

FOREST OWLET

Heteroglaux blewitti



Critical ■ C1; C2a

Endangered □ B1+2a,b,c,d,e; D1

Vulnerable □ D2

This recently rediscovered species has a tiny, severely fragmented population known from only four recent localities. It is inferred to be declining as a result of loss of its deciduous forest habitat. These factors qualify it as Critical.

DISTRIBUTION The Forest Owllet *Heteroglaux blewitti* (see Remarks 1) is known to survive at a single site in central India, having been collected in the nineteenth century at four localities in two widely separated general areas in the west and east of the subcontinent. A record from Mandvi, on the Tapti river in southern Gujarat (Ali and Ripley 1968–1998, Ripley 1976), is now known to be fraudulent (Rasmussen and Collar 1999a; see Remarks 2), and all other reports, including (a) from Singhbhum district, Bihar, apparently around 1950 (Ara 1953, 1956), (b) at Nagpur, Madhya Pradesh, in 1968 (Ginn 1973, Ripley 1976), (c) in Udaipur district, Rajasthan, in around 1990 (Sharma and Tehsin 1994), and (d) from near the type locality in 1890, involving an egg-set (Baker 1932–1935), have all been evaluated and found inadmissible or incorrect (Rasmussen and Collar 1998). Acceptable records are thus from:

■ **INDIA** ■ **Madhya Pradesh Khaknar forest range**, two pairs, February 2000 (Ishtiaq and Rahmani 2000a); **Basna** (Busnah-Phooljan, etc., type locality), December 1872 (Hume 1873c);

■ **Maharashtra Taloda Reserve Forest**, December 1880 and December 1884 (Rasmussen and Collar 1998), with three birds, June 1999 (Ishtiaq 1999), including at Rapapur, December 1883 (Rasmussen and Collar 1998); **Melghat Sanctuary**, one bird, February 2000 (Ishtiaq and Rahmani 2000a); **Shahada**, Torannal range, April 1881 (Rasmussen and Collar 1998) and since November 1997 (King and Rasmussen 1998, Ishtiaq 1999, Rasmussen and Ishtiaq 1999, Ishtiaq and Rahmani 2000a);

■ **Orissa Khariar** (Khariar, etc.), February 1877 (Ball 1877, 1878).

Various extrapolations of these records (since 1969 also involving the fraudulent record from Gujarat) have been made, indicating that the range might extend over the Satpura range across central India (reviewed in Rasmussen and Collar 1998), but the evidence is difficult to interpret. While it cannot be assumed that the species is present or absent from other parts of the subcontinent where the habitat is broadly similar, the most likely and obvious area in which further populations may survive lies in the 800 km gap between the east–west “poles” of the historical record.

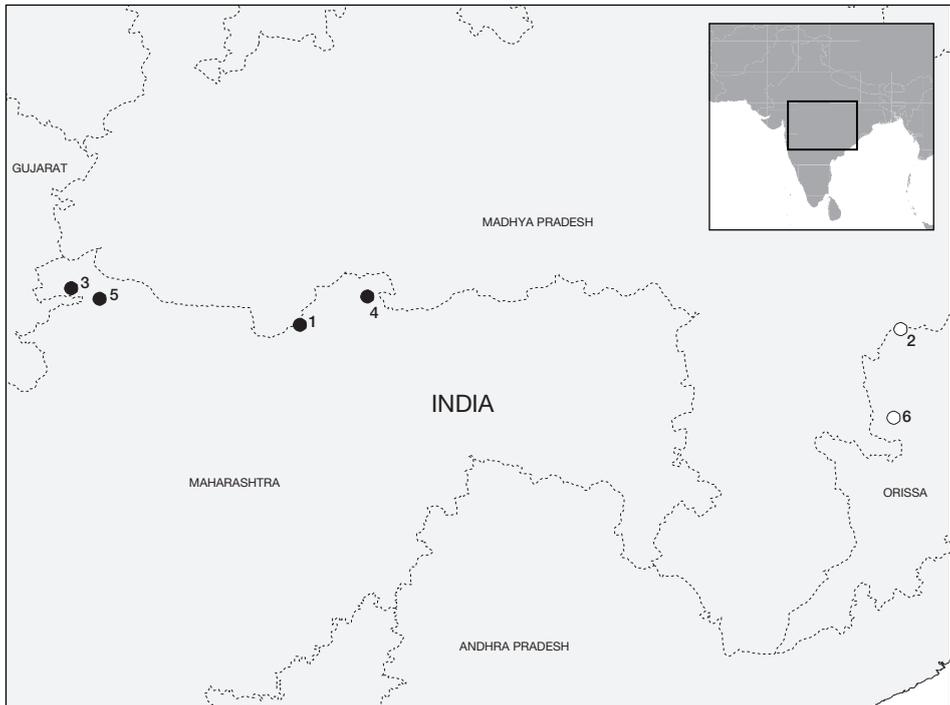
POPULATION The past and present numerical status of the Forest Owllet is unknown. Its similarity to Spotted Owllet *Athene brama* may possibly have confused the historical record, but no museum specimen of Forest Owllet has been mislabelled as a Spotted Owllet, despite a very high overall number of specimens of the latter in various museums (Rasmussen and Collar 1998), suggesting that *blewitti* has been a genuinely rare species over at least the past 150 years. There is some difficulty in the interpretation of nineteenth century statements relating to its status. First, the type was collected only “after long effort” but birds were also “shy to a degree” (Hume 1873c), so it is not clear if the long effort was caused by shyness or by rarity (Rasmussen and Collar 1998). Second, the collector of five of the seven known specimens referred in print to the species as “not uncommon” (Davidson 1882), but in

manuscript as “not common” (see Rasmussen and Collar 1998), so there is real confusion over which status assessment of the species was intended.

In November 1997 two birds were rediscovered following unsuccessful searches for the species at the other known localities (King and Rasmussen 1998; also Gallagher 1998, Rasmussen 1998a,b,c,d). Following field surveys in March 1999 and January–February 2000, three pairs were known at Taloda forest range, seven pairs at Toranmal forest range (Shahada), two pairs at Khaknar forest range and a single bird at Melghat Sanctuary, yielding a grand total of 25 birds (Ishtiaq and Rahmani 2000a).

ECOLOGY Habitat The species is an inhabitant of dry deciduous forest (Rasmussen and Collar 1998, King and Rasmussen 1998, Rasmussen and Ishtiaq 1999), the habitat seemingly all located at 400–500 m and being dominated by teak *Tectona grandis* and other species such as *Bombax ceiba*, *Boswellia serrata*, *Lagerstroemia parviflora*, *Lankea grandis*, *Dalbergia latifolia* and *Anogeissus latifolia*, interspersed with many shrubs and grasses (Ishtiaq 1999, 2000a,b, Ishtiaq and Rahmani 2000a).

Food Birds may preferentially feed in open areas with low ground cover, and hunt from early morning to noon, spending the afternoon roosting and resuming feeding in the evening (Ishtiaq 1999). They use a perch-and-pounce feeding strategy, sitting and scanning the ground below and dropping on targeted prey (Ishtiaq 2000a,b). They have been seen taking small prey (circumstantially recorded as grasshoppers and stick insects) from damp grass after rain, and taking similar items (circumstantially caterpillars) on or near the ground in the



The distribution of Forest Owlet *Heteroglaux blewitti*: (1) Khaknar forest range; (2) Basna; (3) Taloda Reserve Forest; (4) Melghat Sanctuary; (5) Shahada; (6) Khariar.

○ Historical (pre-1950) ● Recent (1980–present)

evening; and one was observed eating a medium-sized lizard (Rasmussen and Ishtiaq 1999). In fact, food is now known to consist of skinks, frogs, lizards (including *Calotes*), small birds (e.g. warblers), small rodents, snakes and grasshoppers (Ishtiaq 2000a,b, Ishtiaq and Rahmani 2000b). Although Spotted Owlets are present in the areas where Forest Owlets occur, the niche partitioning between them apparently causes little conflict; by contrast, Jungle Owlets *Glaucidium radiatum* are vigorously chased away by Forest Owlets (Ishtiaq 2000a), suggesting a degree of competition between the two species.

Breeding Five nests were found in 1998–1999, two 600 m apart at Shahada, and three each 500–600 m apart at Taloda (Ishtiaq 2000a). The breeding period extends from October to the end of March (Ishtiaq 2000a). Nests are located in holes in trees (Ishtiaq 2000a); one was in a roadside *Soymida febrifuga* (Ishtiaq and Rahmani 2000a). The incubation period appears to be around 30 days (Ishtiaq 2000a). A case of cronism was deemed to have occurred when the apparent father of a 40-day-old brood was witnessed eating the chicks, although it could not be ruled out that the male in question had taken over the territory perhaps following the death of the original male (Ishtiaq 2000a,b, Ishtiaq and Rahmani 2000b).

THREATS In 1998 it was discovered that forest loss was very severe at the site of the rediscovery of the species; there is intense pressure from local people on the forest resources in the area (Rasmussen and Ishtiaq 1999). An area of 50 km² was cleared in the vicinity of the November 1997 rediscovery within six months, to make way for people displaced by the Sardar Sarovar Dam (Ishtiaq 2000a,b). All sites for the species are located in reserve forest and most feeding sites are in teak plantations; many trees are being cut in these plantations, and the cleared areas are being cultivated by tribal people, who have encroached upon large chunks of forest land (Ishtiaq 1999). There is a scarcity of trees with suitable nest holes in the areas studied (Ishtiaq 2000a). Livestock and fuelwood-gatherers appear to cause sufficient disturbance for the birds to leave the vicinity for the duration (Rasmussen and Ishtiaq 1999).

MEASURES TAKEN The Forest Owlet is classed as a Schedule 1 species under India's Wildlife Protection Act (1972) (Ishtiaq 2000a), and it is listed on Appendix I of CITES.

The rediscovery of the Forest Owlet was the result of research and commitment by P. C. Rasmussen (see Abbott 1998, Gallagher 1998, King and Rasmussen 1998, Rasmussen 1998a,b,c,d). With the financial support of the Smithsonian Institution, fieldwork (by F. Ishtiaq of Bombay Natural History Society) was conducted in 1998–1999 into the status, range and ecology of the Forest Owlet and into the threats it faces. In June 1998 it was discovered that a substantial amount of forest clearance had taken place at Taloda in the short time since the species's rediscovery in November 1997, and interventions to seek to prevent further losses of tree cover in the area were made (P. C. Rasmussen verbally 1999). In the period June 1998 to June 1999 the species was studied in the Shahada area, and in January–February 2000 a survey was undertaken across some parts of central India between the east and west "poles" of the range; in this latter work, two new sites were discovered (see Distribution) but no birds were found at Yawal Wildlife Sanctuary and Tadoba Tiger Reserve (Maharashtra), Majarwani forest range, Baretha range, Seoni Malwa, Rahatgaon and Tamagaon range, Bori Wildlife Sanctuary and Pench Tiger Reserve (Madhya Pradesh) and Patwa and Chatwa forest (Orissa), although such negative results should not be taken as proof of absence (Ishtiaq and Rahmani 2000a).

MEASURES PROPOSED There is an immediate need to declare the sites where the Forest Owlet has been found as protected areas, or to manage them through joint forest and community schemes (Ishtiaq 2000a). A long-term project of research and conservation will, however, also be needed to secure the species. The shape of this work will depend in part on the outcome of the present phase of study, but it will certainly involve community involvement

and awareness modules (Ishtiaq 2000a). Conservation organisations need to be primed to provide financial support for further work in due course. Among the areas that need to be targeted (and some of those listed as negative sites under Measures Taken need revisiting) are: Basna, Gomardah Wildlife Sanctuary, Churabhati and Sirpur (Madhya Pradesh), and the Surat Dangs and Vansda National Park (Gujarat) (Ishtiaq and Rahmani 2000a).

REMARKS (1) This owl has long been placed in the genus *Athene*, with which specimens show a strong superficial resemblance; however, its original placement in its own genus, *Heteroglaux*, by Hume (1873c), appears well justified based on osteological evidence (Rasmussen and Collar in prep.) and on recent behavioural observations including flight pattern and song (Rasmussen and Ishtiaq 1999). (2) The implication in Abbott (1998: 398) that the specimen in question “may be an immature Spotted Owlet” is totally mistaken.