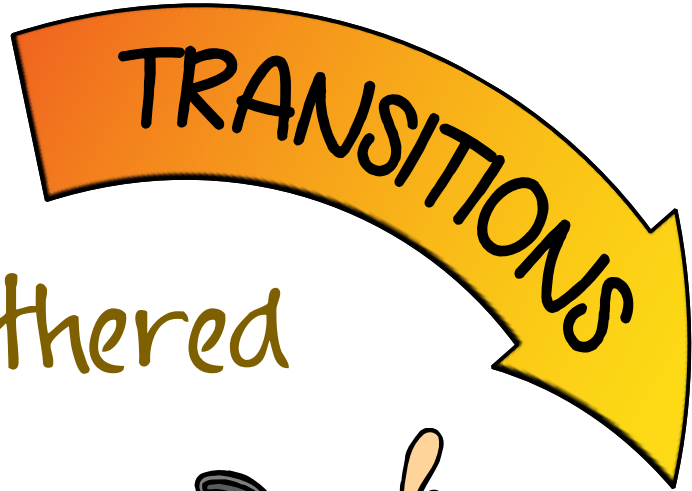




...and our Fine Feathered Friends



Speaker: Tom Sheffield
tssbirder@gmail.com

April 8, 2017



Tom's Story

- Kansas kid
- First camera in mid 1950s
- High school photographer.
- While in high school, university Nature Study
- Graduated in 1969, Math, Physics & Chemistry.
- Employed at Hughes Aircraft, 6/9/69 (MTS – Math).
- Retired 9/30/2011.
- Looked for places to photograph birds.
- Dec. 2011 began volunteer work NAS
- 2016 NAS Great Egret Award for service



Granddad putting hay in barn



Graduation day



1st day at Hughes



Last day at work



First camera



Football game



Bolsa Chica



Processing Spotted Towhee

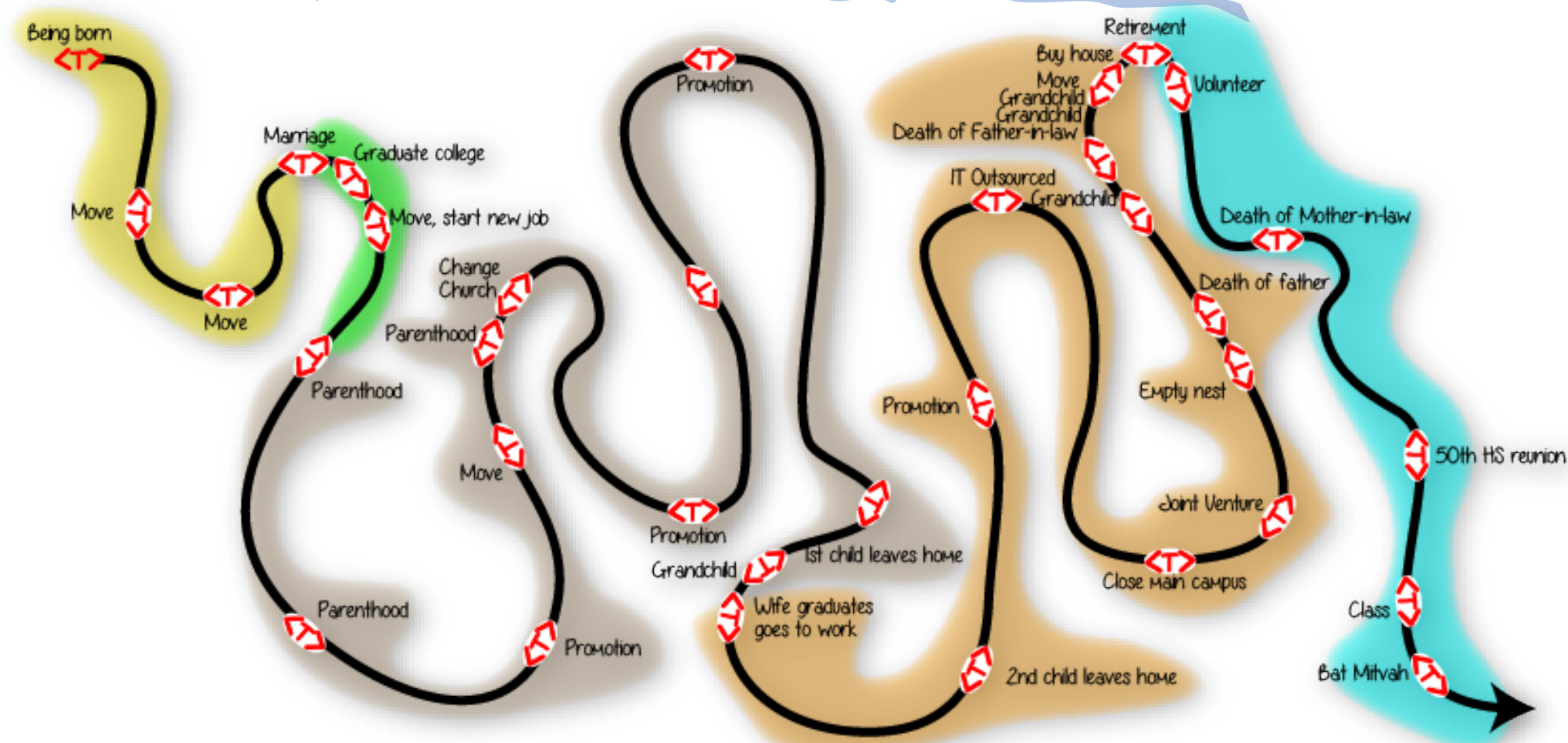


Nature Study



Great Egret Award

Life Transitions



OLD < Transition > NEW - <T>



"When you're a dancer, you start with the basics. You don't all of a sudden do a grand jete and pirouette. You start with first position, second, third."

-Rita Rudner

So what's the big deal about birds?

Beautiful

- Huge color palette
- Sounds capture our hearts & imagination



Diverse

- 10,000+ species
- Every environ on earth



Unique

- Nothing else like them
- Split from dinosaurs 150m years ago



Complex

- Feather development almost beyond belief
- Types & arrangement of feathers unmatched



Enviably

- We only wish we could fly like them
- Stamina & physical feats beyond our best athletes



Mysterious

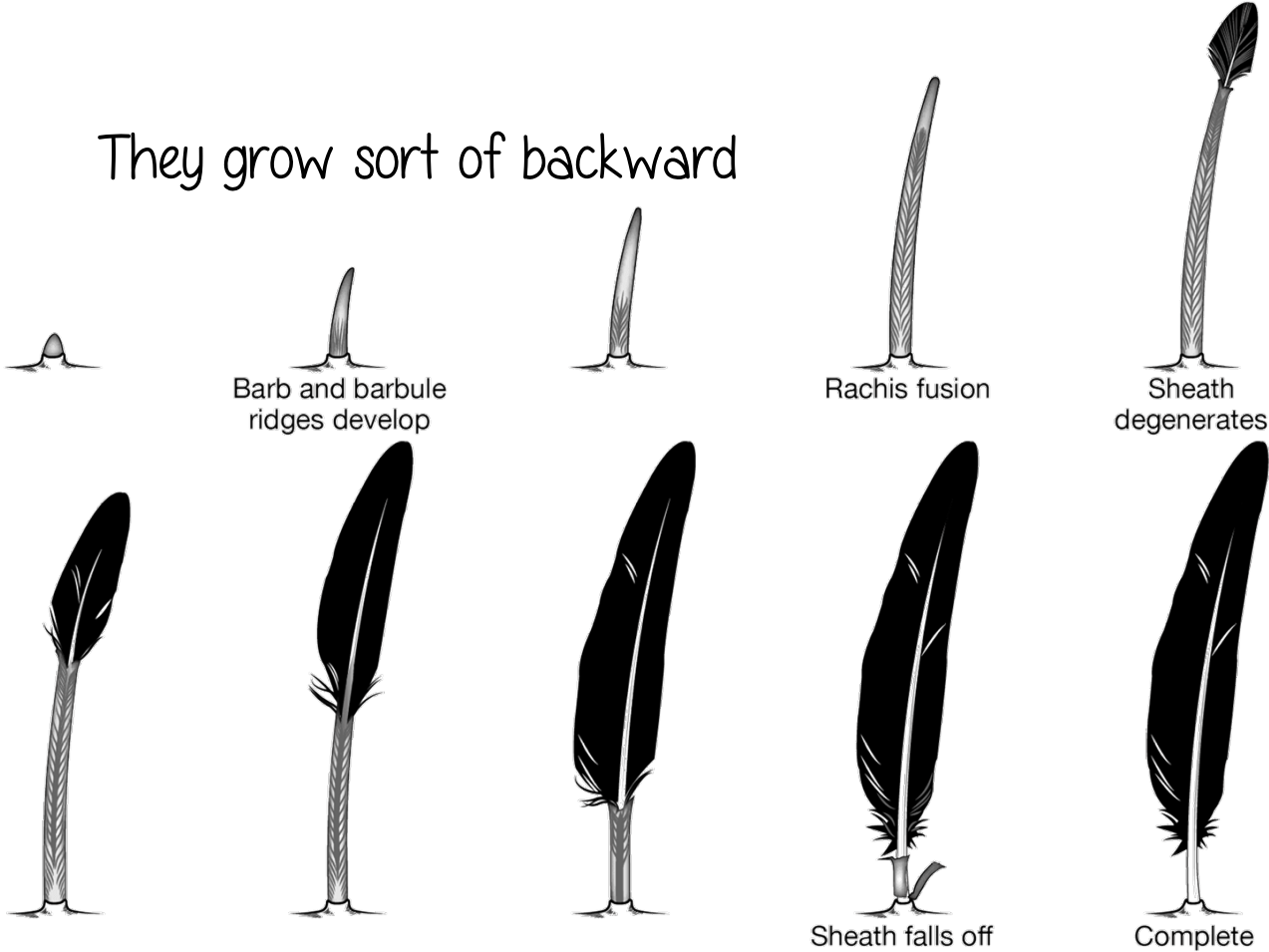
- We still know very little about even the most common species



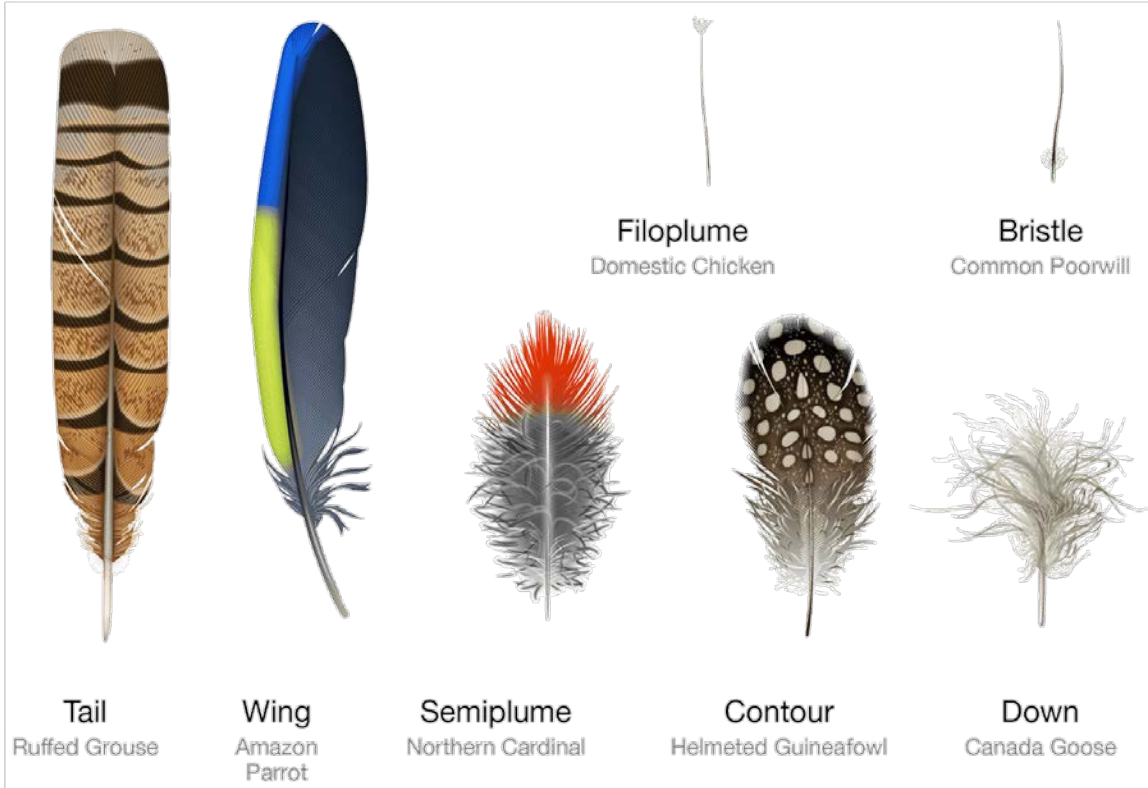
Birds are our indicators: how goes the fate of the birds, so goes the fate of all.

Feathers

They grow sort of backward



...and they grow in a vast range of different sizes, shapes, colors and structures



Each feather follicle (papilla) grows exactly the kind of feather that is needed and when it's needed!

Birding – What is it?

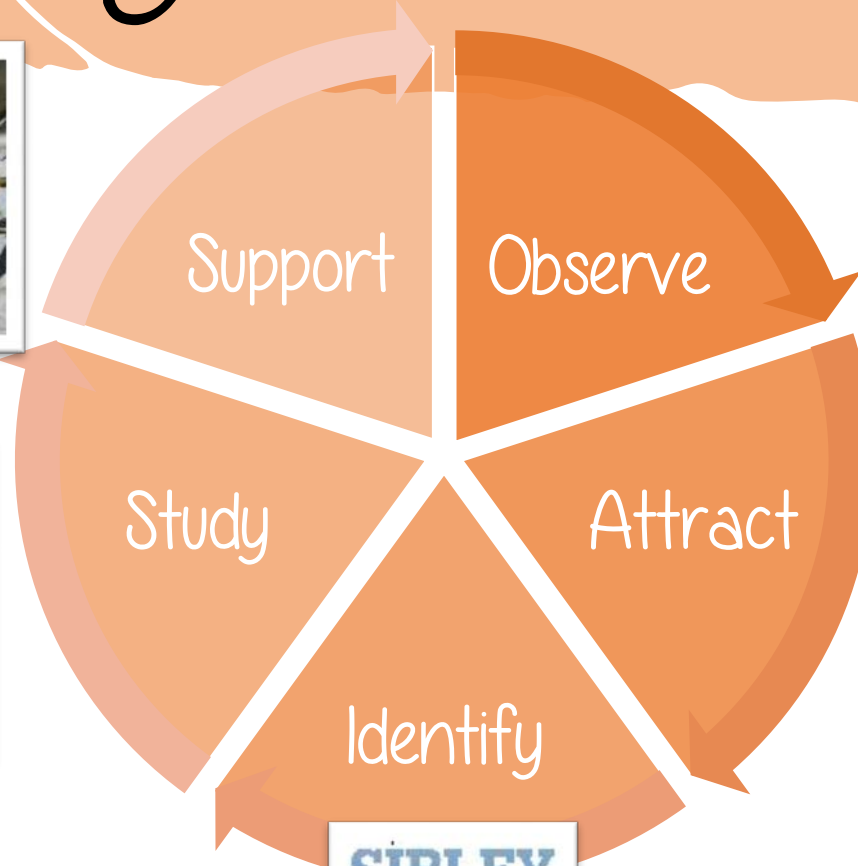
- Volunteer
- Donate
- Champion



- Home course
 - On-line
 - Formal classes
- Field work
- Volunteer
- Professional



- Experience
- Reference
- Experts
- Document
- Share



- Where ever you are
- Backyard
- Field trips (hikes, biking)
- Camping
- Groups



- Feeders
- Water features
- Habitat develop & maintain

How Do I learn About Birds

Field guides & apps

On-line resources

- Cornell University, National Audubon Society, American Birding Association

Local college and University classes

- (Cal State Fullerton, Biology 479 – William Hoese)

Local Audubon Chapter resources

- Orange County chapter is Sea & Sage

Hang out with experienced birders

Get out there and observe them first hand!



BIOL 479 - Ornithology (4)

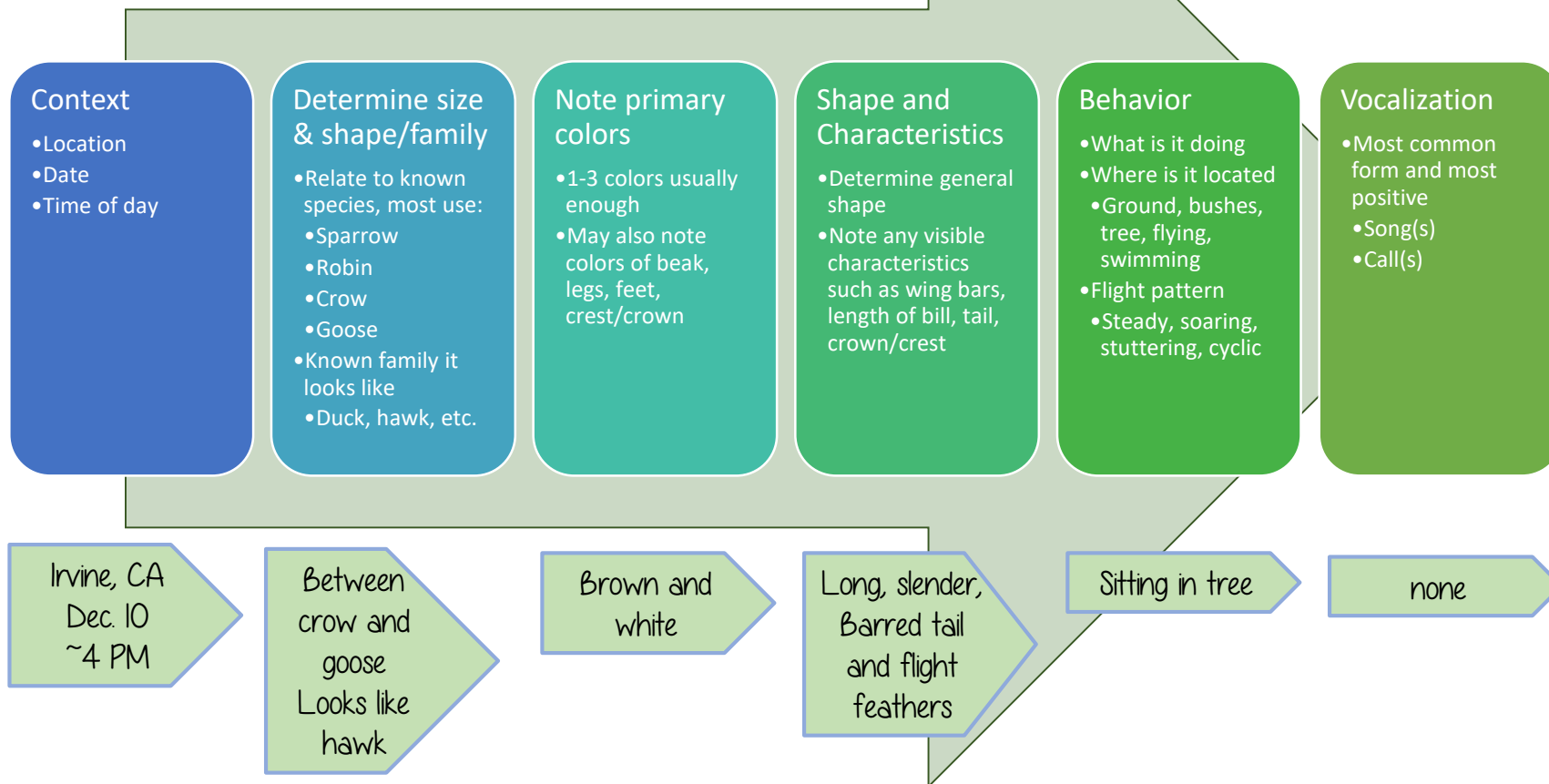
BIOL 479 - Ornithology (4)

Anatomy, physiology, evolution, behavior and distribution, observational techniques and community field trips may be required.

Prerequisites: completion of biology 101-102 or 101-103



What Bird Is That?



Cooper's Hawk

Field Guides — Books

Many available

- Most book services (stores & on-line offer lots of good choices)

Was main field resource

- For many years, small, portable field guides were the main source of information for birders in the field. Now most birders use an app on their phone.

Personal preferences

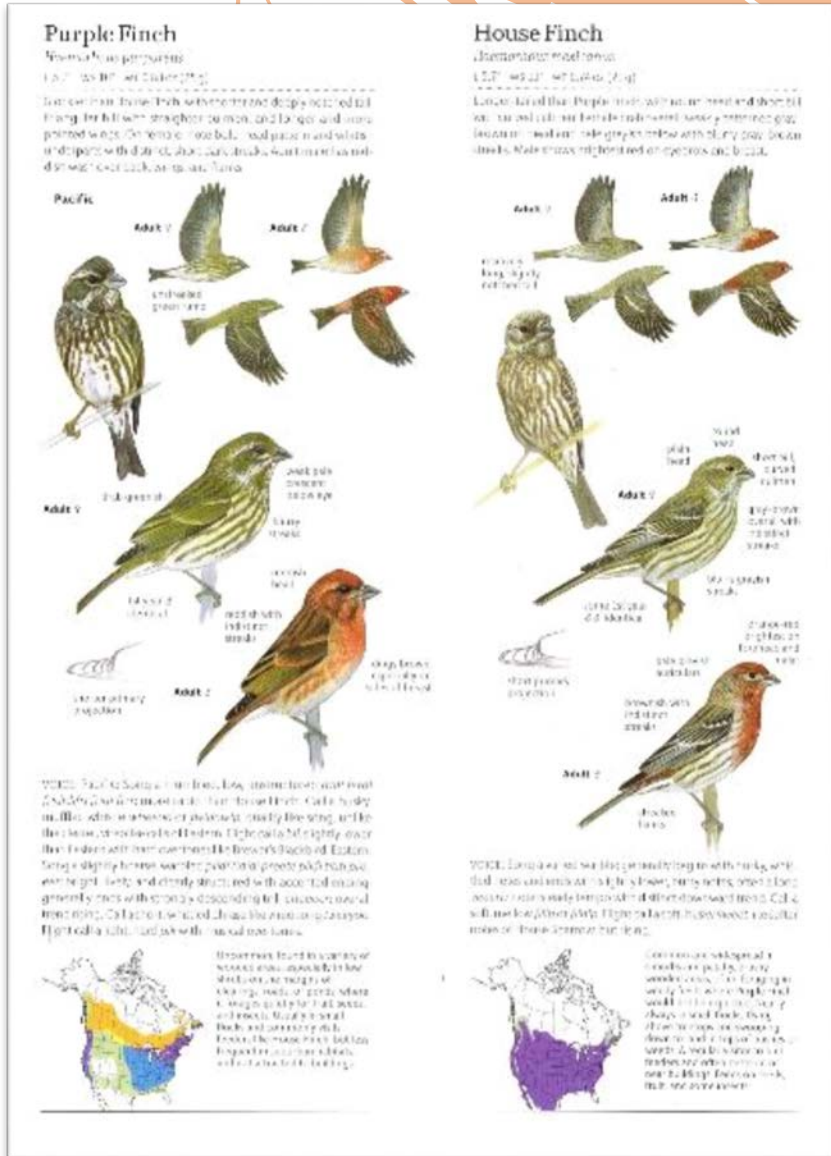
- With so many choices, it comes down to what you like and want in your reference(s). Factors of influence are size, weight, cost, graphics types (photos or illustration), types and timeliness of information provided and organization.

Supplements field observations and apps

- It's very nice to have a printed document that is larger than the display on your phone that you can refer to in your vehicle or when you get back home.



Sibley Guide — Sample



- These are two common birds in our area
- This shows you the information that is available in the latest Sibley Guide
- At first glance they are pretty similar
- When you look closer, there are several distinguishing differences in the guide, especially in the males.
 - Amount & shade of red on head, breast, flanks and wings
 - Bill length and shape
 - Tail shape
 - Any others?

Sibley Guide — Sample

Purple Finch

Parus purpureus
L.S.P. 10011-10012 (1901)

For color in these finches see the two deeply colored tail bars on the wings, together forming a broad and well-defined band on the back, and the pale and white underparts with the red, blue, and black markings on the head and neck.

Pacific

Adult 1

Adult 2

Young

Adult 3

House Finch

Parus domestica
L.S.P. 10013-10014 (1901)

Coloration of the Purple Finch, with the red and blue tail bars, and the red and blue markings on the head and neck, is similar to that of the House Finch, with the red and blue markings on the head and neck.

Adult 1

Adult 2

Young

THESE TWO SPECIES OF FINCHES, LIKE ALL OTHERS, ARE NOT IDENTICAL IN COLORATION. THE HOUSE FINCH HAS A MORE RUSTY AND MORE UNIFORM COLORATION, AND THE PURPLE FINCH HAS A MORE VIVID AND MORE VARIED COLORATION. THE HOUSE FINCH IS MORE COMMON IN THE EASTERN PARTS OF THE UNITED STATES, WHILE THE PURPLE FINCH IS MORE COMMON IN THE WESTERN PARTS. THE HOUSE FINCH IS MORE COMMON IN THE EASTERN PARTS OF THE UNITED STATES, WHILE THE PURPLE FINCH IS MORE COMMON IN THE WESTERN PARTS.



Which is which?

Even in the hand it takes careful observation and possibly years of experience to properly identify a species.

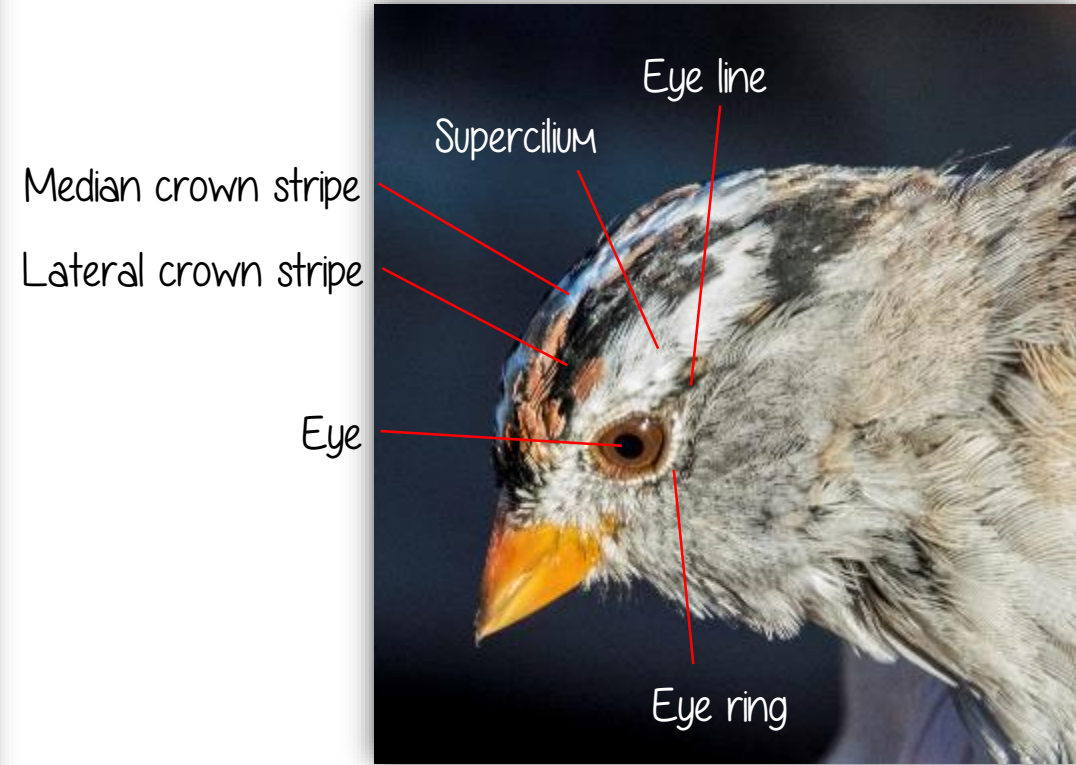
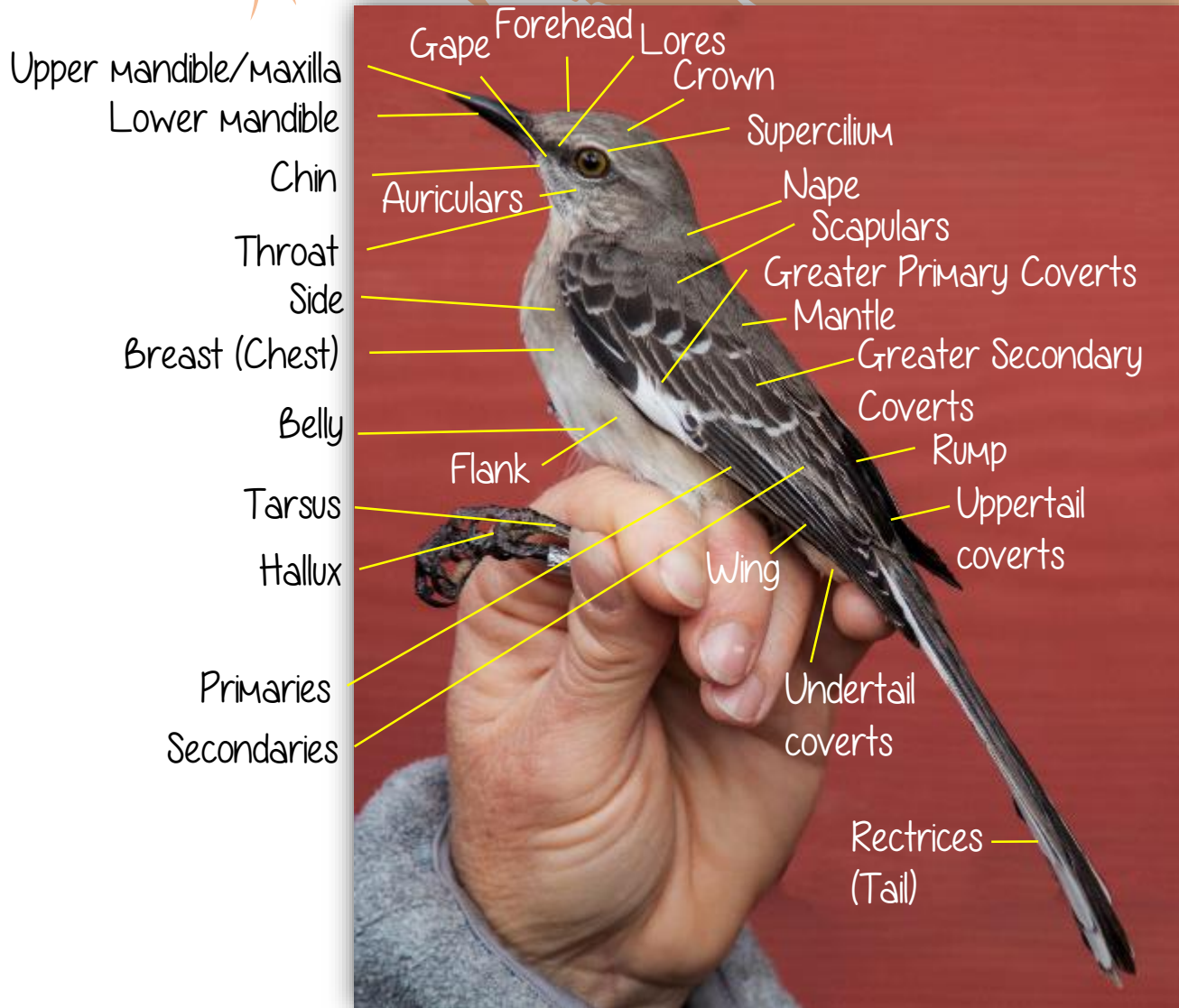
Field Guides — Apps

Audubon	Peterson	Sibley	iBird	Merlin
<ul style="list-style-type: none">• Photos• Range• Sounds• Description• Similar• Notes	<ul style="list-style-type: none">• Illustrations• Photos• Description• Range• Similar• Habitat• Nest• Breeding range• Nest & eggs• Notes• Quick facts	<ul style="list-style-type: none">• Illustrations<ul style="list-style-type: none">• Male, female, juvenile, flight• Photos• Range• Sounds• Behavior	<ul style="list-style-type: none">• Illustrations• Description• Photos• Range• Sounds• Behavior• Ecology• Similar• Ecology• Nesting• Notes• Links	<ul style="list-style-type: none">• Unique• Used primarily to identify a bird• Photos• Description• Sounds• Map

These are just a few of the phone/tablet applications available for identifying and studying birds.

The features listed are examples, not intended to be an exhaustive list. Many of these come in beginner and advanced versions. Like most portable apps, these are readily available and reasonable in cost.

Bird Anatomy/Terminology



Tools of the Trade

Binoculars Scope/tripod

- Hi power
- Small, light portable
- Comfortable support (strap(s))

Field Guide(s)

- Printed
- Illustrations
- Photographs
- App
- Phone or tablet
- Desktop

Appropriate Apparel

- Good walking shoes, prefer waterproof
- Layers
- Head protection
- Sun glasses (UV protection)
- Rain gear

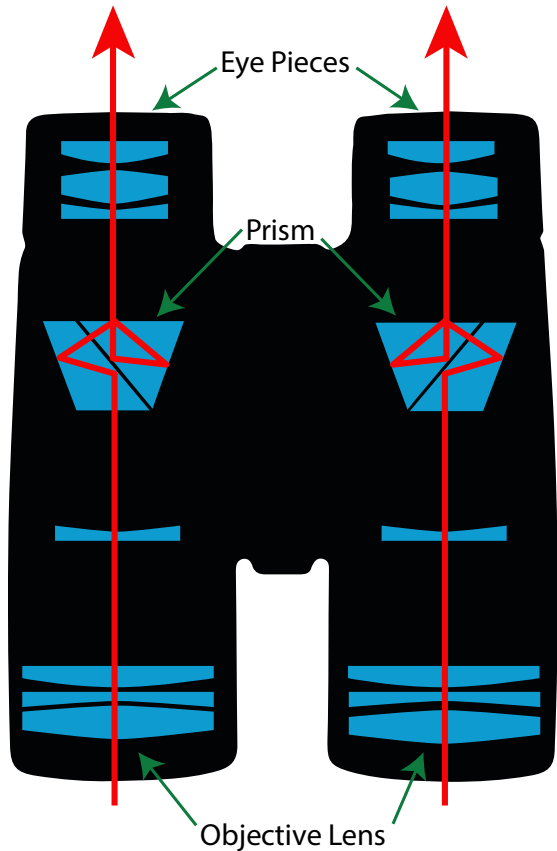
Optional

- Spotting scope/tripod
- Very expensive camera, & even more expensive lens



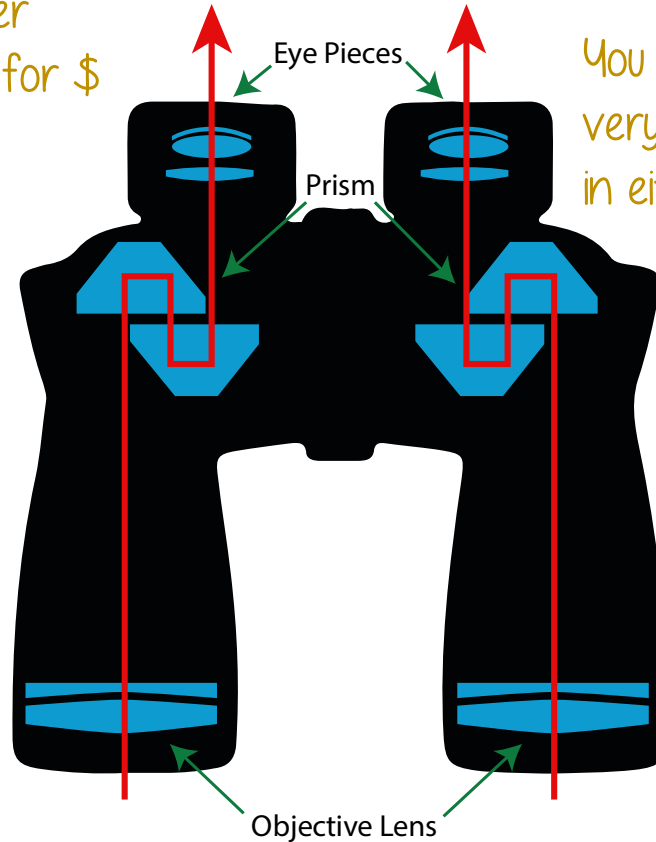
Choose your Binoculars

Roof Prism



Roof = lighter
Roof = better optics for \$

Porro Prism



Porro = Less \$

You can get very good quality in either design



- Quality = clearer vision
- Quality = brighter vision
- Quality = fit your eyes
- Quality = lasts longer, more rugged & weather-proof
- Quality = more & better lens coatings
- Quality = more expensive
- Really good quality = Very expensive!

Invest in good quality from the start – you'll be really glad you did! ...but you can work your way from good to better.

Life List

- Just what it sounds like – a list of all the birds you have observed in your life.
- What, when and where are minimal log entries but can add anything you want such as a reference number, notes, photograph(s), scientific names.
- Manual or automated or both (check lists in guide books/apps).
- Can also have other lists such as backyard, yearly, trip, state/country or wish lists.
- Plan your trips around your list – go where there are birds you really want to see.
- (Optional) Submit your list to birding organizations, but you will have to fit your data into their approved format and have followed their rules for including birds on your list.





"Start where you are. Use what you have. Do what you can."

-Arthur Ashe

Backyard Birding



Safety



Food

Water



Nesting

Shelter

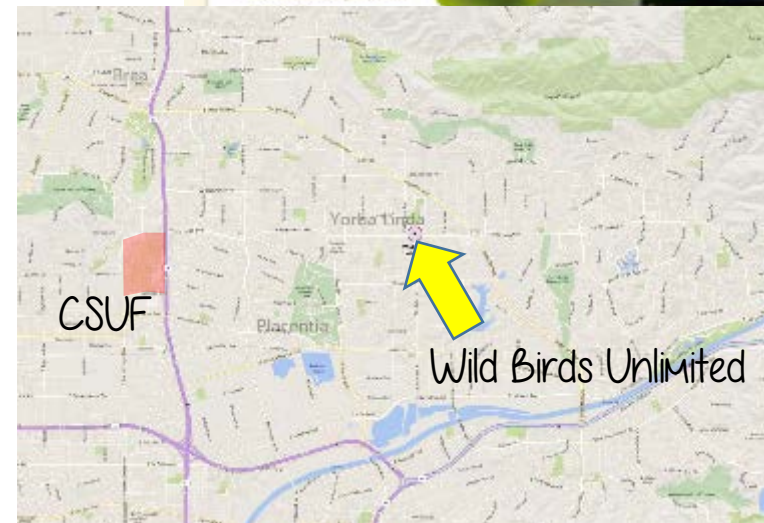


Backyard Birding



Wild Birds Unlimited Local Resource

- Bird feeding resources – baths, feeders, high quality seeds in small and large quantities as well as meal worms.
- Good selection of recent birding references, both printed and video
- Very good quality binoculars
- Lawn/garden art, flags, whirligigs
- Bird and birding collectibles (clothing, jewelry, etc.)
- Knowledgeable staff
- Strong supporters of area birding activities



...of summer," you will be doing yourself and water.

...or not, birds need water. Offering a dependable you can help to greatly increase the variety of

...allowing you to watch their often comical antics.

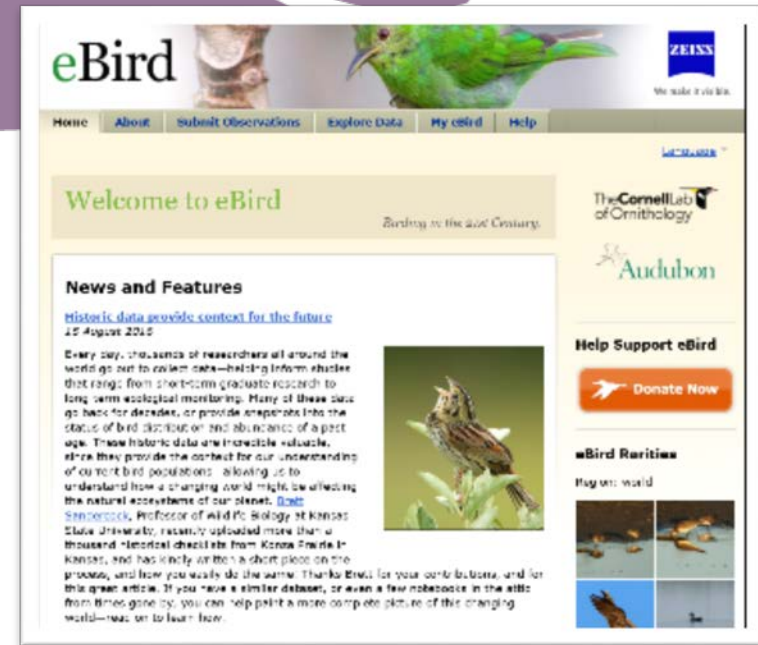
...can be deadly serious for birds. Birds must be temperature and staying in top-flight condition.

...ability to regulate its body temperature can vary; heat through their respiratory system. So times to the point that it can be seen standing like a reliable source of water to replace lost fluids.

...and can supply hours of enjoyable bird watching city.

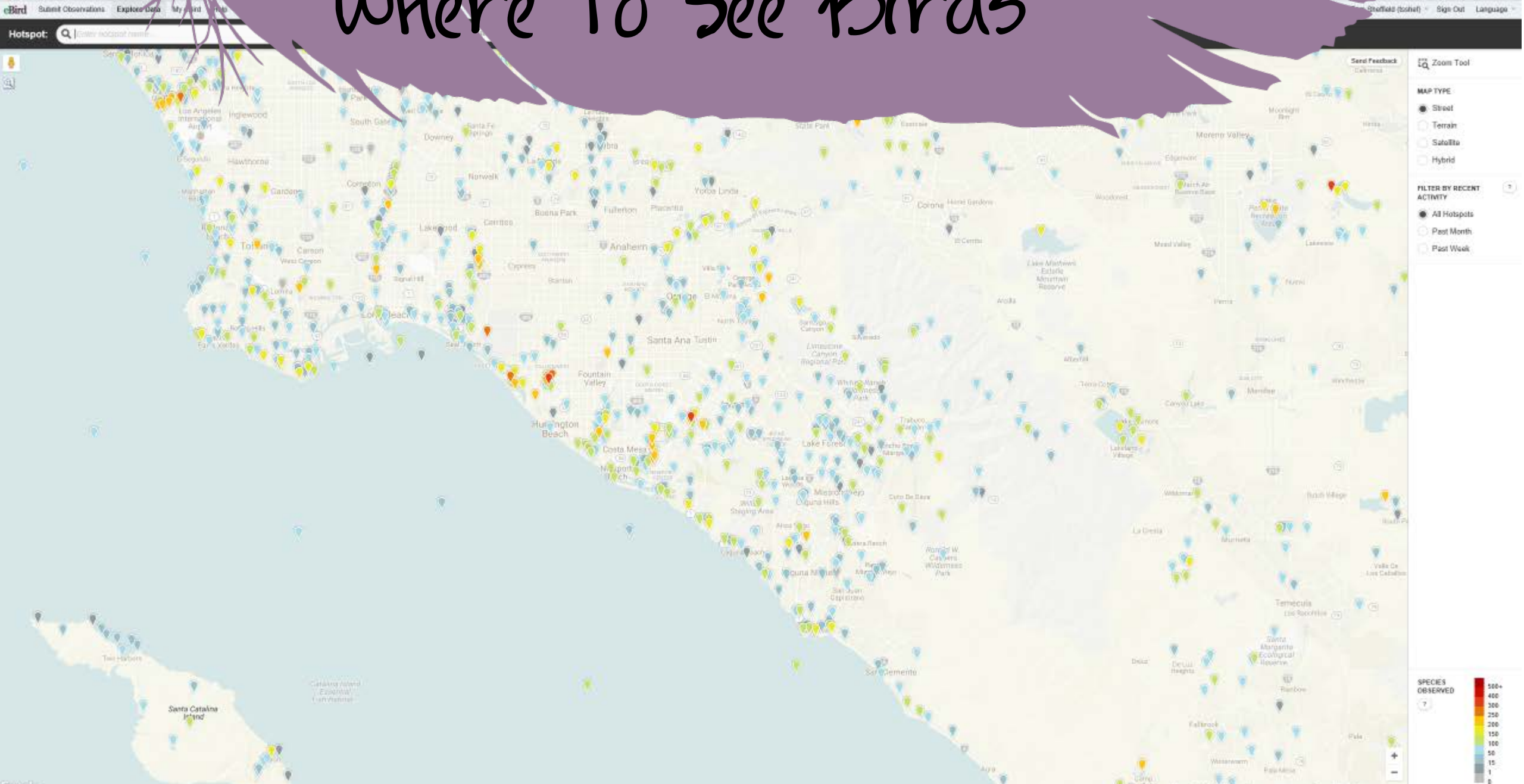
eBird

- » Sponsored and managed by the Cornell Lab of Ornithology and the National Audubon Society
- » Anyone can be a member for free
- » You can have your own eBird list
- » You just submit what birds you observed, when and where
- » A lot of effort is used to verify and authenticate sightings
- » Anyone can take advantage of the data – finding hot spots, discovering where rare or unusual birds have been seen in your area and who the active experts are
- » eBird has become an important, even critical scientific tool



- RECORD the birds you see
- KEEP track of your bird lists
- EXPLORE dynamic maps and graphs
- SHARE your sightings and join the eBird community
- CONTRIBUTE to science and conservation

Where To See Birds



eBird sample Fullerton Arboretum

Fullerton Arboretum
Orange, US-CA

Year-round, All Years

107 SPECIES | **144** CHECKLISTS

Bar Charts | High Counts | Directions

Submit Data | **View Details**

Fullerton Arboretum
Orange, CA 92668, US

All Media | All Years | **107** | **Submit Data**

Overview | Recent Visits

107 Species | 144 Checklists

Tab View | Bar View | High Counts | Bar Charts | Possible Checklist

Show All Details

Rank	Species	Count	Date	Observer	Photo
1	Mourning Dove	3	13 Aug 2016	Maria Aschwark	
2	Anna's Hummingbird	3	13 Aug 2016	Maria Aschwark	
3	Black Phoebe	3	19 Aug 2016	Maria Aschwark	
4	American Crow	1	19 Aug 2016	Maria Aschwark	
5	Quail	25	13 Aug 2016	Maria Aschwark	
6	Western Bluebird	4	19 Aug 2016	Maria Aschwark	
7	Song Sparrow	1	13 Aug 2016	Maria Aschwark	
8	California Towhee	1	13 Aug 2016	Maria Aschwark	
9	House Finch	25	13 Aug 2016	Maria Aschwark	
10	Lesser Goldfinch	1	19 Aug 2016	Maria Aschwark	
11	California Thrasher	X	14 Jul 2016	Karl Wahl	
12	Hooded Oriole	X	14 Jul 2016	Karl Wahl	
13	Mallard	17	10 Jul 2016	Jeff Dow	
14	Great Blue Heron	1	10 Jul 2016	Jeff Dow	
15	Green Heron	2	10 Jul 2016	Jeff Dow	
16	Allen's Hummingbird	12	10 Jul 2016	Jeff Dow	
17	Nuttall's Woodpecker	1	10 Jul 2016	Jeff Dow	
18	Dowry Woodpecker	1	10 Jul 2016	Jeff Dow	
19	Pacific-slope Flycatcher	4	10 Jul 2016	Jeff Dow	

GLOBAL BIG DAY
MAY 14 2016

Learn More

Recent Visits

Observer	Date	Species
Maria Aschwark	19 Aug 2016	19
Odin Aschwark	19 Aug 2016	10
Karl Wahl	14 Jul 2016	2
Jeff Dow	13 Jul 2016	25
Steve Gammery	13 Jul 2016	23
Brian Kell	13 Jul 2016	6
Heleni Ragan	13 Jun 2016	8
Karl Wahl	1 Jun 2016	2
Austin Xu	30 Apr 2016	23
Joseph Linnell	31 Mar 2016	26

Top eBirders

Rank	Observer	Count
1	Brad Lunn	24
2	Emily Davis	20
3	Neil Uglow	11
4	Karl Wahl	8
4	David Macky	8
4	Mike Henry	8
7	Karl Fenchel	5
7	Karl Wahl	5
9	Leif Kirkland	4
9	Black Dowl	4
	You	0

Fullerton Arboretum eBird sample

- Printable checklist of all birds observed in this location.
- The time span can be set for current year, last ten years or all years

eBird Field Checklist
Fullerton Arboretum
 Orange, California, US
 ebird.org/field/checklist/1759609
 107 species (16 other taxa) This month, All Years

Date: _____
 Start Time: _____
 Duration: _____
 Distance: _____
 Party Size: _____
 Notes: _____

This checklist is generated with data from eBird (ebird.org), a global database of bird sightings from birders like you. If you enjoy this checklist, please consider contributing your sightings to eBird. It is sooo free to take part, and your observations will help support birders, researchers, and conservationists worldwide.

Go to eBird.org, where you are!

Waterfowl

- Canada Goose *Branta canadensis*
- Wood Duck *Aix sponsa*
- American Wigeon *Anas americana*
- Mallard *Anas platyrhynchos*
- Mallard (female type) *Anas platyrhynchos (female type)*
- Hooded Merganser *Lophodytes cucullatus*

Larvae and Grubs

- Pied-billed Grebe *Podilymbus podiceps*

Commons and Arthropods

- Double-crested Cormorant *Phalacrocorax auritus*

Herons, Ibis, and Allies

- Great Egret *Ardea herodias*
- Great Egret (female type)
- Great Egret (male type)
- Little Egret *Ardea herodias*
- Green Heron *Butorides virescens*
- Black-crowned Night-Heron *Nycticorax nycticorax*

Valencia, Hemia, and Allies

- Turkey Vulture *Cathartes aura*
- Osprey *Pandion haliaetus*
- Crow's-foot *Colaptes auratus*
- Downy Woodpecker *Picopus pubescens*
- Red-headed Woodpecker *Picophaea arizonae*

Boobies, Gulls, and Allies

- American Coot *Fulica americana*

Shorebirds

- Killdeer *Charadrius vociferans*

Gulls, Terns, and Skuas

- Ring-billed Gull *Larus delawarensis*

Red-tailed Hawk *Buteo lineatus*

- Black Phoebe *Sayornis nigricans*
- Red-tailed Hawk *Buteo lineatus*
- Golden-crowned Kinglet *Troglodytes aedon*
- Parula, Yellow, and Allies
- White-throated Sparrow *Spizella monticola*
- Western Bluebird *Sialia mexicana*
- Hermit Thrush *Catherpes mexicanus*
- American Robin *Turdus migratorius*
- Catbird, Mockingbird, and Thrasher
- California Towhee *Ammodramus melanotos*
- Northern Mockingbird *Mimus polyglottos*
- Starlings and Myiids
- European Starling *Sterna vulgaris*

Woodpeckers

- Red-naped Sapsucker *Sphyrapicus nuchalis*
- Red-headed Woodpecker *Picophaea arizonae*
- Downy Woodpecker *Picopus pubescens*
- Northern Flicker *Colaptes auratus*

Falcons and Crows

- American Kestrel *Falco sparverius*

Tyrant Flycatchers, Pewees, Kingbirds, and Allies

- Western Wood-Pewee *Campylorhynchus brunneicapillus*
- Gray Flycatcher *Empidonax griseus*

Golden-crowned Sparrow *Zonotrichia albicollis*

- White-throated Sparrow *Zonotrichia albicollis*
- Field Sparrow *Spizella monticola*
- Song Sparrow *Melospiza melodia*
- Lincoln's Sparrow *Melospiza lincolni*
- California Towhee *Ammodramus melanotos*
- Spotted Towhee *Pipilo maculatus*

Cardinals, Grosbeaks, and Allies

- Western Tanager *Piranga ludoviciana*
- Black-headed Grosbeak *Phainopepla nitens*

Blackbirds

- Red-winged Blackbird *Aegialitis phoeniceus*
- Heron's Blackbird *Pyrupagus cyanocephalus*
- Brown-headed Cowbird *Molothrus ater*
- Field Sparrow *Melospiza melodia*
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Finches, Euphonias, and Allies

- House Finch *Monticola melanocephala*
- Purple Finch *Spizella socialis*
- Lesser Goldfinch *Spinus pinus*
- American Goldfinch *Spinus tristis*

Old World Sparrows

- House Sparrow *Passer domesticus*

Earthbirds

- Scaly-breasted Warbler *Lanius borealis*

Indigobirds

- Painted Warbler *Vermivora*

Spurns and other I-birds

- Ring-billed Gull *Larus delawarensis*
- Pied-billed Grebe *Podilymbus podiceps*
- Black-crowned Night-Heron *Nycticorax nycticorax*
- White-crowned Sparrow *Zonotrichia leucophrys*

Woodpeckers

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Indigobirds

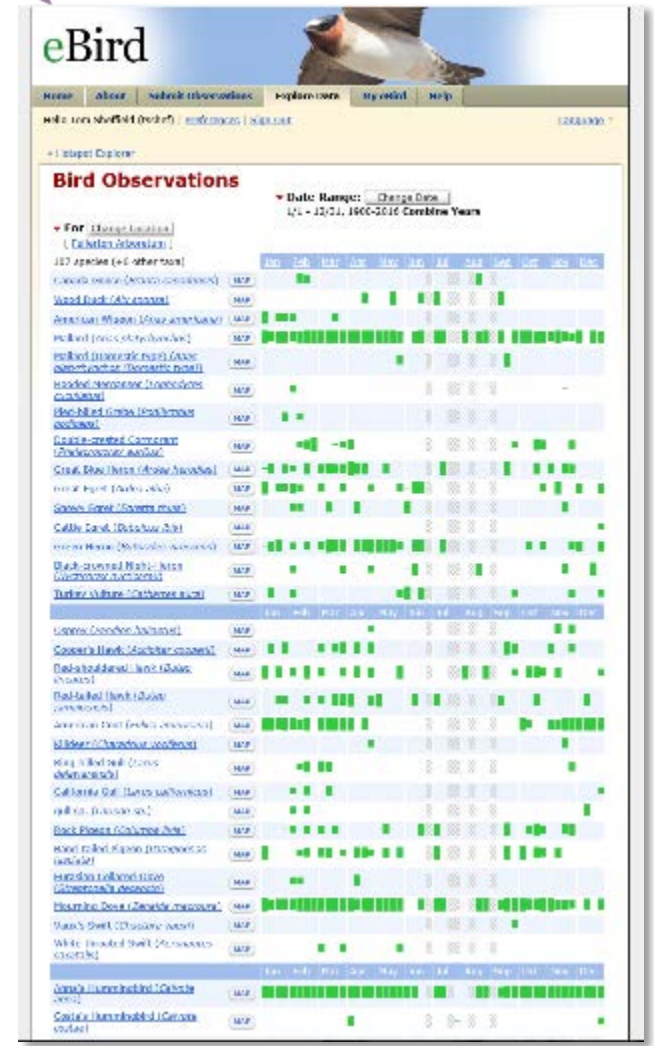
- Painted Warbler *Vermivora*

Spurns and other I-birds

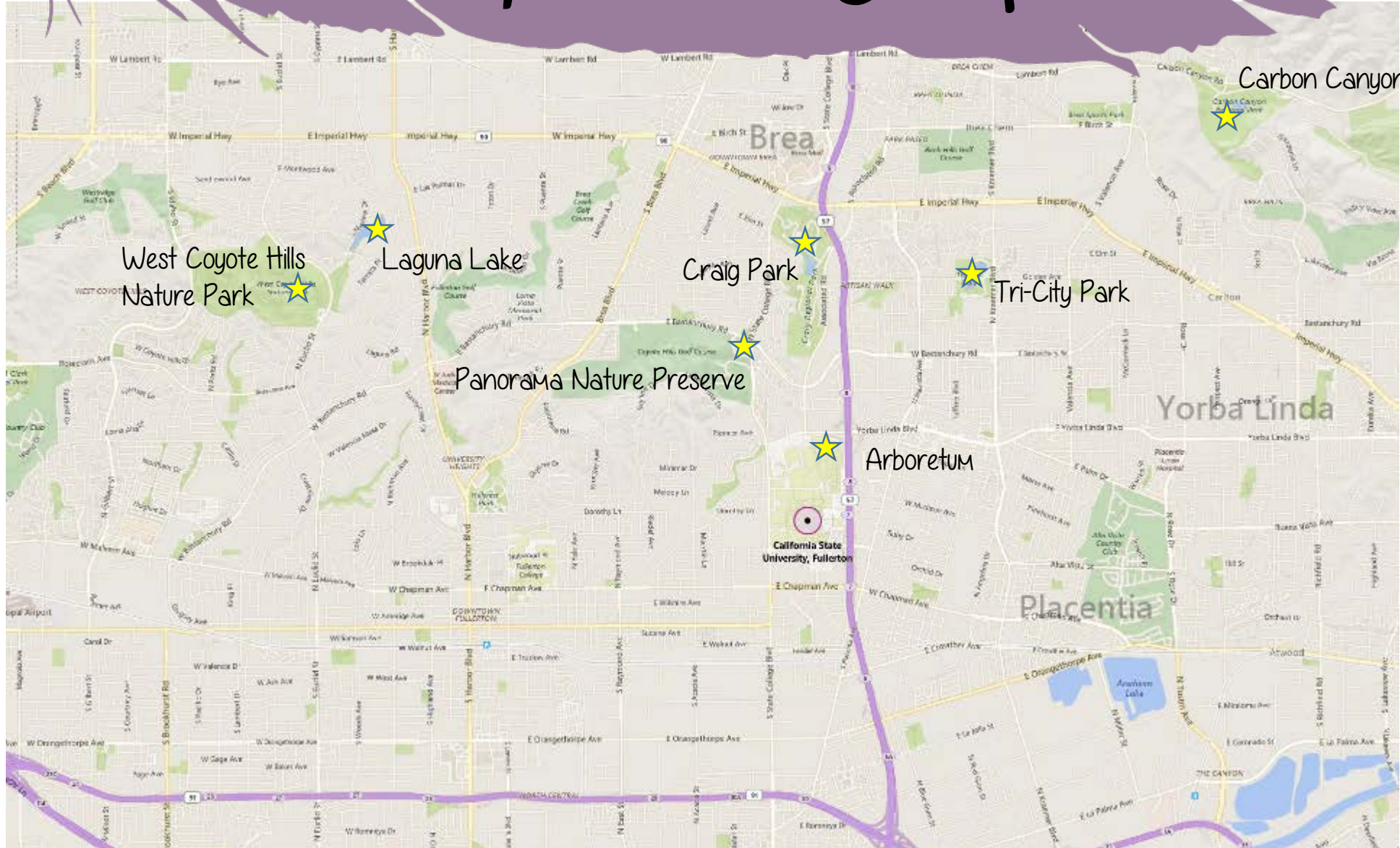
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- Pied-billed Grebe *Podilymbus podiceps*
- Black-crowned Night-Heron *Nycticorax nycticorax*
- White-crowned Sparrow *Zonotrichia leucophrys*

This field checklist was generated using eBird (ebird.org)

- Bar chart of observations during the annual cycle.
- Very useful for knowing when to visit a location for a specific species.
- Time can be set for season, entire year, month to month, or year to year.



Nearby Birding Spots



West Coyote Hills
Nature Park

Laguna Lake

Panorama Nature Preserve

Craig Park

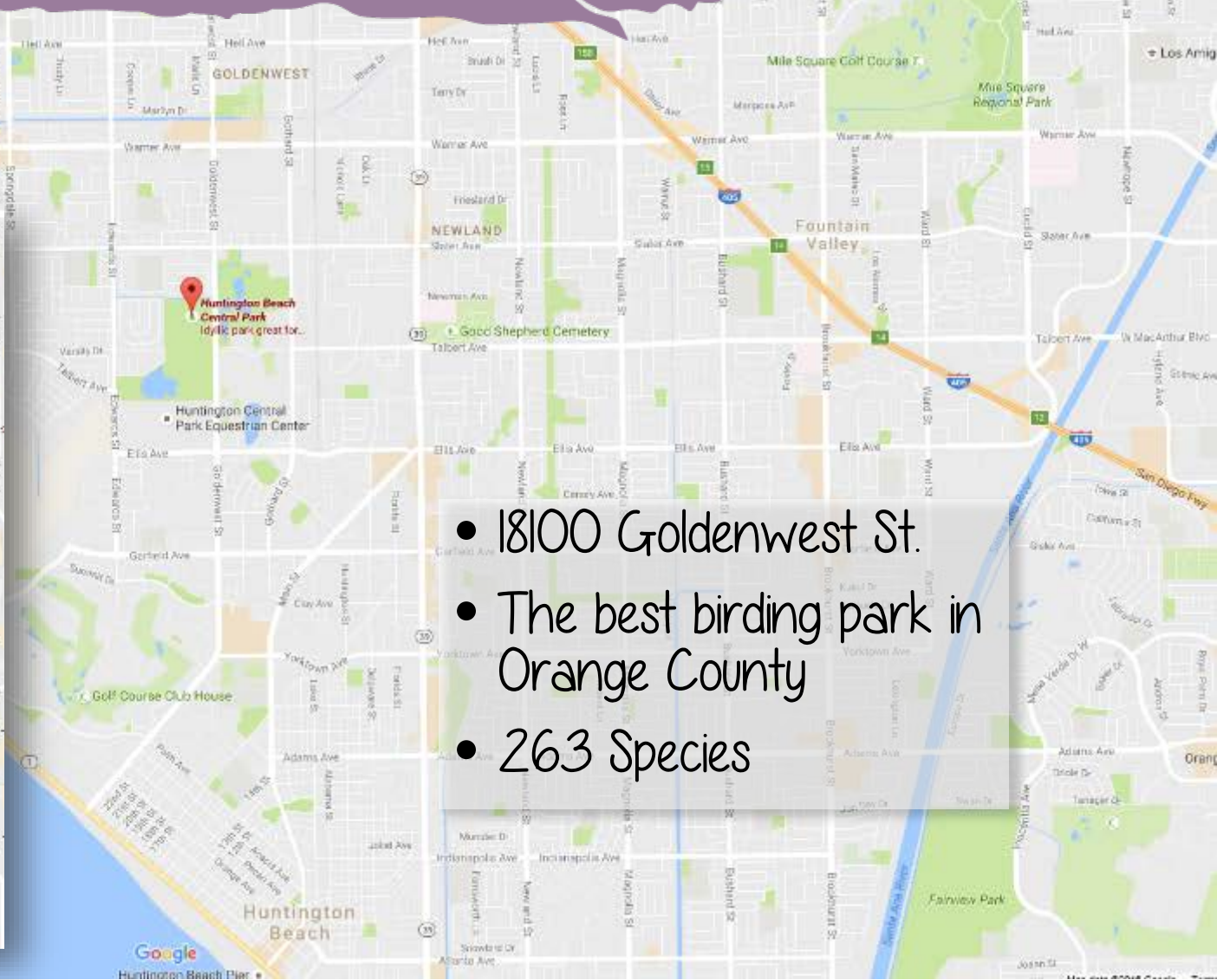
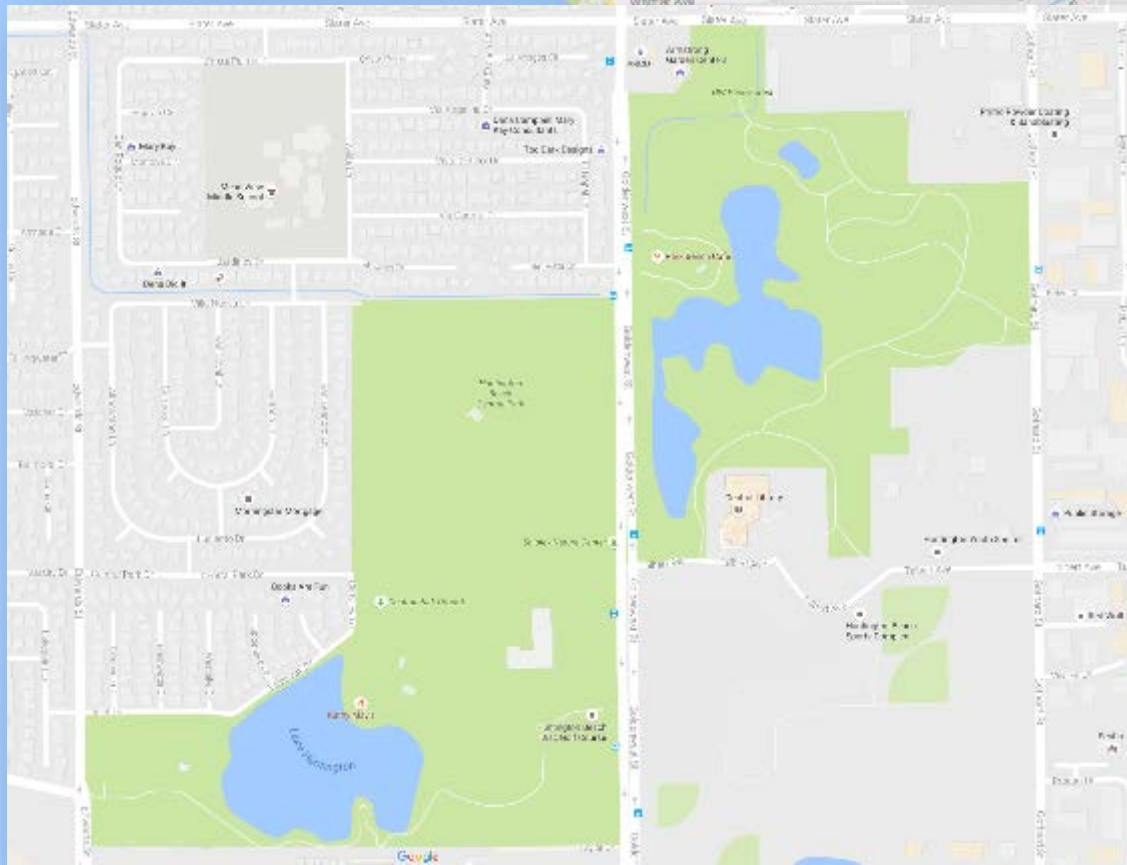
Tri-City Park

Arboretum

Carbon Canyon Park

California State
University, Fullerton

Huntington Beach Central Park



Bolsa Chica Nature Preserve

- Across Coast Highway from Bolsa Chica Beach
- Park and walk access only
- Limited/private access to some areas
- 257 species observed over last 10 years
- Pedestrian bridge
- Very popular with photographers
- Walking trails



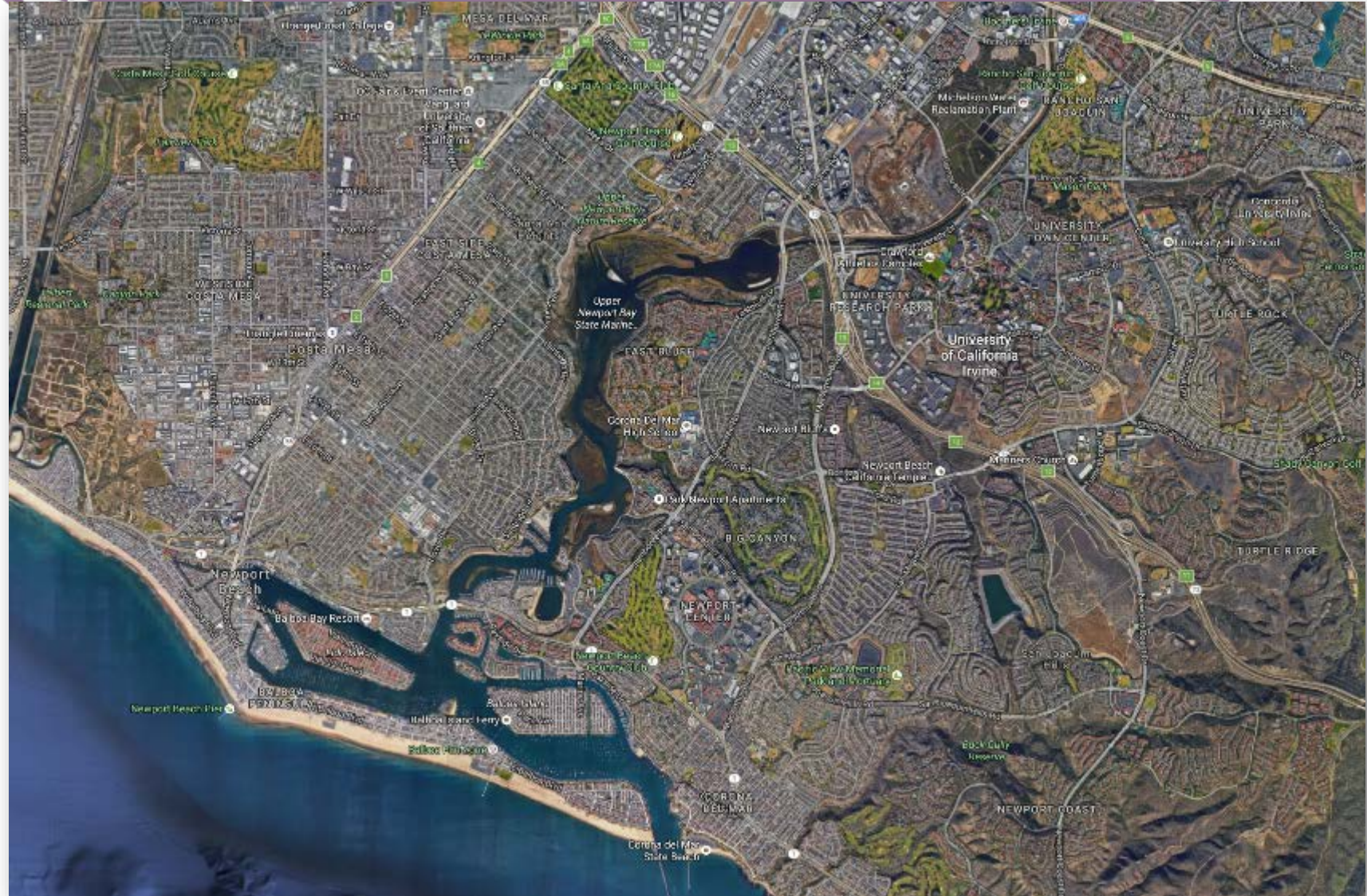
San Joaquin Preserve



- Across the creek from UCI
- Headquarters for Sea and Sage Audubon chapter
- Park and walk access only
- 280 species observed over last 10 years

Upper Newport Bay

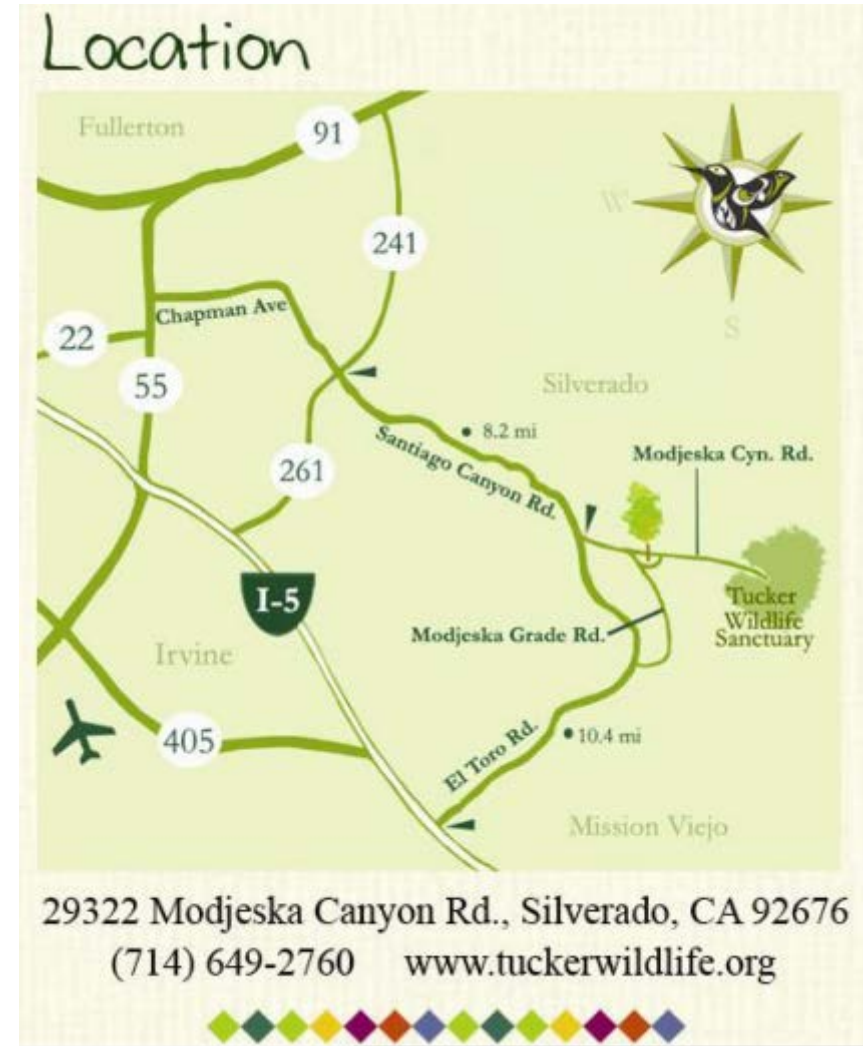
- Just Southwest of San Joaquin Center
- Drive, bike, hike, kayak/boat access
- 209 species observed over last 10 years
- Active community resource



Tucker Wildlife Sanctuary



- Owned and operated by California State University Fullerton
- Dr. Marie Johnson, Dean, College of Science and Mathematics
- Site manager, Marcella Gilchrist
- Another great Orange County birding "Hot Spot"!





"The price of greatness is responsibility."

-Winston Churchill

Code of Conduct

American Birding Association (edited slightly)

I. Promote the welfare of birds and their environment.

Protect their habitat.

To avoid stressing birds or exposing them to danger, exercise restraint and caution during observation, photography, sound recording, or filming.

Don't use recordings or other methods of attracting birds.

Keep well back from nests and nesting areas, roosts, and important feeding sites.

Avoid using artificial light. You generally won't be close enough for it to be effective anyway.

Avoid advertising the presence of a rare bird.

Stay on roads, trails, and paths where they exist; always keep habitat disturbance to a minimum.



Code of Conduct (continued)

American Birding Association (edited slightly)

2. Respect the law, and the rights of others.

Do not enter private property without the owner's explicit permission.

Follow all laws, rules, and regulations governing use of roads and public areas.

Practice common courtesy in contacts with other people. Your exemplary behavior will generate goodwill with birders and non-birders alike.

3. Ensure that feeders, nest structures, and other artificial bird environments are safe.

Keep dispensers, water, and food clean, and free of decay or disease. Feed birds continually during harsh weather.

Maintain and clean nest structures regularly.

If you are attracting birds to an area, ensure the birds are not exposed to predation from cats and other domestic animals, or dangers posed by artificial hazards.



Code of Conduct (continued)

American Birding Association (edited slightly)

4. Group birding, whether organized or impromptu, requires special care.

Each individual has responsibilities.

Respect the interests, rights, and skills of fellow birders, as well as people participating in other legitimate outdoor activities. Freely share your knowledge and experience. Be especially helpful to beginning birders.

If you witness unethical birding behavior, assess the situation, and intervene if you think it prudent. When interceding, inform the person(s) of the inappropriate action, and attempt, within reason, to have it stopped. If the behavior continues, document it, and notify appropriate individuals or organizations.



Habitat Preservation and Restoration

- Help keep our wild lands wild and healthy.
- Whenever you are birding, try to leave the area better than when you came.
- Try creating a little bit of “wildland” in your own backyard or neighborhood.
- In addition to National, State and regional parks, an increasing number of private individuals are placing their lands into perpetual trusts.
- Wildlife benefit; People benefit.



So what's the deal about collecting feathers?

If you find feathers anywhere, appreciate, study, and photograph (or sketch) them, but leave them where you found them. **It is illegal to take them home.**

The possession of feathers or parts of native North American birds without a permit is prohibited by the Migratory Bird Treaty Act (MBTA). This extends to all feathers, regardless of how they were obtained. There is no exemption for molted feathers or those taken from road- or window-killed birds.

Exceptions for legally-hunted waterfowl or other migratory gamebirds, and for the use of feathers by Native Americans.

Individuals or institutions wishing to use bird feathers, bones, or whole specimens for educational or research purposes must apply for permits from the U.S. Fish and Wildlife Service and their state wildlife or natural resource agency.



Rescue — Rehabilitation

You Found A Baby Bird On The Ground... Now What?

Parent birds will feed their babies "EVEN" after you have touched them.

Birds have a poor sense of smell and the parents won't know that you have touched their babies. They will even be foster parents for an abandoned baby of the same species and age as their own young.

Parent birds will search for their babies even after 24-48 hours of absence.

Most birds have their own territories. Even if the nest and babies are gone, the parents remain in their home territory, waiting to welcome their babies home.

Symptoms of an Injury or Illness:

- Falling over on side
- Wing tweaked upward
- Wings drooping
- Unable to flutter wings
- Weak or shivering
- Feathers fluffed
- Attacked by a cat or dog
- Bleeding

Birds only need to be rescued if they are: Injured, cat caught, icy cold, naked, or orphaned by both parents.

Rescue — Rehabilitation

Temporary Care Instructions for All Birds...

- 1) NO food or water
- 2) Keep the bird warm. Tissue filled shoebox or other small box with holes in lid. Place on Heating Pad on "LOW."
- 3) Keep bird in a dark, quiet place.
- 4) Leave the bird alone; don't handle or bother it.
- 5) Keep children and pets away.
- 6) Call a wildlife rehabilitator (714) 964-0666



Keeping a native wild bird in the State of California is against the law if you don't have a permit, even if you plan to release the bird.

American Ornithological Society

- The American Ornithological Society (AOS) is an organization based in the United States that was recently formed by the combining of The American Ornithologists Union and the Cooper Ornithological Society.
- Its members are primarily professional ornithologists although membership is open to anyone with an interest in birds.
- The organization publishes two journals, *The Auk* and *The Condor*.
- They publish the **AOS Checklist of North and Middle American Birds** and the **Checklist of South American Birds**, both updated annually.

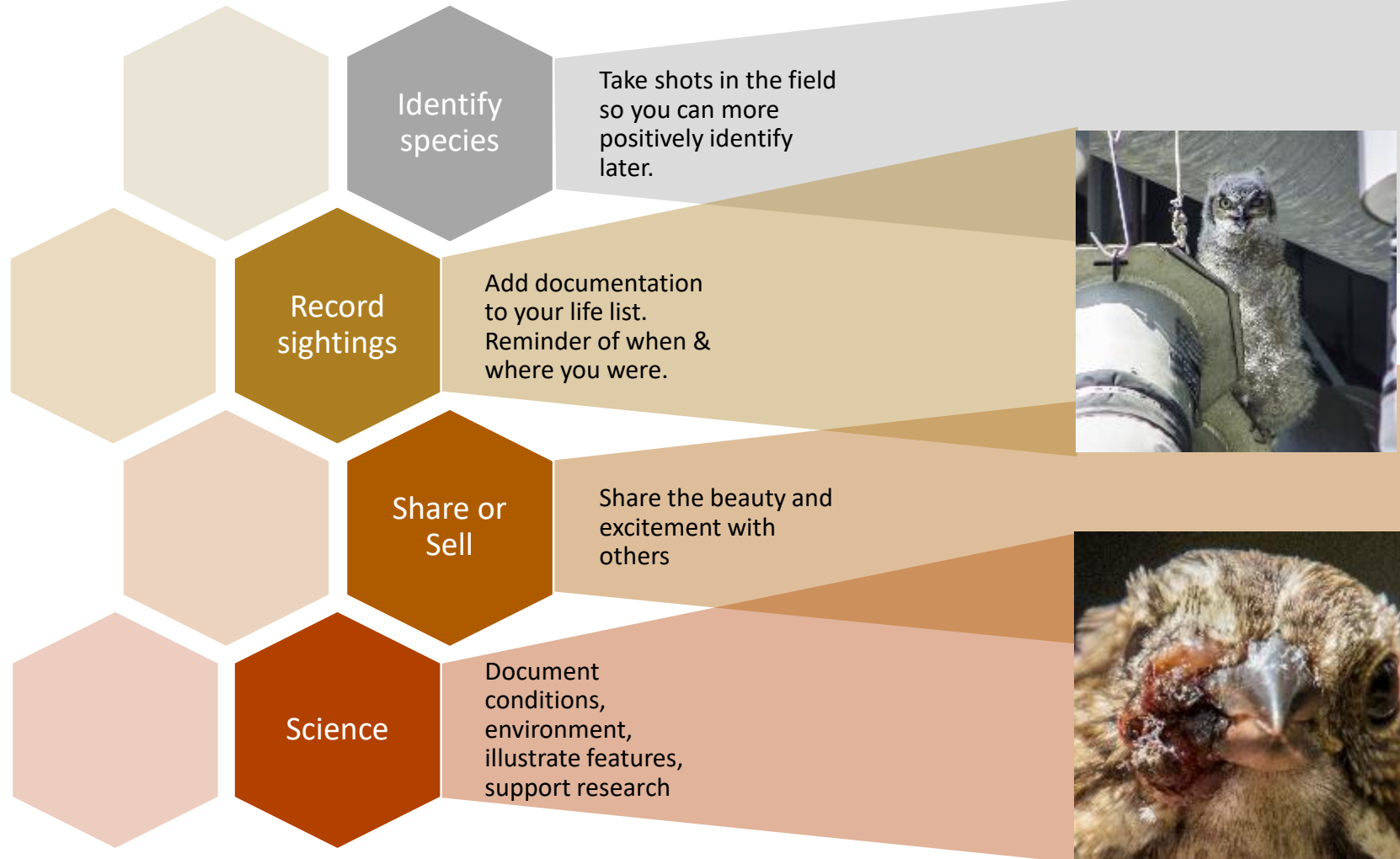




"It is my intention to present - through the medium of photography - intuitive observations of the natural world which may have meaning to the spectators."

-Ansel Adams

Why Photograph Birds?



Photography

You will almost never get really close to your subjects.

It will require a camera much more capable than the one in your phone.

High powered lenses are very expensive and attach to relatively expensive cameras.♥

♥Compact cameras with amazing zooms (>60x) are currently ~\$500, but you will need a good tripod to take advantage.

You will need extreme patience, concentration and experience (mileage).



You will need to intimately understand each species' behavior.

Know your gear so you can compensate for variable conditions.

You may need to construct/use a blind and/or lures (feeders).

In the end, you need to get really, really lucky!

Photography Gear

High-end Pro Level



Top-of-line = \$6,000 msrp



Prosumer = \$1,500 msrp



800mm = \$13,000 msrp



600mm = \$11,500 msrp



T-o-L ballhead = \$380 msrp



T-o-L tripod = \$1400 msrp

Photography

There are lower cost alternatives

Nikon – Coolpix P610

Msrp: \$426
Zoom: 60x (24 – 1440 mm)
Image size: 16 mp
Image format: JPEG



Canon Powershot SX60 HS

Msrp: \$480
Zoom: 65x (21 - 1365 mm)
Image size: 16.1 mp
Image formats: JPEG, RAW



This is NOT an endorsement. Do your own research!

Avian Photography

Learn from Some of the Best



Alan Murphy

alanmurphyphotography.com

Andy Rouse

andyrouse.co.uk

Arthur Morris

birdsasart-blog.com

Bence Mate

matebence.hu

David Tipling

davidtipling.com

Glenn Bartley

glennbartley.com

Gregory Basco

deepgreenphotography.com

Jari Peltomaki

jaripeltomaki.com

Miguel Lasa

miguellasa.com

Ofer Levy

wildlife-photography-school.com

Rathika Ramasamy

rathikaramasamy.com

Tim Laman

timlaman.com



Photography — Observations

- ✂ Anyone can photograph birds.
- ✂ Many can make pretty pictures of birds.
- ✂ Only a few can make great art or tell a compelling story.
- ✂ The equipment you use shouldn't be what helps you make, or keeps you from making, a great photo♥.
- ✂ I've photographed birds for over 60 years and I'm still waiting for the first one I really like.
- ✂ At our age, capturing an image that can be enjoyed and shared might be a better target than trying to make a living as a wildlife photographer, but if that's where you want to go...

♥Although this is certainly true for most photography, getting reasonably close to any bird usually does require some sort of telephoto capability.



- ✂ Most published bird photos have some amount of post-processing applied.

Photography

Supporting Science

[Audublog](#)

Yellow-breasted Chat banded at Starr Ranch Sanctuary

This is the first time the species has been seen on the Sanctuary in 25 years.



By [Daniela Ogden](#)
July 05, 2010

Birds in This Story



Yellow-breasted Chat
[Learn more](#)

Popular Stories

[Sutton Sea's working bees](#)

[Lwiza Corrao: bird protector, climate activist and general busybody](#)

[Audubon Center at Rite Park strengthens ties with LA Conservation Corps](#)

[Reflecting on Shorebirds, Drought, and the Central Valley](#)

[Meet YouTuber's resident Red Head](#)



Yellow-breasted Chat. Photo: Tom Sheffield

Tuesday, December 29, 2015

[Sharp-shinned hawks: winter visitors to Orange County](#)



A sharp-shinned hawk rescued recently by Pete DeSimone. Photo by Tom Sheffield



The worse my drawings were, the more beautiful did the originals appear.

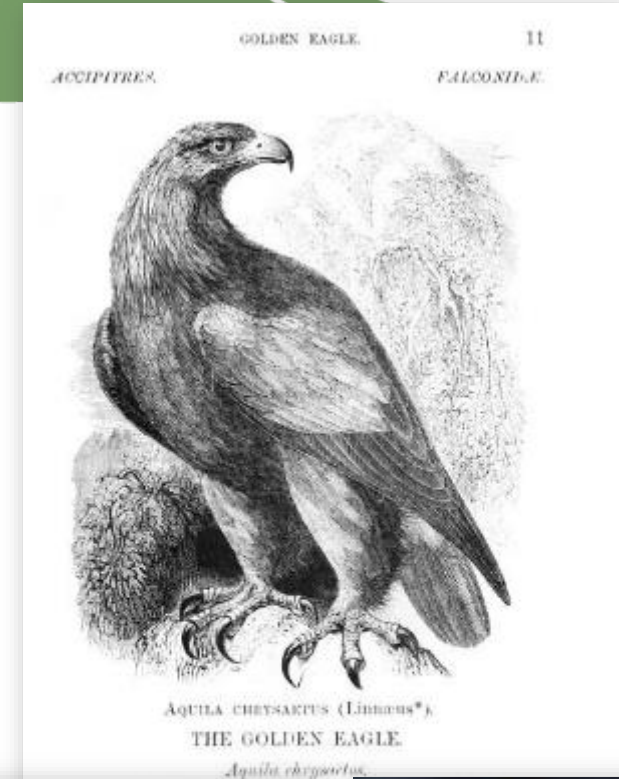
-John James Audubon

Thomas Bewick



Thomas Bewick

- Thomas Bewick (c. 11 August 1753 – 8 November 1828) was an English engraver and natural history author.
- Bewick is best known for his *A History of British Birds*, which is admired today mainly for its wood engravings, especially the small, sharply observed, and often humorous vignettes known as tail-pieces. The book was the forerunner of all modern field guides. He notably illustrated editions of *Aesop's Fables* throughout his life.
- He is credited with popularizing a technical innovation in the printing of illustrations using wood. He adopted metal-engraving tools to cut hard boxwood across the grain, producing printing blocks that could be integrated with metal type, but were much more durable than traditional woodcuts. The result was high quality illustration at a low price.

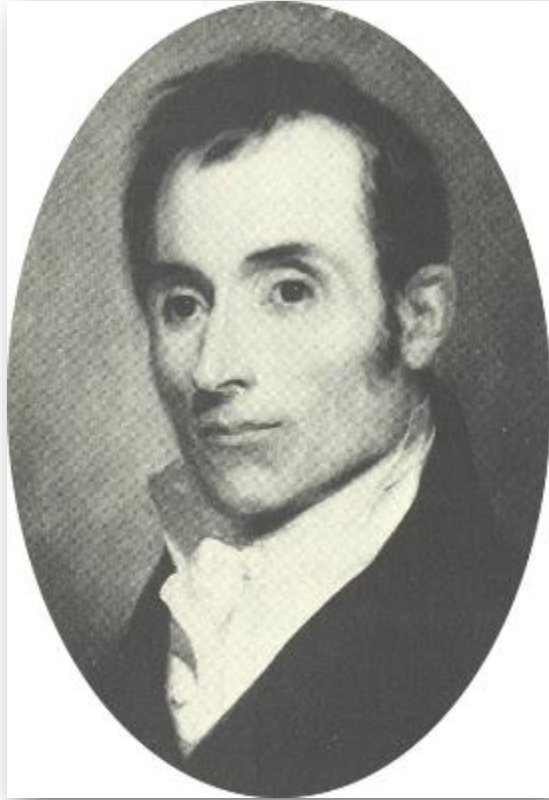


Bewick's Swan
Cygnus columbianus bewickii



Bewick's Wren
Thryomanes bewickii

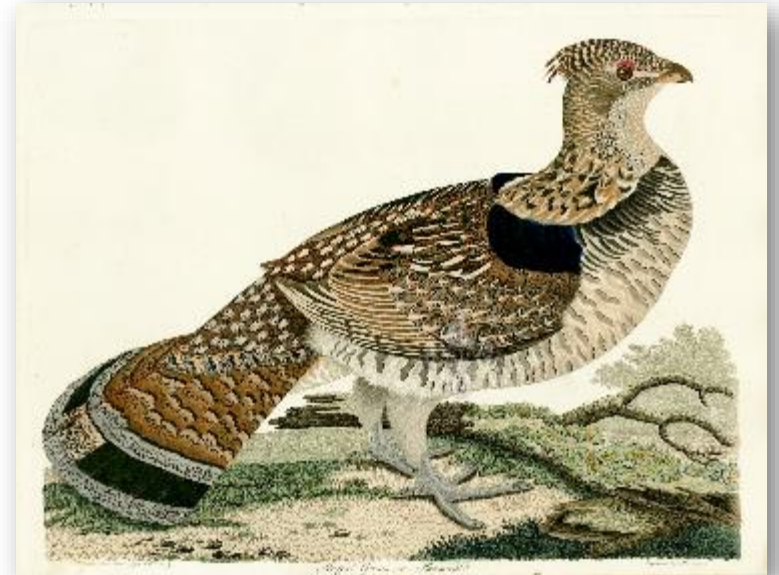
Alexander Wilson



Alexander Wilson

Alexander Wilson (July 6, 1766 – August 23, 1813) was a Scottish-American poet, ornithologist, naturalist, and illustrator. Identified by as the "Father of American Ornithology," Wilson is now regarded as the greatest American ornithologist before Audubon.

Several species of bird are named after Wilson, including the Wilson's storm-petrel, Wilson's plover, Wilson's phalarope, Wilson's snipe, and Wilson's warbler. The now obsolete warbler genus *Wilsonia* was named for him. The Wilson Journal of Ornithology and the Wilson Ornithological Society also bear his name.



Roger Tory Peterson



Roger Tory Peterson

American ornithologist, painter,
ecologist

Born in America of Swedish
immigrants

Lived 1908 – 1996

Created first comprehensive field
guide "Guide to the Birds". Standard
by which all other guides were
created and are rated.

Considered father of modern
environmental awareness and
action



David Allen Sibley

Born in New York state in 1962

Author, ornithologist, illustrator,
naturalist

His guides are considered the most
comprehensive available

Sibley Guide to Birds and both
Eastern and Western editions
have all been updated to their
second edition



David Allen Sibley

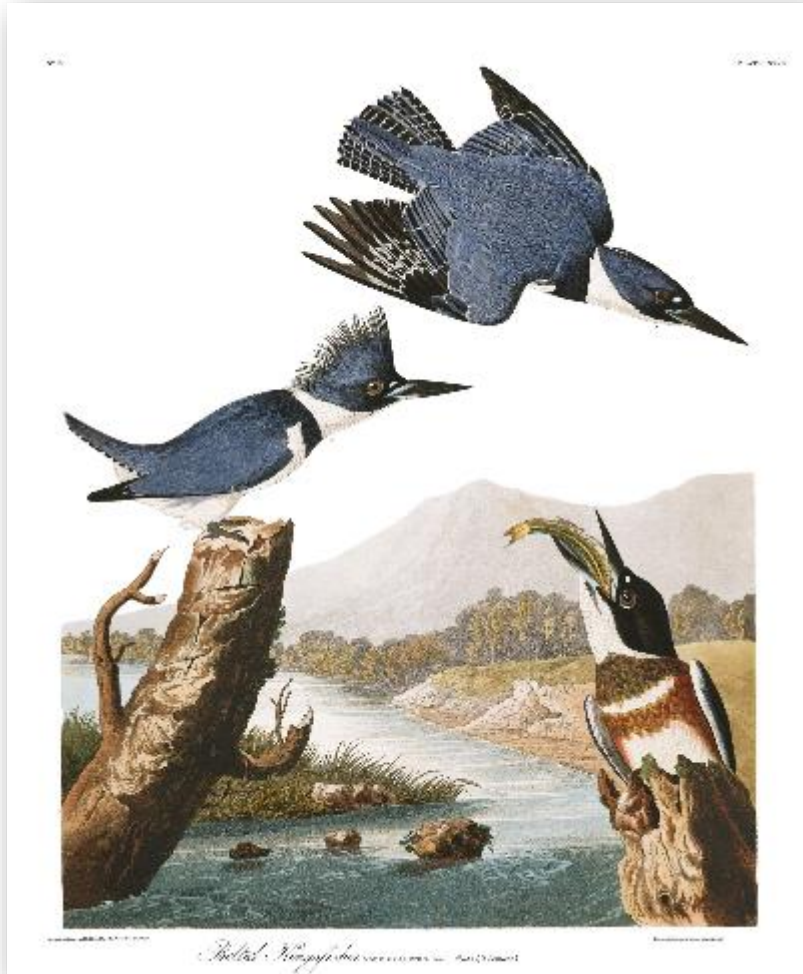
Audubon – the Man

Born in Haiti in 1785, sent to France as boy, came to America in 1803.

Writer, illustrator and naturalist

Completed "The Birds of America" in 1839. Most comprehensive guide at the time and standard by which every other such publication is based and judged.

Also wrote the companion, "Ornithological Biographies" which includes extremely detailed descriptions of each bird and their habits.

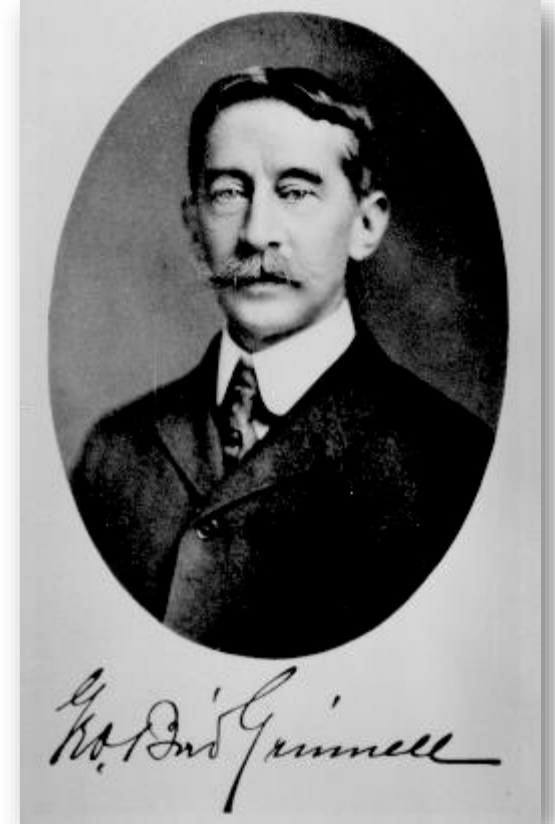


John James Audubon

Audubon – the Organization

History

- In 1886 George Bird Grinnell was appalled by the mass slaughter of birds that he saw taking place. As a boy, Grinnell had avidly read *Ornithological Biography*, by the great bird painter John James Audubon; he also attended a school for boys conducted by, Lucy Audubon. So when Grinnell decided to create an organization devoted to the protection of wild birds and their eggs, he did not have to go far for its namesake.
- Within a year of its foundation, the early Audubon Society claimed 39,000 members. Eventually, it attained a membership of 48,862. Prominent members included jurist Oliver Wendell Holmes, Jr., abolitionist minister Henry Ward Beecher, and poet John Greenleaf Whittier. This society was later discontinued, but the name and plan survived.
- In 1895 Audubon societies were organized in Massachusetts and Pennsylvania, and during the next few years bird lovers in many other states followed suit. The national committee of Audubon societies was organized at a meeting held in Washington in 1902. 1905 saw the organization of the National Association of Audubon Societies for the Protection of Wild Birds and Animals.



George Bird Grinnell

Audubon – the Organization Today



National Audubon Society

- The National Audubon Society (Audubon) is a non-profit environmental organization dedicated to conservation.
- The society has nearly 500 local chapters, each is an independent non-profit organization voluntarily affiliated with the National Audubon Society.
- It also coordinates the Christmas Bird Count held each December in the U.S., a model of citizen science, in partnership with Cornell Lab of Ornithology, and also, the Great Backyard Bird Count each February.
- Together with Cornell, Audubon created eBird, an online database for bird observation and study.
- The National Audubon Society also has many global partners to help birds that migrate beyond the U.S.'s borders.
- It owns and operates a number of public urban nature centers, in New York City, Joplin, Phoenix, Dallas, and Los Angeles, as well as at bird refuges and other natural areas. Audubon Centers help to forge lifelong connections between people and nature, developing stewards for conservation among young and diverse communities.

Local Chapters

- Advocate for protection of birds and their habitat by supporting local, state, national and hemispheric conservation priorities
- Offer birding field trips, identification classes and worldwide travel for members and the public
- Engage children and adults in a wide assortment of educational programs
- Coordinate outreach events including birding festivals
- Create bird friendly communities by involving residents in habitat improvement projects
- Provide data on the health of local bird species through Christmas Bird Counts, the Great Backyard Bird Count, breeding bird surveys, and other local monitoring projects
- Adopt and protect Important Bird Areas

Starr Ranch — History

- The National Audubon Society's Starr Ranch Sanctuary is named after Eugene Grant Starr, who owned a working ranch of a little over 10,000 acres in the southern Santa Ana mountains of Orange County. He died in 1963, leaving few records to document his considerable success and presumably no knowledge of what would become of his ranch property. He had no heirs and was survived by his wife, Applin Starr.
- In 1966, Mrs. Applin Starr died. She and her husband had organized the Eugene and Applin Starr Foundation. The charitable intentions of the Starr's were fulfilled in May of 1973, when the Board of the Foundation resolved to convey a 3,900 acre Gift Deed to the National Audubon Society.
- The southern 5,500 acres of the Starr Ranch estate would be sold by the foundation in 1974, for \$4.4 million dollars under the leadership of Ron Casper. This purchase prompted the creation of Caspers Regional Park, which is managed by the County Parks, Beaches and Harbors Department. Finally, the remaining 873 acres were sold privately and are now the Dove Canyon development.

Eugene Starr



Courtesy of the
Arizona Historical Society/Tucson
AHS#27,962

Starr Ranch — Today

Starr Ranch is a 4,000 acre Audubon California sanctuary in southeast Orange County, California.

Their mission is to offer innovative approaches to land management and environmental education that will influence the way Orange County citizens appreciate, conserve, and manage wildlands.

They seek to instill a love of nature through education programs that involve people of all ages in wildlife research and to provide a model of rigorous, sustainable land management through applied research.



Starr Ranch – Today

The heart of the ranch. Two tireless individuals who have made incredible progress in executing the mission and obtaining the goals of the National Audubon Society.

Pete is very well known throughout the region as an aggressive champion for environmental responsibility and habitat preservation and recovery. He is also a recognized raptor expert and rehabilitator.

Sandy, whose specialty is Botany, has made major strides toward finding safe and effective ways to contain or eradicate invasive and detrimental species of plants. She has also developed an extensive nature education program with many levels in the community. She also directs all bird monitoring programs, including banding and brought MAPS to Starr Ranch in 1999.



Manager, Pete DeSimone, PhD (pdesimone@audubon.org)



Director of Research and Education, Sandy DeSimone, PhD (sdesimone@audubon.org)

Starr Ranch — Avian Activities



Live Video Feeds

- Barn Owls
- Kestrels
- Deer
- Mt. Lions
- Trail-cams



Raptor Rehab

- Hawks
- Owls



Research

- Raptor behavior
- Cooper's Hawk
- Phainopepla
- Scrub Jay
- Grassland birds



Education

- Home School
- Public school
- University
- Jr. Biologists
- Volunteers
- Lectures
- Workshops



Bird Counts

- Nest surveys
- Periodic counts



Banding

- MoSI - Winter
- MAPS - Summer



"A bird in the hand is worth two in the bush"
-Old English proverb

Bird Banding FAQ

Why do you band birds?

- Birds are banded to study their general health, longevity, survival and migration patterns with the ultimate goal of halting or reversing population declines.

Does it harm the birds?

- The approved and regulated methods for banding introduces minimal risk to the well-being of the birds.

How do you catch them?

- Song birds are captured using mist nets, that have a very fine mesh. They are extracted by skilled, trained field staff.

Can anyone band birds?

- No. Banding must be led by professional, certified banders and all participants must have completed approved training and must be under the supervision of a lead biologist.

With the use of eBird, why do you still need to band birds?

- eBird is fantastic for what it does, but it cannot follow the migration, life-span, general health and growth patterns of specific individuals and that is only done with birds in the hands of experienced banders.



Bird Banding Agencies

U.S. Geological Survey – Science Agency for the Department of the Interior



THE NORTH AMERICAN BIRD BANDING PROGRAM
BIRD BANDING LABORATORY

Located at the PATUXENT WILDLIFE RESEARCH CENTER in Maryland

Patuxent's mission is to excel in wildlife and natural resource science, providing the information needed to better manage the nation's biological resources

- Run by the U.S. Geological Survey.
- One of 17 research centers in the U. S.
- A biological research center
- Located on the grounds of the 12,841-acre Patuxent Research Refuge, managed by the U.S. Fish and Wildlife Service.
- Only National Wildlife Refuge supporting wildlife research.
- Issues & regulates all bird bands (only to qualified and licensed individuals)

The Institute for Bird Populations studies the abundance, vital rates, and ecology of bird populations to enable scientifically sound conservation of birds and their habitats.



THE INSTITUTE FOR
BIRD POPULATIONS

Headquartered at Point Reyes Station, CA.

- Nonprofit corporation founded by Dr. David DeSante in 1989 to study the causes of bird population declines.
- First major initiative was the Monitoring Avian Productivity and Survivorship (MAPS) program, a continent-wide collaborative network of bird banding stations.
- Monitoreo de Sobrevivencia Invernal (MoSI) is a program to study the ecology of Neotropical migrant birds on their wintering grounds
- Sierra Nevada Bird Observatory to study and conserve birds in the Sierra Nevada region of California

MAPS

What is MAPS?

- Continent-wide collaborative effort that assists the conservation of birds and their habitats
- 1,200+ stations and 2 million+ bird capture records
- Data provide insights into important questions such as:
 - What factors drive avian population declines?
 - Where are problems most acute, on the breeding or non-breeding grounds?
 - What drives differences in trends between particular regions or habitats?
 - What is the relationship between population change and weather, climate, or habitat loss?
 - What can we do to reverse declines?

How Does MAPS Work?

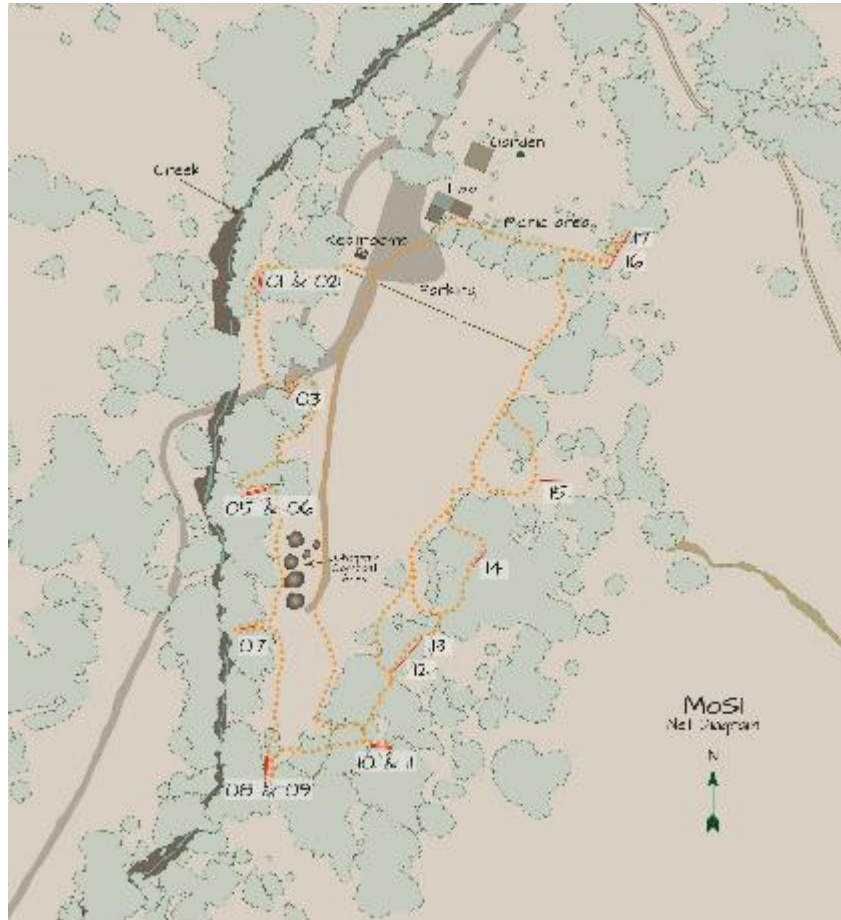
- Uses a system of fine mesh nets to capture birds during the summer nesting season.
- Operators band the birds and collect information on their age, sex, body condition, and reproductive status.
- Captured birds are given a lightweight, numbered aluminum leg band and released unharmed.
- Subsequent recapture data provide information on survival, reproductive rates, and movement patterns.



Banding Seasons Programs

Winter – MoSI

Monitoreo de Supervivencia Invernal
(Monitoring of Winter Survival)

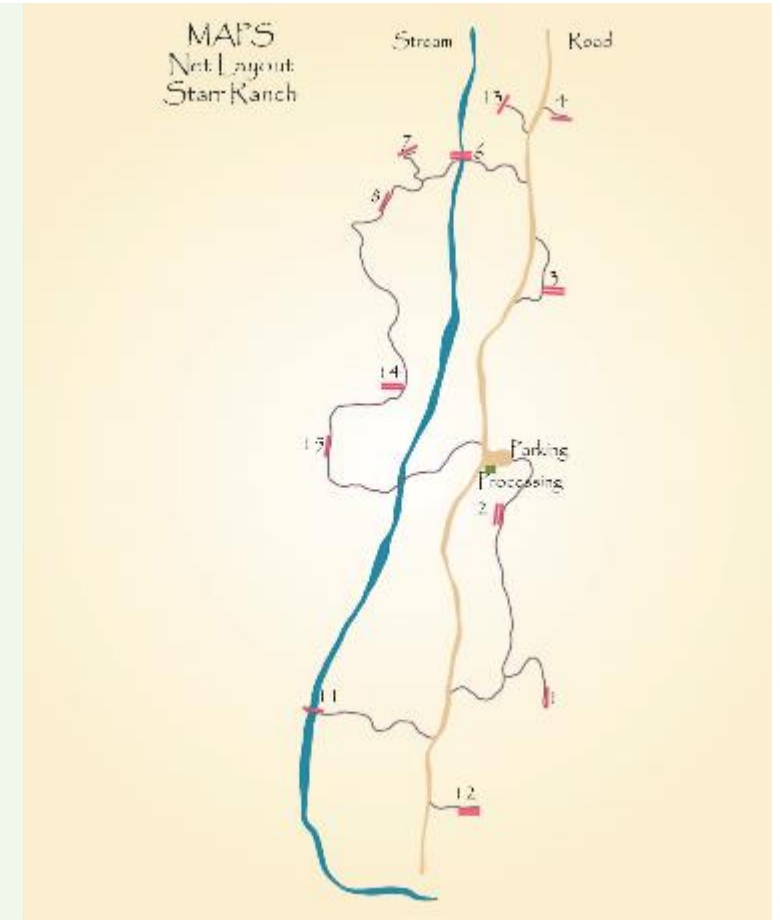


- = Nov. – Mar.
- = 3 successive days each month
- = Resident birds
- = Over-winter birds
- = Bird birthdays Jan 1
- = Enclosed permanent lab
- = “Facilities” nearby
- = Cold to mild temps. (min.=40° F)
- = Studies mainly neotropics
- = Starr Ranch is one of few US. sites

Summer – MAPS

Monitoring Avian Productivity & Survivorship

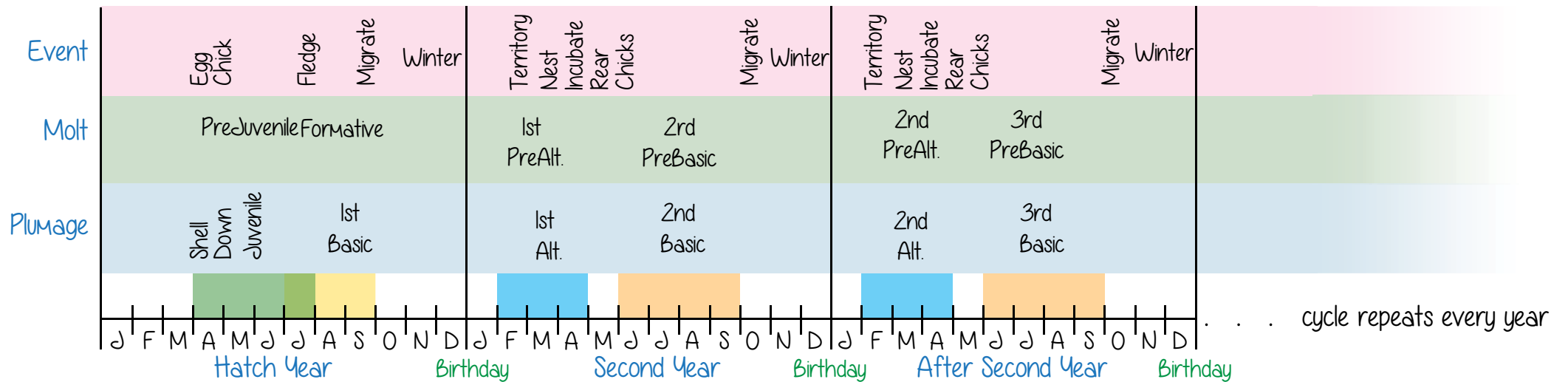
- = May – July
- = 1 day every 10 days
- = Resident birds
- = Nesting birds
- = Migrants
- = Base is a picnic table ~2 miles from lab
- = “Facilities” = private bush
- = Mild to very warm temps. (max.=90° F)
- = Sites across U.S. & Canada



Aging by Plumage

Molt Patterns of Neo-tropical Passerines (Generalized/Simplified Model)

Molt - shedding old feathers, growing new ones (transition 😊)



PreJuvenile - altricial born with very slight wispy feathers, grow a complete covering of down

Formative

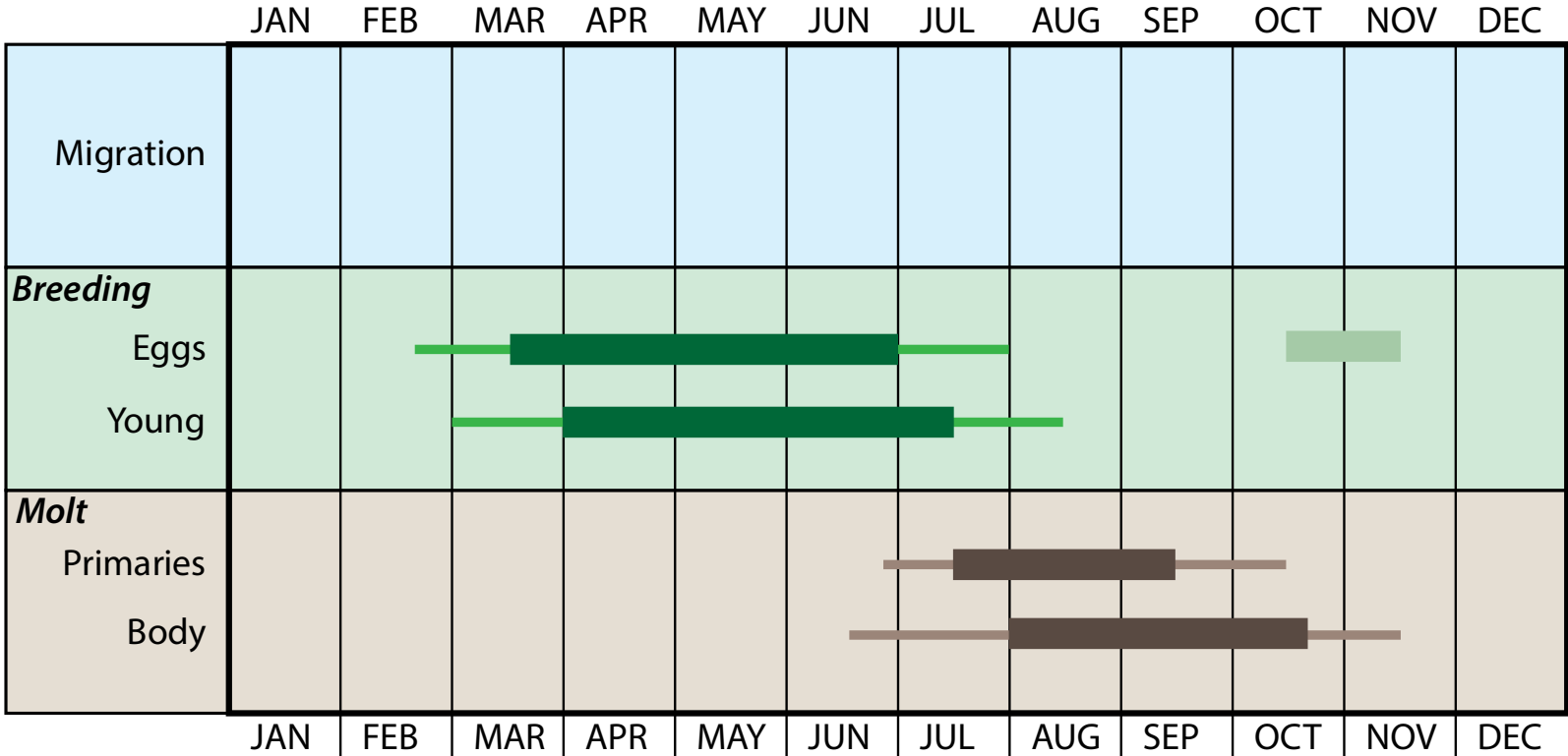
1st Basic - down feathers are replaced with first feathers. They resemble adult but are grown very quickly and are of very low quality

PreAlternate - Some feathers are replaced

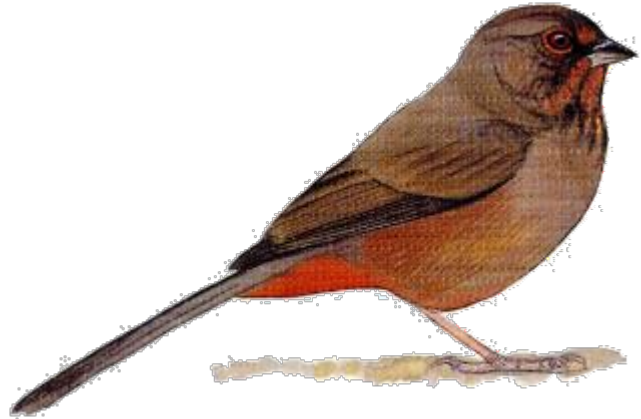
PreBasic - 100% of feathers are replaced

Understanding Bird Behavior

Annual Life Cycle



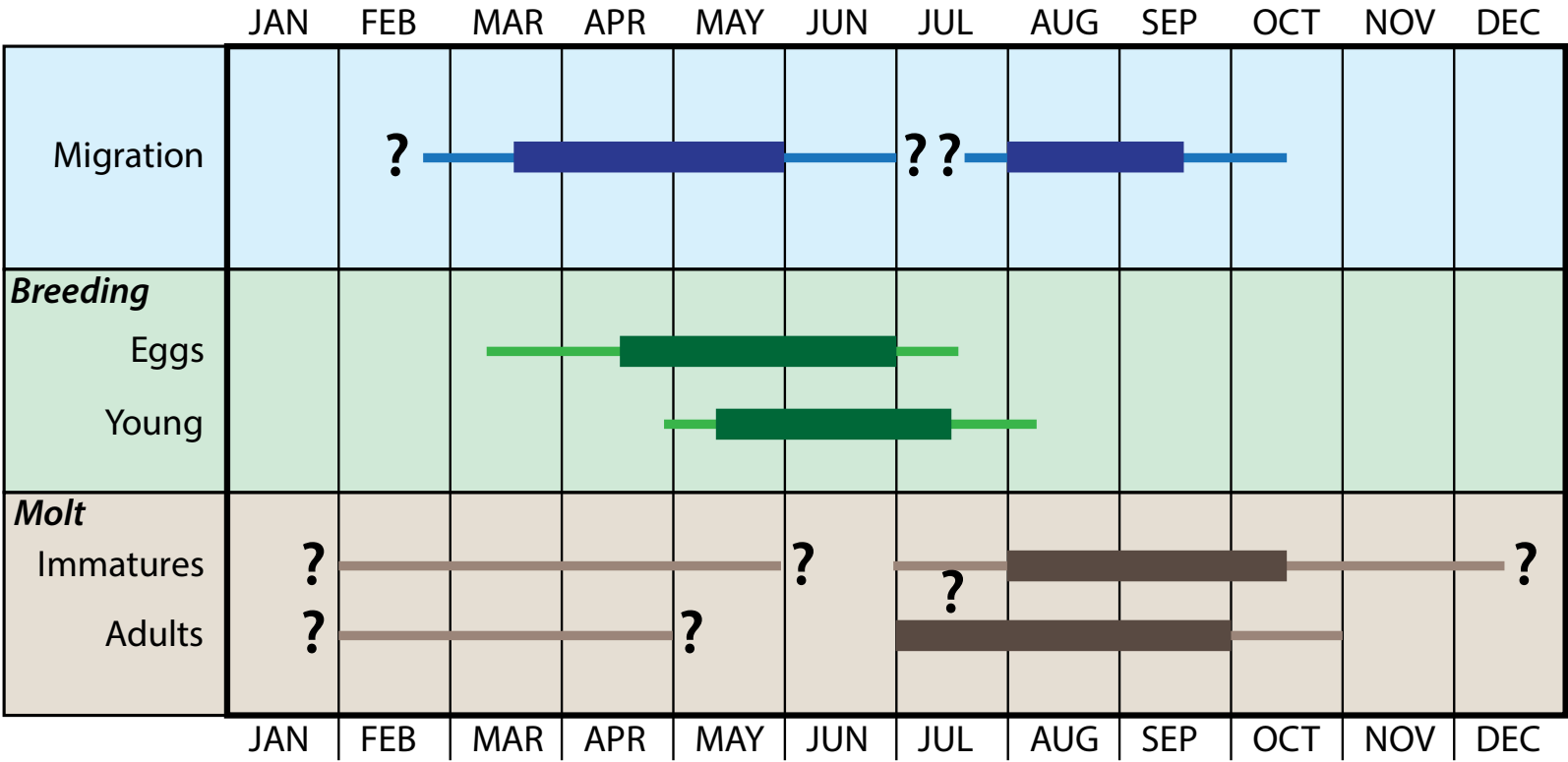
California Towhee



Year-round resident

Understanding Bird Behavior

Annual Life Cycle



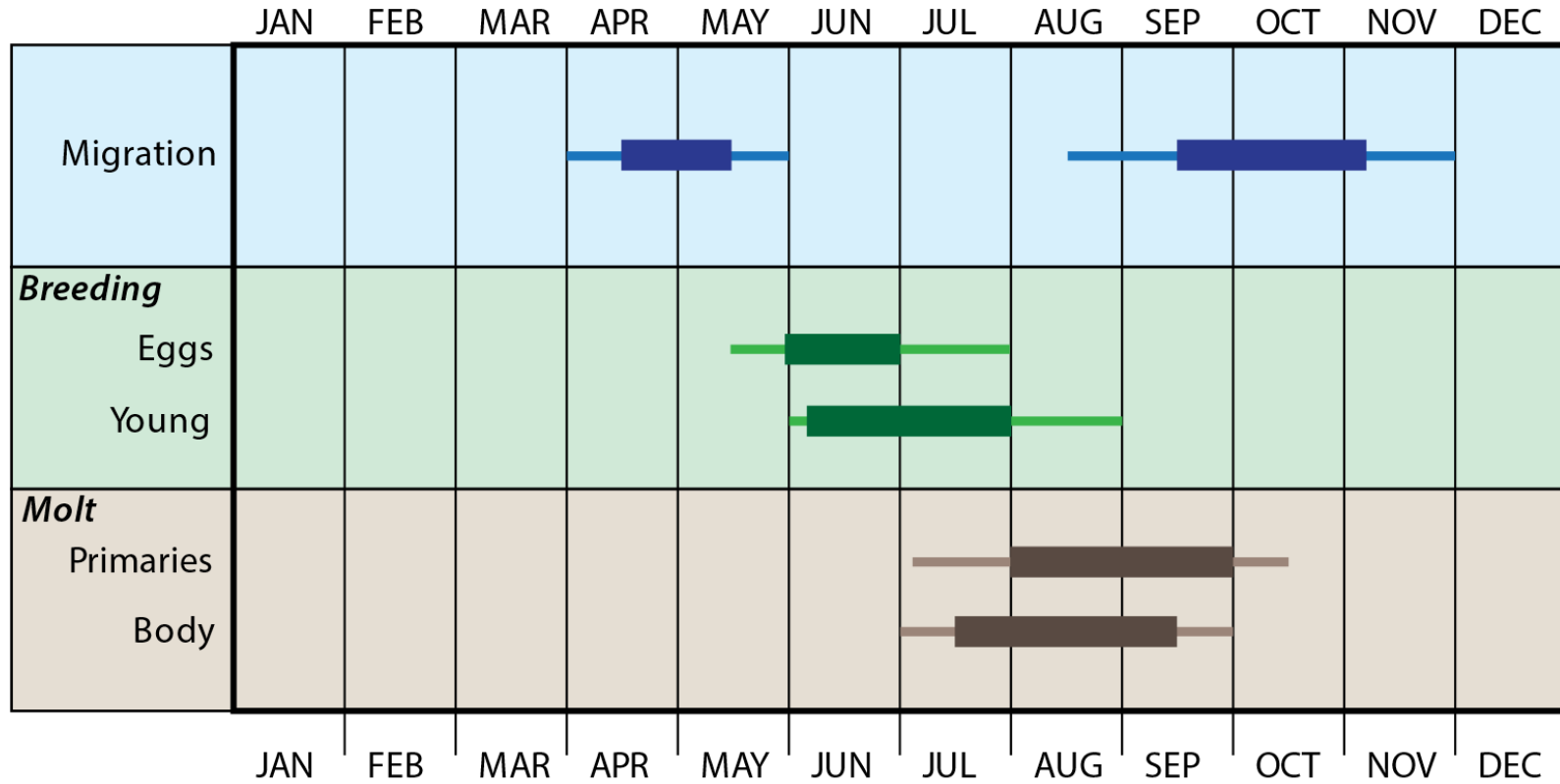
Ash-throated Flycatcher



Migrates to our area to breed, winters elsewhere

Understanding Bird Behavior

Annual Life Cycle



Yellow-rumped Warbler

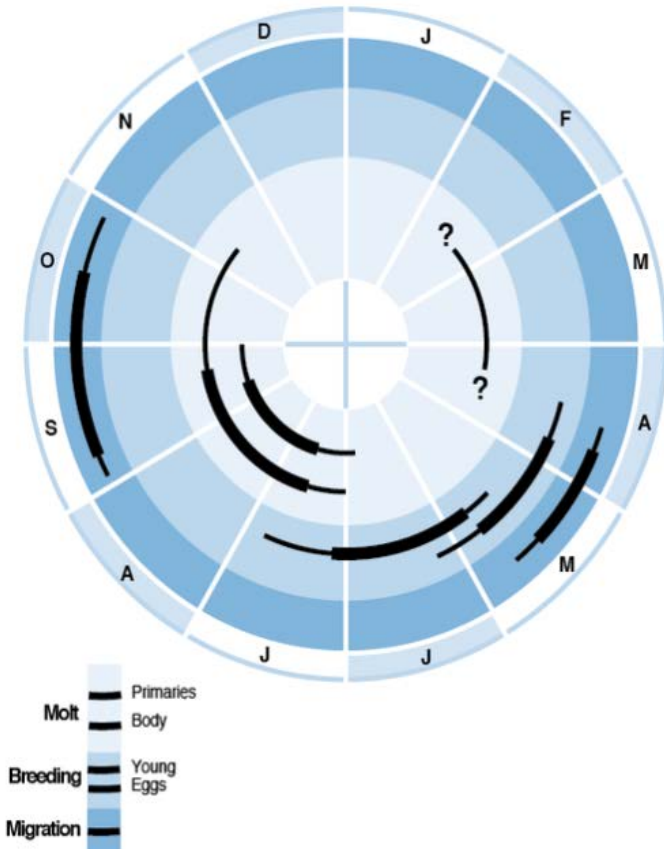
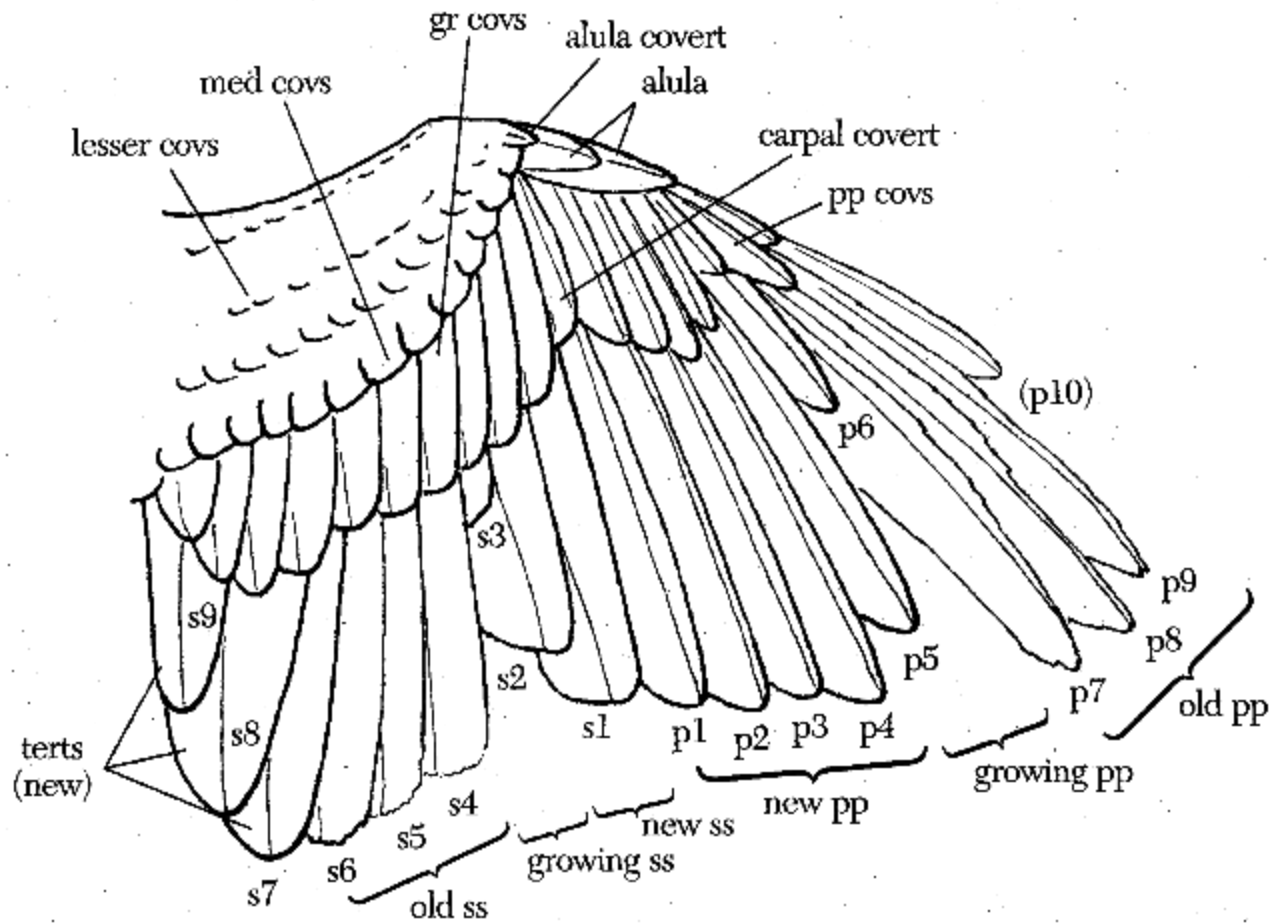


Migrates through our area, winters & breeds elsewhere

Flight Feathers



Aging by Plumage



* Timing pertains to North American populations

Figure 5. Annual cycle of Spotted Towhee.

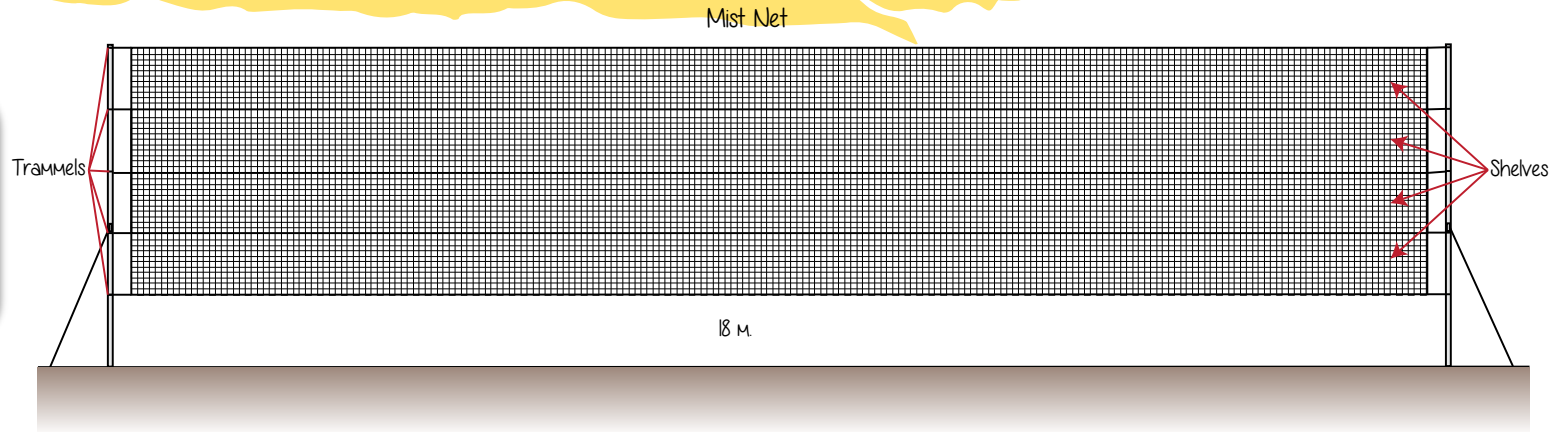
Timing pertains to North American populations.

© Cornell Lab of Ornithology

[+ Enlarge](#)

Banding Process

First thing you have to do is catch some birds

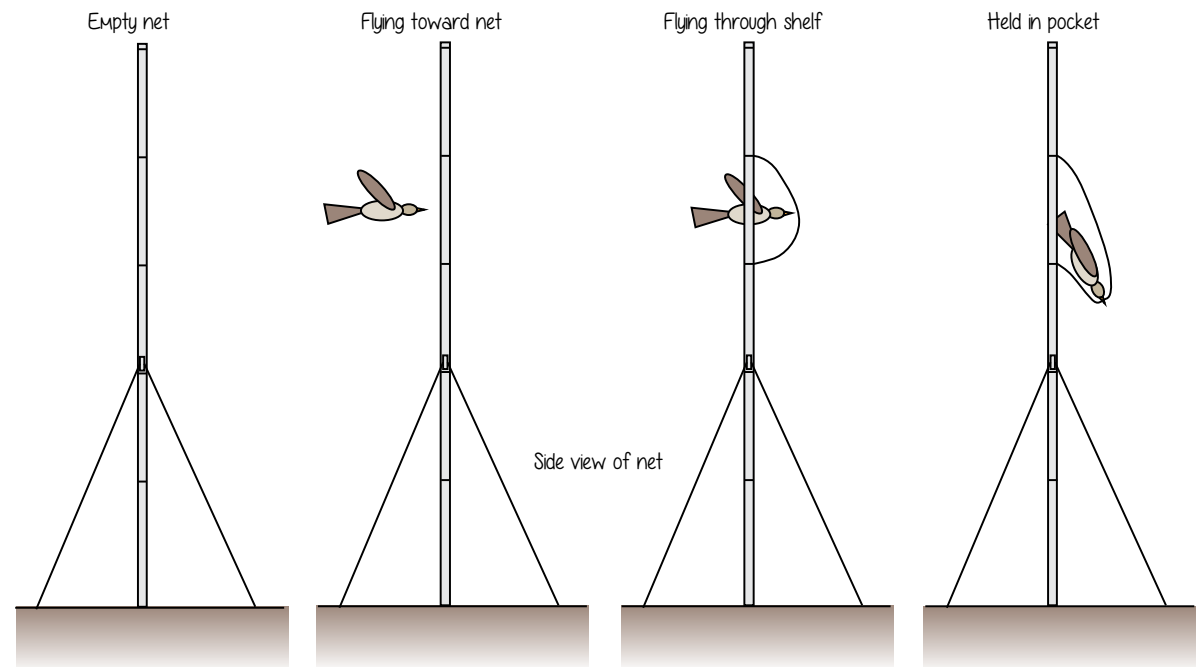


Mist net

18 m. long (39') x 2.6 m high (8' 6")

4 shelves (pockets)

When I was a youngster, when someone said they were going out to catch some birds, it always involved some sort of a weapon and very likely supper. With the crowd I hang out with now, it takes on a whole other meaning and I assure you it involves neither weapons nor supper.



Banding Process



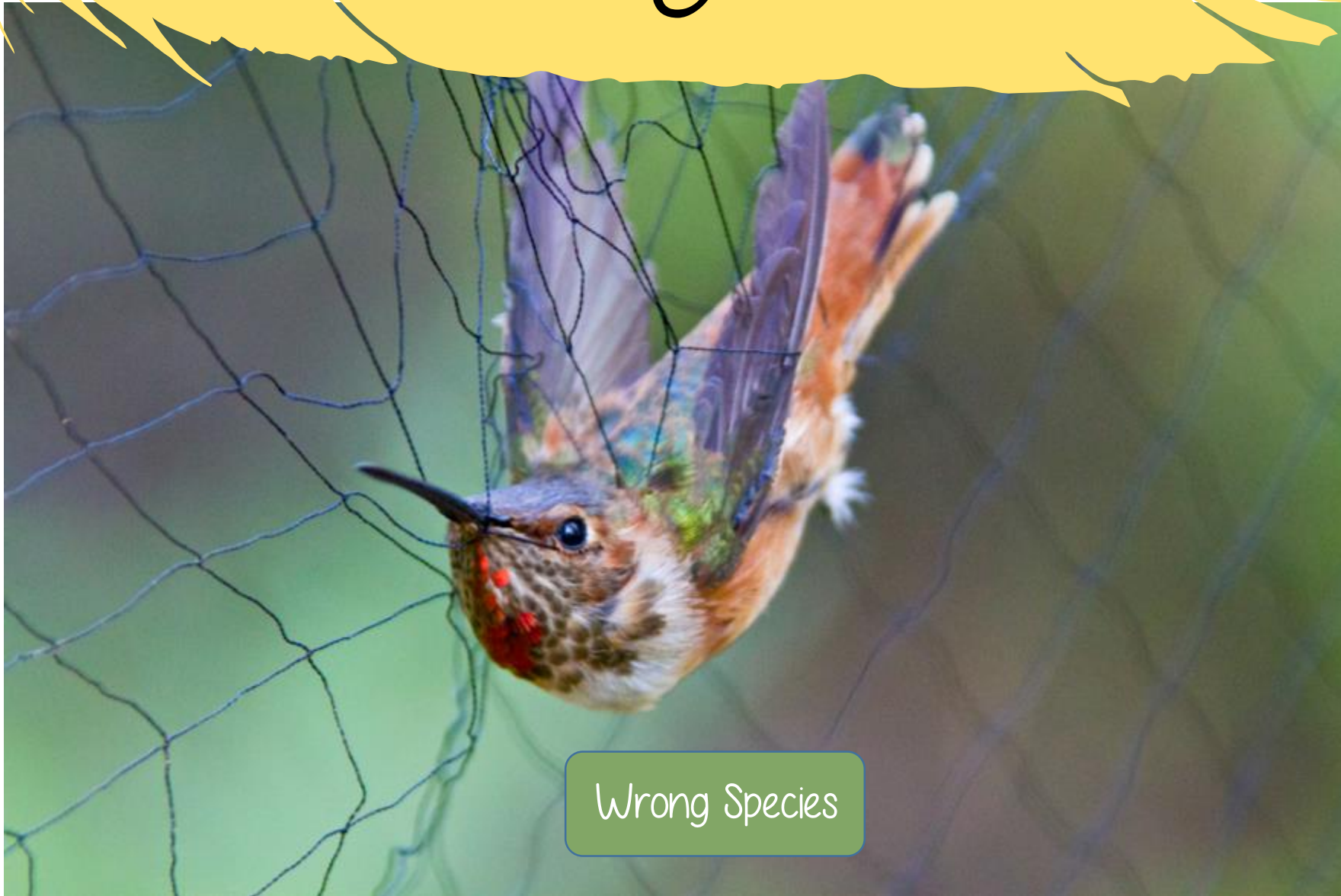
Checking nets

Banding Process



Extracting bird

Banding Process



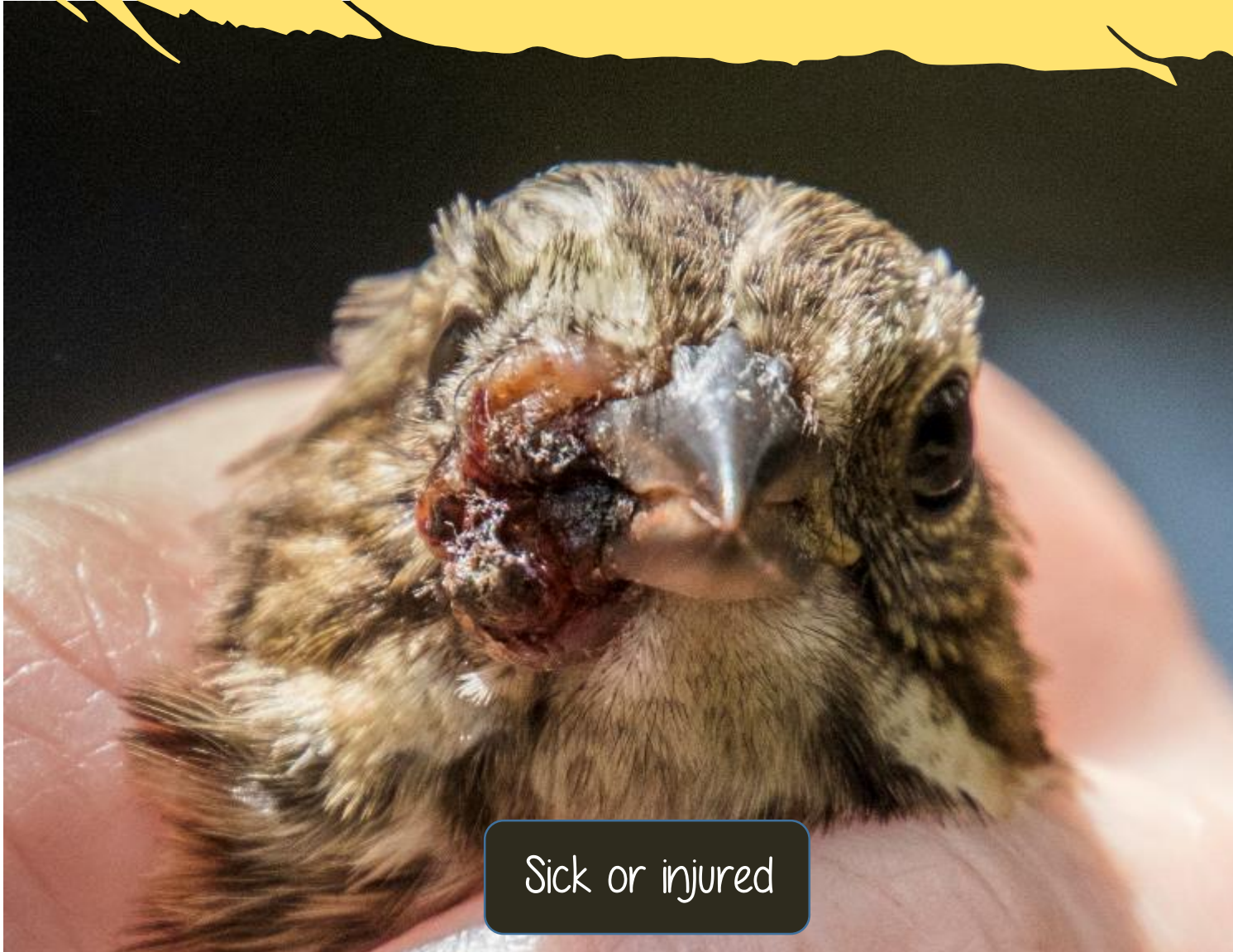
Wrong Species

Banding Process



Bagged birds

Banding Process



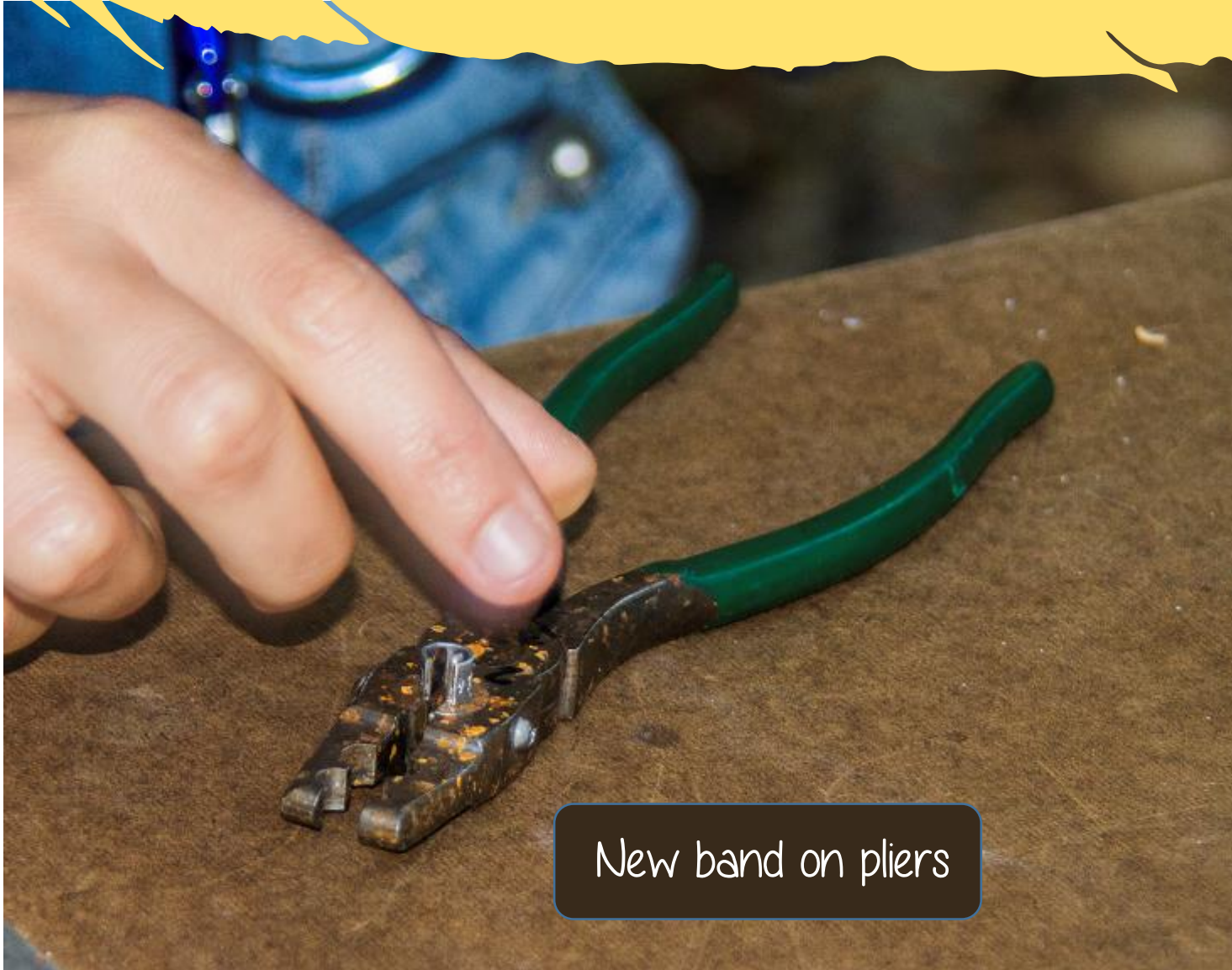
Sick or injured

Banding Process



Measuring for
band size

Banding Process



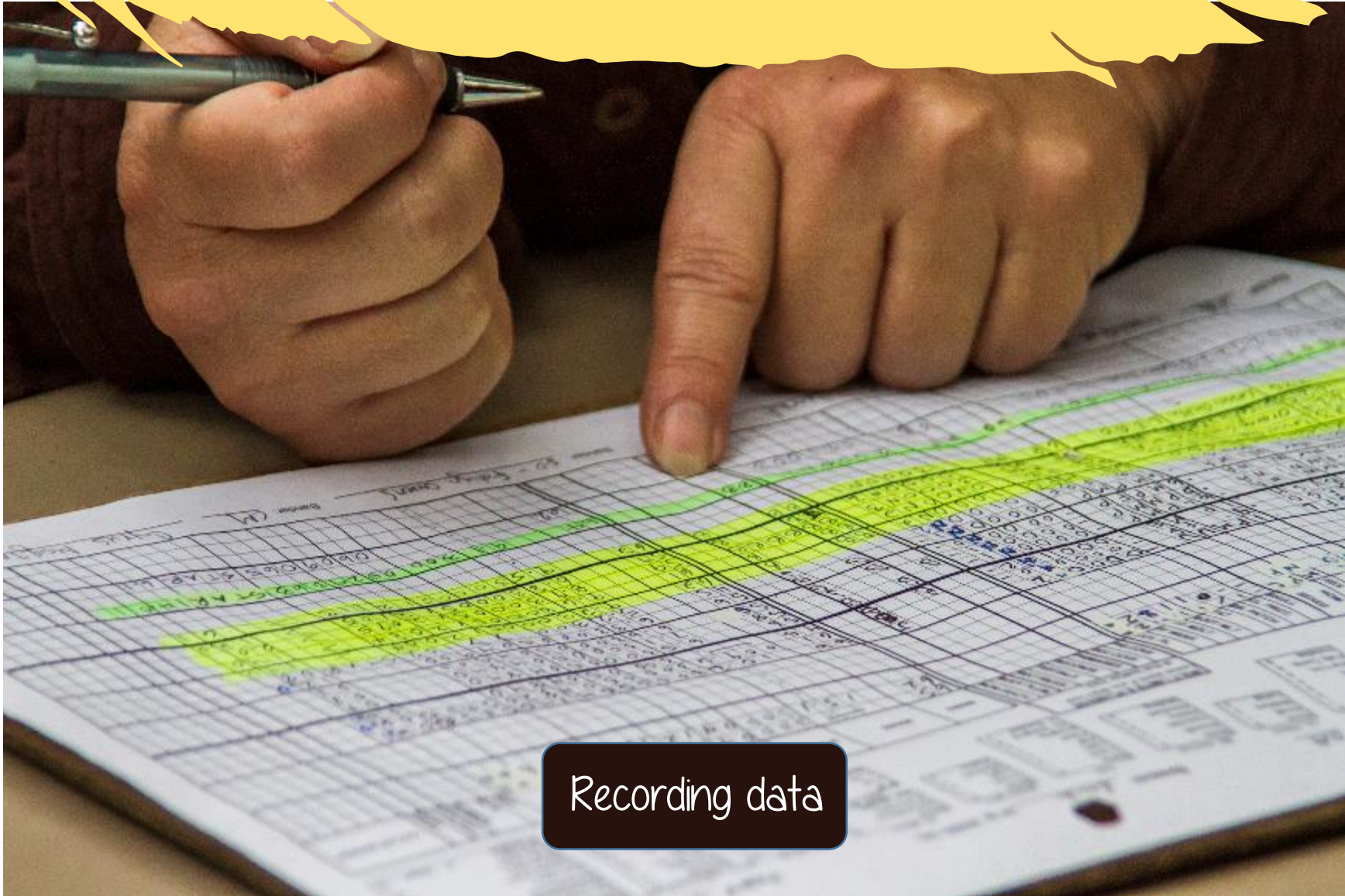
New band on pliers

Banding Process



Applying band

Banding Process



Recording data

Banding Process



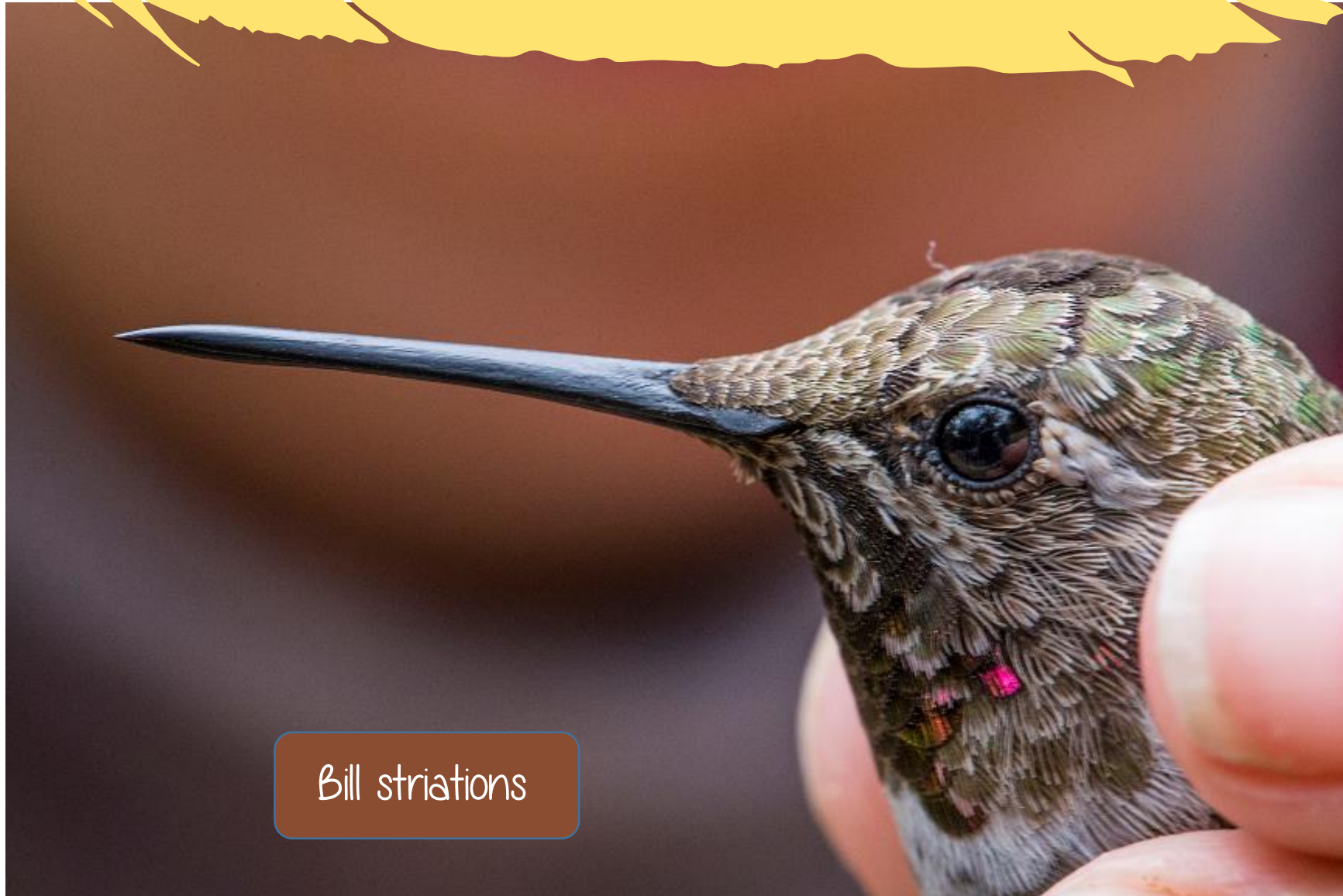
Measuring wing

Banding Process



Brood patch

Banding Process



Bill striations

Banding Process



Checking feather
tracts

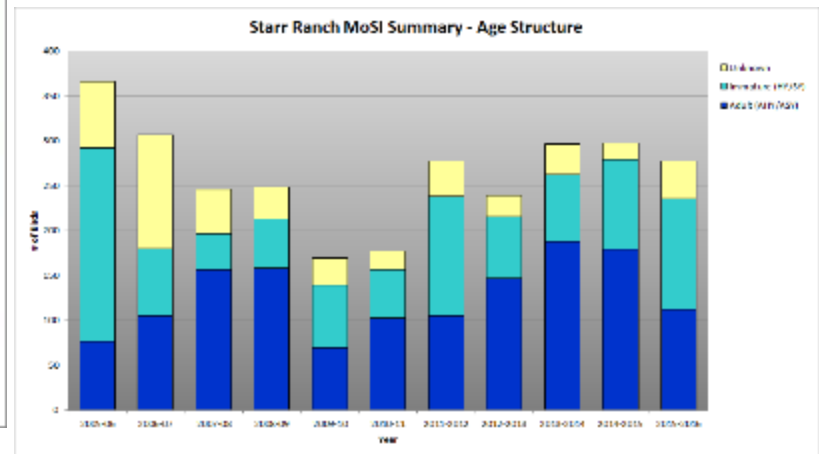
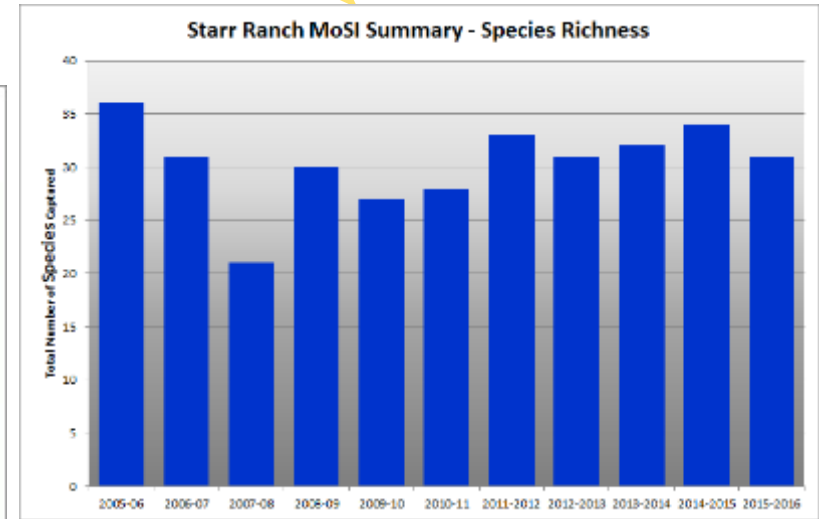
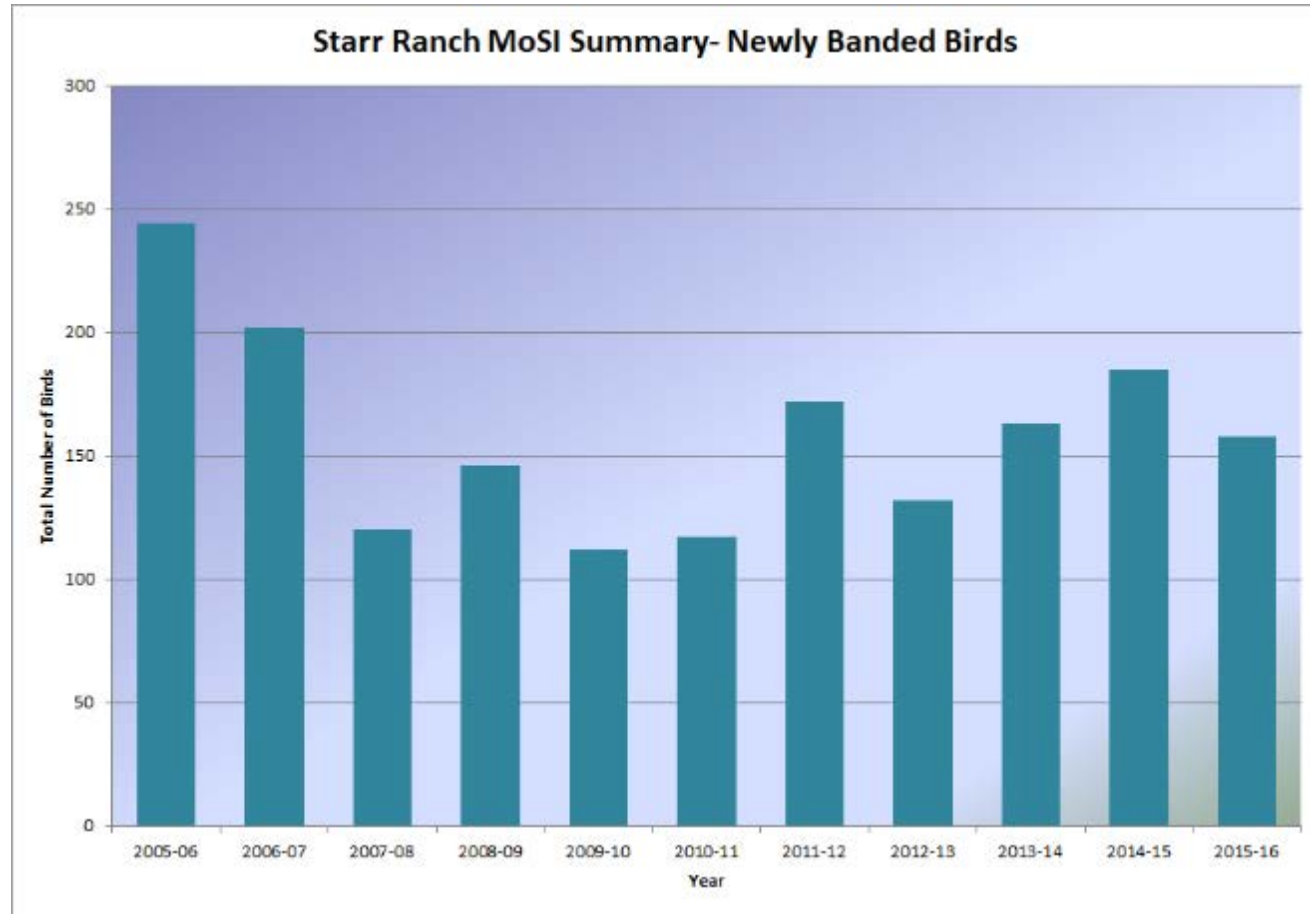
Banding Process



Releasing bird

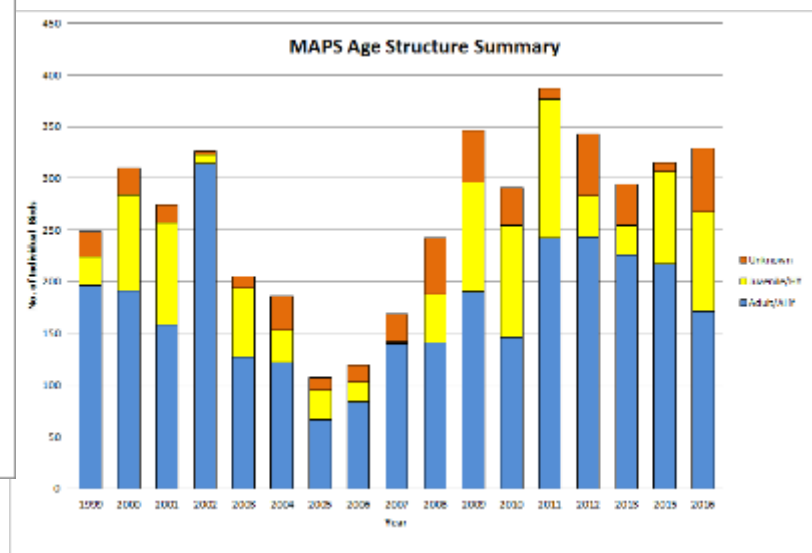
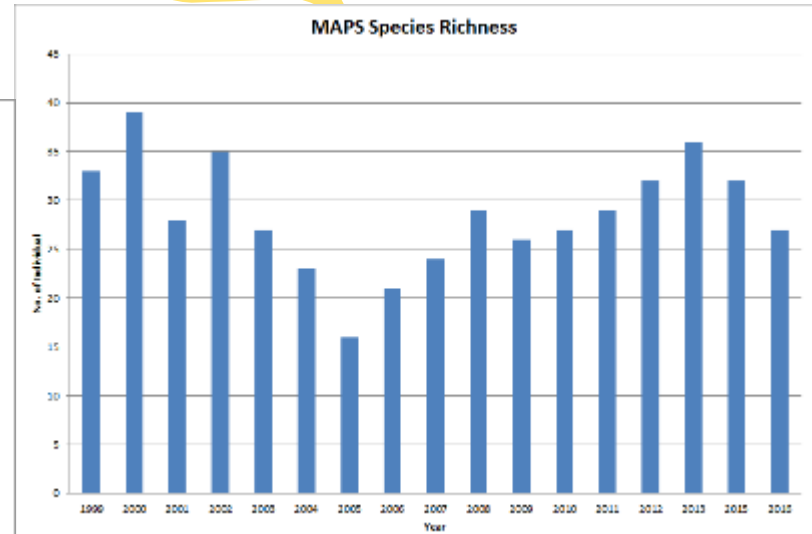
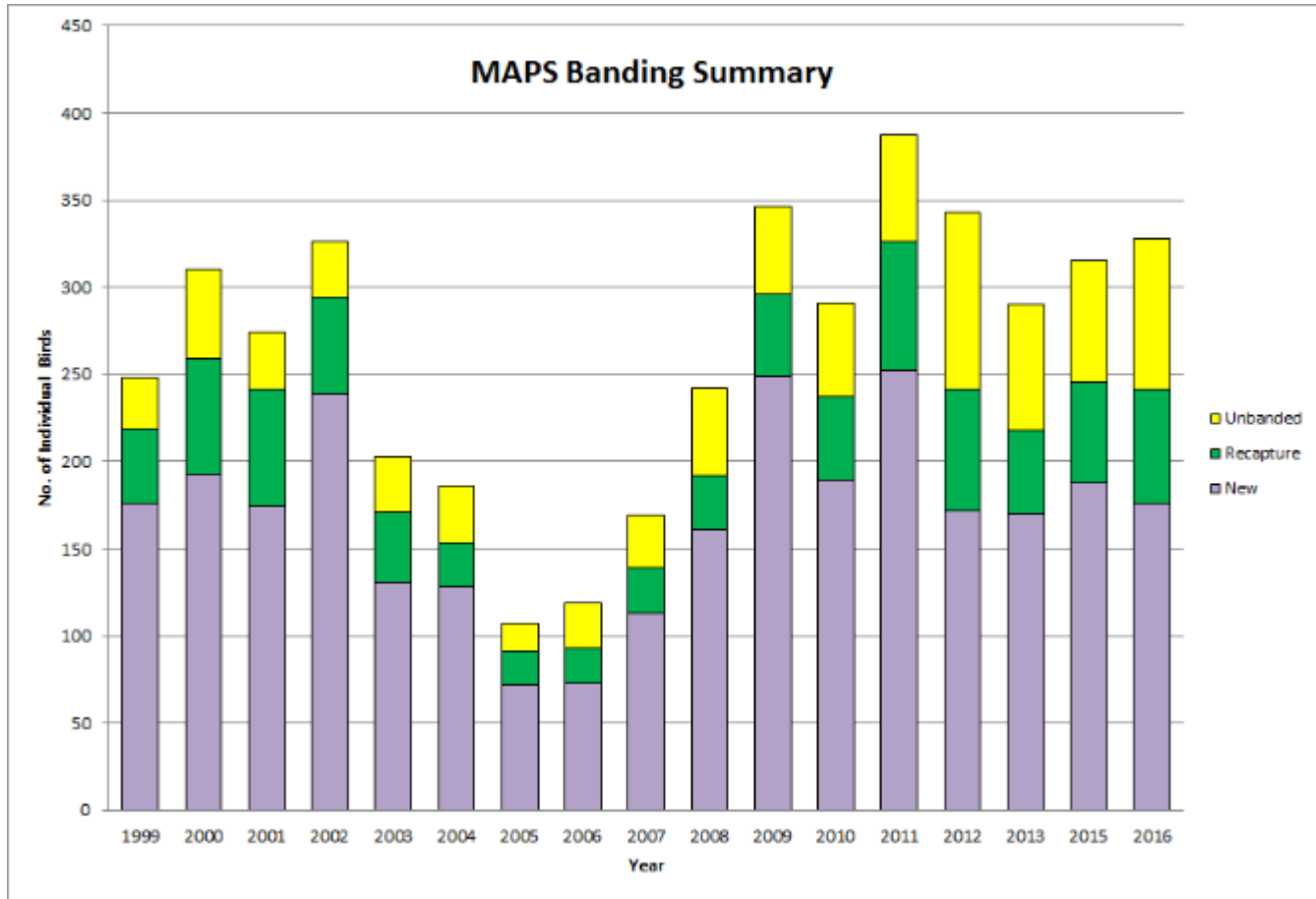
Banding Results

Winter Season



Banding Results

Summer Season



Supporting Science



California
Towhee



Common
Yellowthroat (M)



Common
Yellowthroat (f)

Lead biologist/ornithologist Holly Garrod participating in a study to determine if eye color could be a factor in aging certain species.

To Be Perfectly Honest...

there are some downsides to volunteering!



West Nile virus



Ticks



Zika virus

Poison Oak is very abundant in the study areas.



Trailcams frequently document cougar visits. No solo hiking is allowed.



Drought conditions present both fire and dying tree dangers.



Red Diamondback
(*Crotalus ruber*)

Rattlesnakes are also pretty common – this one was literally right below one of the nets.

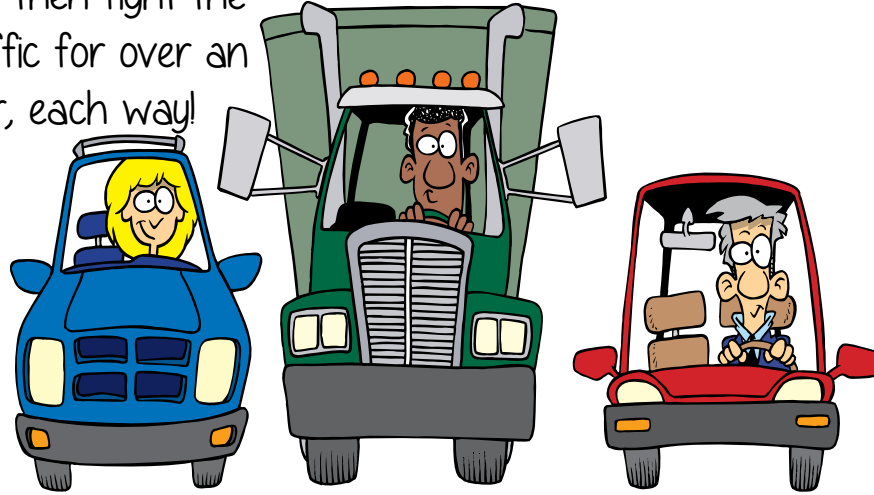
To Be Perfectly Honest...

...and if that weren't bad enough!



You have to go to bed with the chickens so...

And then fight the traffic for over an hour, each way!



...and walk 6 to 12 miles...



...and then freeze on those early winter mornings



...and try to avoid being eaten alive by mosquitos



...and constantly fight the tiny little flies that just won't leave you alone!



...and melt down in the hot summer days.

...you can get up a few minutes later.



...and then finally, get up again the next morning and do it all over again!



Some of the Big Things I've Learned or Confirmed Since I Started Volunteering

- 🐦 We still don't know very much about the natural world (or at least as much as we should)
- 🐦 Nature is very powerful (more powerful than humans)
- 🐦 People can and do influence the natural world
- 🐦 Citizen science can be an important resource
- 🐦 A lot of people dedicate their lives studying nature and the survival of species. Many of them are very young.
- 🐦 One person can make a big difference
- 🐦 When smart people work together and set their minds to a problem, they can make revolutionary progress
- 🐦 More resources could accelerate critical learning about and improvement in our natural world
- 🐦 It would be a lot better to move forward with knowledge and wisdom rather than having to constantly repair damage
- 🐦 Birds are extremely complex and fascinating creatures.
- 🐦 Birds within a species may look alike, but they are all individuals
- 🐦 Birds are more than just a beautiful and fascinating subject; they hold a critical place in the earth's eco-balance: Birds matter.

Summary

- ✿ Birding can be a lot of fun, very interesting and educational.
- ✿ It doesn't take very much in the way of time nor money to get started.
- ✿ You can get as involved as you want.
- ✿ There are lots of tools and resources to help you on your way.
- ✿ There will always be more birds to find/observe so there is never an "end" to the hobby.
- ✿ You can find social activities and many volunteer opportunities.
- ✿ You can help make a difference to people and the natural world.



Rare visitor – White-eyed Vireo

Conclusion



Discover
your
passion

Find
others
who
share
your
passion.

Dive right
in. It's
never too
late to
learn new
things.

Volunteer
and make
a
difference

Continue
to learn
and
develop
your skills

Keep
active and
share
what you
know



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