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Peter Bernhardt's (Fig. 1) volunteering for the Peace Corps in 1975, after he had completed his M.A. Studies at the State University of New York, Brockport, was an early indication of his deep interest in working with people. His Peace Corps assignment was in the small but diverse Central American country of El Salvador. There he worked for two years as a professor at the Universidad de El Salvador, studying orchids in particular, and floral ecology and phytogeography more generally. During that period, he and I began exchanging letters, and I have attempted to encourage him in the development of his remarkable career ever since. I became aware of his interest in scientific communication through an article that he prepared for *Natural History Magazine* dealing with the orchids that were growing within the boundaries of the poverty-stricken city of San Salvador. Peter was studying these orchids scientifically, but soon decided that he also needed to bring his findings to the attention of a wider audience to enrich their lives and help them understand the importance of preserving the beauty that was all around them. Subsequently, the excellent and entertaining expositions that Peter has produced for many years have helped many people to understand the importance of nature and to develop a desire to maintain it in their own surroundings and beyond.

Returning from El Salvador, Peter worked for six months at The New York Botanical Garden, and then made the adventurous decision to travel to Australia to undertake his doctoral studies. He enrolled at the University of Melbourne, where he completed his Ph.D. degree in 1981. For the subsequent three years, he remained as a Research Fellow at the University. His lifelong affection for Australia began in those years, and has never deserted him. During those early years in Australia, Bernhardt initiated his impressive and prolonged series of studies of the floral constancy of bees and nectar-feeding birds and the reproductive systems of plants.

Peter returned to the U.S. to take up an appointment in the Department of Biology at St. Louis University. In St. Louis, he published his first book of essays, the fascinating "Wily Violets and Underground Orchids: Confessions of a Botanist" (1989). When awarded tenure in 1990, he took up a two-year research leave at the Royal Botanic Garden, Sydney, becoming a Research Fellow there for his second year. In all, his appointment at St. Louis University lasted 33 years, a highly productive period for both innovative research and education during which he fostered relationships with the Missouri Botanical Garden. Although he and his wife still reside in St. Louis, their intention is to return to Melbourne and finish their life's work there.

At St. Louis University, Peter Bernhardt taught a variety of courses and mentored many students, helping them to understand such important aspects of floral biology as floral lifespan, pollen-stigma interactions, reproductive ecology of threatened species (in Missouri, Pacific Rim, and Pacific Basin).

In carrying out these studies, Peter's work has stood out for the precision that he has employed in reaching his conclusions. Many people not focusing in depth on pollination are satisfied to characterize individual kinds of plants as "bee flowers," "butterfly flowers," or whatever, and consider that to be more or less the final word on the subject for that plant species. In contrast, Bernhardt has never been satisfied to complete a given study without carrying out quantitative studies of the frequency, character, and timing of visits to the flowers. These have included determining the whole array of animals involved, as well as quantitative determinations of their pollen loads, the manner in which pollen is attached to a given pollinator's body, and the parts of the animal's body to which it adheres. In the course of his studies, he has made comprehensive observations of the whole process of pollination in individual plant populations and measured the effectiveness of the observed events in actually fertilizing flowers and ultimately producing seeds. In doing so, Bernhardt has set the gold standard for studies of pollination, and the field has benefited greatly from his efforts.

In addition to the complexities just mentioned, the ways in which a given pollination system functions often vary greatly at different times of day or from season to season. They may also differ a great deal from one year to the next, depending on the availability of water, the prevalence of other species competing for the same pollinators, and a number of additional factors. For all of these reasons, making seemingly simple observations on a few visitors to the flowers of a given kind of plant is never sufficient to tell the story of that plant's pollination systems accurately. Doing so is not something to be taken lightly. In emphasizing these factors in his studies, participating actively with a group of like-minded scientists, mentoring students, and reporting his results widely, Peter Bernhardt has helped to improve the standards for investigations into pollination relationships in ways that many others have found useful.

Over more than four decades, Peter Bernhardt has employed his exemplary writing and speaking skills in reaching out to the public, contributing greatly to their understanding and appreciation of the way plants function, particularly in respect of their pollination systems. He has published a number of articles in both American and Australian magazines and newspapers, culminating in his authorship of four popular books. Notable among these was the way he effectively removed the public's phobia about binomial nomenclature in his book, *Gods and Goddesses in the Garden* (2008, Rutgers U. Press). His more technical book, *Darwin's Orchids Then and Now* (2014), coedited and co-written with Dr. Retha Edens-Meier, has gained and maintained a popularity with orchid

FIG. 1. Peter Bernhardt catching bees on *Cornus*. Photograph by Retha Edens-Meier.

hobbyists and the public, with many favorable reviews in the popular orchid magazines and more general publications.

With more than 20 yr of contributions, Peter Bernhardt has become a regular foreign correspondent for "The Science Show," a feature of Australian National Radio. During the past three years, with Covid-19 locking many people down, he has appeared even more frequently on this popular program. In addition, he has helped with several other public programs, both in Australia and in the U.S.

Delightfully, Bernhardt has served for more than twenty years as a consultant to the Nutcote Children's Museum in Neutral Bay, New South Wales, Australia, helping with fundraising, lecturing, and advice. Those who know May Gibb's delightful caricatures as illustrated in her delightful children's book, "The Adventures of Snugglepot and Cuddlepie," will very much appreciate the museum and the effort behind it–all playing an important role in bringing people into contact with the nature around them.

A late stage, notable aspect of Peter Bernhardt's career during the past decade has been his involvement with China and Chinese botanists through sustained correspondence and some fruitful visits to the botanical institutes of the Chinese Academy of Sciences in Kunming and Beijing. He has been charmed by Chinese culture and, at the same time, deeply appreciated his hosts and their particular delights and needs. Together, they have carried our fascinating studies of pollination systems, particularly in plants from the eastern Himalaya. He has worked in collaboration with Luo Li-Bo in Beijing on *Cypripedium* and for longer periods with Zong-Xin Ren in Kunming, studying *Spiranthes*, *Pedicularis*, and *Primula*. These studies have been, and are being, carried out in a time of increased difficulty for collaboration between Chinese and American scientists, and thus have particular importance as examples of what can be done. The precise studies carried out on both sides of the Pacific have built on the standards that Bernhardt has developed over the course of his career, but perhaps the positive human interactions that he has so consistently generated are even more important at this time of international stress.

A special way that Peter Bernhardt has promoted public outreach is in the annual presentation of the John Dwyer (1915–2005) Lectures in Biology (1987–2019), endowed by Dr. Dwyer's family. Dwyer was Peter's immediate predecessor at St. Louis University, and so it is natural that he has become involved in this way. Indeed, John Dwyer, with his field studies in Belize, Panama, and South America, enhanced and extended collaboration between St. Louis University and the Missouri Botanical Garden, and we remember him fondly. Certainly, John Dwyer helped to pioneer the Garden's efforts in Latin America, where it has maintained strong programs over the past half century. As for the John Dwyer lectures, for some 35 years they have presented an impressive procession of notable speakers from America, Australia, Israel, and Canada. These speakers have included a number of outstanding plant scientists working in taxonomy, pollination biology, ethnobotany, and the history of botany. The lectures have been comprehensible and of as much interest to the public as to representatives of the scientific community.

Summarizing his career, Peter Bernhardt has played an important role over the years not only in the development of precise and meaningful studies of plant reproductive biology, but especially in reaching out effectively to non-scientists at all levels in original and effective ways. For these reasons, I am delighted that the A.S.P.T. selected him for the award named in my honor, and pleased to have had the opportunity to contribute these reflections about his impressive career. Over the years, he has made a real difference to what the public knows and appreciates about botany, certainly the purpose of the recognition that Dr. Bernhardt has received for his productive lifelong efforts.