suffered an 80% crash in numbers over the past 10 years because of uncontrolled hunting parties, and has been upgraded to *Critically Endangered*. Other Saharan gazelle species are also threatened and they seem destined to suffer the fate of the scimitar-horned oryx (*Oryx dammah*) and become *Extinct in the Wild*.

Asian antelopes face similar pressures. The goitered gazelle (*Gazella subgutturosa*) is widespread across the deserts and semi-deserts of central Asia and the Middle East and until a few years ago had substantial populations in Kazakhstan and Mongolia. Both countries have seen sharp declines because of habitat loss and illegal hunting for meat. The gazelle has been reclassified from *Near Threatened* to *Vulnerable*.

... and empty oceans

A key addition to the 2006 Red List of Threatened Species is the first comprehensive regional assessment of selected marine groups.

Sharks and rays are among the first marine groups to be systematically assessed, and of the 547 species listed, 20 % are threatened with extinction. This confirms suspicions that these mainly slow-growing species are exceptionally susceptible to over-fishing and are disappearing at an unprecedented rate across the globe.

The plight of the angel shark (*Squatina squatina*) and common skate (*Dipturus batis*), once familiar sights in European fish-markets, illustrates dramatically the recent rapid deterioration of many sharks and rays. They have all but disappeared from sale. The angel shark (upgraded from *Vulnerable* to *Critically Endangered*) has been declared extinct in the North Sea and the common skate (upgraded from *Endangered* to *Critically Endangered*) is now very scarce in the Irish Sea and southern North Sea.

As fisheries extend into ever deeper waters, the deep bottom-dwelling gulper shark (*Centrophorus granulosus*) is listed as *Vulnerable* with local population declines of up to 95%. This fishing pressure, for its meat and rich liver oil, is well beyond their reproductive capacity and sustainable fishing. Populations are destined to decline in the absence of international catch limits.

“Marine species are proving to be just as much at risk of extinction as their land-based counterparts: the desperate situation of many sharks and rays is just the tip of the iceberg,” said Craig Hilton-Taylor of the IUCN Red List Unit. “It is critical that urgent action to greatly improve management practices and implement conservation measures, such as agreed non-fishing areas, enforced mesh-size regulations and international catch limits, is taken before it is too late.”

Freshwater fish assumes top slot on extinction list

Freshwater species are not faring any better. They have suffered some of the most dramatic declines: 56% of the 252 endemic freshwater Mediterranean fish are threatened with extinction, the highest proportion of any regional freshwater fish assessment so far. Seven species, including carp relatives *Alburnus akili* in Turkey and *Telestes ukliva* from Croatia, are now *Extinct*. Of the 564 dragonfly and damselfly species so far assessed, nearly one in three (174) are threatened, including nearly 40% of endemic Sri Lankan dragonflies.

“We need fish for food, but human activities in watersheds, through forest clearance, pollution, water abstraction and eutrophication are major factors influencing water quality and quantity. This has a major impact on freshwater species, and in turn on the wellbeing of riparian communities,” said Dr Jean-Christophe Vié, Deputy Coordinator, IUCN Species Programme.

In East Africa, human impacts on the freshwater environment threaten over one in four (28%) freshwater fish. This could have major commercial and dietary consequences for the region. For example, in Malawi, 70% of animal protein consumed comes from freshwater fish. The lake trout or Mpsa (*Opsaridium microlepis*) from Lake Malawi is fished heavily during its spawning runs upriver but has suffered a 50% decline in the past ten years, due to siltation of its spawning grounds and reduced flows due to water abstraction. It is now listed as *Endangered*.

As well as being an important source of food, freshwater ecosystems are essential for clean drinking water

and sanitation. Over a billion people worldwide still do not have access to safe water. The continuing decline in wetlands and freshwater ecosystems will make it increasingly difficult to address this need and maintain existing supplies.

With their semi-aquatic habitat, dragonflies are proving to be useful indicators of habitat quality above and below the water surface. In the densely populated Kenyan highlands, where many rivers originate, the *Endangered* dragonfly *Notogomphus maathaiae* of mountain forest streams is being promoted as a flagship species to create awareness for their potential as “guardians of the watershed”. Protecting its riverside forests will also help the farmers of the foothills, by guaranteeing soil stability and a steady flow of water. It is very appropriate that this dragonfly has been named in honour of African Nobel Prize winner Wangari Maathai, a tireless campaigner for the protection of the world’s natural resources in the fight against poverty.

95% decline of hippo populations in Democratic Republic of Congo – now listed as Vulnerable

Larger freshwater species, such as the common hippopotamus (*Hippopotamus amphibius*) are also in difficulty. One of Africa’s best known aquatic icons, it has been listed as threatened for the first time and is now classified as *Vulnerable*, primarily because of a catastrophic decline in the Democratic Republic of the Congo (DRC). In 1994 the DRC had the second largest population in Africa – 30,000 after Zambia’s 40,000 - but numbers have plummeted by 95%. The decline is due to unregulated hunting for meat and the ivory of their teeth.

“Regional conflicts and political instability in some African countries have created hardship for many of the region’s inhabitants and the impact on wildlife has been equally devastating,” said Jeffrey McNeely, IUCN Chief Scientist.

Another casualty of political instability and unrest is the much less well known pygmy hippo (*Hexaprotodon liberiensis*), restricted to only a handful of West African countries. This shy forest animal was already classified as *Vulnerable*, but illegal logging and the inability to enforce protection in core areas has pushed it into ever decreasing fragments of forest. It is now classified in the higher threat category *Endangered*.

More comprehensive picture of threatened Mediterranean plants

The 2006 Red List includes additional species from the Mediterranean region, one of the world’s 34 biodiversity hotspots with nearly 25,000 species of plants – of which 60% are found nowhere else in the world. In the Mediterranean, the pressures from urbanization, mass tourism and intensive agriculture have pushed more and more native species, like the bugloss *Anchusa crispera* and centaury *Femeniasia balearica* (both *Critically Endangered*) towards extinction. The bugloss is only known from 20 small sites and less than 2,200 mature centaury plants remain.

The IUCN Red List – a wake up call to spearhead biodiversity action

But what can be done to halt and reverse the decline of the Earth’s biodiversity on which so much of our own well-being depends?

The IUCN Red List of Threatened Species acts as a wake up call to the world by focusing attention on the state of our natural environment. It has become an increasingly powerful tool for conservation planning, management, monitoring and decision-making. It is widely cited in the scientific literature as the most suitable system for assessing species extinction risk.

In addition to being the most reputable science-based decision-making tool for species conservation on a global scale, it is being more widely adopted at the national level. At least 57 countries now use national Red Lists, following IUCN criteria to focus their conservation priorities.

Conservation does work

Thanks to conservation action, the status of certain species has improved: proof that conservation does work.

Following large recoveries in many European countries, the numbers of white-tailed eagles (*Haliaeetus albicilla*) doubled in the 1990s and it has been downlisted from *Near Threatened* to *Least Concern*. Enforcement of legislation to protect the species from being killed, and protective measures to address threats from habitat changes and pollution have resulted in increasing populations.

On Australia's Christmas Island, the seabird Abbott's booby (*Papasula abbotti*) was declining due to habitat clearance and an introduced invasive alien species, the yellow crazy ant (*Anoplolepis gracilipes*), which had a major impact on the island's ecology. The booby, listed as *Critically Endangered* in 2004, is recovering thanks to conservation measures and has now moved down a category to *Endangered*.

Other plants and animals highlighted in previous Red List announcements are now the focus of concerted conservation actions, which should lead to an improvement in their conservation status in the near future.

The 300 kg Mekong Catfish (*Pangasianodon gigas*) of South-east Asia is one of the largest freshwater fish in the world and was listed as *Critically Endangered* in 2003. Adopted as one of four flagship species by the Mekong Wetlands Biodiversity and Sustainable Use Programme, it is the focus of regional co-operation on fisheries management issues and conservation activities.

Swift action since the dramatic 97% population crash of the Indian Vulture (*Gyps indicus*), listed as *Critically Endangered* in 2002, means that the future for this and related species is more secure. The veterinary drug that unintentionally poisoned them, diclofenac, is now banned in India. A promising substitute has been found and captive breeding assurance colonies will be used for a re-introduction programme.

Many other species, such as the humphead wrasse (*Cheilinus undulatus*) (listed as *Endangered* since 2004), Saiga antelope (*Saiga tatarica*) (listed as *Critically Endangered* since 2002) are also the subject of concerted conservation campaigns.

"These examples show that conservation measures are making a difference," concluded Achim Steiner. "What we need is more of them. Conservation successes document that we should not be passive bystanders in the unfolding tragedy of biodiversity loss and species extinction. IUCN together with the many actors in the global conservation community will continue to advocate greater investments in biodiversity and to mobilize new coalitions across all sectors of society."

*** ENDS ***

Notes to Editors

1. Contact information
2. 2006 IUCN Red List media package and B roll
3. Background information
4. About the World Conservation Union (IUCN)

1. Contact information:

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2. A full 2006 IUCN Red List media package is available, including Photo Gallery, Species Changes, Case Studies, Profiles and Statistics. **2 minute video B roll** of the IUCN Red List of Threatened Species prepared by ARKive (www.arkive.org).

3. Background information

- The **IUCN Red List of Threatened Species** classifies species according to their extinction risk. It is

a searchable online database containing the global status and supporting information on about 40,000 species. Its primary goal is to identify and document the species most in need of conservation attention and provide an index of the state of biodiversity.

- The **IUCN Red List threat categories** are the following, in descending order of threat:
 - *Extinct* or *Extinct in the Wild*;
 - *Critically Endangered*, *Endangered* and *Vulnerable*: species threatened with global extinction;
 - *Near Threatened*: species close to the *threatened* thresholds or that would be threatened without ongoing specific conservation measures;
 - *Least Concern*: species evaluated with a low risk of extinction;
 - *Data Deficient*: no evaluation because of insufficient data.
- The **total number of species on the planet** is unknown; estimates vary between 10 - 100 million, with 15 million species being the most widely accepted figure. 1.7 - 1.8 million species are known today.
- People, either directly or indirectly, are the **main reason for most species' decline**. Habitat destruction and degradation continues to be the main cause of species' decline, along with the all too familiar threats of introduced invasive species, unsustainable harvesting, over-hunting, pollution and disease. Climate change is increasingly recognized as a serious threat.
- Major analyses of the Red List are produced every four years. These were produced in 1996, 2000 and 2004. The 2004 **Global Species Assessment** is available from:
http://www.iucn.org/themes/ssc/red_list_2004/2004home.htm
- **Key findings** to date include:
 - The number of threatened species is increasing across almost all the major taxonomic groups.
 - Red List Indices, a new tool for measuring trends in extinction risk are important for monitoring progress towards the 2010 target. They are available for birds and amphibians and show that their status has declined steadily since the 1980s.
 - Most threatened birds, mammals and amphibians are located on the tropical continents – the regions which contain the tropical broadleaf forests which are believed to harbour the majority of the Earth's terrestrial and freshwater species.
 - Australia, Brazil, China and Mexico hold particularly large numbers of threatened species.
 - Estimates vary greatly, but current extinction rates are at least 100-1,000 times higher than natural background rates.
 - The vast majority of extinctions since 1500AD have occurred on oceanic islands, but over the last 20 years, continental extinctions have become as common as island extinctions.
- All IUCN Red List updates contribute to a **worldwide biodiversity assessment**. Work is underway to reassess the status of all mammals (approximately 6,000 species) and birds (approximately 10,000 species) and to assess for the first time all reptiles (approximately 8,000 species) and freshwater fish (approximately 10,000 species). The first global assessment of all amphibians (approximately 5,000 species) was completed in 2004.
- The IUCN Red List of Threatened Species is a joint effort between IUCN and its Species Survival Commission (www.iucn.org/themes/ssc), BirdLife International (www.birdlife.org), Conservation International's Center for Applied Biodiversity Science (www.conservation.org), NatureServe (www.natureserve.org), and the Zoological Society of London (www.zsl.org).

4. About The World Conservation (IUCN)

Created in 1948, the World Conservation Union (IUCN) brings together 81 States, 113 government agencies, 850 plus NGOs, and some 10,000 scientists and experts from 181 countries in a unique worldwide partnership. The Union's mission is to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The World Conservation Union is the world's largest environmental knowledge network and has helped over 75 countries to prepare and implement national conservation and biodiversity strategies. The Union is a multicultural, multilingual organization with 1000 staff located in 62 countries. Its headquarters are in Gland, Switzerland.

Web: <http://www.iucn.org>; press@iucn.org

The IUCN Species Survival Commission (SSC) and Species Programme

The Species Survival Commission (SSC) is the largest of IUCN's six volunteer commissions with a global membership of 7,000 experts. SSC advises IUCN and its members on the wide range of technical and scientific aspects of species conservation and is dedicated to securing a future for biodiversity. SSC has significant input into the international agreements dealing with biodiversity conservation. Web: www.iucn.org/themes/ssc/

The IUCN Species Programme supports the activities of the IUCN Species Survival Commission and individual Specialist Groups, as well as implementing global species conservation initiatives. The Species Programme includes a number of technical units covering Wildlife Trade, the Red List, Freshwater Biodiversity Assessments, (all located in Cambridge, UK), and the Global Biodiversity Assessment Initiative (located in Washington DC, USA).

About ARKive

ARKive is an initiative of Wildscreen, a UK-based educational trust, providing fact and image profiles of many endangered species. Described as the Noah's Ark of the 21st century, ARKive is supporting the international conservation effort by building a digital bank of wildlife films, photographs and sound recordings of endangered species which can be accessed free of charge by scientists, conservationists, educators, students of all ages and the general public. Web: www.arkive.org