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New Guinea Harpy-Eagle Attempts to Capture a Monitor Lizard

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The New Guinea Harpy-Eagle *Harpyopsis novaeguineae* (subsequently referred to as Harpy-Eagle) is a very large, inconspicuous, forest-dwelling raptor endemic to the New Guinea mainland (Coates 1985; Beehler *et al.* 1986). It is both heard and seen with some frequency by field ornithologists but only rarely are individuals observed for extended periods at close range. To date, there have been no published firsthand accounts of hunting technique or active predation by this species.

From the evidence of prey caches and accounts from Papua New Guinean informants (Diamond 1972; Majnep & Bulmer 1977; B. Beehler pers. obs.) it is known that the Harpy-Eagle subsists almost entirely upon mammalian prey — primarily giant rats (*Uromys* spp., *Mallomys* spp.), ringtail possums (*Pseudocheirus* spp.), cuscuses (*Phalanger* spp.) and also small wallabies, small pigs and even small dogs (Majnep & Bulmer 1977). There are unconfirmed reports of the Harpy-Eagle taking birds and snakes (Coates 1985).

Here we report the first instance of *Harpyopsis* at-

tempting to capture a lizard, and the first account of attempted predation by this species based on detailed first-hand observation.

Our observations were made on 16 August 1991 at the rainforest research station established by Andrew Mack and Debra Wright in Chimbu Province, Papua New Guinea, 9.6 km due east of Haia, c. 6°43'N, 145°5'E, c. 880 m asl. We were sitting in the Mack camp house when at c. 1320 h, MJ looked through the screen window to see a large bird swoop into the vegetation directly out from the elevated front porch. We grabbed binoculars and quietly moved out to the porch to examine and identify the bird.

We found the Harpy-Eagle perched in clear view on a branch about 30 m from us (eye level), in the middle story of the forest vegetation. Although the bird's attention was drawn to us when we came onto the porch, it did not appear in any way fearful of our presence. For the subsequent 10 min (an approximation, because no one timed the events), we watched the bird without interruption as it attempted to capture a juvenile *Varanus*

indicus (snout-vent *c.* 35 cm, total length *c.* 80 cm) that was at its regular basking location on the limb of a 25 m high *Rhus taitensis* (Anacardiaceae).

The Harpy-Eagle was very small for the species. This was obvious to BMB at the time, and was confirmed by WDC after he observed a considerably larger *Harpyopsis* several weeks later. We suppose the very small size indicates it was a first-year male. Its iris was olive-brown, the legs were dull yellow and its plumage was in all ways typical of the species; there was more than adequate time for all of us to discuss and confirm the key identifying field marks (see Beehler *et al.* 1986).

When MJ originally observed the bird through the window it had apparently located the monitor and had swooped in. We found the Harpy-Eagle perched on the basking limb *c.* 2 m below the monitor. It then walked up the limb, stopping *c.* 1 m below the monitor. After several minutes of peering and little else, the bird flew to the next tree, alighting on a perch *c.* 6 m to the right of the monitor and at the same level. At this point the monitor perched head-down on a steeply sloping 18 cm limb near where it joined the main trunk (35 cm diameter). The Harpy-Eagle perched and watched the monitor for about 3 min, then flew and perched about 150 cm above the monitor on its basking limb. At this point the monitor cautiously eased down the limb about 1.5 m, almost to the main trunk, all the while flattening its body and expanding its throat pouch to enlarge its apparent size to the predator.

After several minutes of passive peering the Harpy-Eagle slowly and nimbly walked down the branch (leg over leg in parrot-fashion) toward the monitor, then reached a foot out towards the flattened monitor in an apparent attempt to snatch it from the branch. The monitor countered by inching downward and partially around the limb (but moving only a few centimetres in total).

The Harpy-Eagle then dropped onto a small leafy branch just below the monitor, a distance of about 1.5 m from it. From here the Harpy-Eagle again perched almost motionless for several minutes and peered at the wary lizard. Without warning the bird spread its wings and launched directly at the monitor, apparently attempting to grasp the lizard in its talons. The bird missed and continued in flight to a tree about 15 m to the left.

In reaction to the attempted strike, the monitor

widely opened and displayed its bright red mouth and struck out at the approaching Harpy-Eagle. The monitor then quickly ran headlong down the trunk of the tree to the ground and out of our view.

At its new perch the Harpy-Eagle sat for about 3 min more, then swooped 25 m to the right, close to its original perch. It waited and watched from there, then flew off more than 100 m further to our right, perching just out of sight.

This incident raises two thoughts. First, since the bird was a very small, olive-eyed individual, we may have been observing a trial effort in predation by a recently independent individual. Thus, the monitor may constitute nothing more than an incidental prey item for the species. Second, that this record of attempted predation by *Harpyopsis* is unique highlights how little is known of this forest eagle. Given its low population density and the threat from hunting the species for its feathers (sold on the black-market, Coates 1985), we believe *Harpyopsis* merits focused attention. We strongly recommend that a qualified research team conduct detailed studies of this bird's ecology, population status and reproductive behaviour. Only then can a practical program of preservation be devised for this, one of New Guinea's most remarkable bird species.

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