



FELIDAE  
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FUND

# RESPONSIBLE LANDSCAPING

## TO PREVENT HUMAN-WILDLIFE CONFLICT



Living  
with  
Lions



Bay  
Area  
Puma  
Project

Photo by Priscilla Du Preez

# Peaceful Coexistence

## Protect Your Property from Pumas and Prey

Although we tend to imagine a sharp distinction between human spaces and the wilderness, we must remember that every species plays an important role in the ecosystem.

Large predators like mountain lions (also called pumas, cougars, or panthers) are a vital piece of this puzzle. Pumas are considered both keystone species—so when their populations decline, there could be large ripple effects. Other species become over- or under-populated, throwing the entire regional ecosystem off balance. Even human activities, agriculture, and wellbeing are impacted. This is why it is imperative to support healthy predator populations.

At the same time, coexisting with apex predators requires self-protection. Take preventative measures to protect your property and your livestock not just from pumas, but from prey animals as well—without conflict.





Photo by Roman Grac



## You can protect your property against pumas and deer

Mountain lions prefer their natural prey—deer and other wild game—but they are opportunistic hunters. If they have ready access to easier prey like livestock, they will eat domestic animals.

Even when livestock are not involved, encounters with mountain lions can result in human-wildlife conflict, which often has devastating consequences. Puma presence may threaten human safety, which can result in retaliation out of fear.

While people might fear apex predators, it's their prey that can cause more damage. We're all familiar with deer becoming roadkill, and most drivers know to remain vigilant when passing through rural areas. Deer are also responsible for 70% of wildlife crop losses (which results in major food stability and economic repercussions). Moreover, they can carry disease that can be passed livestock, which is more devastating than the effects of predation

Defending your property against both predators and prey will minimize dangerous wildlife interactions and help protect your livelihood.

# Why are pumas in human spaces?

Historically, mountain lions were distributed more widely than they are today. After centuries of removal and human expansion, the United States's puma population has been slashed. There are conservation efforts in place, though their numbers continue to decline. Despite this, more people seem to be seeing and encountering these majestic animals.

Because humans radically alter the landscape, pumas' natural habitats become fragmented. Their territories are broken up with fences, highways, dams, farms, buildings, and modern infrastructure. This leaves the animals no choice but to pass through human spaces or quickly adapt to this new landscape.



Photo by Matthias Zomer

## Predator control doesn't work, but deterring wildlife does

Removing pumas may initially reduce predation, but it will backfire. Without predators, the local prey population might increase. With fewer pumas, new predators could move in, resulting in more predators than there were before. Even completely wiping out mountain lions will not end predation. Other predators like coyotes, bobcats, wolves, or even lynx will fill in the space. Thankfully, thoughtful human intervention can have the desired effect. Detering wildlife from

the outset will essentially “train” wild animals to avoid your property. With minimal prey available, pumas will have very little cause to visit you. Even if you have livestock, there are steps you can take to keep predators off your property. Since retaliating against mountain lions only provides a short-term solution, it's economically and environmentally preferable to predator-proof your property before it becomes a dangerous situation.

# Build a respectful relationship between your property and the wildlife around you.

Human spaces are continuing to expand into previously wild areas, which brings us closer to nature, but also blurs the line between human and animal territories. Deer and other herbivores wander into our spaces and eat our gardens, damage crops—and attract apex predators like mountain lions.

There are two steps to protecting yourself while keeping mountain lions safe: first, you must make your property uninviting for deer, then protect your livestock from predators.



Photo by Tom Mangelson

## Protect your garden from herbivores

Hungry deer enter our urban and suburban spaces looking for food, and mountain lions follow their prey with the same intentions. We humans are in the middle of this normal predator/prey behavior, and when it occurs in our own backyards, the results can be very dangerous. Making your property uninviting for deer is the first step in peaceful coexistence with pumas.

## Make your property less accessible

Installing fences is one of the surest ways to deter deer. Deer are great jumpers, yes, but they generally won't jump over an obstacle when they can't see what's on the other side. As prey animals, they are hesitant about entering an enclosed space, so even short fences will help. Deer are creatures of habit, too, so clean up deer paths whenever you find them. Disturb the foliage and put a large obstacle in the way to put them off the trail.



Photo by Scott Carroll

### Think like a deer

Familiarize yourself with your local deer population's habits. In the spring and fall, deer stock up on extra calories to care for their young and prepare for winter. That means they'll be more likely to search new areas for a decent meal. If your deer-resistant plants and deterrents haven't worked, this would be a good time to try deer repellent sprays. These substances are safe to use and will make your plants smell and taste unappealing. Anti-deer devices like water jets, lights, and sound alarms repel deer while training them not to set foot in your garden.

### Protect your plants and garden

Protect tender young plants—they're one of deer's favorite food. Use chicken wire while seedlings are taking root, and use barriers around your more prized plants. Using aggressive scents like blood meal, bars of scented soap, and cayenne pepper around the garden will make any deer turn tail.

### Minimize foliage

In undisturbed places with lots of rich foliage, deer like to make beds and get cozy. Cut back tall grasses, overgrown hedges, and other hiding places. If you have fruit or nut trees, pick up dropped fruits promptly, otherwise the deer will gladly come clean them up for you.



Photo by Son Phan Van

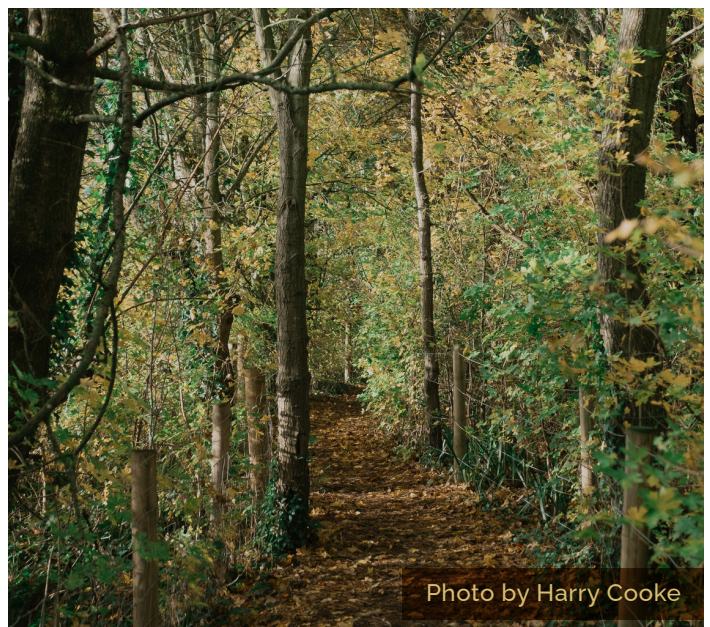
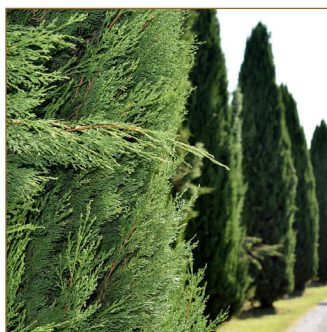


Photo by Harry Cooke

## Plant a deer-repellent garden

While deer are naturally curious and always looking for new plants to satisfy their appetites—sometimes visiting your garden for a snack—there are a few common landscaping plants that will discourage them. Use deer repellent plants for your entire garden, or as a border around tastier fare:



**Trees & Evergreens**

Cedar, eucalyptus, cypress, magnolia, sequoia, pine, spruce, fir, holly, myrtle, laurel, and madrone

Photo by michele nasoni



**Shrubby**

Rhododendron, daphne, mountain laurel, American bittersweet, elderberry, gooseberry, huckleberry, lilac, jasmine, nightshade, Oregon grape, and California wild rose

Photo by Erika Varga



**Grasses**

Ornamental grasses like fescue, fountain grass, bamboo, medics, Japanese sedges, vanilla grass, needle grass, and tufted hair grass

Photo by PublicDomainPictures



**Flowers**

Buckwheat, delphinium, lupine, fuchsia, milkweed, monkey flower, foxglove, wormwood, yarrow, tulips, night blooming jasmine, larkspur, asters, daffodils, geraniums, iris, marigold, bleeding hearts, and bee balm

Photo by Alois Grundner



**Tip:** When choosing deer-repellent plants, select plants that are native to your area. Deer develop unique tastes depending on where they live, so known regionally deer-repellent plants will be more effective.

## When in doubt, choose plants that are repellent in texture or scent.

They may not seem picky, but deer do have discerning palates. They do not like fuzzy plants like lambs ear, yarrow, squash, or pumpkins. Thick and leathery leaves like peonies, irises, and some flowering plants are distasteful to deer. Thorny and spiked plants like thistles, barberry, and cactus are too tricky for them to eat. Ornamental grasses have sharp serrated edges that irritate their mouths. Strong-smelling plants like mint, rosemary, Russian sage, oregano, and lavender have a pleasant aroma that humans enjoy, but deer find unappetizing.



Photo by Mark Valencia



Photo by Boone Smith

## Protect your livestock from predators

When mountain lions enter human spaces in search of deer, they sometimes come across easier prey. Livestock like cows, sheep, and other domesticated animals are slower, less alert to predators, and less able to defend themselves. It's up to their owners to keep them safe by protecting them from predators.

Long-term protection of livestock requires some advance planning and a combination of techniques to be effective. But taking preventative measures is well worth the effort to protect your livestock, your property, and prevent potential legal entanglements.

## Use guard animals

If you have the resources to use guard animals, well-trained dogs are effective puma deterrents. Breeds like Anatolian Shepherds, Akbash, Great Pyrenees, and Komondor are known to be skilled guard dogs. Barking dogs will disturb a puma's stealth, so any observant dog can help alert you to predator presence. Guard donkeys and llamas are another solid choice. Female donkeys are less aggressive toward livestock, but very aggressive toward predators. **Be aware that these animals cannot fend off a mountain lion, but can act as an early alert system.**

Always use best practices when using guard animals. For safety and efficacy, always thoroughly train, acclimate, and socialize your dogs. Notify neighbors and any people who may enter your property that you have guard animals.

## Stealth countermeasures

Mountain lions are elusive and discreet. They rely on their stealth to ambush their prey and almost never hunt out in the open. Therefore, if they have nowhere to hide, they will not want to hunt on your property. Dense overgrowth and foliage will hide even the largest mountain lion, so clearing way brush will discourage them. Remember to remove overhanging tree branches from animal enclosures; like other cat species, mountain lions can climb trees.

Motion lights and sound alarms are very effective in scaring away even large animals like pumas. Make sure to use various frightening deterrents and rotate them regularly—cats are quite clever and can become acclimated to the devices.

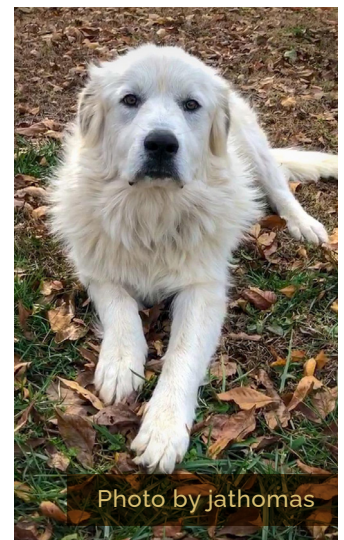


Photo by jathomas

## Know your options

If a mountain lion is discovered to have killed or threatened livestock, many ranchers and farmers immediately respond by attempting to remove the threat. It is legal to obtain a depredation permit to kill an animal that has threatened livestock. This can be a sticky situation, however, because it isn't always a mountain lion doing the depredation. Dogs, other wild animals, and even humans may injure livestock in a way that resembles puma predation. And if local authorities determine there was no immediate need to kill the puma, the rancher can be prosecuted for poaching.

Younger lions are more adventurous and willing to risk visiting human areas so older ones stick to deer. If you have a mature mountain lion in your area and you're taking steps to protect your livestock, there's very little to fear. In fact, your resident lion will be a great help in maintaining deer populations and keeping your pastures secure.



Photo by MGosv1830

## Manage livestock wisely

It is possible to manage your livestock in a mountain lion deterring manner without significantly disrupting your operations:

- Coordinate livestock calving season to match that of resident wildlife. For example, deer usually give birth in the spring, and mountain lions often prey on fawns. When presented with the choice, pumas will be much less likely to prey upon young livestock or calves if they have ample access to their preferred prey in the wild.
- Set up the calving pens or enclosures near the house or the buildings. Mountain lions are less likely to attack livestock situated near human habitation.
- Remove dead or injured animals immediately. If you believe the animal was attacked by a predator, remove the carcass as soon as possible; mountain lions will return to feed on their prey several times.
- If possible, rotate livestock between grazing areas and rest depleted pastures to allow grazing areas to regrow. This will give wild game populations a chance to stabilize and keep pumas fed.

Remember to protect all of your domesticated animals—including pets. Feed dogs, cats, and other pets indoors or promptly clean up after them. Leaving out food can attract smaller prey animals like raccoons, skunks, and opossums.

## Install a fence

If you have yet to encounter a mountain lion on your property and want to set up deterrents early, build a tall privacy fence. Pumas are excellent climbers, but if they can't see your livestock and determine how much prey is available, they will not know if it's worth scaling your fence.

**For areas with known mountain lion interference, a more robust fence will be required:**

- Build fences a minimum of 10 feet high with steel wires spaced no more than 4 inches apart.
- A visual barrier like shade netting, cloth screens, or wood walls will keep predators from seeing your livestock.
- Barbed wire fences at the top and the bottom will prevent animals climbing over or under the fence.
- If you prefer an electric fence, the power sourcing should be at least 5,000 volts. Alternate hot and ground wires, spacing hot wires no more than 12 inches apart.



Photo by 4634656



Photo by luxstorm

## Establish safe animal enclosures

Mountain lions prefer to hunt at night or dusk and dawn when prey might not see them coming. Therefore, you should always lock up your animals at night, and always in a puma-proof enclosure.

**Enclosures should have:**

- A sturdy roof that can withstand the weight of a mountain lion—they can weigh upwards of 200 pounds.
- A locking door that closes completely. There should be no significant gaps around the door frame.
- Strong walls with no openings where an animal might fit through. You may wish to consider reinforcing the walls with chain link.
- An apron around the perimeter to prevent digging animals (like coyotes and foxes) from gaining access. Fencing along the ground and extended out a few feet from the fence will help deter these smaller predators.
- A visual barrier to prevent mountain lions from seeing the animals.



Photo by Beth Ireland



Photo by Amanda Canas



Photo by Tom Ungerer



# Peaceful coexistence is possible

Photo by Jarrett Lindal

Mountain lions can jump 15 feet vertically, climb trees, sprint up to 50mph, leap 40 feet forward, and swim. They have the most expansive territory of any terrestrial mammal on this hemisphere—including humans. As amazingly adaptable as these impressive animals are, they still need our help.

Today, there are between 20,000 and 40,000 mountain lions living in 15 western US states and a small pocket

in Florida. We hope to bring that population up to a more manageable, balanced number to improve the wellbeing of the environment as a whole. Taking steps to keep these majestic animals out of human spaces while protecting our livelihood will help reduce conflict, protect domesticated animals, support the ecosystem, and keep mountain lions benefitting us all.

**For more information, contact the Felidae Conservation Fund or the Bay Area Puma Project today.**

## Share what you learned. Word of mouth helps to raise awareness.

### Other ways you can help:

- ▶ Volunteer and get involved
- ▶ Prevent disinformation
- ▶ Make a donation at [felidaefund.org](https://felidaefund.org)
- ▶ Support us on **Amazon Smile** and **Escrip**
- ▶ email us at [info@felidaefund.org](mailto:info@felidaefund.org)
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