Orchid Society of Santa Barbara

Meeting: Wednesday, June 14, 2006

We have returned to

Louise Lowry Davis Recreation Center

1232 De La Vina (at De La Vina and Victoria)

Meeting begins at 7:30 pm

PROGRAM

Hendrik van der Hoven of South Africa speak about
Wild Orchids from Table Mountain and the Cape Peninsula

Do you like seeing orchids in their native habitats? Come learn about native orchids from the other side of the world. Hendrik van der Hoven of Capetown, South Africa, has been involved with orchids since age 12 and growing them since age 20. A landscape architect and environmental planner by profession, van der Hoven's passion for orchid species has led him all over South Africa to photograph orchids in the wild. Van der Hoven is the immediate past president of the Cape Orchid Society and the Chair of the Cape Judging Region of the South African Orchid Council. Van der Hoven is also bringing a delightful selection of species, so don't forget your wallets! A list of plants he will bring appears later in this newsletter.

Calendar

June 24, 2006 **4th Orchid Digest Speaker's Day "Orchid Species Spectacular"**
Huntington Library and Botanical Gardens, San Marino, CA. Noon to 8 pm. Lectures by Lou Menezes from Brazil and by Fred Clarke, Leon Glicenstein, Marc Hachadourian, Erich Michel, Marni Turkel. $60 admission includes seminars, dinner, and evening distinguished speaker. Space is limited; call ahead: Simone Friend (562)431-1247, email: orchidsimonef@aol.com

July 7-9, 2006 **26th Annual Santa Barbara Orchid Estate International Orchid Fair**
Earl Warren Showgrounds, Fri & Sat 9-5, Sun 10-4. Free admission, $5 parking. www.sborchid.com

July 12, 2006 **OSSB Monthly Meeting**
Brian Gerhard of Down Under Native Orchids will speak about easy-growing Aussie Dendrobiums

Summary of the May 2006 Meeting

Editor's note: Since I was absent from the May meeting, I would like to thank Jeff Thompson for his comprehensive notes of the lecture. Any errors are my own misinterpretations.

Program

Our own Bryce Augustine spoke to the society about Orchid Physiology. Augustine graduated from UCSB with a BA in botany and currently is the owner of Monsoon Flora Orchid Lab, which he has run since 1991. He is also an AOS judge.

Orchid physiology is the science of why orchids behave in the environment the way they do. Augustine listed the five major environmental factors that are interrelated in their effect on orchids: light, respiration, photoperiodicity, water, and air movement.

Light drives photosynthesis, which is the process by which chlorophyll molecules in a plant leaf make sugars. Too much light, however, also means internal heat buildup and destruction of chlorophyll (why orchids in high light look yellowy). Augustine noted that no orchid wants more than 2000 foot-candles. Some, like paphs and phrags, want considerably less.

Orchid growers might not be able to duplicate the variable light levels in nature, but we can learn from them, providing less shade for lights like cymbidiums and more for shadier growers. Augustine suggested 80% shade cloth for paphs and phrags, 60% for catts and 50% for cyms. He noted that his best plant growth and flowering has been under lath rather than shade cloth.

Cellular respiration is the process of oxidizing food molecules, like the glucose sugars produced by photosynthesis. Respiration is affected by temperature; if the temperature difference between a plant and its surroundings is too great, the plant will stop respirating (in other words, stop growing).

There is an important lesson here for orchid growers. Watering warm plants with cold water stops respiration - the plant stops growing. Water on the leaves can reduce the temperature of the plant, but cold water will keep the mix cold for a long time, stopping plant growth. To avoid this, heat the water to the same temperature as the plants.

Plants respond not only to the intensity of light but to the lengths of alternating periods of light and darkness - the photoperiod. Augustine noted that flasks do well under lights at constant temperature with an eighteen hour day length.

Water is taken up by orchid roots, travels through the plant's cells by osmosis as they try to equalize water pressure, and is lost as water vapor through the stomata (minute openings in the leaf surface). Learning from nature, orchid growers should water their plants well so the roots and water storage capacity of the plant can carry it through the dry spell to the next watering. If plants are watered more frequently but less thoroughly, often the medium will remain wet and the roots will rot.

Water quality is also important. Our local water can measure 600 PPM (parts per million) mineral content and is almost entirely calcium carbonate, which is unhealthy for orchids. 700 PPM is an upper limit for orchids. At high pH (low acidity), calcium carbonate is more likely to build up on roots and cause leaf tip burn as the plant tries to remove it to the least sensitive are. Additionally, beneficial nutrients are poorly absorbed at high pH. Augustine recommended adding lemon juice concentrate (1 tablespoon per gallon watter) to lower pH of city water. Better yet, invest in reverse osmosis.

As for fertilizer, Augustine uses 20-20-20 during orchid growing periods. He prefers Urea based nitrogen because its availability to plants is related to temperature. At warmer temperatures, when plants are actively growing, Urea based nitrogen is also readily accessible.

Finally, adequate air movement prevents the supply of carbon dioxide in the plant's vicinity from being depleted as it is used by the plant to produce energy and grow. Air movement also helps cool the plant and makes it less prone to fungi and bacteria attacks. Augustine noted that while the artificial addition of carbon dioxide can increase flower size as well as growth, distorted flowers are often the result, since not all the cells of the flower enlarge equally.

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List of Plants Being Brought by Our June Speaker

Hendrik van der Hoven will be bringing orchid species for sale to our June meeting. Usually, I forward such lists as attachments when I email the newsletter. This month, I am including the plant list in the body of the newsletter. This particular plant list is interesting also for its brief descriptions of the species.

Aerangis mystacidii – pendulous inflorescence with up to 15 flowers with long spur, white turning pale apricot ($12.50)
Aerangis hyaloids – miniature plant with many inflorescences, white flowers large for the size of plant ($12.50)
Angraecum sacciferum – miniature plant with small yellow-green flowers ($10.00)
Angreacum pussilum – miniature plant with upright inflorescences with many small white flowers ($10.00)
Bonatea speciosa – easy to grow terrestrial with strange green flowers ($12.50)
Bulbophyllum sandersonii – plant forms a matt, flowers small, violet with dots ($12.50)
Bulbophyllum scaberulum– plant forms a matt, flowers small, purple-violet with stripes to inside ($12.50)
Cyrtorchis arcuata – semi pendulous inflorescence with larger white flowers very fragrant at night ($15.00)
Diaphanathe xanthopollinia – unusual pale yellow-green flowers up to 25 per inflorescens ($15.00)
Eulophia speciosa – terrestrial plant with tall inflorescence and bright yellow flowers ($15.00)
Liparis remota (**per 2 plants**) – a typical *Liparis* flower, pale green, easy to grow fun orchid, can soon fill a pot ($10.00)
Microcoelia exilis – an unusual leafless orchid with many very small white flowers ($15.00)
Mystacidium capense – pendant inflorescence with star like striking white flowers with a long spur, flowers mid summer ($15.00)
Mystacidium flaniganii – similar to *M gracille* but cool growing with leaves ($12.50)
Mystacidium gracille – usually a leafless with pendant inflorescence with small pale green starry flowers ($12.50)
Mystacidium venosum – similar to *Myst c* but flowers a bit smaller, flowers late summer ($15.00)
Neobenthamia gracilis – tall slender cane with terminal inflorescence, cluster of many white flowers ($12.00)
Polystachya adansonii – unusual with many small cream flowers with red-purple lip ($12.50)
Polystachya anceps – white to pale pink flowers on a tall sometimes branched inflorecsence ($12.50)
Polystachya cultiformis yellow form – solitary leaf, flowers bright smaller yellow flowers ($12.50)
Polystachya fusiformis – unusual growth habit with each new pseudo-bulb halfway up and longer than the previous, many small yellow-green flowers on branched inflorescence ($15.00)
Polystachya minima – green flowers, fragrant, from a limited area in Malawi ($12.50)
Polystachya ottoniana – small plants forming a matt, white flowers large for plant size ($10.00)
Polystachya paniculata – many small orange flowers on branched inflorescence, very striking ($30.00)
Polystachya pubescens – terminal inflorescence with bright yellow open flat flowers with few brown bars, many flowers ($12.50)
Polystachya transvaalensis – apple green to brown-green flowers on upright inflorescence ($12.50)
Polystachya victoriae – quite rare, very unusual white flower, small plants ($20.00)
Polystachya valentina – beautiful pink to pale pink flowers on upright inflorescence, only from small area in Zimbabwe ($ 20.00)
Stenoglottis fimbriata (**per 2 plants**) – easy to grow terrestrial orchid with purple spotted rosette of leaves, upright inflorescence with many lilac spotted flowers ($12.50)
Tridactyle tricuspus – star like cream flowers with a short spur on a horizontal inflorescence ($15.00)

Announcements

● *Orchid Conservation.* Help save orchid habitats from habitat destruction! The Orchid Conservation Alliance creates orchid habitat reserves in the Ecuadoran Andes. Alliance memberships start at $25. The Orchid Conservation Alliance is endorsed by *Orchid Digest.* For more info: www.orchidconservationalliance.org

● *Orchid Mix Vendor.* A new orchid mix vendor has a novel take on the orchid mix issue and how to avoid storing huge bulk bags of multiple ingredients. Repotme.com offers select-a-blend potting mixes. You specify your own mix from 35 potential ingredients; Repotme.com mixes it up and ships it to your door. The company also offers several of their own mixes for those who want to try something new on their plants.

Society Business

● *Welcome New Member.* The Society welcomes Laura Dewey, 15 W. Carrillo St., #104, Santa Barbara, CA 93101, who joined in May. If you are a new member and your name has not been published in the newsletter, please feel free to remind your editor!! (Heidi at 563-2894 or hkorchid@juno.com)

● Newsletter submissions for July must be made by June 29. Email to hkorchid@juno.com or give a hard copy to Heidi Kirkpatrick

● Check out the society web site! www.west.net/~orchidsb

● OSSB Officers for 2006: President - Don Brown Vice President - Carole Thompson
Treasurer - Angela Watt Secretary - Heidi Kirkpatrick