

RESEARCH

Project 3.2

PROJECT 3.1**Floral biology and canopy pollination in fragmented rainforests***Project Leader: Professor Roger Kitching (GU)*

Biodiversity loss associated with anthropogenic disturbance and land-use change is well documented. The impact of these changes on ecosystem processes, in particular the interactions between organisms are not yet well understood. The collapse of pollinator mutualisms has been identified as one potential consequence of anthropogenic land use change (Kearns & Inouye 1997; Kearns et al. 1998). Declines in pollinators have been reported from most continents. We have spent the last three years studying the flower/insect interactions of key tree and vine species based at the Canopy crane site at Cape Tribulation. This work is on-going. The key application of our work is in maintaining sustainable forest for conservation inside and outside of reserves and in the restoration of functional forest systems.

A secondary goal is to provide pollination-related information for the commercialisation of native rainforest species of trees. In spite of our work to date we still know little about pollination systems in the Wet Tropics of Queensland as a whole. In this second phase of our work we will focus on comparative studies of pollination systems using a set of six to ten target plant species in extensive and fragmented forests within the lowland Wet Tropics.

POSTGRADUATE STUDENTS

Kylie GOODALL (GU) Masters

Nectar rewards and its impact on visitor dynamics in selected tropical rainforest plants

Terry REIS (GU) PhD

Taxon surrogacy in rainforests across a gradient of habitat modification

Yong TANG (GU) PhD

Comparative study of gap regeneration of tropical rainforests of Australia and South China