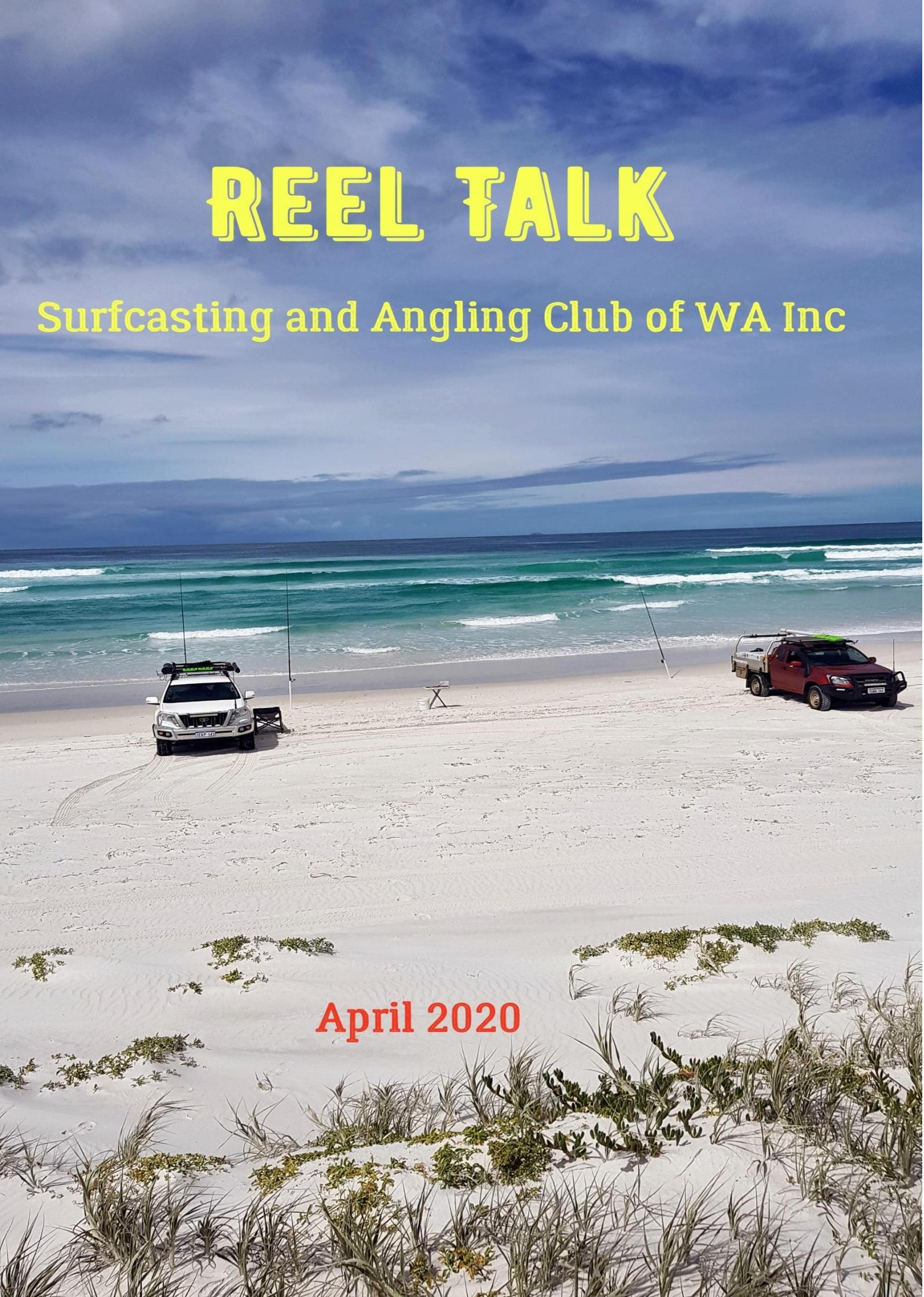


REEL TALK

Surfcasting and Angling Club of WA Inc

April 2020





Surf Casting and Angling Club of WA (Inc.)

PO Box 2834, Malaga WA 6944

ABN 29 925 237 020

Email: secretary@scac.net.au

Club Web page: <http://www.scac.net.au>

Acknowledgement of Donors

The club gratefully acknowledges the support from companies, organisations, club members and families for the donations towards our Presentation night.

Club Members:

Mal Head, Peter Osborne, John Curtis,

Bob Henderson, Alan Jones, Pat McKeown

Company Sponsors:

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Thank you for your valued support.

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Club Committee for 2019 - 20

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AAAWA Delegates

Victor Schilo, Martin Wearmouth

All club emails should be sent to secretary@scac.net.au and all correspondence posted by mail should be addressed to:

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SCAC Life Members

George Holman, Eric Parker, Ian Cook, Bob Henderson, Terry Fuller, Mal Head, Peter Osborne

Deceased life members: Vic Davis, Doug Edward, Lloyd Dunn, Dudley Brown, Noel Knight, Les Shand, Ron Kildahl, Bob Klein, Jim Strong

President's report March 2020



It seems at this time the only thing on everyone's mind is the current COVID-19 spread.

How things have changed in just a few weeks, So many people suffering as we move into this pandemic, We have a lot more to endure and I can only hope all our members are coping well and doing their best to help stop the spread of this virus.

As you all know all club activities are now on hold until it is safe for us to resume.

Please everyone stay safe and I hope to see you all again soon.

This could be the opportunity to tidy up that tackle box, service and clean the fishing and camping gear and clean up the shed or garage.

Maybe do some research on the next fishing destination for use after we come out of these social distancing restrictions.

It is just important to stay home till we are told it is safe to resume our normal life.

Martin Wearmouth; President

IMPORTANT MESSAGE TO ALL MEMBERS

Due to the latest Government advice,

all Surf Casters events will be shut down until this virus crisis passes.

Meetings

As of now we will suspend all meetings until it is safe for us to commence again, we cannot give a date at this stage but will keep you informed by email.

Fishing field days & Dry Casting

All monthly Fishing Field days and Drycasting events are cancelled until further notice

Presentation Night (June 2020)

This has been cancelled and we will decide what to do once the virus treat has passed.

It may be best if you are over the age of 60 or have some existing health issues to stay away from all people as best you can, this is to protect yourself and the people around you.

Surf Casters March 2020 Reef Beach field day report

By Martin Wearmouth

I left home on Friday morning with dark clouds and spots of rain falling to meet fellow Surf Casters for our March long weekend Reef Beach Field day, after meeting up with Peter O, Gary, Vince and Shane we headed down Albany highway, the rain got heavier and more constant the further south we went, Ron called me just as I left Armadale and said he was almost at Reef beach and was going to try to get the shack there for us all to stay in, soon after he called and said he had managed to get the shack, This was very good news as the weather for that afternoon and night was not looking great.



After a good run we arrived at the Reef beach track just after 12pm and let down the tyres, the track in was very good and it did not take long to get to the shack where we found Ron waiting for us, not far behind came Peet and Sandra then Mark, they all decided to camp on the beach at the eastern end, with the cars unpacked we headed onto the beach to look for some fishing spots we could try over the next few days.

The water looked good and we found a couple of spots that looked ok, we had a short fish at a spot that was close to the reef and Gary caught a nice skippy, I hooked and lost a nice Salmon after it did a jump just before the beach the hooks came out, we headed back before dark to have dinner and a good night's sleep ready for the next day.



The Shack camp of Ron, Peter, Gary, Vince, Shane and myself all woke early and had breakfast before heading to the spot we fished the night before that was close to the reef Peet and Sandra had camped on the beach just before this spot and also joined us in fishing next to the reef, Gary cast in before the 6am lines down and managed to land a nice salmon, he was very disappointed to find out it was before the field day had started and would not be counted.

The fishing was slow but as I was able to cast a bit further and closer to the reef I managed some nice Skippy and 2 Salmon 65cm and 69cm long both got released, I also got some nice size herring all between 25 to 30cm, on reeling in 1 about half way in a salmon took the other bait and made it a double header and a much harder fight with the salmon jumping and shaking till it hit the beach.



The Weather all Saturday was very good with clear skies and light winds all day, After lunch Vince, Shane and I all went to the eastern end of the beach to check out some fishing spots. On arrival Peet and Sandra had set up camp here as had Mark, but it also had about 20 other cars either camped or enjoying the sheltered bay, this end of the beach has an outer reef and is good for families due to calmer water, Shane and I had a few casts into the reef holes using a float rig but due to swimmers and snorkelers spots were limited, I managed to catch a Blackfish and Shane got reefed by something bigger and lost his hook after it snagged him under the reef, we only stayed about an hour and we headed back to find the others.





On our way back Vince was at a spot about 2km west and was fishing into a gutter, he had managed to catch a flathead but we kept going and found the rest at the western end where we had fished the day before, Ron moved on as not much was happening, We set up and started fishing hoping the sun down period would improve the fishing, I managed another salmon and some more Skippy and herring, Vince, Gary and I stayed later and found the herring came on the bite after dark but did not catch anything else so we went home for dinner and a sleep.

On arrival back at camp Ron was not doing well, his feet had swelled up and his back was also giving him pain, As he was not able to fish he planned to go home but waited till he had a sleep and left early Sunday morning for home.



Sunday morning was very very windy and rainy so we stayed in the shack with the pot belly fire keeping us warm, we ventured out onto the beach a couple of times but the wind was so strong it was very difficult to fish, Shane also packed up and headed home due to the bad weather, The rest of us kept warm and dry in the shack but went out about 11.30am just before high tide to try a close gutter just the other side of the sand dune from the shack, this had a long deep gutter running close to the beach so casting in the 30 knot wind was not a problem, Vince caught a nice 1.1kg skippy and I caught a 1.5kg skippy and some herring from this spot before we headed back to the shack for lunch.

Peter, Gary, Vince and I headed back out to this same gutter about 5pm to fish 2 cast I got a 65cm Salmon along with some herring, Peter managed the fish of the weekend landing a 6kg Salmon just before we packed up to go back to the shack.

Monday morning we had the weigh in and packed the cars, Thanks to those who attend the field day and made for a fun social time due to the use of the shack, Thanks to Ron for going early and making sure we got it, I hope to see as many as possible at the April Bluff Creek field day.





ANGLER		Species	Species	Species	Species	Species	Species	Species	Species	Species	Species	Total weight	No. of Species	No. of fish	F.D. points	Attendance		Total points
		Herring, Australian	Skipjack Trevally	Salmon Australian	Flathead (all species)	Species Whiting (other than listed)	Species Wrasse (all species) 1 only	King George Whiting	Species Western Rock Blackfish	Mullet (all species)	Banded Sweep					Field Day	General Meeting	
Martin Wearmouth	Number	12	8	4						1		22.13	4	25	286.3	1	1	306.3
	Total weight	2.48	6.11	13.30					0.24									
	Weight of best	0.28	1.33															
Peet Wessels	Number	12	4	3	1	1	1				1	14.06	7	23	233.6	1		243.6
	Total weight	1.80	3.20	8.32	0.24	0.10	0.20			0.20								
	Weight of best																	
Peter Osborne	Number	4		3								12.67	2	7	153.7	1	1	173.7
	Total weight	0.67		12.00														
	Weight of best																	
Ron Thomas	Number	12	1				1	2			4	4.23	5	20	112.3	1	1	132.3
	Total weight	1.80	0.80				0.20	0.43			1.00							
	Weight of best							0.23										
Mark Hansen	Number	12					1	2	4			2.62	4	19	85.2	1	1	105.2
	Total weight	1.16					0.20	0.32	0.94									
	Weight of best																	
Shane Wignell	Number	3		1	2							4.18	3	6	77.8	1	1	97.8
	Total weight	0.50		3.20	0.48													
	Weight of best																	
Sandra Wessels	Number	12	4									5.00	2	16	86.0	1		96.0
	Total weight	1.80	3.20															
	Weight of best																	
Vincent Tomazin	Number	6	1		1							2.21	3	8	60.1	1	1	80.1
	Total weight	0.91	1.06		0.24													
	Weight of best																	
Gary Parkinson	Number	8					1					1.30	2	9	42.0	1	1	62.0
	Total weight	1.20					0.10											
	Weight of best																	

Top scores up to March		
Rank	Angler	Total points
1	Martin Wearmouth	1338.1
2	Peet Wessels	1015.9
3	Peter Osborne	833.4
4	Sandra Wessels	689.7
5	Mark Hansen	652.3
6	Gary Parkinson	549.9
7	Shane Wignell	481.3
8	Ron Thomas	438.4
9	Vincent Tomazin	310.5
10	Sabby Pizzolante	251.0
11	Mark Nurse	190.5
12	Stuart Waterman	154.6
13	Theo Van Niekerk	142.5
14	Sri Srigandan	139.7
15	Victor Schilo	123.2
16	Paul Terpkos	114.8
17	Brad Zaknich	63.6
18	David Trainer	63.4
19	Jason Bambridge	62.2
20	Klaus Schönwolf	50.7
21	Slavka Schilo	50.0
22	Chris Stickells	49.8
23	Wally Lukic	47.6
24	Geoff Raftis	34.6
25	Oliver Wessels	32.0
26	David Wessels	31.5
27	Matthew Lamb	26.9
28	Grace Wessels	22.0
29	Ian Taggart	20.0
30	Pat McKeown	20.0
31	Bob Henderson	10.0
32	Justin Rose	10.0
33	Malcolm Head	10.0
34	Anthony Terpkos	10.0

Sportsperson of the year sections for March			
Section	Angler	Species	Weight
Best scale fish	Peter Osborne	Salmon Australian	5.46
Best bag of scale fish	Martin Wearmouth		22.13
Best shark			
Best bag including sharks			

Esperance – Poison Creek and Thomas River fishing trip March 2020

By: Martin Wearmouth

Monday 2nd March 2020

Gary and I left Reef Beach and headed for Esperance, it was a good drive with not much traffic we arrived in Esperance about lunch time with plans to stock up on food, fuel and bait but due to the public holiday Woolworths was not open till Tuesday so we got Fuel and bait and settled into the caravan park for the night, we had a good shower and Fish & Chips for dinner before getting a good night's sleep.

Tuesday 3rd March 2020

We went to Woolworths at 8am to get the supplies for our weeks stay out at Cape Arid, finally having all we needed we packed up the tent and headed out to Poison Creek, again not much traffic and we arrived at the Seal Creek campsite about 12pm, On arrival we found no one at the camp so we had our pick of the sites, the one closest to the toilet was the go so we unpacked the tent and cars and got camp set up.



Map of Seal Creek camp and poison creek in the middle

After camp was sorted we headed out to explore the beach and find a fishing spot, once on the beach I noticed that Gary's rod tube cap was missing and on checking the 2 fishing rods inside were also gone, we back tracked to the camp but did not find anything, later in the trip a fencing contractor that was doing some work in the area came to our camp and said he had picked them up at the start of the Poison Creek track and taken them back to his house in Esperance, We picked them up on the way home and they looked like they had no damage, Gary did have his 14ft rod in a bag on his tray so this was the rod he used for the whole trip.



Look at that water the gutter you dream of for sure

After we could not find Gary's fishing rods we went back onto the beach and found some deep gutters you can only dream of, the 1st one we fished was about 11km east of our camp, it had a high bank and some deep water close to the beach, the swell was down and the winds light so we set up and started fishing, it was not long and the salmon started to hit the beach, most between 3kg and 4kg, Gary got the 1st double header of salmon, 1 on the gang hooks and one on the small hook meant for herring and whiting, this was the first of many double hook ups on salmon, Among the salmon I got a Mulloway of 62cm but after a couple of hours of mainly salmon we decided to move to see what else we could find.



Another dream gutter filled with salmon

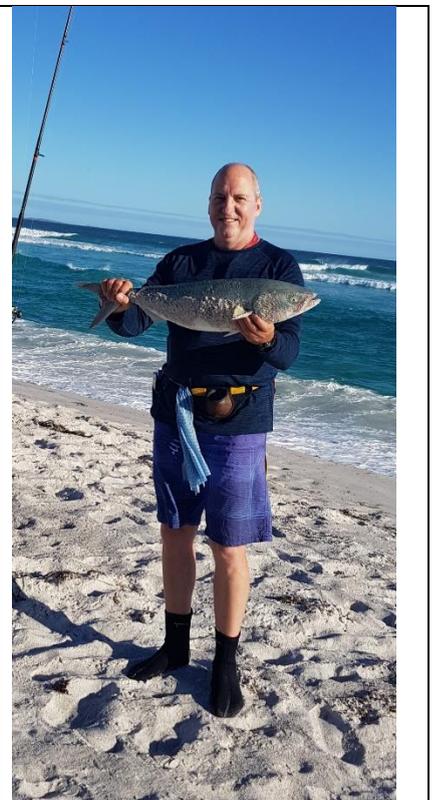
We drove back west about 1km and set up in a new gutter, again we found some Salmon but most were smaller about 2kg to 3kg, as the sun went down I managed a couple of skippy and Gary got a 55cm Mulloway, shortly after I got a 64cm Mulloway just after dark we packed up and went back to camp, what a start we caught and released so many salmon we both had never had fishing like this and this was only the first day.



Martin with Mulloway



Gary with 2 salmon



4kg Salmon

Wednesday 4th March 2020

We woke and had breakfast but did not leave to go fishing till 7.30am, we drove onto seal creek beach just near our camp and found a nice protected beach with small rock islands offshore we tried fishing the eastern end but had no luck, the water was too clear and still so we decided to move back past poison creek to where we fished the day before.



Seal Creek Beach

We again fished the spot 11km east of camp and I got a nice skippy on the first cast, the salmon again came in thick and fast but I managed a 51cm flathead and a 50cm (1.52kg) Skippy, Gary also got Skippy and Salmon before we headed back to camp for lunch.

We left camp about 4pm for the afternoon session with a plan to fish to 10pm and hope for some more Mulloway, we again fished the spot 11km east of our camp and found the Salmon still willing to take the baits, these fish were making us work as they jumped and ran from side to side using the surge to their advantage, Gary got a 62cm Mulloway before dark and that would be the last one for the trip, but the salmon double headers continued even after dark, these salmon were fun but wearing us out 😊.



Gary with Mulloway



Martin with Skippy



Another 2 salmon on the same rig

Thursday 5th March 2020



Drone line out 300m

Again we did not go fishing early we fished about 9km east at first in a different gutter closer to our camp that looked like I could get the drone out over the sand bar, I did 2 drops about 300m out but the swell outside the sandbar was too strong and within 5 minutes the rig was swept onto the beach, we again caught some salmon but nothing else, on our way back we headed west to look at Thomas Fishery, another camp site about 20km away from our camp, the track in was very rough in some parts and when we arrived it was a small protected beach with rocks at both sides, I fished for about an 30 minutes but had no bites so we headed back to camp for lunch.



Thomas fishery beach

We headed out again east to our favourite gutter for the afternoon session, Again plenty of Salmon and a few Skippy the weather again was good, the winds all mostly easterly seemed stronger in the middle of the day and dropped off as the sun started to go down, making fishing a pleasure.



Friday 6th March 2020



Spot close to poison creek

This was our day to move to Thomas River, It was a hard decision with such good fishing should we stay at Poison Creek, well we decided to move but had 1 last fish near the poison creek, we had not fished this spot as some locals had been camped out here for a few days, it was high up off the water and just next to some rocks, it was not as good as further east and I only caught some small herring and skippy, I used my light rod and managed to get 10 small herring in an hour that we could use for bait.

As we headed back to camp it started to rain so packing up was in the rain, we did wait an hour but the rain just kept coming, due to having used about 7kg of our 10kg of mulies we decided to go back to Condingup for lunch and to buy more bait, The burger was fantastic and well worth the 40km detour if out that area I can recommend stopping in for lunch.

We arrived at Thomas River mid-afternoon and set up camp, It was much busier than Seal Creek a lot of the good sites already had campers in them but we found a site that was ok, the rain was mostly gone and after a drive down the beach to explore the area we went to sleep ready for a new adventure the next day.



Thomas River campsite and beach

Saturday 7th March 2020

The beach at Thomas River was a lot different to Poison Creek, At the western end where the river comes out it was very hard sand you could drive on it with 40psi in your tyres, this was the case for about 4km up the beach and after that it got a bit softer but still easy to drive with 15psi in your tyres, The beach had only a very slight rise to the dunes so at low tide the beach was very wide, as the tide came in it would cover ½ to ¾ of the beach with shallow water, the gutters were not like Poison Creek so I was not that confident that we would catch fish due to the very clear water and shallow gutters.

Well I was proved wrong the fishing was not as full on as Poison Creek but at times it was a fish a cast, but you could sit there for 1-2 hours without a bite then the fish moved in and it was chaos.

In the morning we fished a gutter about 10km down the beach, We caught Salmon, Skippy and herring, most of the salmon were smaller around the 2-3kg size but still a lot of fun, salmon at this size seem to jump a lot more.

In the afternoon we went back to a gutter about 6km down the beach and at first all I could catch was some Shovel nose sharks, after the 5th one Gary nearly needed medical help after laughing so much, I did not find it so funny, as the sun went down and darkness fell the skippy came on the bite Gary got a 58cm (2.12kg) skippy at 8.40pm then I got a 60cm (2.49kg) Skippy at 9pm, after a few smaller skippy we went home for dinner and a sleep.



Sunday 8th March 2020

We went fishing about 7am about 6km down the beach and again found some nice skippy all ranging from 35cm to 55cm, what a hard fighting fish they are at this size, we also got back into the large salmon and again had double headers of salmon and skippy at times, this was very surprising as the gutters in the morning at low tide did not seem that deep but the fish still came into them.



Gary with another 2 salmon

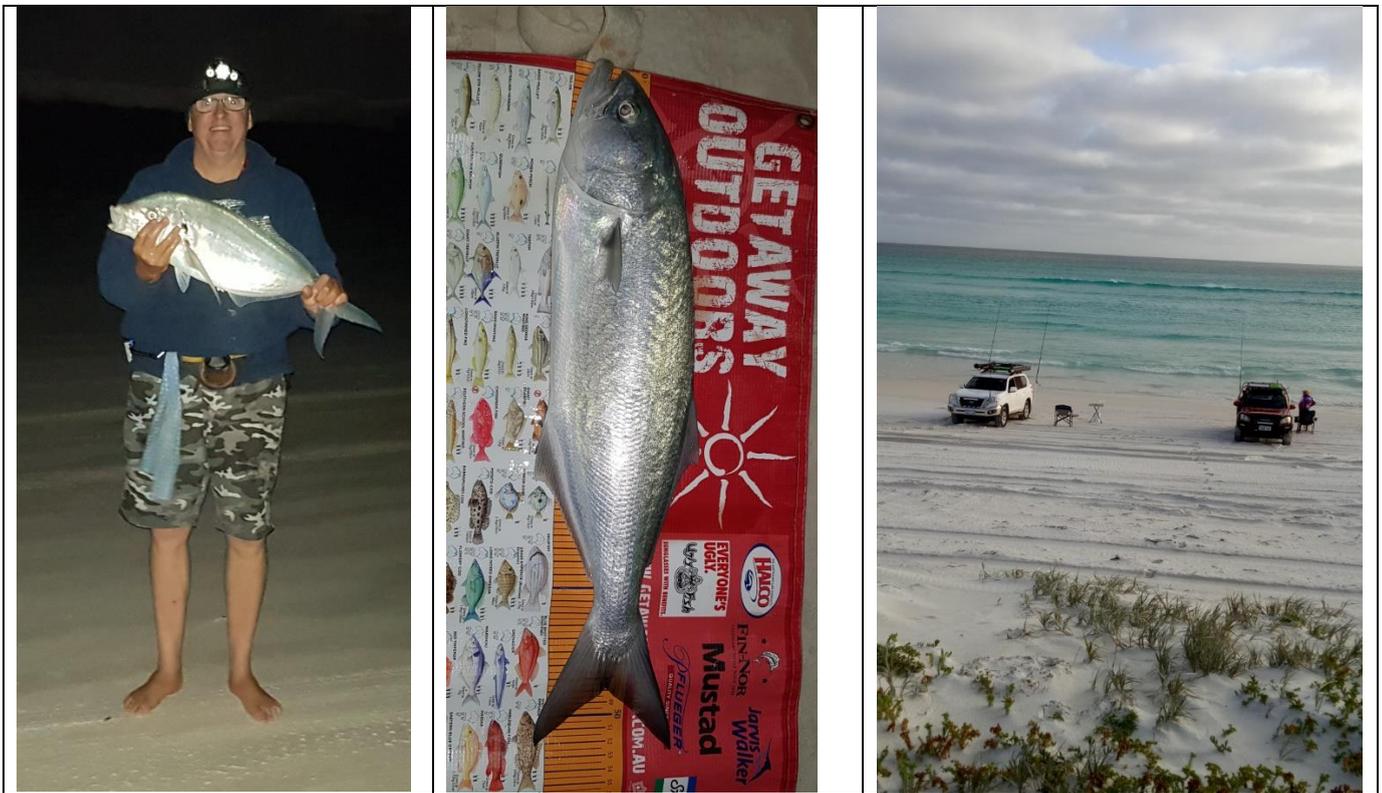
2 skippy this time

Skippy here are huge



Thomas River beach and gutter

For the afternoon session we planned to fish to 10pm in hope of a mulloway, the regular campers who fish this beach fish all night sometimes to get the big mulloway, It was not to be but I managed a 71cm Skippy and this was the fish of the trip for me, it was released and was caught on the squid using a 2/0 circle hook, this night I caught and released 10 nice skippy, I also got a 52cm Tailor and 54cm Tailor along with some more salmon and herring, On my last cast I caught a 32cm herring and 60cm salmon making it a double header to finish the trip.



To sum up this was the best fishing both Gary and I have ever done, we had great weather with low swells and light to medium easterly winds most days, It was not always sunny but the cloud cover was good as when the sun was out it seemed to have a bite to it, Fishing at Poison Creek was easy and the beaches easy to drive at 15psi, there was a bit of rock climbing in 1 part as you make your way on the track onto the beach but nothing too hard for most 4WDs, it was about 4km of track and gravel road till you got to the main beach we fished.

Thomas river needed a better cast but still fairly easy fishing, The beach access was easier as the lower camp was right on the river with only a short drive to get onto the beach, it proved to be a good spot for big skippy and salmon if you could cast into a nice gutter.

I could recommend this spot for fishing and a quiet get away, both camps only had long drop toilets, a rain water tank and a BBQ area so you need to bring a generator and all your own food & water, the closest shop is at Condingup if you need supplies.

**Due to the current Government health warning
The Club's Presentation Night has been postponed until further notice.**



APRIL Birthdays

Lee Zhang 13th; Liam Wignell 16th;

Sri Sriganan 25th

Have a great day

DRYCASTING – 16TH MARCH 2020

If all goes well this will be our last casting day on a Monday for quite some time. Back to Sunday might mean a few new or different faces which would be great, because let's face it, we are not as young as we used to be, and some of the oldies just don't seem to be around as much as they used to be.

Enough of this dribble, let's get down to the nitty gritty. Seven turned up last Monday to a reasonable day for casting. I say reasonable as the wind was fluky all day. What I am trying to say is if you fluked the wind at the right time you were in with a chance, if not, you missed out.

Hendo took out the honours for the day with some of the best casting he has done for quite some time (must be that new rod i sold him). 146m – 56gr, and 151.65m – 112gr. Not bad for a day that was not meant for the long-distance casts. I was not so fortunate with a break off in the art bait section due to line twist. Gary started off well in the sha, with a bull's eye, but couldn't finish the job. Mal took out the honours with 28. Mal was back to his best with 146 in the DHA, 5 behind the top score 151. Gary had another average day with 138.

I heard a rumour the other day that the DCO may be giving it away shortly. Is anyone going to put his hand up. I hope so.

I forgot to mention peter Stoeckel turning up for a look see and cast in the SHA and did very well with a 22.

Our dry casting sessions are cancelled until further notice. If anyone needs to contact me my mobile no. Is 0407630053.

Ron Thomas
DCO

SURF CASTING & ANGLING CLUB												
Dry casting results - 16th March 2020												
	56 gram				Artificial Bait				112gram			
	Cast	Cast	Total	%	Cast	Cast	Total	%	Cast	Cast	Total	%
Veterans	1	2			1	2			1	2		
BOB HENDERSON	146.17	139.06	285.23	100.00	111.96	119.43	231.39	100.00	129.55	151.65	281.20	94.14
RON THOMAS	140.34	140.91	281.25	98.60	B/O	120.14	120.14	51.92	151.61	147.10	298.71	100.00
KLAUS SCHONWOLF	92.68	75.38	168.06	58.92	80.57	89.99	170.56	73.71	88.16	102.28	190.44	63.75
MAL HEAD	99.04	108.51	207.55	72.77	89.02	91.54	180.56	78.03	105.59	104.36	209.95	70.28
GEOFF RAFTIS	92.15	93.69	185.84	65.15	77.74	82.50	160.24	69.24	108.12	112.24	220.36	73.77
GARY GILDERSLEEVE	121.57	128.04	249.61	87.51	110.04	B/O	110.04	47.55	OUT	132.31	132.31	44.29
Seniors												
MARK HANSEN	94.43	99.55	193.98	100.00	98.88	100.82	199.70	100.00	119.36	123.41	242.77	100.00

SURF CASTING & ANGLING CLUB																			
Dry casting results - 16th March 2020																			
	Double Handed Accuracy										Single Handed Accuracy					Total	Attendance	Total	
	Target number										Target distance						D/Casting	Points	
Veterans	3	3	1	1	4	4	2	2	Total	%	1st	2nd	1st	2nd	Total	%	%		
BOB HENDERSON	14	18	19	10	16	15	18	15	125	82.78	6	9	2	5	22	78.58	455.50	10	465.50
RON THOMAS	18	22	9	23	22	21	20	16	151	100.00	2	6	8	8	24	85.71	436.23	10	446.23
KLAUS SCHONWOLF	10	7	14	14	18	22	22	21	128	84.76	2	3	0	6	11	28.00	309.14	10	319.14
MAL HEAD	22	16	21	10	21	17	15	24	146	96.69	7	8	6	7	28	100.00	417.77	10	427.77
GEOFF RAFTIS	13	14	22	15	17	14	5	23	123	81.46	0	2	0	5	7	25.00	314.62	10	324.62
GARY GILDERSLEEVE	18	11	19	20	19	18	19	22	146	96.69	10	1	2	1	14	50.00	326.04	10	336.04
Seniors																			
MARK HANSEN	17	0	18	13	13	8	16	13	98	100.00	0	4	7	8	19	100.00	500.00	10	510.00

Letter from Dr Andrew Rowland



Dear Member

With panic buying and the cancellation of public events being something many have never experienced before, it may feel like the world has changed forever in the past couple of weeks.

However, during these uncertain times, it is a great comfort to know you can still go fishing. Fishing continues to be a highly engaging activity you can pursue with your family in the fresh air and outdoors with its many associated health and wellbeing benefits.

Even in relatively built-up metro areas of the State – it's pretty easy to find a fishing spot all to yourself on the riverbank, beach or on the ocean. One of the pleasures of fishing for many of us is it allows you to get the kids off the couch, get away from the crowds and 'social distance' yourself for a while.

We're certainly not burying our heads in the sand with the scale of the world Coronavirus crisis and how inevitably it is impacting on our corner of the world and will continue to do so for many months to come. We encourage everyone to follow the Government's advice as we all have a social obligation to help 'flatten the curve' to ensure the WA health system has the best chance of coping with the current declared pandemic.

As the State's peak recfishing body, we know recfishing is now more important than ever in providing people a healthy, safe and enjoyable form of recreation and allowing people to decompress at what is a stressful time for many.

Recfishing also contributes \$2.4 billion a year to the State economy with \$1.8 billion spent on fishing trips alone making a significant [contribution to the WA regional and tourism economy](#). With these factors in mind, we encourage people to get out there and enjoy some fishing, particularly with the school holidays coming up and in the southern part of WA, the salmon run well underway.

Give yourself a boost by catching a salmon

Catching one of the world's greatest sportfish from one of the world's most spectacular and sparsely occupied beaches, will surely give you and your family a boost.

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Cheers,

A handwritten signature in black ink, appearing to read "Andrew".

Dr Andrew Rowland
Recfishwest CEO
19/03/20

Don't put oil into diesel to make it more lubricating

By: Isaac Bober March 20, 2020

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Ultra-low-sulphur diesel lacks lubrication according to the Internet. So, it says, adding 2-stroke oil to a tankful of diesel is the cure-all. Let's find out.

Ever since it became a thing in the early 1980s, low- and ultra-low-sulphur diesel (ULSD) has been marked as the non-lubricating Public Enemy No 1 of diesel engines. To the point where some, well, lots of people actually, suggest tipping a snifter of 2-stroke oil into your fuel tank every time you fill up to return some lubrication to the diesel.

But this is one of those myths that can only have started because someone half heard the story. So, strap in, take off the tin foil hat and get ready to have your mind blown as the things you thought you knew are completely upended. Because, science.

It's worth noting that this article applies mainly to modern diesel engines with sophisticated injection and pollution gear. Anyone with something from the 1980s can leave the room.

Ultra-Low-Sulphur Diesel ain't slippery enough

Trawl the interweb and those mates you've never met but sound like they know what they're talking about will tell you that with less sulphur in ULSD there's less lubrication and that you need to add stuff to the fuel tank to improve the situation. But it's at this point where those mates of yours left the room when the talk on ULSD was being given.

See, diesel by its very nature is an oily, slippery substance but high levels of sulphur in fuel causes significant pollution (sulphur dioxide) being pumped out of the tailpipe. So, as countries began clamping down on tailpipe emissions, reducing the amount of sulphur in fuels was seen as a quick way of reducing emissions. Then along came the DPF and EGR treatment to further reduce the emission of fine particles and nitrogen oxides (NOx). Continuing with a high sulphur content in diesel would have killed the pollution gear and all of us too. Eventually.

But, back to the slipperiness of ultra-low-sulphur diesel. Right. The process by which sulphur is reduced in fuel is known as, and take a breath, hydrodesulfurization (HDS). This process doesn't just reduce sulphur down to the current mandated level of 10ppm (parts per million) for ULSD but it also strips away the natural lubricity of diesel (but that's not sulphur because it only plays a very minor role in providing lubricity to diesel). And this is mainly due to the loss of nitrogen- and oxygen-based polar trace elements. So, you see, sulphur has slight lubricating properties but it's not the lubricating component of diesel.

Adding slipperiness back in...

Fuel companies, to meet stringent guidelines around diesel composition, must return the lost lubricity to the diesel once the sulphur level has been reduced, and this is usually done via a lubricity improver. And, in the

market, there are two types widely used by fuel companies, and they are either neutral or acidic. Both types carry the necessary long hydrocarbon chains with polar end groups (the stuff that's removed during the reduction of sulphur in diesel). Meaning the ULSD is, more or less, returned to its natural lubricity level.

Is your head hurting? Mine is.

Okay, so the polar head groups in the lubrication additive are what clings to the metal surface; they're attracted to it, and the hydrocarbon chains are what forms the boundary protection (lubrication of, say, piston rings). Think of it as wrapping the metal bits in a soft blanket to keep them safe.

And it gets more interesting because bio-diesel has been identified as an excellent form of diesel-fuel lubrication – better indeed than anything else on the market. According to researchers at the School of Engineering and Technology, Central Queensland University. “Use of biodiesel with the diesel fuel, especially with the ULSD (ultra-low-sulphur diesel), can serve as a lubricity improver along with the proven qualities of emission and combustion performances [...] one per cent addition of biodiesel can enhance the ULSD's lubricity by 30 per cent,” the researchers wrote.

So, essentially, the off-the-shelf lubricant additives you can buy is essentially the same stuff the fuel companies already include in their mixture. So, if you want to add one of these commercial lubricants, go right ahead, it certainly won't hurt your engine...might even help.

Time for a history lesson

Fuel companies have upped their game when it comes to lubricity additives in ULSD. Back in the late 1980s and early 1990s fuel companies were using dimer acid as a replacement lubricant. Why? Because it was being used in jet fuel and it worked very well.

But things didn't go to plan. The introduction of dimer acid onto the market in Sweden (1991) saw an influx of diesel passenger vehicles suffering from fuel filter blockages, camshaft deposits and fuel pump failures. But why? Well, turns out dimer acids were reacting with the crankcase oils and becoming an insoluble sludge. Dimer acids were subsequently banned from use.

So, just how slippery is diesel?

All diesel sold in Australia, the US, Japan, and Europe must adhere to stringent guidelines on the chemical structure, if you like (for reference the diesel run here and in many other countries is known as EN590). For instance, in Australia (and plenty of other countries around the world) diesel must meet a friction/wear/flat spot 'measurement' of 460 microns maximum. So, in some cases, the scar might be less than that if the fuel supplier has added more lubricant.

How is lubricity measured? Via a High Frequency Reciprocating Rig (HFRR), of course. This is a steel ball pressed against a flat surface with a fixed load of 200g. The ball is then rapidly vibrated back and forth using a 1 mm stroke. After 75 minutes, the flat spot (wear scar) that has been worn on the steel ball is measured with a microscope. The size of the wear scar (in microns) is directly associated with the lubrication qualities of the fuel being tested.

It's suggested that if the HFRR wear scar diameter is less than 460 microns, the fuel will perform satisfactorily in an engine.

Any old engine oil will work, right?

Nope. The main reason that old-timers suggest 2-stroke oil tipped into the fuel tank is best is because unlike four-stroke engine oil, the 2-stroke stuff won't turn diesel to gum when mixed in.

What is it about 2-stroke oil that got this story started?

It's not just to do with the belief that a lower level of sulphur in diesel makes the stuff less lubricating, but also because zinc dialkyldithiophosphate (mineral oils) and zinc di-thiophosphate (ZDTP) for synthetic oils that was invented by Castrol more than 70 years ago is an anti-wear ingredient. But, over the years the concentration levels of the stuff allowed in oil (both 2-stroke and four-stroke) has been reduced because of concerns about health and the environment. See, while the ingredient does afford good metal-to-metal lubricity high concentrations of zinc can foul injectors in modern diesel engines. This is less of an issue in older diesel engines (built before the mid-1980s).

But it's not just the lubricating nature of zinc, that got this story started...see, in a petrol engine, 2-stroke oil is designed to adhere to metal engine parts once the petrol has evaporated away, keeping everything lubricated. Just be mindful that some pour-in lubricants are intended to be added once a tank and some only every 10,000km.

Oil is a lubricant, so adding it to diesel makes it even slipperier, right?

Wrong. A test conducted in South Africa utilised both the High Frequency Reciprocating Rig (HFRR) and the Scuffing Load Ball-on-Cylinder Lubricity Evaluator (SLBOCLE). The former is considered as the industry standard measurement for lubricity. This latter test is intended to determine the point at which boundary lubrication fails (or the fuel's ability to wall wet of, say, piston rings), while the HFRR test is a better measurement for wear and tear. Together, though, the results tell an interesting story.

First, what is the SLBOCLE method? Starting with a light load applied to the ball full hydrodynamic lubrication will be realised. The process will transition into boundary lubrication conditions as the load continues to rise and the test will finally end when the limits of boundary lubrication are reached, and the ball scuffs the cylinder surface. As the flat spot on the ball grows in size, the point is reached where the applied load is spread over a sufficiently large rubbing area for 'boundary lubrication' to take effect. However, because the motion is reciprocating (stop – start – stop), the worn flat spot will continue to grow. Pause for a breather.

Testing the claim...

Now for the test itself. There is so much stuff on the Interweb about tipping 2-stroke oil into diesel that it can be hard to work out what's true and what's not. Some claim different types of injectors make it okay to use 2-stroke, others claim it makes engines quieter and saves fuel. But none provide evidence to back up the claims.

There is only one publicly-accessible document about adding 2-stroke oil into diesel and that is from Sasol's Energy Technology division. The paper was published by one of the company's engineers, Adrian Velaers, at the 11th International Tribology Conference in South Africa in 2015. It's not the only paper about lubricants and additives in diesel, but almost all the others are behind very high and expensive pay walls. But the abstracts of all these papers have one thing in common and that is that adding 2-stroke oil into diesel does nothing.

It's about now, I reckon, that the keyboard warriors will be reading this and going, oi oi, fuel company sponsoring research, hmmm. And, sure, I'm a skeptic too, but the tests were conducted using industry-standard methodology and equipment. The lubricity of several diesel fuel types and 2-stroke oil itself was measured, and, yeah, it's way more lubricating than diesel; just not when mixed together.

The fuels tested (EN590) align with those sold in Australia (the relevant specifications are DSEWPaC 2009). Oh, and there are plenty of scientific studies into adding lubricants to diesel to improve its lubricity, but they tend to be hidden behind very high pay walls.

Occasionally, some will argue that adding 2-stroke oil to diesel will improve the Cetane number (Octane rating for diesel) but according to the SASOL test it was actually ever-so-slightly less. The conclusion drawn was, "There is no technical reason for trace amounts of a light lubricating oil to materially change the ignition characteristics of diesel. The results follow by indicating negligible differences in cetane number when 2-stroke oil is added to diesel at 200:1". So, there's no power benefit from adding 2-stroke, but that's not the claim by the Interweb.

Rather, lubricity is the claim made by proponents of the 2-stroke oil addition philosophy but in the test conducted by SASOL, the diesel dosed with 2-stroke at 200:1 was a lot closer to the 460-micron maximum in terms of wear than was the regular diesel. Meaning, adding 2-stroke oil to diesel doesn't improve the lubricity of the diesel.

Looking at the boundary lubrication of 2-stroke mixed into diesel, the results showed the addition of 2-stroke oil ever-so-slightly improved the wall-coating effect. But the researchers called the result negligible, suggesting, while it slightly improved the effect it wasn't by enough to recommend its usage.

So, what's the answer here? According to the tests by SASOL the practice of adding 2-stroke into diesel at 200:1 dilution doesn't tangibly improve the lubrication quality of diesel and in one test, actually decreased the lubricity.

Adding 2-stroke can cause more problems than it's worth

While, on the surface, it can look like adding 2-stroke oil to diesel might do no real harm or good, that's not the case. See, because of the fact it contains zinc and diesel does not you run the risk of increasing the risk of injector fouling.

Based on industry standards for injector fouling tests, the researchers at SASOL hooked up a brand-new common rail diesel engine (they don't specify the size or vehicle it was from) with brand-new injectors. Running at peak power which was 4400rpm for 16 hours the researchers were looking for any drop in power and fuel pressure to indicate injector fouling. Measurements were taken every 30 minutes. This first test had fuel dosed with zinc at 1ppm (parts per million) and contained none of the detergents that regular diesel contains. Because zinc build-up can break off with fuel flow and thermal contraction (cool down) the engine was stopped after eight hours of running and allowed to cool down. At the end of the test, the engine was showing a drop in power and fuel flow of six percent.

With new injectors, the high-load test was conducted in the same manner for both the regular ultra-low-sulphur diesel and the ULSD dosed with 2-stroke oil at 200:1. The former resulted in an almost zero loss of power or fuel pressure while the test with 2-stroke oil revealed a two per cent drop in power and fuel pressure.

The researchers concluded that even with minimal amounts of deposits forming on the injectors being broken off with the cold re-start, deposits remained, meaning they would continue to build-up overtime leading to "substantial injector fouling over the lifetime of a diesel engine".

2-stroke is bad for DPFs?

The build-up of zinc on injectors is bad enough, but the deposits that do breakoff during cold starts will eventually make their way to the DPF where they'll deposit as ash and won't be burned off. This could result in premature and permanent blockage of the DPF.

There's detergent in diesel

You've all seen the gunk-busting TV commercials petrol companies run, well, no matter what they may claim, all diesel contains detergent which is designed to keep your engine running clean and help to keep deposits from forming on things like injectors and intake valves. Unfortunately, most of the testing on detergents in fuel has been performed on petrol and not diesel.

But a quick whip-around the grounds reveals that all fuel companies in Australia include detergents in all their fuels (petrol and diesel), however, if you're buying the top-spec fuel (petrol or diesel) from the brands then you can expect a much higher percentage of detergent in your fuel.

And don't go looking too closely at reports overseas because this can be a minefield. See, in some countries, detergents are added at the fuel delivery stage but in Australia they're added at the refinery stage.

Bio-Diesel might be the answer?

According to numerous researchers working in Australia, the US, Europe and Asia, tests of adding bio-diesel to ultra-low-sulphur diesel at a level of 1-2 per cent, which is a higher concentration than regular lubricity additives but improves the lubricity of the diesel by 30 per cent. A report by the CSIRO suggested adding one per cent of bio-diesel could improve lubricity by up to 65 per cent, but we couldn't find any other literature to support that claim – although a lot of research into this subject is, unfortunately, hidden away behind pay walls.

But running neat bio-diesel in a diesel engine has its own problems in that its cloud point (the point at which it becomes wax and unusable) is much higher than regular diesel. The other issue is that while bio-diesel tends to have the same Cetane number as regular diesel, it produces less heat which could cause problems for DPFs.

Testing in the US, at the Worcester Polytechnic Institute has revealed the use of bio-diesel can see a reduction in tail-pipe emissions compared with regular diesel. While the CSIRO and others have suggested that while

particulate matter can be bigger with bio-diesel it is still captured by a DPF and burned but with less volume of particulate matter when compared to regular diesel.

Only bio-diesel isn't the answer...

While there are many benefits to running small amounts of bio-diesel in regular diesel, like lubricity and reduced emissions, many vehicle makers will either not allow the use of bio-diesel in their vehicles or only allow B5 which is regular diesel containing five per cent bio-diesel. That said, the Australia Government is looking into the introduction of B20 or, at least working on an acceptable framework, and reckons that biodiesel could power around six per cent of all diesel vehicles here by 2030.

My personal vehicle is a diesel and it's not compatible with bio-diesel in any way shape or form. But the Ford Everest's owner's manual says: "Your vehicle is suitable for bio-diesel blends of up to 7% (B7). You can achieve acceptable engine performance and durability using B7 by adhering to the below guidelines. Do not fill the fuel tank with fuel that contains biodiesel with blends greater than 7%.

Note: Do not use raw oils, fats or waste cooking greases, these are not bio-diesel.

Note: If your vehicle experiences low temperature waxing issues, consider using different diesel brands or diesel with lower bio-diesel content.

Note: We do not recommend the use of additional additives to prevent fuel waxing."

The manual also goes on to say that bio-diesel can degrade quicker than regular diesel when stored for long periods of time or when exposed to warm and/or humid weather. The other gem in the owner's manual is this one, "The use of aftermarket fuel additives or other engine treatments are not recommended". Hmmm.

This is not an additive bash.

This article never set out to explore the use of fuel additives, boosters or cleaners (because we all know corrosion inhibitors and bug and algae killers in diesel work), rather it was aimed at the idea that adding 2-stroke oil to your diesel will improve the lubricity. And it turns out it doesn't. At all.

We took this question to our Facebook page and plenty of people told us they'd mixed the stuff with diesel to improve the lubricity or said that you need to lubricity additives because the reduction of sulphur reduces the lubricity of diesel. So, go ahead and keep using it if you feel you need to, but just know that adding 2-stroke oil to your fuel tank is doing absolutely nothing for your vehicle and will likely end up increasing injector fouling.

Some will say that because of how hot a diesel engine burns running, say, JASO-FC 2-stroke might not help with lubricity, but it will help remove carbon deposits. And, as we all know, carbon deposits (as a by-product of the fuel burning process) can sap power and see a diesel engine use more fuel because it's all gunked up and struggling. Like you trying to run a race with a blocked nose.

But, all fuels, petrol and diesel, in Australia have detergents added that are 'designed' to keep carbon deposits to a minimum, but stop-start cycling, short trips and even excessive idling can cause a huge build-up of carbon and other deposits on intake valves. Tipping 2-stroke oil into your fuel tank won't help here. Using a high-quality engine oil can help, perhaps some additional cleaner (depending on whether you're buying top-spec diesel or not) and so can fitting a catch can which can help capture any waste oil before it settles and gives deposits something to stick on to.

So, do I add 2-stroke or not?

As the SASOL test concluded, adding 2-stroke oil to ULSD does nothing to improve its lubricity; there are already additives included that help with that. And that it might even cause increased injector fouling over time (increased by about two per cent). So, you could argue that it doesn't really help or hinder...but, for me, I wouldn't bother wasting the extra money on a bottle of 2-stroke to tip into my diesel. You're probably better off adding some sort of high-strength cleaner instead – there's evidence around to suggest that stuff does work (although vehicle manufacturers don't recommend you use it) but that's another story for another time, because I need a lie down.