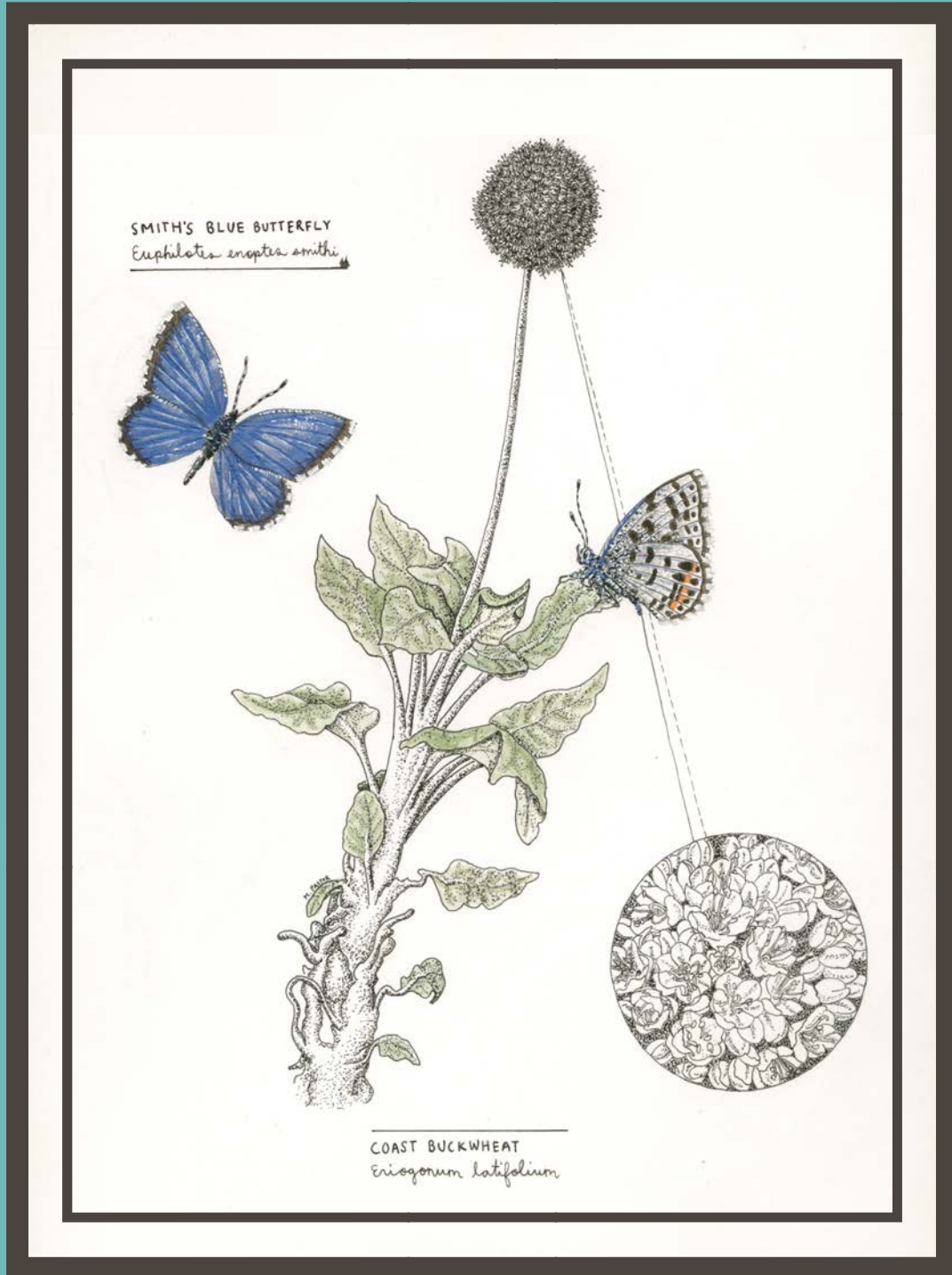




KEN NORRIS CENTER FOR NATURAL HISTORY ANNUAL REPORT 2017-18



The Smith's Blue Butterfly on Coast Buckwheat. Illustration by senior intern Michelle Pastor. Randall Morgan discovered this butterfly in the Santa Cruz sandhills in the 1980s, which motivated him to document insect diversity throughout the county.

A HUB FOR CONNECTING TO NATURE

The Norris Center for Natural History is a dynamic on-campus resource hub focused on engaging students and community members in direct hands-on experiences with the natural world. We are committed to cultivating natural history skills for students of all ages, fostering each person's passion for the natural world, and supporting natural history research. We do this through curating important local natural history collections, supporting classes, offering internships, producing publications, organizing public events, building stronger connections between art and science, and fostering interdisciplinary collaborations. Here we summarize the major activities and milestones during the 2017-18 academic year.

1636

Undergraduates

696

Alumni & Community
Members

30

Interns & Volunteers

7584

Student & Community
Member User Days

34

Classes

31

Student Project Awards
& Course Scholarships

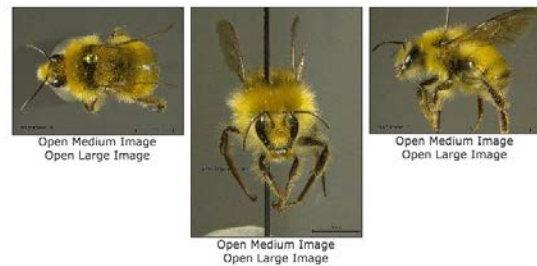
COLLECTIONS

The Norris Center continued to grow its specimen collections with help from a graduate fellows, undergraduate interns, student workers, and community volunteers. A major focus was completing the second year of a project funded by the Institute for Museum and Library Services to database 30,000 pollinator specimens from the Randall Morgan Insect Collection. The collection has been sorted and re-housed in better storage cabinets, thousands of local pollinator specimens have been identified, nearly 17,000 specimens have been databased, and over 100 species have been photographed. We aim to complete the project by the end of this year.



Catalog #: UCSCRMIC0991521
Taxon: *Bombus flavifrons* Cresson, 1863
Family: Apidae
Determiner: R.W. Thorp
Collector: R. Morgan 991521
Date: 1999-07-29
Verbatim Date: 7/29/99
Locality: United States, California, Santa Cruz, Nisene Marks State Park
Habitat: Riparian Forest
Associated Species: *Cirsium vulgare*
Life Stage: Adult
Sex: male
Occurrence Remarks: collected from flower of *Cirsium vulgare*

Specimen Images



We continued to grow the herbarium. A dedicated group of volunteer community members and students contributed over 700 hours to accession 500 new plant specimens (bringing our total to 11,817 specimens) and to organize over 100 lichen specimens.



CLASSES

We supported a record number of classes this year, ranging from Comparative Vertebrate Anatomy to three sections of our new Natural History Illustration class open to all majors.



Natural History Illustration visited Ano Nuevo State Park and Upper Campus

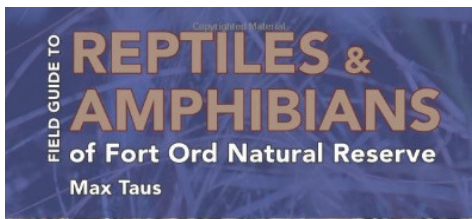
- Natural History of the UCSC Campus (2 sections)
- Curation of Natural History Collections
- Natural History Illustration (3 sections)
- Introduction to Ecology (2 sections)
- Introduction to Field Research (6 sections)
- Research Field Methods
- Natural History Field Quarter
- General Entomology
- Insect Ecology
- Soil Nutrition
- Plant Disease Ecology
- Freshwater Ecology
- Herpetology
- Systematic Botany
- Ichthyology (2 sections)
- Mammalogy
- Ornithology
- Comparative Vertebrate Anatomy (2 sections)
- Vertebrate Paleontology
- Art-2D Foundation
- CASFS Farm Apprenticeship Program
- CSUMB Science Illustration Program
- Santa Cruz High School Freshman Biology



Natural History Field Quarter Exploring the Eel River

INTERNSHIPS, PROJECTS & SCHOLARSHIPS

The Norris Center sponsored many students in courses and projects with financial support, field equipment, specimens, and one-on-one mentoring. We provided this support through the Norris Center Student Project Awards, the Webster Fellows program, Natural History Field Quarter scholarships, our new Science and Art Residency Program, the Randall Morgan Initiative, and senior project opportunities at the Norris Center. Below are descriptions of a few of these many projects.



A new field guide written by senior intern and illustrated by Natural History Illustration students

An analysis of bumblebee occurrences based on data from the Morgan Insect Collection

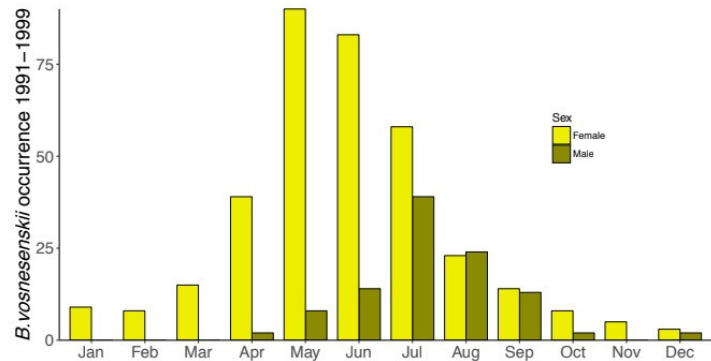
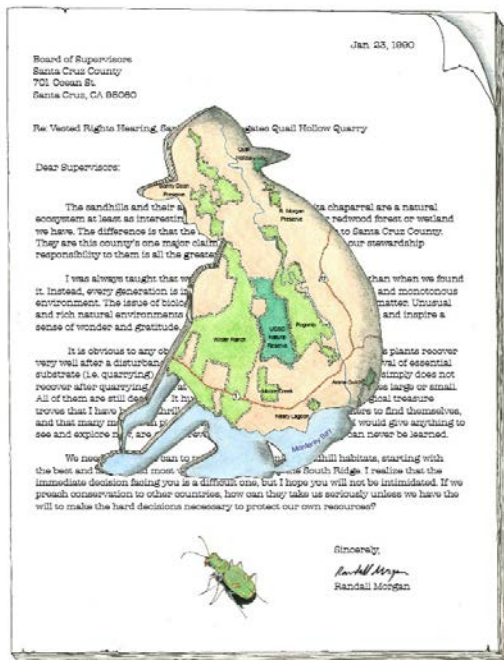


Figure 2: Occurrences of *Bombus vosnesenskii* by month (1991-1999).



Two illustrations that accompany the biography of renowned local naturalist Randall Morgan and are part of the permanent exhibit about Morgan.

WEBSTER FELLOWS PROGRAM

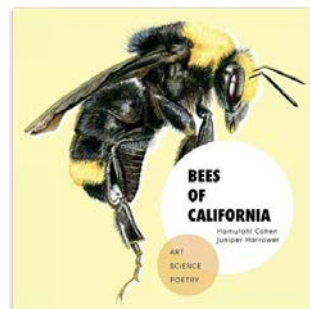
With a generous gift from the Helen and Will Webster Foundation, the Webster Fellows Program supported four undergraduate students doing collaborative projects with the Santa Cruz Museum of Natural History.

Teaching the skills of natural history observation and journaling to under-privileged groups in Santa Cruz



Curating the Ohlone basket collection held by the Santa Cruz Museum of Natural History

Two graduate and ten undergraduate students worked with the Santa Cruz Museum of Natural History to educate the public about pollinators. This included a public talk, a workshop on drawing insects, a public art exhibit, and a bee book featuring student art & poetry.



ART & NATURAL HISTORY INITIATIVE

Generous donor support allowed us to expand our Art & Natural History Initiative this year. This included three public events, a collaborative multimedia pollinator project, a new program partnering faculty researchers with student artists, three science illustration classes, and five weekend nature art workshops.



Over 300 students and community members attended *Artstravaganza*, a weekend of artist talks, hands-on art activities, and a student art show. More than 200 people attended Family Art Day and an open house on Alumni Weekend. Both events featured student art, natural history exhibits, and opportunities to make art with help from student artists.

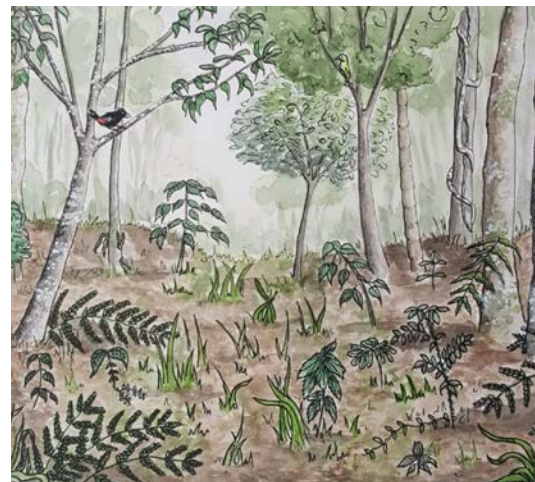
Our weekend nature art workshops were a big hit!



ART & SCIENCE RESIDENCY PROGRAM

We started a new program this year to sponsor student artists to collaborate with scientific researchers to use artwork to communicate their research. The goal of the program is to support creative communication opportunities for science research and encourage student professional development. The eight students selected for this award received a stipend and a budget for the materials needed to create their work.

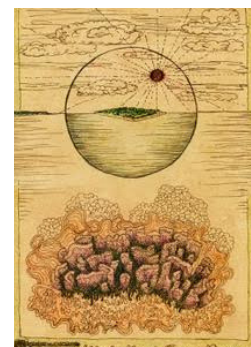
Using 3D prints of artificial flowers to investigate how floral traits affect pollinator preferences



Illustrating the outcome of rainforest restoration in Costa Rica

"I went on a life-changing expedition to these islands to conduct field research for the organization One People One Reef (OPOR). OPOR was formed to help the community in Ulithi develop a sustainable resource management plan. I played a role in the creation of illustrations on their traditional storytelling and taboos"

ENVS/Art Resident Artist



A YEAR OF RECORD SUPPORT

We are so grateful to our generous community of supporters who helped us raise over one million dollars this year to secure the Norris Center far into the future. We raised nearly 90% of our ambitious goal to fund the Randall Morgan Initiative to curate our important local natural history collections and train young naturalists and conservationists to follow in Morgan's footsteps. This enabled us to fund a record amount of student projects and scholarships and hire a part-time assistant manager to help with collections management and with student interns and volunteers.

\$100,000+

Anonymous
Nancy Burnett
Julie Packard
Helen and Will Webster Foundation

\$10,000 to \$100,000

Anonymous
Institute for Museum and Library Services
Tamia Marg and Tom Anderson
March Conservation Fund
Joanna Miller
Michael Temerin & Galina Pomotalkina

\$1,000 to \$10,000

Linda Brodman
California Native Plant Society,
Santa Cruz Chapter
John and Peggy Holl
Karen Holl
Michael Lay and Sally Ryan
Linda and Gordon Lion
Wayne and Lauri Morgan
Laura Smith and Rowland Morin
Puma Concolor Trust
Robert Stephens
Robert Weiner and Karen Rhodes



Two more student projects: a pamphlet about seabird nest-site restoration and investigating pollen production in blooming Clarkia flowers

Up to \$1,000

Jenny and John Anderson
Ellen Baker
Barbara Banfield
Bargetto Winery
Battelle Always Giving
Mary Beckham
Jean Brocklebank and Michael Lewis
Bulger-Stover Family Trust
John and Jennifer Carothers
Viola Casalegno
Kevin Condon
Julia and Steve Davenport
Gage and Lily Dayton
Karen DeMello
Tamara and Gerry Doan
Abigail Faulkner and Hobart Guion
Bartley Fong and Carolyn Kernkamp
Lawrence Ford and Susan Merritt
Steve Garrett
Penny Hanna & Maggie Reynolds
David Hart
Grey and Kimberly Hayes
Janell Hillman
Christine Johnson-Lyons & Robert Lyons
Jeanne and Randy Kays
Michele and Robert Kibrick
Laurie Kiguchi and Steve Reed
Jeannine Koshear
Kramer & Smith, LLC
Karen Laing
Chris Lay and Elizabeth Andrews
Sally and Brian Legakis
James and Christina Martin

Pat Matejcek
Katherine Mawdsley
Patrick and Cabell McCormick
Rita Mehta and Jack Redwine
Daniel Mountjoy and Anne Hayes
Deborah and John Muth
Phyllis Norris
Kari Olsen
Jane Orbuch and Bryan Cockel
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Dan and Karen Warrick
Dorris Welch
Andrea and David Welles
Andrew Werner



Kenneth S. Norris
Center for Natural History



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