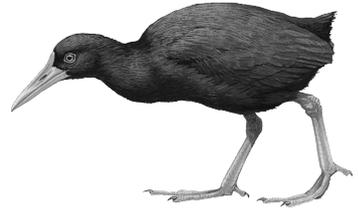


INVISIBLE RAIL

Habroptila wallacii

Critical —
Endangered —
Vulnerable C2a



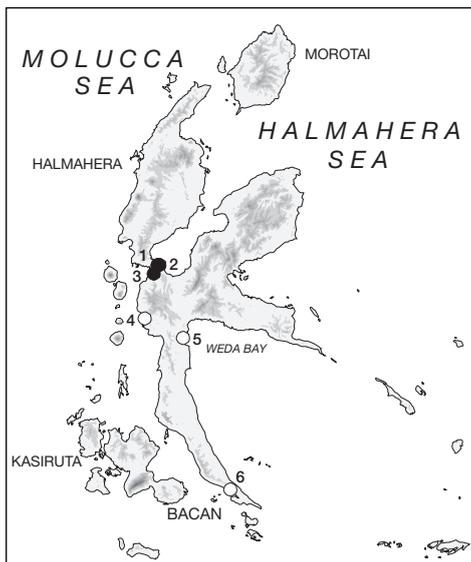
This enigmatic flightless rail qualifies for Vulnerable because, based on available evidence, it is inferred to have a small population which is declining and undergoing fragmentation owing to loss of its specialised habitat.

DISTRIBUTION The Invisible or Drummer Rail (see Remarks 1) is endemic to the island of Halmahera in northern Maluku province (North Moluccas), Indonesia. Records are from:

■ **INDONESIA Halmahera Sondo** (“Sondo-Sondo”), Wasile district, January 1985 (male in USNM); **Pasir Putih**, Jailolo district, March, April, May and August 1981 and January 1985 (six specimens in USNM; also Ripley and Beehler 1985); **Tewe**, Jailolo district, December 1984 (female in USNM); **Fanaha** (possibly Fauaha, Farraha), June 1931 (male and female in AMNH); **Weda** province at “Nucifera” (*sic*), April 1949 (female in ZMA; capture described in de Haan 1950); **Gani**, February 1894 (von Berlepsch 1903).

There are local reports of this species from the Kao sago swamp (Poulsen *et al.* 1999) and from local villages in the Weda district in the south-east of Halmahera (Agista 1999). Records from December 1994 and 1995, including Kao, Lalobata and Ako Jilolo (assembled in Taylor 1998) are now best regarded as unconfirmed.

POPULATION The status of this species is extremely difficult to judge, owing to its unwelcoming habitat and skulking behaviour. It would seem likely to prove much commoner than the few records indicate, but there is great danger in assuming this without acknowledging the possibility that habitat reclamation and, in particular, predation have had a serious impact



The distribution of Invisible Rail *Habroptila wallacii*:

(1) Sondo; (2) Pasir Putih; (3) Tewe;
(4) Fanaha; (5) Weda; (6) Gani.

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

in recent decades. There is an account of the species (de Haan 1950; see Remarks 2) which suggests that it is relatively common in the Weda Bay area and on the Tiloppe coconut estate, but even though this was based on calls evidently identified by local people who knew the species, there is some doubt whether confusion with the Common (or Rufous-tailed) Bush-hen *Amaurornis olivaceus* might have been involved (K. D. Bishop in Collar *et al.* 1994; also Coates and Bishop 1997); indeed, Purple Swamphen *Porphyrio porphyrio* has now been recorded from the island and is perhaps a more likely confusion species (F. R. Lambert *in litt.* 1999).

ECOLOGY Habitat The species inhabits the remotest and most impenetrable parts of sago swamp, but apparently favouring the swamp edges at the interface with deciduous foothill forest, although not penetrating the latter (Heinrich 1956; see Remarks 3). This is consistent with reports by locals who provided the snared specimens in USNM (see Distribution), and who indicated that the birds prefer marsh edges, especially peninsulas of land that jut into marshy expanses (Ripley and Beehler 1985). Searches by Dutch collectors in various wetlands proved fruitless, and were only successful when they switched to “forest” (H. Schlegel in Salvadori 1880–1882). Descriptions of habitat in de Haan (1950) are open to suspicion for reasons given under Population, but should not be discounted as certainly mistaken (see Remarks 2); however, recent fieldwork suggests it is not a bird of mangroves (Poulsen and Lambert 2000).

Food Stomachs contained chiefly vegetable remains, probably of the barely matchstick-strong shoots that sprout from the bases of sago plants; also a beetle and 10 pea-sized pebbles (Heinrich 1956). Birds are reported by local people to feed at the open trunks of cut sago palms, either taking decaying sago or searching for other food items in it (MKP, P. Jepson *in litt.* 1995, Taylor 1998).

Breeding The species lives in pairs (Heinrich 1956). Local birdcatchers who knew the species reported that an adult had been observed with 4–5 striped chicks (Ripley and Beehler 1985), although such a plumage pattern is atypical for the family, suggesting a possible error (Taylor 1998). A young bird was collected in June (Salvadori 1880–1882).

Migration Local people appear to believe that birds leave the sago forest in the dry season (P. Jepson *in litt.* 1995, Taylor 1998).

THREATS Sago swamp on Halmahera has been extensively destroyed, and the threat to many remaining tracts remains high, involving commercial sago extraction, irrigation schemes, conversion for wet rice and, potentially, fishpond development (Poulsen *et al.* 1999); the Kao sago swamp, 6,000 ha in extent, is under threat from a major transmigration site (F. R. Lambert *in litt.* 1999; see Measures Proposed). Moreover, flightless rails confined to single islands have a long history of extinction through feral introduced predators (Collar *et al.* 1994); the species is occasionally caught by dogs when local people are hunting deer and pigs (de Haan 1950), and it is likely to be vulnerable to other introduced predators (Taylor 1998).

The Invisible Rail is one of (now) eight threatened members of the suite of 26 bird species that are entirely restricted to the “Northern Maluku Endemic Bird Area”, threats and conservation measures in which are profiled by Sujatnika *et al.* (1995) and Stattersfield *et al.* (1998).

MEASURES TAKEN None is known.

MEASURES PROPOSED There is a detailed recommendation for a national park embracing a total of 2,130 km² on Halmahera (see equivalent section under White Cockatoo), which include some small areas of sago swamp (D. Purmiasa verbally 2001). The Kao sago swamp has been recommended for preservation, not least because examples of these habitats are not

well represented within the protected area network of Maluku, and those on Halmahera are the largest examples in the region, the freshwater swamp area being of particular importance (Poulsen *et al.* 1999).

A thorough survey is needed of this species to determine its status at Kao, and at other sites where there are areas of sago swamp such as at Sidangoli, Dodaga and Buli (D. Purmiasa verbally 2001).

REMARKS (1) This species shows affinities with the New Guinea Flightless Rail *Megacrex inepta* (Near Threatened) of New Guinea and might be considered congeneric (Olson 1973), although this view has not found favour elsewhere. (2) De Haan (1950) wrote that by its call it would appear to be fairly common on coralline and volcanic soil and less common on serpentine soil, with inhabitants declaring that it lives everywhere but prefers forests. He continued: "I personally heard it most often in the plains which were overgrown with a kind of high reed (*Saccharum* spec.) and the well-known alang-alang (*Imperata* spec.) and in neglected native plantations, which form a dense wilderness of ferns, tall grasses, the broad leaves of a *Zingiber*, fruit trees and banana groves. From my experience the bird prefers the vegetation which springs up where forest land has been cleared. I heard it repeatedly in a mangrove swamp (*Gymnorhiza* spec.), where the trees had been cut down and where, among the tree stumps a dense overgrowth of runners, ferns, and young sago palms had sprung up... The presence of water is by no means a necessity as was apparent from its occurrence in a deserted plantation on dry coral hills". (3) The inhospitability of the habitat and the tribulations of encountering the species in it are expressed in Kuntzendorff (1932).