I was hiking on top of a levee behind Moffett Field one day last October (after spending the afternoon studying a noteworthy collection of migrant shorebirds), when a Loggerhead Shrike flew out of a scraggly elderberry along the banks of Stevens Creek. The shrike glared at me from a nearby wire fence uttering its customary grating “wree, wree” agitation call as I approached the small tree from which it had flushed. I noticed in the branches a freshly killed White-crowned Sparrow lodged securely in a sharp fork of the tree with a pointed stick piercing its breast (no doubt a result of the shrike’s successful hunting foray earlier in the day). Previously I had observed shrikes feeding on a variety of large insects and even small lizards but I was surprised to find one able to handle a prey item as large as a sparrow. This discovery sparked my curiosity and I felt compelled to embark upon a literature review of the natural history of the Loggerhead Shrike.

Occasionally they are heard to mimic the vocalizations of other birds as well.

Food Habits

Shrikes require the presence of suitable look-out posts with unobstructed views, such as the top-most twig of a tree or bush, power line, pole or barbed wire fence. From this conspicuous perch the shrike patiently scans its territory for prey in early morning and late afternoon hours. Between low perches they may make a low, even flight before finally rising abruptly at the next stop. An undulating flight somewhat like that of a woodpecker or goldfinch is characteristic of longer flights made from high perches. The combination of short, rounded wings and a long tail affords them a maneuverability essential in the capture of small fast-moving prey. Shrikes can hover to pinpoint prey after initially spotting it from a perch, especially where vegetation is high or dense. Hovering is not a commonly employed hunting strategy however, since it requires considerably more energy than simply dashing out from a perch associated with the loggerhead. But if one is fortunate, during the breeding season an unexpectedly pleasant song may be heard. Not usually thought of as gifted songsters, shrikes possess a surprisingly melodious, often liquid and flute-like song reminiscent of a thrush or thrasher. Occasionally they are heard to mimic the vocalizations of other birds as well.
and pouncing on its quarry. Shrikes usually catch their prey on the ground but aerial capture can occur in situations where flying prey is abundant. Typically a shrike will seize and bite into the prey with its powerful beak and dispatch it with quick biting motions capable of severing the neck vertebrae. In this way a full-grown house mouse can be killed with a single peck!

Unlike the larger raptors that have strong, sharp talons, the shrike’s feet are of limited use in subduing and killing prey. Even so, shrikes readily attack and transport prey over 129% of their own body mass (honest!), carrying larger items in their feet and smaller ones in their beak. Larger prey may be carried to a perch and impaled on a thorn, sharp twig or “barb” on a barbed wire fence, or wedged in the crotch of a tree or shrub. This is to facilitate manipulation of the prey, making it easier to secure and tear apart food items. The shrike may cache prey if it is too large to finish in one meal and return later (even several days later) to feed on what remains.

Although food items may range from insects less than one-half inch in length to mice or snakes weighing just under an ounce, shrikes most often select small (0.6-0.9 inches in length), easily captured insects. In the eastern U.S. and Canada, shrikes are popularly portrayed as mousers and bird killers but here in California they depend heavily on insects, vertebrate prey accounting for only 12% of diet in Bay Area studies. The most frequently taken insects include grasshoppers, crickets, beetles, butterflies, caterpillars and bees. Vertebrate prey may include mice, voles, shrews, gophers, lizards, snakes, frogs and even (rarely) fish and small turtles. The list of songbirds taken by shrikes includes Horned Lark, Yellow-rumped Warbler, House Sparrow, Vesper Sparrow, Golden-crowned Sparrow, American Goldfinch and House Finch. An observation of a shrike killing a Northern Mockingbird is particularly significant considering the similarity in size, color pattern and aggressive disposition of both predator and prey. A Mourning Dove (130 grams) is the largest bird prey recorded. Even more impressive are a number of observations involving attacks on large snakes. One biologist watched a shrike fly with a live snake 16.5 inches in length to the top of a telephone pole!

The taking of larger-than-usual prey may be motivated by severe hunger or simply by opportunity. Prey vulnerability appears to stimulate predation on songbirds normally too large or too difficult to capture. Birds weakened by injury, poor health or starvation are readily seized upon. A Grasshopper Sparrow was seen being snatched up and impaled by a shrike immediately after it collided with a truck. A White-crowned Sparrow was captured and eaten after it struck a window. A Savannah Sparrow was “stolen” seconds after it was shot by a collector. Another shrike in pursuit of wounded prey was observed as it hovered over and closely followed a mouse which was injured and being played with by a house cat. Shrikes may also attack adult birds feigning injury during distraction displays, those attending nests or individuals found vulnerable in open areas. At the Pajaro River mouth on Monterey Bay, shrike predation was observed to be the leading cause of mortality among Snowy Plover chicks in some years. Shrikes also have been reported attacking pet birds kept in outdoor cages and aviaries. An account from South Carolina involves a cage-bird fancier who watched as a shrike landed on an outdoor cage full of canaries and neatly clipped off the head of one of the birds as it poked out between the cage bars.

Scavenging is another aspect of the Loggerhead Shrike’s adaptability. One was seen feeding on pieces of meat from an American Coot which had collided with a wire, another was observed feeding on a dead sheep. Instances of carrion-feeding have been found to occur chiefly during periods of low prey density when shrikes are stressed. They are occasionally seen scavenging the remains left behind by larger birds of prey, and have even been documented eating their own young after strong winds have blown them out of the nest.

Reproduction

For most of their lives, shrikes are solitary birds. Males and females begin pairing up from late January to March and remain together only during the breeding season. Their territory size may range from 11-14 acres in a prey-rich Bay Area grassland to 40 acres in a sparsely vegetated semi-desert location farther south. Nest construction is underway by April with some occurring much sooner, as evidenced by the record of a nest with eggs found in Santa Clara County on the very early date of February 26. The nest is a structure of twigs, weed stalks and grasses, lined with soft cottony material, often built on the remains of an old nest of a shrike or some other bird. Within a dense bush or thickly-foliaged tree, the female constructs the nest with little or no help from her mate. She will lay one egg each day until a complete clutch of 4-7 eggs has been produced, then she proceeds to incubate them for 10-12 days. Young leave the nest about 20 days after hatching. Most fledging has been completed by July in our area. In years when prey is sufficiently abundant two broods may be raised. The male shrike acts as a sentinel and attends to the female’s dietary needs while she sits on the eggs. He brings her food and often maintains a fully stocked “larder” in the vicinity for her to utilize while she tends the nest. In this manner her energy is conserved and can be used on reproductive activities rather than on the demands of hunting.

During the vulnerable nesting period both adults maintain a watch for potential predators. In some areas snakes prey on shrike eggs and young. Larger birds of prey occasionally pose a threat to nesting shrikes as demonstrated by shrike remains in pellets from a Great Horned Owl nest.

Conservation

Loggerhead Shrike populations have suffered a continent-wide decline since the mid 1950’s. They have vanished from many parts of Canada (where they are now listed as an endangered species), northeastern U.S. and sections of the Midwest. In the western U.S., populations appeared stable into the 1970’s but have become alarmingly scarce at many locations since. The species has been listed on the National Audubon Society’s Blue List (an “early warning system” for species in decline) every year since its inception in 1972. Currently it is a candidate (Category 2) species for federal listing as threatened by the US. Fish and Wildlife Service, and is on their list of “migratory songbird species of management concern.” Their status must be elevated to the “threatened” category in order for potential conservation research to become eligible for government funding. Shrike counts on breeding bird surveys declined throughout most of western U.S. from 1968-1989, although California surveys indicated a fairly...
Factors contributing to the decline of shrike populations throughout their range include loss of habitat, eggshell thinning due to pesticide contamination of insect prey and soil aridification resulting in diminished prey populations. Several authors have also indicated automobile/shrike collisions as being a significant cause of mortality in areas where roads bisect their open country ranges. Their habit of feeding on road-killed insects in the early morning hours makes them particularly vulnerable to fast-moving cars. In the South Bay area one obvious reason for fewer shrikes is simply less habitat. The species' favored open country domain is also unfortunately considered highly desirable habitat for shopping malls and industrial parks.

Very little published information exists on shrike populations in the South San Francisco Bay area. In 1952 Sibley, referring to their status in this region, described the shrike as a "common resident in open country." In 1971, a Department of Fish and Game nesting population study of the birds of South San Francisco Bay projected an estimated 10-15 pairs of shrikes in the study area (from Coyote Hills and Bair Island south to Alviso). Breeding Bird Atlas projects are currently under way in all three South Bay counties (Alameda, Santa Clara and San Mateo). In a few years when they are complete and results made available we will have a more accurate picture of the current state of shrike distribution and abundance in our region.

References


Where to Find Loggerhead Shrikes

In the South San Francisco Bay area the Loggerhead Shrike is a characteristic bird of grasslands, marshland, agricultural lands, open fields with scattered trees, and large vacant lots. They inhabit flat or gently rolling open country, preferring locations with a rich food supply. They are a resident species in our region and unlike many songbirds maintain a territory throughout the year. Numbers increase in winter as birds move in from areas with harsher climates. If one visits the right location they are a conspicuous easy-to-spot bird often visible from the roadside. Below is a list of South Bay localities which are good places to study shrikes:

Santa Clara County: Shoreline Park (Mountain View), Sunnyvale Baylands, Moffett Field, anywhere in Alviso (especially Los Esteros Road), Coyote Creek.

Alameda County: Coyote Hills Regional Park (Fremont), Hayward Regional Shoreline, San Francisco Bay National Wildlife Refuge.

San Mateo County: Bayfront Park (Menlo Park), Ravenswood Open Space Preserve (East Palo Alto).
Alameda Creek Regional Trail
by Susan Stout

This is a twelve mile trail, paved on the south side, gravel on the north side, which runs from the Niles Canyon to San Francisco Bay, on either side of the Alameda Creek Flood Control Channel. This article focuses on the northern section, from Ardenwood Stables to the bay.

Directions: From Highway 880, take Highway 84 Exit (Decoto Rd), turn right (north) on Ardenwood Blvd. past Ardenwood Farm, past Paseo Padre Parkway, left into Ardenwood Stables right after crossing Alameda Creek. From the peninsula, take Dumbarton Bridge to Thornton Ave/Paseo Padre Parkway—the first exit after the toll plaza. Left on Paseo Padre, left on Ardenwood Blvd., and left into Ardenwood Stables. The small parking lot has a pit toilet, drinking fountain, a bench and trail maps. Directly across the channel is Coyote Hills Regional Park, another good birding and hiking area.

Birds Usually Seen: Anna’s Hummingbirds can be seen year-round, particularly around the eucalyptus trees, House Finch, Song Sparrow, Savanna Sparrow, Western Meadowlark, Black Phoebe, Lesser and American Goldfinch, warblers in season, American Kestrel, Northern Harrier, White-tailed Kite, and Red-tailed Hawk. Birds occasionally seen are: Great Blue Heron, Great Egret, Snowy Egret, Merlin, Peregrine Falcon, Burrowing Owl, Short-eared Owl, Common Yellowthroat, Loggerhead Shrike, Common Flicker, Nuttall’s Woodpecker, American Pipit, Belted Kingfisher and Horned Lark.

This area is particularly good for wintering shorebirds and waterfowl. Non-breeding season produces Marbled Godwit, Long-billed Curlew, Dowitchers, Dunlin, Black-bellied Plover, Killdeer, Lesser and Greater Yellowlegs, Least and Western Sandpipers, and several gull species. Mallard, Gadwall, Northern Pintail, Northern Shoveler, American Widgeon, Canvasback, Bufflehead, Rudd Duck, Cinnamon, Green-winged and occasionally Blue-winged Teal are in the channel or ponds. Canada Geese are seen overhead and in the fields to the north from February through October and an occasional White-fronted Goose can be spotted with them in early Spring. Tide level and time of year determine what is seen in the channel—not a single Green-winged Teal was found during the last Christmas Bird Count, but two weeks later, over 200 were on the exposed mud at low tide. Western and Clark’s Grebes are often at the mouth of the channel, as well as Greater and Lesser Scaup, and an occasional loon. During breeding season, American Avocets, Forster’s Terns, Cliff and Barn Swallows and Black-necked Stilts are raising families.

This is a good trail for bicycle riders or robust hikers. It is shared with joggers, bikers and horses. Trail rules have bikers yielding to horses, pedestrians to horses and bikers. I usually stop when horses pass; some of them are easily spooked. Packing a spotting scope to the end of the trail is well worthwhile, particularly at low tide when literally thousands of birds are feeding in the mud and shallow water. The bench at the end of the trail, located at the bay’s edge between the Dumbarton and San Mateo bridges, is a good place to sit and watch the tall weeds for glimpses of the Salt Marsh Yellowthroat. Habitats include the flood control channel, which is tide-affected at this location, feeder channels, a small patch of mixed woods, open fields—some plowed or planted, marshes, ponds, and salt ponds.

If, while you are out enjoying this area, you happen to see a red fox, be sure to report it to the San Francisco Bay National Wildlife Refuge, (510) 792-0222. These introduced animals are taking a great toll on many ground nesting species, including the endangered California Clapper Rail.

If you would like more information about this trail or other parks in the East Bay Regional Parks District, the Administrative Office is (510) 635-0135.

Susan Stout has been an active volunteer with SFBBO since 1986. She is currently serving on the Board of Directors and is an enthusiastic participant in Bird Chat on the Internet.
California Clapper Rails

The Annual Palo Alto Census

Every year, during the extreme high tides of winter, Clapper Rails and other salt marsh dwellers are flushed from the vegetation. Personnel from the Fish and Wildlife Service can then easily (or more easily than usual) census rails around the Bay. And every year, SFBBO helps out by coordinating the count at the Palo Alto Baylands. This year, we met an hour or so prior to the high tide on December 13, 1993 and prepared to search along the boardwalks and by canoe along the edges of the marsh.

This year’s count yielded 26 Clappers, 10 Soras and 4 Virginia Rails, significantly less than last year. But it should immediately be noted that this year’s high tide was low compared to stormy high tides of last year and many birds could have remained hidden. One rather startling observation from the boardwalk this year was of a Great Blue Heron catching and consuming a Black Rail. Ironically, the observer was a nature photographer - we anticipate a look at the photos in the near future.

Meanwhile, we thank the volunteers who turned out to help on a weekday morning: Cindy Castor, Al DeMartini, Susie Formenti, Sue Macias, Mike Mammoser, Peter Metropoulos, Kappy Sprenger, Paul Stevens, Susan Stout, and Jean Young.

The 1994 Membership Drive is now in progress. Don’t forget to renew your membership.

Calendar of Events

February 12, Saturday, 9 AM - 12 or 1 PM
Gull identification class. Led by Peter Metropulos. Meet at Palo Alto Baylands, west side of the duck pond. Join Peter on this tour of all the best gull “hang-outs” of the west bayshore (sorry, the dumps are closed!). Bring binoculars, scopes, field guides and lunch. RSVP.

February 22, Tuesday, 4 PM, SFBBO
Joint Meeting, Research Committee & Scientific Advisory Board.

February 22, Tuesday, 7 PM, SFBBO
Meeting, Board of Directors (open to all members with RSVP, call to confirm date and time).

March 13, Sunday, 10 AM - 2 PM, SFBBO Classroom
Annual orientation meeting. Colonial Breeding Bird Study
Here’s the Kick-off meeting, for returning and new volunteers alike! And your best opportunity to brush up your skills and meet your fellow project participants. We will go over our new data-collection methods and assign sections to be surveyed. Refuge personnel will be on hand to teach how to recognize red fox sign in the field, a very important new observation for this year’s study. Bring a lunch, binoculars, walking shoes and we will see you there! RSVP.

March 16, Wed, 7:30 PM, Palo Alto Cultural Center.
SFBBO presentation to the Santa Clara Valley Audubon Society, “Volunteers Can Be “Good” Scientists and Conservationists”.

March 29, Tuesday, 7 PM, SFBBO
Meeting, Board of Directors (open to all members with RSVP, call to confirm date and time).

April 1 Official start of Colonial Breeding Bird Study

April 3, Sunday, 7:30 AM - 11:30 AM
Counting and estimating shorebirds and other gregarious species, led by Dr. Howard L. Cogswell. An in-the-field practicum to test and improve your skill in getting the best estimate of numbers of birds present down on paper within short time spans. Highly recommended for SFBBO’s future shorebird surveys. Meet at the Ravenswood Shoreline Access parking lot, south side of Highway 84, west end of the Dumbarton Bridge. Bring binoculars, easily-carried scopes and a pen or pencil. Class fee $10.

April 16-17

April 23, Time and place to be announced. Call for more information. Shorebird Field Identification class. Class fee $10. Led by Peter Metropulos. RSVP.

April 26, Tuesday, 7 PM, SFBBO
Meeting, Board of Directors (open to all members with RSVP, call to confirm date and time).
Colonial Breeding Bird Census Volunteers

The SFBBO Staff wishes to acknowledge the volunteers who participated in the 1993 Colonial Breeding Bird Census:

Ginny Becchine, Edith Black, Mary Brezner, Irina Bulucea, Jon Caploe, Richard Carlson, Howard Cogswell, Charles Coston, Joan Coston, Jan Dierks, Tom Espersen, Susie Formenti, Janet Hanson, Elaine Harding-Smith, Carol Hutchinson, Lihn Hyuhn, Gerry Jennings, Sue Macias, Mike Momosper, Kathleen Mandis, L. Manning, Edith Matsuyama, Peter Metropulos, Penny Niland, Kappy Sprenger, Karlene Stoker, Terry Stoker, Susan Stout, Sara Timby, Vivek Tiwari, Tricia Wilson, Ann Witman, Peg Woodin, Jean Young and Lou Young.

Volunteers Kathleen Mandis (left) and Susie Formenti census birds in Alviso for the Shorebird Study. (photo by Penny L. Niland)

Fund Raiser
A Huge Success!

A great big thank you to all of you who donated to our end-of-the-year fund raiser. Thirty six of you contributed to this year’s drive. Again a special thank you to:


Donations to SFBBO

From time to time SFBBO receives generous donations, gifts and bequests given in memory of friends or relatives or as spontaneous contributions to the Bird Observatory’s activities. These gifts are welcomed as a significant support of our goals of protection, understanding and enhancement of our native avifauna and the involvement and education of our membership.

We would like to encourage all our members and friends to think about what they receive from the San Francisco Bay Bird Observatory and if possible to make an extra gift to SFBBO.

Illustrations Needed

Heads up all SFBBO novice or professional artists and photographers! SFBBO would like to publish your work. I’m sure you have noticed the wonderful artwork and photos that accompany our articles in the STILT. We really want to thank Penny L. Niland, Sue Macias, Terry Hart Lee, and Vicki R. Jennings for providing the illustrations and photos in this issue. If you have any artwork from the South Bay, perhaps from one of our projects, that you would like to share, we would love to see it. Original artwork can be returned to you. Mail them along with how you would like your name to appear in print to SFBBO, P.O. Box 247, Alviso, CA 95002.
To all of you who donate to SFBBO and other nonprofit organizations, there is a new tax law that went into effect December 31, 1993. We are reprinting portions of an article from the CAN (California Association of Nonprofits) ALERT, December 15, 1993.

Nonprofits and the Revenue Reconciliation Act of 1993

The Revenue Reconciliation Act of 1993 is the most extensive piece of tax legislation to pass Congress since 1986. Included in the Act are changes in substantiation and disclosure requirements pertaining to charitable contributions.

The Revenue Reconciliation Act of 1993 (1993 Act) increases the substantiation required of taxpayers for cash and noncash charitable contributions of $250 or more. Prior law allowed donors to use various methods of substantiating their contribution to an eligible nonprofit. The most common was the cancelled check, but other methods included a receipt or letter from the nonprofit. Noncash contributions over $500 required the completion of Form 8283 and, in some instances, required an appraisal of the property.

The 1993 Act has additional thresholds and requirements. Beginning with contributions made after December 31, 1993, cash or noncash contributions of $250 or more will require written acknowledgment from the charitable organization. If the substantiation requirements are not met, the deduction will be denied even if there is other reliable evidence of the contribution. This provision does not require charities to report this information to the government or donors. It is the taxpayer’s responsibility to obtain the acknowledgment from the nonprofit. The acknowledgment can take any form, but must include the amount of cash, a description of any property if other than cash, and the date contributed. In addition, the nonprofit must disclose whether it provided any goods or services to the donor and a good-faith estimate of the value of those goods or services. The taxpayer’s social security number or taxpayer identification number is not required.

Beginning with Contributions made after December 31, 1993, cash or noncash contributions of $250 or more will require written acknowledgment from the charitable organization.

In addition to the new $250 contribution requirements, the 1993 Act has instituted additional disclosure requirements for payments made partly as a gift and partly in consideration for goods or services provided by the donor (quid pro quo contributions). Beginning after December 31, 1993, nonprofits that receive quid pro quo contributions in excess of $75 are required to provide a written statement in connection with soliciting or receiving the contribution that:

- informs the donor that the amount of the contribution that is tax deductible is limited to the excess of the amount of any money (or value of noncash contributions) over the value of the goods or services provided by the organization and . . .

- provides the donor with a good-faith estimate of the value of the goods or services.

James H. Turner, CPA, practices at C.W. Mahler & Co. in San Jose. The firm serves many nonprofit clients throughout the Greater Bay Area.

A Scientific Symposium

Alameda Naval Air Station’s Natural Resources and Base Closure Planning For the Future

Saturday, March 12, 1994 8:30 AM - 4:30 PM

College of Alameda
555 Atlantic Avenue
Alameda

This Symposium will discuss and document the natural resource values, including endangered species, waterbirds, harbor seals and fish, found at the Alameda Naval Air Station. Expert scientific information will be presented addressing roosting, foraging and/or nesting use for birds such as Least and Caspian Terns, Western Gulls and Brown Pelicans. Discussions will be held on the effect of the base closure on these species. Habitat requirements to maintain these species will be discussed as will the potential impact of habitat loss to the Bay Area populations of these species.

Thanks

Many thanks to the REI Cupertino store for their donation of six National Geographic Field Guides to the Birds of North America.
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**Travel to Antarctica With the Cheesemans and Benefit SFBBO**

As a sponsor of the Ecology Safari to the Falklands, So. Georgia, Antarctica expedition the Cheesemans will donate $500 for any SFBBO member who joins after reading this newsletter. According to Gail Cheeseman “It is really exciting to get a keen group of people together for this great southern seas trip November 21 - December 19, 1994. We have 42 people who have made reservations so far, a really wonderful group of people. We have 30 more spaces”.

“We have chartered the entire 72 passenger ‘Akademik Sergey Vavilov’, so we have been able to plan the itinerary for people interested in making lots of landings and seeing lots of penguins and albatrosses and other seabirds, plus marine mammals. David Parmelee is our chief ornithologist and is the author of *Antarctic Birds, 1992*, about his research on the Antarctic Peninsula, and *Bird Island in Antarctic Waters, 1984*, a wonderful account about his work on S. Georgia. It is a very educational trip. We have our own scientific staff of 12 people, including Zodiac drivers who know a lot about natural history.”

“We are charging $7,500 (cabin with shared bath), plus $999 for the airfare from Miami, a special group fare that we have through Aerolineas Argentinas that saves 25% on the airfare, so we are listing the price as $8,485 including airfare from Miami or $9,135 (private bath cabin).”

We have the travel flyer and itinerary in the office for you, or contact the Cheesemans directly for more information. You may reach them at the following address: Cheesemans Ecology Safaris, 20800 Kittredge Road, Saratoga, CA 95070. Phone (408) 867-1371 locally, (800) 527-5330; FAX: (408) xx741-0358. Remember to tell them you read about the expedition in the STILT and want the donation to go to SFBBO.
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April 16 and 17, 1994

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YOUR COST ONLY $15.00 ADULTS AND $10.00 CHILDREN ages 4-12 

(Regular admission $23.95 adults and $16.95 children ages 4-12)

Coupon valid April 16 or 17, 1994 only. Present coupon at Marine World's front gate for discount. Limit 6 people per coupon. Cannot be used in conjunction with any other discount offer. Not for resale. Some restrictions apply. Call (707) 643-ORCA for park information.
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The Bird Observatory is located at 1290 Hope St. in Alviso. The office is open weekdays and some weekends, but specific hours vary with our field schedule. Before stopping in, call (408) 946-6548 and check when we will be available.

The Board meetings are open to the membership and are held monthly. Call the Observatory office for dates and times.

The newsletter is a quarterly publication. Send contributions to the editor: Susie Formenti, 16675 Buckskin Ct., Morgan Hill, CA., 95037. Call (408) 779-8694 for deadline dates.

The San Francisco Bay Bird Observatory is a non-profit corporation under IRS statute 501(c) 3. All memberships and contributions are tax deductible.

We invite your membership in the San Francisco Bay Bird Observatory. To join, please complete and mail this form with payment to SFBBO, P.O. Box 247, Alviso, CA 95002. Make checks payable to SFBBO.

Membership categories: check one
( ) Student/Senior $10  ( ) Associate $50  ( ) Corporate $500+
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