045

ASSESSING THE IMPACTS OF CLIMATE CHANGE ON NONHUMAN PRIMATES

H.D. Matthews[1], S.E. Turner[2]

[1]Concordia University, Montreal, Quebec, Canada, [2]University of Calgary, Calgary, Alberta, Canada

Presenter's Email: dmatthew@alcor.concordia.ca

It is now generally accepted that the Earth's climate is warming due to human greenhouse gas emissions. Climate change will continue to be a pervasive force of environmental change over the next century, with the potential for substantial impacts on nonhuman primate populations and habitat distributions. Changes in temperature and patterns of rainfall could have important consequences for many primate species, due to changing ecosystem distributions, food availability and ranges of parasites and diseases. Extreme weather events, sea-level rise, and changes in human land-use pressures that may emerge as a consequence of these effects, also have the potential to have direct impacts on primate habitat. Primate conservation efforts will increasingly need to consider the potential impacts of global warming over the next century. However, there is often a lack of knowledge transfer between those who model and predict the impacts of climate change at a global scale and those working to implement conservation strategies and policies. Furthermore, there is substantial uncertainty in the predicted magnitude and spatial distribution of impacts, making it difficult to implement conservation strategies that address the most important anticipated impacts from climate change projections. In this paper, we introduce the methods by which climate change predictions are made and examine output from several different global climate models in light of primate-relevant variables. Through an analysis of both climate model output and primate distribution maps, we present a vulnerability framework for assessing the most likely and most relevant impacts of climate change in relation to primate conservation.

Keywords: global warming, climate impacts, conservation, environment