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Developments in conserving the Javan green magpie *Cissa thalassina*

In Indonesia the heavily ingrained and widespread tradition of keeping caged birds, the majority of which are wild-caught, has pushed many species to the brink of extinction. Despite a brief halt of the illegal bird trade during COVID-19 restrictions, overall the trade has not declined, with the Indonesia Ministry of Cooperation and Small & Medium Enterprises reporting a turnover of IDR 1.7 trillion (c. USD 120 million) in 2020. Alongside offline trade, we have observed that the use of social media and e-commerce sites for illegal bird trade increased during the pandemic.

One species affected by poaching and illegal trade in Indonesia is the Javan green magpie *Cissa thalassina*, which has undergone severe population declines (van Balen et al., 2013, *Bird Conservation International*, 23, 91–109). This endemic corvid is restricted to the sub-montane forests of West and Central Java and is categorized as Critically Endangered on the IUCN Red List. It has a reputation as a high quality master bird: its ability to mimic is used to teach songbird species, used as contestants in singing competitions, a wide repertoire of songs.

In August 2021, Cikananga Wildlife Centre (Yayasan Cikananga Konservasi Terpadu) initiated a multidisciplinary conservation programme for the Javan green magpie in collaboration with Chester Zoo and Manchester Metropolitan University, with funding from the European Association of Zoos and Aquaria Silent Forest Campaign. The first stages of this project comprise a long-term survey of Javan green magpie trade on social media and in physical bird markets, to identify suitable habitats for potential in situ conservation programmes and to engage with local communities in areas where the species may still exist.

Using both social and ecological science techniques, we aim to understand more about this elusive species and the trade that threatens it. Initial findings, alongside those of recent surveys in the Javan Mountains, indicate this species is now rare both in the wild and in trade.

The long-term aim of this project is to protect remaining viable habitat and improve the wild status of the Javan green magpie through measures such as protection of existing wild populations, reinforcement of dwindling populations and reintroductions from conservation breeding programmes into good habitat. To be successful, all of these methods will need to involve local communities. Key aspects of this project will be creating alternative livelihoods and developing pride campaigns, to mitigate the threat of poaching. This project is run alongside Cikananga Wildlife Centre's Cikananga Conservation Breeding Centre, which manages the largest ex situ population of the Javan green magpie, maintaining and maximizing genetic diversity through conservation breeding.

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Land purchase and forest restoration to conserve the Endangered red panda in Nepal

The population of the Endangered red panda *Ailurus fulgens* has been reduced by half in less than 2 decades, predominantly as a result of habitat loss, degradation and fragmentation. The 2016 National Survey of Red Pandas in Nepal found that the species' habitat was fragmented into > 400 small forest patches, primarily as a result of conversion of forest to farmland and settlements, unsustainable livestock grazing and resource extraction, and infrastructure development. To counter this problem, the Red Panda Network works with local communities by purchasing private land to restore red panda habitat and improve habitat quality and connectivity in the Panchthar–Ilam–Taplejung region in the Kangchenjunga landscape, which has transboundary conservation significance in the eastern Himalayas. Nearly 50% of the Panchthar–Ilam–Taplejung region has suitable habitat for red pandas but 85% is unprotected, national forest or private lands.

In 2015, the Red Panda Network initiated habitat restoration initiatives with small-scale reforestation as a part of its community-based red panda conservation programme. This initiative developed into a flagship campaign known as Plant A Red Panda Home in 2020, which reforests core habitat and connects fragmented forest through land purchase and tree planting to create a wildlife corridor to

sustain a viable red panda population. Currently, eastern Nepal's Ilam district is a priority location for the campaign. In this district, along the Nepal–India border, there are c. 1,500 ha of barren land that hinder the movement of red pandas and other wildlife.

Purchased land is handed to the government, to be managed by local communities as Community Forests. The Red Panda Network has supported the establishment of seven community-managed forest conservation nurseries in the Panchthar–Ilam–Taplejung region, with the capacity to produce 200,000 seedlings per year. These seedlings have been used to restore c. 360 ha of red panda habitat since the campaign began. By October 2021, 134,393 saplings had been planted, exceeding the campaign's goal of planting 100,000 trees in 2021. In 2021 the campaign provided 4,800 days of employment for local communities. So far, the Red Panda Network has purchased 31 ha of private land for restoration, and restored or created > 50 wildlife waterholes.

The Critically Endangered Chinese pangolin *Manis pentadactyla*, red panda and Bengal tiger *Panthera tigris* are

among the threatened species that will benefit from these forest restoration efforts. The recent photographic evidence of a Bengal tiger at 3,165 m in the Panchthar–Ilam–Taplejung region (Bista et al., 2021, *Checklist*, 17, 1249–1253) indicates the importance of landscape connectivity across forest habitats of Nepal and India. Plant A Red Panda Home is the Red Panda Network's commitment to support the UN Decade on Ecosystem Restoration 2021–2030.

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