Songbirds in LA

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2016

Prologue

The reason why birds are important, is because they are all around us, and they keep the ecosystem healthy. The reason why they are interesting, is because the songbirds are beautiful, and they have extremely interesting behaviors.

The purpose of this work is to describe songbirds' way of life, and how their bodies are built, how they behave, and where in the LA (**L**os **A**ngeles) area that they can be found.

This work is from learning from bird books, websites to study birds, and taking bird walks with the Audubon Society.

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Chapter 1: How to Watch Birds

The way how to watch birds is by going to bird watching activities where you are in a whole group of people/bird watchers that guide you to where the birds are. To spot the birds once guided, you will need some binoculars to see the birds up close, so that you can see what they really look like. For example, my mother, and I went to several bird watching tours with the San Fernando Audubon Society, in different parks in the area.

Another way of watching birds is by trying to see what the bird is doing so that you can study them of what they do, and how they look like, and when and where they like to be. The good idea about it is so that once you have your research, you will probably know all about the bird in your research. Another way of looking/watching birds is that some of the time, you can go on websites, that can help you understand about the birds. All this knowledge helps you recognize the bird when you see it.

So, that when you bird watch, it's always good to have a journal with you, so that you can take notes of what bird is located, or found by you, or a bird guider to catch eyesight of a bird you are going to write down about/take notes that is.

Bird groups can be a family of birds, they can also be birds that are not family, but are the same bird, and also together with birds that are yes the same kind, but not a sort of relative. Bird groups are easy to find, because if there are several birds that are the same kind of bird, and are together, you can see them very easily, because since the size of the group is big, and colorful, you can see it easier.

Chapter 2: Body Structures of Birds

The birds' flight has many additional adaptations. While they fly, they migrate from one place to another. The birds do that, so that they can make more nests, all around the state/country, also so that other birds already have their habitats, shelters, or even nests ready for them. Their flight is also important of getting food. Like, they can see edible food much easier when they are above. Birds fly, so it will be much easier for them to do things faster. They also fly, so that it's prey won't leave before the bird comes.

Q: What kind of shapes do bird wings have, and how are they used?

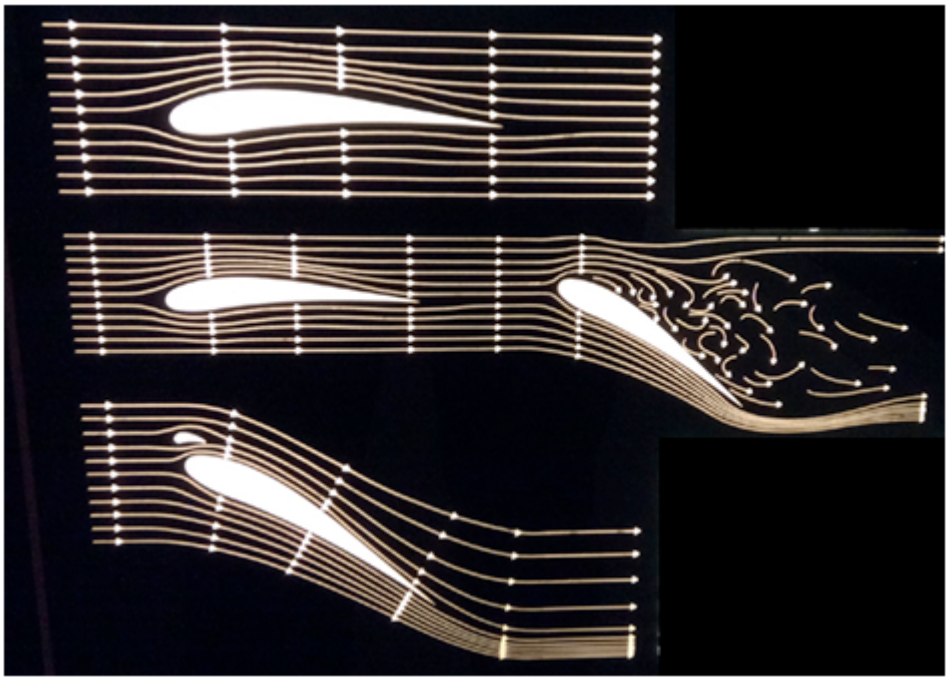
A1: The kind of shapes of wings that birds have are long, and narrow.

A2: Other types of bird wing kinds are primary wings, and very balanced.

A3: The wings spread right apart.

A bird is very well designed, tapering from a thick, rounded leading edge to a thin point at the edge. Because the

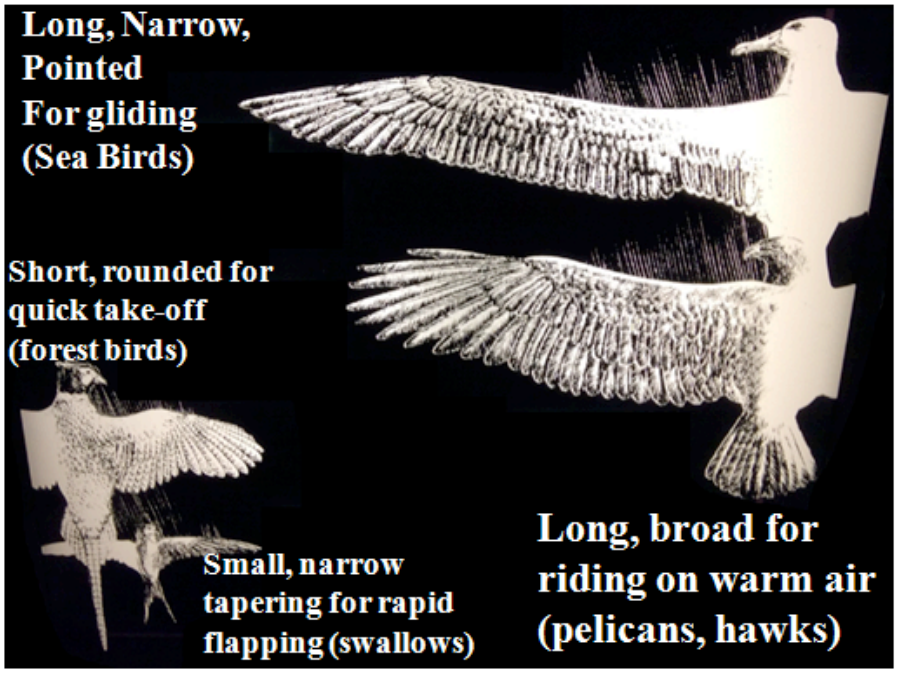
wing is so bowl shaped, air travelling over the upper surfaces has to cover a greater distance, and moves faster to catch up with air taking the shorter bottom route. This fast-moving air created a low pressure zone along the upper surface of the wing. With low pressure below, and higher pressure below, the wing in “sucked” upwards.



Birds with different types of flight have wings that are shaped very differently. Four basic wing shapes are shown, though there are many variations. Many seabirds like albatrosses have long, narrow, pointed wings for gliding long distances over the ocean. The length generates lots of lift, while the narrow pointed shape helps reduce drag while gliding. Short, rounded wings allow pheasants rapid take offs, good maneuverability, and short glides. Many forest birds have small rounded wing for quick, sharp turns while flying among trees. Similar to high speed jets, swallows have relatively small, narrow, tapering wings.

These wings can be flapped rapidly to provide speed with little drag. The fastest flyers in the bird world, falcons, and swifts, also have wings of this shape.

Long, bread eagle wings have a large surface area for soaring on rising warm air currents. The spaces between the feathers at the end of the wing help reduce drag, and are used for flight control at slow speeds. Storks, pelicans, and hawks have wings similar in shape.



Q: What makes birds colorful?

A1: Birds are colorful, because in their feathers, they have pigments, which are chemicals that absorb some colors, but while reflecting others. For example, they absorb some colors, but reflect colors like yellow.

A2: What makes birds colorful is that inside the feathers, they have very tiny/microscopic prisms, that turn into many colors, which are absorbed, and some of the colors left behind.

CS: A bird can have a mixture of both ways. I wonder if Western Tanagers have both effects, too.

Q: How much energy does bird food contain?

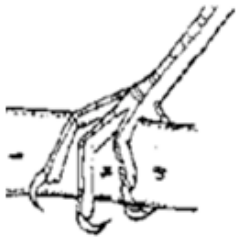
Birds are true gas guzzlers, and most require high octane fuel. Animals take in “fuel” form of food. The metabolic rate is the rate at which an animal burns this fuel. The amount of energy an animal requires depend on its body size larger. Animals generally have slower metabolisms, and eat less food for their size, than smaller animals. Because most birds are all small, and have active lifestyles, they need a lot of fuel. If you “eat like a

bird", then you really have a healthy appetite. Rather than eating a vast amount of low energy foods that would make them heavy for flight, most birds eat smaller quantities of high energy foods such as seeds, insects, and nectar.

Q: What kind of feet do birds have, and how are they used?

A1: Birds have feet with Bent toes, and straight toes with claws on the toes. Those feet are on birds like perching birds.

A2: Some pelicans/ospreys have very straight legs, toes, but very short claws.



Most song birds are perching bird. They have feet with flexible toes with one toe facing backwards. This helps them hold on to trees even when they are asleep!

Woodpeckers have feet with two toes pointing forward and two pointing backwards. This helps them climb up, down and sideways on the tree.

A3: Some flightless birds have pretty curved toes, and short claws. But, also they do not fly, so they walk on ground, and nest on spruce trees.

Q: What kind of bills do birds have, and how are they used?

A1: The kind of bills are sometimes very big, and hollow.

A2: They can also be short like with other perching birds for example; the Western Tanager, and the Cedar Waxwing.

Beaks of song birds:

Cone-shaped bill helps cracking seeds
Example: finches

Thin and pointed beaks help grab insects from leaves and other parts of plants
Example: Warblers and the Western Tanager

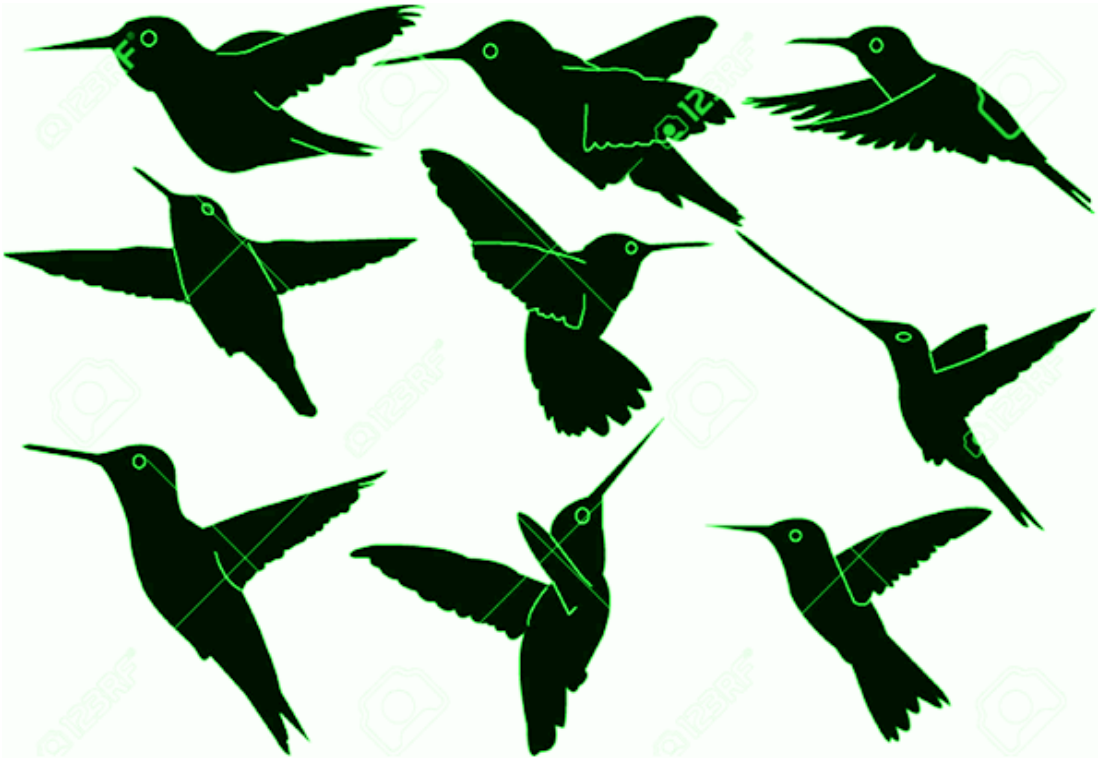
Strong beak which tapers to the tip, helps poking holes in trees.
Example: Woodpeckers

Long bills that look like straws. They help
Suck nectar from flowers
Example: Hummingbirds

Beaks that are flat and wide at the base. Help catching insect in flight.
Example: Flycatchers

Chapter 3: Bird Groups

There is a huge variety of different kinds of birds. Birds can be grouped into large groups of similar habitat, like song birds, water birds, and vultures. They can also be grouped by similarity to each other. For example, there are many kinds of finches, woodpeckers, hummingbirds (see picture below).

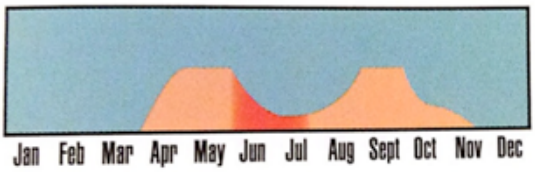


Chapter 4: Bird Migration

Bird migration, is birds flying from one area to another area by flying. Birds migrate, so that they can move from areas with no food, to places where there is food. Like for example, birds in America fly north in the spring because the warm weather brings many insects to eat. When it gets cold, and the insects die off, birds fly south. Birds also migrate to find places to nest. Also as it gets warmer in the spring, birds fly north because there are more plants to make nests with. Getting away from the cold is another reason why the birds migrate.

A Los Angeles example of birds who migrate like this are called Western Bluebirds. Western Bluebirds are birds who eat insects, and who make their nests in holes in trees made by Woodpeckers. These are birds who need warm weather to feed, and to make babies.

The Western Tanager is usually a summer/spring bird, that has a red head mixed with yellow, has black wings with yellow wing stripes, yellow stomach, and a black tail. The Western Tanager eats insects during the spring usually in the mid April. It happens once the bird arrives by then. And the males are more colorful.



(This graph was taken from "Birds of Los Angeles"

The Cedar Waxwing is a winter/spring bird, that has a pointed, light brown crest, red wax-like tips, has a yellow belly as well, and a bright yellow tail band. The Cedar Waxwing is usually a winter bird that eats insects as well, but in the spring, they only arrive on May.

(This graph was taken from "Birds of Los Angeles"

Chapter 5: Songbird Habitats

For example, my mother, and I went to Youth Audubon Society, and with Alex, we saw perching birds that are up on a tree branch, which is one of a perching/songbirds' habitat. But, another way to know what a songbirds' habitat is, is that you can go on websites that talk about a perching birds' habitat.

The biomes (Terrestrial, and Aquatic Biomes that is) that the birds are in as one of their habitats, are forests, grasslands (meadows, plain, scrub), wetlands, seashores, and urbans (cities). And those are the biomes/few more of a songbird's habitat in biomes like these. These biomes are also where a few songbirds live, which is probably a little bit about songbirds' habitat.

Chapter 6: Where to Watch Songbirds in LA

You can see song birds pretty much everywhere, even right outside your house, or on the street. But if you want to be sure to see lots of interesting birds, follow where the Los Angeles and San Fernando Audubon Societies go. Their groups meet once a month, and each time at a different park. Their favorite parks in the area are: O'Melveney Park in Granada Hills, Franklyn Canyon Park (in the Hollywood Hills), Chatsworth Park but the most favorite park is the Wildlife reserve at the Sepulveda Basin.

My mother, and I went to several parks with Young Birders Association. We went to several of these parks as you can see in the pictures below:

List of Birds we saw in our bird walks with the San Fernando Young Birders:

O'Melveney Park, March 26 2016:

(Identified by Alex, from Young Birders of SFVAS)

1. Red-tailed Hawk
2. Anna's Hummingbird
3. Allen's Hummingbird
4. Acorn Woodpecker
5. Red-breasted Sapsucker
6. Northern Flicker
7. Black Phoebe
8. Bushtit
9. White-breasted Nuthatch
10. House Wren
11. Western Bluebird
12. Northern Mockingbird
13. European Starling
14. Yellow Warbler
15. Spotted Towhee
16. Dark-eyed Junco
17. Pine Siskin
18. American Goldfinch

Franklin Canyon, April 30th 2016:
(Identified by Alex and Olivia from Young Birders of SFVAS)

1. Mourning Dove
2. California Towhee
3. Blue-Gray Bluebird
4. Ruby Crowned kinglet
5. Red Shoulder Hawk
6. Western Scrub Jay
7. Raven (nesting)
8. Song Sparrow
9. Northern Rough Winged Swallow
10. Acorn Woodpecker
11. Musklee Duck

Sepulveda Basin Wildlife Park, Birdathon, May 7 2016:
(Identified by Kathy, from SFVAS)

1. Snow Goose
2. Mallard
3. American White Pelican
4. Cormorant
5. Green Egret
6. Turkey Vulture
7. Mourning Dove
8. Anna's Hummingbird
9. Nuttall's Woodpecker
10. Black Phoebe
11. Western Kingbird
12. Cedar Waxwing
13. Yellow Warbler
14. Song Sparrow
15. Hooded Oriole
16. Great-Tailed Grackle

Epilogue

In my science project, I learned about birds' habitat, how their body is compared to their habitat, and how they migrate to find the best habitat for each time of the year.

In bird watching, I learned that you won't always know which bird will be there. I now know how bird watching takes patience, good vision to spot birds, and other people to talk to about birds.

I would like to thank my mother for bringing me to the bird walks, and helping me with the pictures, correcting, and commenting the text/information, and collecting resources. I hope that you've enjoyed reading my project.

Resources

Websites I used:

- Website about bird beaks (Chapter 2): http://www.fernbank.edu/Birding/bird_beaks.htm
- Website about bird feet (Chapter 2) http://www.fernbank.edu/Birding/bird_feet.htm
- Website of the San Fernando Audubon Society: http://www.sfvaudubon.com/
- Website about Bird habitats (Chapter 5): http://birding.about.com/od/Bird-Glossary-H-K/g/Habitat.htm
- Website about bird migration (Chapter 4): https://www.allaboutbirds.org/the-basics-how-why-and-where-of-bird-migration/

Natural History Museum:

- Ralph W. Schreiber Hall of Birds: What the Hall of Birds was useful for was on birds' wings, and color.

Books:

- "Birds of Los Angeles" / Chris C. Fisher and Herbert Clarke: What the book was useful for was what the bird looks like.

Birdwalks:

- February 27 2016 Malibu Lagoon (L.A. Audubon Society; Lead by Chuck)
- March 12 2016 Sepulveda Basin (SBV Audubon Society; Lead by Chris)
- March 26 2016 O' Melveney Park (Young Birders; Lead by Alex)
- April 30 2016 Franklin Canyon (Young Birders; Lead by Alex, and Olivia)
- May 7 2016 Sepulveda Basin (Birdathon; Lead by Kathy)