DNA clues to inform conservation in Africa

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The African bushbuck, a common species which lives in most sub-Saharan habitat types. Credit: Cardiff University

Tracing the evolutionary history of wildlife could improve global habitat conservation, a major Cardiff University study has found.

Researchers in the School of Biosciences analysed the African bushbuck, a common species which lives in most sub-Saharan habitat types to test whether DNA similarity between populations living in different habitats can reveal the similarity of those ecoregions now and in the past.

The study, one of the first of its kind, identified 28 key regions for bushbucks. By understanding the genetic similarity of populations inhabiting different habitats researchers found they can potentially trace

which ecoregions are most similar and establish which are the most unique in evolutionary history.

Professor Mike Bruford, School of Biosciences, co-author of the study, said: "The conservation of habitat or ecoregion biodiversity is one of our greatest challenges. This new approach will allow conservationists in Africa to focus their efforts on the most biodiverse and more unique habitats which harbour the most genetically distinct populations."

The researchers suggest the study provides a framework for the incorporation of genetic and biogeographic information into a more widely applicable model for pan-African conservation and, potentially, for the conservation of other global regions.

Source: Cardiff University

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