

Introduction

- 400 Species of birds have been found in New Jersey
- Less than 200 are common
 - How do we tell them apart?
 - Many clues are available to their identity

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Exercise I

- Make a list of physical characteristics of birds that might help you determine the identity of a species you are looking at in the field.
 - Look at pictures of birds in your field guide to get ideas of differences between species.

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Answers

- Size of the bird
- Shape of the bird
- Field Marks - color of certain parts of the bird
- Wing characteristics
- Tail characteristics
- Head characteristics
- Bill characteristics
- Leg/Foot characteristics

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Exercise 2 Size of Birds

- Expand on physical characteristics
 - Size of birds
 - What would be the most helpful way of describing the size of birds?

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Exercise 2

- Large, Medium, Small?
 - Does this work?
 - Why or why not?
 - What might work better?

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Exercise 2

- Use common birds as “yardsticks.”
 - Is the bird in question closer to the size of a Robin or a Chickadee?



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Exercise 3 Shape

- Shape of birds
- You can tell a lot about the bird you are viewing just from the silhouette.
- You could tell the type (Duck, Hawk, Dove, Flycatcher, etc.) and in some cases, even the species from silhouette.
- How many can you name?

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Exercise 4 Bill

- Many body parts are useful in identifying birds in the field.
- Certain groups of birds have distinctive bills.

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Exercise 4

- In your groups, name as many groups of birds (Hawks, Ducks, etc.) with distinctive bills as you can, and describe the bill.



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Exercise 5 Wings

- Wing shape helps identify birds in flight.
- Of the following birds, split them into 2 categories: Those with long pointed wings, and those with short, round wings.
- Use your field guide.
 - Northern Harrier (Marsh Hawk) -Owls (any species) -Fish Crow
 - Swallow (any species) -Pheasant -Tern (any species) -Night Hawk
 - Broad-Winged Hawk -Quail (any species) -Mockingbird
 - Chimney Swift -Kestrel

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Exercise 5

- Long and pointed
- Harrier
- Swallow
- Terns
- Night Hawk
- Chimney Swift
- Kestrel
- Short and Rounded
- Owls
- Fish Crow
- Pheasant
- Broad-Winged Hawk
- Quail
- Mockingbird

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Exercise 6 Tail

- The length of the tail and the tip of the tail help identify some birds.
- Describe the tails of the following common birds.
- -Mockingbird -Common Grackle -Barn Swallow
-Mourning Dove -Bob White Quail
-Eastern Phoebe -Cedar Waxwing
-Eastern Kingbird

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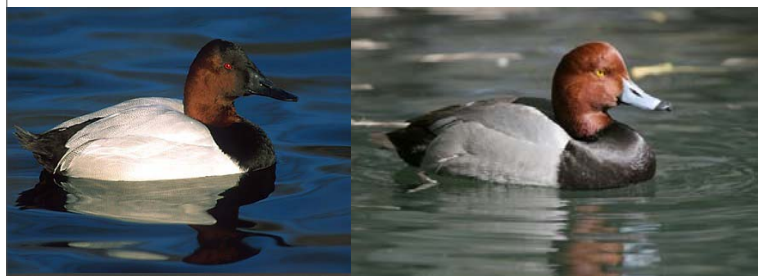
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Exercise 7 Head Shape

- Shape of the head is also helpful in identifying birds.
- Look in your field guides at the following ducks: Canvasback and Redhead
 - The colors and body shape are very similar, but the head shape can quickly allow the observer to differentiate the two species.

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Canvasback or Redhead?



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Head Shape

- One distinctive characteristic of head shapes is a crest.
- List as many birds as you can that have a crest.

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Head Shape

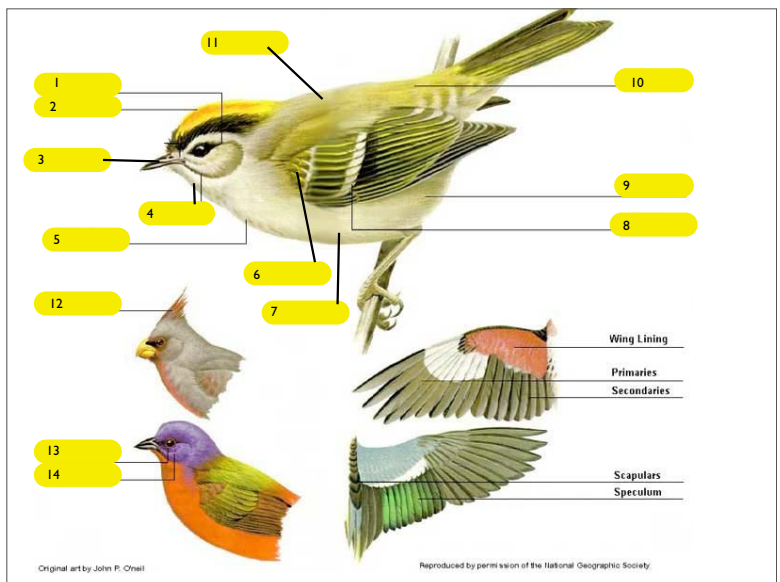


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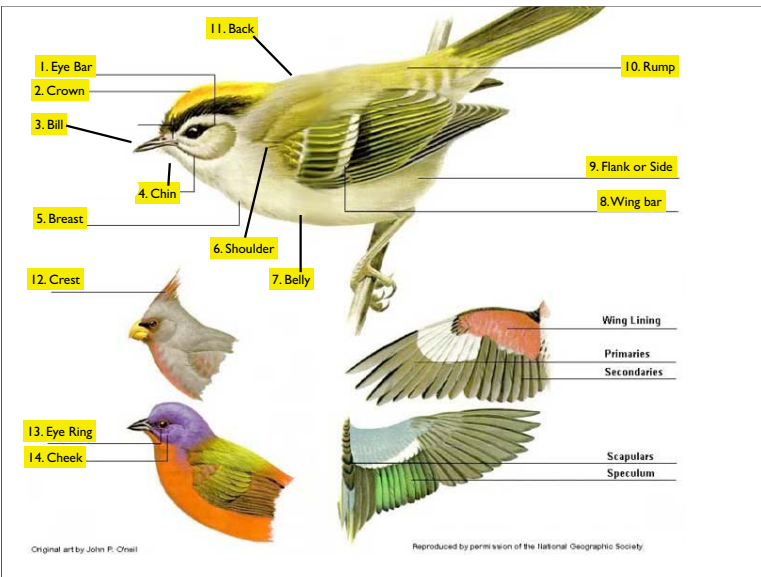
Exercise 8 Field Marks

- Many birds have a lot of color.
- The distribution of color on birds is invaluable in identification.
- Most birds can be identified without the use of these field marks, but when the identification is not positive, field marks will differentiate species.

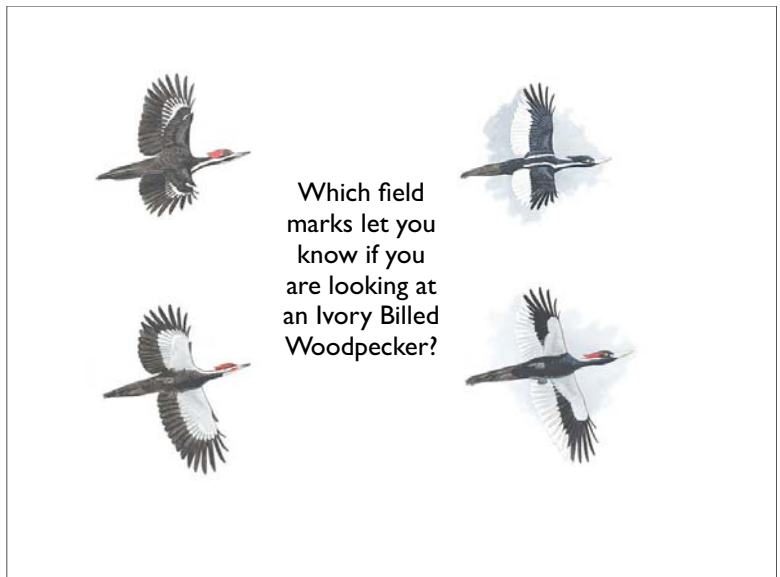
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5 different species that have overlapping ranges.



What field marks can we use to tell them all apart?



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Exercise 9

- Birds do more than sit there and look pretty.
- There are many things other than physical characteristics that can aid in identification.
- In your groups, list any clues to help identify birds that are not physical characteristics.

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Exercise 9

- Where it is found
- When it is found
- Behavior
- Flight pattern
- Call or song

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Exercise 10 Where it is found

- When considering what bird you may be looking at, consider where you are.
- Each habitat has its own associated bird life.
- Habitat is useful before you start birding.
 - Would you expect to see a woodpecker at the beach, or a tern in an old growth forest?

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Exercise 10

- In groups, name any habitats you think we may have in New Jersey (I can think of 9).
- List two or three birds you would expect to find in those habitats.
 - For example:
Freshwater Swamp- Red-winged Blackbird, Swamp Sparrow

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Exercise 10

- Ocean - Surf Scoter, Wilson's Storm-Petrel
- Bays - Atlantic Brant, Laughing Gull
- Salt Marsh - Clapper Rail, Willet
- Pine Forest - Pine Warbler, Carolina Chickadee
- Hardwood Forest - Downy Woodpecker, Great Horned Owl
- Old Fields - Field Sparrow, Bobwhite Quail
- Bare Fields - Horned Lark, Killdeer
- City - Rock Dove, Starling

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Where it is found

- Your field guide also has distribution maps. You may find similar looking species on opposite ends of the country. They may not always be the same species.

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Where it is found



Where would you expect to find each of these?

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Exercise 11 When it is Found

- Many birds migrate with the seasons.
- This changes our idea of what to expect in a given habitat.
- Some birds can only be found in the Winter, Spring, or Summer. Some can be found all year.

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Exercise 11

- In your groups, list when each of the following birds are found in New Jersey, Summer, Winter, or Year 'Round.
- Use the distribution maps in your field guide.
- Bufflehead, Baltimore Oriole, House Wren, Gray Catbird, Purple Finch, Blue Jay, Barn Swallow, Evening Grosbeak, Cardinal, Tree Swallow, Pine Siskin, Black-Capped Chickadee, Redpoll, Nighthawk, Flycatchers (all species), American Crow, White-Throated Sparrow, European Starling, Rock Dove, Snowy Owl, House Sparrow.

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Exercise 11

Winter

Bufflehead
Purple Finch
Evening Grosbeak
Pine Siskin
Redpoll
White-Throated Sparrow
Snowy Owl

Summer

House Wren
Gray Catbird
Barn Swallow
Tree Swallow
Nighthawk
Baltimore Oriole
Flycatchers

All Year

Blue Jay
Cardinal
American Crow
European Starling
Rock Dove
Black-Capped Chickadee
House Sparrow

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Exercise 12 What is it doing?

- A bird's behavior also aids in identification.
- There are many behaviors we will see in the field.
- Can you name any diagnostic behaviors of certain birds?
- Nuthatch, Harrier, Phoebe, Cormorants.

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Exercise 12



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Exercise 12

- Sometimes it is hard to get a good look at a bird in flight. Knowing the flight characteristics of birds can tell you to which group they belong.
- Some basic patterns of flight are:
 - Soaring
 - Slow Wing Beats
 - Rapid Wing Beats
 - Alternating periods of wing beats and “shooting”

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Exercise 12

- In your groups, match flight patterns with the birds listed.
- Flight Patterns
 - Soaring
 - Slow Wing Beats
 - Rapid Wing Beats
 - Alternating between periods of wing beats and “shooting”
- European Starling
- American Goldfinch
- Turkey Vulture
- Ducks
- Herons
- Geese
- Most Hawks
- Woodpeckers
- Blue Jay

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Bird Calls and Song

- Every bird we will see has a different song.
- Maybe the most difficult method of field identification.
- Best way to learn is to get out in the field and track down the sound to see who is making it.
- Many online sources to help you learn bird sounds.

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Bird Call and Song



The song of the Carolina Chickadee (above) is a full octave higher and its calls are more rapid than the Black-Capped Chickadee (right).

http://www.allaboutbirds.org/guide/browse_tax.aspx?family=39

In places where two similar looking species do overlap, often their calls or song will differentiate between them.



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Homework

- When going into the field, one needs to be organized.
- Organize a tactical plan you may use when in the field.
- Write an outline describing your plan.
 - Start with your location and time of year.

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