

# THE DANGERS OF RODENTICIDE

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How rodenticide/anticoagulant usage is harming our ecosystem and wildlife.





# Lethal Dose: Rat Poison & Local Wildlife

Local residents may inadvertently be poisoning wildlife. National Park Service researchers have found a direct link between exposure to anticoagulant rodenticides, commonly known as rat poison, and the deaths of wildlife in and around the Santa Monica Mountains. How rodenticide works its way through the food chain:

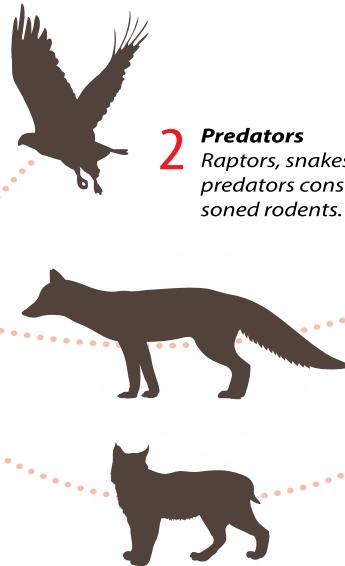
## 1 Targeted rodents

Rats and other rodents who eat rodenticide do not die right away and may even become lethargic as they approach death, making them easy prey for larger predators.



## 2 Predators

Raptors, snakes and larger predators consume poisoned rodents.



## 3 Top of the food chain

Mountain lions feed on smaller predators laced with lethal poison.

### Unintended victims

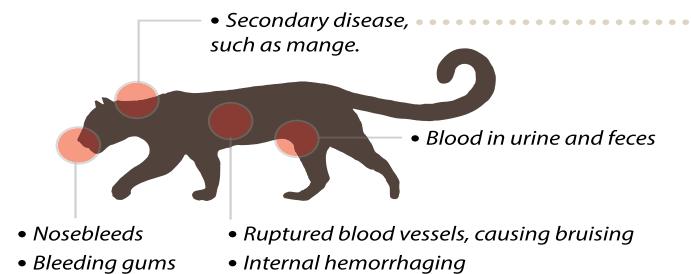
#### In the Santa Monica Mountains...

- 11 of 12 mountain lions tested positive for exposure and two died from poisoning.
- 93 of 105 bobcats tested positive for exposure and 70+ died from related secondary disease.
- 20 of 24 coyotes tested positive for exposure and 12 died from poisoning.

As of April, 2014

## How anticoagulant rodenticide kills

These compounds interrupt blood-clotting, which leads to uncontrolled bleeding and death. They may also suppress the animal's immune system, making it susceptible to other diseases. **Symptoms include:**



## What is mange?

A microscopic mite that burrows into the skin and causes...

1. Extreme itchiness and skin lesions.
2. Fluid and nutrient loss through the skin.
3. Infection, starvation, hypothermia or other complications, eventually leading to death.



## Check the label

Here are the most common anticoagulant compounds:

- Bromadiolone
- Brodifacoum

- Diphacinone
- Difethialone



CREDIT: National Park Service  
[nps.gov/samo](http://nps.gov/samo)

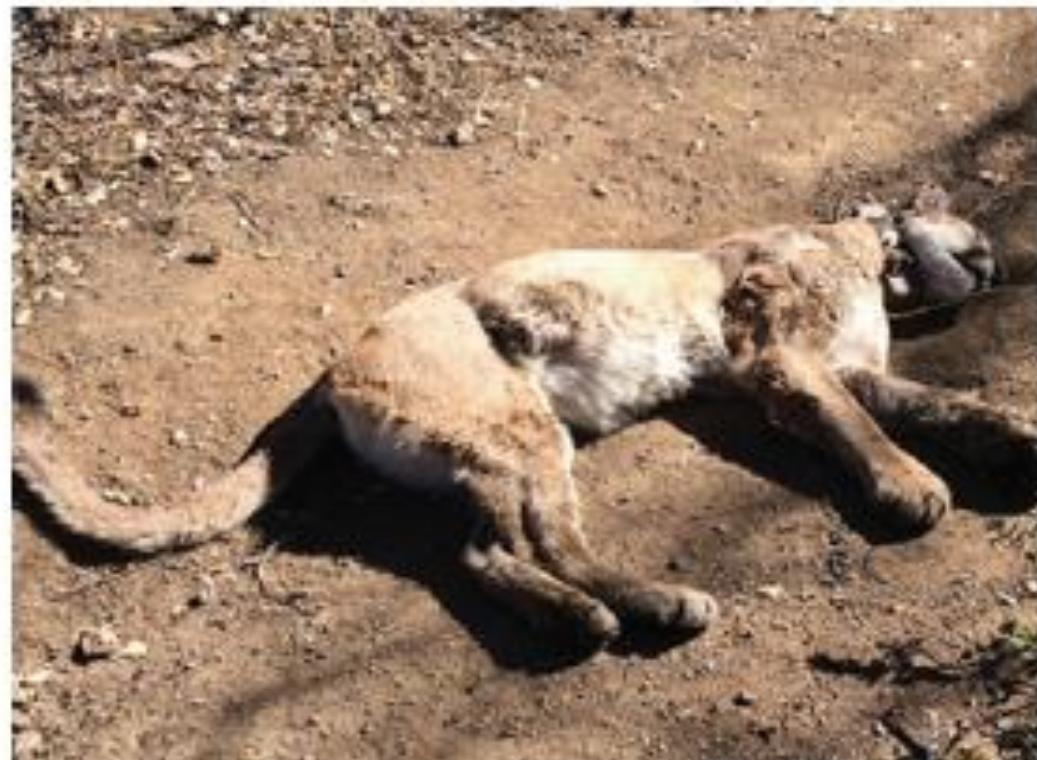
# Endangering our wild neighbors



*Photo courtesy of urban carnivores*

- The conversion of land for urban development or agricultural uses poses serious consequences to our wildlife populations.
- Habitat fragmentation isolates wildlife.
- Wildlife are running out of places to call home.
- However, as detrimental as these this may be to wildlife, other human activity, such as the use of rodenticide may prove to have even worse unintended consequences.
- Each day our wildlife is in danger of being poisoned by homeowners, local businesses, and professional exterminators.
- The poison comes from common household pesticides, the most dangerous of which are called "Anticoagulant Rodenticides." This type of poison is easily purchased and is commonly used to kill rodents.

# The Malibu Times



Courtesy NPS

P-34

Posted: Thursday, November 12, 2015 10:00 am

By Katie Giacobbe / Editorial Assistant |  
[0 comments](#)

The National Park Service has confirmed that exposure to rodenticides was the cause of death for P-34 — the female mountain lion that was found dead in Point Mugu State Park on Sept. 30 — according to the *Los Angeles Times*.

Scientists at the California Animal Health and Food Safety Lab in San Bernardino discovered five different anticoagulant compounds in the puma's liver during a necropsy.

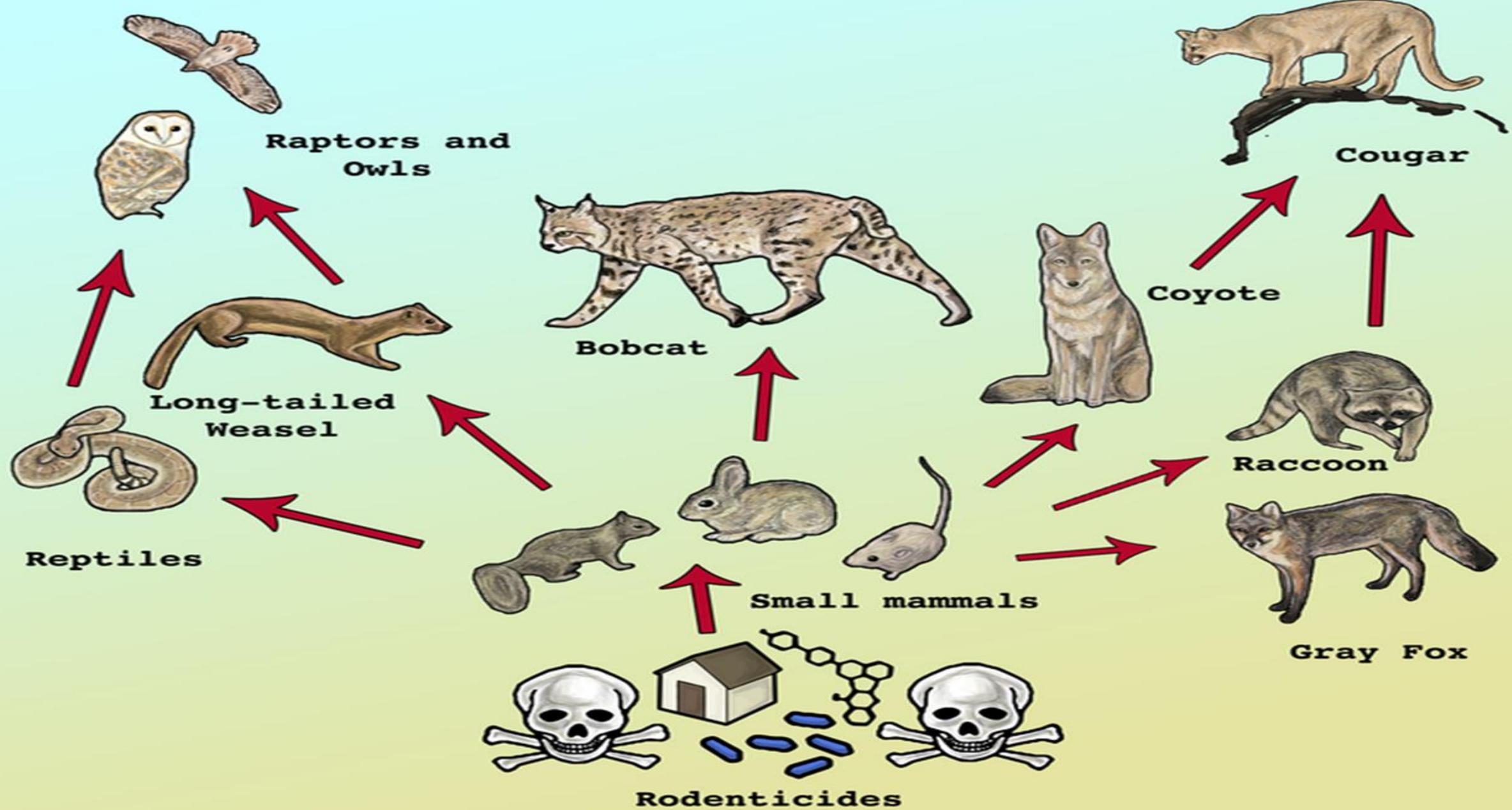
# History of rodenticide

- Since their introduction in the 1950's, anticoagulants have revolutionized rodent control.
- These poisons target rats, mice, gophers and squirrels, but are also responsible for the indiscriminate deaths of hawks, owls, bobcats, coyotes, and mountain lions each year.
- Domestic animals like dogs and cats are also quite vulnerable to these poisons.
- Primary poisoning comes when the targeted animal consumes the rodenticide bait. Secondary poisoning occurs when a predator consumes the poisoned prey.
- Secondary poisoning of non-target animals has been documented in many animals



Bait box outdoors easily accessible to all wildlife, pets, and children.

*Photo courtesy of The Washington Post*



# How rodenticide works

- Rat poison or anticoagulant rodenticides interfere with blood clotting, resulting in uncontrollable bleeding that eventually leads to death.
- Second-generation anticoagulants are especially hazardous and persist for a long time in body tissues, these in particular are banned, but many pest control companies still use them. The first generation are less potent, but still not the solution.
- These slow-acting poisons are often eaten for several days by rats and mice, causing the toxins to accumulate to many times the lethal dose in their tissues.
- Predators or scavengers like hawks, owls, foxes and mountain lions that feed on poisoned rodents are then also poisoned.
- Little is known about what the lethal dose is exactly that will sentence the innocent predator to death.
- Occurrences of toxins found in their systems during testing is incredibly high.



*Photo courtesy of Citizens for Los Angeles Wildlife*

Los Angeles' famous P-22 found with mange, blood test revealed high levels of anticoagulants.

*Evidence and statistics show the harmful impact of rodenticide on the wildlife found in the Santa Monica Mountains and other ecological areas across the city.*



*In recent studies, over 90% of subjects tested, including mountain lions, coyotes and bobcats, all tested positive for having some amount of anticoagulant in their system.*

*All photos courtesy of Poison Free Malibu*

*The LAUSD uses more than twenty different poisons in our schools including anticoagulant rodenticides.*



# Mange and Rodenticide

- Mange- A parasitic disease of the hair and the skin.
- Mange in wild cats is typically rare.
- The exact connection between mange and rodenticide is uncertain, however they are connected.
- Many wild cats exposed to anticoagulants suffer from mange and ultimately die from rodenticide poisoning.
- Bobcats in particular that have ingested rodenticide are much more likely to suffer from severe mange.



*Photo courtesy of the Ventura County Reporter*

# What can you do?

**No Poison is Safe**  
**Clean Up**  
**Seal Up**  
**Trap up**

- Close tightly trash cans and dumpsters, and keep the area clean of spillage.
- Keep areas clean of food and water that would feed rodents.
- Seal up all holes and openings into your home and attic.
- From the *San Francisco Chronicle*, “[Flowers That Deter Animals](#)” include “aromatic annual herbs, such as mint, lavender and catnip. For perennial plants that repel mice, consider amaryllis (*Amaryllis*), lavender (*Lavandula*) or daffodils (*Narcissus*).”
- Understand that rodents are part of the food chain for owls, hawks, foxes, bobcats, coyotes, mountain lions, and many others.



*These organizations and activist groups are working together to create safe places for wildlife and promote co-existence.*

There is hope....



California Department of  
Fish and Wildlife

poison f r e e Malibu



# Let your voice be heard beyond your front door

LA City  
Council File  
13-5080

## MOTION

The City of Los Angeles is fortunate to have major mountain ranges and open spaces in or near its city limits such as the Santa Monica Mountains, Hollywood Hills, and Griffith Park. While utilized by millions of people annually and surrounded by densely populated urbanized land, these recreational areas continue to host populations of wild animals including rabbits, raccoons, coyotes, deer, bobcats, and cougars (also known as mountain lions) which are shy and avoid human contact.

Recent media reports in the Los Angeles Times and sightings by City residents have documented the presence of "P-22," a cougar which inhabits Griffith Park. Thought to be the only mountain lion residing near heavily urbanized areas of Southern California, P-22 is currently being tracked by the National Park Service and eats the smaller animals which are abundant in the area.

However, as part of a long-term study on cougars, the National Park Service has documented instances of cougars that have died from ingesting rat poison. Scientists have also documented a connection between the ingestion of rat poison and the development of mange, a type of skin parasite. The San Gabriel Valley Tribune reported that scientists with the United States Geological Survey observed bobcats under study in eastern Los Angeles County that contracted and later died of mange. According to the Tribune, 92 percent of other dead bobcats tested positive for rodenticide. Birds of prey, known as raptors, also die from ingestion of rodenticide while feeding on rodents.

The Department of Recreation and Parks utilizes rodent poison to control populations of rats in its parks. Given the continued presence of large wild animals in some City recreation areas, and consistent with the goals of the UCLA Grand Challenge to ensure 100% health in our surrounding ecosystem, it is imperative that the City review existing policies and procedures governing this task and potential effects on humans and wildlife.

I THEREFORE MOVE that the City Council instruct the Department of Recreation and Parks and any other relevant City Department to report to the City Council within 30 days on the policies and procedures that dictate the use of poisons to control the rodent population in the parks and hillside areas of Los Angeles, including the Santa Monica Mountains, Hollywood Hills, and Griffith Park.

PRESENTED BY:

  
PAUL KORETZ  
Councilmember, 5th District

  
TOM LABONGE  
Councilmember, 4<sup>th</sup> District

SECONDED BY:

BMR

NOV 22 2013

**Remember...**

**there is no poison on the market that is not a risk to wildlife**



*Healthy  
Griffith Park  
bobcat later  
found dying  
from eating  
prey that had  
consumed  
poison.*



*Simi Valley  
Mountain Lion  
before and after  
poisoning.  
His mate was  
later found dead  
with the same  
poisons in her  
system.*



*Courtesy of Poison Free Malibu*

# You can make a difference

Please take a moment to complete the following online survey:

<https://www.surveymonkey.com/r/3XMH88K>



*Survey link can be emailed along with any additional information from the presentation*

# For additional information...

## Online Resources

- Citizens for Los Angeles Wildlife. [www.clawonline.org](http://www.clawonline.org)
- Poison Free Malibu. [www.poisonfreemalibu.org](http://www.poisonfreemalibu.org)

## Additional reading on rodenticides

- Kaukeinen, D. (1982, February). A review of the secondary poisoning hazard potential to wildlife from the use of anticoagulant rodenticides. *Proceedings of the Tenth Vertebrate Pest Conference* (1982) (p. 27).
- Riley, S. D., Bromley, C., Poppenga, R. H., Uzal, F. A., Whited, L., & Sauvajot, R. M. (2007). Anticoagulant Exposure and Notoedric Mange in Bobcats and Mountain Lions in Urban Southern California. *Journal of Wildlife Management*, 71(6), 1874-1884.
- Serieys, T. C. Armenta, J. G. Moriarty, E. E. Boydston, L. M. Lyren, R. H. Poppenga, K.R.Crooks, R.K.Wayne, S.P.D.Riley, "Anticoagulant rodenticides in urban bobcats: exposure, risk factors and potential effects based on a 16-year study," *Ecotoxicology* (2015) 24:844–862.
- Schitoskey, F. (1975). Primary and Secondary Hazards of Three Rodenticides to Kit Fox. *The Journal of Wildlife Management*, (2). 416.