# GURNEY'S PITTAS IN THAILAND—FROM REDISCOVERY TO EXTINCTION IN JUST 28 YEARS

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### ABSTRACT

The Thai-Burmese endemic bird, Gurney's Pitta *Pitta gurneyi*, appears to be practically extinct in its last known Thai location around the mountain of Khao Nor Chuchi, Krabi and Trang Provinces. Conservation measures implemented since the rediscovery of the species in 1986 proved inadequate to safeguard an appropriately large area of its lowland forest habitat, most of which has been cleared illegally by rubber and oil-palm growers. The last known birds in 2013–2014 were three related individuals from an estimated population of 10–15 pairs in year 2000. This has important implications for the fate of other lowland biota, still inadequately represented in Thailand's network of (mainly mountainous) parks and sanctuaries. Captive breeding of Gurney's Pittas is futile without a prior realistic commitment to rehabilitate and restore a large and viable area of lowland rainforest within its former range. Conservation efforts should now be concentrated in Southern Myanmar where a significant population of Gurney's Pittas remains.

Key words: conservation, Khao Nor Chuchi, Khao Pra-Bang Khram, Krabi, lowland forest loss, *Pitta gurneyi* 

When Gurney's Pitta (Fig. 1) was rediscovered in 1986, at Khao Nor Chuchi, Khlong Thom District, Krabi, 50 years after the last verifiable published record of the species in the wild (Collar *et al.*, 1986; Round & Treesucon 1986), the sensational nature of the find was international news. Now, only 28 years later, this iconic species is functionally extinct in Thailand.

The last remaining Gurney's Pittas known were a colour-banded male, reported until February 2014; and two females, both his daughters, siblings from a nest in 2008. One of these females paired with her father; the other, presumably unable to find a male Gurney's Pitta with which to mate, was paired with a male Banded Pitta (a closely related species) in 2012 and 2013. Neither female has been seen in 2014.

Thailand bears special responsibility for Gurney's Pitta since, together with Myanmar, it is one of only two countries to support the species. Alas, for various reasons, the authorities proved unable to implement an effective conservation plan. Most of the extreme lowland forest habitat of Gurney's Pitta had long been cleared for rubber, coffee and oil-palm, and this forest loss had already brought the species to the brink of extinction in its Thai range by the time of its rediscovery, in 1986. Until then, hints that birds were still occasionally passing through the hands of illegal wildlife traders in Bangkok provided the only evidence of the pitta's continued existence. A certain amount of detective work was therefore also involved in the rediscovery. The gleaning of details from labels on 50–100 year-old museum specimens, and

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the identification of the last fragments of lowland forest from satellite maps of forest cover, suggested where to search for the species. The rediscovery followed four years of assiduous searching of forest patches in the former Thai range of Gurney's Pitta (which extended from southern Prachuap Khiri Khan to northern Trang provinces).

There was significant progress immediately following the momentous find. A protected area, the 150 km<sup>2</sup> Khao Pra-Bang Khram Wildlife Sanctuary, was established to safeguard Gurney's Pitta, centred on the mountain of Khao Nor Chuchi, on the border of Khlong Thom District, Krabi, and Wang Wisaet District, Trang. However, in declaring the sanctuary, the (then) Royal Forest Department (RFD)-now Department of National Parks, Wildlife and Plants Conservation (DNP) — made exactly the same mistake it had already made elsewhere a mistake which has consigned much of Thailand's biodiversity to oblivion. It excluded the forests of the level lowlands, of key importance to Gurney's Pitta, from the sanctuary. Instead, the sanctuary covered mostly steep hill slopes—marginal habitat for Gurney's Pitta and for many other globally and nationally endangered lowland forest birds. As a result there were only about five pairs of pittas with territories inside the newly-declared sanctuary with the remainder, over three-quarters of the estimated 40 pairs of pittas thought to remain at Khao Nor Chuchi in 1986, excluded from the protected area. At that time approximately 30 km<sup>2</sup> of lowland forest still remained. But it was distributed in a mosaic of forest patches, interspersed with grassy clearings and rubber plantations, some of which dated from the early 1970s, with others that signified more recent immigration, post-dating the cessation in 1983 of a communist insurgency. There was expected to be widespread opposition (not least from politicians) over the inclusion in the wildlife sanctuary of these illegal plantations and associated households, so the officials took the easy way out, designating the minimum, scarcely viable, area as wildlife sanctuary.

Too bad for Gurney's Pitta! The results were predictable: areas outside the sanctuary boundary, nominally protected as national reserve forest, continued to be encroached illegally. This government land, over which nobody held land rights, continued to change hands in commercial transactions. Settlers from neighbouring provinces, most with kin already living nearby in Khlong Thom Nua Subdistrict, and local businessmen, moved in to illegally clear forest and plant oil-palm and rubber. The number of households inside the national reserve forest doubled in the next decade as forest continued to be cut. Hired bulldozers even went so far as to destroy concrete National Reserve Forest markers, yet still RFD took no action. Even inside the poorly patrolled wildlife sanctuary, hunters and forest product collectors roamed more or less at will. Sometimes they stole young birds from the nest (including pittas) in order to sell them. They likely also killed any adult pittas that they accidentally encountered while roaming along streams at night after fish, frogs and softshell turtles, dazzling the birds roosting in low trees with flashlights. Having no love for officialdom they perhaps reasoned that when no Gurney's Pittas remained they would be left to continue their lifestyle of exploiting and clearing the forest unbothered.

The Khao Nor Chuchi Lowland Forest Project, developed by Mahidol University, in collaboration with BirdLife International, initially with funding from the UK government's Overseas Development Administration during 1990–1994, struggled hard to help RFD overcome these problems. Funding was continued by DANCED (Danish Cooperation for Environment and Development—now defunct) during 1995–1999. The project attempted to engage local community bodies in sustainable agriculture and in zoning forest patches and in rehabilitating degraded forest (ROUND & PEDERSEN 1999). However, since no Thai government agency



Fig. 1. Gurney's Pitta (*Pitta gurneyi*) female (left) and male (right), photographed near Ban Bang Tieo, Khlong Thom District, Krabi (Photo by Kanit Khanikul).



Fig. 2 . New clearing in secondary forest, August 2013, on the site of a former Gurney's Pitta territory, in Bang Khram Reserve Forest, Khlong Thom District, Krabi. The 650 m mountain of Khao Nor Chuchi may be seen in the background (Anon.).

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was prepared to undertake responsibility for zoning, forest protection or habitat rehabilitation outside of the existing wildlife sanctuary, the project failed to appreciably improve the plight of the pitta. It undoubtedly slowed the pace of forest loss against overwhelming odds but when the project ended there was no sustained follow-up.

Since year 2000, the Royal Society for the Protection of Birds (RSPB), the UK partner of BirdLife International, undertook to continue conservation work at Khao Nor Chuchi in collaboration with DNP and with the Thai partner of BirdLife, the Bird Conservation Society of Thailand (BCST). A stakeholders' consultation was held in 2002, and a species recovery plan was prepared. But because of the absence of zoning few of the recommendations from the plan that addressed management could be implemented. Lack of enforcement of existing forest protection legislation, and the determined opposition of illegal rubber and oil-palm growers occupying the national reserve forest, continued to frustrate or nullify conservation efforts (Fig. 2).

Ad hoc initiatives included support for forest patrolling by DNP and RFD officials; establishment of a tree nursery and research on forest restoration methods by Chiang Mai University's FORRU (Forest Research and Restoration Unit); and an education and awareness programme run by BCST. These activities were funded by both the Oriental Bird Club and the UK government's DARWIN initiative (Donald, 2008).

Monitoring of Gurney's Pittas was implemented by the Wildlife Research Division of DNP but amid the virtual collapse of habitat management measures the conscientious and disheartened DNP researchers could do little but document the gradual decrease in numbers of pittas year by year. By this time, the remaining habitat was too fragmented to enable the few young pittas that fledged from the nest to establish territories and the population dwindled rapidly as older birds died off. Out of perhaps ten or fifteen pairs left in 2000, none remained by 2014.

Conservation efforts failed through no lack of knowledge. The plight of Gurney's Pitta, and the conservation measures needed to safeguard the species were documented in exhaustive detail in no fewer than 16 pages devoted solely to this species, in the Asian Bird Red Data Book (BIRDLIFE INTERNATIONAL, 2001). In spite of this, government agencies failed to put in place any framework which would have allowed for the rehabilitation of degraded forest and an expansion of pitta habitat at Khao Nor Chuchi.

It is scarcely believable that officials failed to see the stark reality of the species' actual or impending extirpation. Rather, there is an endemic inability of government agencies to make the case for conservation with local officials and residents, and to control what happens on the ground. Local people are hardly ever willing participants of wildlife conservation initiatives in Thailand, and resist enforcement efforts whenever they can. Following a November 2013 workshop DNP mentioned that it now sought to expand the wildlife sanctuary by a paltry 1000 rai or 1.6 km<sup>2</sup> (far too little; far too late); and suggested captive breeding of Gurney's Pittas as a means to increase the population, without addressing the source of birds from which any captive population is to be established. This would require importing Gurney's Pittas from Myanmar, since none remain in Thailand. Strangely, the plan neither addressed the loss of the species' habitat, nor did it suggest where captive-bred birds might be reintroduced. There is now no longer an adequately protected area of lowland forest in which to release captivebred pittas, and no prospect of establishing such an area, given the absence of any coherent national biodiversity conservation strategy. This renders captive breeding—even if it could be implemented—merely an exercise in wishful thinking. The greatest challenge is to get the government to take action to address the issues that caused the failure of conservation efforts in the first place—the loss of lowland forest habitat and the inadequacy of efforts to rehabilitate and restore that habitat.

The only realistic hope for Gurney's Pitta now lies across the southern Thai border, in Myanmar, where significant areas of its Thai-Burmese lowland rainforest habitat remain. A population of Gurney's Pittas, thought still to number several thousand pairs, was rediscovered in South Tanintharyi, Myanmar in 2003 (Donald Et Al., 2009, 2014). But there are still no protected areas within the Burmese range of Gurney's Pitta, and most of the lowland forests lying within that range have already been allocated to oil-palm concessions. A road now traverses this forest, entering Thailand at the Dan Singkhon border pass, west of Prachuap Khiri Khan town, where thousands of orchids ripped from Burmese forests are sold illegally to Thai tourists each day. In addition to timber and forest products much wildlife, in all likelihood including Gurney's Pittas, enters Thailand illegally for sale to the many keepers of private zoos. Monitoring and stopping this illegal trade must become an essential part of any program to conserve the species.

Gurney's Pitta was first described for science in 1875: since which it has taken Thailand 139 years to render the species functionally, if not actually, extinct. Tragically, Gurney's Pitta no longer has any future in Thailand. We have failed utterly to conserve the species: there can be no second chance. The future of Gurney's Pitta rests now with Myanmar. The species might yet be saved in that country but we need to recognize the intensity of the threats. A high pace of economic development, and the enthusiasm of Burmese companies, and those from other ASEAN countries, for planting oil-palm is already impacting forest in South Tanintharyi. It is imperative, therefore, that the Myanmar government, aided by international conservation agencies, takes immediate action to safeguard significant areas of the lowland forest habitat of Gurney's Pitta in that country before it too is cleared. The hope is that Myanmar will learn from Thailand's mistakes and ensure that Gurney's Pitta, described by its discoverer Allan Octavian Hume in 1875 as "a really lovely species", is permitted to have a future in that country.

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