

## In the Flyway Interest Project

The San Francisco Bay Area is one of the most ecologically important areas for birds migrating in the Pacific Flyway. During peak migration, San Francisco Bay hosts the greatest numbers of wintering ducks and shorebirds along the Flyway. Birds travel amazing distances during their journey and must find appropriate resting areas and food. As more and more wetlands disappear, finding good, safe resting spots becomes more and more difficult. Areas where significant numbers of birds are able to winter or simply rest before continuing on their migration are often designated as Important Bird Areas (IBAs). Learn about birds and the significance of IBAs with this Interest Project.

Complete the Required Activity and then one each from the Learn, Do and Share sections. Create and complete one activity of your own design and reflect upon the whole process when you have finished using the reflection form.

### Required

Using a large map of the San Francisco Bay Area or Northern California, locate and mark all of the Important Bird Areas. You can find a list of the IBAs in the Bay Area at: [http://www.tiburonaudubon.org/conserv\\_iba.html#sfbay](http://www.tiburonaudubon.org/conserv_iba.html#sfbay). Choose one near your community to focus on. Determine what kind of habitat is found there. There may be a diversity of habitats. How are these habitats important to birds? Identify 10 bird species that use this area on a regular basis, either year round or during their migration. Each IBA usually has a conservation or restoration project taking place. Learn which conservation issues are currently being focused on at the IBA you chose. Find and read three news articles relating to these issues.

### Learn

1. Birds have fascinating anatomy. Even though much of their anatomy is very similar to humans, birds have developed the ability to fly. All birds of flight have bodies that reduce friction and aid in flight. Create a poster of a bird's body highlighting its unique anatomy and adaptations.
2. Scientists use scientific classification to group all living creatures based on visual characteristics and genetics. The ranks of classification are Kingdom, Phylum, Class, Order, Family, Genus and Species. All birds belong to Kingdom Animalia, Phylum Chordata and Class Aves. From there they are divided further until you come to the genus and species; these genus and species make up the scientific name. Learn how scientists classify birds and how these methods can help you identify the family a bird belongs to as well as the species. You can learn more about a bird's general habits just by knowing which family it is in. Using three **local** bird species create a chart like the one below that shows their classification. See if you can find the Latin meanings of their scientific name.

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	<b>Emperor Penguin</b>	<b>Ostrich</b>	<b>Scarlet Macaw</b>
<b>Kingdom</b>	Animalia	Animalia	Animalia
<b>Phylum</b>	Chordata	Chordata	Chordata
<b>Class</b>	Aves	Aves	Aves
<b>Order</b>	Sphenisciformes	Struthioniformes	Psittaciformes
<b>Family</b>	Spheniscidae	Struthionidae	Psittacidae
<b>Genus</b>	<i>Aptenodytes</i>	<i>Struthio</i>	<i>Ara</i>
<b>Species</b>	<i>forsteri</i>	<i>camelus</i>	<i>Macao</i>

- Thousands of birds travel the Pacific Flyway. Along the way they may stop at a variety of different habitats. List at least 5 important habitat types for migrating birds along the Pacific Flyway and identify what each of these habitats provides for the birds. What components are necessary for good habitat? How do human activities alter habitats and influence bird survival?
- What exactly is an Important Bird Area? You've located the IBAs close to you, but why are these places designated as such? Interview a member of your local Audubon Society to find out what is necessary to designate an area as an IBA.

**Do**

- Most serious birders compile a *Life List*. This is a list of all bird species that they have seen with absolute certainty throughout their lifetime of birding. Create a journal in which to keep your own *Life List*. Spend two hours per month birding (watching birds and becoming familiar with how to identify them) using binoculars and a field guide. See how many birds you can add to your life list. What an amazing treasure to look back on as you grow and hone your birding skills!
- Participate in a field trip with your local Audubon Society. Most Audubon chapters offer them for free to the public. This is an excellent way to learn from expert birders! It is also a great opportunity to master the use of binoculars or learn to use a spotting scope.
- Kick your creativity into gear and draw a picture of a native duck, goose or swan. Enter your artwork into the Junior Duck Stamp Program art contest. Details about the contest can be found at <http://www.caljrduckstamp.org>.
- Birds are a strong indicator of the health an environment. Birds that migrate can tell us a lot about the environments of different places. To protect migratory birds close to home, we must also conserve their habitats throughout their migration range. Become familiar with one of the bird species you chose as part of the required segment of this project. Where do they migrate to and from? Where do they feed? Where do they nest? What are their habitat needs? Create a poster with all of this information and include ideas for protecting these birds. Put the poster on display at the Audubon society near you!

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### Share

1. Get Active! Participate in a habitat restoration project with your local Audubon Society. Once you learn the ropes, organize a project to improve or create bird habitat around your school or community.
2. Educate! Volunteer with your local Audubon Society to help teach a class for younger students. Or, adopt a troop of Junior Girl Scouts or Brownies, teach them birding skills (how to use binoculars and how to identify a few local bird species) and take them birding in a nearby nature area.
3. Participate in a bird count with your local Audubon Society. Then, organize a bird count as part of Audubon's National Christmas Bird Count at your school or in your community. See if birds are using your area for food, protection, or as a resting spot.
4. All birders, experienced and novice, depend on field guides to help them correctly identify the birds they are observing. These guides often contain photographs or sketches of birds during various seasons and brief information about their habits, habitats, and range. Create a picture key for 8-10 of the most common shore and/or song birds found near you. Share your field guide with your local Audubon Society to use in their education programs or with a Girl Scout troop who would like to learn about birds!

### Your Activity:

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### My Reflection:

Part of the Promise and Law that relates to what I did in this Interest Project:

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### \* Resources

#### **Audubon Center and Sanctuary (open to the public):**

- Richardson Bay Audubon Center and Sanctuary (Tiburon)  
[www.tiburonaudubon.org](http://www.tiburonaudubon.org)

#### **San Francisco Bay Area Audubon Chapter Websites:**

- Marin Audubon Society (Mill Valley) [www.marinaudubon.org](http://www.marinaudubon.org)
- Golden Gate Audubon Society (San Francisco, western Alameda County and Contra Costa County) [www.goldengateaudubon.org](http://www.goldengateaudubon.org)
- Mount Diablo Audubon Society (Contra Costa County)  
[www.diabloaudubon.com/index.php](http://www.diabloaudubon.com/index.php)
- Ohlone Audubon Society (Southern Alameda County)  
[www.members.aol.com/wnscoggins/oas.html](http://www.members.aol.com/wnscoggins/oas.html)
- Sequoia Audubon Society (San Mateo County) [www.sequoia-audubon.org](http://www.sequoia-audubon.org)
- Santa Clara Valley Audubon Society (Santa Clara County)  
[www.scvas.org/index.php](http://www.scvas.org/index.php)
- Madrone Audubon Society (Sonoma County) [www.audubon.sonoma.net](http://www.audubon.sonoma.net)
- Napa-Solano Audubon Society (Napa and Solano Counties)  
[www.napasolanoaudubon.com](http://www.napasolanoaudubon.com)

#### **Northern California Audubon Chapter Websites:**

- Redbud Audubon Society (Lake County) [www.redbudaudubon.org](http://www.redbudaudubon.org)
- Altacal Audubon Society (Butte, Glenn and Tehama Counties) [www.altacal.org](http://www.altacal.org)
- Peregrine Audubon Society (interior Mendocino County)  
[www.peregrineaudubon.org](http://www.peregrineaudubon.org)
- Mendocino Coast Audubon Society (coastal Mendocino County)  
[www.mcn.org/j/audubon](http://www.mcn.org/j/audubon)
- Redwood Region Audubon Society (Humboldt, Trinity and Del Norte Counties)  
[www.rras.org](http://www.rras.org)
- Wintu Audubon Society (Shasta County) [www.wintuadubon.org](http://www.wintuadubon.org)
- Mount Shasta Area Audubon Society (Siskiyou County)  
[www.mtshastaaudubon.com](http://www.mtshastaaudubon.com)