

IOCC II OVERVIEW

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The Second International Orchid Conservation Congress was hosted by the Marie Selby Botanical Gardens on May 15–22, 2004. This significant conservation event was organized under the auspices of the Orchid Specialist Group, which is part of the Species Survival Commission of the IUCN (International Union for the Conservation of Nature and Natural Resources/World Conservation Union). The IUCN, a non-profit organization with members from 140 countries, was founded in 1948, and works closely with the United Nations Environment Programme.

The IOCC II brought together 131 orchid conservation specialists, researchers, educators, and practitioners from 21 nations. It provided an opportunity for those involved in orchid conservation to exchange information, learn current practices in all aspects of orchid biology and conservation, and develop an understanding of global issues in orchid conservation.

Stuart Pimm, the Doris Duke Chair of Conservation Ecology at Duke University, opened the congress with a keynote address that challenged the participants with the query, *It's a New Century: Do You Know Where Your Orchids Are?* He emphasized the conservation balance, since it is not financially possible to protect the remaining large tracts of tropical forests. Protecting the biodiversity hotspots of the world is even more difficult, he concluded, because more people live within them.

Registrants participated in three workshops, four days of lectures, a forum on CITES (the U.N. Convention on International Trade in Endangered Species of Wild Fauna and Flora), a poster session, and three fieldtrips. Participants also attended evening meetings of Orchid Specialist Group committees. Social events began with a welcome reception and included Reggae on the Bay and a closing sunset banquet.

The IOCC II workshops were hands-on experiences in Population Dynamics, Mycorrhizal Propagation, and Terrestrial Orchid Propagation. Participants, including a number of students, had the opportunity to focus on orchid conservation in an academic setting. The Population Dynamics Applied to Orchid Conservation workshop presented state-of-the-art methods for determining the probability of persistence of a species or

population; methods to estimate the probability of a population or species going extinct, and the parameters of the life-history stages that are most vulnerable to impact population persistence. To improve population survivorship in orchids, participants learned which variables to manipulate, what data to collect in the field, and which analyses to perform. The instructors, Raymond Tremblay and Pavel Kindlmann, stressed the need to understand the value as well as the limitation of these techniques to conservation. Tremblay, chair of the In-Situ Conservation Committee of the IUCN/SSC/OSG, is a professor in the Department of Biology, University of Puerto Rico-Humacao. Kindlmann, a faculty member of the University of South Bohemia in the Czech Republic, has extensive experience studying population dynamics in terrestrial orchids. He also is an active member of the In-Situ Conservation Committee.

The Mycorrhizal Propagation Techniques Workshop introduced basic concepts of modern symbiotic orchid propagation techniques. Topics included seed collection, mycorrhizal symbiont isolation, seed propagation, and seedling processing. The instructor, Scott Stewart, is a Ph.D. student in the Environmental Horticulture Department at the University of Florida in Gainesville. He began research on symbiotic orchid propagation under the direction of Lawrence Zettler at Illinois College in 1998. Now focused on the symbiotic propagation of rare and endangered terrestrial orchids, as a tool in conserving them, he works with the Native Orchid Restoration Project in Florida (NORP).

The Terrestrial Orchid Propagation and Transfer to Habitat Workshop surveyed current techniques to isolate beneficial fungi from plants. The curriculum included a new soil-baiting technique to determine the presence and abundance of soil fungi. Participants learned the latest methods of field inoculation to improve seedling performance when transferred to soil or habitat. The instructors were Kingsley Dixon and Andrew Batty from Australia. Kingsley, Director of Science, Kings Park and Botanic Garden, West Perth, Australia, is an adjunct professor in the School of Plant Biology, Faculty of Natural and Agricultural Science, University of Western Australia. He also serves as vice-president of

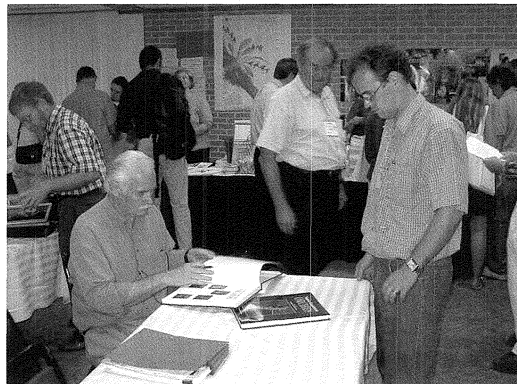
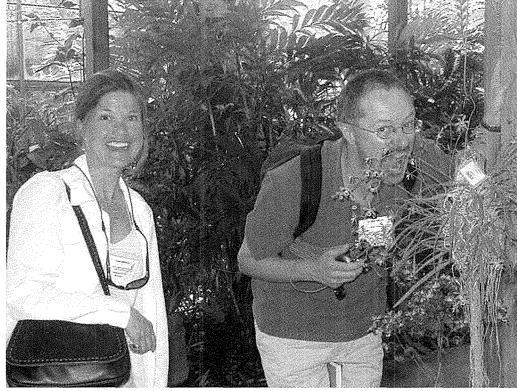
**A****B****C****D****E****F**

FIGURE 1. The IOCC II at Marie Selby Botanical Gardens. **A.** Attentive registrants at lecture series. **B.** Presenters explaining their research at the poster session. **C.** Students engaged in workshops. **D.** Authors participated in a book-signing session. **E.** Registrants relaxing over lunch. **F.** Inspiring research greenhouse tours.

The Australian Network for Plant Conservation. Batty, a post-doctoral research fellow at Kings Park and Botanic Garden, is a pioneer in the study of longevity and dormancy of native-soil

orchid seed banks. His research focuses on perfecting ex-situ fungal baiting methods to improve the success of orchid translocation. For the Millennium Seed Bank project, he is col-

lecting seeds and fungal endophytes from threatened Western Australia terrestrial orchids.

Fieldtrips allowed participants to experience Florida's subtropical forests, with visits to Central Florida orchid habitats, the Myakka River State Park, and the Fakahatchee Strand State Preserve.

Central Florida, including Orlando, is home to 17 native orchid genera, 70 species, 10 subspecies, and five natural hybrids. The Central Florida Habitat tour, led by Bob Clifford, a NORP member, and Ken Roberts, North American Region OSG, viewed orchids growing in the wild at the Tootoosahatchee State Preserve, where they enjoyed the fragrance of early blooming *Encyclia tampensis*. The Central Florida Orchid Society sponsored a barbecue for the group at Fort Christmas, and the final stop was at the Seminole Ranch Preserve, a wildlife management area with epiphytic bromeliads and ferns.

Myakka River State Park, east of Sarasota, is the largest state park in Florida and consists of 28,000 acres of oak/palm hammocks, prairie, and pine scrubland. The tour, led by Bruce Rinker, director of education at Selby Gardens, visited the only forest canopy walkway in a subtropical forest. The walkway gives visitors easy visual access to native epiphytes, including *Encyclia tampensis* and numerous bromeliad species; and the 74-foot canopy tower provides a panoramic view of the Florida landscape.

The Fakahatchee Strand State Preserve is the richest site in Florida for native epiphytic orchids, with 50-plus species out of a state total of 110, many which cannot be seen elsewhere in the state. John Beckner, Curator of the Orchid Identification Center at Selby Gardens, and Mike Owen, Park Biologist, led the tour. Absolutely no collecting is allowed in this state nature preserve, which is a rough hike into dense swamp; water levels, low in May, can be waist-deep at

orchid sites. Participants signed a waiver accepting personal risk for falling on logs and rocks or for attacks by snakes, alligators, wild hogs, bears, or other wildlife. Fortunately the only injuries were some insect and arachnid bites. Conservation efforts centered on the Fakahatchee include mycorrhizal propagation and restoration.

Three Orchid Specialist Group meetings were held in conjunction with IOCC II. Marilyn Light of Canada chaired the North American Regional Group; Raymond Tremblay, University of Puerto Rico, chaired the in-situ conservation meeting; and Phil Cribb, of Royal Botanic Gardens Kew, UK, chaired the OSG general meeting. These meetings, which provided valuable exchanges of information among committee members, were open to all interested parties. The next OSG general meeting convened on March 13, 2005, in Dijon, France, in conjunction with the 18th World Orchid Conference.

The First IOCC was hosted by Kings Park and Botanic Garden at Perth, Australia, in 2001. The Second IOCC was hosted by the Marie Selby Botanical Gardens at Sarasota, Florida, in 2004 (FIGURE 1); and the Third International Orchid Conservation Congress (IOCC III) has been awarded to a joint bid by the Jardín Botánico Lankester and the Universidad de Costa Rica at San José, Costa Rica, to be held on 16–23 March 2007.

The staff of *Selbyana*, the Journal of the Marie Selby Botanical Gardens, is pleased to devote this issue to the Proceedings* of the Second International Orchid Conservation Congress.

* Because the IOCC II Proceedings are being published as a special issue of the journal, IOCC II manuscripts in *Selbyana* 26(1,2) did not receive further peer review but represent the material presented at the congress.