

Overview To The Madagascar Lemur Activities

These activities incorporate photos, movies, and facts I collected on a recent trip to Madagascar, plus a few photos taken by others on similar trips. I wanted to keep the content and reading level between first and third grade. To do that, I've had to employ many simplifications, but I want to make certain that teachers who use these activities are aware of the full and accurate version of this information. That's why I've included additional facts in this overview.

It begins with some extra background on lemurs and Madagascar, takes you through a quick tour of the activities, goes into detail about the three main activities, and concludes with a links section. These links lead to videos and photos to download and more online materials. Also be sure to look in the **Teacher Materials** folder for maps, vocabulary flash cards, and other off-computer resources to print.

Introduction To Madagascar

Madagascar is home to an amazing array of plants and animals found nowhere else. My very favorite Madagascar animal is the lemur, the focus of these activities. Lemurs are not monkeys, although they share a common ancestor with monkeys and are, therefore, primates. Since there were very few other mammals on the island, lemurs adapted until there are over 100 different kinds, from the large indris to lemurs as small as a very small mouse.

Part of the lemurs' success lay in the lack of predators in Madagascar. Lemurs didn't really have much to worry about until the fossas managed to get to the island, long after the lemurs were established. Fossas are mongoose- or cat-like predators, very fierce, and rapid tree-climbers. You won't find fossas in these activities, but they will appear in an upcoming activity set. Unfortunately, lemurs today have

to face a much more deadly predator than the fossa: humans.

Most of the lemurs you meet in these activities are Eulemurs, tree-dwelling creatures about the size of a large cat or small dog. The elegant sifakas, a little larger and extremely agile lemur, also appear. Of course, no story about lemurs would be complete without ring-tailed lemurs. One of the ring-tails in the story looks and acts exactly like the popular character from the first Madagascar movie, King Julian.

In the wild, these many lemur types normally would not be living so close together. One of the preserves I visited really did have sifakas and a bunch of different Eulemurs, while I saw bamboo lemurs and black and white ruffed lemurs together in another. Since I wanted you to know in what part of the island each type would normally live, I've included a combined map to show you the range for all the lemur types mentioned in the story. Some, like the ring-tailed lemurs and sifakas, are distributed widely. Others, like the crowned lemur, are found only in one tiny remnant of rain forest.

Keep in mind that there are **many** more types of lemurs in Madagascar than those shown on the range map. Many of the lemurs in this book are not commonly seen in zoos, with the exception of the ring-tailed and black and white ruffed. Also, zoo lemurs are not nearly as lively as the lemurs you meet in **Lots of Lemurs**.

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Quick Tour Of The The Activities

This activity set includes two (or in two formats, three) books, writing activities, comprehension tests, and off-computer materials such as vocabulary cards and maps. There are many new words, mostly nouns, in these books, so the vocabulary cards may be

especially valuable! A pop-up glossary with these words is available in the stories and writing activities as well.

In **Lots Of Lemurs**, students meet many individual lemurs, each with a distinct personality. Their guide on this journey is Rufus, a lemur with hidden talents including being able to give a PowerPoint® demonstration, fly an airplane, and build a raft with a sail out of scrap materials he happened to find on the beach. It begins as a linear story narrated by Rufus, and then reaches a branching point where students can choose to visit four different lemur types, or head for home.

Lots Of Lemurs turned out to be a long story with quite a bit of content, so in the My Own Bookshelf and Classroom Suite versions, I have split it into two books. **Looking For Lemurs** should be read first and includes the linear portion of the story, and the shortened **Lots Of Lemurs** picks up just before the branch point for these two formats.

The supporting book, **Islands**, is much shorter and should be read after **Lots Of Lemurs**. It draws attention to what an island is and why an isolated island like Madagascar tends to have unusual flora and fauna. It explains how plants and animals were able to cross the ocean to the island, and why they flourished there.

There are comprehension tests for both the long version **Lots Of Lemurs** and the split version, plus a comprehension test for **Islands**. Writing activities range from simple sentence construction with supplied words, directed writing in the **Review** activities, to free-form writing in **My Favorite Lemurs**.

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Lots of Lemurs in Depth

The story begins with a guessing game, in which students are given clues to guess what kind of animal Rufus is. Rufus then gives some facts about lemurs, shows where they live, and invites the reader to come along with him to Madagascar. In the split story versions, **Looking For Lemurs** ends with the island in sight as a distant shore, while the short version **Lots Of Lemurs** begins with the arrival.

Rufus points out early in the book that not all lemurs look just like him. He shows off pictures of the largest lemur, the indri, and a tiny mouse lemur. Indri is a Malagasy word meaning "little boy", and that's how big they are. They also are unusual in having only a stub of a tail, rather than the typical long plume of the Eulemurs. Rufus and his three buddies are about the size of a large cat or medium dog.

Once we arrive in Madagascar, Rufus and the reader are met by three of Rufus's friends. Abby and Gavin are a pair of crowned lemurs, an endangered variety in which the coloration of the males and females is quite different. The third friend, Kiki, is some sort of hybrid lemur, as is Rufus. Maybe that accounts for their unique personalities! All four of these lemurs fall into the genus Eulemur, so they are about the same size and shape but are different colors.

Rufus leads all the explorers high into a tree to look for more types of lemurs. At this point the story divides, with links leading to separate chapters on red collared brown lemurs, gentle bamboo lemurs, Coquerel sifakas, the irrepressible ring-tailed lemurs, and a chance to head for home. This chapter arrangement means that students could quit from this point and come back later to see more lemurs.

Each of the four different kinds of lemurs Rufus and company spot up in the trees belongs to a different genus and thus are quite different from one another. One is another Eulemur (a red collared brown lemur), one is an elegant white sifaka, one is a small, shy bamboo

lemur, and the fourth is the energetic and comical ring-tailed lemur. I've included one or more movies in each of these chapters, so that students can see all four types of lemurs moving about. You really haven't met these attractive animals until you see them moving around, eating, and sometimes making enormous leaps to another branch or tree. Once the reader chooses to head for home, one more lemur type, the large black and white ruffed lemur, pops out for a final surprise.

This book presented a real challenge, since all these lemur types would not normally be living in one place. I photographed most of them in two reserves, where lemurs from many parts of Madagascar live and are protected. The proximity of types not usually found in the same area accounts for hybrids like Rufus and Kiki. Besides trying to bring the sights of Madagascar to students, I wanted them to have a chance to hear the sounds. All the lemur calls in the story are authentic, although the sifaka call is not for Coquerel's sifaka but instead is the closely related silky sifaka. Also, note that the music notes that play as the first page in Madagascar opens are from the valiha, the characteristic folk instrument of Madagascar.

The main thrust of this book is to point out the diversity of the lemurs, all of whom seem to get along happily, and to give students the experience of meeting some of the most engaging animals you could imagine. For all those who have seen the Madagascar animated movies, you'll smile to see how accurately the animators depicted these little guys.

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Islands

This short book explains in simple fashion what an island is, how an island might be colonized by plants and animals, and why islands tend to have unique plants and animals. There are two reasons for this

last fact. Islands often shelter flora and fauna that once also lived on the mainland, but died out there through competition with other life forms. Secondly, if a life form reaches a sparsely-populated island, its descendants will tend to change and adapt to fill all the varying habitats on the island.

Madagascar separated from the main part of the African continent some 160 million years ago. Only a limited number of plants and animals made the ocean crossing later. Plants got there as floating mats of vegetation, including some seeds and possibly sprouting branches. Animals like lemurs, who can slow down their metabolism for long periods, could float across on these mats. So Madagascar, like many isolated islands, has fewer than normal types of plants and animals but within those types many unique varieties.

Lemurs reached Madagascar some time after they appeared in Africa: about 60 million years ago, but before monkeys appeared. Once monkey developed, they competed with lemurs in Africa so that lemurs died out there. But by the time monkeys began to spread in Africa, Madagascar had drifted so far that they never made the crossing. As the Mozambique channel between Africa and Madagascar widened, it allowed new currents to flow. About 20 million years ago, the main current flow was toward the African shore instead of away from it. So after that point, no more new animals could float to Madagascar.

Once on the island, both plants and animals adapted to the wide variety of living conditions there. The center of the island is a high plateau, and most of the rain falls along the east coast. The west coast is much dryer, and the southern tip is desert. That's why there are so many plants and animals found only in Madagascar, more unique species than almost anywhere else on earth.

Islands illustrates these science facts in a simple way, to help

students to understand why Madagascar is so different. These ideas are very important for understanding Madagascar and other isolated environments, such as the Galapagos Islands and Antarctica. **Islands** should be read after **Looking For Lemurs** (in the Classroom Suite and My Own Bookshelf versions) and **Lots Of Lemurs!**.

Additional Materials Online

YouTube

YouTube videos of **mouse lemur**. The first video is a mouse lemur licking up moisture from plant stems. <http://youtu.be/vifSlfVBDe0>
The second video is a close up of a mouse lemur in a zoo, eating banana. <http://youtu.be/SV4k8WzJG9s>

YouTube video of **indris** calling. Their calls have been compared to whale songs. This video is long, so move the slider to 1:09. From that point, you see the nearby indri opening her mouth and calling. <http://youtu.be/5NPRcEXuz94>

YouTube video of **Coquerel's Sifakas** hopping (compare to Verreaux's Sifakas dancing movement) <http://youtu.be/O2LCMhSxjWE>

YouTube video of **Verreaux's Sifakas** skipping sideways (compare to Coquerel's Sifakas pogo stick movement)
<http://youtu.be/v5vJZlhxORo>

Note: The Sifakas in **Lots Of Lemurs** are Coquerel's Sifakas. There are quite a few species of sifakas, but they all are lemurs.

Arkive Images Of Life On Earth

www.arkive.org

Photos and videos may be downloaded from this site and used in class. Videos may be downloaded either in QuickTime (.mov) or Windows Media (.wmv) format. You may use these images and

videos internally as part of a lesson plan, provided copyright info is retained. You may not incorporate them into CDs or other projects for distribution or place them on your website, although you are free to link to an image or video on the site.

Here are links to some videos that relate to the Madagascar Lemurs activity set. A download button is located beside the upper left corner of each video.

Ring-tailed lemurs scent wafting and a territorial dispute <http://www.arkive.org/ring-tailed-lemur/lemur-catta/video-12a.html>

Verreaux's Sifakas leaping into spiny forest plants <http://www.arkive.org/verreauxs-sifaka/propithecus-verreauxi/video-06a.html>

Verreaux's Sifakas "dancing" <http://www.arkive.org/verreauxs-sifaka/propithecus-verreauxi/video-06b.html>

Wild Madagascar www.wildmadagascar.org

This site has short educational booklets to download, including one with Malagasy words and one that is an overview of Madagascar, and a magnificent photo library. It also has a section for kids, and tons of information about Madagascar, including sections on flora, fauna, people, news, and conservation information. You can use these for school projects and PowerPoint presentations, but cannot alter the photos, and must give attribution.