



The Value of Partnerships



Matt Bell and Peter Michael with General Manager Tony Hayward

Our partnership with local government has revealed it is worth its weight in gold. Critical evidence of the biodiversity, vegetation and habitat value of the Wrights and Yarrabee Creeks catchments was provided by Port Macquarie-Hastings Council to support our application, helping secure a NSW Environmental Trust grant last year. These grants are highly competitive and it is proof of the strength of this alliance that we were allocated \$250,000 for a six-year restoration and rehabilitation project.

Work is well and truly underway with the support of Council's Bush Regeneration Teams and ecologist, Bill Peel. Council's Natural Resources Officer, Thor Aaso, said the Teams were critical in the provision of strategic planning and human resources for the project. "The value is in our ability to align the project with the bigger picture of Council and State strategies," Thor said. "This makes the work of both our Bush Regeneration Teams and Port Macquarie Landcare Group volunteers all the more valuable."

As a result of this project, formal asset protection zones have been created along the Wrights and Yarrabee Creeks catchments. This adds another dimension to the rehabilita-

tion work, Thor said, and reduces Council's risk and liability in relation to bush fires which is "pretty high at the moment".

Council's two Bush Regeneration Teams add manpower, skills and knowledge to the project. Coordinator Bush Regenerators, Peter Michael, said the main issue for the Wrights and Yarrabee Creeks catchments is degradation through weed invasion and lack of active management. The NSW Environmental Trust grant has provided resources to tackle this extensive area for the first time. "There will be a time lag between work on the ground and improvement," he said. "The outcome will be a measurable improvement in connectivity of the catchments' nature reserves."

Plenty of hands have gone up and energetic volunteers have already put over 6000 hours of work into the project. Already this is three times more than that required in the terms of the grant. At the end of the six years Council's bush regenerators will have added a further \$800,000 in labour. Volunteer Roz Anderson said she got a lot out of working on the project with the Council Teams. "They've got a lot of knowledge about plant and weed identification and I am learning different techniques", she said. "It's great to see possums, koalas and water dragons as we work and all the native plants coming back."

Port Macquarie Landcare Group president, Estelle Gough, said the contribution of volunteer and Council employee time on top of the \$250,000 was invaluable to the community. "Within the scope of this project are about a dozen endangered animals and plants and two endangered ecological communities which are some of the last examples we have in suburban Port Macquarie.

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The Value of Partnerships

So not only does our community protect the valuable natural assets it already has but it enhances them for everyone to enjoy," Estelle said.

There are many positives to the project including connectivity of nature reserves along the creeks to create one of the longest corridors for movement of wildlife within town. Weeds of national significance have had free reign along the creeks and their removal will reduce infection in the downstream areas of Macquarie Nature Reserve and Kooloonbung Creek Nature Reserve. As the native riparian vegetation takes over from weeds there will be an improvement in resilience of the catchments and water quality. Ongoing maintenance of asset protection zones will reduce the risk of bush fires.

Nikala Sim



The Bush Regen Team and Landcare volunteers

Christmas is coming and the goose is getting fat!

Landcare Christmas Party

30 November 2013

Port Macquarie Race Club

6.00pm

Free to all fully paid up members

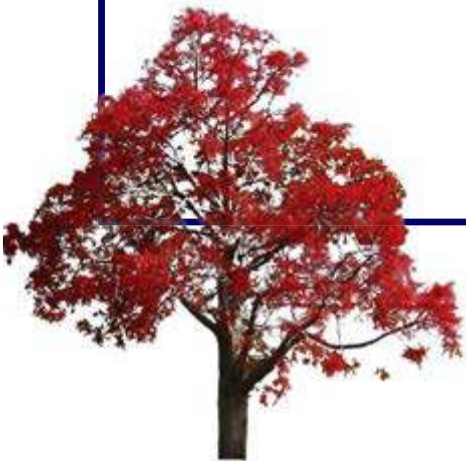
\$30.00 for non members

Get in early as space is limited

Come and enjoy the festive season with good food, great friends
and lots of surprises!

RSVP by 8 November to: treasurer@landcareportmac.com.au

or phone Ken Gough on 6583 6508



President's Report



The AGM is over for another year. Re-election of the committee unopposed was a well-deserved endorsement by the membership of the professional work the committee has done in the past year. All members can be congratulated on the way they work together for the betterment of the environment through Landcare.

We've had a busy and exciting few months. The Lighthouse Beach team hosted the "Volunteer Thank You BBQ" bringing many Landcarers to their site and show-casing their achievements. These BBQ's are doing exactly what they are designed to do. They run so smoothly now that the team that agrees to host the event can put their unique stamp on the occasion. Our next BBQ (in autumn next year) will be hosted by our newest Landcare project, Queens Lake Walk Way.

We had a visit from Steve Hardy, Grants Administrator (Bush Regeneration) Environmental Trust. This was a great way of showing off our achievements to a very interested party. His comment that "It was good to see a project that was doing well" says it all?

The official opening of the shed was a great success; many Landcarers gave up more of their valuable time to participate. Our Mayor Peter Besseling did a great job as always and everyone had an opportunity to approach him.

The nursery is still an issue for us and will continue to be for some time. The latest information is that the process of finding a suitable location is underway and if all goes well we should know something definite in 6 months.

I'm looking forward to an enjoyable and productive summer .

Estelle Gough



PMHC General Manager visits Wrights and Yarranabee Creek sites

Tony Hayward, the General Manager of Port Macquarie-Hastings Council, spent an hour and a half with Landcare and the Council's Bush Regeneration Teams looking over the work achieved on the Wrights and Yarranabee Creeks and discussing some of the future works. The points that were raised with Tony were:

- We are working to conserve a raft of National (Environmental Protection and Biodiversity Conservation Act) and State (Threatened Species Conservation Act) assets including Endangered Ecological Communities like Lowland Rainforest, Forested Wetlands, Swamp Oak Forest; threatened plants such as *Melaleuca biconvex*; and threatened fauna including the Wompoo Fruit Dove, Grey-headed Flying Fox, Black Bittern and Koalas.
- Our work responds to the Council's 2020 vision of a healthy environment and bushland reserves and is an integrated partnership between Landcare, Council and contractors.
- We work cooperatively with other parts of Council including Roads, Drainage, Parks and Recreation and Bushfire Asset Protection Zones, saving time and money for the community.
- Our work is the only type that Council invests in which involves an initial 'construction' cost (repair of the asset) following which the asset is self-maintaining with minimal input. This contrasts with other works such as roads that have to be repaired/rebuilt on a cyclic basis ad infinitum.
- One of our biggest problems is environmental weeds that come from domestic gardens. Date Palms are a major and dangerous weed.

Estelle Gough





Native Ginger

Scientific Name: *Alpinia caerulea*

Family: Zingiberaceae

Hardy herbaceous plant to about 1.5m; shade lover; edible spice, (the fruits were favoured journey foods for many Aboriginal tribes).

The Native Ginger belongs to the same family of plants as the cultivated spice that we know as Ginger, and has something of the same spicy flavor in the outer white pith of its blue berries and the young tips of its rhizomes, which are both edible.

The arching stems of Native Ginger carry alternating leaves, each quite large and satin-shiny, giving almost the impression of a palm frond. The slowly spreading rhizomes form clumps and well grown Gingers can be quite decorative.

Native Ginger is a denizen of the forest floor, and as such needs shade and shelter to look its best. It will survive light frost, re-shooting from its rhizomes where necessary, but the effort of reshooting every year will eventually weaken it. (More occasional damage can easily be remedied by the "haircut, water and a good meal" method however). It will survive some sun and wind but the leaves will burn and shred where conditions are too harsh, and the plant will never attain its full glory. Shelter can of course be planted, and given suitable conditions it is a very easy and rewarding garden subject.

The height achieved is very moisture dependent, but is usually between 1 and 1.5m. Satin Bowerbirds are fond of the blue fruits as bower decorations.

The seeds are ripe when the berry turns blue. Clean the sticky flesh off to separate the seeds, soak them in water for 3 days (changing the water daily), then sow in trays of seed-raising mix.

Reproduced with permission from: *Rainforest Plants of the Hastings Valley* by Jan Carson (2013).

Alpinia caerulea





Ginger Lily or Kahili ginger

Scientific Name: *Hedychium gardnerianum*

Family: Zingiberaceae

Native to the Himalayas in India, Nepal, and Bhutan

Distinguishing Characteristics:

A large herbaceous plant with short-lived upright flowering stems growing up to 2.5 m tall. It re-grows and spreads via long-lived creeping underground stems. Its large alternately arranged leaves (20-45 cm long and 10-15 cm wide) have a long base that sheaths the stems. Its showy flowers are borne in large clusters (15-45 cm long and 15-20 cm wide) at the tips of the upright stems. These flowers are mostly bright yellow with a single large bright red stamen. Its capsules (about 1.5 cm long) split open when mature to reveal bright orange inner surfaces and bright red seeds.

This species reproduces by seed and also vegetatively via its creeping underground stems (rhizomes). The seeds are readily dispersed by birds and other animals that are attracted to their bright colours. Seeds and segments of the rhizomes may also be dispersed by water and in dumped garden waste.

Impacts

Ginger Lily is regarded as an environmental weed in Queensland and New South Wales. It forms vast, dense, colonies that smother and displace native groundcover. These dense mats can also prevent the regeneration of trees and shrubs, significantly modify the habitat available to native animals, and eventually threaten the integrity of forest ecosystems. This species prefers moist habitats, can tolerate shade, and can dominate riparian areas and the understorey of wetter forests in sub-tropical and tropical regions.

It is naturalised in moist habitats north from the Sydney area in New South Wales and invades sub-tropical and warmer temperate rainforests in this state. It also invades creek banks and watercourses close to urban areas in the Sydney region. Kahili ginger is regarded as a potentially significant environmental weed throughout the coastal districts of New South Wales and appears on numerous local and regional weed lists in the eastern parts of the state.

Kahili ginger is also very poisonous to grazing animals, and can be fatal if enough of the plant is ingested. Medicinal research indicates that the plant compound, villosin, in *Hedychium gardnerianum* has potent cytotoxicity activity against human small cell lung cancer cells.

Control

This plant can quickly colonise untended areas, its sticky seeds are easily spread by birds and roaming mammals, while rhizomes crowd out native seedling by forming dense mats. Without human intervention, it can quickly colonise large areas as each rhizome adds at least one segment per season depending on climatic and light conditions. The only certain control methods are complete removal of the rhizomes (bagged and taken off site) or application of herbicide to cut stems and to cuts to the rhizomes. Annual follow up is required for some years. Re-infestation can occur from neighbouring plants and dormant seeds disturbed by the original tuber clump, which remain viable for 2 to 4 years.

Estelle Gough



Nobby's Update



In a recent email to the Nobby's Landcare group, Bill Peel summarised progress on the site as follows:

1. Palm valley has held up well and is now basically weed free and the area under the mature Coast Banksias in that area is also holding well.
2. The whole of the strandline (grassy area behind the beach) is in great condition.
3. The beautiful sprawling Rusty Fig near Fig Rock (at the middle of the beach) has been re-weeded and you would not believe the number and diversity of rainforest plants coming up there.
4. The rainforest in the north between the rock fall headland and the northern stairs is in good condition, with Council teams currently working on a pass to get the vine weeds and remaining woody weeds. They are about half-way through this (our best rainforest stand on the beach).
5. John, our mountain goat, has been able to remove the old-growth Bitou in the steep rock-fall headland at the northern end of the beach, and during his toiling has located a dense infestation that has so far remained hidden. This has been handed over to the Council crew.
7. I have been working outside working bee times to provide access to the area immediately below Kenny Drive that is open and degraded. A surprising amount of the area has native vines and ground covers that I am encircling, delineating by spraying so we can get access onto that slope. When the rain comes we will begin planting that out.
8. The western side of the stairs is holding well. The eastern side is being slowly weeded, so as to conserve our plantings and not open it up to water erosion from the stairs.
9. Our plantings of Beach Hibiscus are hanging on. This coming wet season we will fertilise those that have established, and learning from elsewhere, we will plant more in the seepage areas along the beach (south end).
10. The creek line off the Kenny Walk has been resprayed and the two figs planted there (one for Randall) are growing really well and are more than 1m high. I have sprayed this for grasses and the plantings there are re-emerging.

Hope to see you at the next working bee!

Bill Peel



Meet Our Volunteer Sam Dobner

I was formerly a teacher, of children of all ages and also adults, but Early Childhood Special Needs was my first choice. I have been in Port Macquarie 5 years, having left Delungra, where we had a small grazing property. My early involvement in Landcare came about through the battle with dry land salinity on an earlier property near Cowra. Currently I am a weeds remover (unskilled, learning on the job). This is fairly challenging for me, as I really only know the inland vegetation and my knowledge is of very different weeds from those found in this coastal environment. However, I have now taken over as Coordinator of Habitatler, and I hope to revive old skills whilst learning new ones— on my computer. I get a lot of satisfaction from seeing environments improving and being rehabilitated and in particular it was very satisfying to see a previously badly eroded waterway repaired and working well, with a large number of well grown trees surrounding it on our property near Delungra.

Sam Dobner



Thank You Carol

A big thank you goes to Carol Jungblut who has stepped down from her role as Habitatler Coordinator. Carol did a really fantastic job – scouting for stories, setting up a system that enables us to keep track as they are processed, developing the format, doing the layout, setting the timelines, arranging the meetings and keeping us in hand – all with lots of laughs along the way. As a result of her efforts we now have a very well-oiled ‘machine’ for producing the newsletter. A warm welcome to Sam Dobner who’s taken on the challenge of keeping it running. Fortunately for all of us, Carol is not retiring from her other Landcare activities so we’re not losing her altogether.

Bev Sibthorpe and Rex Moir

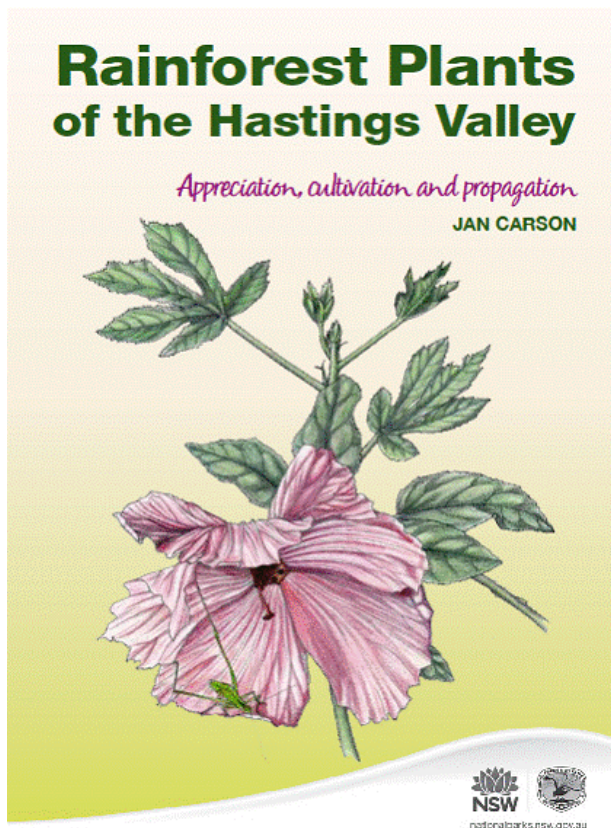


Sam and Carol busy “handing over” the Habitatler



Rainforest Plants of the Hastings Valley

Booklet Launch



This booklet by Jan Carson was launched by Estelle Gough at Sea Acres on July 19. The following is a condensed version of Estelle's speech.

Over the last few years the Landcare Nursery has been lucky enough to have Sea Acres as a retail outlet for our plants and this has worked well for both parties, with good turnover. But unfortunately there has always been a lack of information about the plants for buyers and their only options were to ask at the counter, where the workers are always busy, or check for themselves on the internet. The booklet, "Rainforest Plants of the Hastings Valley" came into being to address this gap. It was instigated by Sea Acres Manager Janet Cohen, when she had the good for-tune to have Jan Carson, the artist and



author of the booklet, volunteer to work at Sea Acres. Janet soon realised that Jan's wonderful way with words brought the plants to life and made you immediately want to try one for your garden, and that her skilful line drawings would make it easy to identify the plants. That would be an asset for any gardener, especially 10 years down the track when of course you have lost the tag! Jan has said that when she was doing the drawings she used to envisage people decades into the future forging their way through the undergrowth armed with their trusty booklet trying to identify their plants, perhaps to work out how big they were going to get!

Sensible plant selection is of course really important if we're going to avoid environmental weeds escaping from our gardens and problems like trees shading our homes (or our neighbour's deck) and roots in the plumbing. Janet very soon expanded her original plan of producing plant information sheets, to producing a booklet. At this stage Janet organised for Landcare to meet Jan, and we agreed that Landcare would provide information on the propagation of the 35 plants covered (you will find this information in the propagation bar at the base of each page). And so the idea of a booklet was born, one that would provide both information and inspiration.

Jan's booklet has more than lived up to expectations, with bits of local history relating to the plants, some botany that explains why they look the way they do, and quite a bit of ecological background about the sorts of places they grow, which is a big help when you are trying to decide where to plant your new purchases. This mix of information makes for good reading. The booklet is available at Sea Acres and is a must for any keen gardener at \$7.95 .



Estelle with Jan Carson, Janet Cohen and Natalie



"Green thumbs up" at Wyndham Vacation Resort Flynns Beach

On Thursday 5th September, at our regular Wyndham meet and greet event/Owners Drinks, we hosted a special fundraiser. 13 advanced Koala Feed Trees were sponsored by the local community and Owners/guests of the resort, and planted throughout the resort grounds. This was a contribution toward the long running (4 years) existing Wyndham / Landcare project to regenerate Wrights Creek, and will enhance the existing Koala habitat. Combining the efforts already made with the joint venture between Wyndham Vacation Resort, Landcare and National Parks and Wildlife Service the ultimate goal is to protect the Macquarie Nature Reserve, and the natural Koala corridor, by clearing all weeds along Wrights Creek which runs through or adjacent to many properties.

We are also pleased to be building ongoing positive, supportive community relationships with The Port Macquarie Koala Hospital and Port Macquarie Landcare. A donation cheque of \$250 was presented to Bob, the President of The Koala Hospital by Tony Terlecki, Project Director for Wyndham. A further \$390 was raised through the sale of advanced Koala food trees which were planted on the Resort grounds. I have offered The Koala Hospital ongoing access to these trees to use as they require to assist in caring for the local Koala population. \$165 was also raised through drink sales and donations, with all proceeds going to The Port Macquarie Koala Hospital. A total donation of \$805.

Wyndham purchased 250 tube stock from Estelle at the Landcare Nursery. Port Macquarie Landcare volunteers were present during the afternoon, with tube stock plants available for sponsorship at \$2 each, to plant along Wrights Creek. This is an ongoing project and Wyndham hope to raise up to \$500 for Port Macquarie Landcare through the sale and planting of those native rainforest plants.

I would like to express special thanks to: Alison at Greenbourne Nursery, Wauchope for the donation of 12 advanced Tallwood trees; Steve Hurrell Bobcat services for the donation of soil; Adam from Woodvale Tree Services for the donation of mulch; Jay and Hem from Griddle Restaurant for the donation of \$50 voucher and for sponsoring and planting a tree! Ian and Deirdre Johnston from Newcastle Complete Vending for sponsoring and planting a tree. Estelle and the other wonderful Landcare volunteers who worked tirelessly and often unthanked in our community.

Thank you to the Flynns Beach Wyndham Resort team for the hospitality shown on the day!

Suzy Berry
Resort Manager
suzy.berry@wyn.com



What the Fungi???

Making the most of the beautiful Port Macquarie winter, my partner and I decided to walk the boardwalk of Kooloonbung Creek. With camera in hand, expecting to come home with photos of bats and little else, we set off. We entered from Lake Road and as I expected bats, bats, bats. There were very few fungi to be seen - just a few dried specimens on trees.

It wasn't until we crossed over to the Western side of the creek that things started to become interesting. With fresh mulch recently laid there were Stinkhorn fungi everywhere mostly *Aseroe rubra* (1), *Elegant Stinkhorn* (2) and *Pseudocolus fusiformis* (3). Further along puffballs *Lycoperdon scabrum* (4) formed clumps on rotten wood. This is the first time I have seen them in such large colonies.



I took about 30 photos.

At this stage my head was spinning. I knew I hadn't found anything new, but this was better than bats (no offense bats!) As I was revelling in my discoveries, there at my foot was the most unexpected find - *Peziza austrogeaster* (5) which is similar to an Earth Star but without the central puffball, splitting at the apex to create lobes that open like a star, exposing the fertile surface inside.

My camera was almost full by then so it was time to head home and check out the photos, a job that is just as exciting as taking them in the first place. In my haste to get home I managed to walk straight past another new find, but luckily my partner was still in fungi mode. As he called me back and asked "Did I do good?" the smile on my face and the speed at which my camera was out of its bag must have said it all. There were two new coral fungi *Clavaria amoena* (6) and *Clavaria miniata* (7). Now my camera was really full and I hadn't taken a single photo of the bats!

Angela Millett



1. *Aseroe rubra*



2. *Elegant Stinkhorn*



3. *Pseudocolus*



4. *Lycoperdon sca-*



5. *Peziza austrogeaster*



6. *Clavaria amoena*



7. *Clavaria miniata*



White-Headed Pigeon

This bird is found from far north Queensland to southern New South Wales in tropical to sub-tropical rain forests, particularly in the introduced Camphor Laurel and Privet weed trees. It has a white head and breast with a glossy back area. Wings and tail are dark grey to black. The eye ring and legs are pink to dark red and the bill is red with a yellowish tip. They feed on rainforest fruits and seeds but thrive on Camphor Laurel seeds. Breeding season is from August to December when one cream-white egg is laid in a nest high up in the canopy. Both parents incubate and care for the single young. The introduction of Camphor Laurel allowed the White-Headed Pigeon to expand its range, but numbers have been reduced in some areas due to the bush regeneration removal of both Camphor Laurel and Privet. The bird in the photograph was seen in Braemar Road, sitting on a dead Lantana stem.

Roz Anderson



Mahogany Hill Orchid Find

On Saturday (28 Sep) Julie gave me the bad news about the damage done by young vandals to the fencing in the Mahogany Hill quarry. I asked her to give me details of the damage so I could have the right tools and materials ready on Sunday to tackle the job.

The vandals had damaged two half round pine rails by lifting and twisting them until the six inch screws holding them down broke under the strain. The rails were then dumped in the bush nearby. Luckily they could be re-attached once the broken screws had been removed. To reinforce them against further vandalism, galvanised strapping was applied over the rails and down the sides of the posts for about 300mm. About 30 roofing nails, each 40mm long hold the strapping down. The edges of the strapping were then carefully worked by hammer until the gaps between strap and timber were minimised.

Hang on a minute, this was not intended as an article about fence repair but about the discovery of a beautiful native orchid. Julie saw the orchid while we were checking out another section of fencing and I went to get my camera so we could identify it back home. I had brought a folding stool to sit on as the bloom was at an awkward height. As I went to sit down I grabbed the fence rail and it promptly came off the top of the posts at both ends throwing me backwards onto the ground!

To cut a long story short, I got some pics and spent another half hour on fence repairs.

As a footnote, Julie said she was surprised and pleased that orchids could survive in an area that has been dosed with Roundup for a decade.

By the way, it turned out to be a Red Bearded – orchid. Botanical identity is *Calochilus paludosus*.

Steve Ho



Queens Lake Walkway

Port Macquarie Landcare Group Inc has agreed to adopt the Queens Lake Walkway as a new project, to be undertaken by project manager Joy Rodwell and her local group. Joy has been working at Dunbogan with the very experienced Sue Baker and has decided to help clean up the Walking Trail with the help of her fellow walkers.

The site is 0.26 ha that has ecological communities of Wet Sclerophyll Forest, Mangrove Forest and Swamp Oak Forest (an Endangered Ecological Community) and is an important connection to the North Brother Reserve. It has confirmed sightings of Yellow-bellied Glider, Powerful Owl and Glossy Black Cockatoo and should be a good place to hold one of our future "Thank You BBQs".

The project start date was Tuesday, 8 October. Joy can be contacted on 0429 330 593 or

joyhenderson23@hotmail.com

Estelle Gough



Queens Lake Walkway Site Map



Fascinating Inhabitants of the Hastings

Back in 2010 while diving a local site off the coast of Bonny Hills a friend and I discovered a new dive site which would change the way I viewed my diving from that day on.

This new site we promptly named *The Maze* owing to the arrangement of large boulders which formed gutters and swim-through's, the surfaces of which teemed with marine life. The dominant inhabitants of this site were invertebrates; small creature such as crabs, sea stars, nudibranch's (colorful slugs) and the like.

It was while photographing invertebrates at *The Maze* that I found my first pycnogonid (sea spider). Over the years that I have been diving I have heard talk of these colorful yet elusive creatures but until then had only seen pictures of them.

On the second dive we went looking for spiders with more purpose and to my surprise found two new colorful species. This started my pursuit to find spiders on other local sites. After photographing six different spiders over several dives at several local sites I thought it would be good if I knew more about these fascinating creatures.

Upon inquiring with several marine authorities I was put in touch with David Staples who is collection manager of marine invertebrates and pycnogonids specialist, at Museum Victoria.

In response to emailing David, I learned that Sea Spiders are a small but extraordinary class of marine Arthropods presently numbering about 1300 species worldwide. Historically they are a very much neglected group and little is known about the life history of the vast majority of species. Sadly what is known about the biology and behavior of these creatures has mostly been gathered by chance observations rather than by systematic field studies. They have a wide geographic and bathymetric range being found in all the world's oceans from the tropics to the Polar Regions and it is our good fortune that they are particularly common in the temperate waters of southern Australia.

I sent David photographs of our spiders for identification and after a couple of days he replied that he had identified four spiders positively but was having trouble with two of them. On our next email he informed me that these two spiders were a new species to science. Although undescribed both species are known to be widely spread along our coastline.

Since that first discovery I have constantly been in touch with David sending him new photos and keeping him informed of sightings. Under David's guidance I have also started a database of all my sightings in the Hastings area.

In February 2013 I was informed that one of our new spiders has been described and published as *Pseudopallene harrisi*. The other species description is yet to be published.

David Arthur



Sea spider
(undescribed species)
on bryozans

Pycnogonid (Seaspider) Collections

Report on the Pycnogonid (Seaspider) collections by the Port Macquarie Underwater Research Group (PURG).

Sea spiders, or pycnogonids as they are correctly known, are a small but extraordinary class of marine Arthropods presently numbering about 1300 species worldwide. Historically they are a very much neglected group and little is known about the life history of the vast majority of species. Sadly what is known about the biology and behavior of these creatures has mostly been gathered by chance observations rather than by systematic field studies. They have a wide geographic and bathymetric range being found in all the world's oceans from the tropics to the Polar Regions but it is known that they are particularly common in the temperate waters of southern Australia.

Sea spiders are extremely difficult to detect in their natural environment; some are quite wispy, others robust, but regardless of their general habitus they are inevitably cryptic. Many take up the colour of their gut content and blend almost completely with their host. Consequently sightings by divers are rare. It is a wonderful opportunity to have dedicated divers who are active in the field and who are sufficiently familiar with the invertebrate fauna to be able to recognize these animals.

Observations by PURG members have been significant in as much as they have recorded eight species from the Port Macquarie area, most of which are new records for the region. Two of these species are new to science and have only recently (Feb 2013) been described.

Once preserved, museum specimens retain little indication of colour markings and patterns. Significantly PURG specimen records are accompanied by photographic records which provide not only a permanent and accurate record of body colour but also of substrate associations.

PURG members have also been methodical in keeping seasonal data and life history notes such as the recording of juveniles and egg-bearing specimens. Such life history observations are difficult to maintain in an open water environment and consequently they are rare.

The ongoing contribution being made by PURG to our knowledge of the sea spider fauna is significant and I am most supportive and appreciative of the work conducted by members of the group.

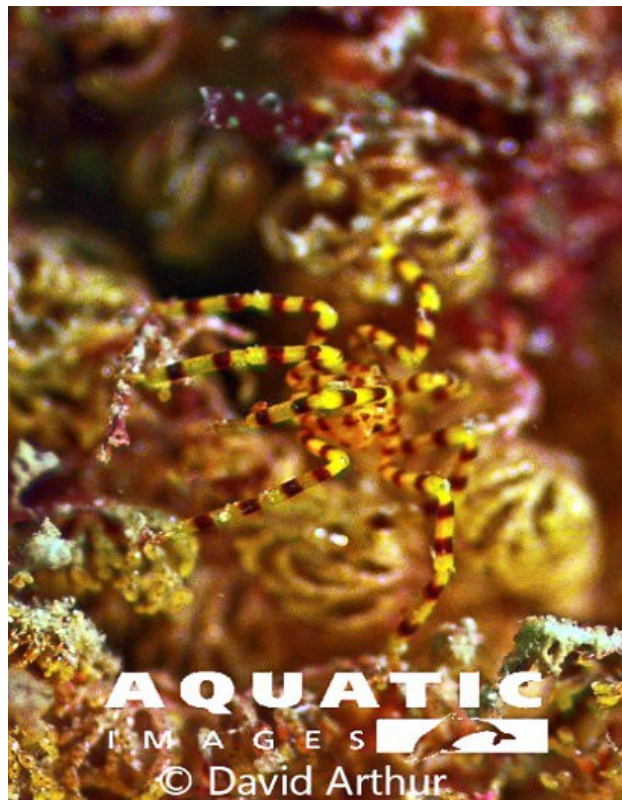
David Staples

Collection Manager, Pycnogonid Specialist

Marine Sciences Department

Museum Victoria

Melbourne Vic 3001 AUSTRALIA



Sea Spider Pseudopellene.harrisi (newly described species) crawling on sponges



Nursery Natterings

Recently I enjoyed a visit to the Black Creek property of nursery customers Denis Coules and Beth Newman. The highlight of the visit was seeing the plants from the nursery after 3 years growth. The way Denis and Beth have revegetated their property is a credit to them, with 10,000 trees planted so far. Many of these Denis propagated himself, drawing on a wealth of experience he gained by volunteering at the Greening Australia Nursery at The Gap in Brisbane. They have used stock from the Landcare nursery to supplement his range of species.

Denis explains: "We bought the property because it had a mix of existing forest types and creeks along with 100 to 130 acres of fertile-soil paddocks begging to be 'reforested.' The goal of our reforestation project is to re-establish forest habitat, particularly subtropical rainforest communities, for the provision of habitat, food, and nesting structure for native wildlife species. We were especially keen to establish riverine rainforest in the fertile paddocks along Black Creek but those areas have encountered the greatest difficulties due to frequent major flooding as well as frost caused by cold air drainage. Now the goal of the riverine plantings is to establish an over story of flooded gum to shelter the wet sclerophyll and rainforest under plantings from both flood flows and frost.

Other challenges we have faced include boggy "sump" soils on the upland sites that are not tolerated by the many rainforest species which require good drainage, as well as increasing wallaby predation on seedlings. The wallabies thrive in the edge habitat created by rainforest plantings in the paddocks and almost every plant now needs to be protected by a chicken wire cylinder or tall mesh fence.

It remains a working cattle property but several paddocks have been dedicated to reforestation in full and cattle excluded, as well as other areas of new fencing for cattle exclusion such as edges of natural forest where rainforest species such as Cheese trees, Foambark, Black Apple, Alphitonia and Commersonia are germinating along the edges of the paddocks and would otherwise be browsed by the cattle. Cattle have also been excluded from Black Creek itself to benefit the resident platypus population and other aquatic species. The Landcare nursery has been instrumental in enhancing the species diversity of our plantings which would otherwise consist of a much narrower range of species and genetic lines that can be collected and propagated from the site itself. We will be in to see you when it starts to rain enough to do some new plantings!

Take care, Denis & Beth

Estelle Gough



New Machine



Our 'Tritter' contractor John Davison now has a great new machine that is making light work of some of the major weed infestations on the margins of swampy areas in our sites. It has 4WD and huge tractor tyres that maintain traction on the soft muddy ground, and a "tele" arm that can reach across into the wetter areas. In combination, the two machines help Landcare with the hard stuff, rapidly reducing weed mass, weed seed spread and fire risk. They can advance quickly, achieving results in a fraction of the time it would take our hard working volunteers. We are lucky to be able to get access to these machines!

Rex Moir

Upcoming Events

Date / Time	Event Details	Contact
Tues 12 November 6.45 for 7pm start	General Meeting Port City Bowling Club Owen St, Port Macquarie	janetslater1237@bigpond.com.au
Sat 30 November 6.00 pm	Christmas Party Port Macquarie Race Club at the Racecourse	treasurer@landcareportmac.com.au or phone Ken Gough on 6583 6508
Tues 7 January 6.45 for 7pms tart	General Meeting Port City Bowling Club Owen St, Port Macquarie	janetslater1237@bigpond.com.au

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