

redmap

SPOT. LOG. MAP.



WELCOME

The days are getting warmer and more conducive to grabbing the fishing rod or donning the wetsuit and heading out onto (or into) the water. We're looking forward to receiving your sightings of new or unusual species you see or catch in Tassie waters! Don't forget to take the camera with you so that your sighting can be verified.

You've probably noticed we've made a few changes to the Redmap site. There's now a text field for adding a caption to your photo—useful for noting when you see more than one fish (e.g. if you see a school of yellowtail kingfish, you can note approximately how many fish you saw).

Redmap has been awarded a 2010 Whitley Certificate of Commendation from the Royal Zoological Society of NSW (see page 5 for details). Thanks to all our supporters and contributors for making Redmap a success!

Redmap will be at the Seafarer's Festival in Bellerive on Sunday 31 October. Come and visit us at our stand and go in the draw to win a great prize (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 Tasmanian Aquaculture and Fisheries Institute (www.tafi.org.au), and is part of the Institute of Marine and Antarctic Studies (IMAS) at the University of Tasmania. Redmap has input and support from a large number of institutes, companies and organisations.



Inside this issue:

Mures prize winners	2 & 3
News from the Marine Discovery Centre	4
Redmap partner profile	5
Surveillance of Tassie's reefs	6
What do Redmap sightings mean?	7
Seafarer's festival prize draw details.	8

Latest cool sighting

Maori wrasse

Photographed by Jan Seiler using baited remote underwater video stations. See page 6 for more details about Jan's work.

REDMAP PRIZE WINNERS

M FISHING Mures®

THE SEAFOOD PEOPLE

*Each month **Mures Fishing** has very kindly donated a **\$50 voucher** for you to win! You can use your Mures voucher on anything in the lower deck – fresh fish to cook at home, toys and goodies in the shop, a meal in the Bistro or a yummy snack in the Polar Parlour. We asked our June, July, August and September prize winners to tell us a bit about themselves ...*

Les Harrison has been fishing since he was three and has had vast experience in most types of fishing. Fly fishing for trout in the rivers and lakes has been a passion for quite some time which led him to fishing destinations throughout the world – places such as the UK, Canada and the US. Now that Les is retired, he no longer travels the world but it is his joy to fish mainly the Tamar. He offers his time as a Fish-Care volunteer, talking to people at jetties, wharves and boat ramps about the importance of sustaining of our fishing lifestyle. Les says that life is now a lot of fun; and in his opinion, work is for those who can't fish!



Les Harrison is a keen (and obviously successful) fly fisherman.



Mark Mann with the catch of the day.

Mark Mann has been a fisherholc for as long as he can remember. He mainly fishes for flathead and squid but given the opportunity he loves to throw on the wetsuit; in fact he recently returned from a dive trip to Thailand. Mark takes every opportunity he can to have his wife and kids jump in the boat with him, even if it's just to go sightseeing.

Noah Poole does not mind getting the occasional stir about his keen interest in boats; in fact he enjoys the challenge of following in the footsteps of his namesake. Noah has a keen interest boats of all shapes and sizes and in the last few years he has been enjoying learning to sail (pictured here off Oyster Cove, on his good friend Clyde's catamaran *True Blue*). Noah works for the Commonwealth Government on marine bioregional planning, and is looking forward to the time when Australia can deliver on its international commitment to create a National Representative System of Marine Protected Areas. Noah is currently preparing his rigid inflatable boat *Naiad 4* for a busy and long summer of exploring some of the Islands off Tasmania's east and south coasts.

Noah uses and enjoys the benefits of TAFI's *SEAMAP* habitat maps (which are available online at <http://www.utas.edu.au/tafi/seamap/>) to target his selection of sites to snorkel and explore around Tasmania's east coast. With the aid of navigational maps, and also TAFI's habitat maps, Noah sets off to locate reefs, seagrass beds and kelp forests. Also in his boating kit is a laminated copy of the Redmap species identification chart with photos of target species to help him remember which marine species to keep an eye out for.



Noah Poole enjoying a day out sailing.

M FISHING Mures

THE SEAFOOD PEOPLE




Robert Taylor with a huge Atlantic salmon.

Robert Taylor likes all types of fishing – both fresh and saltwater – which led him to his current job in retail sales of boating and fishing gear in Launceston. After 20 years he still enjoys helping anglers to catch their first fish or their fish of a lifetime.

Over the years, Robert has fished for many different species but his real passion is for offshore game fishing. Marlin fishing off St Helens has taken up most of his time offshore with many successful trips, but he also enjoys just going out and catching a feed of flathead or lying back on a deserted beach watching the surf rod.

This photo is of Robert's recent catch, a 4 kg Atlantic salmon from Brushy Lagoon caught in early September.

MARINE SCIENCE MEETS ART AT THE MARINE DISCOVERY CENTRE

The Marine Discovery Centre in Woodbridge ran a National Science Week project recently to showcase exciting marine science, and bring it to a new audience through the visual arts. Entitled Creative Links between Art and Marine Science, or CLAMS for short, the project paired two Tasmanian marine scientists with two Tasmanian artists, and culminated in a workshop for teachers and students at the Marine Discovery Centre on Saturday 14 August.

Dr Gretta Pecl from Redmap took part in the project, and was paired with Ruth Downham, a glass artist from the D'Entrecasteaux Channel. Dr Graham Hosie from the Australian Antarctic Division was also involved, and liaised with Roland Gabatel, a local sculptural artist. Graham led the Collaborative East Antarctic Marine Census, a series of groundbreaking voyages to document marine life off the Antarctic coast.



The afternoon workshop session run by Roland focused on ephemeral art, a form of sculpture using found objects in the environment, which are photographed and then left in situ for the elements to reclaim. Sculptures made on the day included an ice fish (pictured below), a krill ball and a feather star, inspired by images of deep sea Antarctic environments shown at the CLAMS forum by Dr Hosie.



Scientists and artists outlined their work at a community forum held at CSIRO Education Tasmania on 12 August. Everyone attending the forum came away inspired, and this had fantastic results at the workshop. Workshop participants were introduced to two contrasting techniques to produce artworks inspired by the science.

Ruth demonstrated a method of painting on glass tiles. Each person chose a local Tasmanian marine species to draw on green glass, and then a 'Redmap species' to draw on red glass – the colour of the glass representing the cool or warmer waters the species prefer. The glass tiles were fired at over 700°C, creating a permanent image. The resulting coasters (pictured top right) will be a great talking point to spread the word about Redmap over a cup of coffee or glass of wine!



The tiles and photos of the ephemeral art will be on show at the Woodbridge Market in November. Check the Marine Discovery Centre website for details as November approaches: www.woodbridge.tased.edu.au/mdc

Ros Asten

Primary Coordinator, Marine Discovery Centre

REDMAP PROFILE—MARK NIKOLAI FROM TARFISH

Mark Nikolai is the CEO of TARFish, the fully independent peak body representing the interests of recreational marine fishers in Tasmania. We spoke to Mark about his early life as a recreational fisher and what changes he's noticed on the recreational fishing scene since then.



As a child, Mark lived for school holidays, when he would go with his family to their shack at Somers Bay. Fish were abundant in Somers Bay back then, and Mark and his four siblings were very keen fishers. Every Easter the bay would be filled with schools of anchovy and pretty fish – and then would come the schools of black back salmon, in one big black mass. Mark says that all

they needed to catch the salmon was a hook on a line – not even any bait!

There were plenty of other fish to catch in the bay too, such as flounder; Mark would head out at night, wading in waist-deep water with a waterproof flashlight and a flounder spear.

One summer Mark's father bought the kids a marine ply dinghy, which they did up and used for going out into the bay and catching flatties. Some years later they upgraded to a 14-ft fibreglass boat with a motor – but it was still a far cry from the well equipped 5–6 metre aluminium vessels common at the boat ramps today.

Mark says one of the big differences between recreational fishing today, and fishing in his childhood, is the equipment – bigger boats, and fancier rods and lures. The fish are not so abundant (i.e. it's not so easy to catch a fish with just a hook and no bait) but if you know when and where particular fish are running, then it's still possible to enjoy a good day's fishing.

So, you'd think someone in Mark's line of work would be out on the water all the time. But according to Mark, he doesn't get as much time as he'd like. These days he finds just as much enjoyment in boating as he does in fishing. For Mark, it's more about the health and wellbeing aspects of being out on the water and just catching enough for a feed – in fact he doesn't even mind if he doesn't catch anything, as long as he's out on the water, taking in some fresh air and enjoying being surrounded by wonderful scenery such as that of Cape Queen Elizabeth.

TARFish is funded from the licence fees paid by recreational marine fishers in Tasmania. To receive the TARFish newsletter (it's free) or for more information about TARFish, visit www.tarfish.org.au or contact Mark directly:

TARFish, GPO Box 2198, Hobart 7001
Telephone: 1300 665 225; Mobile: 0403 868 004
Email: mark.nikolai@tarfish.org

REDMAP WINS HIGH-PROFILE AWARD

Redmap has been awarded a 2010 Whitley Certificate of Commendation (category of Interactive Resource). The Whitley Awards are hosted annually by the Royal Zoological Society of New South Wales. These awards are a tribute to Gilbert Whitley, an eminent Australian ichthyologist (a zoologist that studies fishes). First presented in 1979, the awards are for outstanding publications (in printed or electronic form) that contain a significant amount of information relating to the fauna of the Australasian region.

The Redmap Team extends a BIG thank you to all Redmap supporters and contributors for making Redmap a success!

For more information about the Whitley Award visit:

<http://www.rzsnsww.org.au/index.php?/About/The-Whitley-Award/about-the-whitley-award.html>



Redmap featured on ABC News TV in early October. The story featured diver and Redmap member Emma Flukes and Redmap sponsor Will Mure. Check out the story at: <http://www.abc.net.au/news/stories/2010/10/10/3034104.htm>



VIDEO SURVEILLANCE OF TASMANIA'S REEF FISH

You might have noticed some unusual looking photos in our photo gallery, such as the one below (and the one on the front page of this newsletter). These photos are actually video stills and were logged by Jan Seiler, who is a PhD candidate with the CSIRO-UTas Quantitative Marine Science Program (see <http://www.utas.edu.au/cms/qms/>). We asked Jan to tell us a bit about his research, monitoring Tasmania's reef fish.

Jan uses baited remote underwater video stations (BRUVS), which is a non-destructive way of getting information about fish abundance, size, diversity and behaviour. Because BRUVS are baited, they attract fish. Fish are either lured in by the crushed oily pilchards in the bait bag or through curiosity. Once in the field of view, fish can be counted and their length can be measured using the calibrated stereo camera setup.

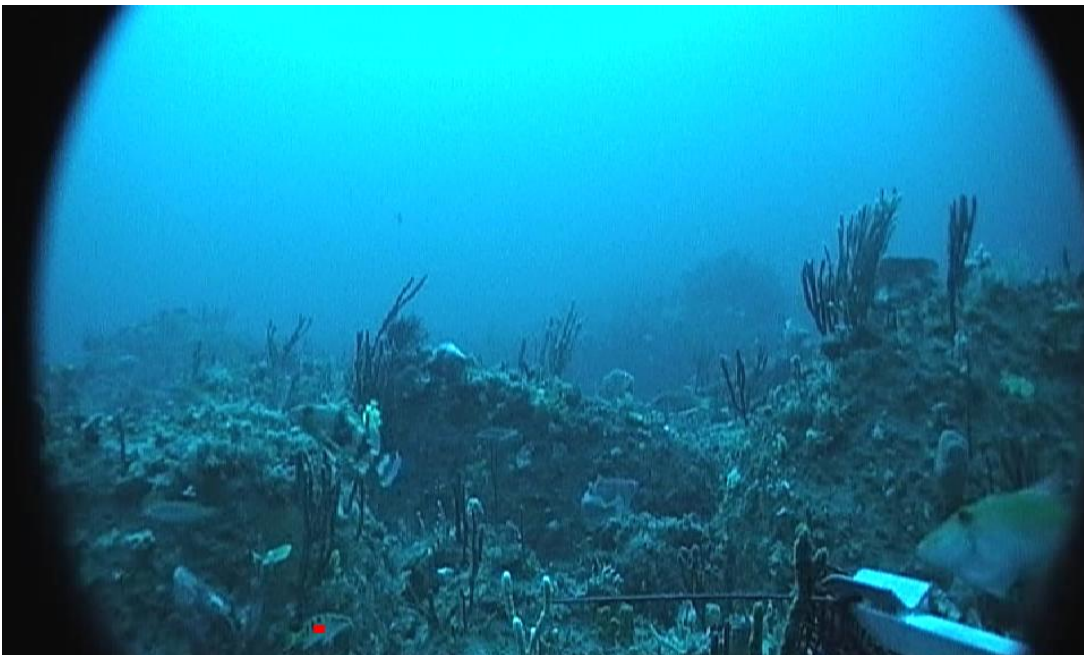
Other than variations in length, fish of the same species and gender usually lack any distinguishing feature to tell them apart. In other words, one fish looks like the other. So, to

avoid counting the same individual several times, only individual fish that appear in the field of view at the same time are counted.

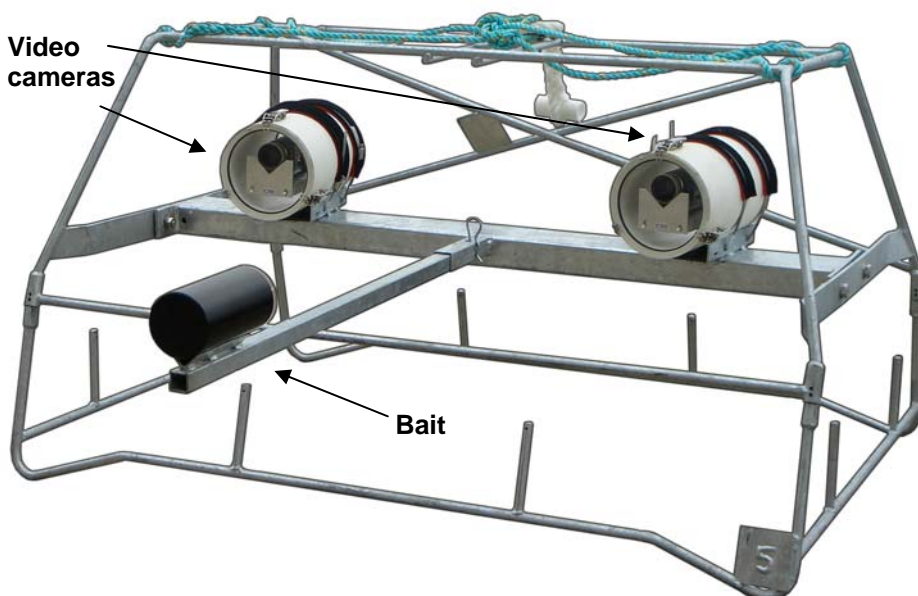
Most of our knowledge about fish behaviour is gained from direct observation, typically by a diver. However, a diver is usually limited to about 30 m water depth. The BRUVS units on the other hand are depth rated to 150 m. Whilst using different housing materials can increase the depth limit, ambient light is generally only available

in the top 100 m. The BRUVS units in Jan's study use only ambient light and therefore have the strong colour cast of blues and greens which can be seen in the picture above.

BRUVS units are deployed from small vessels, immersed for 45 minutes and retrieved by an electric pot hauler. Jan is trying to establish whether BRUVS are a useful tool for fisheries stock assessment and a viable alternative to current stock assessment practices i.e. obtaining estimates of stock size by fishing.



Half-banded sea perch (red dot indicates position).



BRUVS unit.

REDMAP SIGHTINGS ... SO WHAT DO THEY MEAN??

Redmap has been up and running for almost 11 months now and many of you have contributed details and awesome photos of over 200 sightings, many of which you can see on the website. The sightings are spread across 16 main species – so you might be wondering if this means the species involved have undergone range extensions, and if that is linked to warmer waters off our coast. The answer is ... maybe!

Detecting change in ecological systems is genuinely difficult, and in marine systems this is particularly challenging. Species distributions are often limited by physical factors, like water temperature, but whether or not a species actually does live in a particular place can depend on many other factors like food availability, predators present, and competition with other species that have similar food or habitat requirements. Additionally, the boundaries of a species' distribution are not 'fixed' and include a level of natural variation. It is also quite common to see 'extra-limital vagrants' or individuals of a particular species that are found outside of their usual distribution but don't become a permanent part of the region they are visiting.

This means that our monitoring needs to be conducted over a long enough timeframe for change to be detected over and above natural variation in the system – and this is where the fishers and divers of Tasmania come in! In the next few

months we will be developing a qualitative report card to summarise the results emerging from all your sightings and photos submitted to the Redmap website. We will be including information like – how easy it is to spot each particular species so we can add a weighting to your sightings, and an indication of how certain we are of the species' expected or current geographical range (because we don't actually know that for some species!). Likewise, the time of year for sightings is also important to consider. If we get a large number of verified sightings of a particular species throughout the cooler winter months then that is good evidence of a range extension, but if there are only a few sightings in the warmer months then that species may just be popping down the coast for a brief visit every now and again when it's really warm!

Disentangling the effect of factors like warming waters versus other, non-climate drivers of range shifts (like past and present effects of fishing and habitat degradation) is difficult. Nonetheless, mounting evidence suggests that range shifts are occurring in a wide range of species over relatively recent timeframes throughout Australia's marine environment, as well as in many other parts of the world (see our next newsletter for more on what's happening elsewhere around the world). Understanding how the species in our marine ecosystems respond to ongoing climate change is really important for putting us in the best position to be able to adapt to these changes, to minimise the negative impacts, and to make the most of the advantages (like new species that could be good commercial and recreational opportunities). Thanks to all the Tasmanian fishers and divers that are helping with this challenge by sending in their observations!

For more information on range shifts see the Resources section of the Redmap website at:

<http://www.redmap.org.au/resources/impact-of-climate-change-on-marine-species/range-and-distribution/>



Eastern wirra (*Acanthistius ocellatus*) caught by a recreational fisherman off Bicheno and passed on to the Tas Uni Dive Club for an ID. These are sometimes spotted off Tassie's north coast but not down the east coast. Thanks to Andrew Bain at TUDC for taking a pic and sending it on to Redmap.





REDMAP TEACHER PRIZE DONATED TO A WORTHY CAUSE



Redmap is on **Facebook**.

Become a fan of our page at

<http://www.facebook.com/pages/Redmap-range-extension-database-mappingproject/121764204502516?ref=ts>

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

In our winter newsletter we announced the winners of our Redmap teacher prizes. Trish Knight of Hutchins school won a \$400 Windmill Educational voucher. Trish recently wrote to us to say that her class decided to donate the \$400 voucher from Windmill Educational to Awak Mathok, a Sudanese refugee currently working in Tasmania as an engineer. Awak is planning to build a primary school in war-torn southern Sudan for the country's poorest people. Trish and her class invited Awak to school to tell his story and talk about his dream and presented him with the voucher. Windmill have volunteered to pay the cost of shipping the goods to Sudan when necessary.

Thanks, Hutchins and thanks, Windmill!



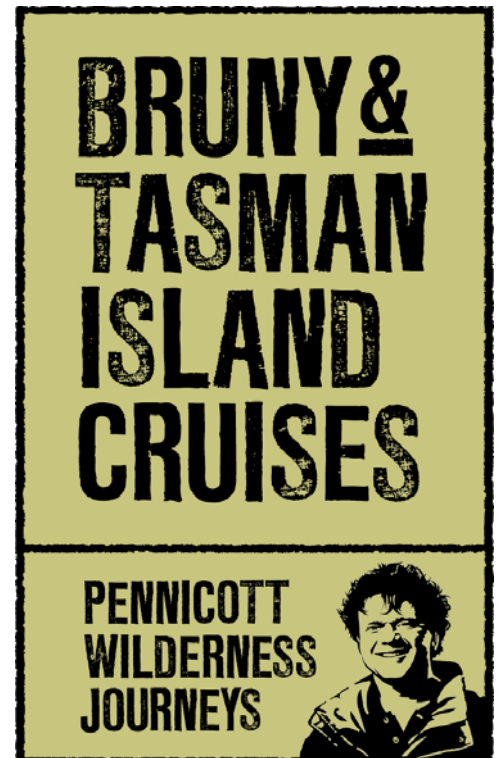
SEAFARERS' FESTIVAL—GREAT PRIZE UP FOR GRABS

Come and visit the Redmap stand at the Seafarer's Festival on Sunday 31 October and you could win a 3-hour eco cruise for two people with Bruny & Tasman Island Cruises (www.tasmancruises.com.au). To enter the prize draw, all you will need to do is answer a few questions about the Redmap website and (if you're not a member already) sign up as a member of Redmap on the day.



When: Sunday 31 October, 10.30am – 4.00pm
Where: Bellerive Boardwalk
What: Redmap stand at the Seafarer's Festival
Why: To enter our fabulous prize draw

The Seafarer's Festival is a unique action-packed free family event with activities and entertainment on and by the sea. For more information about the festival, visit www.ccc.tas.gov.au



Thanks to our sponsors:



Disclaimer: This newsletter was produced by the Tasmanian Aquaculture and Fisheries Institute (TAFI). Editorial content is sourced from diverse interest groups who have provided material for contribution. TAFI accepts no responsibility for the accuracy of contributed material.