Update 2012

East Gippsland of Victoria has been surveyed from Gabo Island in the east to Buchan in the west. All drainages between the Genoa River and the Snowy River have been surveyed. A huge number of specimens have been collected, taxonomically examined, genetic analysis has occurred and further genetic analysis is planned.

Currently *E. diversus* is being redescribed and new *Euastacus* species are being described with publication expected 2012.

Surveying continues in Victoria in all drainages west of the Snowy River.

Project: 100016

Euastacus diversus, Rediscovered and Redescribed

Research Brief

Introduction

Biological surveys in southern NSW along the border with Victoria as part of the Australian Crayfish Project have produced some very interesting results that need further investigation. *Euastacus diversus* is a species only known from a very small distribution area north of Orbost Victoria. *Euastacus diversus* is known as the Orbost spiny crayfish though this is a misnomer as it is not spiny at all. It is one of the smaller *Euastacus* species with one of the most restricted distributions in Victoria. It is currently listed as a threatened taxon under the Flora and Fauna Guarantee Act 1988.

As part of the ACP biological surveys *Euastacus diversus* was captured as well as six either new species or morphological variations of *E. diversus*.

Aims

The aim of this project is to ascertain and map the distribution of *Euastacus diversus* and redescribe the species to include the morphological variations across its new expanded distribution. With the aid of genetic testing we will identify and distinguish any new species and these will be described in separate papers.

Research Outline

The project team has been working on the *Australian Crayfish Project*, finding and identifying freshwater crayfish species across Australia. The team consists of three experts on freshwater crayfish and will conduct the core research of this project.

- Robert B McCormack – Research & Aquaculture Director, Australian Aquatic Biological P/L. 25 years as aquaculturalist and teacher. Author of numerous books on freshwater crayfish including his 7th book "The Freshwater Crayfish of NSW Australia". ISBN 978-0-9805144-1-4. President of the NSW Aquaculture Association. Serves on various statutory advisory committees. Research Associate with the Carnegie Museum. Experienced in crayfish taxonomy, including the preparation of formal taxonomic descriptions for publication.

- Dr Jason Coughran - Associate Lecturer, Southern Cross University, PhD in freshwater crayfish biology, ecology and taxonomy. >10 years research experience in freshwater biology.

- Dr. James W. Fetzner Jr. Assistant Curator of Crustacea, Section of Invertebrate Zoology, Carnegie Museum of Natural History, Pittsburgh, Pennsylvania, USA. Areas of research include 20 years of experience working on the biology, conservation, population genetics, systematics and taxonomy of freshwater crayfishes at a global level. An additional 12 years of experience in bioinformatics and the dissemination of crayfish related taxonomic information via the internet.

Professional crayfish-related activities include: Secretary for the International Association of Astacology, Editor of the *Crayfish News* newsletter, co-editor of the journal *Freshwater Crayfish*.

This team will be the core researchers for this project. The survey will require the participation of a large number of stakeholders. It is our intention to co ordinate the survey with Victorian DPI, National Parks officers, Forestry rangers, DSE officers, researchers and community volunteers. A huge area will need to be surveyed to give accurate information. Crayfish will need to be captured, weighed, measured, sexed and recorded, a DNA sample can be taken from specimens, just a piece of leg that will not permanently injury or hinder the crayfish as they will regrow the sample taken. The crayfish can then be released so there is little or no damage to the crayfish or their environment. These samples can be sent to the Carnegie Museum for DNA analysis and identification of the species.

.

For Further Information
Refer Project No.:100016
Robert B McCormack
Research & Aquaculture Director
Australian Aquatic Biological Pty Limited
Email: info@aabio.com.au