

WHITE-BELLIED SHORTWING

Brachypteryx major

Critical —

Endangered —

Vulnerable B1+2a,b,c,d,e



This species has a small, severely fragmented, declining range owing to destruction and fragmentation of its evergreen and semi-evergreen forest habitat. It therefore qualifies as Vulnerable.

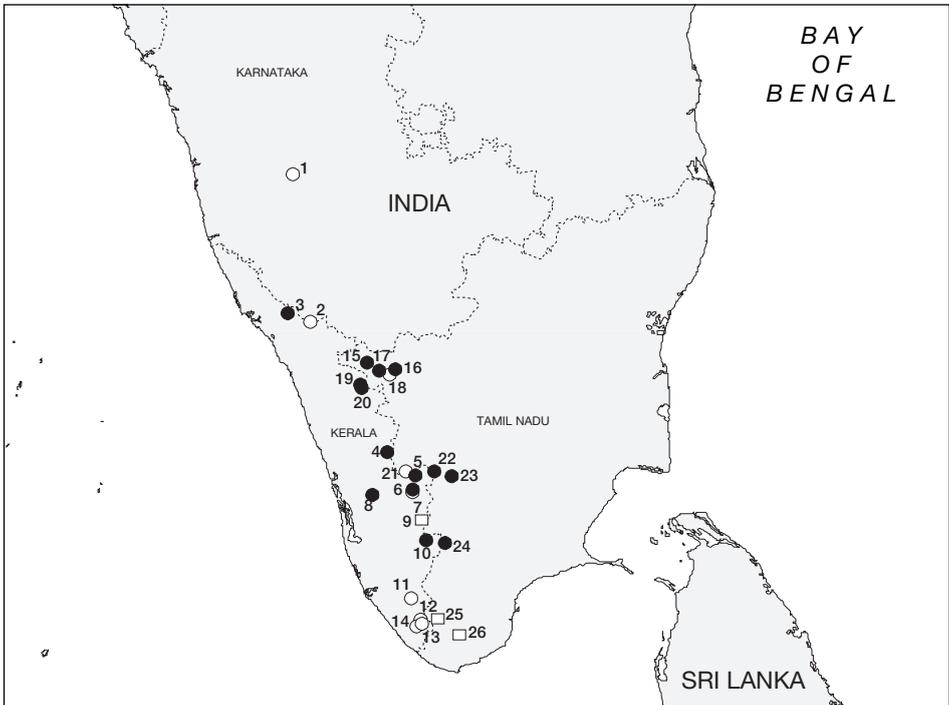
DISTRIBUTION The White-bellied Shortwing (see Remarks 1) is endemic to the southern portion of the Western Ghats, India, inhabiting the Nilgiri hills, Brahmagiri hills, Coonoor and other ranges (Davison 1883, Baker 1922–1930). The nominate race *major* occurs in southern Karnataka (Baba Budan, Brahmagiris) and the Nilgiri hills, while the subspecies *albiventris* is found in western Tamil Nadu and southern Kerala from the Palni to the Ashambu hills (Ali and Ripley 1968–1998). Records are as follows:

■ **INDIA** ■ **Karnataka Kemmanugundi**, Bababudan hills (Bababudangki), 1,350 m, January 1940 (specimens in AMNH, BMNH, BNHS; Ali and Whistler 1942–1943); **Brahmagiris**, Coorg district, April 1881 (two specimens in BMNH), February 1883 (specimen in AMNH), April 1896 (male in MCML);

■ **Kerala Thirunelli**, Wynaad, 900–1,200 m, “uncommon”, 1973–1997 (Zacharias and Gaston 1999), and here or elsewhere in Wynaad district, 1985–1988 (Zacharias and Gaston 1993); **Nelliampathy hills**, 700–1,200 m, “rare”, 1973–1997 (Gaston and Zacharias 1996, Zacharias and Gaston 1999); **Eravikulam National Park** (Rajamalai National Park), two males, December 1994 or January 1995 (Gee 1995), 1995 (A. Robertson *in litt.* 1997), one, January 1998 (H. Hendriks *in litt.* 1999); **Munnar**, 900–2,000 m, January 1933 (two specimens in BMNH, BNHS; Ali and Whistler 1937, Whistler 1936, Primrose 1938), “uncommon”, 1973–1997 (Gaston and Zacharias 1996, Zacharias and Gaston 1999; also B. F. King verbally 1998), and at Munnar Trau, undated (Primrose 1938); **Devikulam**, May 1897 (two specimens in BMNH, TM; Ali and Whistler 1935–1937); **Thattakkad Bird Sanctuary**, 1995–1996 (R. Sugathan *per* L. Vijayan *in litt.* 1998); **Cardamom hills**, undated (A. Robertson *in litt.* 1997); **Periyar Sanctuary** (Tiger Reserve), at Thekkady, 1979–1981 (Vijayan 1984), undated (Robertson and Jackson 1992), “rare” in “Periyar East”, 1973–1997 (Zacharias and Gaston 1999); **Kolattupuzha** (Kolathupuzha or Coolathoorpulai patnas), 1,150–1,200 m, April 1877 and April 1880 (two specimens in BMNH; Ali and Whistler 1935–1937); **Chemunji hills** (Chemmungi hills), one, March 1903 (specimen in TM; Ali and Whistler 1935–1937), although confirmation of this record is desirable; **Mynall**, 1,200 m, April 1879 (specimen in BMNH; Ali and Whistler 1935–1937); **Chimpani hills**, “dividing Travancore from Tinnevely”, December 1886 and January 1887 (four specimens in TM; Davison 1888); Pooyankutti or Puyankutty (untraced), 1998 (Aziz *et al.* 1999);

■ **Tamil Nadu Naduvattam** (Neddivittum), March 1881 (two specimens in BMNH), 1891 (specimen in BMNH), 1986 (Harrap 1986b), 2–3 males, January 1994, and three at the same site, January–February 1995, one, January 1996, two December 1997 (Holt 1995, P. Holt *in litt.* 1999); **Longwood shola**, Kotagiri, March 1979 (female in BNHS), 1995 (A. Robertson *in litt.* 1997); **Udagamandalam** (=Ootacamund, Ooty), from January 1881 (specimen in BMNH) down to the present day on the Avalanche road, including January 1995 (Holt 1995), December 1997 (H. Hendriks *in litt.* 1999), and at nearby Cairnhill Reserve Forest, 1984 (Robson 1984), with five there, February 1988 (P. Hines *in litt.* 1999); **Coonoor**, March–April 1869 (three

specimens in BMNH, MCZ), February 1882 (male in BMNH), pre-1886 (specimen in BMNH), 1891 (specimen in ZMB); **Avalanche**, February 1943 (specimen in BNHS), March 1947 (specimen in BMNH) and Mullikorai, near Avalanche, one male, November–December 1994 (Gee 1995), up to three males, January–February 1995 (Holt 1995); **upper Bhavani**, recorded very rarely in the shola forests in 1994–1997 (Vijayan *et al.* 1999); **Anaimalai hills**, October 1884 (male in MCML); **Kukkal** (Kukal), Palni hills, one male, June 1982 (BNHS ringing data); Palni hills, undated (Blanford 1867b), and in this range at **Kodaikanal**, 2,150 m, May or June 1877 (Fairbank 1877), around 1885 (two specimens in BMNH, Terry 1887), three in June 1877 and one in June 1883 (four specimens in BMNH), May 1955 (male in BNHS), common above 1,500 m, 1982–1993 (S. Balachandran *in litt.* 1997, Balachandran 1999), and at Pillar Rocks (Pillar Rocks grove), Kodaikanal, 2,150 m, May 1877 (specimen in BMNH; Fairbank 1877), also Poomparai (Poombarai), near Kodaikanal, Palni hills, 15 ringed in May and three in June 1982 (BNHS ringing data), c.1995 (A. Robertson *in litt.* 1997) and Moir Point, Palni hills, April 1956 (female in BNHS; also Abdulali 1968–1996); Upper Manalar. **High Wavy mountains**, 1,480 m, six, February 1986 (two specimens in BMNH), c.1995 (A. Robertson *in litt.* 1997); **Mundanthurai**, undated (Robertson and Jackson 1992); **Kalakad** (Kalakkad), in the Ashambu hills, undated (Robertson and Jackson 1992), and listed for the Ashambu hills by Ali and Ripley (1968–1998).



The distribution of White-bellied Shortwing *Brachypteryx major*: (1) Kemmanugundi; (2) Brahmagiris; (3) Thirunelli; (4) Nelliampathy hills; (5) Eravikulam National Park; (6) Munnar; (7) Devikulam; (8) Thattakkad Bird Sanctuary; (9) Cardamom hills; (10) Periyar Sanctuary; (11) Kolattupuzha; (12) Chemunji hills; (13) Mynall; (14) Chimpani hills; (15) Naduvattam; (16) Longwood shola; (17) Udagamandalam; (18) Coonoor; (19) Avalanche; (20) upper Bhavani; (21) Anaimalai hills; (22) Kukkal; (23) Kodaikanal; (24) High Wavy mountains; (25) Mundanthurai; (26) Kalakad.

○ Historical (pre-1950) ● Fairly recent (1950–1979) ● Recent (1980–present) □ Undated

POPULATION In the Nilgiris the White-bellied Shortwing was a “common resident” in the nineteenth century (Davison 1883) and remained so until the mid-twentieth century (Betts 1951). At Udagamandalam it was “fairly common” (Betham 1902) or “common” (Baker 1922–1930). In the Palni hills, it was found “a few times” at Kodaikanal (Terry 1887), thought “fairly common” there 50 years later (Nichols 1937), and judged “one of the commonest species” at the same site in 1990 (Balachandran 1999). This latter statement was borne out by extensive mist-netting surveys: in four summers (1970, 1982, 1984, 1991), 133 were ringed; in April–May 1991, 64 were mist-netted, the third highest total for any passerine in the study (Balachandran 1999). Although early records derive from the Anaimalai Hills, two years of fieldwork failed to produce any sightings (Kannan 1998), suggesting that the species is very scarce in this area. Zacharias and Gaston (1999) found it in only four localities of 24 surveyed in the Western Ghats of Kerala, 1973–1997. In Periyar Tiger Reserve it was judged “rare” by both Vijayan (1984) and Zacharias and Gaston (1999). Its somewhat linear distribution within forest (see Habitat) means that its overall numbers will be comparatively low (B. F. King verbally 1998).

It is perhaps under- or over-recorded owing to confusion in the field with White-bellied Blue-flycatcher *Cyornis pallipes* (Ali and Whistler 1935–1937, Betts 1951). Its retiring disposition may also have clouded assessment of its status.

ECOLOGY Habitat The White-bellied Shortwing inhabits deep shade and dense undergrowth, although not necessarily heavy forest (Baker 1922–1930, Nichols 1937, Ali and Ripley 1968–1998). It frequents moist, densely wooded ravines and sholas (woodland patches in depressions), usually at high altitudes (Ali and Ripley 1968–1998, Zacharias and Gaston 1999), and it is regarded as dependent on streamside growth and wet areas within forest patches (B. F. King verbally 1998), although it is also reported in lesser numbers from wattle *Eucalyptus* sp. and old pine plantations contiguous with sholas (ravine forests) (S. Balachandran *in litt.* 1997). Khan (1979) found it common in natural forest, irregular (seen on fewer than 25% of visits) in eucalyptus plantations, an occasional visitor to acacia plantations and absent from tea plantations, thus indicating that it is fundamentally dependent on natural forest. It often tolerates a fair degree of habitat degradation (S. Balachandran *in litt.* 1997) and has even been recorded in gardens in Kodaikanal (S. Balachandran verbally 1997).

The species is generally considered reclusive and inconspicuous, partly because of its predilection for dense undergrowth (Davison 1883, Ferguson and Bourdillon 1903–1904), its general silence (Baker 1922–1930, Ali and Whistler 1942–1943) and the male’s “pretty low song, which is not very easily heard” (Betham 1902). It does, however, occasionally produce a “loud chattering” (Ali and Ripley 1968–1998) and its song is loud and thrush-like (Grimmett *et al.* 1998). Birds frequent “the denser portion of the undergrowth in evergreen forest”, keeping “almost entirely to the ground” (Davison 1883), often being seen “amongst fallen timber, along which they almost creep” (Hume and Oates 1889–1890). They generally occur in pairs, but sometimes singly (Davison 1883), between c.1,300 and 2,100 m, but mostly above 1,600 m (Davison 1883, Nichols 1943–1945). The race *major* apparently breeds between 1,700 and 2,150 m (Davison 1883) while *albiventris* occurs in the Palni hills between 1,850 m and 2,150 m, and in the Travancore (=Kerala) hills above 900 m (Ferguson and Bourdillon 1903–1904, Whistler and Kinnear 1931–1937). The maximum longevity recorded for this species through ringing recovery data is nine years (Hussain 1991a).

Food The species has been observed feeding on small flies and caterpillars (L. Vijayan *in litt.* 1999). It often forages on the ground, especially on roadsides and paths at dusk (Ferguson and Bourdillon 1903–1904, Nichols 1937).

Breeding The breeding season falls between March and June, chiefly in April and May (Davison 1883, Hume and Oates 1889–1890, Baker 1922–1930, Baker and Inglis 1930), with most nests being found “in May when the rains had broken” (Betts 1951). Three nests at

Udagamandalam contained chicks on 4 and 29 May and fresh eggs on 29 May (Betham 1902); Terry (1887) found fresh eggs on 7 June. The only clutch from Travancore was taken on 7 March (Baker 1932–1935), suggesting that the season might be earlier there. However, a specimen taken by Whistler (1936) in Travancore still had an incompletely ossified skull in the third week of January, suggesting the contrary, or that there might be a second breeding season. The nest, a large, loose mass of green moss with a shallow cup lined with rootlets, is placed in holes in roadside or pathside banks in ravines or hollows in trees, usually within 1–2 m of the ground (Terry 1887, Hume and Oates 1889–1890, Betham 1902, Betts 1951). Betham (1902) found nests in “natural holes or hollows in trees, a few feet from the ground”. The shallow cups are generally “filled up with a mass of green moss and finished off in a neat cup lined with fine black moss roots”. Betts (1951) reported nests in broken tree-stumps and hollow tree-trunks but remarked of the birds that, “considering their retiring nature, they frequently build in quite conspicuous places”. When the nest is sited on a mossy bank it is difficult to find, “but when, as often happens, a bare earth face is chosen, it is visible at some distance” (Betts 1951). Another observer also stated that the nest was “very conspicuous to any one passing by” (Terry 1887). The clutch almost invariably contains two eggs, but sometimes three (*J. Bombay Nat. Hist. Soc.* 2 [1869]: 280–283, Hume and Oates 1889–1890, Baker 1922–1930, Betts 1951, Ali and Ripley 1968–1998).

THREATS The White-bellied Shortwing is one of (now) four threatened members of the suite of 16 bird species that are entirely restricted to the “Western Ghats Endemic Bird Area”, threats and conservation measures in which are profiled by Stattersfield *et al.* (1998). Although it appears to adapt to habitat changes, habitat loss and alteration in the long run is expected to affect it adversely.

In last few decades India has lost about 30% of its forests (Kothari 1994). Conversion of forest into plantations, crops, reservoirs and human settlements has brought about extensive damage and fragmentation of the forests in the Western Ghats (see Threats under Nilgiri Wood-pigeon *Columba elphinstonii*).

MEASURES TAKEN Many areas within the range of this species are protected as sanctuaries or national parks, but the only ones known to harbour populations are Periyar Sanctuary, Thattakkad Bird Sanctuary and Eravikulam National Park, the last of which apparently supports “substantial areas” of forest (Zacharias and Gaston 1999). It presumably also occurs in the Indira Gandhi (Anaimalai) Wildlife Sanctuary (841.5 km²).

MEASURES PROPOSED The status and ecology of this species need to be determined for its better management and conservation (Vijayan *et al.* 1999, L. Vijayan *in litt.* 2000). One of the best areas for it, the Palni hills, is proposed as a wildlife sanctuary by the Tamil Nadu Forest Department (L. Vijayan *in litt.* 1999). Conversion of forests into plantations must be curtailed, and restoration of altered habitats has been suggested (L. Vijayan *in litt.* 2000). Nair (1991) identified many forest areas worth protecting for biodiversity conservation in Kerala. A detailed study of the state’s Western Ghats has identified biodiversity hotspots (with special reference to endemic birds and large mammals) and recommended careful and critical evaluation of land use of this region and forest management practices (Prasad *et al.* 1998a,b); a peoples’ participatory programme for cooperative biodiversity management is applicable to other regions of the Western Ghats (Kothari 1994).

REMARKS (1) Although races *albiventris* and *major* were once treated as separate species, an intermediate specimen between them taken at Mynall was considered proof of their conspecificity (Baker 1922–1930). This arrangement seems likely to be reviewed, however, in view of the considerable differences between the two taxa.