



NZ Marine Research Foundation

Striped Marlin Satellite Tagging Programme

March 2008

Satellite Tagging News

This is the first in a series of newsletters that will describe satellite tagging research on New Zealand's striped marlin in 2008.

20 March

Two striped marlin were satellite tagged at Waihou Bay in March 2008. The first (called STM08-1), tagged on 6 March 2008 was estimated to be 80kg, and was transferred from Chris and Tania Randrup on their boat "Swn y mor" as they fished for the Tauranga One Base. Their efforts to reach Waihou Bay were rewarded with this fish and the opportunity to see what it does after release. The marlin was lively at the boat and was released after about 90 seconds of revival behind the tagging boat, Bravehart, captained by Clyde Fraser. As you can see from the attached map, this fish made a beeline out of town, as we have come to see in most cases over each season of satellite tagging.

So far the tail tag is transmitting excellent data with 2-6 locations per day, and half of the locations being of excellent quality (accurate to within 1000 meters). This marlin is also carrying a pop-off satellite tag (PSAT) which will record depth, temperature, and sunlight intensity data every 60 seconds before releasing from the fish and transmitting a summary of these data to satellites. It is scheduled to stay on the fish until 31 August 2008, at which time it should release and tell more about its journey.

The second marlin was tagged on 8 March after being transferred from the boat "Got em On", captained by host of the ITM Fishing Show Matt Watson. The ITM crew were in Waihou Bay at the same time, and helping with satellite tagging as opportunities presented. Upon hooking up with their fish, the ITM crew called the satellite tagging boat, "Back In Black", captained by Dave Anderson who generously contributed his boat and skills to the project. This fish too was in good shape and after about 2 minutes of handling alongside the boat to get the tags in place, the fish was revived by towing it slowly at about 2 knots and then released. It swam away nicely and the capture, tagging, and release process was filmed from both the ITM boat and in the water by an ITM diver. This marlin was also double tagged with a PSAT tag which is programmed to pop-off on 31 December 2008. Initially it moved northwards until it reached the Colville-Lau

Ridge, where it diverted northeasterly and has been moving parallel to the ridge since 14 March.

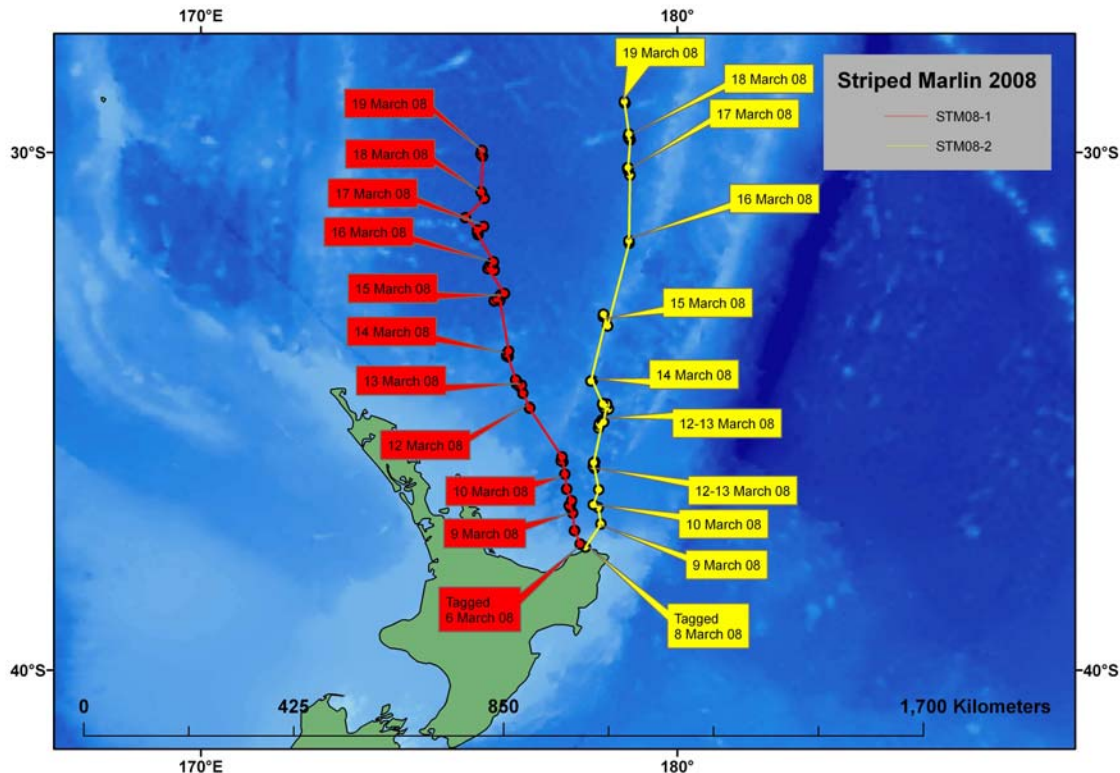


Figure 1. Movements of two striped marlin tagged at Waihou Bay in March 2008.

Tag performance

We are hopeful of getting improved transmission life out of the tail tags in 2008, after spending several seasons refining and hopefully improving our techniques. The aeriels of these tags have been robustly reinforced in hopes of reducing the stress on this part of the tags while attached to the powerful tails of marlin. To date these tags have transmitted slightly more than 2000 messages (STM08-1) and 3000 messages (STM08-2), which is a good start. We can come to see that the number of daily transmissions tends to slow down the longer a fish carries a tag. After a period of settling down after capture/tagging, transmission frequency has tended to settle down over time. We hope to improve upon the longest transmission life of 103 days from 2007!

A few left to tag

One PSAT tag is left to be deployed in 2008. Since two were tagged in Waihou Bay initially, we decided to try to put the last tag out of there too. It has been left in the capable hands of Clyde Frazer who has assisted the satellite tagging program from his boat Bravehart for two seasons now. Clyde has patiently watched as fish were transferred to his boat from other boats to satellite tag. We are hopeful that Clyde will catch one for the project and put Bravehart's name on it!

Another satellite tag washes up

In mid-January 2008 another PSAT tag washed up on a beach at Charlesworth Bay, New South Wales Australia and was found on 10 January. The tag was attached to the first marlin tagged at the Wanganella Banks on 10 January 2006. It contains an archive of data recorded every 15 seconds for nearly 3 months. The tag was returned to the manufacturer to open the archive. We will keep you updated on this when we have the data.

Wrapping up the NZMRF project

This will wrap up the New Zealand Marine Research Foundation's striped marlin satellite tag deployment. We have been thrilled to bring news to you about the results from the satellite tagging efforts over the last 5 seasons. The next phase of analysing and publishing the results is well underway. There have been annual reports provided at NZ Big Game Fishing Council AGMs. At the end of February a presentation of the tail tagging technique was given at an international tagging technology meeting in Auckland and just last week the second research paper was submitted to a leading scientific journal. We look forward to continuing the efforts to use these data to help better understand striped marlin in the Pacific Ocean.

Daily updates of marlin tracks can be viewed on a website hosted by the Tagging of Pacific Pelagics program. Check them out at <http://las.pfeg.noaa.gov/nonTOPPtags/>

Thank you

Again we thank everyone for their ongoing support, and we are happy to bring these reports to you as we can.

Sponsors and supporters

Satellite tagging efforts in 2007 are a continuation from the 2006 project in which the New Zealand Marine Research Foundation received support from many sources including:

New Zealand Big Game Fishing Council
Enterprise Motor Group
The Lion Foundation
Green Thistle Sporting Trust
Pub Charity
Bay Trust

Whangamata Ocean Sports Club
Tauranga Game Fishing Club
Paslode
Collaborators from Stanford University and
University of Auckland

Fundraising is ongoing to help complete these projects. Please contact the New Zealand Marine Research Foundation or the New Zealand Big Game Fishing Council if you wish make contributions.

Issues of this and our previous newsletters are available on the New Zealand Big Game Fishing Council's website: <http://www.nzbfgc.org.nz>

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