



# COFFS HARBOUR ORCHID SOCIETY

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[www.coffsorchidsociety.org.au](http://www.coffsorchidsociety.org.au)

## COFFS ORCHID NEWS – JAN 2019

### GENERAL MEETING & ORCHID COMPETITION

1<sup>st</sup> THURSDAY OF EACH MONTH AT 7.00 for 7.30 PM, UNLESS OTHERWISE ANNOUNCED, at NORTH COAST REGIONAL BOTANIC GARDENS, HARDACRE STREET, COFFS HARBOUR.

<u>PRESIDENT:</u>	ED PEARCE	0418 519908
<u>VICE PRESIDENT</u>	CAROLE DAVIS	6658 1354
<u>SECRETARY:</u>	PAM WARBURTON	0409 660465
<u>TREASURER:</u>	BRUCE HALL	6658 9891
<u>EDITOR:</u>	ED PEARCE	0418 519908

### SPONSORS

#### CFS TRAVEL

See Julie Larkey at CFS Travel, shop 27A in the plaza (opp Big W) Personalised service for all your travel needs. 6652 6555 or [julie@cfstravel.com.au](mailto:julie@cfstravel.com.au)

#### LUDO'S OLD WARES

Buying and selling antiques, old wares and collectibles. Deceased estates. Ulmarra. 0402 044601

#### TINONEE ORCHIDS

Tinonee Orchids carries a wide variety of orchids and orchid growing supplies – coconut, pots, etc. They provide quick delivery of orders. 6553 1012 or [www.tinoneeorchids.com](http://www.tinoneeorchids.com)

#### COFFS COAST MOTORS

For Mazda and Honda vehicles, also second-hand vehicles, and ALL your servicing needs. Do your shopping while your car is serviced. 6652 3122, 41 Grafton St., Coffs Harbour.

#### COFFS HARBOUR PRODUCE

Coffs Harbour Produce is at 26 June Street in Coffs. They carry a good range of fertilisers, insecticides and fungicides for orchids, as well as general garden needs. 6652 2599.

#### BRUCE HALL

Bruce provides the raffle items which are a major fundraiser at our shows.

#### SHEARWATER RESTAURANT

Brekkie and Modern Australian dishes in a light, upscale locale with outdoor tables and lovely views over Coffs Creek. 321 Harbour Drive. [www.shearwaterrestaurant.com.au](http://www.shearwaterrestaurant.com.au) or 6651 6063

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## **1. CALENDAR**

- 6 Dec Christmas dinner at Shearwater.
- 7 Feb First meeting of 2019 – Ray Clements
- 7 Mar March Meeting - Plant Forum
- 4 Apr April meeting
- 26/28 Apr 2019 Autumn Show
- 2 May Meeting
- 17 May Coffs harbour Ag Show
- 6 Jun Meeting
- 4 Jul Meeting
- 1 Aug Meeting
- 5 Sep Meeting
- 7/9 Sep 2019 Spring Show
- 17 Oct Meeting
- 7 Nov AGM and meeting
- 10 Nov Woolgoolga Workshop
- 5 Dec Christmas dinner and awards

## **2. FEBRUARY MEETING.**

At our first meeting for the year on 7<sup>th</sup> February and our Guest Speaker will be Ray Clements from Tinonee Orchids. Ray's topic will be "What I like about Australian Epiphytic orchids"

Ray will have a selection of plants and some hardware available for purchase on the night. If you wish to place an order with Tinonee Orchids, then he will bring it to the meeting (and you will save any freight charges).

Tinonee Orchids phone number is 6553 1012. Check the website at [www.tinoneeorchids.com](http://www.tinoneeorchids.com) to see what they have available in hardware, potting materials, etc.

## **3. PRESIDENT'S NOTES**

Greetings and best wishes to you all for 2019. I hope it's a good year for you all – with happiness and health and of course lots of lovely orchids.

How have your orchids survived through the long hot and very dry summer we are having? My new year's resolution – like every year – is to grow my orchids better. I've tried to manage the heat by misting several times a day if I can, and by watering more often.

I'm also trying to keep up with spraying for insects, etc and fungal infections. My aim is to be preventative with this.

And I've thrown out a few plants. I had a few plants of various varieties that although I've had them for several years, and I've tried different potting mixes and different growing areas, they have not grown. So I threw them out.

Is this the Marie Kondo approach applied to orchids? If they don't give you joy throw them out.

Again best wishes to you all for 2019.



**Dendrobium Avril's Gold – an Australian hybrid**

## **4. AGENDA for DECEMBER MEETING**

Judges – Bob Southwell and Leonie Everett

Welcome, Apologies, Visitors

Minutes of Dec meeting – as printed in newsletter

Committee Meeting – newsletter

Inwards Correspondence

1. BCU statements

## 2. Orchids Australia Journal

Financial Report

Sponsor's Spot. Tinonee Orchids

Table talk

Popular vote., raffle

Guest speaker

## 5. SURVEY

At the February meeting we will hand out a survey which we would like you to fill in and return. The committee would like to get some ideas from you about

- What topics would you like us to cover at our meetings?
- Do you have any thoughts about how we might improve our meetings?
- What activities would you like to see – trips, workshops, etc?
- Any other thoughts about what you like and what can be improved?

The survey will be anonymous so you can be very frank with your comments.

There will also be an opportunity for anyone not at the meeting to complete the survey.

## 6. MINUTES of DECEMBER GENERAL MEETING

Ed welcomed all to the December meeting, which was held prior to our Christmas Dinner.

**Apologies:** Dick & Barbara Cooper, Helen Siever and Di Blay.

**Minutes of November's meeting:** Moved by Leonie Everitt, seconded by Carole Davis, that the Minutes are a true and accurate record of what took place. Carried.

**November Committee Meeting;** as per Newsletter.

**Inward Correspondence:** BCU statements and an email from Bunnings.

### **Our yearly awards.**

Awards were presented to the members who gained the most points in each section over the whole year.

We encourage members to bring along their flowering plants to our monthly meetings

**Glad Fleming Perpetual Trophy** – awarded to the member who has the most points overall for 2018.

- **Bruce Hall** won the most points in a tight contest with Edward Pearce and Helen Seiver close behind

### **Active service awards.**

- **Carol Davis** received special recognition for 10 years of active service during which she carries out duties Vice President, Librarian, maintaining the Club website, and Show Marshall.



- **Bruce Hall** – Ed very proudly announced that the Committee had awarded Bruce **Life Membership**. In almost 15 years Bruce been Treasurer for 10 years, he is an accredited orchid judge, is a sponsor of the Society, provides the raffles for our Autumn and Spring Shows and is a tireless worker at any of our activities like the Bunnings sausage sizzle or tidying up our storage shed.

**Sponsor's Spot:** Ed announced that Shearwater at the Promenade will once again be a sponsor for us in 2019.





**Popular Vote** – a small but impressive display saw

- Kerrie Reeves 1<sup>st</sup> Prize with a Miltoniopsis.
- Bruce Hall 2<sup>nd</sup> Prize with his Renanthera
- Hazel Earnshaw 3<sup>rd</sup> Prize with her Phallie

Carol Davis asked for a round of applause for all the hard work that Ed Pearce does for the Society in so many unseen ways.

## **7. ANNUAL SUBSCRIPTION**

Please note that the annual memberships are due at the February meeting. The fees are the same as for 2018, i.e. \$5 for a junior membership, \$10 for a single membership and \$15 for a family (New members who paid towards the end of last year don't need to pay for 2018). Please pay Bruce Hall as soon as possible.

Members may wish to pay their subscriptions directly into our account, or by Netbank. The BSB for our account is 533000, account number 60050. This is a BCU account in the name of Coffs Harbour Orchid Society.

## **8. GROWING COMPETITION**

We are near the end of this competition and it is still wide open. Remember young Cattleyas need plenty of light and regular fertilizer.

Don't forget to bring your plant for judging to the February meeting.

## **9. COMMITTEE MEETING**

We held our first committee meeting for the 2019 at Shearwater On 29<sup>th</sup> January. We covered a lot of topics planning for 2019, especially

- April Show
- Coffs Agricultural Show
- Program for 2019
- Member survey
- Bunnings sausage sizzle
- Use of library
- Sponsorship
- Next growing competition
- Use of donated books
- Duties for 2019

## **10. BUNNINGS SAUSAGE SIZZLE**

We ran the Bunnings Sausage Sizzle on 12<sup>th</sup> January. It was a good day and we were able to raise over \$1000 for the society. It was rather windy which caused some problems with the tents flapping around and coming apart but we managed with help from Bunnings staff.



**Bronwen serving a customer, Neil and Gary are cooking sausages and onion, and Carole is putting the sausage with onion - underneath of course – in some bread for the customer.**

Thank you to everyone who helped out. There is a lot of planning and purchasing, etc required so that the day can be a success.

## **11. LIBRARY**

Carol Davis is our librarian she has done lot of work to sort and catalogue the books we have available for members to borrow. There will be more about this in our next newsletter.

## **12. ORCHID BARK**

The Society has bags of high quality Orchid bark in two common sizes – 9 to 12mm and 12 to 18mm. Bags are priced at \$25 per 40 litre bag. Contact Bob Southwell (0417 695 834) for pick up or delivery at the next meeting.

### 13. WARTY HAMMER ORCHIDS ARE SEXUAL DECEIVERS

This article came to me in an e-mail I receive each day called The Conversation.

Orchids are famed for their beautiful and alluring flowers – and the great lengths to which people will go to experience them in the wild. Among Australian orchids, evocative names such as The Butterfly Orchid, The Queen of Sheeba, and Cleopatra’s Needles conjure up images of rare and beautiful flowers.

Yet there is a rich diversity of our orchids. Some are diminutive, warty, and unpleasant-smelling, bearing little resemblance to a typical flower. While many orchid enthusiasts have a soft spot for these quirky members of the Australian flora, what has brought them international recognition is their flair for using some of the most bizarre reproductive strategies on Earth.

unusual was going on in the Australian orchid flora.

In the 1920s Edith Coleman from Victoria made the sensational discovery that the Australian tongue and bonnet orchids (*Cryptostylis*) were pollinated by males of a particular species of ichneumonid wasp attempting to mate with the flower.

But this was just the beginning.



#### Warty hammer orchid

Botanical name: *Drakaea livida*  
Family: *Orchidaceae*

Hammer orchids grow in areas of dry inhospitable sand, exclusively in south west Australia.



They are pollinated by male thynnine wasps, who believe the orchid’s flowers to be females of their species and attempt to mate with them.



Warty hammer orchids, named after their distinctive flowers, are one of Australia’s many ‘sexually deceptive’ plants.

 The Conversation



The Conversation/Ryan Phillips/Suzi Bond., [CC BY](#)

The King-in-his-carriage, *Drakaea glyptodon*, is the most common species of hammer orchid. Here the flower is pictured next to the female of its pollinating thynnine wasp, *Zaspilothynnus trilobatus*. Rod Peakall, Author provided

We now know that while the insect species involved may vary, many of our orchid species use this strategy. Australia is the world centre for sexual deception in plants.

Perhaps the most sophisticated flower of all sexually deceptive plants is seen in the hammer orchids, a diminutive genus that only grows in southwestern Australia. Their solitary stem reaches a height of around 40cm, and each stem produces a single flower no more than 4cm in length.

Even among sexually deceptive orchids, hammer orchids stand out from the crowd. They have a single heart-shaped leaf that sits flush with the soil surface, and grow in areas of dry inhospitable sand – an unusual choice for an orchid.

### Sexual mimicry

From the very beginnings of pollination research in Australia there were signs that something





The thynnine wasp *Zaspilothynnus nigripes* is a sexually deceived pollinator of the Warty hammer orchid. Here they are pictured in copula, with the flightless female having been carried to a food source by the male. Keith Smith, Author provided

And then there is the flower. Not only does the lip of the flower more closely resemble an insect than a petal, but it is hinged partway along. All of which starts to make sense once you see the pollinators in action.

Like many other Australian sexually deceptive orchids, they are pollinated by thynnine wasps – a unique group in which the male picks up the flightless female and they mate in flight.

In the case of hammer orchids, the male grasps the insect-like lip and attempts to fly off with “her”. The combination of his momentum and the hinge mechanism swings him upside down and onto the orchid’s reproductive structures.

### **It’s not me, it’s you (you’re a flower)**

So, how do you trick a wasp?

Accurate visual mimicry of the female insect does not appear to be essential, as there are some sexually deceptive orchids that are brightly coloured like a regular flower.

Instead, the key ingredient for attracting pollinators to the flower is mimicking the sex pheromone of the female insect. And boy, is this pheromone potent.

Indeed, one of the strangest fieldwork experiences I’ve had was wasps flying through my open car window while stopped at traffic lights, irresistibly drawn to make love to the hammer orchids sitting on the passenger seat!



Pollination of the Warty hammer orchid by a male of the thynnine wasp *Zaspilothynnus nigripes*. Suzi Bond, Author provided

While determining the chemicals responsible for attraction of sexually deceived pollinators is a laborious process, we now know that multiple classes of chemicals are involved, several of which were new to science or had no previously known function in plants.

What’s more, we are still discovering new and unexpected cases of sexual deception in orchids that don’t conform to the insect-like appearance of many sexually deceptive orchids.

A classic example is the case of the Warty hammer orchid and the Kings spider orchid – these two species have totally different-looking flowers, yet both are pollinated by the same wasp species through sexual deception.

While the ability to attract sexually excited males without closely resembling a female insect may partly explain the evolution of sexual deception, it does not explain the benefit of evolving this strategy in the first place.

A leading hypothesis for the evolution of sexual deception is that mate-seeking males be more

efficient at finding orchid flowers than food-foraging pollinators – but this remains a work in progress.

– the true diversity of sexually deceptive orchids could be greatly underestimated.



The life cycle of the Warty hammer orchid and its pollinator species, highlighting the complex ecological requirements needed to support a population of the orchid. Martin Thompson, Author provided

From a conservation point of view, pollination by sexual deception has some interesting challenges. Female animals produce sex pheromones that only attract males of their own species. This means an orchid that mimics a sex pheromone typically relies on a single pollinator species. As such, conservation of any given orchid species requires the presence of a viable population of a particular pollinator.

Further, an interesting quirk of these sexually deceptive systems is the potential for cryptic forms of the orchid: where populations of orchids that appear identical to human observers actually attract different pollinator species through shifts in pheromone chemistry. Indeed, of the ten known species of hammer orchid, three contain cryptic forms.

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**Read more: [Australia's unusual species](#)**

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Not only does this create a major challenge for managing rare species, it raises the possibility that – should these forms prove to be separate species