

## Africa

### Rondo Dwarf Galago

*Galagoides rondoensis* (Honess in Kingdon, 1997)

Tanzania

(2006, 2008)

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Weighing approximately 60 g, this is one of the smallest of the galagos (Honess 1996b). It is distinct from other dwarf galagos in its bottle-brush-shaped tail, its reproductive anatomy, and its distinctive “double unit rolling call” (Bearder *et al.* 1995; Honess 1996a, 1996b; Perkin 2007). Current knowledge indicates that this species occurs in two distinct areas, one in southwest Tanzania near the coastal towns of Lindi and Mtwara, the other approximately 400 km further north, above the Rufiji River, in pockets of forest around Dar es Salaam. One further population occurs in Sadaani National Park, approximately 100 km north of Dar es Salaam. Rondo dwarf galagos have a mixed diet of insects and fruit, often feed close to the ground, and move by vertical clinging and leaping in the shrubby understorey. They build daytime sleeping nests, which are often in the canopy (Bearder *et al.* 2003). As with many small primates, *G. rondoensis* is probably subject to predation from owls and other nocturnal predators. Among these, genets, palm civets and snakes invoke intense episodes of alarm calling (Honess 1996b).

On the IUCN Red List, the status of *G. rondoensis* has changed from Endangered (IUCN 2006) to Critically Endangered (IUCN 2008). It has an extremely limited and fragmented range in a number of remnant patches of Eastern African Coastal Dry Forest (*sensu* Burgess and Clarke 2000, p.18) in Tanzania, namely those at Zaraninge forest (06°08'S, 38°38'E) in Sadaani National Park (Perkin 2000), Pande Game Reserve (GR) (06°42'S, 39°05'E), Pugu/Kazimzumbwi (06°54'S, 39°05'E) (Perkin 2003, 2004), Rondo (10°08'S, 39°12'E), Litipo (10°02'S, 39°29'E) and Ziwani (10°20'S, 40°18'E) forest reserves (FR) (Honess 1996b; Honess and Bearder 1996). Two new sub-populations were identified in 2007 near Lindi town in Chitoa FR (09°57'S, 39°27'E) and Ruawa FR (09°44'S, 39°33'E) (Perkin *et al.* in prep.). Specimens of *G. rondoensis*, originally described as *Galagoides demidovii phasma*, were collected by Ionides from Rondo Plateau in 1955, and Lumsden from Nambunga, near Kitangari, (approximately 10°40'S, 39°25'E) on the Makonde Plateau in Newala District in 1953. Doubts surround the persistence of this species



on the Makonde Plateau, which has been extensively cleared for agriculture. Surveys there in 1992 failed to detect any extant populations (Honess 1996b).

No detailed surveys have been conducted to assess population sizes of *G. rondoensis*. Limited distribution surveys have been conducted, however, in the southern (Honess 1996b; Perkin *et al.* in prep.) and northern coastal forests (27 surveyed) of Tanzania and coastal Kenya (seven surveyed) (Perkin 2000, 2003, 2004). Absolute population sizes remain undetermined but recent surveys have provided estimates of density (3–6/ha at Pande Game Reserve [Perkin 2003] and 8/ha at Pugu Forest Reserve [Perkin 2004]) and relative abundance from encounter rates (3–10/hr at Pande Game Reserve and Pugu/Kazimzumbwi Forest Reserve [Perkin 2003, 2004] and 3.94/hr at Rondo Forest Reserve [Honess 1996b]). There is a clear and urgent need for further surveys to determine population sizes in these dwindling forest patches. The total area of forest in which *G. rondoensis* is currently known to occur does not exceed 101.6 km<sup>2</sup> (Pande GR: 2.4 km<sup>2</sup>, Rondo FR: 25 km<sup>2</sup>, Ziwani FR: 7.7 km<sup>2</sup>, Pugu/Kazimzumbwi FR: 33.5 km<sup>2</sup>, Litipo FR: 4 km<sup>2</sup> and Zaraninge forest: 20 km<sup>2</sup>, Chitoa FR: 5 km<sup>2</sup> and Ruawa FR 4 km<sup>2</sup> [Minimum area data source: Burgess and Clarke 2000; Doggart 2003; Perkin *et al.* in prep.]). The major threat this species is facing is loss of habitat.

All sites are subject to some level of agricultural encroachment, charcoal manufacture and/or logging. All sites, except Pande GR and Zaraninge forest, are national or local authority forest reserves and as such nominally, but in practice minimally, protected. Given current trends in charcoal production for nearby Dar es Salaam, the forest reserves of Pugu and Kazimzumbwi will disappear over the next 10-15 years (Ahrends 2005). Pande, as a Game Reserve, is perhaps more secure, and Zareninge forest, being in a National Park, is the most protected part of the range of *G. rondoensis*. In the south, the Chitoo population is the most secure, as it is buffered by tracts of woodland. The type population at Rondo is buffered by woodland and *Pinus* plantations managed by the Rondo Forestry Project. Litipo, Ziواني and Ruawa FRs are under threat from bordering village lands.

Conservation action is urgently needed, and more research is required to determine the continuing rate of habitat loss at these sites and to survey new areas for remnant populations. There is emerging evidence (from vocalizations and penile morphology) that the northern and southern populations may be phylogenetically distinct with important taxonomic implications. As such the conservation of all populations is important.

Across its known range, the Rondo galago can be found in sympatry with a number of other galagos, including two much larger species in the genus *Otolemur*: Garnett's galago, *O. garnettii*, and the thick-tailed galago, *O. crassicaudatus*. The Rondo galago is sympatric with the Zanzibar galago, *Galagoides zanzibaricus*, in the northern parts of its range (for example, in Zaraninge forest, Pugu/Kazimzumbwi FR and Pande GR). *Galagoides zanzibaricus* was classified as Lower Risk (Near Threatened) in the 2006 IUCN Red List (IUCN 2006) due to threats to its habitat (in 2008 it was ranked as Least Concern). In the southern parts of its range (for example, at Rondo, Litipo and Ziواني FRs), the Rondo galago is sympatric with Grant's galago, *Galagoides granti*, (listed as Data Deficient in 2006, but Least Concern in 2008). The Mountain dwarf galago, *Galagoides orinus*, ranked as Data Deficient by IUCN in 2006 (considered Near Threatened in 2008), is restricted to areas of sub-montane and montane forest in the Eastern Arc Mountains further inland in Tanzania. As such *G. orinus* also has a very restricted range, although areas of its preferred habitat are believed to be at less risk of degradation because they are relatively inaccessible.

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