Little-known African bird:
Madagascar Serpent Eagle *Eutriorchis astur*

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Un oiseau africain peu connu : le Serpentaire de Madagascar *Eutriorchis astur*. Malgré le fait que nos connaissances concernant le Serpentaire de Madagascar *Eutriorchis astur* ont avancé de façon significative ces dernières 15 années, ce rapace globalement menacé, qui est confiné au nord-est de Madagascar, est rarement observé et encore plus rarement photographié. Superficiellement, il ressemble à un *Accipiter* : il a des ailes relativement courtes et une longue queue barrée, ainsi que des parties supérieures brunes et des parties inférieures marquées de larges barres. La littérature mentionne qu'il pourrait être confondu avec l'Autour de Henst *Accipiter henstii*, dont la femelle a une taille similaire, mais le serpentaire est barré de sombre dessus et a la queue plus arrondie, les barres sur la poitrine plus larges et une crête courte mais bien visible. Contrairement à ce que son nom suggère, il ne prend que rarement des serpents, se nourrissant principalement de caméléons *Furcifer* et *Calumma* spp. et de geckos *Uroplatus* spp.

Figures 1–2. Adult Madagascar Serpent Eagle *Eutriorchis astur*, Masoala National Park, Madagascar, 24 November 2008 (J. C. Eames)

Serpentaire de Madagascar *Eutriorchis astur* adulte, Parc National de Masoala, Madagascar, 24 novembre 2008 (J. C. Eames)

Above all other poorly known or seldom seen bird species of Madagascar, pride of place surely belongs to Madagascar Serpent Eagle *Eutriorchis astur*. This globally Endangered Malagasy endemic has recently been recorded only in the north-east where it occurs mainly in primary forest (Thorstrom & Rene de Roland 2003, BirdLife International 2009). It has been described as elusive and secretive, and is one of the rarest birds of prey in the world (Thorstrom & Rene de Roland 2000, 2003, Thorstrom *et al.* 2003). Although it is not the rarest of Malagasy endemics, Madagascar Serpent Eagle is amongst the hardest to see, even at the handful of sites from which it is known.

Our knowledge of the species has advanced significantly in the last 15 years and clarification of its territorial call has lead to the eagle's discovery

Figure 3. Adult Henst's Goshawk *Accipiter henstii*, Ranamofana National Park, Madagascar, 2 December 2005 (J. C. Eames)

Autour de Henst *Accipiter henstii* adulte, Parc National de Ranamofana, Madagascar, 2 décembre 2005 (J. C. Eames)

at several new sites (BirdLife International 2009). However, there are few published images of the species, helping to perpetuate the near-mythical aura that surrounds this eagle. I have been able to trace only five photographs, all by staff of The Peregrine Fund, who have conducted most of the research to date on this species. Probably the two best known are those of an adult in the hand and an adult perched in the forest subcanopy, published in Morris & Hawkins (1998), whilst two others, of an adult and fledgling at the nest, and of a young bird in the canopy, were published in Thorstrom & Rene de Roland (2003). A photograph of an adult and pullus at the nest can be viewed at http://www.peregrinefund.org/press.

Having not previously encountered the species, I resolved to see and photograph it on a return visit to Masoala National Park in November 2008. Based at Masoala Forest Lodge, I made early-morning forays into the forest with Andrianoelina Fitia Lofontsiriniaina and guide Marco, in the hope of hearing birds calling as they left their nocturnal roost. From 19 to 24 November, we searched daily along trails from 04.00 hrs. We concentrated our efforts on a relatively small area of primary littoral forest (according to Marco the species never ventures into the hills at Masoala) and visited two old nests. Although we never heard the species calling and despite frequent heavy rain, persistence finally paid off. In the early afternoon of 24 November, *c.*500 m from Marco's village of Ambodifonaha and close to a pit-sawing site, we disturbed a large raptor suspended upside-down from an epiphytic fern (possibly an *Asplenium* sp.) *c.*10 m from the trail in logged primary forest. It hung, flapping, preoccupied with trying to take a prey item, possibly a gecko or frog, from within the fern. Upon our approach it dropped whatever it had caught and flew to an exposed perch above the trail, where it was dive-bombed by a Crested Drongo *Dicrurus forficatus*. I was able to take three photographs, of which two are published here (Figs. 1–2). It then flew off through the forest and despite a mad dash over several hundred metres we were unable to relocate it.

Madagascar Serpent Eagle has been described as a rather small and atypical snake eagle, having the shape and general brown and barred appearance of a large *Accipiter* (Morris & Hawkins 1998, Ferguson-Lees & Christie 2001). Superficially Madagascar Serpent Eagle does indeed appear *Accipiter*-like: it has relatively short wings and a long barred tail, as well as brown upperparts and broadly barred underparts. The similarity is such that three specimens in collections were originally misidentified as Henst's Goshawk *Accipiter henstii* (Ferguson-Lees & Christie 2001). The two species are reportedly difficult to separate (Morris & Hawkins 1998, Thorstrom & Rene de Roland 2000). Indeed, female Henst's Goshawk is closely similar in size and plumage (Ferguson-Lees & Christie 2001). However, the serpent eagle averages larger (although some measurements overlap) and has dark-barred upperparts, a fuller, more rounded tail, broader breast barring and a short but obvious crest. It also has conspicuous and abundant rictal bristles and a slight ruff on the nape, which has pale tips and dark subterminal bars to each feather. Henst's Goshawk lacks the pale scaling on the nape and has plain, darker brown upperparts and finer barred underparts. In addition, the serpent eagle possesses 6–7 even-width dark tail bars, which are narrower than the brown gaps between them (Morris & Hawkins 1998, Ferguson-Lees & Christie 2001, Sinclair & Langrand 2003). The bulging head shape is also sometimes referred to (BirdLife International 2009). In life, at close range, the likeness to an *Accipter* is superficial because of the odd bill, teddy-bear like eye and facial shape and feathering. A closely observed serpent eagle is instantly and easily identified as such.

In Figs. 1–2 most of the diagnostic features mentioned above can be seen; for comparison with Henst's Goshawk see Fig. 3. The short crest is flattened and invisible. Although it has been stated that the serpent eagle has short tarsi (Sinclair & Langrand 2003), they appear proportionately long to me. Tarsus length is given as 80–92 mm for Madagascar Serpent Eagle and 81–100 mm for Henst's Goshawk (Ferguson-Lees & Christie 2001), the latter a bird one would not describe as having short tarsi. Other structural points to note (mentioned by Ferguson-Lees & Christie 2001) are the apparently relatively short toes and nails, although these are not easy to see. Also noteworthy is the large yellow eye, an adaptation perhaps to taking *Uroplatus* geckos, which are nocturnal. Furthermore, note the swollen, bulbous appearance of the bill, which lacks the tooth-notched upper mandible of Henst's Goshawk, and the grey cere, which is largely hidden by the rictal

bristles. In the photographs at full resolution one can see the scutellated tarsi, described elsewhere as heavily scaled and knobbly looking (Ferguson-Lees & Christie 2001).

Madagascar Serpent Eagle is traditionally placed alongside Congo Serpent Eagle *Dryotriorchis spectabilis* (Kemp 1994, Ferguson-Lees & Christie 2001) and it had even been suggested that this genus and the monotypic *Eutriorchis* should be united (Brown & Amadon 1968). However, recent research has revealed that *Eutriorchis astur* is not related to the serpent eagles *Spiliornis* of Asia or to *Dryotriorchis spectabilis*—which have now been placed together in the Circaetinae—but nestles within one of two Old World vulture clades, the Gypaetinae, alongside Lammergeier *Gypaetus barbatus*, Egyptian Vulture *Neophron percnopterus* and Palm-nut Vulture *Gypohierax angolensis* (Lerner & Mindell 2005). Its English name also does not accurately reflect its dietary preferences as it rarely eats snakes. In a recent study, snakes comprised just 1.5% of prey items brought to a nest, whereas chameleons *Furcifer* and *Calumma* spp. and leaf-tailed geckos *Uroplatus* spp. comprised over 80% (Thorstrom & Rene de Roland 2003). On this trip to Masoala, and despite considerable effort, I failed to locate any *Uroplatus* geckos, which I had easily found after dark on an earlier visit. These geckos are popular in the exotic-pet trade and in some areas there is concern that collectors are reducing the populations (http://www.wildmadagascar.org/wildlife/uroplatus.html). I have no evidence of *Uroplatus* collecting in Masoala National Park, but perhaps the issue is worthy of further investigation?

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