

Rangeland Monitoring at Paicines Ranch - CCRC Meeting, April, 2022

This has been the most frustrating part of managing the Paicines Ranch over the last 21 years. Recurring monitoring questions are when, where, and why?

My original goals

More cool season CA native bunch grasses, more young oak trees, salmon in the river

Revised goals

Functioning ecosystem processes - energy cycle, nutrient cycle, water cycle, biodiversity

General framing today

Manage for life. Manage for diversity of all types at all scales. Do monitoring that informs management. Get beavers back.

We have worked with a variety of third parties on rangeland monitoring.

CCRC - veg, water quality - 2000's

Holistic Management International - perennial plants - 2011-2012

Point Blue - veg, birds, soils - 2016-2019

Debi Shearwater - birds with data in eBird - 1990's-present

Soil Carbon Coalition - soils - 2010's

Internal monitoring

Photo monitoring

Tamarisk monitoring in riparian corridor

Resampling of established transects

Conclusions:

On the established transects and monitoring points there is no discernible trend in any area that we monitor. Whether it's SOM or perennial grasses, they increase in some places and transects and decrease in others.

Anecdotally, I am absolutely certain that the number of purple needlegrass plants is up by orders of magnitude. Missed in static location monitoring. Where change happens is unpredictable. Also certain that salt grass and creeping wild rye have spread significantly.

We need landscape scale monitoring. Current tools aren't particularly helpful.

We have not monitored the riparian corridor where most change has happened. Recently did a survey with H.T. Harvey, and the conclusion was that where there is water, riparian and wetland vegetation is pretty well restored.

We have monitored the 25 acres of vineyard and larger row crop areas where water and intensive management are applied. We have documented increases in SOM and other soil health improvements.