



////Title: China Must Act Immediately to Protect its Primate Populations from Extinction

////Standfirst: China is home to a large number of the world's primate species, but expanding industries and land transformations have put the country's lorises, monkeys and apes at risk of extinction. Dr Paul Garber of the University of Illinois-Urbana and Dr Alejandro Estrada of the National Autonomous University of Mexico, along with primate scientists from China, Brazil and Australia, have examined the challenges that China faces in protecting and maintaining its biodiversity. The team also offers a set of conservation solutions that could help protect China's non-human primate populations from being lost forever.

////Body Text:

Globally, non-human primates are facing an extinction crisis, with 65% of all species currently listed as Vulnerable, Endangered, or Critically Endangered. The two regions at most immediate risk are Madagascar, with 97% of primate species threatened and 97% of populations declining, and Asia, with 73% of primate species threatened and 95% of populations declining.

One Asian nation, China, is home to 25 primate species, nine of which cannot be found anywhere else in the world. Although China has a large and diverse primate population, 80% of its species are listed as threatened by the International Union for Conservation of Nature. In fact, recent population estimates have shown that 13 of these species have a total population of fewer than 1,000 individuals remaining in the wild.

Unlike many other countries where non-human primates are found, China has a large and growing economy. As the second-largest economy in the world, China has an opportunity to be a world leader in wildlife conservation. Despite this, non-human primate populations in China are facing an impending extinction crisis, as expanding industries, large-scale agriculture, and the conversion of forests into pastureland destroy natural habitats, resulting in biodiversity loss and severely impacting species survival.

In a recent study published in the journal *Biodiversity and Conservation*, Dr Paul Garber of the University of Illinois-Urbana and Dr Alejandro Estrada of the National Autonomous University of Mexico, along with primate scientists from China, Brazil and Australia, reviewed the historical, cultural, social and economic factors that contribute to deforestation and environmental transformations across China, and how these impact non-human primate populations.

In their paper, the researchers also highlight the challenges that China faces in providing for its citizens while conserving biodiversity, and offer viable solutions that could help protect primate populations from further harm.

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The team's first aim was to understand how primate populations in China have changed over time. Although accurate records on primate diversity and distribution in China before the 1970s are limited, there are historical sources, dating back some 2000 years, that provide insights into species presence and distribution. While the researchers note that these records must be viewed with caution, they provide critical information. For example, information on the distribution of golden



snub-nosed monkeys and gibbons shows that wildlife hunting and habitat loss over the past 400 to 500 years have directly contributed to declines in primate populations.

Aside from habitat destruction, another threat to non-human primate populations is the capture of primates for illegal trading. In their paper, the team explains that southwestern China is home to a large network of wildlife smugglers, who sell animals illegally as pets and for traditional medicine. Lorises are particularly popular pets, and over the last ten years, more than 300 lorises have been rescued or confiscated in China. Bones and other body parts from virtually all primate species are also used as amulets and in traditional medicine, posing a great threat to these animals.

In addition to illegal capture and trading, primates are also traded for use in biomedical research. Between 2010 and 2016 alone, China legally exported more than 350,000 crab-eating macaques and 35,000 rhesus macaques for biomedical research. The researchers emphasise that reducing both the illegal and legal wildlife trade in China is vital for protecting threatened primate populations.

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As discussed in the team's paper, China has made important strides towards protecting and increasing habitat for its wildlife. For instance, the Natural Forest Protection Program was introduced in the early 1990s to conserve and expand forest cover within the country. Tens of billions of trees were planted as part of this initiative, and land previously used for agriculture was converted back into forest.

While the researchers acknowledge that this is a positive step, they explain that most of the reforested areas are dominated by planted forests rather than native forest, which are unsuitable for many primates. The team emphasises the need for conservation policies to restore natural ecosystems that are required by the wildlife they are trying to protect.

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China has reached a critical tipping point, and unless immediate action is taken, most of China's primate populations will face extinction over the next 25 to 75 years. The team explains that this problem will also affect the citizens of China, who will face an increase in air, water and soil pollution, flooding of large urban centres, desertification and biodiversity loss, if natural environments are not protected. To help primate populations recover, the researchers propose that the Natural Forest Protection Program should be expanded, and should prioritise the restoration of natural habitats, especially in rural areas with reduced human populations.

In addition, the team suggests that a national network should be created to monitor captive primates in China's zoos and sanctuaries. These individuals could be used to help to expand wild populations, while also increasing their genetic diversity. The researchers also suggest that the Chinese Government, conservation agencies, and leading members of the China Primatological Society could develop an international conservation centre that would gather data and promote habitat restoration. This centre could also be used to educate the public on climate change, sustainable land use and how to protect wildlife, as well as how humans and non-human primates can coexist together.



This research demonstrates that China has a great opportunity to protect its wildlife populations and promote sustainable land-use practices. However, unless the country moves fast to implement large-scale, evidence-based conservation policies, the current trend in primate population declines and species extinctions will continue to accelerate.

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This SciPod is a summary of the paper 'The primate extinction crisis in China: immediate challenges and a way forward' in Biodiversity and Conservation. <https://doi.org/10.1007/s10531-018-1614-y>

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