

WHITE-FRONTED SCOPS-OWL

Otus sagittatus



Critical —

Endangered —

Vulnerable A1c; A2c; C1; C2a

This poorly known species is inferred to have a small, rapidly declining, severely fragmented population given its dependence on lowland or foothill forest, much of which has been destroyed or degraded within its range. It therefore qualifies as Vulnerable.

DISTRIBUTION The White-fronted Scops-owl is distributed sparsely from Myanmar (up to 16°N), south through south-west Thailand to Peninsular Malaysia, but apparently not extending to Indonesia (see Remarks 1).

■ **MYANMAR** It has been found in the foothill forests of Tenasserim (Taninthayi) (Hume and Davison 1878), occurring as far north as Mulayit (currently in Kayin state) (Harington 1909a, Smythies 1986). There is a clutch of two eggs in NMS from the Southern Shan States, March, 1920–1930, but this is almost certainly the result of a misidentification. Confirmed records are from: **Mulayit** (Mt Mooleyit, Mulayit taung), near Meetan (on the southern slopes), February 1877 (Oates 1877b, Hume and Davison 1878, female in BMNH); “Thaungyu”, here taken to be **Thaungyun**, February 1894 (female in AMNH); **Maliwun** (Malewoon), Tenasserim, male, February 1877 (Oates 1877b, specimen in BMNH).

■ **THAILAND** The species occurs locally in the hill ranges separating Thailand from southern Myanmar. Records are from: **Huai Kha Khaeng Wildlife Sanctuary**, Uthai Thani, one roosting in daylight at Huai Mae Dee, April 1998 (*Bird Conserv. Soc. Thailand Bull.* 15, 7 [1998]: 14–15, *Oriental Bird Club Bull.* 28 [1998]: 44–48); **Kaeng Krachan National Park**, one heard at km 15, March 1994 (*Bird Conserv. Soc. Thailand Bull.* 11, 5 [1994]: 14), March 1998 (*Bird Conserv. Soc. Thailand Bull.* 15, 7 [1998]: 14–15), two seen roosting in daylight late November 1999 (P. D. Round *in litt.* 1999), and an adult roosting with three young at Ban Krang, May 2000 (*Bird Conserv. Soc. Thailand Bull.* 17, 8 [2000]: 12–13, *Oriental Bird Club Bull.* 32 [2000]: 66–76); **Ban Thung Luang**, female, January 1934 (Meyer de Schauensee 1946); **Khlong Saeng Wildlife Sanctuary**, Surat Thani province, one trapped, 1980s (S. Nakhasathien *per* P. D. Round *in litt.* 1998); **Khao Luang National Park**, Nakhon Si Thammarat, c.150 m, where one bird caught in June 1965 (King 1966, McClure and Leelavit 1972, Medway and Wells 1976) is presumably the skeleton (in MVZ) from Nakhon Si Thammarat (Marshall 1978); **Khao Banthat** (Banthad) **Wildlife Sanctuary**, Khao Soi Dao, Trang, January 1934 (Riley 1938, one male in USNM); **Hala-Bala Wildlife Sanctuary**, Narathiwat province (Khlong Hapa, in Khlong Kolok catchment), three roosting in daylight, April 1998 (*Bird Conserv. Soc. Thailand Bull.* 15, 7 [1998]: 14–15, *Oriental Bird Club Bull.* 28 [1998]: 44–48); “Pattani States” (then covering much of present day Pattani, Yala and Narathiwat provinces: D. R. Wells *in litt.* 2001), undated, presumably 1910–1930 (Chasen 1939a).

In addition, numerous eggs of this species were reportedly taken by E. G. Herbert around Samkok (Baker 1922–1930, 1932–1935), an unlikely fact that lacks sufficient supporting evidence (Riley 1938), but is nevertheless repeated by König *et al.* (1999). This locality and Baker’s (1922–1930, 1932–1935) breeding information are thus omitted.

■ **MALAYSIA** Records are from: **Ulu Chemperoh** (Ulu Cemperoh), main range near Janda Baik, Pahang, one ringed, December 1963 (Medway and Wells 1970, Wells 1974); **Pasoh Forest Reserve**, Negri Sembilan, two birds netted and ringed, July and August 1968, the



The distribution of White-fronted Scops-owl *Otus sagittatus*: (1) Mulyait; (2) Thaungyun; (3) Maliwun; (4) Huai Kha Khaeng Wildlife Sanctuary; (5) Kaeng Krachan National Park; (6) Ban Thung Luang; (7) Khlong Saeng Wildlife Sanctuary; (8) Khao Luang National Park; (9) Khao Banthat Wildlife Sanctuary; (10) Hala-Bala Wildlife Sanctuary; (11) Ulu Chemperoh; (12) Pasoh Forest Reserve; (13) Bukit Tangga.
○ Historical (pre-1950) ● Fairly recent (1950–1979) ● Recent (1980–present)

latter being retrapped in January 1969 (Medway and Wells 1970, 1976), with a few field observations through the 1980s and 1990s (Harrap 1986a, Yong 1997a, B. F. King *in litt.* 1998); **Bukit Tinggi**, Negri Sembilan, adult male taken in dense jungle in January 1914 (Chasen 1939a, Gibson-Hill 1949b).

Unconfirmed records include: two undated Melaka trade skins (although there are at least seven skins labelled “Malacca” in BMNH, all from pre-1880s), assumed to be from the neighbourhood of Mount Ophir (2°22'N 102°37'E) (Chasen 1936a, Yong 1997a); Perak, two clutches of eggs reportedly sent to Baker (1922–1930), this being discounted as improbable by Gibson-Hill (1949b) and Wells (1999), ignored by Medway and Wells (1976), but repeated by König *et al.* (1999); and Taman Negara National Park, on whose checklist the species appears (Chasen 1993), although there is apparently no supporting evidence for this (Yong 1997a).

POPULATION The species is difficult to locate as it is thinly distributed and not particularly vocal. Until recently, calls tentatively ascribed to it were thought to be difficult to separate from those of the Reddish Scops-owl *Otus rufescens* (B. F. King *in litt.* 1998, Wells 1999). In 2000, recordings were made, however, of a “deep, soft drumming, up to 12 or 13 seconds in duration”, and it is hoped that the discovery of this vocalisation might “improve detection of this elusive species” (*Bird Conserv. Soc. Thailand Bull.* 17, 8 [2000]: 12–13).

Myanmar The species is “rare” and restricted to the state of Tenasserim (currently Tenasserim, Mon and Kayin states) (Hume and Davison 1878, Smythies 1986). Given the paucity of recent fieldwork in the area, it is impossible to judge the population size of this species.

Thailand It is rarely encountered within its Thai range, which probably reflects both a general scarcity and the inconspicuous nature of the species (P. D. Round *in litt.* 1998). Recent fieldwork in a few protected areas (including Huai Kha Khaeng Wildlife Sanctuary and Kaeng Krachan National Park in the western forest complex) has revealed a few regular pairs and it might be that the species is considerably commoner than reported sightings suggest.

Malaysia It appeared with some regularity in early Melaka trade skin shipments, which were largely from the region of Mount Ophir (Chasen 1939a). A. O. Hume (footnote to Oates 1877b) stated that he did not consider it a “very rare bird”, adding that “it seems to be commonly procured by the Malacca shikarees” (at least 10 nineteenth-century specimens labelled “Malacca” are stored in museums worldwide). Several decades passed before the species was reported again in 1963 (Wells 1974), after which it has been identified very seldom, and from very few sites. During 23 months (1968–1970) of mist-netting operations at Pasoh Forest Reserve three individuals of this species were captured, along with two Reddish Scops-owls and three Sunda Scops-owls *O. lempiji* (Medway and Wells 1976). These scant data have led to the repeated suggestion that it is “no less common” than these relatively well-known species at the site (König *et al.* 1999). B. F. King (verbally 1998) reported that it is still quite regularly reported during nocturnal fieldwork at Pasoh Forest Reserve, but that sightings were likely to refer to only 2–3 pairs of birds in c.17 ha. A less optimistic view, however, holds that “there have been few records in recent years from this site” (Yong 1997a). Wells (1999) concluded that it is “apparently local and sparse”, but cautioned that its status is “obscured by its generally silent behaviour”.

ECOLOGY Habitat The White-fronted Scops-owl is apparently dependent on evergreen and semi-evergreen lowland forests (Wells 1985), mature and regenerating, at plains level and on slopes to at least 600 m (Wells 1999). Indeed, it seems to be most frequently recorded in Malaysia around 600–700 m (König *et al.* 1999). Recent sightings from Kaeng Krachan National Park, Thailand, were at c.300 m close to a stream in disturbed, probably previously

logged semi-evergreen forest at a valley bottom (P. D. Round *in litt.* 2001). At Hala-Bala Wildlife Sanctuary the species was found in a clump of evergreen rainforest (within mixed deciduous forest) at c.100 m, also at the bottom of a valley (P. D. Round *in litt.* 2001). The relative use of different forest strata is unclear, although the fact that it was repeatedly captured in mist-nets set on the ground proves that it regularly frequents the understorey, often where this is quite dense (Medway and Wells 1976, Wells 1999). Two individuals mist-netted 100 m apart on the same night at Pasoh, Malaysia, may have been pair members, but the species's relative silence suggests that its social organisation and spacing behaviour may be unusual for its genus (Wells 1999).

Food The stomach of a specimen obtained in Myanmar contained only insects, chiefly moths (Hume and Davison 1878).

Breeding The laying season in Thailand and Peninsula Malaysia is said to be in February and March (König *et al.* 1999), although this assertion was probably made on the basis of dubious oological material sent to Baker (1922–1930; see Distribution: Thailand). The recent sighting in Thailand of a pair with fledged young in May nevertheless supports this estimation. There is no other information about breeding apart from the fact that this pair raised three young (*Bird Conserv. Soc. Thailand Bull.* 17, 8 [2000]: 12–13).

Migration The species is apparently resident; one individual mist-netted at Pasoh in August 1968 was retrapped at the same site in January 1969 (Medway and Wells 1970).

THREATS As it is chiefly confined to lowland forest it is inevitably threatened by the wholesale destruction of this habitat currently taking place within its range. It has only infrequently been recorded from slopes and apparently avoids recently logged forest; thus it may be particularly sensitive to deforestation, although it has been recorded in regenerating forest (Wells 1999).

Thailand Lowland forest loss in peninsular Thailand has been severe; for an account of this threat see the equivalent section under Gurney's Pitta *Pitta gurneyi*. The occurrence of the species in six Thai protected areas gives some comfort, but these sites are not immune to environmental damage. At the time of the Hala-Bala Wildlife Sanctuary sighting, for example, forest had been badly impacted by fire, possibly leading to an artificial concentration of birds in the last remaining moist evergreen clumps (P. D. Round *in litt.* 2000). Construction of restaurants and large roads in Khaeng Krachan National Park by the Royal Forestry Department are thought to constitute a threat to habitat and wildlife (*Bird Conserv. Soc. Thailand Bull.* 17, 8 [1999]: 15). Although the nocturnal behaviour of this species presumably protects it to some extent from the pressures of hunting in Thailand (see Threats under Rufous-necked Hornbill *Aceros nipalensis*), owls are still frequently traded in South-East Asia, where they are valued for their supposed medicinal properties (JAT); they are quite easily trapped using bird-lime (see entry for *Otus rufescens* in Marshall 1978) and it is likely that the White-fronted Scops-owl occasionally suffers from this activity.

Malaysia The main threat to the species in Peninsular Malaysia is lowland deforestation, for an account of which see the equivalent section under Malaysian Peacock-pheasant *Polyplectron malacense* and Crestless Fireback *Lophura erythrophthalma*.

MEASURES TAKEN The species is listed on Appendix II of CITES and legally protected in Myanmar (owls in general appear on the List of Protected Species 1994) and Thailand (by WARPA). In Myanmar, a protected area recently established in Tenasserim will possibly conserve forest supporting this species (see under Plain-pouched Hornbill *Aceros subruficollis*). In Thailand it has been recorded within five wildlife sanctuaries, Hala-Bala (433 km²), Huai Kha Khaeng (2,780 km²), Khao Banthat (1,267 km²), Khlong Saeng (1,155 km²) and two national parks, Khao Luang (570 km²) and Kaeng Krachan (2,915 km²). The species occurs at Pasoh Forest Reserve in Malaysia, a fairly secure (if relatively small) research station of

the Forest Research Institute, Malaysia. It may also occur in Taman Negara National Park, although there are no confirmed records.

MEASURES PROPOSED Effective protection of forest reserves in its range is essential. Furthermore, research is required to clarify its range and population in these areas, focusing on identifying its ecological requirements and population trends. Surveys are needed in Myanmar to reveal its current distribution and identify potential areas for protection. The recent discovery and tape recording of the presumed territorial call (*Bird Conserv. Soc. Thailand Bull.* 17, 8 [2000]: 12–13) should generate new fieldwork projects to locate the species using a combination of techniques (e.g. listening at night, mist-netting, and judicious broadcasting of tape-recordings).

REMARKS (1) There is a single undated and unconfirmed record from Aceh in northernmost Sumatra (specimen in BMNH, Medway and Wells 1976). However, this specimen comes from the nineteenth century H. Whitely collection which was possibly “mislocated in a trade shipment”, and thus potentially includes mislabellings (Wells 1999).