Lemur Survey of Lowland Rainforest in North East Madagascar.

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Preliminary Findings.

We set out to study the rainforest of Ambodiriana in north east Madagascar. The forest is protected due to the intervention of ADEFA, a French-run organisation based in Reunion dedicated to the protection of Ambodiriana and its wildlife. The forest is roughly 1km^2 in area, and has an altitude between 100 and 225m. ADEFA employs local people from the village of Manompana to provide "ecotours" to the forest, and an full time Park Ranger to patrol the reserve.

The rainforest habitat of Madagascar is among the most endangered in the world. The high degree of endemism of species reliant on the forests leaves Malagasy wildlife in a highly vulnerable position.

98% of Madagascar's land mammals are unique to the island. The Lemuriformes are among the most famous of the Malagasy fauna, with 33 extant species among five families, Cheirogaleidae, Megalapidae, Lemuridae, Indriidae and Daubentoniidae (Garbutt 1999). Lemurs are considered to be among the most endangered primates in the world, in the most recent Red List Data from IUCN, 6 lemuriformes were classified as Critically Endangered, 5 as Endangered and 16 as vulnerable. Madagascar has the dubious honour of containing the most number of Critically Endangered and Endangered primates world wide.

The main threat to the Lemur population is habitat loss. With an annual population growth of 3.1%, and a doubling time of 25 years (Mittermeier et al 1994) an effective and rapid solution to the conflicting interests of habitat conservation and agriculture must be found. In the local village of Manompana, an estimated 75% of the population was under 15 years old.

We aimed to study the species of lemur present in the rainforest of Ambodiriana, and attempt hoped to set up a permenant link between the University and ADEFA.

The IUCN stated the need for data on lemur species distribution as of paramount importance in 1990 (Harcourt and Thornback 1990).

We found new information on the geographical range of the Red Bellied Lemur (*Eulemur rubriventer*), and also data on six other species of lemur. These were the Black and White Ruffed Lemur, the Eastern Wooly Lemur, the Grey Gentle Lemur, the Common Brown Lemur, the Aye aye and the Indri. We chose a line-transect method of sampling as the most realistic method for recording the presence of lemurs. Population estimates for each species are prooving difficult to determine, as we have a small sample size for each. We will definitely be able to calculate a "lemur density" for the forest, and thus assess the importance of the forest as a lemur refuge.

As well as providing an important habitat for lemurs the forest has a fantastic range of plants, which we assessed simultaneously with the lemur species. We identified 13 families of tree along our transects, and believe that further study of flora will greatly increase this number. Many other vulnerable animals were spotted, including the Helmet Vanga and Madagascar Long Eared Owl, both of which are rare.

Another group of students from Edinburgh are currently arranging a trip to Ambodiriana to continue the lemur survey and to study chameleons.