



Yellowtail Kingfish Monitoring Report

Start Date: 1 June 2012

Completion Date: 30 June 2012

Objectives:

- To collect lengths of kingfish caught in the 2012 Bay of Islands Swordfish Club (BOISC) Yellowtail Tournament.
- To compare lengths of fish from the 2010, 2011 and 2012 BOISC Yellowtail Tournaments

Background

Kingfish are a highly valued catch for recreational and charter fishers around northern New Zealand. Without doubt, we have a world class kingfish fishery right here in northern New Zealand.

In 2010, recreational charter and private fishers around the upper North Island worked with us to monitor the status of kingfish stocks. This was the first time a project of this scale had been conducted for kingfish in New Zealand. The results provided a snapshot of the size and age of kingfish in the recreational catch, which is more representative of the overall population than a sample from the commercial catch. Only fish larger than 75 cm were sampled.

The results of the 2010 project were intriguing. The size ranges of kingfish in the Bay of Plenty and east Northland and Hauraki Gulf were quite different. A high proportion of fish sampled in Northland and Hauraki Gulf were 4 to 6 year olds (75%) with few fish over 10 years old. There were more older fish in the Bay of Plenty, especially offshore. The Northland fish were not dying of old age at 7 or 8 years old, according to tag returns they don't move offshore and stay there, possibly fishing mortality is high but there are not thousands of 16 to 20 kg fish in recreational or commercial catch records. Maybe rod and reel is not a reliable way of catching big fish in coastal waters, but I doubt it.

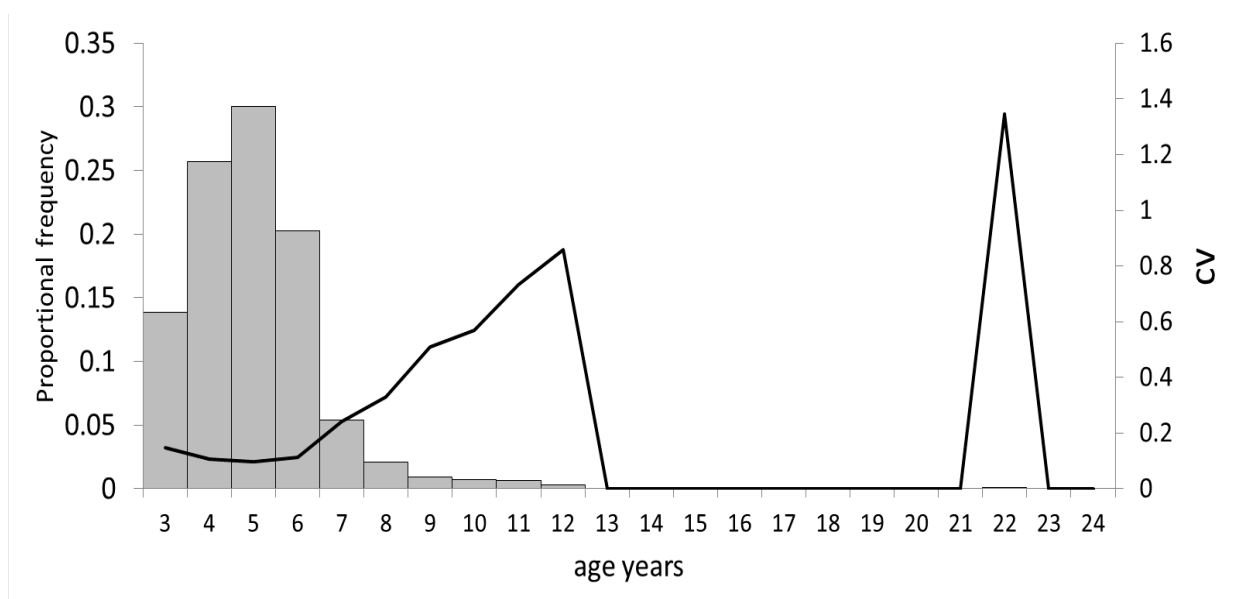


Figure 1: Age of east Northland and Hauraki Gulf kingfish sampled from recreational catch in 2010 (grey columns). CV is lower when there is more certainty that the proportions sampled are accurate (line). 280 fish were aged to generate an age-length key which was applied to the 1200 fish measured.

Results from Bay of Islands Yellowtail Tournament 2010 to 2012

This tournament is a great opportunity to collect length data at the weigh station over 4 days fishing. In 2010, the landed catch had a peak at 96 & 97 cm (about 10 kg) consisting mainly of 5 year olds and slow growing 6 year olds (blue line in graph below). Overall fish were larger in 2011 with a peak at 102 & 103 cm (about 13 kg). In 2012 the peak moved 2 cm to the right as did some of shoulder peaks from 2011 at 106 and 110 cm (Figure 2). No aging was funded in 2011 or 2012 but it is clear that there has been strong recruitment from successful spawning events seven or eight years ago. These fish are staying in coastal waters, so hopefully they will eventually boost the numbers of teenage fish that were strangely absent during the 2010 study.

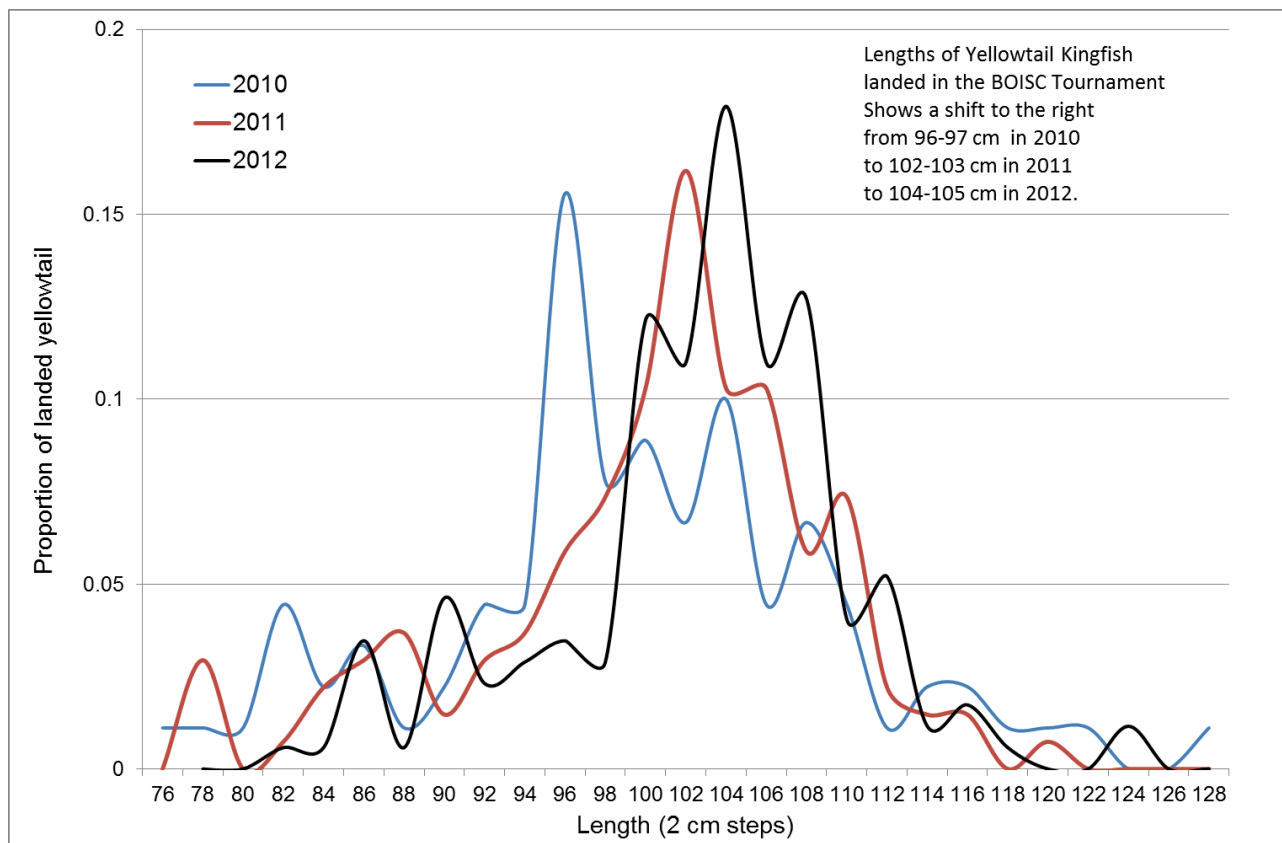


Figure 2: Plot of the proportion at length by year of yellowtail landed in 2010 (90 fish), 2011 (136 fish), and 2012 (173 fish) during the Bay of Islands Swordfish Club Yellowtail Tournament. Does not include fish tagged and released.

Kingfish Projects

The 2010 kingfish age and growth project was funded by the Ministry of Fisheries (now the Ministry for Primary Industries) and conducted by Blue Water Marine Research and NIWA. The on-going collection of length data to monitor kingfish in Northland is supported by the New Zealand Sport Fishing Council, The NZ Fishing Competition and Fin-Nor to enable recreational fishers to gather useful information to help monitor kingfish stocks.

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