CIRCLE: MODERNISING ZOOS FOR BIODIVERSITY CONSERVATION AND PUBLIC EDUCATION

THE UNIVERSITY of York

circle

flamingo LAND

Innovation

Modern zoos are centres for conservation and environmental education, raising more than $350 million globally for these causes. However, zoos typically lack scientific backing to assess the effectiveness of this work, and for ensuring animal welfare.

CIRCLE (the Centre for Integration of Research, Conservation and Learning) is a ground-breaking collaboration between the University of York and Flamingo Land, the UK's most visited zoo, which critically assesses the work of zoos, and improves forest and biodiversity conservation, environmental education and zoo enclosure design.

Knowledge/technology transfer

Flamingo Land aspired to expand its position as a theme park and zoo to include research and active conservation of biodiversity, and began discussion with Dr Andy Marshall from the University of York's Environment Department.

This collaboration led to Flamingo Land establishing a conservation initiative in a forest in Tanzania containing globally-important numbers of threatened species. The resulting Udzungwa Forest Project (UFP) has developed a unique set of social and environmental indicators of conservation success. Using these indicators, UFP has worked with local schools and trained local groups, thereby reducing reliance on the forest for resources and generating sustainable sources of income directly related to forest conservation.

Research is also being used to promote biodiversity planning for threatened UK species and habitats to more than 100 British and Irish zoos and CIRCLE research is now used to promote interest in conservation to the 1,000 schools and 1.3 million visitors that visit Flamingo Land each year.

Impact

In-depth survey of the endangered Verdcourt's Polyalthia tree led to a revision of its status on the International Union for Conservation of Nature Red List, increasing the species' survival chances

Educational visits and education income to Flamingo Land have more than doubled in the space of two years, and continue to rise

7 Tanzanian staff are now employed to run the forest conservation and education work

A newly-designed Humboldt penguin enclosure, with the birds demonstrating increased levels of natural behaviour

Research into the top ten species dependent on zoos generated several high-profile media responses and was used as a case-study in a House of Lords debate on government funding for zoos

Best Field Conservation Programme Award and a David Bellamy Conservation Gold Award

The world's first Zoo Biodiversity Action Plan

Key points

- Average tree diameter increase of 5.1% and biomass by 2.7% at monitoring sites since 2005
- 5 red-listed tree species successfully propagated in nurseries
- Education in biodiversity conservation delivered to 10,000 people in Tanzania and to 1000 schools and 1.3 million visitors to Flamingo Land
- New jobs created for 7 people in Tanzania and additional educational jobs at Flamingo Land
- Biodiversity Action Plan protocol communicated to over 100 UK zoos

Team

Dr Andy Marshall: Lecturer, Environment Department, University of York, and Director of Conservation Science, Flamingo Land Ltd; Gordon Gibb: CEO, Flamingo Land Ltd; Ross Snipp: Zoo Manager, Flamingo Land Ltd; Rukmal Abeysekera: Knowledge Transfer Partnerships Manager, University of York; Emma Brown: Commercialisation Projects Manager, University of York

THE IMPACT AWARDS