Lontra longicaudis (Neotropical River Otter)

Family: Mustelidae (Otters and Weasels)
Order: Carnivora (Carnivores)
Class: Mammalia (Mammals)

Fig. 1. Neotropical River Otter *Lontra longicaudis.*
[http://www.otterspecialistgroup.org/Images/Lontra_longicaudis_4.jpg downloaded 11 November 2011]

TRAITS. This species is relatively small in size with adult body weight ranging from 12 kg to 24 kg. Total body length of males varies between 83 -97 cm, females 65 - 76 cm (Lariviere 1999). Short flat skull, small ears, rounded positioned low on the head, closes in water (Fig. 1). Small round eyes, small nose shaped like a trapezoid (rhinarium), short and broad muzzle covered in thick whiskers (vibrissae) to detect prey movements in water, short muscular neck (Fig 2). Strong stocky forelegs are shorter than hind legs and adapted for grasping, hind legs allow them to stand vertically for short periods (Fig. 2). All four limbs have webbed paws with five digits with non-retractable sharp claws. Fur or pelage short, dense with two layers; soft guard hairs 14 mm long keeps the fine undercoat dry and insulates the animal, underfur 9 mm long. Colour: dark grayish brown with cream to white patches around the throat region and spotted on the chin and throat. Females posses two pairs of mammae. Neotropical otter exhibits sexual dimorphism, males are bigger than females (Kruuk 2006). Both sexes have long tails slightly flattened from body to tip.

ECOLOGY. *Lontra longicaudis* is an endangered inhabitant species of Central America, South America and Trinidad. Commonly found in clean, fast flowing rivers, coastal wetlands, estuaries and in coniferous and deciduous forests. They occupy flood prone sites. It occasionally feeds on fish (piscivore) and crustaceans but subsists primarily on large insects and other vertebrates, feeding opportunistically on whichever kinds are available in the water (Pardini 1998). They hunt using vibrissae to feel prey movements in water and catch prey with their teeth. Analysis of fecal matter collected in Atlantic forest reserve in southern Brazil forest indicated otter diet consisted mainly of fish (*Geophagus brasiliensis* and *Hoplias malabaricus*) and crustaceans, *Trichodactylus fluviatilis* (Quadros *et al.* 2000). However, a small portion of their diet consisted of birds, rodents and fruits. Also, a contender for seed dispersal of *Marlierea tomentosa* (Myrtaceae), was due to migratory movement of the *Lontra longicaudis* (Quadros *et al*. 2000).

SOCIAL ORGANIZATION. Lives a solitary, terrestrial, and diurnal lifestyle, if their habitat is disturbed by human activity they have become nocturnal. In areas near deep waters, along the river bank or near logs, otters leave scent mark by depositing feces to establish sexual status. In addition, defend their territories by scratching and fighting. They communicate by whistling, humming and screeching. They have been observed to breed throughout the year and mating usually lasts for one day. Holts (burrows) are dug near riverbanks, tree roots or flattened vegetation to be used as a den and the animal sleeps in it and female nurses its young. Whilst the Eurasian otters construct their holts with exit holes underwater (Davis 1978).

A study was conducted in Brazil over a fourteen month period from 1993 to 1994 along the Betari River. 35.2% of holts were constructed in cavities of stone. The research also made a significant discovery, that *Lontra* is the only species to use caves as shelters (Berry 2000).

The young are born blind and fully furred with average litter of two to three cubs after the gestation period of 56 days. During the gestation period females tend to aggressive. Being solitary animals there is no paternal care involved and higher probability of observing maternal care during cub development. The cubs are able to open their eyes after 44 days and are able to explore their surroundings (Berry 2000).

Within two months, the pups are able to swim and attain sexual maturity by age of two. A wild Neotropical river otter have a life expectancy of 11 years (Berry 2000), and surpasses it in captivity. According to IUCN (International Union for Conservation of Nature), report in 2008 there is no information to support population size of *Lontra longicaudis*.

ACTIVITY. Diurnal (animals that are active during the day rather at night) exhausts small fish by pursuing them and expels large amounts of energy to catch large fish. Frequently found in tropical habitat they do not have to use large amounts of energy to maintain body temperature even though they have high metabolic rates. Otters in captivity have developed a technique to hunt slower moving fishes. Nocturnal activity is rare among otters unless threaten by presence of human activities.

Neotropical river otters are easily distinguished from sea otters by their skeletal and muscular system allows traveling variable distances over land between watercourses (Kruuk 2006). They move on the ground with humping gallop, and are superb swimmers as they utilize their hind legs and tail as their body undulates up and down and the hind feet steer them and can float on their backs and rotate themselves in the water by keeping their front limbs close to the body (Lariviere, 1999). Sometimes *Lontra* surveys the water before entering (Fig. 3), but when

they dive in search of food their nostrils and small ears closes to prevent water from entering. During the day they will retreat to riverbanks and bask in the sun (Fig. 4).

FORAGING BEHAVIOUR. Piscivorous, occurs more frequently in water than on land. They hunt using vibrissae to detect prey vibrations in water and beneficial in murky waters as well as sight. Sharp teeth allow them to successfully catch prey. If the prey is large, it is usually taken to the shore to be eaten (Larivire1999). It has been reported that otters can dive to 2-3 m and rarely in some cases to 18 m and can remain submerged for 6 to 8 minutes (Larivière1999). A short dive to catch prey contributes to greater success rate. They stalk the targeted fish and avoid being seen by swimming below it. They use their forelimbs to grasp the prey as they eat. Sometimes they consume entire catch and any undigested material is excreted in their faeces (spraints) and researchers analyzes it to get better understanding of the animal nutritional requirements and feeding habits (Berry 2000). Mothers accompany her cub as it hunts for food.

In 1987 a research was done at Duas Bocas Biological Reserve dam in Brazil which lasted for one year. Researchers discovered that spraints were composed of 97.2 % of undigested fish bones. Another study was conducted in 1993 along Betari River, Brazil and discovered 93% of undigested fish remains in the otter's spraint. In fact the neotropical river otter choice of food was based on its availability of prey (Berry 2000).

GROOMING. They are known to bask in the sun (Fig. 4)**,** rub against logs and roll on the ground to dry, helps to maintain thermoregulation processes. Once they are dry they use their paws or claws to remove any debris (Berry 2000).

COMMUNICATION. Vocal communication: muttering, humming and screeching, *Lontra longicaudis* produce screeching or chikkering sound while playing (Kruuk 2006). Individuals exchange humming or muttering calls. The young whistle to locate its mother. Scent glands are present at the base of the tail. Spraint is a form of visual and olfactory communication that the animal uses to signals its presence, identity, age and sex at particular areas and is deposited in small amounts about 40 to 70 m apart near tree trunks and on river banks. Otters tend to explore their own and other spraints and is a form of territory markings. The otter plays by frequently sliding off rocks and gather heaps of grass or construct sand mounds.

CONSERVATION. Neotropical river otters spend most of their time playing and swimming in waters and are easily captured and eaten by caimans. Over the years, humans hunted otters for their fur, meat and destruction of their habitats such as pollution of rivers and deforestation for housing and agricultural development contributed to decline in population and is listed as endangered species (IUCN 2011).

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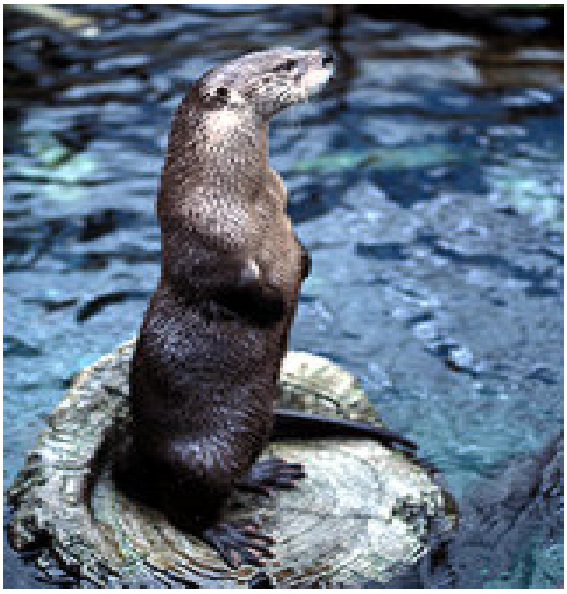

Fig. 2. *Lontra longicaudis*, standing on its hind legs.

[http://www.otterjoy.com/otterinfo/lontra/longicaudis/longicaudis_anatomy.html downloaded 25th October 2011]

Fig. 3. Neotropical river otter surveying the water before diving in.
[http://www.conservenature.org/learn_about_wildlife/otters/neotropical_river_otter.htm downloaded 25th October 2011]

Fig. 4. Neotropical river otter basking in the sun.
[http://www.oasebos.nl/images/mamife17.jpg.html downloaded on 12th November 2011]