TKMG Case Studies Project

‘Conservation of remnant vegetation on private property on the Atherton Tablelands’

Stage 1 – 2001

Background

A previous project of TKMG, ‘Community Survey of Tree-Kangaroos’, emphasised the importance of remnant vegetation on private lands on the Atherton Tablelands in providing important habitat for tree-kangaroos and other wildlife. The survey also found that conservation of tree-kangaroos is dependent upon protecting existing remnants, strategic revegetation and abatement of threats from dogs and cars. The survey identified areas on the Tableland where actions to conserve tree-kangaroo habitat were of a high priority.

Project Outline

This project aims to promote sustainable management of remnant vegetation on private property by working with landholders in priority areas. Four Case-Study properties were selected to identify issues associated with the conservation of remnant vegetation alongside key industries including primary production and nature tourism.

The production of Wildlife Habitat Management Plans (WHMP) has a dual purpose of providing assistance and guidance to the landholder and will be used to promote the project to other landholders and industry. The tree-kangaroo has been used as a focal species for this project in keeping with the animal’s focus for TKMG’s conservation activities.

Methodology

The four properties used as case-studies in this project are located on the Atherton tablelands, within 10 km of the town of Malanda. One of the properties is run as a dairy farm, the second a cattle farm, the third a mix of cattle and tourism, and the fourth – formerly a cattle farm - is being developed for tourism. All properties are situated on basalt soils between 680 - 800 m a.s.l. Average rainfall in the study area is between 1400 – 1750 mm per year.

The Wildlife Habitat Management Plans are based on an assessment by Dr John Kanowski, CRC Rainforest, Grifith University of the following factors:

(I) the type and extent of potential tree-kangaroo habitat on each property and in the surrounding landscape;

(II) the abundance of tree-kangaroos in potential habitat;

(III) the occurrence of tree-kangaroos in the surrounding landscape;

(IV) the possible dynamics of the tree-kangaroo population at the landscape scale;

(V) any threats to the persistence of the population; and,

(VI) actions which might help conserve the population.

The type and extent of rainforest vegetation on each property and in the surrounding landscape was assessed by field inspection and by reference to recent aerial photos and vegetation maps. The abundance of tree-kangaroos in potential habitat was assessed by a combination of daytime searches and spotlight surveys. Daytime searches involved a slow walk through all accessible rainforest vegetation on each property, with one or more observers looking for tree-kangaroos or evidence of tree-kangaroo activity (in particular, scat, but also scratches and partly eaten foliage on the ground or in favoured trees). When fresh scat was located, considerable effort was made to locate the responsible tree-kangaroo(s). Spotlight surveys involved a slow walk with a 30W light. Spotlight surveys were directed to those parts of each property where evidence of tree-kangaroos had been detected during daytime traverses but where no individuals had been sighted. All case-study properties were surveyed in April and May 2001, with a total of 90 hours of survey effort. The occurrence and, where possible, relative abundance of tree-kangaroos in remnant vegetation in the vicinity of each property was assessed by a range of methods, including daytime searches, spotlight surveys and reference to other studies.

Property Profiles

Chapman's property is a good example of how nature conservation can be integrated into a farm business. By revegetating the steep eroding creek-banks on his property, Ross has not only addressed a farm management problem but provided habitat for tree-kangaroos and other wildlife. The revegetation also has a range of other benefits, including improved water quality to downstream users, educational value for visiting student groups and aesthetic value. The long-term persistence of tree-kangaroos on Chapman's property is largely dependent on the conservation of large remnants on the upper flanks of the Malanda volcano, and the continued revegetation of riparian corridors in the North Johnstone catchment.

Mapper's property presently supports a very small population of tree-kangaroos, but there is considerable scope for increasing the population size by further revegetation along the creek, especially if extended to properties on the Anderson Rd side of the creek. The long-term persistence of tree-kangaroos on Mapper's property is dependent on the conservation of source populations in nearby remnants, particularly the riparian vegetation on the Johnstone River, and the enhancement of links between those remnants and the vegetation on Mapper's property.

Kehoe's property is located in a part of the tablelands which naturally supports high densities of tree-kangaroos. The population of tree-kangaroos on the property is only limited by the extent of suitable forest habitat. The progressive revegetation of at least part of the property would increase the size of the local population of tree-kangaroos. Enhancing the links between the property and the Curtain Fig forest would also contribute to the long-term persistence of the population.

Jungle Tours property is fortunate to be located in a part of the tablelands which naturally supports high densities of tree-kangaroos. However, the present population of tree-kangaroos on the property is very small, because of the limited extent of suitable forest habitat. The progressive revegetation of at least part of the property would increase the size of the local population of tree-kangaroos. Promoting the conservation of nearby 5b remnants and enhancing the links between the property and the Curtain Fig forest would also contribute to the long-term persistence of the population.

TREE - KANGAROO & MAMMAL GROUP