

Hastings Natural History Reservation

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Weather Report

Rain arrived the last two days of February in what promises to be a significant rain session. The total for the month was 2.57", with rain recorded on the Feb 2, 4, 5, 16, 17, 27 and 28. A total of 1.5" fell on the last two days of the month in a storm continuing into March. Normal total precipitation through February is 15.5" and our total this year is only 5.70". Average daily high temperatures were in the low to middle 70's, with some days reaching the low 80's (°F). We had frost one night. Finch Creek was flowing several hundred feet into the reserve from our upper cattle guard on Carmel Valley Road on the 10th. A sharp earthquake of one sudden impact broke 3 windows in the Bunkhouse at 8:30 am on February 8. Hillsides of annual grasses were greening up and the local patches of *Erodium* (filaree) were turning purple. Test pumping on the Hastings Well indicates ample water is still available for the summer season. Water in the Hallisey well became sharply laced with sulfur dioxide and use of that well was temporarily discontinued.

Research

Our ongoing winter research programs continued. Dr. Janis Dickinson continued work on the genetics of Western Bluebirds in the DNA fingerprinting lab at the Museum of Vertebrate Zoology in Berkeley. Dr. Walt Koenig worked on manuscripts while in Berkeley and lectured all month in a course at MVZ- the Natural History of Vertebrates. On Monday, February 4, Elizabeth Ross passed her oral examinations to become an official candidate for Doctor of Philosophy at Berkeley. Congratulations! We are all looking forward to having Elizabeth move to Hastings on a more permanent basis. Elizabeth will be working on the ecology of Scrub Jays. The February issue of *Auk* (an ornithological journal) featured an article by Dr. Koenig on how well Acorn Woodpeckers digest acorns, even if acorns are laced with tannins. Graduate students Mark Stanback and Philip Hooge completed another hormonal experiment on Acorn Woodpeckers. These are very difficult field studies to conduct. First, three or four specific birds of known age and sex are selected from the 40 social groups (extended families) of Acorn Woodpeckers under study on Hastings and nearby Oak Ridge Ranch. They are located at night and ambushed and captured. Some are given placebo implants, some are given real testosterone implants. All are followed using small radio transmitters glued to the bird with a glue which dissolves over a period of 10 days or so. They are then followed for a period of time without radios and recaptured to remove the implants. Finding the individually banded birds in whatever hole they are sleeping in on a given night without radios is a major task. Amy Knight was a resident assistant for Mark and Philip through February 26 when she moved on to a new position to study birds in Texas.

Other research and administration continues. Dr. Mark Stromberg and Dr. Frank Pitelka continued to prepare a proposal for the National Science Foundation for septic and water supply facilities. Dr. Jim Griffin is revising the first draft of his "Natural History of Hastings" book and is exploring publication with Boxwood Press. Pam Muick, UCB-Forestry, worked with Dr. Griffin Feb 2-3 on the oak regeneration plots. Robin Bonner, a science writer, spent a day with Dr. Griffin getting detailed notes on the biology of several California trees. John Barthell, and Heather Barthell, UCB-Entomology, worked here on the 9th and 10th, collecting data on bee survivorship. Elizabeth Ross, UCB-MVZ, moved into the bedroom at the School House known as Betty's Lab on the 12th. Dr. Virginia Boucher, UCB-Forestry, worked on the ASU/Duke lichen research project from the 12th to the 16th. Roy van de Hoek, Bureau of Land Management, Bakersfield- Carrizo Plain Project, visited with Dr. Mark Stromberg and Dr. Jim Griffin on the 14th. We held extensive discussions on the grassland vegetation and ongoing research on restoration of the grasslands here at Hastings.

Dr. Jim Griffin hosted a group of researchers from the Integrated Hardwoods Range Management Program led by Rick Standiford, UCB-Forestry. Participants included Tom Scott, UCB-UCR, Nanette Pratini, UCR-Extension, Cathy Bleier-CDF-Sacramento, Ted Adams, UC-Davis, Agronomy, Doug McCreary, UCB, Bill Tietje, UCB/SLO-Extension, Niel McDougald, Madera Co Farm Advisor, and Robert Schmidt, UCB-Hopland Field Station. This crowd stayed at the Robertson House. Dr. Griffin gave them a tour on the 26th and they held discussions on the 27th.

Craig and Fiona Moritz spent the 27th and 28th at Hastings, doing some writing. Dr. Moritz is a visiting scholar at MVZ; he and his wife are from the University of Queensland, Australia. Craig and his family were the first to occupy the stucco house after it had been repainted and refurnished. On their second day, and after a trip to the local K-Mart, Mark Johnson brought over a number of household items. I guess this means the house is now reasonably functional.

Roger Allen, Oak Ridge Ranch, applied his impressive skills as a welder and mechanic to build a custom device on

a trailer hitch on the 1976 Land Cruiser to hold a radio antenna. Philip Hooge provided the rough guidelines and Roger built a very solid base for the antenna. This antenna will be used by Janis Dickinson to follow Western Bluebirds, Philip Hooge to follow Acorn Woodpeckers and Elizabeth Ross to follow Scrub Jays. "Radio city" over here!

Mark Stromberg met with Jeff Froke, Natural Resources Manager for Rancho San Carlos (RSC) on the 12th and again on the 21st when MVZ graduate student Devon Reese could attend. Jeff, Devon and Mark explored the complex of ponds on RSC, looking for the Pacific Pond Turtle. Finding a population, Devon explored the possibility of working on a doctoral research program on RSC, based out of Hastings. Devon will be submitting a proposal to Jeff Froke regarding this work. Mark and Devon also visited ponds on Carmel Ranch Company and Rancho Tularcitos where pond turtles are known to live. All ponds looked great and Devon will be developing plans over the next few months and contacting appropriate land managers.

Carmel Ranch Company Research Project

Dave Amme worked from Hastings on the 4th, 12th and 22nd. Dave worked on Oak Ridge Ranch and Rana Creek Ranch, locating and marking study plots. Dave and Mark Stromberg developed a stratified list of research plots (including the factors of soils, slope, cultivation and grazing intensity). A budget, list of tasks and work schedule were also written for 1991. Dr. Frank Pitelka and Mark Stromberg met with MVZ staff on the 5th to present a progress report and the proposed research. Several foundations have expressed interest in the ongoing project and a brief proposal, co-authored by Drs. Mark Stromberg, Jim Griffin and John Menke (UC-Davis, Range Management) will be prepared in March. Meanwhile, the Cornell Ecology Programs, a series of computer programs used to do the analysis of vegetation data, were installed on the Hastings computers. Dr. Griffin marked the boundaries of the 40 plots on Hastings which will be compared to about the same number of plots on grazed lands. We hope the rains are sufficient to bring on a good year of vegetation and that we don't get burned again by a dry year. Hope it rains!

Facilities

Mark Johnson devoted a great deal of time to the stucco house in February. Branches were trimmed from adjacent trees, gutters cleaned, and the house was prepared for painting. Mark finished the interior painting on the 5th. Exterior painting went on through the 20th. The exterior trim needed two coats. Mark also tended to a number of other repairs- fixed the Toyota carburetor and fuel filter, patched chuckholes and drains in our roads, checked depth to water in wells, made garbage runs, recycling, etc. Mark fixed up a donated washing machine and drier at the stucco house. The windows there were all measured for mini-blinds. Mark repaired some of the wiring in the School House garage bedrooms, patched holes in the "Betty's Lab" bedroom, and went to Salinas to purchase a long list of household supply items to make the stucco house livable. Mark opened the long-locked file cabinet in the Davis Lab and repaired the door threshold there. We worked together to open the alternate water line to the Hallisey House. Mark replaced the lower element on the Ranch House water heater and cleaned out the considerable accumulated sediment.

On Saturday, Feb 2, the Lower Barn was used for training the local Cachagua Volunteer Fire Company. They used the lower structure for training firefighters to enter smoke filled rooms with breathing apparatus. They used the upper structure to train firefighters in the use of various pumpers, hose and nozzle arrangements. A group of nearly 30 local residents watched the barn being pulled down. A great time was had by all.

Mark Stromberg and Mel Dixon, OPR-Berkeley, worked with Betty Holland (MVZ) to send out the contract for the construction of the new Lower Barn. We are pleased to announce that without undue delay, the contract for the Lower Barn construction should go to Daniels and House Construction in early March.

Reminder! Although a lot is going on in April, we set aside April 20, Saturday 11 am to 3 pm, for an open house here at Hastings. We have invited a group of neighbors, University colleagues, and supporters of Hastings. Hope you can make it!