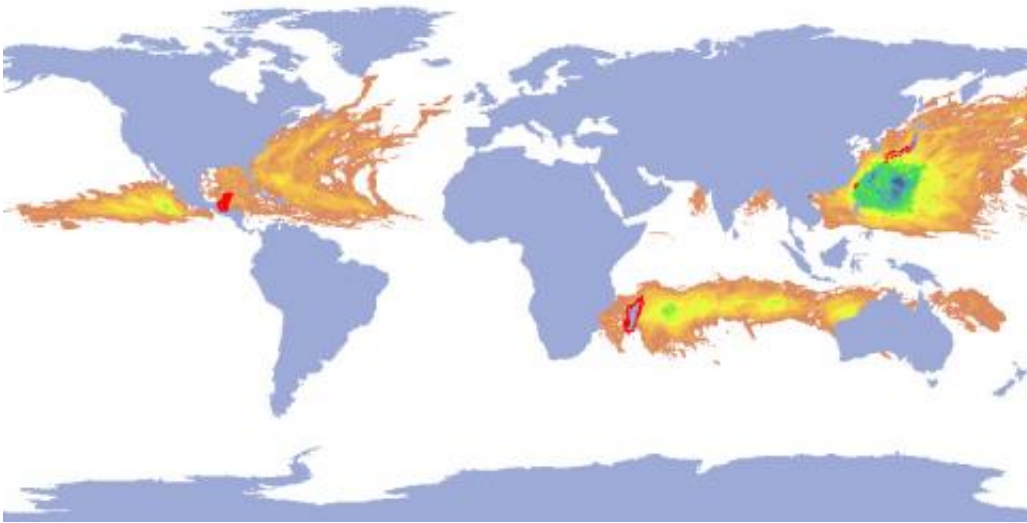


Disaster map predicts bleak future for mammals

December 13 2012

Highlighted in red is distribution of Primate species having at least 25% exposure to a high cyclone occurrence (period 1992-2005). Areas with the lowest frequency of cyclones are indicated in light brown whereas dark blue areas represent the greatest cyclone frequency



Credit: Zoological Society of London

Mammals could be at a greater risk of extinction due to predicted increases in extreme weather conditions, states a paper published today by the Zoological Society of London (ZSL).

Scientists have mapped out land mammal populations, and overlapped this with information of where droughts and cyclones are most likely to occur. This allowed them to identify species at high risk of exposure to extreme weather. The paper, published this week in the journal

Conservation Letters, describes the results of assessing almost six thousand species of [land mammals](#) in this way.

Lead author of the paper, ZSL's Eric Ameca y Juárez says:

"Approximately a third of the species assessed have at least a quarter of their range exposed to cyclones, droughts or a combination of both. If these species are found to be highly susceptible to these conditions, it will lead to a substantial increase in the number of mammals classified as threatened by the IUCN under the category 'climate change and [severe weather](#)'."

In particular, primates - already among the most [endangered mammals](#) in the world - are highlighted as being especially at risk. Over 90 per cent of black howler monkey (*Alouatta pigra*) and Yucatan spider monkey (*Ateles geoffroyi yucatanensis*) known habitats have been damaged by cyclones in the past, and studies have documented ways they are able to adapt to the detrimental effects of these [natural disasters](#).

In contrast, very little is known about the impacts of these [climatic extremes](#) on other species. In Madagascar, entire known distributions of the western woolly lemur (*Avahi occidentalis*) and the golden bamboo lemur (*Hapalemur aureus*) have been exposed to both cyclones and drought. These endangered species are also amongst the world's most evolutionary distinct, yet remain highly understudied.

ZSL's research fellow Dr Nathalie Pettorelli says: "This is the first study of its kind to look at which species are at risk from extreme [climatic events](#). There are a number of factors which influence how an animal copes with exposure to natural disasters. It is essential we identify species at greatest risk so that we can better inform conservation management in the face of global environmental change."

Provided by Zoological Society of London

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