### PART 1: RESERVE USE DATA

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### PART 2: RESERVE USERS' AFFILIATIONS

**1. University of California Santa Barbara**

University of California Santa Barbara

**2. University of California Campus**

Cornell University
UC Berkeley
UC Davis
UC Davis
UC Irvine
UC Los Angeles
UC Riverside
UC Santa Cruz

**3. California State University Campus**

CSU Long Beach
CSU Long Beach
CSU Fullerton

**4. California Community College**

Butte College

**5. Out of State College or University**

Oregon State University
University of Nevada Reno
University of Washington
Washington University

**6. K-12 Instructor**

K-12 Schools Buellton
K-12 Schools Los Olivos
K-12 Schools Orcutt
K-12 Schools Santa Ynez
K-12 Schools Solvang
Oak Valley Elementary
The Santa Ynez Valley Family School

**7. K-12 Student**

K-12 Schools Ballard
K-12 Schools Santa Barbara

**8. Others**

Dunn Middle School
Sedgwick Reserve
PART 3: USE BY INSTRUCTIONAL GROUPS

Landscape Painting with an Artist and a Naturalist: ART CS 101. UC Santa Barbara, College of Creative Studies. Hank Pitcher

Conducting Experiments in Ecology: BIO CS 101. UC Santa Barbara, Institute for Computational Earth System Science. Claudia Tyler

Landscape Ecology: ESM 215. UC Santa Barbara, Bren School of Environmental Science and Management. Frank W Davis


Intro to Astrophysical Measurement: Physics 134. UC Santa Barbara, Physics. Timothy M Brown

Soil Science: SSC 105/205. UC Davis, Land, Air and Water Resources. Randy A Dahlgren


PART 4: CURRENT RESEARCH

University of California Santa Barbara (19)

Index #: 20869  Sedgwick Observatory
PI: John J Martinez Las Cumbres Observatory (Management/Engineering)
Full Project Title: Commissioning, operation, and maintenance of the Sedgwick Observatory and telescope.
Project Duration: 10/2009 to 10/2020
Funding: PROJECT SELF-FUNDED
Status: ON-GOING

Index #: 9822 NUTNET
PI: Carla D'Antonio University of California Santa Barbara (EEMB)
Full Project Title: Nutrient Network: A Cross-Site Investigation of Bottom-Up Control Over Herbaceous Plant Community Dynamics And Ecosystem Function.
Project Duration: 4/2007 to 6/2017
Funding: PROJECT SELF-FUNDED
Status: ON-GOING

Index #: 1784 Environmental stress in oaks
PI: Claudia Tyler UC Santa Barbara (Institute for Computational Earth System Science)
Full Project Title: The role of water stress (drought) in oak seedling and sapling survival and performance at Sedgwick Reserve
Project Duration: 7/2003 to 6/2009
Funding: PROJECT SELF-FUNDED
Status: COMPLETED IN FY 2009-2010

Index #: 5764 Microbial studies
PI: Patricia A Holden UC Santa Barbara (Donald Bren School of Environmental Science & Management)
Full Project Title: Resource and Stress Interactions in Regulating Microbial Communities in a California Grassland Soil
Project Duration: 7/05 to 10/09
Funding: PROJECT SUPPORTED BY NSF GRANT 0444712
Status: COMPLETED IN FY 2009-2010
Index # 7679  plant-fungi symbioses  
PI: Sophie S Parker  UC Santa Barbara (Environmental Studies Program)  
Full Project Title: The role of plant-fungi symbioses in furthering California grassland invasion  
Project Duration: 9/15/06 to 9/15/08  
Funding: PROJECT SELF-FUNDED  
Status: COMPLETED IN FY 2009-2010

Index # 8230  Summer Biogeochemistry of Grassland Soils  
PI: Josh Schimel  UC Santa Barbara (Department of Ecology, Evolution, and Marine Biology)  
Full Project Title: Summer Biogeochemistry of Grassland Soils  
Project Duration: April 2007 to Aug 2010  
Funding: PROJECT SUPPORTED NSF GRANT  
Status: COMPLETED IN FY 2009-2010

Index # 8830 Sedgwick CCLI Micromet Tower  
PI: Dar A Roberts  UC Santa Barbara (Geography)  
Full Project Title: Sedgwick CCLI Micromet Tower  
Project Duration: 9/2007 to 9/2015  
Funding: PROJECT SELF-FUNDED  
Status: ON-GOING

Index # 9731  Role of oaks in California grasslands  
PI: Karen A Stahlheber  UC Santa Barbara (Ecology, Evolution and Marine Biology)  
Full Project Title: Natural heterogeneity and the structure of invaded communities: the role of oaks in California grasslands  
Project Duration: April 2007 – June 2014  
Funding: PROJECT SELF-FUNDED  
Status: ON-GOING

Index # 9964 Native plant persistence on serpentine outcrops  
PI: Jonathan M Levine  UC Santa Barbara (Ecology, Evolution, and Marine Biology)  
Full Project Title: Native plant persistence on serpentine outcrops  
Project Duration: 04/23/2008 to 11/01/2010  
Funding: PROJECT SUPPORTED BY PACKARD FOUNDATION GRANT  
Status: REPLACED BY BEN GILBERT (#19642) STARTING FY 2010-2011

Index # 10409 LiDAR  
PI: Burch Fisher  UC Santa Barbara (Earth Science)  
Full Project Title: Channel Initiation Thresholds through Ultra High-Resolution Topography.  
Project Duration: 10/2008 to 8/2009  
Funding: PROJECT SELF-FUNDED  
Status: ON-GOING

Index # 10560 Resistance of native and non-native vegetation  
PI: Nicole Molinari  UC Santa Barbara Ecology, Evolution and Marine Biology)  
Full Project Title: Resistance of native and non-native vegetation under global change scenarios  
Project Duration: April 1 2009 to June 30 2009  
Funding: PROJECT SUPPORTED BY A MATHIAS GRANT(S)  
Status: ON-GOING

Index #19642 University of California Santa Barbara  
PI: Benjamin Gilbert  UC Santa Barbara (Ecology, Evolution and Marine Biology)  
Full Project Title: Exotic plants and extinction debts  
Project Duration: April 2008 to June 2009  
Funding: UNKNOWN  
Status: ON-GOING
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<td>UC Santa Barbara</td>
<td>Nicole Molinari</td>
<td>The effect of resource heterogeneity on native forb success</td>
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<td>Testing environmental tolerances of Avena grasses</td>
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<td>21080</td>
<td>UC Santa Barbara</td>
<td>Christian H Balzer</td>
<td>Does relative nonlinearity in plant growth response to nitrogen and water availability affect community structure in California grasslands?</td>
<td>01/16/2010 to 9/30/2011</td>
<td>PROJECT SUPPORTED BY A HENRY LUCE FOUNDATION GRANT</td>
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<td>Shishi Liu</td>
<td>Evaluating Soil-Water-Relations of Different Ecosystems in Southern California Using Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) Data</td>
<td>July 2008 to June 2011</td>
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<td>Evolutionary tradeoff between serpentine tolerance and competitive ability</td>
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<td>Jonathan M Levine</td>
<td>Seed collection for new study taking place within existing plot among the serpentine hummocks.</td>
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**Other University of California (16)**

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<td>Walter D Koenig</td>
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Index # 20036  Microbial Biogeography
PI: Erin E Nuccio  UC Berkeley (Plant and Microbial Biology)
Full Project Title: Soil Microbial Biogeography in California Grasslands
Project Duration: May 2009 to June 2010
Funding: PROJECT SUPPORTED BY KEARNEY FOUNDATION OF SOIL SCIENCE GRANT # 2008.041
Status: ANTICIPATE COMPLETION IN FY2010 – 2011

Index # 20558  Grindelia studies
PI: Abigail J Moore  UC Berkeley (Integrative Biology)
Full Project Title: Phylogenetic and Population Genetic Studies in the Genus Grindelia (Astereae: Asteraceae)
Project Duration: Sept 2009 to Oct 2009
Funding: PROJECT SUPPORTED BY A LAWRENCE R. HECKARD ENDOWMENT FUND OF THE JEPSON HERBARIUM GRANT
Status: ANTICIPATE COMPLETION IN FY2010 – 2011

Index # 21551  CO2 pulses in Mediterranean annual grasslands
PI: Catherine A Osborne  UC Berkeley (Environmental Science, Policy & Management)
Full Project Title: The combined drought strategies of soil microbial communities shape wet-up CO2 pulses in Mediterranean annual grasslands
Project Duration: April 2010 to Sept 2010
Funding: PROJECT SUPPORTED BY KEARNEY FOUNDATION OF SOIL SCIENCE GRANT#2009.017
Status: ANTICIPATE COMPLETION IN FY2010 – 2011

Index # 9919  Oak variation
PI: Brooke S Baythavong  UC Davis (Evolution and Ecology)
Full Project Title: Understanding the role of plasticity and genetic variation in parallel invasion fronts: Study of the range expansion of Erodium cicutarium in Chile and California.
Project Duration: 4/2008 to 1/2012
Funding: PROJECT SUPPORTED BY NATIONAL SCIENCE FOUNDATION GRANT # 0710412
Status: ON-GOING

Index # 19441  Serpentine Botany Survey
PI: Jane Van Susteren  UC Davis (Environmental Science and Policy)
Full Project Title: Statewide Serpentine Botany Survey
Project Duration: 3/2009 to 9/2009
Funding: PROJECT SUPPORTED BY AN UNSPECIFIED GRANT SOURCE
Status: COMPLETED IN FY 2009-2010

Index # 21366  Grazing study
PI: Hugh D Safford  UC Davis (Department of Environmental Science & Policy)
Full Project Title: A study of the interacting effects of grazing and productivity on California annual grassland composition and biodiversity
Project Duration: 3/2010 to 8/2010
Funding: PROJECT SUPPORTED BY USDA Forest Service GRANT 10-CR-11052007-XXX
Status: ANTICIPATE COMPLETION IN FY2010 – 2011

Index # 21600  NRS Photography
PI: Christopher R Woodcock  UC Davis (Studio Art)
Full Project Title: A Visual Survey; photographic study of the University of California Natural Reserve System
Project Duration: Jan 2010 to June 2010
Funding: PROJECT SUPPORTED BY A MILDRED MATHIAS GRANT
Status: COMPLETED IN FY 2009-2010

Index # 21188  Fungal Biogeography in Southern California
PI: Stephanie N Kivlin  UC Irvine (Ecology and Evolutionary Biology)
Full Project Title: How well can fungi migrate under a changing climate?
Project Duration: Jan 2010 to Jan 2012
Funding: PROJECT SUPPORTED BY A MILDRED MATHIAS GRANT  Status: ON-GOING
Index # 7859 Lichen studies
PI: Silke Werth UC Los Angeles (Ecology and Evolutionary Biology)
Full Project Title: Comparative phylogeography of Ramalina menziesii and its host plants (Quercus spp.) in western North America
Project Duration: 01/2007 to 01/2008
Funding: PROJECT SUPPORTED BY A NATIONAL GEOGRAPHIC SOCIETY GRANT COMPLETED IN FY 2009-2010

Index # 8796 Seed dispersal of oaks
PI: Victoria Sork UC Los Angeles (Ecology and Evolutionary Biology)
Full Project Title: Seed dispersal of oaks
Project Duration: July 2006 to June 2010
Funding: PROJECT SUPPORTED BY NATIONAL SCIENCE FOUNDATION GRANT
Status: ON-GOING

Index # 19460 Oak phenology
PI: Andy Lentz UC Los Angeles (Ecology and Evolutionary Biology)
Full Project Title: Phenology of Quercus Lobata on the Sedgwick Reserve Figueroa Watershed.
Project Duration: Jan 2009 to June 2015
Funding: PROJECT SELF-FUNDED
Status: ON-GOING

Index # 20398 Population genetics of the Pacific tree frog
PI: Katherine M Pease UC Los Angeles (Ecology and Evolutionary Biology)
Full Project Title: Evolution of Anti-predator Defenses in Larvae of a Native Frog in Response to an Invasive Predator
Project Duration: Aug 2009 to Aug 2010
Funding: PROJECT IS FUNDED BY AN UNSPECIFIED GRANT SOURCE
Status: COMPLETED IN FY 2009-2010

Index # 21940 ecosystem stability and change
PI: Christopher Wills UC San Diego (Division of Biological Sciences)
Full Project Title: Investigation and photography of ecosystem stability and change
Project Duration: June 2010 to June 2010
Funding: PROJECT IS SELF-FUNDED
Status: COMPLETED IN FY 2009-2010

Index # 1910 plant/insect interactions
PI: John N Thompson UC Santa Cruz (Department of Ecology and Evolutionary Biology)
Full Project Title: Geographic mosaics in diversifying plant/insect interactions
Project Duration: 3/04 to 3/07
Funding: PROJECT SUPPORTED BY NATIONAL SCIENCE FOUNDATION GRANT
Status: ON-GOING

Index # 21528 California goldfield survey
PI: Jenn M Yost University of California Santa Cruz (Ecology and Evolutionary Biology)
Full Project Title: Ecological adaptations and the evolution of reproductive barriers in the Lasthenia californica complex
Project Duration: March 2010 to June 2010
Funding: PROJECT SUPPORTED BY MILDRED E MATHIAS GRADUATE GRANT 7-443658-54357
Status: COMPLETED IN FY 2009-2010

California State University (2)

Index # 4100 Vegetation comparison of Mediterranean California
PI: Youssef C. Atallah CSU Fullerton (Biology)
Full Project Title: A vegetation comparison of Mediterranean California and Lebanon
Project Duration: September 2002 to April 2005
Funding: PROJECT SELF-FUNDED
Status: ON-GOING
Index # 20106 Little Pine Fault mapping
PI: Nate Onderdonk Long Beach State University (Department of Geological Sciences)
Full Project Title: An investigation of kinematic indicators along the Little Pine Fault and the depositional history of the Paso Robles Formation to determine the tectonic history of the Little Pine Fault system.
Project Duration: June 2009 to Aug 2010
Funding: PROJECT SUPPORTED BY A AMERICAN CHEMICAL SOCIETY GRANT
Status: ON-GOING

California Community College (1)

Index # 8515 facultative cleistogamy in Camissonia spp.
PI: Michael P Williams Butte College
Full Project Title: The ecological role of facultative cleistogamy in a serpentine annual plant
Project Duration: 3/2007 to 12/2009
Funding: PROJECT SELF-FUNDED
Status: COMPLETED IN FY 2009-2010

Out of State University (5)

Index # 7195 Grassland composition
PI: Angela J Brandt Oregon State University (Zoology)
Full Project Title: Change in California grassland community composition over temporal and spatial scales and under different nutrient conditions
Project Duration: 9/2006 to 6/2009
Funding: PROJECT IS SELF-FUNDED
Status: COMPLETED IN FY 2009-2010

Index # 19705 Pollen collection
PI: Kyle Funk Cornell University
Full Project Title: reproductive ecology of Quercus lobata
Project Duration: 2/2009 to 6/2014
Funding: PROJECT IS FUNDED BY AN UNSPECIFIED GRANT SOURCE
Status: ON-GOING

Index # 20829 wood rat genetics
PI: Marjorie Matocq University of Nevada Reno (Natural Resources and Environmental Science)
Full Project Title: Hybridization between Neotoma macrotis and Neotoma fuscipes.
Project Duration: Nov 2009 to Jan 2010
Funding: PROJECT SUPPORTED BY NATIONAL SCIENCE FOUNDATION GRANT # DEB-0952946
Status: COMPLETED IN FY 2009-2010

Index # 5611 Serpentine studies
PI: Janneke Hillerislambers University of Washington Seattle (Biology)
Full Project Title: The role of stabilizing and equalizing processes in maintaining the diversity of California annual serpentine communities
Project Duration: 2005 to 2015
Funding: PROJECT SUPPORTED BY NSF AND PACKARD FOUNDATION GRANTS
Status: ON-GOING

Index # 4123 native consumers
PI: John Orrock Washington University (Biology)
Full Project Title: The role of native consumers in the interactions between native and exotic plant species
Project Duration: 6/ 2004 to 6/2012
Funding: PROJECT SUPPORTED BY AN UNSPECIFIED GRANT SOURCE
Status: ON-GOING
Government (1)

Index # 10211 Lepidoptera survey
PI: Chris Grinter  California Academy of Sciences (Entomology)
Full Project Title: Survey of California Lepidoptera with special attention to the microlepidoptera.
Project Duration: 8/2008 to 12/2012
Funding: PROJECT IS SELF-FUNDED
Status: ON-GOING

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PART 5: PUBLICATIONS


PART 6: NARRATIVE

RESEARCH

Forty-four (44) research projects were handled by Reserve staff during the fiscal year. Seven projects were new, 25 projects were on-going and 12 were completed by the end of the reporting period. An additional 5 projects (listed below) posted no activities during the fiscal year although they remain on the Sedgwick research roster.

In 2009–2010, researchers spent 630 days working on 44 projects for an average of 14 days per project with a range of 1-106 days of use. As in previous years, the majority of research conducted at Sedgwick was done during day-only visits. UCSB researchers had both the most projects (19) and the most user days (264). Other UC researchers were the second most frequent users with 16 projects and 146 user days. The remaining projects were completed by out of state universities (5), Cal State Universities (2) California community colleges (1) and 1 from a governmental agency (California Academy of Science).

Of those applications that reported grant support information (38 of 44) half of the projects received some level of grant funding (22) and 16 reported being self funded (36%).

No proposed research projects were canceled or rejected in FY09-10.

16 of 44 researchers (36%) stayed overnight at Sedgwick for at least 1 night. Researchers stayed an average of 6 nights per project with the longest stay being 26 nights and the most common length of stay being 3 nights. Housing-dependent research represented 23% of Sedgwick’s research use. This use came from 10 research projects based at Sedgwick for a total of 70 nights that enabled 210 days of field work. During the reporting period a total of $1423 in facility and vehicle use charges were billed to 25 researchers. Although additional housing in the ranch house became available in the 4th quarter of the reporting period, facility use has yet to increase significantly over past years.

User days that involved remote data collection (sensors, traps or remote operated equipment such as the telescope or weather stations) were not included in use calculations except when a researcher visited the site to set up, take down or work on the equipment. If included Sedgwick’s use figures for research would be substantially higher. For example research and on-going use of the telescope by LCOGT (10 research science user days/24 research assistants user days and 1500 other user days) was an estimate provided by LCOGT after repeated requests (use of the Las Cumbres Observatory for public and private events have been recorded under PUBLIC SERVICE, and one class was scheduled for UNIVERSITY LEVEL INSTRUCTION).

New projects initiated in the fiscal year (12) included: Local adaptation of serpentine annual plants (David Viola, UCSB); An investigation of kinematic indicators along the Little Pine Fault - tectonic history of the Little Pine Fault system (Nate Onderdonk, Cal State Long Beach); Phylogenetic and Population Genetic Studies in the Genus Grindelia (Abigail Moore, UC Berkeley); Astronomical research into extrasolar planets, supernovae, and other time-domain astrophysical research (Las Cumbres Observatory John Martinez); Evaluating Soil-Water-Vegetation Relations of Different Ecosystems in Southern California Using Airborne Visible/Infrared Imaging Spectrometer (AVIRIS) Data (ShiShi Liu, UCSB); How well can fungi migrate under a changing climate? (Stephanie Kivlin, UC Irvine); The combined drought strategies of soil microbial communities shape wet-up CO2 pulses in Mediterranean annual grasslands (Catherine Osborne UC Berkeley); A study of the interacting effects of grazing and productivity on California annual grassland composition and biodiversity (Hugh D Safford, UC Davis); Evolutionary tradeoff between serpentine tolerance and competitive ability David Viola, UCSB); 10. The effect of resource heterogeneity on native forb success (Nicole Molinari, UCSB); Effects of fluctuations in nitrogen and water...
Projects started and completed in the fiscal year (7) include: Hybridization of wood rats (Marjorie Matocq, University Nevada at Reno); Evolution of Anti-predator Defenses in Larvae of a Native Frog in Response to an Invasive Predator (Katherine Pease UCLA); A Visual Survey; photographic study of the University of California Natural Reserve System (Christopher R Woodcock, UC Davis); Statewide Serpentine Botany Survey Jane Van Susteren (UC Davis); Investigation and photography of ecosystem stability and change (Christopher Wills UC San Diego); Ecological adaptations and the evolution of reproductive barriers in the Lasthenia californica complex (Jenn Yost, UC Santa Cruz); Soil Microbial Biogeography in California Grasslands (Erin E Nuccio, UC Berkeley).

Multi-year projects completed in the fiscal year (7) included: Environmental stress in oaks (Claudia Tyler UC Santa Barbara); Resource and Stress Interactions in Regulating Microbial Communities in a California Grassland Soil (Patricia A Holden, UC Santa Barbara); plant-fungi symbioses (Sophie S Parker, UCSB); Summer Biogeochemistry of Grassland Soils (Josh Schimel, UCSB); Comparative phylogeography of Ramalina menziesii and its host plants (Quercus spp.) in western North America (Silke Werth UC Los Angeles); The ecological role of facultative cleistogamy in a serpentine annual plant (Michael Williams Butte College); Change in California grassland community composition over temporal and spatial scales and under different nutrient conditions (Angela J Brandt Oregon State University).

On-going projects (18) include: Lepidoptera survey (Chris Grinter, California Academy of Sciences); 2. Native consumers (John Orrock Washington University); Serpentine studies (Jannke Hillerislambers, University of Washington Seattle); Oak pollen collection (Kyle Funk, Cornell University); Vegetation comparison of Mediterranean California (Youssef C Atallah CSU Fullerton); plant/insect interactions (John N Thompson UC Santa Cruz); Oak phenology (Andy Lentz UC Los Angeles); Seed dispersal of oaks (Victoria Sork, UC Los Angeles); Oak variation (Brooke S Baythavong, UC Davis); California acorn survey (Walter D Koenig UC Berkeley); Testing environmental tolerances of Avena grasses (Benjamin Gilbert, UC Santa Barbara); Exotic plants and extinction debts (Benjamin Gilbert UC Santa Barbara); Resistance of native and non-native vegetation (Nicole Molinari, UC Santa Barbara); LiDAR (Burch Fisher UC Santa Barbara); Native plant persistence on serpentine outcrops (Jonathan M Levine, UC Santa Barbara); Role of oaks in California grasslands (Karen A Stahlheber UC Santa Barbara); Sedgwick CCLI Micromet Tower (Dar Roberts UC Santa Barbara); NUTNET (Carla D’Antonio University of California Santa Barbara).

Inactive projects with research equipment left in place (5): The role of seed limitation, resource competition, and community complementarity in invasions and restoration (Eric Seabloom, Oregon State University, Date of last activity/visit: May 2009); Effects of chronic nitrogen deposition on grassland communities (Stan Harpole, Iowa State University Date of last activity/visit: May 2009); Long term patterns of plant diversity and composition (Stan Harpole, Iowa State University Date of last activity/visit: May 2009); Effects of cattle grazing on grasslands (Claudia Tyler, UCSB Date of last activity/visit: June 2009); Santa Barbara County Oak Project (Claudia Tyler, UCSB Date of last activity/visit: June 2009).

Twenty-nine journal manuscripts based on Sedgwick research were published in 2009 and 2010 (same as last year).
Two notable multi-day class trips during the year include the “Landscape Painting with an Artist and Naturalist” class taught by UCSB College of Creative Studies professors Hank Pitcher and Bruce Tiffany (featured in the summer 2009 NRS Transcript publication) and a “Landscape Ecology” class taught by UCSB Bren School professor Frank Davis.

PUBLIC OUTREACH

Outreach programs continued to be active on the reserve throughout 2009-2010. In summary, 949 school-aged youth, 78 teachers and over 2300 adults visited the reserve during the year as part of the organized outreach programs detailed below. A total of 88 volunteers donated 1153 user days benefiting the reserve and its programs.

K-12 educational highlights of the year included the continuation of the Sedgwick Outdoor Classroom program. Fifty-eight fourth grade students, fifty-three fifth grade students participated in the science based program designed to augment the CA Science Content Standards classroom curriculum. Sixty-five percent of the fifth grade students had participated in the fourth grade program. They had the opportunity to expand their studies at the reserve by classifying each ecosystem identified on the reserve and experiencing the exceptional Sedgwick night skies by attending a family astronomy night. Continuing the student to docent ratio of 6:1 allowed for extraordinary experiential learning during the full-day field trips. In addition to the 17 “group leader” docents, 12 additional volunteers gave their time to ensure the success of the program.

Other highlights included the launch of the Junior Docent program with five Los Olivos Elementary School G.A.T.E. eighth grade students participating in three intense natural history and leading interpretive hike sessions; and concluding the program by leading the parent-only hike for the Outdoor Classroom program. The Dunn School internship program continued; two 8th grade students completed the 3-day internship working in the native plant nursery and demonstration garden.

K-12 education summer programs included the Chumash Youth Workshop; Oak Valley Elementary School hike and lunch retreat for teachers and administrators; and the return of Los Olivos Elementary School 7th Grade “Team Building in Nature” day trip and family dinner picnic. Rounding out the summer was the Brownie Troop camping trip where eight girls worked on their natural history badge with the assistance of their troop leader and four volunteers.

In addition to the seven Outdoor Classroom field trips, K-12 education efforts throughout the year included hosting 15 one day field trips, structuring field trips to accommodate multiple class and grades, expanding outdoor educational opportunities to multiple grades, coordinating researcher presentations for K-12 students, and recruiting three new schools to the reserve. All schools with the exception or one private school in the Santa Ynez Valley had one or more classes attend a field trip with one school bringing the entire school for a day at the reserve. In November, a local private school continued their tradition of a 4th and 5th grade hike to the reserve and camping at the field station. In addition to their usual activities, they were treated to an astronomy presentation at the new Byrne Observatory and tour of the night sky by LCOGT staff. LaColina Junior High School also camped at the reserve for one night. Their days were filled with hiking, restoration work, group and individual science studies. Jonata School’s 6th grade tradition of hiking from top of the reserve to the Field Station to commemorate the end of the school year continued.

Public access days offered during this fiscal year included eight public hikes led by docents, accounting for 120 user days, and were attended by over 340 members of the public. The highlight of the year was the April 10th Open House in conjunction with the public hike. Over 550 guests attended the event with 120 participating in the public hikes. One equestrian tour was permitted during the year with ten riders and two equestrian docents.

Sedgwick also hosted numerous on-site events included: staff retreats for the UCSB Office of the Registrar and UCSB Student Health Center Planning Team; a private hike for the Wildling Museum’s birding class; SCAPE Paint-outs; a series of private hikes; the YMCA Family Hike; and multiple hikes for the Santa Ynez Valley Women Hikers. All on-site events include docent-led hikes and/or Sedgwick natural history presentations.

Off-site events included presenting at and attending Los Olivos School’s teacher in-service lunch; having a booth at the local Los Olivos “Day in the Country” festival; and attending the Eagle Scout Court-of-Honor ceremony for Ryan Andreas, who completed his Eagle Scout project landscaping around the Byrne Observatory at Sedgwick Reserve.
The Sedgwick docent program continued to be quite active on the reserve and was vital to the success of the reserve’s outreach programs. Docents took on a multitude of assignments, including running public hikes, assisting with the Outdoor Classroom program, leading K-12 hikes, building owl boxes with students, working in the native plant nursery, restoring the grounds around the Byrne Observatory, maintaining and establishing new trails and participating in bird counts.

To coordinate docent activities, quarterly docent communication meetings continued in 2009-2010, with an average of 23 attendees per meeting. A private tour & reception for docent recruitment was held in October, with a new docent training class beginning in November. On April 23rd, twenty new docents graduated from the 24-week docent training class. Throughout the year, numerous continuing education opportunities were offered to docents (Serpentine Flora, Geology, Ornithology and Chumash Culture).

During non public hike months, docents participated in training hikes learning interpretive hike leading techniques as well as the reserve’s natural history. Docents assisted with multiple star-gazing events hosted by LCOGT.

Over the fiscal year, the 1588 volunteer user days proved invaluable to the reserve and the outreach program.

**STEWARDSHIP**

It was an above average rainfall year for the Reserve, with the seasonal rainfall total of 22 inches being recorded from a rain gauge located on the north-eastern corner of the ranch house. The Reserve received its first precipitation of the season in mid-October 2009, with the season’s final rain event occurring May 17-18, 2009. Temperatures dropped below freezing during two January cold spells, bursting pipes at the Tipton Meeting House in December 2009. Weather throughout the year was typical: breezy warm days and cool nights with several week-long heat spells punctuating the summer.

Cattail reeds (Typhus spp.) were reported in the Sedgwick pond starting in the late 1990’s. Reeds have since begun to encroach on the shallow edges of the pond and now occupy nearly a quarter of the pond’s 1 acre surface. In August of 2009 Sedgwick staff and volunteers attempted to reduce the reed coverage at the Sedgwick pond by hand pulling and cutting reeds along the pond’s edges and inlet. The hand removal technique was deemed neither a success nor a long-term strategy to maintain open water in the stock pond but did reduce the mass of reeds by an estimated 15%.

The revised Shepherd Organic Farm lease was signed in September 2009, reducing the size of the license from 98 to 30 acres. The terms of the lease and duration (September, 2024 expiration) remain the same. The 2010 growing season was favorable for the Shepherd Farm, the first positive forecast since the lease was enacted in 2005. The 300 fruit trees bore their first harvestable crop.

During the spring quarter of 2010 the new Director’s Residence was completed and occupied.

Demolition of the Foreman’s House was completed in January by land steward Brian Guerrero. Site restoration continues into the 2010-2011 reporting period.

A $1M gift designation of the Marvin Clarke estate enabled work on the Tipton House to resume in FY2009-2010 reporting period. In February 2010 a $738,451 construction contract was awarded to Melchiori Construction under guidance of by UCSB Project Manager Steve Eggemeyer. Work began in April 2010 and continued through the end of the reporting period.

A $300,000 donation from Linda Duttenhaver allowed for the restoration of the historic hay barn between October 2009 and June 2010. Work was done by EJS Construction.

The main (paved) road received two treatments in 2010. In the last week of the spring quarter, Golden State Paving filled all the cracks in the paved road (an annual $2500 investment) and applied a coat of road seal to the main road, a $7800 investment to extend the life of the paved entrance road that needs to be done every 5 years.

A cattle grazing agreement with the neighboring Bar-go Ranch was signed on in December 2009, allowing 150 head of cows to graze designated the Heirs Pasture between December 15, 2009 and May 1, 2010. Cows were not used for grazing research in 2010. Cows from outside the Reserve and Bar-go lease escapees were a common nuisance in 2010. Most of the problems originated from the western boundary fence at the end of Caballo Road in the Woodstock Ranch.
About $14,000 in donor funds were spent on fence work in 2010. Lonestar Engineering installed new gates at base of Lisque, by studio leading to pond, both ends of the Flum Pasture, split rail fencing around the eastern end of the former Foreman's House, on the front of the new residence, and a small piece at the eastern end of Lisque.

Four new restoration efforts were initiated in the 2009-2010 reporting period: restoration of the BOS Observatory; Tipton Meeting House; Director’s Residence and the area around the demolished Foreman’s House. New orange and brown signs were installed where restoration efforts are underway.

ADMINISTRATION

The Sedgwick Reserve operated in the 2009-2010 fiscal year with two career staff, full-time (100%) Director Kate McCurdy and part-time (90%) Administrative Assistant Sue Eisaguirre (outreach & education) and a cadre of part-time employees. SCI steward Brian Guerrero (20%) completed critical maintenance tasks. Eric Massey (40%) performed vegetation control and other maintenance assignments Dennis Beebe (40%) worked in Buildings & Grounds. Nancy Stearns (35%) ran the native plant nursery; a new restoration specialist Nick Giese came on board June 10th (20%) to concentrate on the Tipton Meeting House landscaping. Graduate student Karen Stahlheber (15%) continued to assist on occasion with GIS projects. Lorena Villasana, was hired into a 10% custodial position appointment in March 2010. As in previous years, the Sedgwick Reserve received excellent administrative support from Donna Moore, Mat Jordan, Sue Swarbrick and Bill Murdoch in the NRS campus office. Development Officer Gay Larsen also contributed a great deal more than her 20% time position calls for in helping with marketing and donor relations for Sedgwick, starting in September of 2009.

PART 7: NRS CAMPUS COMMITTEE ROSTER

**Joshua Schimel**
Committee Chair (ex-officio); Ecology, Evolution and Marine Biology

**William W. Murdoch**
Director (ex-officio); Ecology, Evolution and Marine Biology

**Susan Swarbrick**
Associate Director (ex-officio); UCSB Natural Reserve System

*Sedgwick Reserve*

**Joshua Schimel**
Faculty Advisor (ex-officio); Ecology, Evolution and Marine Biology

**Jonathan Levine**
Representative; Ecology, Evolution and Marine Biology

*Members-at-Large*

**Chris Costello**
Associate Professor; Bren School

**Henry Offen**
Professor Emeritus; Chemistry (passed away 4/25/2010)

**Douglas Bush**
Academic Coordinator; Biological Sciences

*Community Representatives*

**Michael Feeney**
Land Trust of Santa Barbara County (William Abbot, Alternate)

**Mary Meyer**
California Department of Fish and Game

**Lotus Vermeer**
The Nature Conservancy

*Student Representatives*

**TBD**
Undergraduate and Grad Representative; Associated Students