



**UNIDEL**  
ENERGY AND INFRASTRUCTURE

## QC LNG - CURTIS ISLAND COMPONENTS

### Reptiles and Amphibians Report

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## 1.0 INTRODUCTION

The reptile and frog survey results provided below form part of a broader fauna survey coordinated by ERM for the BG proposed QC LNG development on Curtis Island. This component of the survey was conducted by Bruce Thomson and Dennis Matthews (CV's attached) from Unidel Group, Brisbane.

## 2.0 METHODOLOGY

Pit-fall traps, spotlighting and day-searching for amphibians and reptiles was conducted on-site between 6-16 October, 2008. Eight pit-fall lines were established in total. Four of these were established on 6 October, and another three on the 8 October with a final line added on 11 October. All traps were removed 16 October, thus pit-fall trapping effort equated to 69 trap-days. Traps were placed across the site in order to sample a representative range of habitats. These included *Corymbia citriodora* forest, *Eucalyptus crebra* woodlands and the saline margins of mangroves fringing the "Narrows". Pit-fall trap sites are shown on Map 1.

In addition, the site was traversed during the day on foot and with vehicle, and records were opportunistically made by observation or hand-capture. The site was also traversed at night and several dams near the site were visited to survey for additional frog species. These dams were located in similar habitat to the study site and so species identified at these dams are highly likely to occur across the whole area. An average of 5 hours per person was devoted to searching, equating to a total of 110 hours (over 11 days)

## 3.0 RESULTS

The survey identified 19 reptile and 9 frog species. Numbers of individuals and capture/observation technique are presented in Table 1. Maps of species observation locations are included as Maps 2-6.

The species recorded are typical of those found in the Gladstone region and none are listed as threatened species under the Australian or Queensland State legislation.

The grassy and shrubby understorey of the forests and woodlands support an abundance of small skinks (*Carlia*, *Menetia* and *Cryptoblepharus* spp.) but larger reptiles, particularly goannas (*Varanus*) were extremely rare. Curtis Island residents reported that a number of these larger species occur on the Island but they were not seen during the survey. Species anecdotally reported by residents are listed in Table 2 and although their distribution and abundance remains unknown, they may potentially occur on the site. None of these are listed threatened species.

The eastern, seaward-facing beaches are used as breeding sites by a number of sea turtles including the Flatback (*Natator depressus*) and Loggerhead (*Caretta caretta*). These species are listed threatened species under both Australian and Queensland State legislation. Discussions with residents confirmed that these species do not occur in the study area and site inspection also indicated that there is no suitable breeding habitat.

Past records also indicate the presence of Salt Water or Estuarine Crocodile (*Crocodylus porosus*). Local sources report that crocodiles have not been recorded in the area during the past several decades. Whilst the potential for crocodiles to utilise the

area cannot be ruled out, no signs (slides or footprints) were detected in the study area during the course of the survey.

**Table 1. Summary of species identifications and numbers by capture technique.**

Fauna	Hand Caught	Heard	Observed	Pit Fall	TOTALS
<i>Carlia foliorum</i>				8	8
<i>Carlia munda</i>	2		4	5	11
<i>Carlia pectoralis</i>				1	1
<i>Carlia vivax</i>				3	3
<i>Chlamydosaurus kingii</i>			1		1
<i>Cryptoblepharus virgatus</i>	2		4	1	7
<i>Ctenotus robustus</i> **	5				5
<i>Ctenotus taeniolatus</i>	1			3	4
<i>Demansia vestigiata</i>	1				1
<i>Dendrelaphis punctulata</i>			1		1
<i>Diplodactylus vittatus</i>				1	1
<i>Diporiphora australis</i> **			1		1
<i>Eremiascincus richardsonii</i>				4	4
<i>Gehyra dubia</i>	3				3
<i>Heteronotia binoei</i>	2			1	3
<i>Lialis burtonis</i>				1	1
<i>Limnodynastes peronii</i> **			1		1
<i>Limnodynastes tasmaniensis</i> **			1		1
<i>Litoria caerulea</i>		2	1		3
<i>Litoria fallax</i>		5	6		11
<i>Litoria gracilentata</i>			10		10
<i>Litoria inermis</i> **	1				1
<i>Litoria peronii</i> **		1			1
<i>Litoria rubella</i> **			1		1
<i>Menetia greyii</i>				2	2
<i>Ramphotyphlops wiedii</i>				1	1
<i>Rhinella marina</i>			15		15
<i>Tropidonophis mairii</i> **	1				1
<b>TOTALS</b>	<b>18</b>	<b>8</b>	<b>46</b>	<b>31</b>	

\*\* indicates species recorded off site




**Table 2. Species anecdotally recorded by residents and other survey groups**

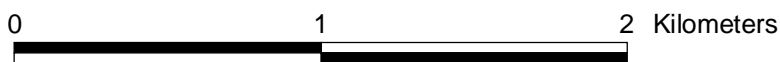
Fauna	Occurrence
<i>Antaresia maculosa</i>	Infrequent – widespread
<i>Aspidites melanocephalus</i>	Common - widespread
<i>Morelia spilota</i>	Infrequent but widespread. Also reported by the mammal survey group.
<i>Varanus varius</i> (tentative id)	Infrequent – reported near the barge landing area

**CURTIS ISLAND SITE**  
**Reptile and Amphibian Survey - Oct 2008**  
**Map 1 Locations of Pit lines**



**LEGEND**

-  Site Boundary
-  Tracks
-  Pit Lines



Conducted by Unidel Group  
B. G. Tompson  
D. V. Matthews  
6th - 16th October 2008

**CURTIS ISLAND SITE**  
**Reptile and Amphibian Survey - Oct 2008**  
**Map 2 Skinks - Carlia**



- LEGEND**
- Carlia
- # Carlia foliorum
  - # Carlia munda
  - # Carlia pectoralis
  - # Carlia vivax
  - Site Boundary
  - Tracks





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**CURTIS ISLAND SITE**  
**Reptile and Amphibian Survey - Oct 2008**  
**Map 3 Other Skinks (non Carlia)**



**LEGEND**

- Other Skinks (non Carlia)
- # Cryptoblepharus virgatus
  - # Ctenotus robustus
  - # Ctenotus taeniolatus
  - # Eremiascincus richardsonii
  - # Menetia greyii
-  Site Boundary  
 Tracks



0 1 2 Kilometers



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**CURTIS ISLAND SITE**  
**Reptile and Amphibian Survey - Oct 2008**  
**Map 4 Dragons and Geckos**



**LEGEND**

- Dragons and Geckos
- # Chlamydosaurus kingii
  - # Diplodactylus vittatus
  - # Gehyra dubia
  - # Heteronotia binoei
  - Site Boundary
  - Tracks





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 6th - 16th October 2008



**CURTIS ISLAND SITE**  
**Reptile and Amphibian Survey - Oct 2008**  
**Map 5 Legless Lizards and Snakes**



**LEGEND**

- Legless Lizards and Snakes  
 # Dendrelaphis punctulata  
 # Lialis burtonis  
 # Ramphotylops wiedii  
 Site Boundary  
 Tracks



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**CURTIS ISLAND SITE**  
**Reptile and Amphibian Survey - Oct 2008**  
**Map 6 Amphibians**



**LEGEND**

- Amphibians
- # Litoria caerulea
  - # Litoria fallax
  - # Litoria gracilentia
  - # Rhinella marina
  - Site Boundary
  - Tracks



Conducted by Unidel Group  
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