DIET OF THE CRAB-EATING RACCON *Procyon cancrivorus* (CARNIVORA: PROCYONIDAE) IN RESTINGA AND ESTUARINE ENVIRONMENTS OF SOUTHERNMOST BRAZIL

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INTRODUÇÃO

The crab-eating raccoon *Procyon cancrivorus* is a medium sized procyonid widely distributed in the Neotropics, ranging from Costa Rica and Panama to Uruguay, northeastern Argentina and Brazil (Cheida *et al*. 2011). It is a habitant of forest environments and open areas generally associated to limnic systems and oceanic shores (Cheida *et al*. 2011). The crab-eating raccoon is considered one of the less studied neotropical carnivores (Morato *et al*. 2004). Few studies on *P. cancrivorus* diet were conducted in Venezuela (Bisbal 1986) and in restinga and Atlantic Forest areas of southeastern (Gatti *et al*. 2006) and southern Brazil (Santos & Hartz 1999, Pellanda *et al*. 2010). These investigations pointed to generalist and opportunistic feeding habits. The restinga formations comprehend animal and vegetal communities of sandy coastal areas and its physical elements (Waechter 1985). In southern Brazil, these typical environments range from southern Santa Catarina State to southernmost Rio Grande do Sul (Waechter 1985). These restinga forests represent typical vegetal communities in Rio Grande do Sul coastal plain, comprising formations such as peat and sandy forests.

OBJETIVOS

The present work investigated the diet of *P. cancrivorus* in restinga and estuarine environments in southern Rio Grande do Sul state, aiming to contribute to the knowledge on ecology of this poorly studied carnivore species.

MATERIAL E MÉTODOS

Study area The municipality of Rio Grande is located in the southern coastal plain of Rio Grande do Sul State, southern Brazil. Scat samples of *P. cancrivorus* were collected in two distinct environments: 1. restinga peat forest fragment locally known as “Mata da Estrada Velha” (32º07’S; 52º09’W). 2. saltmarsh and adjacent restinga sandy forest located in Torotama Island, Patos Lagoon estuary (32º07’S; 52º09’W). Sampling period: from January 2008

to May 2010. Data sampling The diet composition of P. cancrivorus was determined based on the identification of scat remains. The consumed taxa were determined based on identification of remains such as seeds, fibers, scales, teeth, vertebrae and other bones, hair, carapaces and other structures. The frequency of occurrence (FO) and relative importance (RI) of each food item was calculated. The food niche breadth was calculated for each sampled system. Levins index was used as a measurement of food niche breadth for all food categories. We evaluated diet similarity between the two sampled areas by using Pianka's index.

RESULTADOS

Restinga peat forest A total of 129 scats containing 34 identified taxa, seven (20.5%) of these comprising vegetal items and 27 (79.5%) animal items. Estuarine island A total of 108 scats containing 25 identified taxa, five (20%) of these comprising vegetal items and 20 (80%) comprising animal items. Values of Levins niche breadth were 0.38 for peat forest and 0.45 for estuarine island. Pianka's diet similarity index between the two sampled areas was 0.80.

DISCUSSÃO

The crab-eating raccoon showed a large dietary spectrum on the studied systems, consuming items which ranged from fruits and small invertebrates to medium-sized vertebrates. In the present work we clearly observed the utilization of resource from estuarine/palustrine systems (e.g. *Brachyura* crustaceans, *Pomacea* sp., belostomatids), restinga forests (e.g. *Syagrus romanzoffiana, Bromelia antiacantha*) and other habitats, revealing the exploration of distinct physiognomies along its home range. Mammals comprehended the most consumed category in the studied estuarine island and a frequent category in the peat forest. Considering both systems, mammalian items consisted from small Sigmodontinae rodents to medium-sized species such as armadillo and *Myocastor coypus* (coypu). Mammals were found on varied frequencies on *P. cancrivorus* previous diet investigations and most of items are represented by small rodents (Santos & Hartz 1999, Pellanda *et al*. 2010, Aguiar *et al*. 2011).

CONCLUSÃO

P. cancrivorus presented a diversified diet on the subtropical studied systems, revealing opportunistic feeding habits. The species may also play a role as seed disperser, contributing to vegetal regeneration in restinga communities. The conservation of *P. cancrivorus* in southern coastal Brazilian areas, however, is conditioned to the habitat quality, which implies on the availability of mainly native fruit and small mammals species.

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