

Loggerhead turtle (*Caretta caretta*) nest predation at Cape Range National Park

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Most of the existing sea turtle populations worldwide are in decline. In particular, loggerhead turtles (*Caretta caretta*) are listed as endangered and loggerhead nesting populations in Eastern Australia have declined by 86% since the 1970s. However, whilst Eastern Australian loggerhead populations have been extensively studied and monitored, not much is known about the Western Australian nesting population.

This study aims to collect critical baseline data regarding nest ecology and hatching success of the loggerhead turtle nesting population in Cape Range National Park. The research was conducted for two nesting seasons (2006/07 and 2007/08) and initial results show that in Cape Range National Park nest predation is a crucial key factor affecting hatching success. Predation by ghost crabs (*Ocypode* spp), monitor lizards (*Varanus giganteus*) and feral European red foxes (*Vulpes vulpes*) considerably reduce survivorship from egg to hatchling. In fact, in the first and second years of this study, 76% and 80% of the monitored nests respectively, showed signs of partial or complete nest predation. The only introduced predator is the feral fox; however numbers of ghost crabs could have increased above normal levels due to tourism activities in Cape Range National Park.

This level of predation, coupled with other anthropogenic causes of decline at the foraging site and during migration to the nesting site (i.e. poaching, fisheries by-catch and pollution), is unlikely to be sustainable in the long term and more studies are recommended to identify successful management strategies to reduce nest predation on this beach.

In conclusion, this study takes an important first step towards obtaining crucial information on loggerhead turtle nest ecology and nest predator dynamics in this region; and will provide fundamental information for management policies and conservation initiatives aimed at conserving these sea turtle populations.