

*The natural world that I seek out in the desert regions of Baja California and southern California provides me with scientific adventure, excitement towards botany, respect for nature, and overall feelings of peace and purpose.*

Jon P. Rebman, Ph.D. has been the Mary and Dallas Clark Endowed Chair/Curator of Botany at the San Diego Natural History Museum (SDNHM) since 1996. He has a Ph.D. in Botany (plant taxonomy), M.S. in Biology (floristics) and B.S. in Biology. Dr. Rebman is a plant taxonomist and conducts extensive floristic research in Baja California and in San Diego and Imperial Counties. He has over 15 years of experience in the floristics of San Diego and Imperial Counties and 21 years experience studying the plants of the Baja California peninsula. He leads various field classes and botanical expeditions each year and is actively naming new plant species from our region. His primary research interests have centered on the systematics of the Cactus family in Baja California, especially the genera *Cylindropuntia* (chollas) and *Opuntia* (prickly-pears). However, Dr. Rebman also does a lot of general floristic research and he co-published the most recent edition of the *Checklist of the Vascular Plants of San Diego County*. He has over 22 years of field experience with surveying and documenting plants including rare and endangered species. As a field botanist, he is a very active collector of scientific specimens with his personal collections numbering over 22,500. Since 1996, he has been providing plant specimen identification/verification for various biological consulting companies on contracts dealing with plant inventory projects and environmental assessments throughout southern California. He is the director of the San Diego County Plant Atlas project and identifies/verifies all of the new specimens (currently over 54,000) coming into the herbarium through this scientific endeavor. At present, Dr. Rebman is in the process of finishing a book entitled *Ferns and Lycophytes of San Diego County* that is co-authored with Annette Winner. This local natural history publication will be available in 2012 and contains detailed information on 60 different ferns and lycophytes from our region. Rebman also just finished a new edition of the *Baja California Plant Field Guide* with co-author Norman Roberts due out in March 2012, and is working on a new specimen-based checklist for the plants of Baja California. Dr. Rebman has been an adjunct faculty member in the Department of Biology at San Diego State University (SDSU) for fourteen years and has served as a scientific advisor for various graduate research projects.

Rebman was very fortunate to obtain a Fulbright/Robles Fellowship to Mexico while pursuing his doctorate and he spent a year at the Universidad Autónoma de Baja California in Ensenada doing research and completing field work in the region for his degree. This amazing professional and cultural opportunity in Mexico spurred on his interests in the entire flora of the Baja California/southern California region and he is still specializing in this region's flora.

Since 1996, when Rebman became the SDNHM's Curator of Botany, he has concentrated on building research ties between the Museum and scientific institutions in Baja California and Baja California Sur. He organized the Museum's hosting of the [Second Baja California Botanical Symposium](#) shortly after his arrival, and the [Fifth Baja California Botanical Symposium](#) in 2002. He organized the [Lindblad Binational Multidisciplinary Expedition](#) to the Sierra San Francisco and the Sierra Guadalupe in 1997, and participated in museum-sponsored binational multidisciplinary expeditions to [Guadalupe Island](#) in 2000 and to the [Agua Verde-Cerro Mechudo](#) corridor in 2003.

Dr. Rebman has been conducting botanical research and publishing new plant species in Baja California for more than 20 years. New plant species that Rebman has previously described for science include: *Ambrosia humi*, Asteraceae (Leon de la Luz & Rebman 2010); *Grusonia robertsii*, Cactaceae (Rebman 2006); *Amyris carterae*, Rutaceae (Rebman and Chiang 2005); *Cylindropuntia delgadilloana*, Cactaceae (Rebman & Pinkava 2001); *Cylindropuntia sanfelipensis*, Cactaceae (Rebman 1999); and *Cylindropuntia lindsayi*, Cactaceae (Rebman 1997).

### **New/Ongoing Research Projects**

Naming and describing new species for science is an essential part of understanding our biodiversity and conserving it for the future. As a result of many years of extensive field work, plant collecting, plus lab and herbarium research on the flora of southern California and Baja California, Dr. Rebman has discovered approximately 15 new plants from our region that still need to be formally described in order to be recognized by the scientific and conservation communities. Some of these new plant species already have ample collections available in order to describe them right now and require only the time to study and write them up in a publication and have a botanical illustration drawn, but others will require return visits to the region where they grow in order to obtain better specimen samples and an increased understanding of their local environment and associations. In the next few years, one of Rebman's scientific goals will be to formally describe and publish many of these new plant species for science. By publishing these new plants, the scientific community will become aware of them and this will lead to a better overall understanding of the taxonomy, diversity, and biogeography of plants in our region. Most of these plants are also very rare and by formally publishing them the conservation community will also become aware of their presence and this may help to protect and manage biological resources in our region. All of these newly described plants will add to the impressive diversity and endemism of the flora of southern California and Baja California.

### **Checklist of the Vascular Plants of San Diego County, California**

The last edition of this Checklist was published in 2006 by Rebman and M. G. Simpson. A new edition of the Checklist is currently being compiled that will include all of the recent additions discovered as part of the Plant Atlas project plus updating all of the botanical nomenclature to match the new edition of the Jepson Manual due out in January 2012.

### **Checklist of the Vascular Plants of Imperial County, California**

To date, no complete floristic checklist has ever been published for this county. We are continuing plant collecting efforts, synoptic collection construction, and database compilation for this county's flora. More fieldwork is still in dire need, but seasonal rainfall has been limiting in recent years.

### **Cholla Cactus (*Cylindropuntia*) Taxonomy**

Rebman continues to research and publish on various cholla cacti from our region, which was part of his doctoral research. These studies have revealed a lot of new information on the biosystematics and reproductive systems of this cactus group.

Biosystematics of the Prickly-pear Cacti (*Opuntia*) of Southern California and Baja California  
Rebman is continuing to investigate the taxonomy of this diverse and difficult group of plants. There is still a lot of fieldwork and cytogenetic evaluation that needs to be done before any major publications can be produced from it. There is no doubt that many new species will be elucidated by this study and various typification and nomenclature changes will also result.

### **Publications:**

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