

Unusual nest site for greater rheas (*Rhea americana*, Rheidae, Aves)

Cristiano Schetini de Azevedo¹, Herlandes Penha Tinoco², João Bosco Ferraz² and Robert John Young^{1,3}

¹ Conservation, Ecology and Animal Behaviour Group, Pontifícia Universidade Católica de Minas Gerais, Pós-graduação em Zoologia de Vertebrados, Prédio 41, Av. Dom José Gaspar, 500, Bairro Coração Eucarístico, 30535-610, Belo Horizonte, Minas Gerais, Brazil. E-mail addresses: cristianoroxette@yahoo.com, robyoung@pucminas.br

² Fundação Zoo-Botânica de Belo Horizonte, Av. Otacilio Negrão de Lima, 8000, Bairro Pampulha, 31365-450, Belo Horizonte, Minas Gerais, Brazil. E-mail addresses: herlandespenha@yahoo.com.br, johnbferraz@yahoo.com.br

³ Corresponding author

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RESUMO. Local incomum de anidamento de emas (*Rhea americana*, Rheidae, Aves). A ema (*Rhea americana*, Rheidae, Aves) é a maior ave sul-americana, ocorrendo em grande parte do Brasil. Habita preferencialmente planícies abertas onde constrói os ninhos. Este trabalho tem como objetivo descrever um novo ambiente utilizado pelas emas na construção de ninhos: uma plantação de eucalipto. Foi encontrado um ninho medindo 132 cm de diâmetro dentro de uma plantação de eucalipto, com árvores medindo sete metros de altura, em outubro de 2004. O ninho se encontrava a 150 m da borda do eucaliptal, ao lado de uma área de cerrado fechado. O ninho, com 17 ovos em final de incubação, foi predado por mão-pelada (*Procyon cancrivorus*, Carnivora).

PALAVRAS-CHAVE: Ema, eucaliptal, ninho, *Rhea americana*.

KEY WORDS: Eucalyptus woodlot, greater rhea, nest, *Rhea americana*.

The greater rhea (*Rhea americana*, Rheidae, Aves) is a South American member of the ratite group; it is a flightless bird that inhabits grasslands of Brazil, Bolivia, Argentina and Uruguay. It lives in large mixed groups, up to 50 individuals (Sick 1997), composed of males and females of all ages. During the reproductive season, these groups split up into small harems of one male and several females. Male than court females and mount many of them, which then lay their eggs in the nests prepared a few days before by males (Del Hoyo *et al.* 1992).

Greater rhea nests are soil depressions covered with leaves and feathers (Dani 1993) and are usually built in open environments (Hasenclever *et al.* 2004). *Eucalyptus* plantations, as any type of forest environment, are not normally considered suitable environments for greater rheas because they detect their predators by sight and use zigzag running strategies to escape from them. In fact, greater rheas are not present in survey lists of birds living in *Eucalyptus* plantations in Brazil (Machado and Lamas 1996; Melo 1997; Antas and Almeida 2003; Willis 2003). However, Accordi (2003) reported greater rheas using *Eucalyptus* forests as passages between open lands.

This note reports the use of an *Eucalyptus* plantation as a nest site for greater rhea, a finding which is new in terms of the reproductive biology of this species. The study was conducted in Felixlândia, northwest Minas Gerais State, south-eastern Brazil, from January to December 2004. The study site was a 10,000 ha *Eucalyptus* farm owned by Plantar S.A. Reflorestamentos (79°30'N, 48°23'S) and its surrounding area,

which are characterized as *cerrado* (savannah-like vegetation) and pasture lands.

One nest was found in the interior of a *Eucalyptus* plantation in October (Figure 1). The nest had a diameter of 132 cm and contained 17 eggs in final incubation phase, which was confirmed by candling. The mean length of the eggs was 11.97 ± 0.63 cm and the mean width was 8.48 ± 0.36 cm. The *Eucalyptus* trees had an average height of seven meters. Dry *Eucalyptus* leaves and feathers covered the nest. The nest surroundings were apparently "maintained" clear of leaves. The nest was built 150 meters from the border of the *Eucalyptus* plantation, which was bordered by a large area of disturbed *cerrado* (savannah-like vegetation).

Behavioural observations showed that the incubating male abandoned the nest few days before hatching of the eggs was due. Disturbance caused by humans, the absence of food resources, low quality of parents, ectoparasite infestation, extreme weather conditions and the presence of predators are listed as possible causes for nest desertion in greater rheas (Fernandez and Rebores, 2000). The last hypothesis being the most probable cause of nest desertion in this case because the nest was later found preyed upon by crab-eating raccoon (*Procyon cancrivorus*, Carnivora), whose presence was confirmed by pugmarks (footprints) in the nest.

The use of an *Eucalyptus* plantation as a nest site by greater rheas seems to be an uncommon event (probably an inexperienced male), however, it does suggest that greater rheas make use of this exotic environment type; perhaps showing a greater degree of behavioural flexibility than previously imagined.



Figure 1. The nest built by a male greater rhea in an *Eucalyptus* woodlot in October 2004, at Felixlândia, State of Minas Gerais, Brazil (left side and detail on the superior right). Candling of an egg (inferior right); the great air cell indicates that the egg was in final incubation stage.

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