



BLACK & WHITE RUFFED LEMUR

PRIMATA

Family: Lemuridae

Genus: *Varecia*

Species: *variegata*



Range: Eastern coastal

Habitat: canopy levels in coastal rain forest

Niche: primary frugivorous, crepuscular and arboreal

Wild diet: fruits, leaves and rice

Zoo diet: fruits & vegetables, monkey chow

Life Span: (Wild) 15 yrs

(Captivity) 19 yrs

Sexual dimorphism: none

Location in SF Zoo: Lipman Lemur Forest

APPEARANCE & PHYSICAL ADAPTATIONS:

These lemurs are the largest of the living Lemuridae. The body is covered with thick, soft, woolly fur, piebald black and white, with white ruff. Ears are hidden by hair tufts, but have excellent hearing. Patterns and distribution of color vary; often right side varies from the left. The head consists of a fox-like muzzle with a wet nose, golden eyes with some stereoscopic capacity but have no cones for color vision. The face lacks mobility and expressiveness associated with monkeys. Hind limbs are much longer than forelimbs.

Weight: 6.6 lbs

HRL: 23.5 in.

TL: 23.5 in.

Fingers and toes are adapted for grasping while the thumbs and greater toes are both large in size and semi-opposable. The second toe of the hind foot has a modified claw used for grooming. There is also a fringe structure under the tongue called the sublingual used for cleaning the teeth. Being crepuscular, its eyes are of normal size, but the tapetum or eye-shine layer persists suggesting an adaptation from a nocturnal past. Eyes do not point as directly forward as monkeys but they do have some binocular vision - intermediate between tree shrew and monkey. Thick pelage is a good adaptation to rain; even a heavy downpour seems not to penetrate.

The dental formula of $I2/2-C1/1-P3/3-M3/3 \times 2 = 36$ consist of molars of simple construction of 3 cusps, lower incisors and canines almost horizontal; form 'comb' used for grooming fur and peeling fruit. The first premolars in the lower jaw are shaped like canines and oppose sharp upper canines.

STATUS & CONSERVATION

Listed as Endangered by the USDI (1980) and Appendix I of CITES. It is reportedly declining because of human destruction of its forest habitat and commercial exportation. More than 80% of the original habitats have been lost to logging and agriculture.

COMMUNICATION AND OTHER BEHAVIOR

Their repertoire is not as varied as other lemurs, but is more dramatic. The most characteristic calls are intense roars of alarm and a powerful plaintive-sounding call for territorial expression, followed by loud, rather avian clucks. Calls are most often heard from 5:00 - 7:00 p.m. they start suddenly, adding an element of surprise as night descends in the forest.

This particular species form small family-type groups, generally a mated pair with young (2-5). As far as is known, these groups do not defend territories from each other, but they do give loud calls to their neighbors, often in a sequence that is given by one group to another.

COURTSHIP AND YOUNG

Normal mating season in the wild is in July and August. As with many other prosimians, between mating seasons the sex organs become quiescent (in this case, the vagina is actually closed, unlike any other species of Lemur). Births are normally twins or triplets, occur in October and November. Though their eyes are open and they are fully furred, they are too weak to cling to the female so they are placed in a nest (built before their birth) of branches and leaves she has lined with fur plucked from her flanks.

No other lemur builds a nest. The infants remain in the nest for nearly three weeks and when removed are carried in the female's mouth and often deposited in a convenient place while she forges. By five weeks of age the young can climb to the tops of trees; at two months young will play with their father, roll on their backs and try their teeth. When suckling, a female lies directly on her offspring. The gestation period of this species is the shortest of any other lemur species.

Estrous: seasonal polyestrous 30 d / receptive 6.25 d	
Gestation: 90-102 d	Sexual Maturity: F 20 month
# of Mammae: 3 pr. 1 on chest, 2 von abdomen	Weaning Age: 135 d
# of Young: 1-3	Weight at birth:

MISCELLANEOUS

The Black and White Ruffed lemur has three subspecies. Historically this lemur was placed in the genus *Lemur* until recently when it was decided that there are sufficient anatomical and behavioral differences (e.g. the presence of a marking gland on its neck, three pairs of mammae as opposed to one pair, a shorter gestation period among several other differences).

Lemurs fill an important ecological role of Madagascar. They feed on an assortment of seasonal fruits and as they travel throughout the forest, they disperse undigested seeds in their manure within 2-3 hours. The seeds sprout to replenish the vegetation that sustains Madagascar's unique inhabitants.

A 40-foot-high tree known as the traveler's palm probably owes its existence to the black and white ruffed lemur, thought to be the plant's main pollinator.

Sources: **Last Revision: 11/94** **Present Revision: 1/08**

Brainard, ed. 1983; Grzimek 1990; Kavanagh 1983; MacDonald 1984; Napier 1985; Novak, ed. 1991

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