

20th World Orchid Conference



LAUREN M GARDINER reports on the show and lectures, SARAH FORSYTH on the trophies, and RUDOLF JENNY on the unusual species



1 & 4 overleaf Grand Champion Display Trophy
Chaiwathana Orchid Garden company from Thailand won the coveted top award for their colourful island display, centred around a waterfall.

Sarah Forsyth



Johan Hermans



Johan Hermans

2&3 Grand Champion Plant Trophy
The plant exhibited as *Cynodes Taiwan Gold 'Orchis'*, by Orchis Floriculturing from Taiwan, also won trophies for Best Catasetinae, Best Cymbidieae

and Best Hybrid. AFLP DNA testing has now shown that Taiwan Gold grex has the same parentage as Jumbo Puff grex. Consequently, the name Taiwan Gold has become a synonym of Jumbo Puff.

THE 20TH World Orchid Conference, 13–20 November 2011, was the second time Singapore had hosted this renowned conference and show – the last time being in 1963. Singapore is an ideal location for such an event with spectacular horticultural sights within easy reach, top-class conference facilities, and access to some of the most interesting orchid habitats in the world just a short flight away.

Closer to the conference, Singapore Botanic Gardens is home to the famous National Orchid Garden, which has the largest display of tropical orchids in the world. Their micropropagation unit is renowned for its orchid research and propagation programmes, which have contributed significantly to the ‘greening’ of this island city state, firstly fêted at Singapore – Garden City, and now, Singapore – City in a Garden.

The Marina Bay Sands Expo and Convention Centre, where the WOC was held, is a vast development at the mouth of the Singapore river, opposite the first phase of the Gardens By The Bay complex (see *Orch. Rev.* March 2011, p10–19). This first phase is due to open in mid-2012, and an exclusive sneak-preview of part of this garden and the Flower Dome conservatory, with its semi-arid environment, was included for registrants, along with behind-the-scenes technical tours.

The orchid show

The show was held in an enormous, 16,000sq m, subterranean hall at the Expo and Convention Centre. There were 55 displays from 19 countries, across five continents. They ranged from small scale table-top displays, to 100sq m landscapes. At one end of the hall, 80 vendors from 17 countries offered a huge array of orchids, art, equipment and merchandise. One particular highlight was the range of excellent educational displays, including a series of large cloth panels hanging



John Hermans



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Gardens by the Bay, Singapore

Gardens by the Bay, Singapore

from the ceiling, with short, readable biographies of orchid greats through history, which very fittingly included a panel for the late Joyce Stewart.

The plenary lectures

The scientific lecture programme was packed, with eight plenary lectures from international leaders in their fields: Mark Chase, John Elliott, Michio Tanaka, Wong Sek Man, Kingsley Dixon, Steve Johnson, Wen Huei

Chen and Phillip Cribb. Mark Chase's opening plenary brought together the problems and practicalities associated with generic nomenclatural changes made as a result of DNA-based evidence changing our understanding of relatedness. He focussed particularly on the reasons for the changes in the genera *Cattleya* and *Odontoglossum*. Presenting the arguments for splitting versus lumping taxa, and showing the importance of pragmatism, and the



Sarah Forsyth



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4 Grand Champion Display Trophy

Chaiwathana Orchid Garden, Thailand, showed off brightly-coloured orchids at eye-level and above, while lower down, subtle-coloured species and hybrids could be admired close-up. They also won the trophy for Best 50sq m Landscape.

5 Reserve Champion Plant Trophy

Paphiopedilum Du Motier 'Victoria Village' also won Best Paphiopedilum Trophy, Best Paphiopedilum Hybrid Trophy, and Best Cyripedioideae Trophy. It was exhibited by the Eric Young Orchid Foundation, Jersey, as part of their seaside-themed display.

6 Best Pluerthallidinae Trophy

Masdevallia Redwing 'Purple Passion' was grown and exhibited by Jason Ong from Singapore. The plant had seven flowers in a vibrant shade of violet.

7 Best Maxillariinae Trophy

Anguloa clowesii was grown by Taida Horticultural company, Taiwan, and shown by the Taiwan Orchid Growers Association (TOGA), who won nine trophies.

8 Best Cattleya Species Trophy

Cattleya walkeriana, grown by Song Orchids from Singapore, was exhibited on the Singapore Orchid Growers Association stand, who won four trophies.

9 & 10 Reserve Champion Display Trophy

The small Orchid Society of Papua New Guinea spent five years planning this display, which also won the Best 100sq m Landscape trophy. It featured five huge masks decorated with cut orchids, wooden boats, crocodiles and hundreds of dendrobiums, including *D. cuthbertsonii* and many antelope types, as well as a bird made with cut orchids in fiery shades (see p5).



Sarah Forsyth

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consideration of the end-users of names, Mark gave a balanced view of the decisions that need to be made by systematists working on such groups.

The lecture streams

Aside from the plenaries, the sessions were divided into three concurrent streams, a necessity with more than 130 speakers but, as ever, a trial to decide which lectures to attend. My interests and background – Asian orchids, systematics, and conservation – usually dictated my choices so inevitably I missed a number of speakers I would have liked to have heard, and subjects I would have liked to have learnt more about, such as pollination biology, mycorrhizal associations, micropropagation, medicinal uses, orchid judging and hybridization, all of which were well represented.

The representation of Asian orchid diversity in the lecture programme was excellent, with presentations on the orchids of the Himalayas, Indochina, Thailand, Myanmar, Laos, Indonesia, Peninsular Malaysia, the Philippines, Hong Kong, China, Sikkim, India, Nepal, Sabah, New Guinea, Bhutan, Bangladesh and Taiwan, among others. However,

Australian, African and South American orchids were also well covered, and this conference certainly lived up to its tag line of Where New and Old World Orchids Meet.

We heard a wide range of talks on specific taxonomic groups, some with a horticultural basis, others were more systematic in orientation, and some had a conservation or other applied angle. Some of the genera covered were *Vanda* (including my own presentation), *Phalaenopsis*, *Guarianthe*, *Cypripedium*, *Caladenia*, *Rhytionanthos*, *Masdevallia*, *Opbrys*, *Paphiopedilum*, *Dendrobium*, *Calanthe*, *Renanthera*, *Polystachya*, *Rhizanthella*, *Corybas*, *Bulbophyllum*, *Ansellia*, *Stenoglottis*, *Angraecum*, *Cymbidium*, *Phragmipedium*, *Cattleya*, *Pleione*, *Restrepia*, and more generally, the *Aeridinae* and slipper orchids. I have heard criticism of past WOCs for attempting to be all things to all people, with varying degrees of success. This programme, in my eyes, successfully combined a wide range of diverse fields, suitable for a broad range of interest and knowledge levels, without alienating the listener who had inadvertently ended up in the wrong lecture room.

Young speakers

I was particularly pleased to hear Kiat Tan noting in his opening speech that this WOC had more first-time speakers than ever. This, and the range and quality of the talks attested to the success of the Conference Committee's hard work in putting the programme together. As Chair of the IUCN (International Union for Conservation of Nature) Orchid Specialist Group Early Career



Johan Hermans

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Johan Hermans

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Sarah Forsyth

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Sarah Forsyth

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Gardens by the Bay, Singapore

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11 Best Oncidinae Trophy

Oncidium alexandrae 'Barcombe' (syn. *Odontoglossum crispum* 'Barcombe') also won Best Oncidium Trophy. It was exhibited by McBean's Orchids from East Sussex, who were the only exhibitors from the UK, and won two trophies.

12 Indonesia Orchid Society

The Indonesian display included a representation of a traditional house with a curved roof. This allows heavy, tropical rain to quickly sheet off, while raising the structure on stilts keeps it out of damp mud, and allows breezes to keep it cool.

13 Best Phalaenopsis Hybrid Trophy

Phalaenopsis Taida King's Caroline also won the trophy for Best Multifloral Phalaenopsis Hybrid. It was grown by Taida Horticultural company from Taiwan, and exhibited on the Taiwan Orchid Growers Association (TOGA) exhibit.

14 Best Standard Antelope Dendrobium

Hybrid Trophy

Dendrobium Asian Youth Games Singapore 09 was grown by the Singapore Botanic Gardens. It formed part of the Show centrepiece display.

15 Best Phalaenopsis Trophy

Phalaenopsis cornu-cervi 'Red' was also awarded the Best Phalaenopsis Species Trophy. It was exhibited by Moi Hwa Nursery from Singapore, who won the Best Paraphalaenopsis Trophy too.

16 Best Bulbophyllinae Trophy

Bulbophyllum Hsinying Grand-arfa (*B. arfakianum* x *B. burfordiense*) was grown by Song Orchids, Singapore, and exhibited on the Singapore Orchid Growers Association stand.

17 Best Society or Amateur Display Trophy

Singapore Gardening Society won with their 50sq m display. The Society, founded in 1936, is for tropical plant enthusiasts, and their display included many interesting foliage plants and colourful orchids.

Committee, I have been encouraging conference organisers to include more early career speakers in lecture programmes, partly to help those speakers develop their career experience but also to add new energy and vibrancy to events. The 20th WOC certainly showed the benefits of doing this. I held a meeting and networking event for the Early Career Committee at the WOC. One of the main items I wanted to show to the group was the website I recently put together, based around a forum for all orchid conservationists to use to share information, ask questions, and advertise employment and funding opportunities (<http://orchidearlycareer.myspecies.info>). The site is accessible to all, with a simple, free registration process which allows people to post and reply to messages in the forum. I encourage anyone who is interested to have a look and help build the site by contributing information there.

Lecture highlights

The highlight for me was Ong Poh Teck's talk on his observations on the pollination of Peninsular Malaysian orchids, in the shadehouses at the Forest Research Institute Malaysia (FRIM). I first met Ong at the Flora Malaysian conference in 2010, at Singapore Botanic Gardens after being introduced by Peter O'Byrne. There he presented some of his wonderful video footage and images of orchid pollination by insects to gasps of excitement and awe from the audience. The WOC delegates were in for a treat, as Ong's unassuming narration accompanied high resolution footage of complete pollination events – from visitation and pollinia removal, to pollinia deposition on orchid stigmatic surfaces by the same insect species.

Other highlights included Yam Tim Wing's lecture on the native orchids of Singapore, which had the audience envying him his wonderful project

and success in reintroducing native species across the island, and gave us a new appreciation for Singapore as the City in an Orchard Garden. Unable to attend the WOC in person, Uday Pradhan from Kalimpong, India, lectured via a pre-recorded presentation on the jewel orchids of India. Mike Hutchings presented his outstanding 30-year demographic study of *Ophrys sphegodes* in the UK, a project with a methodology rarer than the species itself but critically important in aiding our understanding of how such a species survives – or does not – in the wild.

Henrik Pederson's thought-provoking talk highlighted the role of flora projects, such as the *Orchidaceae* treatment for the *Flora of Thailand*, in driving wider research. Such floristic projects are sometimes unfairly criticised for taking many years to complete. This fails to take into account the collaborations that need to be developed, sometimes from scratch, to produce such works, and the complementary research programmes that are spin off from and enhance the flora writing aspects. Jacob Phelps' talk on the trade in wild orchids in continental southeast Asia stimulated quite some discussion. He provided a different viewpoint on the issues of trade and conservation, focusing on a single section of the trade routes and using a more quantitative analysis of a number of the factors involved than I have seen presented in the past.

All too soon it was time for Phillip Cribb's closing plenary on the Art and Science of Orchids. It was a perfectly pitched journey through the history of orchid science and orchid illustration, showing how the two have always been effortlessly entwined. The lecture was a beautiful and very enjoyable way to end the conference, and was full of new and intriguing vignettes to reward the listener.

Lauren M Gardiner

UNUSUAL SPECIES



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18 *Vanda tessellata* f. *alba* hort.

This species is extremely variable in colour but pure yellow forms are seldom seen. The morphology is the same as the others forms, even the tessellation on the sepals and petals is visible. *Vanda tessellata* f. *alba* is used in breeding to produce white colours.

19 *Bulbophyllum beccarii* Rchb. f.

This well-known, beautiful species was named after Otto Beccari, Italian scientist, traveller and collector. It is very difficult to grow and flower. Wild plants can grow very large, spiralling around tree trunks and branches, their large, cupped leaves collecting organic matter. The flowers produce a very intense unpleasant fragrance to attract their pollinators.

20 *Corybas* species, from Papua New Guinea

This tiny, single plant was on the Orchid Society of Papua New Guinea display, unfortunately without name, it is probably not yet described. *Corybas* are very seldom seen at shows or in cultivation, although the flowers are extremely interesting.

21 *Elleanthus blatteus* Garay

Described from Ecuador in 1978. The genus of 100 or so epiphytic or terrestrial new-world species ranges from tiny plants to 2m tall, *Sobralia*-like types. Some are very showy but are not often seen in cultivation. Wild collected plants are hard to establish because of root damage but, once established, are easy to grow.

22 *Eulophia angolensis* (Rchb. f.) Summerhayes

Described in 1865 as *Cymbidium angolense*, this terrestrial bog-species from tropical Africa has inflorescences more than 1m tall, with 10 to 15 bright yellow flowers, and grows often in large colonies. A well-grown plant in full flower is a marvellous sight.

23 *Calanthe cardioglossa* Schlechter

Not often seen, this very variable species has flowers ranging from pure white to dark pink. The blooms do not last long and are very fragile. It was described in 1906 using material from Thailand. *Calanthe* is a large genus of about 200 species, mostly terrestrials.

24 *Thecopus secunda* (Ridl.) Seidenf.

Described in 1896 from Borneo, this species is not often seen in cultivation although it is easy to grow. This small genus has about 9 described species.

25 *Acineta beyrodtiana* Schlechter

Seldom seen in cultivation, this species from Colombia is dedicated to Otto Beyrodt, owner of a nursery in Berlin. The species is variable in colour, and pale yellow forms are known.

26 *Dendrobium treacherianum* Rchb. f. ex Hook. f.

(syn. *Epigeneium lyonii* (Ames) Summerh.) First described in 1908 as *Dendrobium lyonii*, based on material from the Philippines. This species is not easy to grow or flower in cultivation. In the wild it blooms in spring bearing six to twenty flowers.

27 *Dendrobium daimandauii* J.J. Wood

Described only a few months before the WOC, this species was collected in Sabah and on Mount Kinabalu in Borneo. It is named after Daim Andau, a collector employed by Projek Etnobotani Kinabalu.

28 *Dendrobium brevimentum* P.J. Cribb

This seldom seen species from the *Spatulata* section is known from the Moluccas. Cribb wrote in 1993 that it would be only known from the type collection.