THE CREEK

Volume 15 No 3, June 2011

Balcombe Estuary Rehabilitation Group

No A0034645Y ABN 50 224 628 623

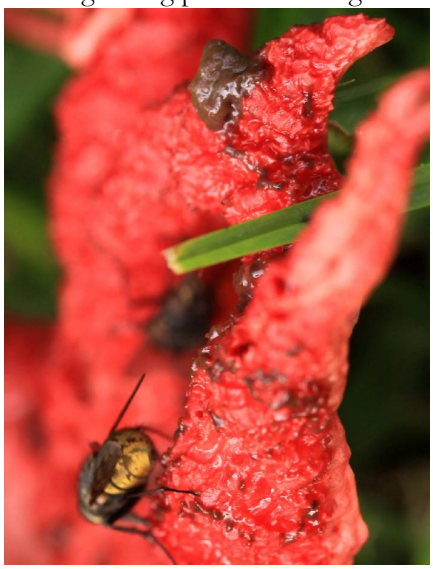
SEASTAR STINKHORN

Angela Kirsner reports

Over Easter, an extraordinary red fungus caught my eye as we walked down the sewerage easement that runs along the Balcombe Estuary Reserve from Victoria Crescent to the Bridge. The fungus was among recently mown Kikuyu grass, hard against the edge of the reserve.

An email to Dr Tom May, Senior Mycologist at the Royal Botanic Gardens, confirmed my tentative identification. It was *Anthurus archeri,* the Seastar Stinkhorn, so called because of the stink of rotting flesh exuded by the gleba, the brown, slimy spore mass. Blowflies vacuum it up with gusto and carry the spores to new sites. Our specimen was alive with flies, which had eaten most of the gleba.

The four to eight arms develop in an egg-like sac, and expand rapidly up and outwards when the sac ruptures. The arms vary, some more slender than in our specimen. The growing part of the fungus is a mycelium of very fine threads, not usually visible, but sometimes you can see thin, white, ropey strands in the substrate



Close-up of the remaining brown gleba and an eager blowfly on Anthurus archeri
Photo Angela Kirsner

Anthurus archeri, the Seastar Stinkhorn, and blowflies, at the edge of the Reserve
Photo Angela Kirsner

I had seen something similar in January 2008 at Mt Hotham, in mulch beside a track – pink, almost humanoid fingers opening to red tentacles. It was *Aseroe rubra,* the Anemone Stinkhorn. In *Anthurus* the gleba is on the arms, which are rarely bifid (split in two), though some arms in our specimen bifurcate near the tip. In *Aseroe*, the gleba clumps at the base of the arms, which are bifid either at the tips or almost all the way to the base (see photos p2).

Both are native species. *Anthurus archeri* is found in scattered locations in south-eastern Australia, in native forests and also increasingly with mulch in parks and gardens.

Carbon recyclers

Both species are saprotrophs – that is, they get their nutrients by secreting digestive enzymes to break down dead organic material, which they then absorb directly into their cells.

Indeed, saprotrophic fungi recycle about 85% of the carbon from dead organic matter (bacteria and animals recycle the rest). This is vital to both terrestrial and aquatic ecosystems, as the fungi release the locked-up nutrients, which can then be used by other living organisms. *(cont. next page)*

CAN YOU HELP?

We need lots of hands at a working bee at the Hopetoun Creek Greenfield Reserve, to do enhancement planting along the reserve.

When: Sat 9th July, 9.30–12.00

Where: Meet in Greenfield Way

Delicious morning-tea at 10.30!

Contact Hazel Athey 0419 899 560

BERG welcomes new members:

Bronwyn & Steve Taylor
Heather Geschke & Peter Francis
Sandra Taylor
Silvio Vitale & family

'Seastar Stinkhorn' *continued*

Hitching a ride

Both species have found their way overseas. *Aseroe rubra*, which was the first Australian fungus named (in 1800), was found in 1829 growing in a glasshouse at London's Royal Botanic Gardens, on soil imported from Australia, and over 160 years later, in 1993, it was found about 16 kilometres away, the first outdoor find of the species in Europe. *Anthurus archeri* appeared in France in 1914, its spores probably carried there in wool exports or military supplies with First World War soldiers and horses. It has since hitched a ride across both the English Channel and the Atlantic.

Aseroe rubra at Mt Hotham, January 2008, showing the gleba (top) at the base of bifid arms (right), and pink fingers unfurling (below) Photos Angela Kirsner

Early sightings

But this may not be the earliest appearance of *Anthurs archeri* in Europe. In an article in the April 2010 edition of the Fungimap Newsletter, Tom May described the results of mining the digitised files of old newspapers for references to fungi. After sifting out things such as 'mushroom ketchup' and metaphorical uses of the terms (he quotes a description of the filthy and fast-growing Melbourne of the 1850s as 'Thou wondrous mushroom of extent precocious'!), he found a surprising number of articles about native fungi, with often recognisable descriptions.

On 23rd March 1863, *The Argus* reprinted a report from *The Ballarat Star*:

> SOMETHING NEW.—We had brought to our office on Monday portions of a very singular, and … hitherto undescribed, fungus found growing … on the farm of Mr. O'Connor, at Bungaree. The fungus is of a bright pink hue, thick, fleshy, succulent, and giving forth a most offensive odour…

About six weeks later, on 6th May, the following appeared:

> SINGULAR FUNGUS.—Some time ago we mentioned the discovery upon the property of Mr. D. O'Connor … of a very singular fungus of a pink hue and most vile odors. Mr. O'Connor … submitted a portion … to Dr. Ferdinand von Mueller, Government Botanist, who pronounces it to be the rare Aseros [sic], known in Tasmania and New South Wales, but seemingly not before noticed in Victoria.

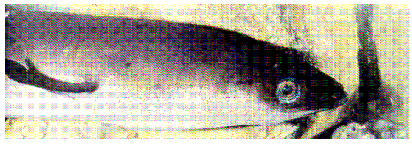
'Aseros', May points out, is clearly a misprint for *Aseroe*. Given that the natural distribution of *Aseroe rubra* is largely alpine, it is possible that the fungus was in fact *Anthurus archeri*, which occurs widely in lowland Victoria. The first report in the scientific literature of *Aseroe rubra* in Victoria seems to be 1872, while *Anthurus archeri* was not recorded until the 20th century. Thus, May believes that the report in *The Ballarat Star* is probably the earliest for Victoria of either species.

Anthurus archeri is one of the target species of the Australia-wide FungiMap project. At Tom May's request, we will submit photos to FungiMap, along with details of where and when the fungus was found.
(www.rbg.vic.gov.au/fungimap/home)

MIGRATING EELS

A letter from Mary Stemp

It was with particular interest that I read the article from BERG members Bev and Colin Fryer in the April edition of *The Creek* about their sighting of several short-finned eels swimming strongly, I presume towards the estuary. I understand, from my research on the eels, that these would be fully grown females (the males tend to stay near the estuary itself) that have been feeding up the creek, in dams, swampy areas, etc, for 10 to 20 years and were now about to prepare themselves in the salt water for their great migration to the Coral Sea, usually in April. There they spawn and die.



An eel ready to migrate
photo from BERG eel poster

It's a fascinating story and I've yearned to see the eels for myself. I believe the gathering of eels at the mouth of the estuary when waiting for the high tide that opens a channel through the sandbar is quite spectacular. Richard Hawkins, our founding president, witnessed it some years ago.

I would be most grateful to anyone who sights eels if they were to contact me straight away (5974 3996) so I could see for myself.

For more information on short-finned eels, see the BERG eel poster in the old campground laundry, or at www.berg.org.au under "Resources". The poster was researched and compiled by Mary Stemp.

Balcombe Grammar students surveying the 2x4 metre plot they have marked out, in preparation for identifying all the plants there (see p3)
Photo Liz Barraclough

FIELD NEWS

Field Officer Liz Barraclough reports

What amazing weather we have been having – that drought seems a long time ago! All species of plants are thriving, especially the weedy ones. At least the colder temperatures will inhibit the weeds' germination and growth and give us time to get on top of them, so we can start planting. We have lot to get in the ground, but maybe the usual rush to plant before the rain stops will not be such an issue this year.

Working-bees

April saw us completing the weeding the Friday Group had done around the stormwater outlet along the boardwalk west of Uralla Bridge. We removed Panic Veldt Grass, Deadly Nightshade, Tradescantia and Eau de Cologne Mint. In May we weeded again, this time in the Campground, to prepare it for planting to be done at the June working-bee.

Balcombe Grammar School

We have put some time this year into rethinking our program with the Balcombe Grammar School year 8 students, and the planning has paid dividends. The program is running over seven Wednesdays during term two, during which the students will rehabilitate the vegetation corridor along the easement that runs down from the school to Hopetoun Creek. In preparation, we had done some serious weeding here at the March working bee, liberating the indigenous plants we planted last year, and Naturelinks had followed up with spraying.

On our first Wednesday with the students, they were divided into three groups of about eight students each, and the groups spent 40 minutes on each of three activities. First, there was a 'Walk, Talk and Gawk' with local ecologist Gidja Walker; then Kaye Young, BERG member, teacher and one of the leaders of our Waterwatch team, took the students for Waterwatch activities.

FREE
indigenous plants available

Enhance your garden and attract the birds with local native plants, including (while stocks last):

- Trees – Manna Gums, Swamp Gums, Mount Martha Bundy, Snow Gums, Banksias, Black Wattles, Blackwoods, Sheoaks.

- Large shrubs/small trees – Sweet Bursaria, Kunzea sp, Boobialla, Hedge Wattle, Prickly Wattle (photo above), Swamp Melaleuca, Teatree

- Shrubs – Common and White Correas (photo right), Sea Box, Hop Goodenias, Twiggy Daisy, Seaberry Saltbush
- Groundcovers – Running Postman (photo right), Common Everlasting, Brachycome sp.

- Grasses and Sedges – Poa sp., Flax Lilies, Knobby Club-sedge, Bulbine Lily, Spiny-headed Mat-rush, Weeping Grass, Kangaroo Grass

Contact
Liz Barraclough 0408 388 430 or liz.barra@bigpond.com.

Then, supervised by BERG, the students divided in two groups of four to peg out a plot of 2 by 4 metres (see photo p2). Their task was then to identify all the plants in the plot, using a folder of photos of indigenous and weed species found in the easement. Marc Heron, a science teacher from the school, had prepared activity sheets for this exercise. It was a most successful morning.

Friday Morning Group

The Friday group has recently been weeding the area beneath the Tea Trees east of the Ferraro Ovals, where the Hyacinth Orchids grow. At least half of this is in near-pristine condition, and is a joy to work in. We have been removing the odd bit of Erharta (Panic Veldt Grass) and the few seedlings of Pittosporum, Bridal Creeper and Boneseed, following one of the basic principles of bushland rehabilitation: work from the highest quality, most diverse areas and move out from there.

The large infestations of Erharta further along the track will be more of a challenge. Because of the orchids here, this area is a high priority. Naturelinks is concurrently weeding and monitoring the area on the creek side of the track, where there are large patches of Greenhood Orchids.

Signage

Confusing, excessive, absent or damaged – all these comments have been made of the signage along the boardwalk and tracks. It is currently being assessed and upgraded, with the Shire's help.

Planning the year ahead

We have, over the last year or so, put a great deal of work into systematising the planning our works in the reserve, using spread sheets and Google Maps. The benefits of this work were clear at our Planning and Management meeting held on 2nd May.

Jo Tetteroo, Conservation Officer with the Mornington Peninsula Shire, was in the chair, and round the table were relevant representatives from BERG and our contractor, Naturelinks. For each area of the reserve, we looked at what is being done, and what is planned, based on the quality of the bushland and the particular weed populations in each – all clearly marked on Google Maps. We looked at our aims, our priorities for weed control – Bridal Creeper is near the top of this list. We discussed our program of working bees, and how Naturelinks will complement this. And we looked at various ways of ensuring that our work is sustainable into the future, aiming to spread responsibilities. Jo will provide an overview in the next newsletter.

SAUSAGE SIZZLE HITS A SNAG!

Once again, the intrepid Hazel Athey ran a splendid BBQ/sausage sizzle outside Bunnings, Mornington, on a somewhat damp and cool Saturday, 14th May.

Waiting for customers, sauce at the ready! Photo Bob Athey

…until the back wall of the tent went up in flames! Ros Crompton showed herself to be a dab hand with a fire extinguisher – the fire was out before the startled Bunnings staff could get there, let alone the fire brigade.

It brought the BBQ to an abrupt halt around lunch time – but Hazel has nevertheless banked $402 clear profit.

Many thanks to all those BERGers who helped through the morning, and to the very helpful Bunnings staff.

EMAILING *THE CREEK*

All BERG members who have given us their email address were contacted recently to ask if they would prefer to receive *The Creek* in hard copy, or to be emailed a link to it on the BERG website. Rest assured, we will continue to print hard copies – we think they are of great value in publicising BERG. But if you would prefer email notification and have not already told us so, please let us know at info@berg.org.au.

BERG Working Bees

❖ **Monthly working bee**: 3rd Sunday, from 9.00 to 12.00. Next are **19th June** & **17th July**. Meet at the Rotunda (Mel: 144 K11). If running late, phone Liz Barraclough on 0408 388 430 to find the work site.

❖**Tuesdays** 9.00 to 12.00. Call Mary Stemp to confirm, 5974 3996.

❖**Friday mornings**. For details call Sue Betheras, 0408 808 201 or Liz Barraclough, 0408 388 430.

❖ **Hopetoun Creek Greenfield Reserve**. Saturday 9th July, 9.30 to 12.00. Contact Hazel Athey, 0419 899 560.

Other BERG Activities

❖**Waterwatch testing**: 2nd Saturday, 9.00 am, meet at Augusta St Bridge. Next are 11th June and 9th July. Enquiries to John Inchley on 5974 1095.

❖**BERG Committee** meets every 7-8 weeks at Mt Martha House, Saturdays 9.30am. Next meeting 25th June. All members welcome

Other Groups

❖**Fairbairn Bushland Reserve Friends Group** working bees. Contact John Stoker, 5977 1397.

❖**Penboc** birdwatching 2nd Wednesday and 3rd Sunday. Enquiries www.penboc.org.au or Max Burrows 9789 0224.

❖**SPIFFA** (Southern Peninsula Indigenous Flora and Fauna Association) 1st Monday, 7.30 pm, at Parks Vic, Hinton St, Rosebud. Enquiries 5988 6529, or www.spiffa.org.

PO BOX 433, MT MARTHA 3934 • PHONE (SEC): 5974 3996
EMAIL: INFO@BERG.ORG.AU • WEBSITE: WWW.BERG.ORG.AU

THE CREEK
Print Post Approved pp339493/00001
If undelivered, please return to:
BERG, PO Box 433
Mount Martha 3934

SURFACE MAIL

POSTAGE PAID AUSTRALIA