

# The Herpetofauna of the Weipa Region, Cape York Peninsula

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**ABSTRACT.** The Weipa region has a rich and diverse herpetofauna of which many species are shared both with New Guinea and other regions of northern Australia. Twenty native species of frogs and 76 species of reptiles have been recorded in the Weipa region and individual species accounts, photos and identification keys are provided. The herpetofauna may include as many as four undescribed species but it lacks the high level of endemism characteristic of the herpetofauna on the eastern side of Cape York Peninsula.

The arrival and establishment of the introduced Cane Toad (*Bufo marinus*) in the Weipa region is documented.

One crocodile and four marine turtles in the region are listed by the IUCN as vulnerable or endangered; a small burrowing snake has been proposed for the Squamata section of the IUCN Red Data Book. The region experiences a very dry winter (average monthly rainfall from June to September less than 4 mm) but contains significant dry season refugia for a number of frog species hitherto recorded only from more mesic habitats. Seven of these refuge sites are recommended for habitat conservation.

Many of the regeneration sites provide suitable habitat for the frogs and reptiles characteristic of the pre-mined open forest but some species are apparently excluded because large, hollow-bearing trees and/or suitable ground cover are lacking.

CAMERON, E.E. & H.G. COGGER, 1992. The herpetofauna of the Weipa region, Cape York Peninsula. Technical Reports of the Australian Museum No. 7: 1-200.

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This report summarises current knowledge of the herpetofauna of the Weipa region in north-western Cape York Peninsula, Queensland, Australia. It is based primarily on a survey conducted by the Australian Museum in response to an invitation by Comalco Mineral Products, the corporation which has been mining bauxite in the region since 1963.

The survey was initiated when an Australian Museum party led by Dr Hal Cogger, made a brief visit to Weipa in July 1977 at the conclusion of a survey of the herpetofauna of Torres Strait Islands, which had been funded by ARGS Grant D1-73/15060. Karl Stewart, then General Manager - Operations at Weipa, was concerned about the potential effects on the local fauna, of the introduced cane toad (*Bufo marinus*) which was invading the Peninsula. Although some data on the vegetation and birds around Weipa had been published, very little was known about the frogs and reptiles. It was agreed that a baseline survey of the indigenous herpetofauna would assist in documenting the impact of the toad on that fauna.

The survey was also designed to fill a gap in the knowledge of the distribution of frogs and reptiles in Australia. Incorporated with existing data on the herpetofauna of the east coast of the Peninsula, Arnhem Land and Torres Strait, it could contribute to an understanding of the evolution and geographic relationships of frogs and reptiles in northern Australia

and southern New Guinea.

Comalco Mineral Products funded five visits by Australian Museum herpetologists to Weipa between 1979 and 1982. During this period, the corporation supported two other surveys of fauna in the Weipa region - one by the Queensland National Parks and Wildlife Service, and one by Peter Reeders in the regenerated mine sites. A fourth fauna survey in the region was commissioned in 1981/82 by Aurukun Associates for their bauxite lease SBML9 north of Aurukun. Further information on these surveys is provided below in the section on Previous Studies of the Region. Data from all these surveys, as well as that in the literature, and information and specimens supplied by individuals, have been incorporated in this account of the herpetofauna of the Weipa region.

### Methods

Field visits were scheduled to sample a range of seasons but due to other commitments of the Museum herpetologists, the majority of visits occurred in the middle of the dry season, between June and September (Appendix 1). Survey sites were selected to include the major habitats and to encompass the boundaries of the Comalco Mineral Products bauxite lease (Appendix 3;