



GIRL SCOUTS OF NORTHERN CALIFORNIA

IN THE FLYWAY

A GS NORCAL COUNCIL'S OWN BADGE PROGRAM

JUNIORS

TO ENCOURAGE AND INSPIRE GIRLS TO EXPLORE THE
WORLD OF SAN FRANCISCO BAY.



PURPOSE

As seasons change, bird populations throughout the San Francisco Bay Area also change. San Francisco Bay is part of the Pacific Flyway. This is the major migratory path for birds, extending from Alaska to the tip of South America. Become a junior ornithologist (a person who studies birds) and keep track of who's coming, who's going and who is just staying put.

REQUIREMENTS

Complete 6 of the following activities.

All members of Girl Scouts of the USA are eligible to earn the In the Flyway Badge.

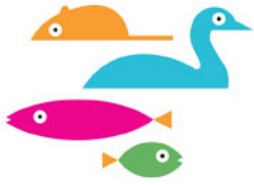
The In the Flyway Badge is an official award and should be worn on the front of the vest or sash.

ORDER INFORMATION

To order the In the Flyway Badge please visit www.girlscoutsnorcal.org and purchase the items online. Please note that shipping and handling will be added to all online orders.

Members of Girl Scouts of Northern California will not be charged for shipping and handling if they use the GS NorCal Council's Own Order Form and have badges shipped to the closest GS NorCal store in their area for members to pick up.

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Girl Scouts Save the Bay

IN THE FLYWAY BADGE REQUIREMENTS FOR JUNIOR GIRL SCOUTS

Complete 6 of the following activities.

1. JOURNAL IT

To become a true birder, you need to create a bird journal. You can use a journal you already have or make one from paper you have at home. Use at least 10 pieces of paper so you that you have plenty of space for your journal entries. Decorate the journal however you choose, put your name on the cover and use it to take notes on the birds that you see. When you make a journal entry, include the date, the bird's location, its activity and any other important details. You may also sketch the birds that you see. Colored pencils are helpful for this!

2. HONING YOUR SKILLS

Birders use binoculars to observe birds from a distance. Without binoculars or spotting scopes, you would need to be very close to the birds and they would likely fly away or change their behavior significantly. Using binoculars is a skill that takes a lot of practice. Ask someone to help you learn how to effectively adjust binoculars for your eyes to focus on the birds you want to observe. Keep practicing until you can confidently find a bird using binoculars.

3. BIRD IDENTIFICATION

There are hundreds of bird species that live in the San Francisco Bay Area. About 200 species migrate up and down the Pacific Flyway, and hundreds more are year-round residents. Some experts are able to identify all of these birds! As a beginning ornithologist, you can learn to identify common shorebirds and song birds by looking for *identifiable characteristics* or by listening to their songs.

Look at a book about birds, or a field guide. A field guide is a special book that helps you identify species of plants or animals that you see in nature. Look for birds of different color and size and with different shaped beaks, bodies, and feet. These are all *identifiable characteristics*. Take a walk outside and look for identifiable characteristics on birds that you see. Listen for their song as well. Try to identify 5 different kinds of birds in your neighborhood, school, park or backyard using a field guide to birds in your area.* Record the birds that you see in your journal.

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4. BIRD TRACKING

Become a nature detective! Search for tracks, trails, feathers, holes, and other signs to discover who is visiting your garden, schoolyard or the Richardson Bay Audubon Sanctuary. What did you find? Record your notes in your journal.

5. WHAT'S FOR BREAKFAST

You can often look out on a mudflat and see thousands of birds, of different species, all feeding on the bounty of creatures living in the mud. How are all these birds able to search for food right next to each other, without fighting over the food? Visit a mudflat when the tide is out and observe a few kinds of birds feeding in the mud. Do you notice any differences in how they find their food? Do you notice any differences in the size and shape of their beaks? Take notes in your journal. *Resource partitioning* allows all these birds to feed in the same area. Learn what this term means and how it relates to what you observed in the mudflats.

6. UNINVITED GUESTS

Visit the Richardson Bay Audubon Center and Sanctuary, or an environmental education center near you, to learn about native and non-native plants and animals. How do non-native plants and animals get here? How do they affect habitat or other bird needs? Are there any non-native or introduced birds that live in or visit the Sanctuary? Learn 3 ways that non-native birds can impact the populations of native birds. Is there anything we can do to prevent non-native species from becoming established here? Create a poster to educate your community about the impact of non-native species and what people can do to help.

7. ENVIROMENTAL CHANGES

Birds have characteristics, such as the color of their feathers or their beak shape, which allow them to survive in their specific environment. When that environment is altered, some bird species are unable to adjust. In order to survive, these birds would have to find and move to a new location that meets their needs.

Learn about 3 ways that people are changing bird habitat in the San Francisco Bay Area. Then learn about the actions that scientists and naturalists, like those at the Richardson Bay Audubon Center & Sanctuary, are taking to help the birds. What can you do? List 3 ways that you can help protect the birds in your area. Remember birds, like many other animals, are affected by the health of the Bay. If we help save the Bay, we help save the birds!

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8. CREATING HABITAT

One of the many threats that birds face is loss of habitat. There are a few ways you can help create habitat for birds. Choose one of the following to do:

- ❖ Build a bird feeder and place it in your backyard or schoolyard (*Please get permission first!*) Find ideas for building bird feeders at the following websites:
 - <http://www.osweb.com/kidzkorner/feeder.htm>
 - <http://familyfun.go.com/arts-and-crafts/season/feature/famf87project/famf87project06.html>
 - http://kidsactivities.suite101.com/article.cfm/easy_bird_feeders_for_kids
- ❖ Build a bird house for your backyard. The following website has tips for building a bird house:
 - <http://www.osweb.com/kidzkorner/sept3.htm>.
- ❖ Participate in a restoration project at the Richardson Bay Audubon Center and Sanctuary, or a Sanctuary or park near you, to provide better bird habitat

9. POETRY IN MOTION

Take a moment or two to watch and be inspired by a bird soaring through the air. Did you ever wish that you could fly with the birds? Turn that imagination into poetry! Write a poem about what it would be like to be a bird. Share your creativity with the community by posting your troop's poems at the local Audubon Center, community library or your school.

10. BIRDS ON THE WEB

The Web is a great resource for learning more about birds. You can also learn about local issues regarding birds, their habitats, nesting, sightings, and conservation. Surf the Web and discover 4 new facts about birds in your area. See what you can find out about Important Bird Areas (IBAs). Are there any IBAs near you?

RESOURCES

You may be able to check out a field guide from your school or public library or borrow one from your local Audubon Center. Here are a couple good field guides for the Bay Area and Pacific Coast:

- Fishler, Chris C. and Joseph Morlan. *Birds of San Francisco and the Bay Area*. Edmonton: Lone Pine Publishing, 1996.
- Lederer, Roger J. *Pacific Coast Bird Finder*. Rochester: Nature Study Guild Publishers, 1977.

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