
Water Column

AUGUST 2020 ISSUE 15

Western Australian Underwater Photographic Society's Bi-annual Underwater Journal



Mouthbrooders

Yellowstone

Dragons

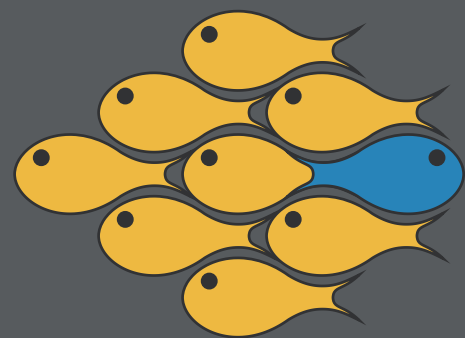
Bali

Photographing sharks

Peel dolphins

North Mole

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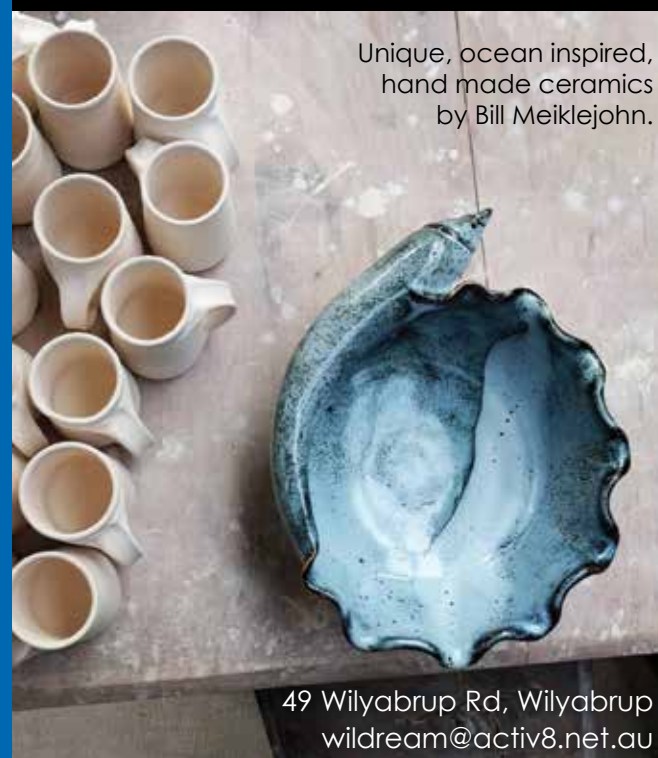


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Cover by Tammy Gibbs, taken at the Salt Pier in Bonaire. WAUPS Image of the Year 2020.

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Howdy Members,

I hope this finds you and your loved ones safe and well. It certainly has been an incredibly challenging year so far! From the fires and smoke, then drought, wild storms, and the pandemic. The latter really interfered with our chance to dive as much as we all would have wanted. My thoughts go out especially to our friends in the tourism and diving industries, and all those feeling the impact of COVID-19. If you have been able to have an adventure closer to home, in our lovely state, do write an article about it for us please.

We are just over half way through the 2020 PIXELS Monthly Photo Competition. There have been some stunning images so far. Can't wait to hear who the overall winner will be at the end of this year. Do ensure you renew your WAUPS membership so you can continue to participate in this competition.

In the other WAUPS photographic competitions, the quality of the entries rises each year, and I say well done to everyone who entered. Congratulations to the following club members. Our Open Portfolio winner, Mary Gudgeon. Our Image of the Year winner, Tammy Gibbs. Plus our Wayne Storrie Humour Award winner, Mary Gudgeon. The support from all our sponsors is very much appreciated – Dive Tub, Willyabrup Dreaming Pottery and Bluefish Photo.

If anyone has images, observations while fishing, or beachcombing discoveries to contribute as part of citizen science, please do support RedMap (www.redmap.org.au) or iNaturalist (www.inaturalist.org). Redmap in particular is interested in sightings of marine species that are uncommon in our local areas.

It has been hard not being able to see many of you due to COVID-19 but fingers-crossed, hopefully soon social distancing becomes a thing of the past. In the meantime please remain vigilant.

Keep blowin' bubbles

Viv



Congratulations to Mary Gudgeon, the winner of the 2020 Wayne Storrie Underwater World of Humour Award, and Tammy Gibbs, the winner of the 2020 WAUPS Image of the Year.

PIXELS 2020

Congratulations to our Gold award winners for the first half of 2020. Well done to everyone who has submitted images to PIXELS so far this year.



Matt Smith



Leanne Thompson



Daniel Messom



Mary Gudgeon



Shannon Earnshaw



Brad Pryde



Ross Gudgeon

PHOTOGRAPHING SHARKS

THE DAYS YOU DON'T FORGET

by Michael Tropiano | @tropi_the_local

I'm no expert photographer, and I'll preface the following words by stating I'm definitely no expert on sharks either. But over the last few years I have been lucky enough to meet a few experts and even a few sharks along the way. The last 12 months in particular I met quite a few sharks and unlike my previous nervous encounters with bronze whalers in the south west, these were all in warm and (normally) clear water which made them all the more enjoyable. Over this time I've got to swim with great hammerheads, tiger sharks, oceanic white tips, bull sharks, black tips, whalers, white tip reef sharks, leopard sharks, whale sharks....there are probably a few more, but one experience outshone them all....

We got the call the night before with a rumour of something incredible happening in the ocean a few hundred km's south of where we were staying. The cameras were cleared, the car loaded and way before the sun came up we were on the road. I was travelling with some gun underwater photographers, Andre Rerekura and Nush Freedman, so even if the rumour wasn't true I was pretty excited about the chance to shoot with these guys.



We arrived to a scene more wild than we could have ever imagined, a true David Attenborough level of ocean epicness was happening right in front of our eyes. As we slid over the side and into a black baitball, we were silent.

The bait quickly enveloped us and our world suddenly became very small. It was a graceful display as we danced with the bait, thousands of eyes and fins mirroring our every move. But then the scene changed. Grace was replaced with tension and the soft wavy mirror became a tight wall that hugged our bodies only a few centimeters off our masks. A deep, thundery noise started softly and became more vivid and then a rolling mass made from hundreds of spinner sharks charged past us in a feeding frenzy, leaving a trail of scales and hole in the once thick black wall.

We arrived in the morning and left at sunset. Though all of our memory cards were full long before we left, none of us wanted to leave this incredible feeding frenzy and all day we watched as sharks continually gorged upon the bait (a feast that would end up lasting several days). Humbling and inspiring.

*Swimming with sharks has inherent risks. On this day we had an extremely experienced team, clear water and observed the sharks behavior extensively before approaching, and even then we were well aware of the potential risks involved. If you plan to be around sharks in a feeding scenario, no matter how prepared you are, make sure you are aware of the risk to both yourselves and the animals. This kind of experience is not something any of us take lightly.



Miraculous Mouthbrooders

Of all the vertebrates, fishes have evolved the most weird and wonderfully diverse reproductive strategies. Around 89 fish families are known to give some form of parental care. Mouthbrooding, however, is relatively rare, found in around 2.4% (approximately 10) fish families in marine, brackish and freshwater habitats.

Marine

- Apogonidae (cardinalfishes): some also brackish & freshwater, paternal mouthbrooders
- Opistognathidae (jawfishes): paternal mouthbrooders
- Ariidae (forktail sea catfishes): some also brackish & freshwater, paternal mouthbrooders
- Liparidae (snailfishes): Deep sea. *Careproctus ovigerus* only known species, paternal mouthbrooder.

- Parazenidae (parazens): Deep sea. *Parazen pacificus* only known species recently found, maternal mouthbrooder

Brackish and Freshwater

- Bagridae (bagrid catfishes): *Bagrus meridionalis* only known species, biparental
- Cichlidae (cichlids): numerous species are maternal mouthbrooders.

Freshwater

- Channidae (snakeheads): some species paternal mouthbrooders.
- Osphronemidae (gouramis): a few genera paternal mouthbrooders. Two species of *Sphaerichthys* maternal mouthbrooders.
- Osteoglossidae (arowanas): some species paternal mouthbrooders.

There are many possible reasons why parental care has developed, such as high competition for or lack of nesting sites, predation, new courtship patterns or invasion of new habitats.

Mouthbrooding (or oral brooding) is an advanced type of parental care where the incubating parent usually goes without food. Coughing, yawning and swallowing behaviour must be carefully controlled during this time. The eggs are regularly aerated and cleaned by 'churning' or rolling them around in the mouth. They are occasionally spit out and picked up again. This helps

to oxygenate the eggs and gets rid of any dead eggs and detritus. This is essential to keep the eggs healthy. Some species have developed structures in the mouth that help to hold the eggs in place, including small gill raker lobes on the end of the first gill arch, plus mucus-secreting glands in the throat. These are mainly in freshwater species.

With mouthbrooding more energy can be put into each egg, resulting in larger eggs that are bigger when they hatch into larvae and there is a reduced risk from predators. The duration of mouthbrooding and stages at which the young are released varies, even within families. Brooding can last over 40 days, with the young released as well-developed juveniles. Some cichlids and arowanas even care for the young larvae, taking them back into their mouths if danger approaches.

Locally, some of our best-known mouthbrooding species are the cardinalfishes. The males have even evolved longer heads, snouts and jaws than the females to facilitate this. Courtship often involves flicking of the dorsal and pelvic fins, sometimes with chasing and gentle nipping. The females lays a large, gelatinous egg mass with up to several thousand eggs. The male fertilises this then takes it up into his mouth. The males that are brooding eggs are easily recognised by the extended throat and eggs are often visible when the mouth is partially open. The egg mass varies in size from 5-6 mm diameter in small species (e.g. *Siphamia* species) up to 30 mm in some *Cheilodipterus* species. Incubation lasts several days during which time the males stop feeding and they busily 'churn' the eggs regularly to keep them healthy. Egg numbers vary from under 200 in small species, up to 5,000-6,000 in larger species. Newly hatched larvae are on their own and spend several weeks dispersing in the plankton, before settling out onto a reef after a few weeks where they develop into juveniles.

One species, the Banggai Cardinalfish (*Pterapogon kaudneri*) from Sulawesi, lacks the planktonic stage. The male broods the eggs for around 20 days until they hatch, then retains them in his mouth for another 10 days until they develop into juveniles. Once released the juveniles form a tight shoal and find cover immediately.

Mouthbrooding jawfishes are also familiar to divers. These fishes have a huge head and mouth with a narrow tapering body. Pairs inhabit deep burrows, often with a neat ring of stones around the entrance. Spawning and picking up the eggs happens inside the burrows and most species are pretty secretive about the whole affair. Incubation lasts 5-7 days, after which the larvae spend 2-3 weeks in the plankton before settling out.

Ariid catfishes have huge eggs, up to 16 mm in diameter, and consequently only have a small number (around 50) eggs in one batch. They brood the eggs for long periods of up to 80 days. The males can lose up to a quarter of their body weight, since they do not feed during this extended period. Additionally, in some species, larvae use the male's mouth as a refuge for another 2 weeks.



Top: Orbicular cardinalfish with eggs, by Sue Morrison
Above: Cardinalfish with eggs, by Tammy Gibbs
Below left: Jawfish with eggs in Ambon, by Ross Gudgeon
Below right: Jawfish with eggs in Lembeh, by Ross Gudgeon



Top: jawfish with eggs in Anilao, by Mary Gudgeon
Left: courtship in the Red-striped cardinalfish, by Sue Morrison



DOLPHINS OF PEEL (YALGORUP), HARVEY ESTUARY & MANDURAH

by Isla Cath

One way to cure the winter blues and when diving hasn't been an option for me, is to join fellow WAUPS member Rusty Geller out boating and observing the dolphin population that reside in Mandurah and surrounding waters.

It's been fun getting to know the different individuals that reside around the canals, estuaries and ocean. There are several pods that reside in the Peel (Yalgorup) Estuary, Harvey Estuary, Dawesville and Mandurah. Some dolphins are more river dwelling while others are more ocean dwelling, while others frequent both.

It's always a great feeling whenever I spot a dolphin, I could be having the worst day beforehand but then I'm smiling straight away upon the joyful visual of a dorsal fin. We like to get a successful ID first which we both provide to Estuary Guardians and Mandurah Dolphin Rescue Group to add to their own important research, then it is happily enjoying watching their behaviour and waiting for photographic opportunities.

When the frolics start apart from the constant jostling on deck, that's when the real fun takes place. Quick focal changes and whirlwind panning swing along with awe-inspiring acrobatic antics, lengthy communication of body contact and even 'throwing' of catch.

One outing is never the same as the other and what may look like usual dolphin behaviour can quickly turn into a whole lot of different scenarios. We have witnessed the 'formula one speed' of chasing fish which is heart thumping to watch and you can quickly

forget you have a camera in your hand. The acrobatic frolics never fail to receive vocal "whoas" from any human watching, and the Octopus and Cobbler (catfish) throwing before consumption is on a whole other level.

Play behaviours we have witnessed include Seaweed (weedrub) play, puffer fish play (poor puffer), general body contact play and mating behaviour.



When dolphins choose to swim the distance to investigate the boat and side-spy look up at you with their perpetual smile, one cannot help but give out an excited hello and wide smile back at them. Sometimes it is the simple things that make a day.

Sharing images that include the date and location help organisations like Estuary Guardians, River Mandurah Dolphin Rescue Group and River Guardians etc keep a record of which individuals or pods are frequenting what area. This visual information also helps to keep an eye on their health, offspring and social interaction as well as knowing which areas may require closer environmental attention ie low tides, sandbar erosion, litter.

A couple of months ago as I was going through photographs of the day I noticed a fishing line entanglement on Brave's pectoral fin that I had not noticed initially. Estuary Guardians were able to ID the dolphin, have a daily watch out for the dolphin in the areas known it frequents and alert Department of Biodiversity, Conservation and Attractions (DBCA) when the need arose. This is when our observing and 'surveillance of care' really made sense and was a gratifying feeling that I was able to forward this information to the right organisations.

When a dolphin has been shown to have new injuries authorities can be alerted to closely monitor the individual, particularly when the damage is from human activities.

The identification of the Dolphins are generally made



by the unique markings that include nicks and notches on edge of the dorsal fin. These markings can be from interactions between other dolphins, accidental cuts and tears, or unfortunate damage via shark attacks, boat propellers and fishing lines. Other body markings also give clues to who is who when dorsal fins appear 'non-marked' ie tail fins, pectoral fins and body marks, sunburn marks (from stranding) and rake marks, are all useful for identifying individual animals.

It's nice to know our efforts are helping these organisations who rely on these sightings. Anyone can be a 'citizen scientist' providing helpful information with ongoing research.

It's important to note that a respectable distance for the dolphins is a must, therefore a telephoto lens of at least 200mm is needed and preferably longer. 300mm seems to be ideal when on the water. Because of the changing environments I usually set my camera on Auto ISO, a speed from 2000 fps and f5.6 – 8.

In the words of Mandurah Dolphin Watch "Information, photographs and videos help build a picture of the dolphin community. Dolphin Watch shares information and expertise so that industry, government and the community can develop effective management activities and policy to help protect dolphins and their habitats."

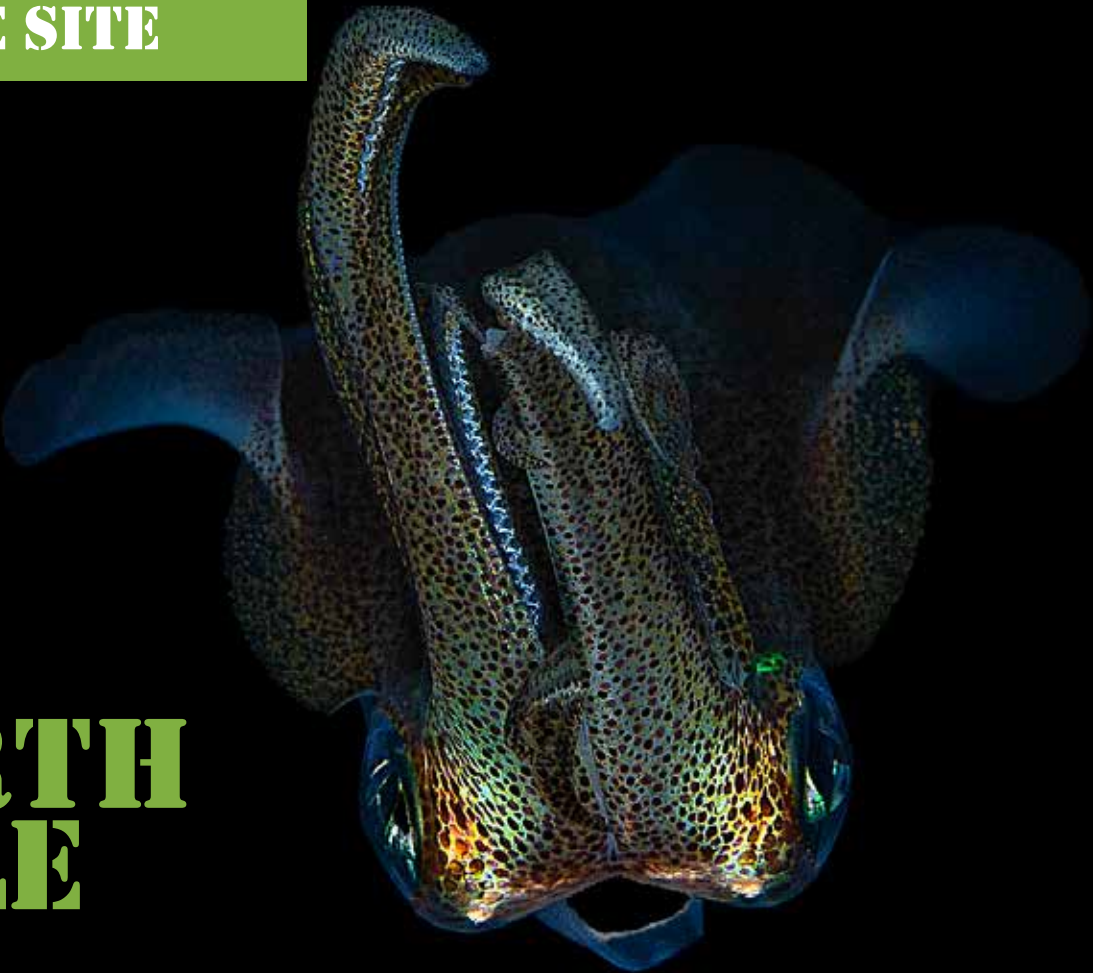
If you ever see a dolphin or other wildlife in distress, you can contact DBCA's WILDCARE Helpline on (08) 9474 9055.

For general queries:

- Estuary Guardians Peel/Harvey are on Facebook via @estuaryguardians
- River Guardians can be contacted on (08) 9278 0932

NORTH MOLE

by Shannon Earnshaw



North Mole is without doubt a dive site that has its fair share of challenges - the getting 'in' and getting 'out'!! Yet it is one of my favourites, well worth that extra effort. We've found an incredibly interesting array of creatures, some rarely seen, or never seen anywhere else in Perth.

Night diving brings out an even greater array of creatures. So for fossickers like me every dive is special, exciting, and holds so much potential. I would even go so far as to say that a night dive here in perfect summer conditions (very low, or preferably no swell over a number of days, along with South or South East winds) is a joy to be experienced.

Depth at around ~8m, with a sandy bottom and lots of weed patches housing all manner of interesting creatures. A trail of poles leads directly to the wreck of an un-named barge, itself an attractive growth covered structure.

Take a compass as easy to lose your sense of direction, especially if you head away from the pole trail, or end up following a roaming sea critter. Having an idea of where you are headed is invaluable – South or East will take you to one of the groyne walls where you can surface taking stock of your location.

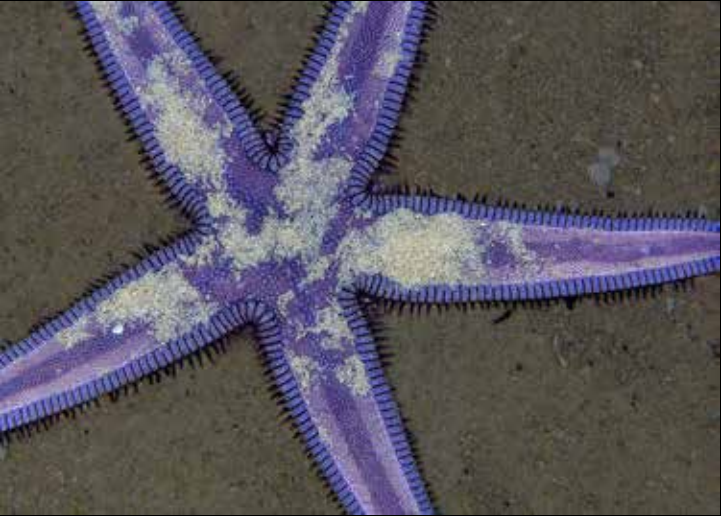
Park near the disabled parking bays adjacent to the concrete platform that provides fishing access for the disabled. At times we've asked the fishermen if they

would mind moving from the flat rock so we could use it to enter the water. So far everyone has been polite and accommodating, but please return the favour by quickly moving away once in the water.

Diving the Site

Access is down the groyne wall on the left of the concrete platform. The rocks do provide a 'kind of' natural staircase to the water, but I highly recommend you use a thick rope ~20mm or more, and 20m in length, to hang on to for entry and exit.

Our rope has knots tied down its length at 500-750mm intervals to provide definite hand grips for extra safety which we tie securely onto the sleeper left side of the concrete platform.



Take a dive flag or two down now to leave you free to concentrate on getting down safely. We usually leave one flag about 20m off the groyne with a weight to secure it in place taking care it is not in the way of fishermen. As there are boats in this area, some fishing near the wreck, we usually take one flag with us taking care to stay together as a group.

For night dives we attach upward pointing lights to our flags to guarantee visibility and safety.

Gear up at your car or on the platform. Hook your mask and fins to your BCD then carefully go down to the "launch" rock carrying your camera.

My husband acts as our support crew as we one-by-one don our mask and fins, inflate our BCD, and wait for an incoming wave to put more water over the rocks before we jump in.

Try to jump forward as far as possible, keeping your knees bent to help avoid landing on any rocks that may be below the surface. We have rarely come in contact with the rocks below the surface. However please do note diving this site is entirely at your own risk. It is your responsibility to determine what constitutes safe diving conditions for you - so plan your dive factoring in your own limitations.

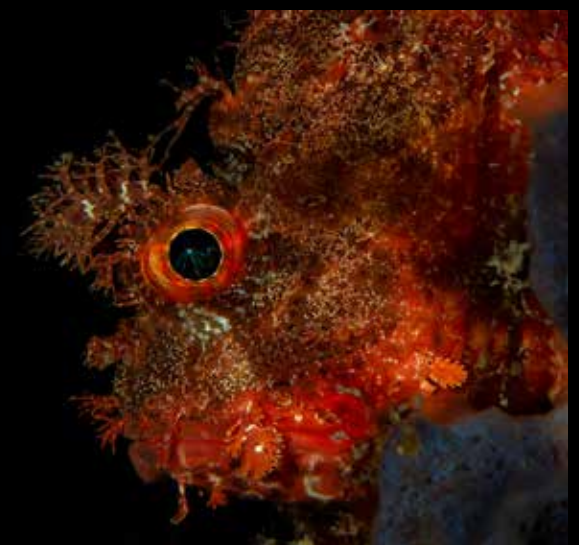




Cool critters spotted here

- Baler Shells
- Bobtail squid
- Bottletail squid
- Cuttlefish
- Clingfish
- Port Jackson Shark
- Pipefish (various)
- Pygmy Pipehorse
- Pygmy Squid
- Pyjama Squid
- Mantis Shrimp
- Nudibranchs
- Octopus
- Painted Stinkfish
- Seahorses
- Sea Mouse
- Shrimps
- Snake eels
- Squid
- Stingarees/Stingrays
- and Weedy

Seadragons aren't too far away if you don't mind a bit of a swim



Sort out the cameras, rinse masks if needed and move the dive flag.

If possible locate the pole trail (from recollection there is a starting point from both the left and right side of the entry point). Take a compass bearing (you're likely going to head in a northerly-ish direction to the wreck unless you have other plans) then descend.

On the return our strongest/fittest diver leaves their camera with a buddy making their way forward to the groyne wall. There are a couple of rocks before the surface that can be knelt or stood on. Grabbing hold of the rope remove fins when you feel secure enough to haul yourself up to standing position, and make your way up the wall.

Some people might leave their BCD with their buddies, hauling it up later. We leave ours on often making at least 2 trips to get all our gear up top.

Refer to "Diving WA Wrecks", www.divingwawrecks.com/north-mole-berge, which has a detailed map of the exact location, entry point, compass bearing, and wreck co-ordinates. Also "Howies Scuba" has excellent information and maps www.howiesscuba.com/north-mole.php. Both sites are invaluable in helping you decide if this dive site is for you.

I also highly recommend joining one of the club dives if there's one going (Dive Tub, UWA, Murdoch), especially your first time diving here. Having many people to guide and assist is invaluable, especially at night.



BALI: ISLAND OF GODS AND UNDERWATER PHOTOGRAPHY

by Tracey Harris

Diving in and around Bali can suit any scuba qualifications there is something for every level and underwater photographers come from all over the world to photograph some of the most unusual critters from macro, wide angle and muck diving.

Bali caters for family or non-divers too, with snorkelling to be had in many of these places so that family are not missing out.

There is also so much to see here. Bali has some fabulous places to visit and if you are thinking about heading up the east coast have a think about some land photography too.

So lets start in Sanur, take a boat ride over to Nusa Penida and dive with mantas, the cleaning station is good for both diving and snorkelling. There are quite a few dive sites around the island but be aware of the currents that can be very strong here, down currents can be bad at times especially around Crystal Bay. But if you love a good drift dive then Jack Point is one of my favourites.

A boat ride to the Gilli islands and Lombok will give you a chance to see something different. There are the three islands - Gilli Trewangan, Gilli Aire and Gilli Meno. With crystal clear waters and short boat rides to most sites, the islands have great accommodation and dive shops, with lots of turtles in the shallows around all three islands too. So this is a great way to have a few nights on a different island. Lombok has a few good sites too and you can fly direct to Lombok from Perth so maybe start your holiday here for a change.

Now we head up to Padangbai and a boat ride to dive Blue Lagoon is always nice, wide angle and macro here. The Jetty is still closed but if it reopens to divers this is a must do dive, some huge Frogfish live here and many cool critters to be found.

From Padangbai to Candidasa, this is not only a beautiful place to visit but there are also some fab dive sites.

Volcanic islands which are home to Ocean Eagles. They can be seen from shore so an easy boat ride to Gilli Tepekong, Gilli Mimpang and Gilli Biaha. Here it is common to find Mola Mola from mid-June to early November as the water temperature drops around this time. The most common month to see them here is July/August, their food source is primarily Jellyfish but they also eat squid, fish and Brittlestars as these are nutritious for



them, the water temp sits around 24/25 degrees but the currents can take it down a lot further! Virgin beach is great to visit here and so many beautiful temples.

From here we head up to Amed, quite a busy little village usually, many yoga retreats and of course dive shops. A local slow boat ride as not far to go to see some great sites, slopes, artificial reefs, Japanese wreck and sandy slopes with cool bobbies. Macro and lots of wide angle here. Drift dives are very common here and it's made so easy with the skipper on the boat following the divers for retrieval at the end of the dives.

Now we head to Tulamben, a place that people from far and wide flock to to dive the USAT Liberty Wreck. I have been diving this wreck for so many years and its slowly deteriorating but is always a great dive. Mornings are best to dive here before 10 so you beat the buses from other places, just before the sun rises is best as the Hump Heads are always here and pretty cool to see. Big Moray Eels hunt at night and early morning too. So again wide angle is great and then of course there is always many critters to shoot macro. The corals are so colourful and bountiful which is what makes this such a beautiful dive.

There are over 20 dive sites around Tulamben, most of them are macro and muck, so if you have something you would really like to see just ask your guide and they will endeavour to find them for you. Their eyes are so good and they cater for photographers knowing that they can spend time on one critter while they look for others. Getting in and out of the water at some sites can be a little tricky with the movement of the volcanic rocks so let your guide take your camera (if you trust them as I do) and they will help you in and out too, well worth it trust me!

A bit further up the road is Kubu, there is a small wreck to dive but I find that the slopes surrounding here are great for macro and you can always find some cool critters.

From Kubu we head up to Pemuteran, passing Lovina, a sleepy little town, no diving here but Dolphins galore. So this can make a great rest spot.

Pemuteran is home to the Bio Rock project, where artificial reefs are made from metals and coral is hardwired to them, with low voltage currents fed to them to accelerate the growth. This makes great shelters for the fish life and it's a shore dive or a cool snorkel spot too.

Lots of great diving here most being wide angle, but of course you will always find some little critters out here too. Boat dives here but most are not far away. A few days are needed here if you want to see all of the sites.

Then we head up to West Bali and Menjangan Island, clear water and great wall dives here. This island is regulated like a marine sanctuary so no night dives as permits must be issued from the dive centres, all of the marine life is protected here so no fishing.



There are also some non-diving places to visit here, like the Bali Starling and the rare Black Monkeys found in the national parks near Gilimanuk. Not what we would call a national park but I loved trekking here and seeing Mouse Deer, monkeys and white sandy beaches.

From Menjangan to Gilimanuk and a few dives at Secret Bay, for those who want to experience real muck diving, then this is for you. A backwater bay just off the ferry dock, its a shore dive, shallow and people tend to swim way too fast here! Go slow and look and you will be amazed at what lives here! So many types of Urchins, some with what looks like a hat on, but its usually leaf or litter that they wear! Many seahorses, seems to be a place for mating Sea Snakes, many flatworms and Ambon Scorpionfish, so many you really need to see for yourself.

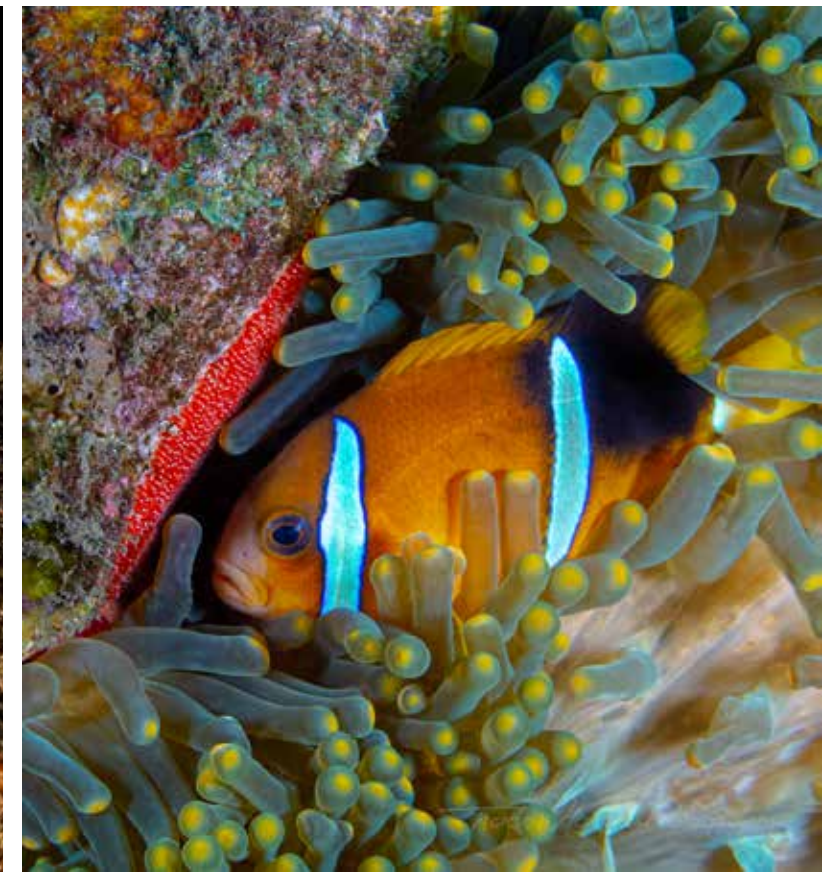
So if you would like to see the beautiful island of Bali as well as dive your way around, I have done this trek so many times and have really loved every minute of it.

Bali has a lot to offer from a couple of days diving to dive safaris, it can cater to your needs.

Just a thought for you all as I know we all love to get THAT shot! The guides here do not like to move or handle critters but when a paying customer asks them to they will as they need the money and fear that not doing so will give them no work. So sad to hear some of their stories, remember that this is their office and place of joy in showing you the weird and wonderful creatures here, so lets just get a shot of the creatures in their natural habitat so others can also enjoy them for many years to come.

Please don't hesitate if you would like to get to some of these places I can always help set this up for you and or recommend some great dive centres.

All of my photos are from around Bali. Enjoy your diving!



YELLOWSTONE

by Leanne Thompson

Yellowstone National Park was first designated as a national park in 1872, making it the oldest national park in the US and the second oldest in the world. It was recognised even then, that such an area was “a priceless treasure that would become rarer with time”.

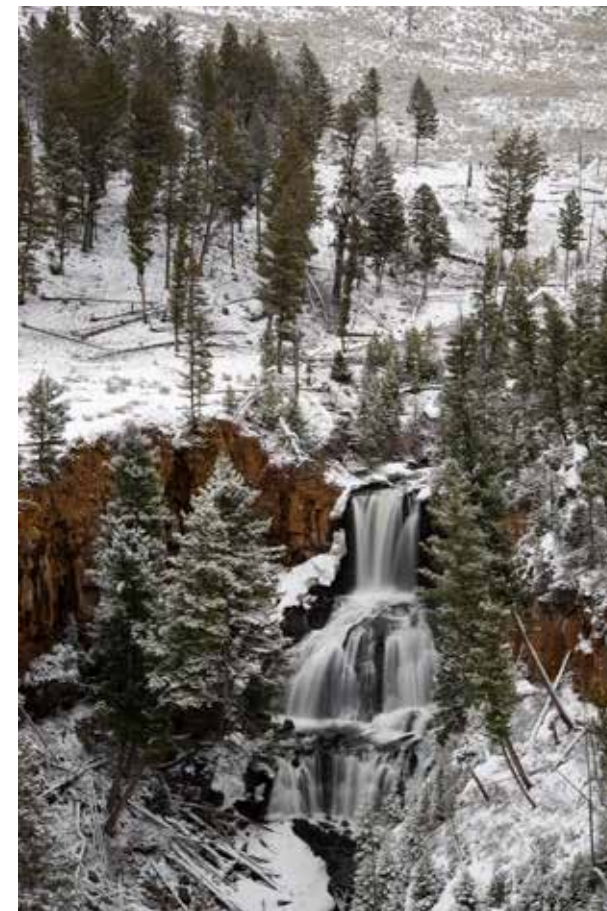
Yellowstone is unique in many ways. It is geothermically active with geysers, hot springs and even a ‘boiling river’ thanks to the huge supervolcano in its heart. It is also home to the largest and only non-reintroduced free-roaming bison heard in the lower 48 states.

However by the mid-90s, the Yellowstone ecosystem was in decline. Wolves had been extinct since the mid-20s, causing both elk and coyote populations to flourish. The land was overgrazed, pronghorn antelope were in decline, beaver had all but disappeared from the park and populations that rely on a healthy watershed (e.g. moose, otter, mink, waterbird and fish) were small. The ecosystem was being driven by the relative harshness of winter, turning it into a boom and bust system.

The grey wolf was the first species listed endangered in the US (1967) but it wasn’t until the late 1980s that conservation efforts began to gain traction. Finally, between 1995-96, 31 grey wolves were released into the park. By January 2020, the wolf population had reached at least 94 individuals across 8 separate packs.

The reintroduction of an apex predator has astonished biologists and caused unprecedented direct and indirect impacts to the ecosystem. Over the last 25 years elk populations have shrunk, removing the overgrazing of willow, aspen and cottonwood trees. This has in turn provided the much-needed food beavers need to persist through winter. Beaver dams reduce water velocities during the spring melt, minimise erosion and increase the formation of ponds. Increasing stream health helps provide additional habitat for other species such as moose, otter, wading birds, waterfowl, fish and more.

Reduction in coyote populations from increased competition and predation has seen an increase in fox numbers, which changes the abundance of prey (hares, small rodents, young deer, ground-





dwelling birds etc) for both species. This in turn often affects how often certain roots, buds and seeds are available and affects plant communities. Even animals such as carnivorous birds, bears, wolverines have benefited due to increased availability of wolf carcasses to scavenge. Yellowstone is one of those rare conservation success stories.

When to go: Winter-Spring. Persistent snow starts around December and babies start around mid-March. Bison rut is in August and elk rut is in September, but this is also peak tourist season and super-crazy busy.

What to see: Wolves (all year but often better in winter), bison, elk, bighorn sheep, moose (all year), black and grizzly bears (April to September-ish), birds (minimal in winter, best in spring-autumn).

Photography challenges: Patience, patience and more patience, and a willingness to drive up and back, up and back, and up and back. Seeing the animals is easy enough, photographing them is not.



DRAGON DIARIES ACROSS THREE GENERATIONS

by Chandy de Wit | Images by Bert de Wit, Jason Milligan and Chandy de Wit

Fragile and delicate Weedy seadragons or *Phyllopteryx taeniolatus* are some of the most spellbinding creatures to encounter in the wild. As with most of the fauna we come across whilst diving, very little is known about their lives and behaviour. These are purely observations from us after having spent a fair bit of time in the water getting to know them, personally you might say.

In the summer of 2019, near the end of a 2.5 hour dive, we chanced across our first seadragon in this particular dragon colony, whom we have named PrincessA. She was possibly in the largest school of shrimp, their staple diet, which we have ever seen.



Since then we have documented well over 30 individuals in the area. From mature courting pairs, to tiny just hatched babies, we have witnessed quite a bit of their life phases and behaviour in between. Even protective behaviour from the brothers or other family members when the others are egg-bearing. One particular day, Decoy took me on a full tour of the reef, going everywhere but where I knew her partner was with their ready to hatch eggs.

The next time we went there we met little Pipsqueak. Oh and saw some unique behavior, like a pipefish riding a baby dragon to school. There was also that strange phase where some of the females were swimming mid-water in a trance-like state for a few days running. So many questions when we venture below the surface.

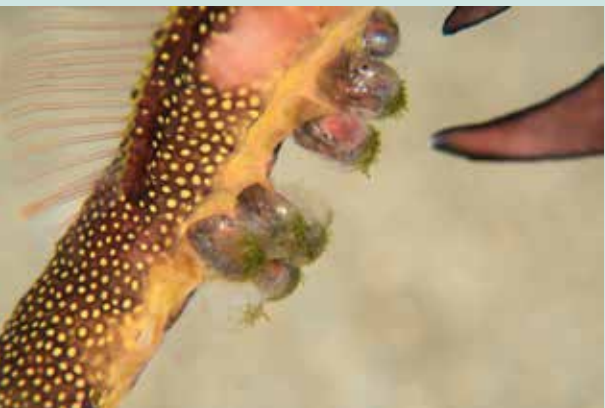


On rare occasions we have a playful seal or two, a friendly ray or possibly even a mother dolphin showing off her new calf drop in on us for a play. Such a challenge to get your mind back in the dragon spotting zone after they leave.

Unless they are in the courting - breeding phase, they don't seem to wander too far from their chosen breeding ground or partner. They can be found all around the reef grazing on microscopic, often too small for us to see, shrimp seemingly all day.

They seem surprisingly social with regular sightings of multiple family members hanging out together. The most we have encountered in a group to date is four.

We still hope to witness the egg transfer dance someday. Witnessing babies hatching is another challenge, as the growth on the eggs is really dense by that stage. This makes it difficult to tell the littluns hatching from the long weed attached to the egg mass.



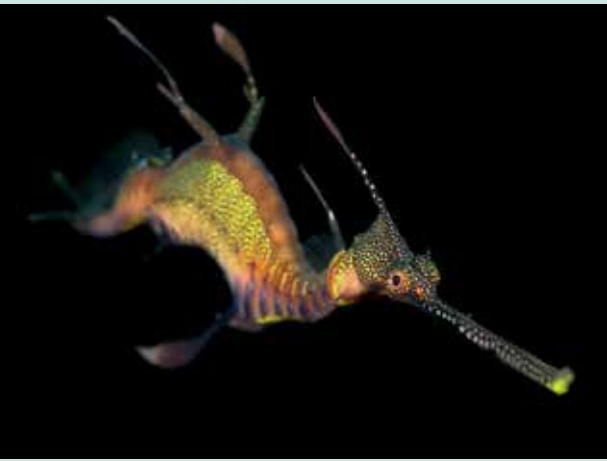


From our observations the survival rate of baby Weedy seadragons is way lower than anyone could ever imagine, considering there are up to 300 eggs in each brood. Why? “Deliciousness is their worst enemy” Who said that?

Western Australian Weedy seadragons, why do they have such a low life expectancy compared to their Eastern cousins?

The oldest dragon we have documented is around 2.5 years old and as far as we know all of the other dragons in the area around the same age as her have passed. Queen D (above right) was first sighted on February 20, 2019 and her partner King D, dubbed Gonzo when his snout was seriously damaged, were the second breeding pair we came across. They met in the same place several times a day seemingly checking in on one another. Occasionally they would dance, not dis-similar to their courtship dance, but this was post breeding season so must have been purely a social interaction.

King D (right) was a great example of how to identify seadragons in water. Easily recognisable due to missing, kinked or broken appendages, and distinct spots or



markings on the snout in particular. Note the distinct V halfway up his snout? Also for him, but not so obvious from this angle, are a missing right lower abdomen appendage, kinked neck and left upper abdomen appendage. I do have a theory that the damage to them is caused by schooling fish, feeding indiscriminately off the reef, a sort of mistaken identity scenario.

King D rocking his poor damaged snout (next page) that got him his third name Gonzo. You will be happy to hear that he learned to eat around corners.



Often the sea conditions are less than ideal out there for photography so we try to shoot with low F-stops and strobe power to minimise the back scatter. Very rarely do we ever get in the water and find we are lucky to have those forever blue viz conditions.

We just can’t get enough of these beautiful locals that we are fortunate to have on our doorstep. So intricate in design, they are a true work of art in themselves.



Lightroom Edits

As you can see little has been done to this image in Lightroom. For me the biggest thing is the temperature adjustment to the cooler end of the slider as I find that Canon gives almost all of my images an unnatural yellow saturation. Next a bit of spot removal, mostly grains of sand, whether they are in the fore or background.

Taken on my Canon G7X MKII in a Nauticam housing with 2x INON D2000 strobes @ very low power, a Bluewater +7 diopter and an INON focus light. Settings were 1/500 sec, f2.8, ISO125.



Twiggy’s Diary - From teen to adulthood a photographic journal

Twiggy, thus named for his twig-like stature when we first met him, had a broken lower appendage hanging by only a thread for over a year. Basically from his teens right through to adulthood and two batches of eggs he carried last summer, it is beyond me how it remained attached for so long. It was still attached the last time I saw him. Hoping he, like his dad Puff, is one of the lucky ones that get to have two breeding years before he passes.

Twiggy playing big brother to Stumpy with his freshly received eggs. The eggs were transferred from his mate either the afternoon or evening before this early morning dive.

As you can see from the images they don’t favour any particular weed as their habitat, although when the boys have their eggs they just might like to pretend they are a specific variety of weed ;-)



Ring Light for Olympus Micro 4/3 cameras by Maryann Evetts

As it had become more and more difficult coping with 2 cameras and housings, strobes and all the other paraphernalia I'd take overseas I realised I needed a more compact rig to take on diving trips. So in 2018 I bought a Weefline ring light for my Olympus EPL 2 camera. At times I just wanted to go for a dive, not necessarily to take photos, but just to relax and enjoy what was there. But always in the back of my mind was "what if I see something really interesting and I don't have my camera".

The Weefline ring light was around \$400. It comes as a self-contained unit with its own battery compartment included. It is screwed onto the front of the flat port like a wet lens and operates separately to the camera as a light source via an optic cable to take the image. The batteries are rechargeable (charger included as the battery is non-standard) so another piece of kit to be added to the list when travelling. All up it weighs 500 grams, so it will alter the buoyancy of your set up.

On the battery compartment are two buttons used to turn the ring light on. The ring light is always on when operational. Holding both buttons down together turns the ring light on and you can scroll through to select the colour of the light (white, red or blue) as well as the intensity (3 levels). Holding down the left-hand button allows you to set the colour and amount of light when using the flash to take an image. The red light is great at night but I found the lowest level of white light the best during the day when taking images. That lighting of the image is softer and less directional than using conventional strobes and I had the 'flash' on full white light - unless I was shooting close up. The solar nudi images show a close shot (over exposed) and one at about 30cm away. All these images are raw files. The frog fish was a monster but I could still fit him in the frame and light him reasonably. I expanded the clown fish photo using Irfan view. The close up is still acceptable without being processed. This ring light is fantastic for taking images of nudibranchs, chrinoids and textures.

I found I preferred using this with a 30mm lens as I could also shoot video depending on the circumstances, as it lights up the subject accentuating the background light. I found having the ring light did at times frighten some fish away, but for less shy creatures it was easy to use giving me very acceptable results. I got some lovely videos of seadragons using this setup.

I used it through most of 2018 on both overseas and local dive trips. Overall, I liked using it. It is a lazy person's toy and at the time I was feeling pretty stressed with everything, and this was simple and easy to use once I got use to the buttons. I don't know about you but my brain goes to jelly underwater, but once I had mastered the controls it was great. I don't use it so much these days as it does have limitations, especially when wanting to take super macro shots or wide angle videos.

If you would like to try it out, give me a call. It's fun and gives a different look to normal.



PARTING SHOT



Stingray City by Tammy Gibbs

In early 2020, Leanne and I travelled to the Cayman Islands for an underwater photography workshop with Dr Alex Mustard. One of Cayman's famous sites is Stingray City, a pristine white sandbar where dozens of stingrays come in for the chance of a free meal.

We got up super early to drive to the other side of the island to meet the boat for the short ride out to the sandbar. It was still dark as we headed out, watching the first rays of light peeking over the palm trees. Stingray City is shallow, only a metre or so deep, and it wasn't long after we dropped anchor that we could see the stingrays gliding through the dark water under the boat.

We were shooting at quite high iso's until the sun rose high enough in the sky to light up the sandbar, leaving a mosaic of patterns on the sand. The stingrays would come in very close, sometimes right over the top of you, and it was hard at times to know which way to look as they cruised in from all directions. It was challenging to get clean shots without all the legs of the other tourists who had come to experience the stingrays up-close.

Nikon D850, 16mm fisheye lens, Nauticam housing
f13, 1/125 sec, iso 3200, natural light








WESTERN AUSTRALIAN UNDERWATER PHOTOGRAPHIC SOCIETY

waupsnews@gmail.com

The Western Australian Underwater Photographic Society (WAUPS) is a non-profit organisation, which was established in January 1984.

The aims of the Society are:

-  To promote an improvement of underwater photography amongst its members.
-  To promote underwater photography in the community.
-  To encourage an understanding and preservation of the marine environment.
-  To promote an exchange of skills and ideas from within the society and from external bodies.
-  To have fun and enjoy socialising, diving and photography.

WAUPS holds monthly meetings which include guest presenters on a range of photography and diving topics along with a digital show-and-tell of images from members.

We hold regular competitions including an annual day dive shootout, annual open and novice portfolios and image of the year competition, and a range of trips and social events during the year including monthly photo dives.

WAUPS members also get membership to the WA Photographic Federation and can participate in their events and trips.

Anyone interested in underwater photography is welcome any time including all levels of experience.

**WAUPS meetings are conducted at 7:30pm
on the FOURTH TUESDAY of every month.**



Find us on Facebook

www.waups.org.au

