



NEWSLETTER NO. 3

NSW Research Angler Program

June 2014

Welcome to the NSW Research Angler Program newsletter – providing you, the research anglers and spearfishers of NSW, feedback on the data you are collecting by donating your frames to research.

Notable donations from Autumn 2014

Once again, autumn saw donations of not only good numbers of mullet, but some cracking fish amongst them. For the second season in a row, big mullet from Newcastle have been donated to the program. In summer, it was Scott Robson's 154 cm fish and this past autumn we got access to important data from another big Newcastle fish caught by die-hard mullet angler Robert Thorpe. Bob had a great April-May nailing and donating two fine fish, one at 105 cm and a second a whopping 137 cm and 25 kg. Analysis of one of the otoliths from the second fish (pictured below) revealed it to be an amazing 23 years old, the equal sixth oldest mullet so far recorded in NSW!

NSW Research Angler Bob Thorpe with 137 cm and 25 kg of hefty Newcastle autumn-caught mullet



The otolith section from Bob's 23 year old mullet. The sixth oldest mullet so far recorded in NSW waters



Yamba breakwall mulloway specialist Mark Pirie also had a particularly productive autumn. Not only did his impressive fishing exploits land him in the May edition of Fishing Monthly, but generously he still found time to donate four fine mulloway to the NSW RAP via local participating tackleshop retailer, "The Bait Place" in Yamba. And quite a foursome they were, coming in at 122, 140, 141 and 145 cm respectively. Even more impressive were the spread of ages estimated for these fish with the 140 cm fish revealed to be more than twice as old at 23 years of age than the two larger fish which were each estimated to be a far more modest 12 years old. Awesome (and interesting) stuff Mark!

NSW Research Angler Mark Pirie with one of the four mulloway he donated to the NSW RAP over autumn. At 122 cm and 16 kg this one was in prime condition and estimated to be 8 years old.



The otolith section from one of Mark's donated mulloway – it wasn't the largest fish at 140 cm, but was certainly the oldest at 23 years (and the equal sixth oldest we have from NSW to date)!



Sans Souci Dolphins Spearfishing Club member Evan Leeson donated his first ever speared mulloway to the NSW RAP in spring last year, a fine fish of 91.4 cm. Fast forward a few months to autumn 2014 and Evan's mulloway hunting learning curve appears almost at its peak as again he had a donation for us, but this time from a "slightly larger" 144 cm fish weighing in at 30.5 kg. And the surprises didn't end there as its age was estimated at 26 years, the (equal) second oldest mulloway so far recorded in NSW waters, and coincidentally, the same age as Evan himself!

Like two peas in a pod: Evan Leeson and his 144 cm 30.5 kg mulloway from Port Macquarie, both 26 years old! Photo: Derrick Cruz. Inset: one of the sectioned otoliths from this fish used to estimate its age.



A bit of interstate co-operation!

In May, the NSW RAP had a very fruitful meeting with our counterparts from the Queensland Department of Agriculture, Fisheries and Forestry (DAFF)'s "Keen Angler Program" (<http://www.daff.qld.gov.au/fisheries/monitoring-our-fisheries/recreational-fisheries/get-involved-in-fisheries-monitoring/keen-angler-program>). We quickly glossed over the last eight years of State of Origin series and discussions soon turned to how better to involve recreational fishers in collecting research data, what a fantastic fish mulloway are and future opportunities for co-operation between NSW and Queensland recreational fishing research. We were also fortunate enough to take possession of almost 50 mulloway frames collected by recreational fishers in southern Queensland to complement the frame donations being contributed by NSW research anglers and spearfishers. Movement data from past mulloway tagging programs undertaken by NSW Fisheries have demonstrated movements of mulloway between NSW and Queensland waters and the east coast population are therefore likely to be a single biological stock. Frames contributed by Queensland research anglers will therefore contribute to our overall understanding of the entire east coast mulloway population from its most northern extent.

Queensland DAFFs "Keen Angler Program" co-ordinator Robert Prosser hands over a Queensland-caught mulloway frame to NSW RAP co-ordinator Julian Hughes.



Julian Hughes surrounded by defrosting Queensland-caught mulloway frames in the leafy surrounds of the Gold Coast.



Project Progress – Autumn 2014

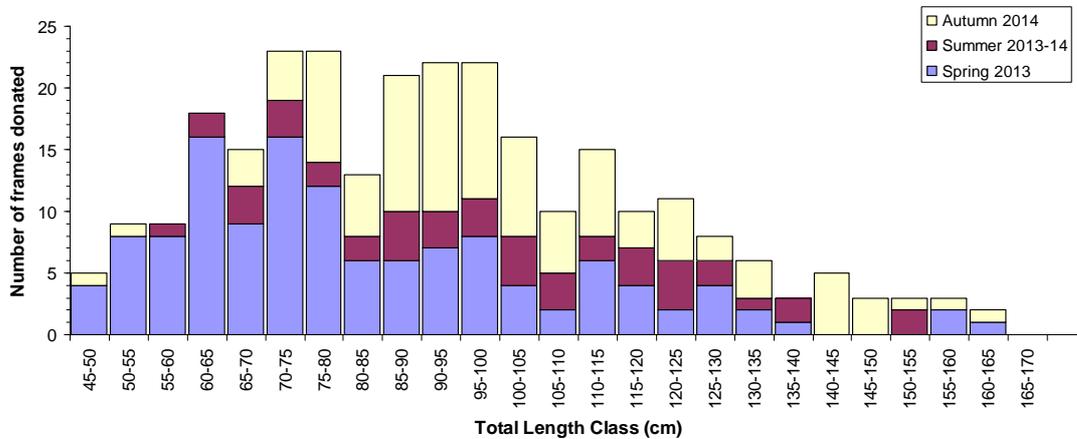
A total of 101 mulloway frames were donated to the program over autumn by 68 dedicated research anglers and spearfishers. These numbers were an improvement over the numbers of fish donated in summer (59) and prove that autumn really is an excellent time to get out there and target jewies.

Donated mulloway ranged in size from 70 cm right up to a whopping 160 cm (the second largest mulloway so far donated to the program!). As with the fish donated to the program over summer, we once again were amazingly fortunate to receive frames from some seriously big fish. More than a third (37) of

the frames or otoliths donated to the program over autumn were from mulloway of greater than 1 metre in length, including an incredible 11 fish over 130 cm and three larger than the magic 150 cm mark!

You can see this well in the below figure with the yellow blocks representing fish donated in autumn. These fish make up a high proportion of metre plus fish donated overall, particularly in the total length classes of 120-165 cm. In fact, you can see that ALL the fish between 141 and 150 cm in length were donated in the just the last 3 months!

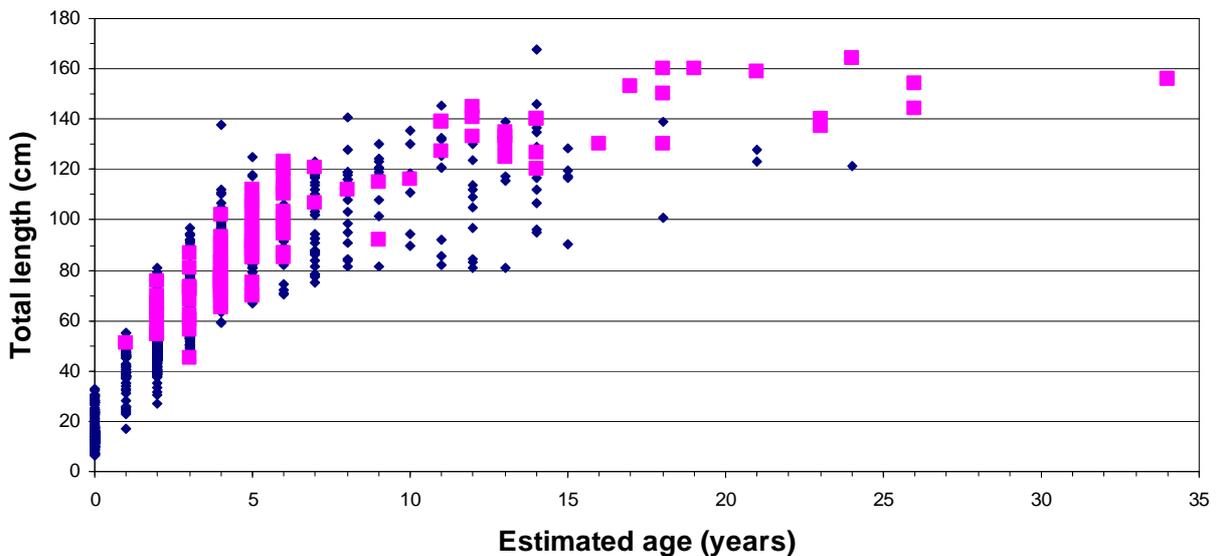
Length frequency of mulloway donated to the NSW Research Angler Program since the commencement of the program in September 2013.



One of the many reasons fishers love mulloway so much is because they are capable of growing to extremely large sizes. Through the NSW RAP, recreational anglers and spearfishers are now able to become involved in mulloway research which not only helps NSW Fisheries get a better handle on the recreational fishery for these great fish, but information from donated frames allows researchers access to data from the large individuals so keenly sought after by rec fishers. And as a result, we are now slowly becoming better able to answer questions concerning the growth and longevity of mulloway in NSW.

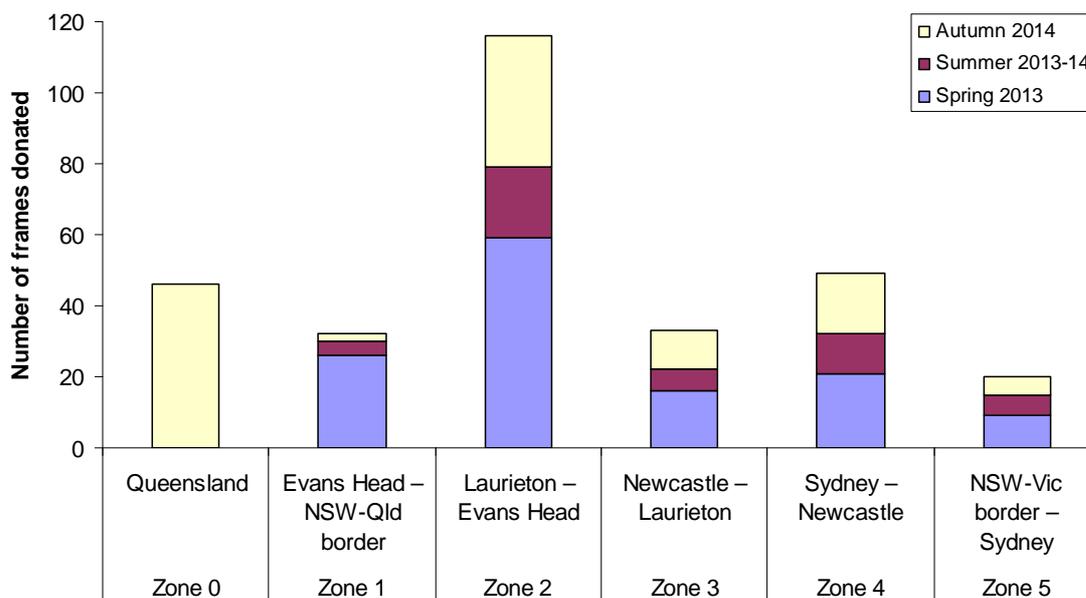
The below graph makes this case well. Prior to the commencement of the NSW RAP in September last year, Fisheries NSW had collected data from just a handful of mulloway estimated to be greater than 15 years of age. And thanks to the efforts of the keen and enthusiastic RAP anglers and spearfishers of NSW, we have now significantly expanded our knowledge of the sizes and ages mulloway are capable of reaching in NSW. We just needed to tap into the sector that catches the biggest (and oldest) mulloway...you guys!

Size-at-age data for mulloway in NSW: the blue points represent the data Fisheries NSW had for mulloway prior to the start of the program (mainly from commercial sources). The purple points represent data from recreationally-caught fish donated to the program since the commencement of the NSW RAP in September 2013.



The graph below shows the number of mulloway frames donated to the program by recreational fishers to the end of May 2014. We aim to collect data from at least 300 frames from each of the sampling zones along the NSW coast by the end of September 2015. As you can see, we are WELL on track to collect adequate numbers of mulloway frames from Zone 2 (Laurieton – Evans Head) where some of our most prolific research anglers live (and fish)! Following donations of good numbers of frames by switched-on Sydney and Newcastle metro mulloway hunters, Zone 4 (Sydney – Newcastle) donations received a boost over autumn, but we still need more frames from Zones 1, 3 and 5. So if you chase mulloway in the far north or south of the state, any frames donated will be received with open arms. Remember, even if it is only one frame, we want it!

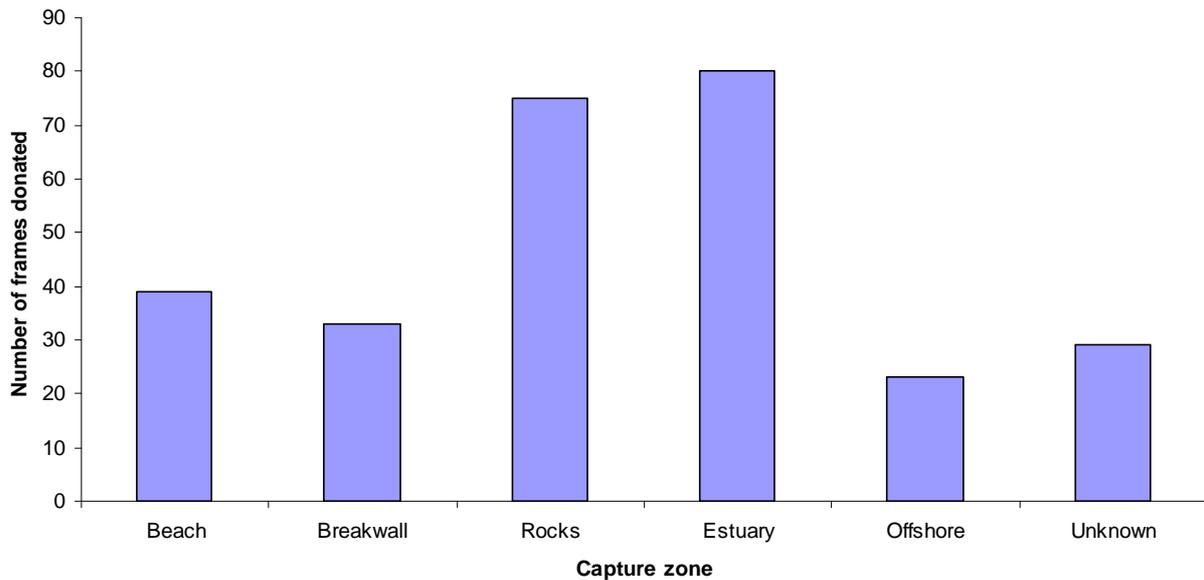
Number of mulloway frames donated by recreational fishers to the NSW Research Angler Program since the commencement of the program in September 2013.



The next graph shows the number of mulloway frames donated to the program split by "Capture Zone". Ideally, we would like to collect data from at least 300 frames taken from each of these zones so as to ensure that we get a good 'snapshot' of the sizes and ages of mulloway in all the areas where they are found. As you can see, plenty of donated mulloway to date have come from the zones where most mulloway fishing occurs: off the beach, from rocks and breakwalls and of course, in estuaries.

We know that deep water aggregations of mulloway sometimes occur offshore, however only 23 offshore-caught mulloway have so far been donated to the program. So we really need your help to increase the numbers of frames from this zone. If you do catch mulloway when fishing offshore, please keep the frame, head or a single jewel from each fish and contact us ASAP (T: 9435 4671, research.angler@dpi.nsw.gov.au). We will then direct you to your nearest drop-off point (or personally collect the frames if practicable). Hopefully some good winter weather will contribute to some good offshore mulloway catches and frames donated.

Number of mulloway frames from each “Capture zone” donated by recreational fishers to the NSW Research Angler Program since the commencement of the program in September 2013.



“Keen Angler Diary” Component

The response from anglers to our request for voluntary “Keen Angler Diarists” has been fantastic and so far we have managed to recruit over 50 mulloway “experts” from as far afield as Lennox Head in the north all the way to Batemans Bay in the south. These die-hard jewie hunters have been out there over autumn on the beaches, rock platforms, breakwalls and estuaries of NSW busily measuring mulloway and diligently recording data. The old saying that 90% of the fish are caught by 10% of the fishermen is probably more true for mulloway than almost any other species, so by targeting the most proficient and productive mulloway fishers (the top 10%!), we hope to be able to get a better idea of the numbers and sizes of fish caught (retained as well as released) in the recreational mulloway fishery in NSW.



We will provide all Keen Angler Diarists with a 20 page waterproof diary to record information (left) from 200 mulloway fishing trips along with a custom-made extra long 160 cm NSW RAP fish measuring mat for you to accurately measure the lengths of the mulloway you catch. We are still seeking interest from recreational mulloway anglers in participating in this program so if you regularly chase mulloway and would like to contribute some crucial data on the recreational mulloway fishery, please contact us (T: 9435 4671, research.angler@dpi.nsw.gov.au) and we will send you out a Keen Angler Diary pack.

NSW RAP-ANSA pilot tagging project update

The response to the NSW RAP-ANSA pilot mulloway tagging project has also been tremendous with almost 50 dedicated mulloway anglers and fishing guides recruited to the project over autumn. In fact, the response from fishers wanting to tag mulloway was so enthusiastic that Stan Konstantaras and Chris Anagnostou from ANSA, who are managing the project, have had to cap the number of participants at this stage in order to stay on top of the huge number of tag card returns!

As a result, more than 120 mulloway have so far been tagged and released as part of the project. The Sydney metro area has been a real tagging hotspot with 79 fish tagged mainly from Botany Bay-Georges River and the Hawkesbury. North from Sydney, there have been 30 mulloway tagged, particularly around Coffs Harbour and Yamba. Fewer fish have been tagged south of Sydney but this is bound to change with some seriously talented mulloway fishers poised to take advantage of increasing water temperatures associated with the approach of spring. Particular mention must go to Shimano's own Chris Cleaver who has caught, tagged and released an incredible 50 mulloway from metropolitan Sydney in just over 3 months!

Chris Cleaver with a 92 cm evening-caught mulloway prior to release.



The sizes of fish tagged have also provided a nice cross-section of the population with fish ranging in size from just sub-legal soapies all the way up to some serious trophy-sized individuals. Most fish tagged have been in the 60-80 cm bracket (66%), but almost 20 tagged mulloway larger than 1 metre in length are now happily swimming about just waiting to be recaptured. Dan Selby from Sydney Sportfishing Adventures and clients have put tags in seven metre plus mulloway from the Hawkesbury River and Sydney Harbour including the cracking 144 cm model pictured at right!

Dan Selby (right) and lucky client Nathan Bradley with a tagged 144 cm mulloway from the Hawkesbury River prior to release.



To date, three tagged mulloway have been recaptured. Two of the fish were tagged by, you guessed it, Dan Selby in the Hawkesbury River and recaptured in close proximity to their tagging locations after a short period at liberty. The third mulloway to be recaptured was a 71 cm fish caught and tagged by our number one frame donor Paul Blade, on the 9th of March north of Coffs Harbour. On the 18th of May this fish was recaptured approximately 2 km south of its tagging location by NSW RAP Keen Angler Diarist Geoff Kassulke and had grown 0.5 cm in its 69 days at liberty!

It is through exactly this sort of information that we hope to increase our knowledge of the movements, growth rates and post-release survival of mulloway in NSW via this component of the NSW RAP. Stay tuned for future updates.

Top Five taggers (as of 13 June 2014):

Tagger	No. fish tagged	Region
Chris Cleaver	50	Sydney
George Armao	22	Sydney
Dan Selby	10	Sydney
Gavin Hackett	10	Coffs Harbour
Andrew Skentzos	10	Sydney
Paul Blade	9	Coffs Harbour

Top Five largest fish tagged (as of 13 June 2014):

Tagger	Total length (cm)	Region
Dan Selby	144	Hawkesbury River
Kris Hickson	129	Manning River
Dan Selby	126	Hawkesbury River
Dan Selby	122.5	Hawkesbury River
George Armao	119	Botany Bay

Next time you're out chasing mulloway, keep an eye out for one of our yellow NSW DPI Gamefish tags located just beneath the dorsal spines. Keep in mind that the tag may be fouled by algae



If you are fortunate enough to catch a tagged mulloway, please record the tag number, measure the length of the fish, follow the instructions on the tag and contact either the NSW DPI Gamefish Tagging Program (T: 4424 7411, E: gamefish.tagging@dpi.nsw.gov.au) or the NSW Research Angler Program (T: 9435 4671, research.angler@dpi.nsw.gov.au).

The crucial data collected by this project will help us to learn more about the movements, growth and post-release survival of this iconic fish.

NSW RAP fishing club presentations

NSW Research Angler Program

- Collect biological data from recreationally-caught individuals for use in stock assessments
- Little data from largest (& potentially oldest) animals in population
- RFT funded (licence fees)
- Opportunity for recreational fishers to get involved in research
- 1 million rec fishers in NSW – an untapped resource

Recreational Fishing Trusts | NSW Research Angler Program | Department of Primary Industries

Thanks to the St George Sportfishing Club who hosted a presentation by one of our researchers on June 5th at the club's 500th meeting!

Despite a slightly smaller than usual turnout due to a mass migration of members to the Snowy Mountains for the close of the trout season, an enthusiastic group of experienced mulloway anglers from NSW's oldest ANSA club were on hand to hear about the program.

If you are a member of a fishing club (spearfishing or angling) and are interested in having a presentation on the program made to your members, please don't hesitate to get in contact with us (E: research.angler@dpi.nsw.gov.au, T: 9435 4671) and we'll send someone out to get you and your fishing club enthusiastic about getting involved in the program.

The "Top Fives"!

Our sincerest thanks to the following dedicated mulloway Research Anglers who have made it into our "Top Five" lists of frame donors overall and those for Autumn 2014.

As usual, excellent numbers of frames came from the some of the NSW RAP's most productive donors from the Mid-North Coast and Northern Rivers regions of NSW through autumn. An awesome effort from Coffs Harbour spearo James Sakker, who topped our list in autumn with frames from six fine mulloway donated. Our improved number of donations from the Sydney area was thanks in large part to the efforts of Keith Kneebone, Murat Atlihan (and other members of the South Sydney Amateur Fishing Association). Another five frames donated in autumn leaves Paul Blade looking all but "uncatchable" at the top of the leaderboard with a phenomenal total of 23 frames donated. A solid summer and autumn of mulloway chasing from James Sakker, Mark Pirie and Keith Kneebone have seen them all sneak into our overall Top Five. Fantastic work guys, please keep it up!

"Top Five" donors autumn 2014 (as of 13 June 2014):

Donor	No. frames donated	Region
James Sakker	6	Coffs Harbour
Paul Blade	5	Coffs Harbour
Matt Timmins	5	Crescent Head
Evan Leeson	4	Port Macquarie
Keith Kneebone	4	Sydney
Paul Butcher	4	Coffs Harbour
Mark Pirie	4	Yamba
Murat Atlihan	3	Sydney

“Top Five” donors overall (as of 13 June 2014):

Donor	No. frames donated	Region
Paul Blade	23	Coffs Harbour
John St Vincent Welch	12	Evans Head
Paul Butcher	10	Coffs Harbour
James Sakker	9	Coffs Harbour
Cameron Doak	8	Port Macquarie
Mark Pirie	8	Yamba
Keith Kneebone	8	Sydney

The second largest mulloway to date was donated to the program this past autumn by Sydney mulloway legend Keith Kneebone. At an enormous 1.6 m in length, this Hawkesbury fish was estimated to be a surprisingly youthful 19 years old. Another pair of trophy-sized but unexpectedly young fish were Nick Sarapuk's 150 cm 18 year old and Mark Pirie's 145 cm 12 year old.

“Top Five” largest fish donated and associated ages autumn 2014 (as of 13 June 2014):

Donor	Total length (cm)	Estimated age (years)	Region
Keith Kneebone	160	19	Sydney
Trent Fahey	153	<i>Yet to be processed</i>	Forster
Nick Sarapuk	150	18	“Zone 1”
Mark Pirie	145	12	Yamba
Evan Leeson	144	26	Port Macquarie

“Top Five” largest fish donated and associated ages overall (as of 13 June 2014):

Donor	Total length (cm)	Estimated age (years)	Region	Season
Adam Price	164	24	Sydney	Spring 2013
Keith Kneebone	160	19	Hawkesbury River	Autumn 2014
Mark McCabe	159	21	Hawkesbury River	Spring 2013
Vaughan Little	156	34	Shoalhaven River	Spring 2013
Scott Robson	154	26	Newcastle	Summer 2013-14

Evan Leeson's 144 cm fish featured earlier in the newsletter was estimated to be 26 years old making it the equal second oldest mulloway so far recorded in NSW waters. Bob Thorpe's 137 and Mark Pirie's 140 cm fish completed a thoroughly memorable autumn for frame donations as the two fish were estimated to be 23 years old each making them the (equal) sixth oldest NSW mulloway for which we have data for.

“Top Five” oldest fish donated and associated lengths autumn 2014 (as of 13 June 2014):

Donor	Estimated age (years)	Total length (cm)	Region
Evan Leeson	26	144	Port Macquarie
Robert Thorpe	23	137	Newcastle
Mark Pirie	23	140	Yamba
Keith Kneebone	19	160	Hawkesbury River
Nick Sarapuk	18	150	“Zone 1”
Kris Hickson	17	139.5	Manning River

“Top Five” oldest fish donated and associated lengths overall (as of 13 June 2014):

Donor	Estimated age (years)	Total length (cm)	Region	Season
Vaughan Little	34	156	Shoalhaven River	Spring 2013
Scott Robson	26	154	Newcastle	Summer 2013-14
Evan Leeson	26	144	Port Macquarie	Autumn 2014
Adam Price	24	164	Sydney	Spring 2013
Robert Thorpe	23	137	Newcastle	Autumn 2014
Mark Pirie	23	140	Yamba	Autumn 2014
Mark McCabe	21	159	Sydney	Spring 2013

Drop-off Locations

Many thanks must once again go to all participating drop-off locations for their enthusiastic involvement in the program. This program would simply not be possible without your continued support. The list of drop-off locations for donated frames is changing regularly as more tackle retailers become involved in the program. For the full and up-to-date list of places where you can drop-off your frames, please visit:

<http://www.dpi.nsw.gov.au/fisheries/recreational/researchangler/drop-off-locations>

Monthly Prize Draw Winners!

The lucky monthly NSW Research Angler Program prize winners for spring were decided by randomly drawing one frame donor from each month.

Congratulations to the following Research Anglers:

March	Josh Anderson	(Yamba)
April	Andrew Skentzos	(Sydney)
May	Mark Pirie	(Yamba)



Each winner will receive either:

- a \$50 gift voucher generously donated by **MO Tackle Coffs Harbour** (for use in-store or online),
- or a mulloway-ready lure pack worth \$50 containing a selection of proven hardbody, soft plastic and blade-style mulloway-catchers from Storm, Killalure, Berkley and Rupes.

Future winners will be published in upcoming newsletters and on our website. Don't forget to include your contact details (phone number, postal or email address) on the label accompanying your donated frame to ensure your chance of winning!

Remember, if you're going to catch and keep a mulloway for a feed, please fillet your fish and donate the frame, head or a single otolith to research –

WE NEED THE DATA FROM YOUR FISH!

**THANK YOU FOR YOUR ONGOING SUPPORT.
KIND REGARDS AND HAPPY FISHING!**

The NSW Research Angler Program is part of the Resource Assessment & Monitoring Unit of the Fisheries NSW Research Branch and is generously funded by the NSW Saltwater Recreational Fishing Trust and the NSW Department of Primary Industries.

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