

Chaiyaphun 1968). The listing of Oriental White-eye was based on conversation between E. C. Dickinson and H. G. Deignan, in which the latter supposed that Oriental White-eye was the most likely white-eye species to be found in Khao Yai. However, in 1968, Dickinson identified a flock of 12 white-eyes in Khao Yai as Everett's White-eye on the basis of their 'very dark flanks', and all white-eyes he saw subsequently were likewise identified as Everett's White-eye (E. C. Dickinson *in litt.* 2005). White-eyes in Khao Yai were also independently identified as Everett's by S. Tantidapitak (verbally 2005), from comparison of video images of both Oriental and Everett's White-eyes in other parts of their Thai range, especially in the peninsula.

Thailand's Dong Phrayayen forest complex supports two other species that, like Everett's White-eye, are mainly Sundaic in distribution: Scaly-crowned Babbler *Malacopteron cinereum* and Moustached Hawk Cuckoo *Hierococcyx vagans* (Lynam *et al.* in press, Lekagul and Round 1991). These species, however, are known elsewhere in Indochina, in south Laos (both), Cambodia and Annam (*M. cinereum* only: Robson 2000). Although Everett's White-eye has now been confirmed in Khao Yai, there are, as yet, no records from elsewhere in Indochina other than from Khao Soi Dao, Chanthaburi province, south-east Thailand. This strongly suggests that further surveys may reveal as yet undiscovered, outlying populations of Everett's White-eyes in moist evergreen hill-slope habitats in Indochina, almost certainly in the Cardamom Mountains of south-west Cambodia, and perhaps elsewhere.

Thus, in addition to further surveys for Everett's White-eye, more work is also required to elucidate the range of Oriental White-eye in north-east and eastern Thailand and possibly elsewhere in the Indochinese region. Although Oriental White-eye is apparently widespread in Indochina (King *et al.* 1975, Robson 1999, Dickinson 2003), in the absence of specimens or photographs the presence of this species in Khao Yai and elsewhere in Dong Phrayayen must currently be considered as unconfirmed. If it does occur, it is perhaps more likely to be found at lower elevations, in disturbed habitats or deciduous woodland around the park boundaries.

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Notes on Amami Thrush, *Zoothera (dauma) major* on Amami Oshima, Ryukyu Islands, Japan

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Amami Oshima in the northern Ryukyu Islands, Japan, is situated in a long chain of islands lying between Kyushu in the north and Taiwan in the south. The island marks the north-eastern boundary of the Oriental region (Kuroda 1925, 1926). The main habitats are subtropical evergreen and broadleaved forest; Mt Yuan (28°17'33"N 129°19'25"E) is the highest peak at 694 m, and the total

land area is 712 km². A total of c. 300 bird species, mainly migrants, are known (Amami Ornithologists' Club 1997a), and the island is well known for its levels of endemism (Tsukasa and Hachisuka 1925, Kuroda 1925, 1957, Yamashina 1941).

Amami Thrush *Zoothera (dauma) major* is one such endemic taxon. It was listed as Critically Endangered by

BirdLife International (2001) because its population in 1996 was estimated to number 58 individuals, and to have undergone serious decline through the 1990s owing to habitat loss, and perhaps predation by the introduced Javan Mongoose *Herpestes javanicus*. The taxonomic status of Amami Thrush is unclear: it was accorded specific status by Ishihara (1986) and this treatment was followed by Sibley and Monroe (1990) and BirdLife International (2001). However, Khan and Yamaguchi (2000) and Ornithological Society of Japan (2000) treat it as a subspecies of Scaly Thrush *Z. dauma*; this treatment was also recommended by Collar (2004) and has now been adopted by BirdLife International (see www.birdlife.org/datazone).

During the non-breeding season, White's Thrush *Z. d. aurea* also regularly visits Amami Oshima (Kuroda 1925, Takashi *et al.* 1999). The main difference between the two taxa are their vocalisations: Amami Thrush gives a *chirrup-chewee-chueu-wiow-we-ep* song, which is very distinct from the *tuweet...tuweet...tissuhan* whistles of White's Thrush. Single specimens of Amami Thrush (collected on 4 December 1998 from Hatsuno, c.35 km south of Naze city) and White's Thrush (collected 15 December 1998, Naze city) were compared. The principal differences were: gape colour (yellow in Amami, yellowish-pink in White's), underpart spotting (denser in Amami), belly colour (creamier in Amami), underwing-coverts colour (creamier in Amami), tail feathers (12 in Amami, 14 in White's; more broadly tipped white in Amami), and tarsi colour (yellowish-grey in Amami, pinkish-red in White's). Further study of museum specimens of *Z. d. aurea* (n=124) and *Z. d. major* (n=12) indicates that these differences are consistent (AAK unpublished data).

METHODS

On 20–21 March 1999, a survey involving 95 volunteers was carried out. The volunteers were familiarised with the song of Amami Thrush and the whistle of White's Thrush through lectures using audio cassettes and field visits. A 45-km transect through potential habitat from Kinsakubaru (28°20'18"N 129°26'54"E) to the base of Mt Yuan (28°17'31"N 129°19'22"E) via Kamiya forest was marked out as a line transect by installing markers at 500 m intervals. Each person was allotted a 2-km stretch of the transect in such a way that each person overlapped 1 km with the previous individual. This strategy was to check and audit the register of each person's records. Each person walked their section in both directions between 05h40 and 06h40. Volunteers assembled at 02h30, synchronised watches, collected a large-scale map of their section on which to mark observations, and were taken to their allocated sections well before the start of the census. Thrushes were detectable up to c.100 m either side of the transect. The timing of the census was chosen because Amami Thrush is vocal only in spring, and for a shorter period in the autumn, singing mainly in the first 30–50 minutes before dawn.

On the same dates as the transect surveys, searches for singing Amami Thrushes were carried out at five other patches of habitat: Asado (28°19'49"N 129°29'51"E), Angachi (28°22'15"N 129°30'8"E), Aminoko (Akatochi Yama; 28°9'57"N 129°21'56"E), Mt Yuan peak (28°17'33"N 129°19'25"E) and Setsuko (28°9'48"N

129°22'57"E). Subsequently on 22 March 1999, observations were carried out in three additional areas of potential habitat: Sumiyogawa (28°18'22"N 129°21'30"E), Kanengodake (28°12'38"N 129°26'0"E) and Kominato forests (28°19'38"N 129°30'29"E).

RESULTS AND DISCUSSION

A total of 64 singing males were recorded on the transect from Kinsakubaru to the base of Mt Yuan (45) and at the five other habitat patches (19) including Asado (three), Angachi (five), Aminoko (Akatochi Yama; three), Mt Yuan peak (four) and Setsuko (four). A further ten singing males were estimated in Sumiyogawa (five), Kanengodake (two) and Kominato forests (three). Since only males are presumed to sing, and assuming that each was paired, a total of 74 pairs can be estimated.

The Amami Ornithologists' Club have censused the population of Amami Thrush each March in recent years, with a total of 58 pairs estimated in 1996 (Amami Ornithologists' Club 1997b). Populations in at least Kinsakubaru and Kamiya forests appear to have been fairly stable (Amami Ornithologists' Club 1997b). The 1999 survey described here was the most comprehensive to date.

There have been few attempts to safeguard the island's fragile habitat. There has been unsustainable logging for the pulp industry and other commercial uses in the recent past, although levels have diminished recently. Less than 4–5% of the island retains primary forest, with an additional 10–15% covered in near-primary forests. Amami Thrush is restricted to these two forest types. Dumping of non-biodegradable rubbish inside the forest has been a problem until recently, although the government has installed signboards to raise awareness, and forest guards visit the trails periodically. Introduced mongooses and domestic cats depredate native species, although the Environmental Agency of Japan and Forestry and Forest Products Research Institute are trapping to try to reduce the mongoose population. The recent establishment of a Wildlife Research Centre may help to promote scientific research in future.

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Extension of the breeding range of Blue-winged *Pitta Pitta moluccensis* in peninsular Malaysia

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During a visit to Taman Negara National Park, Pahang state, peninsular Malaysia on 25 July 2005, we were surprised to observe a Blue-winged *Pitta Pitta moluccensis*, a species known to breed only in the north of peninsular Malaysia (Lambert and Woodcock 1996, Medway and Wells 1976), carrying food, suggesting that it may have been breeding. The following day c.150 m from the location of the initial sighting, RH located the nest, which contained three nestlings estimated to be approximately one week old.

The nest was located on a steep slope c.6 m above ground level in the top of a dead tree stump with one open side, an unusual location since the nests of Blue-winged *Pitta* are typically found on or close to the ground, occasionally up to c.4 m above ground level (Lambert and Woodcock 1996). The nest was a quite large dome-shaped structure formed mainly of large dry leaves and small or medium-sized branches, with a vertical west-facing entrance hole on the open side of the tree stump. We were able to watch the nest regularly from 25 to 30 July. Both parents fed the nestlings with approximately equal frequency and with a variety of prey items, which appeared to include a large proportion of earthworms.

During our observations, the typical territorial call—a clear double whistle—was given briefly on only one occasion, but the adults gave a loud sharp *chyeew* alarm call if the nest was approached by humans closer than c.20 m. Another individual was heard giving the territorial call almost continuously from an overgrown oil palm plantation close to the village of Kuala Tahan, just outside the national park boundary, between 07h30 and 08h00 on 29 July 2005.

Subsequent to our observations, on 9 and 10 August 2005, K. David Bishop and Susan D. Myers observed a pair of Blue-winged *Pittas* directly feeding two well-grown immatures at the same site as our observations, and thus

these birds were likely to be the same pair. The birds were silent but fairly easy to approach and observe, with the immatures still at least partly dependent on the adult birds and frequently observed actively begging for food. (K. D. Bishop and S. D. Myers *in litt.* 2005).

Assuming that our estimation of the age of the nestlings was accurate, this represents an extension to the known breeding period in peninsular Malaysia, where eggs have previously been recorded between 10 May and 11 July (Medway and Wells 1976), although nest-building was reported on 14 July at Ban Bang Tieo, Krabi, Thailand (Wells *in press*).

Although Blue-winged *Pitta* is a common non-breeding visitor to the Malay Peninsula, breeding within this region has only ever been confirmed in the extreme north, in Perlis state and on adjacent Langkawi Island (Lambert and Woodcock 1996, Medway and Wells 1976). This breeding record, more than 300 km to the south-east of previous records therefore considerably extends the known breeding range of Blue-winged *Pitta* within the Malay Peninsula. Medway and Wells (1976) gave the dates of wintering birds in the peninsula as 25 September to 12 May. By the mid-1990s the period of absence had shrunk to just 7–8 weeks, centred on July. By 2000, calling birds were being reported from mid-Perak and the Pahang sector of Taman Negara national park throughout July (Wells *in press*, T. Carlberg *in litt.* 2005, W. Veraghtert *in litt.* 2005, C. Robson verbally 2005). It would seem that the southerly limit of over-summering birds has shifted southwards and this confirmation of breeding at Taman Negara national park is not entirely unexpected.

The changes in distribution appear to have coincided with climate change in central Malaysia where long-term regional warming has been observed over the last couple of decades (D. Wells *in litt.* 2005). These climatic changes