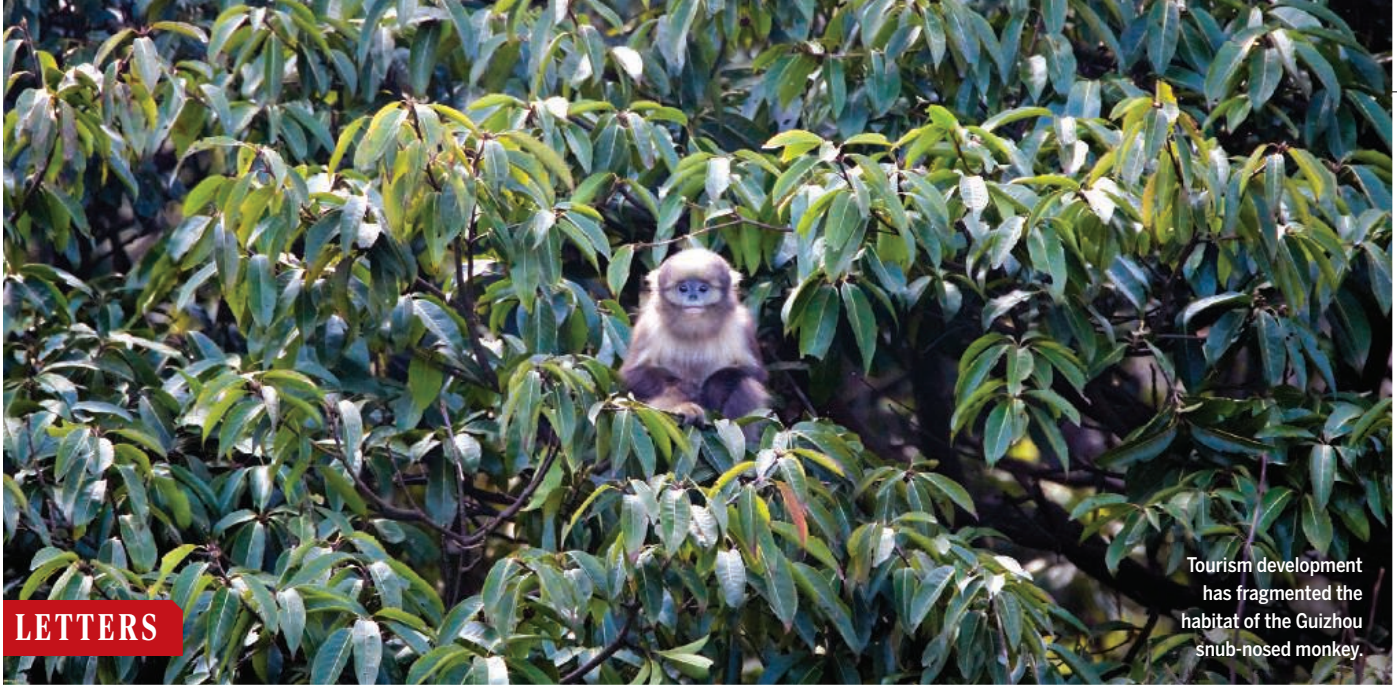

LETTERS

Tourism development has fragmented the habitat of the Guizhou snub-nosed monkey.

PHOTO: ZHINONG XI/MINDEN PICTURES

Edited by **Jennifer Sills**

Guizhou snub-nosed monkey in peril

The Guizhou (or gray) snub-nosed monkey (*Rhinopithecus brelichi*), is endemic to Guizhou province in southwestern China. Because of the species' restricted distribution and small population (*1*), the Fanjingshan National Nature Reserve was established to protect it in 1978 (*2*), and it was categorized as China's National Class I key protected wildlife in 1989 (*3*). However, anthropogenic disturbances such as deforestation, farming, livestock grazing, and tourism have continued, degrading the monkey's habitat (*2*, *4*). Without immediate action, the Guizhou snub-nosed monkey could go extinct.

In 2008, there were about 750 Guizhou snub-nosed monkeys surviving in the wild (*2*). In 2009, the construction of an aerial tram divided the monkey's only remaining habitat into two parts, and prevented the population from accessing the southern region. Confined to a small fraction of the Fanjingshan National Nature Reserve, the species' estimated population decreased to between 125 and 336 individuals (*4*, *5*), with low genetic diversity (*6*). In response, the International Union for Conservation of Nature categorized the monkey as Critically Endangered (*5*) and one of the world's most endangered primates (*7*).

To protect the Guizhou snub-nosed monkey from extinction, tourism development in the Fanjingshan reserve should be halted immediately, and tourist numbers should be strictly limited. An ecological corridor should be created by dismantling the aerial tram and replanting evergreen and deciduous broadleaf mixed forest trees between the two habitats. Finally, China's government should attempt to translocate some individuals to other suitable places to establish new populations outside of the present reserve.

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Combatting national research restrictions

In her *Science* Insider piece "Indonesia bans five foreign scientists, shelves conservation data" (7 October, https://scim.ag/up), D. Rochmyaningsih describes how the Indonesian government is suppressing conservation scientists, research, and data in pursuit of economic development. Other governments have also restricted domestic and international research on politically sensitive topics, sometimes indirectly by controlling data (*1*), restricting funding (*2*), denying access to research sites (*3*) or specimens (*4*, *5*), or labelling researchers as disruptive protesters, foreign spies, or provocateurs (*6*–*8*). To address global environmental challenges, researchers need freedom to collect, analyze, and share data without political constraints. International treaties and organizations could counteract some of these restrictions.

At its 15th Conference of the Parties in December, the Convention on Biological Diversity's (CBD) 196 signatory nations (*9*) will adopt a protocol formalizing its new agreements. To address restrictions imposed on researchers, the CBD could include a requirement for all signatory nations to allow unimpeded access to their territories by biodiversity researchers from all nations, including their own. Countries could enforce compliance through sanctions against exports linked to biodiversity loss, including food, forest, and mineral products. Trade sanctions are limited by the World Trade Organization (WTO), but a CBD research-freedom protocol would comply with WTO related-sector, proportionality, and environmental rules (*10*).

In addition to a CBD protocol, international entities could withhold benefits from countries that deny access to researchers. In the case of Indonesia, the nonprofit Forest Stewardship Council could decertify the country (*11*) from its timber ecolabel, used widely by retailers in the European Union and United Kingdom. Corporations could also penalize countries for restrictions on scientists; airlines that ban the transportation of hunting trophies from threatened species (*12*) could serve as a model. Large importing nations can implement sanctions as well. For example, the United States greatly reduced global harvest of the endangered hawksbill turtle by placing an import embargo on Japanese fish products (*10*).

International cooperation and sanctions

could substantially improve researchers' access to sites and reduce politically charged targeting of scientists. Together, CBD nations and global organizations have the legal and political power to demand reduced impediments to research on biodiversity conservation.

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Biological invasions in China's coastal zone

Over the past few decades, China's coastal zone has been subject to extensive land reclamation. As of 2014, approximately 65% of all coastlines in China were affected by the expansion of farmlands, salt pans, aquaculture ponds, roads, and buildings (*1*), resulting in disrupted ecosystem services, ecological security, and sustainability (*2*–*4*). About a decade ago, the Chinese government began addressing the problem (*2*, *5*). On 1 June, a new Wetland Protection Law came into effect, which is expected to build on past success (*6*). However, invasive species now threaten China's coastal wetlands.

Spartina alterniflora, a perennial tallgrass native to North America, was intentionally introduced in China in 1979 for soil amelioration, tidal reclamation, and erosion mitigation (*7*). The species expanded rapidly from 0.001 km^2 in 1981 to about 550 km^2 in 2015 (*7*, *8*). *S. alterniflora* has invaded several protected areas of coastal wetlands, including a world heritage site of migratory bird sanctuaries along the Yellow Sea coast and Bohai Gulf of China (*9*). The *S. alterniflora* saltmarshes prevent shorebirds from finding prey on mudflats and reduce coastal biodiversity (*7*, *8*).

Given the projected global climate change, *S. alterniflora* is likely to continue to spread unabated in China. Warming could enhance its growth and reproduction and facilitate its spread to high latitudes. Sea level rise could increase its competitive advantage over native plants (*7*, *10*).

Although traditional coastal reclamation for development has been controlled, the invasion and expansion of *S. alterniflora* pose a serious threat to the quality and sustainability of China's coastal wetlands. The control of *S. alterniflora* and the restoration of native saltmarshes are desperately needed to maintain the habitat quality and sustainability of China's coastal zone (*11*). Given the high dispersal ability and rapid reinvasion potential of *S. alterniflora*, national coordinated actions and funding mechanisms are urgently needed to effectively control *S. alterniflora* invasions at multiple temporal and spatial scales.

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