

The monthly update on the Genetag Research Project

The Genetag Rag

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The First Edition

Welcome to the first edition of 'The Genetag Rag'. Each month, this newsletter will update readers on the progress of the Genetag Research Project. Each edition will contain a variety of stories spanning activities from the water to the lab.

Want to receive a monthly copy of the newsletter? Contact any of the Genetag Research Project staff on 08 8999 2144, or email michael.phelan@nt.gov.au, to receive a copy in the post or via email. Alternatively, you can download 'The Genetag Rag' from the web: www.fisheries.nt.gov.au.

Genetag Research Project Snippet

The Genetag Research Project is developing a new monitoring method - genetic-based tagging for tracking fish movement and harvest rates. It began in July 2002, and is funded by the Fisheries Research and Development Corporation. It is also a partnership between Northern Territory's Fisheries Group, Queensland's Department of Primary Industry & Fisheries. The project involves both the commercial and recreational mackerel fishers.

The basic idea behind the project is simple: the DNA in a small piece of tissue taken from a fish 'is' the fish's identity and can be used as a tag. We use a special lure to collect the tissue so that the fish don't even have to be landed to be tagged.

Subsequent screening of landed fish for matches to that DNA indicates any matches so the basic elements of one of fishery science's most powerful tools - tagging - are all there.

With the help of the NT's professional mackerel trollers, we have adopted just this approach to track harvest rates. Nearly 500 fish have been gene-tagged by professional fishermen and Fisheries Group technicians over the last couple of years. Several thousand fins from landed fish have also been collected, and are in the genetic analysis process at the moment. This work has been absolutely dependent on the co-operative efforts of professional fishermen.

But wait - there's more! Many recreational anglers are happy to catch and tag fish. However, a limit to the value of this has been the tag loss rate - tags fall out, and some tagged fish die. This has proven difficult to measure - unless it is combined with genetic tagging. This is where recreational tagging becomes so valuable. So that's our approach: we are combining genetic and conventional tagging; and government, professional and recreational fishermen are teaming together to do it.

The Genetag Research Project Logo

Renowned Australian artist Christopher May has cleverly transformed a pair of twisting DNA strands into a pair of fish; creating a unique and easily recognisable logo for the Genetag Research Project. The Genetag Research Project staff would like to thank Chris for the time he kindly donated designing the logo

Many of you will be familiar with Christopher's fantastic fish drawings; the most recent of which is the leaping barramundi. To see these brilliant drawings, checkout the Pencil Art website at: www.pencilart.com.au.

Produced by the Fisheries Group, Department of Business, Industry and Resource Development, Northern Territory, Australia.

www.fisheries.nt.gov.au



Northern Territory Government
Department of Business, Industry & Resource Development



Australian Government
Fisheries Research and Development Corporation



Queensland Government
Department of Primary Industries and Fisheries

Genetag Fishing Shirts

Throw away those grotty old fishing shirts! The Genetag fishing shirts are ready to hit the water. Sporting the Genetag logo on the back, the Kokoda brand shirts were designed for fishing in the tropics. The only problem is they're almost too good to go fishing in.

The Genetag Research Project is giving away 30 shirts to our major sponsors and volunteer taggers. Unfortunately, we can't afford to give away any more, but the Genetag shirts can be purchased for \$45 a piece. If you would like to order a shirt, give any of the Genetag Research Project staff a call on 08 8999 2144.

The Inaugural Spanish Mackerel Tagging Competition.

Well at long last the Spanish Mackerel Tagging Competition is upon us. Thanks to the unbelievable support of the competition's sponsors, there are some fantastic prizes up for grabs.

Set over two weekends (10th-11th, and the 23rd-25th), there will be prizes for the most Spanish mackerel tagged each day, as well as the most Spanish mackerel tagged overall. There will also be fantastic door prizes given away at the information night, as well as the two presentation nights.

Prizes donated by the competition's sponsors include:

- A full day fishing and 2 nights accommodation compliments of [Equinox Fishing Charters](#) and the [Marina View Serviced Apartments](#) (valued at \$617).
- A rod and reel donated by [Happy Micks and Shimano](#) (valued at \$500).
- A Tropical IceBox donated by [Aussie Outback Supplies](#) (valued at \$300).
- Barbless fishing hooks donated by [Mustad](#) (valued at \$300).
- One nights accommodation, with breakfast, at the [Novotel Atrium](#) (valued at \$283).
- A canvas swag donated by [Aussie Outback Supplies](#) (valued at \$250).
- A Gerber multi-tool donated by [Aussie Outback Supplies](#) and [Gerber](#) (valued at \$220).

- Assorted fishing gear donated by [In and Outboard Marine](#) (valued at \$200).
- Movie passes from [Birch Carrol and Coyle](#) (valued at \$200).
- Lures donated by [Helco Lures](#) (valued at \$200).
- Canvas stubby coolers compliments of [Aussie Outback Supplies](#) (valued at \$200).
- A full days fishing compliments of [Arafura Fishing Charters](#) (valued at \$185).
- Lures donated by [Reidy's Lures](#) (valued at \$100).
- Gift voucher compliments of [The Jetty](#) (valued at \$100).
- Sonoma binoculars donated by [Tasco](#) (valued at \$180).
- Gift voucher compliments of [Seafood on Cullen Bay](#) (valued at \$80).
- Gift voucher compliments of the [Hanuman](#) (valued at \$80).

The People Behind The Project

As you see from the articles, a whole bunch of people are contributing to the success of this project. Each month we will be presenting a short snippet on one the project staff or volunteer fishers involved in the project; starting this edition with the project coordinator, Dr Rik Buckworth.



Rik Buckworth aboard the vessel 'John Hickman'.



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Rik has been with Fisheries for more than 20 years and in that time has researched everything from prawns to longbums to mackerels and sharks. His favourite research interest is working out better ways to monitor fisheries.

Rik's work with the Spanish mackerel fishery began in 1991. He quickly realised that the most effective way to monitor the fish stock would be to tag them. The hard bit, he says, was figuring out a feasible way to do that. He's delighted that we now have something that really seems to work.

This Month's Fishing Photos

Got any great fishing photos? Send them in and we will include them in the next edition.



Kylie Higgins of the Fisheries Group, working it hard off Roche Reef.



Michael Phelan, also from the Fisheries Group, with a 128 cm Spaniard caught off Smith Reef.

The Next Edition

The Genetag Research Project has just launched a new 5.5m centre console vessel thanks to the support of G.S. Marine and Suzuki Outboards. Find out more about this vessel in the next edition.



Fisheries Minister Kon Vatskalis and Dr Rik Buckworth with the 'Gene Genie'.

Also in the next edition, all the results from the Spanish Mackerel Fishing Competition will be posted in the next edition of 'The Genetag Rag'. Plus, find out more on how the commercial fishing sector is involved the Genetag Research Project.

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