

References


Range expansion of Lemon-bellied White-eye Zosterops chloris and Sooty-headed Bulbul Pycnonotus aurigaster to south-east Sulawesi, Indonesia

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Introduction

This note makes use of specimen collections and observations to document the spread of Lemon-bellied White-eye Zosterops chloris, a well-established native in other parts of mainland Sulawesi, to the south-east peninsula and the spread of the introduced Sooty-headed Bulbul Pycnonotus aurigaster in the same area. In January 2007 a team from Indonesia Museum Zoologicum Bogoriense (MZB) surveyed the avifauna of Block Debbie, an area of woodland replanted from 2002 and managed by a nickel mining company following its mining operations near Sarakko (Sorowako), South Sulawesi province. Located in the north of the south-east peninsula, Block Debbie is classified as ‘regeneration forest’ and succession to secondary forest is taking place. Subsequently, between 2009 and 2011, personnel from MZB and the University of California, Davis Museum of Wildlife and Fish Biology (MWFB), undertook a series of collaborative research expeditions further south in South-East Sulawesi province, with the primary objective to survey and document biodiversity in the Masembo river drainage, Mekongga mountains, North Kolaka district, South-East Sulawesi. In 2011 four areas were surveyed: the Mangolo river near Mangolo, Kolaka district; two separate areas of Rawa Aopa Watumohai National Park (Rawa Aopa): Morowali district in the north and South Konawe district in the south; and Haluoleo University campus in Kendari on the south-east coast. At these sites, mist-nets and air guns (guns
were not used at the university) were used to collect birds, point counts were conducted and incidental observations made. Incidental observations were also made when travelling between sites.

Lemon-bellied White-eye Zosterops chloris

The Lemon-bellied White-eye is a widely distributed Indonesian endemic, generally common where it occurs—its core distribution is mainland Sulawesi and the Lesser Sundas; and to the west in the Java Sea and east in the Banda Sea it is distributed sporadically, being found predominantly on small islands and islets and often absent from even medium-sized islands (Coates & Bishop 1997, van Balen 2008). Lemon-bellied White-eye is a polytypic species (van Balen 2008), with two races recognised on Sulawesi—Z. c. mentoris in north-central Sulawesi (the racial identity of birds in north-east Sulawesi is unclear), and Z. c. intermedius in south and east Sulawesi and the islands of Muna and Buton off the south-east peninsula (the racial identity of birds from Kabeana island to the west of Sulawesi is unclear). A third race, Z. c. flavissimus, is found on the Tukangbesi archipelago lying south-east of Buton; this might also be the origin of birds found on the south-east peninsula. The species is listed for Rawas Aopa by Suratin (2010) and was found by Kelly et al. (2010) in August 2007 at Rumbarumbera on the tip of the south-east peninsula (4.417°S 122.800°E), but it appears previously unrecorded from the south-east. It is reported that it was recorded in 1995 and 1996 the species was not seen in the Kendari area by a series of observers during lay-overs between surveys on Buton where the species was common (B. R. Sykes in litt. 2014). In 2009 AE saw two Lemon-bellied White-eyes, one on 1 August near Weso village, Laloloe subdistrict, Kolaka district (4.027°S 121.786°E); and one on 6 August in mountains east of Kolaka at about 260 m (4.047°S 121.727°E) in a mixed floc with Scarlet Myzomela Myzomela dibapha, Yellow-sided Flowerpecker Dicaeum aureolimbatum and sunbirds. During the 2011 surveys at Hululeoo University and Rawas Aopa, nine Lemon-bellied White-eye specimens were collected, two (MWFB 10060 & 10061) on the Hululeoo University campus (4.014°S 122.521°E) and seven from three sites in the southern part of Rawas Aopa (MZB 32930, 32938, 32940, 32946 & 32947; MWFB 10256 & 10532). Two were south of Babarka forest edge (4.494°S 122.085°E & 4.494°S 122.083°E) and one at the edge of mixed broadleaf riparian forest (4.459°S 122.123°E). The various sites where the species has been seen in South-East Sulawesi province are already widely scattered and it seems likely that Lemon-bellied White-eye may well occur at additional locations there.

A series of mentoris, intermedius and flavissimus specimens from MZB and AMNH were examined and it was found that the nine Z. chloris specimens collected best matched Z. c. mentoris based on dorsal colouration, and they have provisionally been assigned to this race; further study is in progress. Birds seen by Kelly et al. (2010) may belong to the same set of populations, but in the absence of specimens no claim can be made. However, we note that near Rumbarumbera the width of the channel between the south-east peninsula and Buton is only about 5 km and the sea crossings, if birds were to cross from Muna to the mainland using the Tobera islands as stepping stones, are even shorter.

Sooty-headed Bulbul Pycnonotus aurigaster

The Sooty-headed Bulbul is a fairly common to common species widely distributed in South-East Asia, native to south and south-east China, Myanmar, Thailand, Cambodia, Laos, Vietnam, Java and Bali; introduced populations are established on Sulawesi, Sumatra and Singapore (Fishpool & Tobias 2005). Birds of the Javanese nominate race were collected by Heinrich in 1930 around Makassar, South Sulawesi province (White & Bruce 1986); subsequently this population appears to have spread at least as far as Enrekang on the south peninsula, some 160 km to the north (Coates & Bishop 1997). The species has recently been widely recorded on the north-east peninsula of Sulawesi and appears to have been established as long ago as 1990 in Manado (Fitzsimons et al. 2011).

In January 2007 MZB obtained three Sooty-headed Bulbul specimens (two males and a female, MZB 31042–31044) from Block Debbie, Saroako town (2.589°S 121.402°E). Abubakar (2009) has reported subsequent sightings in the same area. Between 2009 and 2011 the Mel Konga mountains biodiversity surveys, two specimens of Sooty-headed Bulbul were taken. A male (WFB 10533) was collected 18 December 2009 by HA, east of Tinukari village (3.637°S 121.078°E), in an orchard surrounded by secondary lowland forest at 200 m. A second adult male (WFB 10088), was collected on 30 June 2010 by Mas Fieldan at 419 m (3.642°S 121.095°E), in an orchard surrounded by secondary hill forest in the western foothills. A third specimen, a young female (WFB 10235), was collected by Jolee Faisal on 23 November, 2011 at a garden plot in Mangolo village at 100 m (3.905°S 121.567°E).

In July 2004, DD found Sooty-headed Bulbul near Mokalele village, Puriala, Konawe district in north Rawa Aopa, at two locations (4.106°S 122.073°E & 4.102°S 122.076°E). In 2009 AE made four observations: on 1 August, one was perched on a powerline along Muhammad Yamin road near the Sampa river crossing, about 12 km east of Kendari (3.982°S 122.398°E), and on the same day a second was on the verge of the Kolaka–Raterate road near Weso village, Laloloe subdistrict, Kolaka (4.027°S 121.785°E); On 2 August one was seen in Tinukari village (3.654°S 121.051°E) and 6 August one was in Kolaka city (4.049°S 121.590°E). On 26 November 2011 JAT recorded this species in south Rawa Aopa at the edge of riparian forest and savannah habitats on the outskirts of Lanowulu village, Tinanggea (4.459°S 122.123°E). Sooty-headed Bulbul is not listed in Suratin (2010).

The Sooty-headed Bulbul appears to have extended its range in southern Sulawesi into the south-east peninsula. Populations are evident from Saroako southward through the western foothills of the Mel Konga mountains to Kolaka, south to Rawa Aopa and east to Kendari, and it seems probable that the species has continued to spread from the original Makassar site. Based on Fitzsimons et al. (2011) and these new data, it may be expected to spread more widely on the island and indeed it has been found at several other widely separated sites (DDP pers. obs.).

Conclusions

Five million ha of forest were destroyed in Sulawesi between 2000 and 2010 (Miettinen et al. 2011), reducing populations of forest-dependent organisms but creating opportunities for other species. Both Lemon-bellied White-eye and Sooty-headed Bulbul can thrive in a variety of the habitats that replace harvested primary forest—secondary forest, open woodland, scrub, cultivation, village and urban gardens (Coates & Bishop 1997). These species, and others with similar habitat preference/tolerance, able to take advantage of change, benefit from the new availability of suitable anthropogenic landscapes.

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Diet and foraging behaviour of Purple Cochoa Cochoa purpurea in Namdapha National Park, India

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Introduction
The Purple Cochoa Cochoa purpurea is a scarce and secretive species found throughout the mid- to high-altitude broadleaved forests of the Himalaya, north-east India, China and South-East Asia (Robson 2008). The species is sluggish and often remains motionless in the canopy making it very difficult to see, particularly outside the breeding season when it is not vocal (C. Robson in litt.). Although the nest and eggs have been described (Whymper 1902), the diet and foraging behaviour of the species is poorly known. There are only two published records describing the diet of Purple Cochoa (from the gut contents of dead birds) (Baker 1924, D’Abreu 1931) and none documenting their foraging behaviour. They are thought to be facultative frugivores which feed on fruits and berries (species unknown), insects and molluscs (Baker 1924, D’Abreu 1931) and none documenting their foraging behaviour. Although the nest and eggs have been described (Whymper 1902), the diet and foraging behaviour of the species is poorly known. There are only two published records describing the diet of Purple Cochoa (from the gut contents of dead birds) (Baker 1924, D’Abreu 1931) and none documenting their foraging behaviour. They are thought to be facultative frugivores which feed on fruits and berries (species unknown), insects and molluscs (Baker 1924, D’Abreu 1931). They have been seen previously in Namdapha by birdwatchers, only one report has been published—three birds heard singing/calling at 2,059 m on 18 and 20 December 2008 (Srinivasan et al. 2010). However, at least two published articles report their presence in Mizoram and Arunachal Pradesh during winter and spring (Sangha et al. 2010) and at least one bird has been seen by birdwatchers in Nagaland on 6 January 2010 (S. Dalvi verbally). Because it is such a poorly known species, it is easy to make assumptions about its altitudinal limits and seasonal status.

Study area
Namdapha National Park (hereafter Namdapha) lies in Changlang district, eastern Arunachal Pradesh, India (27.392–27.661°N 96.251–96.976°E). It has an altitudinal range of 200–4,571 m and covers an area of 1,985 km². The east and south-east boundaries of Namdapha border northern Myanmar. It has a very high diversity of avian species and has been designated an Important Bird Area together with Kamlam Wildlife Sanctuary to the north (Islam & Rahmani 2004). All our observations of Purple Cochoa were on Hornbill Plateau (about 15 km²) in Namdapha during the winters of 2010–2011 and 2011–2012. The plateau lies at an altitude of 500–700 m and is primarily covered with tropical evergreen forest.

The lowland forests of Namdapha have large numbers of trees of the Lauraceae, Meliaceae and Moraceae families, including the following species which produce fleshy fruits between 21–29 mm in diameter: Prunus ceylanica, Beilschmiedia assamica, Phoebe paniculata, Phoebe sp., Alseodaphne petiolaris, Machilus dutthieii, Aphanamixis sp., Dysoxylum sp. and Canarium strictum (Datta 2001). These trees fruit during winter (November to February) and early summer (March to April) (Kanjilal & Bor 1998). The avian frugivores which are known to disperse the seeds of some, if not all, of these species in Namdapha are four species of hornbill, Mountain Imperial Pigeon Ducula badia, Great Barbet Megalaima virens and Hill Myna Gracula religiosa (Viswanathan 2012). Although it is believed Purple Cochoa have been seen previously in Namdapha by birdwatchers, only one report has been published—three birds heard singing/calling at 2,059 m on 18 and 20 December 2008 (Srinivasan et al. 2010). At the outset of our project, because of this paucity of records, we had not expected to observe Purple Cochoa in the study area and it had not been identified as a potentially important species in the context of our project on seed dispersal of forest trees.

Methods
As a part of our research project on seed dispersal by avian frugivores (RN unpubl. data, Viswanathan 2012), we systematically watched fruiting trees over two winter periods, November 2010 to March 2011 and November 2011 to February 2012. During each fruiting tree observation session, we watched frugivore behaviour for up to about four hours—starting between 06h00 and 06h30 and finishing between 10h00 and 10h30—while lying hidden in.

References


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