



Soaring Past COVID

Raptors of Washington



Thomas Bancroft & Danielle Graham
Fall 2020



Please Join the Google Classroom for this Class – We will post lots of good information!

- To access this course:
- Navigate to classroom.google.com
- Log in to your Google account. (You'll need a free Google account if you don't have one already.)
- Select the + symbol on the top right and select "Join class"
- Enter the class code: **2i7aqap**
- Click "Classwork" at the top of your screen

Overview of Course

- Lectures
 - Key Characteristics
 - Buteos
 - Harriers & Accipiters & Review
 - Falcons & Review
 - Eagles, Vultures, Kites, & Review
- Homework
 - Review



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- 20 species in Washington
- Goals
 - Learn to identify raptors
 - Know what characteristics to check
 - Have some understanding of behavior, ecology, & distribution
 - Have Fun! Lots of it!
- Thomas Bancroft –
gtbancroft@gmail.com
 - Cell phone – 202 297 8501



Rules for Identifying

- One bird at a time
- Identify a bird to a broad category
 - Then narrow to a smaller group, then to species
- Look for 3 or more clues to identify the bird
- Remember everyone makes mistakes, that is okay, learn from them.



How to Identify Raptors

- Shape & Size
- Color Patterns (Markings)
- Behavior
- Habitat & Distribution
- Calls



Scientific Name

- Genus & species makes the scientific names.
 - *Buteo jamaicensis* - Red-tailed Hawk
 - *Accipiter striatus* - Sharp-shinned Hawk
 - *Falco columbarius* - Merlin
 - *Circus hudsonius* - Northern Harrier

Group of birds that are related are in the same genus, the next higher level is the family level, and they are related at the next higher level.

Many characteristics are similar for members of the same genus.

Break Them Down into Smaller Groups

- Vultures



- Eagles & Osprey



- Buteos



- Accipiters



- Falcons



- Harriers



- Kites



Vultures



California Condor

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Turkey Vulture



Black Vulture

Eagles & Osprey



Golden Eagle

@ Macaulay Library



Osprey



Bald Eagle

Buteos

Red-tailed
Hawk



Swainson's Hawk



Red-shouldered Hawk



Rough-legged Hawk



Ferruginous Hawk

Accipiters

Sharp-shinned
Hawk




Cooper's Hawk



Northern Goshawk

Falcons

A Merlin (Taiga) falcon in flight against a clear blue sky. The bird is shown from a side profile, with its wings spread wide, revealing a pattern of dark spots and streaks on the underside. Its tail is also visible, showing a similar pattern.

Merlin
(Taiga)



Peregrine Falcon



Prairie Falcon



American
Kestrel



Gyr Falcon

Harriers

Male



Northern Harrier

Female



Juvenile – 1st year



Kites

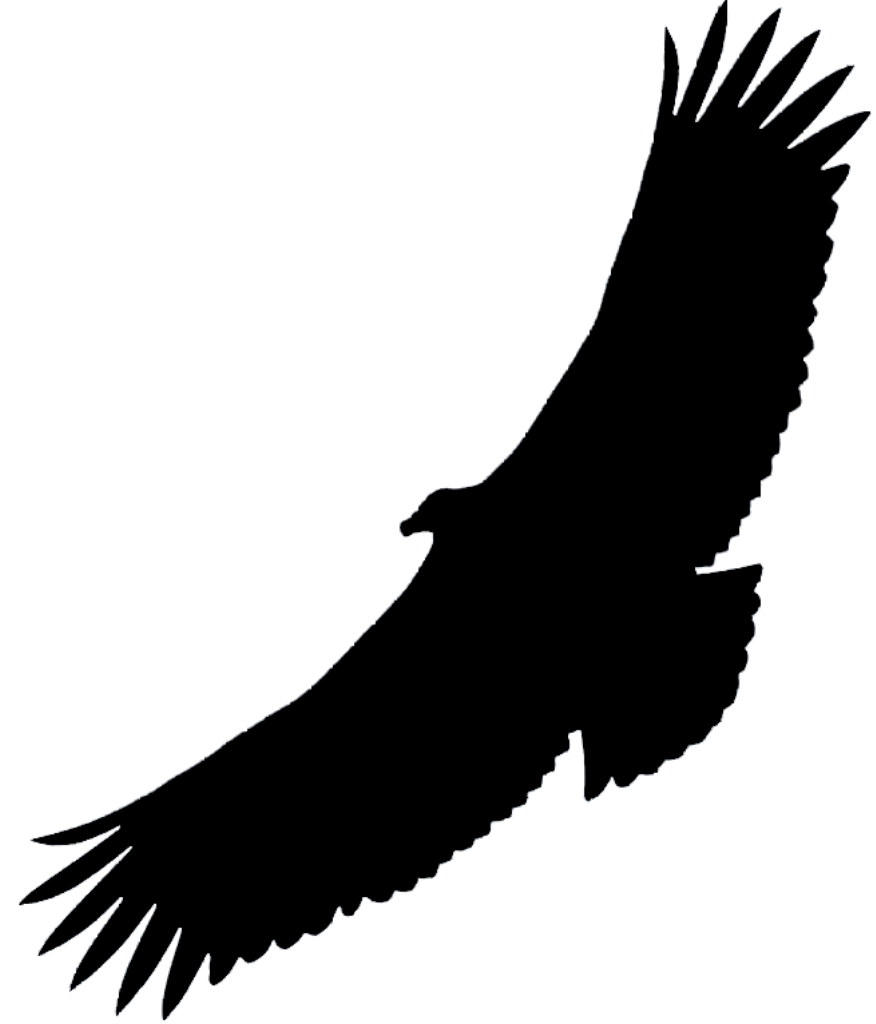


White-tailed Kite

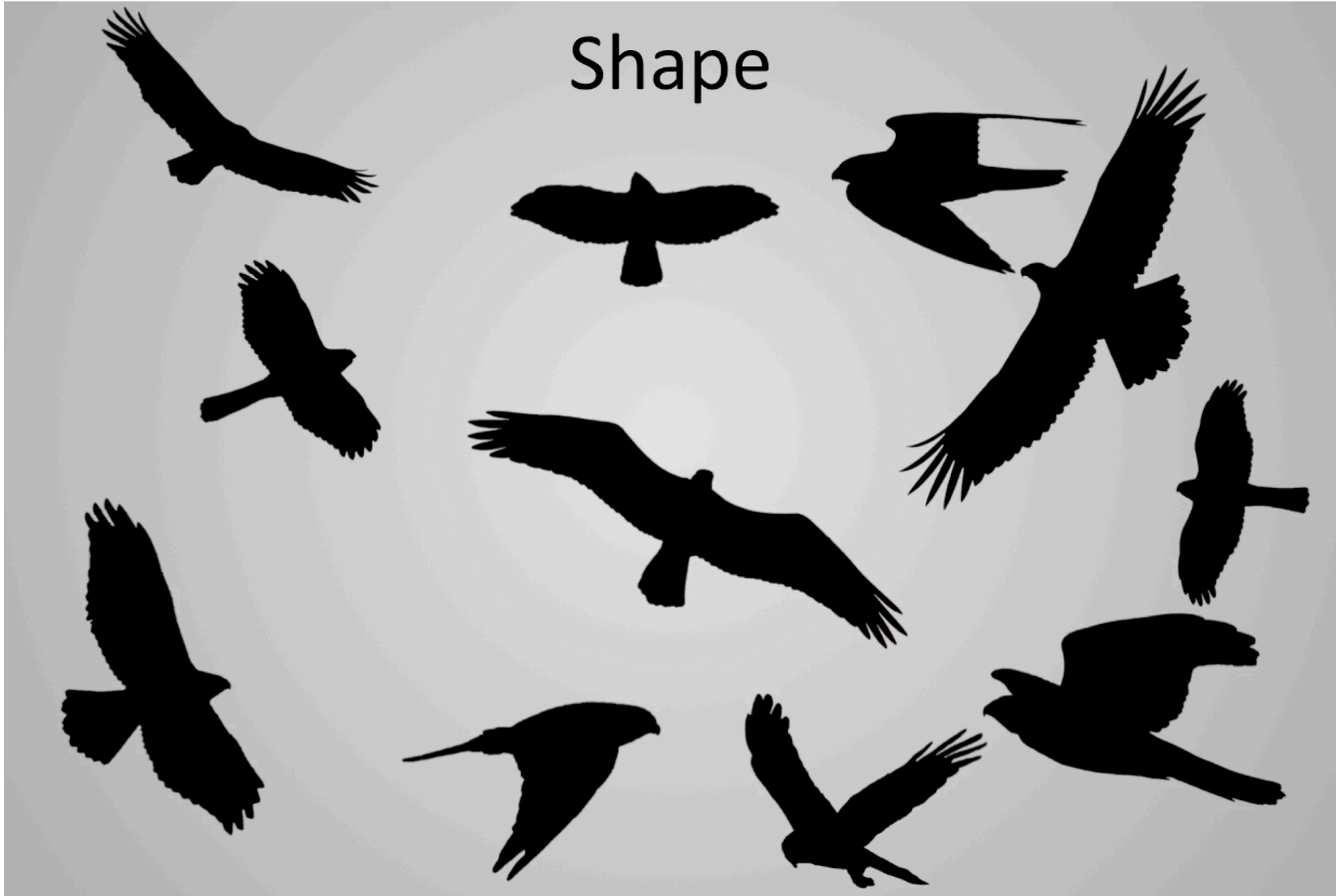


How to Identify Raptors

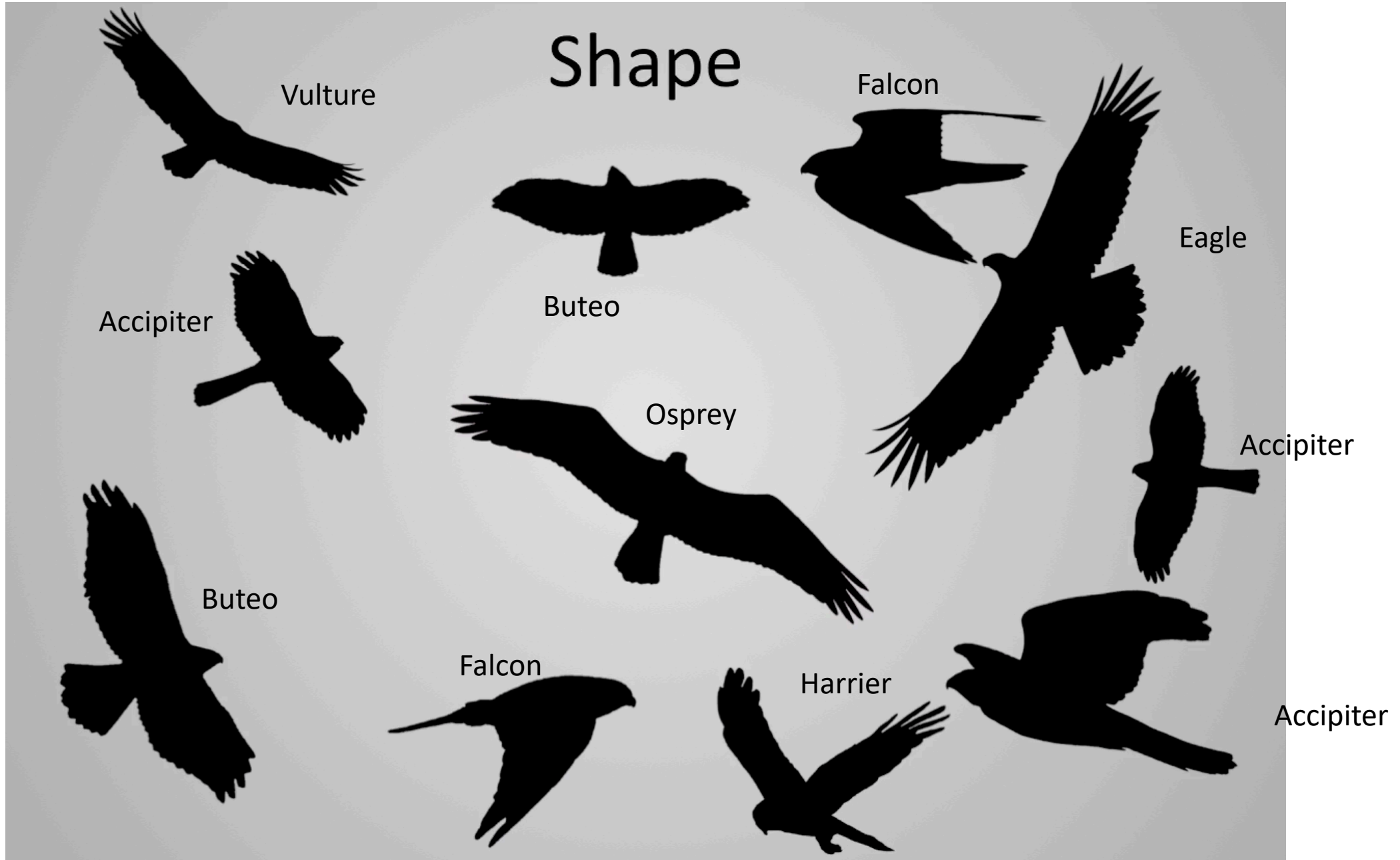
- **Shape** & Size
- Color Patterns (Markings)
- Behavior
- Habitat & Distribution
- Calls



Shape



Shape



Raptor Diversity

- Vultures



- Eagles & Osprey



- Buteos



- Accipiters



- Falcons



- Harriers



- Kites



Shape

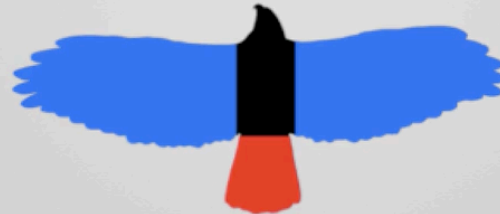
- Wing shape



- Tail shape



- Proportions

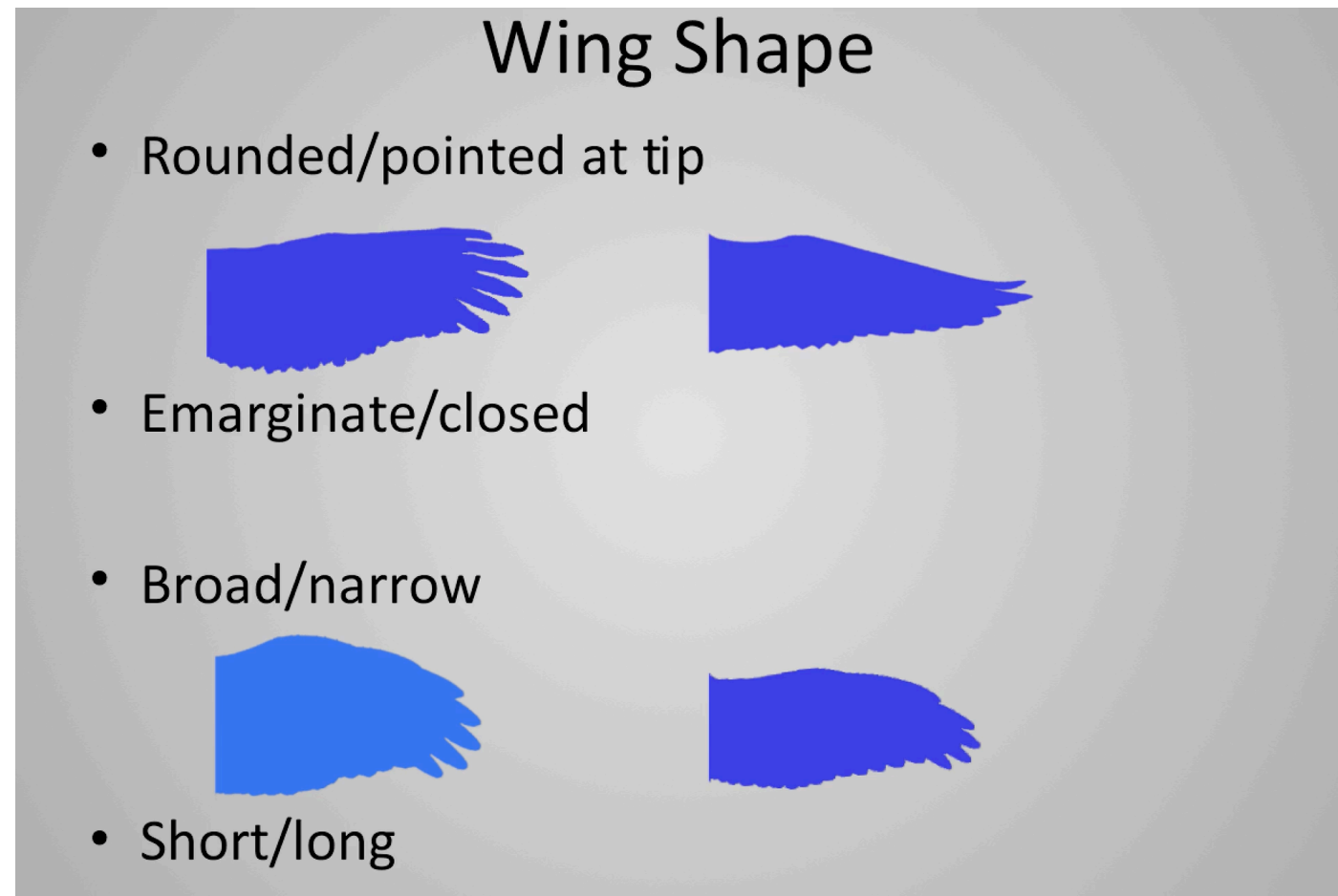


- Posture



Wing Shape

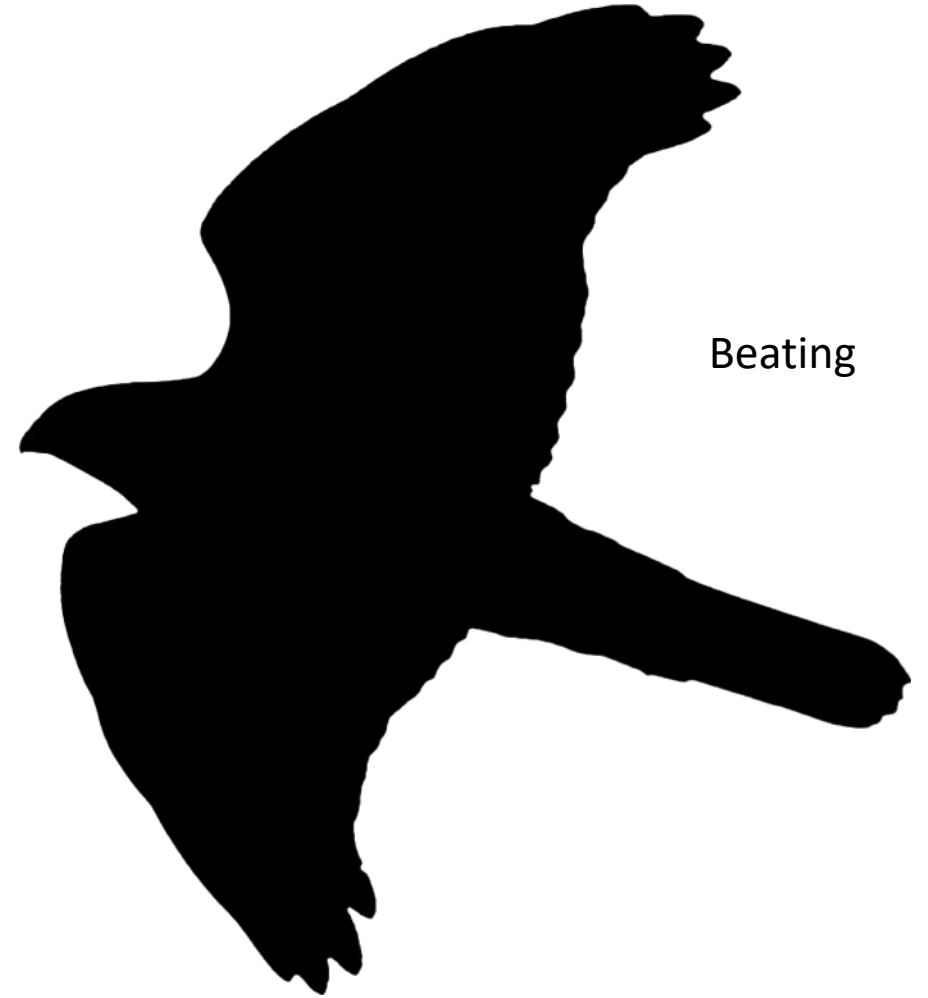
- Rounded or pointed at tip
- Emarginated
- Broad or Narrow
- Short or long



Wing Shape – look at how it varies



Soaring



Beating

Cooper's Hawk (Accipiter)

Tail Shape

- Long/short



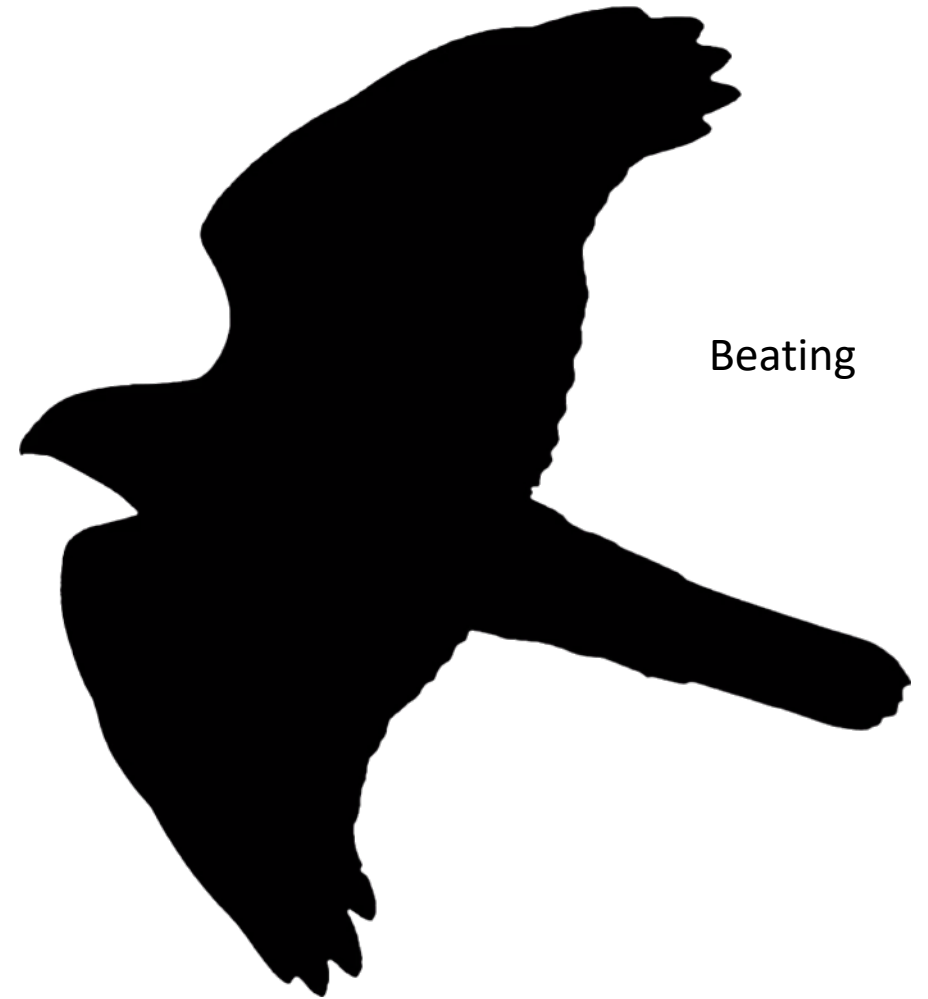
- Notched/square/rounded/pointed tip



Tail shape – it can vary



Soaring

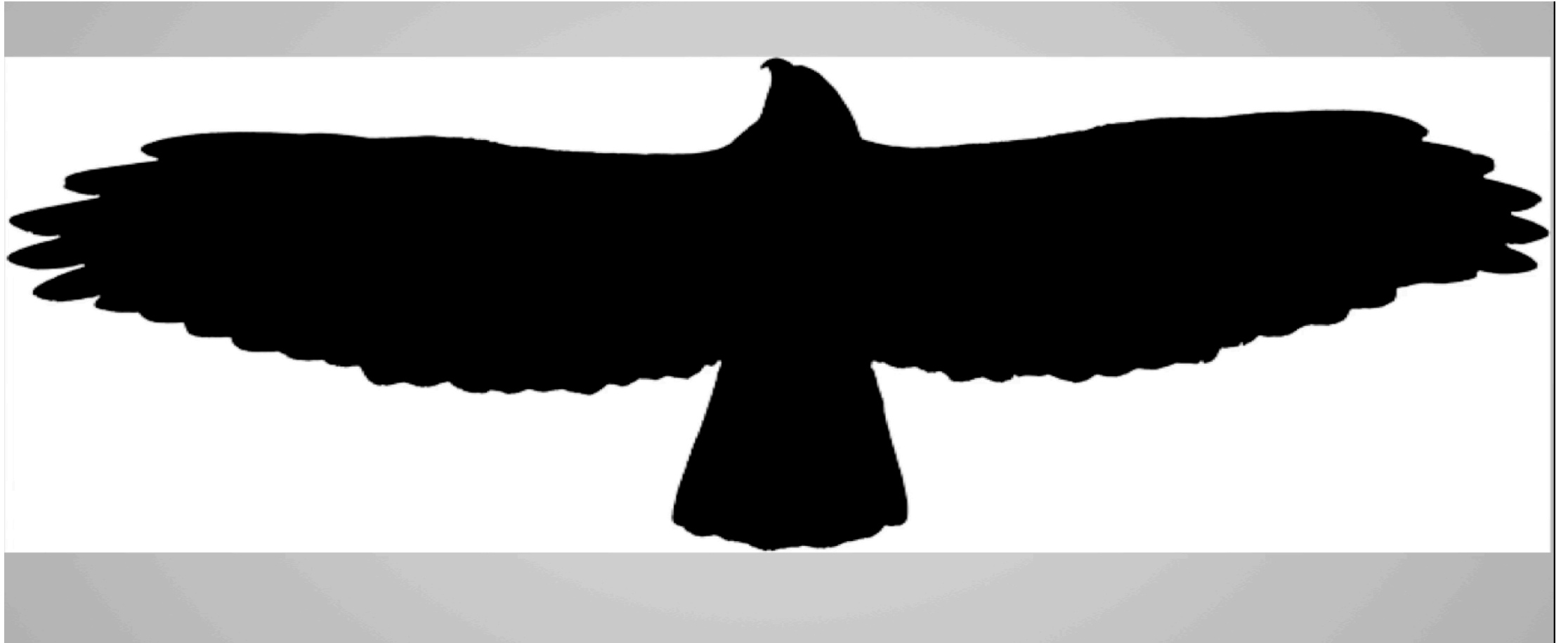


Beating

Cooper's Hawk (Accipiter)

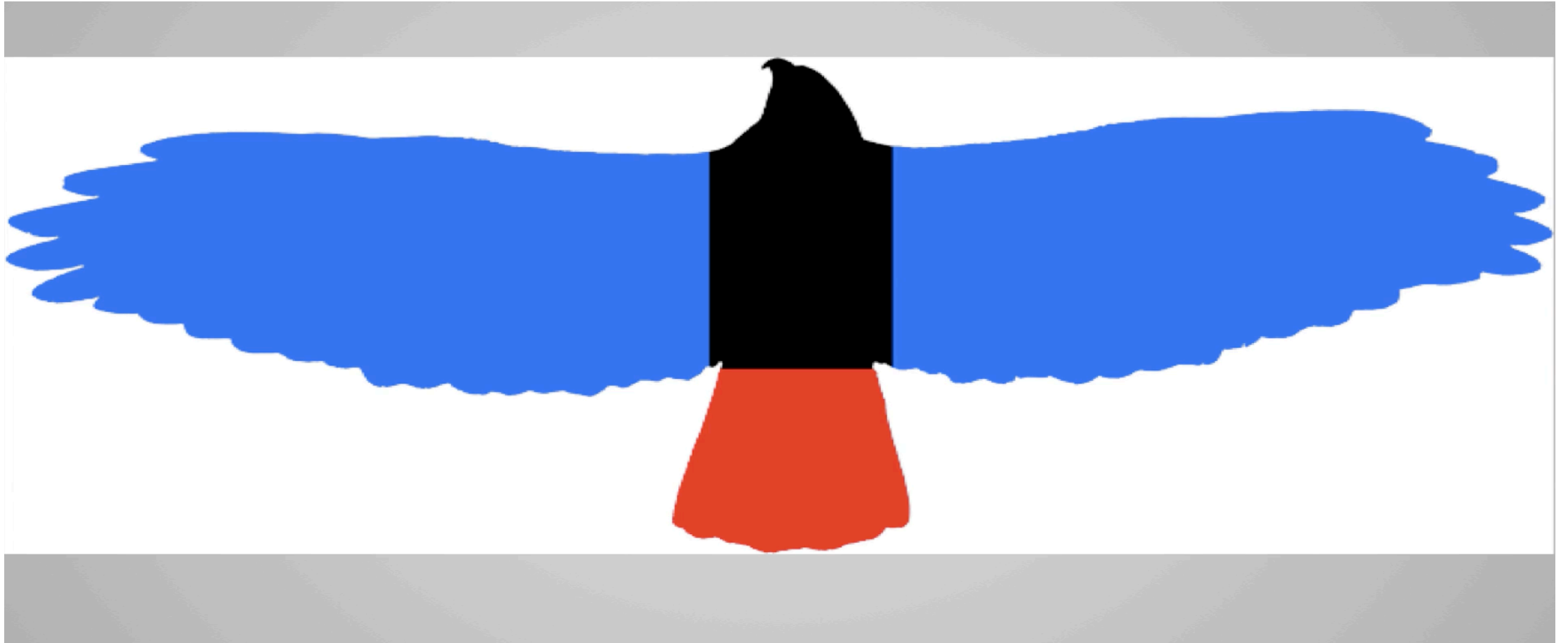
Red-tailed Hawk Proportions

(Buteo)



Red-tailed Hawk

(Buteo)



Red-tailed Hawk

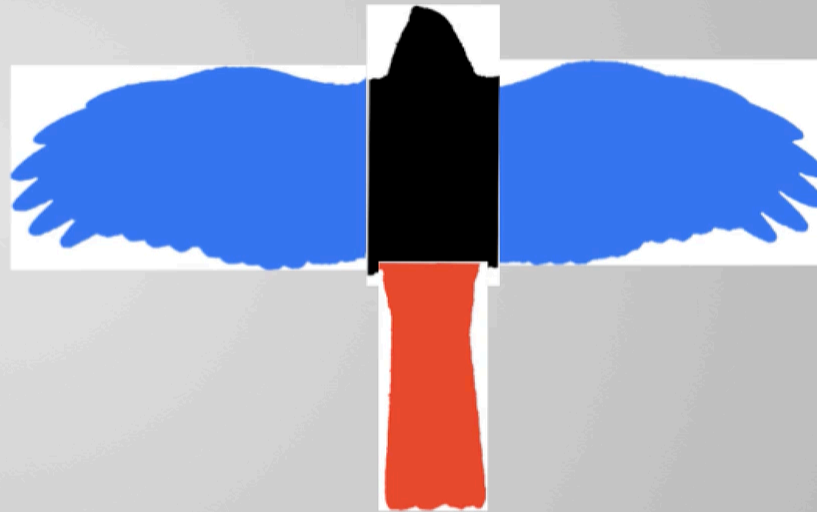
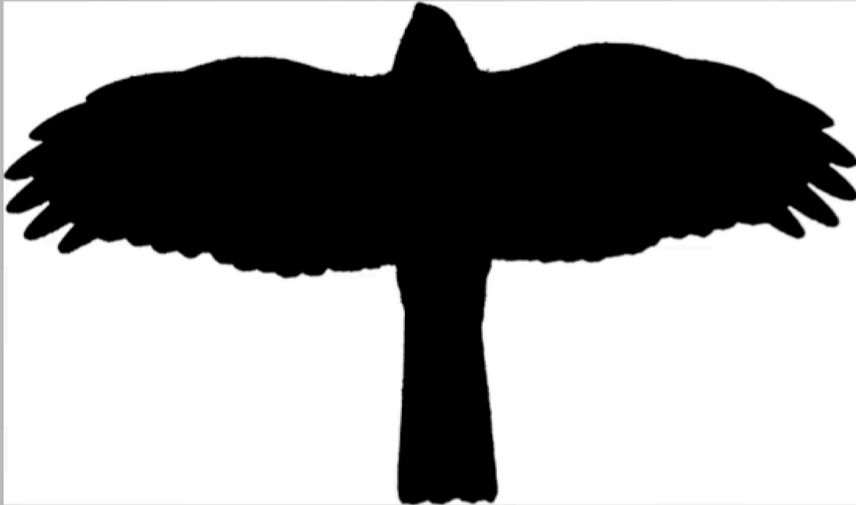
Tail < Head&body < Wing length

Medium wings, short tail



Sharp-shinned Hawk

(Accipiter)



Sharp-shinned Hawk

Head&body \leq Wing length = Tail

Short wings, long tail



Red-tailed Hawk

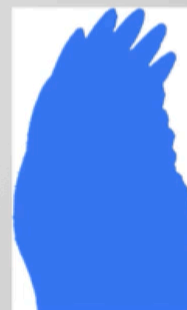
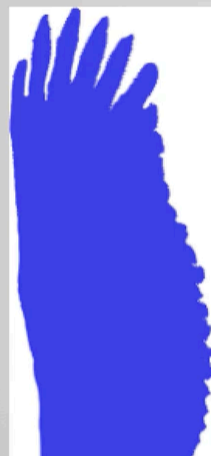
Bald Eagle

Peregrine Falcon

Sharp-shinned Hawk



Head+body



Wings



Tail

Proportions of North American Raptors

Raptor Category	Wing Length	Wind Width	Wing Shape	Tail Length
Vultures	Long	Broad	Rounded	Short
Eagles	Long	Broad	Rounded	Short
Buteos	Moderately Long	Broad	Rounded	Long
Accipters	Short	Broad	Rounded	Long
Falcons	Long	Narrow	Pointed	Long
Harriers	Long	Narrow	Rounded	Long

Questions?

gtbancroft@gmail.com
www.thomasbancroft.org



I'm not a guru. I'm trying to learn shapes in raptors.

Body – Wing – Tail Comparison

Tail Length?
Wing Length?
Wing Width?

(Kind of Eagle)

Not a North American Species
This is for you to practice proportions



Body – Wing – Tail Comparison

Tail Length?
Wing Length?
Wing Width?

Not a North American Species

This is for you to practice proportions



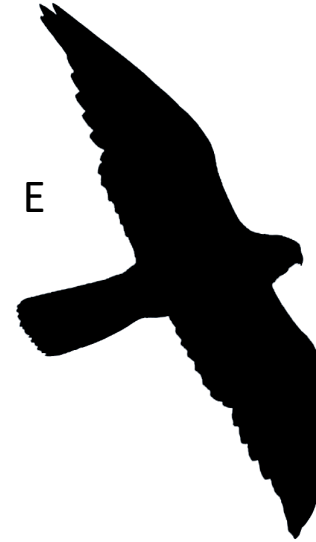
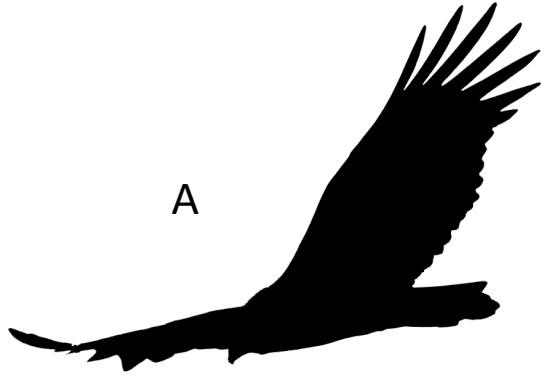
Body – Wing – Tail Comparison

Tail Length?
Wing Length?
Wing Width?



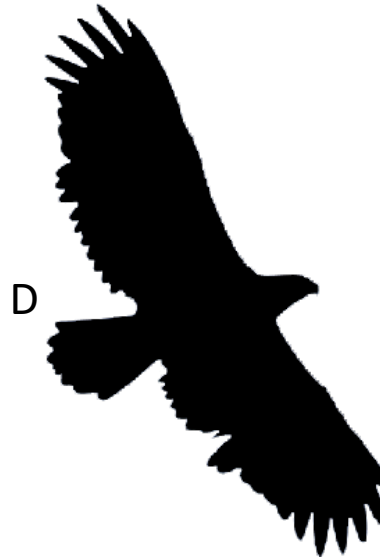
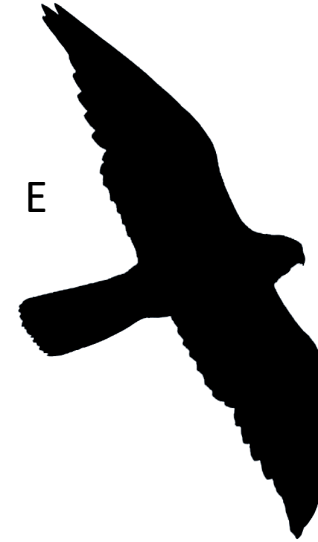
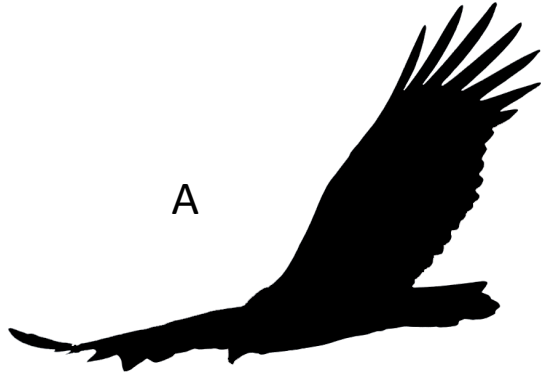
Not a North American Species
This is for you to practice proportions

Use Flying Shape to Classify These Raptors into a Group



- ☐ Buteo
- ☐ Vulture
- ☐ Eagle
- ☐ Falcon
- ☐ Accipiter

Use Flying Shape to Classify These Raptors into a Group



B Buteo

A Vulture

D Eagle

E Falcon

C Accipiter

Shape

Posture Component



Shape

Osprey



Buteo



Posture Component

Eagle



Accipiter



Accipiter



Buteo



Buteo



Falcon



Falcon



Vulture



Shape



Sharp-shinned Hawk
(Accipiter)

Look at wing to tail length



Merlin (Prairie)
(Falcon)

Shape



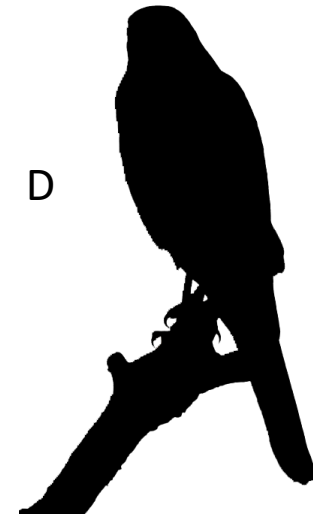
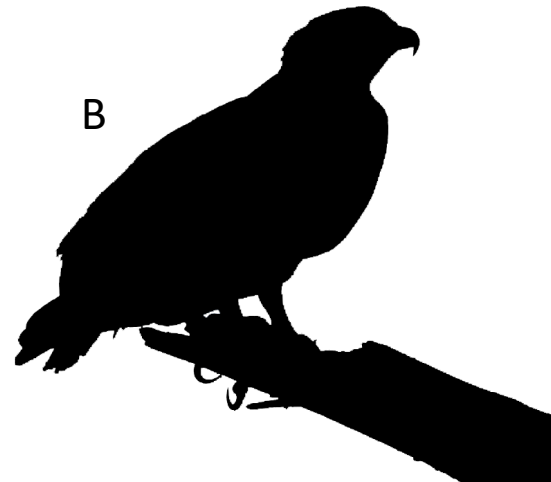
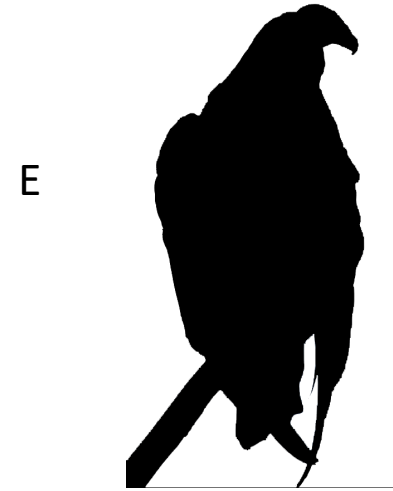
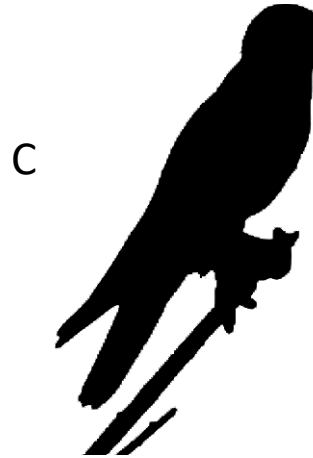
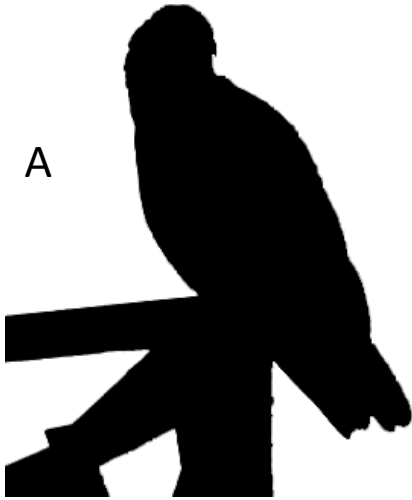
Cooper's Hawk
(Accipiter)

Look at wing to tail length



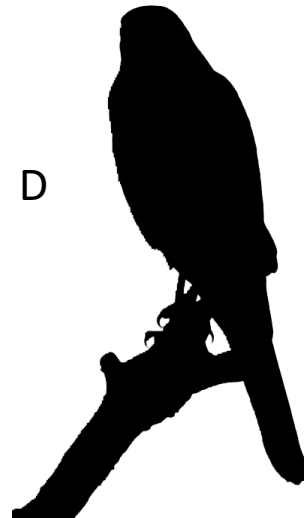
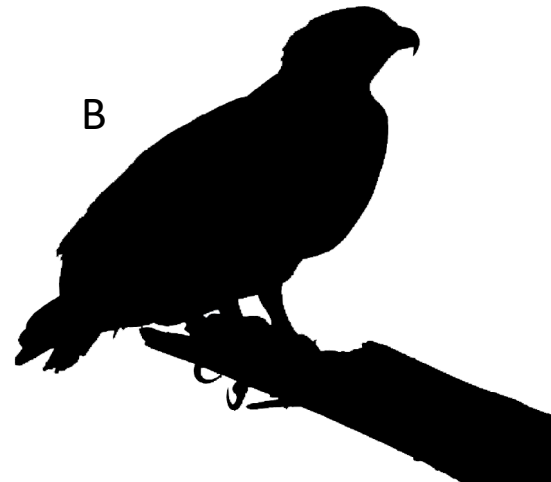
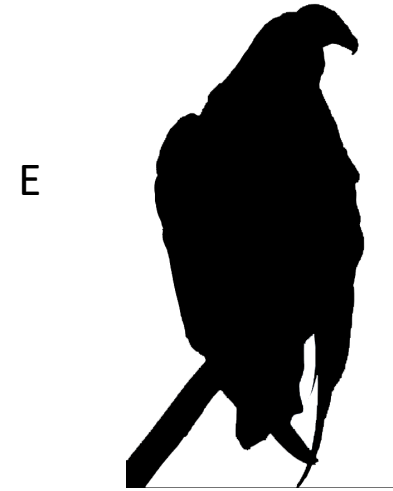
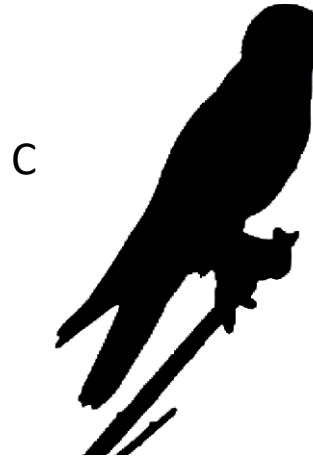
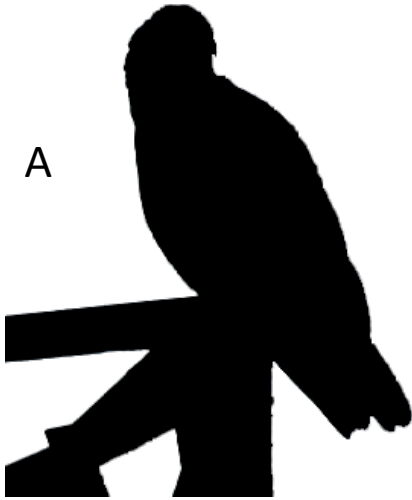
Red-shouldered Hawk
(Buteo)

Use Posture to Classify These Raptors into Groups



- _____ Vulture
- _____ Accipiter
- _____ Buteo
- _____ Falcon
- _____ Osprey

Use Posture to Classify These Raptors into Groups



__E__ Vulture

__D__ Accipiter

__A__ Buteo

__C__ Falcon

__B__ Osprey

How to Identify Raptors

- Shape & Size
- Color Patterns (Markings)
- **Behavior**
- Habitat & Distribution
- Calls



White-tailed Kite

Cooper's Hawk (Accipiter)



Behavior

- Flight Style
- Foraging Method
- Gregariousness
- Bobs and twitches



Cooper's Hawk
(Accipiter)



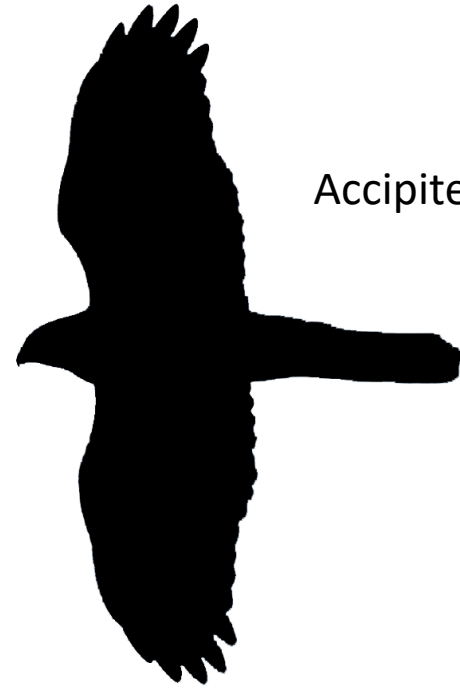
Eagle



American Kestrel
(Falcon)

Flight Style

- Soaring
 - Flat, Bent, Dihedral
 - Long or Flap & Soar
 - Power flight (Falcons)
 - Flap, flap, glide (Red-tailed Hawk & Accipiters)
 - Glide, flap, glide (Northern Harrier)
- Direct Flight
- Hovering



Accipiter



Kite



Eagle

Flight style - soaring

FLAT



Bald Eagle



Black Vulture

BENT



Osprey



Red-tailed Hawk

(Buteo)

DIHEDRAL



Turkey Vulture



Northern Harrier



White-tailed Hawk

(Buteo)

Flight style - soaring

Long Soar



California Condor



Turkey
Vulture



Bald
Eagle



Red-tailed Hawk
(Buteo)

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Flap and Soar



Cooper's Hawk
(Accipiter)

Flight style - straight

Power Flight



Prairie Falcon



Peregrine Falcon

Flap, Flap, Glide



Sharp-shinned
Hawk

(Accipiter)

Cooper's
Hawk

(Accipiter)



Red-tailed
Hawk

(Buteo)

Glide, Flap, Glide



Northern Harrier

Foraging Method

- Hover
- Perch and drop
- Dash and pursuit
- Soar and stoop
- Low and slow



Gyr Falcon (Falcon)



American Kestrel (Falcon)

Foraging method – hovering

American Kestrel (Falcon)



Rough-legged Hawk (Buteo)



White-tailed Kite



Osprey (Eagle group)

Foraging method – Perch



Swainson's Hawk (Buteo)



Red-tailed Hawk (Buteo)



Rough-legged Hawk (Buteo)



American Kestrel (Falcon)
@ Macaulay Library

Foraging method – Dash and Pursue



Northern Goshawk

All Accipiters

From in a Forest

Sharp-shinned
Hawk



Cooper's
Hawk



Foraging method – Dash and Pursue



Peregrine
Falcon

Often done from open
Or from on the wing

Gyr Falcon



Merlin (Falcon)

Prairie
Falcon



Foraging method – Soar and Stoop

Turkey
Vulture



Golden
Eagle



Foraging method – Low and Slow



Northern
Harrier



Rough-legged Hawk. (Buteo)

Gregariousness – Hawk Migrations



These are
Broad-winged Hawks
(Buteo)
Swainson's Hawks
will also form big
groups in migration

Gregariousness – vultures



Turkey Vultures



Black
Vultures



Black
&
Turkey
Vulture



Bobs & Twitches



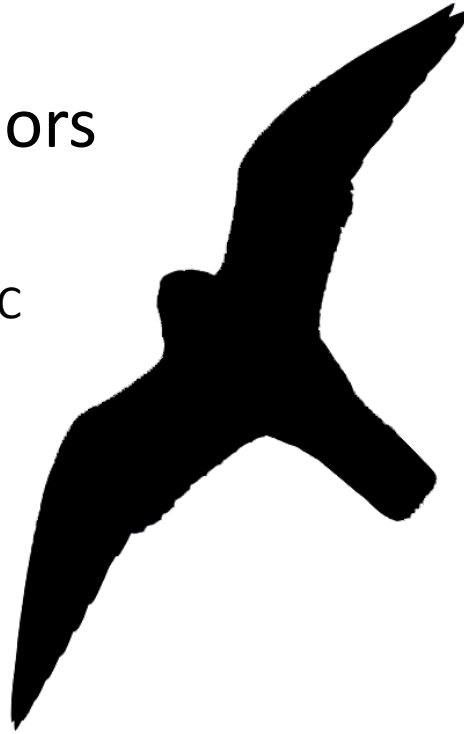
American Kestrel
(Falcon)

Foraging Behaviors

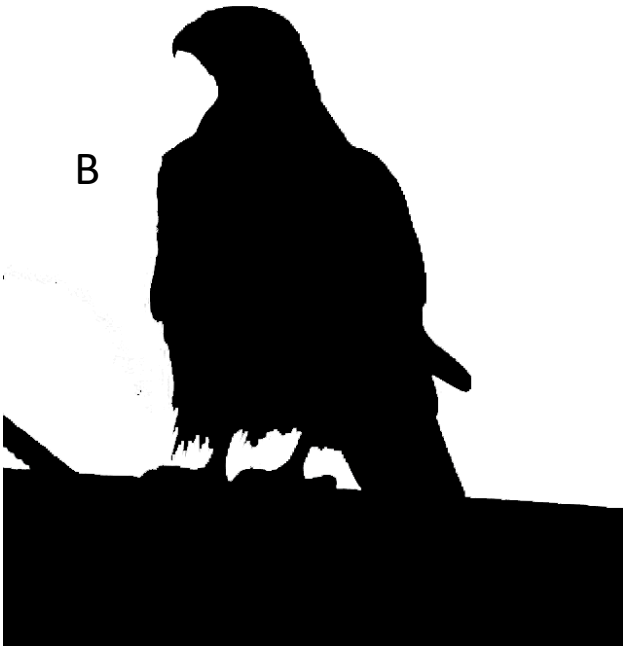
A



C



B



D



Foraging Behaviors can
Help you identify species

Do you recognize these
Behaviors?

- ☐ Hovering
- ☐ Perch & Drop
- ☐ Dash & Pursuit
- ☐ Soar & Stoop

Foraging Behaviors

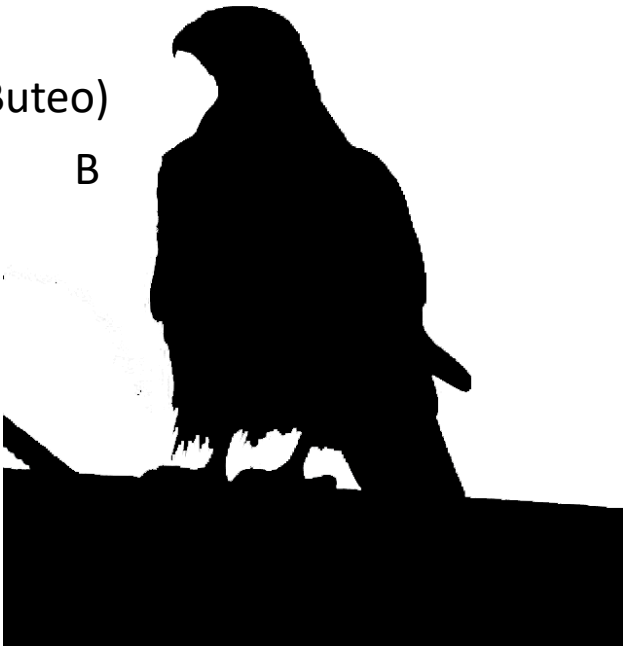
(Eagle)

A

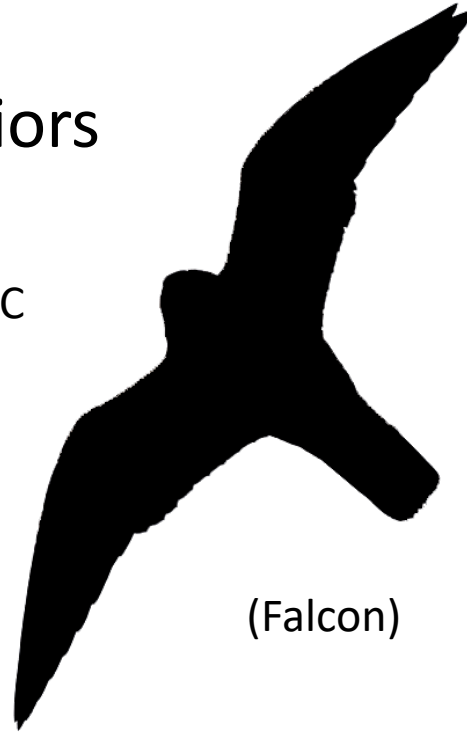


(Buteo)

B



C



(Falcon)

D



(Osprey)

Foraging Behaviors can
Help you identify species

Do you recognize these
Behaviors?

D Hovering

B Perch & Drop

C Dash & Pursuit

A Soar & Stoop



Questions?

Feel free to email me to?
gtbancroft@gmail.com

How to Identify Raptors

- Shape & **Size**
- Color Patterns (Markings)
- Behavior
- Habitat & Distribution
- Calls



Cooper's Hawk
(Accipiter)



Sharp-shinned Hawk
(Accipiter)



Merlin
(Falcon)

Size – It is relative and hard to tell absolute



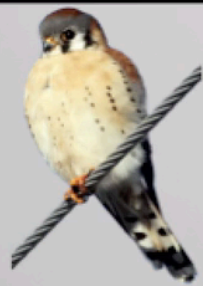
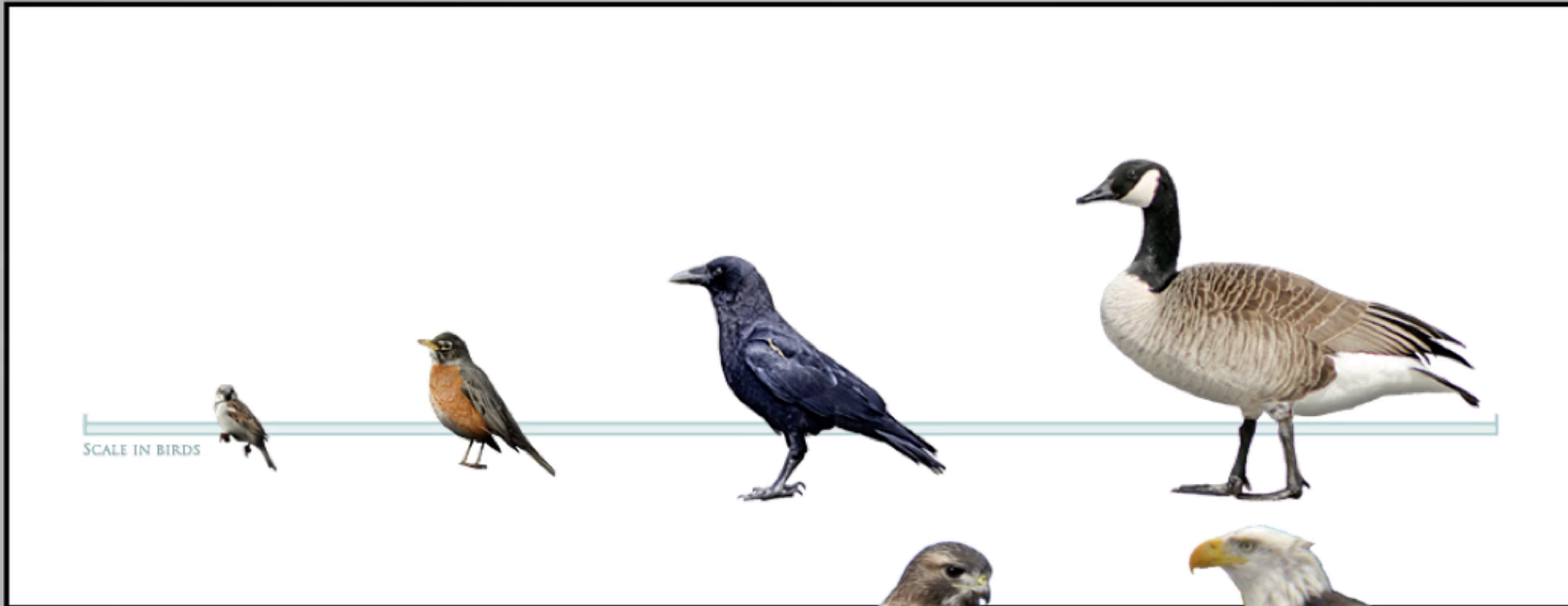
Sharp-shinned Hawk
over a
Cooper's Hawk
(Both Accipiters)

Photo from Feederwatch – taken by Jay McGowan
<https://feederwatch.org/blog/sharp-shinned-hawk-versus-coopers-hawk/>

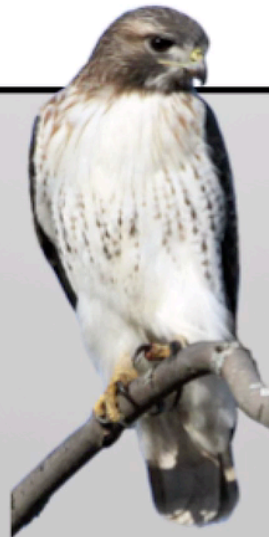
Size



The Bird Yard Stick - from Kevin McGowan at Cornell Laboratory of Ornithology



American Kestrel
(Falcon)



Red-tailed Hawk (Buteo)



SCALE IN BIRDS



American Kestrel
(Falcon)



Merlin
(Falcon)



Cooper's
Hawk
(Accipiter)

American
Crow



Red-tailed
Hawk
(Buteo)



Bald Eagle

Size – Larger or Smaller than a Crow?



Red-tailed Hawk (Buteo)



American Crow



Cooper's Hawk (Accipiter)

Size – Larger or Smaller than a Crow?

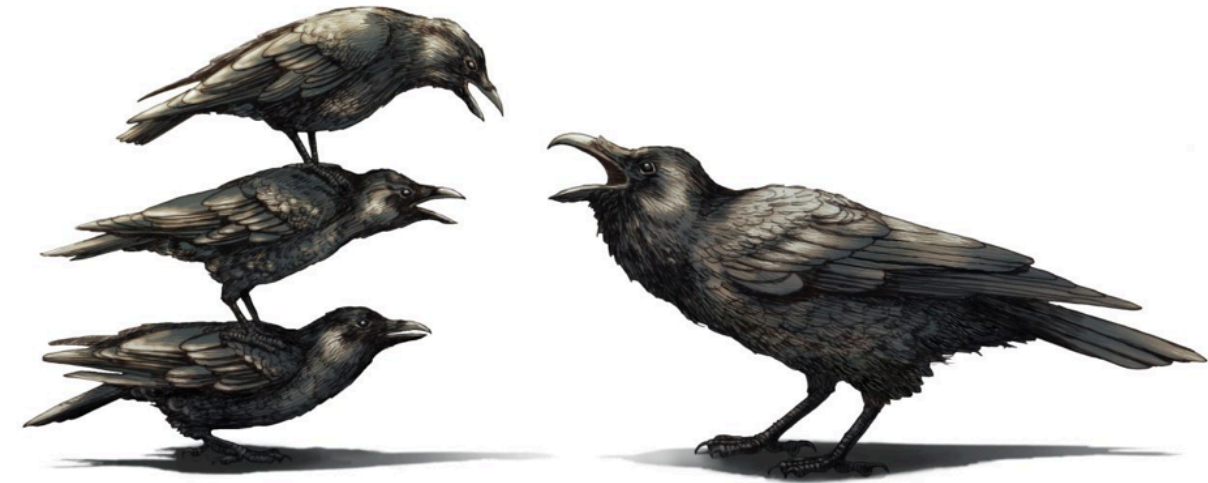


Crows and Red-tailed Hawk (Buteo)



Crow attacking an eagle

Watch out for Ravens!



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Raven attacking a Red-tailed Hawk)

How to Identify Raptors

- Shape & Size
- **Color Patterns (Markings)**
- Behavior
- Habitat & Distribution
- Calls



American Kestrel
(Falcon)

Color Pattern



Red-tailed Hawk
(Buteo)



American Kestrel (Falcon)



Color Pattern

- White Patches
- Barring

Red-shouldered
Hawk (Buteo)



Gray Hawk
(Buteo)



Rough-legged Hawk (Buteo)

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Ferruginous
Hawk
(Buteo)



Tail barring



Red-shouldered Hawk (Buteo)



Merlin. (Falcon)



Red-tailed Hawk (Buteo)



Sharp-shinned Hawk
(Accipiter)

Tail barring

Peregrine
Falcon



Red-tailed
Hawk (Buteo)



Cooper's
Hawk (Buteo)



Where is the White?

- Rump
- Wings
 - Hands
 - Lining
- Tail
- Head

Bald
Eagle



Golden Eagle

White Rump



Rough-legged Hawk
(Buteo)



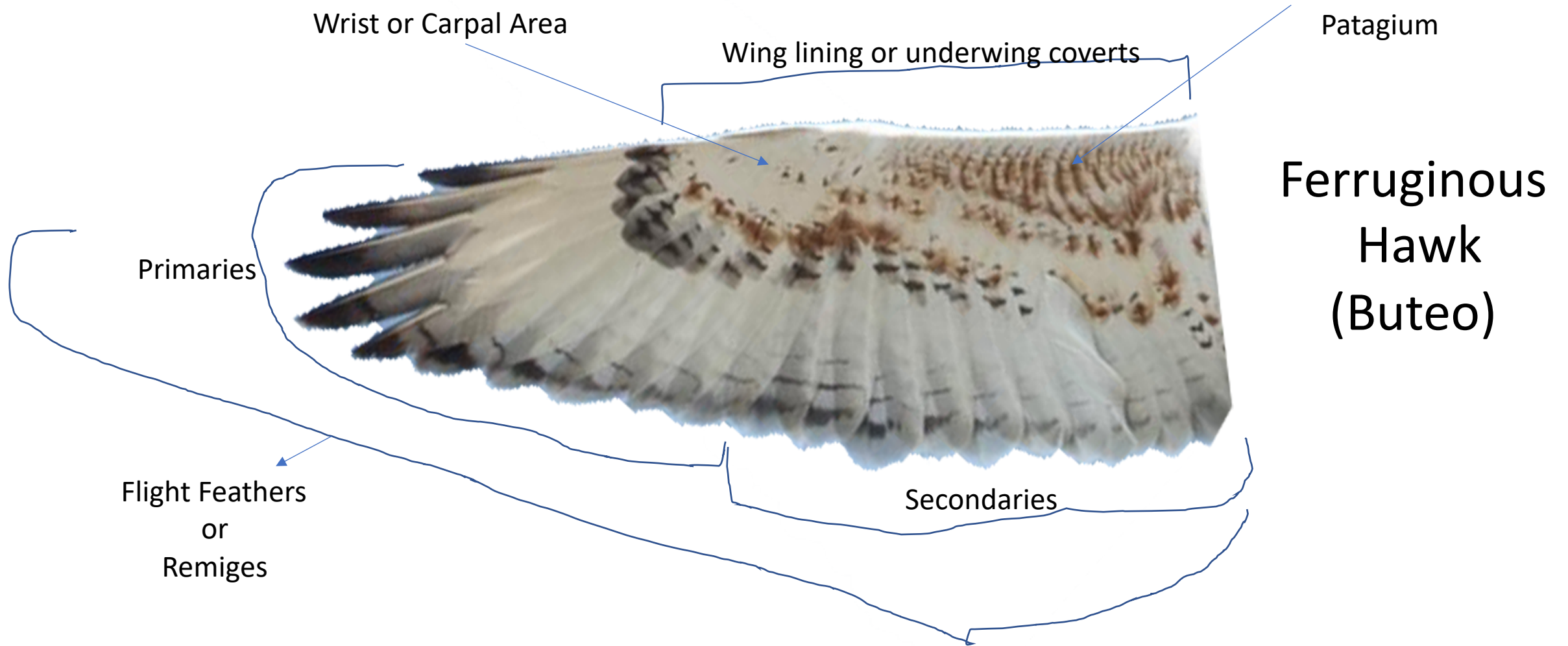
Northern Harrier

Red-tailed
Hawk
(Buteo)



Ferruginous Hawk
(Buteo)

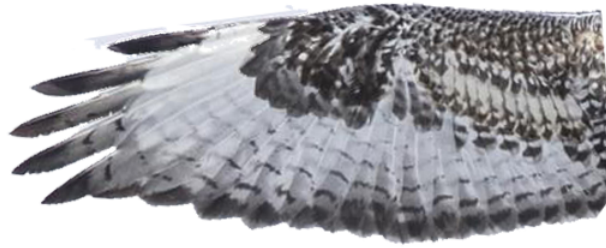
The Wing in Raptors



White in Lining or Flight feathers?



Ferruginous Hawk



Rough-Legged Hawk



Red-tailed Hawk

These are all Buteo wings



Broad-winged Hawk



Swainson's Hawk

White in the Wild



Rough-legged Hawk (Buteo)



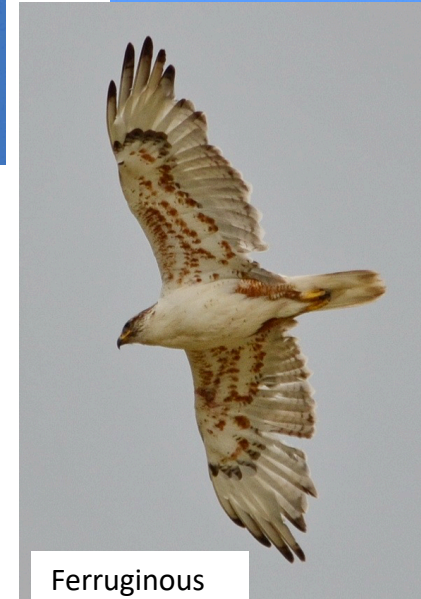
Bald Eagle



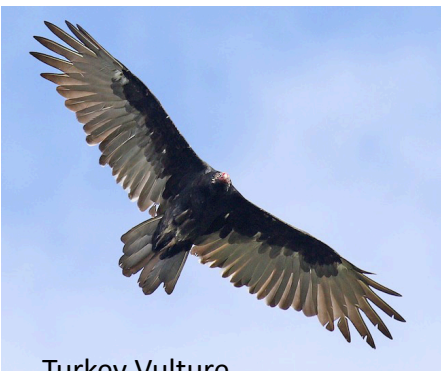
Red-tailed
Hawk (Buteo)



Osprey
(Eagle Group)



Ferruginous
Hawk (Buteo)



Turkey Vulture



White-tailed Kite



Northern Harrier

Outlined?

- Black on leading edge
- Black on trailing edge
- Line or Patch



Northern Harrier



Ferruginous
Hawk (Buteo)



Red-tailed Hawk (Buteo)

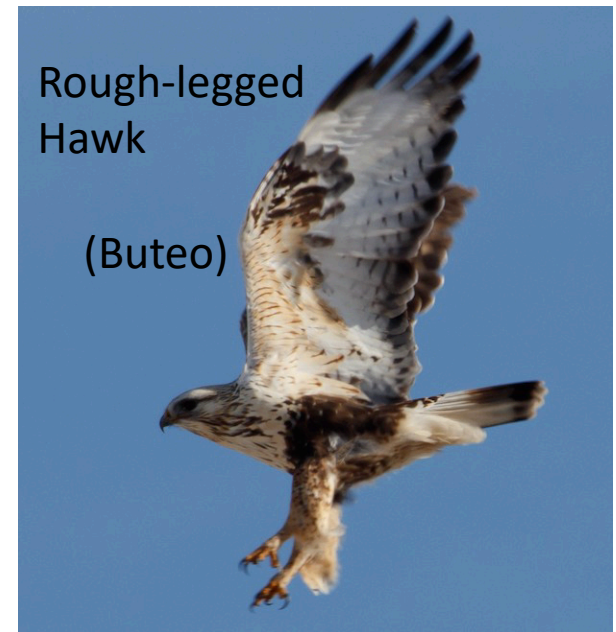


Swainson's Hawk (Buteo)

Dark Patches



White-tailed Kite



Rough-legged
Hawk

(Buteo)



(Buteo)

Red-tailed
Hawk



Prairie Falcon

Ferruginous
Hawk

(Buteo)



Light Patches



Red-shouldered
Hawk



But watch out for young
Red-tailed Hawks which can have
a light patch, too

How to Identify Raptors

- Shape & Size
- Color Patterns (**Markings**)
- Behavior
- Habitat & Distribution
- Calls



Cooper's Hawk (Accipiter)

Markings

- Barring
 - Chest
 - Tail
 - Wings



Red-shouldered Hawk

Cooper's
Hawk



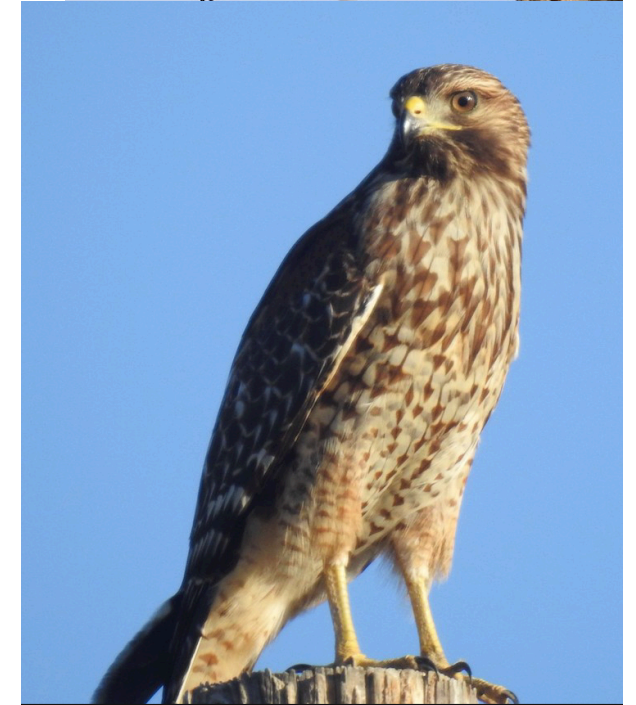
Barred or Streaked?



Peregrine
Falcon

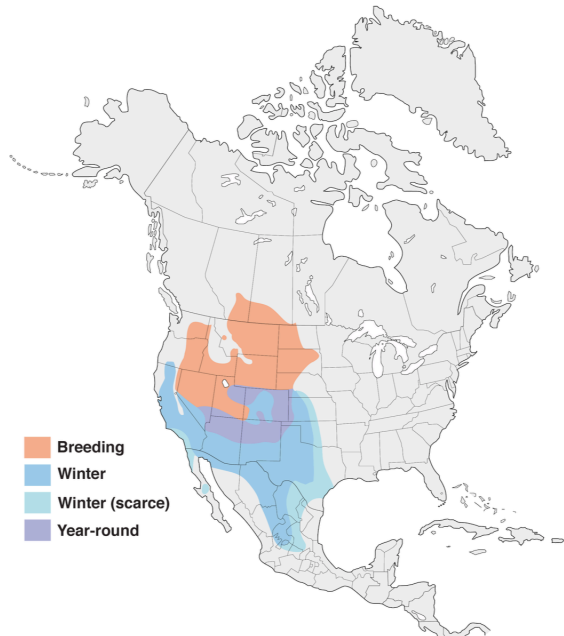


Red-shouldered
Hawk



How to Identify Raptors

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- Color Patterns (Markings)
- Behavior
- **Habitat & Distribution**
- Calls

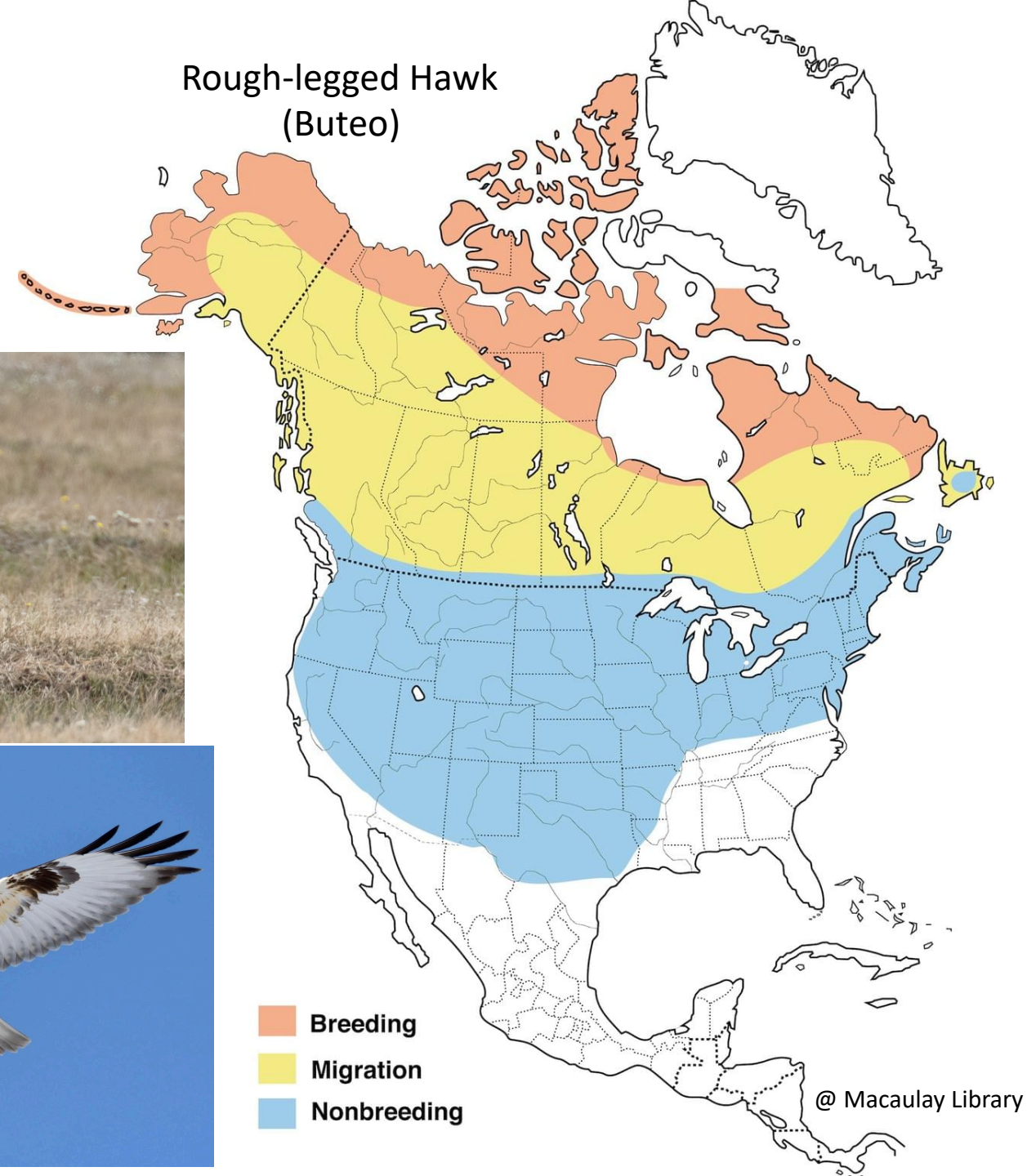


Ferruginous Hawk (Buteo)



Habitat & Distribution

- Open Country
- Forests
- Wetlands
- Deserts
- Urban Areas



Open Country

- Red-tailed Hawk
- Swainson's Hawk
- Ferruginous Hawk
- Rough-legged Hawk
- American Kestrel



Ferruginous
Hawk (Buteo)



Prairie Falcon

- Prairie Falcon
- Gyrfalcon
- White-tailed Kite
- Northern Harrier
- Golden Eagle

Swainson's Hawk
(Buteo)



American Kestrel (Falcon)



Golden Eagle



Forests

- Red-shouldered Hawk
- Broad-winged Hawk
- Northern Goshawk
- Cooper's Hawk
- Sharp-shinned Hawk

Broad-winged Hawk
(Buteo)



Red-shouldered Hawk
(Buteo)



Cooper's Hawk
(Accipiter)



Northern Goshawk
(Accipiter)



Wetlands

- Osprey
- Bald Eagle
- Northern Harrier

Northern Harrier



Osprey (Eagle group)



Urban Areas

- Peregrine Falcon
- Merlin
- Cooper's Hawk
- Red-tailed Hawk

Red-tailed Hawk
(Buteo)



Cooper's Hawk
(Accipiter)



Peregrine Falcon
(Falcon)



How to Identify Raptors

- Shape & Size
- Color Patterns (Markings)
- Behavior
- Habitat & Distribution
- **Calls**



https://www.allaboutbirds.org/guide/Red-tailed_Hawk/overview

@ Macaulay Library

Red-tailed Hawk
(Buteo)



Review — Overview of Raptors

- Shape & Size
- Color Patterns (Markings)
- Behavior
- Habitat & Distribution
- Calls
- Homework
 - Review the PowerPoint
 - Look at photographs in eBird for five species found in Washington
 - Look at some distribution maps in a bird book or on <https://www.allaboutbirds.org>
- One bird at a time
- Identify a bird to a broad category
 - Then narrow to a smaller group (7 categories), then to species
- Look for 3 or more clues to identify the bird to species, (Use the 5 characteristics)
- We will take it slow. It takes practice and we are all here to learn and help each other.

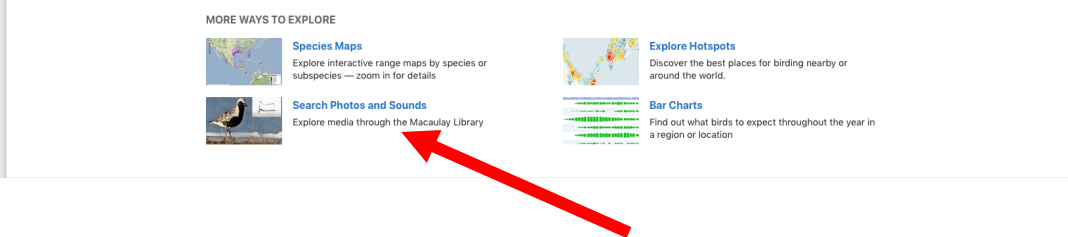
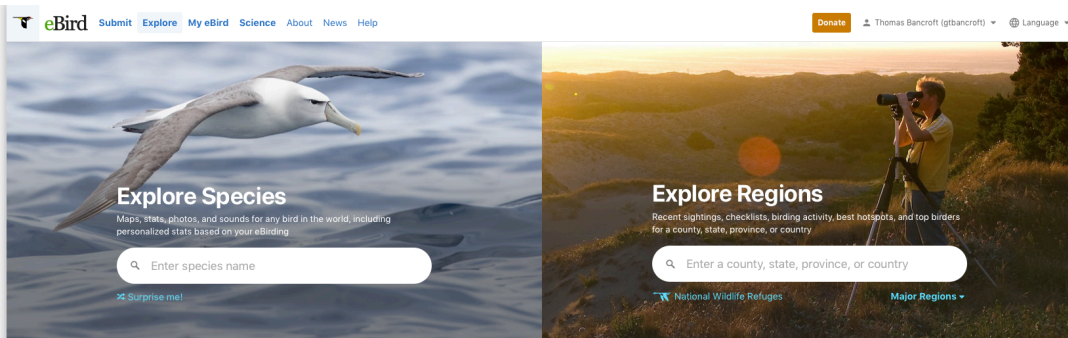
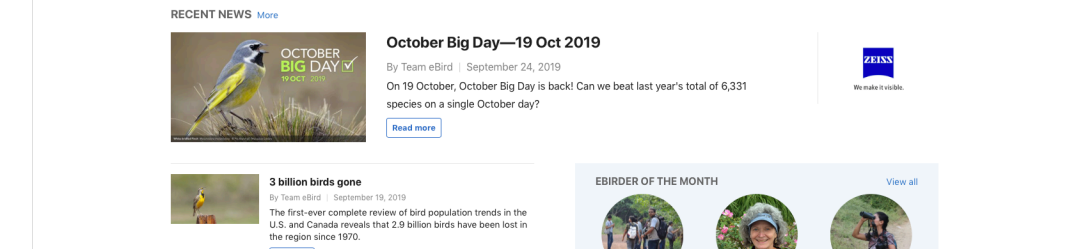
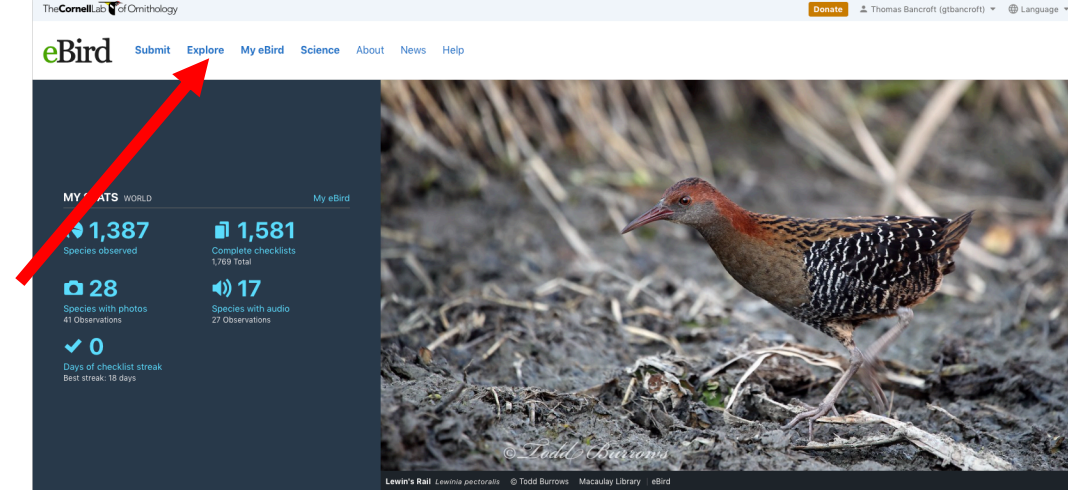
Photo: Okanogan Highlands, Washington

Questions?

gtbancroft@gmail.com



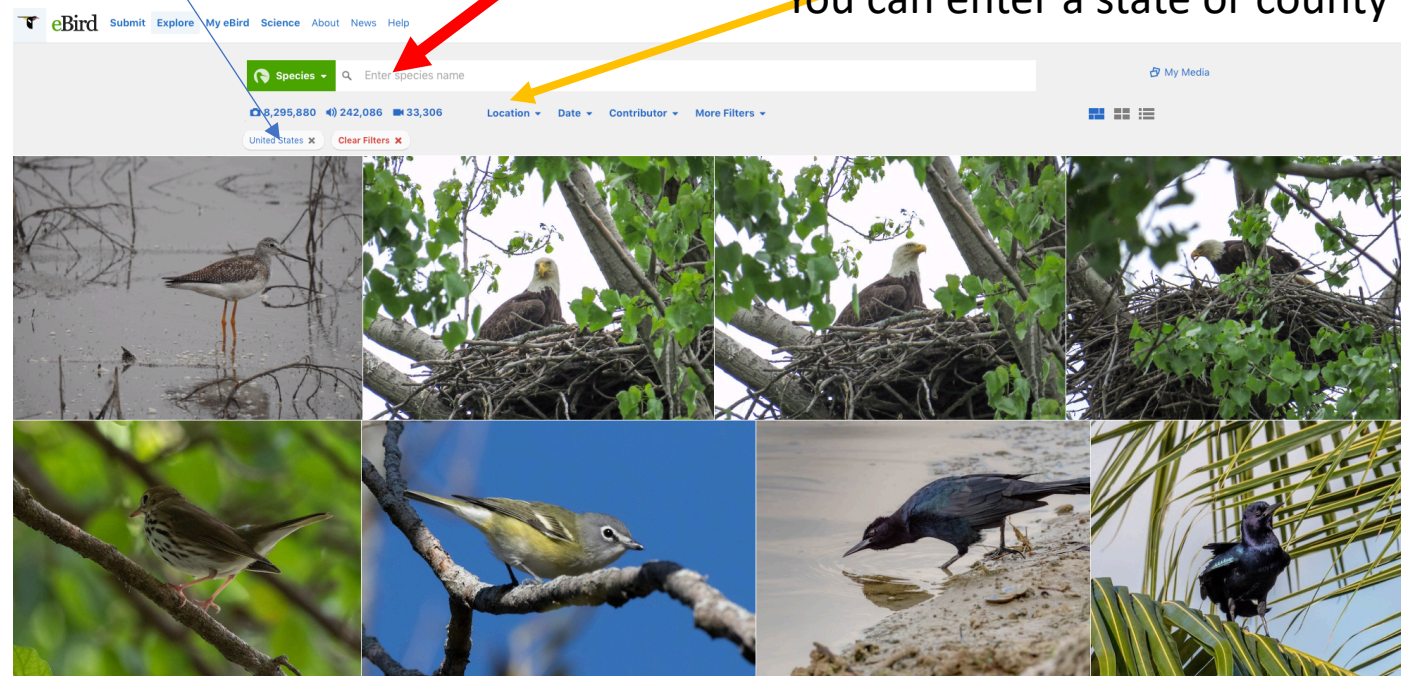
"One large with pepperoni and mushrooms."



I had entered
United States
In Location filter

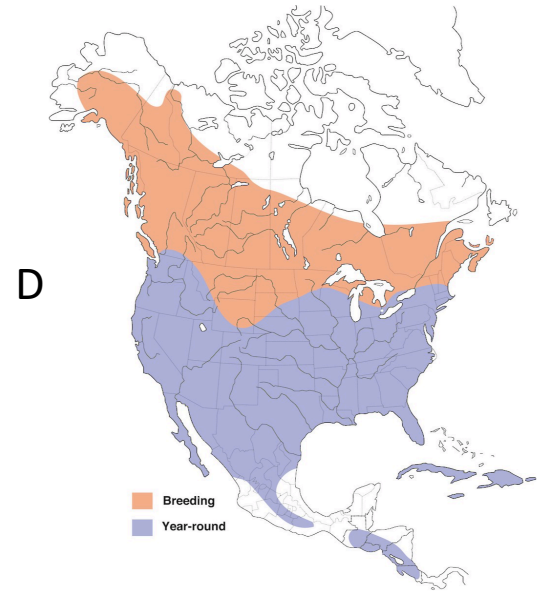
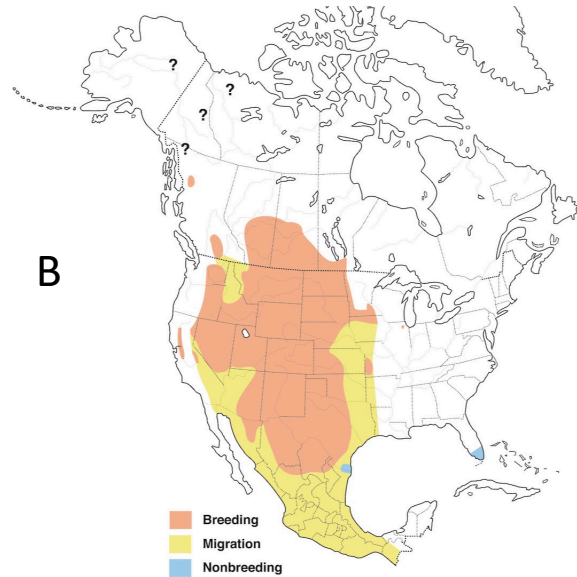
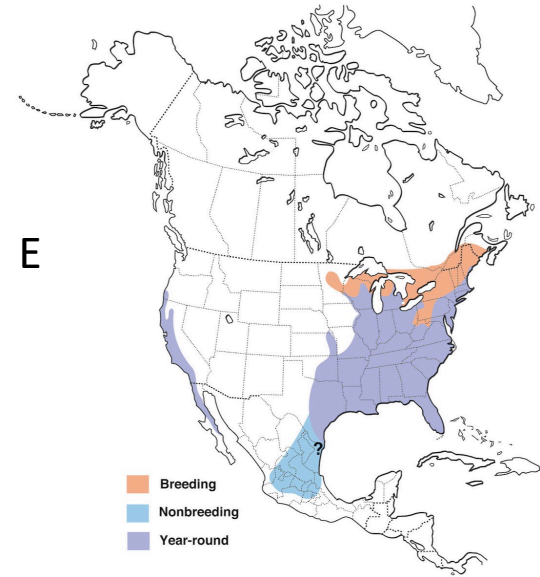
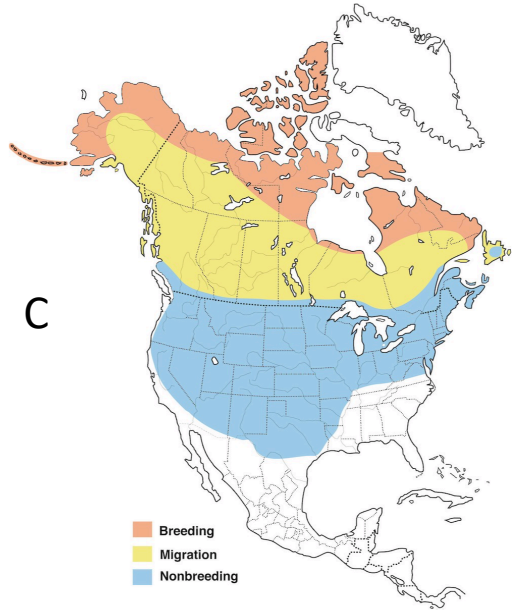
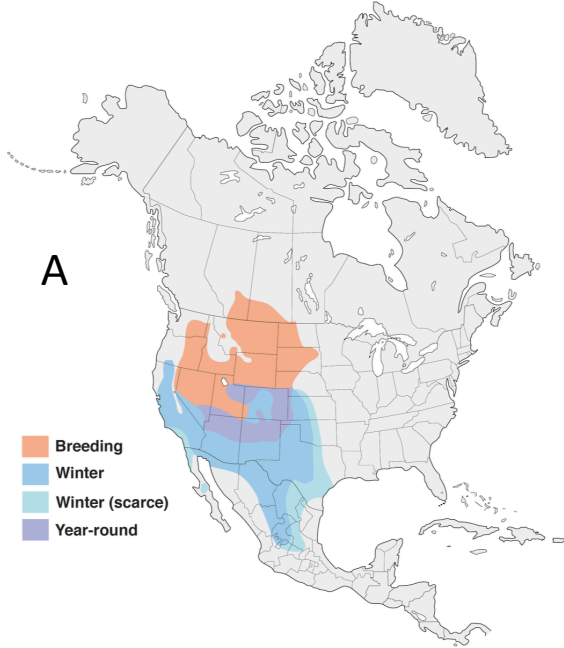
Enter species name here

See the word Location
You can enter a state or county



How to use eBird to look at photographs of
a species and in a particular state or county.

Five Buteos found regularly in Washington State



Can You Match the Distribution & Species

- ___ Rough-Legged Hawk
- ___ Swainson's Hawk
- ___ Red-tailed Hawk
- ___ Red-shouldered Hawk
- ___ Ferruginous Hawk