

## SHORT NOTE

### ARMADILLO (CINGULATA: DASYPODIDAE) IN THE DIET OF THE NEOTROPICAL OTTER *Lontra longicaudis* IN SOUTHERN BRAZIL

Fernando Marques QUINTELA<sup>1\*</sup>; Andressa GATTI<sup>2</sup>

<sup>1</sup> Programa de Pós-graduação em Biologia de Ambientes Aquáticos Continentais, Instituto de Biologia, Universidade Federal do Rio Grande, Caixa Postal 474, CEP 96201-900, Rio Grande, RS, Brasil, e-mail: boiruna@yahoo.com.br.

<sup>2</sup> Programa de Pós-Graduação em Biologia Animal, Universidade Federal do Espírito Santo, Av. Marechal Campos, 1468 – Maruípe, Vitória, ES, Brasil, e-mail: gatti.andressa@gmail.com

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**ABSTRACT:** Claws, hairs and osteoderms of armadillo (Cingulata: Dasypodidae) were found in a scat of a neotropical otter (*Lontra longicaudis*) in an edge of a pluvial channel near a peat forest in the southern Coastal Plain of Rio Grande do Sul state, southern Brazil. Due to the absence of carrion-eating invertebrates in the sample, it is suggested that the armadillo was actively preyed upon by the otter. This is the first record of armadillo in the diet of *Lontra longicaudis*.

Key-words: claws, cingulate, food habits, osteoderms, predation, scat.

The neotropical otter *Lontra longicaudis* Olfers, 1818 is a semi-aquatic mustelid, distributed from northeastern Mexico to south of Uruguay, Paraguay and across the northern part of Argentina to Buenos Aires Province (Larivière, 1999). Investigations into the feeding habits of *L. longicaudis* indicate a predominant piscivorous-carnivorous diet (Helder-José and Andrade, 1997; Pardini, 1998; Colares and Waldemarin, 2000; Quadros and Monteiro-Filho 2001; Alarcon and Simões-Lopes, 2004; Kasper et al., 2004, 2008; Passamani and Camargo, 2005; Quintela et al., 2008). Most of these studies have also reported the occurrence of mammalian items such as rodents, didelphid marsupials and other unidentified taxa in the fecal samples. In addition, Quintela et al. (2008) identified the mephitid *Conepatus chinga* in the feeding remains of a Neotropical otter from a coastal stream in southern Brazilian restinga. Therefore, despite the low frequency, mammals are a normal constituent of the diet of *L. longicaudis*.

In this paper we report the occurrence of armadillo (Cingulata: Dasypodidae) in the diet of the neotropical otter in southern Brazil. Claws, osteoderms and hairs of armadillo (Figure 1) were identified in one scat sample collected on August 12<sup>th</sup>, 2008 in an edge of a pluvial channel near a peat forest in Rio Grande city, southern Coastal Plain of Rio Grande do Sul State (32°07'42"S – 52°09'13"W), Brazil. Vegetation in the area is mainly composed by the arboreal *Erythrina crista-galli* and the herbaceous *Scirpus giganteus*, *Eryngium pandanifolium*, *Bromelia antiacantha* and *Juncus* sp. Other items identified in the scat were scales of *Mugil platanus* (Perciformes: Mugilidae), an abundant marine-estuarine fish in Patos Lagoon estuary (Fischer et al.,

\* Corresponding author

2004). This was the only scat sample containing armadillo remains in a total of 54 collected along the pluvial channel from November 2007 to August 2008. It was not possible to identify the armadillo species in the sample. Two species (*Dasypus novemcinctus* Linnaeus, 1758 and *D. hybridus* Desmarest, 1804) are found in and around the study area, being *D. novemcinctus* commonly trapped and recorded through footprints in the edges of pluvial channels and coastal streams. No carrion-eating invertebrates were found in the scat sample, suggesting that the otter may have captured the armadillo alive.



Figure 1. Claw and osteoderms of armadillo (Cingulata: Dasypodidae) found in *Lontra longicaudis* scat in southern Brazil. Photo: Fernando M. Quintela.

This is the first record of armadillo in the diet of *Lontra longicaudis*. Other larger-sized mammals were recorded in the diet of *L. longicaudis* in southern Brazil, such as the coypu *Myocastor coypus* (Colares and Waldemarin, 2000) and the capybara *Hydrochoerus hydrochaeris* (Colares and Waldemarin, 2000; Quintela et al., 2008). However, small rodents represent the most common mammalian item found in the majority of investigations concerning the feeding habits of the neotropical otter (e.g. Helder-José and Andrade, 1997; Pardini, 1998; Alarcon and Simões-Lopes, 2004; Kasper et al., 2004, 2008; Quintela et al., 2008). Armadillos have been recorded in the diet of other carnivore species such as crab-eating fox *Cerdocyon thous* (Rocha et al., 2004), hoary fox *Lycalopex vetulus* (Jácomo et al., 2004), maned wolf *Chrysocyon brachyurus* (Jácomo et al., 2004; Rodrigues et al., 2007; Bueno and Motta-Junior, 2009), crab-eating raccoon *Procyon cancrivorus* (Gatti et al., 2006), and even free-ranging domestic cats *Felis catus* and dogs *Canis familiaris* (Campos et al., 2007). The present account suggests *Lontra longicaudis* is a predator of cingulates in the Campos Sulinos biome, and contributes to the further understanding of the trophic ecology of the region's mammalian fauna.

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## RÉSUMÉ:

### Le tatou (Cingulata: Dasypodidae) dans la diète de la loutre neotropical (*Lontra longicaudis*) au sud du Brésil

Onglis, poils et osteodermes du tatou ont été trouvés dans un échantillon d'excrément de la loutre néotropical (*Lontra longicaudis*), au bord du canal pluvial proche d'une forêt paludéenne, dans la région sud de la Plaine Côtière de l'État du Rio Grande do Sul, au sud du Brésil. Le tatou a été probablement capture, puisqu'aucune carcasse d'invertébré en décomposition n'a été trouvé dans l'échantillon fécal. C'est la première fois que l'on recense des restes de tatou dans la diète de la *Lontra longicaudis*.

## **RESUMEN**

### **Armadillo (Cingulata: Dasypodidae) en la dieta de la nutria neotropical (*Lontra longicaudis*) en el sur de Brasil**

Uñas, pelos y osteodermis de armadillo (Cingulata: Dasypodidae) fueron encontrados en una muestra de heces de la nutria neotropical (*Lontra longicaudis*) en la margen de un canal pluvial cerca a una vegetación palustre en la región sur de la Planicie Costera del Estado de Rio Grande do Sul, sur de Brasil. Es probable que el armadillo depredado ha sido activamente capturado, una vez que invertebrados descompositores de amazonas no fueron encontrados en la muestra fecal. Este es el primer registro de armadillo en la dieta de la *Lontra longicaudis*.

## **RESUMO**

### **Tatu (Cingulata: Dasypodidae) na dieta da lontra neotropical (*Lontra longicaudis*) no sul do Brasil**

Unhas, pêlos e osteodermes de tatu (Cingulata: Dasypodidae) foram encontrados em uma amostra de fezes da lontra neotropical (*Lontra longicaudis*) na margem de um canal pluvial próximo a uma mata palustre na região sul da Planície costeira do Estado do Rio Grande do Sul, sul do Brasil. Provavelmente o tatu predado foi ativamente capturado, uma vez que invertebrados decompositores de carcaças não foram encontrados na amostra fecal. Este é o primeiro registro de tatu na dieta de *Lontra longicaudis*.