

redmap

SPOT. LOG. MAP.



Welcome to our Spring edition of Redmap News. We may be having a chilly few months, but enthusiastic Redmap members are still out on the water and spotting some interesting species along Tasmania's coastline. Recent Redmap sightings include a Manta Ray, Luderick, an Ocean Sunfish and a few King George Whiting (caught off the coast of Triabunna). We're looking forward to receiving more sightings of uncommon species you see or catch as the weather warms. Don't forget to take the camera with you so that your sighting can be verified!

Recently, Redmap was nominated for the UTAS Vice Chancellor awards for outstanding community engagement. We won! This is exciting news for us. The Redmap team work really hard to engage the Tasmanian community to ensure sightings of uncommon marine species can be logged on the Redmap database. We are honoured our efforts have been noticed and dedicate our win to all our members who have made sightings, especially those with photos. We love photos.

Redmap will be at the Seafarer's Festival in Bellerive on Sunday 23 October. You can find us in the Institute for Marine and Antarctic Studies stand, so pop in and check out some plankton under the microscope, a marine touch tank and go in the draw to win great prizes (see page 8 for details).

Remember: if you have any comments or suggestions for the site, we'd love to hear from you. Just email us at enquiries@redmap.org.au.

Happy fishing, boating and diving.

The Redmap Team



Redmap is a project of the Institute for Marine and Antarctic Studies (IMAS). Redmap has input from a large number of institutes, companies and organisations, and we thank these groups for their considerable contributions.

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Latest cool sighting

Red-lined flabellina

That looks a bit tropical! This nudibranch, a soft-bodied gastropod, is usually found in Australian tropical waters and also the Pacific region. This brightly coloured species was hard to miss off Rocky Cape in north-west Tasmania by David Maynard.

WHAT'S ON THE MOVE?

It's the elephant (or should we say pink octopus) in the room: the seas along Tasmania's coast are warming over three times the global average. But how does this impact Tassie's marine life? The jury is still out, but some research shows warming waters are starting to prod fish and other marine animals away from their usual homes in search of cooler waters.

In December 2009 Redmap first called upon Tasmanian anglers, fishers, divers and the public to explore this idea by reporting any uncommon fish or marine critters they encountered along the coast. So far, enthusiastic Tasmanian 'citizen scientists' have logged 280 sightings of 64 marine species, many of which were found south of their usual stomping grounds (if fish could stomp).

To make sense of the observations, Redmap has listed the Top Ten marine species spotted out of their known distribution range.



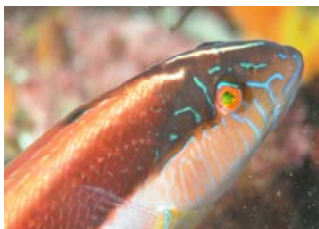
NOTEWORTHY:

Lots of Eastern Rock Lobsters have been spotted along Tasmania's east coast. The usual distribution of these creatures is from Port MacDonnell, SA, to Tweed Heads, NSW, and northern Tasmania.



(Photo: Sarah Pyke)

Maori Wrasse are usually found from Houtman Abrolhos in Western Australia to southern Qld, and the Kent Group in Tasmania. One sighting was logged at 472 kilometres from their usual southerly distribution. (Photo: David Maynard)













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The Gloomy Octopus is usually found from Moreton Bay, Queensland to Cape Conran, Victoria. (Photo: R. Stuart-Smith).



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REDMAP'S TOP TEN

Marine species spotted out-of-range	When is this considered 'out-of-range' for Redmap?	Out-of-range sightings (Dec '09 to July '11)	Distance (average) south of known southerly range
1  Eastern rock lobster (<i>Jasus verreauxi</i>)	All Tasmanian waters	26	292 km (max: 472 km)
2  Yellowtail kingfish (<i>Seriola lalandi</i>)	South of Maria Island	14	53 km (max: 65 km)
3  Luderick (<i>Girella tricuspidata</i>)	South of St Helens; south & west coasts	12	153 km (max: 213 km)
4  Maori wrasse (<i>Ophthalmolepis ineolatus</i>)	All Tasmanian waters	11	300 km (max: 472 km)
5  White-ear (<i>Parma microlepis</i>)	South of St Helens	10	157 km (max: 213 km)
6  Zebra fish (<i>Girella zebra</i>)	East, west or south coasts	9	120 km (max: 250 km)
7  Herring cale (<i>Olisthops cyanomelas</i>)	South of the Tasman Peninsula	8	28 km (max: 28 km)
8  Tailor (<i>Pomatomus saltatrix</i>)	South of St Helens	7	134 km (max: 157 km)
9  Gloomy octopus (<i>Octopus tetricus</i>)	All Tasmanian waters	6	315 km (max: 472 km)
10  Halfbanded seaperch (<i>Hypoplectrodes macculloch</i>)	South of Bicheno	5	142 km (max: 154 km)

Swimming onto the Redmap Top Ten list are the Eastern rock lobster, Yellowtail kingfish, Luderick, Maori wrasse, Whitefish, Zebra fish, Herring cale, Tailor, Gloomy octopus and Half-banded seaperch.

Other strange species - to Tasmania at least – that Redmap fishers spotted are the tropical fish Big-scale parma, Eastern Wirrah or Old Boot, leatherback turtles and even a Balmain Bug (photos of these sightings were submitted and have been verified by Redmap scientists).

But have the Redmap Top Ten really shifted their habitat range, and is this linked to warming waters? The answer is... maybe.

Marine animals tend to shift house – extending their distribution - to stay within their preferred marine climate. Research is showing that some marine animals are starting to migrate toward the pole to avoid warming waters, a.k.a: fish often move south when things get too hot at home. This phenomenon becomes super-relevant to Tasmania when you consider the waters off Maria Island, for example, are warming over three times the global average at 2.28 degrees Celsius per century as the East Australia Current extends further south.

But it's not easy to show how warming waters impact marine animals. Revealing if species are on the move can be difficult given the limited funding and brevity of most marine studies. Marine critters aren't just affected by water temperature - things like food availability, predators, competition and fishing activity also affect where species live. Also – and get ready for this - fish tend to swim. It's not uncommon for marine animals to visit an area far from home, but they don't set up shop there. The 'normal' geographic home of a species is also sometimes hard to establish, and sometimes this isn't known at all.

Over time Redmap will sketch a picture of what's on the move in Tasmanian waters. However, we need more Redmap sightings over a long enough timeframe to detect change over and above natural variation in the marine ecosystem.

For example, using the Redmap data above, Herring cale were found hovering on average 28km from their known southerly range and are unlikely to be shifting homes at present. Others, like the Eastern rock lobster and the Gloomy octopus were found up to 472 km from their known southerly range. Redmap needs many more of these sightings over time to reveal if such species are truly extending their range.

Observations made by Redmap members out enjoying Tasmania's great fishing and diving are crucial in gathering this long-term data. Already Redmap sightings have been used in three scientific papers. Keep up the good work, Redmappers!

WHAT YOU'VE SIGHTED

Sending in a photo of your sighting is important so it can be verified by Redmap scientists.



Gloomy Octopus (Photo: P. Hirst)



King George Whiting caught off Dunalley (B. Smedley)



Grey morwong near Bicheno (Photo: 'Diver79')



Eastern rock lobster near Bicheno (E. Flukes)



One of 22 Luderick caught in the D'Entrecasteaux Channel (S.Ibbott)

JACK OF ALL FISH TRADES PROFILE: WILL MURE

“Don’t put your all your fish eggs in the one basket” could well be a fitting motto for one of Tasmania’s iconic fishing companies MURES TASMANIA, writes Yvette Barry.

MURES has never shied away from new ventures, even if they’ve led to some interesting highs and lows over the years. Director Will Mure recalls how in the late 1970s he helped dad and Mures founder, George Mure, set up a trawling operation on the 50-foot *Mellicent*, a petite drop-line vessel not built for such strenuous endeavours.

“But we did it anyway and we tried it out for a few months and it just did not work so we gave that up!” Will Mure laughs.

Even back then, the family business launched its fingers into numerous pies with crayfishing, long-lining for sharks, opening a seafood restaurant and setting up Australia’s first commercial Blue Mussel farm at Margate.

The Mures also dived into the Blue-eye Trevalla trade. Blue-eye was a virgin fishery in the late 1970s and George Mure was a pioneer in successfully hunting – often with teenager Will in tow - for new blue-eye fishing grounds around Tasmania. You could argue the Mures wet a now voracious appetite for this premium seafood.

More recently, Mures tried their hand at the sea urchin market with some spiny results, mind the pun. The long-spined sea urchin *Centrostephanus rodgersii* is an invasive pest, but its roe is a delicacy in countries like Japan and pays top dollar. But the Mures soon abandoned the enterprise due to a limp commercial return for the gourmet eggs.

Yet it’s this family history of scanning for new horizons – the attitude of giving it a go – that is paying off as Will Mure ferries the fishing side of the company through a changing industry.



The Mures Fishing fleet: the Diana and Kiella

Mures Fishing supplies fresh fish to Tasmanian restaurants and retailers – holding what Mr Mure estimates is more than 20 per cent of the market share in Tasmania – as well as mainland markets like Melbourne and Sydney. The family-run company still owns restaurants (Mures Upper deck captained by sister Sarah, and Mures Lower Deck, run by wife Judy), fish retailers, and has diversified into gourmet products like fish stocks, soups, sauces and smoked fish.

But the different arms of the company don’t wave about independently. When a young Will Mure threw himself into the business in 1993, after studying at the Tasmanian Maritime College and a stint gallivanting around the world, Mures Tasmania no longer owned a fishing boat and found it difficult to source quality fish for their restaurants.

So in true Mures-style, Will Mure decided to do it himself. Mr Mure bought the 53-foot scallop boat *Kiella* in 1993 and got back onto the seas after equipping her with drop-line gear. Then in 2004 he commissioned the building of *Diana*, a 23-metre steel long-line vessel named after his grandmother. Together these ships supply the business with year-round seafood including blue-eye, perch, ling, trout, shark, cod and trevally.

“That’s what the fishing side does: it supplies our business with the top quality, sustainably-caught fish and I think that is our big number one thing that we are proud of and push hard,” Mr Mure says.

Others are taking notice of this quality. Mures Upper Deck was awarded the 2011 Tasmanian Hospitality Association’s Seafood Restaurant of the Year.

The former skipper of the *Kiella* – who once braved the worst storm of his life with eighty knot winds and a freak wave smashing through the wheelhouse windows some 600km offshore - now brings his fearlessness and skill to the desk-side of the job: ensuring the company evolves in times of change. “The fishing industry has been changing quite dramatically over the last five years or so, so we’re probably



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ideally you’d only fish
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for the future.*

scaling down in our wild fishery and we're looking to diversify more into our value-added products," he says.

Changes include tighter government management of fisheries, the push for sustainable fishing and strict catch quotas. All of which Mr Mure candidly supports as part of "healing the industry". He likens the oceans to a bank: ideally you'd only fish the interest and leave the principle alone for the future.

"Wild fisheries: no one can doubt it was overfished in the past," Mr Mure says. "It's a matter of building that principle back up."

Diving into gourmet fish products is a way for Mures to embrace this push for marine sustainability, because producing soups, stocks and sauces uses all parts of the fish without much wastage (and fortifies income in an industry with limited fish quotas). They also improved their fishing techniques to avoid bird by-catch; and work closely with other fishers to share the seas.

This flexibility is a good insurance policy as the murmurs of climate change and warming seas get louder. "I hear of some unusual fish being caught, that shouldn't be caught in Tassie like the Yellowtail kingfish and snapper," he says. But Mr Mure hasn't noticed much change in the fish he targets, mostly found Australia-wide and fished at depths of 200 to 500 meters.

Mr Mure has no doubt climate change is real, but as a Master of adaptability, he's in two minds whether warming seas could impact his business. "If the temperature rises and it just means a change in the species, then that wouldn't worry me too much," he says. "But if it's going to rise and with it start to actually have an affect on the reproduction of species, then that is obviously of serious concern."

He advocates the need for more marine research to get "more valid information on the table so that we can understand something *is* happening: it's not just hypothetical, it's the real thing."

But it's not hard to imagine Will Mure, who's been on a fishing boat since he was knee-high, embracing any change in the industry. He's already meandering back into the sea urchin roe market, with hopes of rousing up enough interest to harvest and sell the gourmet eggs overseas for top-dollar.

And with a true Mures' practicality, Will Mure sees this venture as a win-win opportunity: reducing marine pests and making a living out of it too.



Will Mure is a major Redmap sponsor and supplies two \$50 vouchers a month. Sign up to Redmap for your chance to win - at redmap.org.au.

PRIZE WINNERS



New subscribers to Redmap automatically go in the monthly prize draw to win one of two \$50 MURES vouchers. The vouchers can be used to purchase fresh or cooked seafood from Mures Lowerdeck, and icecream or coffee from the Polar Parlour at Mures Lowerdeck.

Congratulations to our June and July winners: Meghan, Gary, Paul and Glen. Here are two of our Redmappers below...

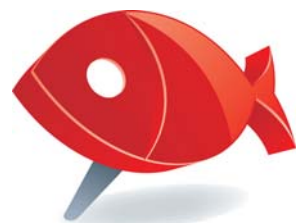


Meghan is in year 12, and has been an avid scuba diver for years. She hopes to study marine conservation at the Australian Maritime College. Above is a photo Meghan took whilst diving at Waub's Bay in Bicheno.



Paul (above) is a volunteer with Fishcare and is interested in all kinds of fishing. He also loves to dive, not only to get a few abs and crays, but to explore the reef environment.

Log any uncommon fish or marine animals you come across in Tasmanian waters at www.redmap.org.au



CAMERA WATER ACCIDENTS

Diver and underwater photographer Adriaan van Huissteden suggests ways to save your digital camera from a watery death. Whatever you do—don't press that ON button!

Most cameras are hardy things that can withstand a bump or two, but what should you do when you drop your click-click overboard, leave it out in the rain or your waterproof housing fails during a dive? Getting your camera or video camera wet can generate a panic to press the On button in the vain hope water hasn't violated the electronics. Don't do it. Take a deep breath and check out the tips below.

It is entirely up to you which steps you want to use if you get water on or in your camera, but these suggestions MAY help to save your camera, or may reduce the cost of repair.

Move into action quickly

- Do not try to turn the camera on. This could be the kiss of death for the camera.
- Remove the battery and memory card quickly.
- Using distilled water, dampen a cloth and wipe the battery and cards (or bottled water or tap if that's all you have with you at the time). This is a very important step for salt water camera injuries, as salt is highly corrosive.
- Dry off the items with a soft cloth.

Salt water

If the camera has been dropped into salt water and it's flooded the camera (you hold it up and water is dripping out), you have nothing to lose in my opinion. You need to get the salt water out and fast:

- Fill up a large container with water and drop the camera in, move it around and try to get the salt water out and the fresh water in. Drain it, and do this again. Distilled water is best for this, but again, use what you have (no need for this step if the camera's been in fresh water).
- Drain the camera for 5-10 minutes, then follow the 'rice method'.

The rice method

After following the above steps, get a plastic bag large enough to hold the camera and raid the pantry for some rice. If it is an SLR camera, place the body cap over where the lens normally goes on. Close the battery and memory card door, or place some tape over the slot if it does not have a door (just to keep the rice out). If you are out and about, buy the rice at a corner shop and do it in the car if need be.



- Place the camera, memory card and battery in the bag and fill with rice, enough to cover the camera. If you have any silica satchels, throw them in as well.
- Seal the bag and place it in a warm spot for 2-3 days.
- If you still think the camera may have moisture in it, replace the rice and again leave the unit for 2-3 days. (The battery and memory card could now be left out).

I would take the memory card to a photo shop with self-services camera booths, and see if you can recover your images and print or copy to a CD or DVD. If you can't and would like the images, speak to a photo lab and see if they offer a service to try and retrieve the images.

Flooded camera housing while diving

If you notice a flooded camera house while diving, don't race off to the surface. Follow normal ascent procedures, returning to the surface safely, and add these simple steps while you are on your way up:

- Turn the camera off and position the camera so the water entering the housing is not dripping onto the camera. Hold the housing so the water pools in the deepest part of the housing (the lens port). Pass it to the person in the boat, or walk out with it, in this position.



Recently on a trip to Bali, I captured this image. The elephant had a blast spraying everyone, and people in the front were warned what was about to happen. But you can still see multiple cameras out... The elephant may have changed her aim at any time. Expect the unexpected.



The big test

The camera is now dry and looks okay: there are no salt streaks or moisture when you look through the viewfinder (if it has one). Put the battery in, and turn the camera on... If nothing happens, pull the battery out and put it on charge for 5-10 minutes. This should be enough charge to test the camera. If the camera responds, it should be able to zoom, and operate the menus. Insert the memory card and try to take a few pictures. You may be lucky and it all works fine!

Unfortunately, if the camera is still cactus you need to make the hard decision of replacing the unit, or getting it evaluated for repair. Repair may be more expensive than some cameras, and if the camera is older, it may be time for an upgrade. Call your insurance company and find out if the camera is covered for water damage.

Things to remember, tips and considerations:

Remember, these are my tips – I am not telling you to do it, but I would try these techniques myself.

Act as fast as you can and get the battery out. Water and electricity don't mix: a wet battery will fry the electronics.

Don't eat the used rice! The camera may be leaching all sorts of nasty gases and chemicals.

Recovered cameras can grow fungus. Fungus is most noticeable in the lens, where it may cause hazy images

Dispose of batteries and damaged electronic goods thoughtfully and not in the rubbish bin!

Adriaan G Van Huissteden

avh@vizbiz.com.au

www.VizBiz.com.au

Watch this space in future editions of Redmap News for some more great photography tips from Adriaan.



MARINE RESOURCES FOR SCHOOLS

THE MARINE LINKS KIT

Marine Links is a resource kit for teachers in Tasmanian primary and secondary schools. Recently upgraded by the Wild Fisheries Branch of DPIPWE, the Kit contains practical marine teaching materials including model fishing gear (rods, pots, nets and setlines) as well as moulds of fish, posters, pamphlets, maps, textbooks and classroom exercises.

The Kit aligns with school curriculums and works best in partnership with the Fishcare Schools Program (see below).

The Marine Links education content is available online at: fishing.tas.gov.au; under 'Fishing Publications'



FISHCARE SCHOOLS PROGRAM

Fishcare Tasmania runs a popular Schools Program which sees Fishcare Volunteers visiting classrooms to spread the responsible fishing message to children. Many volunteers have completed specialist training at the Marine Discovery Centre and can deliver presentations either in the classroom or conduct a fishing clinic at a local fishing spot. They have access to fishing gear, Recreational Sea Fishing Guides, rulers, gauges and stickers.

Interested? Contact your Regional Fishcare Coordinator:

South: fishcaresouth@dipwe.tas.gov.au or Ph: 6233 6208

North: fishcarenorth@dipwe.tas.gov.au or Ph: 6336 5474

NW: fishcarenw@dipwe.tas.gov.au or Ph: 6443 8624



MARINE DISCOVERY CENTRE: LINKS

Also check out great marine resources for teachers at:

woodbridge.tased.edu.au/mdc/TeacherResources.htm

www.redmap.org.au/resources/teaching-resources/



SPOT ON TIPS OF THE SEASON



- In late spring and early summer try for Tiger Flathead. Catch them early or late on a calm day, in deeper (50-70 m) waters. Try fresh squid bait.
- Salmon—find the birds, find the baitfish, find the salmon. Spot On recommend Halco type chrome lures in the 20 to 40 grm range.

Spot On Hobart:

www.spotonfishing.com.au/hobart.html

A NEW ONLINE FISHING FORUM

WWW.FISHINGBOATINGTASMANIA.COM.AU

Fishing and boating Tasmania

Fishing & Boating Tasmania has the simple aim of creating an online community and information hub connecting fishers, boating enthusiasts and businesses in a friendly, safe environment. We encourage open and honest discussion and promote responsible fishing and boating at all times, with an emphasis on the fun side of these pastimes. We welcome fishers and boat owners of all levels and experience to join in and share their knowledge, experience and enthusiasm with others. Contact:

admin@fishingboatingtasmania.com.au

WWW.REDMAP.ORG.AU

Redmap is on **Facebook**.



Become a fan of our page at

www.facebook.com/pages/Redmap-range-extension-database-mapping-project/121764204502516

From time to time we'll post videos and photos that aren't on the Redmap site.

Thanks to our major sponsors:



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REDMAP NEWS



Redmap is well on its way to flying the coop and going national with a national forum planned by the end of the year for other states to look at ways of developing REDMAP AUSTRALIA.

Redmap is developing a survey to see what you think of the website and how we can improve the project. Watch this space...

The Redmap Team is producing a waterproof booklet for seafarers to bring out on the water. The booklet will feature information and photos to identify uncommon fish and marine animals along the Tassie coast. But there'll be some new kids on the block: new species will be added including jellyfish, more fish like King George Whiting and sea stars, to name a few. The website will also be updated to include the new Redmap species of interest. The booklet and website update is made possible by a Tasmanian Community Fund (TCF) Grant.

We're currently searching for funding to develop a Redmap iPhone and Android Application for Smartphones to make it easier for Tasmanian fishers, divers, boaters and the public to instantly report and photograph sightings while they are still out on the coast.

REDMAP AT SEAFARER'S FESTIVAL, OCT 23



Seafarers'
Festival

The Seafarer's Festival is a unique action-packed free family event with activities, food stalls and entertainment on and by the sea on Sunday 23 October. Visit Redmap in the IMAS (Institute for Marine and Antarctic Studies) stand and talk to the Redmap Team and IMAS scientists. Look through a microscope at marine plankton, or touch some marine critters in our touch tank. You also can go into the draw for great prizes, including marine books and two \$50 Mures vouchers, just by answering a few questions about the Redmap website and how we can improve the Redmap project.

When: Sunday 23 October,
10.30am – 4.00pm

Where: Bellerive Boardwalk

For more information visit:
www.ccc.tas.gov.au

If you have any comments, suggestions or questions about Redmap, please