

dispersed distribution poses a major challenge. However, with the increasing relaxation of travel restrictions in both Cambodia and Vietnam at least the possibility for conducting surveys has now become a real possibility and should be seized!

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Ornithological records from Laos, 1992-1993

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From October 1992 to July 1993 birds were surveyed at one small nature reserve in North Laos (*sensu* King *et al.* 1975) and three large protected areas of forest in South and Central Laos. Status and distributional data are presented for 437 species, including eight Globally Threatened and 21 Globally Near-threatened species (*sensu* Collar *et al.* 1994), namely Siamese Fireback *Lophura diardi*, Green Peafowl *Pavo muticus*, White-winged Duck *Cairina scutulata*, Red-collared Woodpecker *Picus rabieri*, Brown Hornbill *Anorrhinus tickelli*, Sarus Crane *Grus antigone*, Masked Finfoot *Helipais personata*, Grey-headed Lapwing *Vanellus cinereus*, Jerdon's Baza *Aviceda jerdoni*, Lesser Fish-Eagle *Ichthyophaga humilis*, Grey-headed Fish-eagle *I. ichthyastus*, White-rumped Vulture *Gyps bengalensis*, Long-billed Vulture *G. indicus*, Red-headed Vulture *Sarcogyps calvus*, Rufous-winged Buzzard *Butastur lioenter*, White-rumped Falcon *Polihierax insignis*, Oriental Darter *Anhinga melanogaster*, Schrenck's Bittern *Ixobrychus eurhythmus*, White-shouldered Ibis *Pseudibis davisoni*, Giant Ibis *P. gigantea*, Lesser Adjutant *Leptoptilos javanicus*, Blue-rumped Pitta *Pitta soror*, Bar-bellied Pitta *P. elliotii*, Yellow-breasted Magpie *Cissa hypoleuca*, Brown-rumped Minivet *Pericrocotus cantonensis*, Green Cochoa *Cochoa viridis*, Red-tailed Laughingthrush *Garrulax milnei*, Grey-faced Tit-Babbler *Macronous kelleyi*, Rufous-throated Fulvetta *Alcippe rufogularis* and, provisionally, Black-bellied Tern *Sterna acuticauda* and Asian Golden Weaver *Ploceus hypoxanthus*. A further 24 species regarded as being At Risk in Thailand by Treesucon and Round (1990) were recorded. The observations of Giant Ibis *Pseudibis gigantea* were the first any where since 1962.

NON-STANDARD ABBREVIATIONS AND CONVENTIONS USED

NR, Nature Reserve; IUCN, The World Conservation Union; NBCA, National Biodiversity Conservation Area.

Lao words incorporated into place names: Houay = stream, Xé = river, Nam = river, Phou = mountain, Sayphou = ridge, Ban = village, Pak = river mouth, Nong = lake or pool.

The division of Laos into North, Central and South used by Delacour and Jabouille (1931) and King *et al.* (1975) is followed throughout this paper. Central Laos is defined to the north by a line running east-northeast to a point a little north of Ban Napè. The river Xé Banghiang forms the southern boundary.

The term Indochina is used here, following King *et al.* (1975), to refer collectively to the three countries of Laos, Vietnam and Cambodia.

The taxonomy and nomenclature of Sibley and Monroe (1990, 1993) are followed throughout.

The vegetation classification follows that of Round (1988), who details the characteristics of the forest types.

For discussions of abundance, the terms 'common', 'frequent' and 'occasional' are defined in Appendix 1.

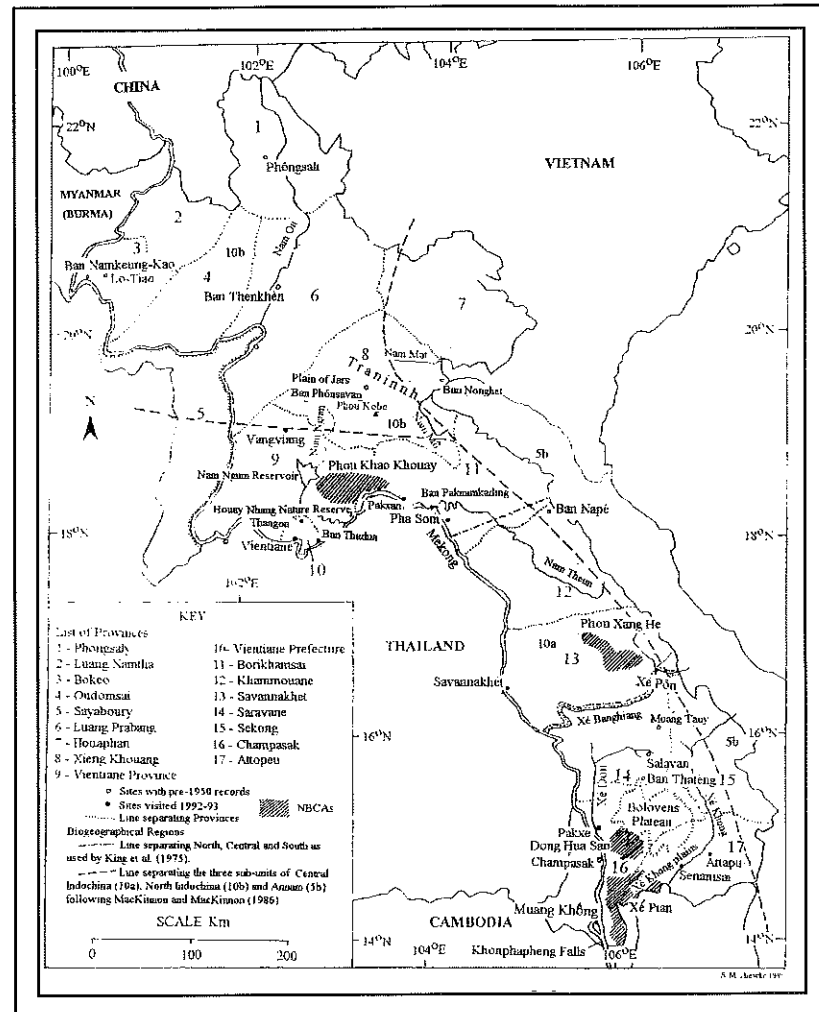


Figure 1. Laos, showing locations mentioned in the text and biogeographical regions.

INTRODUCTION

The Lao People's Democratic Republic (hereafter called Laos) has a lower human population density (18.9 people/km²) than the neighbouring countries of Thailand (113.7 people/km²) and Vietnam (214.4 people/km²; Europa 1995). It also has a large area of natural forest cover remaining: 47.2% of the country retains at least 20% canopy cover (Lao-Swedish Forestry Co-operation Programme 1992). This suggests that it is very likely to be a country of major importance for wildlife conservation, although very few observations of wildlife have been made and published since 1950.

Between October 1992 and July 1993, birds were surveyed at four existing or proposed protected areas in Laos as part of a broad-based assessment of conservation management priorities at each site (Duckworth *et al.* 1992, 1993, Timmins *et al.* 1993 a, b). Incidental observations at other sites extended to September 1993. Fieldwork was unstructured because the main objective was to find as many species at each study site as possible. Particular effort was devoted to searching for globally threatened species of birds. These surveys operated with the close cooperation of, and support from, the then Protected Areas and Wildlife Division of the National Office for Nature Conservation and Watershed Management of the Department of Forestry. Of 626 species of birds previously recorded from Laos, 437 (70%) were found, with provisional records of a further eight. This is a high proportion considering that neither mountainous areas of the North nor the Annamites were visited. While partly due to the 99 species of Palearctic migrants detected, it reflects the importance of the areas surveyed. Six species found had not previously been recorded from North Laos, 19 from Central Laos and 24 from South Laos. Additionally, 11 species were new to the country as a whole; two of these 11 were new to Indochina. Eight Globally Threatened, 21 Globally Near-threatened species and 24 species regarded as At Risk in Thailand were recorded. These totals do not include provisional records except where stated.

This paper documents new information concerning the distribution and status of birds in Laos. Further information on the status and conservation of threatened birds in Laos is given by Thewlis *et al.* (in prep.). Mammal records from these surveys are discussed in Duckworth (1994 a,b) and Duckworth *et al.* (1994, in press).

STUDY SITES

All sites mentioned in the text are listed in Appendix 3. Place names used in the literature are followed throughout this text: some are not in current use and Appendix 3 should be referred to for names in current use. Fig. 1. shows the location most of the places mentioned in the text.

Main localities visited

Xé Pian National Biodiversity Conservation Area, Champasak and Attapu Provinces, South Laos (14°00' - 14°50'N 105°53' - 106°30'E): 28 November 1992 - 14 March 1993; 6-15 May 1993. See Timmins *et al.* (1993b).

The Xé Pian NBCA (Fig. 2) includes about 1,500 km² of semi-evergreen forest, mostly little-degraded and on rolling hills at 150-350 m. This is supplemented by two regions of different habitat, Dong Kalo to the south and the Xé Khong plains to the east, totalling an additional 900 sq. km, which support a mosaic of semi-evergreen, mixed deciduous and dry dipterocarp forests and contain many small wetlands. The highest point is 844 m. Much of the southern boundary runs along the international frontier with Cambodia where similar forest is apparently found (satellite imagery held at the National Office of Forest Inventory and Planning, Vientiane). The northern fringe of the protected area consists of a heavily exploited mosaic of mixed deciduous forest and wetlands, some seasonal and some permanent, and abuts agricultural land. The Xé Khong plains were visited during 28 February to 13 March and Dong Kalo from 30 January to 3 February. Most records from the main semi-evergreen forest and the northern fringe come from late November to the end of January, but these sectors were also visited in early May. Engelbach (1927a,b, 1929, 1932) detailed observations over six years in South Laos: this includes records from the Pakxe area gathered in the company of the sixth Indochinese expedition (Delacour 1932). None of Engelbach's records seems to relate to the area now enclosed by Xé Pian NBCA. Many of his records come from the plains adjacent to the Xé Khong river, but they relate to the Xé Khong in its more northerly reaches, to the east and north-east of the Bolovens Plateau, and not to the region downstream known here as the Xé Khong plains.

Dong Hua Sao National Biodiversity Conservation Area, Champasak and Attapu Provinces, South Laos (14°50' - 15°11'N, 105°55' - 106°17'E): 12 May - 26 July 1993. See Timmins *et al.* (1993a).

Dong Hua Sao NBCA (Fig. 4) covers about 900 km² of the southern Bolovens Plateau, the intervening slope and adjacent lowlands. Most (70%) of the area lies below 250 m, but the sheer escarpment and plateau rise to over 1,200 m. The slope forest is largely primary, but the plateau is rapidly being cleared for coffee plantations and most lowland forests have been heavily degraded by logging. The area is surrounded by cultivation except to the east, where a large tract of forest probably links Dong Hua Sao NBCA with Xé Pian NBCA. Lowland and slope semi-evergreen forest covers over half the area, although there is also extensive mixed deciduous forest in the lowlands. The majority of forest on the plateau is hill evergreen forest. The Bolovens Plateau was visited during 30 May to 22 June and observations were made in the lowlands during most of May and July. Engelbach (1927a, 1929, 1932)

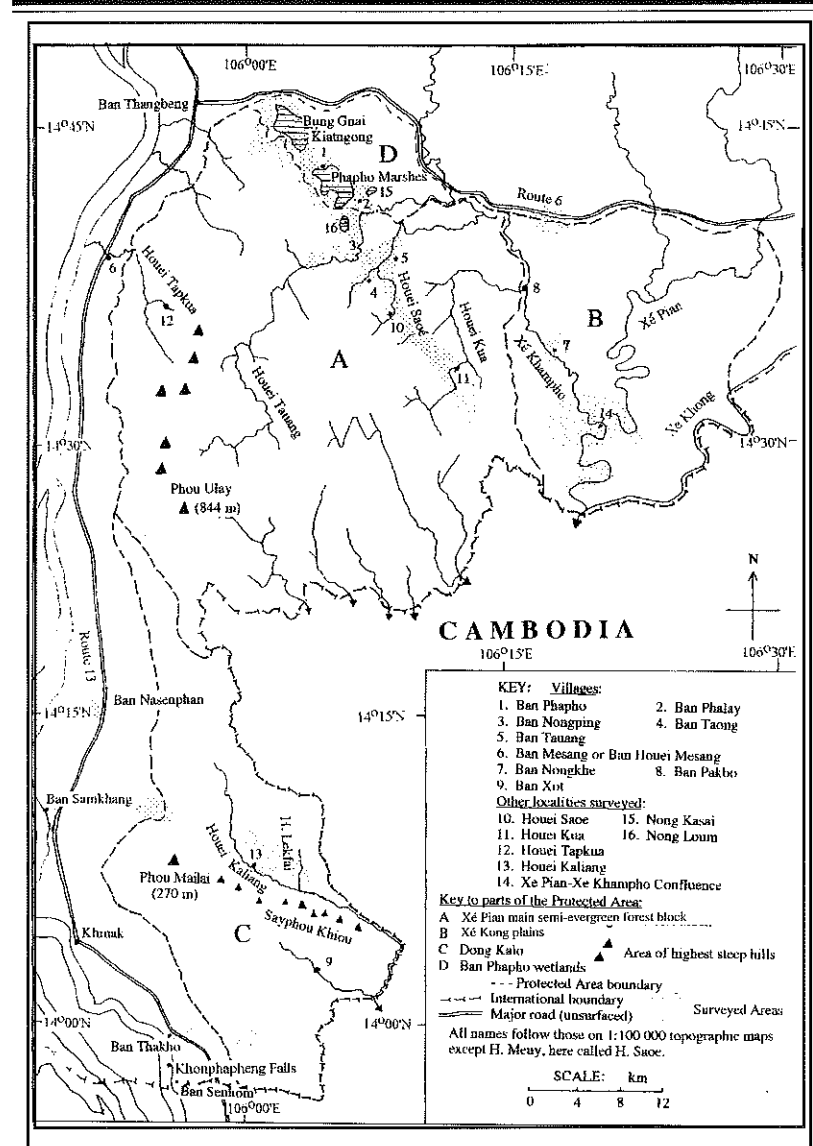


Figure 2. Xé Pian National Biodiversity Conservation Area.

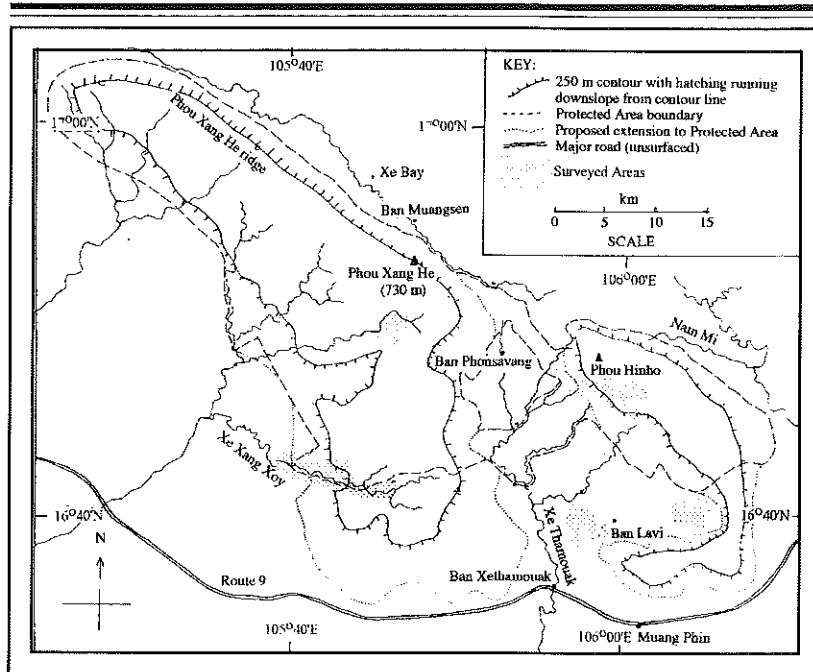


Figure 3. Phou Xang He National Biodiversity Conservation Area.

collected birds in the northern half of the Bolovens Plateau (outside the area of Dong Hua Sao NBCA) and the sixth Indochinese expedition (Delacour 1932) spent three months based on the plateau.

Phou Xang He National Biodiversity Conservation Area, Savannakhet Province, Central Laos ($16^{\circ}42' - 17^{\circ}04'N$ $105^{\circ}19' - 106^{\circ}06'E$): 20 March - 21 April 1993. See Duckworth *et al.* (1993).

Phou Xang He NBCA lies about 85 km east of the town of Savannakhet. The 1,140 km² area (Fig. 3) consists of two largely forested hill ranges, mostly at 200–700 m altitude, orientated north-west to south-east. The two ranges are divided by a flat corridor, 6–10 km wide, containing many villages and forest fragments. The protected area is surrounded by largely deforested plains. The eponymous massif Phou Xang He is a large sandstone formation dominated by semi-evergreen and mixed deciduous forest enduring marked drought conditions during the dry season. On the opposite side of the corridor, Phou Hinbo is a steep igneous formation with narrow ridges and valleys, supporting a distinctive form of semi-evergreen forest with a very low proportion of deciduous trees, occurring below 1,000 m. South of the protected area is a tract of flat, mainly lateritic land dominated by dry dipterocarp forest. The survey concentrated most effort on the lowland

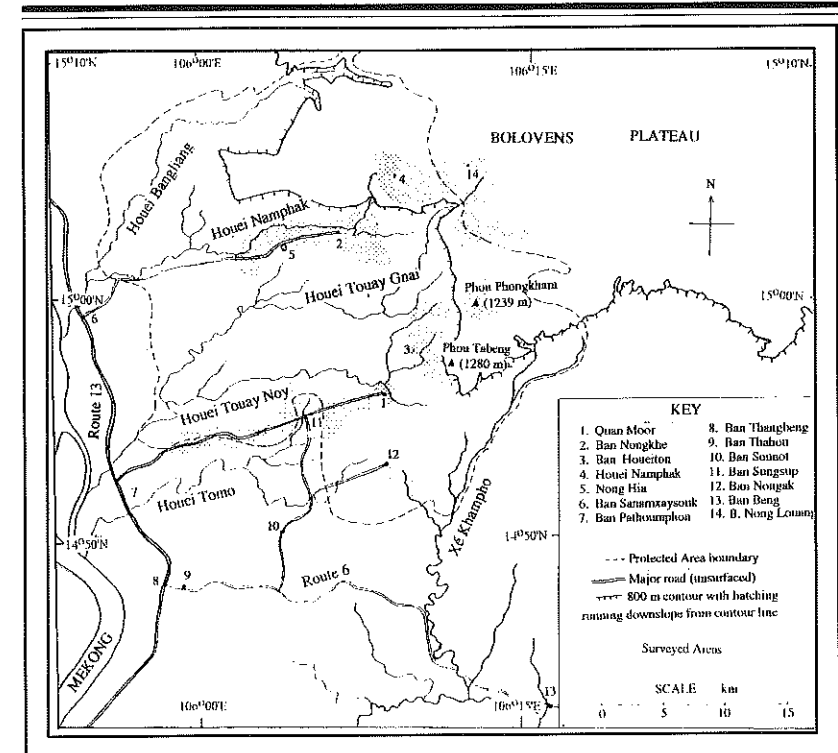


Figure 4. Dong Hua Sao National Biodiversity Conservation Area.

corridor as this was under the greatest immediate threat. Although there are various historical references from Central Laos, only David-Beaulieu (1949–1950), who accumulated observations over four years in Savannakhet province, is relevant to the Phou Xang He NBCA region.

Houay Nhang Nature Reserve, Vientiane Prefecture, North Laos ($18^{\circ}04'N$ $102^{\circ}41'E$): 16 October–16 November 1992; sporadic visits between January and September 1993. See Duckworth *et al.* (1992).

Houay Nhang Nature Reserve covers 808 ha at 200 m altitude and is situated 14 km north of Vientiane. The reserve comprises degraded lowland semi-evergreen forest, areas resembling dry dipterocarp forest, regenerating scrub and rice paddies. Several streams, ponds and other features including seasonal habitations are present. Details of the habitat, climate and topography are given in Salter and Venevongphet (1988) and brief notes on the birds were presented by Robichaud (1992). Bangs and Van Tyne (1931) list some significant records from Ban Thènkhen, which is close to Houay Nhang, but the Vientiane area was surprisingly poorly documented in the past.

Other localities visited and dates

Incidental observations were made at the following sites:

- 1: Vientiane, including Don Chuan Sandbank (Garden Island), North Laos, numerous dates October 1992 - September 1993.
- 2: Savannakhét town, Central Laos, occasional dates November 1992 - July 1993.
- 3: Ban Thadua, Vientiane Municipality, North Laos, numerous dates October 1992 - September 1993.
- 4: Vang Vieng, Vientiane Province, North Laos, 28-29 August 1993 (limestone outcrops amid cultivation).
- 5: Nam Ngum Reservoir, Vientiane Province, North Laos, 15 November 1992.
- 6: Attapu town, South Laos, 26 January 1993.
- 7: Khong-Phapheng Falls and Ban Thakho, Champasak Province, South Laos, 4-8 February 1993 (a 5 km stretch of the Mekong with waterfalls is collectively referred to as 'Khône Falls'. We visited specifically the Khong-Phapheng Falls and areas of degraded forest nearby).
- 8: Xé Khong river, Attapu Province, South Laos, 13 March 1993. Records come from between the inflow of the Xé Pian river and the town of Senamsai, a distance of 40-50 km. Some of the stretch is within the Xé Pian NBCA; records are not duplicated in the columns for the NBCA.
- 9: Pakxe, Champasak Province, South Laos (including some records from Pakxe fish farm, on the outskirts of the town); numerous dates November 1992 - July 1993.
- 10: Pha Som/Naliang limestone outcrop (18°00'N 104°19'30"E), Khammouane Province, Central Laos, various dates November 1992 - July 1993.
- 11: Lao Pako, a small resort in degraded forest, scrub and cultivation at 200 m beside the Nam Ngum river, Vientiane Province, North Laos, 17-19 April 1993.
- 12: Phou Khao Khouay NBCA, Vientiane Province, North Laos, 11 April 1993, between the area headquarters and the waterfall at Tat Leuk.
- 13: Tha Ngon Reservoir, just north of Houay Nhang, Vientiane Province North Laos, occasional dates between October 1992 and January 1993.
- 14: Degraded forest on the southern slope of Phou Bachiang 5 km east of the centre of Pakxe, Champasak Province, South Laos, 22 November 1992.
- 15: Ban Samkhang, Champasak Province, South Laos, 3-4 February 1993.
- 16: Muang Không town and nearby scrub and cultivation, Champasak Province, South Laos, 29 January and 8 February 1993.
- 17: Ban Thong Song, Route 13, Savannakhét Province, Central Laos, 23 March 1993.
- 18: Nong Puh area, South Laos (10 km east of Khong-Phapheng Falls), 5 February 1993.

RECORDS OF PARTICULAR SIGNIFICANCE

Records of all bird species found are detailed by site in Appendix 1; the more interesting of these records are discussed in the species accounts below. A summary is given for all records of Globally Threatened or Near-Threatened species and those At Risk in Thailand (*sensu* Collar *et al.* 1994 and Treesucon and Round 1990 respectively), to allow a baseline to be constructed for species known to be under pressure elsewhere. It is anticipated that following future work, some species listed as At Risk in Thailand are likely to prove common and widespread in Laos. For species not in these two sources, the only records discussed are geographical or altitudinal range extensions or clarifications of seasonal status. Thus, if a study site is not mentioned in a species entry, this does not imply that the species was not recorded there; at this point Appendix 1 should be referred to. Mlikovsky and Inskipp (in prep.) review the status of all species in Indochina; this work greatly facilitated the setting into context of the present records. Delacour and Jabouille (1931, 1940) discussed all species occurring in Laos with comments on their status; the former work incorporated previous published observations and, apparently, many others which were not otherwise published. King *et al.* (1975) presented the only recent breakdown of species occurrence by region within Laos: all cases where records from 1992-1993 extended or clarified the known geographical range as shown in this source are discussed, even where it turned out that earlier records had been overlooked in its compilation.

BAR-BACKED PARTRIDGE *Arborophila brunneopectus* **At Risk in Thailand** Local in semi-evergreen and hill evergreen forest of Phou Xang He NBCA and Dong Hua Sao NBCA. Previous observers found it frequently throughout Laos (Engelbach 1932, Delacour and Jabouille 1940, David-Beaulieu 1949-1950).

SILVER PHEASANT *Lophura nycthemera* **At Risk in Thailand** A few were recorded above 900 m in primary hill evergreen forest on the Bolovens Plateau (Dong Hua Sao NBCA). Engelbach (1932) found it very common in hill forest on the plateau; the race *L. n. engelbachi* was described as endemic to the Bolovens Plateau (Delacour 1977). The validity of the subspecies *L. n. engelbachi* was questioned by McGowan and Panchen (1994).

SIAMESE FIREBACK *Lophura diardi* **Globally Threatened** Fairly common at Xé Pian NBCA in primary semi-evergreen forest and scarcer in degraded forest at the edge of the NBCA. One was seen on Route 18 on 26 January near the crossing of the Xé Pian river, along the current NBCA boundary. Although recorded at Phou Xang He NBCA (two on Phou Xang He, 29 March; a pair in the corridor in a forest patch on 1 April; a male with two females there on 11 April; and heard near Ban Nalay on 20 April), its status

could not be assessed due to the paucity of suitable paths from which to see pheasants; this may also account for the absence of confirmed records at Dong Hua Sao NBCA. Hundreds of birds are snared annually in Xé Pian NBCA and probably at the other sites.

GREY PEACOCK-PHEASANT *Polyplectron bicalcaratum* **At Risk in Thailand** Probably common in semi-evergreen forest throughout Xé Pian NBCA (although heard frequently only at Houay Tapkua, this may have been a seasonal effect) where many hunters' plucking piles were found. The species was heard in Phou Xang He NBCA, but no feathers were found nor were birds seen. Neither King *et al.* (1975) nor Delacour (1977) list it for South Laos. *P. b. bicalcaratum* ranges from Chittagong and Tenasserim through Thailand to North Laos and southern Yunnan, whereas *P. b. ghigi* is found in Annam (Delacour and Jabouille 1931); from comparison with skins at the British Museum (Tring), birds in Xé Pian NBCA fitted the latter well. At Ban Napè (Central Laos) and Chapa (Tonkin) birds intermediate between the two subspecies were found (Delacour 1929).

GREEN PEAFOWL *Pavo muticus* **Globally Threatened** Singles were heard at two localities near the confluence of the Xé Khampho and Xé Pian rivers (Xé Pian NBCA) around dawn and dusk on several days in March. Displaying was said by villagers to occur near the confluence of the Xé Khong and Xé Pian rivers. No evidence was found at Dong Kalo (Xé Pian NBCA) although villagers reported that they inhabit the Phou Mailai area. There were two sightings (possibly of the same bird) at Quan Moor (Dong Hua Sao NBCA) at 250 m on 28 June and 3 July, a locality reported to hold up to 70 birds in March. Green Peafowl once occurred throughout Indochina (Delacour and Jabouille 1940); hunting has greatly reduced this species which was once considered to be as common as Red Junglefowl *Gallus gallus* (Delacour and Jabouille 1925). The species is considered in more detail by Evans and Timmins (*Forktail*, this issue).

WHITE-WINGED DUCK *Cairina scutulata* **Globally Threatened** One flew along Houay Kua (Xé Pian NBCA) on 27 December. They are reported by locals in the area. The status, natural history and conservation of this species in Laos is considered by Evans and Tizard (in prep.).

NORTHERN SHOVELER *Anas clypeata* One market specimen was noted at Vientiane in 1991 (Srikosamatara *et al.* 1992). This species has not previously been recorded in Laos (Mlikovsky and Inskipp in prep.) and is treated here so that details of all species not listed for Laos by King *et al.* (1975) are included.

WHITE-BELLIED WOODPECKER *Dryocopus javensis* **At Risk in Thailand** Frequent on the Xé Khong plains and Dong Kalo, mostly in mixed deciduous forest, and occasional in mixed deciduous forest in the northern fringe (all Xé Pian NBCA).

RED-COLLARED WOODPECKER *Picus rabieri* **Globally Threatened** Common in all primary semi-evergreen forest, frequent in degraded semi-evergreen forest but scarce in other habitats (including heavily logged forest) up to 450 m at Xé Pian NBCA, Dong Hua Sao NBCA and Phou Xang He NBCA. The species occurs throughout Laos (Delacour and Jabouille 1940) including Pakxe (Engelbach 1932).

BLACK-HEADED WOODPECKER *Picus erythropygius* **At Risk in Thailand** Common at Dong Kalo and the Xé Khong plains (Xé Pian NBCA) and at Phou Xang He NBCA in dry dipterocarp forest with fewer in mixed deciduous forest. Its abundance in the dry dipterocarp forest, the least threatened of woody habitats, suggests that the species is unlikely to be threatened by habitat destruction in the near future.

PALE-HEADED WOODPECKER *Gecimulus grantia* **At Risk in Thailand** Locally common in primary and degraded semi-evergreen forest on flat and steep terrain at all altitudes surveyed in Xé Pian NBCA and Phou Xang He NBCA. At these sites it seemed associated with large stands of a bamboo which grew only under the forest canopy. In Dong Hua Sao NBCA, two on 5 June and one on 11 June were in primary hill evergreen forest at 1,100 m away from any large bamboos. Treesuon and Round (1990) regarded it as being At Risk in Thailand due to its very restricted range there (it is largely replaced by Bamboo Woodpecker *G. viridis*), whereas east of the Mekong (and north into China and west to Nepal) the species is widespread (King *et al.* 1975), as it is in Laos (Delacour and Jabouille 1940).

RED-VENTED BARBET *Megalaima lagrandieri* Common in primary and degraded forest in Dong Hua Sao NBCA on the Bolovens Plateau (1,000 m) and in Phou Xang He NBCA at all altitudes surveyed (200-500 m). At Xé Pian NBCA one fed in a fruiting tree with Lineated Barbets *M. lineata* beside the Xé Khampho river (100 m) on 5 March, but in view of the observer effort in Xé Pian NBCA, the species is clearly exceptional there between November and May. King *et al.* (1975) excluded Central Laos from the species's range, although Delacour (1929) had found it to be abundant near Ban Napè. It was previously found to be common in well-wooded areas of the Bolovens Plateau (Engelbach 1932). This species was previously listed as Globally Near-threatened (Collar and Andrew 1988).

GREAT HORNBILL *Buceros bicornis* **At Risk in Thailand** Up to four birds were seen from the steep slopes of the Houay Tapkua valley (Xé Pian NBCA) on 14, 15 and 19 February. This small number of records contrasts with a former assessment as common in well-wooded areas of southern Laos, particularly in hills and mountains (Engelbach 1932).

BROWN HORNBILL *Anorrhinus tickelli* **Globally Near-Threatened** Only found at Phou Xang He NBCA (400 m) where up to three birds occasionally associated with flocks of the much commoner Oriental Pied-Hornbill

Anthracoeros albirostris; the lack of records elsewhere is surprising as they were recorded throughout Laos (Delacour and Jabouille 1940) and were considered to be common on the Bolovens Plateau (Engelbach 1932).

WREATHED HORNBILL *Aceros undulatus* **At Risk in Thailand** Small numbers, rarely including flocks of up to 21 were seen almost daily in Xé Pian NBCA and rather less frequently in Dong Hua Sao NBCA, where it was particularly scarce on the plateau with only one sighting of three birds on 7 June. Parties often flew over agricultural land and deciduous habitats to the north of Xé Pian NBCA in December and January and may have been travelling to and from Dong Hua Sao NBCA. Two were seen in Phou Xang He NBCA on 15 April, and unidentified large hornbills were heard there on a few other occasions. Historically it was the rarest hornbill in Savannakhét, with only one seen in two years (David-Beaulieu 1949-1950), paralleling our observations at Phou Xang He NBCA.

COMMON KINGFISHER *Alcedo atthis* Common in all study sites visited during October-April, but unrecorded from Dong Hua Sao NBCA which was visited in May-July. Many birds were seen by paddies and streams in Vientiane (including the city centre) from mid August and through September, after none had been seen between early July and mid August. This pattern of records strongly suggests that birds are mainly or entirely non-breeding migrants to the areas visited, *contra* King *et al.* (1975) who indicated that the species is resident throughout Laos. Past resident observers in the South and Centre (Engelbach 1927a, 1932, David-Beaulieu 1949-1950) made no mention of seasonality, but the species was a breeding resident in Tranninh (David-Beaulieu 1944). It is primarily a winter migrant to Thailand, breeding but locally (Lekagul and Round 1991) and it is likely that the same is true in much of Laos.

BLUE-EARED KINGFISHER *Alcedo meninting* Frequent at all three study sites in South and Central Laos. The only previous Lao record is of two near Ban Namkeung-Kao in North Laos (Delacour and Greenway 1940).

BLACK-BACKED KINGFISHER *Ceyx erithacus* Locally common in lowlands at Dong Hua Sao NBCA, singles on 26 March and 17 April on Phou Hinho (Phou Xang He NBCA) and singles at Xé Pian NBCA on 10 December and 8 May. All previous Lao records relate to the North (Bangs and Van Tyne 1931, David-Beaulieu 1944).

BANDED KINGFISHER *Lacedo pulchella* Common at Phou Xang He NBCA in semi-evergreen forest; only previously recorded in Laos in the North and South (Bangs and Van Tyne 1931, Engelbach 1932, David-Beaulieu 1944).

RUDDY KINGFISHER *Halcyon coromanda* **At Risk in Thailand** Two singles along forest streams in Phou Xang He NBCA on 10 April (Ban Lavay) and 17 April (Phou Hinho). The only previous Lao record is of a single from Tranninh (North Laos) on 17 April 1938 (David-Beaulieu 1944). Both

resident and migrant populations occur in Thailand (Lekagul and Round 1991). The three Lao records, all being in April, may relate to migrants.

BLACK-CAPPED KINGFISHER *Halcyon pileata* King *et al.* (1975) were unsure of the seasonal status of this species in South Laos; our observations suggest that it is only a winter migrant to this region as, although common in wetlands and along rivers at Xé Pian NBCA during November to March, it was not recorded there in May, nor at Dong Hua Sao NBCA in May-July.

MOUSTACHED HAWK-CUCKOO *Cuculus vagans* Singles in bamboo at Houay Kua on 10 December and in degraded forest at Ban Nongping (both Xé Pian NBCA) on 23 January. These are the first records for Indochina; no records were traced by Mlikovsky and Inskipp (in prep.). See Duckworth (*Forktail* this issue) for further details.

HODGSON'S HAWK-CUCKOO *Cuculus fugax* One adult on the Xé Khong plains (Xé Pian NBCA) on 6 March. This is the first record for Laos; no records were traced by Mlikovsky and Inskipp (in prep.) and it was recently recorded in Central Annam for the first time by Robson *et al.* (1993a).

VIOLET CUCKOO *Chrysococcyx xanthorhynchus* Three singles at Houay Nhang NR on 27 October, 9 and 12 November. Historical records in Laos came only from the South (King *et al.* 1975). The only previous record with details is of a male near Pakxe in February 1932 (Engelbach 1932).

ALEXANDRINE PARAKEET *Psittacula eupatria* **At Risk in Thailand** Recorded only at Xé Pian NBCA and Ban Thakho where scattered pairs occupied open forest areas. It is a popular cagebird and nest robbery is exterminating the Thai population (Round 1988); other parakeet species were taken from the nest at Xé Pian NBCA (pers. obs., Cox *et al.* 1991).

SWIFTLET *Collocalia* sp. Singles at Houay Nhang NR on 18 and 26 October, on the Xé Khong plains (Xé Pian NBCA) on 10 March and around Houay Namphak (Dong Hua Sao NBCA) from 12 to 24 May. On 19 March, between Savannakhét and Pakxan, many flocks of 15-20 were seen in rural areas. At Vangviang about 40 were seen in late August; the latter three areas contain suitable breeding habitat, the former two do not.

King *et al.* (1975) treated all swiftlets from Laos under *C. brevirostris* and listed these only for the North. Sibley and Monroe (1990, 1993) list *C. brevirostris* and *C. rogersi* from Laos, but not *C. germani*. Two historical primary references to swiftlets in Laos were traced by Mlikovsky and Inskipp (in prep.). Bangs and van Tyne (1931) collected one male *C. francica germani* (= *C. germani*) from the Nam Ou near Ban Thènkhen (North Laos) in June 1929, and David-Beaulieu (1944) recorded this form as a regular double passage migrant through Tranninh; six males were collected. *C. rogersi* was described (as *C. brevirostris rogersi*) from a Thai specimen; it was recorded as breeding in the Southern Shan states (Myanmar), north-west Tonkin, North Laos, and northern and western Thailand, wherever limestone crags occurred,

and wintering in peninsular Thailand and Malaysia (Deignan 1955). Unfortunately, neither the collector, the site nor the museum specimen numbers are given for the northern Lao record of *C. rogersi*, but it is presumably referable either to specimens not described in previous publications, or to a re-identification of those of Bangs and Van Tyne or David-Beaulieu, or both.

BROWN-BACKED NEEDLETAIL *Hirundapus giganteus* Commonly recorded at all study sites in all visits. Delacour and Jabouille (1940) and King *et al.* (1975) described this species as found in north-east Laos, but did not list it from elsewhere. The lack of historical records is probably due to identification difficulties: neither Engelbach (1932) nor David-Beaulieu (1949-1950) identified any needletails to species as they could not secure any specimens. It is clearly common throughout South and Central Laos and probably present throughout the year. It seems to have been under-recorded elsewhere in Indochina as the first records from North Annam came in 1988 and from Central Annam in 1991 (Robson *et al.* 1993b).

MOUNTAIN SCOPS-OWL *Otus spilocephalus* Heard nightly at Phou Xang He NBCA between 26 March and 18 April. This species has not previously been recorded from Central Laos, according to Mlikovsky and Inskipp (in prep.).

TAWNY/BUFFY FISH-OWL *Ketupa flavipes* **Globally Near-Threatened**/*K. ketupu* Singles seen at Houay Sae (1, 3 and 4 December), Dong Kalo (31 January) and the Xé Khong plains (3 and 6 March), all in Xé Pian NBCA. These birds were along seasonal streams in semi-evergreen forest and mixed deciduous/dry dipterocarp forest mosaic, except the Xé Khong plains individual which was at a small pool in dry dipterocarp forest. The Xé Khong plains bird was believed, on grounds of size, most likely to be Tawny. Tawny Fish-Owl is known in Laos only as a very rare bird in Tranninh (David-Beaulieu 1944). Buffy Fish-Owl is known in Laos only from the South where one was collected at Ban Thatèng in 1931 (Engelbach 1932).

SPOTTED WOOD-OWL *Strix seloputo* Calls heard near the confluence of the Xé Khong and Xé Pian rivers (Xé Pian NBCA) on 3 March fitted the description in Lekagul and Round (1991) of the call of this species, which is not yet recorded from Laos (Mlikovsky and Inskipp in prep.).

BROWN WOOD-OWL *Strix leptogrammica* Single records in Xé Pian NBCA (two on 19 December; semi-evergreen forest, 200 m) and Dong Hua Sao NBCA (8 July; mixed deciduous forest, 250 m) and one seen in Salavan market (South Laos; R. Dobias verbally 1994). Previously known in Laos only from Phôngsali and Tranninh, North Laos (Delacour 1926, Delacour and Jabouille 1927, Bangs and Van Tyne 1931, David-Beaulieu 1944).

COLLARED OWLET *Glaucidium brodiei* Described as occurring usually above 600 m in Thailand (Lekagul and Round 1991) yet recorded commonly at 150 m at both Xé Pian NBCA and Phou Xang He NBCA. It has been recorded at sea level in Vietnam (C. Robson *in litt.* 1994).

HODGSON'S FROGMOUTH *Batrachostomus hodgsoni* A call tape-recorded from 1,100 m on the Bolovens Plateau (Dong Hua Sao NBCA) is likely to be of Hodgson's Frogmouth (P. D. Round verbally 1993). The species was found on the Bolovens Plateau in February 1932 (Dickinson 1970) and also recorded from Ban Namkeung-Kao, North Laos (Delacour and Greenway 1940).

BLYTH'S FROGMOUTH *Batrachostomus affinis* **At Risk in Thailand** Three types of call heard consistently in the lowlands at Xé Pian NBCA were tape-recorded, one of which was also heard in the lowlands of Dong Hua Sao NBCA, at Houay Nhang NR on 15 April and at Lao Pako in mid-April. These resemble 'Javan Frogmouth' in Thailand (P. D. Round verbally 1993), referred by Sibley and Monroe (1990) to Blyth's Frogmouth. No records of this form were traced from Laos by Mlikovsky and Inskipp (in prep.).

YELLOW-FOOTED GREEN-PIGION *Treron phoenicoptera* **At Risk in Thailand** Eight in dry dipterocarp forest at Nong Puh near Ban Senhom (within Dong Kalo) on 5 February. In Xé Pian NBCA, common (up to five birds per day) on the Xé Khong plains and present at Dong Kalo in mixed deciduous forest; birds were sometimes seen in adjacent dry dipterocarp forest.

GREEN IMPERIAL-PIGEON *Ducula aenea* **At Risk in Thailand** Occasionally seen in degraded and riverside semi-evergreen forest at Xé Pian NBCA, but rather infrequently recorded there, deep in continuous semi-evergreen forest; present in the lowlands but not the higher areas at Dong Hua Sao NBCA. The species was previously recorded widely and commonly throughout Laos (e.g. Engelbach 1932, Delacour and Jabouille 1940)

SARUS CRANE *Grus antigone* **Globally Near-Threatened** Two adults and a juvenile on the Xé Khong plains (Xé Pian NBCA) on 5 March. Small numbers were previously recorded in Xé Pian NBCA by Cox *et al.* (1991) and Salter (1993). This subspecies, *G. a. sharpii*, is already extinct in some countries, including Thailand (Scott and Poole 1989, Lekagul and Round 1991).

MASKED FINFOOT *Heliopais personata* **Globally Threatened** Two singles on the Xé Pian river (Xé Pian NBCA) in early March 1993. Mlikovsky and Inskipp (in prep.) traced no previous Lao records.

COMMON COOT *Fulica atra* One at Nong Kasay (Xé Pian NBCA) on 2 and 5 January; the only previous Lao record is of one at Muang Soui, North Laos (David-Beaulieu 1944).

EURASIAN WOODCOCK *Scolopax rusticola* Three singles in Xé Pian NBCA: 27 November (deep in semi-evergreen forest); 1 and 10 March (by the Xé Khampho river). The species was previously known in Laos from the North and Central regions (Delacour and Jabouille 1927, Delacour and Greenway 1940, David-Beaulieu 1944, 1949-1950).

SPOTTED REDSHANK *Tringa erythropus* Singles near Ban Phapho on 30 and 31 December, then two on 2 January near Ban Phalay (Xé Pian NBCA). The only previous Lao record was from the North, of one in Tranninh (David-Beaulieu 1944).

BRONZE-WINGED JACANA *Metopidius indicus* Counts of 100 at Nong Loum and 60 at Nong Kasay supplemented smaller numbers elsewhere in Xé Pian NBCA during January. The species was previously known in Laos only from the Central region (Robinson and Kloss 1931, David-Beaulieu 1949-1950), although Perennou and Mundkur (1991) recorded them at unspecified localities in the country.

SAND PLOVER *Charadrius* sp. A single was seen on the Mekong at Vientiane on 29 April. Neither Mongolian *C. mongolus* nor Greater *C. leschenaultii* are mapped as occurring near the Mekong in Thailand (Lekagul and Round 1991). Historically, both species were rare on the Mekong at Savannakhét (Central Laos) and 1-4 Mongolians were seen (one taken) at Xieng-Khouang (North Laos) on 24 September 1938 (David-Beaulieu 1944, 1949-1950).

GREY-HEADED LAPWING *Vanellus cinereus* **Globally Near-Threatened** Common in suitable habitat in the northern zone of Xé Pian NBCA where flocks of up to 24 were recorded from November to January; five flew over Houay Nhang NR on 31 October; up to four were seen at Tha Ngon Reservoir from October to December, and a single flew east along the Mekong at Ban Thadua on 20 March.

SMALL PRATINCOLE *Glareola lactea* **At Risk in Thailand** Along the Xé Khong river, 145 birds were seen in 50 km on 13 March. More were probably present as those on shingle banks were quite unobtrusive. All further records were on the Mekong: at the Khong-Phapheng Falls (150, 7 February); at Vientiane (seven, 25 November; small numbers, April); and at Savannakhét (eight, 24 March). It was previously recorded throughout Laos (King *et al.* 1975), including the Mekong at Savannakhét (David-Beaulieu 1944) and the Xé Khong (Engelbach 1932), while Lekagul and Round (1991) mapped the species for the Thai bank of the Mekong opposite Vientiane.

RIVER TERN *Sterna aurantia* **At Risk in Thailand** Three pairs and one individual were seen along 50 km of the Xé Khong river on 13 March. It was previously much more numerous, being common on large rivers almost throughout Laos (Engelbach 1932, Delacour and Greenway 1940, David-Beaulieu 1949-1950).

BLACK-BELLIED TERN *Sterna acuticauda* **Globally Threatened** A tern probably of this species was seen briefly at Kong Phapeng Falls on 6 February. It was previously common over much of Laos, especially in the South (Delacour and Jabouille 1931, Engelbach 1932, David-Beaulieu 1949-1950).

JERDON'S BAZA *Aviceda jerdoni* **Globally Near-Threatened** A single at Houay Nhang NR on 1 November; the only previous Lao record was of one on the Bolovens Plateau (Engelbach 1932).

BLACK-EARED KITE *Milvus lineatus* Singles presumed to be of this species passed south over Houay Nhang NR on 18 and 19 October. Black Kite *M. migrans* was classified by Treesucon and Round (1990) as At Risk in Thailand and could occur in Laos, but was never historically confirmed. Black-eared Kite occurred in winter and was quite frequent on plains in South Laos and regular in Tranninh and Savannakhét (Engelbach 1932, David-Beaulieu 1944, 1949-1950) and even occurred around towns (David-Beaulieu 1944). These past assessments contrast with our two records of single birds and suggest that the species is now much rarer than formerly.

BRAHMENY KITE *Haliastur indus* Three singles over the Mekong: from Ban Samkhang on 3 February, Muang Không on 29 January and Khong Phapeng Falls on 6 February. It was previously described as very common on the Mekong, Xé Khong, Xé Don and Xé Banghiang rivers in Central and South Laos (Engelbach 1927a, Delacour 1929, David-Beaulieu 1949-1950). This suggests that the species has declined greatly, as it has elsewhere in South-East Asia (van Balen *et al.* 1993 and references therein).

LESSER FISH-EAGLE *Ichthyophaga humilis* **Globally Near-Threatened** Several sightings of 1-3 at the confluence of the Xé Pian and Xé Khampho rivers in March. Two on 13 and one on 14 February on the upper reaches of the Houay Tauang in semi-evergreen forest (Xé Pian NBCA). Lesser and Grey-headed Fish-Eagles are now extremely rare in South-East Asia and almost extinct in Thailand (Lekagul and Round 1991).

GREY-HEADED FISH-EAGLE *Ichthyophaga ichthyaetus* **Globally Near-Threatened** One to three almost daily on 2-6 March in the Xé Khong plains area, sometimes in the air with Lesser Fish-Eagle.

WHITE-RUMPED VULTURE *Gyps bengalensis* **Globally Near-Threatened** Up to at least eleven in Xé Pian NBCA, including birds in mixed flocks of vultures totalling 40-60 at buffalo carcasses on the Xé Khong plains in March. None was seen over Dong Kalo, a similar habitat to the Xé Khong plains, although only four days' fieldwork was achieved here. Occasional birds (on 16 December and 11 January) were seen over the main block of semi-evergreen forest, but they probably concentrated over more open habitats. This species, almost extinct in Thailand (Lekagul and Round 1991), was common historically throughout Laos (Engelbach 1927a, 1932, David-Beaulieu 1944, 1949-1950).

LONG-BILLED VULTURE *Gyps indicus* **Globally Near-Threatened** Up to at least ten (probably less numerous in the northern zone than the other two vulture species) in Xé Pian NBCA, where commonest on the Xé Khong plains. None was seen over Dong Kalo. Occasional birds (one on 11 and two

on 12 January) were seen over the main block of semi-evergreen forest, but birds clearly concentrated over more open habitats. Four over Attapu town on 26 January. The species, possibly extinct in Thailand (Lekagul and Round 1991), was common historically throughout Laos, although generally described as the least numerous of the vultures (Engelbach 1927a, 1932, David-Beaulieu 1944, 1949-1950).

RED-HEADED VULTURE *Sarcogyps calvus* **Globally Near-Threatened** Up to about ten in the northern zone and Xé Khong plains of Xé Pian NBCA, and one (on 11 January) over the main block of semi-evergreen forest. One was over Attapu town on 26 January. The species is almost extinct in Thailand (Lekagul and Round 1991) and was common historically throughout Laos (Engelbach 1927a, 1932, David-Beaulieu 1944, 1949-1950).

SHORT-TOED SNAKE-EAGLE *Circaetus gallicus* One north of Muang Không over Route 13 on 8 February. Mlikovsky and Inskipp (in prep.) traced no previous Lao records.

RUFOUS-WINGED BUZZARD *Butastur liventer* **Globally Near-Threatened** Fairly common in dry dipterocarp forest on the Xé Khong plains and Dong Kalo (Xé Pian NBCA) and in similar forest in and around Phou Xang He NBCA. Birds were seen less frequently in mixed deciduous forest and a mosaic of other habitats in the northern fringe of Xé Pian NBCA. Two were seen in scrub by Route 13, south of Ban Paknamkading (North Laos) on 20 November. Historically it was fairly common in dry dipterocarp forest in Savannakhet province and around Pakxe (Engelbach 1932, David-Beaulieu 1949-1950), though it was not previously recorded from the North.

BOOTED EAGLE *Hieraaetus pennatus* One flew north-west over Ban Phalay (Xé Pian NBCA) on 5 January. Mlikovsky and Inskipp (in prep.) traced no previous records from Indochina. It is a very scarce migrant to Thailand (Lekagul and Round 1991). See Duckworth (*Forktail* this issue) for further details.

RUFOUS-BELLIED EAGLE *Hieraaetus kienerii* Single adults over Nong Loum on 2 and 4 January and over Ban Kiatngong on 3 January (all Xé Pian NBCA). Juveniles were seen on the Xé Khong plains (Xé Pian NBCA) on 12 March and at Quan Moor (Dong Hua Sao NBCA) on 3 July. Mlikovsky and Inskipp (in prep.) traced no previous Lao records.

WHITE-RUMPED FALCON *Polihierax insignis* **Globally Near-Threatened** Recorded only in Xé Pian NBCA, in Dong Kalo around Ban Phonvisai and Houay Kiang, and once on the Xé Khong plains (5 March), mostly in dry dipterocarp forest. The peak daily count was two. It was considered a 'scarce or endangered lowland forest specialist' in Thailand by CCB (1992). Historically it was very common in dry dipterocarp forest in Savannakhet, widespread although localized in the Salavan area and not known from North Laos (Engelbach 1932, Delacour and Jabouille 1940, David-Beaulieu 1949-1950).

LESSER/Common Kestrel *Falco naumanni* **Globally Threatened/F. tinunculus** Single unidentified kestrels were seen over Houay Nhang NR on 19 October and near Don Chuan Sandbank (Vientiane) on 26 November. Lesser Kestrel was common in Tranninh (North Laos; David-Beaulieu 1944). Common Kestrel was very common in winter in Tranninh (Delacour and Jabouille 1927, David-Beaulieu 1944) and occurred on passage in Central Laos (David-Beaulieu 1949-1950). Common Kestrel was recorded recently in North Annam for the first time by Robson *et al.* (1993a), whereas Lesser Kestrel is not known from Vietnam (Mlikovsky and Inskipp in prep.).

ORIENTAL HOBBY *Falco severus* One at Ban Phapho (Xé Pian NBCA) on 31 December and singles on 3 July at Quan Moor and on 8 July at Ban Houeiton (Dong Hua Sao NBCA). The species was previously known in Laos only from one specimen and a handful of sightings in North Laos (David-Beaulieu 1944).

ORIENTAL DARTER *Anhinga melanogaster* **Globally Near-Threatened** At Dong Hua Sao NBCA one was seen on 20 and 26 May feeding at Nong Hia (a deep water pool) and also flying over forest 3 km to the south on 26 May. None was seen during intensive fieldwork in nearby Xé Pian NBCA and although Bung-Gnai Kiatngong (Xé Pian NBCA) reputedly supports the species (Scott 1989), this appears to stem from unsubstantiated local reports (R. E. Salter verbally 1993). It was formerly common in much of Laos (e.g. Engelbach 1932, David-Beaulieu 1944, 1949-1950).

GREY HERON *Ardea cinerea* **At Risk in Thailand** Frequent on wetlands at Xé Pian NBCA. Grey Heron was also seen at Tha Ngon wetlands (five on 30 October) and two at a reservoir near Phou Xang He NBCA on 20 March.

PURPLE HERON *Ardea purpurea* **At Risk in Thailand** Frequent on wetlands at Xé Pian NBCA. Two were on lowland wetlands at Dong Hua Sao NBCA on 18, 25 and 28 May. One flew north over the corridor of Phou Xang He NBCA on 8 April and a single was at Don Chuan Sandbank, Vientiane, on 4 May.

CATTLE EGRET *Bubulcus ibis* A roost of over 1,000 egrets (including 520 Cattle Egrets) was found at Bung-Gnai Kiatngong (Xé Pian NBCA) in December. The roost was not present in early January (although the species still abounded in the area). The species was not recorded at Xé Pian NBCA in May or at Dong Hua Sao NBCA in May-July. King *et al.* (1975) implied that it is resident throughout Laos; this assessment is not supported by these observations. Historically, it was particularly common in South Laos, with good numbers in May as well as December on the lower Xé Don (Engelbach 1927a).

CHINESE POND-HERON *Ardeola bacchus* Pond-Herons were very common (with a peak count of over 1,000 at Bung-Gnai Kiatngong marsh in January) at Xé Pian NBCA from November to March. By March some were assuming

breeding plumage and became identifiable to species. No Javan Pond-Herons *A. speciosa*, which could also occur (although as yet unrecorded), were found. They were still common in Phou Xang He NBCA in March and April, but at Dong Hua Sao NBCA (May - July) birds were merely occasional. They were rare at Xé Pian NBCA in May. Birds are hence presumed to be largely or entirely non-breeding migrants to South Laos. King *et al.* (1975) were uncertain of its seasonal status in the South although Engelbach (1932) had already found that it was almost absent after a heavy May passage until late September.

MALAYAN NIGHT-HERON *Gorsachius melanolophus* **At Risk in Thailand** Common in degraded lowlands (250 m) around middle Houay Namphak (Dong Hua Sao NBCA) during 12-24 May with eight individuals heard calling and several seen. One provisional record over Houay Saœ (Xé Pian NBCA) on 27 November. It was found in wooded regions throughout Laos (Delacour and Jabouille 1931, 1940), but Mlikovsky and Inskipp (in prep.) traced no primary records to detail this.

SCHRENCK'S BITTERN *Ixobrychus eurhythmus* **Globally Near-Threatened** Single adult males at Houay Nhang NR at a pool in dry paddy within forest (25 October) and at Xé Pian NBCA on lotus ponds near Ban Phalay (11 January). The only previous Lao record is of one male in April at Xieng-Khouang (North Laos; David-Beaulieu 1944).

GREAT BITTERN *Botaurus stellaris* Singles at Bung Gnai-Kiatngong wetlands (Xé Pian NBCA) on 24 November and 29 December. The sole previous record in Laos was from Ban Latsén (Tranninh, North Laos) on 2 February 1940 (David-Beaulieu 1944).

WHITE-SHOULDERED IBIS *Pseudibis davisoni* **Globally Threatened** A single on the Xé Khong plains on 5, 6 and 12 March. The only other recent records anywhere in the world come from one site in southern Vietnam and from several in Kalimantan (Holmes 1991, Robson *et al.* 1993b). Scott's (1989) listing of ibises from Bung-Gnai Kiatngong (Xé Pian NBCA) was probably based on local reports (R. E. Salter verbally 1993). In Laos it was formerly much more common and occurred throughout; in the Southern and Central regions it was frequent on the middle and lower Xé Banghiang, the Xé Don, the Xé Khong, the Mekong and the Xé Pian rivers (Engelbach 1932, Delacour and Jabouille 1931, David-Beaulieu 1949-1950).

GIANT IBIS *Pseudibis gigantea* **Globally Threatened** Two singles in Xé Pian NBCA: at a pool on the seasonally dry Houay Kaliang river (3 February) and by the Xé Pian river (13 March). The two sites are 50 km apart. These are the first records for over 40 years from anywhere in the species's restricted world range (Collar *et al.* 1994). It may formerly have been more common and widespread in Laos, although it was never as common as White-shouldered Ibis (Engelbach 1951). Further details of recent and historical records are given in Thewlis (in prep. a).

WOOLLY-NECKED STORK *Ciconia episcopus* **At Risk in Thailand** Birds were seen soaring over Xé Pian NBCA frequently, usually singly; feeding concentrations (all at dried or drying pools in wooded areas) included three near Ban Phapho on 17 December and three at saltlicks near Houay Kua on 27 December (both Xé Pian NBCA) and five west of Ban Xot (Dong Kalo) on 5 February. One was seen from a bus from Route 13 between Ban Thangbeng and Ban Nasenphan on 28 January in open dry dipterocarp woodland just west of Xé Pian NBCA. A breeding colony in forest east of Ban Pakbo (Xé Pian NBCA) has been reported (Salter 1993). Two were seen in the lowlands of Dong Hua Sao NBCA on 14 and 25 May.

LESSER ADJUTANT *Leptoptilos javanicus* **Globally Threatened** Only recorded from Xé Pian NBCA: four singles (one feeding, three soaring) in the northern fringe area on 1, 4, 6 and 12 January; two singles at Dong Kalo on 31 January and 1 February; and up to five together on the Xé Khong plains with daily records of smaller numbers there during 3-13 March. Xé Pian NBCA clearly has moderate numbers of this 'excellent indicator of the health of local wetlands' (Scott 1989).

BLUE-RUMPED PITTA *Pitta soror* **Globally Near-Threatened** Common in primary and moderately degraded semi-evergreen forest at Xé Pian NBCA, but much scarcer in deciduous forests there. One was recorded in the lowlands of Dong Hua Sao NBCA near the Houay Namphak on 16 May (there were few suitable paths for observing pittas in this area). It was not found at Phou Xang He NBCA (where there were also few suitable paths). Although King *et al.* (1975) considered that the species was possibly absent from Central Laos, Delacour (1929) had already noted it in this region, at Ban Napè. Engelbach (1932) did not find it above 800 m in South Laos, below which it was frequent on the north-east slopes of the Bolovens Plateau. All our observations were between 150 and 500 m, which contrasts with its assessment as a mountain species by King *et al.* (1975) and Lekagul and Round (1991; usually above 900 m), but accord with its status in Vietnam where it is common down to 50 m (Robson *et al.* 1989).

BAR-BELLIED PITTA *Pitta ellioti* **Globally Near-Threatened** The abundance of this pitta in semi-evergreen forest at Xé Pian NBCA mirrored that of Blue-rumped Pitta, although it was recorded more commonly than that species in deciduous forests. At Phou Xang He NBCA, it was recorded mainly by call and was common in the same habitats as at Xé Pian NBCA. At Dong Hua Sao NBCA it was common in lowland semi-evergreen forest (including logged areas), and the lower hill slopes up to at least 400 m, but was not found on the plateau. The populations at all three sites were probably large; status assessment was facilitated by its distinctive call. One at Lao Pako near the lower Nam Ngum river from 17 to 19 April was in heavily degraded forest dominated by bamboo. The previous Lao records were only from the South: it was recorded by Engelbach (1932; a skin from Attapu and three birds from

the more gentle slopes of the Bolovens Plateau) and Oustalet (1899-1903; a single from an uncertain location probably in South Laos).

DUSKY BROADBILL *Corydon sumatranus* A group of about six was observed nest-building on Phou Xang He in semi-evergreen forest on 29-31 March. King *et al.* (1975) recorded the species in Laos only from the South, following Delacour and Jabouille (1940), but Bangs and Van Tyne (1931) recorded one at Ban Thangon (North Laos) in July 1929.

BLACK-AND-RED BROADBILL *Cymbirhynchus macrorhynchos* **At Risk in Thailand** Commonly recorded in Xé Pian NBCA and Dong Hua Sao NBCA, usually in lowland semi-evergreen forest or mixed deciduous forest, degraded or otherwise, and often but not always close to water. One was seen visiting a nest beside a pool at 150 m in Dong Hua Sao NBCA on 25-26 May. No previous Lao record was traced by Mlikovsky and Inskipp (in prep.).

BANDED BROADBILL *Eurylaimus javanicus* Ubiquitous in primary and degraded semi-evergreen forest at Phou Xang He NBCA with many heard (and sometimes seen) daily. One was heard at Phou Khao Khouay NBCA on 15 April. King *et al.* (1975) recorded the species in Laos only from the South, following Delacour and Jabouille (1940). Bangs and Van Tyne (1931) however recorded one at Ban Thangon (North Laos) in July 1929.

YELLOW-BREASTED MAGPIE *Cissa hypoleuca* **Globally Near-Threatened** Common in primary semi-evergreen forest in flattish areas with extensive bamboo at Xé Pian NBCA; scarcer in more degraded areas of the same habitat. A call believed to be diagnostic of the species was heard once at Dong Hua Sao NBCA on 20 May (in lowland semi-evergreen forest similar to that in which it was recorded in Xé Pian NBCA). This apparent restriction contrasts with the situation in Thailand, where the species has a wide altitudinal range (Round 1988), and in Vietnam, where it occurs commonly on hill slopes as well as in the lowlands (Robson *et al.* 1989). Engelbach (1932) captured one at the foot of the Bolovens Plateau and this is the only previous Lao record.

MAROON ORIOLE *Oriolus traillii* One was seen at 150 m on 19 and 20 January near Ban Taong (Xé Pian NBCA) and there were occasional singles down to 200 m at Dong Hua Sao NBCA between 12 and 24 May. In Thailand it usually occurs above 800 m (Lekagul and Round 1991) while King *et al.* (1975) listed the species' usual altitudinal range in South-East Asia as 600-2,100 m; however in Vietnam it was recorded as low as 100 m (Robson *et al.* 1993a). In South Laos it was previously found to be frequent above 800 m (Engelbach 1932), as it was at Dong Hua Sao NBCA in 1993.

BROWN-RUMPED MINIVET *Pericrocotus cantonensis* **Globally Near-Threatened** Small numbers at Xé Pian NBCA in semi-evergreen forest and mixed deciduous forest and Phou Xang He NBCA in secondary growth and mixed deciduous forest. Previous Lao records came only from the South: from the

Muang Taoy region, the upper Xé Khong, Champasak and the north-east slopes of the Bolovens (Engelbach 1932).

Even males of this species are easily confused with Ashy Minivet *P. divaricatus* unless the rump or flank colour is clearly seen (see King *et al.* 1975; *contra* Lekagul and Round 1991) and thus many birds seen in 1992 and 1993 remained unidentified. Dozens of skins of both species were examined at the British Museum (Tring). Male Brown-rumped has a blackish-grey crown which is only slightly less black than that of Ashy (the difference is difficult to detect in the field). On Brown-rumped the white of the forehead extends a little way above and behind the eye, but it does not extend beyond the eye of Ashy Minivet. This extension is sometimes not, however, particularly obvious, *contra* King *et al.* (1975). The upperparts of Brown-rumped are tinged with brown and the underparts have a rich brownish wash, especially on the flanks, which contrast with the cleaner grey on the upperparts and cleaner white on the underparts of Ashy. Brown-rumped has often been considered conspecific with Rosy Minivet *P. roseus* (e.g. King *et al.* 1975, Lekagul and Round 1991) which was recorded twice at Houay Nhang on 12 October and 14 November, and once at Xé Pian NBCA on 18 February.

WHITE-BROWED FANTAIL *Rhipidura aureola* Fairly common in dry dipterocarp forest at Dong Kalo and on the Xé Khong plains (Xé Pian NBCA). The only previous account from Laos was that birds were common in dry dipterocarp forest in Savannakhét province (Central Laos) and occurred less frequently in denser forest types there (David-Beaulieu 1949-1950). The lack of records from Phou Xang He NBCA is thus surprising.

CROW-BILLED DRONGO *Dicrurus annectans* Unrecorded except at Phou Xang He NBCA during April when up to four were seen daily between 9 and 22 April. It is only a passage migrant to most of Thailand (Lekagul and Round 1991); this seems true also for Central Laos. King *et al.* (1975) list it in Laos only as a migrant to the South (which we did not visit during the main passage periods), where it has been recorded at Salavan and from dense forests of the Xé Don plains (Engelbach 1932).

LESSER RACKET-TAILED DRONGO *Dicrurus remifer* Common at all altitudes down to 150 m at all four study sites. In Thailand it is usually above 800 m (Lekagul and Round 1991), although in Vietnam it occurs down to the lowlands (Robson *et al.* 1993a).

BLUE WHISTLING-THRUSH *Myiophonus caeruleus* Common at Xé Pian NBCA, where there were only yellow-billed birds at Houay Saoc, Houay Kua (both visited in December) and the Xé Khampho river (March). Both black- and yellow-billed birds occurred at Houay Tapkua and Dong Kalo (both February). Occasional at Phou Xang He NBCA where yellow-billed birds were noted and Dong Hua Sao NBCA where bill colours were not recorded.

SIBERIAN THRUSH *Zoothera sibirica* One flushed from a stream at Phou Hinho (Phou Xang He NBCA) on 15 April; previous Lao records relate only to the North where it sometimes occurred in small flocks (Bangs and Van Tyne 1931, David-Beaulieu 1944). It was recently recorded for the first time from Central Annam (Robson *et al.* 1993a).

EURASIAN BLACKBIRD *Turdus merula* One on sand banks of the Xé Khampho river on 6 March. It was previously recorded in Laos from the North (eastern part) and Centre (Delacour and Jabouille 1927, David-Beaulieu 1944, 1949-1950) and there is only one Thai record (Lekagul and Round 1991). In Vietnam, it has been recorded from several localities in Central Annam (Delacour and Jabouille 1931, Robson *et al.* 1993b). King *et al.* (1975) list none from Cambodia or Malaysia, and Mlikovsky and Inskipp (in prep.) trace no records from Cambodia. The Xé Pian NBCA record appears to be the most southerly in Indochina and possibly South-East Asia to date.

DARK-SIDED FLYCATCHER *Muscicapa sibirica* One at Ban Nalay (Phou Xang He NBCA) on 21 April. King *et al.* (1975) listed it in Laos only from the North (following Bangs and Van Tyne 1931, David-Beaulieu 1944), although it was found in small numbers on passage in Savannakhét (Central Laos) and in winter in the South near Salavan and the Muang Taoy region (Engelbach 1932, David-Beaulieu 1949-1950).

WHITE-GORGETED/RUFIOUS-BROWED FLYCATCHER *Ficedula monileger*/*F. solitaris* Common in hill evergreen forest on the Bolovens Plateau (Dong Hua Sao NBCA). Birds were rather variable and showed a wide variation in plumage between individuals, including a surprising mix of characters of the two species. Many birds exhibited buff rather than silky white supercilia and too small a dark margin to the gorget for *F. monileger*. These characters fit *F. m. monileger*, but the range of this subspecies is the eastern Himalayas. White-gorgeted Flycatcher was recorded from the high Bolovens (but probably not in Dong Hua Sao NBCA) by Engelbach (1932) and ten specimens of *F. m. leucops* collected there were examined at the British Museum (Tring) and showed none of the variability we observed. White-gorgeted was also recorded previously in Tranninh, Lo-Tiao and Phôngsali (North Laos) and east of Ban Napè (Centre) (Delacour and Jabouille 1927, Delacour 1929, Bangs and Van Tyne 1931, Delacour and Greenway 1940, David-Beaulieu 1944). No records of Rufous-browed Flycatcher were traced from Laos by Mlikovsky and Inskipp (in prep.).

LITTLE PIED FLYCATCHER *Ficedula westermanni* Birds at Houay Nhang NR (a male and female on 6, 7, 11, 12 November and 10 January) and Xé Pian NBCA on 16 and 23 December at 200-300 m were significantly lower than the altitudinal limits in King *et al.* (1975: 900 m) and Lekagul and Round (1991: 700 m). It may disperse locally to lower altitudes during the non-breeding season.

BLUE-AND-WHITE FLYCATCHER *Cyanoptila cyanomelana* As well as one at the Xé Khong plains (Xé Pian NBCA) on 7 March, the species was fairly common at Phou Xang He NBCA during 24 March to 18 April. The only prior Lao record concerns one on Phou Kobo (North Laos; David-Beaulieu 1944).

WHITE-TAILED FLYCATCHER *Cyornis concretus* One male was along a stream at Phou Hinho (Phou Xang He NBCA) on 24 March. Although recorded in Laos only from the North by King *et al.* (1975), two had been recorded at Ban Napè and one at Nam Theun (both Central Laos) by Delacour (1929).

HAINAN BLUE-FLYCATCHER *Cyornis hainanus* Although common at all sites from October to March, none was recorded at Dong Hua Sao NBCA in May-July or at Xé Pian NBCA in May, suggesting that it is merely a non-breeding migrant to these parts of southern Laos. It was a double passage migrant in Tranninh (David-Beaulieu 1944); unfortunately, Engelbach (1932) did not discuss seasonality in the South. The species was regarded as resident in Laos (King *et al.* 1975) and in adjacent parts of Thailand (Lekagul and Round 1991).

BLUE-THROATED FLYCATCHER *Cyornis rubeculoides* A single of the resident form *C. r. klossi* on 19 June at 800 m (Dong Hua Sao NBCA) and one, which resembled *C. r. glaucicomans*, on 31 March at 300 m on Phou Xang He (Phou Xang He NBCA). The species was recorded in Laos only for the South by King *et al.* (1975) which relates to one from Tiacam on the Bolovens Plateau (Delacour 1929). There is one specimen of *C. r. klossi* at the British Museum (Tring) of an adult male in fresh plumage, wing 71 mm, from Ban Thatèng, Bolovens Plateau, collected by Jean Delacour on 9 December 1931 (P. R. Colston, verbally 1995).

PYGMY BLUE FLYCATCHER *Muscicapella hodgsoni* Five singles in June around 1,100 m near the Upper Houay Namphak in primary forest and near Ban Nongluang in a degraded forest fragment (Dong Hua Sao NBCA) are the first records for Laos, as none was traced by Mlikovsky and Inskipp (in prep.).

GREY-HEADED CANARY-FLYCATCHER *Culicicapa ceylonensis* Although common in Xé Pian NBCA during December to February, this species was not recorded from Xé Pian NBCA or lowland Dong Hua Sao NBCA in May-July. However, it was common on the Bolovens Plateau (Dong Hua Sao NBCA) during this period (the breeding season). Birds became less common at Phou Xang He NBCA between mid-March and mid-April. Several singles were seen in Vientiane gardens between 2 November and 22 January, although not in other months. It seems that this species does not breed in the studied areas of lowland Laos, although it does so at higher altitudes, and in winter is one of the commonest lowland forest birds. The species is only a non-breeding migrant to east Thailand (Lekagul and Round 1991); King *et al.* (1975) were ambiguous about the species's seasonal status in Laos. It was

described as sedentary and very common in Tranninh (David-Beaulieu 1944). It was common around Ban Napè (Central Laos; Delacour 1929) and in the North (Bangs and Van Tyne 1931, Delacour and Greenway 1940) and one of the commonest birds in South Laos at all altitudes (Engelbach 1927a, 1932), although no reference was made to its seasonality by these latter authors.

ORANGE-FLANKED BUSH-ROBIN *Tarsiger cyanurus* One adult male in forest near Ban Tauang (Xé Pian NBCA) at 150 m on 24 January. It usually occurs in Thailand above 1,200 m (Lekagul and Round 1991) and was not listed for South Laos by King *et al.* (1975), although it winters commonly in North Laos and is known from the Centre (Delacour 1929, Delacour and Greenway 1940, David-Beaulieu 1944).

WHITE-TAILED ROBIN *Cinclidium leucurum* One at 200 m at Houay Sae (Xé Pian NBCA) on 1 December. It usually occurs above 1,000 m in Thailand (Lekagul and Round 1991) and above 1,100 m in South-East Asia (King *et al.* 1975).

WHITE-CROWNED FORKTAIL *Enicurus leschenaulti* Common at Phou Xang He NBCA on streams on Phou Hinho; King *et al.* (1975) do not list the species for Central Laos, although it had been recorded at Ban Napè by Delacour (1929).

GREEN COCHOA *Cochoa viridis* **Globally Near-Threatened** Frequently heard and occasionally seen in hill evergreen forest (including some isolated fragments) on the Bolovens Plateau (Dong Hua Sao NBCA). It was previously recorded from the Bolovens Plateau (Delacour 1932, Engelbach 1932) as well as the North (Bangs and Van Tyne 1931, David-Beaulieu 1944).

COMMON STONECHAT *Saxicola torquata* Birds of the resident race *S. t. przewalskii* abounded on the Bolovens Plateau (Dong Hua Sao NBCA), as recognised by Engelbach (1932). *S. t. przewalskii* was listed in Laos only for Ban Nonghet (North Laos) by Delacour and Jabouille (1940) and King *et al.* (1975) stated that the species was only a migrant to Central and South Laos. The migrant race *S. t. stejnegeri* commonly recorded in 1992-1993, occurs across all of Laos (Delacour and Jabouille 1940).

GOLDEN-CRESTED MYNA *Ampeliceps coronatus* **At Risk in Thailand** This quiet, canopy-haunting species was frequent to occasional at Xé Pian NBCA, Phou Xang He NBCA and Dong Hua Sao NBCA and was most often seen in degraded or forest edge habitats but could have been frequently overlooked. Past records, from throughout Laos, also refer to its scarcity and local distribution (Engelbach 1927a, 1932, David-Beaulieu 1944, 1949-1950).

HILL MYNA *Gracula religiosa* **At Risk in Thailand** Common in all habitats with large trees, including degraded dry forest close to villages at Xé Pian NBCA, Phou Xang He NBCA and below 400 m at Dong Hua Sao NBCA,

with small numbers also seen at Khonphapheng Falls and Ban Samkhang. Flocks sometimes exceeded 20. Villagers were seen with young very freshly taken from the nest in Phou Xang He NBCA; it is very popular in the cage-bird trade in Thailand (Round 1988), as it is in Laos.

BLACK-THROATED TIT *Aegithalos concinnus* **At Risk in Thailand** Common on the Bolovens Plateau (Dong Hua Sao NBCA) especially in disturbed areas and forest edge. Engelbach (1932) also found it frequently elsewhere on this plateau. Two individuals had white throats flecked with black; from examination of skins in the British Museum (Tring) this is a character of immature birds.

PLAIN MARTIN *Riparia paludicola* **At Risk in Thailand** Two near Ban Phapho on 31 December with a feeding party of hirundines. Historically the species was much more common and recorded widely throughout the country (Engelbach 1932, Delacour and Greenway 1940, David-Beaulieu 1949-1950).

WIRE-TAILED SWALLOW *Hirundo smithii* **At Risk in Thailand** Two at Khong-Phapheng Falls on 4-7 February seemed to be prospecting rocks for nesting sites. The only other records were of a single at nearby Ban Thakho on 4 February and a flock of about 20 on the Xé Khong river on 13 March. This species was apparently commoner in the past; in the early 1930s several thousands flocked on riverside rocks in Savannakhet and it abounded on the Mekong and Xé Khong and middle and lower stretches of the Xé Banghiang rivers (Engelbach 1932, David-Beaulieu 1949-1950).

RED-RUMPED SWALLOW *Hirundo daurica* Fairly common over cultivation at Xé Pian NBCA and Houay Nhang NR between November and January, but not recorded from Phou Xang He NBCA and Dong Hua Sao NBCA; many birds had probably departed from Laos prior to fieldwork at these two sites (mid March to late July). Previously, it was recorded from Attapu (January), Nam Mô (February), Ban Thatèng (Bolovens Plateau; December) and near Champasak in January (Oustalet 1899-1903, Engelbach 1932).

STRIATED SWALLOW *Hirundo striolata* Common, usually in flocks of under a dozen, from April to July at Phou Xang He NBCA and Dong Hua Sao NBCA around rocky outcrops and over adjacent cultivation. They were not recorded at the other study sites, perhaps because these areas lacked rocky outcrops. A used nest presumably of this species was found at Vangviang in a limestone cavern. Previous Lao records come from the North (Tranninh, where a common resident: Xieng-Khouang, Nam-Kheung, Phongsali and the Nam Ou) and South, from the lower Xé Don river where it was observed in all seasons (Delacour and Jabouille 1925, 1927, Bangs and Van Tyne 1931, Engelbach 1932, David-Beaulieu 1944). Resident birds of this or the preceding species were observed around Savannakhet (David-Beaulieu 1949-1950).

Two forms of Red-rumped and Striated Swallows, which were considered conspecific by Lekagul and Round (1991) and by King *et al.* (1975), were recognisable in the field. Many skins of each examined at the British Museum (Tring) confirmed that the two species were involved; the relevant races were *H. d. japonica* (all likely migrant races of this species are very similar), *H. s. stanfordi* and possibly *H. s. mayri* (these latter two resembled each other). All *striolata* and some *daurica* had dark chestnut rumps, whereas most *daurica* had fawn rumps. Throat streaking was denser and slightly thicker on *striolata* compared with *daurica*, giving the former a darker throat. Breast and belly streaking was bolder in *striolata*, giving it an overall darker tone. It also was less apt to have a buff wash on the underparts, although some were as buffy as *daurica*. The rufous nape patch was more developed in *daurica*, at least as spurs from the ear-coverts to the nape-sides. Some *striolata* had a chestnut nape-band too, but it was always weak and broken. MacKinnon and Phillipps (1993) claimed that *H. striolata* lacks any chestnut on the nape; this is incorrect for the Greater Sundas as it is for Indochina. In the field, *H. striolata* looked darker, duller, bigger, heavier and more menacing than did *H. daurica*.

Separation of the two species is likely to be easier in Indochina than in some other areas of sympatry, because *H. s. stanfordi* is a particularly large race (Delacour 1951).

NEPAL HOUSE-MARTIN *Delichon nipalensis* Hundreds fed over forest and scrub from the foothills up to the plateau at Dong Hua Sao NBCA from May to July. In South-East Asia it is known from parts of Myanmar and north-west Tonkin, with one record of about 30 from north-east Thailand (King *et al.* 1975, Tye and Tye 1986). Mlikovsky and Inskipp (in prep.) traced no previous Lao records, but presumably the species breeds commonly on the Bolovens Plateau.

GOLDEN-HEADED CISTICOLA *Cisticola exilis* At least six by the Mekong in Vientiane between 12 January and 13 March. This is the first record in Laos (it is not listed by Mlikovsky and Inskipp in prep.), although it is known from the Thai bank of this stretch of the Mekong (Lekagul and Round 1991). It seems that the species has extended its range in Indochina as a result of deforestation (Robson *et al.* 1993b).

PALLAS'S GRASSHOPPER-WARBLE *Locustella certhiola* One on 3 and 4 January in a small marsh near Ban Phalay (Xé Pian NBCA). The very similar Middendorff's Grasshopper-Warbler *L. ochotensis*, which may occur in Indochina (King *et al.* 1975), was not eliminated. King *et al.* (1975) list it in Laos as a migrant only to the North and it has only recently been recorded in mainland Vietnam (Robson *et al.* 1993a).

BLACK-BROWED REED-WARBLE *Acrocephalus bistrigiceps* Locally common in wetlands at Xé Pian NBCA and Dong Hua Sao NBCA. King *et al.* (1975) listed it for Laos only as a migrant to the North and Centre.

GREAT/CLAMOROUS REED-WARBLE *Acrocephalus arundinaceus*/*A. stentoreus* Singles in wetlands at Xé Pian NBCA on 4, 5 and 12 January, Xé Khong plains on 1 March, and Dong Hua Sao NBCA on 22 May. Neither species has been previously recorded in South Laos; King *et al.* (1975) stated that Great Reed-Warbler is a common migrant to Central and North Laos and they excluded Clamorous Reed-Warbler from Laos. Birds of one of these two species were common during the rainy season in Savannakhét and Great Reed-Warbler was a rare passage visitor to Tranninh (David-Beaulieu 1944, 1948, 1949-1950). The form *orientalis* was not recorded from Laos by Delacour and Jabouille (1940).

CLAMOROUS REED-WARBLE (*A. s. brunnescens*) was recorded from the North, in Tranninh, as a rare passage migrant by David-Beaulieu (1940 and 1948). In the 1948 paper, David-Beaulieu re-identified all his previous (1940) records of *A. s. brunnescens* as *A. a. orientalis* and also announced the presence of *A. s. brunnescens* in Tranninh for the first time. *A. s. brunnescens* was listed for Tranninh by Delacour and Jabouille (1940) presumably on the authority of David-Beaulieu (1940).

Great Reed Warbler was recently recorded for the first time in South Annam (Robson *et al.* 1993b).

YELLOW-STREAKED WARBLER *Phylloscopus armandii* One in dry paddyfield scrub at Houay Nhang NR on 4 November; the three previous Lao records were in April (all North Laos; Bangs and Van Tyne 1931, David-Beaulieu 1944).

ARCTIC WARBLER *Phylloscopus borealis* Two at Houay Nhang NR on 19 January contrasted with frequent records of the species there in October; the species declined noticeably in abundance during the survey period of mid October to mid November. Its presence so far north (18°N) in January is surprising as records in Xé Pian NBCA were only occasional and in Thailand the species winters south of 15°N (Lekagul and Round 1991).

RED-TAILED LAUGHINGTHRUSH *Garrulax milnei* **Globally Near-Threatened** Common in hill evergreen forest at Dong Hua Sao NBCA above 1,100 m, but not found in non-forest habitats. By contrast it inhabits scrub in Thailand (Round 1988). Engelbach (1932) found it common on the Bolovens Plateau above 800 m. This population is a separate endemic subspecies, *G. m. vitryri*, from those in Myanmar and North Laos (Delacour 1932, Deignan 1964).

ABBOTT'S BABBLE *Malacocincla abbotti* Common in degraded forest at Phou Xang He NBCA, occasional in the northern fringe of Xé Pian NBCA and the lowlands of Dong Hua Sao NBCA, with a few records from the primary semi-evergreen forest of Xé Pian NBCA. The only previous Lao record is from the North: one was taken at Muang Huong (on the border of Vientiane and Tranninh provinces) in December 1942 (David-Beaulieu 1944).

SCALY-CROWNED BABBLER *Malacopteron cinereum* Common in all semi-evergreen forest areas at Phou Xang He NBCA. The species was recorded for Laos only in the South (Oustalet 1899-1903, Engelbach 1932) where it was still common in 1992-1993. Flocks, particularly in Xé Pian NBCA, were often followed by one or two Asian Paradise-flycatchers *Terpsiphone paradisi*.

CORAL-BILLED SCIMITAR-BABBLER *Pomatorhinus ferruginosus* Several groups of a distinctive scimitar-babbler were seen, and tape-recorded, in the understory of hill evergreen forest at approximately 1,100 m on the Bolovens Plateau (Dong Hua Sao NBCA). The stout short red bill, long black face mask and other features fit Coral-billed, whose nearest known populations are in Tranninh, North Laos (David-Beaulieu 1944) and at Nam Theun, Central Laos (Evans and Timmins in prep.). However that species should show a bright buffy breast and belly, whereas the birds in Dong Hua Sao NBCA were almost entirely white below with limited buff on flanks. Skins at the British Museum (Tring) had variable underparts: although all had a strong wash on the breast and belly, none was as pale underneath as the Dong Hua Sao NBCA birds. Furthermore, all the skins examined (about 25), possessed a marked black border to the crown; such a feature was not noted on the birds in Dong Hua Sao NBCA and certainly was not well marked if it was ever present.

GREY-THROATED BABBLER *Stachyris nigriceps* At Phou Xang He NBCA this species was common on Phou Hinh. Although not listed for Central Laos by King *et al.* (1975), Delacour (1929) collected eight specimens from Ban Napè and Nam Theun.

GREY-FACED TIT-BABBLER *Macronous kelleyi* **Globally Near-Threatened** Very common in the main semi-evergreen forest block and in riverine semi-evergreen forest at Dong Kalo (Xé Pian NBCA) and in primary semi-evergreen forest at Dong Hua Sao NBCA. Less common in Phou Xang He NBCA. It was scarcer in heavily degraded areas; all records came from below 400 m. The only previous Lao record is from dense lowland forest near Pakxe (Engelbach 1932) and those from Phou Xang He NBCA are thus the first published for Central Laos.

RUFIOUS-THROATED FULVETTA *Alcippe rufogularis* **Globally Near-Threatened** Locally common in semi-evergreen forest at Phou Xang He NBCA, but seemed to be intolerant of degradation and fragmentation at this site. It was previously known from many areas in Central and North Laos, in some of which it was very common (Baker 1920, Delacour and Jabouille 1927, Delacour 1929, Bangs and Van Tyne 1931, David-Beaulieu 1944).

MOUNTAIN FULVETTA *Alcippe peracensis* Two forms of Mountain Fulvetta were seen, referred to here as form A and form B. Form A was abundant in Xé Pian NBCA, Dong Hua Sao NBCA and Phou Xang He NBCA. At Xé Pian NBCA it was common in little-degraded semi-evergreen forest but was found only once in degraded semi-evergreen forest (below 200 m). Although

not found during 15 days at 300-500 m in the Houay Tapkua valley, form A was seen at 200 m just east of these hills. Thus, in Xé Pian NBCA it appeared to avoid degraded areas, non-evergreen forest and altitudes over 200 m. In Dong Hua Sao NBCA, by contrast, form A was common in both pristine and heavily-degraded forest, and even overgrown coffee plantations, up to 400 m, but not above. In Phou Xang He NBCA form A was common in semi-evergreen forest and also in forest isolates in the largely degraded corridor. Form A birds possessed a grey face (which fell short of the rear end of the black face-stripe) and crown which were less pure grey than those of form B. The flanks were strongly suffused brownish with a paler wash extending across the breast, belly and throat. The pale eyering was less prominent than in form B. The bill was brownish. These birds fit *A. p. grotei*. This form (as *A. nipalensis major*) was rare below 500 m on the flanks of the Bolovens Plateau and near Pakxe (Engelbach 1932); Mountain Fulvetta suspected to be of this race were rare in Savannakhét province, being found only around the Xé Pôn area (David-Beaulieu 1949-1950).

The second form, form B, was very common at 900-1,200 m in both primary and degraded extensive hill evergreen forest at Dong Hua Sao NBCA; it even occurred in moderately fragmented patches. Similar birds were also seen at least twice in semi-evergreen forest at only 200 m on Phou Hinh (Phou Xang He NBCA), in areas similar to those where form A was common. Form B birds had cleaner looking plumage than did form A, with a pure grey face (extending to the end of the black stripe), usually without a hint of duskiness. The eyering was whiter and thicker and the underparts were cleaner and brighter than in form A. The bill was grey. The contrasts between the head and the rest of the upperparts, and between the upperparts and underparts, were notable in comparison with form A, although some birds on the Bolovens Plateau appeared less clean. Form B corresponded closely with the descriptions in King *et al.* (1975) and Lekagul and Round (1991) of Mountain Fulvetta and represent *A. p. annamensis*. Engelbach (1932) found this form (as *A. nipalensis peracensis*) to be extremely common above 700 m on the Bolovens Plateau, but it was not previously recorded from Central Laos.

A. peracensis is common throughout its restricted world range in Malaysia (above 300 m), south-east Thailand from the foothills to 1,200 m, East Tonkin, Cochinchina, Annam, South and Central Laos (King *et al.* 1975, Lekagul and Round 1991, Robson *et al.* 1993b). *A. p. grotei* occurs in east Tonkin, Cochinchina, north and central Annam and the adjacent regions of southern Laos, with *A. p. annamensis* on the Bolovens Plateau and in South Annam and adjacent regions of Cochinchina (Deignan 1964, Robson *et al.* 1993b). The species was considered to be Rare in Thailand by Round (1988), but was not listed as At Risk in Thailand by Treesucon and Round (1990). Robson *et al.* (1993) observed these two forms in Vietnam and

indicated that there were morphological and altitudinal differences and that they may prove to be separate species.

PLAIN-THROATED SUNBIRD *Anthreptes malacensis* A male in a Vientiane garden on 25 April. Only previously recorded in Laos from near Pakxe by Engelbach (1932); the lack of records from the study sites is most surprising, especially as many degraded areas (where the species may be expected) were visited.

PURPLE SUNBIRD *Nectarinia asiatica* Although unrecorded at Houay Nhang NR during intensive fieldwork in mid-October to mid-November (despite careful searching), several were found there in January and April. King *et al.* (1975) listed it in Laos only as a resident in the South and Centre; it was previously recorded at Houay Nhang NR in March 1992 by Robichaud (1992).

LITTLE SPIDERHUNTER *Arachnothera longirostra* At Phou Xang He NBCA, Little Spiderhunters were fairly common in forest and occasional in scrub. King *et al.* (1975) questioned the species's status in Central Laos and Delacour and Jabouille (1940) list it in Laos only in the North and South. It was found commonly on the Bolovens Plateau at Ban Thatèng (Engelbach 1932) and known from several localities in the North (Delacour and Greenway 1940, David-Beaulieu 1944).

CITRINE WAGTAIL *Motacilla citreola* Two singles (female, 17 December; male 13 January) on Mekong sand banks at Vientiane are the first seen in Laos; no records were traced by Mlikovsky and Inskipp (in prep.). Many birds other than adult males could easily have been overlooked.

RED-THROATED PIPIT *Anthus cervinus* Several thousand Red-throated Pipits and Yellow Wagtails *Motacilla flava* roosted at Bung-Gnai Kiatngong marsh and in harvested paddyfields on the northern fringe of Xé Pian NBCA in December and January. The latest record was of one on 23 April at Don Chuan, Vientiane. Although not found at Houay Nhang NR, a few were seen by the Mekong in Vientiane in November and April. Although recorded throughout Indochina by Delacour and Jabouille (1940), the few specific references for Laos come only from Tranninh, where it was mainly a double passage migrant, occurring until May, with overwintering birds being fairly rare (David-Beaulieu 1944).

BAYA WEAVER *Ploceus philippinus* An active colony of about 20 nests was found on 29 August, 5 km south of Vang Vieng. A few used nests were observed in coconut palms *Cocos nucifera* at Ban Phalay Thong whilst others which had been collected were on display in houses at Ban Nongkhe (Xé Pian NBCA). Although listed by King *et al.* (1975) as a common resident in Laos except possibly the South, Mlikovsky and Inskipp (in prep.) traced only the reference to it in David-Beaulieu (1949-1950), of confirmed records in Pakxan (North Laos) and of weavers of either this species or Streaked Weaver *P. manyar* in Savannakhét province (Central Laos).

[ASIAN GOLDEN WEAVER *Ploceus hypoxanthus* **Globally Near-Threatened** At least 10 birds probably of this species roosted with 40 unidentified weavers and 100 Scaly-breasted Munias *Lonchura punctulata* in dense emergent vegetation at a small seasonal pool on the Xé Khong plains during March. Up to three were seen by another pool 2 km distant during 8-12 March. All weavers were in non-breeding plumage and the identification was based solely on bill structure; there remain no certain Lao records of the species (Mlikovsky and Inskipp in prep.), although the present record was inadvertently published without a caveat by Anderson (1993)].

CHESTNUT-EARED BUNTING *Emberiza fucata* Two on 30-31 December with about 50 Yellow-breasted Buntings *E. aureola* in harvested paddyfields at Ban Phapho (Xé Pian NBCA). Previous Lao records relate only to the North (Delacour and Jabouille 1927, David-Beaulieu 1944).

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APPENDIX 1

SYSTEMATIC LIST OF BIRDS RECORDED IN LAOS, 1992-1993 WITH ABUNDANCE ASSESSMENTS

Localities

HN: Houay Nhang Nature Reserve, North Laos:

XP: Xé Pian NBCA, South Laos; MB = main block of semi-evergreen forest; NZ = northern fringe; DK = Dong Kalo; XKP = Xé Khong plains

PXH: Phou Xang He NBCA, Central Laos; Hin = Phou Hinho; Xhe = Phou Xang He; MDF = mixed deciduous forest in the lowlands; DDF = dry dipterocarp forest; Oth = scrub, cultivation etc.

DHS: Dong Hua Sao NBCA, South Laos; SEF = lowland semi-evergreen forest; MDF = lowland mixed deciduous forest; Deg = other lowland areas including cultivation and scrub; EF = evergreen forest on the Bolovens Plateau; Oth = other plateau habitats, largely degraded but including pine forests.

OTHER: For these localities, abundance estimates are not appropriate since inadequate lengths of time were spent there. Numbers relate to the following sites (detailed in the text):

- 1: Vientiane, North Laos, 2: Savannakhet town, Central Laos, 3: Ban Thadua, North Laos, 4: Vangviang, North Laos, 5: Nam Ngum Reservoir, North Laos, 6: Attapu town, South Laos, 7: Khonphapheng Falls and Ban Thakho, South Laos, 8: Xé Khong river, South Laos, 9: Pakxe, South Laos, 10: Pha Som / Naliang Limestone outcrop, Central Laos, 11: Lao Pako, North Laos, 12: Phou Khao Khouay NBCA, North Laos, 13: Thangon Reservoir, North Laos, 14: Phou Bachiang, South Laos, 15: Ban Samkhang, South Laos, 16: Muang Khong, South Laos, 17: Ban Thong Song, Central Laos, 18: Nong Puh area, South Laos (approximately 10 km east of Khonphapheng Falls)

Abundance codes

C: Common = Bird recorded daily, F: Frequent = Bird recorded on more than half of days in the field

O: Occasional = Bird recorded on fewer than half of days in the field, P: Present, though abundance not assessed.

?: Status unresolved, L (prefix): Localized distribution

† Records at Xé Khong Plains which came predominantly from dry dipterocarp forest.

^ (XP, HN only): seen only on supplementary visits outside the main survey period

m (suffix, Phou Xang He column of Phou Xang He NBCA only): records came overwhelmingly from the mixed deciduous forest on the Phou Xang He massif.

The coding for Dong Hua Sao NBCA is more complex as a result of the great variety of habitat, both lowland and on the Bolovens Plateau. The following detail is given:

1, Ban Nabon and Ban Sungsup area; 2, drier semi-evergreen forest around Ban Houceton; 3, lowland coffee plantations; 4, slope forests; 5, south-east of Phou Tabeng; 6, pine forests; 7, seen in lowlands only close to slopes, often flying slopewards in the evening; 8, only recorded in the Ban Nongkhe area; ab, unrecorded; o, predominantly seen in open degraded areas; f, predominantly seen in forest fragments. Codes 1-4 are divisions of semi-evergreen forest; 5, 6, o and f relate to montane areas; 7 and 8 are for single species. In the SEF column, for species where only one code is given, there were no data to suggest that the species varied in abundance between the three divisions of logged flatland semi-evergreen forest, slope semi-evergreen forest (which was largely undisturbed), or coffee plantations. Where the abundance code is preceded by a number, the species was only found in that division; where the abundance code is followed by a number with another abundance code, the species seemed to be at similar abundance throughout, except in the flagged division, where its status was as indicated by the second code. Under plateau EF, 5 is used in the same fashion as 1-4 in semi-evergreen forest. Under plateau Oth, all species which were seen in pine forests are indicated by a 6; where the 6 precedes the code, the species was unrecorded elsewhere in plateau degraded habitats.

Species notes

*1: a distinctive form which did not seem to be one of the species included in this table

*2: All Rock Pigeons recorded were associated with villages and urban areas.

*3: Western Marsh-Harrier *Circus aeruginosus* was not always eliminated

*4: unidentified birds of the genus are not listed for divisions where birds were identified to species

*5: probably mostly or entirely Chinese Pond Heron

*6: most birds at PXH resembled *L. c. lucionensis*, which was observed only rarely at other sites

*7: Slender-billed Oriole *Oriolus tenuirostris* was not always eliminated

*8: both species were probably present at many sites

*9: black-headed race

*10: white-headed race

*11: probably mainly birds of subspecies *Phylloscopus trochiloides plumbeitarsus*

[]: species identification is provisional;

Species	HN				Xé Pian NBCA				Phou Xang He NBCA				Dong Hua Sao NBCA				OTHER
	O*	MB	NZ	DK	XKP	Hin	XHe	MDF	DDF	Oth	SEF	MDF	Deg	EF	Oth		
MANCHURIAN BUSH-WARBLE <i>Certhia canturians</i>	O*																
BUSH-WARBLE <i>Prachypterus</i> sp.	O																
LANCEOLATED WARBLER <i>Loxia laniata</i>	O	O	F	P	O					C	O						
PALLAS'S/MIDDENDORFF'S GRASSHOPPER-WARBLE <i>L. corbiola</i> <i>L. ochraceus</i>																	
BLACK-BROWED REED-WARBLE <i>Acrocephalus bistrigiceps</i>																	
GREAT/CLAMOROUS REED-WARBLE <i>A. arundinaceus</i> <i>A. senouvensis</i>																	
THICK-BILLED WARBLER <i>A. aodon</i>	F	O	C	P						LC					1,7,9,11,13		
MOUNTAIN TAILOR BIRD <i>Orthotomus chinensis</i>																	
COMMON TAILOR BIRD <i>O. sutorius</i>	C														1,9,11		
DARK-NECKED TAILOR BIRD <i>O. arrogans</i>	C	C	F	C	C	C	C	C	C	C	C	C			11,12,14,15		
DUSKY WARBLER <i>Phylloscopus fuscatus</i>	O														1,9,13		
YELLOW-STREAKED WARBLER <i>P. armandi</i>	O																
RADDE'S WARBLER <i>P. schwanzi</i>	C	O	LF	C	C	F	F	LC							1,7,9,15		
IGNORANT WARBLER <i>P. inornatus</i>	C	C	C	P	C	C	C	C	F	C					1,9,11,10,13,14,15,16		
ARCTIC WARBLER <i>P. borealis</i>	F	O													14		
GREENISH WARBLER <i>P. trochiloides</i> *11	C	C	C	C	C										9,11,14,15		
PALE-LEGGED LEAF-WARBLE <i>P. tenellipes</i>	C	C	C	C	F	C	C	C							7,11,15,16		
EASTERN CROWNED-WARBLE <i>P. coronatus</i>	F																
BLYTH'S LEAF-WARBLE <i>P. reguloides</i>	F	LC															
WHITE-TAILED LEAF-WARBLE <i>P. lewisoni</i>																	
SULPHUR-BREASTED WARBLER <i>P. richardi</i>	F	F	O														
GOLDEN-SPECTACLED WARBLER <i>Sinicusus burkii</i>	C	C	O														
GREY-CHEEKED WARBLER <i>S. palliogens</i>																	
CHESTNUT-CROWNED WARBLER <i>S. castaneiceps</i>																	
YELLOW-BELLIED WARBLER <i>Abracospus superciliosus</i>		LC													1,11		
STRATED GRASS BIRD <i>Megalurus palustris</i>															1		
WHITE-CRESTED LAUGHING THRUSH <i>Garrulus leucolophus</i>															7		
LESSER-NECKED LAUGHING THRUSH <i>G. montiger</i>															7		
WHITE-CHEEKED LAUGHING THRUSH <i>G. vastali</i>															7		
RED-TAILED LAUGHING THRUSH <i>G. milnei</i>	C	LF	O												11		
ABBOTT'S BABBLER <i>Malaecanda abbotti</i>	O	O	O												11		
BUFF-BREASTED BABBLER <i>Pallanus richelli</i>																	
SPOT-THROATED BABBLER <i>P. albiventer</i>																	
PUFF-THROATED BABBLER <i>P. ruficeps</i>	C	C	F	C	F	C	C	C	C	C	C	C			11		

Species	HN				Xé Pian NBCA				Phou Xang He NBCA				Dong Hua Sao NBCA				OTHER
	MB	NZ	DK	XKP	Hin	XHe	MDF	DDF	Oth	SEF	MDF	Deg	EF	Oth			
SCALY-CROWNED BABBLER <i>Malaecospira cinerea</i>																	
LARGE SCIMITAR-BABBLER <i>Ponatorhinus hypoleucos</i>	C	F	C	O	C	C	C	C									
WHITE-BROWED SCIMITAR-BABBLER <i>P. schisticeps</i>	O																
RED-BILLED SCIMITAR-BABBLER <i>P. ochraceiceps</i>																	
CORAL-BILLED SCIMITAR-BABBLER <i>P. ferrugineus</i>																	
STREAKED WREN-BABBLER <i>Nesipitiza breviceaudata</i>																	
EYEBROWED WREN-BABBLER <i>N. philippina</i>	O																
BUFF-CHESTED/RUFIOUS-CAPPED BABBLER <i>Stachyris anthracina</i> <i>S. ruficeps</i>																	
GOLDEN BABBLES <i>S. chrysaea</i>																	
GREY-THROATED BABBLER <i>S. nigriceps</i>																	
STRIPED TIT-BABBLER <i>M. carolinensis</i>	C	C	O	C	C	C	C	C	C	C	C	C			7,11,12,14,15		
GREY-FACED TIT-BABBLER <i>M. kelleyi</i>																	
CHESTNUT-CAPPED BABBLER <i>Timalia pileata</i>																	
SILVER-EARED MESIA <i>Leiothrix argentauris</i>																	
WHITE-BROWED SHRIKE-BABBLER <i>Pteruthius flaviscapit</i>																	
CHESTNUT-FRONTED SHRIKE-BABBLER <i>P. senobarbus</i>																	
WHITE-HOODED BABBLER <i>Gampsorhynchus rufifluis</i>																	
BLUE-WINGED MINLA <i>Minla cyanocoptera</i>																	
RUFIOUS-WINGED FULVETTA <i>A. ruficeps</i>																	
RUFIOUS-THROATED FULVETTA <i>A. ruficeps</i>																	
MOUNTAIN FULVETTA <i>A. peracensis</i> Form A																	
MOUNTAIN FULVETTA <i>A. peracensis</i> Form B																	
WHITE-BELLIED YUHINA <i>Yuhina sanctiohola</i>	F	C	C	F	C	C											
THICK-BILLED FLOWERPECKER <i>Dicaeum agile</i>	F	O	O	P											11,12		
YELLOW-VENTED FLOWERPECKER <i>D. chrysomelum</i>	F	O	O												11		
PLAIN FLOWERPECKER <i>D. concolor</i>	O	[O]													14		
FIRE-BREASTED FLOWERPECKER <i>D. igniceps</i>	C	F	C	P	C	O	C	F	F	F	F				7,9,11,12,15,16		
SCARLET-BACKED FLOWERPECKER <i>D. orientatum</i>																	
PLAIN-THROATED SUNBIRD <i>Anthreptes malacensis</i>															1		
RUBY-CHEEKED SUNBIRD <i>A. singalensis</i>	O	C	O	P	O	LC	F								11,15		
PURPLE-NAPED SUNBIRD <i>Hyogramma hypogrammicum</i>																	
PURPLE-THROATED SUNBIRD <i>Nectarinia sperata</i>	C	F	C	P	C										11		
OLIVE-BACKED SUNBIRD <i>N. jugularis</i>																	

Species	HN	Xé Pian NBCA				Phou Xang He NBCA				Dong Hua Sao NBCA				OTHER	
		MB	NZ	IMK	XRP	Hin	XHe	MDF	DDF	QBh	SEF	MDF	Deg		EF
PURPLE SUNBIRD <i>Nectarinia asiatica</i>	F														15,16
GOULD'S SUNBIRD <i>Aethopyga gouldiae</i>															
BLACK-THROATED SUNBIRD <i>A. sarinara</i>															
CRIMSON SUNBIRD <i>A. siparaja</i>	O	F													C, 6
LITTLE SPIDERHUNTER <i>Arachnothera longirostris</i>	F	C	O			F				O	C	C			P, C
STREAKED SPIDERHUNTER <i>A. magna</i>						O		F							C, C
PLAIN-BACKED SPARROW <i>Passer fuscus</i>															
EURASIAN TREE SPARROW <i>P. montanus</i>	C	O								LC					C 1,2,4,5,6,9, 16
FOREST WAGTAIL <i>Dendrocinclus indicus</i>						O		O							11
WHITE WAGTAIL <i>Monticola alba</i>	C		F					C							1,7,8,9,13, 16
CITRINE WAGTAIL <i>M. citreola</i>															1
YELLOW WAGTAIL <i>M. flava</i>						C		O		[F]					1,5,9
GREY WAGTAIL <i>M. cinerea</i>	O	O				O	F	C		C					4,9,10,14
RICHARD'S PIPIT <i>Anthus richardi</i>	F		LC	P	C					O					1,7,8,9,13 15,16
PADDYFIELD PIPIT <i>A. rufifluis</i>						LC					O	P			1,13
OLIVE-BACKED PIPIT <i>A. hodgsoni</i>	C		F	P	C				O	F	LC				1,12,13,15, 18
RED-THROATED PIPIT <i>A. cervinus</i>						C									1,17
BAYA WEAVER <i>Ploceus philippinus</i>						[P]									4
ASIAN GOLDEN WEAVER <i>P. hypoxanthus</i>						[P]									
WHITE-RUMPED MUNIA <i>Londra striata</i>	O	LC	F	P	O					LF	O	LC	C		C,6 9,15
SCALY-BREADED MUNIA <i>L. punctulata</i>	O														Co
CHESTNUT-EARED BUNTING <i>Emberiza fucata</i>						O									Co
YELLOW-BREADED BUNTING <i>E. atricola</i>						O									2

APPENDIX 2

LIST OF SPECIES IDENTIFICATIONS MODIFIED TO PROVISIONAL OR RETRACTED ALTOGETHER COMPARED WITH PRESENTATION IN PREVIOUS INTERNAL REPORTS (Duckworth *et al.* 1992, 1993, Salter 1993, Timmins 1993a,b).

2.1: species modified from Timmins *et al.* (1993a):

Provisional hawk-eagle *Spizaetus* sp. record is retracted.

Provisional Great Reed Warbler *Acrocephalus arundinaceus* modified to Great/Clamorous Reed Warbler *A. arundinaceus* *A. stentoreus*.

2.2: species modified from Timmins *et al.* (1993b):

Fulvous-breasted Woodpecker *Dendrocopos macsi* modified to *Dendrocopos* sp.

Changeable Hawk-Eagle *Spizaetus cirrhatus* modified to a provisional record.

Javan Frogmouth *Batrachostomus javensis* modified to provisional Blyth's Frogmouth *B. affinis*. (Note that the report followed the species limits of Lekagul and Round 1991).

Provisional Indian Nightjar *Caprimulgus asiaticus* record is retracted.

Provisional Brown/Buffy Fish-Owl *K. zeylonensis*/*K. ketupu* modified to Tawny/Buffy Fish-Owl *K. flavipes*/*K. ketupu*.

Pallas's Grasshopper Warbler *Locustella certhiola* modified to Pallas's/Middendorff's Grasshopper Warbler *Locustella certhiola*/*L. ochotensis*.

Provisional Great Reed Warbler *Acrocephalus arundinaceus* modified to Great/Clamorous Reed Warbler *A. arundinaceus* *A. stentoreus*.

Provisional Spot-throated Babbler *Pellorneum albiventris* record is retracted.

2.3: species modified from Duckworth *et al.* (1992):

Black Kite *Milvus migrans* modified to provisional Black-eared Kite *M. lineatus*. (Note that the report followed the species limits of Lekagul and Round 1991).

Provisional Japanese Sparrowhawk *Accipiter gularis* record retracted.

Dark-sided/Grey-streaked Flycatcher *Muscicapa sibirica*/*M. griseisticta* record is retracted.

Provisional Japanese White-eye *Zosterops japonicus* modified to Oriental/Japanese White-eye *Z. palpebrosus*/*Z. japonicus*.

Provisional Asian House-Martin *Delichon dasyptus* modified to Asian/Northern House-Martin *D. dasyptus*/*D. urbica*.

2.4: species modified from Duckworth *et al.* (1993):

Provisional frogmouth *Batrachostomus* sp. record is retracted.

2.5: species modified from Salter (1993):

Changeable Hawk-Eagle *Spizaetus cirrhatus* modified to a provisional record

Provisional Javan Frogmouth *Batrachostomus javensis* modified to provisional Blyth's Frogmouth *B. affinis*.

Rufous-fronted Babbler *Stachyris rufifrons* was inadvertently listed as the first record for Laos, although the record probably refers to the taxon listed by Salter (1993), following King *et al.* (1975), as Buff-chested Babbler. The record is modified to Buff-chested/Rufous-capped Babbler *Stachyris ambigua*/*S. ruficeps*.

APPENDIX 3

GAZETTEER OF LOCALITIES IN LAOS MENTIONED IN THE TEXT

Besides geographical co-ordinates, localities are listed according to two biogeographical region classifications; firstly the division of Laos into North (N), Central (C) and South (S) proposed by Delacour and Jabouille (1931) and employed by King *et al.* (1975). Secondly, the classification of MacKinnon and MacKinnon (1986) who divided Laos into the three sub-units of Central Indochina (10a), North Indochina (10b) and Annam (5b) is also given in the table.

Co-ordinates, altitudes, and place name spellings have been standardized to follow the *Republique Democratique Populaire Lao Service Geographique D'Etat* 1:100,000 map series, except for the Bolovens Plateau, the Mekong and Annamitic chain (which are called Phouphiang Bolaven, Nam Khong and Sayphou Louang, respectively, on the *Lao Service Geographique D'Etat* 1:100,000 map series). In some historical sources (e.g. Engelbach 1932), references are made to an area called 'Bassac' which is a former name for Champasak. Co-ordinates are given as points for small sites and a range for rivers and specific areas.

Alternative spellings given in parentheses after site names relate to the following texts indicated by superscript numbers: *The Times atlas of the world* (1985) 7th Edition¹; Nelles 1:1,500,000 map of Vietnam, Laos and Kampuchea²; Bangs and Van Tyne (1931)³; David-Beaulieu (1944)⁴; David-Beaulieu (1949-1950)⁵; Delacour (1929)⁶; Delacour (1932)⁷; Delacour and Greenway (1940)⁸; Delacour and Jabouille (1927)⁹; Delacour and Jabouille (1931)¹⁰; Dickinson (1970)¹¹; Engelbach (1927a)¹²; Engelbach (1932)¹³; Oustalet (1899-1903)¹⁴; Robinson and Kloss (1931)¹⁵.

Tranninh (as referred to by David-Beaulieu 1944) refers to almost (but not precisely) the same area as the modern province of Xieng Khouang. Localities which lie within NBCAs are not detailed, since their positions are covered by the co-ordinates given for those NBCAs. The name Lao Pako is a local name and not used on most maps. Co-ordinates are rounded to the nearest whole minute. 'Not named' means a locality is marked on the map but it is not named. All Provinces and NBCAs visited are shown on Fig. 1.

Locality with geographical co-ordinates, following <i>Lao Service Geographique D'Etat</i> 1:100,000 map series	Alternative names in references	Biogeographic Subunits (King <i>et al.</i> 1975, then Mackinnon and Mackinnon 1986)	Altitude/m
Regions and Protected Areas:			
Phou Khao Khouay NBCA 18°15'-18°30'N 102°35'-103°30'E	(Not marked ^{1,2})	N, 10a	200-1,666
Houay Nhang Nature Reserve 18°06'N 102°40'E	(Not marked ^{1,2})	N, 10a	80
Nam Ngum reservoir 18°25'-18°37'N 102°30'-102°54'E	(Not marked ^{1,2})	N, 10a	220
Tranninh 19°00'-20°15'N 102°15'-103°55'E	(Not named ^{1,2})	N, 10b and 5b	300-2,819
Phou Xang He NBCA 16°42'-17°04'N 105°19'-106°06'E	(Not marked ^{1,2})	C, 10a	200-818
Xé Pian NBCA 14°00'-14°50'N 105°53'-106°30'E	(Not marked ^{1,2})	S, 10a	150-844
Dong Hua Sao NBCA 14°50'-15°11'N 105°55'-106°17'E	(Not marked ^{1,2})	S, 10a	150-1,336
Phouphiang Boloven 14°42'-15°30'N 106°15'-106°50'E	(Plateau des Bolovens ^{1,10,11,12,13} ; Bolovens Plateau ²)	S, 10a	150-1,716
Xé Pôn 16°20'-16°41'N 106°13'-106°47'E	(Se Pone ¹ ; Muang Xépôn ² ; Tchépône ⁵)	C, 10a and 5b	170-500
Muang Taoy 15°30'-16°03'N 106°20'-107°15'E	(Not marked ^{1,2} ; Taho ^{12,13})	S, 10a and 5b	450-1,300

Dong Kalo 14°04'-14°20'N 105°56'-106°11'E	(Not marked ^{1,2})	S, 10a	60-356
Xé Khong plains 14°27'-14°42'N 106°16'-106°35'E	(Not marked ^{1,2})	S, 10a	70-120
Rivers:			
Nam Mô 19°02'-19°20'N 103°49'-104°07'E	(Not marked ¹ ; Not named ²)	N, 5b	350-600
Nam Ngum 18°00'-19°35'N 102°30'-103°15'E	(Nam Ngum ^{1,2})	N, 10a and 10b	220-1,100
Nam Ou 20°05'-22°03'N 102°00'-102°13'E	(Nam Ou ¹ ; Nam Hou ^{2,10})	N, 10b	320-800
Nam Theun 17°43'-18°15'N 104°38'-105°16'E	(Nam Theun ⁶ ; Nam Teun ¹⁰)	C, 10a	380-550
Xé Banghiang 16°03'-16°54'N 105°15'-106°27'E	(Se Bang Hieng ^{1,2} ; Se Bang Hien ¹⁰ ; Sé-Bang-Hieng ⁵)	border between C and S, 10a and 5b	130-220
Xé Khampho 14°02'-14°31'N 106°13'-106°21'E	(Se Khampho ¹ ; Not named ²)	S, 10a	60-120
Xé Pian 14°27'-15°06'N 106°20'-106°32'E	(Not marked ¹ ; Not named ²)	S, 10a	70-900
Xé Khong 14°27'-16°01'N 106°20'-107°01'E	(Se Kong ¹ ; Kong ² ; Sé Kong ¹⁰ ; Sékong ^{12,13})	S, 10a	70-36
Xé Don 15°07'-15°48'N 105°48'-106°36'E	(Se Done ¹ ; Xé Don ² ; Sédone ^{12,13})	S, 10a	100-180
Villages, Towns and precise localities:			
Vientiane 17°58'N 102°37'E	(Vientiane ^{1,2,3,4,8,9} ; Viangchan ² ; Vien Tiane ¹⁰ ; Vien Chan ¹⁵)	N, 10a	165
Ban Phônssavan 19°27'N 103°13'E	(Xieng Khouang ^{1,4,8,10,11} ; Xiangkhoang ² ; Xieng Kouang ³ ; Xieng-Khouang ^{6,9})	N, 10b	1,150
Vangviang 18°55'N 102°27'E	(Vang Vieng ^{1,9} ; Muang Vangvieng ²)	N, 10a and 10b	200
Ban Thadua 17°53'N 102°44'E	(Not marked ^{1,2})	N, 10a	165
Ban Latsèn 19°20'N 103°08'E	(Not marked ^{1,2} ; Latsen ⁴)	N, 10b	1,100
Muang Souti 19°32'N 102°52'E	(Muong Soui ^{1,4} ; Muong Souy ²)	N, 10b	1,200
Lo-Tiao (Not named; locality untraced) approx. 20°25'N 100°30'E	(Not marked ^{1,2,4} ; Lo-Tiao ⁸)	N, 10b	1,000
Phôngsali 21°41'N 102°06'E	(Phong Saly ^{1,3} ; Phôngsali ² ; Phong-Saly ⁸)		1,500
Phou Kobo 19°16'N 103°25'E	(Not marked ¹ ; Not named ² ; Phou Kobo ⁴ ; Phu Kobo ⁸)	N, 10b	1,800-2,166
Ban Nonghet 19°10'N 103°59'E	(Nong Het ^{1,4} ; Nong Hét ² ; Nonghet ^{8,10} ; Nong-Het ⁹)	N, 10b	1,450
Ban Namkeung-Kao 20°24'N 100°15'E	(Not marked ^{1,2} ; Nam Khueng ⁸)	N, 10b	360
Ban Thènkhen 20°28'N 102°32'E	(Not marked ^{1,2})	N, 10b	660
Lao Pako (Not named) 18°09'N 102°51'E	(Not marked ^{1,2})	N, 10a	170

Thangon wetlands and reservoir 18°07'N 102°39'E	(Not marked ^{1,2})	N, 10a	160
Ban Thangon 18°08'N 102°37'E	(Not marked ^{1,2} ; Tha Ngon ³)	N, 10a	180
Ban Paknamkading 18°19'N 103°59'E	(Not marked ^{1,2})	N, 10a	150
Pakxan 18°23'N 103°39'E	(Pak Sanc ^{1,10} ; Muang Pakxan ²)	N, 10a	160
Pha Som/Nailang Limestone outcrop 18°00'N 104°19'E	(Not marked ^{1,2})	N, 10a	180-430
Savannakhét 16°34'N 105°45'E	(Savannakhét ^{1,3,5,10} ; Savannakhét ²)	C, 10a	150
Ban Napé 18°18'N 105°04'E	(Napé ¹ ; Ban Napé ² ; Napé ^{3,6,11} ; Na Pé ¹⁰)	C, 5b	560
Ban Thong Song, Savannakhét Prov. Locality untraced	(Not marked ^{1,2})	C, 10a	150
Champasak 14°54'N 105°53'E	(Not marked ¹ ; Champasak ² ;	S, 10a	100
Salavan 15°45'N 106°25'E	(Saravane ^{1,5,6,10,11,12,13} ; Saravan ²)	S, 10a	186
Pakxe 15°07'N 105°48'E	(Pakse ¹ ; Pakxé ² ; Pakse ^{7,10,12,13})	S, 10a	100
Phou Bachiang 15°07'N 105°52'E	(Not marked ^{1,2})	S, 10a	200-250 (peak 904)
Ban Thaténg 15°26'N 106°23'E	(Ban Thaténg ¹ ; Not marked ² ; Tha Teng ¹⁰ ; Tha-teng ¹² ; Thaténg ¹³)	S, 10a	842
Senamsai (Not marked) 14°41'N 106°38'E	(Not marked ^{1,2})	S, 10a	80
Muang Không 14°07'N, 105°51'E	(Khong ^{1,10,13} ; Muang Không ²)	S, 10a	80
Attapu 14°08'N 106°50'E	(Attapeu ^{1,10,12,13} ; Attapu ² ; Attapeu ⁶)	S, 10a	110
Khonphapheng Falls 13°57'N 105°59'E	(Not marked ^{1,2} ; Chutes de Khône ^{12,13})	S, 10a	70
Ban Thangbeng (Not marked) 14°47'N 106°58'E	(Not marked ^{1,2})	S, 10a	100
Ban Nasenphan (Not marked) 14°13'N 105°5'E	(Not marked ^{1,2})	S, 10a	80
Ban Samkhang 14°08'N 105°52'E	(Not marked ^{1,2})	S, 10a	80
Ban Senhom 14°31'N 106°19'E	(Not marked ^{1,2})	S, 10a	70
Ban Thakho (Not marked) 13°58'N 105°59'E	(Not marked ^{1,2})	S, 10a	70

Swamp Francolin *Francolinus gularis* survey technique: a case study from northern India

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The Swamp Francolin *Francolinus gularis* is considered shy and elusive as it is difficult to detect in tall wet grassland habitat. Between 21 March and 6 April 1993 surveys were conducted in and around Dudwa National Park in Uttar Pradesh, northern India. In addition to a wide ranging survey of the type previously used in searches for the species, dawn/dusk call counts were carried out at a single site. More birds were seen and heard at around dawn and dusk than during brief visits to areas of suitable habitat at other times of day. Whilst brief visits allow more sites to be covered, it is probable that some populations of Swamp Francolin will not be detected. We recommend a dawn and dusk visit to single sites during the calling period as the most efficient survey technique for this species.

INTRODUCTION

The Swamp Francolin *Francolinus gularis* inhabits the tall wet grasslands of the *terai* of South Asia, which stretches from western Uttar Pradesh in India eastwards along the Indo-Nepal border to Bangladesh and Assam in north-east India. This belt of low-lying land contains both wet and dry grasslands interspersed with moist deciduous forest, typically of sal *Shorea robusta* trees. Increasing human pressures on this land at the base of the Himalaya is resulting in the conversion of much of the grassland to agricultural land. The loss of this unique habitat is causing problems for the species which are restricted to the *terai* grasslands, such as the Swamp Francolin and the Swamp Deer *Cervus duvaucelii duvaucelii*, which may now number fewer than 100 individuals in Dudwa. This is a marked decline from around 5,000 in 1972.

The survival of the Swamp Francolin has been a cause for concern since the onset of draining of the damp areas in which it lives (Ali and Ripley 1983), such that the species is considered threatened (Collar *et al.* 1994). Furthermore, application of the Mace and Lande (1991) threat category criteria suggests that it is vulnerable to extinction (McGowan *et al.* 1995). This concern arises from the nature of disturbance that the species's habitat is currently subject to. Widespread drainage throughout the *terai* is making many areas unsuitable for the wet grasslands in which the francolin lives. The drained areas are then used for several purposes, such as the planting of agricultural crops, as pasture land for grazing cattle, and for road and house building. The usual reaction to this form of habitat degradation and loss is to create protected areas in which all forms of human activities are banned, or a management