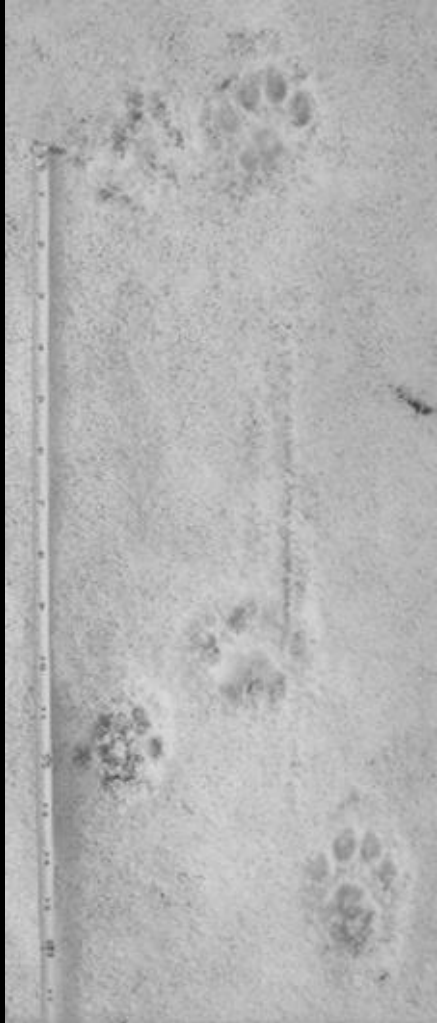


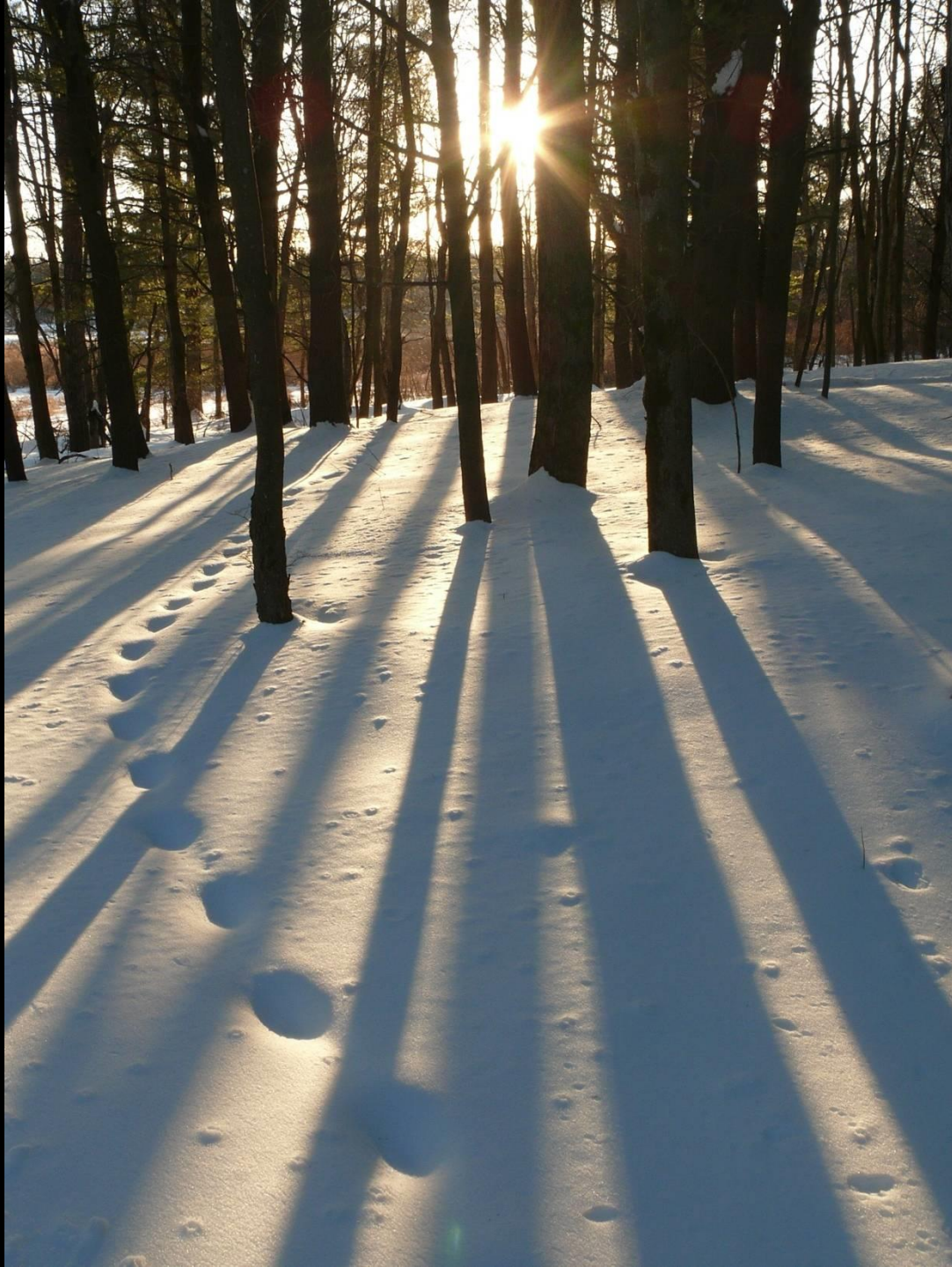


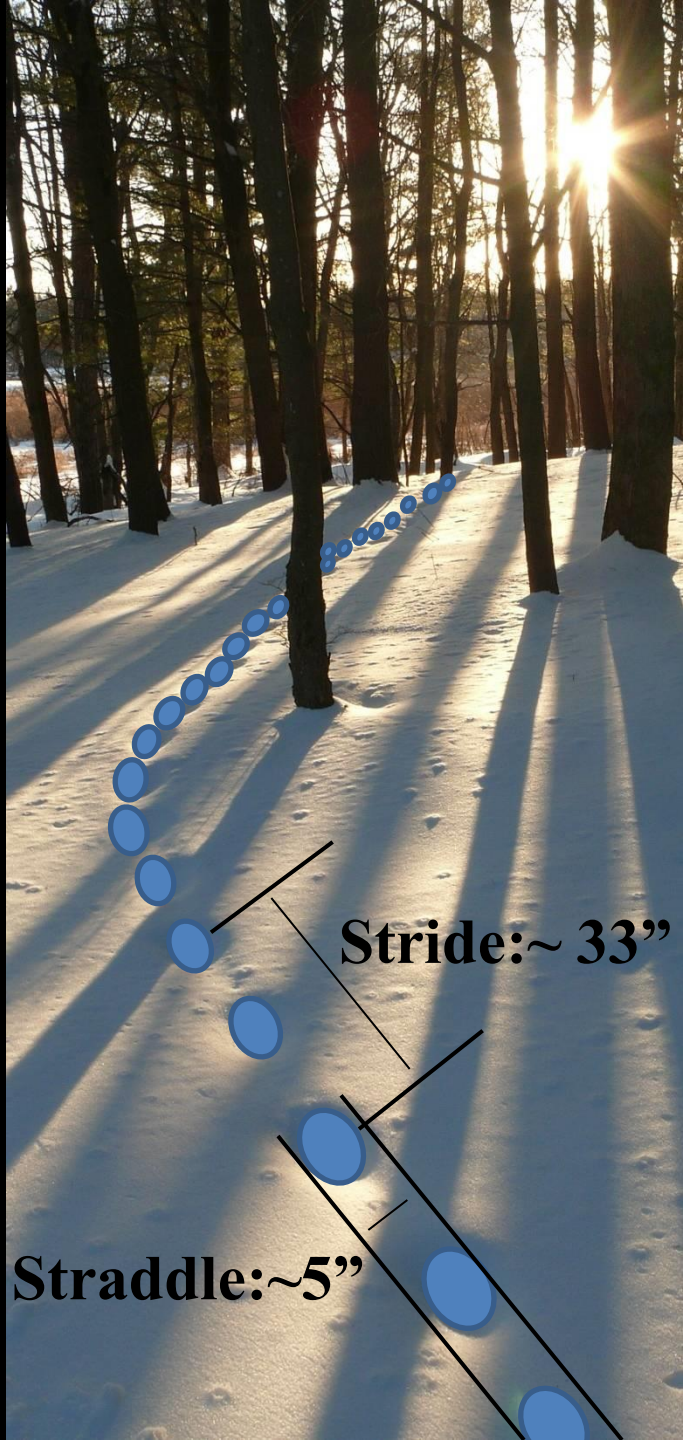
New York State Department of Environmental Conservation
Division of Fish & Wildlife

Wildlife Tracking Skills: Identifying Trails Based on Track Patterns & Dimensions



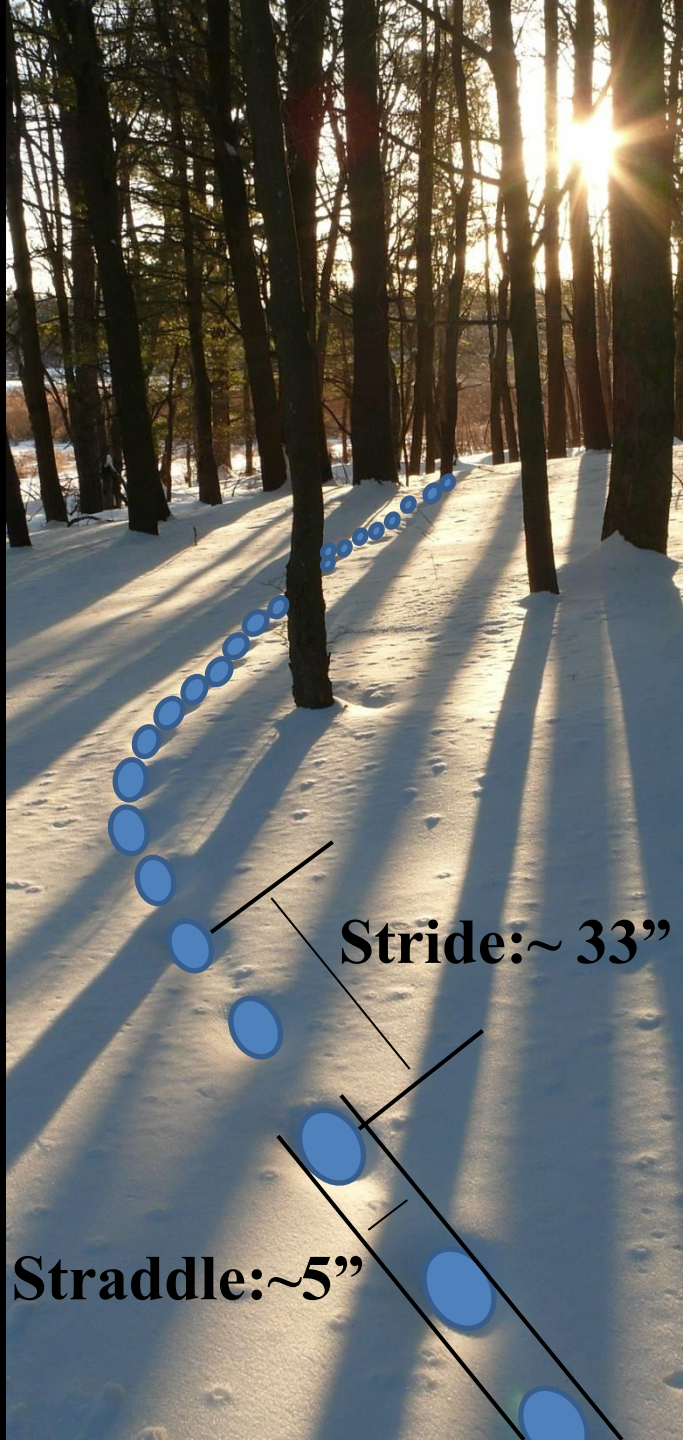
Matt Walter
Bureau of Habitat
matthew.walter@dec.ny.gov

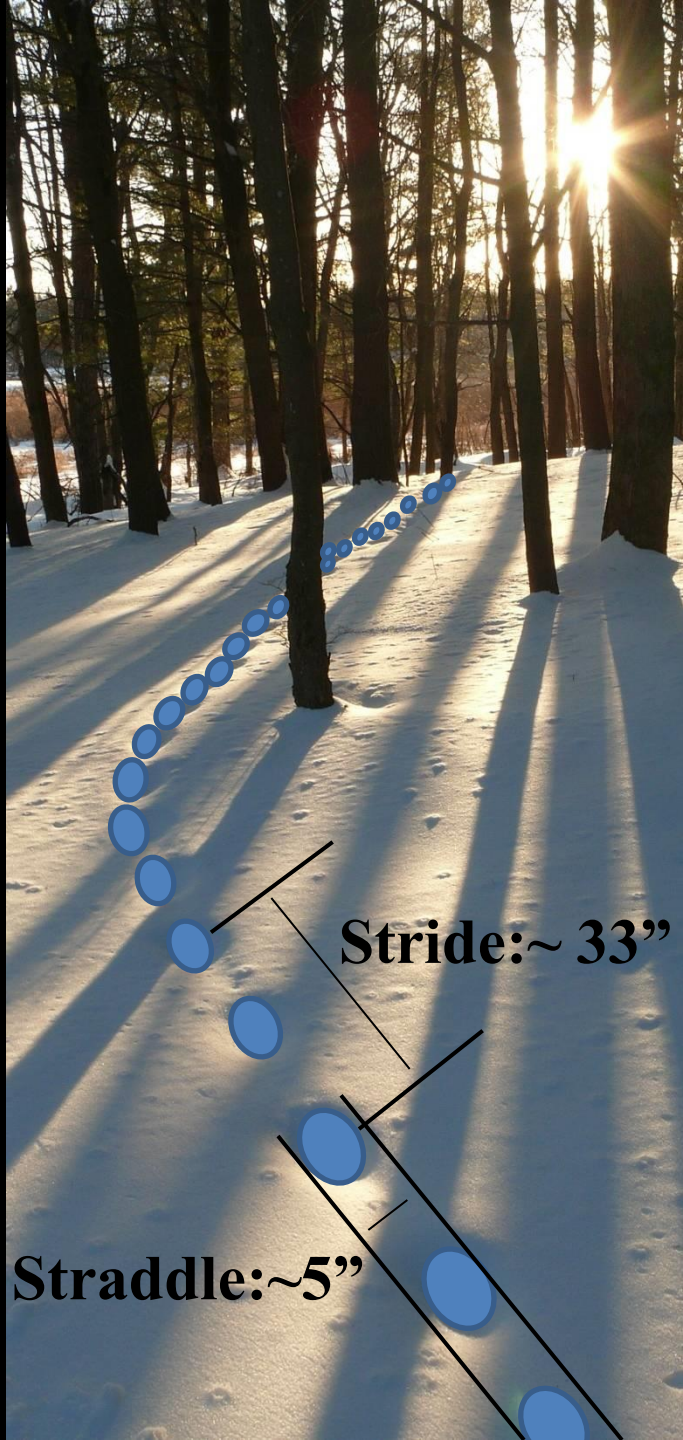




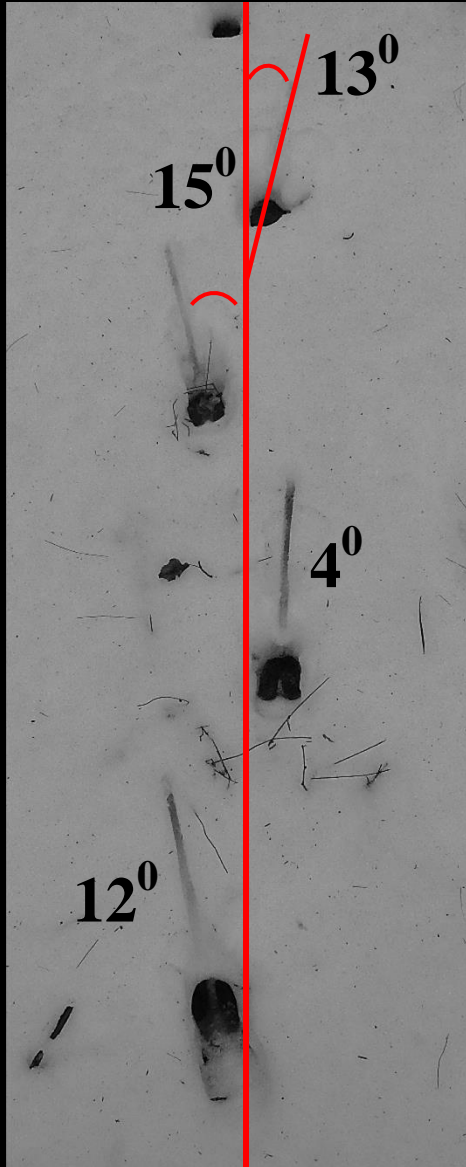
Stride: ~ 33"

Straddle: ~ 5"





In white-tailed deer, prints may be angled 1° - 20° outward from the line of travel.



Odocoileus virginianus

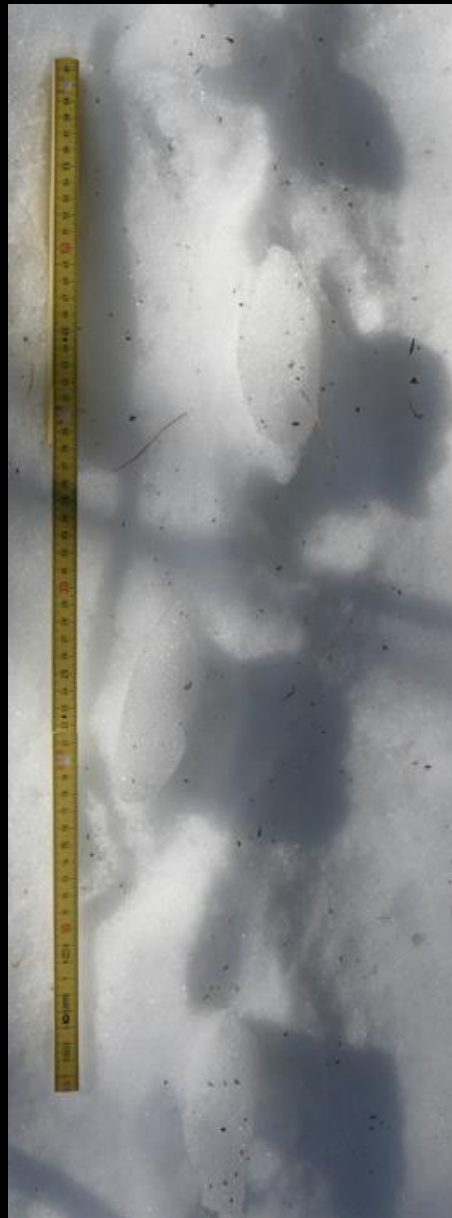


Canis latrans



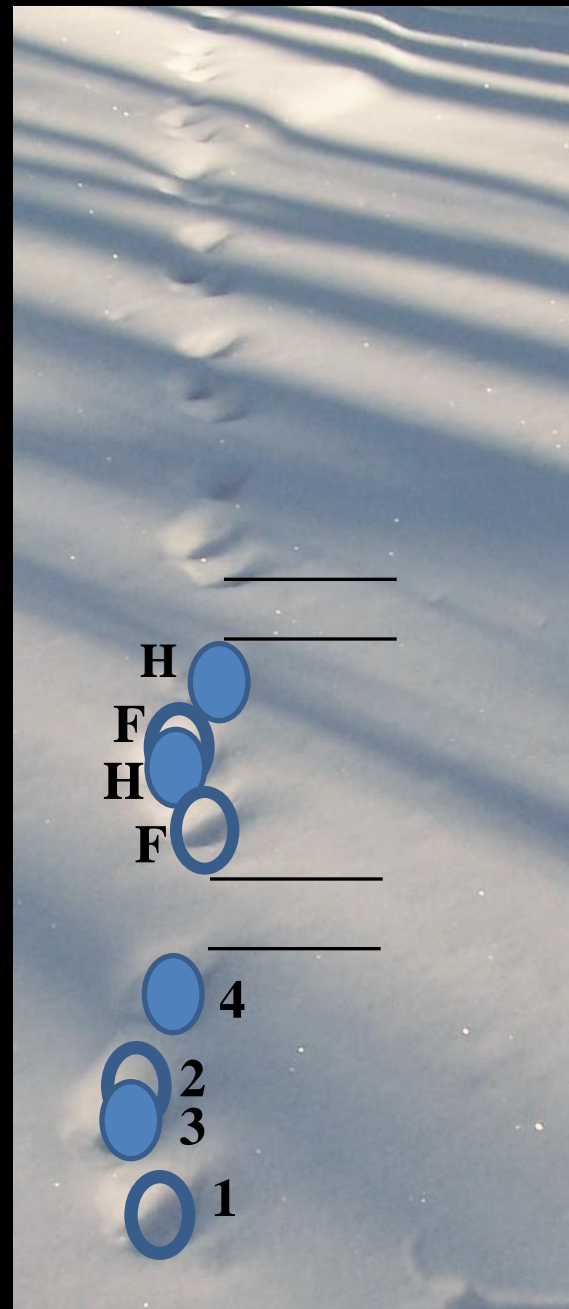
Stride: ~ 17"

Straddle: ~ 6"



Erithizon dorsatum





Tracking Terminology

Track / Print



Trail - A series of tracks or prints reflecting movement.



Tracking Terminology

Trail or Track Pattern - The orientation of prints within a trail reflecting the *gait* of the animal that left them.

Tracking Terminology

Trail or Track Pattern - The orientation of prints within a trail reflecting the ***gait*** of the animal that left them.

Gait - A ***description*** of the way an animal ***moves***, defined by mechanical differences in modes of locomotion.

Tracking Terminology

Trail or Track Pattern - The orientation of prints within a trail reflecting the ***gait*** of the animal that left them.

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Walk



Tracking Terminology

Trail or Track Pattern - The orientation of prints within a trail reflecting the ***gait*** of the animal that left them.

Gait - A ***description*** of the way an animal ***moves***, defined by mechanical differences in modes of locomotion.



Walk



Trot



Tracking Terminology

Trail or Track Pattern - The orientation of prints within a trail reflecting the *gait* of the animal that left them.

Gait - A *description* of the way an animal *moves*, defined by mechanical differences in modes of locomotion.



Walk

Trot

Lope / Gallop



Tracking Terminology

Trail or Track Pattern - The orientation of prints within a trail reflecting the *gait* of the animal that left them.

Gait - A *description* of the way an animal *moves*, defined by mechanical differences in modes of locomotion.



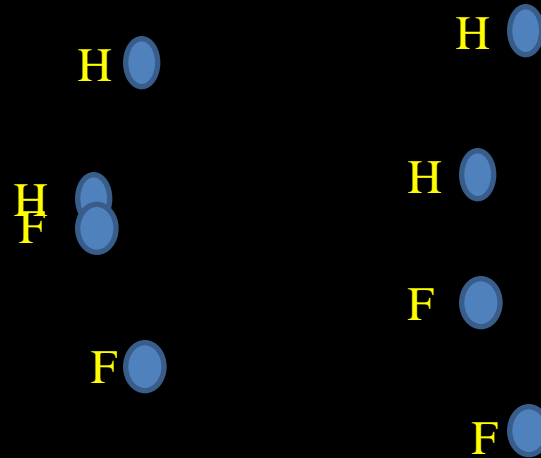
Walk



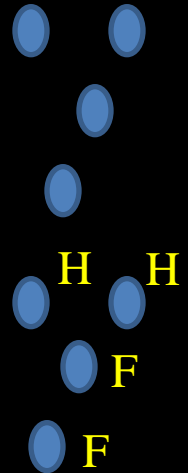
Trot



Lope / Gallop



Bound / Jump



Tracking Terminology

Walk - A slow gait in which each limb moves independently with no loss of contact with the ground at any point while stepping forth.

Tracking Terminology

Walk - A slow gait in which each limb moves independently with no loss of contact with the ground at any point while stepping forth.

Direct Register Walk

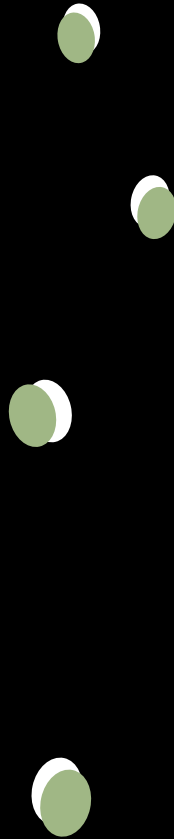
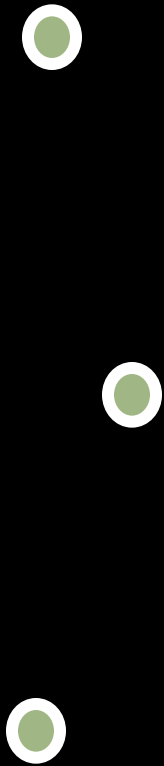


Front = ● Hind = ●

Tracking Terminology

Walk - A slow gait in which each limb moves independently with no loss of contact with the ground at any point while stepping forth.

Direct Register Walk **Indirect Register Walk**



Front = ● Hind = ●

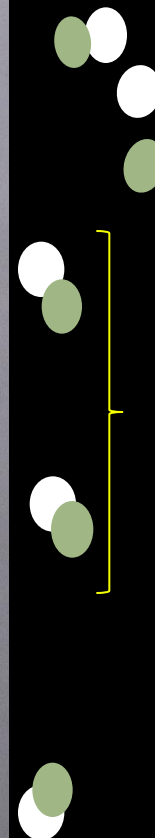
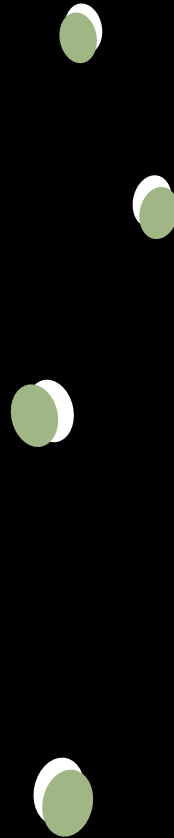
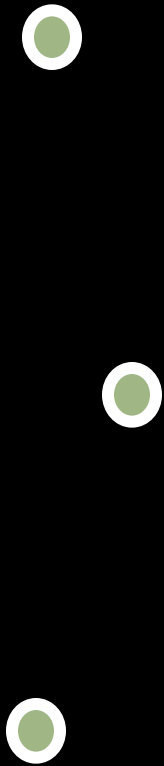
Tracking Terminology

Walk - A slow gait in which each limb moves independently with no loss of contact with the ground at any point while stepping forth.

Direct Register Walk

Indirect Register Walk

Understep Walk



slow walk

Front = ● Hind = ●

Tracking Terminology

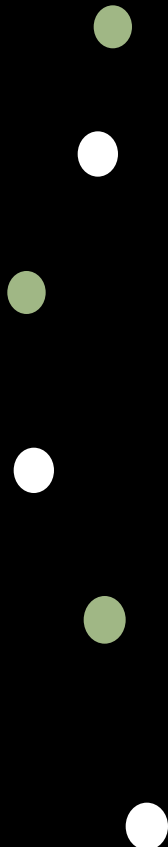
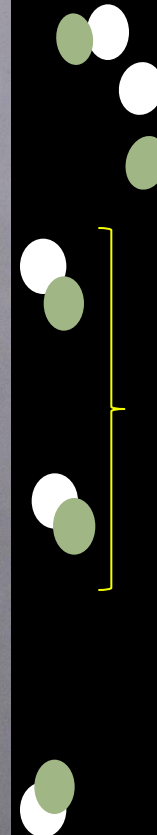
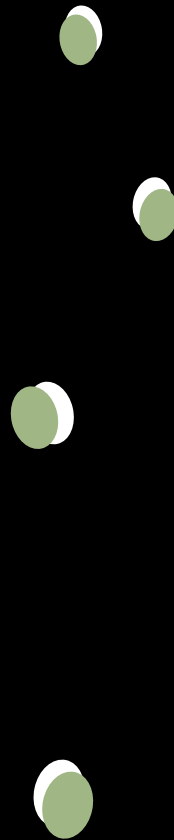
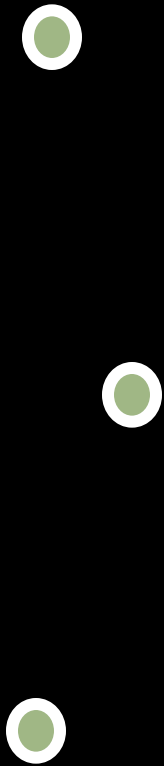
Walk - A slow gait in which each limb moves independently with no loss of contact with the ground at any point while stepping forth.

Direct Register Walk

Indirect Register Walk

Understep Walk

Overstep Walk



Front = ● Hind = ●

slow walk

fast walk

Tracking Terminology

Trot - Paired movements of diagonal limbs. Faster than a walk, trotting creates a *longer stride* and a *narrower trail* width than walking.

Tracking Terminology

Trot - Paired movements of diagonal limbs. Faster than a walk, trotting creates a *longer stride* and a *narrower trail* width than walking.

Direct Register Trot

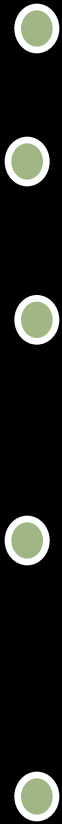


Front = ● Hind = ●

Tracking Terminology

Trot - Paired movements of diagonal limbs. Faster than a walk, trotting creates a *longer stride* and a *narrower trail* width than walking.

Direct Register Trot Indirect Register Trot

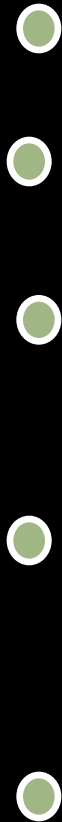


Front = ● Hind = ●

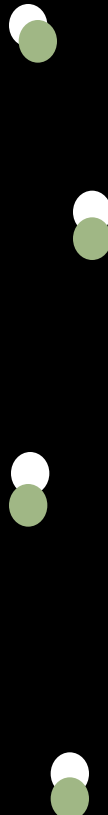
Tracking Terminology

Trot - Paired movements of diagonal limbs. Faster than a walk, trotting creates a *longer stride* and a *narrower trail* width than walking.

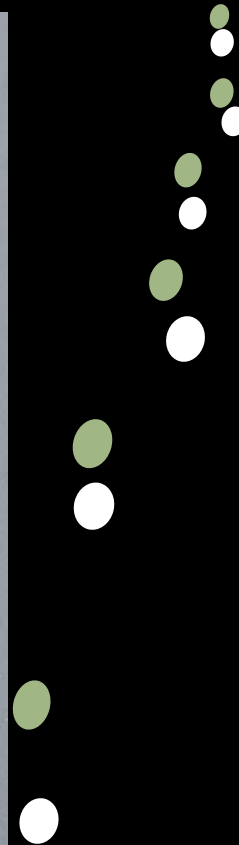
Direct Register Trot



Indirect Register Trot



Side Trot



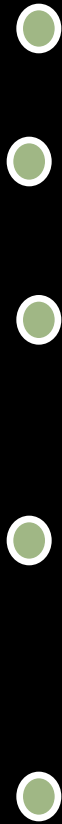
Looking to the right

Front = ● Hind = ●

Tracking Terminology

Trot - Paired movements of diagonal limbs. Faster than a walk, trotting creates a *longer stride* and a *narrower trail* width than walking.

Direct Register Trot



Indirect Register Trot



Side Trot



↑
Toward
us

↑
Away
from us

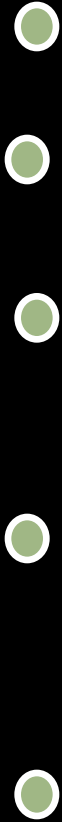
Looking to the right

Front = ● Hind = ●

Tracking Terminology

Trot - Paired movements of diagonal limbs. Faster than a walk, trotting creates a *longer stride* and a *narrower trail* width than walking.

Direct Register Trot



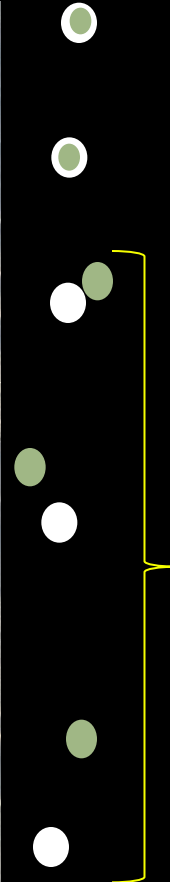
Indirect Register Trot



Side Trot



Straddle Trot



Looking to the right

Front = ● Hind = ●

Tracking Terminology

Lope – Two periods when all four feet are airborne.

Tracking Terminology

Lope – Two periods when all four feet are airborne.

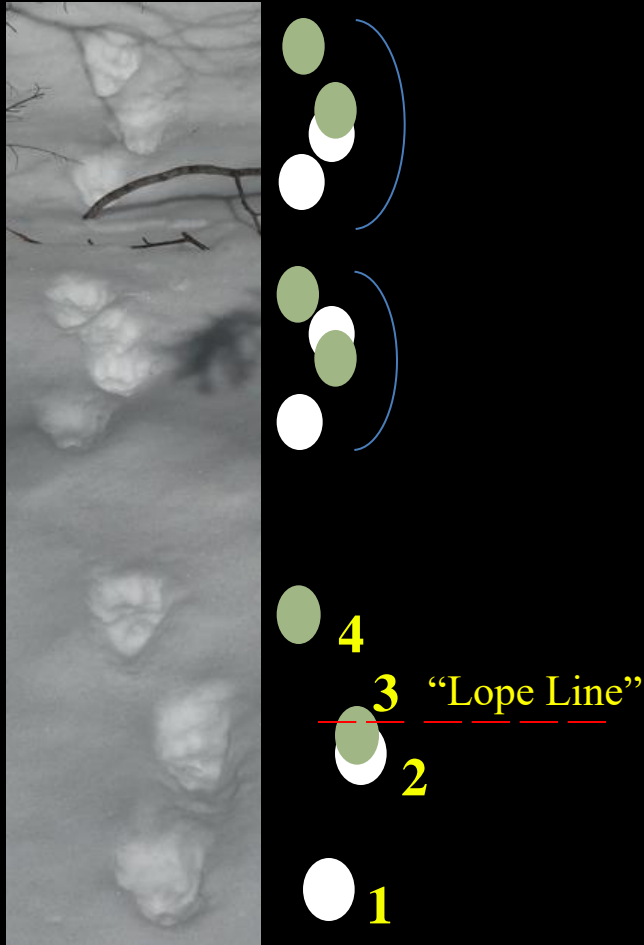
Gallop – Elongated gait, also having two airborne periods per cycle.

Tracking Terminology

Lope – Two periods when all four feet are airborne.

Gallop – Elongated gait, also having two airborne periods per cycle.

Rotary Lope



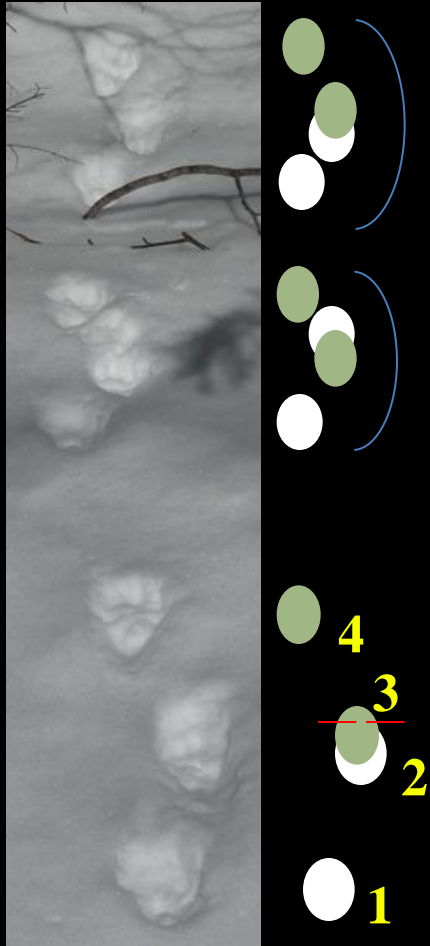
Front = ● Hind = ●

Tracking Terminology

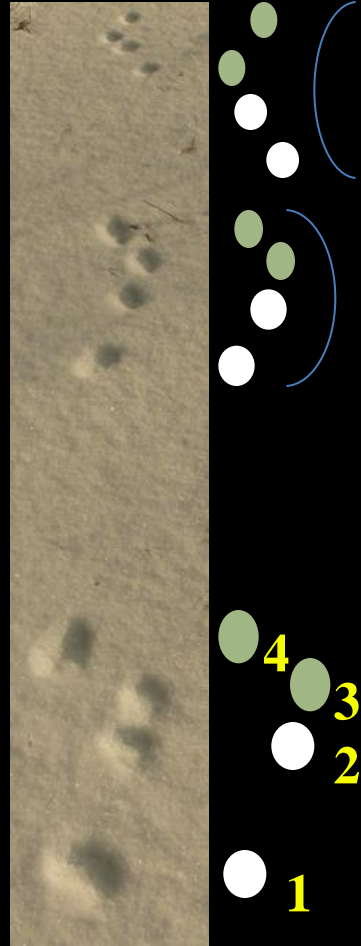
Lope – Two periods when all four feet are airborne.

Gallop – Elongated gait, also having two airborne periods per cycle.

Rotary Lope



Rotary Gallop



Front = ● Hind = ●

Tracking Terminology

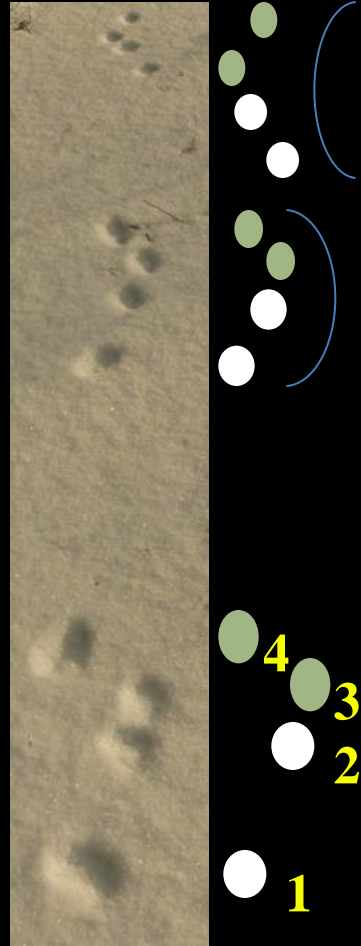
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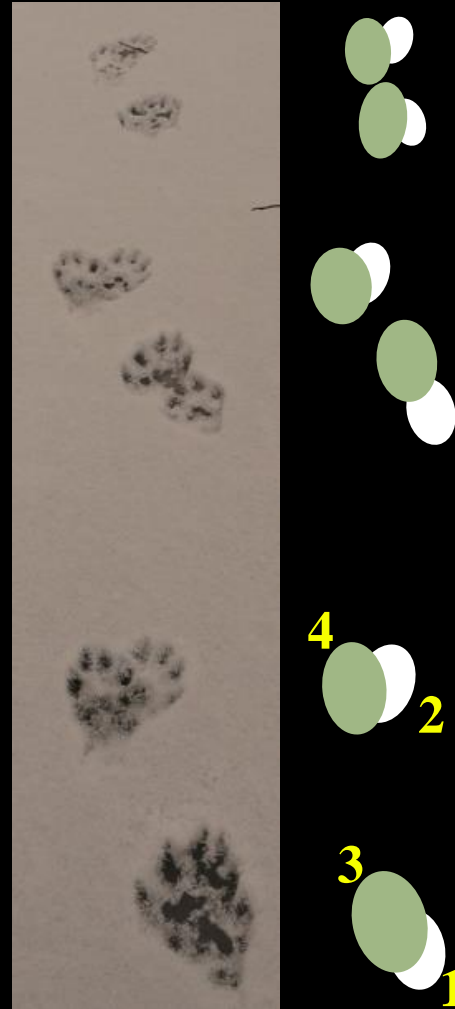
Rotary Lope



Rotary Gallop



Transverse Lope (a)



Front = ● Hind = ●

Tracking Terminology

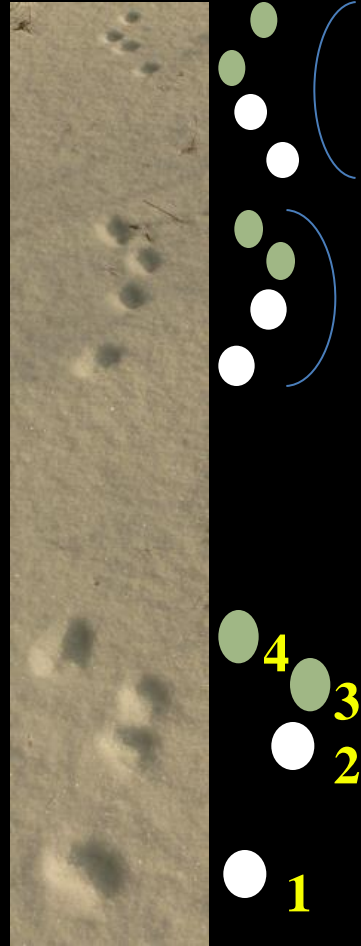
Lope – Two periods when all four feet are airborne.

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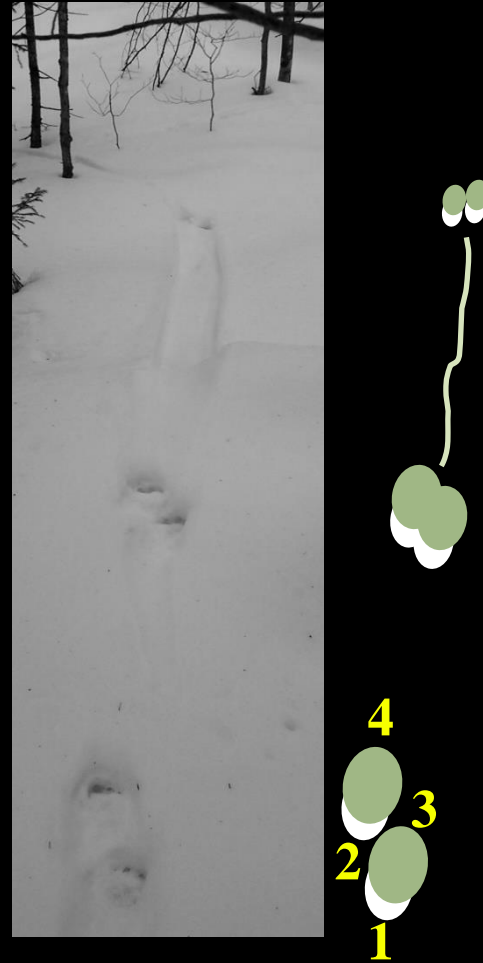
Rotary Lope



Rotary Gallop



Transverse Lope (b)



Front = ● Hind = ●

Tracking Terminology

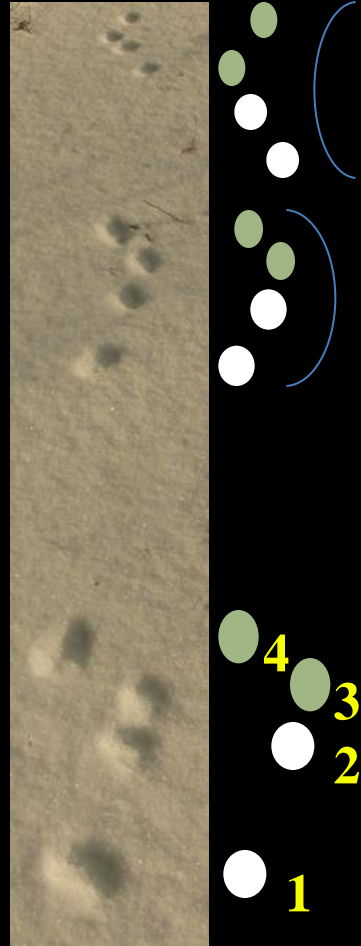
Lope – Two periods when all four feet are airborne.

Gallop – Elongated gait, also having two airborne periods per cycle.

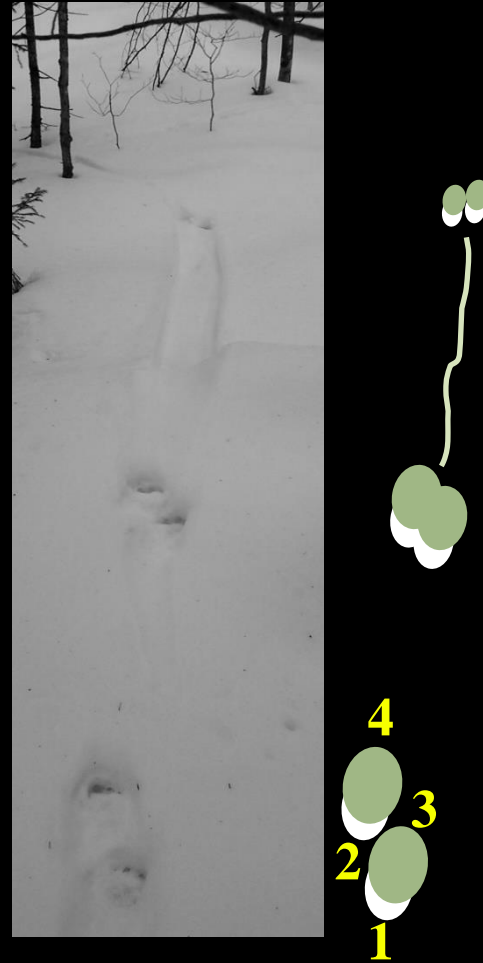
Rotary Lope



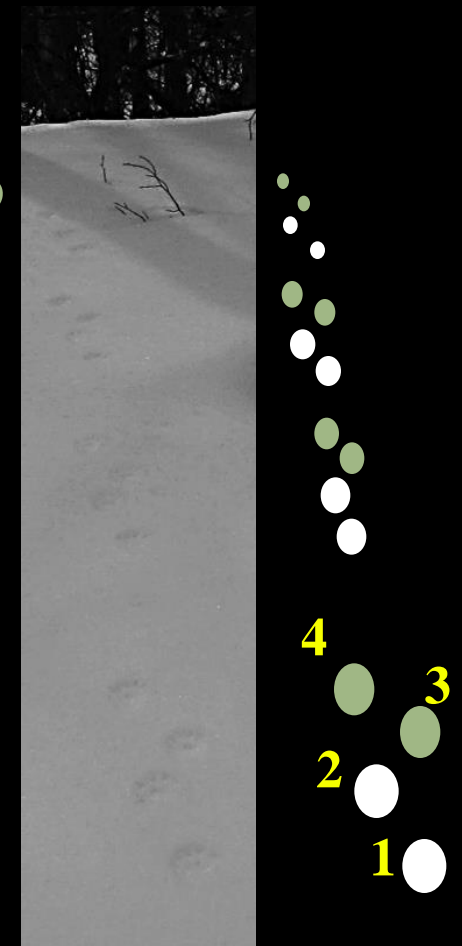
Rotary Gallop



Transverse Lope (b)



Transverse Gallop



Front = ● Hind = ●

Tracking Terminology

Bound - Similar to gallop, but hind feet land & push off side by side.

Tracking Terminology

- Bound*** - Similar to gallop, but hind feet land & push off side by side.
- Faster than a **hop** w/ greater distance bet. front and hind feet

Tracking Terminology

- Bound** - Similar to gallop, but hind feet land & push off side by side.
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Bound

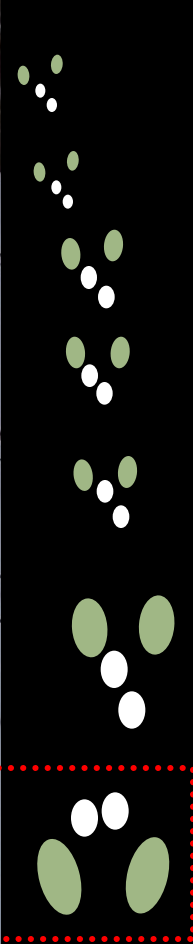


Front = ● Hind = ●

Tracking Terminology

- Bound** - Similar to gallop, but hind feet land & push off side by side.
- Faster than a **hop** w/ greater distance bet. front and hind feet.

Bound



Hop – Hop – Hop!

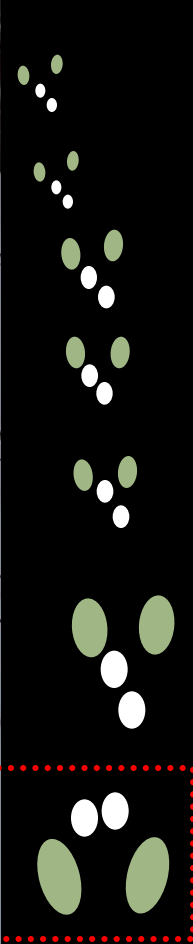


Front = ● Hind = ●

Tracking Terminology

- Bound** - Similar to gallop, but hind feet land & push off side by side.
- Faster than a **hop** w/ greater distance bet. front and hind feet.

Bound



Hop – Hop – Hop!

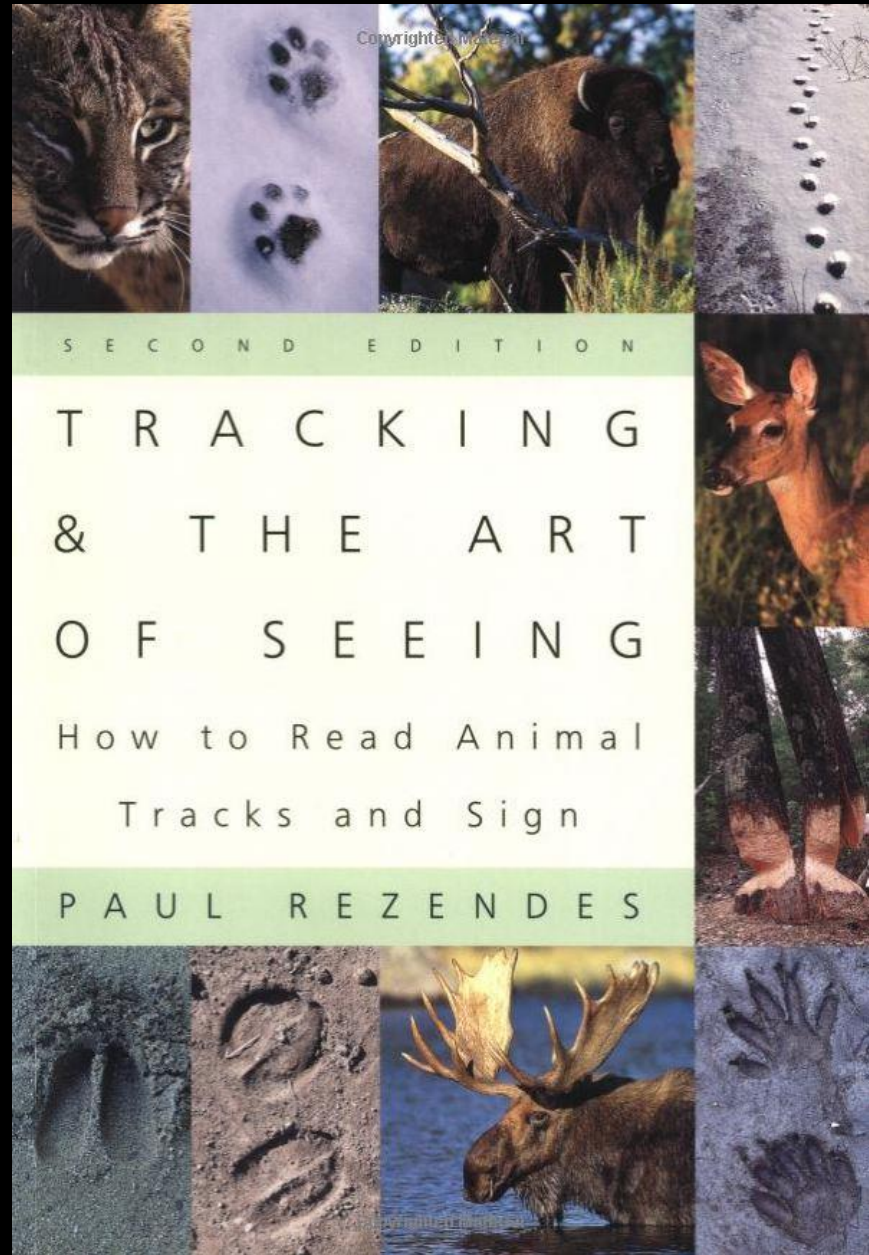


Front = ● Hind = ●

Ok, So what now?...

Recommended Resources

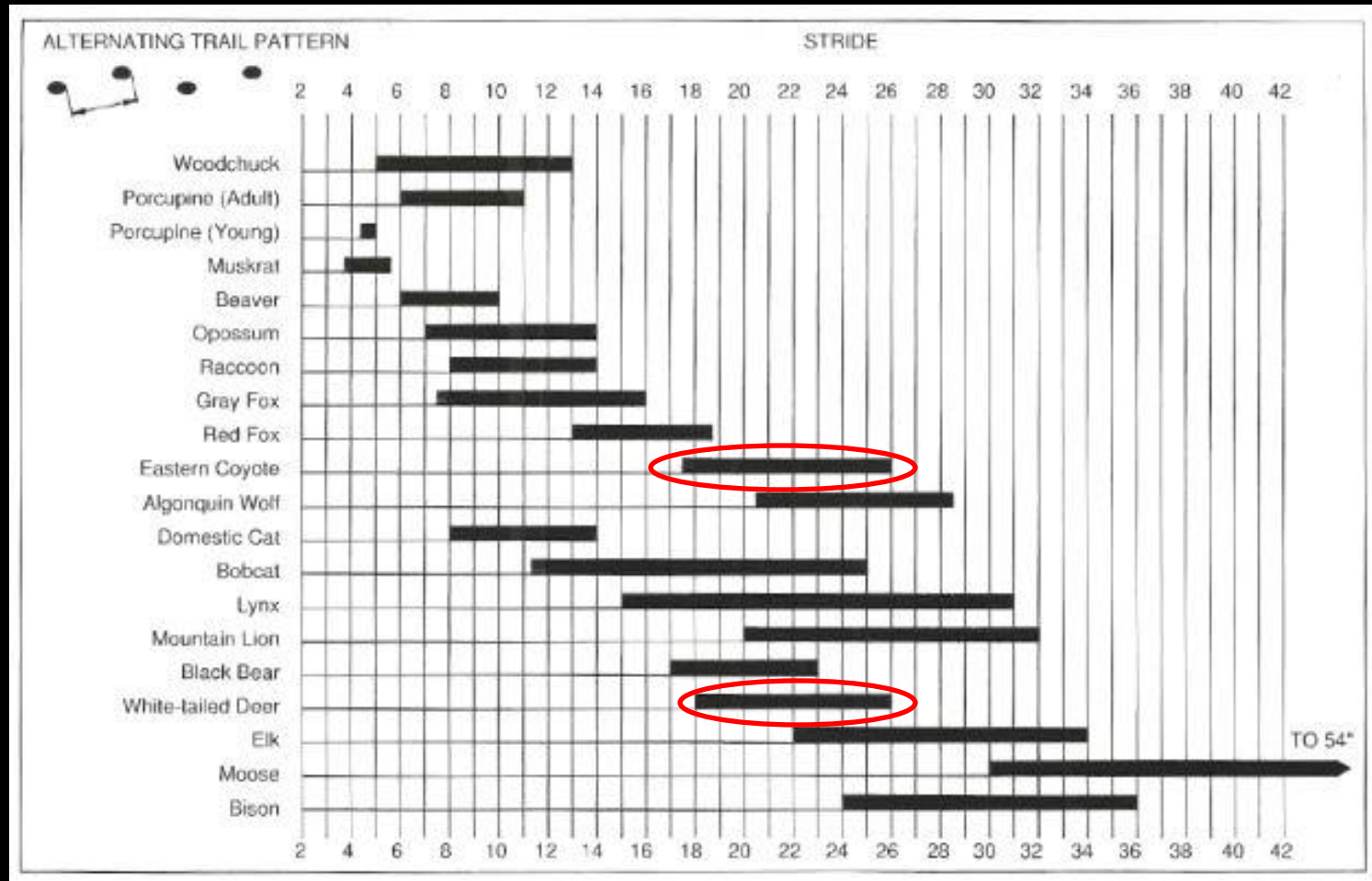
- Excellent photos and diagrams.
- Clear, concise descriptions of gaits and track patterns.
- Great natural history information.
- **Get the 2nd edition which includes *track and trail dimension quick reference charts*.**



Recommended Resources

Tracking & the Art of Seeing: How to Read Animal Tracks and Sign, by Paul Rezendes

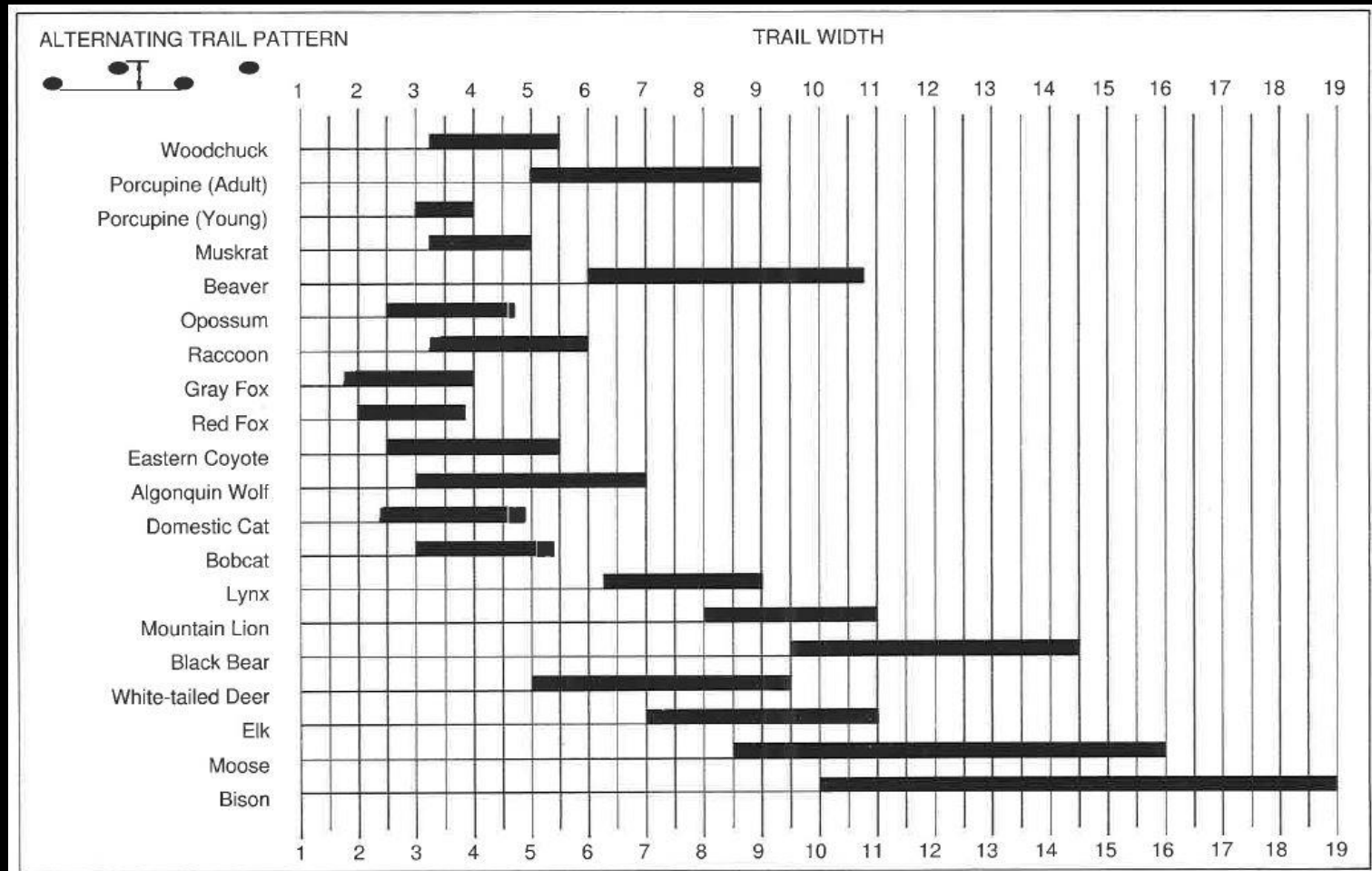
Stride



Recommended Resources

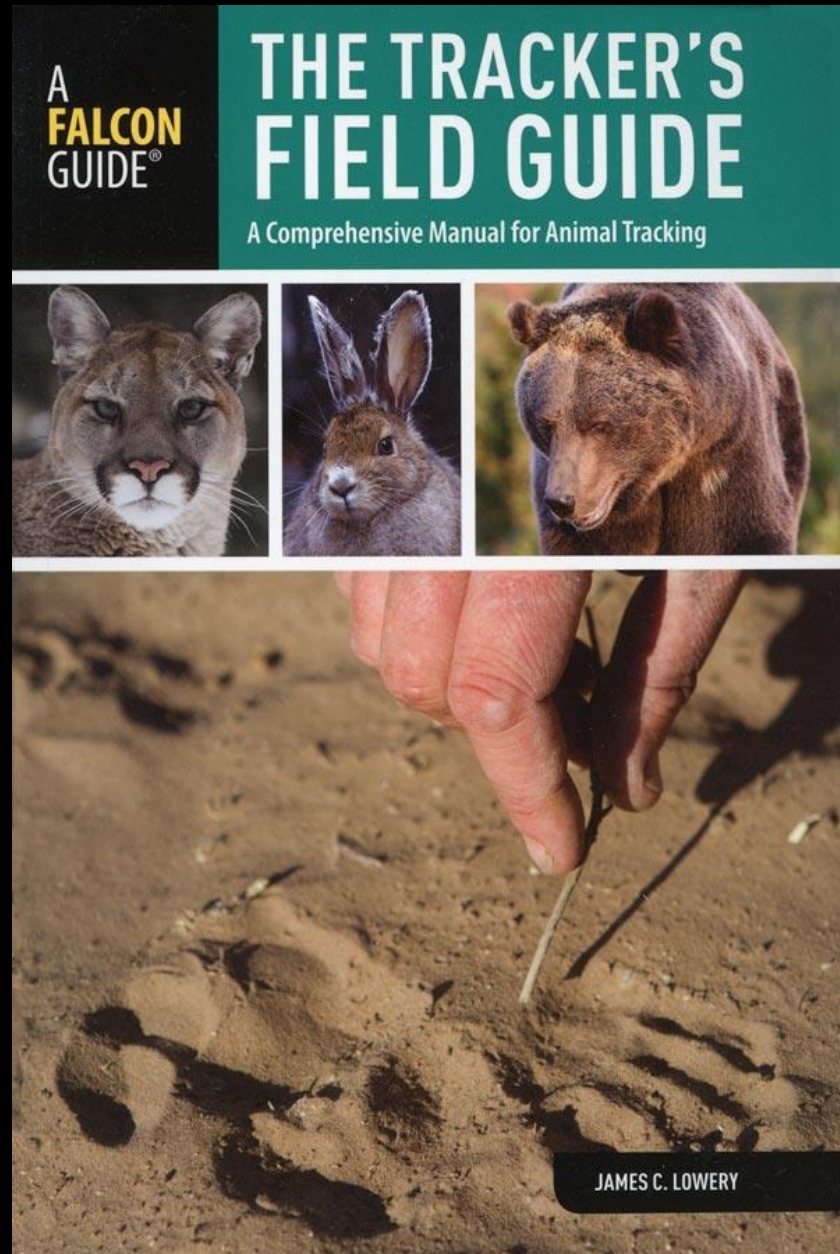
Tracking & the Art of Seeing: How to Read Animal Tracks and Sign, by Paul Rezendes

Straddle



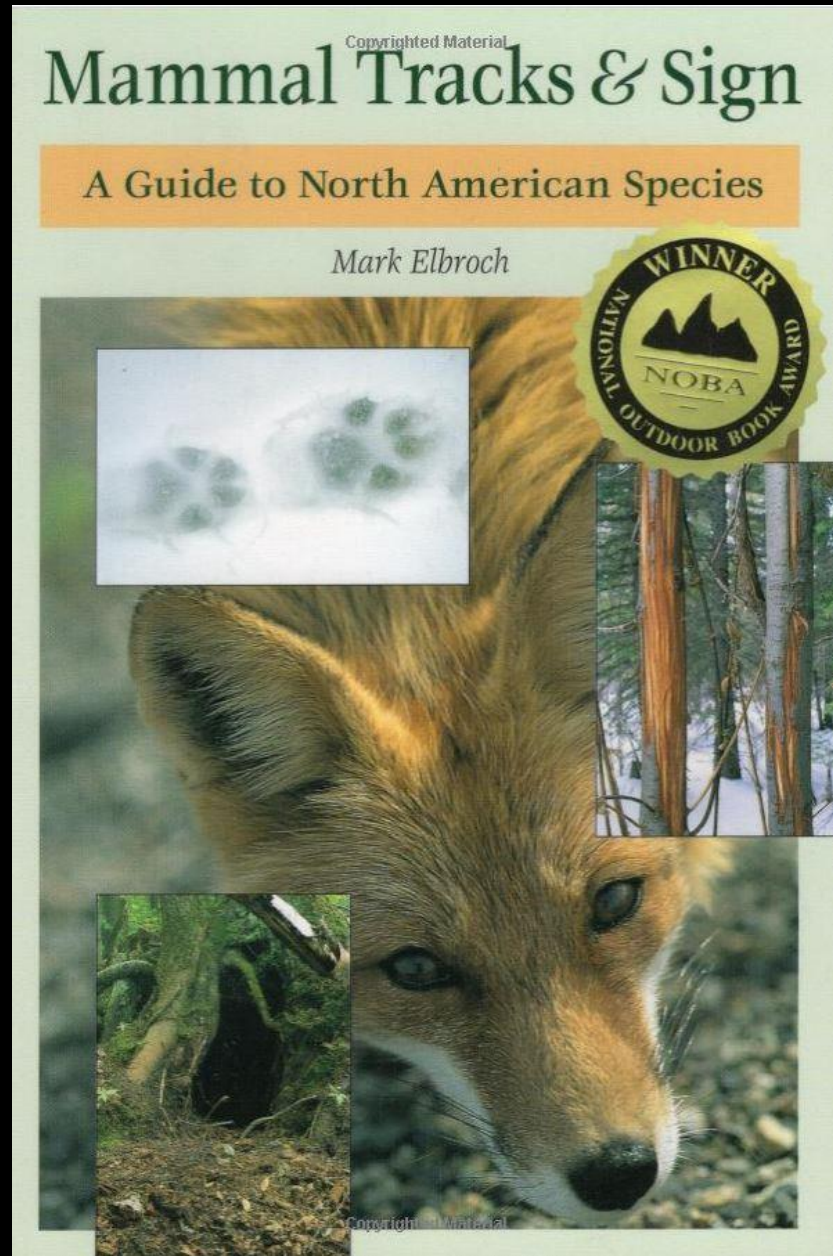
Recommended Resources

- Outstanding for tips on how to improve your trail interpretation skills.
- Very clear, easily understood descriptions of various gaits and associated track patterns.
- Excellent photos, print illustrations.
- Nice track summary charts.
- See Jim's webpage for additional free tracking articles at: www.earthskills.com



Recommended Resources

- Comprehensive!
- *Fantastic section on gaits* with multiple diagrams and clear descriptions changes in modes of locomotion and the resulting trail patterns.
- More excellent track and trail photos and descriptions to learn from.
- Nice den and other sign descriptions and photos.



Recommended Resources

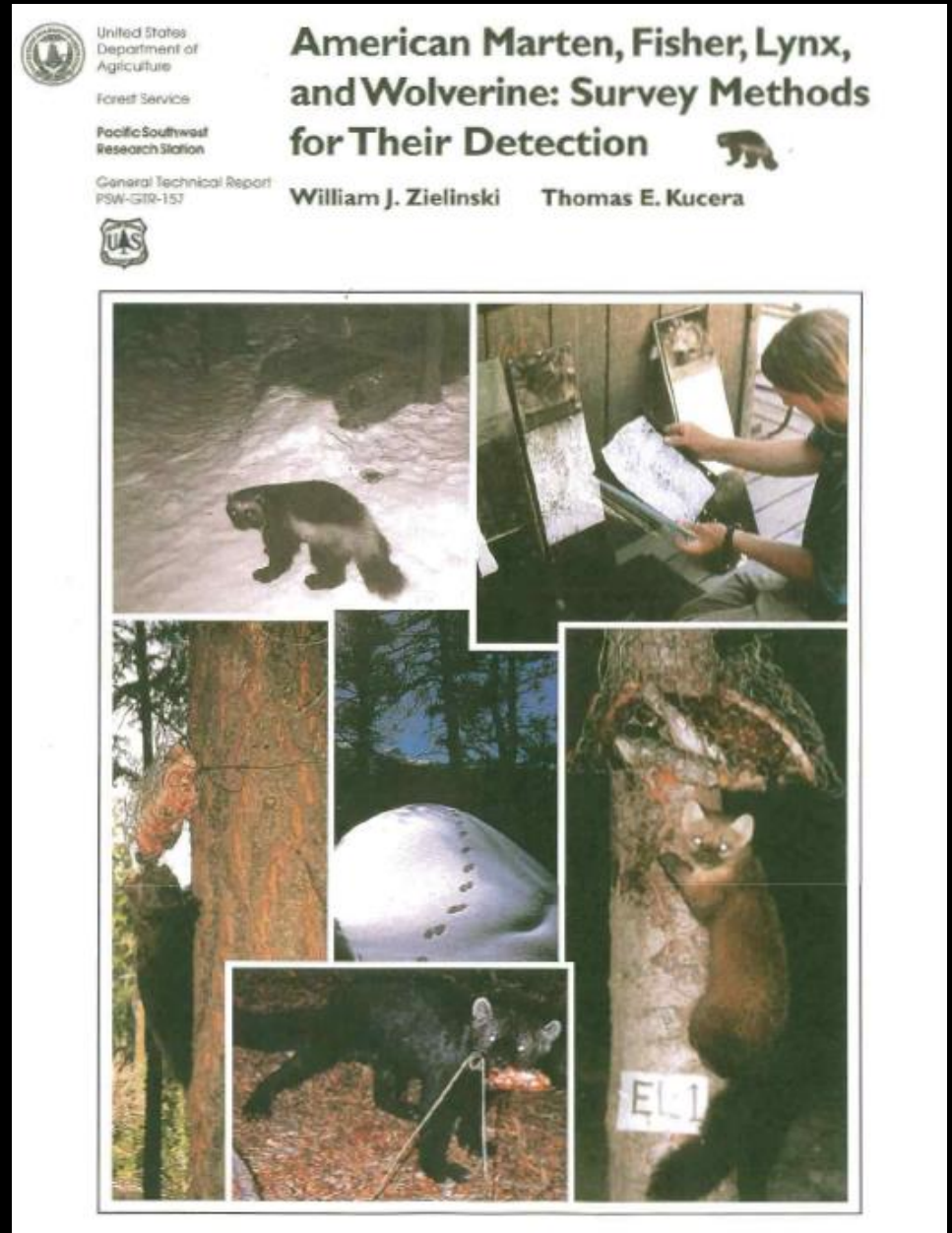
Free!

General Technical Report
PSW-GTR-157

Pacific Southwest Research Station

*****See Chapter 5: Snow Tracking**

- Gaits & Technical Terminology
- Good, basic diagrams & photos illustrating changes in speed and foot placement.
- Collaboratively written by many popular tracking experts.
- Additional photos of carnivore spp.
- Info on photo-documentation.
- Snow tracking protocol info.



Thank You!



*Red fox, *Vulpes vulpes*, direct register walk.*

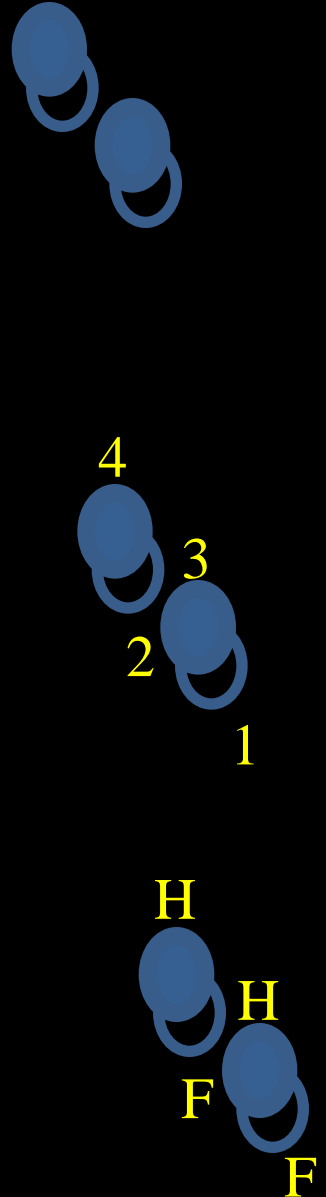
*Kiwasa Lake,
Saranac Lake, NY
March, 2008*



Mustela vison



2x2 Lope





Lepus americanus