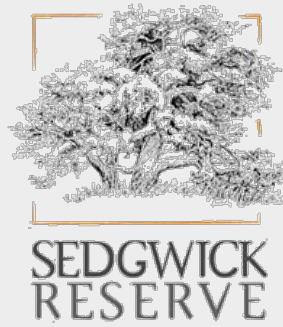


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*Fall
News
from*

Sedgwick Reserve

In this newsletter:

- ***Events:*** Webinars on prescribed fire and habitat restoration next week!
- ***General Interest:*** A Picture Story about a Little Bobcat's Big Day
- ***Reserve happenings:*** Classes are BACK!

We have TWO exciting webinars coming up:



"Studying Fire: Answering the burning questions about cattle grazing and fire preparedness"

**Tuesday, November 2
7PM-8PM PST
Virtual**

Matthew Shapero
*Santa Barbara County Livestock &
Range Advisor
University of California Cooperative
Extension*

Register Here

"Use of songbirds and other observable wildlife as metrics for impacts of non-natives in restoration."



**Thursday, November 4
7PM-8PM PST
Virtual**

Register Here

Sandy DeSimone,
*Director of Research and
Education
Audubon Starr Ranch*

In this talk, Dr. Sandy DeSimone will introduce new ways of thinking about ecological restoration and wildlife habitat. Dr. DeSimone will introduce monitoring results from three rare southern Californian habitats (grassland, coastal sage scrub and woodland) and demonstrate how to use habitat as a metric of the impacts of non-native plant species. Sedgwick Reserve is teaming up with the Santa Ynez Valley Natural History Society for this exciting talk.

For the Love of the Wild: A picture story about a little bobcat's big day



A young bobcat crouches behind the tawny grasses and spindly wild mustard of Sedgwick Reserve. I watch from a distance of about 200 feet as he slinks towards a ground squirrel. He is moved by the forces of

evolution that compel him to lurk, but he is also in a setting with little ground cover to support his mission. The ground squirrel gives off a piercing alarm call and slides back into his burrow. The bobcat moves to the next squirrel. I watch as he slinks up to other squirrels, one after the other, who easily escape. He is a terrible hunter. 'Where is his mother?' I begin to wonder.

Female bobcats have anywhere from one to six kittens. They typically give birth to their young in the spring and raise them for nine to twelve months, teaching them how to hunt before sending them off on their own. As I stood there in September watching this young bobcat, I calculated that this kitten was likely four or five months old, not old enough to be on his own. It is possible that he was practicing his hunting skills under the watchful eye of his mother, but it seems unlikely. During the morning I spent watching him in plain sight, she never revealed herself.



A bobcat kitten lurks around the field station

Eventually, the little bobcat tires of his hunting practice. He walks into the shade of a giant oak tree and rests. The scene is peaceful and he seems regal, somehow appearing older than when he had been clumsily approaching squirrels.



Our kitten heads over to the shade for rest and contemplation



As I watch him, movement appears out of the corner of my eye. Off to my right, three mule deer are walking across the open field, headed in his direction. I assume they will catch wind of the bobcat and alter their course, but much to my surprise (and probably the bobcat's too), the deer walk right up to him. He crouches in place. The deer seem not to notice him. As the third deer goes by, the bobcat kitten has a moment of bravery and takes a swipe at her leg. The small deer shakes off the bobcat like a person would shake off an insect running across their foot. She takes about 15 more steps and calmly munches on plants in the shade. The deer are completely undisturbed by this tiny predator.

Bobcats subsist on a diet of small and medium mammals. Rabbits are

one of their favorites. They will also eat mice and squirrels. While naturalists have on occasion witnessed a very large bobcat taking down a deer, it is a tough fight and does not happen often. Certainly the deer were correct in ascertaining that this kitten posed no real threat. Even when he reaches full size, he will be a limited threat to them.



Food everywhere, but nothing to eat

Eventually, the deer decide it is time to move on. They walk away in a single file line. The kitten comes out of hiding, revealing himself from somewhere around the fallen limb. Neither of us understand that this limb is a warning of what is to come.

We both settle into stillness, him assuming his regal posture near the limb and me watching him. I hear sounds that I cannot place. They are loud and creaking. I cannot tell where even they are coming from. The sound goes away and I forget about it. A few minutes later I hear it again. First there is a 'CREEEAAKKK' and then a 'POP POP.' Neither of us know what to make of it, until we see movement from directly above the bobcat. A giant tree limb is falling! I worry immediately about what is going to become of this kitten. I cannot believe what I am seeing.



A giant tree limb falls right where the bobcat was perching



While I am still processing, the bobcat has already taken action. Appearing more cheetah than bobcat, he sprints. Adult bobcats can run up to thirty miles per hour. This little kitten's tiny legs moved *fast*. He safely escapes!



A bobcat kitten runs away from a falling tree limb



At Sedgwick, we have been talking a lot about the massive tree limbs and trunks that have been toppling over with increasing frequency. Was this bobcat kitten nearly a victim of extended drought in Santa Barbara County? While it is a catchy narrative, we do not know because there are many reasons why tree limbs fall and the relationship between limb drop and drought is not completely substantiated. Hot days that cool off

quickly can leave moisture trapped in tree leaves, adding weight to their limbs that cause them to break. This is one reason why we see fallen limbs more often in the summer. And sometimes a tree is damaged by squirrels or woodpeckers, causing cracks and weaknesses that can lead to limb breakage on a windy or humid day. In some ways, drought can mean less breakage of living oaks. Oaks in drought are generally holding onto less moisture which, on its own, reduces their weight and their chances of breakage. The relationship between drought and limb drop is much more complex, indirect, and unknown than one might expect. According to the UC Agriculture and Natural Resource Extension, one theory that attempts to link drought and limb drop states that drought stress leads to an increase of ethylene, a hormone found in plants that affects growth and senescence. Increased ethylene essentially ages cells, weakening their walls. This, combined with increased sap pressure caused by increased root pressure and reduced transpiration, both related to drought, can play a role in limb breakage. Are you following? It's complex and the upshot is that we need more research. Have I enticed anyone out there to submit a new RAMS research application?

As for the bobcat kitten, I have not seen him since this day. I do not know what has become of him. My best hope is that he is reunited with his mother, learning how to hunt appropriately-sized mammals and being wary of creaks given off by towering oaks. As an observer, it felt like a very dramatic day, but for this baby bobcat it was just another day in the struggle for existence in a wild place. We wish him and the rest of the young creatures of Sedgwick Reserve all the best as they learn to survive in this thrilling landscape!



Classes are BACK!

We are thrilled that we have been



able to welcome classes back this fall! It is great to have students here including those from:

- *Ecology, Evolution and Molecular Biology, UCSB*
- *BREN School of Environmental Science and Management, UCSB*
- *College of Creative Studies, UCSB*
- *California Ecology and Conservation, UC*
- *Biology, Hancock College*
- *Ecology and Evolutionary Biology, UCLA*

Thank you to the instructors who work so hard to provide their students with positive field experiences! We hope to see some of these students back doing research at the Reserve.

*Sedgwick Reserve depends on the support of our donors to fund our **docent program**, support **researchers**, and offer community-focused **public events**. Your gift ensures our ability to continue supporting world-class research and education with global impact. Click **here** to support Sedgwick today!*

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