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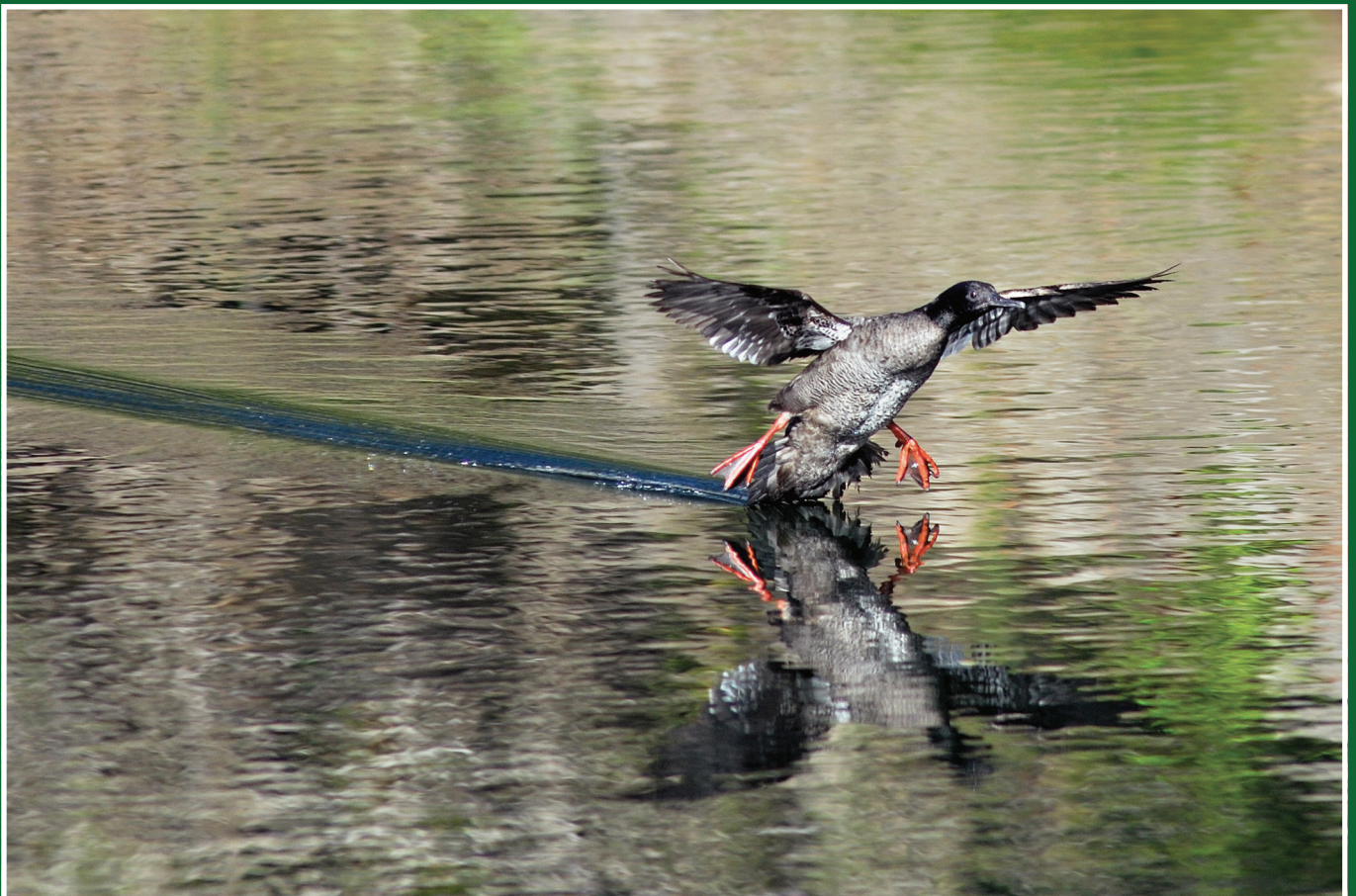
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# Records of the Harpy Eagle (*Harpia harpyja*) in the Serra Bonita reserves complex, Camacan, Bahia, with evidence of breeding

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**RESUMO: Registros do uiraçu (*Harpia harpyja*) no complexo de reservas Serra Bonita, Camacan, Bahia, com evidências de reprodução.** O uiraçu é considerado como quase-ameaçado de extinção no Brasil, e as populações da Mata Atlântica encontram-se muito ameaçadas. Registros desta espécie para o Estado da Bahia são raros e pontuais, com poucos registros de reprodução. Aqui nos reportamos a presença desta espécie no complexo de reservas Serra Bonita em Camacan (BA), atestada através de fotografias de um imaturo e pelo encontro de penas no interior da floresta. Estes registros apontam para o excelente estado de conservação da área, já que esta espécie é predadora de topo de cadeia e necessita de grandes territórios para a sua sobrevivência. A fotografia de um jovem indica a presença de reprodução na região, e recomendamos um programa de monitoramento desta população.

**PALAVRAS-CHAVE:** Uiraçu, *Harpia harpyja*, Mata Atlântica, Bahia.

**KEY-WORDS:** Harpy Eagle; *Harpia harpyja*; Atlantic Forest; Bahia.

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The Harpy Eagle (*Harpia harpyja*), occupies extensive forests and preserves from Mexico to Argentina (Chebez 1990, Vargas *et al.* 2006). In Brazil the species has been recorded in all but some states of the northeastern region, and is relatively common in the Amazonian region (LFS, *pers. obs.*). However, in the Atlantic Forest recent records are punctuated and very scarce (Galleti *et al.* 1997). Within this unfavorable context, Bahia is one of the states in which recent records of the species have been presented, with individuals observed in the Serra das Lontras (Silveira *et al.* 2005) and in the Estação Experimental Pau-Brasil, Porto Seguro (ICMBio 2008). Furthermore, Galleti *et al.* (1997) had recorded the species in the extreme south of Bahia, and Srbek-Araújo and Chiarello (2006) had recorded a Harpy in the Reserva Natural do Vale do Rio Doce (ES), not very distant from the Bahian border.

The Harpy Eagle is classified as Near Threatened on the national level. Causes for its decline are loss of habitat and hunting (Vargas *et al.* 2006, IBAMA 2008; BirdLife International 2011). Among all eastern Brazilian states with compiled lists of threatened birds, the Harpy Eagle is considered to be Critically Threatened (Garcia and Marini 2006).

Recent records of reproductive activity in southern Bahia were reported by Silveira *et al.* (2005), stating that in March 2000 one Harpy Eagle was observed carrying tree branches with green leaves in Serra das Lontras, not distant from Serra Bonita. According to Rettig (1978) this activity is accomplished by males as well as females.

We hereby present evidence indicating the presence of the Harpy Eagle in RPPN Serra Bonita I (Fazenda Paris), located in the municipality of Camacan (Bahia, Brazil). Feathers of an adult bird (deposited at the Museu de Zoologia da USP, MZUSP and in the Coleção de Mamíferos "Alexandre Rodrigues Ferreira" of UESC, CMARF) were found in May and December 2010. Furthermore, a juvenile (Figure 1) was photographed using camera trap (Tigrinus®, conventional model 6.0C) lured by the essence Wildcat Lure (Buckeye Trap Supply) in November 2010. The recordings of this juvenile (n = 10) were obtained at 369 m altitude inside a secondary forest in advanced state of regeneration (15°24'59.4"S, 39°33'07.9"W). This individual was photographed on November 12, 16, 20 and 26, 2010, always on the ground and at times of day varying from 07:54 through 15:44 h.

The plumage of this individual corresponds to that found in the juvenile state according to Fowler and



Cope (1964). It suggests that the bird photographed was between eight and twelve months of age (Sanaiotti, *pers. comm.*). According to Rettig (1978), individuals of this age remain little time among the tops of trees, dwelling most of the time among intermediate stages of vegetation, which may have facilitated its descent to the ground. Detailed examination of photographic sequences before and after the moment in which the Harpy was photographed does not reveal the presence of any animal that would have ultimately called the bird's attention to provoke its descent or of any event that would have set off the camera's flash, thus calling attention to the individual. Harpies can hunt land animals like armadillos (*Cabassous unicinctus*; Piana, 2007), or semi-tree dwellers, such as opossums (*Didelphis*; Rettig, 1978; Piana, 2007) and anteaters (*Tamandua*; Piana, 2007). This may justify an eventual descent to the forest floor. However, Fowler and Cope (1964), in an attempt to catch a juvenile, used different animals placed in traps, with no success. The reasons that provoked the descent of this juvenile among so many days and at distinct times still remain without apparent explanation.

Serra Bonita is also considered to be a key area for the preservation of birds by Birdlife/SAFE Brazil, as it possesses 59 species of endemic birds and nine globally

threatened ones (Bencke *et al.* 2006). It is a locality from which more than 350 species of birds have been registered (LFS, unpublished data).

Record of the Harpy Eagle in Serra Bonita emphasizes the role of the reserve for conservation of birds and top predators in the region. Presence of an individual suggests that the species is reproducing in the reserve area, which demonstrates that viable populations may still exist and must be monitored through long-term research programs.

The Serra Bonita Reserves Complex is located to the south of the Una-Lontras-Baixão Focal Area of the Atlantic Forest central corridor, between the Camacan and Pau Brasil municipalities, Bahia. The complex is made up of four RPPNs administered by the Uiraçu Institute, which protects an area of 1,800 ha, and expects to expand this area of conservation to a total of 7,500 ha. This mountain range consists of various altitudinal gradients (200 to 960 m), presenting rich environmental heterogeneity with diverse physiognomies that spans from an ombrophilous forest, including elements of a semi-deciduous seasonal forest in lower areas, through a sub-montane humid forest, close to the mountain range peaks (Amorim *et al.* 2009), mostly in excellent state of conservation. These characteristics allow for the maintenance of habitat



FIGURE 1: Juvenile Harpy Eagle photographed by camera trap.

available to a series of mammals that serve as prey for the Harpy Eagle, such as Coatis (*Nasua nasua*), sloths (*Bradypus* sp.), the endemic primates Yellow-breasted capuchin (*Cebus xanthosternos*), the Southern Bahian masked titi monkey (*Callicebus melanochir*), the Wied's black-tufted-ear marmoset (*Callithrix kuhlii*), and the Golden-headed lion tamarin (*Leontopithecus chrysomelas*). Furthermore, one of the rarest and least known mammals of the neotropics, the Painted tree-rat (*Callistomys pictus*; Freitas e Silva 2005; Barros *et al.* 2009; Alvarez *et al.* 2010), occurs in the region.

Southern Bahia is one of the more relevant areas benefiting from the effective establishment of the Atlantic Forest Central Corridor owing to its elevated degrees of species richness, endemism and threat (Fonseca *et al.* 2003). It is in this region that the greatest remains of the northeastern Atlantic Forest are encountered, with two pertinent centers of elevated biological diversity and endemism (Mesquita 2004; MMA *et al.* 2006). The presence of the Harpy Eagle inside the RPPN Serra Bonita Complex underscores the value of the Conservation Unit model in maintaining biodiversity in the Atlantic Forest.

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