

“The San Joaquin Valley” Question-Answer Period

Jim Booman: I have a question about the redwoods (*Sequoiadendron giganteum*). I was up in the groves yesterday and every three seconds there was a cone falling, ricocheting off the branches, and coming quite close. Was that the squirrel? Secondly, unlike the coastal redwoods (*Sequoia sempervirens*), the redwoods here are only in small groves in very isolated pockets. Was it ever an extensive forest or was it always in isolated pockets?

Jim Sellers: The cones are falling after being cut down by the squirrel. The squirrel is so high in the canopy you can't see it. This is the time of year they are most active. To answer your question about the disjunct groves, it's an interesting genetic story. The giant sequoias were much more widespread previous to 4500 years ago and if you go back 10 to 100 thousand years ago, there's a fossil record showing them in Florida and all across North America. As climates changed and the Sierra Nevada continued uplifting what apparently happened is the populations were relatively continuous on the east side, but as they came across they came across as disjunct groves through the canyons. So as we look at the genetics, they are not continuous as we go from the southern-most to the northern-most coast. The reference in my paper most appropriate for this question is the one by Harvey, a monograph put out by the Department of Interior that focuses on paleoecology history.

Greg Kirkpatrick: I just wanted to add one thing to that...if you look at drillers logs in Hanford, at about 140 ft. down they often encounter, as wells are being drilled, “tea colored” water and chunks of redwood. The flooding that occurred when the redwood forest was much more extensive carried those redwoods all the way out into the Tulare Lake.

Bruce Briggs: We have a problem up north of people being able to get together. We have water, power, people, and plants. Some people want to go back and tear out the dams; they want to go the other direction and they're not very sold on research, because native plants don't have to be watered as much and they'll grow without fertilizer. How do we get all these people in one room and solve our problems piece by piece? Have you found the solution for this?

Greg Kirkpatrick: I guess I'm the most activist in this group. We try all the time to bring people together, especially American Farmland Trust, but it's difficult. There are many opinions and it's difficult to get people to come together and agree. Certainly, we can't go back to the situation with no dams, no farmland, and no irrigation of the San Joaquin Valley, but we do need to take a look and try to preserve some of the best examples of remaining natural areas.

Curtis Lynn: It's difficult. I've been involved for the last 25 years rather extensively in developing water policy that satisfies the urban interests, the agricultural interests, and the environmental interests. If you look at the long stairway to solving all the problems, we're almost to step one after 25 years. But, things are beginning to happen. Right now I am involved in developing a memorandum of understanding that will be mailed out in about 3 weeks to all water districts in California, to all agricultural water suppliers, to environmental organizations, and to other interest groups for signature. People will then agree to what water conservation or water

efficiency practices will be used by agricultural water suppliers. This is the kind of activity that is starting to take place. People after a while do get together and agree, but they have to go through a lot of stumbling to get there, it seems to me.

Howard Brown: A question for Mr. Kirkpatrick... you showed us evidence of browsing by cattle on removing young oak trees, what about the deer population? What effect does deer population have on growth of new oaks?

Greg Kirkpatrick: I've seen evidence that it is significant especially in the blue oak woodland you find in the foothills. We have very little deer population left on the valley floor.