



sequoia needles

Bulletin of the
May 1988

SEQUOIA AUDUBON SOCIETY

San Mateo County, CA.
Vol. 36, #9

THIS MONTH'S PROGRAM

The May program will feature Ms. Kathryn A. Smith-Penner, last year's recipient of the Sequoia Audubon Campership Award. Ms. Smith-Penner, a biology teacher at Sequoia High School in Redwood City, will tell us about and illustrate her experiences as an Audubon camper.

Meetings are held at the San Mateo Garden Center on the Alameda at Parkside on the second Thursday of every month. The Social Mixer begins at 7:30 P.M. with the General Meeting and Program at 8:00. The public is invited.

OUR NEXT PROGRAM

The June Meeting will once again be a triple-header - our annual membership meeting and election of officers, our June potluck and an outstanding program from the staff of Audubon Canyon Ranch.

OFFICER NOMINEES

The Nominating Committee of Rick Baird, Nick Coiro and Janet Duerr have proposed the following names for officers for the 1987-1988 year. These names will be placed in nomination at the June Membership Meeting. Nominations will be accepted from the floor at that time provided that the nominee has given his or her permission to have their name placed before the membership.

For President Cliff Richer
For Vice-president Gail Smithson
For Secretary Ed Moelhany
For Treasurer Colleen Horner

For the Board of Directors:
Replacing Gail Smithson, for the term
expiring June 1989: Janet Duerr

New Directors for terms expiring in '91.
Nick Coiro Elgin Juri

The Board of Directors thanks the Nominating Committee for their efforts and endorses their choices.

The Board also expresses its thanks to Past President John Silliman and Board Members Bonnie McClellan and Walter Smithey for their sage counsel and outstanding efforts and wishes Bonnie a continuing recovery from her illness. Special thanks are also due to President Linda Kypta for her leadership as Board Member, Vice-president and President and we look forward to her continuing presence on the Board as Past President.

PMIA SPLITS WITH STATE PARKS

Last month, the Pescadero Marsh Interpretive Association announced it was suspending its agreement with the State Department of Parks and Recreation. Even though a series of meetings was held between P.M.I.A. President Rick Baird and State Parks District Supervisor Carol Nelson over a period of ten days at the end of March and the beginning of April, no satisfactory agreement could be reached.

Although there was some agreement on State Parks' definition of "control" of the docent program, their imposition of an irrevocable deadline for P.M.I.A. participation created a strong negative reaction from most P.M.I.A. members.

"They are asking us to return on faith," said P.M.I.A. Secretary Cliff Richer, "but the real issue is their failure to deal with us on a good faith basis in the past. I have no confidence that the future will be any different."

President Baird emphasized that the decision to suspend P.M.I.A.'s association with the State was a difficult one for the members of P.M.I.A.. One of the principal points in his view was the continuing deterioration in the relationship between State Parks and the Año Nuevo Interpretive Association.

"I don't think there is any chance on our being given any real consideration by State Parks until the Año Nuevo situation is resolved," he commented.

The P.M.I.A. is determined to continue in operation and will be holding meetings and discussions in the next few months to plan its future.

THE ESKIMO CURLEW LIVES!

The Eskimo curlew, a federally protected endangered species long thought to be extinct, has once again been sighted! The last accepted sightings until April of 1987 were in coastal Texas in the early 1960s and it was thought that nineteenth century market hunting in North America and continued market hunting on its wintering grounds on the pampas of Argentina had reduced the population below the survival level.

Last year's sighting on the Platte River in Nebraska was followed in weeks by four more sightings along the Texas Coast. In late May several sightings by Canadian Wildlife Service Biologists on the nesting grounds confirmed completion of the migration. A diligent search led to the discovery of at least one nest site in Saskatchewan. Details as to the location are being kept secret so as to prevent future disturbance, but it has otherwise been well documented and the birds photographed.

At the recent American Ornithologist's Union meeting in San Francisco a group of North American ornithologists set up a special committee to discuss and study methods of helping the species to recover from the shadow of extinction.

Experts estimate there may be as many as 100 birds in the wild. There is no more doubt. The Eskimo Curlew lives!

CALENDAR

May 1988

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

MAY 5 SAS BOARD MEETING. 7:30 P.M., Meeting place is THURSDAY President Kypta's house. ALL MEMBERS ARE WELCOME, but advance notice is required as the meeting place is a private residence

MAY 12 SAS GENERAL MEETING featuring the winner of last THURSDAY year's Campership Award, Kathryn A. Smith-Penner, who will share her experiences at the Audubon Camp with us. Meetings are at the San Mateo Garden Center on the Alameda at Parkside. Social Mixer at 7:30 P.M. General Meeting begins at 8:00.

MAY 14 JASPER RIDGE AND SEARSVILLE LAKE. The Field trip SATURDAY to this unique Biological Preserve at Jasper Ridge will highlight nesting birds and late spring flowers. Possible sightings include wood ducks, blue-gray gnatcatchers, ash-throated flycatchers and black-headed grosbeaks. We will meet at the Stanford University Jasper Ridge Biological Preserve Main Gate (not the Whiskey Hill Gate) from 8:00 AM to 8:30 AM. The gates will be open only during that time. From I-280 take the Sandhill Road exit west about 2 miles to a gate on the left side of the road. Meet promptly at 8:00 AM as the gate will be open only from 8:00-8:30. We will go rain or shine. A user fee of \$2.00 per person is required. The size of the group is limited to thirty so please call the office (593-7368) for this RESERVATIONS ONLY field trip. For additional information, call the leader.

LEADER LOUISE FLETCHER 591-6804

MAY 14 CALIFORNIA NATURE CONSERVANCY ANNUAL MEETING at SATURDAY ELKHORN SLOUGH PRESERVE. Birding trips and lunch are included in the \$15.00 per person registration fee. Call the Conservancy at 777-0487 or write them at 785 Market Street, San Francisco, CA 94103 before April 10.

MAY 15 PELAGIC TRIP FROM PRINCETON HARBOR. Because of the small number who showed interest it has been necessary to cancel this trip.

MAY 21 SAN PEDRO VALLEY COUNTY PARK FIELD TRIP. This SATURDAY wooded park provides a variety of habitat for migrating forest and grassland birds and the park has been a rest stop for a number of rare warblers and vireos in previous spring migrations. Our leader is one of our most skilled birders and knows the park well. He will scout it intensively prior to the trip to assure the maximum enjoyment for all of us. The trip will entail some walking along easy trails and should break up at noon. The trip will begin at 9:00 AM in the parking lot of the park. Take Hwy. One to Pacifica and turn inland at Linda Mar Blvd. Follow Linda Mar to its end and follow the signs to the park.

LEADER SCOTT SMITHSON

MAY 27 MOUNTAINS AND DESERTS FIELD TRIP. This is a short FRIDAY version of our Death Valley trip of the past two through years. Barring news of some extreme rarity we will MAY 30 not actually enter Death Valley National Monument. MONDAY Our trip will cover prime birding areas of the Sierra passes, Mono Lake, Owens Valley and the White Mountains where rosy finches, great gray owls, sage grouse, broad-tailed hummingbirds, chimney swifts and Lucy's and Virginia's warblers are resident and almost any species can be found as a vagrant. Advance notification is required for motel and transport arrangements. Several of the passes are already open so we are planning on spending Friday and

NEWS FROM THE RANCH

JEANNE PRICE

(Because of the startling news regarding the Pescadero Marsh Interpretive Association and its Docent Program, the ACR column last month had to be pulled at the last minute. This month's column is a double-header (combining the April and May columns.---Ed.)

Twenty one members of the 1988 Docent Training class for the Bouverie Audubon Preserve graduated in February and were honored with a festive luncheon and a visit to David Bouverie's home.

On March 26, more than twenty new Ranch Guides joined the ranks of weekend docents working at the Bolinas Preserve. The program initiated last season has proved very successful, according to ACR's biologist educator, Anne Monk.

"There has been a 100% return of last year's guides," she reported. Each guide is required to work at least 2 weekends. Guides are stationed at the pond, the horse trough and, this year, at the Clem Miller Overlook to help the public understand the ranch's ecology. "These guides are the only representatives the ranch has for the general public," Monk explained, "and weekend visitors number three times that of our week day school children."

Anne Monk announced her resignation effective March 1. She has accepted the position as Director of Education for Marine World-Africa USA in Vallejo. Even though the organizations are very different, she sees this as an opportunity to continue and expand her work in outdoor and environmental education. John Kelly, the resident biologist at Cypress Grove has been placed on full-time status at ACR in order to help fill the gap left by Anne's departure.

Now is the height of the season at the Bolinas Preserve's heronry. All kinds of nesting activity is on display from the mating of great egrets to the feeding of great blue heron chicks. If you haven't been this year, go now!

Joan Corbett, Scheduling Chairwoman of the Volunteer Council at the Bolinas Preserve, reports that more than 2500 students will visit the ranch this spring on school field trips. This year the schedule was fully booked by February 1.

About 94 classes of 3d to 7th graders from 64 schools are exploring the ponds and heronry with the help of 83 trained and experienced docents. Most of these schools are from the East Bay (37), San Francisco (23) and Marin (23) with a few from Sonoma and Peninsula. The ranch has for several years helped to pay for transportation for schools that are unable to come to the Ranch on their own.

(Continued on Page Three)

NEWS FROM THE RANCH

(Continued from Page Two)

ACR has received a generous contribution from the Frank A. Campini Foundation. Mr. Campini was a member of the Ranch's Board of Directors for many years before his death. The prestigious New York Community Trust also recently made a gift to the ranch.

DATES TO REMEMBER

May 8 - Mothers' Day - The 33rd Annual Barbecue given by the Marin Audubon Society to benefit the Ranch. This event is always a sell-out.

May 14 - The Second Annual Significant Donors' Party at Bolinas Preserve. A special thank you to those who have contributed \$100 or more to ACR for the current year. There will be tours of both Picher & Volunteer Canyons followed by a Year-of-the-Dragon luncheon. (Last year's party was held at the Bouverie Preserve)

May 15 the Fourth Annual Downhill Hike will be held in Picher Canyon at Bolinas Preserve. The day is designed for those who hike occasionally and would enjoy a four mile downhill hike with incredible vistas and fresh Pacific air.

May 28-29 -- Watercolor Wildflowers -- a class with Nell Melcher, will be held at the Bolinas Preserve. It offers intermediate level instruction in composition and technique.

June 4-5 provides a weekend of getting eye-to-eye with butterflies and moths at the Bolinas Preserve with Ray Peterson and Ron Robertson.

June 22 - Get to Know the Critters Night

June 25 (Bolinas) and June 26 (Bouverie) -The Thirteenth Annual Butterfly Counts- An international event conducted under the auspices of the Xerces Society. Help to capture, identify and release these lovely creatures.

The May hikes at the Bouverie Preserve will be by the 7th and 21st. These are the last hikes of this season. Hikes are by reservation only.

For more information or registration call ACR at 868-9244 or (707) 938-4554 for the Bouverie Hikes.

GIARDIA LAMBLIA

Giardia Lamblia is not our next program speaker. It's an intestinal bug causing a Sierras' version of *la turista*. With weight loss, chronic diarrhea, cramps, bloating and fatigue, *Giardia* usually requires treatment by a doctor. So, if you're in the mountains this spring and summer, drink only tap water from approved sources. If you must use stream water, boil it for at least one minute, treat it with a commercial purifier or pass it through a *Giardia*-rated filter.

CALENDAR

(Continued from Page Two)

Sunday nights at a motel in Lee Vining and primitive camping at Cottonwood Canyon on Saturday. With a small group the itinerary will be flexible to accommodate individual schedules. To do this, we must have firm reservations by May 7. Call the leader for details, for reservations or for an itinerary and checklist. (We already have 8 reservations so this year's group may have to be limited. Reserve early!)

LEADER CLIFF RICHER 355-4058

June 1988						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JUNE 2 SAS BOARD MEETING. 7:30 P.M., Meeting place is THURSDAY President Kypta's house. ALL MEMBERS ARE WELCOME, but advance notice is required as the meeting place is a private residence

JUNE 5 GAZOS CREEK AND BUTANO STATE PARK. The riparian SUNDAY corridor of Gazos Creek is one of the finest year-round birding areas of San Mateo County. From its mouth, where resting gulls and terns roost, to its origins in the redwoods the creek is a summer home to a large number of passerine species and a representative population of hawks and owls. For even more diversity, we will also bird Butano State Park and the grasslands between the two areas. We will meet at the intersection of Hwy. 1 and Gazos Creek Road, just south of the Pigeon Point Lighthouse at 9:00 A.M. The trip should break up at lunchtime. Our leader is our Christmas Count coordinator, the author of our "Birding" column and one of the best birders to be found anywhere.

LEADER: PETER METROPULOS 592-2417

JUNE 9 SAS GENERAL MEETING featuring the staff of Audubon THURSDAY Canyon Ranch in a special presentation. Meetings are at the San Mateo Garden Center on the Alameda at Parkside. Social Mixer at 7:30 P.M. General Meeting begins at 8:00.

JUNE 10 YUBA PASS - "THE CALL OF THE HIGH SIERRA" - This JUNE 11 trip affords a chance to see birds rarely seen on SATURDAY any of our other field trips. The trip features SUNDAY easy trail walking through lovely mountain and Sierra Valley habitats. On Saturday we will meet at 9 AM at Wild Plum Campground just out of Sierra City and bird the mountain areas for dipper, black-backed woodpecker, evening grosbeak summer warblers, flycatchers, etc. On Sunday we'll meet at the Summit Campground at 8 AM. From there we will caravan to Sierra Valley to see the birds of the Eastern Slope and Modoc Plateau. Arrangements have been made for us to use the facilities of the Sierra Nevada Field Campus of San Francisco State University. Camping in platform tents with mattresses and cots, hot showers and three meals a day are available for \$21 a day. Just bring your own bedding. See the article on Page Four for full details and other options. Reservations are required for this trip and for the accommodations at the Field Campus. Call the coordinator for details and to make reservations.

LEADER GIL WEST
COORDINATOR CLIFF RICHER 355-4058

+++++
The ivory-bill, whooping crane and condor may all be senile species, better suited to other ages, other climates and too old to change...but it is also true that, had mankind not altered the shape and nature of the land, their withdrawal from the earth would have been a slow one, lived out gracefully over centuries to come. And so we must assume responsibility, even for these. --- Peter Matthiessen

THE BREEDING SEASON
(PART 2)

STEVE SCHAPER

Finding a bird's nest can be an exciting and rewarding experience. Trying to find a nest, on the other hand, is often frustrating, because the birds are rarely cooperative. But all that's really required is a little patience (well, sometimes a lot of patience).

It helps, of course, to know what to look for. There are two good books available for locating and identifying nests, eggs, and young birds. These are A Field Guide to Western Bird Nests (a Peterson Guide), by Hal Harrison, and A Field Guide to the Nests, Eggs, and Nestlings of North American Birds, by Colin Harrison. The second book is a bit more thorough, but both contain information which the other lacks, so it is useful to have both. Incidentally, the two authors are not related.

These books have a wealth of information for the breeding-bird observer. They can tell you, for example, that to find an orange-crowned warbler's nest you'll need to keep your eyes focused towards the ground, for these birds build their nest within two feet of it. And that a male House Wren builds several nests to impress his mate, who usually turns them all down and builds one of her own.

A bird with a bit of grass, a twig, or some other non-edible object in its bill is probably building a nest. Watch where it flies, and you may find its nest. If the bird sees you, and appears hesitant or apprehensive, back away a few yards and wait. Eventually, you will be far enough away that the bird no longer considers you a threat. For a few species, 'eventually' may not come until you are a quarter mile away, but most birds will begin to ignore you while you are still well within binocular range.

If, while out walking, you suddenly find yourself being vigorously scolded by a small songbird, you can be sure that you are standing near its nest. By the same token, if a bird flushes from beneath your feet, you probably came close to stepping on it (and its nest). Again, all you need to do is back away until the bird feels that you are a 'safe' distance away, and it will probably fly to the nest.

Nests can be remarkably well camouflaged. It's quite possible to stare at a nest without even realizing it, even if there is a bird sitting in it. Example: After locating the most likely tree, it took two of us about fifteen minutes to find a Golden Eagle nest, complete with nestling, in a large eucalyptus--and this nest was six feet across! Moral: Don't give up if you don't find a nest right away; it might be right in front of your eyes.

Some birds absolutely will not approach their nest if they know that you are watching them (bluebirds are a notorious example). In this case, the only thing you can do is turn around and leave the bird alone, but be sure to sneak a peek out of the corner of your eye as you do so.*

Watching birds go about the business of breeding can be fascinating, but remember that birds can be extremely sensitive to disturbance at this time. Try to resist the temptation to closely approach a nest. If you can't resist a look inside, don't walk directly to the nest; walk past it a few yards and then double back. This helps to deceive potential predators. Enjoy the subtle spectacle of the breeding season, but remain an observer, not an intruder.

*Bluebirds however have strong parental instincts and short memories. Being very patient and being very still will often enable you to observe them at close quarters. Downy and hairy woodpeckers, on the other hand, will outwait the average birder or photographer 99 times out of a 100. --Ed.)

AUDUBON ON TV

The next Audubon Special on national television is "Messages from the Birds" with actor Martin Sheen. This program focuses on birds--notably shorebirds--as indicators of environmental degradation.

The program will premiere on Super-Station WTBS, Monday, June 6 at 7:00 PM, (available on all cable hookups) and again on Thursday, June 9 at 9:05 AM, Saturday, June 11 at 1:00 PM and Monday, June 27 at 8:05 PM. Those who do not have cable will have to wait for its appearance on Public Television.

The Public Broadcasting System will be starting its summer season of Audubon Specials in June. The PBS network will air the shows every Sunday at 8:00 PM from June 26 to August 14. Local educational channels 9, 32, 54 and 60 have the option of scheduling the shows at alternate times, so check your local listings for the times and dates.

JUNE 26: GRIZZLY AND MAN: UNEASY TRUCE
JULY 3: ON THE EDGE OF EXTINCTION:
PANTHERS AND CHEETAHS.
JULY 10: WOOD STORK, BAROMETER OF THE
EVERGLADES
JULY 17: WHALES
JULY 24: MESSAGES FROM THE BIRDS
JULY 31: GALAPAGOS: MY FRAGILE WORLD
AUGUST 7: COMMON GROUND: FARMING AND
WILDLIFE
AUGUST 14: DUCKS UNDER SIEGE

Six of the shows are now available (with teacher's guide) on video. Teachers or librarians who are interested should call Chris Palmer (202-547-9009) at National Audubon's Washington office.

YUBA PASS TRIP
DATES CHANGED

Because of an unusually high number of registrants for a geology conference and the Nature Sounds Annual Convention at the Sierra Nevada Field Campus, we have changed our scheduled Yuba Pass field trip to the weekend of June 11-12.

For those of you who may have been interested in taking either of the birding classes being offered this summer at the Campus, note that our field trip is now scheduled on the weekend following Luis Baptista's "Behavior of Birds" and prior to Dave Shuford's "Birds of the Sierra Nevada."

Arrangements have been made with the Campus to provide Friday evening dinner, Saturday (3 meals), Sunday (breakfast and box lunch) and for overnight accommodations on Friday and Saturday (platform tents, cots, mattresses, washrooms with hot showers). Dining hall costs are \$13.50 and overnight costs are \$8.00 per day. Rates are reduced for those taking less than the 6 meals or the 2 nights of the camp. Meals are designed to provide alternatives for vegetarians and those on special diets. Contact Cliff Richer 355-4058 (evenings) for reservations.

YES ON PROPOSITION 70

THE CA. WILDLIFE, COASTAL AND PARKLAND BOND ACT

Proposition 70, the California Wildlife, Coastal and Parkland Bond Act, is a statewide measure that will preserve California's magnificent wildlife habitat, coast, parks and open space lands. We need to act now to preserve critical habitat for birds and wildlife throughout California.

You can help by voting Yes on Proposition 70. Proposition 70 is supported by members of the legislature, cities, counties and other members of business and environmental communities concerned with this issue. We urge you to join this group and support the measure.

A few of the specific areas that will benefit from Proposition 70 include:

\$41 million to preserve land supporting California's endangered species.

\$6 million to protect critical habitat areas for game birds and mammals, which include routes of migration for wildlife and breeding and nesting areas for the sage grouse.

\$3 million to preserve specific endangered animals such as the bald eagle, the yellow-billed cuckoo and the California condor.

\$79 million for additional wildlife lands throughout California.

Proposition 70 will also provide \$15 million for the protection of lands along rivers and streams. Another \$38 million will help preserve coastal and

inland wetlands and \$30 million will protect key coastal areas. All of these projects are crucial to the survival of a variety of birds and animals.

We need your help in this local landmark effort to pass Proposition 70. We welcome and encourage you to join local campaign efforts in your area. For more information, contact Californians for Parks and Wildlife by phoning (916) 448-1786 or writing to them at 909 12th Street, Suite 203, Sacramento, CA 95814.

Remember to vote YES on Prop. 70 on June 7!

(Proposition 70 has been endorsed by Sequoia Audubon Society's Conservation Committee, the Pescadero Marsh Committee, the SAS Board of Directors and by the National Audubon Society.)

HAWKWATCHERS WANTED

The Golden Gate Raptor Observatory is recruiting new hawkwatchers and banders for the fall season. The Observatory is a volunteer group dedicated to studying the more than 10,000 birds of prey that migrate over the Marin Headlands each fall.

Volunteers will be expected to devote two sessions each month from August to December 1988.

Anyone who is interested can attend an orientation meeting on either Thursday, May 5 at 8:00 P.M. or Saturday, May 7 at 10 A.M. Both meetings will be held at the Golden Gate National Recreation Area Headquarters at Building 201, Upper Fort Mason in San Francisco. For best access to Fort Mason take the entrance at Franklin and Bay.

For more information call Allen Fish, the Director of the Golden Gate Raptor Observatory at 331-0730.

SEQUOIA AUDUBON SOCIETY PATCHES ---- \$4.00 BY MAIL

San Francisco Peninsula Birdwatching is Sequoia Audubon Society's guide to birding sites in San Francisco and San Mateo County. More than 30 different spots are described and accompanied by maps, directions and helpful notes about each spot. A species index directs you to habitats for the birds you want to see. Order one for yourself and several as gifts! Only \$6.00!

(Taxes, shipping and handling included).

Also available by mail - including postage and tax
 National Geographic Field Guides-New Edition 16.00
 Birding Northern California - Jean Richmond 12.00
 Mono Lake Guidebooks 7.60
 Pacific Coast Checklist-in pads of 25 2.50

BIRDING VIDEOTAPES AVAILABLE FOR RENTAL

TECHNIQUES OF BIRDING by Arnold Small - \$2/wk.
 VIDEO GUIDE TO BIRDS OF NORTH AMERICA - \$5/wk.

Send checks to: Sequoia Audubon Society
 Allow 14-18 days 720 El Camino Real #403
 for delivery Belmont, Ca. 94002



**San Francisco
 Peninsula
 Birdwatching**

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 ALSO AVAILABLE AT MEETINGS AND SOME FIELD TRIPS

GARDEN WINGS

JUANITA HEINEMANN

HUMMINGBIRDS

Hummingbirds are insectivores (insect eaters) and nectarivores (flower feeders) and are fascinating birds to watch.

Hummingbirds are native only to the Americas and were not known to the Europeans until the discovery of the New World. There are about 330 species of hummingbirds. There are seven species that reside in the western United States.

Hummingbirds constitute the largest non-passerine family of birds. They are the smallest of birds and the smallest of warm-blooded animals. Their hearts, brains and pectoral muscles are relatively larger to body size than other birds. Other unique characteristics include: the most rapid wing beats; the fastest fliers; the ability to hover and fly backwards; and they may enter a state of torpor at night to conserve energy and water.

Some hummingbirds migrate great distances (2000 miles) and the ruby-throat flies over more than 500 miles of open water over the Gulf of Mexico to and from their breeding and wintering territories. Pairing for the entire season is unusual for hummingbirds. After courtship and mating the female alone is responsible for nest construction, incubating of the two eggs and rearing of the young.

Hummingbirds are an inquisitive and territorial species and will fly up to or into a window for "a closer look", or even to attack their own reflection, defending their territory or feeder from any intruder. To minimize the possibility of injury, avoid hanging any red colored objects, feeders or hummingbird-attracting plants near windows or sliding glass doors.

To obtain enough food for their daily requirements, a hummingbird may feed from 1000+ plants or flowers each day, gleaning small flying insects and those trapped in or on flowers each day, as well as nectar. To equal the food intake of a hummingbird, a human would have to consume 370 pounds of boiled potatoes a day!

HUMMINGBIRD FEEDERS

A 1 to 4 sugar solution is recommended for hummingbird feeders. To prepare it bring 4 cups of water to a full boil. Add 1 cup of white granulated sugar and stir until the sugar is completely dissolved. Reduce heat and continue to boil for approximately one minute. Allow the solution to cool before filling feeders. This simple sugar solution offers ONLY CALORIC energy to a hummingbird's natural diet so you may wish to add one small drop of Avitron, a liquid pet vitamin, to each 8 oz. feeder at the time of filling. It is not necessary to add red food color.

Store sugar solution in a refrigerator or freezer. Before using this supply, check for any growth (little black or gray floating substances). This may be fungus. DO NOT USE.

DO NOT USE HONEY! Honey causes a fungal infection on the bird's tongue, resulting in severe swelling and starvation.

Many types of hummingbird feeders are available. Choose one that is easy to fill and easy to clean. One that can be completely dis-assembled and put through the dishwasher is preferable. It is MOST IMPORTANT to keep all feeders and bird foods free from fungus, mold, mildew and spoilage.

To protect the hummingbird from domestic predators and to prevent the loss of vitamin potency, hang the feeder at a height of 6 to 8 feet, in an open but shady location.

(Extracted from *Wings Over Our Gardens* by Juanita Heinemann, publ. 1985, by California Garden Clubs, Inc.)

WINGS OVER OUR GARDENS --- SOLD OUT!

Wings Over Our Gardens, the highly popular little booklet by Juanita Heinemann is no longer available. We sold out our limited number of copies very quickly.

Present indications are that the booklet will be re-printed, but no dates have been given as to when more copies will be available.

A hint to those of you who were disappointed - if you saved all of this year's *NEEDLES*, you have almost all of the booklet already.

SATELLITE MAPPING OF WETLANDS

Ducks Unlimited has contracted with EOSAT, a private corporation, to map all of the prairie pothole wetlands of North America.

This massive project involves the taking of photographs from the Landsat 5 satellite, enhancing and interpreting them by computer and translating them into a useful tool for the technicians of DU's Habitat Inventory & Evaluation Program.

This approach is necessitated by the great number and small size of the remaining unprotected prairie pothole wetlands. Only 1% of these lands are more than 100 acres and 54% are less than 5 acres in size, but all are critical to waterfowl nesting. By using the satellite images in conjunction with more conventional maps the land acquisition experts of Ducks Unlimited can identify the areas which look to be vulnerable to development, most productive or available for acquisition and can concentrate their efforts on these.

The current project is scheduled for completion by the end of 1988 but plans call for continuation of satellite mapping as part of other projects which will measure water-holding properties, track habitat changes, assess nesting cover and determine water quality.

The data is currently being shared with Ducks Unlimited in Canada and it is expected that it will be made available to concerned conservation organizations and to appropriate U.S. and Canadian government agencies.

WATERFOWL PACT

Mexico has joined the United States and Canada in participating in the North American Wildlife Management Plan.

The United States has pledged 1 billion dollars to the plan over its 15 year life - such funds to be raised from federal, state and private sources. So far Congress has lagged in providing the federal portion of the money which is to be spent in six critical breeding and wintering areas - including California's Central Valley.

BIRDING IN SAN MATEO COUNTY

Peter Metropulos

A solitary **RED-NECKED GREBE** was in the surf at Pigeon Point on March 24 (BS).

The first **BLACK-FOOTED ALBATROSS** to be observed from shore this spring was at Pigeon Point also on March 24 (BS).

Strange was an individual of the "cackling" form of the **CANADA GOOSE** hanging out with the feral goose gaggle at Redwood Shores from late December through March 20 (PM, RT).

Sixty **BRANT** at Pigeon Point on March 11 (RF) signalled the opening of the sea-goose migration and numbers bulged to 3260 birds passing north on March 24 (BS).

Two wintering drake **EURASIAN WIGGONS** were still at Redwood Shores on March 12 with one remaining on March 27 (RT).

A drake **BLUE-WINGED TEAL** was among the other dabblers at a brackish Redwood Shores lagoon on March 20 (RT).

An uncommon duck along the coast, a single drake **REDHEAD** was at Redwood Shores on March 27 (RT).

A **BARROW'S GOLDENEYE** at Redwood Shores on March 8 was about as late as they are normally reported and five **HOODED MERGANSERS** at Foster City on the same day were the last ones reported (SF).

GOLDEN EAGLES, always noteworthy on the Peninsula, were at Interstate 280 near Sandhill Road, Menlo Park on March 20 (DK) and Portola State Park March 22 (RU).

A spring migrant **OSPREY** was flying past Skyline Open Space Preserve on March 13 (HP).

MERLINS are getting bolder, being reported with increasing frequency in urban and even downtown habitats. One was in pursuit of a mourning dove in central San Mateo on Mar. 8 (RF) and another was streaking through a Belmont yard on March 9 (PM).

An extremely early northbound migration of **BONAPARTE'S GULLS** was documented on March 31 when 22000 individuals were counted flying by Pigeon Point in a four hour period (BS).

The first **CASPIAN TERN** to appear this season was at Pigeon Point on March 20 (RT) where an adult **POMARINE JAEGER** was also seen on the same day (RT).

Extremely rare in California during spring migration, a **BAIRD'S SANDPIPER** was found near the

Redwood Shores sewage facility March 20 (RT), furnishing us with our second record ever for this season.

A **WESTERN SCREECH OWL** was calling in a wooded, residential area in the Belmont Hills (where they are not known to be resident) on March 10 (PM).

PILEATED WOODPECKERS are present in very small numbers only in the most mature and undisturbed Santa Cruz Mountain forests. One reported from Canyon Road near Pescadero from February 14 to March 3 (RF) was from a new location.

A **RED-NECKED SAPSUCKER** was also reported from Canyon Road on March 3 (RF).

The first **WESTERN FLYCATCHER** to show itself this spring was at Pescadero on March 15 (CB).

Our now-famous **PRAIRIE WARBLER** wintering in the pines at Princeton Harbor for the second straight year was still present on February 20 (RT).

Probably also wintering was a female **BLACK-THROATED WARBLER** seen in a Menlo Park yard on March 6 (WGB).

Rare, but rather regular in winter, were two **PALM WARBLERS** found in riparian thickets in the town of Pescadero on February 27 (RT).

Also rare winter visitants, two **BLACK AND WHITE WARBLERS** were still at Pescadero on March 6 (RF) and another was found at San Gregorio on February 26-27 (RT).

RED CROSSBILLS, after "invading" much of coastal northern California during the winter in large numbers were still quite common in the El Granada area during late March (BS).

A wintering **SWAMP SPARROW** was detected in a moist, weedy area at San Gregorio Creek mouth on February 26 (RT).

Our two bright orange members of the blackbird family, the orioles, arrived from their tropical wintering grounds this month, a **NORTHERN ORIOLE** at Atherton on March 21 (PM) and a **HOODED ORIOLE** at Foster City on March 24 (PM).

OBSERVERS:

Clark Blake (CB), William G. Bousman (WGB),
Roland Franz (RF), Shawneen Finnegan (SF),
Dan Keller (DK), Peter Metropulos (PM),
Hugh Possingham (HP), Barry Sauppe (BS),
Ron Thorn (RT) and Rob Urry (RU).

BALD EAGLE PROJECT

The Eagle Lake Audubon Society was a major participant in the completion of a project organized by Bureau of Land Management wildlife biologist Steve Hawks.

Because bald eagles nest in large over-mature trees, their habitat is extremely vulnerable to wildfire. Since 1981 the BLM has identified a number of nesting areas near Eagle Lake and has treated a total of 150 acres to remove debris and flammable understory surrounding the nest sites.

Since its inception the plan has been an outstanding example of cooperation among federal and state governments and private parties. In this year's project the US BLM identified the area and defined the project; the state Department of Forestry provided on-site supervision; the California Department of Corrections furnished the labor to cut protective control lines and clear heavier items; and Audubon provided the final 96 hours of volunteer labor to complete the slash piles and execute the controlled burning.

**"NO WIN DECISION"
FOR STILLWATER WMA**

Nevada's Stillwater Wildlife Management Area, troubled by selenium and alkaline contamination, pesticide pollution and avian cholera is now faced with complete destruction.

Part of the same system that nurtures Pyramid Lake and the troubled Carson Lake National Wildlife Refuge it has suffered from the same mysterious die-offs that have plagued these refuges and mystified wildlife biologists for the last several years.

The basic problem for the entire system is a lack of fresh water. For years all of the refuges have relied on irrigation runoff and have received only small allocations of fresh water from the Truckee and Carson Rivers.

Water from these two rivers is under the control of the Federal Bureau of Reclamation which maintains a system of dams and canals to furnish irrigation water to the farmers of the Lahontan Valley east of Reno.

Pured is now faced with a terrible choice. It has been implicated in the possible extinction of an endangered species - the quail (hub of Pyramid Lake) - and must release enough water to raise the level of Pyramid Lake so the quail can reach its spawning grounds in the Truckee River. To do so, Pured must violate the contracts it has to furnish water to the farmers and cut off all allocations of fresh water to other non-agricultural uses.

The Stillwater Marsh, now down to 8000 acres from its original 33,000 and the embattled and similarly reduced Carson Sink would receive no fresh water in 1988 and possibly for several years in the future.

Without fresh water the wildlife refuges would die. Without fresh water Pyramid Lake's quail will become extinct. Without fresh water the farms of the Lahontan Valley will revert to desert. To date, every plan has met with bitter public opposition and -barring a miracle- it would appear that the final solution will be sought in a protracted court battle. In the meantime three wildlife refuges may disappear.

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