

Female Dominance in Lemurs



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Red Ruffed Lemur. The Maryland Zoo, marylandzoo.org

Introduction

When I think of gender dominance throughout the animal kingdom, I think of the males who lead their group or fight to maintain their territory. What I was struck by was that within the lemur taxa, females are the ones who overpower the males.



Lemur Learning Series. Duke Lemur Center

Home of the Lemur

Madagascar

Lemurs are restricted to Madagascar. It is a diverse ecosystem with cyclones, hurricanes and lethal predators. From 2000-2017 there was 9 tropical cyclones alone, 5 of which reached wind speeds up to 249 km/h (Mittermeier et al. 22). They are the most predated nonhuman primates, who succumb to snakes, hawks, and fossas (Mitani et al. 22). This rough terrain has made Lemurs uniquely adapted to their environment. Males and females are also similar in body mass. So what does this have to do with female dominance? This leads me to my hypothesis.

Hypothesis

Due to the unpredictable nature of Madagascar and lack of sexual dimorphism, female dominance is integral to all three primates lives to get access to enough food for reproduction.

01

Ring Tailed Lemurs



Brown, *World Ruled by Women*, Duke Lemur Center

02

Red Ruffed Lemurs



Sharp, *Red Ruffed Lemur*, Sharp Photography

03

Coquerel's sifaka



Bell, *Sifak-huh?*, Science Stories



Ring-Tailed Lemur, Discover Wildlife

01

Ring Tailed Lemur

Lemur catta



Important Facts



Region

Southern Madagascar
(Mittermeier et al. 22).

Diet

Fruit in the rainy season when they have babies.
In the dry season they go to flowers and young leaves.
Gould et al. (2011)

Social Structure

M-F group sizes ranging from 12-24
(Nowak. 74)

Breeding Season

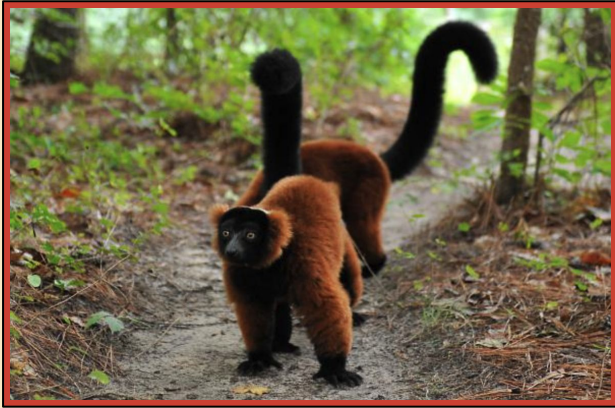
Mates from April to June and give birth in the fall just before the rainy season.
(Nowak. 74)

Female Dominance

Ring Tailed Lemurs are one of the most studied lemurs so there is a lot of observation when it comes to the gender hierarchy. Females are dominant over the males, however it is mostly observed when it comes to food and drinking sites. Males will show submission to females (Mitani et al, 2012). Only 145 antagonistic interactions happened between males and females in 560 occurrences. However, it was seen that females won every time (Kappeler, 1990).



Learning Lemurs Club, Duke Lemur Center



Red Ruffed Lemur, Duke Lemur Center

02



Red Ruffed Lemur

Varecia rubra



Important Facts



Region

Northeastern Madagascar.
There are frequent cyclones
in this area.
(Mittermeier et al. 2024)

Social Structure

Fission-Fusion with group
size of 5-31.
(Mittermeier et al. 2024)

Diet

Fruits account for about 61%-88% of their
diet. Females eat low fiber, high protein
young leaves and flowers during
gestation and lactation.
(Mittermeier et al. 2024)

Breeding Season

Mating season is May-July
before the wet season.
(Mittermeier et al. 2024)

Female Dominance

Findings have been inconsistent. There were two groups that were studied for 15 months to assess female aggression. The 1st group was insatiable and did not have any clear hierarchy. The second group had a dominant female that would lead the group of food where she had first pickings. What this study concluded is that female dominance in ruffed lemurs are more flexible and based on stable group relationships where female dominance can be established. (Overdorff et al. 2005).

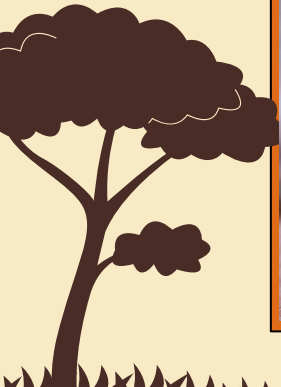




03

Coquerel's
sifaka

Propithecus coquereli





Important Facts

Region

Northwestern Madagascar
(Mittermeier et al, 2022).

Diet

Leaves, flowers, bark, and fruit have been documented during the wet season. About 98 species of plants to be exact. They have been seen eating budis during dry season.
(Mittermeier et al, 2022)

Social Structure

3-10 group size.
(Mittermeier et al, 2022).

Breeding Season

June-July before wet season.
(Mittermeier et al, 2022).



Female Dominance

After a field study of 200 hours on two male-female pairs. It was observed that the females were more dominant than the males. The females showed more aggression and the males constantly showed submissive behavior. It was also observed that males' movements were more likely to be based on the females. (Kubzdela et al. 1992)

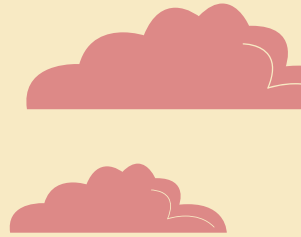
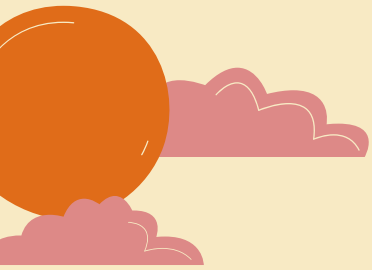
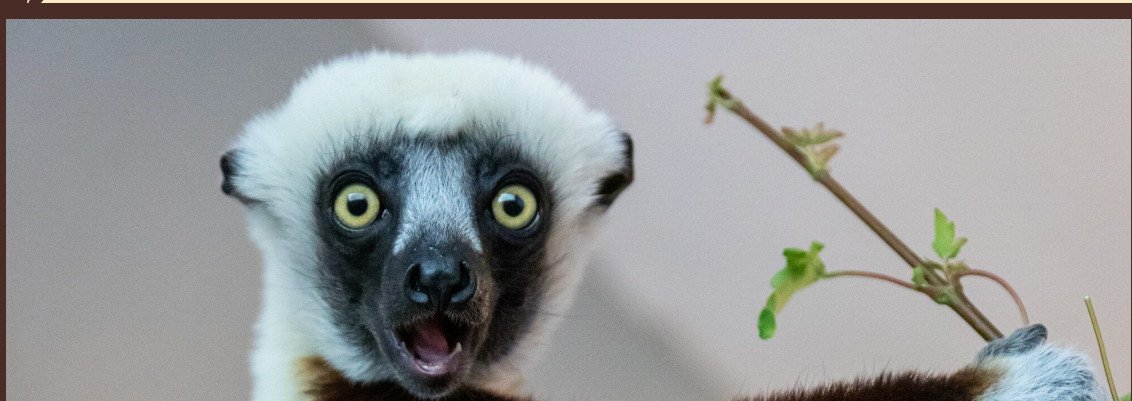


Coquerel's Sifaka, San Diego Zoo

Conclusion

It can be concluded that female malagasy lemurs have adapted dominance to overcome feeding competition with the males. It can be argued that it is the most strong with ring tailed lemurs as there has been the most field data showing male submission. However, there is still evidence that ruffed lemurs and Sifakas participate in some form of female dominance. These two lemur taxa is more dependent on context and need more field data.

Coquerel's Sifaka, Tierpark Berlin



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