

Graduation Citation

STREATFEILD, Craig Anthony
BSc (Hons) Griffith University

Thesis Title:

The Effects of Habitat Fragmentation on the Demography and Population Genetic Structure of *Uromys caudimaculatus*.

Supervisors

Assoc. Prof. Peter Mather
Dr Andrew Baker

Citation:

Fragmentation of once-continuous habitat into smaller, discrete habitat patches is currently one of the greatest threats to worldwide biological diversity. How species respond to habitat fragmentation, however, is still not well understood. This thesis investigated the demographic and population genetic structure of Giant White-tailed Rat (*Uromys caudimaculatus*) populations within the highly fragmented landscape of the Wet Tropics region in northern Australia. Results showed that specific demographic parameters were strongly associated with the quality rather than quantity of remaining habitat. In contrast, genetic diversity was associated with the amount of remaining habitat rather than its relative quality. These contrasting results suggest that *Uromys* populations respond to habitat fragmentation in complex ways and highlight the importance of using combined demographic and genetic approaches when investigating the effects of habitat fragmentation on individual species.