

Preventing Conflicts with Mountain Lions in California



Mountain Lion Behavior, Biology,
and Preventing Conflicts



Understanding Potential Conflicts

As the human population increases in California, potential interactions between mountain lions and people may increase. Human population growth has led to habitat loss, and loss of habitat connectivity for wildlife. These factors, along with the presence of small livestock and pets, can result in some domestic animals resembling a natural food source to mountain lions and other predators.

Depredation occurs when a wild animal has caused damage to private property, such as the act of injuring or killing a domestic animal.

The risk of depredation by a mountain lion is small, though any loss can be difficult for a property owner.

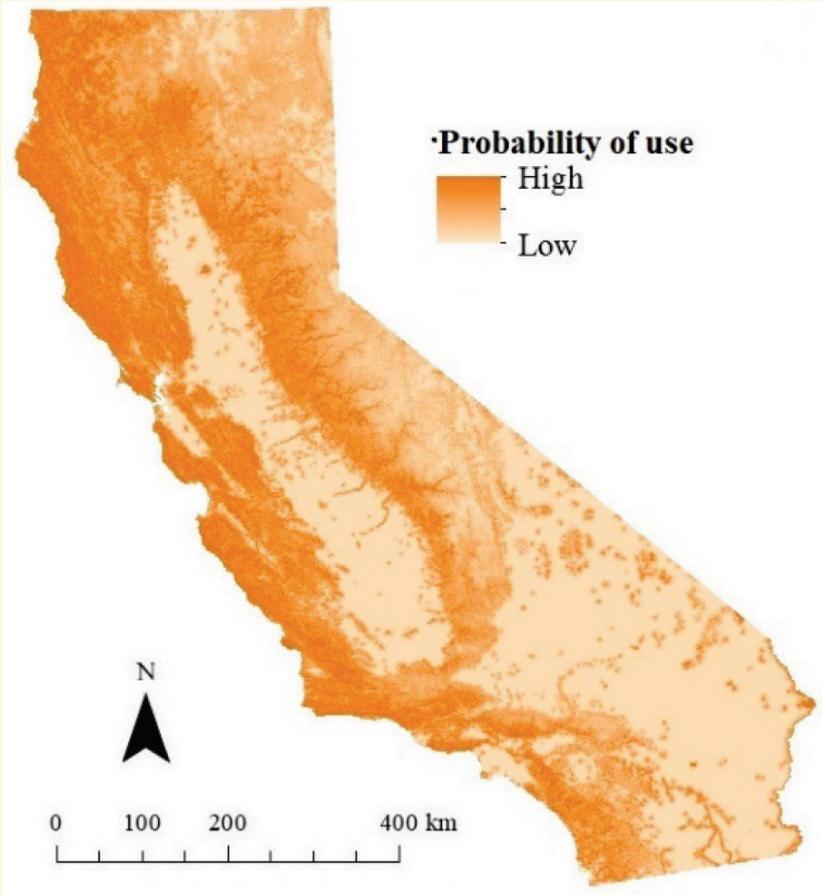
- It is possible to keep domestic animals safe using animal husbandry best practices, and proven methods to deter and exclude mountain lions.
- **The only long-term solution to prevent depredation is to prevent access to vulnerable pets and livestock.**

Wildlife known to have harmed pets or livestock are not generally a candidate for relocation. Relocation does not prevent conflict and can be harmful to the mountain lion.

Mountain Lion Behavior

More than half of California is mountain lion habitat, though many people are unaware of their natural behaviors and range. Mountain lions are solitary and generally avoid people.

A mountain lion can maintain a home range of up to 200 square miles. The frequency and range of movement within their range may vary seasonally. Males establish territories that they will defend from other male lions. Intraspecific aggression is common.



Female lions can give birth year-round to 1 to 4 kittens. Young lions may stay with their mother for up to 2 years learning how to hunt and survive on their own.

Mountain lion diets are historically based on deer in California. Like other predators, mountain lions may prey on other animals if the opportunity presents.

Mountain Lion Conservation

Mountain lions are a specially protected mammal in the state. (See Proposition 117)

The California Department of Fish and Wildlife - and its partners - work to:

- minimize human-mountain lion conflicts,
- maintain genetically diverse and demographically viable populations,
- identify and protect important habitats,
- improve public awareness, and
- identify and research emerging management and scientific issues.

Research indicates a lack of genetic diversity in defined geographic areas of the central coast and southern California, including the Santa Ana Mountains and Santa Monica Mountains.

Loss of genetic diversity in these areas is associated with barriers restricting movement between and within mountain lion populations. This poses a potential threat to mountain lion conservation and management in California.



California

Endangered Species Act

An Evolutionarily Significant Unit (ESU) is a population of species considered distinct for purposes of conservation. In July 2019, the Center for Biological Diversity and the Mountain Lion Foundation petitioned the California Fish and Game Commission to list mountain lions as threatened under the California Endangered Species Act (CESA) within a proposed ESU in the central coast and southern California. In April 2020, the Commission determined listing of this ESU may be warranted and designated these mountain lions as a candidate species. Under CESA, candidate species are afforded the same protection as listed species during the review period.

Laws and Regulations

Knowing what safe and effective (legal) methods are available to address potential conflicts can be overwhelming. The California Fish and Game Code (FCG) and California Code of Regulations (CCR), Title 14, establishes the basis of fish and wildlife protections and management in the state. There are several laws and regulations specific to mountain lions in California.

Proposition 117
FGC §4800. Mountain Lions
The mountain lion (genus Puma) is a specifically protected mammal under the laws of this state. It is unlawful to hunt, take, injure, possess, transport, import, or sell a mountain lion or part of a mountain lion, except as specifically provided. Removal or take may be authorized for depredation, public health and safety, or imminent threat to the survival of any threatened, endangered, candidate, or fully protected sheep species.
FGC §4801. Take or Remove Mountain Lion Perceived as Threat to Public Safety
FGC §4801.5. Mountain Lion Not Designated as Imminent Threat to Public Safety; Use of Nonlethal Procedures Required
FGC §4802. Report of Injury to Livestock by Mountain Lion
FGC §4803. Depredation Confirmation Report
FGC §4804. Conditions for Permit to Take Depredating Mountain Lion
FGC §4806. Reporting Period for Captured, Injured, or Killed Mountain Lion
FGC §4807. Immediate Taking of Mountain Lions; Conditions
FGC §4809. Means by Which Mountain Lion Taken
FGC §4810. Authorized Research Projects; Conditions
Other Laws and Regulations
CCR §402. Issuance of Permits to Take Mountain Lion Causing Damage.
FGC §43004.5. Methods of Taking
The use of certified nonlead ammunition is required when taking any wildlife with a firearm in California, including for depredation purposes.

Terrestrial Predator Policy

It is the policy and practice of the California Fish and Game Commission that:

Existing native terrestrial predator communities and their habitats are monitored, maintained, restored, and/or enhanced using the best available science.

- Sustainable conservation and management strategies are necessary to encourage the coexistence of humans and wildlife.
- Human-predator conflict resolution shall rely on management strategies that avoid and reduce conflict that results in adverse impacts to human health and safety, private property, agriculture, and other public and private economic impacts.
- Human safety is a priority.

Decisions regarding human-predator conflicts shall evaluate and consider various forms of lethal and nonlethal controls that are effective, humane, feasible and in compliance with all applicable laws and regulations.

To ensure long-term conservation of predators and co-existence with humans and wildlife, all legal tools shall be considered when managing to address conflicts.

The CDFW seeks to improve training, communication, transparency, and decision making as they relate to managing human-wildlife conflicts involving mountain lions.



Courtesy of Tambako the Jaguar/Flickr

Mountain Lion Depredation

Property owners have legitimate concerns regarding mountain lion depredation. If a depredation occurs, report the wildlife incident to CDFW. The incident will be investigated to determine cause of death, identify the wildlife species (if depredation confirmed), and recommend measures to help prevent further losses.

CDFW has established statewide decision-making processes in issuing depredation permits for mountain lions in California. In cases when livestock or pets are injured or killed by mountain lions, a property owner may request a depredation permit (as appropriate) to allow hazing or lethal take of the offending animal. CDFW seeks to avoid, where possible, mountain lion mortality resulting from depredation and related human-lion conflict.

CDFW can assist property owners using a “three-step” process. A primary focus of the three-step process is to prioritize and support actions and approaches that are non-lethal in accordance with Fish and Game Code section 4801.5. This section provides that reasonable preventative measures shall be used first, unless otherwise stated in the Fish and Game Code. These methods may include:

- Removing animal carcasses and carcass parts from the immediate area.
- Removing brush and/or lower limbs of vegetation (potential) cover for predators.
- Installing or repairing fences or secure shelter to protect pets and small livestock.
- Hazing methods.



If vulnerable animals are left unsecured, and carcasses are not removed, a mountain lion **may return to feed over several days.**

Exclusion Methods

Before You Start

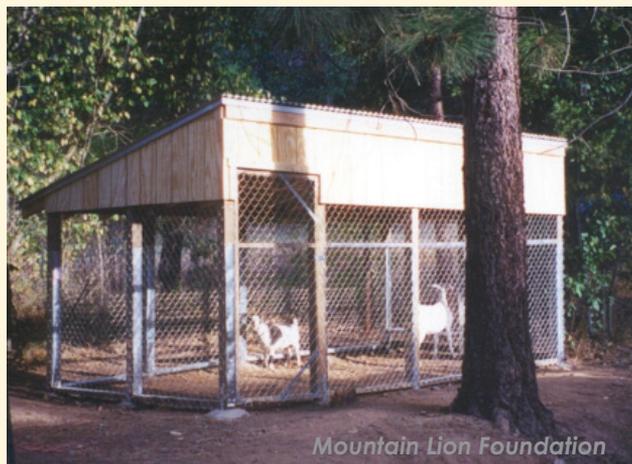
Consider what animals you have and what type of exclusion method may be most appropriate. Some common examples:

- **Small Animals.** Chickens, dogs, cats.
- **Medium Animals.** Goats, llamas, alpacas, miniature horses.
- **Large Animals.** Horses, donkeys, cattle.

Evaluate the materials and resources. This will help you decide if you must build a new enclosure or can secure an existing enclosure. Each property and situation may be unique.

Secure Enclosures

Fully enclosed predator-proof enclosures to shelter animals from dusk to dawn are the most effective way to protect domestic animals. Provide secure enclosures for birthing, young, ill, or other vulnerable animals to reduce the risk of predation. Prevention is key!



Enclosure Types

- **Barns.** From small kits to custom-built, these structures can vary greatly in price.
- **Horse Stalls.** New or existing stalls can be covered with secure fencing or panels.
- **Covered Runs.** Can be as simple as wire fencing or chain link or as complex as a walled structure with a solid roof.
- **Pens, Kennels and Dog Runs.** Pre-made pens or runs can be used singly or connected together to create a larger safe enclosure.
- **Cages and Coops.** Can be an effective option for small animals.



Vaclav/Sebek/shutterstock.com

Enclosure Components

Walls. Ensure proper ventilation for pets and livestock.

- Replace or repair damaged pieces.
- Close any openings larger than 6 inches.
- Reinforce or replace walls with 11-gauge chain link or equivalent.
- Extend walls 12 inches below ground or install an apron fence (unique design that may exclude predators from digging under fences).

Windows. Secure windows with glass, latched shutter, mesh or welded wire fencing.

Door. Must be sturdy and able to close and latch securely. Close any gaps around the door frame.

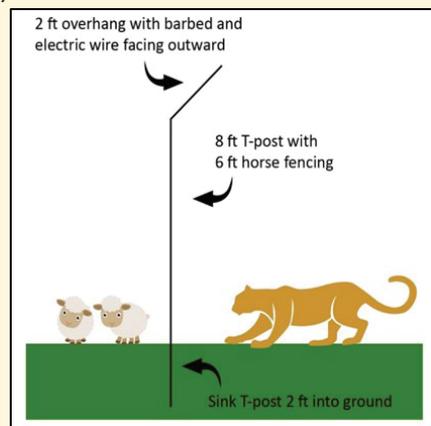
Roof. Must be strong enough to support the weight of a mountain lion. Close any openings to prevent predator intrusion.

Temporary Fencing

Temporary fencing can be a cost-effective alternative to permanent fencing. It can often be constructed quickly and designed to secure animals for short periods of time (e.g. livestock rotation).

Remember!

- Do not build fences near trees. Mountain lions can jump up to 15 feet.
- Mountain lions can manipulate wire with their claws.
- Confirm if permits are required.
- Comply with all regulations and restrictions.
- Consider fire clearances.
- Be considerate of neighbors.



Deterrence Methods

Wild animals often avoid things they do not understand. Deterrent methods may discourage predators such as mountain lions, bobcats, and coyotes. They may also discourage prey species whose presence may attract predators onto a property.

Deterrent methods alone may not fully protect pets and livestock.

Deterrent methods provide only a **short-term fix** as compared to secure enclosures and fencing (exclusion methods).

How Deterrents Work

- **Alerts people** to the presence of wildlife on their property.
- **Warn domestic animals** to be vigilant and alert to the presence of other animals.
- **Disrupt predatory behavior**, such as reducing the element of surprise while “stalking” potential prey.
- **Diminish predatory advantage**, such as when sudden lights reduce night vision.
- **Mimic the presence of humans**, who mountain lions tend to avoid.
- **Mimic the presence of other animals** that may represent risk or danger.

Deterrent Method
Carcass removal (attractant)
Enclosed shelter for animals at night (small operations)
Livestock guardian dog
Sheltered facility for birthing (sheep, cow, goat)
Permanent electric fencing
Livestock guardian animal (e.g. donkey, llama)
Electro-net fencing
Fladry or turbo fladry
Woven-wire fencing with trip wire
Fright Tactics or Devices (Hazing)
Human presence
Multi-species grazing (e.g. cattle with goats)
Temporary electric fencing

Types of Deterrent Devices

- **Sound deterrents** are most effective when triggered by a motion sensor in response to nearby movements. Mountain lions may be deterred by human voices, such as talk radio, and sirens or air horns.
- **Visual deterrents** typically involve light, movement, or threatening images. Motion-activated lights may be effective. Lights that stay on all night provide little protection.
- **Physical deterrents** such as electric wires produce unpleasant stimuli meant to cause discomfort or fear, but not physical harm.
- **Sensory deterrents** can be effective for some species (e.g. black bears). They are not known to be effective for mountain lions.



Livestock Guardian Animals

Specially trained livestock guardian dogs (large breed) can be highly effective to deter mountain lions. Other livestock guardian animals, such as llamas, are less effective and may be mistaken for prey. Secure enclosures, and other deterrence methods, are often a more effective and affordable option.

Effectiveness
Highly effective
Highly effective
Highly effective
Highly effective
Moderately effective
Unknown
Unknown
Unknown
Unknown
Varying results
Varying results
Varying results
Varying results

Attractant Removal

Identifying and removing attractants to mountain lions, and other wildlife, is important to reduce the risk of potential conflict. Mountain lions, like many animals, can be opportunistic scavengers. They may be attracted to sick, injured or dead animals, blood and bodily fluids.

If a mountain lion kills a domestic animal or an animal dies on your property, remove the carcass from the immediate area.

Mountain lions will drag large kills to a quiet area and continue to feed for several days at that site (cache).

Considerations

- Confine birthing animals and young, injured or ill animals in secure predator-proof secure enclosures.
- Properly dispose of animal remains, blood and all materials contaminated with bodily fluids.
- Identify the disposal methods allowed in your area. Note any fees that may apply.
- Diagnostic and necropsy services may be provided by the California Animal Health and Food Safety (CAHFS) laboratory in your area: cahfs.vetmed.ucdavis.edu/

Emergency Animal Disposal Method	Guidance
Temporary Storage of Carcasses for Transport to Rendering	Preferred safe method; complies v
Disposal at Permitted Landfills	If rendering capacity is exceeded
On-Site Composting	Next best solution if no safe or eco <ul style="list-style-type: none">• Applies only to animals that die• Requires technical expertise, p• No off-site transportation.
On-Site Burial	Least desirable or environmentally <ul style="list-style-type: none">• Applies only to on-site burial of property.• Only attempt after considerati• Do not bury animals within 100• Bury animals in shallow trench• Bury large animals no more th• Record numbers by type of an

Safe Handling and Disposal

Use appropriate personal protective gear (e.g. gloves, face mask) to safely handle or contain animal remains for disposal.

- Immediately contain and remove blood, bodily fluids, excretions, or animal parts, including placenta or afterbirth.
- Use a shovel to completely remove all soil, straw, bedding or other contaminated materials.
- Place small carcasses, remains, and materials in a heavy-duty trash bag.
- Double-bag and seal bag with an airtight tie.
- Store double-bagged remains in a secure garage, wildlife-proof enclosure, or freezer (if practical) until bags can be disposed of properly.

Off-Site Disposal

There are strict restrictions to transport and dispose large animal remains. Fees may apply. Know your options.

- Licensed rendering plant.
- Licensed collection center.
- Local crematory or pet cemetery.
- Public landfill.
- Animal control agency.
- Licensed large animal veterinarian that offers disposal.
- Animal disease diagnostic laboratory.

with environmental quality and disease control requirements.

or suspended, permitted landfilling is the second best method.

onomical method of transportation to the landfill.

ed on the owner's property and composted on the same property.
proper equipment, use of materials and methods.

safe method.

animals that died on the owner's property and buried on the same

on of proximity to ground and surface water.

feet of a well.

es.

an two deep, lime the carcasses, then cover with three feet of soil.

imals buried, depth of pit, depth of cover, and location.

Safeguarding People and Mountain Lions

- **Do not feed wildlife.** Intentional or unintentional feeding such as leaving pet food outdoors can attract mountain lions by attracting prey animals. These wildlife, including mountain lions, are more likely to come into contact with humans or domestic animals.
- **Landscape for safety.** Remove dense and low-lying vegetation that may provide cover for predators and other wildlife.
- **Keep pets safe.** Don't allow pets to roam unattended. Unsecured pets can become easy prey. Bring them inside or provide secure enclosures.
- **Keep livestock safe.** Securing livestock, exotic animals and birds, in predator-proof barns, pens or other enclosures (dusk to dawn) can ensure their safety.
- **Use deterrents.** Consider installing motion-sensor lighting around the house and animal enclosures.



Outdoor Safety Tips

- Do not hike, bike, or jog alone. Stay alert on trails.
- Avoid outdoor activity when mountain lions are most active - dawn, dusk, night.
- Keep close watch on small children and off-leash pets.
- Never approach a mountain lion. Stay calm. Do not run.
- Face the animal, make noise, try to look bigger (e.g. waving arms). Throw objects to scare or distract it.
- Report unusual behavior to your local CDFW office.

Mountain Lion Resources

- **To report wildlife incidents, property damage or sightings go to:**
CDFW Wildlife Incident Reporting System: apps.wildlife.ca.gov/wir

Incident reports are routed to CDFW staff based on geographic location or county of incident.

- **To report sick or injured wildlife to CDFW:**

Northern California 24-hour dispatch
(916) 358-1312

Southern California 24-hour dispatch
(951) 443-2944

If you find a mountain lion kitten in good condition, do not touch or disturb it.

If you find a mountain lion kitten in poor condition or distress, do not touch it. Report to CDFW.

- **To report poaching, polluting or other potential violations to CDFW:**
(888) 334-2258 (888-334-CalTIP)
- **To report a non-urgent question or concern to CDFW:**
(916) 445-0411
You will be routed to a CDFW regional office.
wildlife.ca.gov/regions
- **To report wildlife behaving in a threatening manner, call 9-1-1.**

For more information on mountain lions in California, visit:
www.wildlife.ca.gov - California Department of Fish and Wildlife
www.mountainlion.org - Mountain Lion Foundation



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Alternate communication methods available upon request. If reasonable accommodation is needed, contact the California Relay Service serving deaf and hearing-impaired residents using TTY/TDD phones, and speech impaired callers at (800) 735-2929.



The mission of the Department of Fish and Wildlife is to manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.



The mission of the Mountain Lion Foundation is to ensure that America's lion survives and flourishes in the wild.