

## The Randall Morgan Collections & Santa Cruz Natural History Initiative

### *The Randall Morgan Collections*

Randall Morgan, a Santa Cruz native and UCSC alumnus from the second graduating class, has dedicated his life to studying birds, plants and insects of Santa Cruz County and advocating for protection of local biodiversity hot spots and threatened species. His work has led to the recognition of several new taxa and legal protection of numerous sensitive habitats including coastal prairie and sandhills sites (one of which is named after him). His work on the systematics of the orchid genus *Piperia* and the western clovers (*Trifolium*) has at least doubled the number of recognized species.



Morgan's collections are invaluable and irreplaceable resources. His voucher collection of over 10,000 plants and plant surveys from over 500 locations spanning the last 35 years forms the basis of our understanding of the current botanical diversity within the Santa Cruz Mountains and Central California. Morgan's insect collection includes over 70,000 specimens collected over an 11-year period from 39 sites in Santa Cruz County. Morgan recorded specific host-plant data as well as detailed information about the presence, abundance, and flowering status of every plant species at each site. He also compiled several thousand seed collections of California clovers and other native plants. All his collections are accompanied by copious and detailed field notes making them a critical resource for understanding Santa Cruz natural history and documenting recent environmental changes.

Morgan's influence extends far beyond his personal curiosity. He has mentored numerous local naturalists, land managers, faculty and students. He shared his biodiversity expertise with the Land Trust of Santa Cruz County to inform *A Conservation Blueprint* (2011), a comprehensive assessment of and recommendations for ways to protect and enhance the resources of the county for future generations.

### *Collaboration with the Kenneth S. Norris Center for Natural History*

The Kenneth S. Norris Center for Natural History at UC Santa Cruz supports field-based natural history training, the curation of key natural history collections, and research projects and publications. Consistent with Morgan's passion, its goals are to serve and educate natural history learners, researchers, and professionals both on and off campus. For the past 15 years, the Norris Center has housed Morgan's plant and insect collections, field notes, and maps. With Morgan's guidance, Norris Center staff, faculty, students, and community volunteers have worked to preserve, analyze, and publicize these vital resources. In addition, two multi-institution National Science Foundation grants (lasting from 2005-2014) were secured to support the mounting, accessioning, digitizing, and geo-referencing of thousands of Morgan's plant specimens. In fall 2016, the Norris Center received a two-year grant from the Institute of Museum and Library Services to further the identification, curation, and digitization of the Morgan insect collection, including matching funds from the university.

Although significant progress has been made, there is a huge amount of work to be done to fully extract the information contained within Morgan's collections so that it can be utilized by researchers and conservation scientists. For example, there are numerous undescribed species of pollinators and plants waiting to be described and studied. The Norris Center's goals include fully identifying all specimens, making specimen and associated observational data easily accessible via web-based databases, and involving students and researchers in projects using Morgan's methods and study sites. Ultimately, these efforts would be used to promote education and conservation of local species and ecosystems.

## *Endowing Randall Morgan's Collections and Legacy to Santa Cruz Natural History*

The **Randall Morgan Collections and Santa Cruz Natural History Initiative** was developed in consultation with Morgan himself in spring 2017. The Initiative aims to honor, preserve, and build upon the legacy of Morgan's own projects and collections. It will provide for stewardship of the collections and afford students the opportunity to develop similar observational and taxonomic skills at environmentally sensitive sites in the county. This initiative will be funded by contributions to the Norris Center endowment and will support the following:

- **Long-term stewardship to maintain the integrity and use of Morgan's collections of plants, insects, seeds, and field notes held at the Norris Center.**
  - Ongoing administrative oversight of Morgan Collections curation and Morgan programs by the Norris Center Director
  - Graduate student summer fellowship to curate collections, including taxonomic work on undescribed species and other taxa of interest, and to increase the accessibility of the collections to classes and local stakeholders
  - Yearly budget for supplies and upkeep of the facilities used to maintain the collections
- **Undergraduate research and course that build upon Morgan's Collections and Field Studies.**
  - Stipends or supplies for two interns to work with local naturalists and land managers or to conduct Morgan collection curation projects
  - Lower-division course that emphasizes local natural history, management of sensitive habitats, restoration concerns, and/or plant systematics
- **Mentoring opportunities that incorporate monitoring and stewardship of environmentally sensitive sites in Santa Cruz County:**
  - Graduate student fellowship to oversee and mentor undergraduates conducting long-term observational studies of local species and sensitive places in Santa Cruz County
  - Annual award for a local naturalist who serves as a mentor to students or curator of the Morgan Collections
  - Travel and conference registration for students and mentors to present findings to non-profits, public agencies, and private professionals at symposia or workshops