

Conservation news

Muong La proposed Species and Habitat Conservation Area, Vietnam

With fewer than 100 individuals remaining in the wild in Vietnam the Critically Endangered western black crested gibbon *Nomascus concolor* is one of the rarest primates in Vietnam, a country with 90% of its 25 primate species categorized as threatened. The last bastion for the species in Vietnam is the forest of Muong La–Mu Cang Chai. The 5,000 ha of forest in Muong La District, Sonla Province, north-west Vietnam, are currently designated as Watershed Protection Forest. This, and the 20,000 ha of contiguous forest in the neighbouring Mu Cang Chai Species and Habitat Conservation Area, is home to Vietnam's largest and probably only viable population of western black crested gibbon. The most recent survey of the area recorded at least six gibbon groups in Muong La and at least another 14 groups in Mu Cang Chai, with a minimum population of 59 individuals.

Fauna & Flora International (FFI) has been working in Muong La since 2002, establishing and continuously supporting three community conservation teams, conducting biodiversity and gibbon surveys, carrying out awareness-raising and environmental education activities and developing a locally-based species conservation action plan for the gibbons at this site. FFI's work has helped protect not only this gibbon but several other nationally and internationally important species for which Muong La–Mu Cang Chai Forest is home, including significant populations of the grey langur, rufous-necked hornbill and Temminck's tragopan.

Because of its experience with biodiversity monitoring and protection FFI Vietnam has been asked by its project partners in the Sonla and Muong La Forest Protection Departments to assist in carrying out the activities required to upgrade the forest to Muong La Species and Habitat Conservation Area. Ten years ago FFI supported Yen Bai Province in establishing the Mu Cang Chai Species and Habitat Conservation Area. Since then FFI's conservation efforts in the area have advanced and Mu Cang Chai is the first protected area in Vietnam for which a national policy was developed to allow collaborative management, ensuring local communities have a role in the management of the forest on which they depend.

FFI's work in Vietnam is currently supported by the Critical Ecosystem Partnership Fund, McKnight Foundation, Twycross Zoo, Fota Wildlife Park and Hanoi-based donors such as Handspan Adventure Travel and Haivenu Tours. In June 2012 FFI secured a grant from the US Fish & Wildlife Service to support work in Muong La and Mu Cang Chai. Activities under this grant will comprise improved law enforcement, scientific data collection and educational activities. However, with the imminent

establishment of the Muong La Species and Habitat Conservation Area, FFI will have to increase its conservation efforts at this site further by assisting with the construction of ranger stations and boundary demarcation, and as soon as a protected area management board is established FFI will concentrate its efforts on establishing a Management Advisory Committee.

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Coordinated effort to maintain East Asian–Australasian Flyway

Government and non-government members of the East Asian–Australasian Flyway Partnership (<http://www.eaaflyway.net>) gathered in Palembang, Indonesia, in March 2012 to discuss the conservation actions required to keep one of the world's largest and most threatened migratory bird flyways functioning. The Partnership is a collaboration among 14 governments across the region, together with three intergovernmental agencies, nine international NGOs and an international corporation (Rio Tinto). At this 6th Meeting of Partners more than 100 participants attended the main meeting and its related events, including technical workshops on shorebirds, seabirds and cranes.

The East Asian–Australasian Flyway supports > 200 species of migratory waterbirds, ranging from non-breeding and migration areas in Australia and New Zealand through South-East and East Asia to breeding areas in the Russian and Alaskan Arctic. The meeting heard reports of alarming declines in migratory species across the Flyway. Two formerly abundant migratory species (great knot and eastern curlew) have recently been categorized as globally threatened and several others are on the brink of extinction. For example, there are reports that the highly threatened spoon-billed sandpiper *Eurynorchynchus pygmeus* is declining throughout its range. This species migrates from breeding grounds in the Russian north-east to non-breeding grounds in East and South Asia, where hunting and the development of intertidal habitats are thought to be key drivers of population declines. Fewer than 220 breeding pairs persist in the wild (*Bird Conservation International*, 20, 95–111).

With almost 45% of the world's human population living in the region and myriad local and regional threats confronting migratory birds, the state of the Flyway is grim. Unfortunately, detailed data on habitat change are sparse but there is evidence emerging of an unfolding crisis that demands urgent attention. Estimates of coastal wetland losses in countries around the Flyway range from 20 to 75% in the past 50 years (*Ambio*, 36, 335–342; *Coastal*

Management, 31, 99–119), and 21% of freshwater wetlands have been lost in China alone (*Nature*, 435, 1179–1186). Large-scale reclamation projects, such as the 400 km² Saemangeum project in the Republic of Korea, have swiftly transformed many coastlines along the Flyway to urban, agricultural and industrial land.

Despite the strong focus on habitat loss as a cause of rising extinction risk in the Flyway, delegates also identified pollution, human disturbance and hunting as important threats to migratory species. Some estimates put the number of migratory birds captured and killed annually for human consumption in the Flyway at 60,000, with such harvesting being particularly prevalent in Indonesia and Myanmar. Aquaculture directly competes with migratory bird habitat, and production in Asia accounts for c. 89% of the global market (FAO, 2012, *The State of World Fisheries and Aquaculture*, <http://www.fao.org/docrep/016/i2727e/i2727e00.htm>). Declining sediment outputs from Asia's major rivers have reduced the accretion of tidal flats in recent decades; the Yellow River, for example, is now one of the most heavily affected waterways in the world (*Nature Geoscience*, 2, 681–686).

Although the scale of the task is enormous, progress is being made to conserve key sites along the Flyway. During the meeting Indonesia announced that Sembilang National Park would become the 108th Flyway Network Site listed by the Partnership, signalling a collective commitment to conserving important sites for migratory species. While the Partnership still lacks a formal conservation prioritization, many of the listed sites are implementing conservation management. The sharing of expertise across the Flyway has enabled the identification and control of specific threats, such as the invasion of introduced plant species (e.g. *Sonneratia caseolaris*) at Mai Po Inner Deep Bay in Hong Kong. Recently the IUCN commissioned a situation analysis of the patterns and drivers of intertidal habitat loss in the Flyway. The report highlights the risk to humanity and biodiversity of a continued trajectory of coastal habitat loss in the region and recommended a full scale ecosystem service analysis. The topic will be raised at the World Conservation Congress to be held in Korea in September 2012.

We remain deeply concerned at the scale and rate of coastal habitat loss throughout the East Asian–Australasian Flyway. But with a diverse group of members and technical advisers, and with the goal of continued collaboration between partners, the Partnership is working for conservation of migratory birds and their habitats in the Flyway.

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India refines tiger monitoring protocols

India is currently thought to hold 50% of wild tigers. These tiger populations, however, are distributed over vast, fragmented forest blocks that cover 100,000–200,000 km². Of this habitat only 25% is in protected Tiger Reserves. Consequently, monitoring tiger populations has been a challenge. After the failure of the traditional pug-mark census practice based on total track counts was recognized by the Government in 2005, India's National Tiger Conservation Authority (NTCA) made efforts to develop newer methodologies to monitor tiger populations more reliably.

A global biogeographical analysis led by Wildlife Conservation Society (WCS) scientists (Walston et al., 2010, *PLoS Biol*, 8(9), e1000485) showed that about 70% of wild tigers, including cubs and transients, are now concentrated in only 6% of the remaining 1.1 million km² habitat, thus highlighting the need for intensive annual monitoring of these source populations. The NTCA has been working with WCS scientist Ullas Karanth to refine monitoring methods for key tiger source populations, based on research and experience gained from his long-term efforts in the state of Karnataka. In the Malenad–Mysore landscape in Karnataka, working in collaboration with the State Forest Department, Karanth and his team have been monitoring five tiger source populations in 4,000 km² for over a decade, using advanced photographic capture–recapture methods to generate reliable estimates of tiger population size and density, and survival, recruitment and dispersal rates (Karanth et al., 2011, *Science*, 332–791). These data show that tiger densities are high (10–15 tigers per 100 km²) in well-established reserves such as Nagarahole and Bandipur, and are increasing (3–6 tigers per 100 km²) in two other reserves in response to recent conservation measures.

Refined tiger monitoring protocols under Phase IV of the national tiger estimation announced recently by NTCA (http://projecttiger.nic.in/whtsnew/Protocol_Phase_IV_Monitoring_r.pdf) specify rigorous new monitoring standards, such as a minimum sampling area > 400 km², a trapping intensity of 1,000 traps per 100 km² and a closure period of 45–60 days. These are also linked to a national database of tiger camera-trap photographs being set up in collaboration with scientific institutions. It is expected that these refinements to the monitoring protocols will lead eventually to rigorous tracking of tiger numbers in all key source populations in India, thus enabling authorities to manage wild tiger populations more effectively.

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