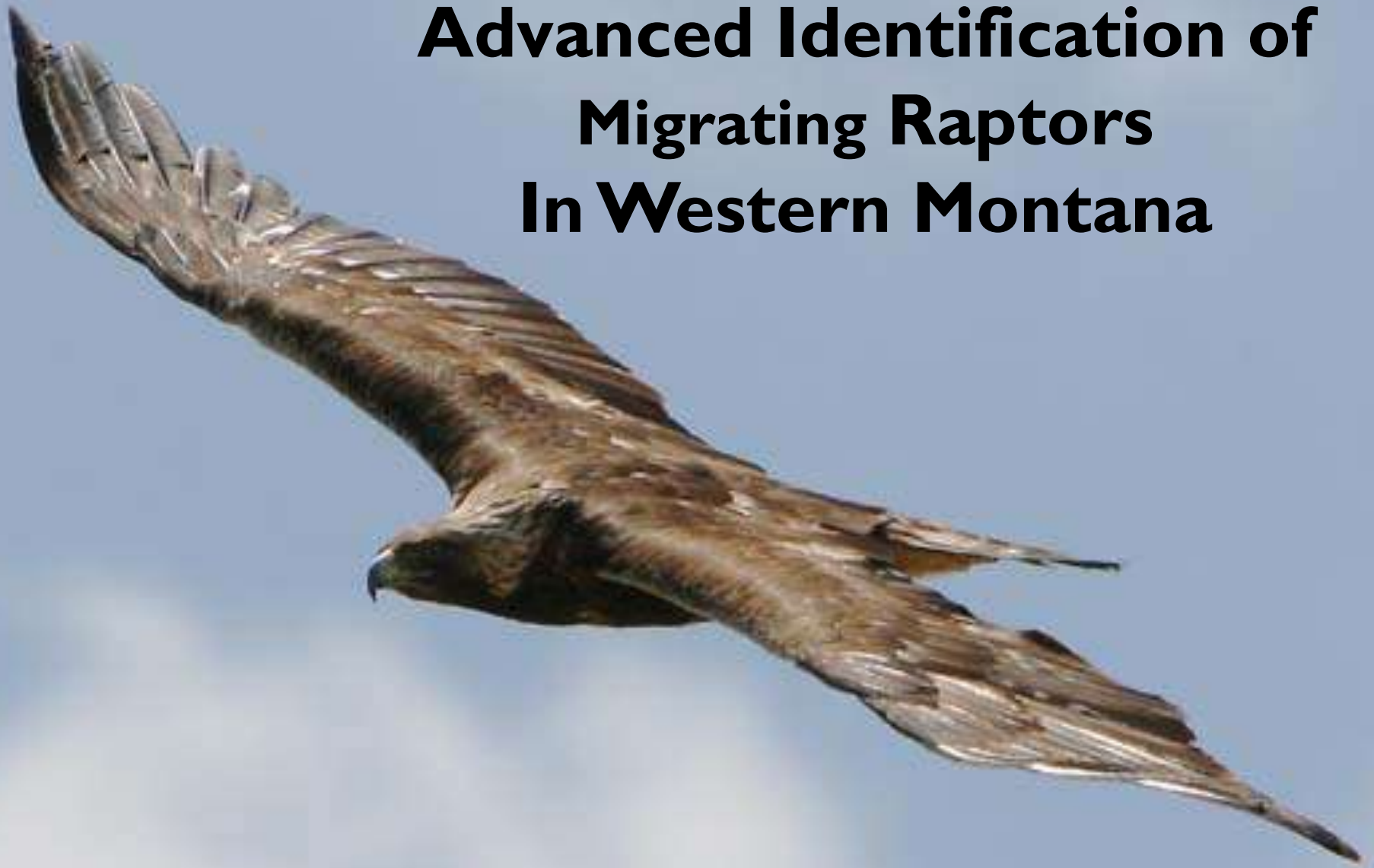


Advanced Identification of Migrating Raptors In Western Montana



Amy Seaman, Director of Policy & Science;
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**All raptors have powerful
eyesight & a hooked beak!**



**Raptors:
strong feet &
razor sharp
talons!**





Hawk Mountain, PA

(full-season raptor migration counts since 1934)





REMAINS OF THE DAY

From shooting stands on top of this ridge, migrating hawks were blasted from the sky. Each autumn, 5,000 to 5,000 hawks fell.

Black Mountain, 1934



The Widespread Common Raptors. In many areas, raptors of all sorts can be seen. Several species are common or widespread throughout North America, so your understanding of which species to expect in a certain area or habitat may narrow your choices. Then try to decide what type of raptor (falcon, accipiter, buteo....) you are watching; this helps to narrow your choices



even further. Mastering the identification of these species will create a great platform for wherever you travel. See if you can identify, age, and sex all these common raptors that are frequently encountered. Answers p.174



Mt. Brown

Cut Bank

Jewel Basin

Roger's Pass

Nora Ridge

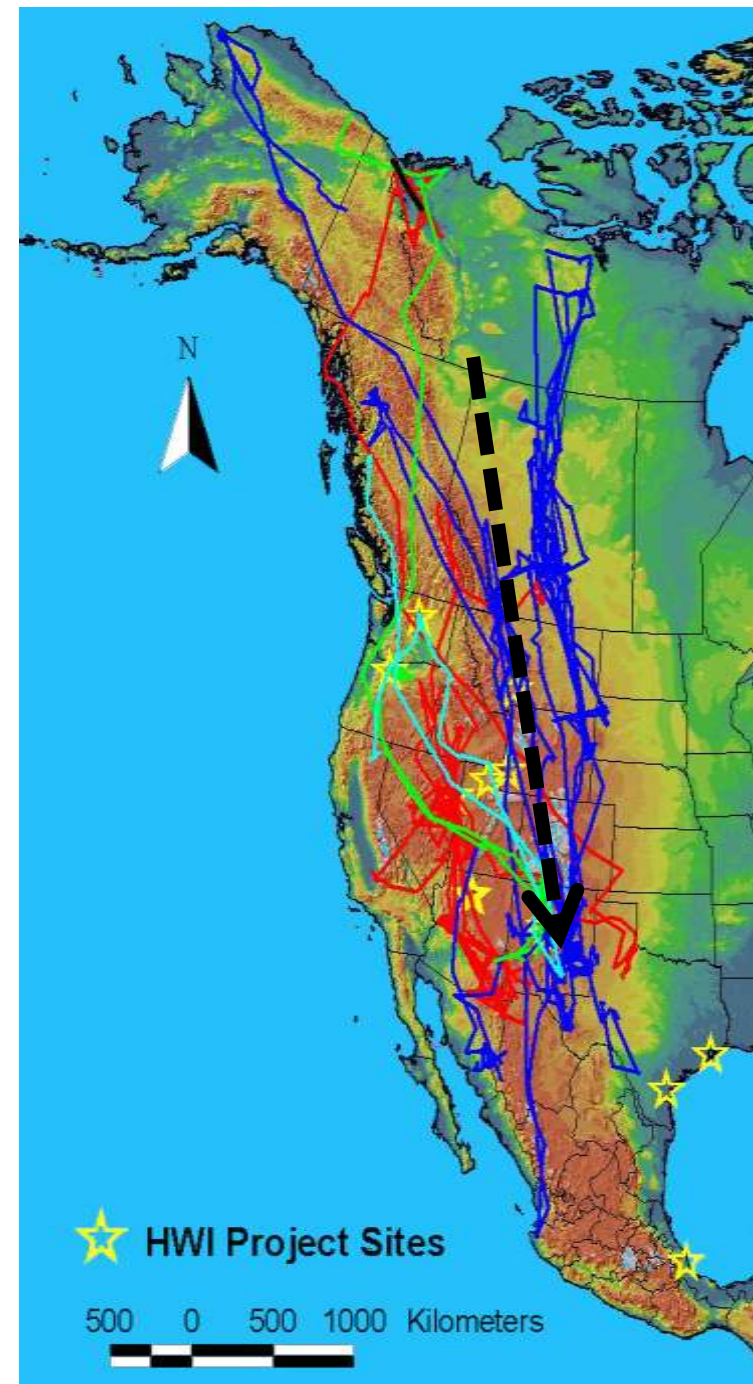
MPG Ranch

Big Belts

Bridgers

Fall Migration

- Annual north-south passage from nesting to wintering grounds
- Rocky Mountains provide a highway for migrants
- Bridger Mountains and Big Belts concentrate large numbers of migrating Golden Eagles
- The Bitterroot River corridor concentrates large numbers of Turkey Vultures



Bridger Mtns, MT

(annual scientific counts began in 1991)



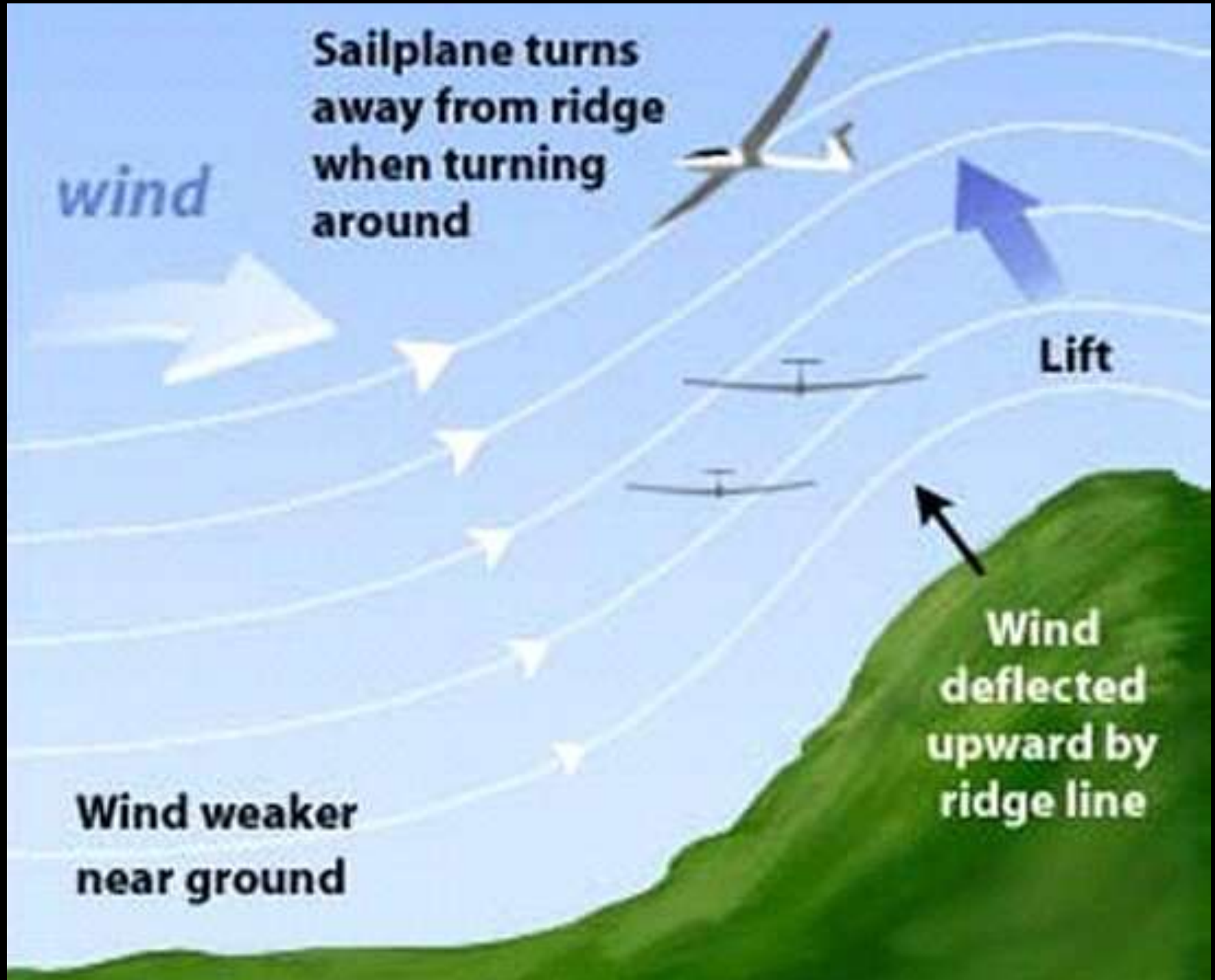
**Sailplane turns
away from ridge
when turning
around**

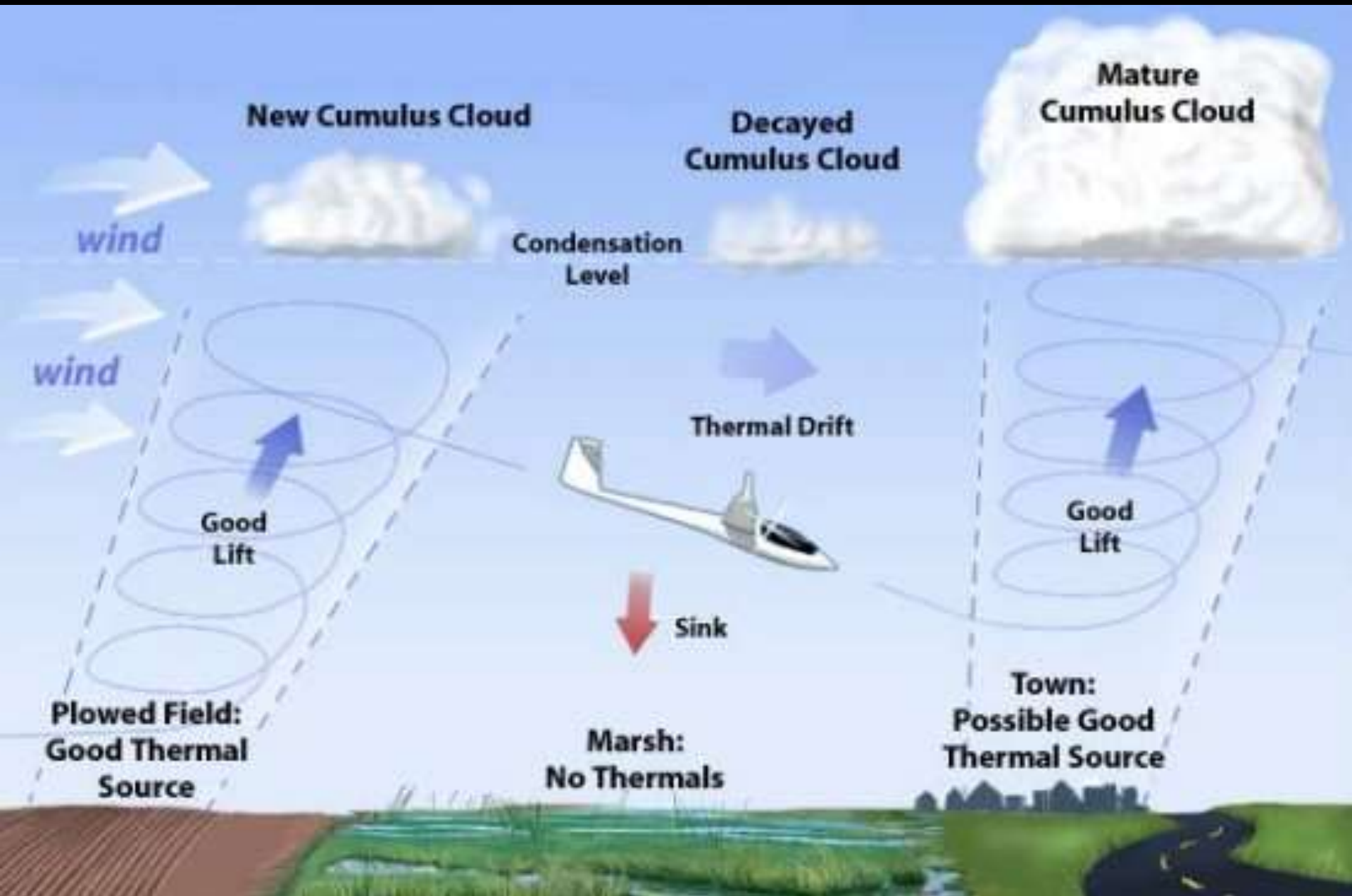
wind

Lift

**Wind
deflected
upward by
ridge line**

**Wind weaker
near ground**



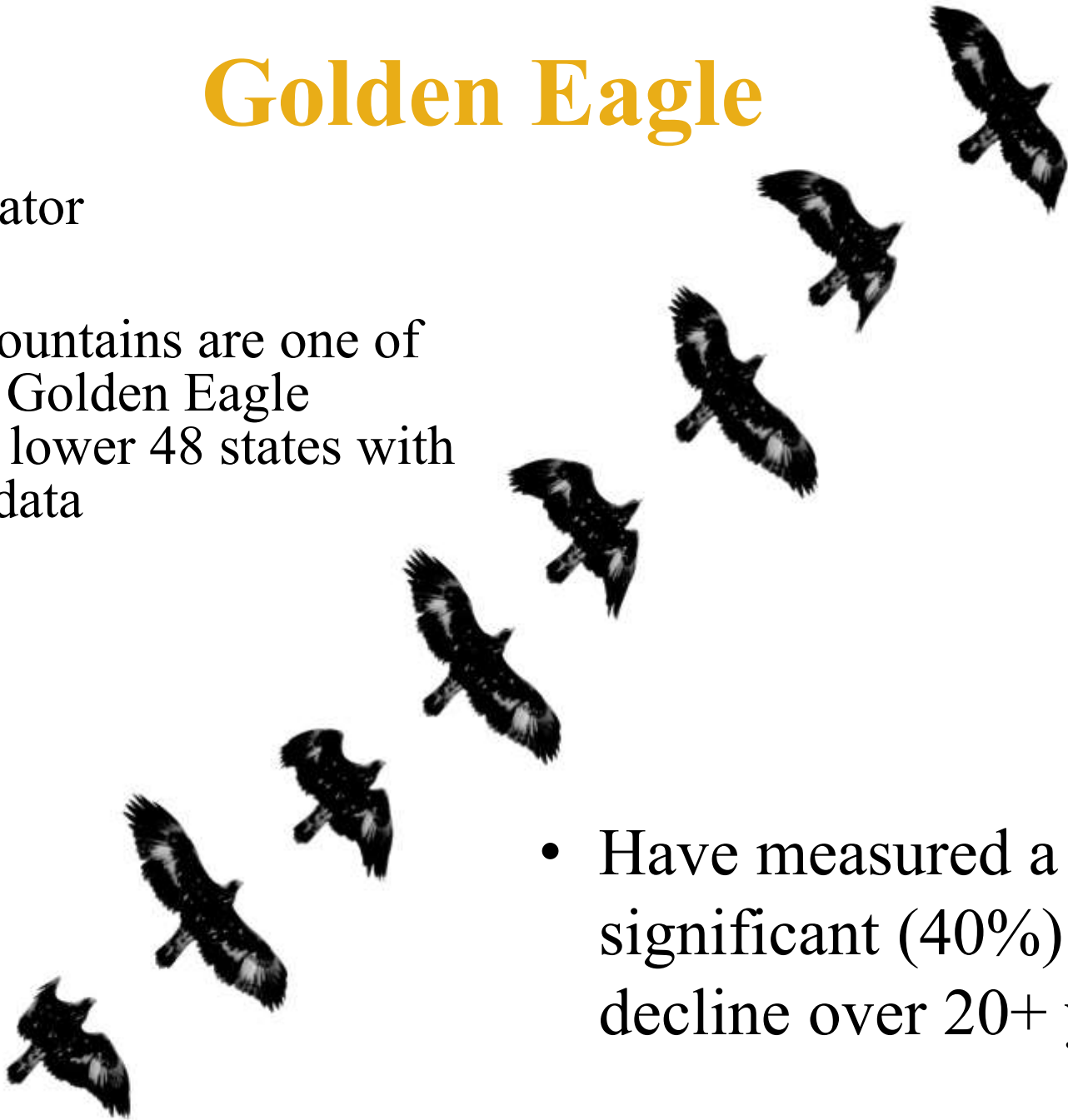


**As widespread, apex predators, raptors are
useful indicators of ecosystem health!**



Golden Eagle

- Apex Predator
- Bridger Mountains are one of the largest Golden Eagle flyways in lower 48 states with long term data
- Have measured a significant (40%) decline over 20+ years

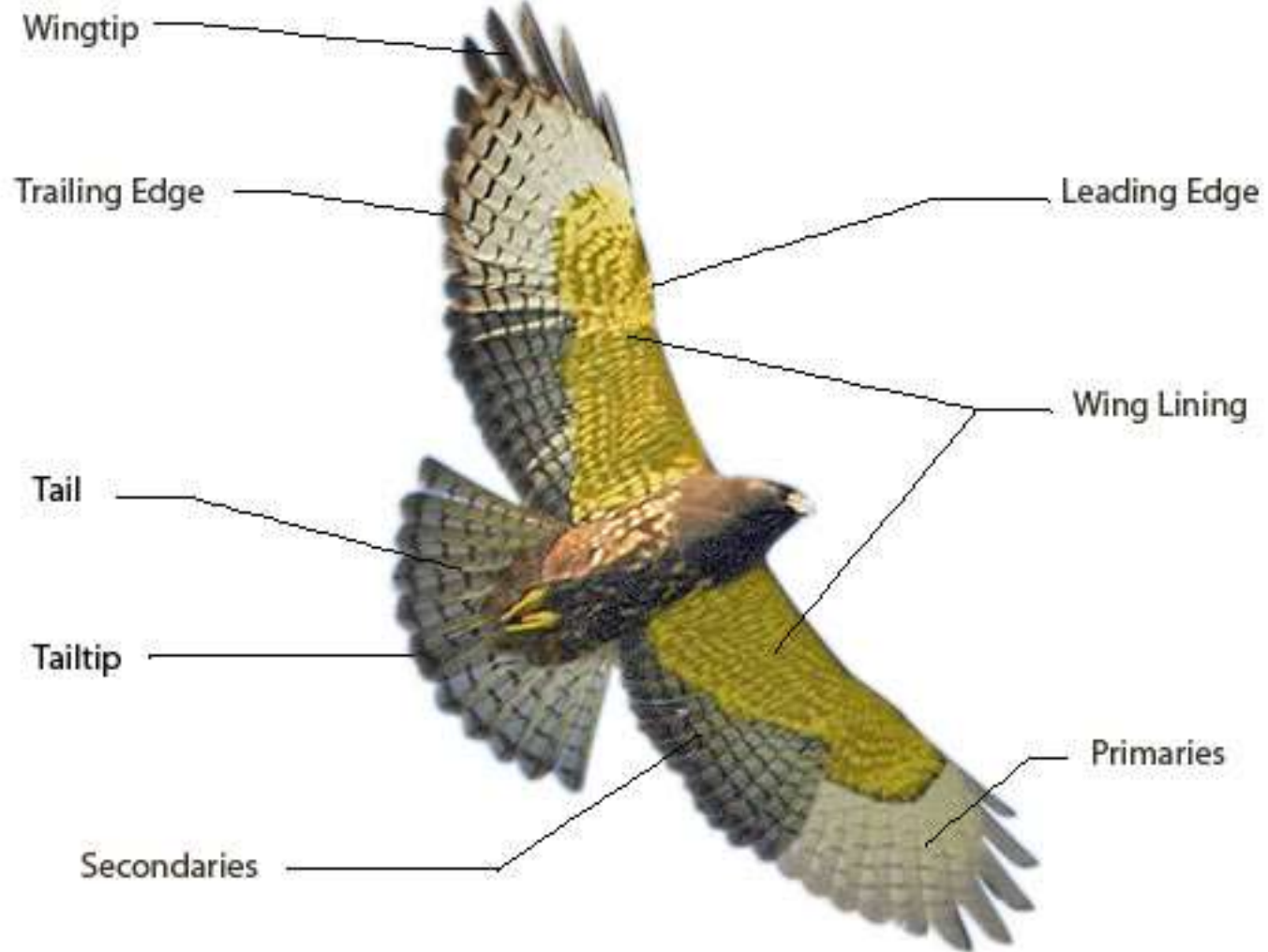




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Head-on Profiles of Selected Species



Red-tailed Hawk soaring



Red-tailed Hawk shallow glide



Red-tailed Hawk steep glide



Accipiter gliding



Falcon gliding



Black Vulture soaring



Turkey Vulture soaring



Northern Harrier gliding



Ferruginous Hawk gliding



Rough-legged Hawk gliding



Swainson's Hawk gliding



Red-tailed Hawk gliding



Red-shouldered Hawk gliding



Broad-winged Hawk gliding



Osprey gliding



Bald Eagle gliding



Golden Eagle gliding

head – on
Soaring
gliding

wing - on



Tail - away





Vulture



Eagle



Osprey



Harrier



Buteo



Accipiter



Falcon

Turkey Vulture (adult)



© Kristi DuBois Photo



Strong dihedral!



**Osprey
(adult)**



Osprey: Flying 'M' in the sky!





Northern Harrier (adult male)



Northern Harrier (adult female)



Northern Harrier (juvenile)



Kate Davis photo°





Vulture



Eagle



Osprey



Harrier



Buteo



Accipiter



Falcon

Red-tailed Hawk



**Rough-legged
Hawk**



Swainson's Hawk



Ferruginous Hawk



Red-tailed Hawk adult



Dark

Light

Dark



Bob Martinka photo



Red-tailed Hawk juvenile



© Bob Steele

**Rough-legged Hawk
adult**





Light

Light

Dark

Rough-legged Hawk juvenile







Rough-legged

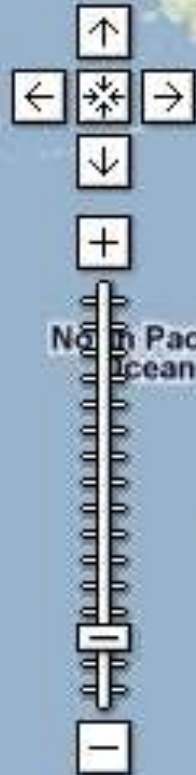


Red-tail





Swainson's Hawk
adult



Map	Satellite	Terrain
-----	-----------	---------



Dark

Dark

Light





**Swainson's Hawk
juvenile**



**Swainson's
Hawk**



Red-tail



Ferruginous Hawk (Adult)



**Rusty shoulder
patches!**



Large head!

Ferruginous Hawk

Light

Light

Light





**Ferruginous Hawk
(Juvenile)**



Ferruginous



Redtail



Broad-winged Hawk **(spring & fall migrant)**



Adult



Juvenile





Broad-winged



Red-tail





Vulture



Eagle



Osprey



Harrier



Buteo



Accipiter



Falcon

Peregrine Falcon (adult)



Kate Davis photo*

Peregrine Falcon (juvenile)







**Prairie Falcon
(adult)**



Black “armpits”!



**Sandy-brown
back**



Prairie Falcon (juvenile)



Peregrine



Prairie



Merlin Adults

(male)



(female)



Merlin (male)



Merlin (female)

Female/juvenile



Rob Palmer photo°

**American Kestrel
(adult male)**



Male





**American Kestrel
(female/juvenile)
(adult female)**



**Gyr Falcon:
Rare winter
visitor!**





Rob Palmer photo



Vulture



Eagle



Osprey



Harrier



Buteo



Accipiter



Falcon

**Northern Goshawk
(adult)**







juvenile

**Northern Goshawk
(juvenile)**



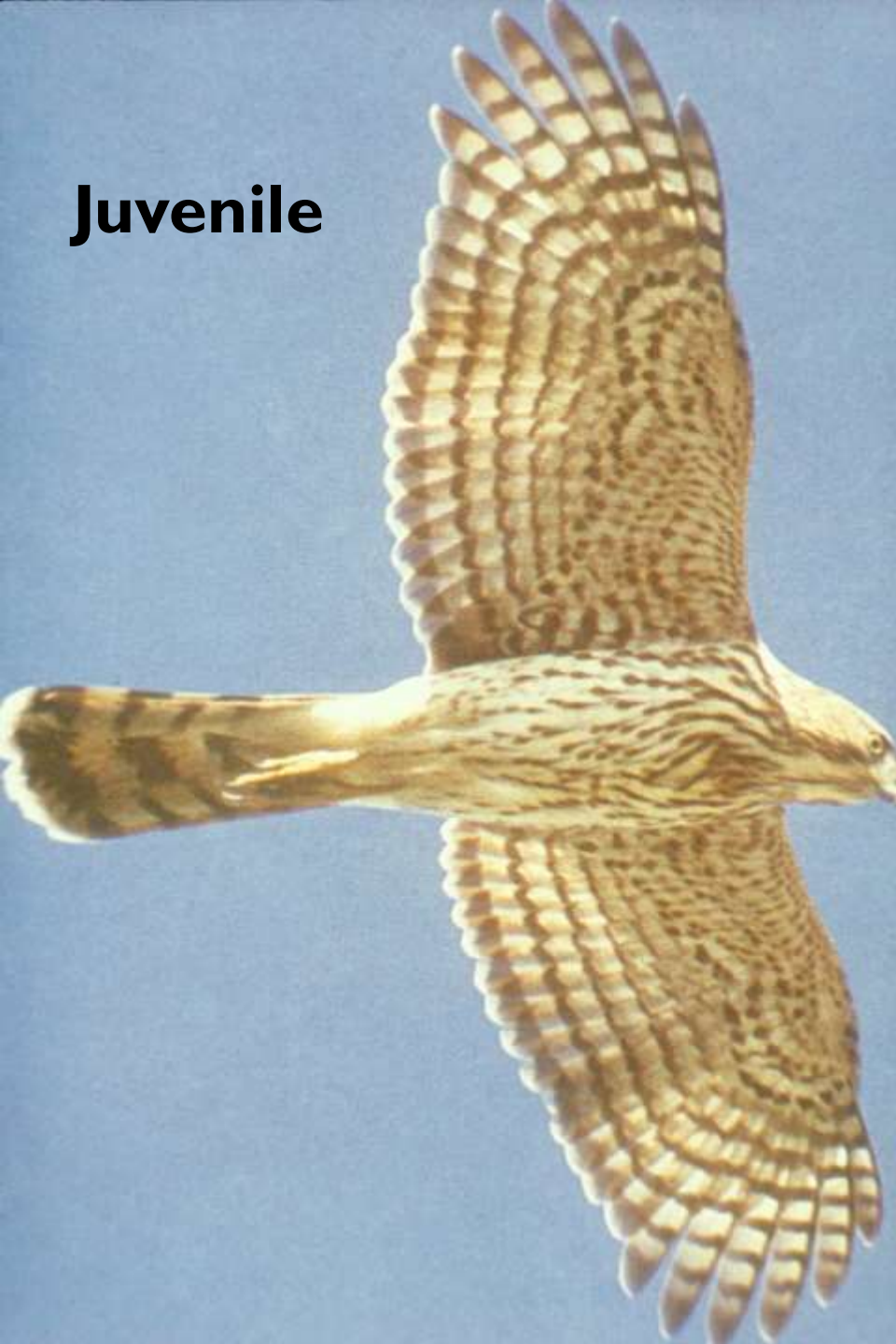


Cooper's Hawk (adult)



Sharp-shinned Hawk
(adult)

Juvenile



Adult

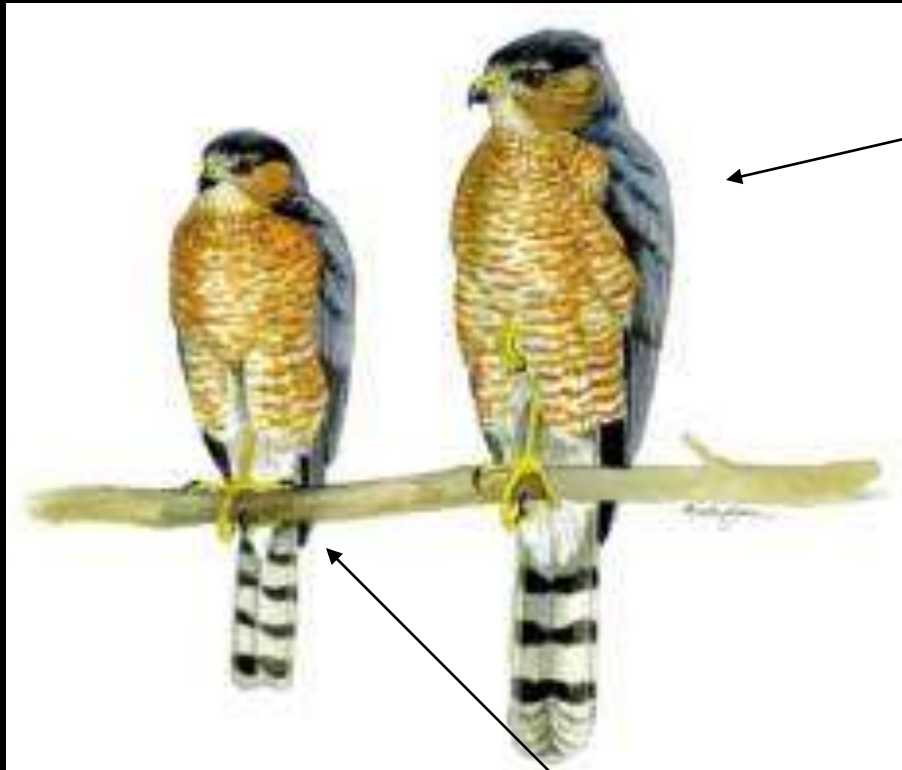




Sharpshin: rounded head



**Coop: rectangular
head**



adults

Cooper's Hawk

Sharp-shinned Hawk



juveniles



Sharp-
shinned

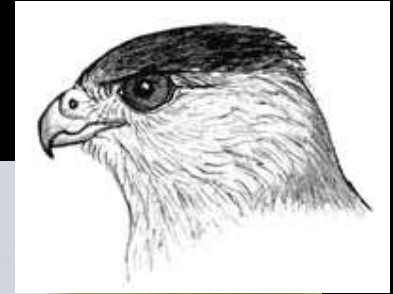


Cooper's





Sharp-shinned Hawk



Cooper's Hawk

Sharp-shinned Hawk



Northern Goshawk - *Crossly ID*





ORNITHOLOGI
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Vulture



Eagle



Osprey



Harrier



Buteo



Accipiter



Falcon

Bald Eagle (Adult)



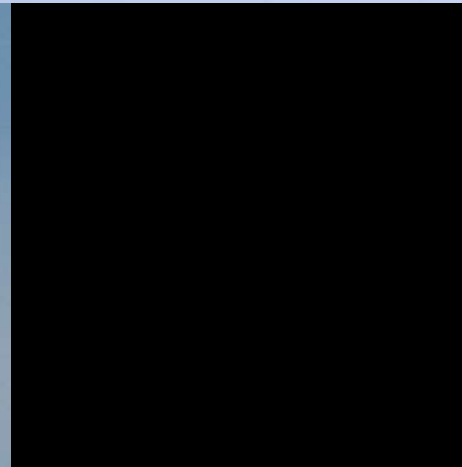
**Bald Eagles:
Plank-like wings!**



**Bald Eagle:
Massive head!**



**Juv. Bald Eagle:
White wing linings**



Golden Eagle



**Golden Eagle
(Juvenile)**



Golden Eagle (Subadult)



Kate Davis photo°





Bald Eagle



Golden Eagle

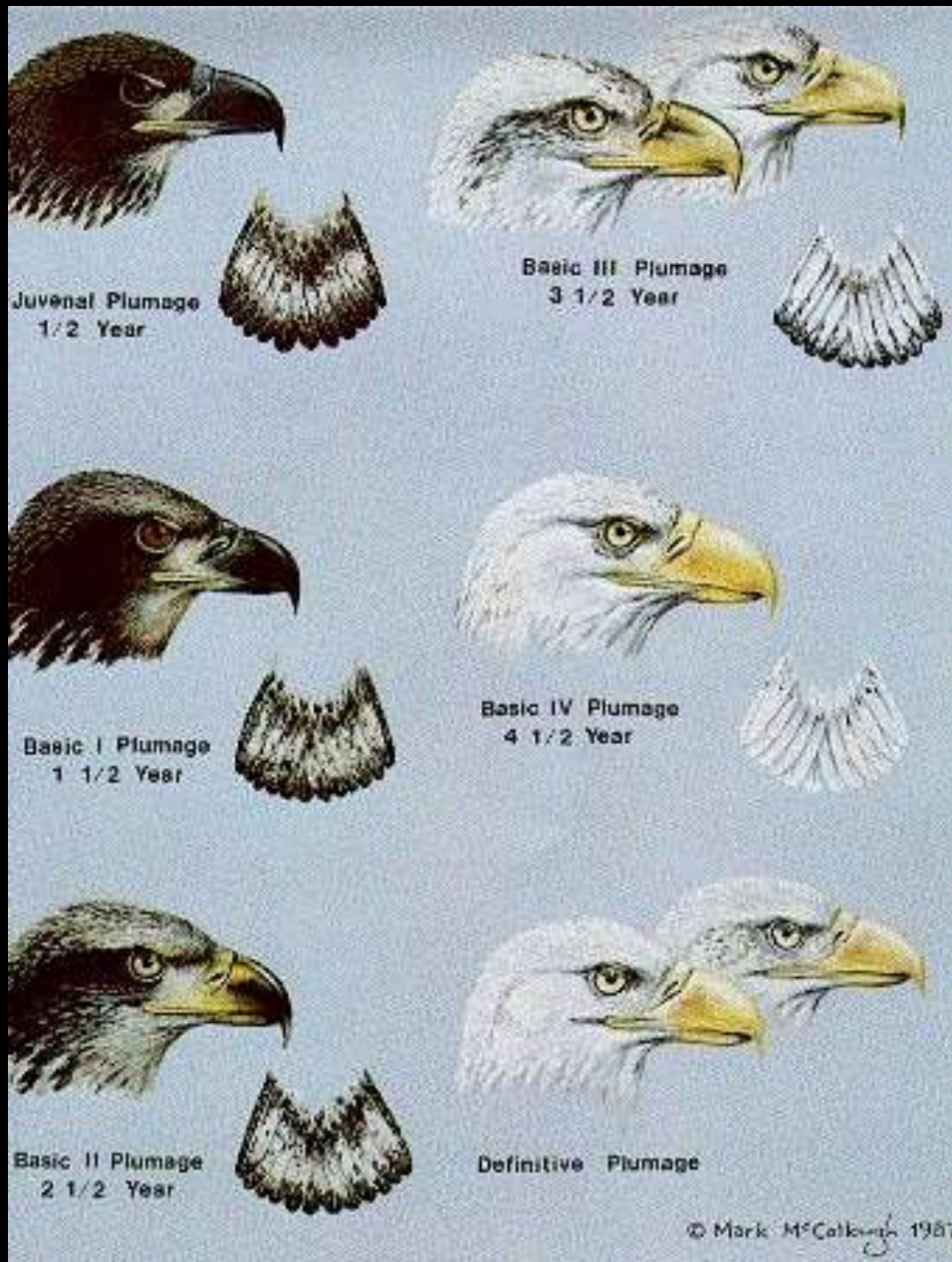


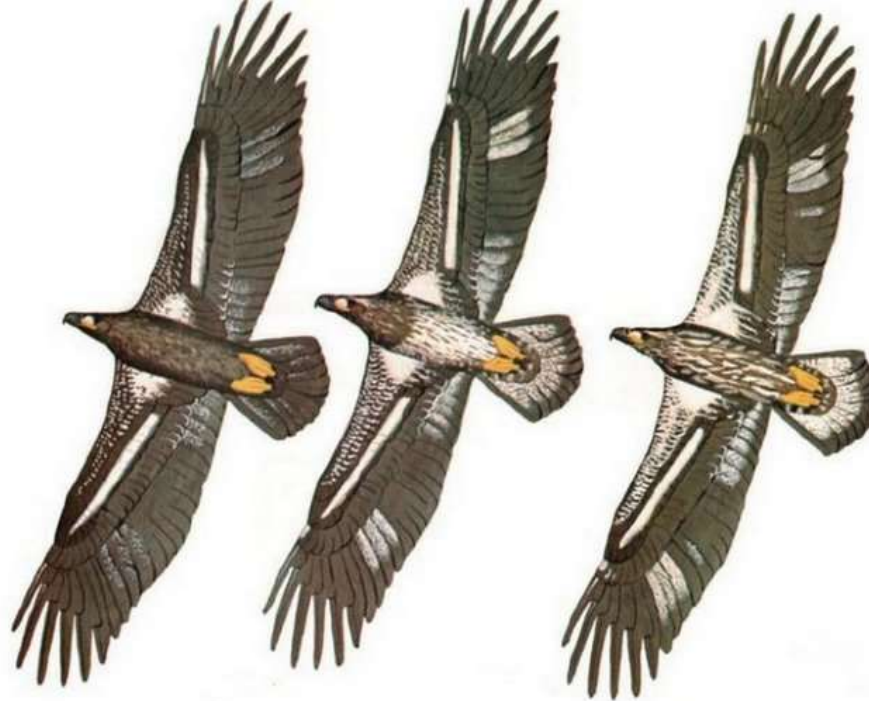


Bald Eagle gliding



Golden Eagle gliding





Brian Wheeler image

Pit-falls and details



Northern
Harrier



Rough-legged hawk

Bald Eagle - Crossly ID





Brian Wheeler image

Golden Eagle - *Crossly ID*



Color morphs



Red-tailed Hawk color morphs



Harlan's Hawk



**Red-tailed Hawk
(western subsp.)**



Harlan's Hawk





A



B



C

Krider's Hawk



Brian Sullivan photo

Krider's Hawk



Steven Mlodinow photo



© 2016 chrisc_photo@yahoo.com

Swainson's Hawk color morphs



Light Morph Swainson's Hawk

Swainson's Hawk Color Morphs

Rufous



Dark



Light





**Swainson's Hawk
Dark Morph**



Dark morph Ferrugs are rare!





Rough-legged Hawk color morphs



Light morphs



RTHA



FEHA



RLHA



SWHA



BWHA

Dark morphs



RTHA



FEHA



RLHA



SWHA



BWHA



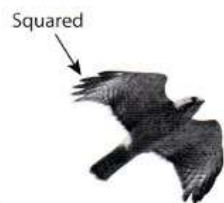
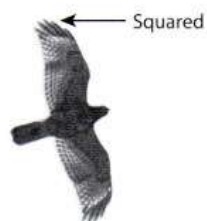
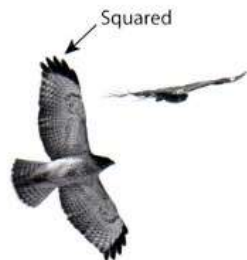
Bill Schmoker photo



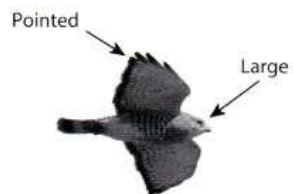
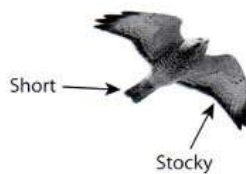
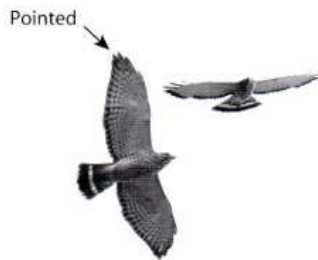
Janet Hug – MI - photo

Buteo Shapes

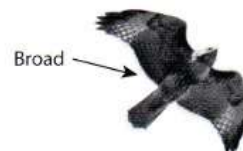
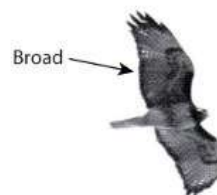
Red-shouldered Hawk



Broad-winged Hawk



Red-tailed Hawk





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