AUTUMN REPORT #21

March 2023 to end of May 2023

Tindale Marine Research Charitable Trust quarterly report. Includes Trust member news, activities, engagements and achievements over the Autumn of 2023

Compiled by Founding Directors, Scott Tindale, Sue Tindale, Rex Harrison and Clinton Duffy

TINDALE MARINE RESEARCH CHARITABLE TRUST

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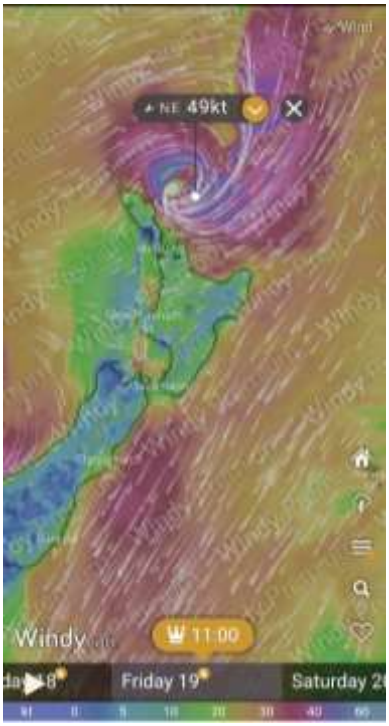


Well autumn weather was more like groundhog day for most of us in the north. Constant rain caused continual slips and flooding in the hardest hit areas. Forecasters scrambled to make sence of it with predictions changing on a daily basis. As the upper north Island braced for the next storm to hit most people were still recovering from floods. Cylone Gabrielle left a trail of destruction across most of the north Island in February, and many communities were still cut off during autumn leaving homes and businesses lost to a sea of mud. The carnage was everywhere including trees snapped and crops destroyed. In 4 months we have seen over 9 storm events like this and its not even winter yet.

Finding any oppotunity to get out on the water to continue our research was near impossible. Tagging effort and recaptures did however continue on finer days in sheltered areas and further south. With the repairs to our property sorted we decided to take another road trip south and try to take advantage of the better weather there. With the motor home loaded and looking like a mobile tackle store we made our way to Wanganui via National Park. The devastation to the forests on our travels was eye opening. Thousands of pines were uprooted or snapped off half way. The road to Wanganui was marginal with only one lane for much of it but we made it in plenty of time to catch up with tackle stores, fishing clubs and distribute posters before heading to Wellington to catch the late ferry. With an hour before check in we were informed our sailing was cancelled so we decided to make our way back home via Whakatane so that we could catch up with the fishing groups along the Bay of Plenty coast. A full day preceeded with stickers, posters and tagging information handed out to interested parties. Scott even had time to scrutinize a junior NZ record application at the club weigh station. No update from the ferries sent us further north arriving at Tauranga to drop of tagging kits and posters. We assisted with the weighing of a striped marlin and clarifyed an IGFA rule on its capture. By late afternoon we were informed that it was possible to get on a late sailing if we were able to get to Wellington in time before the weather packed in again. We made it in time for the only sailing until the weather improved, a rough crossing in the dark but we were too tired to notice...

The trip took in as far south as Christchurch with stops at Blenheim, Kaikoura, Westport, Nelson, Havelock and Picton before making our way home after an intensive day of fishing at the Kapiti coast. The people we met were excited about the program. We ran out of posters and tagging kits, and managed to tag and release fish at every location that we stopped at along the coast. It was great to see the sun again even if it was short lived.

Species Profile

Great white shark, *Carcharodon carcharias*

New Zealand is a global hotspot for great white sharks, also called white sharks or white pointers. They are large and iconic marine predators which have been protected in New Zealand's waters since April 2007 under the Wildlife Act 1953. This means it is **illegal to hunt, intentionally kill or harm Great white sharks** within New Zealand's Territorial Sea and Exclusive Economic Zone (200nm limit around New Zealand). They are globally distributed and are long-distance migrants, making extensive return migrations along the continental shelves of the world's oceans. White sharks are apex predators and play an important role in controlling populations of prey species. Males reach ~5.5m and females 7m, with their large size allowing them to feed on large prey such as marine mammals. A major threat to white sharks globally is unmanaged incidental catch and direct sport and trophy hunting. Indirect threats may also include the decline of important prey species due to overfishing, coastal productivity, habitat loss and pollution.

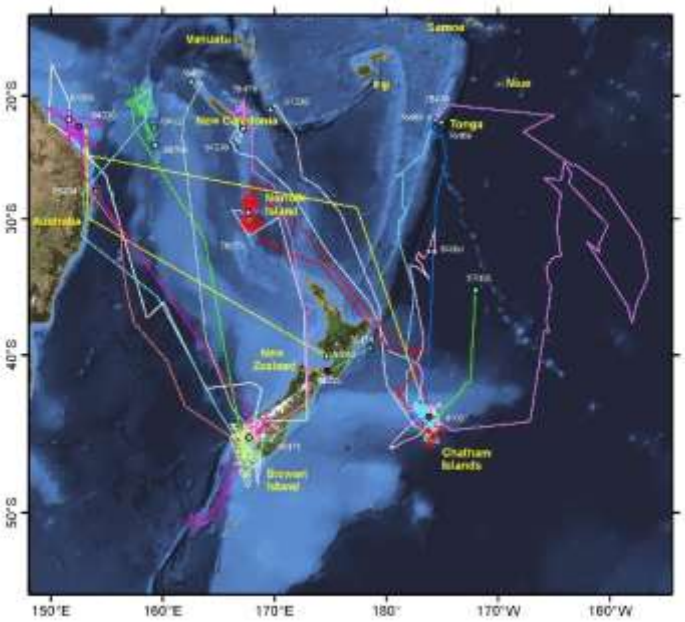
White shark research in New Zealand

Trust director Clinton Duffy has been researching white sharks (great white sharks, white pointers) in New Zealand waters since 1991. Initially a personal project prompted by his general interest in sharks and rays it eventually led to the establishment of the New Zealand white shark project, a collaboration between DOC, Dr Ramon Bonfil (Wildlife Conservation Society), Malcolm Francis (NIWA) and commercial diver and underwater film-maker Kina Scollay. Clinton met Ramon while representing New Zealand at the APEC Shark Workshop held in Huatulco, Mexico, in 2002. Ramon had just wrapped up a successful white shark satellite tagging programme in South Africa (https://www.science.org/doi/pdf/10.1126/science.1114898) and was looking for somewhere to deploy his four remaining pop-off archival satellite tags, PATs or PSATs. Clinton suggested he do that in New Zealand and the rest is history, so they say.

The first trip to the Chatham Islands in April 2005, facilitated by Kina and Tim Gregory-Hunt, was a success, with all four PATs deployed on a willing population of great whites. These were the first satellite tags deployed on any species of shark in New Zealand waters. Reviewing Kina's underwater footage also kicked off Clinton's ongoing photo-ID project as it was soon apparent that every great white was individually recognisable from a combination of scars and unique colour pattern.

A failure to tag any sharks at the Chathams in 2006 saw an expedition to Stewart Island in 2007, and eventually most of the research effort shifted to Stewart Island due to the accessibility of the sharks there.

Between 2005 and 2015 10 PATs were deployed on white sharks at the Chathams, and 76 tags (28 PAT tags, 3 SPOT satellite tags and 45 acoustic tags) were deployed on 63 white sharks at Stewart Island. Prior to this project nothing was known about white shark movements in New Zealand waters. The results reinforced the findings of some preliminary genetic research that showed white sharks from New Zealand and the east coast of Australia were closely related but also held some surprises. The team expected to see white sharks moving between the Chatham Islands and Stewart Island and other parts of New Zealand, as well as making occasional movements to southern and eastern Australia. Instead, what they found was that white sharks were largely resident at the Chatham Islands and Stewart Island from November to September, with numbers peaking from March – June. Sharks began leaving the Chathams and Stewart Island from about June and July, with most making rapid, direct movements to the east coast of Australia and the islands and ridges in the tropical and subtropical Pacific north of New Zealand. Favourite destinations are the southern Great Barrier Reef, Coral Sea, Norfolk Island, New Caledonia, Vanuatu, Fiji and Tonga. Surprisingly no movement was observed between the Chathams and Stewart Island, and only limited numbers of sharks from these areas visited other known aggregation sites such as Ranfurly Bank. Satellite and acoustic tagging, as well as individual photo-ID showed many sharks returned to Stewart Island and the Chathams after five to six months away. The photo-ID work showed the sex composition of sharks at both sites is heavily biased to adult males.



Acoustic tags

PAT and SPOT satellite tags

In 2006 Clinton also began investigating white sharks in the Manukau Harbour and teamed up with Scott and Sue Tindale in 2012 to satellite tag them in the nearby Kaipara Harbour. These sharks, mainly juveniles between 2 and 3m in length, can be hard to find at times in these murky harbour waters making them harder to catch and tag. This work met with mixed success with the tags having had a high failure rate. The reason for this is unknown but one PAT tag recovered after nine months on a small male white shark nicknamed 'Scotty' was heavily overgrown with mussel spat. Heavy fouling can cover the wet-dry sensors that tell the tags when they're on the surface and weigh down the tags' antennae, so they don't transmit properly or at all. Interaction with fishing gear, particularly nets can also potentially damage the tags or rip them off the sharks. Another likely factor for the failure to hear much from SPOT tagged sharks is their behaviour when they're inside the harbours, or in favoured feeding areas. SPOT tags are attached to the sharks' first dorsal fins and only transmit when the tag breaks the surface, even then one or more satellites have to be overhead to receive the transmitted data and for the tag to get a position fix. Data on diving behaviour obtained from PATs indicate they spend very little time at the surface in their feeding areas, hence the long silences.

Photo by Scott Tindale.

This behaviour may be exaggerated in the murky waters of harbours like Manukau and Kaipara because the sharks may need to stay close to the bottom to maximise their chances of finding prey. Despite that, we have been able to show that the juveniles inhabiting these harbours make long movements up and down the coast but often return to the places they were tagged, and that these larger juveniles also make long distance migrations to places like Queensland, the Hunter Ridge between New Caledonia and Fiji, and reefs south of Tonga. There have been over 9 scientific publications arising from the New Zealand white shark project.

The Aussies of course have been pouring a lot of money into tagging great white sharks for many years and recently published results of tagging conducted by Paul Butcher's team from the NSW Department of Primary Industries has shown juvenile white sharks tagged there make extensive movements within New Zealand waters. Visiting everywhere between the Kermadec Islands and the Sub Antarctic zone (https://www.instagram.com/p/CK9mSx1BwIb/?igshid=1brcegges749f; https://www.nature.com/articles/s41598-020-66876-z). Impressive stuff.

Protected species News

This great white shark is one of many caught recreationally from the northland shores every year and was reported from Murawai Beach earlier this month. Initially caught by a recreational longline and left dead on the beach. Bystanders later filmed themselves riding the dead shark while being towed along the beach behind a vehicle with people riding it like a banana boat. They also removed the head for a trophy and took it home. These individuals then posted their antics on social media. DOC are currently seeking to prosecute those involved.

On Saturday April 15 a member of the public emailed the Department of Conservation's Sharks Mailbox (sharks@doc.govt.nz) and reported seeing a dead 2.5-2.8 m great white shark on Muriwai Beach. They said they has seen a group of people attempting to free the shark as they had travelled up the beach that morning but had found it dead in the swash zone when they returned around lunchtime. A photograph of the shark attached to the report showed what may have been a scar from a satellite tag near the base of the first dorsal fin. Unfortunately, the email wasn't picked up until Sunday and by that time the carcass had been found, dragged down the beach behind a vehicle and cut up. However, this was also reported to DOC by other members of the public aware great whites are a protected species. An update on this story can be found on this link

https://www.1news.co.nz/2023/09/04/exclusive-disturbing-trend-of-nz-wildlife-decapitation/.

Take home messages,

- Great white sharks are a protected species. It is not illegal to accidentally catch one but you cannot take any part of it, and must release it as soon as possible without further injury.
- Reporting the interaction to DOC provides you with a defence from prosecution.
- Failing to report the interaction is itself an offence.
- If you find the carcass or part of any species protected under the Wildlife Act 1953 you cannot take it, even if the part has naturally separated from the carcass (note: this is different from marine mammals, taking bones that have naturally separated from the carcass is allowed under the Marine Mammals Protection Act 1978).
- Dragging the carcass of any protected species behind your vehicle is considered taking under the law, it also looks bad on the news.
- Taking and or mutilating the carcass of a protected species also limits or prevents collection of information and samples relevant to the management of the species.

Photos supplied by members of the public to DOC

We start off this autumn celebrating Sea Week. Coordinated by the NZ Association for Environmental Education (NZaee). This is an annual event to promote environmental education and marine species awareness and was held this year between the 5th and 13th of March 2023.

Organisations and individuals from around the country take part by organising programs and events for people from all walks of life celebrating the outdoors and marine species we share the world with. For the Tindale Marine Research Charitable Trust every day is Sea Week, promoting and undertaking environmental education, conservation and marine research.

This year for something a little different we added an event for our social media followers. Wednesday Davis, Auckland Program coordinator at Experiencing Marine Reserves (EMR) had approached the Trust late last year to support the "Fish of the year" te ika o te tau competition. This was to be held during Sea week from the 4th to 31st of March 2023. With over 1000 species of fish to choose from the Tindale Marine Research Charitable Trust backed the "Great White Shark" to help raise awareness for some of the issues they face in their environment and highlight the incredible biodiversity in our oceans.

Promotion of the competition was via social media with anyone able to vote online for their favourite 3 fish via the link at https://emr.org.nz/fish .
There were around 2500 entries submitted this year with voting close, finally declaring manta ray fish of the year 2023.

Public engagements

After 18 months of uncertainty and several court cases around the availability of the Auckland Showgrounds for exhibitions the Hutchwilco New Zealand Boat Show went ahead as planned. There was concern that the site would be converted into a film studio ending New Zealand's premier exhibition venue that has been home to the Hutchwilco New Zealand Boat Show since 1956. Late last year XPO Exhibitions announced the purchase of the Hutchwilco New Zealand Boat Show from long-time owner Auckland Water Ski Club adding to their portfolio of 19 trade show and expo events. XPO worked hard to reaffirm legal protections with the landlord re-opening of these gates for all future events.

Our sincere thanks go out to Dave and the management team for providing us with a stand to showcase the Trusts' sustainability work and research programs again this year. This is the third year that the Trust has been invited to participate in this event.
This prime location at the entrance to the fishing hall gave us a massive opportunity to showcase the Trust member's volunteer work in marine research, conservation and education. Setup this year was fortunately a lot easier as we were able to run with the successful layout from the last two shows. It was also a privilege to have Tony, one of the former owners of the Boat Show drop in to say hi. Fisheries New Zealand representatives including the Director of Fisheries Management MPI, Emma Taylor called in to give us an update on possible funding for the tagging program. I repeat 'possible' as this conversation has repeated itself for over 3 years with nothing forthcoming. To date the Trust has solely been funded by Scott & Sue along with contributions from friends to ensure this tagging program and the Trust educational and sustainability messages continue.

During the four day event this year we handed out over four and a half thousand fish ID posters and thousands of information sheets on the inshore fish tagging program and other fishing related materials. These fish posters were very popular with everyone visiting the stands. Many people were also very impressed to find out that all of the photos on the fish tagging poster were fish tagged and released by Scott and Sue for the Trust tagging project. Over 5000 "Report Tagged Fish" stickers with the QR code were given to keen fishers to share with their mates and to put up at their favourite locations. We are finding that these are now popping up all over the country, at fishing clubs, tackle stores, boat ramps and marinas, as well as being strategically placed on fisher's boats and tackle boxes. We hope that this QR code direct link to the website reporting page will make it easier for fishers to log their tagged fish recaptures while out on the water, and join the growing community of people supporting this awesome research project. A big thank you goes out to our volunteer fish taggers and those of you that have donated funds to support this project. You have helped get this educational material out there where it counts.

Tagging kits were sold each day as more volunteers joined the tagging program. The shark footage and how-to tag fish videos played on the big screen TV were all well received.

It was another busy show this year with very positive comments received from all of those involved, especially everyone that visited the stand. Most people seemed well informed on the tagging program, which shows how popular and well respected the project is. This allowed us to spend more time showing off the results, and listening to fishers own experiences and observations out on the water.

Special thanks go out to Clinton Duffy, Robert Janse, Richard Barlow, Jason Van Der Wath, Richard Nawisielski and Alex Burton for their exceptional efforts and good humour while helping out during the four gruelling days rolling up and handing out posters and engaging with the public. Top efforts all round.

We would also like to welcome our new citizen scientist members who joined the tagging program during this event. You are helping to support and undertake marine research in your area contributing to a broader understanding of the marine environment.

The total number of visitors to this years show was 31,939 over the four days. I think we spoke to most of them.

Masterclass 2023

This year each day Scott was presenting a segment at the Hutchwilco New Zealand Boat Show Master Classes again. This time showcasing the Tindale Marine Research Charitable Trust Inshore Fish Tagging Program and other marine research projects. “Titled Understanding fish movements and how this can increase your fishing experience” Scott’s twice daily half hourly PowerPoint presentations covered everything from food pyramids, life cycles and fish movements on many of the fish we target. Highlighting past and present satellite tracking projects including Mako sharks, Great white sharks, Hammerheads, School sharks and oceanic manta rays before getting into the intricacies of the inshore fish tagging program. By analysing the 5 years of information collected by the Trust members, Scott was able to demonstrate trends and overviews of stats including the science around seasonal movements, habitats and interactions amongst tagged species from around the country.

New Zealand Coastguard

Coastguard in New Zealand is very much about saving life and assisting boaties out on the water. This is very different to the US coastguard I visited in Florida where the main focus is on guarding the coast and law enforcement.

An overview of New Zealand Coastguard by Rex Harrison TMRCT director and Coastguard Senior Crew member

Coastguard is the charity saving lives at sea. We're on a mission to help Kiwis get the best out of their time on the water, safely and with confidence. Last year Coastguard's 1,963 volunteers gave their time to help bring nearly 8,000 Kiwis back home safely to dry land - from Cape Rēinga to Bluff and across the coastlines, major rivers and lakes of Aotearoa.

We save lives by teaching Kiwis to make the most of our waters through our education programmes and community initiatives, by providing critical marine communications infrastructures and safety and information services.

None of this would be possible without the financial support we receive from our funders, partners, members and donors who generously give to Coastguard so that our volunteers can continue to be there when Kiwis need them most.

Volunteering for Coastguard: A way of life

Since the first Coastguard Unit was formed in 1898, Coastguard has been run by volunteers, and that remains the case today. We are hugely proud of our volunteers – an amazing group of people from all communities and walks of life who dedicate a huge amount of their time to keeping kiwis safe on the water.

Coastguard volunteers spend many hundreds of thousands of hours on search and rescue missions, radio operations, training or maintenance work each year. They're highly trained professional volunteers, so you can be safe in the knowledge that when you call Coastguard for help, you'll be in expert hands.

Our search and rescue volunteers are based at 63 Coastguard 'units':

- 59 wet units crewing rescue vessels and providing services to local boaties, positioned in strategic locations around the coast and on major lakes and rivers, from Houhora in the north to Bluff in the south
- Two air patrol units in Auckland and Northland who piloting search and rescue aircraft
- Two dedicated communications units in Auckland and Tauranga

Helping boaties stay safe on the water

In an ideal world, boaties wouldn't encounter difficulties on our lakes, rivers and oceans, but all activities involve risk and amongst other things, boating is influenced by unpredictable marine weather and constantly changing conditions.

Nevertheless, we believe that educating boaties on how to stay safe on the water is of vital importance in keeping kiwis safe. We offer popular boating courses through Coastguard Boating Education. These are accessible to all; and we are proud to draw on years of experience to provide practical advice and guidance for safe boating.

Raising funds to keep our service going

Coastguard is a registered charity, and each year we need to raise roughly 70% of our income from individuals, corporate sponsors and trusts. Coastguard operates a national membership scheme for boaties, regular national lotteries, and a range of fundraising activities including a monthly giving club and Coast guardians, a special group of supporters who leave a gift in their Will to save lives at sea.

We cover the remaining 30% of our costs through a service level agreement with the New Zealand government.

To find out more go to https://www.coastguard.nz/get-involved/

Why get a Coastguard Membership

TMRCT director Scott Tindale has been a Coastguard Life Member for several decades. Joining in the early 90s' "It was a no brainer," he said. "No one envisages having a problem out on the water but with a Coastguard membership you've got peace of mind knowing every time you're out there someone has got your back". In the early days our family were in the local Manukau coastguard assisting in many rescues using our boat based at French Bay. As a child witnessing body recoveries gave me a huge respect for the harbour and how easy it is for anyone to get caught out. Prepare for the worst even on the best days.

It only takes a few minutes to join up.

- **Free assistance 24/7**, in all the popular boating areas around the country: Whether it's a flat battery, you've run out of fuel, or something more serious, we've got your back. Because the truth is… if you break down, get a flat battery, or you're out with your family when one of the kids gets sick, as a non-member you'd be charged $350 per hour for assistance. Flexible membership for you and your family, or for a vessel with multiple skippers.
- **Member Discounts:** Coastguard members get discounts on a range of Boating Education courses and access to great discounts below*, including deals for batteries, insurance and broadband. Membership means we've got your back with free assistance every time you hit the water.
- **Safety Services:** Trip reporting and bar crossing services. Coastguard Now Casting including real-time weather on the Coastguard app. Coastguard Radio live broadcasts and VHF channels.
- **Communications:** You'll get the monthly *In the Loop* email newsletter filled with the latest news, tips and useful info to help you get the most out of your boating and membership. Email updates featuring key events, promotions and member discounts.

Don't miss the boat. Join today.

www.boatiesbestmate.nz or 0800 BOATIE (262 843)

Interesting catches

NIWA TAG #3218

Trust director Scott Tindale received a phone call from Adam Duff, the skipper of the commercial fishing vessel Moonshadow II. Adam had recaptured a tagged tope shark off D'Urville Island in Marlborough on 31st January 2023 measuring a total length of 124.2cm. This female shark had been tagged with a yellow NIWA tag #3218. Adam was aware of a school shark tagging program that the Trust was collaborating with PHD student Alex Burton so contacted the Trust.

As the tag was not one of ours Scott contacted Dr Brit Finucci, marine scientist from NIWA to see if she could locate the details for the tagged shark. It took Dr Finucci a few months to locate the details for this tag as the project was no longer in the system. After a lot of digging around through old projects Dr Finucci reported back to Scott that she had finally found the details.

This female tope shark was tagged by NIWA aboard the research vessel R.V. Kaharoa. It was tagged over 8 years earlier on the 2nd April 2015 at Kohaihai on the North East coast of the South Island. Brit calculated that this shark was recaptured 235km from where it had originally been tagged and had been at large for 2862 days (just under 8 years) before recapture.

As the project was closed NIWA did not have any rewards to send Adam so the Trust helped out by sending catch certificates, prizes and information packs to those involved.

Tagged trout

Trust directors Scott & Sue went on a Trust PR & fish tagging trip to the South Island in March. After completing several meetings and tagging fish at just about every beach visited on their journey, they stopped off at Lake Argyle for the night before catching the ferry back to the north island. With time to spare Sue decided to try a bit of fresh water spinning while Scott was asked to give a few pointers to other anglers nearby. Sue caught and released several trout including this beautiful rainbow trout and was surprised to see it with a tag in it. Even though Sue has fished all over New Zealand and has many salt and fresh water NZ & World Records, this is the first 'tagged trout' that she has caught.
Sue contacted Jacob Lucas from the Nelson Marlborough Fish & Game office & this is what he told her about the trout that she had caught.

"*This tagged fish is part of a summertime competition and was only released in December at about the size you caught it. Each year we release 200 tagged fish in the lake as part of the competition, and release an additional 2000 untagged fish there as well. We do have plenty of tag records from river releases over the past five or so years, mostly from the Rai and Branch/Leatham rivers, however we have stopped tagging fish for a while.*"

Best handling practices and bycatch mitigation

Handy Hints

Release weights

Before we move into spring fishing again it's time to plan ahead and sort out not only fishing tackle but the equipment needed to ensure the survival of any released undersized or unwanted fish. The attraction of heading out into deeper water chasing 'workups' and diving birds result in catching fish likely to suffer from barotrauma and other effects from being brought up too quickly from the deep.

Barotrauma and predators are two reasons we carry release weight setups when fishing deeper waters for demersal and reef fish species.

These devices are inexpensive and easy to make at home. This collection I have made over the years using no.8 fencing wire, stainless steel welding wire, modifying old stainless steel shark clips or reshaping large blanket safety pins.

The concept is quick, simple and effective. I attach the clip to a designated bent butt fishing rod that is positioned in the spare rod holder until required. Once a fish is brought to the surface and the hook is removed, feed the clip ideally through the hole in the jaw made by the fish hook and lower it over the side. With the release rod out of gear and with the ratchet on, release the weight to descend the fish back into the depths. Once the fish reaches the required depth near the sea floor jerk the rod to dislodge the fish. It's just a matter of winding up the release device ready for the next fish to be released.

Fish like blue cod released at the surface are easy prey to shags, cormorants and fish predators so getting the fish back to the sea floor quickly will greatly increase survival. Snapper and reef species with swim bladders inflated float upside down and struggle to descend on their own if released boat side. Using decent devices to get them back to the sea floor where they can equalize will help them return to normal. This also greatly reduces predators on the way down as most fish brought to the surface from deep water suffer disorientation, thermal shock and exhaustion and are easy prey for barracouta, sharks and other large fish. Food for thought as Aucklander's await the mid Hauraki Gulf spawning season and holiday fishers around the country prepare to fish their local and favourite deep water reefs.

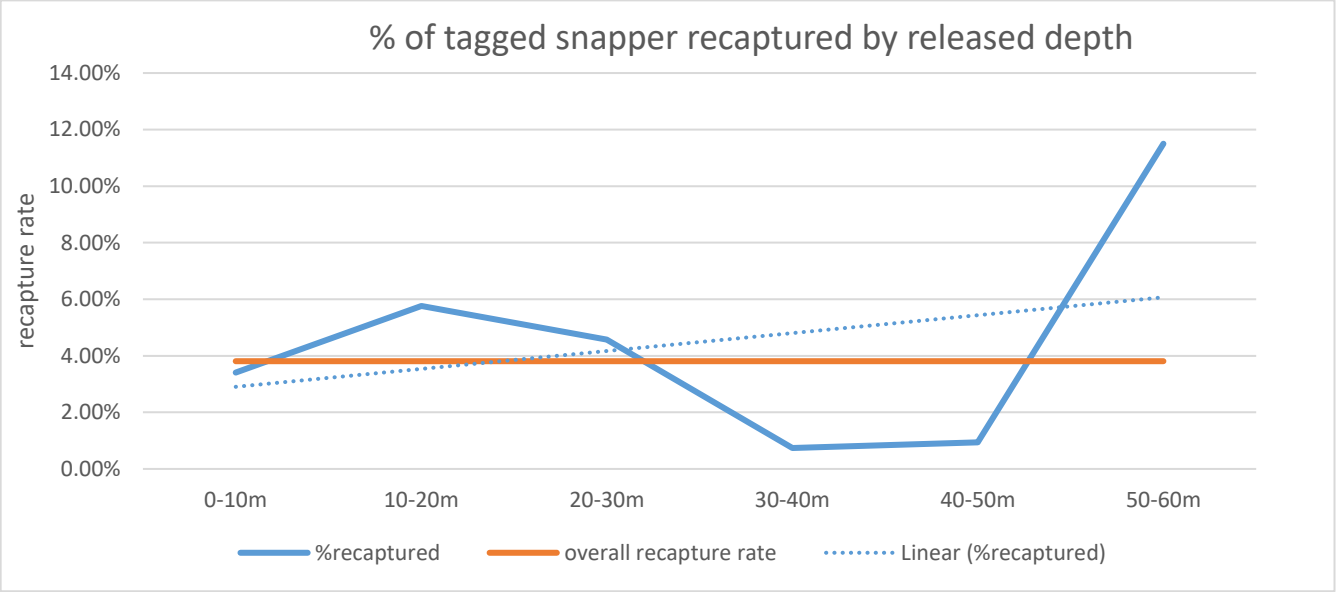
To avoid mortality of released undersize and hi-graded fish from predation and embolism we recommend using a release weight release system to return the fish to the sea floor. Puncturing the swim bladder with a knife or needle is not only in breach of the Animal Welfare Act, it also causes a very high mortality rate due to infections leading to death. As fishers it is paramount we mitigate unnecessary bycatch mortality and look to more sustainable means while fishing deep water or in the presence of predators.

"Fish sustainably or stay home". A snapper about to be returned to the sea floor to recompress

Examples of manual and automatic fish release devices

Tagged Snapper Recaptures by Depth

With the ministers announcement in October 2022 of changes to the fisheries Act rescinding the release of commercially caught undersize and schedule 6 discards, questions have been raised on what species should be considered for exemption. Post release studies are lacking across most of our fish species calling on past tagging efforts here and overseas for any data that may assist scientists evaluate each species. This type of situation is just one example of the importance of onsite evidence bases science such as tagging programs. The recent attempt to understand recreational catch and release mortality can be complimented by tagged fish recapture rates. Controlled release mortality studies with fish kept in captivity remove the natural predation element (sharks and seabirds) and discount varying fishing techniques, poor tackle selection and individual fish catch and handling practices from what would be deemed normal fishing activities. Stress in captivity can also be a factor, as would fishing related injuries with infections setting in long after the limited number of days these studies are held for.



From April 2018 to 31st March 2023, the Trust has recorded 5184 snapper tagged and released that were caught in water of up to 143m deep. In the same timeframe 198 snapper have been recaptured with a national average recapture rate for snapper of 1 in 26 or 3.8% (Red line). Note; These figures exclude data deficient recaptures of 16 snapper reported and a further 10 possible snapper reported as 'fish with green tag'. Very few if any have been released using descending release devices and may be a factor in survivability and recovery of mid- depth-range released fish. Although survivability of all snapper caught at depth and returned back into the wild would require every fish to be recaptured or accounted for to be conclusive, this would be implausible and rely on 100% reporting of all recaptures and locating all other surviving tagged fish still in the wild. Expensive electronic monitoring tags can provide some minimal assurance but are too expensive and unreliable and could never achieve the numbers of tagged fish required for conclusive results. Tag retention, natural mortality and predation after release will also reduce the number of tagged fish over time. I am still confident results can still be ascertained by comparing catch at depth to the national recapture rate as shown in the above chart and in the future comparing releases using release weights in the equations. The data we currently have using hypodermic needles to deflate the swim bladder have zero recaptures to date indicating a very high mortality from this procedure. Note in NZ as in many countries around the world this is also banned under the Animal Welfare Act for anyone other than a veterinarian or authorised personnel and requires anaesthesia and antibiotics due to using deflation needles being classified as a surgical procedure.

Seafood Sustainability Awards 2023

Entries are open for the 2023 Seafood Sustainability Awards

The Seafood Sustainability Awards are a great opportunity to recognise and celebrate those who demonstrate outstanding dedication to the sustainability of New Zealand's seafood sector. Individuals, businesses of all sizes, iwi organisations and not-for-profits from across aquaculture, fishing, innovation and research are invited to apply across a broad range of categories:

- Operational Innovator Award
- Market Innovator Award
- Future Leader Award
- Ocean Guardian Award
- Tangata Tiaki/ Kaitiaki Award
- Minister for Oceans and Fisheries Award (to recognise long-term contributions to sustainability in the seafood sector).

Submit your entry before **7 April 2023**. For more details and to enter the awards go to mpi.govt.nz/seafood-awards

"I encourage you to enter yourself or someone else and I look forward to celebrating with the finalists and winners at the awards dinner at Parliament on 6 June. If you have any questions, please get in touch with us at seafood.awards@mpi.govt.nz
Ngā mihi

Dan Bolger

Deputy Director-General, Fisheries New Zealand"

Here is another opportunity for our members and supporters to nominate your Trust Inshore Tagging Program and highlight our successes once again. This is only the second time this event is to be held and we hope to repeat our success in the 2020 awards where the Tindale Marine Research Charitable Trust were finalist in two categories, '**Kaitiakitanga Award**" and the "**Minister of Fisheries Awards".**

Nominations are open now and look forward to your support again this year.

Fisheries NZ app & consultation

Nearly every recreational fisher has an opinion on the fishery and what should or shouldn't be done by fisheries managers. With such a diverse collection of participants living and fishing around our country it is obvious that there is a need for sound information and an avenue for those that want to be heard. Many fishers are complacent leaving it up to others to make choices for them only to complain if things are not what they wanted. Recreational rules and restrictions change often so it is necessary to keep up to date with the latest updates in your area or the waters you visit. For bag and species limits you can download the fisheries app to your phone as a way of keeping informed.

Remember to also check for MPA's, closed areas and marine reserves before you head out.

For those that want to be kept up to date with proposed changes there is a mailing list that will allow you to choose what consultation documents you wish to submit a proposal to, or comment on changes proposed in areas around the country that effect you. You can tick any or all areas so as not to miss out on important changes proposed in areas you might visit or have an opinion on.

If you don't want to be on the mailing list then you can always contact fisheries directly via the link at https://www.mpi.govt.nz/consultations/

Fisheries NZ working groups, an overview.

Public consultation documents and submissions are continually announced by Fisheries NZ looking for feedback about issues and matters needing input from stakeholders and anyone interested in having a say before changes are made or the minister makes policy. A lot of work is carried out behind the scenes well before these documents are presented for public consultation involving "best science", sector input, and discussions. If you have ever wondered what happens at fisheries management level and where consultation documents and proposals eventuate from then this is where it gets digested first. Behind the scenes there are numerous working groups and steering committees made up of sector representatives, scientists, fishers and managers addressing issues, suggesting options, reviewing reports, latest surveys and research updates, mitigation ideas and new methods, sustainability options and management responses ready for these consultation papers. By the time these make it to public consultation months or even years have passed with the final document offering multiple options to choose from.

Meetings are held several times a year for each of several working groups hosted by Fisheries NZ and include representatives from a variety of stakeholder groups. These might include fisheries analysts, customary fishers, commercial interests, recreational representatives, conservation groups, local body representatives and scientists to name a few. For many years and in different capacities both of the Trust directors Scott Tindale and Clinton Duffy have been involved in a number of these working groups' steering committees and advisory groups and continue to get involved in discussions gaining a good overall view of the workings, obligations and opposing views from all sectors. Most of these working groups discuss future research projects, receive updates on current research projects, review or grade external reports and generally discuss issues from here and abroad that effect any of the sectors. Protected species bycatch, high migratory species and quota harvest assessments are just a few subjects that hit the table on a regular basis.

Many working groups are commercially focused but there are a few that involve the recreational sector too. For the recreational fisher The Marine Amateur Fishers Working Group (MAFWG) looks at panel and creel survey work, and recently reviewed paua and crayfish harvest estimates. NIWA and the National Panel survey summarised survey catch estimates, and updates were presented on gamefish recaptures from the co-op tagging program.

In the High Migratory Species working group (HMSWG) southern bluefin tuna harvest estimates have been regularly quantified to meet our international agreement commitments along with species identification issues and bag limits recommendations for review. The High Migratory Species Working Group touches on recreationally caught marlin and tunas etc but mainly focuses on high seas harvest, protected species bycatch and interactions by commercial vessels. Unfortunately high migratory protected species caught recreationally are ignored here due to the offshore location fished rather than species.

Other working groups of interest are the Fish Plan Advisory Group, Shell Fish Working Group, Hauraki Gulf Fish Plan Advisory Group, Inshore Working Group, Rock Lobster Working Group, Deep Water Working Group just to name a few.

In pre-covid years these meetings were mainly held in person but in later years and with the ability to live stream Zoom and Teams meetings are now the norm.

TMRCT inshore tagging program

As mentioned to many of you at the boat show, negotiations are still continuing with Fisheries New Zealand for funding to cover the replacement of deployed tags. The process has been a long one. From the onset the former and current ministers of Fisheries NZ have been very supportive of this citizen science project and over the last years have been looking internally for ways to provide some form of financial support. Mr. Dan Bolger, DDG of Fisheries NZ dropped in for a chat while visiting the event last year and advised that they will have a proposal to us by the end of June 2022 but nothing eventuated. So this year we have had this same message conveyed to us by the Director of Fisheries Management MPI, Emma Taylor. I suppose we will just have to wait to see if this ever eventuates. In the meantime Scott & Sue continue to sponsor replacement tags to our avid anglers on a case by case.

The who's and when's of recaptures and why research matters

This Tindale Marine Research Charitable Trust Inshore Tagging Program is unique in that we leave it up to the tagging members to decide what species, what size and where they want to fish. Much of this effort now covers the shared commercial and recreational traditional fishing areas within the NZ territorial waters, we call this the inshore fishery.

The recaptures are also not decided by the program administration. These tagged fish move and are caught randomly across the nation's waters by both the commercial and recreational fishing public. The tagged fish recapture rate nationwide is still surprisingly high sitting around 5.6%. That's an average of 1 fish recaptured for every 18 fish tagged and released. This ratio has been fairly constant since the project began five years ago. This makes you wonder how many fish there must be out there especially if we allow for natural and fishing related mortality and the possibility of under reporting.

Traditionally here and around the world tagging recapture rates are used to estimate stock biomass for management purposes. Here in NZ due to the costs involved in running a comprehensive and continual

tagging program (with the exception of kingfish) have not been undertaken for decades and were only one-off short term tagging studies carried out on a couple of species. For the most MPI now relies on modelling, CPUE (Catch per unit effort) trawl sampling and creel surveys to estimate stock levels and adjust harvest levels accordingly. These can take time to collate, analyse, consult and peer review before conclusions can be accessed and decided on. Again these are time consuming and expensive and are only carried out during random years and on selected species. Delays often result in 'the ambulance at the bottom of the cliff' knee jerk reactions. For those concerned about fish stocks citizen science is a great way to keep the information stream flowing and in real time.

How to get involved

Tagging kits trademe and selected retail stores

Thanks go out to all the Trust volunteers that have helped make this program such a success. We are working hard to keep costs minimal and still provide quality products and services. Unfortunately costs are increasing for everything across the board. In December last year our latest fish tag order arrived with a price increase. This would normally be passed on to any new orders from mid-January but Sue & Scott have decided to cover this cost in the interim or until the last of the remaining tagging kits in stock are sold.

The Trust is still looking for a tag sponsor. Even with the latest price increase a gold coin donation is helping to save a fish thanks to our members. This is an area that any business wishing to align with supporting sustainability, conservation and research can apply.

For those on Auckland's North Shore, **Hunting and Fishing North Shore** still have a few tagging kits and fish posters available. Call in and have a chat to Justin who will be happy to assist you in what you need.

You can also purchase these direct from our website or Trademe.

TMRCT Measure Mats

Following on from the Hutchwilco Boatshow we have now sold out of our stock of fish measure mats. With several new projects in the pipeline requiring the tagging and releasing of larger fish species, we are currently looking into producing a 'shark measure mat'. The concept is for one around 3m long and its intended use was for those that are catching mature sharks from the shore but there is now some interest for a universal measure that can also be used for measuring large species like tuna and marlin boat side.

We are looking for expressions of interest from you so we can calculate a cost effective production run and establish a budget figure. There is also an opportunity for sponsors to have their logos on the next print run of this or our standard measure mats used in our tagging kits, for NZ length records, and for use during fishing tournaments around the country.

Tindale Marine Research Tagging Program autumn overview

Celebrating 5 years April 2018-2023

The TMRCT Inshore tagging program membership continues growing and has now reached over 1250 keen fishers. To date we have Just over 26,630 tags distributed. Members have reported 8965 tagged fish across 63 species to the end of autumn 2023 (May 31st). It is great to see at least 1/3 of tags are already on record as deployed.

Please do not leave reporting tagged and released fish too long, as I still find I'm having to chase up taggers for information on tagged fish not entered into the system, when they are recaptured.

Please keep your tagging data safe and update it to the trust website as soon as possible. This will prevent data getting lost and help us to give you regular updates on the stats. The link for recording your tagged fish is on the home page of the website or you can scan this QR code.

SCAN ME

The direct link is https://tindaleresearch.org.nz/tagging-program/fish-tag-release-form/

Housekeeping…Can I please ask taggers to not send in **tagging data** via text, social media or in messenger. This makes transferring info or keeping a backup impossible. By all means share your stories videos and photos on these other forums but please remember the tagging program is about collating scientific data first. Please use the above link on the website. For those of you who are tagging more than 10 fish per day, we can send you an electronic spreadsheet that you can email updates to the trust, and for manual uploading to the data base.

We suggest that any photos are sent to the trust email tindaleresearch@xtra.co.nz separately, as the website portal only accepts smaller files. Your photos show the pre-release condition and make these reports more interesting so we look forward to receiving them.

Autumn 2023 recapture summary

For catches between March and the end of May

- **35 tagged fish were recaptured for the quarter**
- **17 recaptured from recreational boats**
- **13 recaptured from the shore**
- **0 recaptured from charters**
- **1 beach cast**
- **4 recaptured by commercial**
- **12 tagged fish recaptures were released again**
- **Longest distance moved this quarter 517km**
- **Longest time at large this quarter 1493 days**

TMRCT Inshore Tagging Program summary to June 2023

63 species tagged and released

Approximately 1250 tagging members and growing

Tagged fish nationwide from 3-kings to Bluff including Chatham Islands

26,630 tags in circulation with around a third recorded deployed.

Area recapture rates of tagged & released fish:

New Zealand wide	**1:18**	Northland	1:16
Kaipara Harbour	1:31	Hauraki Gulf	1:18
Tauranga Harbour	1:9	Marlborough	1:8

Note. Should non-reporting be prevalent the overall recapture rate would be even higher.

Species recapture rates

Snapper 1:23 Kahawai 1:20 Blue cod 1:4 Kingfish 1:16 Gurnard 1:36 Bronze whaler 1:14

Rig 1:15 Tope 1:16 Flounder 1:5

Recaptured by

Recreational 93% vs Commercial 7%

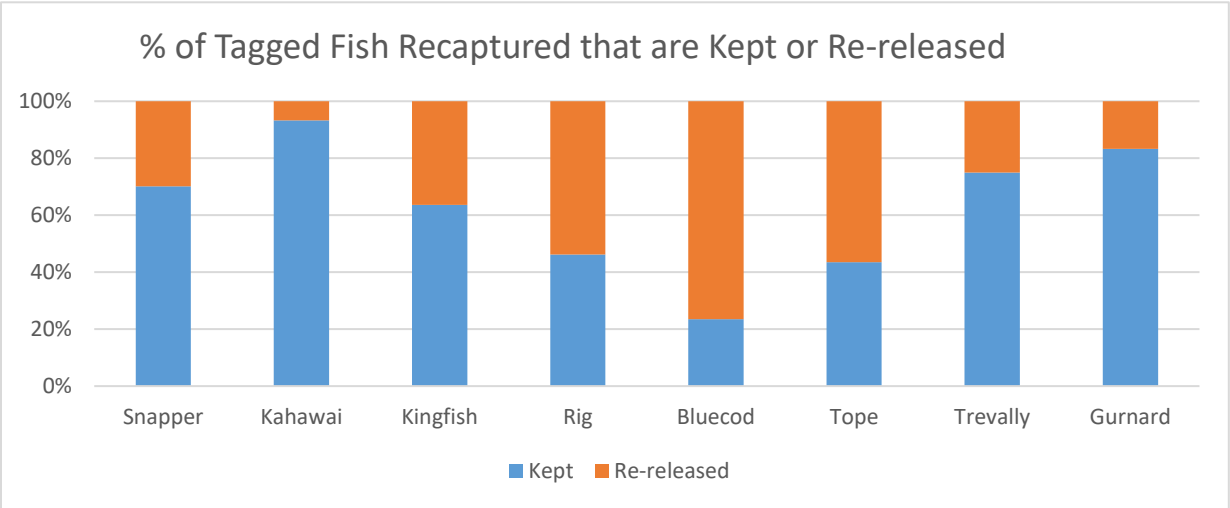
Spearfishing 2%

Recreational boat 53% (Kayaks to super yachts)

Land based 33%

Charter boat 4%

Commercial fishing 7% (of which 41% trawl & 31% long line caught)



Monthly Sponsors prize draws

It has been another busy quarter with recaptures reported most days. A Big thank you to **Daiwa NZ** who continue to sponsor Bait Junkies to compliment the recapture certificates sent out to both anglers involved in the tagging and recaptures.

Over autumn the Trust has again sponsored additional tags. These have been added to the kits and supplied to avid taggers in the tagging program.

New prize categories are currently being considered to help promote the program in the wider community.

Membership draw

Daiwa New Zealand sponsor the monthly prize draws. One lucky winner will receive a **Daiwa Revros LT 4000-c** spinning reel to be drawn from tagged and released fish reported during the month. All late entries will go into the month they are received so it pays to keep your data entries up to date.

Congratulations to all our autumn winners. They are:

The ***March*** draw winner is **Greg Kendrick** who tagged and released a 36cm snapper (T23376) while fishing at Motiti on the 1st March 2023.

The ***April*** draw winner **Jereme Aubertin** who tagged and released a 95cm kingfish (T14057) while fishing at Maketu on 6th April 2023.

The ***May*** draw winner is **Luke Davies** who tagged and released a 46.5cm snapper (T5769) while fishing at Administration Bay on the 17th May 2023.

Remember to send in your completed tag and release data before the end of each month to be in these draws. Old or late entries will be entered into the month received, so it is not too late to send in your data.

Note: tag and release forms sent in with incomplete or missing data are not eligible for prizes.

As always we would like to thank Daiwa NZ for sponsoring products to the inshore tagging program. It has been great to see these products being put to good use and resulting in some great catches.

Recapture update for autumn 2023

T17698 Snapper

Trust directors Scott and Sue Tindale ventured out on the Kaipara Harbour on the 1st of October 2021 for a Trust tagging trip. While fishing the shallow seagrass beds, Scott tagged and released this 44.5cm snapper. They were fishing in 2.5m of water and tagged 26 other fish before the gale force winds cut the trip short.

523 days later on 7th March 2023 Geoff Farrant recaptured this fish while fishing at Oakura in New Plymouth in 37m of water. Geoff did not notice the tag until he got home and was cleaning the fish. He said that the tag had a bit of weed on it that he scraped off. Since its tag and release this fish has grown 3.5cm and was caught 325km away from its release location. This information demonstrates the seasonal movements of these fish.

T19500 Bronze Whaler

Anyone who has met Robert Janse knows that he has a very good sense of humor and likes to try anything. On the 8th of January 2022 Trust directors Scott & Sue went out on a Trust tagging trip on the Kaipara on their boat "Red October" with Michael Jenkins and Robert to satelite tag tope sharks. It was a full on day with fish being tagged every few minutes. This particular bronze whaler shark was caught by hand by Robert as it swam past the boat in front of Michael. It was quickly measured, tagged, and then released again. It happened so quickly I don't think that it even realised that it had been tagged.

This cute little fish was recaptured by Chris Groom on a longline while fishing from shore at Himatangi 422 days later on the 5th March 2023. It had grown 7cm in length and was caught 517km away from where it was tagged. It was re-released again and swam away strongly. It will be interesting to see where it goes to next.

T20617 Snapper

Tom Lusk went out for a day's saltwater fly fishing on the 28th of May 2022 in the Bay of Islands. Fishing from the shore he tagged and released a 52cm snapper that he caught on a fly.

Johnny Van Eyk recaptured this fish just under a year later while fishing with a flash jig lure at Rawhiti on the 27th March 2023. Johnny said that he only noticed the tag when he got home and has since decided to join the tagging program. Since release it was recaptured a straight line distance of 8km away and had been at large for 304 days.

T22313 Kahawai

Kingi Ranui has been a keen member of the Trust for many years. A keen advocate Kingi has tagged and released a large amount of fish and encouraged many others to join the program by tagging their fish as well. Kingi was out filming himself fishing in Tauranga Harbour on the 27th of February 2023 when he tagged and released this 50cm kahawai he caught line fishing from the shore.

This kahawai was then recaptured by Weston Curtis who was fishing in the same general area 14 days later on the 12th March 2023. This demonstrates that tagging and releasing did have any adverse effects on the fishes' behaviour as it continued feeding in the same area. There is a huge amount of information that can be learned from the tagging program in addition to growth rates, seasonal movements etc.

T1570 Kingfish

It is great to see a lot of long term recaptures now that the program has been running for over five years. This kingfish was tagged and released by Kyrah Riddiford the 18th of January 2020 while fishing at Tilby Point. It was Kyrah's first ever kingfish and it just about pulled her in the water. This fish measured 60cm on release.

Then on the 13th of March 2023 Brian Kiddie, Skipper and owner of the commercial boat 'F.V. Kotukui' contacted the Trust to report the recapture of this fish in his beach seine/drag net. Brian said the fish was in really good condition and was caught in 4m of water.

At 1153 days since its tag and release this fish was recaptured a shortest distance by sea of 10.4km from the tag location and had grown 28cm in just over 3 years.

T11186 Snapper

Kyle Foster reported the recapture of a tagged snapper that he caught in 4m of water on the 15th of March 2023 while out on the Kaipara Harbour. Kyle measured the fish at 45cm and commented that he only noticed the tag when he was about to fillet the fish.

This fish was origionally tagged 800 days earlier by Sue Tindale, Trust Director, on the 5th of January 2021 at Omokoiti Flats in 1.93m of water. It was one of the 56 fish that they tagged and released on that Trust tagging trip. It was a beautiful day with not a breath of wind. Since Sue tagged and released the snapper it has grown 13cm in 800 days and was recaptured 6.33km from where I first caught it.

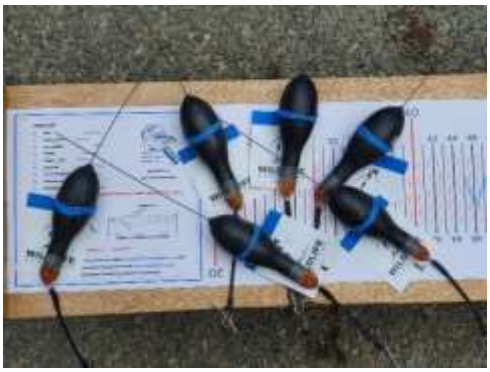
T18544 Kingfish

On the 26th February 2023 Liam Shadgett was fishing on the Manukau Harbour when he tagged and released a 49cm Kingfish that was caught in 5m of water.

Fast forward 19 days to the 16th of March 2023 when Jose Daniel Arciniegas Contreras was jigging off the rocks at Kaitarakihi Beach and recaptured this tagged fish. Jose measured this kingfish at 51cm then took a quick photo before releasing it again. Jose was fishing a straight line distance of 13.3km from where Liam had originally tagged it.

T19488 Tope Shark

On the 8th of January 2022, Trust directors Scott and Sue Tindale along with Robert Janse and Michael Jenkins headed out on the Kaipara Harbour on a tagging mission. They tagged and released 46 fish with Trust tags and deployed 10 mini-PAT satellite tags to mature female school sharks for Massey University student, Alex Burton. On the 5th February 2023 a tag (SN: 20P0899) from one of these sharks, a 147cm female nick named by Rob as '*Butt Sniffer'* recently surfaced 148km off Cape Egmont. This is a distance of over 340km from where it was originally tagged 394 days earlier. If anyone ever finds any of these satellite tags while they are out and about, please collect and report to us ASAP for collection. Recovered tags contain a large amount of additional data that once down loaded will show the total distance travelled within this time. This shark was double tagged with a Trust tag so it can remain in the system until it's caught again.



Left: Mini PAT electronic tags. Above: fitting a satellite tag to the dorsal fin

T24457 Bronze Whaler

On the 5th of March 2023 Robert Janse was land based shark fishing near Bowentown in the Bay of Plenty where he tagged and released a 245cm total length Bronze Whaler Shark on an Assassin rod.

This shark was not deterred by the capture tag and release as only seven days later on the 11th of March 2023 it was recaptured by Nick Robinson who was fishing from shore in the same general area. This again demonstrates that the tagging has had no adverse effect on the shark as it was recaptured in the same area that it was tagged from.

T16580 Snapper

On the 19th of June 2022 Dennis Smart was straylining off the rocks in the Keri Keri Inlet when he caught a snapper which he promply tagged and released. It was one of two snapper he tagged and released that day.

This fish was recaptured in the same general area on the 1st of April 2023 by Rob Scheirlinck while fishing in the Pioneer Fishing Clubs' autumn fishing tournament. Rob said that the fish was caught during an overcast showery day using a mullet bait soaked on the outgoing tide. Rob also commented that when the fish was cut open the stomach was full of kina needles. This 58.5cm snapper was recaptured within 330m of where it was released 287 days earlier

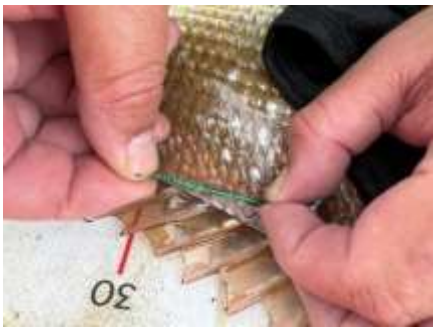
T19989 Kahawai

On the 30th of March 2023 Chris Hancock headed out surf-casting at the Sand Island off Tapora in the Kaipara Harbour. One of the fish Chris caught was a tagged kahawai T19989. The fish had swallowed the hook so he decided to keep it. When he cut the fish open he found that it was full of roe. At home it measured 489mm and weighed 1.94kg

This fish was originally tagged and released by Trust director Scott while out on a Trust tagging trip with Michael Bawden (Baldric) on the 10th of September 2022. They were fishing in 4.2m of water recording the water temperature that day was 16.4°. This Kahawai was recaptured a straight line distance of 2.13km from the tag location and had been at large for 202 days.

T7919 Snapper

It is always great to see some long time recaptures of tagged fish. On the 12th of January 2020 Trust Founding Director Scott was on a Trust tagging trip in the in Kaipara Harbour where he tagged and released a 32cm snapper that was caught in 2.61m of water.



On the 23rd of April 2023 Trust member Mikey Smith was fishing on the Kaipara Harbour when he recaptured this fish. Mikey measured the fish at 49cm and took a quick photo before releasing it again. In 1198 days this fish had travelled a shortest distance by sea of 4.58km and grown 17cm.

The tag was covered in filament weed that is weightless in water and was easily removed in order to read the tag details. It will be good to see where it goes to next, there is so much information that can be gained from the tagging program.

T24680 Snapper

Paula Zimmer had been visiting from Germany when she was invited out on a friend's yacht. On the 1st of April 2023 they headed for Te Uenga Bay in the Bay of Islands for a fish. Paula decided she would have a go at fishing for the first time and to her surprise she hooked up a tagged snapper. After bringing the fish on board Paula quickly measured it, took down the tag number and then re-released the fish back into the water.

This fish had been tagged and released by Louis Mulcare in the same general area 16 days earlier on the 17th of March 2023. It measured 30cm and was caught in 3m of water. I wonder where it will travel to next.

T24539 Kahawai

On the 3rd March 2023, Trust directors Scott & Sue Tindale headed out onto the Kaipara Harbour for another Trust tagging trip. It was a grey old day but the water temperature was still around 24.3°. They tagged and released a number of fish even though the fishing was a bit harder than it usually is. Amongst the fish they tagged and released was this 47cm Kahawai that Scott caught on bait stray lined in 3.72m of water.

It wasn't long before this fish was recaptured. Further up harbour on the 28th of March 2023 this kahawai was recaptured by Cherry Wheaton who was bait fishing off the Shelly Beach wharf. As Cherry does not have internet she reported the recapture to Kim McNamara who was carrying out the NIWA ramp survey at Shelly Beach who then notified the Trust. Thanks to Kim we can report this fish had shifted a shortest distance of 13.4km from its original tagging location in 26 days.

T24668 Snapper

Karl Marsland reported the recapture of a tagged snapper T24668 while land based fishing at Te Uenga Bay on the 7th of April 2023. Karl took a quick photo and released the fish again recording the GPS location and estimating the length.

This 32cm fish was tagged 21 days earlier on the 18th March 2023 by avid Trust tagging program member Bevan Johnson while he was fishing in 3m of water in the same general area. This is another example that tagging doesn't seem to have any adverse effects on the fish as they continue feeding in the area.

T22631 Snapper

On the 2nd of March 2023 Greg Kendrick was out for a day's fishing East of Motiti Island where he tagged and released a 37cm snapper caught in 22m of water.

74 days later on the 14th of May 2023 Jim Anthony was out for a day's fishing in the same area when he recaptured this fish. Jim measured the fish at 38cm.

Since its tag and release the snapper had grown 1cm and stayed in the same general area. This is yet another example of correct fish handling during the tag and release process having no adverse effect on the fish's behaviour. It is also another fish caught from the deep, released and recaptured months later.

T23376 Snapper

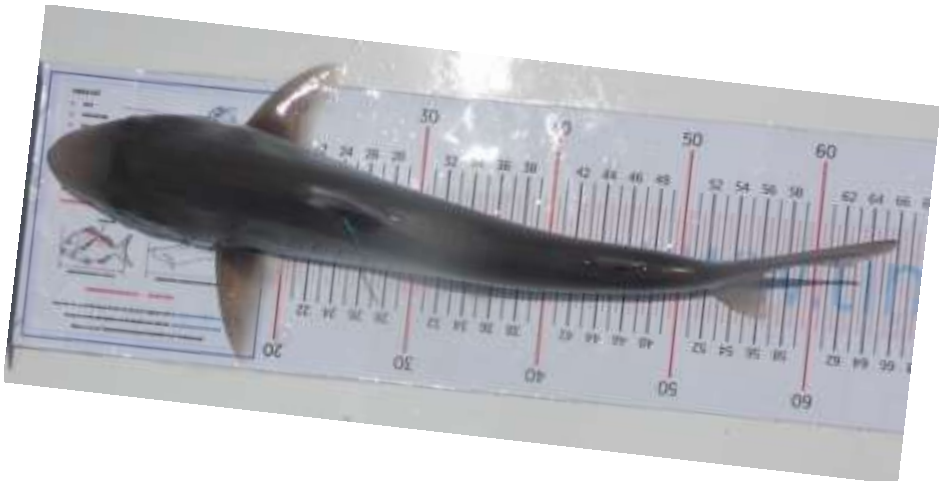
This is another of Greg Kendrick's recaptures this quarter.

On Good Friday night 7th of April 2023 George Mabey decided to go out for a fish, unfortunately it was quite a windy night so he decided that his best option was to anchor up in a sheltered bay away from the wind near Motiti Island. Late at night he caught a number of fish including this 36cm snapper caught while straylining over foul in 9 meters of water. He described the fish as a dark kelpie fish. George said that it was the first tagged fish that he had ever caught, but unfortunately he did not notice the tag until he filleted it the next day.

This 36cm snapper was originally tagged by Greg Kendrick 38 days earlier on the 1st of March 2023. It was tagged in the same general area while Greg was fishing in 14 meters of water.

T11133 Tope Shark

Trust director Scott Tindale received an email in April 2023 from Fisheries NZ to relay a tagged fish recapture reported by a MPI observer aboard the commercial fishing trawler F.V Joanne. The Email reported that the recapture was of a tagged tope shark that was caught in a trawl off the west coast near Waikawau on the 17th September 2022. Although it took 6 months to report this recapture, at least he still had most of the data required. The shark measured 91cm when it was recaptured and a DNA sample was taken.



This was a shark that Sue Tindale had tagged and released caught in 1.3m of water on the 27th of December 2020 while she was fishing over the Kaipara Harbour shallows. Measuring a total length of 64cm this school shark was one of 76 fish that she tagged and released that day. At 630 days at large this fish was recaptured a shortest distance by sea of 259km and had grown 27cm in length during this time.

T16164 Hammerhead Shark

Charles Hayes from the commercial trawler "F.V. Kawhia" telephoned Trust director Scott to report the recapture of a tagged hammerhead shark. This fish had been caught in their commercial trawl near Pakari, north of the Hauraki Gulf on 12th April 2023. Charles estimated the length at 1m.

This fish was originally tagged and released by Bevan Johnson on the 5th February 2023 while fishing at Ngunguru Bay. The fish measured a total length of 70cm and was caught in 4m of water. This fish was recaptured a shortest distance by sea of 68.8km and been at large for 67 days.

'It still amazes me how far some of these little fish travel, the tagging program is giving so much insight into all of our fish species and their behaviours' says Sue.

T21829B Blue Cod

Graham Wilson has had a huge amount of recaptured tagged fish from the marlborough sounda area. This particular blue cod has been caught 3 times over 116 days. This time Russell Wilson (no relation) recaught this fish on the 9th of April 2023 from the Picton shore and measured it at 41.5cm. 1cm longer than the last time it was recaptured on 13th January 2023. The total growth recorded so far is 1.5cm since 15th December 2022 and it was still in the same general area. Russell took a quick photo then re-released the fish to carry on with its travels. As a recreational only fishery, the Marlborough Sounds has a huge amount of fishing effort from both local and visitors to the area. It is important to fish sustainable in these confined waterways if the fishery is to survive. Tag and release is helping to monitor the area as well as compliment the fishing experience.

T23081 Snapper

On the 2nd of February 2022 founding Trust tagging member Robert Janse tagged and released a 59cm snapper which he caught in 1m of water in Rangaunu Harbour.

436 days later on the 13th of April 2023 Garry Carvell was bait fishing in the Rangaunu Harbour when he recaptured this fish in 2m of water. Gary measured the snapper at 60cm and said that it was a nice fat fish. This fish had travelled a straight line distance by sea of 5.44km since it had been tagged.

T24219 Snapper

Brutis Trump was fishing at Ruapeke Beach near Raglan on the 21st of April 2023 when he caught a tagged snapper. He handed the tag into Richard Hart at the local tackle store where Richard kindly contacted the Trust. The fish was caught on a ledger rig and estimated to be around 4kg. Unfortunately the fish was not measured.

This fish was originally tagged by Trust director Scott Tindale on the 20th of January 2023 while fishing at the Spot X control area on the Kaipara Harbour in a warm 23.3 degrees of water. It measured 38cm and was recaptured 195km from the release point 92 days later.

T21047 Trevally

On the 4th of April 2022 Trust director Scott tagged and released a 25cm Trevally from the fish holding tank into the Tutukaka Marina. A popular place for bait fishing he was keen to see how far this fish would travel before recapture.

384 days later on the 22nd April 2023 and a shortest distance by sea of 13.1km away this fish was recaptured in the Taiharuru estuary by Jamie White who was bait fishing from shore. Jamie said that he caught quite a few fish that day but did not notice the tag until he cut the fishes head off. The fish had grown 4cm since it was tagged and released just over a year earlier.

T23790 Snapper

Bevan Johnson has been a member of the Trust for a number of years. This time he has recaptured one of his own fish, a 30cm snapper that he tagged and released on the 6th of February 2023 while fishing at Whangaruru in 3m of water.

65 days later on the 11th of April 2023 Bevan was fishing at Whangaruru in 3m of water when he recaptured this snapper. Bevan said that the tag had a lot of weed on it which he scraped off before releasing it again. Bevan said that the fish was really healthy.

T16165B Snapper

The Trust has a number of fish in the tagging program that have been recaptured numerous times. This next snapper has been recaptured twice. Its story started when it was tagged and released by Louis Mulcare while bait fishing in 5m of water at Ngunguru on the 5th of February 2023. It measured 32cm on release. This snapper was recaptured on the 17th of February 2023 by Finn Benton 7km away at Patau North. Finn noted down the details and quickly re-released the fish back into the water. Then on the 26th of April 2023 this fish was recaptured again 8.69km away at Ngunguru by Nik Miller while straylining in 2m of water. Nik said that it was a fat, good conditioned fish, but unfortunately he did not notice the tag until he got home, so he was unable to release it again a third time.

This fish had travelled a shortest distance by sea of 15.7km since Louis first released it and had been at large for a total of 81 days. It is another great example of survivability of fish after tag and release but also the pressure exerted on our inshore fishery. It is hoped that tagged fish if given the chance to swim away can provide a wealth of information while helping to maintain a sustainable fishery.

T18837 Rig

Chris West skipper of the commercial fishing trawler “Rongatea” reported the recapture of a tagged rig that they caught while trawling off Port Underwood in 13m of water. Chris landed the fish on the 27th of April 2023. Unfortunately they could not get a size as the fish was cut up before they noticed the tag.

This fish had been tagged and released on the 18th of April 2022 by Graham Wilson who was fishing from shore at Clifford Bay. This fish measured 94cm on release. In the 375 days at large this fish has moved a shortest distance of 39.5km.

T24536 Kahawai

I like talking about kahawai as they are really cool little fish that as a coastal pelagic fish can travel huge distances. This particular 46cm kahawai was tagged and released in the Kaipara Harbour on the 3rd of March 2023 by Trust founding director Scott Tindale while out on a short afternoon tagging trip. They were fishing in 3.72m of water with a water temperature a warm 24.3 degrees. Fishing was harder than it usually is, but they still managed to tag quite a few fish during the 3 hours that they were out there.

58 days later on 29th of April 2023 this kahawai was recaptured by Devin Longstaff who was fishing from shore at the Rapanui Stream, Taranaki. Devin took a quick photo and released the fish back into the water again. This cool little fish has travelled 284km straight line distance by sea in 58 days.

T7477 Kingfish

This next story has quite a hard case ending to it. On the 16th of June 2020 Tova Henderson had gone out for a day's fishing to White Island with Finn Henderson. While there they tagged and released a 92cm kingfish which Tova caught in 121m of water.

Then 1047 days later on the 28th of April 2023 Arron Bennet was live baiting at White Island in 35m of water when he recaptured Tova' s fish. As he was bringing up the kingfish the line got lighter all of a sudden, and when the fish floated to the surface it had been bitten in half by a shark just aft of the tag. The shark was considerate enough to leave the tag in place, so that we could still get the tag number and some data from the fish. Aaron reported the fish at 40cm in length (with a smile) it had shrunk by a considerable amount.

T7481 Kingfish

Another recapture of a kingfish tagged and released from 'Fins and Tails' charters caught in the deep waters around White Island.

On the 16th of January 2020 Jason Blackwell from Queenstown was fishing with Finn Henderson at White Island when he tagged and released a 87cm kingfish that he had caught deep dropping into 121m of water.

927 days later on the 16th of January 2023 this fish was recaptured by Joshua Yorke who was live baiting at White Island. Joshua measured the length at 108cm and said the fish was really healthy. He also mentioned that there was a bit of growth on the tag. The fish was kept, weighing 17kg.

This is another prime example of fish survivability after being caught from very deep water.

T19429 Tope Shark

As the tagging program grows it is quite nice to see whole families getting involved. One such family is the Peacock family. Nick took his children out for a day's fishing at Okotoka Beach on the 16th of April 2023. During the day his little girl Skyla caught a 43cm tope shark while fishing off the beach which dad Nick tagged and released, much to the delight of Skyla.

On the 7th of May 2023 this little tope shark was recaptured by "Patchy", Craig Patchett while he was fishing in 25m of water, 3km offshore from Castle Cliff. Craig took a couple of quick photos before releasing the shark again to carry on its journey. This fish was recaptured a straight line distance by sea of 11.5km since it was tagged 22 days earlier. I wonder where it is going to next.

T22460 Kingfish

Donovin King has been a member of the Trust for a few years now fishing in the Hauraki Gulf area. Out of the 76 fish he has tagged and released he has had 10 recaptures reported so far. Donovan has also caught some of his tagged fish again, some 3 times as he returns to the same spot near down town Auckland.

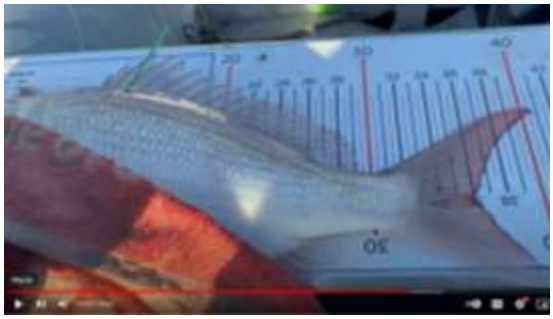
On the 8th of January 2023 Donovin was fishing at Motutapu Island in 8m of water when he tagged and released a 56cm kingfish.

This kingfish was recaptured by Luke Elms who was soft baiting at Crusoe Rock in 10m of water on the 4th of February 2023. Luke estimated the size of the fish at 60cm and quickly released it back into the water.

During its 28 days since being tagged and released the fish had moved 8.63km straight line distance by sea. It will be interesting to see where it is off to next as it makes its way through the inner harbour waters.

T19578 Snapper

Graeme Johnson has been a member of the tagging program since it began over 5 years ago. During that time he has tagged and released over 400 fish on both the West and East coast of Auckland.



On the 25th of March 2023 Graeme decided to go fly fishing at the Mahurangi Harbour. Working the shoreline on the incoming tide Graeme tagged and released a few fish including this 36cm snapper.

It was not long before this snapper was recaptured 39 days later on the 2nd of May 2023. Eddie Lathan was fishing on the Mahurangi River when he recaptured this tagged fish in 15' of water on a bait. The fish was kept. This snapper was recaptured a straight line distance by sea of 3.7km.

T14863 Tope Shark

We received a report of a tagged fish recaptured on 1st May 2023 by the commercial fishing vessel 'F.V. Kathleen G'. Alan Basalaj said the tagged tope shark was caught by the trawler fishing in the Eastern Cook Strait in 165m of water.

This 131cm male fish was tagged and released on the 26th of December 2022 by Hadley Dawes.

This was one of the many fish that Hadley had tagged and released surfcasting from shore near Seddon in the Marlborough district. At 142 days at large this fish was recaptured a shortest distance by sea of 98km from where it was tagged.

T24536B Kahawai

This is another example of a fish being recaptured more than once.

This 46cm Kahawai's story starts on the 3rd of March 2023 when it was tagged and released in 3.72m of water in the Kaipara Harbour by Founding Trust director Scott Tindale.

58 days later on the 29th of April 2023 it was recaptured by Devin Longstaff while fishing from shore at the Rapanui Stream in Taranaki. Devin took a quick photo and released the fish back into the water again. This cool little fish had travelled 284km straight line distance by sea in 58 days.

8 days later on 6th May 2023 this fish was recaptured again by Layton John while fishing from shore at the Mokau. Before Layton chopped the fish up for bait, the kahawai had travelled a total of 295.6km straight line distance by sea in the 66 days.

T17249 Snapper

Fishing in 2.12m of water at Spot X in the Kaipara Harbour on the 1st of January 2022 Trust director Scott Tindale tagged and released several fish including this 39cm snapper.

Fast forward 499 days to the 14th of May 2023 where Darren Holloway was fishing in 4m of water in the Kaipara Harbour when he recaptured this fish. Darren reported that the tag was covered in weed and the fish was very healthy. It measured 45cm. Darren said that he would have released the fish, but he had had a very slow days fishing and needed to take home some fish for Mother's day lunch.

At 499 days at large this fish was recaptured a distance of 6.21km from its tag and release point inside the Kaipara Harbour. Again demonstrating the importance of this shallow harbour fishery to the west coast of New Zealand's North Island.

T9277 Kingfish

It is always exciting to get recaptures of fish that have been tagged and released a long time ago.

On the 8th of April 2021 Finn Henderson was fishing in the Bay of Plenty when he tagged and released a 93cm kingfish that he caught in 28 metres of water.

780 days later on the 27th of May 2023 Ryan Holder was fishing from his boat when he recaptured this fish 7.16km away from its original release point in 26m of water near Motiti. Ryan reported that it was a beautiful fish.

This is Finn's 4th recapture from the same spot.

T20721 Blue Cod

Over the years Graham Wilson has recaptured a lot of his own tagged and released fish a number of times. This particular 31cm blue cod was caught by Graham on the 31st of July 2022 on a softbait while fishing from shore near Picton.

295 days later on 21st May 2023 Graham recaptured this same fish while soft baiting in the same general area. Since its tag and release it had grown 3.5cm. Graham re-released the fish after recording the details and taking a quick photo.

His tagging efforts are showing that blue cod are very fast growing fish in this area but don't move very far.

Again we would also like to thank all our sponsors and individuals that have donated their time and resources in support of this great project.

We would like to thank those of you that have donated goods, services or funds to the Trust. Your generous support is greatly appreciated and it all goes back into supporting these programs. Many of the volunteer taggers have received a top up of tags from these donations ensuring a continuation of this citizen science project around the country. Thousands of Fish ID posters and stickers have been distributed to institutions and fishers around the country to help anglers identify many of our inshore fish species.

In addition to providing fact based data in the face of so many opinions we are sharing sound advice on how to mitigate bycatch of unwanted or protected species, handy hints from experts in the field and providing education materials to ensuring a better outcome for the marine environment we all enjoy.

If you, or a business or organisation would like to support helping the community with this or any other aspects of the **Tindale Marine Research Charitable Trust** we would love to hear from you.

The Tindale Marine Research Charitable Trust is a registered charity and all donations are tax deductable. You can contact the Trust directly or go to our give a little page at https://givealittle.co.nz/org/tindale-marine-research-charitable-trust

"To Promote and encourage environmental education, conservation and research for a sustainable future"

So that is it for another seasonal report. Remember to keep sending in your tagging data regularly so I can keep you all up to date in the next report. Sorry to those whose recaptures were not mentioned we will endeavour to include these on the social media pages.
Catch you on the next issue….Tight lines from the team at

Tindale Marine Research Charitable Trust