

- JANUARY 14, 2019 -

# Predator Protection for Livestock



- PRESENTED BY -  
Jan Dohner

- HOSTED BY -



Food Animal Concerns Trust

# Introductions



**Food Animal Concerns Trust (FACT)** is a national nonprofit organization that advocates for the safe and humane production of meat, milk, and eggs.



## **Larissa McKenna**

Humane Farming Program Director

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Website: [foodanimalconcernstrust.org/farmer](http://foodanimalconcernstrust.org/farmer)

FACT's services for livestock and poultry farmers include:

- **Fund-a-Farmer Grants**
- **Conference scholarships**
- **Free webinars**
- **Humane Farming Mentorship Program**

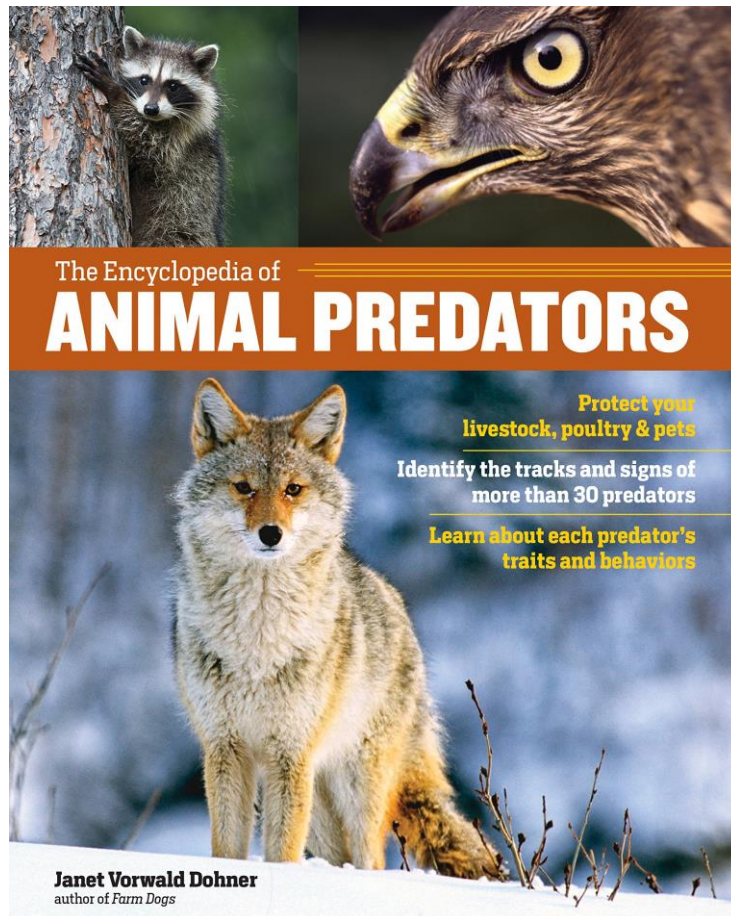
# Our Presenter



Jan Dohner

*Author of *Livestock Guardians: Using Dogs, Donkeys and Llamas to Protect Your Herd & The Encyclopedia of Animal Predators.**

# Predator Protection for Livestock



Food Animal  
Concerns Trust  
2019

Jan Dohner



# Webinar Overview



- Assess potential threats
- Identify predator damage
- Adopt prevention strategies

# Livestock



- Sheep
- Goats
- Cattle
- Llamas, alpacas
- Equines
- Pigs
- Rabbits
- Alternative animals  
– deer, etc



# Predation





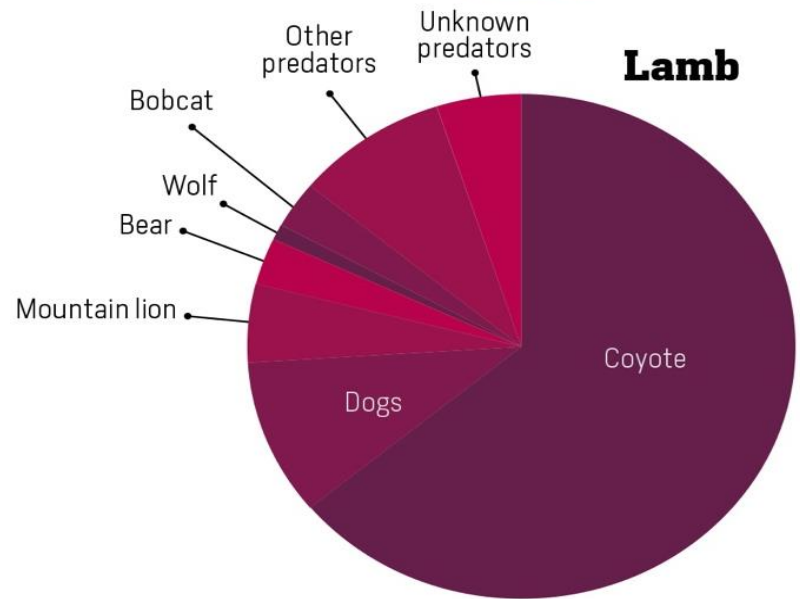
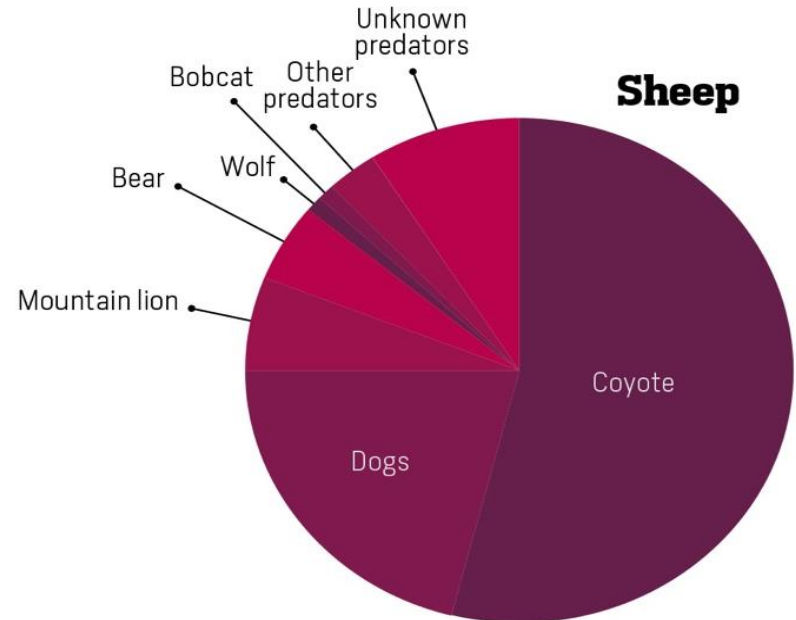
# Past to the Present



Rural  
Suburban  
Urban



# Relative Threats







# Possible Predators

## **Large and small animals**

- Mountain lion, black bear, wolves and grizzlies in certain areas
- Coyote and fox
- Bobcat, lynx
- Domestic dogs, feral hogs

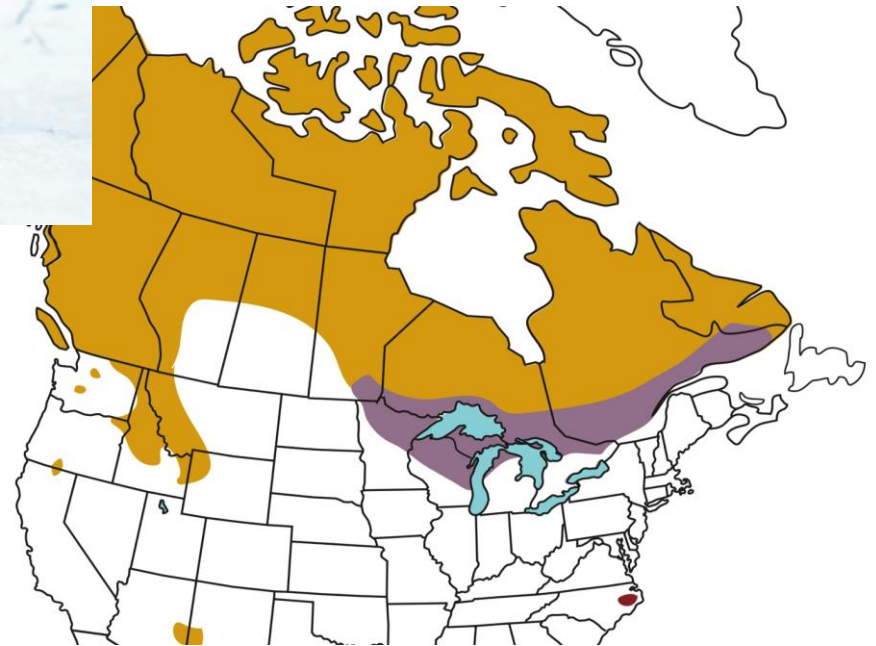
## **Small animals and newborns**

- Weasel, fisher, mink, badger
- Raccoon, skunk, opossum
- Birds of prey, black vultures, crow family

# Wolf

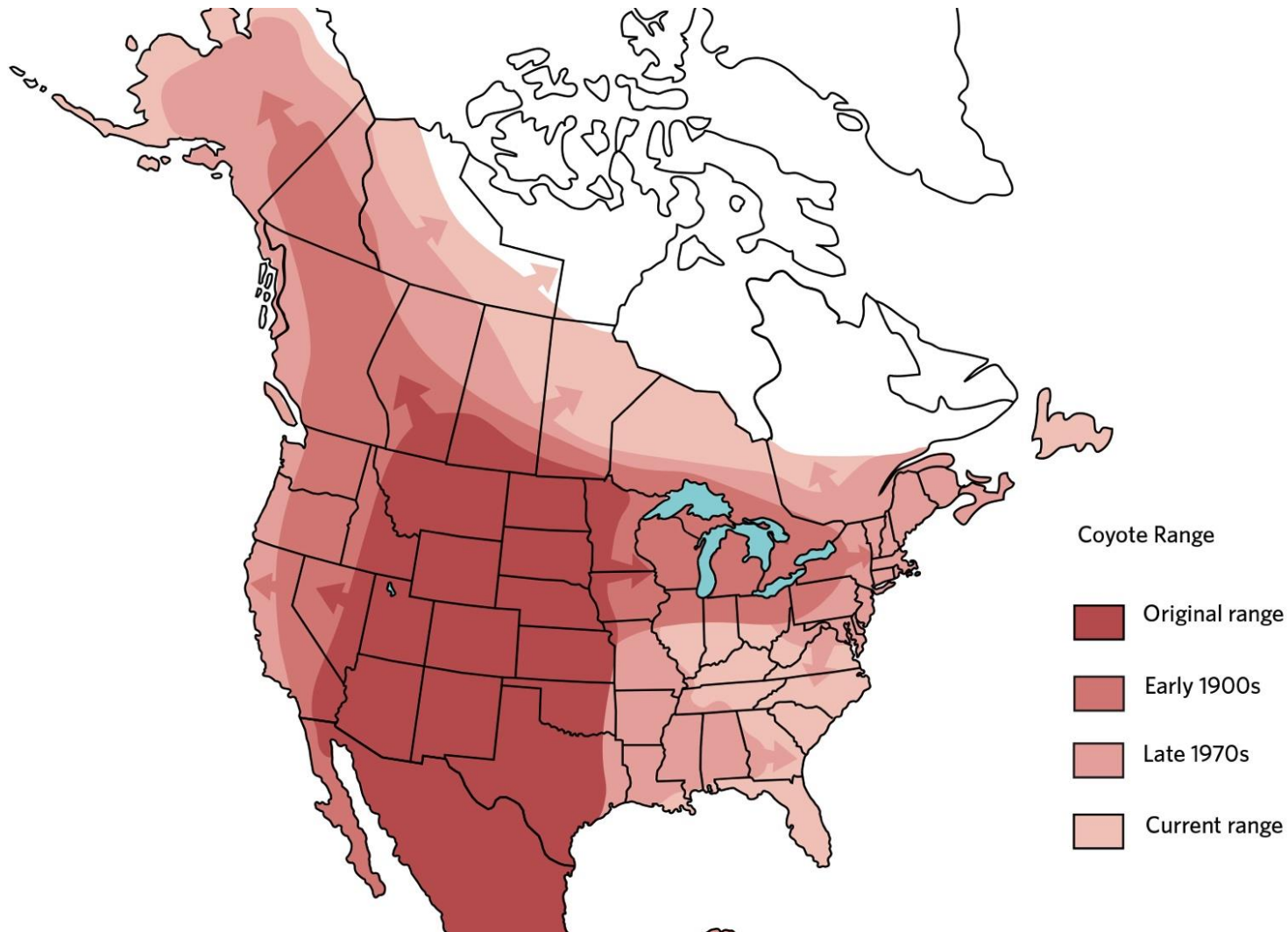


Gray wolf  
Eastern wolf  
Red wolf  
Mexican wolf

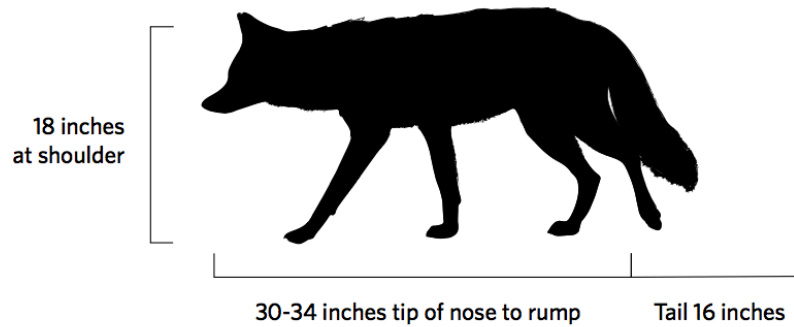




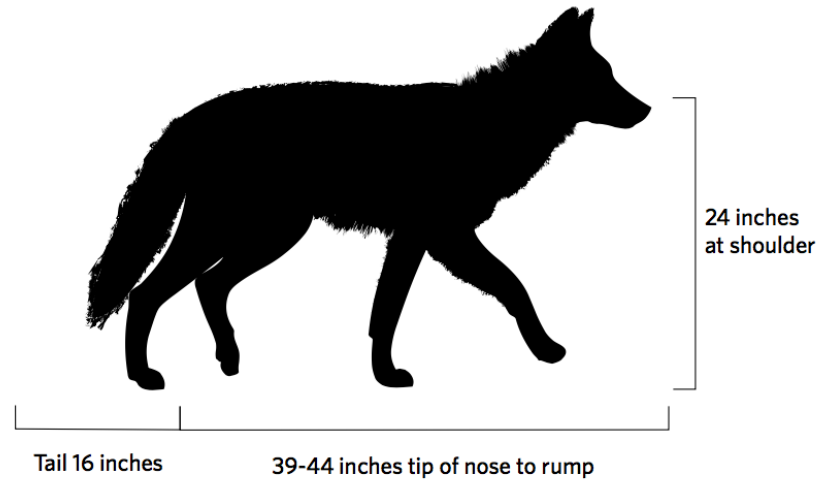
# Coyote Expansion



# Coyote



▲ Western Coyote



▲ Eastern Coyote



# Red and Gray Foxes





# Mountain Lion

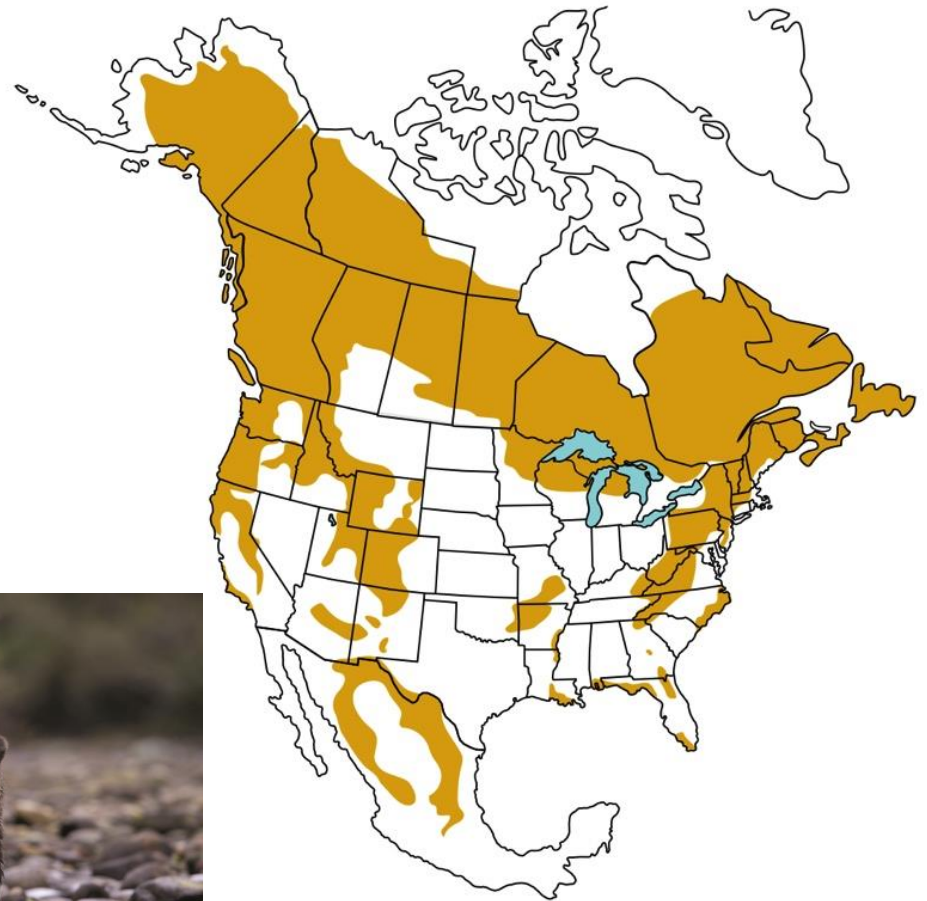
- Also known as puma, cougar, panther



# Bobcat and Lynx



# Black and Grizzly Bears





# Small Predators

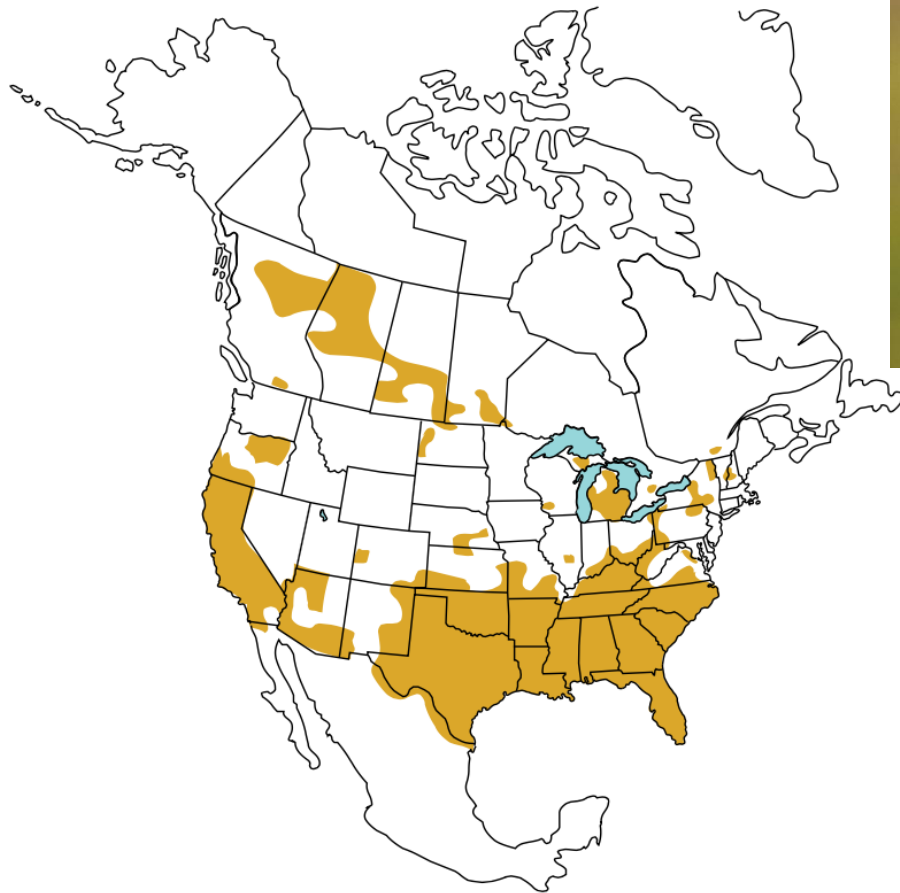


# Birds of Prey and Crow Family





# Feral Pigs



# Who's in my neighborhood?



- NASS regional statistics
- State DNR , Ag services
- Local news
- Personal identification
- Photos of scat, tracks
- Trail camera
- Personal log

# Factors that Affect Your Risk



- Terrain
- Predator attractions
- Seasons
- Future movements
- Husbandry practices



# Most Attacks Occur

- At night – dusk through dawn
- Near water
- Rugged or brushy terrain
- Where animals give birth or very young raised outside
- Spring/Summer (young to feed)
- Natural prey is hard to find due to weather/drought/disaster



# Identify Predator Damage





# Determine Likely Suspects



## Step 1 – Evidence

- Rapid observation
- Scavenging or attack?
- Photos
- Field autopsy

## Step 2 - Research

- Damage ID
- Track, scat, bite, gait evidence
- Your records and knowledge
- Identify likely suspects

# Field Autopsy



- Clip hair or wool to find bite/talon marks
- Measure and photograph bites/claw marks, gashes
- Record where marks are found and pattern
- Bruising/hemorrhaging under skin?
- Profuse bleeding?
- Stillborn or newborn?

# What attacked my stock?

## Livestock Damage ID Guide — Likely Suspects

After identifying potential culprits below, check individual profiles in Part II for detailed information, observations, tracks, and scat. Small predators can kill, carry away, or consume only very small livestock — rabbits or small lambs, for example. Predators can occasionally be active during non-normal times or behave in atypical ways.

	Badger	Bear	Bobcat	Cat	Coyote	Crow	Dog	Eagle	Feral hog	Fisher	Fox	Lynx	Maggie	Marten	Mink	Mountain Lion	Raccoon	Rat	Raven	Skunk	Vulture, Black	Weasel	Wolf
<b>Time</b>																							
Day		✓	✓	✓					✓														
Dusk		✓	✓	✓																			
Night		✓	✓	✓																			
Dawn			✓	✓	✓					✓													
<b>Missing Animal</b>		✓	✓	✓	✓			✓	✓	✓	✓									✓			
<b>Dead Animal (Small or Large)</b>																							
One or two animals killed		✓	✓	✓	✓																		
Several animals killed		✓	✓	✓	✓																		
Animal killed not consumed				✓			✓																
Small animal, only head and neck consumed				✓						✓													
Rabbit or lamb consumed except head and fur	✓																						
Small animal consumed		✓	✓						✓														
Opened ventrally		✓	✓		✓							✓											
Vital organs consumed first, not rumen and intestines (may be pulled out)		✓	✓		✓																		
Udder (consumed?)		✓																					
Breast and neck eaten									✓														
Small wounds in body																							
Meaty areas consumed		✓	✓		✓																		
Newborn eyes, nose, tongue, genitals, rectum, or hooves pecked												✓											
Newborn, nose or other parts chewed																		✓	✓				
Nose, lower jaw, ears, palate, brains eaten								✓															

	Badger	Bear	Bobcat	Cat	Coyote	Crow	Dog	Eagle	Feral hog	Fisher	Fox	Lynx	Maggie	Marten	Mink	Mountain Lion	Raccoon	Rat	Raven	Skunk	Vulture, Black	Weasel	Wolf	
<b>Teeth, Talon, or Claw Marks</b>																								
Small animals bitten through forehead, top of head or neck, or back		✓			✓					✓	✓	✓											✓	✓
Skull or neck crushed		✓								✓														
Deep talon marks in head or neck								✓																
Small animal bitten in throat			✓		✓							✓	✓											✓
Animal killed or eaten through abdomen or rectum					✓					✓				✓										✓
Larger animal bitten through top of neck or back		✓	✓										✓											
Larger animal bitten head, neck, back, flank or hind					✓																			
Larger animal bitten hind, sides, shoulders, tail, or nose																								✓
Larger animal, deep talon marks in back or upper ribs													✓											
Bites in side, rips, gashes							✓																	
Claw marks and gashes on shoulder, back, flanks, body		✓	✓																					
Deep talon marks																								
Clean edges on bones and flesh			✓		✓									✓										
Large bones crushed																								
<b>Other Observations</b>																								
Carcass partially or completely skinned out		✓							✓	✓														
Carcass cached a distance away		✓	✓																					✓
Vegetation crushed at site		✓								✓														
Wounds on live animal					✓							✓												
Mutilated animals; ears, tails, wool or fur torn off; broken legs													✓											
Extremely stressed and anxious survivors													✓											
Strong smell		✓																						

# Time of Day, Method of Kill

## DAMAGE ID: Coyote

Coyotes will scavenge on carcasses after kills by other predators or natural causes, so dead stock should be examined to determine cause of death.

### PREY ON

Sheep, goats, young cattle, poultry, rabbits, cats, and small dogs. Will damage garden crops.

### TIME OF DAY

Night and early morning most common, although day is possible



CANINES

### METHOD OF KILL

- ▶ Small animals attacked by a bite to the top of the head, neck, or back, leaving puncture wounds 1 to 1½ inches apart and tissue or bone damage
- ▶ Small carcasses carried off
- ▶ Large animals attacked on the flank or hindquarters, or grabbed by the head or neck and pulled down; suffocated by a bite to the throat behind the jaw and below the ear
- ▶ Bite marks left along the back
- ▶ More than one animal killed or damaged, but only one fed on.
- ▶ Begins feeding at the flank or behind the ribcage, opens the abdomen, and eats the internal organs, including the rumen. Intestines may be removed and dragged away; dismembered body parts may be carried back to den.
- ▶ Clean, knife-like cuts left on carcass; bones picked clean
- ▶ Splintered and chewed bones left behind, along with blood, scattered skin, wool, bones, and tendons; larger bones, skeleton, and hide left intact
- ▶ Young coyotes make messy kills like those of a dog.
- ▶ An animal that escapes a coyote attack may have wounds to the neck, throat, flank, shoulder, or hindquarters. Its tail may be bitten off.
- ▶ 80% of calves killed are less than 1 month old.
- ▶ Calves attacked through the anus, abdomen, or nose; laboring mothers attacked through genitals or hindquarters



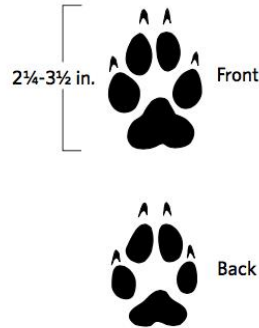
# Tracks, Gait, Scat

## TRACK

**Eastern coyote:** Front  $2\frac{5}{8}$ – $3\frac{1}{2}$  inches long,  $1\frac{5}{8}$ – $2\frac{7}{8}$  inches wide; rear  $2\frac{3}{8}$ – $3\frac{1}{4}$  inches long,  $1\frac{5}{8}$ – $2\frac{3}{8}$  inches wide.

**Western coyote:** Front  $2\frac{1}{4}$ – $3\frac{1}{4}$  inches long,  $1\frac{1}{2}$ – $2\frac{1}{2}$  inches wide;  $2\frac{1}{8}$ – $3$  inches long,  $1\frac{1}{8}$ – $2$  inches wide.

**NOTE:** A coyote track is half the size of a wolf's. Dogs usually have a more splayed or open print, with toes pointing in different directions. Coyote tracks are more elongated or oval shaped, with a tighter impression than a dog's, claws may be less prominent. Coyotes direct-register at a trot far more than dogs. [See page XXX for comparison.]



## GAIT

Trotting stride 15–26 inches, may extend to 41 inches. May overstep, direct-register, or trot slightly sideways.

## SCAT

Twisted, ropelike, tips tapered, 3–4 inches long, 0.5–1 inch diameter. May be left on rocks, logs, and trails. Varies according to diet. May contain hair, feathers, bones, fruit, or seeds.



# When Good Dogs Go Bad



If caught in the act:

- Restrain if friendly, take photos, record all tag info, call authorities not owners.
- If they run, follow calmly. Take photos, call authorities and don't confront owners.
- If seen, write down complete descriptions and take photos.
- Take photos to document the entire attack. Call authorities.

# Adopt Protective Strategies





# What Works



- Fencing
- Livestock Guardian Dogs (LGDs)
- Secure housing/night penning
- Good husbandry practices/human presence
- Removing attractants
- Preventing habituation
- Llamas and donkeys
- Timed breeding
- Fright techniques



# UC Davis Rangelands – Predator Hub

	If your predator of concern is a:						
	Dog	Coyote	Mtn Lion	Black Bear	Gray Wolf	Fox	Bobcat
<b>Consider these tools:</b>							
Livestock guardian dog	●	●	●	●	●	●	●
Donkey	●	●	NA	NA	NA	●	NA
Llama	●	●	NA	NA	NA	●	NA
Woven-wire fencing w/ trip wire	●	●	NA	NA	NA	NA	NA
Permanent electric fencing	●	●	●	?	●	●	●
Temporary electric fencing	●	●	?	NA	●	●	●
Electro-net fencing	●	●	NA	NA	NA	●	●
<u>Fladry</u> or turbo <u>fladry</u>	NA	?	NA	NA	●	NA	NA
Attractant (carcass) removal	●	●	●	●	●	●	●
Human presence / <u>stockmanship</u>	NA	NA	NA		●	NA	NA
Night pen (small-scale operations)	●	●	●	●	●	●	●
Fright tactics / devices		?	?	?	?	?	?
Shed lambing / calving / kidding	●	●	●	●	●	●	●
Multi-species grazing (cattle w/ small ruminants)	●	●	?	?	?	●	?

● Highly effective

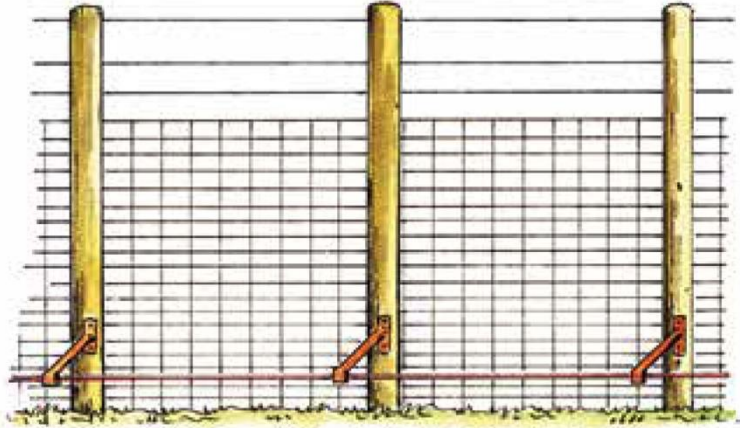
● Moderately effective

? Research results with varying effectiveness

NA No available evidence

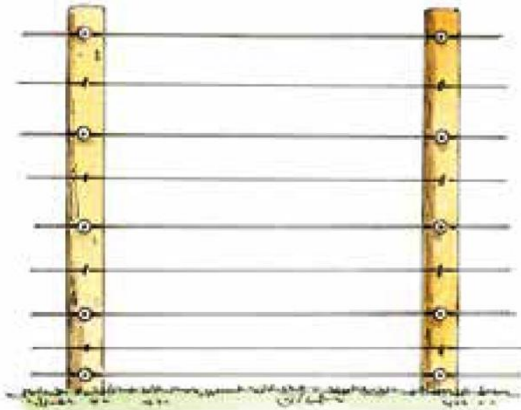
<http://rangelands.ucdavis.edu/predator-hub/current-research/>

# Exclusion Fencing



## Exclusion fencing

- Tightly spaced mesh
- Electric top and scare wires
- Multi-strand electric
- Electric netting
- Hardware cloth



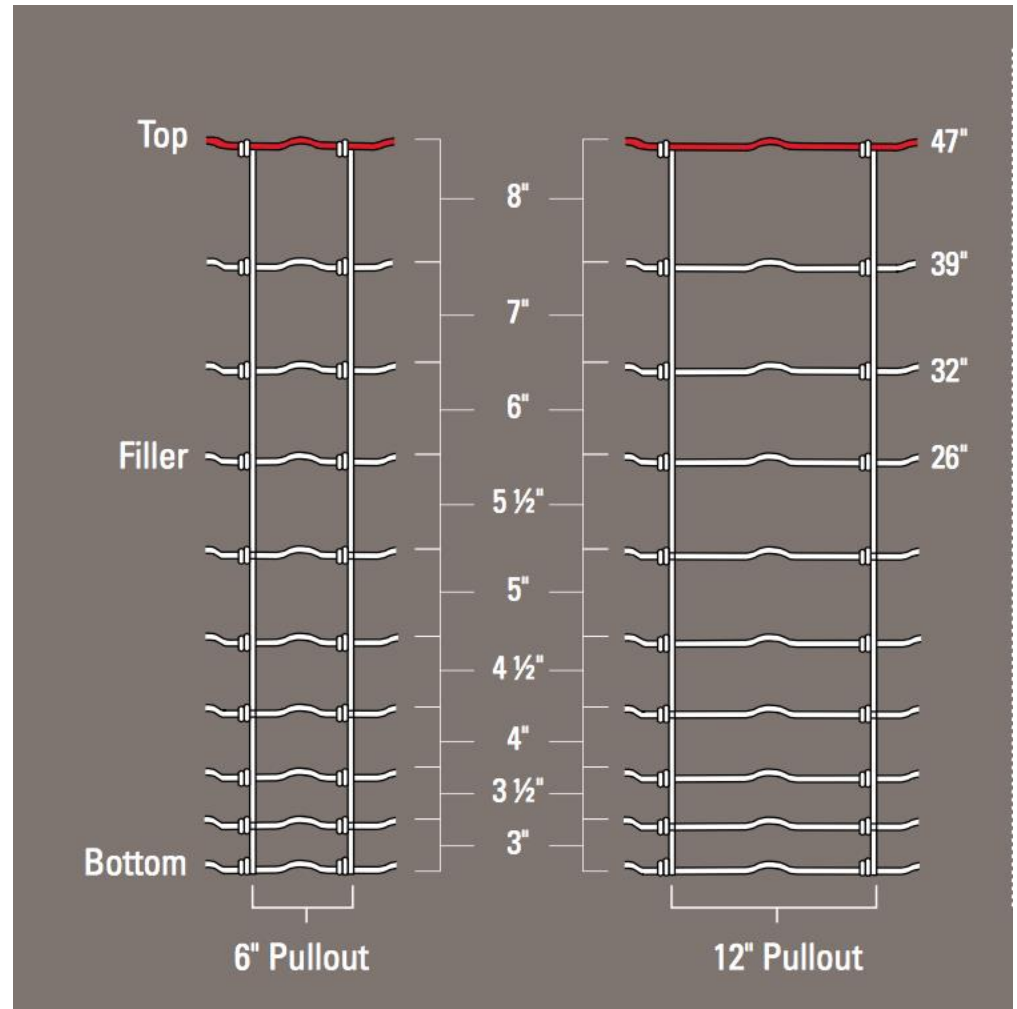
## Drift fencing

- Board or rail
- Barbed wire
- Non electric wire
- Widely spaced wire

# Fencing for Specific Predators



Red Brand Fence





# Electric Wire



# Fladry



Defenders of Wildlife

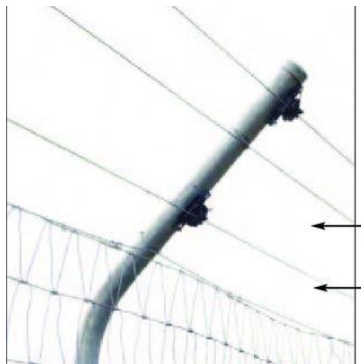


# Coyote Roller





# Aprons and Overhangs



# Avoid Landing Spaces







# Livestock Guardians





# Mixed Species Grazing



# Mob or Rotational Grazing

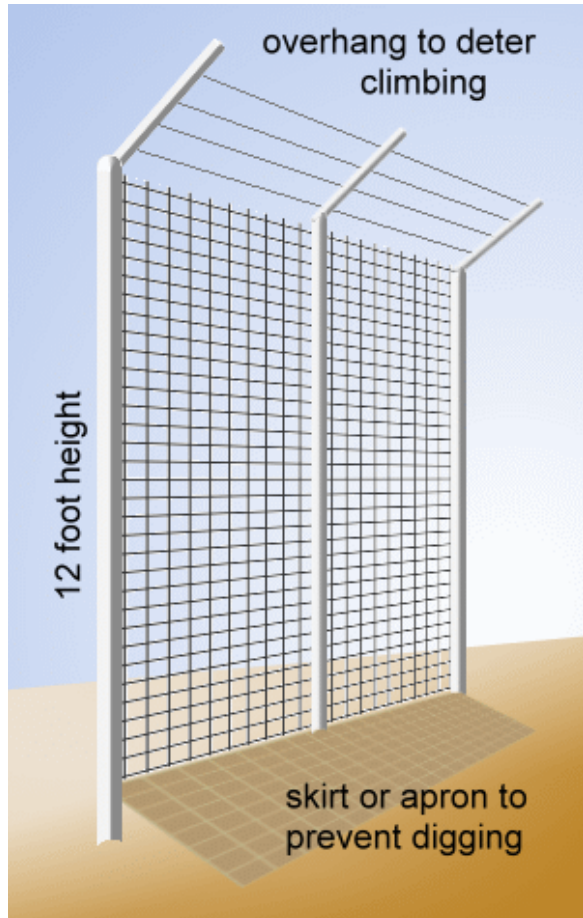




# Secure Housing/Night Penning



# Lion Safe



[Mountainlion.org](http://Mountainlion.org)



# Bear Smart

- Electric fencing
- Bearproof latches
- Scat mats





# Pastured Rabbit



Coney Garth – Julie Engel



# Rabbit Tractors





# Pasture Raised Pork



- Good fencing/electric wire or mesh
- Piglets need shelter and safe areas
- LGDs

# Good Husbandry



- Human presence/observation
- Seasonal choice of pastures
- Enhanced protection for birthing animals and newborns
- Culling and removing carrion/healthy animals

# Habituation and Hazing



- Make yourself larger
- Be loud
- Stand your ground
- Use fright techniques
- Haze every time
- Continue until animal runs away
- More than one person should haze





# Landscaping

- Improve visibility
- Eliminate cover and limit access
- Remove overhang branches, perching sites
- Remove rubbish, firewood, rock piles near buildings or animal areas
- Eliminate open water
- Avoid plants that predators or deer feed on.

# Animal Feed and Food Waste



- Bird and wild animal feeding
- Pet and other farm animals
- Garbage, compost, cooking areas
- Garden waste

# Fright techniques

## Visual

- Night lighting
- Mylar tape
- Fladry
- Scarecrows and effigies



## Auditory

- Music or talk radio
- Horns, sirens, bells

Most effective when varied  
and in combination







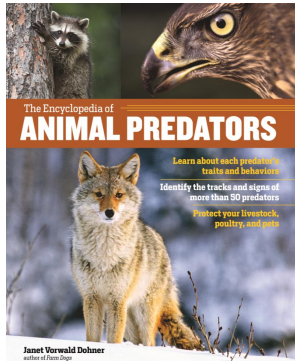
# Preventing Dog Attacks

- Do not let your LGD play with pet or neighbor dogs.
- Do not allow neighbor dogs on your property.
- Report roaming dogs/take photos
- Do not allow unsupervised contact with your pet or visiting dogs and stock.
- Confine females in heat securely
- Good fencing is essential

# Coexistence

Producers who attempt to reduce the risk of conflict between livestock and wildlife





# Resources

Defenders of Wildlife

<https://defenders.org/coexisting-range>

UC Rangelands Predator Hub

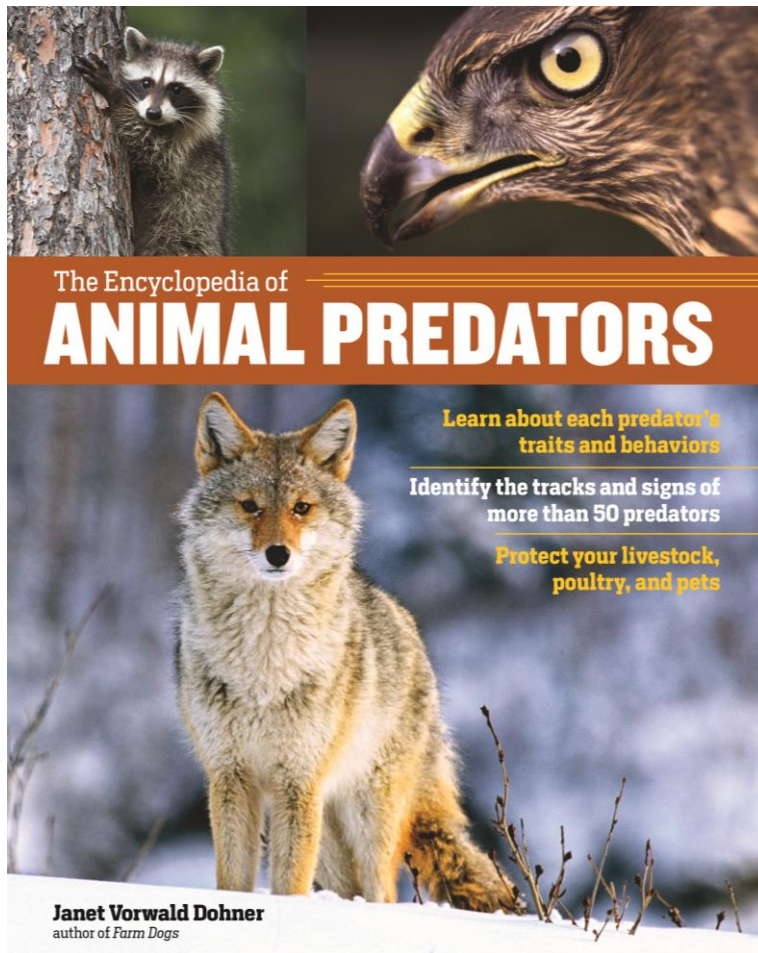
<http://rangelands.ucdavis.edu/predator-hub/current-research/>

ATTRA Predator Control

<https://attra.ncat.org/viewhtml/?id=189>

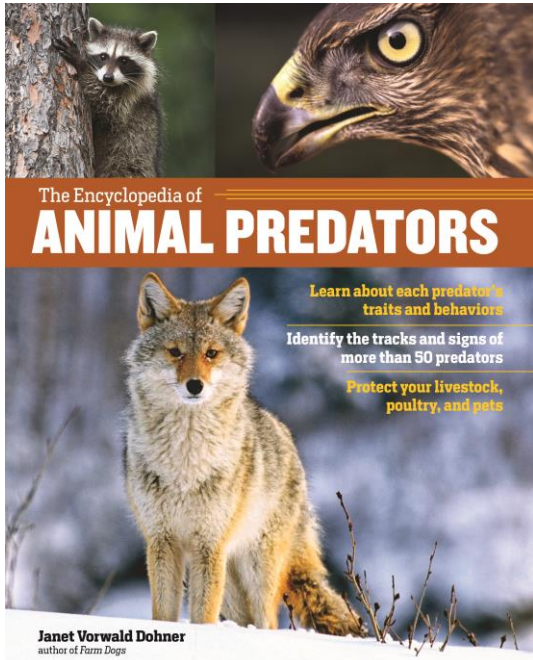


[www.jandohner.com](http://www.jandohner.com)



- Livestock guardians
- Guides for home, recreation, farm, or ranch
- Organizational resources

# Photo Credits



Mike Lentz Photography  
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Nitegard  
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Michelle  
R. Kidd  
Sun, Rain, Earth  
Trixie MFG  
Spence Farm Foundation  
Bayer Crop Science  
Bear Busters  
G. Judy  
L. Owens



# Questions & Answers

Please type your Q's into the chat bar



Uwharrie Farm



# Connect with



## Upcoming webinars in 2019

- **January 23:** Creative Leasing for Livestock Farmers
- **January 29:** New Zealand Method of Sheep Shearing
- **February:** Three part series on parasites in sheep & goats
- **March 6:** Making a Living Doing What You Love
- **March 19:** Managing Face Flies on Pastured Cattle

## Grants, Scholarships, Mentorship & More!

- **Mentorship program applications – deadline is January 31**
- **Scholarships accepted on an on-going basis**

Sign up for emails @ [foodanimalconcernstrust.org/farmer/](http://foodanimalconcernstrust.org/farmer/)

## Join us on social media

