

# Conservation news

## First survey of threatened trees in Childukhtaron Sanctuary, Tajikistan

The fruit-and-nut forests of Central Asia are of global conservation importance, being a centre of plant diversity. Situated on the lower and middle slopes of the Tien Shan and other mountain ranges and characterized by their ancient walnut and maple stands they contain a wide variety of fruit- and nut-bearing trees, including endemic species of wild apple, pear, plum, cherry, pistachio and almond, as well as hawthorn and barberry. Many of these tree species are the ancestors of the domesticated varieties that are now cultivated and consumed around the globe. These wild relatives are of global significance as they represent an important store of genetic variety, of which to date only a minor fraction has been studied.

Childukhtaron (also known as Chil'dukhtaronsky) Zakaznik (Sanctuary or Nature Refuge), an IUCN Category IV protected area, is one of three wildlife sanctuaries in Tajikistan that contain intact remnant walnut–maple forests. Located 270 km to the south-east of Dushanbe in the Darvaz Mountains, this 14,600 ha sanctuary was established in 1959 to conserve mid altitude forest ecosystems, part of which form the fruit-and-nut forests. The sanctuary was also designated to conserve the specific geological landscape monument for which Childukhtaron is named. This is a ridge of weathered red and grey sandstone that is said to resemble 40 women in national dress. One legend is that these 40 ladies blocked the way of the advancing army of Genghis Khan, perished, and became petrified into this mountainous ridge as stone sculptures, which have become a monument to them.

Fauna & Flora International has been working to conserve these fruit-and-nut forests in Kyrgyzstan and Tajikistan. We commissioned the first survey of threatened trees in Childukhtaron, led by scientists from the Institute of Botany of the Academy of Sciences and the Forest Institute, which took place during May–July 2011. National scientists confirmed the presence of four species that are categorized as threatened on the IUCN Red List: the Critically Endangered Bukharan pear *Pyrus korshinskyi*, the Vulnerable Bukharan almond *Amygdalus bucharica*, the Vulnerable wild apple *Malus sieversii* and the Near Threatened walnut *Juglans regia*. An additional 14 tree species were recorded, along with the declining endemic Pamir-Alai shrub *Calophaca grandiflora* and the endemic Darvaz iris *Iris darwasica*, listed in the Red Data Book of Tajikistan. Notably, the Critically Endangered endemic pear species *Pyrus tadshikistanica*, expected to occur in this area, was not located.

The most significant result of the survey is that at least 65 individuals of the Bukharan pear were recorded. Threats to

this species include overgrazing, fruit harvesting and the illegal collection of saplings for root stock. Throughout Tajikistan individuals are sporadically distributed in very small, fragmented populations; without intervention the species is expected to continue declining. Poorly regulated and uncontrolled use, driven primarily by poverty, limited livelihood opportunities and a lack of knowledge and understanding, put many tree species under severe and immediate threat. Overharvesting and overgrazing prevent natural regeneration, resulting in forest fragmentation and decreasing forest cover.

Fauna & Flora International will continue its work to conserve these threatened fruit-and-nut forests and in particular the Bukharan pear. This work will include support to local forestry units to undertake conservation interventions and training in tree conservation skills (identification and monitoring of threatened tree species, trialling of direct protection methods for threatened trees within the forest, and assisting in the establishment of local state forestry unit nurseries for growing threatened and rare trees for population reinforcement). A similar approach has been successful for the Endangered apple *Malus niedzwetzkyana* in Kyrgyzstan, increasing the wild population tenfold in the last few years.

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## Media attention promotes conservation of threatened Asian slow lorises

The five species of Asian slow lorises (*Nycticebus* spp.) were transferred to CITES Appendix I in 2007 and researchers are finally undertaking systematic studies of the threats to this group. Many surveys have now been conducted throughout the species' ranges, revealing that in most areas slow lorises occur at very low densities. In Cambodia the larger of its two species, *N. bengalensis*, has been nearly extirpated, and its smaller species, *N. pygmaeus*, is in decline, mainly because of use in traditional medicines. Although researchers have long reported dried loris skins in Indo–Chinese markets, no quantitative reports had been available. Interviews with practitioners, hunters and retailers of traditional medicines reveal that lorises are believed to cure 100 diseases. Users feel that medicines that include loris parts cure diseases whereas western medicines only alleviate symptoms. However, although this medicinal trade is a grave problem it is not the one that has caught the world's attention.

The trade in pet lorises has been cited as a key threat to their decline. The species noted as hardest hit is the Javan slow loris *N. javanicus*, which was included on Conservation International's biennial list of the *World's 25 Most Endangered Primates* in both 2008 and 2010. Long-term data on loris trade, rescue and rehabilitation from Java, Indonesia, reveal the impact. Cutting of teeth by traders, inability of reintroduced animals to survive in the wild, and lack of enforcement of animal protection laws were clarified as key threats, and are representative of the region in general.

In 2009 the threat of the pet trade to slow lorises was highlighted at a global level when a *YouTube* video of a pet pygmy slow loris being tickled went viral, achieving nearly 15 million hits by 2012. Pet slow lorises on *YouTube* were nothing new: before 2009 a survey of *YouTube* and *FlipClip* found 75 videos of loris pets. The worrying aspect of the tickling video was the immediate reaction of the thousands of commenters, one in 10 of whom indicated they would like a loris as a pet.

For 3 years various animal rights groups petitioned *YouTube* to remove the video, which shows a highly overweight loris in a brightly lit room on a bed with no substrates to grasp, tagging it as animal abuse. The video remained and *YouTube* refused to comment. Although the owners of the animal in the video claimed that in Russia it is legal to own lorises as pets, other groups pointed out that only 12 pygmy lorises had ever been legally imported into Russia, and these had been for scientific or zoo-breeding purposes, thus questioning the legality of Russian breeding facilities for lorises. The zoo community pointed to the low reproductive rate in captivity, and the small worldwide captive population, all indicating an illegal origin for most of the loris pets seen in videos.

On 25 January 2012 the UK-based BBC Natural History Unit aired a programme in its Natural World series entitled *The Jungle Gremlins of Java*. Although principally a film about the ecology of the Javan slow loris the film highlighted the tickling video, and showed nearly 10 minutes of footage of animal markets in Indonesia offering for illegal sale more than 30 slow lorises of three species, but mainly Javan slow lorises. The reaction was immediate.

Within the next 2 weeks more than 1,500 comments appeared on the main *YouTube* video. Rather than wanting one as a pet the public outcry had turned to conservation, informing viewers of the cruel trade, the removal of teeth for use in medicines, and the death usually faced by animals in markets; viewers also implored those responsible for uploading the video to remove it. On 9 February, after 3 years and being one of the most popular animal videos on *YouTube*, the main video was removed.

Many copies of the video remain on *YouTube*, however. Whether *YouTube* videos of threatened species as pets imperils them and encourages their trade is difficult to

quantify. The case of the slow loris illustrates, however, how providing the public with correct information on threatened species can have immediate and direct impact on attitudes and opinions.

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### **From Alaska to Patagonia: the IUCN Red List of the Continental Ecosystems of the Americas**

In October 2008 the IUCN launched a process for establishing an IUCN Red List of Ecosystems. For most of 2009 and 2010 members of a working group organized by IUCN's Commission on Ecosystem Management and Ecosystem Management Programme focused on developing preliminary quantitative criteria for categorizing ecosystems according to their risk of collapse (i.e. disappearance or transformation into another ecosystem), using a process analogous to that used for the IUCN Red List of Threatened Species (Rodríguez et al., 2011, *Conservation Biology*, 25, 21–29).

With major support from the MAVA Foundation, and co-sponsorship from the Smithsonian Institution, EcoHealth Alliance, Provita and the Fulbright Program, an ongoing global consultation was launched to test preliminary criteria in a range of ecosystem types and in different regions and institutional settings. Additional feedback will be sought during the IV World Conservation Congress (Jeju, Korea, 6–15 September 2012), with the aim of having a revised set of quantitative criteria available to the scientific community by 2013.

Over the next decade the hope is to assess all the world's land masses and oceans, leading to complete coverage of terrestrial, freshwater, marine and subterranean ecosystems. We anticipate a significant expansion in existing institutional and technical capacity, especially in biodiversity-rich countries in the developing world, for assessing risk to ecosystems and for using this information for conservation decision-making by all sectors of society.

With the generous support of the Gordon and Betty Moore Foundation we will undertake a new challenge during 2012–2014: the IUCN Red List of the Continental Ecosystems of the Americas. Activities will be structured around three themes that can be broadly defined as science, public awareness, and biodiversity policy. The scientific aim will be to assess fully the conservation status of the continental ecosystems of the Americas by developing a series of baselines across the continental distribution of each type, assessing land cover change against these baselines, quantifying the drivers of change, and applying the Red List criteria to ecosystems at the regional and national level. Our public awareness aim is to improve public access to