

Hastings Natural History Reservation



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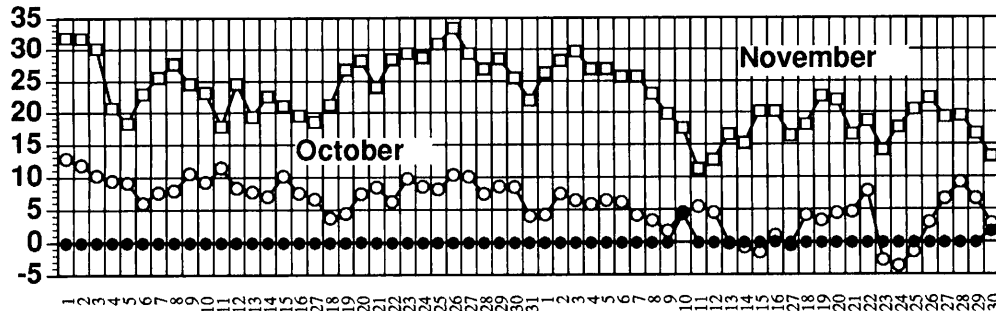
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A Biological Research Station of the
Museum of Vertebrate Zoology
University of California, Berkeley
and a part of the University of California's
Natural Reserve System



Weather Report

October and November 1993



October and November both were very close to long-term average daily highs and lows. October was well into the 90's (°F) both early and late. Daily lows were in the mid-40's. November cooled to an average daily high of 68°, with frost on several nights. October was dry, but November brought a total of 2.38" during two storms. This brings us to 3.12" for the year, compared to 3.57" for most years at this time. A bit dry, but the continued warm temperatures and this rain have for the first time in five years brought on a lush growth of green grass in November. We usually don't see this much grass until January or February. Last year's dry grass is rapidly decomposing. Filaree (*Erodium*) has formed an almost complete carpet below the Hastings Cabin. Seen from a distance, the hills have a faint green tinge.

Sycamores finally starting dropping large, yellow leaves in late November. Most leaves on the deciduous oaks fell with the rain at the end of November. That last rain brought on many newts, but only a few young salamanders. Blomquist pond was damp at best.

Research and Education

This time of year, our animals often have left if migratory, or have entered the quiet time of late fall and early winter. Our only residents in the Bunkhouse these last two months have been Jenny Toby and Wendy Cruso. Jenny and Wendy monitor the Acorn Woodpecker groups and check for amphibians in our study of Blomquist pond. Walter Koenig and Janis Dickinson worked on data analysis and prepared for an extended stay at the University of Florida, Gainesville. They moved, with the children, in early November. Jim Griffin continues to live here while finishing up a few things, but his recall ended at the end of November. Research in the field at Hastings has taken a back seat to other work.

We did have several visiting researchers. Gordon Frankie (UC-B) spent a day looking at bees. Gretchen LeBuhn spent a couple of days in early October, and then again later in the month, checking her dormant lupines. Christian Heirle and his brother Daniel spent a couple of days here in mid-October, but just passing through as tourists. Jean Knops (Ariz. St.) visited for 3 days, along with John Barthell (Entomology, UC-Davis), to make some measurements of trees in the lichen study enclosure. John Barthell documented another primose species for Hastings and another first record for a moth here.

Grassland News:

We continue to monitor twelve species of native grass on 2.2 ac. on Rana Creek Ranch. Working with Brian Heneks, we produced a report on this summer's work and developed a very

detailed plan for a new area of about 20 ac. which will be a trial run. Brian and Paul Kephart are planting another 2 ac. in native grasses, along with a trial mixture of natives and some short-lived non-natives for pasture. As we go along, the goal of a permanent pasture of all native perennial grasses on the bottoms of Rana Creek Ranch becomes more focused. A great deal of work remains to be done, both in the research and in the farming.

Karen Rasmussen summarized her data (1991-1993) from Carmel Ranch Company's dryland trials there and on Rana Creek and Oak Ridge Ranch. These data are now at Hastings, being entered into the computer for further analysis and write up. I continue to revise a longer research paper, responding to reviewers to get it ready for final submittal to ecological journals.

Dr. Oren Pollak, the Nature Conservancy's regional stewardship ecologist, worked with myself and others to finalize a proposal to the Mellon Foundation for continued state-wide trials of native grassland restoration. After initial approval, a full-fledged proposal was submitted in early November. If funded, it will match gifts from the Carmel Ranch Company and PG&E (1:1) and extend our work to 15 sites.

I was invited to give a paper at the Western Regional Coordinating Council, a group of University researchers from each western state. Sponsored by the USFS, this is a group of the most active USDA Cooperative Extension range ecologists from the western states. There was a great deal of interest in our research on restoring native perennial grasses. The meeting was held at the San Joaquin Experimental Range, north of Fresno Nov. 4-6.

Our cooperative research proposal to USDA went out again, with revisions prepared by Joan Brenchly-Jackson (NRS), John Menke (UCD), myself, Peter Connors (Bodega), Paul Kephart (Elkhorn Ranch) and others. If funded, we will continue our work with dryland restoration of natives.

I helped with a teacher's workshop sponsored by the Rancho San Carlos Foundation. Over a series of 3-4 days, spread over the last months, a group of 12 elementary teachers developed curricula and are bringing students to a farmed bottomland just off the Carmel River on Rancho San Carlos Road. There, Paul Kephart has planted an acre of native grasses for sod trials, and a place for the kids to run around out of the mud. Nearby, on raised beds, Rancho San Carlos has planted out thousands of plugs of native grasses for seed production to allow future grassland or range improvement and restoration. The teachers worked up a book of many exercises, all based on native grasses. This curriculum includes work by Kim Smiley from the Big Creek Reserve. I am also working with Tularcitos Elementary in setting up some trials on their campus of native grasses for use in future landscaping. Beth Lawn's class will be taking care of the test plots near the new "portable" (aka, prefabricated, permanent) classrooms.

People, Places and Habitations

During these last two months, much of our energy has gone into several projects involving upgrades and repairs at Hastings. And, once again, Fanny Arnold has been most helpful.

Work on the Hastings Cabin is well underway. A new driveway and culvert allowed us to abandon the old road which ran up and down the ridge. Eroding more each year, we were pleased to be able to reshape that road and plant it with native grasses and shrubs. The new driveway was covered with road base rock to allow winter access to the cabin. After leveling the cabin floor, a footing and foundation wall were formed and concrete should be poured December 2. Work will include a new septic tank and field, new plumbing, hot water heater, new wiring (more plugs), insulation in roof and walls, window and screen repair, new entry steps and new interior wall surfaces. Thanks to Fanny, this cabin will be up to code and will be home to researchers for another 50 years, keeping almost all of its 1930's charm.

Thanks to Debbie Elliott-Fisk, NRS, and Carmel Ranch Co., new Apple computers have been purchased for both general station use, and for a Geographic Information System (GIS). We will use the GIS to keep track of all the grassland research in Carmel Valley, as well as our physical resources at Hastings (buildings, water lines, etc.). However, the new computers will allow all Hastings users to access the GIS for mapping bird nests, plant populations, movements of radio-tagged animals and much more. The new computers also allow the public Hastings users access to the Internet via a modem. Field assistants, visiting faculty, graduate students and others can send and receive at the address: "Hastings@uclink.berkeley.edu".

Improvements in the water supply system continue. Mel Dixon at UCB approved a contract with Maggiora Bros. to install 30,000 gallons of water storage (6 new tanks), a new main line to a real fire hydrant in the headquarters area, and an automatic system to keep the tanks full. We met with the contractors several times to finalize plans and evaluate options. Tanks were delivered and trenching should start any day.

Our program to reduce exposure risk to the hantavirus by mouse-proofing our buildings was approved and funded by NRS, Office of the President. With about \$60,000 we will hire two carpenters to work with Mark Johnson to seal the buildings from below the soil on up to the chimneys. MVZ processed the job description to start the hiring process early in December. This work will include new carpentry and roofing at the Ranch House to finally seal out the woodrats, bats and mice where shed roofs from the various additions (1930, 1953, 1960's) meet the main roof/attic built in 1900.

Mark Johnson was involved in all this work of course, as well as his usual maintenance. We finally have the Yellow truck running very smoothly and dependably. Mark attended to the seasonal needs of getting the gutters, culverts and water bars on our roads ready for rain.