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## The Yellow Armadillo, *Euphractus sexcinctus*, in the North/Northeastern Brazilian Coast

### Adriani Hass

Departamento de Zoologia, Instituto de Biologia, Universidade de Brasília, Brasília, DF. Address: SQN 412, Bloco K, Apto. 305, 70.867-110 Brasília, DF, Brazil.

### Flávio H. G. Rodrigues

Associação para Conservação dos Carnívoros Neotropicals – Pró-Carnívoros and Departamento de Zoologia, Universidade de Brasília, Brasília, DF. Address: SQN 412, Bloco K, Apto. 305, Brasília, 70.867-110, DF, Brazil.

### Tadeu G. de Oliveira

Associação para Conservação dos Carnívoros Neotropicals – Pró-Carnívoros and Departamento de Biologia, Universidade Estadual do Maranhão, São Luís, Maranhão. Address: Rua das Quaresmeiras, Qd-8, No. 14, 65076-270 São Luís, MA, Brazil.

The distribution of the yellow armadillo (*Euphractus sexcinctus*) was recently enlarged to include the state of Maranhão in northern Brazil (Silva-Júnior *et al.*, 2001). This species occupies distinct

biomes in South America, such as the Caatinga, Cerrado, Pantanal, Chaco, Atlantic Forest and, at least, the open savannas of the Amazon (Silva-Júnior and Nunes, 2001). The yellow armadillo habitat ranges from grasslands to forest borders (Silva-Júnior *et al.*, 2001; Olmos, 1995; Redford and Wetzel, 1985; Wetzel, 1985; Brooks, 1985; Emmons and Feer, 1997), but there is no consistent information on the use of tall forest and coastal areas (Silva-Júnior *et al.*, 2001). Here we describe records of *E. sexcinctus* in coastal areas of the state of Maranhão.

In April 1994, a female yellow armadillo was captured by fishermen at Cajual Island (02°26'S, 44°03'W), on the western coast of Maranhão, swimming in the sea, about 50 m from the coast. Cajual Island is about 6,000 ha and only 500 m from the coastline. The vegetation is composed mainly of mangroves, but restingas (scrub on coastal sand soils) and mud patches are also present. The yellow armadillo is quite omnivorous, eating insects and plant matter (Redford, 1985) as well as small rodents (Bezerra *et al.*, 2001). This broad diet makes possible its occupation of a wide range of habitats, and it is plausible that *E. sexcinctus* feeds on crabs at Cajual Island, an abundant resource there. Although we have no data on habitat use by the armadillos on the island, they probably mostly occupy the restinga habitat, because of the lack of vegetation on the mud patches where the armadillo would be very exposed. Mangroves are the dominant vegetation, and are flooded daily (the tidal range reaches 7 m, the largest in Brazil) and this habitat is not available for burrows and refuge, although it may be used to forage. Its swimming ability makes it possible for the yellow armadillo to colonize islands near the coast, and for dispersal between the various populations. This was the first record of the species at Cajual Island, and it is possible that this individual was even an initial colonizer.

Caju Island is off the eastern coast of Maranhão (02°47'S, 42°05'W) and is one of 80 islands in the Parnaíba Delta, the largest of the Americas. This 100-km<sup>2</sup> island is a private resort. It has a broad range of habitats, with mangroves (35%),

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grasslands (20%), salt marshes (10%), sand dunes (12%), savanna (Cerrado) and dry open forest (Cerradão) with cacti from the Caatinga of North-east Brazil (23%) (T. Oliveira, pers. obs.). There, the yellow armadillo is the most frequently seen mammalian species. Although no consistent survey has been carried out to determine its habitat use, to date the large majority of observations have been in restinga and grassland, but they have also been seen in forest near the mangrove. They are highly active during the day: most observations were made during the day, even during the hottest hours. This could be a consequence of the fact that the yellow armadillo has no predators on Caju Island, as the ocelot (*Leopardus pardalis*) has been extirpated, and the largest predators currently found, the crab-eating fox (*Cerdocyon thous*) and raccoon (*Procyon cancrivorus*), pose no threat to the species.

Due to their omnivorous diet, yellow armadillos on Caju Island may also eat the abundant crabs (for example, *Uca* spp. and *Goniopsis cruentata*), besides tubers and occasionally garbage from the lodge. If so, its habitat range, at least for feeding purposes, would also include salt marshes and mangroves. Although no surveys have been conducted on the other nearby islands, it is very likely that yellow armadillos are also present there, as some of them are larger and closer to the coast than Caju Island.

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## Reproducción de *Dasypus novemcinctus* en el Izozog, Santa Cruz, Bolivia

Clara R. Rojas-Suárez y Leonardo Maffei

C.A.B.I., Casilla 6272, Santa Cruz, Bolivia. E-mails: <clararojass@yahoo.com>, <leomaffei@yahoo.com>.

## Resumen

Se investigó la biología reproductiva de *Dasypus novemcinctus* en el Izozog, provincia Cordillera, del Departamento de Santa Cruz, mediante análisis de fetos colectados desde el año 1997 hasta 1999 y datos de cacería de 1996 hasta 1999, donde los cazadores habían anotado las hembras en estado reproductivo (preñadas o lactando). De las medidas biométricas tomadas a los fetos, se observó que la medida de la pata trasera, la oreja y el peso estuvieron muy relacionados con la edad. Así mismo el análisis de sexos demostró que existe un porcentaje mayor de machos (59,1%) que de hembras (40,9%). Los resultados demostraron que *D. novemcinctus* presenta estacionalidad en partos, concentrados en los meses de octubre,