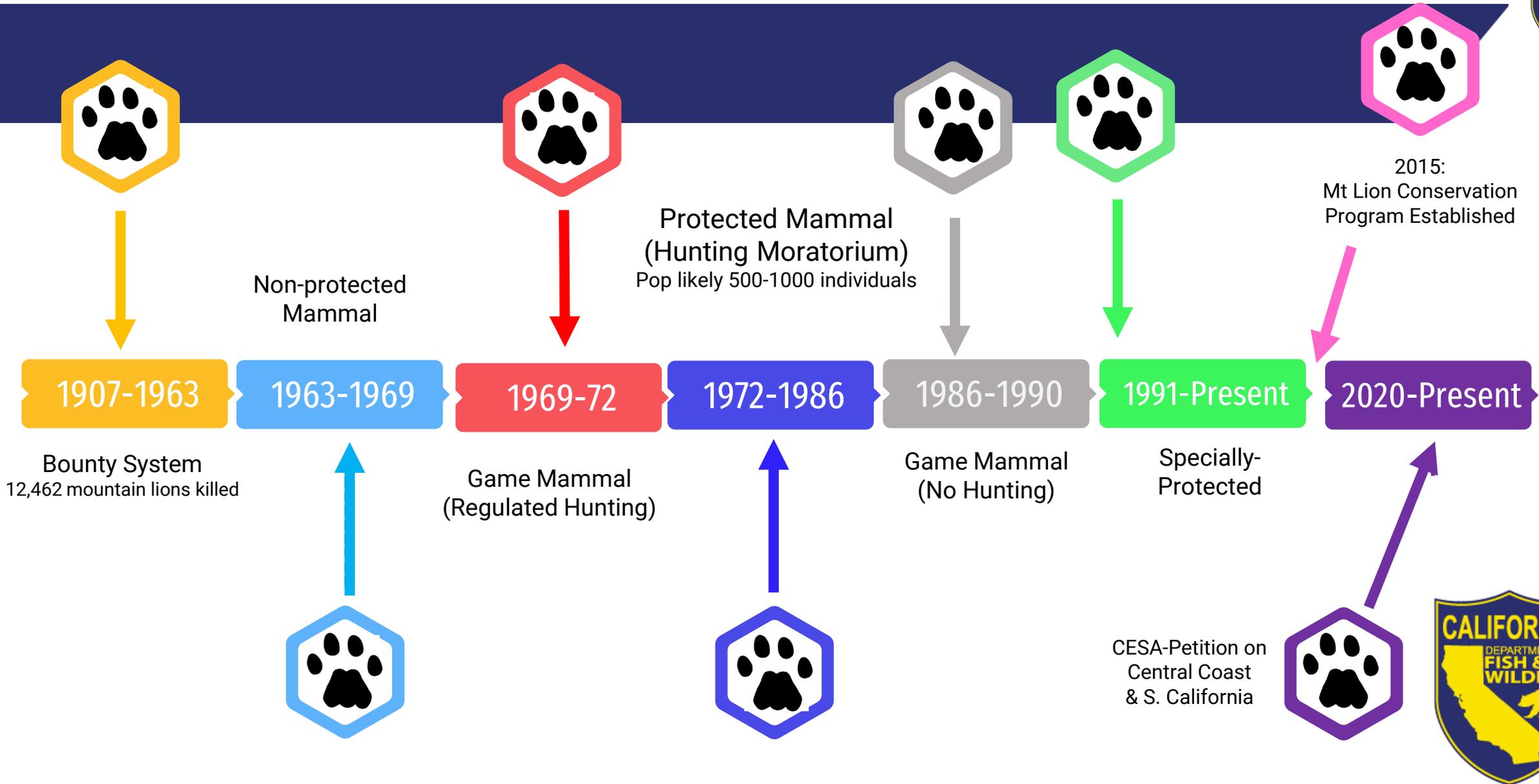


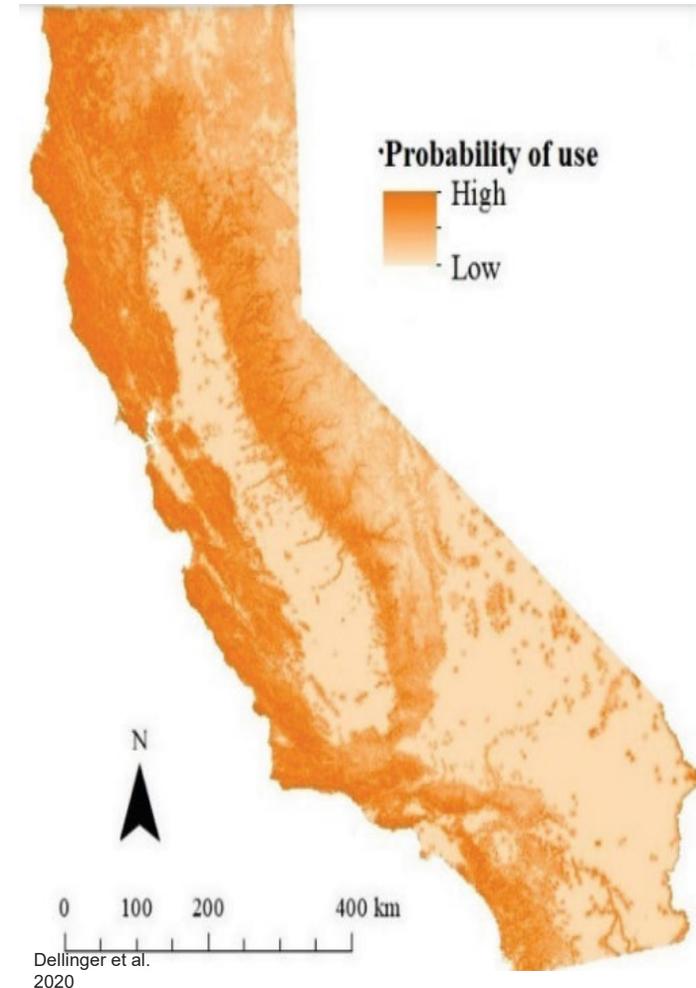
# *Mountain Lion Management and Research*





# Mountain Lion Facts

- Most widely-distributed carnivore throughout the Western Hemisphere
- Habitat: anywhere with forest cover and prey
  - Diet: ungulates (deer, elk, bighorn); coyotes, raccoons, etc.
- 40% of California is considered suitable habitat for lions



# *Mountain Lion Facts*

- 2 – 2.5 ft tall
- 8 ft. long (tail nearly half)
- Weight
  - Males range 115 – 170 lbs.
  - Females range 65 – 120 lbs.
- Color
  - Tawny brown with lighter underside
  - Cubs spotted with rings on tail



# *Facts About Mountain Lions (cont'd)*

- Home ranges:
  - Males: 100-1000+ km<sup>2</sup>
  - Females: 30-300+ km<sup>2</sup>
- No breeding season
  - Breeding "pulses"
  - 1-3 kittens
  - Stay with mom for 1.5 - 2 years



Scott Martin



# Mt Lion Conservation Program

- Established in 2015 in CDFW's Wildlife Branch
- Coordinate statewide mt lion research and population monitoring, and to inform habitat conservation and protection.
- Work with multiple external state, federal, academic and non-governmental partners
- Works closely with regional staff, branch scientists, and Sierra Nevada Bighorn Recovery Program



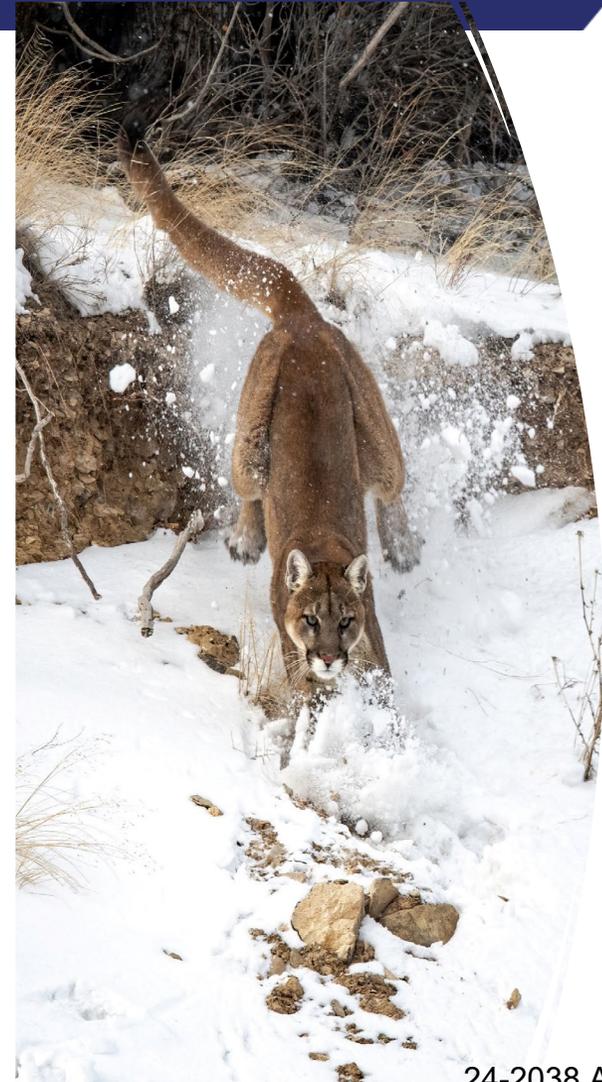
# Statewide Lion Program Research Focus

1. Mountain lion ecology in the context of transportation corridors, critical habitat linkages and human fragmentation
2. Mountain lion – human (livestock) interactions & conflict
3. Mountain lion interactions with co-occurring carnivores, ungulates, and other taxa.
4. Landscape genetics and genetic exchange between mountain lion subpopulations across California



# Regional Research Studies

- **Efficacy of Deterrent and Hazing Methods to Mitigate Lion-Human Conflict**
- Collaboration with Utah State, USDA Wildlife Services, CDFW R2, USDA National Wildlife Research Center
- Where: Amador, Alpine, El Dorado, Placer, Nevada, Sierra counties
- **More information—Contact:**
  - Dr. Jason Lombardi
  - Mountain Lion Conservation Program Lead Scientist
  - [Jason.Lombardi@wildlife.ca.gov](mailto:Jason.Lombardi@wildlife.ca.gov)
  - 916-838-2068



# Regional Research Studies

- **Lion Interactions with Wolves, Prey and Connectivity in Northern Sierra Nevada**
  - Where: Modoc, Lassen, Plumas, *eastern* Sierra, *Eastern* Nevada, *eastern* Placer, *eastern* El Dorado, and Alpine counties.
  - Collaboration with Institute for Wildlife Studies, CDFW Wolf Programs, UC Berkley, UC Davis-Wildlife
- **More information—Contact:**
  - Dr. Jason Lombardi
  - Mountain Lion Conservation Program Lead Scientist
  - Jason.Lombardi@wildlife.ca.gov
  - 916-838-2068



# *Areas for Local Collaboration*

- Opportunistic collection of DNA
  - Scat, hair, bite wounds, biodarts
- Electric monitoring
- Non-lethal deterrent efficacy
- Habitat Fragmentation analysis
  - Population centers
  - Presence of livestock
- Electronic predator aversion monitoring
  - Predator scare boxes, flashing lights, motion activated devices, angled hotwire
- Outreach and Education



# *Wildlife Incident Reporting System*



# *Human-Mountain Lion Sightings*

- Sightings
  - With increased use of ring cameras and trail cameras, the public may be seeing lions that were already present on landscape, more often.
  - Lions are mostly active dusk until dawn but can be active during the day
- If you see a lion, give them space
- Sightings and observations can be reported to the (916) 358-2917 and the Wildlife Incident Reporting (WIR) System



# What to do if You Encounter a Mountain Lion

- **DO NOT** run
  - Stay calm
- **DO NOT** turn your back
- **DO NOT** crouch/lean down
  
- **DO** make yourself look big and mean
- **DO** make noise
- **DO** throw objects



Brian McKinney



# *Human-Mountain Lion Interactions*

- Potential Public Safety
  - Mountain lion observed around residential areas with no clear way to get back to natural habitat; refusing to leave for more than several hours despite active hazing
- Lion interacting with people
  - Approaching/following people
  - Entering or attempting to enter occupied structures



# *Mountain Lion – Human Interactions*

- Mountain lion attacks are rare
  - Lions avoid human and human activity where possible, which is sometimes difficult in this state that is home to 40 million people
- Prior to recent attack in El Dorado County, there had not been a fatal lion attack in 20 years, and this was only the 4th fatal attack since 1986.



# *Mountain Lion – Livestock Conflict*

- Depredation
  - Primarily small hoof stock (sheep/goats)
  - Depredations statewide have increased over time
    - Highest conflict in western Sierra Nevada on small parcels and hobby farms.
  - 40 million people = increased wildland/urban interface within an increasingly fragmented natural habitat



# Protecting Domestic Animals from Mountain Lions

- **#1 protection for livestock: FULLY ENCLOSED STRUCTURE**

## 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

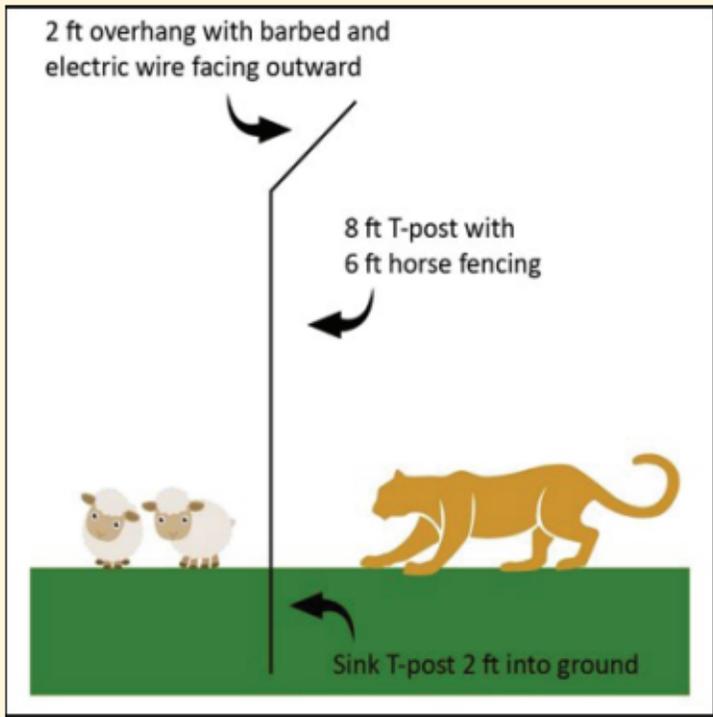
- **Barns.** From small kits to custom-built, these structures can vary greatly in price.
- **Horse Stalls.** New or existing stalls can be covered with secure fencing or panels.
- **Covered Runs.** Can be as simple as wire fencing or chain link or as complex as a walled structure with a solid roof.
- **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.

- Livestock guardian dog(s)



U.C. Cooperative Extension







# Livestock Husbandry Best Practices

- Clear low vegetation
- Bring pets inside at night
  - Closely supervise when in wildlife habitat
- **DO NOT FEED WILDLIFE!**



# *What to do if you experience mountain lion depredation*

1. Document what you see! Our depredation policies require substantiation.
2. Call CDFW OR local USDA Wildlife Services
  - CDFW Human-Wildlife Conflict Hotline: **916-358-2917**
  - USDA Wildlife Services: **530-249-1083**
3. Or fill out a Wildlife Incident Report  
**<http://wildlife.ca.gov/WIR>**



# *Depredation Permit Process*

- **1<sup>st</sup> incident of property damage reported to CDFW:**
  - Depredation permit with non-lethal recommendations
  
- **2<sup>nd</sup> incident of property damage reported to CDFW:**
  - Preventative measures have been taken to increase protection and/or improve husbandry for your animals → A depredation permit authorizing lethal take may be considered.



# Mountain Lion Policy

## California Fish and Game Code (FGC)

- FGC 4801.5 mandates the use of **non-lethal** measures
- “Unless authorized in this chapter, nonlethal procedures **shall** be used when removing or taking any mountain lion that has not been designated as an imminent threat to public health or safety.”
- FGC 4802-4810 concern the take of depredating lions
  - Law enforcement can designate an animal as being an imminent threat to public safety.



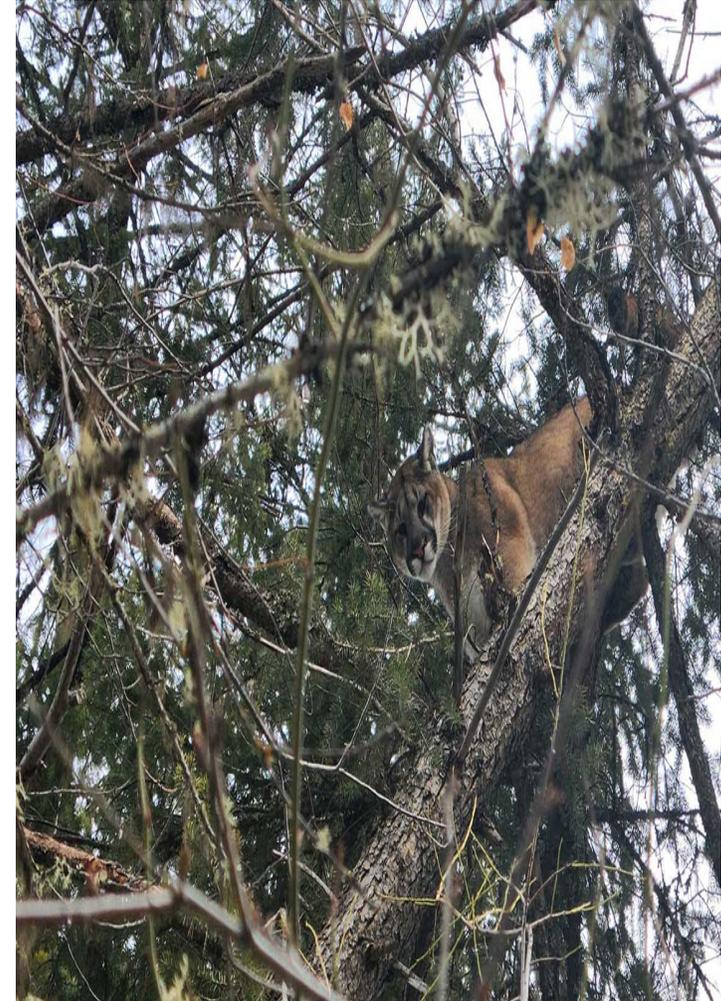
# *Mountain Lion Policy*

## **FGC 4803**

Confirmation of depredation incidents must be completed within **48 hours** of CDFW receiving the report.

## **FGC 4804**

Depredation permits for take shall expire 10 days after issuance and limit pursuit of the mountain lion within a 10-mile radius of the location of property damage.



# Mountain Lion Policy

## FGC 4806

Any lion that is captured, injured, or killed must be reported by telephone within **24 hours** or by writing (if telephoning is not practical) within 5 days.

- Lions taken immediately in the act of pursuing, inflicting injury, or killing livestock must be reported within **72 hours**. CDFW shall issue a permit (after the fact) upon a satisfactory investigation.

