

Threatened Birds of Asia:

The BirdLife International Red Data Book

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VISAYAN TARICTIC

Penelopides panini

Critical —

Endangered A1c,d; A2c,d; B1+2a,b,c,d,e; C1; C2a

Vulnerable D2



This species has a very small, severely fragmented and rapidly declining population as a result of lowland deforestation and hunting. Furthermore, it is estimated that it has a very small occupied range on the two islands where it survives, with perhaps just 10% of remaining forest (c.144 km²) below 1,000 m. These factors together qualify it as Endangered.

DISTRIBUTION The Visayan Tarictic (see Remarks 1 under Mindoro Tarictic *Penelopides mindorensis*) is endemic to the Philippines in two subspecies on four main, one minor and two offshore islands (although extinct or probably so on three, including one race): nominate *panini* on Panay, including Sicogon and Pan de Azucar (two tiny islands off the north-east), Guimaras, Negros and Masbate, race *ticaensis* on Ticao (Dickinson *et al.* 1991). Specific locality records (north to south) are:

■ **PHILIPPINES** *Ticao* **Calpi**, Danao, San Jacinto, 60–120 m, July 1971 (three specimens in AMNH, PNM; duPont 1972a), but now almost certainly extinct on the island (Curio 1994);

Masbate **Palanoc**, November 1892 (six specimens in AMNH, CM); **Matipuron** (captured fledgling), July 1993 (Curio 1993); unspecified locality, April and May 1888 (seven specimens in AMNH, BMNH); **Dumurug Point**, April 1908 (Mearns 1909b);

Panay **Malumpati**, Pandan, Antique, May 1996 (Y. de Soye *in litt.* 1997); **Danao**, Libacao, Aklan, March 1987 (female in PNM); **Alojipan**, Culasi, 1994, five in a reforested area (Diesmos and Pedregosa 1995); **Mt Madja-as** in Hantod-tubig, Antique, recently, including five in November 1992 (Diesmos and Pedregosa 1995), one at 800 m in August 1994 (T. M. Brooks *in litt.* 1997) and several in August 1997 (D. Allen verbally 1997); **Mt Balabag** at Hamtang Forest, up to 1,100 m, where 26 active nests were found in May 1995 and another six reported but not confirmed (Curio *et al.* 1996b; see Population); **San Jose de Buenavista** (designated type locality), before 1783 (see Kemp 1995);

Sicogon **Barangkalan**, May 1969 (Alcala and Sanguila 1969), but no birds found, February 1992 (Evans *et al.* 1993a);

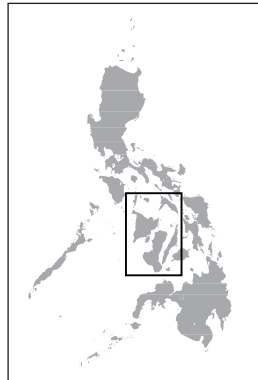
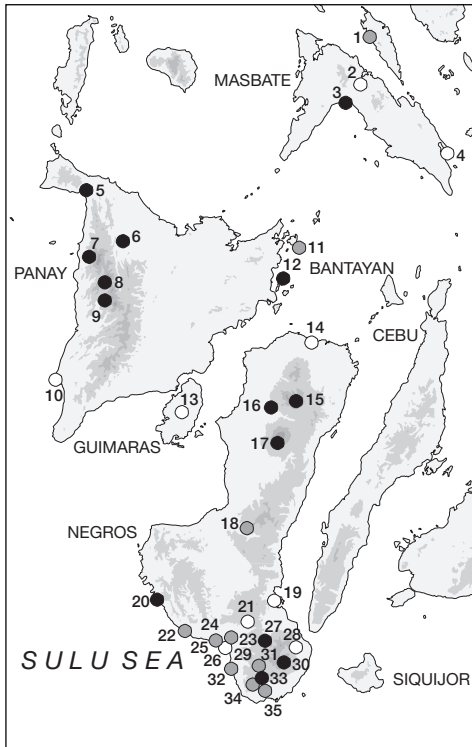
Pan de Azucar unspecified locality, April–May 1969 (Alcala and Sanguila 1969); unidentified naturally regenerated forest, 1994, in which a pair was sighted (E. A. Gatumbato verbally 1995);

Guimaras “near Ilo-Ilo” (presumably i.e. facing Ilo-Ilo across the strait), January 1888 (female in MCZ), and at an unspecified locality, same month and year (10 specimens in AMNH, BMNH, RMNH; also Finsch 1903);

Negros **Cadiz**, 1875 (Sharpe 1877); **Mt Mandalagan**, July/August 1991 (Brooks *et al.* 1992), and by report in 1994 (Diesmos and Pedregosa 1995); near **Patag**, North Negros Forest Reserve, 1995, with two nests verified (Curio *et al.* 1996b, Y. de Soye *in litt.* 1997); **Mt Canlaon**, March 1896 (Ogilvie Grant 1896c, Whitehead 1899c; two specimens in BMNH), April–May 1953 (Ripley and Rabor 1956), and several times since January 1994 (Hornbuckle 1994, C. R. Robson *in litt.* 1994, Diesmos and Pedregosa 1995, F. Verbelen *in litt.* 1997), and at Mambucal, May 1987 (Jensen and Hornskov 1992) and July–August 1991 (Brooks *et al.* 1992, Evans *et al.* 1993a); **NONAS** (Negros Occidental National Agricultural School), 18 km east of Kabankalan, June 1968 (Gonzales *et al.* 1968); **Bais** at Mabaha, May 1949 (female in UPLB); **Hinoba-an** at Sangki, Panganawan, March 1979 (S. Alonzo-Pasicolan verbally 1993),

1994 (M. Ebreo verbally 1995); **Amio** at Pamo-at, April and May 1948 (six specimens in FMNH), and at Karahaan, May 1948 (four specimens in FMNH); **Basay**, Bayawan, December 1959 (10 specimens in AMNH, FMNH), specifically at Kansan-a, December 1964 (two females in UPLB); **Hinubangan**, Santa Catalina, in the Decembers of 1949, 1951 and 1953 (10 specimens in AMNH, FMNH, MCZ, PNM, UPLB); **Balangbang**, Tolong, 450 m, May 1950 (male in MCZ); **Candomao**, Tolong, April 1950 (male in PNM); **Naliong**, Tolong, May 1950 (three specimens in KUMNH, PNM); **Lake Balinsasayao**, May 1984 (female in UMMZ) and several times (up to five birds together) since mid-1991 (Brooks *et al.* 1992, C. R. Robson *in litt.* 1994, R. Pa-alan verbally 1995, Diesmos and Pedregosa 1995, F. Verbelen *in litt.* 1997); **San Antonio**, November 1888 (two specimens in BMNH); **Sicopon river**, Oriental, December 1947 (two specimens in FMNH); **Mt Talinis**, 1,090 m, January 1956 (two specimens in AMNH), reported in 1994 (Diesmos and Pedregosa 1995), near Maiti Creek at 700 m in 1991–1992 and 1994 (R. Pa-alan verbally 1995), at Casa Roro, January 1994 (Hornbuckle 1994), and at Valencia, August 1877 (Tweeddale 1878c); **Tampaga**, Siaton, January 1957 (male in FMNH); **Pasong**, Manalongon, Santa Catalina, October 1953 (female in UPLB); **Mantiquil**, Siaton, 1991–1992 (R. Pa-alan verbally 1995); **Lake Balanan**, Siaton, October 1958 and September and December 1960 (four specimens in UPLB); **Tayak**, Siaton, August 1953 (female in UPD); Lake Yagomyom (untraced), February 1995 (R. Pa-alan verbally 1995).

In addition to these sites, the species has been reported by local people at the following sites: (*Panay*) Mt Inaman, Mt Baloy, Mt Mudbud, Mt Nangtud, Mt Igdapdap, Mt Gubulon-Malumpati and Mt Tinagtacan, all in 1994 (Diesmos and Pedregosa 1995); Bulabong Putian National Park, Dingle and San Enrique, February 1992, with a major decline claimed (Evans *et al.* 1993a); Sampunong Bolo National Park, where reported by hunters to have



The distribution of Visayan Tactic *Penelopides panini*: (1) Calpi; (2) Palanoc; (3) Matipuron; (4) Dumurug Point; (5) Malumpati; (6) Danao; (7) Alojipan; (8) Mt Madja-as; (9) Mt Balabag; (10) San Jose de Buenavista; (11) Barangkalan; (12) Pan de Azucar; (13) Guimaras; (14) Cadiz; (15) Mt Mandalagan; (16) Patag; (17) Mt Canlaon; (18) NONAS (Negros Occidental National Agricultural School); (19) Bais; (20) Hinoba-an; (21) Amio; (22) Basay; (23) Hinubangan; (24) Balangbang; (25) Candomao; (26) Naliong; (27) Lake Balinsasayao; (28) San Antonio; (29) Sicopon river; (30) Mt Talinis; (31) Tampaga; (32) Pasong; (33) Mantiquil; (34) Lake Balanan; (35) Tayak.
○ Historical (pre-1950) ● Fairly recent (1950–1979)
● Recent (1980–present)

become locally extinct around 1990 (R. J. Timmins *in litt.* 1994); reputedly Malayuan, Ajuy, until hunted out in 1990 (Brooks *et al.* 1992); (Negros) Mt Makawili, Mt Silay, Mabato (Ayungon) and Payauan (Candoni), all in 1994 (Diesmos and Pedregosa 1995); Guintubdan, July/August 1991 (Brooks *et al.* 1992).

POPULATION This species was “very common in many parts of Panay, Guimaras, Negros, and Masbate” in the 1880s and 1890s (F. S. Bourns and D. C. Worcester in McGregor 1909–1910), but it has now become rare or extinct on all the islands within its range. The total number of birds remaining is very difficult to assess, but generally the species appears to be 15–30 times more frequently recorded than the Critically Endangered Visayan Wrinkled Hornbill *Aceros waldeni*, which is estimated to retain 60–80 pairs (see relevant account), so a precautionary view (i.e. 15×60) admits 900 pairs for Panay and Negros, which effectively represents the total world population (Y. de Soye *in litt.* 1998).

Ticao The species was “abundant” at the start of the century (McGregor 1905b). There are no recent reports from the island, which is almost wholly deforested (Brooks *et al.* 1992, Evans *et al.* 1993a). Relict patches survive on the Kumavit peninsula and on hilltops at Biton, but interviews with local people gave no hint of the species’s survival, and it is now almost certainly extinct there (Curio 1993, 1994).

Masbate The species is now critically endangered on the island (Curio 1994).

Panay In Antique province the species was very scarce at the localities visited and only a single specimen was collected (McGregor 1921a). However, although threatened through habitat loss, the species is commoner than the Visayan Wrinkled Hornbill, and appears to be widely distributed in remaining forests (Diesmos and Pedregosa 1995, Curio *et al.* 1996c). It was recently reported as locally common (W. R. L. Oliver *per* G. C. L. Dutson *in litt.* 1994), “fairly common” in the mountains of western Panay (Curio *et al.* *in prep.*), and “quite common” on the lower slopes of Mts Baloy, Madja-as and Nangtud and in the interior of the Panay mountain range (Diesmos and Pedregosa 1995), with parties of up to eight recorded at Dalagsaan in 1994 (Robson 1994). In 1995 26 nests were found in Hamtang forest (see Distribution), and in 1996 a total of 31 nests was verified there (Y. de Soye *in litt.* 1997). Diesmos and Pedregosa (1995) nevertheless considered it to be rare outside the boundaries of the proposed Central Panay Mountains National Park. It reportedly survived at Malayuan, Ajoy, in small patches of forest and second growth, until hunted out in 1990 (Brooks *et al.* 1992, Evans *et al.* 1993a).

Sicogon The species has almost certainly been hunted to extinction (Brooks *et al.* 1992).

Pan de Azucar In 1969 it was being “pushed out of existence by the destruction of natural vegetation” on the island, which was by then already “relatively denuded” (Alcala and Sanguila 1969). The single pair seen in 1994 may have been survivors or new colonisers.

Guimaras The species is now presumed to be practically or actually extinct (Collar *et al.* 1994).

Negros The Visayan Tarictic was “fairly common” on Negros in the nineteenth century (Eagle Clarke 1900) and “common” at the base of Mt Canlaon in the 1890s (Whitehead 1899c). It was very frequently encountered in March 1979 inside primary forest at Hinoba-an, Negros Occidental, within the ILCO logging concession area (S. Alonzo-Pasicolan verbally 1993). It has also been recorded fairly regularly from Negros over the last few decades (e.g. Erickson and Heideman 1983, Jensen and Hornskov 1992), but it seems to have become increasingly rare, with a minimum of nine and a maximum of 20 recorded during fieldwork in 1991 (Brooks *et al.* 1992). It was rare in fieldwork on Mt Talinis, 1991–1992 (Pa-alan 1993). From 1992 to 1995 only two individuals each were encountered at Mt Talinis, Siaton, Lake Yagomyom and Hinoba-an, with three in Lake Balinsasayao (M. Ebreo and R. Pa-alan verbally 1995). Villagers questioned by Diesmos and Pedregosa (1995) reported that the hornbill is now rarely seen, but that it remains less scarce than Visayan Wrinkled Hornbill.

ECOLOGY Habitat The Visayan Tarictic is a bird of primary evergreen dipterocarp forest, sometimes wandering into mid-montane formations, secondary forest or isolated fruiting trees (Rabor 1977a, Kemp 1995). It is generally observed fairly low in the canopy, occasionally foraging on the forest floor (D. Allen verbally 1997), usually at the forest edge or by clearings, perhaps indicating an ecological separation from Visayan Wrinkled Hornbill (Brooks *et al.* 1992, Evans *et al.* 1993a), these authors pointing out an analogous situation on Sulawesi, where a *Penelopides* occupies a subcanopy niche and an *Aceros* is generally found in the canopy (Whitten *et al.* 1987c); such a circumstance was also suggested by local inhabitants questioned by Diesmos and Pedregosa (1995). The Visayan Tarictic appears to require tall forest below 1,050–1,100 m (Brooks *et al.* 1992), although *A. waldeni* goes somewhat higher (Diesmos and Pedregosa 1995); however, hunters reported that *P. panini* was being found increasingly at higher altitudes up to 1,500 m (Diesmos and Pedregosa 1995), birds perhaps moving upslope in response to lowland deforestation. It is possible that *P. panini* occurs at higher population densities in forest-edge habitat, as would appear to be the case for Mindoro Tarictic and Mindanao Tarictic *P. affinis*, but there is insufficient lowland forest away from forest edge on Negros to be sure of this (Brooks *et al.* 1992, Evans *et al.* 1993a). On Panay, however, nests in Hamtang forest were frequently located in forest fragments of a few hectares, sometimes even 1–2 km from the nearest adjacent tracts (E. Curio *in litt.* 1997, Y. de Soye *in litt.* 1998).

Food Several specimens are labelled as having been taken, unsurprisingly, in fruiting trees (MCZ label data), and the species commonly visits fig trees (Diesmos and Pedregosa 1995). Its food has been reported as fruit and occasionally beetles (F. S. Bourns and D. C. Worcester in McGregor 1909–1910), and indeed the stomach of a specimen collected at NONAS held beetles, wood-borers and medium-sized berry seeds (Gonzales *et al.* 1968). However, lizards (*per* D. Allen verbally 1997) and earthworms (Rabor 1977a) have also been reported among animal foods. The statement that the species hawks flying ants, attributed by Kemp (1995) to Gonzales and Rees (1988), referred to *Penelopides panini* in the broad sense (i.e. all Philippine *Penelopides*), and may have been based on observations of non-Visayan birds.

Breeding As with other hornbills, the female is sealed into the nest by the male for the duration of incubation (Hachisuka 1931–1935), but the assertion that the female becomes flightless during her moult at this time (Kemp 1995) appears to be based on assumption (McGregor 1909–1910) rather than direct observation. On Ticao, May 1902, three nests were located: the first (3 May) in a tree near a small stream, 12 m from the ground, with two young and an addled egg; the second (9 May) 16 m from the ground, with three eggs; the third (25 May) was in the cavity of the first nest, but eggs had not then been laid (McGregor 1905b; see Remarks 1). On Negros in the period January 1977 to July 1978 the five nests found were grouped in the period June–September (Alcala and Carumbana 1980). On Masbate a nearly fledged bird was found being hand-reared in July 1993 (Curio 1994). On Panay breeding appeared to occur between March and June, when fledged broods began to be seen (Curio *et al.* 1996b). Local inhabitants on Negros and Panay reported the nesting season to vary between February and July (Diesmos and Pedregosa 1995), and Kemp (1995) referred to an immature female taken (island unstated) in January which appears to be around six months old. The nesting cycle is about 95 days (Kemp 1995). Birds nest in dipterocarp tree holes at a height of 15–25 m with a usual clutch-size of 2–3; of nine nestlings from (presumably) all five of the nests found, all nine fledged (Alcala and Carumbana 1980, Diesmos and Pedregosa 1995). In 1995 there was an unconfirmed report of two pairs nesting in a steep cliff on Negros (Curio *et al.* 1996b).

Migration None is known, but birds may perhaps wander seasonally in response to fruiting tree distribution.

THREATS Forest destruction has long been the major threat to this bird throughout the lowlands of its entire range and only tiny fragments (if anything) of forest remain on Masbate,

Guimaras, Ticao (which was well-wooded in 1902, 20–30% wooded in 1971: duPont 1972a), Pan de Azucar and Sicogon; in any case the species has almost certainly been hunted to extinction on Sicogon and probably also other islands (Brooks *et al.* 1992, Evans *et al.* 1993a). Hunting trips on Negros commonly procure 3–6 birds in 2–5 days (Diesmos and Pedregosa 1995). Hunting on Negros and Panay is for subsistence, trade and sport (Diesmos and Pedregosa 1995); on Negros, there were fewer cases of hunting in areas with active socio-economic programmes, such as those around Mt Talinis, Lake Balinsasayao and Mt Canlaon (Diesmos and Pedregosa 1995), but North Negros Forest Reserve suffers from excessive hunting (Curio *et al.* 1996b). Trapping is widespread; methods include setting snares in fruiting figs, smoking out nest-holes, climbing nest-trees, and burning or cutting trees to extract eggs, chicks, fledglings and/or incubating females (Diesmos and Pedregosa 1995). In 1994 two juveniles were found in a market, bought and donated to the West Visayas State University, Iloilo province, Panay (A. C. Diesmos and M. Pedregosa verbally 1995). Hornbills can be sold to traders for as little as 20 pesos, i.e. less than US\$1 (Diesmos and Pedregosa 1995).

MEASURES TAKEN Mt Canlaon is a CPPAP site (see Appendix). Other populations survive within the North Negros Forest Reserve, which embraces Mts Silay/Mandalagan (see next section). The species also occurs in the Mts Baloy/Madja-as range on Panay (covering the Mt Baloy and Mts Madja-as/Hantod-tubig “key sites”) and the Mt Talinis/Twin Lakes area on Negros (covering the Eastern Cuernos de Negros and Lake Balinsasayao “key sites”), and these are both proposed for FPE funding (see Appendix). Mt Talinis itself and neighbouring localities have been the target of conservation awareness campaigns initiated by Silliman University alongside complete faunal inventories to support the proposal to establish a protected area on the mountain (R. Pa-alan verbally 1995). Further information is provided under the equivalent section under Visayan Wrinkled Hornbill. The species is listed on Appendix II of CITES.

MEASURES PROPOSED Apart from the areas targeted for conservation above, the species is known from three “key sites” (north-west Panay peninsula on Panay; Mts Silay/Mandalagan and Hinoba-an on Negros; see Appendix), which deserve further survey and formal designation, at least in part, under the NIPAS process. Proper protection of the North Negros Forest Reserve, including control of hunting, is also extremely important (E. Curio *in litt.* 1997). Sites which support populations of other threatened endemics of Negros and the other Western Visayan islands should be prioritised (see account under *A. waldeni*). Nest protection schemes and artificial nestboxes have been proposed (Curio 1993).

In 1980 it was proposed that the remaining forested areas of southern Negros be closed to logging to protect the wildlife (and the Balinsasayao area be declared a forest reserve and wildlife sanctuary), moves argued as necessary for the ecosystem to fulfil “other human needs such as recreation and scientific studies”, and indeed more ecological research in the area was then urged (Alcala and Carumbana 1980). There is a need to survey remaining forests in southern Panay and to establish strict protected areas on the north-west Panay peninsula and in the central range (Y. de Soye verbally 1996).

REMARKS (1) It is not clear if this third nest was a re-nesting by the pair whose young had been collected, or if it was a site taken over by a second pair after the young and adults of the earlier nest had been taken.