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A NEW WHITE-EYE (*ZOSTEROPS*) FROM THE TOGIAN ISLANDS, SULAWESI, INDONESIA

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ABSTRACT.—We encountered white-eyes (*Zosterops*) that did not match any known species during ornithological field observations in the Togian Islands, Gulf of Tomini, Sulawesi, Indonesia. Subsequently, we collected a specimen and made tape recordings. We consider the *Zosterops* of the Togian Islands to be a new species that differs most strikingly from the Black-crowned White-eye (*Z. atrifrons*) in lacking a white eye ring and in soft-part colors. The new species has a somewhat higher-pitched, less modulated song than *Z. atrifrons*. It seems uncommon and has been encountered only near sea level on three small islands, and it may be best considered Endangered. This brings the number of endemic species in the Togian Islands to two and, under BirdLife International criteria, this island group (which has recently been declared a National Park) now qualifies as an Endemic Bird Area. Received 17 April 2006. Accepted 25 May 2007.

The white-eyes (*Zosterops*) of Indonesia comprise a bewildering and diverse array of taxa. No fewer than 10 taxa in six species (Everett's White-eye [*Z. everetti*], Mountain White-eye [*Z. montanus*], Lemon-bellied White-eye [*Z. chloris*], Pale-bellied White-eye [*Z. consobrinorum*], Lemon-throated White-eye [*Z. anomalus*], and Black-crowned White-

eye [*Z. atrifrons*]; Mees 1961, White and Bruce 1986) have been conventionally recognized from the Sulawesi subregion alone. Despite this, it recently has become clear that Mees' (1961) classification substantially underestimates the diversity of *Zosterops* taxa of the Sulawesi subregion. Taxa formerly considered subspecies of *Z. atrifrons* that are clearly better considered full biological species include the Sangihe White-eye (*Z. nehrkorni*) and the extralimital Seram White-eye (*Z. stalkerii*) (Rasmussen et al. 2000, Dickinson 2003). Formerly synonymized subspecies of *Z. atrifrons* requiring recognition include *Z. a. subatrifrons* and *Z. a. surdus* (Rasmussen et al. 2000) and a probably undescribed form of *Z. atrifrons* occurs in south-central Sulawesi (Holmes and Holmes 1985). Most surprisingly, at least two distinctive new taxa have re-

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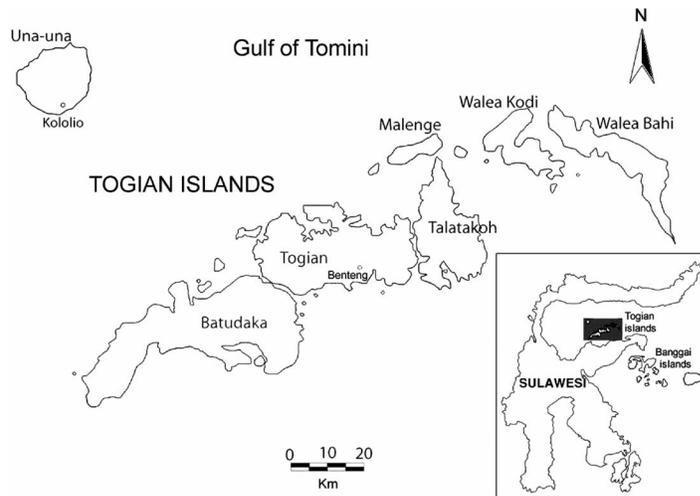


FIG. 1. Relevant localities in the Togian Islands, eastern Sulawesi, and the Banggai Islands.

cently been discovered; one, a member of the *Z. consobrinorum* group from Wangi Wangi in the Tukangbesi Islands (off Sulawesi's southeast peninsula) is still formally undescribed (Owen 2004; David Kelly, pers. comm.), while the other is the subject of this paper. We now know there are at least 15 taxa and 9–10 full biological species of *Zosterops* in the Sulawesi subregion. Few of these forms overlap in geographic range and several are restricted to one or two peninsular “arms” of Sulawesi or one or a few of its satellite islands. Even more taxa of *Zosterops* may await discovery in this highly complex and poorly surveyed region, not only in remote islands, but also in the less explored mountain ranges of Sulawesi's several peninsulas.

The first documented ornithological work in the Togian Islands (now also spelled Togeian Islands), Gulf of Tomini, Sulawesi, Indonesia (Fig. 1) was in August 1871 by A. B. Meyer (Indrawan et al. 2006). The only other bird collector to have worked there was J. J. Menden in the fall of 1939 (Indrawan et al. 2006). Subsequent ornithological work in the Togian Islands has been of limited duration and strictly observational. However, longer-term field observations in the Togian Islands (1–28 Aug 1996, 3–27 Jun 1997, and 11–18 May 2001) and Bangkurung Island (Banggai Archipelago, 2–8 Nov 1997) resulted in discovery of a new species of owl (Indrawan and Somadikarta 2004) and observations of white-eyes (Fron-

tispiece) in the field (by MI and Sunarto). White-eyes on the Togian Islands (but not those of Bangkurung) are similar in most characters to the Black-crowned White-eye (*Z. atrifrons*) of Sulawesi, except they entirely lack the white eye ring, which is prominent in adults of all forms of *Z. atrifrons* (Rasmussen et al. 2000, Dickinson 2003), and narrower but still conspicuous in juveniles (Rasmussen et al. 2000).

We observed *Z. atrifrons* in the eastern and northern peninsulas of Sulawesi to compare with our sightings in the Togian Islands. The observations in the eastern peninsula were in Tanjung Api Nature Reserve (16–19 and 24–27 Jan 2003), while those in the northern peninsula were in Tomohon (4–5 Jan 2002, 31 Jul 2003) and Tangkoko Nature Reserve (30 Jul 2003) (MI, unpubl. data).

MI revisited the Togian Islands in July 2003 and collected a single specimen (Frontispiece). This is the first museum specimen of *Zosterops* known from either the Togian Islands or Bangkurung Island. The Togian Islands specimen was directly compared by PCR at AMNH (acronyms in Acknowledgments) with 29 *Z. a. atrifrons*, two *Z. atrifrons* (race uncertain) from Siuna (00° 45' S, 122° 58' E), east-central Sulawesi, three *Z. a. surdus* from west-central Sulawesi, five *Z. a. sulaensis* from the Sula Islands, and four *Z. a. subatrifrons* from Peleng Island, Banggai Islands; at BMNH with six nominate *atrifrons*

and three *Z. anomalus*; at USNM with series of nominate *atrifrons* and *surdus*; and indirectly using photographs at RMNH with two *anomalus*, four nominate *atrifrons*, four *sulaensis*, and five *Z. stalkerii*.

We compared songs and calls of the white-eye from the Togian Islands with those of *Z. a. atrifrons* and *surdus* ($n = 4$), *Z. a. sulaensis* (1), *Z. nehrkorni* (1), *Z. h. hypoxanthus* of New Britain (2), and *Z. h. admiralitatis* of Manus (1); recordings of vocalizations of other taxa were unavailable to us. The new white-eye differs strikingly in plumage from other known taxa, being closest to *Z. a. atrifrons*, and it appears to differ consistently in song from *Z. atrifrons*. Given that the magnitude of the several differences exceeds those between most other currently recognized species of *Zosterops*, and that lack of an eye ring, iris color, and song differences could well serve as isolating mechanisms, the new taxon should be considered specifically distinct under the Biological Species Concept. We propose for it the name:

Zosterops somadikartai, sp. nov.
Togian White-eye

Holotype.—Museum Zoologicum Bogoriensis 30366, male, from Pulau Malenge (00° 15' S, 122° 03' E, ~50 m asl), Togian Islands, Gulf of Tomini, Sulawesi, collected 27 July 2003 by MI. Specimen in heavy molt of wing and body, and has lost feathers from right side of venter, lower undertail coverts, all uppertail coverts, and entire tail. Detached feathers saved at time of collection include one right and four left rectrices, one belly feather, two ventral flank feathers and three from more dorsally on the flanks, and five uppertail coverts. Holotype an adult based on compact feather structure, especially on nape and mantle; broad-tipped outer remiges in comparison with two known juvenile *surdus*; heavy molt; flaking tarsal scutes, and (as shown by a radiograph) evidently fully ossified cranium.

Diagnosis.—*Zosterops somadikartai* differs from nominate *atrifrons* (of northern Sulawesi) in its slightly less extensive black cap, which does not reach the upper rear eye and which appears to have a straight rather than oblique border at the rear edge; in its lack of a white eye ring (vs. a medium-width white eye ring); its clearer yellow throat, less invaded

by olive on the sides and the yellow not extending onto the upper breast; its whiter underparts; its slightly heavier bill than most *atrifrons*, with a distinctly pale base; and its reddish (vs. brown) iris. Measurements of the holotype suggest slightly different proportions from *atrifrons* (Table 1) but cannot be taken as definitive given that only a single individual of *somadikartai* was available for measurement. From *surdus* (of west-central Sulawesi), *somadikartai* differs in the same ways as from *atrifrons*, but is paler and brighter olive above and much clearer yellow on the throat. *Zosterops somadikartai* differs from *subatrifrons* (of Peleng Island, Banggai Islands) by its lack of a white eye ring (vs. a fairly broad white eye ring); its grayer breast, and its less extensive black crown. From *sulaensis* (of the Sula Islands), *somadikartai* differs by its lack of a white eye ring (vs. a very broad white eye ring); by its slightly narrower-based bill; its less extensive black crown; its grayish (vs. white) breast; and its duller yellow-olive upperparts. From *Z. m. minor* (of western New Guinea, which also lacks a white eye ring but which also has tiny white specks around the orbital skin), *somadikartai* differs in having a narrower-based bill; blacker (vs. grayish) bare skin around the eye; in having a black forecrown (vs. forecrown olive, essentially concolorous with mantle); in being much duller olive above; in having a gray (vs. white) breast; and in having a much duller, less orange throat. From *Z. anomalus* (of southern Sulawesi, which lacks a white eye ring but also has tiny white specks around the orbital skin), *somadikartai* differs in its smaller size; distinctly thinner bill (on dorsal view); black (vs. bright yellow-olive) forecrown and lores (vs. yellow); duller olive upperparts; less extensive, less bright yellow throat; blacker (vs. dark brown) wingtips; and whiter central underparts (*anomalus* is incorrectly shown as having a white vent in Coates and Bishop [1997]; it actually has a yellow vent as with *somadikartai*). No other regional taxa of *Zosterops* are as similar to *somadikartai* as those listed above.

Description of the Holotype.—Capitalized color and number descriptions follow Smithe (1975). Forehead from base of bill to above eye Jet Black (89); bare orbital ring blackish-gray with tiny white specks (latter visible only

at close range), surrounded by Jet Black feathered eye ring; rear crown and nape Citrine (51), grading on auriculars to Yellowish Olive-Green (50), and on lower sides of face to Olive-Yellow (52), then to Sulfur Yellow (157) at center of throat. Back Citrine, rump Yellowish Olive-Green. Wing coverts Olive-Green (Basic [46]), marginal coverts paler than Sulfur Yellow, alula Blackish Neutral Gray (82), primary and secondary edgings Yellowish Olive-Green, tips of primaries and secondaries between Blackish Neutral Gray and Jet Black, tertials Citrine, underwing coverts whitish. Upper tail coverts and rectrices detached and central rectrices missing and color cannot reliably be described. Rectrices dark brownish-black with weakly olive lateral edgings (as in many *atrifrons* and *surdus*) when arranged as in folded tail. Undertail coverts missing. Upper breast paler than Pale Neutral Gray (86), lower breast to belly and flanks white, tibial feathers white on internal side, grayer externally, vent Sulfur Yellow. Iris dark red (from photographs taken of holotype while living). In life, the basal third of the lower mandible was pale flesh, although when dried the bill of the same individual appears completely black except for the rami of the lower mandible, which are a dull pinkish horn. The bare fleshy eye ring was dark grayish in life, but is blackish in the specimen. The feet are fairly pale in the photograph in which they are visible, but are dark metallic horn in the specimen.

Measurements of the Holotype.—Measurements (mm) were taken by PCR. Head and body length of dried specimen (forecrown at base of bill to vent) ~65; culmen (from feathering) 11.0; wing arc 57; tail missing, but longest feather (from tip to proximal end of pigmentation on dorsal shaft) 40.2; tarsus 14.9 (Table 1).

Etymology.—We are pleased to name this new species after Professor Soekarja Somadikarta, Indonesia's leading avian taxonomist. Dr. Somadikarta encouraged the senior author to work on taxonomic aspects of birds of Sulawesi (resulting in the discovery of two new bird species), and for many years contributed significantly to Indonesian ornithology, especially in taxonomy.

Specimens.—The holotype is the only known specimen of *Z. somadikartai*.

REMARKS

Voice

Song.—The song of *Z. somadikartai* is a thin sweet warble, fairly similar overall to that of *Z. atrifrons* (Fig. 2), which is somewhat variable among available recordings. Successive song strophes of what is evidently the same individual of *atrifrons* are typically similar to one another. Five successive song strophes for *somadikartai*, probably from the same individual, are available and, despite the complexity of the song, all these strophes are extremely similar, differing at most by the dropping of a single note near the end of the strophe. The song sample of *somadikartai* differs consistently from that of *atrifrons* in sounding distinctly higher overall. There is broad overlap of frequencies between the two taxa, but the frequency range of *atrifrons* is broader (4.2 to 7.3 kHz for *somadikartai* vs. 3.0 to 7.7 kHz for *atrifrons*). The song of *somadikartai* also differs from *atrifrons* in being notably less modulated, with nearly all elements having a much narrower frequency range (maximum modulation per element 0.4 kHz for *somadikartai* vs. 2.4 kHz for *atrifrons*). Two of the three available song samples of *atrifrons* end with a faint 2- to 4-note “trill” of short chip notes and, although this appears to be lacking in the third sample, it may possibly have been too faint to appear in this poor-quality recording. None of the available song strophes of *somadikartai* has trills at the end or elsewhere in the song.

The song of *somadikartai* is much higher-pitched overall (frequency range 2.1 to 5.2 kHz in *sulaensis*) compared to *Z. a. sulaensis* (Fig. 2), considered in Rasmussen et al. (2000) to probably be a good species pending further study. The song of *sulaensis* has less frequency modulation than *atrifrons*, but more than *somadikartai*.

Calls.—MI tape-recorded numerous call notes in the presence of *Z. somadikartai*, but none resemble known call notes of *Z. a. sulaensis* and no tapes were available for call notes of *Z. a. atrifrons* or *Z. a. surdus* for comparison. Small flocks of *somadikartai* gave twittering chirrup, evidently similar to those described by Watling (1983) for *Z. a. surdus*. The calls, uttered while the birds were moving, aided in their detection.

TABLE 1. Measurements ($\bar{x} \pm SD$ (n)) of *Z. somadikartai*, Wallacean *Z. atrifrons* taxa, *Z. nehrkorni*, and *Z. anomalus*. Measurements of taxa other than *somadikartai* and *anomalus* are from Rasmussen et al. (2000). Primary shortfalls are distances from tip of each primary to wingtip of folded wing.

Variable	Taxon						
	<i>somadikartai</i>	<i>atrifrons</i>	<i>surdus</i>	<i>subatrifrons</i>	<i>sulaensis</i>	<i>nehrkorni</i>	<i>anomalus</i>
Culmen length from skull	13.8	13.3 ± 0.6 (34)	14.4 ± 0.7 (14)	14.2 ± 0.3 (5)	14.8 ± 0.6 (9)	15.9	15.3 ± 0.6 (5)
Bill width at nares	2.6	2.9 ± 0.3 (34)	2.9 ± 0.2 (14)	3.0 ± 0.2 (5)	3.0 ± 0.3 (10)	3.3	3.2 ± 0.1 (5)
Extent of black crown (adults)	7.0	10.6 ± 1.5 (31)	11.0 ± 1.6 (13)	15.3 ± 0.1 (2)	17.0 ± 1.4 (8)	9.1	
Wing length (flattened)	57	53.3 ± 1.2 (35)	57.1 ± 2.2 (14)	54.7 ± 2.4 (5)	56.6 ± 1.5 (10)	59.0	55.9 ± 2.1 (5)
P1 shortfall	6.3	5.6 ± 0.8 (29)	6.1 ± 1.1 (12)	6.0 ± 0.7 (4)	6.3 ± 0.9 (9)	6.9	5.7 ± 1.1 (3)
P2 shortfall	1.8	1.7 ± 0.6 (28)	1.9 ± 0.7 (12)	1.7 ± 0.2 (4)	1.9 ± 0.5 (9)	3.3	1.5 ± 0.5 (3)
P3 shortfall	0	0.2 ± 0.3 (27)	0.4 ± 0.6 (12)	0.4 ± 0.5 (4)	0.2 ± 0.6 (9)	1.4	0.7 ± 0.3 (3)
P4 shortfall	0	0.1 ± 0.3 (26)	0.1 ± 0.4 (12)	0.1 ± 0.2 (4)	0.0 ± 0 (9)	0.0	0.0 ± 0 (3)
Tarsus length	14.9	16.0 ± 1.1 (34)	17.7 ± 1.4 (14)	16.7 ± 0.9 (4)	16.4 ± 0.5 (8)	17.0	16.6 ± 0.6 (5)
Tarsus distal width	2.4	2.3 ± 0.2 (35)	2.4 ± 0.1 (14)	2.4 ± 0.0 (5)	2.5 ± 0.1 (10)	3.0	2.6 ± 0.2 (5)
Midclaw length	4.1	4.0 ± 0.4 (35)	4.2 ± 0.4 (14)	4.1 ± 0.5 (5)	4.3 ± 0.3 (8)	4.4	4.4 ± 0.2 (5)
Hallux claw length	5.6	5.1 ± 0.2 (34)	5.6 ± 0.2 (13)	4.8 ± 0.3 (4)	5.0 ± 0.4 (6)	5.8	5.6 ± 0.2 (5)
Hallux length	5.8	4.7 ± 0.4 (29)	5.1 ± 0.4 (12)	5.1 ± 0.3 (4)	5.1 ± 0.7 (9)	5.3	5.7 ± 0.4 (5)
Tail length	40.2 ^a	37.3 ± 1.2 (35)	40.3 ± 1.5 (35)	38.0 ± 2.7 (4)	39.7 ± 1.7 (10)	40.5	44.0 (1)

^a Length of longest detached feather to proximal end of pigmentation on dorsal side of calamus.

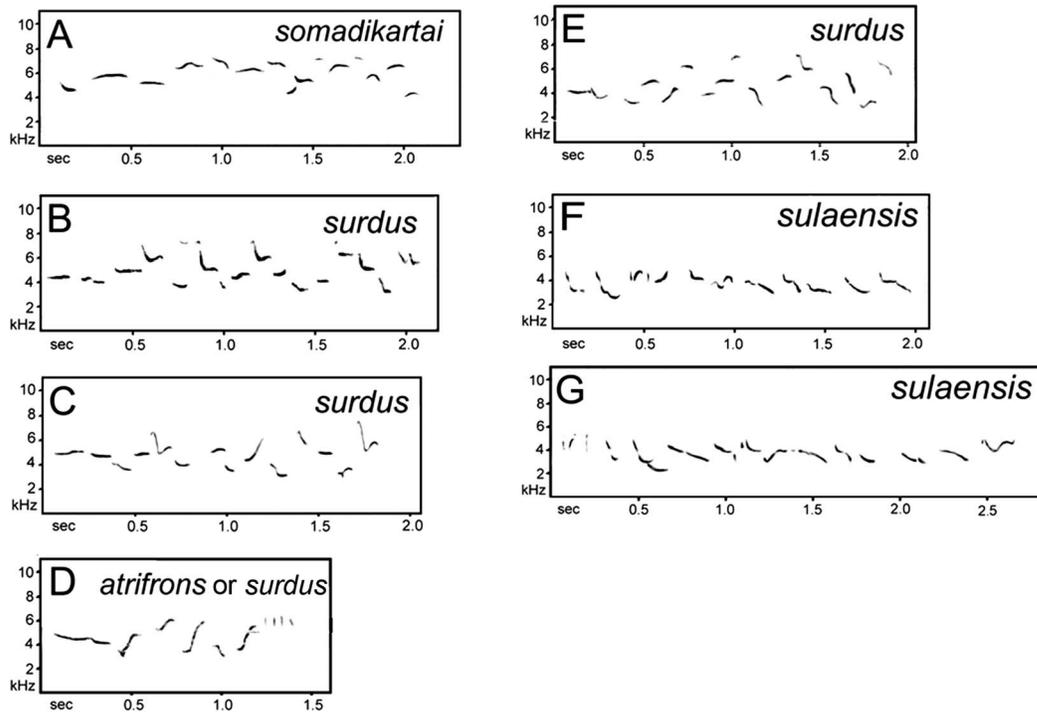


FIG. 2. Sonograms of (A) *Z. somadikartai*, recording by MI; (B) *Z. atrifrons surdus*, NSA 32916, Lore Lindu, Sulawesi, recording by Alan Greensmith; (C) *Z. atrifrons surdus*, NSA 45860, Lore Lindu, Sulawesi, recording by Steven Smith; (D) *Z. atrifrons* (subspecies uncertain, either *surdus* or *atrifrons*), NSA 13189, Sulawesi, recording by R. J. Watling; (E) *Z. atrifrons surdus*, NSA 113121, Sulawesi, recording by Clide Carter; (F, G) two recordings of *Z. a. sulaensis*, NSA 73891, Taliabu, Sula Islands, by Robert Lucking.

Rationale for Consideration as a Full Biological Species

The alpha taxonomy of few groups of birds is as difficult and ambiguous as that of the *Zosterops* white-eyes, given the large number of mostly allopatric taxa and the small number of morphological characters that vary among taxa. Taxa from widely disparate parts of the world can appear extremely similar without necessarily indicating close relationships. Numerous similar-looking white-eye taxa that were long treated as conspecific have recently been found to have high levels of genetic divergence inconsistent with subspecies status, for example among Micronesian (Slikas et al. 2000) and African and Indian Ocean taxa (Warren et al. 2006). In at least one African case, taxa formerly united as conspecific are not even sister taxa, instead being widely separated on the phylogenetic tree (Warren et al. 2006). The former unification of many dissimilar taxa under Black-crowned White-eye

(*Zosterops atrifrons*) is the only case of which we are aware in which just one “subspecies” (*minor*) of a polytypic species lacks a white eye ring, but *minor* was subsumed under *atrifrons* on the basis of a single putative hybrid specimen and is best treated as a separate species (Rasmussen et al. 2000). In the case of *Z. somadikartai*, it might be argued that it is just a strongly marked subspecies, but we consider that its level of distinctiveness is equivalent to that of Black-fronted White-eye (*Z. minor*) and numerous other taxa now usually treated as full species. In our view, the lack of an eye ring, the iris and bill color differences, and the divergence in song would likely act as isolating mechanisms. Hence we choose to describe *somadikartai* at the level of full species under the Biological Species Concept.

Distribution

Zosterops somadikartai is endemic to the Togian Islands, Gulf of Tomini, Sulawesi. It

has been recorded from several sites on Malenge Island (00° 15' S, 122° 03' E), Binuang, Talatakoh Island (00° 21' S, 122° 06' E), and two sites at Batudaka Island (00° 28' S, 121° 48' E). All records except for the holotype are sight records. All localities were below 100 m asl.

Several observations of the new white-eye were made by MI and Sunarto in the Togian Islands prior to the collection of the type specimen.

23 and 27 August 1996, and 21 June 1997 (Malangkat, Malenge Island).—Two, three, and two birds, respectively were observed traveling and foraging on low bushes (probably *Lantana camara*) near mangroves (*Avicennia* and *Sonneratia* spp. behind the mud-living *Rhizophora* sp. community). The observations lasted between 30 sec and 1 min each from a distance of ~20 to 40 m.

12 June 1997 (Malenge Village, Malenge Island).—Two birds were seen moving through a garden with coconuts (*Cocos nucifera*), other trees, and bushes. The observations were for about 30 sec from a distance of ~30 m.

23 and 28 June 1997 (Binuang, Talatakoh Island, 00° 21' S, 122° 06' E).—Three and two birds, respectively, were seen foraging in regenerating scrub at a logged-over forest site. Each group was observed for about 2 min each at a distance of ~10 and 20 m.

24 May 2001 (Tanempo, Batudaka Island, 00° 28' S, 121° 48' E).—One white-eye was briefly detected as it gleaned on exposed *Lantana* branches at 2-m height for ~5 sec, before being chased into the scrub by another white-eye. It perched and gleaned at a distance of ~15 to 20 m from us for about 3 sec. In this fleeting glimpse the bird appeared to have a narrow streak of white above the eye, although it clearly did not form an eye ring. This observation on Batudaka might differ from the others and confirmation is needed.

22 January 2003 (Bomba, Batudaka Island).—A possible additional record on Batudaka was made by Yunus Masala. Two white-eyes were observed calling and mating in a coconut grove on 22 January 2003. The birds were identified as *Zosterops anomalus*, based on their lack of a white eye ring (Y. Masala, pers. comm.). However, given the lo-

cality they were almost certainly *Z. somadikartai*.

In each of the above sightings by MI and Sunarto, the birds had a black mask covering the eye and cheek, not reaching the back of head or crown. They lacked a distinct white eye ring. The upperparts were olive and the tail dark. The throat was bright yellow, contrasting with the pale breast and underparts. The vent was yellow like the throat and contrasted with the rest of the underparts. The extent of yellow on the vent was moderate. The bill appeared black and the feet were grayish. These characters would have identified the birds as *Z. atrifrons*, except that no white eye ring was visible in all the birds observed, even from close range. The observations were of at least nine birds from four different localities on three islands within the Togian Islands.

Observations of White-eyes in the Banggai Islands.—MI made four sightings of at least three different white-eyes in the scrubby gardens of Kalopapi (Bangkurung or Bangkulu Island, 01° 50' S, 123° 06' E; BAKOSUR-TANAL [1993]) in the Banggai Islands. In these observations, the eye ring was strikingly large, resembling that of *Z. a. sulaensis*. This contrasted to MI's earlier observations (Indrawan et al. 1997) of at least eight individual white-eyes in Peleng and Banggai (Banggai Island group, which is closer to the Sulawesi mainland) in which the eye ring appeared less extensive, resembling *Z. a. atrifrons* and *Z. a. surdus* of mainland Sulawesi. The four AMNH specimens from Peleng, Banggai Islands (race *Z. a. subatrirfons*) are somewhat variable in eye ring size but are intermediate between *sulaensis* and *atrirfons*. Birds apparently with large eye rings were also observed on Banggai Island itself in 1981, but were identified as *Zosterops* cf. *chloris* (Bishop 1992). It may well be that a distinct form occurs on the outlying island of Bangkurung, or this population may be indistinguishable from *sulaensis*, but further observations and probably specimen collection will be necessary. The white-eye observations for Bangkurung were mostly in the hills, above 100 m, where the bird appeared to be moderately common in small flocks, in contrast to *somadikartai* of the Togian Islands.

Observations of White-eyes in the Eastern Peninsula of Sulawesi.—It is not clear from

the literature (e.g., White and Bruce 1986) whether any form of *atrifrons* is known from the eastern peninsula of Sulawesi. However, MI observed white-eyes in mixed garden shrubs in Tanjung Api Nature Reserve (00° 50' S, 121° 37' E) in the eastern peninsula of Sulawesi in 2003. Four birds from different flocks that MI observed fairly well had a clear white eye ring, and other characters (black face mask, olive mantle, and dull yellow throat) identifying them as *Zosterops atrifrons*. Their bills appeared dark and their legs gray. Two AMNH specimens recently collected from Siuna (00° 45' S, 122° 58' E), close to the base of the Balantak Mountains near the eastern tip of east-central Sulawesi, are similar in appearance to nominate *atrifrons*.

Ecology and Behavior

The ecology of birds and habitats in the Togian Islands is described in Indrawan et al. (2006). Monsoon and evergreen forest, interspersed with mixed gardens of coconut, clove (*Syzygium aromaticum*), cacao (*Theobroma cacao*), and durian (*Durio zibethinus*) characterize the general vegetation of the island group. The habitats in which we found *Z. somadikartai* range from mangrove to secondary vegetation and mixed gardens, all in the lowlands (<100 m asl). We did not detect the species at higher altitudes in our survey.

Zosterops somadikartai is gregarious, foraging in twos and threes, and it roosts in groups of up to five birds. The birds often foraged actively throughout the day until about sunset before retiring to roost. They fed on insects, including caterpillars, frequently by gleaning them from branches and below leaves. They often foraged in dense shrubs, possibly because these microhabitats had more insects. The roosts were typically in shrubs 5 to 15 m high, such as *Macaranga* and larger bamboos, in which they perched at 4 to 10 m above ground. An observation was also made of two birds roosting in the mid-canopy of mangroves at 1130 UTC+8.

Conservation Status

Our limited observations suggest that *Zosterops somadikartai* may be localized and uncommon. The bird definitely occurred in at least three of the six main islands of the Togian Islands, namely Malenge, Talatakoh, and

Batudaka (Fig. 1). It has not been found on Togian and the Walea islands, although its presence on these islands could have been overlooked. That all previous collectors and observers failed to detect this species supports the conclusion from our fieldwork of its scarcity.

The present surveys allow us to suggest an IUCN threat category (IUCN 2001) for *Z. somadikartai*. The extent of occurrence of the entire population is <5,000 km². The population appears to be severely fragmented and the species is known to exist on just three islands. Our surveys also project that area, and extent and quality of habitat are likely to decrease further due to conversion and overexploitation of resources. We believe the taxon should be assigned "Endangered" status based on these IUCN criteria (EN, B, 1, a, b, iii). However, it does occur in some anthropogenic habitats, and further fieldwork is clearly needed to establish its population size and ecological requirements.

Endemic Bird Areas (EBAs) encompass the complete ranges of two or more restricted-range species, defined as species with an estimated total global breeding range below 50,000 km² (ICBP 1992, Stattersfield et al. 1998). The Togian Islands merit EBA status, given the presence there of another recently discovered endemic, Togian Hawk Owl (*Ninox burhani*) (Indrawan and Somadikarta 2004). The recently created Togeian Islands National Park should afford these new bird species some of the protection necessary for their survival.

Note Added in Proof.—*Zosterops somadikartai* was observed in two different areas of Malenge Island on 14 and 15 December 2007, and a freshly dead individual was found just outside Malenge village (Raphael Jordan and Benoit Seeger, in litt.). This bird was not salvaged but a digital photograph shows it to be similar to the holotype. There is a large area of bare dusky circumorbital skin, bluish in front of and above the eye and below and behind the eye, with a few tiny white feathers forming barely visible white specks around the upper and lower front edges of the eye (but not on the cranial or caudal edges and not nearly forming a complete ring). Iris dark red; base of lower mandible pale pinkish horn,

contrasting with the black distal two-thirds; tarsi, toes, and claws light bluish-silver, joints slightly darker; undertail coverts pale clear yellow; and rectrices dusky black with indistinct yellowish-green edgings.

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