

TENTH ANNIVERSARY YEAR

POLLINIA

NEWSLETTER OF THE IRISH ORCHID SOCIETY

Volume 10, Issue 1

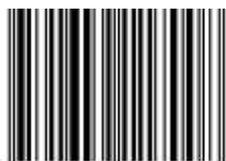
An Fómhar

October 2011

Cumann Magairlíne na hÉireann



Taurantha concinna



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THE IRISH ORCHID SOCIETY COMMITTEE



Shane Kerr (Chairman)
Tom Petherbridge
(Treasurer)
Marie Hourigan (Secretary)
Scott MacNaughton
Una Breathnach

POLLINIA

(pol-LIN-ee-uh)

The compact packets of pollen found in orchid flowers. Plural of *Pollinium*.

Waxy pollen clumps or grains usually found in the anthers of most orchids; often yellow, distinct, and found under the pollen cap of the column.

Pollinia contain the male reproductive cells.

Latin *pollin-*, stem of pollen "fine flour, dust."



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IOS MEMBERSHIP DETAILS

ANNUAL SUBSCRIPTIONS

(renewable in June of each year)

- Adult Single €20.00
- Family €30.00
- OAP/Student* €15.00

(*Confirmation of student status required)

Please make cheques or PO payable to:

The Irish Orchid Society

Applications and other society communications should be made to the Secretary:

Secretary

Irish Orchid Society
c/o National Botanic Gardens
Glasnevin, Dublin 9, Ireland

EDITORIAL INFORMATION

The Editorial Staff reserve the right to edit and/or amend articles submitted to the Newsletter.

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Contributions of articles, pictures or comments should be sent by email to:

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Cumann Magairliní na
hÉireann

UNUSUAL
ORCHIDS OF
NSW,
AUSTRALIA,
PART I:

GREENHOODS

GREENHOODS AT JERVIS BAY SITE

These are yet more ground Orchid species found at the same Jervis Bay site. So just imagine how many plants are there, in total - the Caladenias, the Acianthus (two forms) and these Greenhoods. There were also a few other Orchid species here, but some, such as Corybas (Helmet Orchids) and Bunochilus (Tall Greenhoods) are not quite in flower yet. Speculanthas (Tiny Greenhoods) had finished.

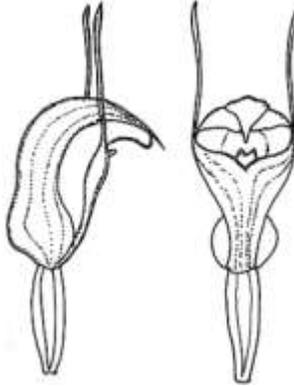
It is an amazing area of plants. So many Orchids in one 200 metre stretch of road - surrounded by so much bush with relatively few Orchids. Why?

Taurantha concinna - the Trim Greenhood (formerly *Pterostylis concinna*.) This flower is ever so slightly imperfect. The "points" are not balanced or straight, and the "hood" is slightly imperfectly formed. The flower ought have a slightly more pointed dorsal sepal.



Taurantha concinna (with a particularly blunt hood.)

Here is the botanical illustration from PlantNET to show what I mean about the standard plant being slightly more pointed.



Below is the same flower - viewed from the front on.

This flower shows good colour on the front (more than I had remembered.) This image shows that the stem is quite rough (almost hairy). As indicated above, you can see one point is bent over.

You can see the labellum, which is in fact notched (V) at its top. That is a diagnostic feature of this species. (Other Greenhoods have V notches in the labellum, but they look very different from this species.) The V shaped labellum is nicely illustrated above.



Here is the rear view of this flower. It always seems very neat and "round bottomed."



Rear view of *Taurantha concinna*

The rosette and the stem emerging from the centre of the rosette.
Note the sandy soil in which these plants are growing.



By way of contrast, here is
Pterostylis acuminata: →

Contrast with the snub-nosed
Taurantha concinna (below.)

There were many specimens of
Pterostylis acuminata growing along
this same stretch of road.



Pterostylis acuminata - with a long pointed labellum

Cover: *Taurantha concinna* | © Copyright 2011, Reiner Richter

It is the long labellum from which this plant gets its specific name. This specimen has very nice balanced points (of the lateral sepals)

The hood is beautifully tapered, but not showing the extreme filiform pointed nose which some other species show (e.g. the Antelope Greenhood)



Antelope Greenhood - *Diplodium laxum*

The show of light fawn colour is typical of this species.

As with so many other Greenhoods, this one has a fine cobweb underneath the flower.

That indicates the likely presence of a tiny flower spider which is probably lurking inside the flower.



**19th AOC Conference & Show
Perth, Western Australia
11th to 16th September 2012**

"Wild About Orchids"

**MORE
UNUSUAL
ORCHIDS OF
NSW
AUSTRALIA,
PART II:**

BUNNY EARS

ERIOCHILUS CUCULLATUS

This is the amusing little Orchid known as Parson's Bands or "Bunnies Ears". Officially known as *Eriochilus cucullatus*. It is one of the most common of the late summer Orchids in this region (in truth it might be found from February onwards into April).



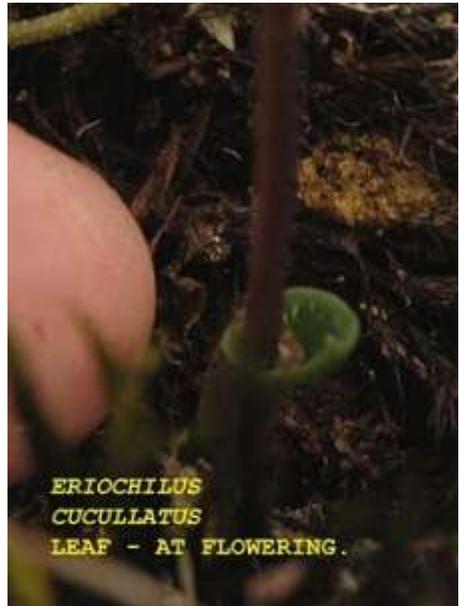
Eriochilus cucullatus

It is relatively common in the Southern Highlands, with a distinct preference for shallow sandy soil, or moss beds over rock shelves. It likes to grow in fully exposed places. Around Robertson it grows in the drier parts of Tourist Road. It also is very common on the moss beds covering the rock faces on the top of Mt Gibraltar ("The Gib").

By contrast with plant *Eriochilus petricola*, this plant leaf is not well developed at flowering time, and it is green on top and underneath (not red underneath).



Eriochilus cucullatus flower stem



**DENNIS WILSON
ROBERTSON, NSW
AUSTRALIA**



Eriochilus petricola

Unusual Orchids of Australia

Series will be continued in
Volume 10, Issue 2 (January 2012)
with articles on the *Corybas* species,
known as Helmets, and other species.

A CALL FOR HELP TO SPOT THE ALIEN

The National Biodiversity Data Centre has launched the “Spot the Alien” recording scheme and nature and garden lovers are being asked to report sightings of three invasive alien species which may have been seen in their area. The three species targeted are the New Zealand flatworm, the harlequin ladybird and the distinctive red lily beetle in its programme.

Data centre schemes coordinator Colette O’Flynn said sightings provided by the public can provide valuable data to help understand the level of invasion, distribution and spread of these species in Ireland.

Ms. O’Flynn added that the New Zealand flatworm kills our hard-working native earthworms in large quantities and the harlequin ladybird has been dubbed “the most invasive ladybird on Earth”. This ladybird is highly variable in looks but is larger than most of our native ladybirds, which it eats. It can winter in houses in the hundreds of thousands as it has done in England.

Ms. O’Flynn said the distinctive red lily beetle damages lilies and fritillary plants but is noticeable by its vibrant red colour with a black head, legs and antennae.

It is widely recognised that invasive species are one of the world’s greatest threats to biodiversity and have socio-economic impacts. Recent reports have shown the cost of alien invasive species in Europe is over €12 billion per year and costs the British economy £1.7 billion per year. Failing to prevent invasive species being introduced into Ireland, we must now detect their presence as a matter of urgency.

Heritage Council Wildlife Officer Cliona O’Brien said the data provided by public recording schemes was very valuable. “The importance of every record you submit should not be underestimated. I urge everyone to get involved in spotting these species and submitting their sighting to the invasive species database,” she said.

Sightings can be submitted to <http://invasives.biodiversityireland.ie> where more information on Spot the Alien is available. The public is also asked to submit photographs, if possible, to assist verification. ***<http://invasives.biodiversityireland.ie/>***

National Invasive Species Database

The National Invasive Species Database provides up-to-date centralized information on the distribution of invasive species in Ireland.

The database has been developed as a resource to assist recording, monitoring and surveillance programmes, and provides the infrastructure for an invasive species early warning system. Database: ***<http://invasives.biodiversityireland.ie/>***

Identification features

Bright red
Black head, legs & antennae
Elongated body
6-8mm long
Bright red eggs laid on underside of leaf in a line
Associated with lily plants and
Impact
Damage to non-native plants belonging to the Lily (Liliaceae) family
May have economic impacts on the horti-



Identification features

highly variable in colour (yellow to orange to black)
variable in number of spots (0-20)
Some of the main features that distinguish it from Ireland's 15 native species are its:

larger size of 6-8mm long
more domed shape than the native species
usually reddish to brown legs
can have a distinctive 'M' or 'W' on the pronotum (back of the head)



Identification features

Very flat body
Brown body with pale edges speckled
Sticky
Pale speckled underside
Pointed ends



MINUTES OF THE TENTH ANNUAL GENERAL MEETING OF THE IRISH ORCHID SOCIETY

Monday 13th June 2011 8pm

Apologies

Olwyn Lanigan, Laurence May, Ulli Peiler.

Total attendance 15 members. Meeting began at 8.10

Minutes of the AGM 2010 were read out by Marie Hourigan,

Matters Arising from the 2010 minutes

Tom Petherbridge noted that there was a typing error in the minutes and that the net society worth should in fact be €7,440 not the €7,817 as was reported.

Shane Kerr said there would be no increase in subscription fees in the foreseeable future and was considering the introduction of PayPal as an online payment means via the website. Shane also thought that the need to use web-texts as reminders for members was not necessary.

Brendan Sayers proposed that the minutes be accepted and Una Breathnach seconded the motion.

Chairman's Report (Summary)

Shane Kerr welcomed everyone to the Tenth Annual General Meeting of the Irish Orchid Society.

Shane was pleased to announce that at the ten year milestone, the society maintained a respectable number of members and was financially sound and judging by the increasing contacts received via the society website, the organisation was gaining for Ireland an international recognition befitting the historical contribution made by the country to orchidology.

Shane then reviewed the events held in the past year. In September, he presented a talk on the history and romance of orchids. In October, there was a presentation by Laurence Hobbs from the UK on his long experience of growing orchids at his nursery who also brought plants for sale

Scott MacNaughton was thanked for organising that event. In November there was a member's night with an impressive attendance and engagement by members.

The next meeting was not until February, after the cancellation of the Christmas *soirée* due to the arctic weather. In February there was a second member's evening which included a short talk on *Cypripediums*. In March, there was a presentation on

orchid repotting and a bargain sale of Pleiones, which he hoped had given added value to the membership as well as bolstering funds.

The National Botanic Gardens Orchid Fair in April was a resounding success, chiefly due to the combination of a new location giving better public access, the fantastic weather and the generosity of the Irish people. The fund raised from the raffle was the best in four years. In May there was a relaxing member's night with an expedition led by Marie to see the orchid delights of the Botanic Gardens itself.

There were two field trips in the last year. The first was the annual June pilgrimage to North Bull Island led by Brendan Sayers. Shane took the opportunity to congratulate Brendan on receiving the annual Bloomer Award from the Linnaean Society in London. The second field trip was to the Sligo-Roscommon area in July which covered Lough Key Forest Park to Strandhill.

Shane Kerr acknowledged the sterling work done by Larry May in the production of *Pollinia* which he stressed must be supported by members.

Shane thanked the committee for their work and Lisa Coffey for helping him keep the website calendar regularly updated. In particular he recognised the contribution of Secretary Marie Hourigan for her efforts. Shane acknowledged committee members, Olywn Lanagan and Mary Flynn who have indicated their intention to stand down. He reminded members that in addition to these vacant posts there was still an open position for assistant fundraiser.

In the forthcoming year, Shane outlined his intention to keep speaker presentations shorter to allow more time for member interaction. He urged members to bring plants to all meetings and provide digital photos. It was also hoped to invite a speaker over from the UK.

Finally, Shane conveyed his gratitude to all members who attended the Glasnevin meetings and thanked the member, who asked to remain anonymous, for the donation of €250.

Shane announced that as it was the tenth anniversary of the society and there were good reserve funds that some of the money could be used now to benefit members and he asked for suggestions from the meeting attendees.

Treasurers Report (Summary)

Mary Flynn gave a quick synopsis of the finances. Subscription's totalled €1,985, raffle money for the year was €682, other income came from card/calendar sales and donations etc. The total income was €3,143. Total expenditure was €2,751 leaving again of €392. The largest cost was the printing and posting of *Pollinia*: €1,601. The

net worth of the society is now €7,832.

The treasurers' report was proposed by Marie Hourigan and seconded by Shane Kerr.

Election of Committee Members

Mary Flynn and Olwyn Lanigan have decided to step down from the committee this year.

Brendan Sayers proposed that Mary stay as treasurer for a period of three months at which time Tom Petherbridge would take over, the motion was seconded by Lauri Best.

Una Breathnach was elected as a new committee member to replace Olwyn, this motion was proposed by Tom P. and seconded by Mary Flynn.

Any Other Business

Shane Kerr thanked Lisa Coffey our web designer for her work on during the year and her diligence in keeping it updated. Lisa asked for members to suggest useful links for the website. Lisa gave us a quick synopsis of the amount of visitors to the website. In the last year 2,978 people from 77 countries viewed the site, 2,193 of these were absolute Unique Visitors. The average visit was 2.29 minutes in length. The top 5 countries were, Ireland, USA, UK, Brazil and Germany.

Marie Hourigan thanked Mary Flynn for her work over the past few years as treasurer.

Hylde Beckett thanked the National Botanic Gardens for it's continuing support and use of facilities.

Mary Bradshaw asked that the minutes of the meeting be included in the forthcoming issue of *Pollinia*. Marie H. said she would think it was too late for the July issue but she would try to make sure it was in the October issue. Mary also asked about guest speakers for the coming year and if anyone had any suggestions.

Scott MacNaughton asked if anyone had any suggestions for speakers for the coming year.

Hylde Beckett said that it was a pity that a synopsis of talks and presentations given at the monthly meetings were not published in *Pollinia*. Shane Kerr said that this should not be a problem and that he would do it himself.

Tom Doran questioned whether the use of video clips of field trips etc. on the website could be used just to give an extra dimension to the website. No one was quite sure whether that was possible or even legal. Tom also asked whether the society was

still driven by a purpose or whether we were drifting along. Several members said that they enjoyed the society meetings and several commented that they were more focused than those given by other horticultural clubs to which they belonged.

Brendan Sayers said that there didn't seem to be a backlog of complaints so that the members must be satisfied with the majority of society events, etc.

Shane Kerr thanked Larry May, editor of *Pollinia*, for all the time and work he puts into getting *Pollinia* to the printers on time. He also thanked Marie Hourigan for all her work during the year.

Shane Kerr proposed a change to the meeting time from 8pm to 7pm or 7:30pm. After some debate the members present decided to change the time to 7pm. This change will be implemented from September onwards.

Shane Kerr suggested doing something for the members as a thank you for their support of the society and especially as this is the tenth anniversary of the Irish Orchid Society. Mary Bradshaw asked what he had in mind. He suggested that we give one year's membership free to all members that have paid their dues already and to anyone who pays before the end of September.

Shane also took the opportunity to welcome all the new members that have joined over the last year and how good it was to see new faces at the meetings.

Marie Hourigan stated that based upon reserve funds a year's free membership from 2012 to 2013 could be covered for our current society membership of just over 100.

The meeting adjourned at 9.20pm. There was a raffle after the Meeting and several donated plants were sold. ✕



LETTER TO THE EDITOR

Dear Editor:

The July *Pollinia* featured a news item on plant festivals named to honour the “Dear Leaders” of North Korea.

May I suggest the same idea for Ireland? Could we not propose naming two new genera after our own Dear Leaders? For example, one **Ahernia** to honour the greatest burst of public funds and political ethics in the history of the State and the **Endakennia**, marked by the extremely slow germination and growth under adverse climate conditions. Other suggestions are welcome. Sincerely,

ULLI PEILER



Dendrobium spectabile is a warm growing species native to New Guinea and the Solomon Islands. The 18-inch to two foot long canes produce masses of flowers which look like aliens from another world.

The plant is easy to grow and flower if you follow the recommended cultural instructions. The flowers are long lasting and have a honey like scent.

This plant typically flowers in the winter and early spring months but can also flower in late August through October. Each flower spike can produce 10 - 20 three inch flowers colored in cream, tan, mahogany, purple, and green.

RECENTLY IN FLOWER IN THE NATIONAL BOTANIC GARDENS***Papilionanthe vandarum***

Found in Southern China, Assam, Nepal, Himalayas, India, Bhutan, and Myanmar, this orchid is grown in the warm house at Glasnevin. It is fed regularly during the growing season with seaweed extract and is potted in a mixture of bark, sphagnum moss and perlite.

P. vandarum is a large erect epiphyte, forming a mass of branches with flexuous stems and sulcate leaves. The leaf bases are longitudinally grooved. The plant blooms in the spring with one to three fragrant flowers on each spike. This year it produced one flower on a single spike, it's first flower for a few years. It is a relatively easy orchid to grow but it is not a regular flowerer. It can produce up to five flowers on a short flower spike.



Papilionanthe vandarum

MARIE HOURIGAN

WILD ORCHIDS FLOURISHING ON ROUNDABOUT

Several wild orchids that have taken root on a South Lakeland, Kendal, Cumbria, UK, traffic island are flourishing.

Half a dozen varieties of the plant have now gained a strong foothold and are beginning to spread to other parts of the area.

Their seeds have now been carried to sections of the busy dual carriageway at Greenodd, near Ulverston.

Cumbria Wildlife Trust officers believe that the seeds have been spread by passing cars.

Trust spokesman Simon Thomas said that the seeds are almost dust-like, so cars using the busy roads could be helping the wind to spread the orchid. Each flower produces thousands of seeds.

Mr. Thomas says another explanation for the appearance of the plants could be the steady rise in temperatures South Lakeland has enjoyed over the past 10 years.

And the heavy limestone content of soil in South Lakeland creates a mineral rich environment for the plants.

“The number of orchids we are finding on these busy roads is like what would have been in fields 100 years ago,” said Mr. Thomas. “Unfortunately it’s a bit risky to go looking for these orchids and I wouldn’t encourage people to search them out because they’re growing along the sides of these busy roads.”

Mr. Thomas also praised verge cutters with Cumbria County Council for helping flowers such as the orchids to grow, while at the same time maintaining visibility for motorists.

“The verges are being managed very sensitively, which is helping vast amounts of orchids to grow.”

Other species of orchid native to South Cumbria include greater butterfly orchid, common-spotted orchid, fly orchid and twayblade, all of which can be found on roundabouts and verges along the Kendal bypass too, along with a fabulous display of other wildflowers including fantastic displays of ox-eye daisy at the moment.

Editor: How many native orchids are growing unnoticed in yards, verges and roundabout in Ireland? Members might look and send a note to me of what they find.

SINGAPORE: THE 20TH WORLD ORCHID CONFERENCE



The 20th World Orchid Conference to be held Singapore this November is expected to attract some 300,000 visitors.

It will be the second time Singapore is playing host to the international event, also known as the "Orchid Olympics".

It will be held at the Marine Bay Sands Expo and Convention Centre from 13-20 November.

New hybrid orchid 'Renanthera 20th WOC Singapore 2011' will be on show at the conference. It was chosen for its hardiness and free-flowering nature.

The conference is set to be Singapore's largest-ever orchid show, with about 50,000 orchids from more than 20 countries competing for the attention of an international panel of judges.

Organisers - National Parks Board and Orchid Society of Southeast Asia - say the show will be a boost for the orchid industry in Singapore as well as the region.



Dr Tan Wee Kiat, chairman of the conference organising committee, said: "Being the host, we can just bring the orchids from our gardens and nurseries. Even for our neighbours, the distance they have to transport these very delicate plants is not that far. And that's a distinct advantage to showcase our orchids to the rest of the world in the best condition possible."

*Above and right: A hybrid orchid, the **Renanthera 20th WOC Singapore 2011**, was created for the orchid show.*



14th - 23rd November 2011
Where New and Old World Orchids Meet

BUCKET ORCHIDS — PRONOUNCED BUCKET

Bucket Orchids - *Coryanthes* - are pollinated by orchid bees that want the plant's aromatic oils to use them in their courtship dance with females. But what the poor bees go through to get them!

The orchids secrete the aromatic fluid into the bucket-shaped lip, and the bee will often fall into the fluid at the bottom of the bucket. There are knobs inside that go one way but the rest of the bucket is lined with smooth hairs pointing downwards and so that they can't climb back up.

Finally following the knobs, the bees come to what looks like freedom, a spout exiting.

The orchid, however, has no intention of letting the bee go yet. Instead, it constricts the spout and presses pollen packets against its thorax, keeping it there until the "glue" has set.

Finally, it is set free to go and find another orchid and this time displace the pollen packets to pollinate it. It can take up to 45 minutes for the bee to escape the orchid as it is kept trapped for the orchids needs. 🐝



Coryanthes alberosa



Coryanthes verrucolineata

SPEEDING UP EVOLUTION: ORCHID EPIGENETICS

Ovidiu Paun, Department of Systematic and Evolutionary Botany, investigates how epigenetic information - heritable signals outside the DNA - influences the development of orchids. The photos show Dactylorhiza Traunsteineri growing in Yorkshire, Great Britain.



Organisms adapt to their dynamic environment using various strategies. **Ovidiu Paun**, working at the Department of Systematic and Evolutionary Botany, investigates how marsh orchids adjust to and diffuse in different habitats. Initial results have suggested that the future isn't as bleak as one would have expected: Variation in epigenetic information, recently detected as heritable signals outside the DNA, enables plants to adapt quickly to environmental changes.

Epigenetics is the study of heritable signals not encoded in the DNA sequence: "That widely extends what we have assumed until now, namely that outside the DNA there is no heritable information. Very recently we started to learn that there are other important heritable mechanisms within the cell that have an influence on a plant's development and traits," project leader Ovidiu Paun explains. Epigenetic signals can basically modify gene expression patterns and they are part of the response mechanisms of an individual to its environment. It's understood that those signals have a signifi-

cant impact on the process of translating genetic information into the phenotype, hence on the characteristics of an organism.

Epigenetics and environmental issues

"Those signals are able to change fast and on a wider scale, whereas genetic information takes much longer to mutate. This is why epigenetic investigations connect well to environmental issues like climate change," the scholar continues. One of those epigenetic mechanisms is the methylation of DNA, a simple chemical modification which results in reduced activity or even silencing (inactivation) of a certain gene. "This regulatory mechanism has been compared to the interpretation of a piece of music: You have the same score, but one musician plays it differently to the other," Paun says.

In a nutshell: The evolution of flowering plants

At several times during plant evolution a whole genome duplication occurred, meaning that a cell's nucleus subsequently possesses double the number of genes. Hence the resulting genomes contain so called redundant genes – copies that carry out a similar function. Over evolutionary time the redundant copies diverge and are able to acquire new functions – this is one key way for plants to evolve and become more and more complex. All flowering plants have had such duplication events in their history. The more recent polyploid organisms don't inherit just one chromosome set from their mother and one from their father, but two or even more chromosome sets from each parent. As epigenetic signals are able to switch different copies of genes on and off, they have a wider "playground" in polyploid plants.

The adaptability of orchids

One of the first documented examples of epigenetic variation in natural populations was found in the three orchids the botanist is studying - *Dactylorhiza majalis*, *D. traunsteineri* and *D. ebudensis*. The plants are natural hybrids of the same parental species pair and they all have twice as many chromosomes as their parents. Even though all three of them have the same genetic heritage, they are different in morphology and show different ecological adaptations. Taking into account the results of his previous research, Paun is going to analyse the genes that are expressed in those plants using the latest methods, capable of investigating at once all genes that a cell is expressing at a moment in time. He aims to find out if the main differences between the three orchids are indeed quantitative – in one orchid a gene might only be expressed once, in the other the same gene may be expressed, but a hundred times. The variation found will be linked to the adaptation to different environments.

Of different morphology

Paun's earlier results have indicated that these orchids' phenotypic variation is due to epigenetic change – namely the silencing and activation of different gene combinations in different species – influenced by their specific environment. "Their difference in morphology is quite remarkable. *Dactylorhiza ebudensis*, for example, is endemic on an island in Scotland. It forms just a single population with plants no taller than 10 centimeters that have just a couple of flowers per inflorescence. *D. majalis* is distributed in the Pyrenees, the Alps and in Scandinavia and can grow up to 90 centimeters with around forty flowers in its inflorescence. The third one, *D. traunsteineri*, is found in Scandinavia and Britain as well as the Alps and is morphologically somehow in between the other two," Paun explains.

All three orchids inhabit marsh-like habitats, but they prefer for example different soil moisture and soil pH. Paun's studies have shown that the combination of temperature and the amount of water available is also crucial for the divergence of these orchids in different habitats.

Out in the Alps

Apart from the molecular investigations, the project also includes an experimental part carried out in the Botanical Garden of the University as well as in the Alps. The scientist explains: "Late spring is for me the best time of the year because I get to go out in the field and learn more about these amazing plants."

**PROVIDED BY UNIVERSITY OF WIEN
AUSTRIA**

<http://www.physorg.com/print231065855.html>



2011—THE YEAR OF THE HONEYBEE

The Federation of Irish Beekeepers' Associations has declared 2011 The Year of the Honeybee.

<http://www.irishbeekeeping.ie/index.html>

Bee Flora in Ireland:

<http://www.irishbeekeeping.ie/bflora/bflora.html>

POLLINATION: *vital to life on Earth, but largely unseen by the human eye.*

Filmmaker Louie Schwartzberg shows us the intricate world of pollen and pollinators with gorgeous high-speed images from his film "Wings of Life," inspired by the vanishing of one of nature's primary pollinators, the honeybee

It's great being here at TED. You know, I think there might be some presentations that will go over my head, but the most amazing concepts are the ones that go right under my feet. The little things in life, sometimes that we forget about, like pollination, that we take for granted. And you can't tell the story about pollinators - bees, bats, hummingbirds, butterflies -- without telling the story about the invention of flowers and how they co-evolved over 50 million years.

I've been filming time-lapse flowers 24 hours a day, seven days a week, for over 35 years. To watch them move is a dance I'm never going to get tired of. It fills me with wonder, and it opens my heart. Beauty and seduction, I believe, is nature's tool for survival, because we will protect what we fall in love with. Their relationship is a love story that feeds the Earth. It reminds us that we are a part of nature, and we're not separate from it.

When I heard about the vanishing bees, Colony Collapse Disorder, it motivated me to take action. We depend on pollinators for over a third of the fruits and vegetables we eat. And many scientists be-

lieve it's the most serious issue facing mankind. It's like the canary in the coalmine. If they disappear, so do we. It reminds us that we are a part of nature and we need to take care of it.

What motivated me to film their behavior was something that I asked my scientific advisers: What motivates the pollinators? Well, their answer was, "It's all about risk and reward." Like a wide-eyed kid, I'd say, "Why is that?" And they'd say, "Well, because they want to survive." I go, "Why?" "Well, in order to reproduce." "Well, why?" And I thought that they'd probably say, "Well, it's all about sex." And Chip Taylor, our monarch butterfly expert, he replied, "Nothing lasts forever. Everything in the universe wears out."

And that blew my mind. Because I realized that nature had invented reproduction as a mechanism for life to move forward, as a life force that passes right through us and makes us a link in the evolution of life. Rarely seen by the naked eye, this intersection between the animal world and the plant world is truly a magic moment. It's the mystical moment where life regenerates itself, over and over again.

So here is some nectar from my film. I hope you'll drink, tweet and plant some seeds to pollinate a friendly garden. And always take time to smell the flowers, and let it fill you with beauty, and rediscover that sense of wonder. Go to the website below to watch the lecture film.

http://www.ted.com/talks/lang/eng/louie_schwartzberg_the_hidden_beauty_of_pollination.html

PAPHIOPEDILUM SPECIES: *The Essential Guide, Slipper Orchids of Asia*

by Dr. Henry Oakeley and Professor Guido Braem

ISBN 978-0-9521461-4-8; small, slim 8vo, pp. 86, paperback

Published: March 2011.

Publisher: Oakeley Books, London, 2011



As described in the introduction, this is an easy to use guide book with the basic information needed to grow the Slipper Orchids of Asia successfully. Cultivation details are given for growing in the greenhouse or average home. Growing conditions are clearly outlined for Cool, Intermediate and Warm species. Humidity, compost, pots and predicted flowering times in the Northern Hemisphere are all explained.

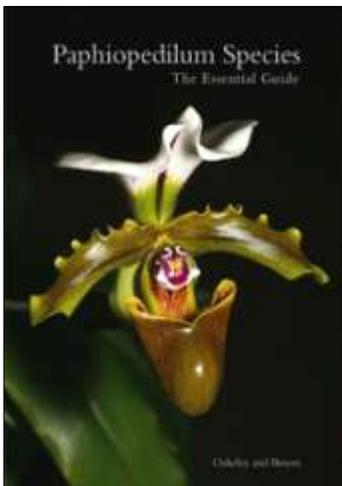
Viruses, other pests and how to deal with them are mentioned and it is worth noting that orchids should not be grown in the same greenhouse as annuals - tomatoes etc. because of the risks of cross contamination.

No less than ninety-three species are described. As well as cultivation details given above, each plant's native habitat, elevation and growth pattern are explained. Photographs by both writers leave little room for error in distinguishing between the various species.

The book concludes with a short bibliography and a list of various web sites which will supply further information.

A small number of copies are available from the Irish Orchid Society Secretary, Marie Hourigan, at a cost of €9.00 inclusive of post and packaging.

MARY BRADSHAW



THE ARTHUR M. SACKLER GALLERY — Washington, DC recently presented twenty works related to orchids in Chinese painting, ranging in date from the fifteenth to the nineteenth century

The Cymbidium orchid (Chinese: *lan*) has been cultivated in China for hundreds of years. Since the time of the philosopher Confucius (551–479 BCE), the Cymbidium has been associated with principled, moral gentlemen whose talent and integrity go unrecognized by the powers that be. Over the centuries, various literary and philosophical works attributed other virtues to the orchid, such as friendship, loyalty, and patriotism. Because of these associations, members of the scholar-official class came to identify strongly with the flower.

The Cymbidium orchid became an independent subject of Chinese painting during the Song dynasty (960–1279). Artists created meticulous depictions of the orchid employing outline and color. From the thirteenth century on, most scholar artists chose to paint the leaves and blossoms calligraphically, using only ink. Following the Mongol conquest of the Song in 1279 and the founding of the Yuan dynasty, the "ink orchid" took on strong overtones of loyalty to the fallen regime.



The subject also held appeal for certain groups that flourished at the margins of society. Monk artists belonging to the Chan school of Buddhism, for example, appropriated the ink orchid for their own purposes during the fourteenth century. Similarly, while the plant remained perennially popular among scholar artists, during the late Ming and early Qing dynasties (16th–17th century) the ink orchid also became a mainstay for a coterie of renowned courtesan painters, many of whom formed romantic liaisons with prominent scholars of the time.

Twelve of the fifteen paintings on view in *The Orchid in Chinese Painting* belong to the ink orchid tradition. Two scholar's rocks and three ceramic bowls used to hold the blossoming bulbs were displayed. ♦

ORCHID ISLAND SEES REBIRTH OF NATIVE FLOWER SPECIES

Taipei, Aug. 16 (CNA) Taiwan's outlying Orchid Island, or Lanyu, has successfully reintroduced its indigenous *Phalaenopsis* orchids after three years of efforts, making the island once more true to its name, Lanyu township chief Chiang Tuo-li said Tuesday.

The flowers, commonly known as “Taiwanese grandma,” almost disappeared three years ago in the wild on the outlying island because too many people were picking them illegally.

Lanyu began trying to reintroduce the plants in 2008 and has since planted over 1,000 back into the wild. The township also marked the 150 locations where the planting took place with global positioning system coordinating so that their growth can be monitored.

Chiang said the township will expand the initiative to restore more native *Phalaenopsis* orchids, also named moth orchids due to their shape, said to resemble a flying moth.

Chiang and the Council of Agriculture's Taitung District Agricultural Research and Extension Station, which also participated in the planting, distributed moth orchid seeds that day to local residents so that they can also grow the plants.

Lo Sheng-hsien, a local orchid expert who used to work for the research station, added that the restoration project used wild-grown moth orchids as parent flowers rather than potted plants, as using potted plants would have rendered the project meaningless. (By Tyson Lu and Jamie Wang.)



MAMMAL SPECIES OF THE WORLD (MSW) contains the names of the 4,629 currently recognized species of mammals. See <http://www.nmnh.si.edu/msw/>

Bats of the World

There are more than 1,100 species of bats worldwide, making up around one-quarter of all mammals. New bat species are still being discovered but relatively little is known about many of these incredible animals. Few people realise what an essential part they play in the natural world.

Bats can be as large as a small dog or as small as a bee. The largest bats are the flying foxes with wingspans of up to two metres and a body weight of 1.5 kilograms. At the other end of the scale is the bumblebee bat, weighing only two grams – the world's smallest mammal. Most of the world's bats are small, similar in size

Bats are one of the most widely distributed groups of mammals. Flight has enabled them to live all over the world apart from the Arctic, the Antarctic and a few isolated oceanic islands. There are bats in the far north of Scandinavia, as well as in the deserts of the south-western USA. Bats are most numerous in the tropics; Indonesia has 175 species of bats (over ten times the number of species found in the UK), while there are 154 in Venezuela and 137 in Mexico. Central and South America are home to almost one third of the world's bats.



<http://yearofthebat.org/>

Bat-pollinated flowers tend to be large and showy, white or light coloured, open at night and have strong odours. They are often large and bell-shaped. Bats drink the nectar, and these plants typically offer nectar for extended periods of time. Sight, smell, and echolocation are used to initially find the flowers, and excellent spatial memory is used to visit them repeatedly. Vanilla is the most well-known orchid pollinated by bats.

IRISH ORCHID SOCIETY
www.irishorchidsociety.org

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 POLLINIA
www.pollinia.org

Back issues of *Pollinia* are available in PDF format on the website.

ORCHIDACEAE – DRACULA VAMPIRA

These epiphytic and terrestrial species are distributed in Central America and the northwest Andes, almost half in Ecuador alone. They prefer shadow and an even, rather cold, temperature. *Dracula vampira* is endemic to Ecuador in South America being found only on the slopes of Mount Pichincha. It is found between 1900 and 2200 metres above sea level, where it is fairly locally abundant.

These caespitose orchids grow in tufts from a short rhizome, with a dense pack of stems. They lack pseudobulbs. On each stems grows one large, thin, plicate leaf with a sharply defined midrib. These glabrous, light to dark green leaves may be spongy, taking over the function of the missing pseudobulb. They are tipped with a *mucro* (a short tip).

The flower stalks grow either horizontally from the base of the plant or descend, often for great distances. A few species grow upright flower stalks. The long-tailed terminal flowers are basically triangular. The flowers are borne singly or successively. Three species (*sodiroyi*, *decussata/neisseniae*, and *papillosa*) may have up to three simultaneously open flowers on a single stalk. In general, though, if there is more than one flower bud on the raceme, they open up with long intervals. These flowers have a weird aspect, due to the long tails on each sepal. The petals are small and somewhat thickened. The lip is often quite large for a Pleurothallid and may resemble a mushroom or fungus. The fleshy basal part of the lip (*hypochile*) is cleft. The terminal part (*epichile*) is rounded and concave. The margins of the perianth are often fringed. There is a well-developed column with two pollinia.



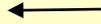
Happy Samhain!



Dracula sergioi



The genus **Oeoniella** is a genus of only two species



Oeoniella polystachys

Plant is found growing on Madagascar, the Comoros, the Mascarenes and Seychelles islands

Grow in shade and with cool to intermediate temperatures. Grow in pots or baskets with medium fir bark or full sphagnum moss. Water regularly. Plant is best mounted on cork.

Synonym,
Angraecum polystachyum

Oeoniella Aphrodite



Plant is endemic to the island of Mauritius.

Grow in shade and with cool to intermediate temperatures. Grow in pots or baskets with medium fir bark or full sphagnum moss. Water regularly. Plant is best mounted on cork.

Synonym: *Listrostachys aphrodite*



WILD ORCHIDS OF VICTORIA, AUSTRALIA

Nature's Masterpieces from Down Under by Gary Backhouse
(Temperate terrestrial orchids from South Australia)

There are 1,800 species, 190 genera and 50 named orchids, 95% of which are endemic. The climate is Mediterranean and flowering peaks in spring. *Dipodium roseum* grows to 1 metre tall, has 30 - 40 pink flowers and is known as "The Hyacinth Orchid." *Pterostylis plumosa* grows on the coast and has a plumed labellum. *P.setifera* has a prominent labellum which is sensitive. There are 25 species of *Corybas*. *Corybas aconitiflorus* has all its parts hidden inside the dorsal sepal. *Pyrorchis nigricans* only flowers after fire, approximately every two years. All *Diuris* species mimic nectar-bearing plants. Among the Spider Orchid plants (*Caladenias*) taxonomy relies on labellum formation. *Caladenia tentaculata* has a labellum like a Mantis, *C.creba* has one like a steel scourer, *C. barbarossa* – "The Dragon Orchid" has a folded labellum with horns. All the Spider Orchids hybridise freely. *Thelymitra pulcherrimum* is probably the most sought after plant in Australia. Every inflorescence has a different flower and patterning almost like fingerprints

Corybas dowlingii, is a relatively new and little known species of terrestrial orchid that was only first described in September 2004.

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October 2011

Mo	Tu	We	Th	Fr	Sa	Su
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
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31						

November 2011

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December 2011

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5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Please note that beginning this month the meeting time has changed to 7pm .

October 3rd 7pm – Members' night

An open discussion will be held this evening on all aspects of cultivation. Beginners are especially welcomed to participate.

November 7th 7pm – Halloween Orchids!

Orchid flowers are universally regarded as objects of beauty. Tonight, on a theme of Halloween, there will be some illustrations of the darker side of the genus!

This evening will also be open for members to discuss topics of their choice.

December 5th 7pm – Christmas Soirée

There will be a light-hearted review of the year. Members who have been on orchid related trips over the past year are invited to contribute to the presentation. Everyone is asked to bring along some festive snacks and there will be a raffle for some special prizes.

Renew your subscription now to qualify for free 2013 membership!

Please renew your subscription now for 2011-2012. As a celebration of 10th anniversary of the society this year we are offering free membership for 2012-2013 but only to those who pay up by November 30th

