

# A population of Lemon-bellied White-eye *Zosterops chloris* from the south-eastern peninsula of Sulawesi

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The recent publication of a review of the taxonomy and distribution of the family Zosteropidae (van Balen 2008) has allowed us to reassess the importance of data collected during an expedition to the south-eastern region of Sulawesi (Sulawesi Tenggara) in 2007. Current literature suggests (Dickinson 2003) or states (van Balen 2008) that the Lemon-bellied White-eye *Zosterops chloris*, although present in various other parts of Sulawesi (race *mentoris* in the north-central part of the island, *intermedius* in the south and east), is absent from the south-eastern peninsula. The race *intermedius* is also known from Muna, Buton (or Butung) and Kabaena, and *Z. c. flavissimus*, separated from Buton by a sea barrier of 46 km, is known from the Wakatobi (or Tukangbesi) islands (van Balen 2008).

Our expedition was focused on collecting data for an island biogeographic study. Having gathered information on the Wakatobi birds (*Z. chloris flavissimus*) and Buton birds (presumably *Z. c. intermedius*), we sought to compare these populations with those of mainland Sulawesi. For 12 days in August 2007 we were based in the coastal village of Rumbarumba (4°25'S 122°48'E) on the tip of the south-eastern peninsula adjacent to Buton. We used fine-mesh North Ronaldsay mist-nets to trap the birds, concentrating our efforts in the mornings and evenings but moving our nets from one site to another each day, as local birds quickly learned to avoid them. Some of the sites were near to the coast and others were further inland. All sites were within a 10 km<sup>2</sup> area centred on Rumbarumba. We recorded wing length (maximum chord), tarsus length ('minimum tarsus': Redfern & Clark 2001), bill to skull, total head length (HB; also known as 'head plus bill length': Redfern & Clark 2001), tail length, bill depth and weight of all birds (Svensson 1992). To avoid the risk of mismatch due to measurement style, we only compared specimens measured by a single recorder (NMM).

During the 12 days we stayed at Rumbarumba we caught eight *Z. chloris* and 40 Pale-bellied White-eye *Z. consobrinorum*, the latter of which van Balen (2008) indicates as the only representative of the white-eyes to be recorded from this peninsula in recent years. As we were catching so few *Z. chloris*, we used a local recording of *Z. chloris* song to attract birds to the nets for the last three days. Even so, this only improved our catch at coastal sites; we caught no *Z. chloris* at the inland sites around Rumbarumba, leading us to suspect that the species may be a coastal specialist on the south-eastern peninsula.

We found that the biometrics of the eight Rumbarumba birds, all measured by NMM, were very similar to those of the five birds measured by NMM from the sample of 20 that were trapped on Buton in 1999–2007. These data are presented in Table 1, along with the results from comparative tests to indicate differences between the populations. Mann-Whitney U tests were used for between-population comparisons, as datasets were non-parametric owing to the relatively small samples.

**Table 1.** A comparison of biometrics ( $\pm$  standard deviation) from *Z. chloris* trapped at Rumbarumba, Sulawesi (n = 8), and adjacent Buton island (n = 5). HB stands for head plus bill length; NS indicates a non-significant result.

	Rumbarumba	Buton	Mann-Whitney U test
wing (mm)	58.9 $\pm$ 0.7	58.1 $\pm$ 1.6	NS
tarsus (mm)	17.3 $\pm$ 0.7	17.1 $\pm$ 0.1	NS
HB (mm)	29.4 $\pm$ 0.4	29.8 $\pm$ 0.6	NS
bill (mm)	14.8 $\pm$ 0.3	14.9 $\pm$ 0.9	NS
depth (mm)	2.9 $\pm$ 0.1	3.0 $\pm$ 0.0	NS
tail (mm)	40.9 $\pm$ 1.5	41.8 $\pm$ 1.1	NS
weight (g)	11.0 $\pm$ 0.4	11.2 $\pm$ 0.2	NS

The physical appearances of the birds at Rumbarumba and on Buton were also similar (photographs have been submitted with this note), so we assume that these two populations belong to the same subspecies (currently *Z. chloris intermedius*). However, as we have no data on *Z. chloris intermedius* from the southern or eastern peninsulas, we cannot comment on their similarity to the birds we found on the south-eastern arm. Moreover, as we have not ascertained the range of the *intermedius* population on the south-eastern arm, we do not know if it is reproductively separated from the southern arm (distance by sea is c. 160 km) or the eastern arm (distance to divergence of eastern arm from central Sulawesi: >250 km). On the other hand, we note that, since *Z. chloris intermedius* lives in sympatry with *Z. anomalus* on the southern arm, with *Z. consobrinorum* on the south-eastern arm and with *Z. montanus* and *Z. atrifrons* in the east of Sulawesi (van Balen 2008), it is possible that these three subpopulations may currently be exposed to different competitive pressures; competition between congeneric species may result in character displacement (Brown & Wilson 1956). It would be interesting to compare plumages and biometrics from these subpopulations of *intermedius* in order to determine whether indeed character displacement is evident.

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## First record of Demoiselle Crane *Grus virgo* for the Philippines

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On a trip to Calayan Island in northern Philippines in May 2009, we received information that a grey heron-like bird was being held captive by a local resident. On 22 September 2009 on a subsequent trip to the island we visited the residence of Conrado Duerme in Tugod, Barangay Centro II (19°16.0'N 121°28.1'E) and found a crane foraging around his backyard. The bird was less than 1 m tall, had an overall grey body, black head and neck, white crown, white stripe behind eyes with plumes extending beyond the head, and red-orange iris, which are unmistakable characteristics of Demoiselle Crane *Grus virgo*. Photographs and video of the crane were taken on that day and on 30 September 2009 (one photograph being submitted with this note).

The crane was first seen in July 2008 foraging in Mr Duerme's rice field with two other cranes. Mr. Duerme captured the crane with the use of a snare attached to a long stick. The two other cranes flew away and were not sighted again. Mr Duerme initially clipped the wing feathers of the captured bird but allowed them to grow back after some time. Since then, the bird has been observed to fly around Mr Duerme's rice field but it has always returned to his backyard, where it remains at the time of writing (C. Duerme verbally September 2009).

Demoiselle Crane breeds across Europe and Asia. The East Asian population winters in India but rare visitors have been recorded in Japan (Meine & Archibald 1996). The date the bird was captured on Calayan Island is unusual and may indicate that the cranes were very early migrants or overwintering birds or that the captor may have recalled the date of capture incorrectly. No rings or any identifying marks were found on the bird and we are unaware of reports of Demoiselle Cranes escaping from captive populations in nearby areas. Thus, the Demoiselle Crane found on Calayan Island is likely to be wild in origin, and we assume that the two birds found with it were of the same species. This record from the Philippines is the southernmost

observation of the species in East Asia. Sarus Crane *Grus antigone* is the only crane species previously known to occur in the Philippines but it may have been extirpated in the country (Kennedy *et al.* 2000).

The occurrence of vagrant birds in the small typhoon-prone islands north of Luzon is quite usual. Recent vagrants in the area include Cinereous Vulture *Aegypius monachus* on Batan Island, Pied Cuckoo *Clamator jacobinus* on Dalupiri Island, Orange-flanked Bush Robin *Tarsiger cyanurus* and the mainland Asian subspecies of Variable Dwarf Kingfisher *Ceyx erithacus erithacus* on Calayan Island (van der Ploeg & Minter 2004, Allen *et al.* 2006, Oliveros *et al.* 2008).

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