



VICTORIAN MULLOWAY TAGGING

Newsletter No. 4 - October 2019

Welcome to the fourth edition of the Victorian Mullet Tagging Newsletter. The purpose of this newsletter is to provide anglers with a summary of the tag and recapture data collected across Victoria and interstate. This recreational tagging program is funded by the Victorian Fisheries Authority through Recreational Fishing License Fees and relies on the valued involvement of anglers.

The tagging program has now been underway for almost two years, and during this time we've seen some great results. We currently have over 70 anglers signed up to the tagging program and at this stage we unfortunately can't recruit any more anglers. For anglers that do have a kit who find themselves no longer using it, please consider sending it back to us (see address on last page) so we can redistribute to others.



Andrew Hart from Hook Line and Sinker with an 80 cm Mullet that was tagged from the Glenelg River while shooting their latest TV show instalment.

Tagged Fish

It's been a productive autumn and winter with plenty of Mulloway caught across the state. Since the last newsletter in February, a further 198 fish have been tagged, bringing the total to just under 500 (Figure 1). The majority of fish have been tagged from the Glenelg (139 to be exact), but there were also quite a few Mulloway tagged from the Patterson River in April and May. A steady number of fish have also been tagged from the Yarra, Barwon, Moyne and Hopkins rivers and coastal beaches of South East SA. A huge thank you to all anglers for their efforts over the past few months.

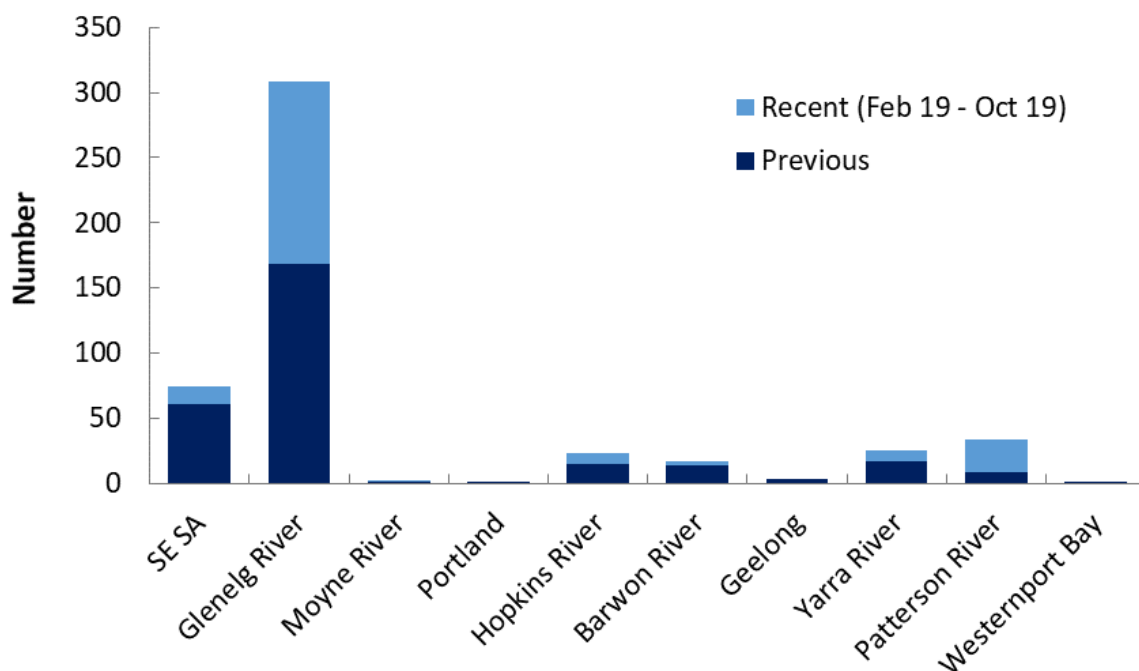


Figure 1. Numbers of Mulloway tagged across the various regions/waterways.

Top taggers (as of October 2019)

Tim Murrell has dedicated significant time to tagging Mulloway in the Glenelg over the past 6 months and is now close to reaching three digits! Aron Coleman and Michael Gordon have also been top contributors for the Glenelg, while Shane Murphy has been a key tagger in the Hopkins.

After coming on-board with the program earlier in the year, Reece Cliff has already made a significant contribution, tagging 13 fish from the Patterson River.

Angler	Number tagged
Tim Murrell	97
Michael Gordon	49
Aron Coleman	32
Shane Murphy	23
Shane Murrell	20
Bodhi Pannenburg	20
Nigel Telford	20
Barry Starling	16
Steve Kovacevic	14
Reece Cliff	13
Mark Hadden	13
Kobi Rothall	13

There has been a great range of size classes tagged, with Mulloway ranging in length from 38.5 to 118 cm (Figure 2). The majority, however have been between 50 and 80 cm. The last few months has seen anglers catching and tagging consistently larger Mulloway in the Glenelg River. It's great to see so many of these 80 cm+ fish being released back to the water.

Reece Cliff now holds the lead for the largest Mulloway tagged, with his 120 cm fish caught from the Patterson River in April this year. George Gabriel is a close second with his 118 cm fish tagged from the Yarra River last June, while Reece also holds third place with a 115 cm Mulloway tagged from the Patterson.

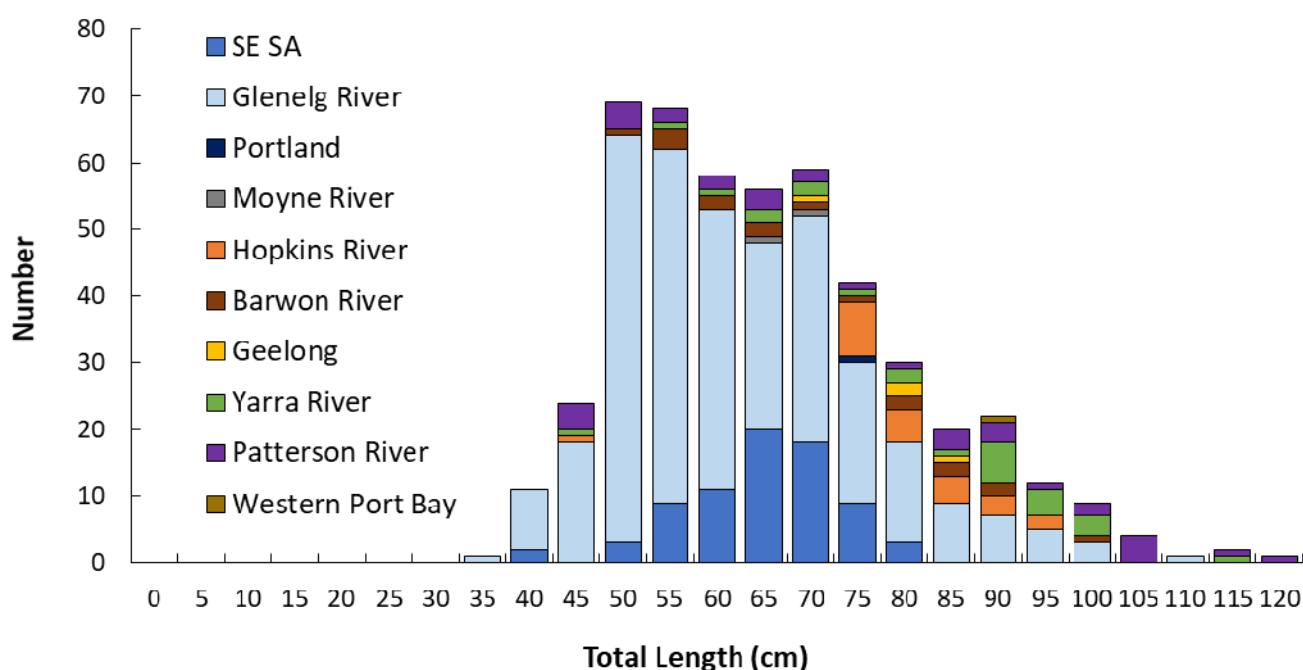


Figure 2. Length frequency of Mulloway tagged by anglers from the various regions.

Largest Mulloway Tagged as of October 2019

Location	Angler	Total Length (cm)
South East SA	Shane Murrell / Bodhi Pannenburg	84
Glenelg River	Tim Murrell	110
Moyne River	Pete McCallum	73
Hopkins River	Shane Murphy	97
Vic Marine waters	Dom Gillot (Western Port Bay)	90
Barwon River	Jaryd McDowall	101
Yarra River	George Gabriel	118
Patterson River	Reece Cliff	120

A reminder to all Mulloway taggers, please ensure that you only tag Mulloway above 50 cm. This is to maximise survival rates and to also ensure we obtain the most amount of information possible (i.e. most fish won't leave our estuaries until they reach maturity around 80 cm).



At 120 cm, this is now the largest Mulloway to be tagged in the program. The fish was caught from the Patterson River by Reece Cliff in April this year.



Rob Jeffery tagged this 73.5 cm Mulloway from the Glenelg River in March this year. Rob came on-board with the program in January and has already tagged over 10 fish.



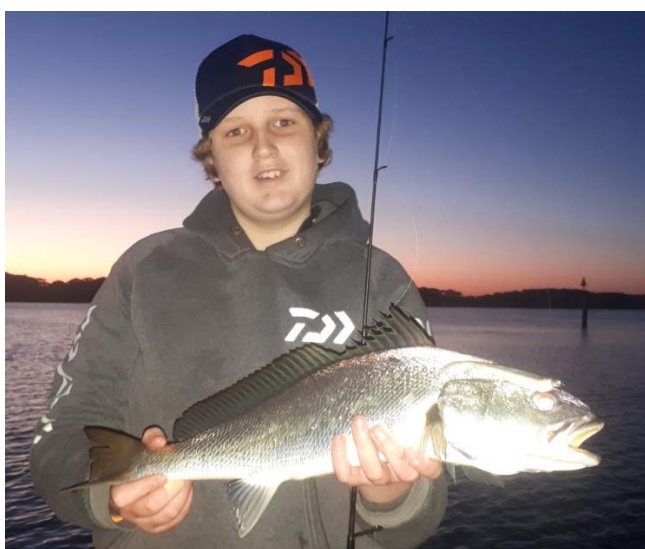
Mulloway tagger, Jamie Coates (left) with Nick Duigan, from Hook Line and Sinker (right) with a 70 cm Mulloway they recently tagged in the Glenelg River.



Dylan Broad recently tagged a handful of Mulloway while fishing north of Kingston in South East SA. This fish was his largest at 76 cm.



Back in April, Steve Kovacevic tagged his biggest Mulloway – this 100 cm fish caught from the Yarra River.



Xavier Gercovich tagged this small but mighty Mulloway from the Glenelg in July.



Shane Greaves is one of several anglers to tag a considerable number of Mulloway from the Patterson back in autumn. This fish was tagged at 108 cm.

Tagging recaptures

Since the last newsletter in February, we have recorded a further 31 recaptures, bringing the total to 81. Of the 81 recaptures, 7 of these were tagged Mulloway caught a second time. We have even seen one Mulloway, which was tagged in November last year from the Glenelg River, recaptured three times! It was recaptured each time in the Glenelg and is still swimming free!

The Mulloway recaptures can be categorised into one of the five different movement patterns:

1. Within estuarine movement (movement within the same estuary)
2. Between estuarine movement (movement from one estuary to another estuary)
3. Movement from an estuary to the ocean
4. Movement from the ocean to an estuary; and
5. Movement within nearshore marine waters

Movement between estuaries and the ocean are particularly insightful, as they highlight important connectivity and improve our understanding of the way in which Mulloway use these different environments throughout their life.

Table 1. Summary of Mulloway recaptures, grouped into the different movement patterns.

Movement type	Specific movement	Recaptures	
		Sub-total	TOTAL
1. Within estuary	Glenelg River	42	55
	Hopkins River	4	
	Moyne River	1	
	Patterson River	5	
	Yarra River	3	
2. Between estuary	Patterson River → Yarra River (mouth)	2	2
3. Estuary to ocean	Glenelg River → South East SA beaches	3	4
	Barwon River → South East SA beaches (Coorong)	1	
4. Ocean to estuary	South East SA (Port Mac) → Glenelg River	9	11
	Barwon Coast → Barwon River	2	
5. Ocean	South East SA (Port Mac) → South East SA (Port Mac)	1	1

More than half of the total recaptures (55) are those Mulloway that have been tagged and later recaptured in the same estuary. These have mostly occurred within the Glenelg River, but have also been recorded in the Hopkins, Moyne, Yarra and Patterson rivers.

The greatest distance travelled by a tagged Mulloway within the Glenelg River is 24 km, with this particular fish moving upstream from the town bridge to Saplings Creek in over 90 days. Elsewhere in western Victoria, four Mulloway have now been tagged in the Hopkins River and later recaptured in the same system.



Jake Dowdy (right) was fishing the Glenelg in his kayak back in August, and caught a 105 cm tagged Mulloway along Taylors Straight. The fish was originally tagged by Kobi Rothall (left) at 89.5 cm, on the 30th December near the mouth of the Glenelg. The fish grew 15.5 cm in 217 days, which is the second fastest growth rate (0.07 cm per day) we've seen so far for the Glenelg!

Further to the east, five Mulloway tagged in the Patterson River during March-April this year were recaptured between 17 and 72 days later at similar locations (less than 4 km away). This highlights that autumn-winter is prime fishing time for Mulloway fishing in the Patterson. In July, Vo Minh Tang caught a tagged Mulloway at the mouth of the Yarra River (near the warmies) which had been tagged over a year ago in the Patterson River. The fish was at liberty for 427 days, growing from 66 to 80 cm. This is the second Mulloway to move from the Patterson River to the mouth of the Yarra River and represents the only 'between estuary' movements we've documented so far (i.e. when Mulloway move from one estuary to another).

In terms of movements between estuaries and the ocean, we have recorded an additional four recaptures since the last newsletter in February. During May alone, three Mulloway tagged off Browns Bay in South East South Australia (in summer to early autumn 2017/18), were recaptured in the Glenelg River, approximately 15 km east. One fish was at liberty for 515 days, which is the longest period we've recorded so far. These recaptures indicate a seasonal trend for Mulloway to move into the Glenelg River during late autumn.

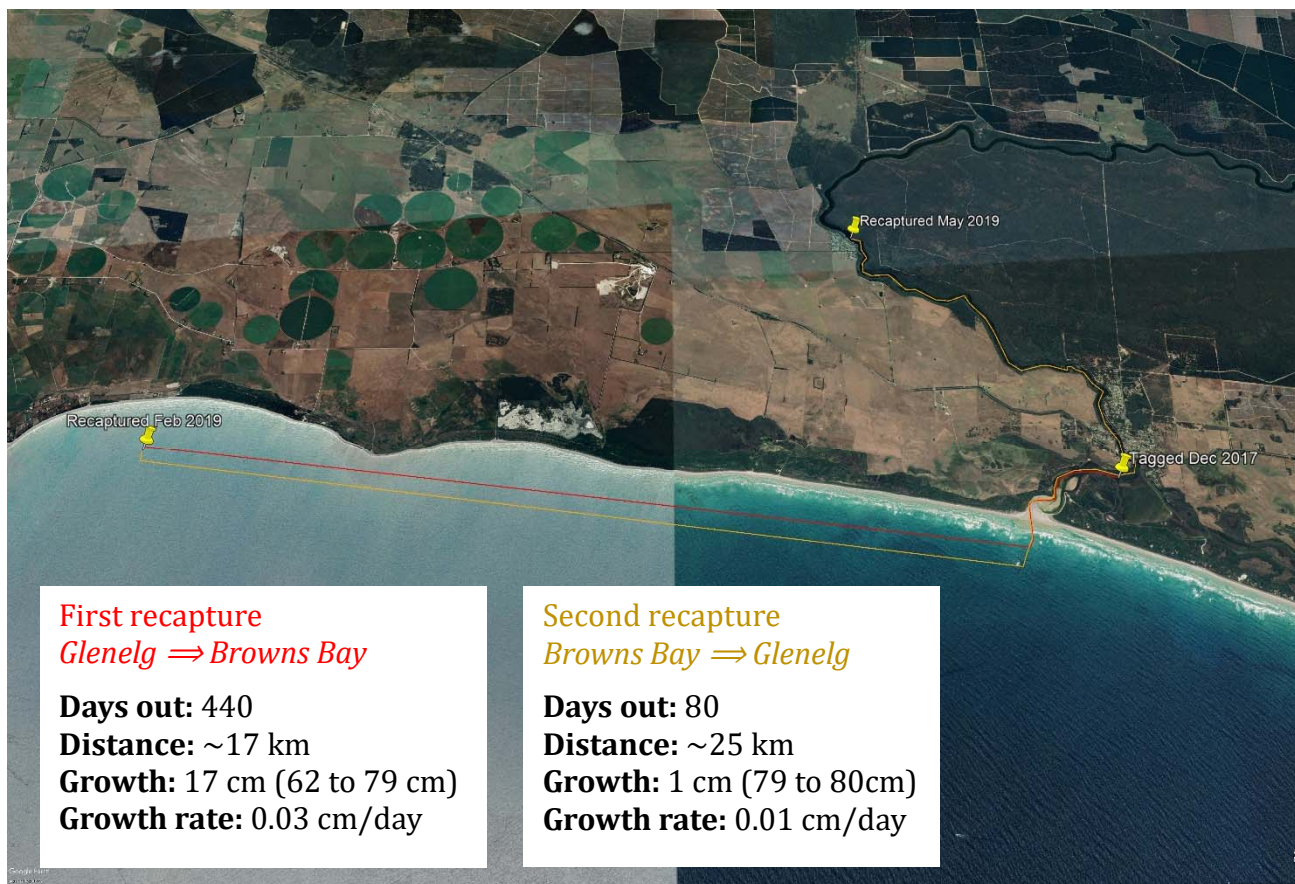
In terms of repeat recaptures, we have seen some extraordinary growth rates from one individual that was tagged in the Hopkins River and recaptured twice in the same system. The fish was initially tagged at 45 cm by Luke Gercovich in January 2018, around 10 km upstream of the Hopkins River mouth. It was then recaptured by Andrew Meade near the mouth in December 2018 and grew considerably in this time to reach 62 cm. Shane Murphy recaptured the fish again in February this year, a couple of kilometres further upstream. Shane measured the fish at 70 cm which means the fish grew 8 cm in 2 months! The fish was released so hopefully we will see it turn up again.



Luke Gercovich (top) tagged this Mulloway at 45 cm in the Hopkins River in January 2018. The fish was caught again in December at 62 cm, then a third time by Shane Murphy (left) in February this year when it was 70 cm.

In a first for the program, we have recorded a Mulloway undergoing a 'round trip' from the Glenelg River to Browns Bay and back again. The fish was tagged in the Glenelg by Neil Humphries in December 2017 at 60 cm, then recaptured by Shane Murrell over a year later at Browns Bay when it measured 79 cm. Then in May this year, the fish was recaptured again in the Glenelg River near Donovans at 80 cm. This is quite exciting as it provides evidence of Mulloway leaving the Glenelg, presumably to breed out at sea during the summer months, then returning to the Glenelg in autumn.

From the biology project, we know that Mulloway do not reach sexual maturity in Victoria until approximately 80-85 cm. Anglers who fish the Glenelg River and other western Victorian waters, will know that over the past 6-12 months, a large proportion of the Mulloway in the estuaries have been at this size or above. As we approach their spring-summer breeding period, it will be interesting to see whether these larger tagged Mulloway turn up along the coast over the warmer months.



Movement map for Mulloway #222, which completed our first observed 'round trip'. The fish was tagged in the Glenelg River in December 2018, then recaptured at Browns Bay in February this year, before returning again to the Glenelg where it was caught further up river near Donovans in May.

Mulloway Tagging Program wins award!

Back in June, the Mulloway Tagging Program received the Innovation Award as part of the 2019 Glenelg Hopkins Environmental Achievers Award. This recognition is a huge credit to all anglers that have participated in the program and made it a success. Thanks again for everyone that continues to be involved.

If you have any comments or questions, please get in touch – see below.

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