# Threatened Birds of Asia: The BirdLife International Red Data Book

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#### **Recommended citation**

BirdLife International (2001) *Threatened birds of Asia: the BirdLife International Red Data Book.* Cambridge, UK: BirdLife International.

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ISBN 0 946888 42 6 (Part A) ISBN 0 946888 43 4 (Part B) ISBN 0 946888 44 2 (Set)

British Library-in-Publication Data A catalogue record for this book is available from the British Library

First published 2001 by BirdLife International

Designed and produced by the NatureBureau, 36 Kingfisher Court, Hambridge Road, Newbury, Berkshire RG14 5SJ, United Kingdom

Available from the Natural History Book Service Ltd, 2–3 Wills Road, Totnes, Devon TQ9 5XN, UK. Tel: +44 1803 865913 Fax: +44 1803 865280 Email nhbs@nhbs.co.uk Internet: www.nhbs.com/services/birdlife.html

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# **ELEGANT SUNBIRD** *Aethopyga duyvenbodei*

Critical □ — Endangered ■ B1+2b,c,e Vulnerable □ C1



This subird is apparently confined to one very small island, where its population is severely fragmented and undergoing a continuing decline owing to habitat loss and degradation. It thus qualifies as Endangered.

**DISTRIBUTION** The Elegant Sunbird is currently known only from the island of Sangihe, north of Sulawesi, Indonesia, with an old record from neighbouring Siau. In the mid-1990s there were two main centres of population, focused on Gunung Awu and Gunung Sahendaruman (Riley 1997a). Gunung Sahendaruman is the single most important site for the species (Riley *et al.* 1997, J. C. Wardill *in litt.* 1999). Records are from:

■ *INDONESIA Sangihe* Talawid Atas (300 m), 1995 (Riley 1997a,b); Gunung Awu, May 1986 (Collar and Andrew 1988, Bishop 1992a) and at 900 m there, 1995 (Riley 1997b); Tabukanlama (Tabukan), around 1874 (Blasius 1888, Meyer and Wiglesworth 1898); Kedang (Ketang), 1995 (Riley 1997a,b); Petta (Pejta, Petja), around 1877 (Blasius 1888); edge of Tahuna, February 1999 (J. C. Wardill *in litt*. 1999); above Gunung village, Manganitu, central Sangihe, February 1999 (J. C. Wardill *in litt*. 1999); south of Manganitu, 600 m, May 1985 (Riley 1997b; eight specimens in RMNH); Gunung Sahendaruman, mid-1980s (Collar and



Andrew 1988), with adjacent Gunung Sahengbalira, Gunung Palenti and Kentuhang, 1995 (Riley 1997b); **Ulung Peliang** at the foot of Sahendaruman, 75 m, 1995 (Riley 1997b), and on the Kentuhang river, November 1998 (J. C. Wardill *in litt*. 1999);

Siau unspecified locality, 1866 (White and Bruce 1986).

**POPULATION** Only a single observation of five birds was made in four days of fieldwork in 1986, triggering expression of concern that "this sunbird may now be one of the most endangered species in Wallacea" (Bishop 1992a). However, in 1985 the species had been common at the forest edge on Gn Sahendaruman (Collar and Andrew 1988; date from RMNH label data), in 1995 the species was found to be regular at low densities at seven localities, with a total of 28 birds being seen in 16 encounters (Riley 1997b), and in 1998–1999 it was the most commonly encountered species in the Sahendaruman forest and in secondary wooded habitats on the forest edge, suggesting fairly high densities (J. C. Wardill *in litt*. 1999). Review of these data tends to suggest that the population is 8,600 birds (range 6,600–11,100) at Gunung Sahendaruman, but further work is needed before these figures are finalised (J. Riley *in litt*. 2000). Moreover, if forest is its *core* habitat (i.e. the only one in which the species can successfully breed), then the effective population size may be very much smaller than the total population size.

Searches on Siau in 1995 and in August and October 1998 proved negative, and either the record under Distribution involved a mislabelled specimen or the species has become extinct or at least very rare on Siau (Riley 1997a, F. R. Lambert, J. C. Wardill *in litt*. 1999).

**ECOLOGY** *Habitat* The species is strongly associated with forest, although it ranges widely out into heavily modified areas. In 1985 birds were found in primary forest, forest edge, low scrub at the forest edge and a patch of tree-ferns at the edge of primary forest (RMNH label data; also Collar and Andrew 1988). In 1995 they were also found in areas of mixed plantation adjacent to remnant patches of forest, usually singly or in pairs within mixed species flocks, associating in particular with other sunbird and flowerpecker *Dicaeum* species, with an altitudinal range from 75 m to 1,000 m, and keeping mainly in the subcanopy (Riley 1997a,b). It appears that birds will enter agricultural areas, including coconut plantations, so long as large hardwood trees persist in the vicinity and preferably with a good scrubby understorey, but they are seemingly absent from coastal areas under coconut (J. C. Wardill *in litt*. 1999). Riley (1997a) explicitly noted that the species is absent "from large areas of Sangihe", possibly as a result of its forest dependence.

*Food* Birds take nectar from coconut and other flowers and glean invertebrates from dead leaves, rattan vines, dead ferns, various tree species and spiders' webs (Riley 1997a,b). Insect-rich plants visited include coconut, clove, pandan palms, bamboo and durian (Riley 1997a). They take nectar from small (2 cm) tube-shaped scarlet flowers of an unidentified shrub growing on fallow in forest edge areas on Sahendaruman (J. C. Wardill *in litt*. 1999). They commonly join mixed feeding flocks with Black Sunbird *Nectarinia aspasia*, Yellow-sided Flowerpecker *Dicaeum aureolimbatum* and Grey-sided Flowerpecker *D. celebicum* (Riley 1997a). In early November 1996 it was noted that males and females tended to feed in separate groups; while no differences were apparent in food choice or site selection, the difference in bill length (20.5 mm in females, 23 mm in males) and curvature (more down-curved in males) was notable (Riley 1997a). Inside forest they feed mostly in the canopy and subcanopy but occasionally visit flowers, including an *Areca* palm, in the understorey (F. R. Lambert *in litt*. 1999).

**Breeding** Birds in May had fairly large gonads (RMNH label data) and a juvenile was observed on 1 September 1995 (Riley 1997b,c). Many juveniles were seen in forest and edge on Sahendaruman in early August 1998 (J. C. Wardill *in litt*. 1999), and a probable deserted nest (deposited in BMNH) was found in late August (F. R. Lambert *in litt*. 1999). Nevertheless

it was noted that the single-sex feeding groups of early November 1996 (see above) began to break down later in the month, and interactions (singing, lek-like displaying, seeming nest-attendance in deep vegetation) tended to suggest the onset of breeding activity at that time (November–December) (Riley 1997a), so it is possible two breeding seasons exist on the island.

**THREATS** The Elegant Sunbird is one of (now) seven threatened members of the suite of (now) 10 bird species that are entirely restricted to the "Sangihe and Talaud Endemic Bird Area" (see Remarks 6 under Caerulean Paradise-flycatcher *Eutrichomyias rowleyi*), threats and conservation measures in which are profiled by Sujatnika *et al.* (1995) and Stattersfield *et al.* (1998). As with the Sangihe Hanging-parrot *Loriculus catamene* (see Threats under that species), the use of plantations by this sunbird is no certain guarantee that it can survive without adjacent forest patches (Riley 1997b). It is therefore highly vulnerable to any further degradation of the tiny amount of primary forest remaining on Sangihe (see Threats under Sangihe Shrike-thrush *Colluricincla sanghirensis*). Its persistence on Gunung Awu cannot be guaranteed as forest on the lower slopes is being cleared rapidly (Riley 1997a). In addition, agricultural intensification in Sangihe's lowlands, involving the felling of big trees in agricultural land and the clearance of understorey scrub in coconut plantations, reduces the species's use of such areas (J. C. Wardill *in litt.* 1999). The species can no longer be found at Tabukan, a coastal town now surrounded by coconut plantations (Riley 1997a).

On Siau clearance of forest has been near-total, and as few as 50 ha of forest appear to remain (see equivalent section under Siau Scops-owl *Otus siaoensis*).

**MEASURES TAKEN** This species has been protected under Indonesian law since 1931 (Inskipp 1986), and it was included on the list of protected Indonesian species passed into law in January 1999 (J. C. Wardill *in litt*. 1999). The initiatives by Action Sampiri in respect of the Gunung Sahendaruman Protection Forest are outlined in the equivalent section under Caerulean Paradise-flycatcher.

A search for the species on Siau in October 1998 regrettably drew blank (J. C. Wardill *in litt*. 1999).

**MEASURES PROPOSED** The conservation of remaining forest at Gunung Sahendaruman is critical for the survival of this species. Some information is given in the equivalent section under Caerulean Paradise-flycatcher.