

# Ornithological records from Ha Giang province, north-east Vietnam, during March–June 2000

C. J. VOGEL, P. R. SWEET, LE MANH HUNG and M. M. HURLEY

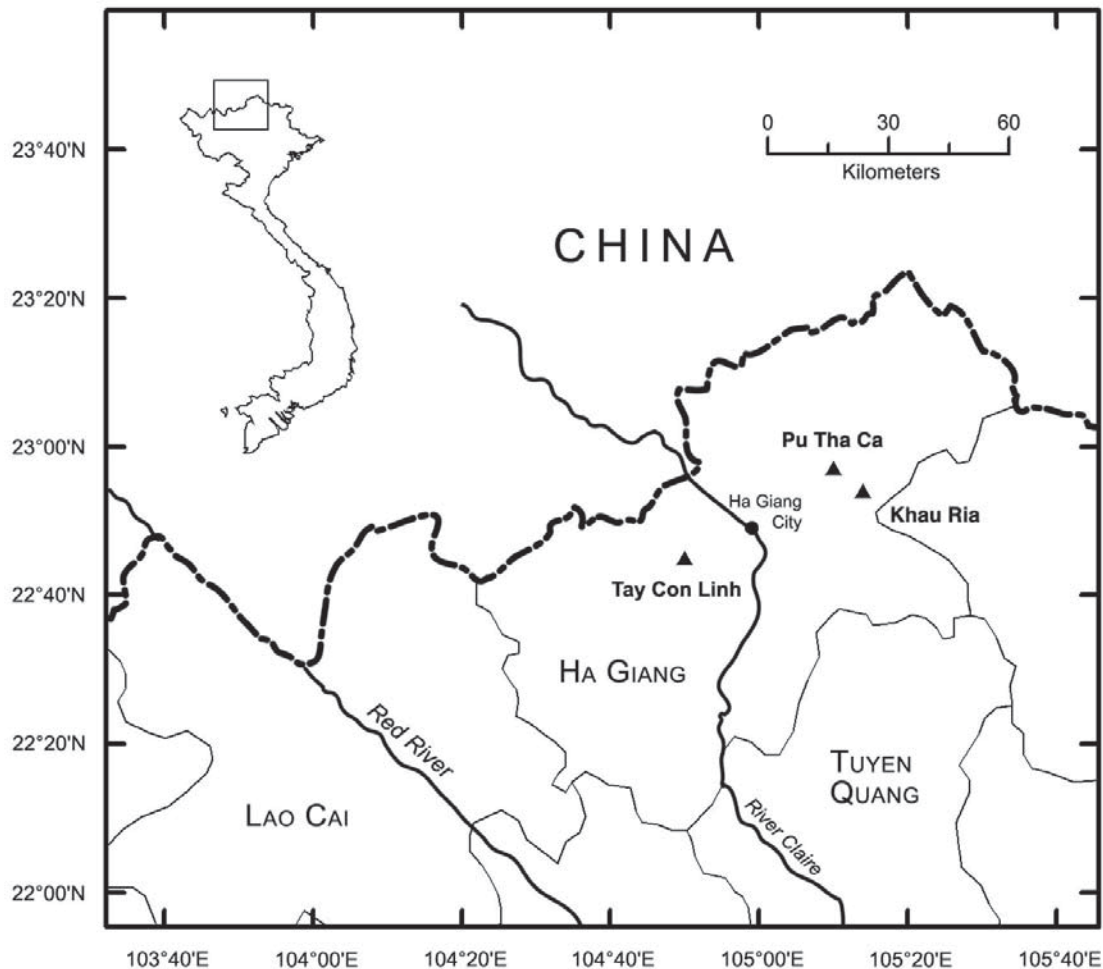
Ornithological field surveys were undertaken at three montane forest sites in Ha Giang province, north-east Vietnam, between March and June 2000. A total of 146 bird species were recorded, including Beautiful Nuthatch *Sitta formosa* (Vulnerable), Short-tailed Scimitar Babbler *Jabouillea danjoui* (Near Threatened), the first record for Vietnam of Yellow-vented Warbler *Phylloscopus cantator*, and 16 additional species previously unrecorded in East Tonkin. The results indicate that the montane regions of northern Vietnam east of the Red River remain under-surveyed.

## INTRODUCTION

This paper presents bird records based on sight observations and specimens collected during field surveys at three montane localities in Ha Giang province, north-east Vietnam during March–June 2000. This survey was part of a multi-taxa inventory conducted jointly by the Center for Biodiversity and Conservation at the American Museum of Natural History, New York (CBC-AMNH) and the Institute for Ecology and Biological Resources, Hanoi (IEBR) to ascertain species

richness and levels of human disturbance in montane areas of Ha Giang province (Hurley 2002, Lunde *et al.* submitted, Bain and Nguyen Quang Truong in prep.).

The mountains of Ha Giang include the highest peak in Vietnam east of the Red River: Mount Tay Con Linh (2,616 m). Although a number of bird collections have been made in Tonkin (e.g. Kuroda 1917, Delacour 1928, 1930, Kinnear 1929, Bangs and Van Tyne 1931, Dickinson 1970, Eames and Ericson 1996), the mountains along East Tonkin's border with China have been relatively neglected compared with those to the



**Figure 1.** Location of study sites in Ha Giang province, Vietnam.

west. Consequently, the natural history of these montane areas remains less well-known. For example, a six-day survey of Nui Pia Oac (1,931 m), Cao Bang province in 1999 recorded five bird species new to East Tonkin (Tordoff *et al.* 2000). Several recent studies in East Tonkin have also been made at lower elevation sites at Tam Dao and Ba Be (Robson *et al.* 1989, Hill 2000). These areas are more accessible and have historically received more attention than the mountains of Ha Giang.

## STUDY AREAS

Locations of the three study areas are shown in Figure 1. These sites lie within the biogeographic sub-unit 06a ('South China') of the Indo-Malayan Realm, a region which includes north-east Vietnam and parts of southern China (MacKinnon 1997). The division of Tonkin into East and West follows Vo Quy and Nguyen Cu (1999) and Robson (2000), with the Red River being the primary boundary between the two. Ha Giang province lies entirely within East Tonkin. In addition to the study sites, opportunistic observations were made at Ha Giang City (22°49'N 104°59'E) and while in transit in Ha Giang province.

**Khau Ria** (22°54'N 105°14'E; 600–1,200 m), 23–26 March and 27 April–3 May 2000

The Hmong village of Khau Ria, in Du Gia commune, Yen Minh district, is located at the base of Mount Muong Cha, c.18 km north-east of Ha Giang City. Villages and cultivated fields occur up to 800 m where the vegetation changes to successional scrub and blends into disturbed secondary forest at 1,000 m. The forest has been selectively logged and most trees are 0.5–1 m dbh and c.30 m tall. The canopy is partially closed with dense undergrowth. Well-travelled paths indicate heavy human use, and the entire area is dotted with small clearings. A steep limestone precipice along the north-east face of Mt Muong Cha prevented sampling above 1,200 m.

**Mount Pu Tha Ca** (22°57'N 105°10'E; 620–1,400 m), 22 March 2000

Mt Pu Tha Ca (2,275 m) is located near the Hmong village of Xuan Chou Xe, Du Gia commune, Yen Minh district in an area of broad cultivated valleys and limestone mountains with karst formations. Old secondary and selectively logged forest occur above 1,000 m, with most trees 0.5–1 m dbh. This site was too dry for a long-term camp and was visited only once. Mt Pu Tha Ca is located in the proposed Du Gia Nature Reserve, created in 1994 by the People's Committee of Ha Giang and currently under the management of the provincial Forestry Protection Department (FPD) (BirdLife International 2001).

### Mount Tay Con Linh

Surveys were conducted at three sites on the southern slopes of Mt Tay Con Linh (2,616 m), near the Dao village of Tham Ve, Cao Bo commune, Vi Xuyen district, c.15 km west of Ha Giang City. Mt Tay Con Linh is a granitic mountain, and forest type and distribution are typical of these formations in northern Vietnam (D. K.

Harder *in litt.* 2001). The area is part of the proposed Tay Con Linh II Nature Reserve, currently under the management of the provincial Forest Protection Department (BirdLife International 2001). Additional observations were made during a brief preliminary survey of the sites at elevations up to 1,850m on 17–20 March 2000.

**Site 1** (22°46'N 104°52'E; c.600 m), 23–26 May 2000

The first site was located on the Nam Ma River, near Tham Ve village. The area around Tham Ve largely consists of terraced rice paddies, with cultivated trees, bamboo and scrubby second growth scattered throughout. The Nam Ma River is c.20 m wide and fast flowing at this elevation; riparian vegetation, including occasional large trees (up to 20 m tall), is present along the banks and on islands in the river. Above 800 m the canopy over the river closes partially and scrub becomes more prevalent. Taller secondary forest begins at c.1,100 m, consisting of broad-leaved evergreen trees (c.0.5 m dbh, 20 m tall) with palms, bamboo, bananas and a dense undergrowth.

**Site 2** (22°46'N 104°50'E; c.1,400 m), 7–17 May 2000

The second site was located in old secondary and selectively logged primary humid broad-leaved evergreen forest. This area is characterized by larger trees (>1 m dbh, >30 m tall), tree ferns, buttressed trees, a closed canopy and sparser understorey. Tree families represented (in order of decreasing abundance) were Theaceae, Lauraceae, Rutaceae, Rubiaceae, Myrsinaceae, Moraceae and Apocynaceae. Mosses, orchids, and other epiphytes were common, and dense herbaceous growth (including Urticaceae, Vitaceae and ferns) occurred in gullies and clearings. The topography consisted of numerous steep ravines with small (2–5 m wide) streams alternating with narrow dry ridges. (All botanical data from D. K. Harder *in litt.* 2001).

**Site 3** (22°45'N 104°50'E; c.1,700m), 17–22 May 2000

The third site was located on a well-drained, broad ridgetop directly up-slope from Site 2. This site was drier and the forests here can be characterized as semi-closed, evergreen and deciduous, pre-montane, with a single species of dense clumping bamboo in the understorey. The dominant tree families were Lauraceae, Fagaceae, Theaceae, Meliaceae and Magnoliaceae, and ferns and melastomaceous shrubs and herbs were present in the ground layer. There were a few small (2–3 m wide) streams and some seasonally dry streambeds containing seeps and small pools. (All botanical data from D. K. Harder *in litt.* 2001).

## METHODS

The project's objective was to inventory the biodiversity of the mountains of Ha Giang. Preliminary surveys indicated that of the three potential study areas, Mt Tay Con Linh was likely to be the most productive due to the extent and condition of the forest and the elevation of the mountain. During these preliminary surveys, birds were recorded only by direct observation by C. J. Vogel. At Mt Tay Con Linh, intensive surveys using up to twenty 12 m mist-nests operated 24 hours/day were

performed at each site. Nets were placed in varied locations, including along and across ridge-tops, across streams, in damp gullies, at natural breaks in the vegetation and near fruiting trees, in order to maximise the number of species trapped. Opportunistic observations were made throughout the survey period by C. J. Vogel and P. R. Sweet, and playback was used to draw secretive species out of cover. These observations were particularly important in assessing the diversity of canopy species present, since mist-netting was biased towards understory birds.

A total of 186 voucher specimens were collected and prepared as standard museum skins, skeletons, or whole specimens in alcohol. The collections have been divided between the American Museum of Natural History (AMNH) in New York and the Institute for Ecology and Biological Resources (IEBR) in Hanoi; repatriation of a representative portion will occur after descriptions have been completed. Tissue samples were taken from all specimens and are housed in the collections of the Department of Ornithology at the AMNH. Birds were also recorded during opportunistic observations at Khau Ria and Mt Pu Tha Ca, Ha Giang City, and while in transit in Ha Giang province. Baseline data on species ranges follow Vo Quy and Nguyen Cu (1999) and Robson (2000).

## RESULTS

In total, 146 species of birds were recorded in Ha Giang province, including 61 species from Khau Ria and Mt Pu Tha Ca and 105 species from Mt Tay Con Linh (see Appendix). Only one day was spent at Mt Pu Tha Ca, consequently these observations were combined with those from Khau Ria; significant records from this location are mentioned below. Mixed-species flocks were larger and more complex on Mt Tay Con Linh than at Khau Ria. Records included one species new to Vietnam and 16 species new to East Tonkin (Robson 2000), one Vulnerable and one Near Threatened species (BirdLife International 2000). Specimen numbers with no prefix are skins; those with 'S' or 'A' indicate skeleton and alcohol specimens respectively.

### LESSER CUCKOO *Cuculus poliocephalus*

An hepatic-morph female (AMNH 833647) in laying condition was collected at c.1,400 m in selectively logged primary forest on Mt Tay Con Linh on 13 May 2000. This species is considered a scarce to uncommon breeding visitor in northern South-East Asia, and this record is apparently the first for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

### WATER RAIL *Rallus aquaticus*

A single bird was seen in paddy cultivation on the outskirts of Ha Giang City on 2 June 2000 by C. J. Vogel. The grey face and breast, streaked upperparts, and lack of a chestnut crown distinguished it from the commoner Slaty-breasted Rail *Gallirallus striatus*. Robson (2000) considered this species to be a rare winter visitor to East Tonkin. Although this individual was probably a non-breeder or straggler, the species may be resident in the lowlands of Ha Giang province.

### COMMON KESTREL *Falco tinnunculus*

A pair were noted copulating on cliff faces on Mt Pu Tha Ca on 23 March 2000, and a second male was seen mobbing the pair. A female in heavy wing moult was seen at Khau Ria on 28 April 2000, and further individuals were noted on several occasions elsewhere in Du Gia commune. This species was previously thought to be only a winter visitor in South-East Asia, including Indochina (Robson 2000); however, these observations suggest that it may breed in East Tonkin.

### RUSTY-NAPED PITTA *Pitta oatesi castaneiceps*

A single male specimen (AMNH S-25886) was collected on 14 May 2000 at 1,400m on Mt Tay Con Linh. This is the first record of this species for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

### BROWN DIPPER *Cinclus pallasii pallasii*

Brown Dippers were common along the Nam Ma River near Tham Ve village, at c.600m. Several specimens were collected (AMNH 833656-8, S-25891-4, A-11051). In this area the Nam Ma is c.20 m across and fast flowing, with many large, granite boulders. Vo Quy and Nguyen Cu (1999), but not Robson (2000), mention the Brown Dipper as occurring in East Tonkin.

### BROWN-BREASTED FLYCATCHER *Muscicapa muttui*

A male and female specimen (AMNH 833718, S-25955) were collected in a clearing at c.1,450 m on Mt Tay Con Linh, on 14 and 15 May 2000, respectively. Both male and female had moderately enlarged gonads but were not in full breeding condition. These are the first records in East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000) and apparently only the second for Vietnam, the first being a sight record between Sa Pa and Lo Qui Ho in Lao Cai province (Robson 1995).

### LITTLE FORKTAIL *Enicurus scouleri scouleri*

An adult and juvenile (AMNH 833668-9) were collected at Mt Tay Con Linh in May 2000 along a forest stream. In Vietnam this species was previously known only from West Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000); these records confirm its status as a breeding resident in East Tonkin.

### SPOTTED FORKTAIL *Enicurus maculatus bacatus*

Adults and juveniles (AMNH 833664-6, S-25898-900, A-11052) were collected in May 2000 at Mt Tay Con Linh along streams in closed-canopy forest. Previously known in Vietnam only from West Tonkin, these records confirm its status as a breeding resident in East Tonkin.

### BEAUTIFUL NUTHATCH *Sitta formosa* (Vulnerable)

This species has previously been recorded in Vietnam only at Sa Pa, Lao Cai province in West Tonkin (Delacour 1940, Eames and Ericson 1996). The current survey recorded it at three sites: (1) Mt Pu Tha Ca at c.1,400 m on 23 March 2000: a single bird was observed foraging on the moss-covered limbs of large trees c.20–30 m above the forest floor. It was associated with a small mixed-species flock of babblers. (2) Khau Ria at c.1,100 m on 30 April 2000: a single bird was seen at the edge of a clearing, foraging on smaller moss-covered branches in the sub-canopy and canopy. It was

associated with a large mixed-species foraging flock that included Asian Paradise-flycatcher *Terpsiphone paradisi*, Lesser Racket-tailed Drongo *Dicrurus remifer*, Grey-cheeked Fulvetta *Alcippe morrisonia*, Silver-eared Mesia *Leiothrix argentauris*, and Black-throated Sunbird *Aethopyga saturata*. (3) Mt Tay Con Linh at c.1,500m on 12 and 14 May 2000: pairs were observed on both dates on a ridge in old secondary and logged primary humid broad-leaved evergreen forest, foraging primarily on moss-covered smaller branches in the mid-storey and canopy. They formed part of mixed-species flocks containing Rufous-winged Fulvetta *Alcippe castaneiceps*, Grey-cheeked Fulvetta, Whiskered Yuhina *Yuhina flavicollis* and Black-chinned Yuhina *Yuhina nigrimenta*.

**YELLOW-CHEEKED TIT** *Parus spilonotus rex*

The gray-backed form was fairly common in degraded habitat at c.600m and less common in closed canopy forests up to 1,700m on Mt Tay Con Linh. This is lower than the 800–2,745 m altitudinal range noted by Robson (2000). An adult and an immature specimen were collected (AMNH 833728-9), indicating that this species is a breeding resident. These are the second records for East Tonkin, following recent records from Nui Pia Oac Nature Reserve, Cao Bang province (Tordoff *et al.* 2000).

**BLACK-THROATED TIT** *Aegithalos concinnus*

Three individuals of one of the rufous-capped, breast-banded forms (*talifuensis/concinnus*) were observed at c.1,000 m on Mt Tay Con Linh on 21 March 2000. They were seen foraging in a mixed-species flock in dense secondary undergrowth. These are the second records for East Tonkin after recent records from Nui Pia Oac Nature Reserve, Cao Bang province (Tordoff *et al.* 2000).

**YELLOW-VENTED WARBLER** *Phylloscopus cantator*

A single bird was seen on 29 April 2000 at c.900 m on Mt Muong Cha above Khau Ria in young, tall (8–10 m) secondary growth along a stream at the edge of old secondary forest. The bird was in view for c.15 minutes, actively foraging and calling from within the canopy and sub-canopy, and feeding in association with Two-barred Warbler *Phylloscopus (trochiloides) plumbeitarsus*. It was identified by the bright yellow head, upper breast and under-tail coverts and the whitish lower breast and belly. This species breeds in subtropical forests in the Himalayan foothills, although it has recently been suspected to breed in the mountains of northern Laos (Baker 1997, Robson 2000). This record from Ha Giang province is apparently the first for Vietnam.

**BLACK-FACED WARBLER** *Abroscopus schisticeps ripponi*

Pairs or small groups of the black-chinned form were a fairly common component of mixed-species flocks in older secondary forests on Mt Tay Con Linh. These records apparently represent the first for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

**SPOT-BREASTED LAUGHINGTHRUSH** *Garrulax merulinus obscurus*

A female (AMNH 833681) was collected on 21 May 2000 at c.1,700 m in old secondary forest on Mt Tay

Con Linh. This specimen represents the first record for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

**SHORT-TAILED SCIMITAR BABBLER** *Jabouillea danjoui* (Near Threatened)

An adult female (AMNH 833674) was collected at 1,400 m in the dense vegetation of a damp gully on Mt Tay Con Linh on 11 May 2000. This specimen differs significantly from the two previously described subspecies: *J. d. danjoui* found in South Annam and *J. d. parvirostris* known from farther north in Central and North Annam (Robson 2000, Eames 2001). A third, undescribed subspecies has also been reported from near Ngoc Linh in Central Annam (Robson 2000). The taxonomic status of the Ha Giang specimen is under review. Short-tailed Scimitar Babbler was first recorded from East Tonkin in 1995, from as far north as Cuc Phuong National Park, Ninh Binh province (Crosby 1995). Given the proximity of Mt Tay Con Linh to China, this species probably occurs in suitable habitat on the Chinese side of the border and is probably not a strictly Indochinese endemic (Robson 2000).

**LONG-TAILED WREN BABBLER** *Spelaeornis chocolatinus kinneari*

Several birds were seen on 20 May 2000 at c.1,700 m on Mt Tay Con Linh. They were foraging in bracken and fallen branches at the edge of a clearing on a ridge-crest. The birds were identified as the subspecies *kinneari* based on their distinctly scaled breast pattern (Robson 2000). These records constitute the first for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

**BLACK-EARED SHRIKE BABBLER** *Pteruthius melanotis melanotis*

This species was occasionally seen in mixed-species flocks in tall forest on Mt Tay Con Linh, and a pair (AMNH 833688-9) was collected at c.1,400 m on 8 May 2000 at this site. These records are the first for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

**RED-TAILED MINLA** *Minla ignotincta*

A single bird was observed on 20 May 2000 foraging in a mixed species flock at 1,700 m on Mt Tay Con Linh. This record constitutes the first for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

**RUFOUS-WINGED FULVETTA** *Alcippe castaneiceps exul*

This species was common on Mt Tay Con Linh and several specimens were collected (AMNH 833691-4, S-25920-3, A-11060-1). This is the second record for East Tonkin following the recent record from Nui Pia Oac Nature Reserve in Cao Bang province (Tordoff *et al.* 2000).

**BLACK-HEADED SIBIA** *Heterophasia melanoleuca tonkinensis*

This species was observed at 1,400 m and 1,700 m on Mt Tay Con Linh, and a partially downy fledgling (AMNH 833700) was collected at 1,700 m on 20 May 2000. These records are the first for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

LONG-TAILED SIBIA *Heterophasia picaoides*

This species was recorded in suitable forest habitat at all sites in Ha Giang province during the survey. Noisy groups were conspicuous in forested areas down to 1,000 m on Mt Tay Con Linh in March; however, the species was found only infrequently at 1,700 m at this site in May, where it was associated with flowering trees. These are the second records for East Tonkin after recent records at Na Hang, Tuyen Quang province (Hill 2000).

GOLDEN PARROTBILL *Paradoxornis verreauxi*

Small groups were noted on several occasions foraging in the sub-canopy and mid-storey of bamboo areas at 1,700 m on Mt Tay Con Linh. These are the first records from East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000).

MRS GOULD'S SUNBIRD *Aethopyga gouldiae*

An adult male foraging in a mixed-species flock was seen at 1,700 m on Mt Tay Con Linh on 20 May 2000. This is the first record of the species for East Tonkin (Vo Quy and Nguyen Cu 1999, Robson 2000), although the species is considered common in West Tonkin (Robson 2000).

RUSSET SPARROW *Passer rutilans*

This species was observed in March and again on 7 May 2000 at Tham Ve. This site, at c.700 m, is remarkably low for this species at these latitudes (Summers-Smith 1988, Robson 2000). Robson (2000) does not list this species for East Tonkin, although Vo Quy and Nguyen Cu (1999) do.

## DISCUSSION

Results from this survey include one species new for Vietnam and a large proportion (17 out of 146, or 11.6%) of records new to East Tonkin. However, the presence of these species in montane areas of Ha Giang province is not entirely surprising. The montane avifauna of Tonkin is known to include subtropical Sino-Himalayan elements present across northern Vietnam and South China (Delacour 1930, Inskipp *et al.* 1996, Wikramanayake *et al.* 2002), and the new regional records from the current study are generally consistent with this pattern (e.g. Rusty-naped Pitta, Brown-breasted Flycatcher, Beautiful Nuthatch, Black-faced Warbler, Spot-breasted Laughingthrush and Golden Parrotbill). Discovery of the new country and East Tonkin records suggests instead that this region has historically been poorly studied compared to West Tonkin (e.g. Kinnear 1929, Bangs and Van Tyne 1931, Dickinson 1970, Eames and Ericson 1996), a conclusion supported by the results of other recent surveys (Hill 2000, Tordoff *et al.* 2000). Although the Red River may be a barrier structuring the distributions of some taxa (MacKinnon 1997, Geissmann *et al.* 2000, Orlov *et al.* 2001), this does not appear to be the case for the region's avifauna.

The overall species total recorded during this survey was low, and many species in the area undoubtedly went unrecorded, particularly those found at higher elevations than the survey team visited. It is very likely that more

fieldwork will reveal additional species in the mountains of East Tonkin.

Birds appear to be heavily exploited in the study areas. The local people trap many species for the cagebird trade, and subsistence hunting is also common (C. J. Vogel pers. obs.). Species commonly hunted or sensitive to exploitation were rare or absent: no galliformes, hornbills or parrots were recorded during the survey, and raptors were rarely seen. Interviews with local people indicated that many of the area's large mammal populations have declined or become locally extinct over the past thirty years.

The conservation status of the study areas is in a transitional phase. In 1998, the Vietnamese Forestry Protection Department (FPD) recommended combining the two proposed protected areas, Tay Con Linh I and II, into a single Tay Con Linh Nature Reserve (BirdLife International 2001). They are currently under the jurisdiction of the Ha Giang Provincial FPD, along with the proposed Du Gia Nature Reserve; however, lack of resources and other factors impede effective management and enforcement. The subtropical montane evergreen forests of north-east Vietnam are becoming increasingly fragmented and threatened, while remaining under-represented in the current protected areas network (Wege *et al.* 1999). Mount Tay Con Linh and a few other montane localities in Ha Giang province contain significant remnants of this forest type (A.W. Tordoff *in litt.* 2000, BirdLife International 2001) and will likely be important in preserving the region's biodiversity.

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## REFERENCES

- Bain, R. H. and Nguyen Quang Truong (in prep.) Herpetofaunal diversity of Ha Giang province, Vietnam: a preliminary analysis.  
 Baker, K. (1997) *Warblers of Europe, Asia, and North Africa*. Princeton: Princeton University Press.

- Bangs, O. and Van Tyne, J. (1931) Birds of the Kelley-Roosevelts expedition to French Indo-China. *Field Mus. Nat. Hist. Zool. Ser.* 18: 33–119.
- BirdLife International (2000) *Threatened birds of the world*. Barcelona and Cambridge, U.K.: Lynx Edicions and BirdLife International.
- BirdLife International and the Forestry Inventory and Planning Institute (2001) *Sourcebook of existing and proposed protected areas in Vietnam* [CD-ROM]. Hanoi: BirdLife International and the Forestry Inventory and Planning Institute.
- Crosby, M. (1995) From the field. *Oriental Bird Club Bull.* 21: 68–73.
- Delacour, J., Jabouille, P. and Lowe, W. P. (1928) On the birds collected during the third expedition to French Indo-China. *Ibis* 12 (4): 23–51, 285–317.
- Delacour, J. (1930) On the birds collected during the fifth expedition to French Indo-China. *Ibis* 12 (6): 564–599.
- Delacour, J. and Greenway, J. C. (1940) Notes critiques sur certains oiseaux indo-chinois. *L'Oiseau et R.F.O.* 10: 60–77.
- Dickinson, E. C. (1970) Birds of the Legendre Indochina expedition. *Amer. Mus. Novitates* 2423: 1–17.
- Eames, J. C. (2001) On the trail of Vietnam's endemic babblers. *Bull. Oriental Bird Club* 33: 20–27.
- Eames, J. C. and Ericson, P. G. P. (1996) The Björkegren expeditions to French Indochina: a collection of birds from Vietnam and Cambodia. *Nat. Hist. Bull. Siam Soc.* 44: 75–111.
- Geissmann, T., Nguyen Xuan Dang, Lormée, N. and Momberg, F. (2000) *Vietnam primate conservation status review 2000. Part 1: gibbons*. Hanoi: Fauna and Flora International Indochina Programme.
- Hill, M. (2000) Bird fauna of two protected forests in northern Vietnam. *Forktail* 16: 5–14.
- Hurley, M. M. (2002) *Multi-taxon biotic inventories of three unprotected forested ecosystems in Vietnam*. Retrieved from the Center for Biodiversity and Conservation at the American Museum of Natural History, New York: <http://research.amnh.org/biodiversity/vietnamresearch/>.
- Inskipp, T., Lindsey, N. and Duckworth, W. (1996) *An annotated checklist of the birds of the Oriental region*. Sandy, Bedfordshire, U.K.: Oriental Bird Club.
- Kinnear, N. B. (1929) On the birds collected by Mr H. Stevens in northern Tonkin in 1923–1924. *Ibis* 12 (5): 107–150.
- Kuroda, N. (1917) A collection of birds from Tonkin. *Annot. Zool. Japon.* 9: 217–254.
- Lunde, D. P., Musser, G. G. and Nguyen Truong Son (submitted) Results of a survey of small mammals from Mt Tay Con Linh II with the description of a new species of *Chodsigoa*. *Mammal Study*.
- MacKinnon, J. (1997) *Protected areas systems review of the Indo-Malayan realm*. Canterbury, U.K.: Asian Bureau for Conservation.
- Orlov, N. L., Lathrop, A., Murphy, R. W. and Ho Thu Cuc (2001) Frogs of the family Rhacophoridae (Anura: Amphibia) in the northern Hoang Lien mountains (Mount Fan Si Pan, Sa Pa district, Lao Cai province), Vietnam. *Russ. J. Herpetol.* 8: 17–44.
- Robson, C. R., Eames, J. C., Wolstencroft, J. A., Nguyen Cu and Truong Van La (1989) Recent records of birds from Vietnam. *Forktail* 5: 71–97.
- Robson, C. R. (1995) From the field. *Oriental Bird Club Bull.* 22: 57–62.
- Robson, C. R. (2000) *A guide to the birds of South-East Asia: Thailand, Peninsular Malaysia, Singapore, Myanmar, Laos, Vietnam, Cambodia*. Princeton: Princeton University Press.
- Summers-Smith, J. D. (1988) *The sparrows: a study of the genus Passer*. Calton, Staffordshire, U.K.: T. and A. D. Poyser.
- Tordoff, A. W., Vu Van Dung, Le Van Cham, Tran Quang Ngoc and Dang Thang Long (2000) *A rapid field survey of five sites in Bac Kan, Cao Bang and Quang Ninh provinces, Vietnam. A review of the northern Indochina subtropical forests ecoregion*. Hanoi: BirdLife International Vietnam Programme.
- Vo Quy and Nguyen Cu (1999) [Checklist of the birds of Vietnam] Hanoi: Centre for Natural Resources and Environmental Studies and Vietnam National University. (In Vietnamese.)
- Wege, D. C., Long, A. J., Mai Ky Vinh, Vu Van Dung and Eames, J. C. (1999) *Expanding the protected areas network in Vietnam for the 21<sup>st</sup> century: an analysis of the current system with recommendations for equitable expansion*. Hanoi, BirdLife International Vietnam Programme.
- Wikramanayake, E., Dinerstein, E., Loucks, C. J., Olson, D. M., Morrison, J., Lamoreux, J., McKnight, M. and Hedao, P. (2002) *Terrestrial ecoregions of the Indo-Pacific: a conservation assessment*. Washington, D.C.: Island Press.

C. J. Vogel, Center for Biodiversity and Conservation, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192 U.S.A.

P. R. Sweet, Department of Ornithology, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192 U.S.A. Email: [sweet@amnh.org](mailto:sweet@amnh.org)

Le Manh Hung, Department of Zoological Museum, Institute of Ecology and Biological Resources, Nghia Do, Cau Giay, Hanoi, Vietnam.

M. M. Hurley, Center for Biodiversity and Conservation, American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192 U.S.A.

## APPENDIX

## Birds recorded in Ha Giang province, Vietnam, in 2000

Species	Threat status	Habitat	Location			Method
			TCL	DG	HGC	
WHITE-BROWED PICULET <i>Sasia ochracea kinneari</i>		Sc,F,E	*	*		††
GREATER YELLOWNAPE <i>Picus flavinucha</i>		F	*			
BAY WOODPECKER <i>Blythipicus pyrrhotis</i>		F,E	*	*		
GOLDEN-THROATED BARBET <i>Megalaima franklinii</i>		F	*	*		
BLUE-THROATED BARBET <i>Megalaima asiatica</i>		Sc,E	*	*		
RED-HEADED TROGON <i>Harpactes erythrocephalus intermedius</i>		F	*			††
COMMON KINGFISHER <i>Alcedo atthis</i>		R	*	*	*	*
WHITE-THROATED KINGFISHER <i>Halcyon smyrnensis</i>		Cu,R	*	*	*	*
PIED KINGFISHER <i>Ceryle rudis</i>		R				*
LESSER CUCKOO <i>Cuculus poliocephalus</i>		F	*			††
ASIAN EMERALD CUCKOO <i>Chrysococcyx maculatus</i>		E,F		*		
GREATER COUCAL <i>Centropus sinensis</i>		Cu,Sc,E	*	*	*	*
SWIFTLET SP. <i>Collocalia</i> sp.		A	*			
NEEDLETAIL SP. <i>Hirundapus</i> sp.		A	*			*
ASIAN PALM SWIFT <i>Cypsiurus balasiensis</i>		A,Sc	*		*	
FORK-TAILED SWIFT <i>Apus pacificus</i>		A	*			
HOUSE SWIFT <i>Apus affinis</i>		A,U			*	
MOUNTAIN SCOPS OWL <i>Otus spilocephalus</i>		Sc,F	*			†
COLLARED SCOPS OWL <i>Otus bakkamoena</i>		F,Sc	*			†
COLLARED OWLET <i>Glaucidium brodiei brodiei</i>		F	*			†
SPOTTED DOVE <i>Streptopelia chinensis</i>		Sc,E		*		
EMERALD DOVE <i>Chalcophaps indica</i>		E,F		*		
WATER RAIL <i>Rallus aquaticus</i>		Cu			*	
WHITE-BREASTED WATERHEN <i>Amaurornis phoenicurus</i>		Cu			*	
RIVER LAPWING <i>Vanellus duvaucelii</i>		Cu			*	
BLACK BAZA <i>Aviceda leuphotes</i>		Sc	*			
CRESTED SERPENT EAGLE <i>Spilornis cheela</i>		E,F		*		
NORTHERN GOSHAWK <i>Accipiter gentilis</i>		E,F		*		
SPARROWHAWK SP. <i>Accipiter</i> sp.		F,Sc	*			
COMMON KESTREL <i>Falco tinnunculus</i>		Cu		*		
ORIENTAL HOBBY <i>Falco severus</i>		A,Cu	*			
LITTLE EGRET <i>Egretta garzetta</i>		R,Cu			*	
GREAT EGRET <i>Casmerodius albus</i>		R,Cu			*	
INTERMEDIATE EGRET <i>Mesophoyx intermedia</i>		R			*	
CHINESE POND HERON <i>Ardeola bacchus</i>		Cu			*	
LITTLE HERON <i>Butorides striatus</i>		R			*	
RUSTY-NAPED PITTA <i>Pitta oatesi castaneiceps</i>		F	*			††
LONG-TAILED BROADBILL <i>Psarisomus dalhousiae dalhousiae</i>		F	*			††
ORANGE-BELLIED LEAFBIRD <i>Chloropsis hardwickii</i>		F	*			
TIGER SHRIKE <i>Lanius tigrinus</i>		Sc		*		
LONG-TAILED SHRIKE <i>Lanius schach</i>		Sc,Cu,E	*	*		*
RED-BILLED BLUE MAGPIE <i>Urocissa erythrorhyncha</i>		Sc,E	*	*		
COMMON GREEN MAGPIE <i>Cissa chinensis</i>		F	*			
INDOCHINESE GREEN MAGPIE <i>Cissa hypoleuca</i>		F,E		*		
GREY TREEPIE <i>Dendrocitta formosae</i>		Sc	*	*		
LARGE-BILLED CROW <i>Corvus macrorhynchos</i>		Cu	*	*		
ASHY WOODSWALLOW <i>Artamus fuscus</i>		A,U,Cu			*	*
BLACK-NAPED ORIOLE <i>Oriolus chinensis</i>		Sc,F				*

Species	Threat status	Habitat	Location				Method
			TCL	DG	HGC	Tr	
MAROON ORIOLE <i>Oriolus trailii</i>		F	*				
BLACK-WINGED CUCKOOSHRIKE <i>Coracina melaschistos</i>		F,E		*			
ROSY MINIVET <i>Pericrocotus roseus</i>		E				*	
LONG-TAILED MINIVET <i>Pericrocotus ethologus</i>		F	*	*			
SHORT-BILLED MINIVET <i>Pericrocotus brevirostris</i>		F	*				
SCARLET MINIVET <i>Pericrocotus flammeus</i>		F,Sc,E	*	*			
BAR-WINGED FLYCATCHER-SHRIKE <i>Hemipus picatus</i>		Sc,E	*				
WHITE-THROATED FANTAIL <i>Rhipidura albicollis</i>		F,E	*	*			
ASHY DRONGO <i>Dicrurus leucophaeus</i>		E,Sc,Cu		*			
BRONZED DRONGO <i>Dicrurus aeneus</i>		F,E		*			
LESSER RACKET-TAILED DRONGO <i>Dicrurus remifer tectirostris</i>		F	*	*			††
SPANGLED DRONGO <i>Dicrurus hottentottus brevirostris</i>		Sc	*				††
ASIAN PARADISE-FLYCATCHER <i>Terpsiphone paradisi</i>		F		*			
BROWN DIPPER <i>Cinclus pallasii pallasii</i>		R	*				††
BLUE ROCK THRUSH <i>Monticola solitarius</i>		U			*		
BLUE WHISTLING THRUSH <i>Myophonus caeruleus eugenei</i>		F	*				††
LESSER SHORTWING <i>Brachypteryx leucophrys carolinae</i>		F	*				††
ASIAN BROWN FLYCATCHER <i>Muscicapa dauurica</i>		Sc		*			
BROWN-BREASTED FLYCATCHER <i>Muscicapa muttui</i>		F	*				††
RED-THROATED FLYCATCHER <i>Ficedula parva</i>		Sc,Cu		*			
WHITE-GORGETED FLYCATCHER <i>Ficedula monileger leucops</i>		F	*				††
SNOWY-BROWED FLYCATCHER <i>Ficedula hyperythra hyperythra</i>		F	*				††
LARGE NILTAVA <i>Niltava grandis grandis</i>		F	*	*			††
SMALL NILTAVA <i>Niltava macgrigoriae signata</i>		F	*	*			††
HILL BLUE FLYCATCHER <i>Cyornis banyumas whitei</i>		Sc,E	*				††
GREY-HEADED CANARY FLYCATCHER <i>Culicicapa ceylonensis calochrysea</i>		F	*				††
ORIENTAL MAGPIE ROBIN <i>Copsychus saularis erimelas</i>		Sc,Cu	*	*	*	*	††
PLUMBEOUS WATER REDSTART <i>Rhyacornis fuliginosus fuliginosus</i>		R,Sc	*				††
LITTLE FORKTAIL <i>Enicurus scouleri scouleri</i>		R,F,Sc	*				††
SLATY-BACKED FORKTAIL <i>Enicurus schistaceus</i>		R,Sc,F	*				††
SPOTTED FORKTAIL <i>Enicurus maculatus bacatus</i>		R,F	*				††
GREEN COCHOA <i>Cochoa viridis</i>		F	*				††
COMMON STONECHAT <i>Saxicola torquata</i>		Sc,E			*		
BEAUTIFUL NUTHATCH <i>Sitta formosa</i>	VU	F	*	*			
GREAT TIT <i>Parus major</i>		F,U	*		*		
YELLOW-CHEEKED TIT <i>Parus spilonotus rex</i>		F,Sc	*				††
SULTAN TIT <i>Melanochlora sultanea</i>		F	*				
BLACK-THROATED TIT <i>Aegithalos concinnus</i>		E	*				
BARN SWALLOW <i>Hirundo rustica</i>		A,Cu				*	
RED-RUMPED SWALLOW <i>Hirundo daurica</i>		A,Cu			*	*	
COLLARED FINCHBILL <i>Spizixos semitorques</i>		Sc,E	*	*			
RED-WHISKERED BULBUL <i>Pycnonotus jocosus hainanensis</i>		Sc,E,U	*	*	*	*	††
SOOTY-HEADED BULBUL <i>Pycnonotus aurigaster</i>		Sc,E,U	*	*	*		
FLAVESCENT BULBUL <i>Pycnonotus flavescens</i>		Sc,E	*	*			
PUFF-THROATED BULBUL <i>Alophoixus pallidus</i>		F,E	*	*			
MOUNTAIN BULBUL <i>Ixos mccllellandii similis</i>		F	*				††
CHESTNUT BULBUL <i>Hemixos castanonotus</i>		E		*			
BLACK BULBUL <i>Hypsipetes leucocephalus</i>		Sc,E	*	*			
HILL PRINIA <i>Prinia atrogularis</i>		Sc		*			
RUFESCENT PRINIA <i>Prinia rufescens</i>		Sc		*			
JAPANESE WHITE-EYE <i>Zosterops japonicus simplex</i>		Sc,E	*				††



Species	Threat status	Habitat	TCL	Location			Method
				DG	HGC	Tr	
SLATY-BELLIED TESSIA <i>Tesia olivea</i>		F	*				††
MOUNTAIN TAILORBIRD <i>Orthotomus cuculatus</i>		F,E	*				
COMMON TAILORBIRD <i>Orthotomus sutorius longicauda</i>		E,Sc,U	*	*	*	*	††
TWO-BARRED WARBLER <i>Phylloscopus (trochiloides) plumbeitarsus</i>		E		*			
BLYTH'S LEAF WARBLER <i>Phylloscopus reguloides claudiae</i>		F,E	*				††
YELLOW-VENTED WARBLER <i>Phylloscopus cantator</i>		E		*			
GREY-CHEEKED WARBLER <i>Seicercus poliogenys</i>		F	*				††
CHESTNUT-CROWNED WARBLER <i>Seicercus castaniceps sinensis</i>		F	*				††
BLACK-FACED WARBLER <i>Abroscopus schisticeps ripponi</i>		F	*				
YELLOW-BELLIED WARBLER <i>Abroscopus superciliaris euthymus</i>		Sc,E	*				††
GREY LAUGHINGTHRUSH <i>Garrulax maesi maesi</i>		F	*	*			††
SPOT-BREASTED LAUGHINGTHRUSH <i>Garrulax merulinus obscurus</i>		F	*				††
RED-TAILED LAUGHINGTHRUSH <i>Garrulax milnei sharpei</i>		F	*				††
CORAL-BILLED SCIMITAR BABBLER <i>Pomatorhinus ferruginosus orientalis</i>		F	*	*			††
SHORT-TAILED SCIMITAR BABBLER <i>Jabouilleia danjoui</i>	NT	F	*				††
STREAKED WREN BABBLER <i>Napothera brevicaudata stevensi</i>		F	*				††
LONG-TAILED WREN BABBLER <i>Spelaeornis chocolatinus kinneari</i>		F	*				
GOLDEN BABBLER <i>Stachyris chrysaea</i>		F,Sc,E	*	*			
GREY-THROATED BABBLER <i>Stachyris nigriceps yunnanensis</i>		F,Sc,E	*				††
STRIPED TIT BABBLER <i>Macronous gularis lutescens</i>		E,Sc	*				††
SILVER-EARED MESIA <i>Leiothrix argentauris ricketti</i>		F,Sc,E	*	*			††
RED-BILLED LEIOTHRIX <i>Leiothrix lutea kwangtungensis</i>		F,Sc,E	*	*			††
WHITE-BROWED SHRIKE BABBLER <i>Pteruthius flaviscapis</i>		F	*				
BLACK-EARED SHRIKE BABBLER <i>Pteruthius melanotis melanotis</i>		F	*				††
SPECTACLED BARWING <i>Actinodura ramsayi yunnanensis</i>		F,E	*	*			††
BLUE-WINGED MINLA <i>Minla cyanouroptera</i>		F	*				
RED-TAILED MINLA <i>Minla ignotincta</i>		F	*				
RUFIOUS-WINGED FULVETTA <i>Alcippe castaneiceps exul</i>		F	*				††
GREY-CHEEKED FULVETTA <i>Alcippe morrisonia schaefferi</i>		F	*				††
BLACK-HEADED SIBIA <i>Heterophasia melanoleuca tonkinensis</i>		F	*				††
LONG-TAILED SIBIA <i>Heterophasia picaoides</i>		F	*	*			
STRIATED YUHINA <i>Yuhina castaniceps</i>		E		*			
WHISKERED YUHINA <i>Yuhina flavicollis</i>		F	*				
BLACK-CHINNED YUHINA <i>Yuhina nigrimenta</i>		F	*				
WHITE-BELLIED YUHINA <i>Yuhina zantholeuca tyrannula</i>		F,Fc,E	*	*			††
GREY-HEADED PARROTBILL <i>Paradoxornis gularis</i>		F	*				
GOLDEN PARROTBILL <i>Paradoxornis verreauxi</i>		F	*				
YELLOW-VENTED FLOWERPECKER <i>Dicaeum chrysorrheum</i>		E,Sc		*			
FIRE-BREASTED FLOWERPECKER <i>Dicaeum ignipectus</i>		F,E,Sc	*	*			
MRS GOULD'S SUNBIRD <i>Aethopyga gouldiae</i>		F	*				
BLACK-THROATED SUNBIRD <i>Aethopyga saturata petersi</i>		E,F,U,Sc	*	*	*	*	††
LITTLE SPIDERHUNTER <i>Arachnothera longirostra</i>		F,Sc,E	*				
STREAKED SPIDERHUNTER <i>Arachnothera magna</i>		F	*	*			
RUSSET SPARROW <i>Passer rutilans</i>		Cu	*				
EURASIAN TREE SPARROW <i>Passer montanus</i>		U			*		
WHITE WAGTAIL (BLACK-BACKED) <i>Motacilla alba alboides</i>		Cu	*				††
WHITE WAGTAIL (GREY-BACKED) <i>Motacilla alba</i> subsp.		Cu,R	*	*	*	*	
OLIVE-BACKED PIPIT <i>Anthus hodgsoni</i>		Cu,Sc	*	*			
WHITE-RUMPED MUNIA <i>Lonchura striata swinhoei</i>		Sc,E,Cu	*	*	*	*	††
CRESTED BUNTING <i>Melophus lathami</i>		Sc,E,Cu	*	*			
YELLOW-BREASTED BUNTING <i>Emberiza aureola</i>		Cu,Sc	*				

**Key****Threat status** (BirdLife International 2000)

VU: Vulnerable

NT: Near Threatened

**Habitat**

F: forest

R: riparian

E: forest edge, clearings

Sc: scrub, low second growth, cultivated trees

Cu: cultivation

U: urban

A: aerial

**Location**

TCL: Mount Tay Con Linh

DG: Khau Ria and Mount Pu Tha Ca, Du Gia commune

HGC: Ha Giang City

Tr: in transit in Ha Giang province

**Method**

[no symbol] observed

† mist-netted and released

†† specimen collected