



Barn Owl Research

calpolyhum.barnowls

[Cal Poly Humboldt Barn Owls](#)

Funding provided by



Rodent killing machines.

Dissection of regurgitated pellets shows that the barn owl's diet in Napa is made up almost exclusively of rodents, especially gophers, voles, and mice. Remote videography shows that a family of barn owls can kill over 3400 rodents per year.



30 sec. video of nestling eating a gopher



5 min video about pellet dissection (KQED)



An attractive home.

Barn owls are obligate secondary cavity nesters, meaning they have to nest in a cavity, but they can't create one themselves. Historically, they relied on holes in large oak trees, and later they used nooks in old barns and church steeples. In Napa Valley today, most barn owls nest in human-made nest boxes. Cal Poly Humboldt students have monitored over 300 nest boxes in Napa Valley for over 8 years, and we have found that the owls prefer boxes that are:

- > 10 feet of the ground
- > 24" tall
- with native habitats nearby (e.g., grassland)
- wooden
- facing ~N or E (away from prev. winds)



1-page list of installation recommendations



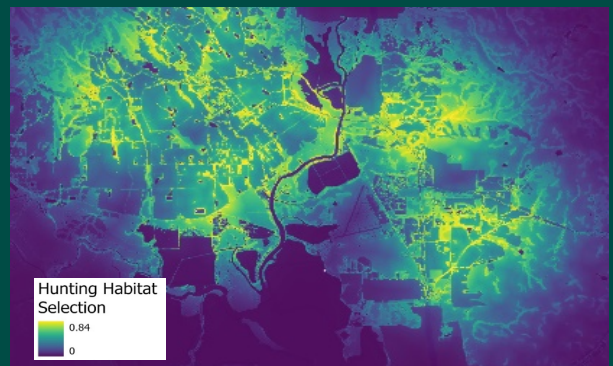
30 sec. video of checking nest box with GoPro



8 sec. video of owl bringing rodent to nest

Native habitats are vital.

Tracking hunting owls with GPS telemetry, we have learned that owls make use of native habitats nearby the vineyards, and they prefer to hunt near habitat edges. Protecting and restoring native habitats within and surrounding vineyards can increase the amount of hunting owls will do in cultivated areas.



A spatial model depicting areas in southern Napa where barn owls provide the strongest hunting pressure.

Attracting Barn Owls to nest on and hunt near your vineyard



Explore our new maps!

These maps are based on research by Cal Poly Humboldt graduate students Jaime Carlino and Samantha Chavez, and they were constructed with the collaboration of Breanna Martinico and Sarah MacDonald of UC Cooperative Extension.



**“Nest box occupancy”
anywhere in Napa Valley**



**“Hunting pressure” from the
nest boxes our team monitors**



♂ hunted within ~500 yards of the nest box

♀ hunted within ~2000 yards of the nest box

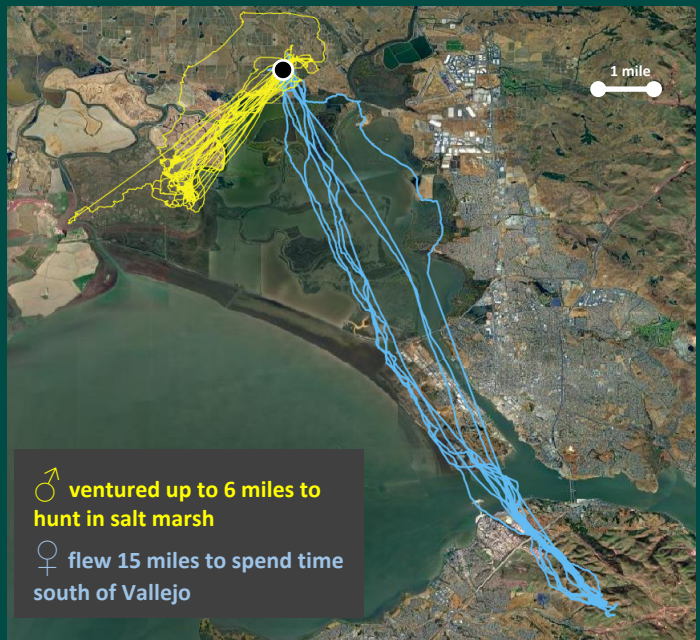


♂ made 100s of flights on vineyard

♀ used edges of riparian habitats

Our latest tracking results.

This summer, graduate student Jadzia Rodriguez is attaching the newest-tech GPS trackers to owls in American Canyon and Carneros. Her work allows us to track owls almost continuously during the night, showing their flight paths and where they hunt. Even the first results are intriguing...



♂ ventured up to 6 miles to hunt in salt marsh

♀ flew 15 miles to spend time south of Vallejo