Current Status 2011
This project is currently on hold
Physical plastic tags and applicators have been sourced.
Test trails have been conducted SCU.
Currently test crayfish (some of our smaller more unusual species) have been tagged and are currently in Aquaria at AABio being evaluated. It is important to ensure tags do not impair crayfish throughout their lifecycle and that there are no negative consequences to existing crayfish populations when tagged crayfish are deployed back to the wild, etc.

Project No.: 100013

Tagging the Freshwater Crayfish of Eastern Australia

Introduction

The freshwater crayfish of eastern Australia are a very diverse group of animals. One of the main genus is the *Euastacus* crayfish and many of these are very large animals that live for 50 to 100 years plus. Many of the larger *Euastacus* species grow to over one kilo in size and of immense interest to recreational fishers. A couple of good examples are the Murray Crayfish from the Murray Darling river system which is the subject of a very active recreational fishing industry and the Giant Spiny Crayfish from the Sydney region which is the subject of interest for recreational fishers and enthusiasts on the eastern drainage. As part of the Australian Crayfish Project and associated crayfish projects being run by or supported by Australian Aquatic Biological, large numbers of these large crayfish are being regularly captured and released. It is our intention to tag all these crayfish and start a database on the crayfish tagged.

Aims

The aim of this project is to start a full database on the crayfish of eastern Australia to increase the knowledge base and help preserve these crayfish. Crayfish will be tagged with a bright external tag, this will be readily visible to recreational fishers. It is our expectation that recreational fishers will be less likely to keep tagged crayfish and will release them. The bright tags will be marked with a free phone number to ring and or the website to email and rewards will be offered for information on capture and release of crayfish. These are long lived animals and even the release of large females for a few more years so that they can breed could have dramatic positive outcomes for the conservation of the species as a whole.

We intend to tag crayfish with a physical plastic tag that is easily identifiable by recreational fishers & researchers. We would start an educational program with recreational fishing clubs and the general public to alert them to the significance of the tags and the value of advising the contact number with any information on any crayfish captured. We would work with the eastern states Fisheries management agencies, conservation groups and the recreational fishing clubs and supply them with tags and tagging guns to get them involved and active with the program. A contact phone number and website would be provided to manage the program ongoing for the next 10 years.

Working with Universities, State DPI's, Councils, management agencies, conservation, environmental and recreational fishing groups we will/would run a tagging program to ensure that all crayfish captured over the next 10 years are tagged and released. Most state fisheries departments do surveying and require scientific collection permits for the collection of crayfish for research work by other researchers. We would work with all current and future researchers to ensure as many crayfish as possible are tagged.

Also working with recreational fishing clubs and the general public would allow huge numbers of crayfish to be tagged and recorded. The shear fact that a crayfish is tagged and

has a bright orange/yellow tag sticking out of it may result in more crayfish being released after capture. The ultimate aim of this program is to increase the knowledge base on the growth and migrations of these species and the conservation and preservation of our freshwater crayfish species.

Outline

The following species are the initial main species of interest,
Euastacus armatus
Euastacus bispinosus
Euastacus dharawalus
Euastacus kershawi
Euastacus simplex
Euastacus spinifer
Euastacus sulcatus
Euastacus suttoni
Euastacus valentulus
Euastacus woiwuru
Euastacus yanga
Euastacus yarraensis

These are the main large recreational fishing species that are currently targeted by recreational fishers. It is these larger slow growing species that are most susceptible to overfishing and endangerment. These are the species that are of conservation concern and need help to ensure their proliferation into the future.

Deliverables

- Large numbers (thousands) of freshwater crayfish tagged.
- Large database created that includes location, OCL and weight at tagging/capture.
- Ability to track crayfish movements, migrations and translocations.
- Huge database started for all our eastern species with huge benefits to management agencies.
- Ongoing maintenance and update of the database.
- Conservation of the tagged species as recreational fishers more likely to record the tag number and release.
- Data accumulated over time on the recreational fishing effort and the amount of times the same cray is captured, etc.

Budget estimates

Cost of the initiating program, tags/guns, databases, tagging, educational program, advertising, website construction, 1800 toll free phone number and creation & maintenance of data bases $17,600.00 (2000 tags 20 guns included)
Signs at boat ramps and popular fishing area $26,000
Extra tags $1000 per 1000 tags.
Ongoing $5,500.00/year for 10 years.

Comments

Australian Aquatic Biological has funded initial pilot research programs on tagging freshwater crayfish. Trails conducted at Southern Cross University have proven the methods proposed are safe and functional. Trails were conducted with both internal microchip PIT tags and the external bright plastic tags. Though the internal PIT tags had a 100% retention rate these tags were not considered, as they are not visible to recreational fishers and only of value to researchers with the correct equipment to read them. The bright external Tags have a retention

rate of 86% and life expectancy of 20 years plus so these are the preferred method for this program.

For Further Information

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