Patrons: Mr. B. A. Farquhar O.A.M.

President: President: Jill van den Bosch, 311 East Minstone Road, Scottsdale 7260.

ph 6352 3004. and 0429 644 329

Vice President: Mike Douglas ph. 6356 1243

Secretary / Editor: Louise Brooker, 20 Edward Street, Bridport. ph: 6356 0381 and

0417 149 244 e.mail: brooker@vision.net.au

Treasurer: Revel Munro, 'Kanara Neika', Telita. Ph. 6354 2254 **Committee**: Denny Walter, Lesley Nicklason, Pam Bretz.

Web address: http://www.netasfieldnats.org.au

IT IS THE MISSION OF THIS CLUB to encourage the study, appreciation and preservation of our natural and cultural environment, the animals, plants, geology and landforms, including those of the coastal and marine areas in the North East region of Tasmania.

The Club conducts outings on the second Saturday of the month.

13TH FEBRUARY KAMONA SIDING TO TONGANAH SIDING.

13TH MARCH

BIRD WATCHING AT POLICEMAN'S POINT. [OVERNIGHT OPTION]

Liz Znidersic, who is really familiar with this area near Anson's Bay, will lead this outing. She has invited members of Birds Australia to join us. Some members intend to camp for kayaking and fishing on Sunday. Meet at 10a.m. at the campground at Policeman's Point at the easterly end of South Anson's Road.

Contact person: Lou Brooker 6356 0381.

10TH APRIL

OLD BOOBYALLA PORT, WATERHOUSE.

The area around the old port is accessible only with permission, so Jeff Jennings is going to arrange for us to explore here. Maximum distance to be walked is 9km—but probably less. We will look at Donald Campbell's wharf, site of the Caledonian Hotel and the cemetery where early pioneers and John Farquhar are buried. We could also search for any remains of Smith's wharf which was a little further up the river. Walking is level and through paddocks. We could visit the site of the Lyndhurst town and goldfield on the way back to Bridport. Of interest historically! Meet at 10am at junction of Tomahawk Rd., and Old Boobyalla Road—10 km west of Gladstone, 12 km east of Tomahawk turnoff.

Contact person: Jeff Jennings, ph 6356 1315

22ND & 23RD MAY

FEDERATION OUTING / WEEKEND—WELDBOROUGH

Three days before the weekend, a group of mycologists from Fungi-map will be collecting and documenting the fungi of the Blue Tier. They will be present at the Federation weekend and will be presenting talks as well as leading fungi forays and workshops. Various types of accommodation, including camping [Ring Lou soon if you want to stay the night] Dinner at the pub approx \$20, speaker afterwards. For the Saturday outing, meet at 9.30 at the hall across from the Weldborough Pub. Foray to the Blue Tier from there, then workshops back at Weldborough in the afternoon. Should be a great weekend!

CLUB NEWS / OUTING REPORTS

Glancing through Newsletter 178 before writing this, made me realise just how much was happening at the end of 2009, and how much I could have reported on in depth but can't. Two major events required a lot of co-ordination on both Revel's and my part and both, [might I say modestly] were extremely successful. I refer to the extraordinary opportunity Revel offered members to stay at his holiday refuge at Thunder and Lightning Bay on Cape Barren Island. This entailed complicated flight arrangements for twenty people and a considerable amount of pressure bringing everything together. Activities and learning were enriched by the presence of Mr. John Winray whose knowledge of the plants of the Furneaux Islands is second to none and Graeme Edgar whose knowledge of things Marine is likewise, Karen Zeigler who is involved with Landcare and Coast Care projects on the Furneaux Islands and Fauna Specialist Steve Cronin.

Without exception, everyone had the most amazing time there, learning something in their own special interest field. We enjoyed the exceptional 'Island Hospitality' that comes when one respectfully enters a close-knit community such as this. Those who didn't tackle the big hike to the summit of Mt. Munro, were shown the spectacular coastline northeast of the settlement by Cape Barren Islanders.

Congratulations to Revel on the level of organisation that went into the weekend and to Helen and Nysha for sharing their place and making us feel so welcome and comfortable.

In November, our club was host to the Federation of Field Naturalists for one of their twice yearly weekend get-togethers. This attracted a record 34 people who stayed at the Mt. Cameron Field Study Centre. Club members assisted in a variety of ways: leading walks, providing desserts and housekeeping, but by far, the most selfless contribution was made by Craig and Debbie Searle. Craig had taken a meagre two hours' break after an exhausting grade 9 camp to refresh himself and take on a major organisational role over the weekend. He led the Saturday walk and gave an introductory speech about the area on Friday night. To all those who assisted, a big thankyou; it was a most successful weekend.

L.B.

Good-bye Jill and Ron.

We knew they were planning to get down south as soon as they could to retire and live closer to their children, but that move seemed to happen even sooner and without the problems that Ron and Jill Harris had anticipated.

We have really enjoyed their company and their friendship, are sorry to see them go, but of course wish them a life as rich in retirement as it was before. Maybe their area around Bream Creek could be the site for another one of those special camps?

October: exploring Mt. Barrow.

We were lucky to be able to work in with a special celebration weekend at Skemps in October, when we invited Elizabeth Daley author of "Wings" to lead our explorations. On reflection, it may have been a little early in the season to see a lot of insect life, but Elizabeth's ploy of giving each member a bottle and some hints about where to look, paid off. We found weevils, chrisomelid beetles, Tassie hoppers and millipedes and these provided a platform for some basic information on the world of insects. The drive to the summit was spectacular; we enjoyed a leisurely walk across the summit but did not look for the waterfalls on our return to the base; we decided to leave that for another time.

December: Winifred Curtis after the fires.

It was three years to the day since the awful East Coast fires ravaged the Winifred Curtis Reserve and the area between St. Marys and Scamander.. This visit gave Field Nats. a chance to see and hear about the recovery from the point of view of some of the local caretakers of the reserve. Paul Frater was our guide and any plant he wasn't familiar with - and there were only a few - he referenced the official plant list compiled by Alex Buchanan.

The two hectare Reserve was bequeathed to the people of Break O'Day in 1995 by Dr. Geraldine Archer and later increased to 76 hectares when the Trustees, with government and public support, were able to buy an adjacent block. The result is a reserve rich in botanical diversity incorporating pristine bushland, heathlands, dunelands, wetlands and marshlands.

We were gob-smacked to see how healthy everything looked, and amazed to see carpets [well, I fabulate a little] of flying duck orchids. We were surprised at the brightness of the yellow pea flower of *Gompholobium heugelii* after having seen it as pale yellow in other places. *Pimelea linifolia* provided a sea of white, along with *Olearia ramulosa*. Each *Acacia suaveolens* still held a myriad of its little coracle-like boat pods with the seeds sitting like passengers in a row. The tiny yellow pea flower of *Phyllota diffusa* is one of the rarer plants in the reserve, and *Conospermum hookeri*, a plant restricted to the east coast, is here too.

Later, we enjoyed Pam's hospitality as we barbequed at her place to celebrate summer and the festive season. Thankyou Pam.

CITIZEN SCIENTISTS

As we lurch into a new decade, we realise more and more that we know less and less, that there are critical gaps in the information required by governments and the community about the natural world, and its possible response to climate change. In other words we lack base-line data. But it is already too late for this base-line data. It should have been gathered last century.

I personally feel governments lack the inclination to effect any changes, no matter what data they acquire, but that's not going to stop those passionate people who want to do something, and despite my current mood of despondency, I count myself as one of those.

There has been a huge increase in wildlife volunteering and correspondingly, a number of new ways implemented to encourage people to volunteer, for example the Park's Wildcare program. Just among my small circle of friends there are people who count orange bellied parrots, people who caretake small islands, and people who spend hours and hours pulling weeds in Coastcare groups. Agencies are realising that among these passionate citizens, there is a willingness to work for the land and that they hold a wealth of information just waiting to be tapped.

Sarah Lloyd realised this when she devised her 'Sound Idea Project'. I've heard about a group of concerned individuals who have formed a group called Pollution Information Tasmania to provide a data base that tells the truth about toxics. And REDMAP is a newly launched website in Tasmania intent on collecting data from the 120,000 'citizen scientists' who hold fishing licences.

A little more about each of these projects.....

A Sound Idea is a project that uses the latest in digital sound recording devices to monitor bush and forest birds. These devices [e.g. Zoom H2] are to sound recordists what compact digital cameras are to home photographers. Sarah distributes the recorders to interested naturalists, who return the data to her for analysis.

The dawn chorus is the time when most of the birds in the neighbourhood join each other in a concentrated bout of early morning singing. It is not only wonderful to listen to, it is also extremely informative. An acoustic recording of this event can tell us what birds are living in an area. Imagine how much could be learned through a coordinated effort to record at as many sites as possible across Tasmania within one month!

Thanks to The Sound Idea project, a Flame Robin made it to the bird list at the Eugenana Arboretum for the first time in five years. The recordings can reveal much more than just chance encounters with threatened species! They can tell us which native bush birds are able to persist in isolated bush remnants, suburban and semi-urban bushland, weed-infested coastal areas, fragmenting forests and private and public reserves.

It should come as no surprise that some of the richest near-natural sites for birds coincide with human settlement; birds also like to inhabit places with a reliable water supply near productive land. It is good to know that in some areas our activities don't adversely affect the local native birds. It is important that these areas are retained.

Thanks to the efforts of more than 30 people, Sarah now has over eighty 20-minute recordings from King Island in Bass Strait to Ketchem Bay on the rugged coast of southwest Tasmania, and a species list for each site.

Last August a network was established to provide a central database that *tells the truth about toxics* in Tasmania Called *Pollution Information Tasmania* (PIT). The network will connect people working in their local areas on issues relating to chemicals and other pollutants in our air, soil and water. The network will enable independent ecotoxicology data assessment and analysis and monitoring of contamination incidents. It will allow investigation of links to possible public health risks A state-wide database listing of *contaminated sites* will allow review of historical connections and future research into toxic contaminants in the Tasmanian landscape. Government at all levels is failing to apply the *precautionary principle* on pollutants by supporting polluting industries and not protecting public and environmental health. This network will work towards lifting public and government awareness about serious pollution issues that impact on human health, our agricultural produce and the health of our wildlife. Our internationally promoted *clean green image* is undermined by a polluted Tasmania. PIT is committed to making information freely accessible to all.

This is the web address: http://www.sourcewatch.org/index.php?title=Pollution_Information_Tasmania Citizen Scientists contd.

On the marine scene, 'citizen scientists' can report sightings of species that might be extending their distributions further south as our coastal waters warm up. [at approximately four times the global ocean warming average] The new interactive website

REDMAP: www.redmap.org.au was launched in December 2009 and is an exciting collaboration between industry, scientists, and the community, taking science out of the labs and making it available for all Tasmanians. The idea is that 120,000 recreational and commercial fishers, scuba divers and scientists, can all report sightings to assist in the research around global warming. That's the number of Tasmanians who go fishing at least once a year. I heard about REDMAP when I attended a seminar in Bridport organised by a group called Ocean Planet. They toured Tasmania to discuss with communities how we can secure a healthy and sustainable future for Tasmania's unique and diverse marine environment. Those who are interested could register at the following site to receive

their E-Bulletin. ocean.planet.tas@gmail.com

Notes from the Ocean Planet E-Bulletin

- ⇒ Rock Lobster Cuts. Reports for the last two years indicate that the previous trend of stock rebuilding has reversed and stocks of Rock Lobster show a worrying trend of decline. In recognition of the need to take action if their industry is to remain sustainable, rock lobster fishers have voluntarily taken the decision to reduce their catches by 20 per cent over the next three years, starting with a 10 per cent cut next year.
- ⇒ Sea urchins 'bulldozing' Tasmanian reef A combination of over-fishing and climate change are triggering catastrophic overgrazing of reefs by sea urchins in eastern Tasmania, say researchers. Johnson and colleagues carried out experiments inside and outside protected marine areas to show that fishing has made reefs more vulnerable to the climate-driven threat of the sea urchin. "If we just had the climate change without the over-fishing of the lobsters then the urchin would be here but probably just as a background species ... It wouldn't cause barrens," he says. The urchins only become a problem when its key predator is over-fished, says Johnson.
- ⇒ In eastern Tasmania, temperate coastal waters are warming at approximately four times the global ocean warming average, representing the fastest rate of warming in the Southern Hemisphere. This has driven range extension of the ecologically important long-spined sea urchin, *Centrostephanus rodgersii*, which has now commenced catastrophic overgrazing of productive Tasmanian kelp beds, leading to loss of biodiversity and important rocky reef ecosystem services. Coincident with the overgrazing is heavy fishing of reef-based predators, including the southern rock lobster *Jasus edwardsii*. By conducting experiments inside and outside Marine Protected Areas, it has been found that fishing, by removing large predatory lobsters, has reduced the resilience of kelp beds against the climate-driven threat of the sea urchin and thus increased risk of catastrophic shift to widespread sea urchin barrens.
- ⇒ Rock Lobster Cuts. The southern rock lobster Jasus edwardsii is an important reef predator in temperate Australasia and subject to heavy exploitation. In one Tasmanian MPA, 90% of individuals were recaptured less than 200m from the point of release over weekly to annual time scales, regardless of size or sex. This lack of movement resulted in a substantial build-up of biomass and of large mature individuals in the MPA relative to adjacent fished locations. Although there was little spillover of individuals to the fishery, a 4- fold increase in female fecundity potentially enhanced larval export. Comparison of fished and unfished biomass of legal-sized animals suggested that exploitation had reduced biomass in the adjacent fishery to <10% of natural values. Overall, the demographic and movement patterns illustrate the extent of depletion of stocks in the absence of historical baseline data and the potential need for spatial management resulting from limited movement. Our data indicate that within MPAs, this predator can potentially recover in abundance to natural levels despite adjacent fishing pressure.

Reference: Barrett, N., Buxton, C., and Gardner, C (2009) Rock lobster movement patterns and population structure within a Tasmanian Marine Protected Area inform fishery and conservation management. Marine and Freshwater Research 60(5): 417-425, 2009.

- ⇒ **Sixteen New Marine Protected Areas.** Tinderbox Marine Nature Reserve expands from 45 hectares to 144 hectares and Ninepin Point Marine Nature Reserve expands from 60 hectares to 751 hectares. The extensions are both "no take." Also, a series of parks have been created by the Tasmanian Government within the Bruny Marine Bioregion. No controls on fishing apply to them.
- ⇒ Oceans May Trap more Carbon than Forests. Marine ecosystems including seagrass meadows, mangroves and salt marshes have a much greater capacity to trap carbon than land carbon sinks such as forests, according to a report from the International Union for Conservation of Nature (IUCN). The organization believes ocean ecosystems are essential to combating global warming as they account for more than 50%, perhaps as much as 71%, of all carbon storage in ocean sediments.
- ⇒ More Carbon Dioxide may create a racket in the sea . Here is another consequence of rising carbon dioxide emissions: the oceans are getting louder. It has long been known that chemical compounds in seawater, including boric acid, absorb sound, as energy from sound waves stimulates certain reactions. As the oceans grow more acidic, a result of increasing absorption of atmospheric CO2, the seawater chemistry changes, resulting in fewer reactions and less acoustic energy used. That means sounds will travel farther and be louder at a given distance from a sound source. http://www.nytimes.com/2009/12/29/science/earth/29obsound.html

Notes from Newsletter of the North East Bioregional Network:

Coal-mine at Cornwall

It appears that the proposed open cut coalmine near Cornwall (south west of South Sister) has been abandoned due to the fact that much of the area earmarked for mining is covered by wet *Eucalyptus brookeriana* forest, another threatened Tasmanian forest type. The area also constitutes prime habitat for the Blind Velvet Worm which has a restricted distribution mostly in the St. Marys region.

Bay of Fires National Park: The Bay of Fires Coastal Preservation Lobby and the North East Bioregional Network have produced a Bay of Fires National Park Proposal in response the State Government's announcement that they intend to proclaim a National Park in the area. This is a comprehensive report which documents the conservation values present. The State Government has released its draft proposed boundaries for the new Bay of Fires National Park, but the NEBN believes the area proposed is totally inadequate and illogical.

Their proposal can be seen on their website www.northeastbioregionalnetwork.org.au

The Restore Skyline Tier Project: The NEBN has negotiated with Rayonier to bring 260ha of ex-pine-plantation back to native forest. This has involved weeding each area and then allowing natural revegetation to take place. The Network team will be assisted by a Green Corps team of ten local 17-20 year olds who will work for six months on this and other projects in the area. Working bees for locals are held regularly. See website if you'd like to volunteer.

Notes from the newsletter of the Tasmanian Land Conservancy Network.

Vale of Belvoir [see Issue 178]

One of the very special plants occurring only in the Vale of Belvoir in Tasmania's Central North West is the herb Alpine Candles, *Stackhousia pulvinaris*. Around Christmas, when this plant put on a spectacular show, eight volunteers spent time searching the grasslands for the candles and recording their observations using GPS. Their observations expanded the 1,000 known mats of this herb by an additional 200.

Other volunteer surveys are conducted to co-incide with the flowering of important plant species. The organisation encourages volunteers to count butterflies, erect fences, and to help with weed control in various reserves. If Field Nats would like to register an interest they can do so by Email: info@tasland.org.au or by phoning 6225 1399.

Protecting habitat for threatened woodland birds.

The TLC has recently joined forces with Birds Australia and two other nature conservation trusts to deliver a national project aimed at protecting habitat for threatened woodland birds. In Tasmania, icons such as the Forty-spotted pardalote, the Swift parrot, the Flame robin, the Painted button quail and the Spotted quail thrush have seriously declined in numbers because of habitat depletion. The project recognises this growing pressure on woodland birds and aims to assist landholders to covenant and protect forests with suitable habitat .

Sally Bryant, TLC Wildlife Ecologist, is co-ordinating the project.

The Newsletter can be viewed at www.tasland.org.au

The Passing of our Patron.

The patron of our club Bertram Albert Farquhar passed away at the age of 91 in Scottsdale last week. Bert was the great nephew of the first white boy born in the North East. He will be remembered as being an integral part of the history of our area. An icon!

At seventeen Bert and his brother pooled their rabbit skinning money and leased some land and began farming. Soon they were growing potatoes and with the success of that venture, were able to buy land at the mouth of the Great Forester River near Bridport.

Other large tracts of land were bought and drained and converted into farming land: 70,000 acres at Wyambi near Tomahawk, Rushy Lagoon in the far northeast. Here at Rushy, he set up his famous gravity-fed irrigation system modelled on systems used in mining country nearby.

He was an original thinker, a risk taker, but a person whose honesty underpinned all his operations.

Bert was involved with the North East Field Nats. from its inception in 1972. In 1978 he was elected joint patron with Mr. Lloyd Carins and held that role until now. We are proud to have had him as our patron.

PIONEERING North-East farmer Bert Farquhar died at the weekend.

Mr Farquhar died on Saturday at the James Scott Wing of Scottsdale's North- East Soldiers Memorial Hospital, aged 91.

Former Dorset mayor Peter Partridge said Mr Farquhar was one of the great men of the Scottsdale district.

"He was always a leader of agriculture and he has certainly done a lot for this region - a lot of people worked for Bert," Cr Partridge said.

"I think everybody who grew up in the district knew of him."

Mr Farquhar started his working life at age 14, tin mining at Lottah and Weldborough with his father.

He soon bought land and began an innovative farming career, which included using early irrigation methods from former mine water races and using millions of worms to make the sandy soil on his North-East properties around Musselroe and Waterhouse more productive.

In 1986, Mr Farquhar bought the huge North-East property Rushy Lagoon, taking his land portfolio up to 27,930 hectares.

For decades, Mr Farquhar was influential in bringing employment and industry to the North-East and was credited with the establishment of the Dewcrisp vegetable processing plant in Scottsdale, where he served some time as its managing director.

He was instrumental in bringing the Armed Forces Food Science Establishment to Scottsdale in the 1970s, and dabbled in mining and sawmilling industries throughout the state.

Community-minded, Mr Farquhar served as chairman of the North-Eastern Soldiers Memorial Hospital for a number of years.

Mr Farquhar's full life and varied working career was detailed in a memoir he wrote in 1990 called Bert's Story.

A funeral will be held for Mr Farquhar at the Uniting Church at Scottsdale this Friday from 11am.

CLUB NEWS / OUTING REPORTS

Kamona Siding to Tonganah Station. - Saturday 13th February.

Hi there to all Field Nats. members and friends.

The walk on February 13th was a gradual easy downhill stroll for approximately 10km from the top of Rocky Gully at the site of the old Kamona Siding, to the former Tonganah Train Station. The walk was a suggestion to raise the profile and awareness of a concept project by the North East Tourist Association and Forestry Tasmania that with some capital expenditure the line could be converted into a multipurpose trail for hikers, mountain bike riders and horse riders. [although I doubt horses would be comfortable on the chunky blue metal surface.]

Construction of the N.E. Line from Scottsdale to Launceston began in 1885, opening in 1889. Six hundred men were employed in its construction and it was not without controversy. Shortly after opening, some Scottsdale residents put forward a petition complaining about excursion trains running from Launceston on Sundays. As well as breaching the Sabbath, they expected an influx of larrikins accompanied by rioting and drunkenness.

It was an overcast day and 33 participants ranging in age from 2 to 72 met at the finishing point to arrange car-pooling. At the Kamona Siding, Jill gave an impromptu speech about her family ties to the area and how the family used the railway. At this stage one party member was given an unwanted kiss by an inch-man and everybody was on edge from then on with many nests encountered during the walk. Jack jumpers were a common site and many had encounters with leeches.

The walk started off into an impressive cutting, the sheer scale of which was mentioned by all as impressive, considering it had been constructed around 1910. This section of the line from Scottsdale to Branxholm, was begun then, and the 24 mile section was finished and opened by 1911 at an average cost of 6000 pounds per mile. Another less conspicuous cutting, further along the track, although only a hundred feet in length, took eight months to complete due to the massive volume of rock that had to be blasted aside.

At the front were the youngsters of the group and a cracking pace was set, but after a stop to allow the tail end to catch up, the pace settled down to a meandering and people were able to take in the views towards Mt. Stronach and enjoy the peacefulness of the bush.

The forest was a mix of wet and dry sclerophyll with the usual understorey. Of interest was an area of very healthy *Beyeria viscosa*, the native pinkwood. There was *Monotoca glauca*, the goldy wood. There was *E. viminalis*, *E. regnans*, *E. obliqua*, *E. amygdalina*, *Exocarpos cupressiformis*- native cherry, *Pomaderris apetala*— common dogwood and *Clematis aristata*. For some, it was their first time to see *Callistemon pallidus* the yellow bottlebrush outside a garden.

Lunch was taken in a shaded, ferny area, at the Parr's Rivulet crossing. A scramble downhill to the rivulet revealed a gigantic granite boulder the enormity of which could not be believed without seeing first hand. It was wedged in the rivulet and would not fit into photographs it was so big. It created a wonderful cave shelter.

The general concensus was that use of this old rail trail was a good idea. Though I observed that footwear was various—from proper hiking boots to sandshoes to sandals—all seemed to find the blue-metal ballast somewhat uncomfortable to walk on.

After lunch, the cuttings were less frequent and the track gradually flattened out into more open dry forest with an abundance of bull-oak, but soon the track abruptly stopped and disappeared into a dam at the former Tonganah Kaolin Mine site. One of the most recent uses of the train line had been to take refined Kaolin from here to the North West Coast for use in paper production. Since the 1990's, when the mine closed, a site rehabilitation project was undertaken using many native species, although not necessarily those with local provenance. Despite this, the *Acacia dealbata*- silver wattles were still the dominant species here.

Amongst the Silver wattles, Mike noticed eucalypts with bluish vegetation, and thinking they might have been *Eucalyptus rodwayi*, the swamp peppermint, he keyed them out to find they were *Eucalyptus amygdalina*, the black peppermint. From references, he found that *E. amygdalina* sometimes has glaucous [blue] foliage, but this is often associated with altitude or frost prone sites. It was a bit unusual to see them here.

Search parties were dispatched to ascertain the whereabouts of the track and, thanks to modern technology [mobile phones], we were able to reconvene for the last flat, open leg of the walk. The end was reached with relief for most, as the walk had been advertised as 8km's. Blackberry picking was engaged in while the cars were retrieved and this gave me time to complete my survey. The 33 participants engaged in a diversity of professions rivalling the floral abundance. There was a toddler, three school aged children, a G.P., a school principal, an artist, numerous teachers and scientists, a librarian, a ship's master, rehabilitation counsellor, tourist operator, many retirees and a proclaimed beachcomber. These travelled from Launceston, Westbury, Bridport, Bicheno, St. Helens, Branxholm, Lilydale and Derby.

Thankyou to Louise Brooker and Jill van den Bosch for organising this walk.

Thanks to Kieran Munro for his story. Thanks too to Mike Douglas for the railway information which the editor wove into Kieran's story.

Notes from the Ocean Planet E-Bulletin

- ⇒ Rock Lobster Cuts. Reports for the last two years indicate that the previous trend of stock rebuilding has reversed and stocks of Rock Lobster show a worrying trend of decline. In recognition of the need to take action if their industry is to remain sustainable, rock lobster fishers have voluntarily taken the decision to reduce their catches by 20 per cent over the next three years, starting with a 10 per cent cut next year.
- ⇒ Marine Protected Areas In eastern Tasmania, temperate coastal waters are warming at approximately four times the global ocean warming average, representing the fastest rate of warming in the Southern Hemisphere. This has driven range extension of the ecologically important long-spined sea urchin (Centrostephanus rodgersii), which has now commenced catastrophic overgrazing of productive Tasmanian kelp beds leading to loss of biodiversity and important rocky reef ecosystem services. Coincident with the overgrazing is heavy fishing of reef-based predators including the spiny lobster Jasus edwardsii. By conducting experiments inside and outside Marine Protected Areas we show that fishing, by removing large predatory lobsters, has reduced the resilience of kelp beds against the climate-driven threat of the sea urchin and thus increased risk of catastrophic shift to widespread sea urchin barrens.
- ⇒ Rock Lobster Cuts. The southern rock lobster (Jasus edwardsii) is an important reef predator in temperate Australasia and subject to heavy exploitation. In one Tasmanian MPA, 90% of individuals were recaptured less than 200m from the point of release over weekly to annual time scales, regardless of size or sex. This lack of movement resulted in a substantial build-up of biomass and of large mature individuals in the MPA relative to adjacent fished locations. Although there was little spillover of individuals to the fishery, a 4- fold increase in female fecundity potentially enhanced larval export. Comparison of fished and unfished biomass of legal-sized animals suggested that exploitation had reduced biomass in the adjacent fishery to <10% of natural values. Overall, the demographic and movement patterns illustrate the extent of depletion of stocks in the absence of historical baseline data and the potential need for spatial management resulting from limited movement. Our data indicate that within MPAs, this predator can potentially recover in abundance to natural levels despite adjacent fishing pressure. Reference: Barrett, N., Buxton, C., and Gardner, C (2009) Rock lobster movement patterns and population structure within a Tasmanian Marine Protected Area inform fishery and conservation management. Marine and Freshwater Research 60(5): 417-425, 2009.
- ⇒ Oceans May Trap more Carbon than Forests. Marine ecosystems including seagrass meadows, mangroves and salt marshes have a much greater capacity to trap carbon than land carbon sinks such as forests, according to a report from the International Union for Conservation of Nature (IUCN). The organization believes ocean ecosystems are essential to combating global warming as they account for more than 50%, perhaps as much as 71%, of all carbon storage in ocean sediments.
- ⇒ More Carbon Dioxide may create a racket in the sea. Here is another consequence of rising carbon dioxide emissions: the oceans are getting louder. It has long been known that chemical compounds in seawater, including boric acid, absorb sound, as energy from sound waves stimulates certain reactions. As the oceans grow more acidic, a result of increasing absorption of atmospheric CO2, the seawater chemistry changes, resulting in fewer reactions and less acoustic energy used. That means sounds will travel farther and be louder at a given distance from a sound source.

http://www.nytimes.com/2009/12/29/science/earth/29obsound.html

Notes from Newsletter of the North East Bioregional Network:

It appears that the proposed open cut coalmine near Cornwall (south west of South Sister) has been abandoned due to the fact that much of the area earmarked for mining is covered by wet *Eucalyptus brookeriana* forest, another threatened Tasmanian forest type. The area also constitutes prime habitat for the Blind Velvet Worm which has a restricted distribution mostly in the St. Marys region.

The Bay of Fires Coastal Preservation Lobby and the North East Bioregional Network have produced a <u>Bay of Fires National Park Proposal</u> in response the State Government's announcement that they intend to proclaim a National Park in the area. This is a comprehensive report which documents the conservation values present. The State Government has released its draft proposed boundaries for the new Bay of Fires National Park. The NEBN believes the area proposed is totally inadequate and illogical.