

Procyon cancrivorus (Crab-eating Raccoon)

Family: Procyonidae (Raccoons)

Order: Carnivora (Carnivores)

Class: Mammalia (Mammals)



Fig. 1. Crab-eating raccoon, *Procyon cancrivorus*.

[http://www.theanimalfiles.com/mammals/carnivores/raccoon_crab_eating.html] (accessed 1 November 2011)

TRAITS. *Procyon cancrivorus* has body weights between 3.1 and 7.7 kilograms (Emmons, 1997). Body length ranges between 54 and 65 cm with the tail being 50% of the total length between 25 and 38 cm. The pelt is uniformly brown or grey with legs and feet being dark brown and slender. There are no webs between the toes (Emmons, 1997). The dorsum (back of the animal) may be agouti black and yellow with yellowing on the sides and venter (Eisenberg and Redford, 1999). There is variation in colouring with a grizzled appearance due to the tips of hairs being black and the basal, belly and tail hairs being whitish to dark rust-red. The black mask present on the face and upper part of the cheeks fades behind the eyes. Eye shine is bright orange (Emmons, 1997). Neck fur slants towards the head and there is no underfur. The tail has sufficient fur and is ringed with black fur (Eisenberg and Redford, 1999). The rump is much higher than the hindquarters with the tail carried low. *Procyon cancrivorus* have a strong distinctive odor (Emmons, 1997). There is sexual dimorphism between the sexes with males being larger than females. *Procyon cancrivorus* is smaller and thinner than *Procyon lotor* (northern raccoon). The teeth of the crab-eating raccoon are also stronger than the northern raccoon due to the inclusion of crustaceans such as crabs and molluscs in their diets.

ECOLOGY. *Procyon cancrivorus* are nocturnal omnivores feeding mainly on molluscs fish and crabs along with amphibians and insects (Emmons, 1997). One specimen's stomach was found to be filled with fruit (Eisenberg and Redford, 1999). They are found in eastern Costa Rica and Panama, south to Uruguay and northeastern Argentina and also Trinidad. They also have habitats in the forest of Ilanos, the Amazon rainforest and the xerico chaco vegetation. They live in various habitats including primary and secondary forest usually at low elevations, swamp lands, mangrove forests, beaches and general close to coastlines and rivers. *Procyon cancrivorus* will adapt to various habitats once there is water and food present and also places to hide and den. The crab-eating raccoon is more restricted to habitats than the northern raccoon and where the species overlap, the crab-eating raccoon is mainly found near inland rivers while the northern raccoon is found close in swamps and beaches. They spend the days denning in hollow trees (Eisenberg and Redford, 1999).

SEXUAL BEHAVIOUR. Breeding occurs once a year usually between the months of July and September. Both sexes are mature after one year but usually only older males breed as younger males cannot compete. It was recorded that 60% of wild and captive females mate as juveniles with litters being produced at 1 year old (Chapman and Feldhamer, 1983). Captive males may also mate and father litters but wild males usually do not breed until they are at 2 years of age. Mating is noisy with males fighting others for access to females (De La Rosa and Nocke, 2000). The males of the species are polygynous and usually mate with several females in succession (Eisenberg and Redford, 1999). Once females are pregnant they reject mating with other males. There is an estimated estrous cycle occurring between 80 to 140 days. The gestation period lasts between 60 to 73 days (Chapman and Feldhamer, 1983).

A single litter contains between 2 and 7 kits with the typical number being between 3 and 4 kits (Fig. 2). The average weight of a pup is 71 g (2.5 oz). If a female loses a litter, there is a sometimes second period of estrous. The week before a female gives birth, she reduces her movement and becomes intolerant of others of the same species. Females give birth in abandoned dens of other animals, hollow trees or rock crevices. Soon after giving birth the female begins foraging (Fig. 3) again with each foraging time increasing in duration. Young are born without teeth, with little fur and their eyes are closed. They open their eyes after 3 weeks and characteristic facial markings begin to appear. Females provide parental care with exclusion of the males from the denning areas. The kits are weaned between 7 weeks and 4 months. Before being weaned they begin to forage with their mother with each period of foraging increasing in duration. They are independent after about 8 months (Chapman and Feldhamer, 1983).

COMMUNICATION. *Procyon cancrivorus* have good hearing capabilities and are perceptive to strange sounds. There have been 13 different vocalizations recorded with 7 of these being used between mother and young (Chapman and Feldhamer, 1983). These vocalizations are not heard from a long distance. There is little information on olfactory communication but there is a pair of anal glands present and there have been observances of anal sniffing in raccoons which is presumed to be a way of recognizing another individual. Rubbing of the nuchal region (posterior of the neck) against objects as a form of territorial marking has been studied in *Procyon cancrivorus*. Objects are marked using vertical or rotating movements of the head. The hairs in this region are pointed toward the head or straight upward unlike the

hair on the dorsum which is pointed backwards (Birgit and Meyer, 1999). Although not reported, it is presumed that scent cues also play a role in reproduction (Chapman and Feldhamer, 1983).

SOCIAL BEHAVIOUR. It is assumed that *Procyon cancrivorus* has the same general behavioural patterns as members of the same genus (Chapman and Feldhamer, 1983). They are nocturnal and although they are colour blind they have good night vision. Its tactile senses set this species apart from other carnivores. *Procyon cancrivorus* are terrestrial but can climb well. Male raccoons are usually solitary but other males within their feeding territory may be tolerated. They are usually solitary even when there is overlapping territories between the sexes (Chapman and Feldhamer, 1983). The densities per area fluctuate but 1/km² is not unusual in some habitats (Eisenberg and Redford, 1999). Exceptions to this do occur when there is a shortage of food or when denning when interactions between individuals have been observed. During the breeding season, young male raccoons move to other areas usually alone but sometimes in pairs while young females stay within their mother's territory. Pairs of yearling males eventually disperse. Distribution of the males is usually due to the number of females and their special distribution. Females are found distributed based on the availability of resources such as water, food and den sites (Chapman and Feldhamer, 1983).

FORAGING BEHAVIOUR. *Procyon cancrivorus* are very intelligent and have well-developed senses. They have a well-developed sense of touch particularly on their nose and their forepaws. They use their forepaws as tools to handle and manipulate food before eating. Their hands are dextrous and can therefore manipulate food items. They have been observed dipping food into water and washing it before eating. In catching and eating crabs, the crab-eating raccoon first exhausts the crab by repeatedly using a patting motion with its forepaws. After the crab is exhausted and no longer defends itself, it bites the crab, breaking then shell and uses its forepaws to place the crab into its mouth (Husson, 1978). Intelligence studies done on *Procyon cancrivorus* have shown that they are better at cats in discriminating objects but not as good as primates. They learn quickly and they can retain information for up to one year (Chapman and Feldhamer, 1983).

REFERENCES

- Birgit, V., and P.W. Meyer. 1999. "A specific type of scent marking and its structural basis in the Crab-eating raccoon (*Procyon cancrivorus*)." *Zeitschrift fur Säugetierkunde*, **64**.
- Chapman, J. A., and G. A. Feldhamer. 1983. *Wild Mammals of North America*. London: The John Hopkins University Press.
- De La Rosa, C. L., and C. C. Nocke. 2000. *A Guide to the Carnivores of Central America*. Austin: University of Texas Press.
- Eisenberg, J. F., and K. H. Redford. 1999. *Mammals of the Neotropics*. London: The University Chicago Press Ltd.
- Emmons, L. H. 1997. *Neotropical Rainforest Mammals*. London: The University of Chicago Press.
- Husson, A. M. 1978. *The mammals of suriname*. Netherlands.

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Fig. 2. Crab-eating raccoon kits.

[<http://www.zooborns.com/zooborns/2009/12/baby-crabeating-raccoons-uruguay.html>, downloaded 1 November 2011]



Fig. 3. Crab-eating raccoon foraging.

[http://www.yaguara.org/eng/galeria.php?tjw=Mw==&id_categoria=23, downloaded 1 November 2011]