



HUMMINGBIRD BANDING AT COYOTE CREEK FOR 1989

by Blair O. Wolf

The following summary of hummingbird banding at Coyote Creek from 1 March 1989 to 15 September 1989 provides an overview of the timing and composition of our migrant hummingbird populations which pass through our area during the spring, summer, and fall. Also represented are the resident breeding species. The majority of these birds are captured in a set of four 30mm X 12m nets placed in a large stand of Tree Tobacco (*Nicotiana glauca*) that is located in the Overflow Channel. Recaptured birds were not included in this summary.

Four species are predominant: (Table 1.) the Anna's Hummingbird (*Calypte anna*), the Black-chinned Hummingbird (*Archilochus alexandri*), the Allen's

Hummingbird (*Selasphorus sasin*), and the Rufous Hummingbird (*Selasphorus rufous*). A fifth species the Calliope Hummingbird (*Stellula calliope*) is captured rarely but, with regularity.

The Anna's Hummingbird (Figure 1.) is the only species which is a confirmed breeder at CCRS. They commonly start nest building here in late December or early January. The females seem to particularly like the smaller Cottonwoods (*Populus fremontii*) at the edge of the Revegetation Plot for a nest location. The preferred height appears to be between 15 and 20 feet, with the nest usually placed in the crook of a branch. This species is the most frequently captured hummer at our station with 199 banded or tail clipped between the indicated dates.

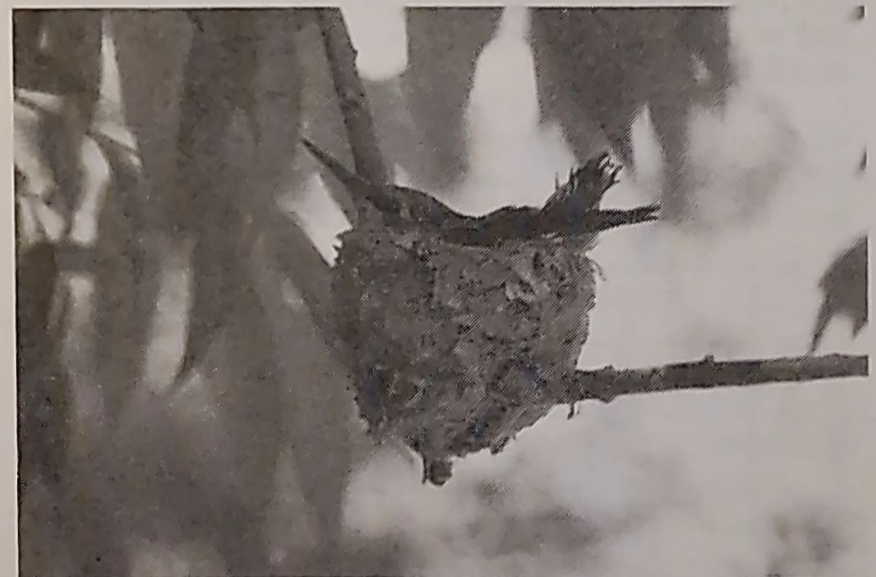


Figure 1. Anna's Hummingbird on nest. Photo by Blair Wolf.

The captures of adult Anna's are evenly distributed through the breeding season indicating relatively stable resident population. This contrasts with the transient nature of the other species captured. It is also interesting to note the increasing number of juvenile birds captured from March through August, which may be explained by the fledging of the second and third broods. These juveniles ultimately account for almost 75% of the total number of Anna's Hummingbirds captured at CCRS.

TABLE 1. Numbers of hummingbirds banded each month at Coyote Creek Riparian Station by species, age, and sex from 1 March 1989 to 15 September 1989. ALHU; Allen's Hummingbird, ANHU; Anna's Hummingbird, BCHU; Black-chinned Hummingbird, CAHU; Calliope Hummingbird, and RUHU; Rufous Hummingbird. AHY; After hatching year, HY hatching year, M male, F female, U unknown

SP/AGE/SEX	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
ANHU AHY M	1	4	2	5	2	4	1	19
ANHU AHY F	5	4	6	4	6	5	4	34
ANHU HY M	1	2	8	19	20	24	4	78
ANHU HY F	0	1	5	11	19	14	2	52
ANHU HY U	2	2	3	2	4	3	0	16
BCHU AHY M	0	4	1	2	0	0	0	7
BCHU AHY F	0	3	6	0	1	2	0	12
BCHU HY M	0	0	0	0	2	11	4	17
BCHU HY F	0	0	0	0	1	10	3	14
BCHU HY U	0	0	0	0	0	1	1	2
RUHU AHY M	3	36	1	0	0	0	0	40
RUHU AHY F	8	48	2	1	0	2	0	61
RUHU HY M	0	0	1	2	2	12	3	20
RUHU HY F	0	0	0	2	5	4	6	17
RUHU HY U	0	0	0	0	0	0	0	0
ALHU AHY M	5	2	2	1	0	0	0	10
ALHU AHY F	5	1	0	2	4	2	1	15
ALHU HY M	0	3	10	7	4	7	0	31
ALHU HY F	0	0	1	0	0	2	1	4
ALHU HY U	0	0	0	0	0	0	1	1
CAHU ALL	0	2	0	0	0	1	0	3
TOTAL	30	112	48	58	70	104	31	453

The Rufous Hummingbird is the second most frequently captured hummer at Coyote Creek with 138 captures. This bird is not a breeding species in this county and the spring migrants passed through our area almost exclusively during the month of April. In contrast, the dispersal and Fall migration of the juvenile birds was much more protracted and spanned several months with a peak in numbers captured during August.

The Allen's Hummingbird is a species which is known to breed in the Santa Clara County, and it is the third most frequently captured hummingbird at CCRS with a total of 61 captures this year. This species is typically associated as a breeding species of the Coast range and only a summer resident in our vicinity; preferring to winter in Mexico. The Allen's is also an early breeder, though not as precocious as the Anna's hummingbird it still may start nesting as early a February in the southern end of its range. Captures of juveniles at our station show very little surge in capture rate and it would appear that the young just drift through our area the whole summer with a slight peak in August as with the other species.

The Black-chinned Hummingbird is the last species which occurs in our area in significant numbers and 52 birds of this species have been captured thus far this year. The adult Black-chins are captured mostly during April and May, and June. Though traditionally not known as a breeding species in this county May and June are the peak months for breeding for the Black-chin and this coupled with the presence of juvenile birds here in July and August argues for their breeding in this area.

The Calliope Hummingbird is captured only infrequently at Coyote Creek and a total of three were captured this year. Breeding farther to the North or East into the Sierra this species prefers the higher meadows and woodlands. Both spring birds were captured in the middle of April.

A grand total of 453 Humming birds of 5 species were captured during the period shown at CCRS. The peak periods of migration were April in the spring and to a lesser degree August (Figure 2.) in the Fall. Thus

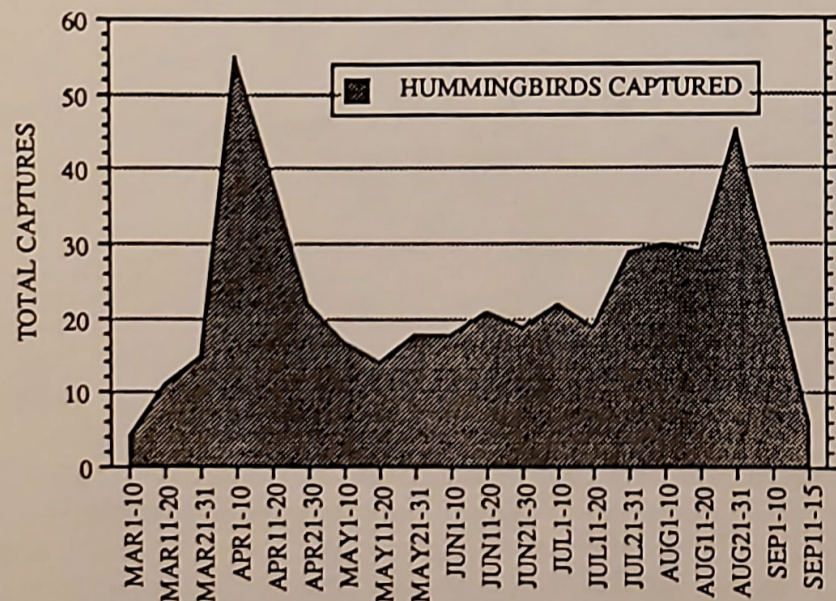


Figure 2. Hummingbirds captured at CCRS between March and September, 1989.

hummingbirds have accounted for about 7% of the total number of birds of all species banded at Coyote Creek this year and represent a very interesting and important part of the avifauna of the San Francisco Bay region.

NATIVE PLANT LIBRARY

We are much in need of materials for a CCRS Native Plant Library including field guides, identification manuals, texts, and botanical journals. Especially useful can be pamphlets on collecting and propagating native trees, shrubs, grasses, and wild flowers of the South San Francisco Bay Region. Drop me a note c/o CCRS (P.O. Box 1027, Alviso, CA 95002) or call me at 408-395-5526 (Los Gatos) or leave a phone message for me at CCRS 408-262-9204 . --Elinor Spellman

OFF THE WALL - THE 1989 SUMMER SEASON

by Bill Bousman

The summer season is defined here as the months of June and July. In reality it is almost nonexistent as the last northbound Swainson's Thrushes and Yellow Warblers come through in the first two weeks of June and by late July the Black-chinned and Rufous hummingbirds are on the move. Banding was underway daily through the end of June and then changed to a 5-day week in July.

Summer can be a dull season, like winter, without the excitement of passage birds. Vagrants normally only show up during migration so they rarely enliven the summer months. However, this year, an adult male **Blue Grosbeak** netted on 22 July changed the entire complexion of the summer season. This handsome bird represents the first record for Santa Clara County. Historically, this species nests in the lower Sonoran life zone along streams and ditches with willows and other riparian cover. It is considered a fairly common summer resident in parts of southern California (Garrett and Dunn 1981) and the Central Valley (McCaskie *et al.* 1979). It arrives on its breeding grounds in the last week of April or first week of May and then departs in the first week in September.

At coastal locations the Blue Grosbeak is a rare vagrant. DeSante and Ainley (1980) show six spring records from the Farallon Islands from 9 May to 20 June and twelve fall records from 22 August to 15 October. These records appear to fit the pattern expected for misoriented passage birds. Records for Monterey County are similar (Roberson 1985) with a spring record on 20 May and three fall records 31 August to 13 October.

I am aware of two historical records in adjacent counties: one in Santa Cruz on 12 April and one in Hayward 1 May 1876 (Grinnell and Miller 1944). Both of these birds appear to fit the pattern of coastal vagrants. The bird we banded at the riparian station, however, does not fit this pattern. A month ahead of the earliest fall dates would be typical of local breeding dispersal, but such an idea is preposterous. Where did this bird come from?

Last year the pattern in hummingbird migration seemed clearer to me than it does now. This is clearly a case of the limits of my imagination in the face of more extensive data. Anyone can write three paragraphs when there is only one record, but when swamped by a multitude of data the computer keyboard is stilled and the limits of Summary Board reports become obvious.

Nonetheless, I will try to give you a flavor of the summer rambles of these tiny tree tobacco fiends. The Black-chinned Hummingbirds came through here in the spring at a fairly constant rate of 2-3 birds a week and this lasted right up until 8 June. Things were quiet until the first week in July when two were banded (dispersal?). No birds were netted for 16 days and the 1-5 birds were found thereafter through mid-August (migrations?). Rufous Hummingbirds peaked at the creek in the middle two weeks of April and then dribbled through at the rate of 0-2 birds/week until 7 June. Then birds were caught on 19 June, 21 June, 5 July and after that 4-8 a week through mid-August. Obviously, these are southbound birds as we have no local nesting. This is not the case with Allens Hummingbird and here the pattern appears to be caused as much by dispersing birds as migration. Their spring migration appeared over by 8 April. Birds started getting caught again on 26 April and averaged about 3 birds a week through July. After that there are gaps and it is not clear how to separate dispersals or migrants. As Blair Wolf noted last year (*RiparianNews*, Vol.4, No.1) most of these summer and fall birds are females or immatures. One of these days he will sort all of this out for us.



Northern Waterthrush - one of a few "vagrants" caught during fall migration this year. Photo by David Johnson.

Willow Flycatcher, Swainson's Thrush, and Yellow Warbler are all notorious late migrants. Last dates for them this year were 5 June (2), 8 Jun (3), and 14 June respectively. Both Swainson's Thrush and Yellow Warbler nest in areas that are not too far from the station so two of the former and four of the latter during the rest of the summer is not extraordinary. But where did the Willow Flycatcher banded on 6 July come from?

I only noted three MacGillivray's Warblers in the spring report which is in error. Eight birds were banded from 9 April to 9 June with the median date of 1 May. The local populations in San Mateo County have young in the nest by the first week in June - are these late migrants breeding far to the north?

An oversummering White-crowned Sparrow of the Puget Sound race was banded 13 June. This is an infrequent occurrence. Surprisingly, a single bird was also found at Jasper Ridge Biological Reserve on 3 Jun for the first record for the Palo Alto Breeding Bird Count.

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CCRS IN THE SIERRA

by Michael Rigney

For the past 19 years a late summer ritual, of sorts, has taken place on a late-summer weekend in meadows and fields somewhere near Yosemite National Park. The last weekend in August, as birds are beginning to sense the oncoming winter and making ready for migration, the Yosemite Association has sponsored a class on bird banding in the Sierra. During its initial years the class was taught by Bob Stewart of the Point Reyes Bird Observatory and then later by Dr. David DeSante, also of PRBO. In 1983, Bob Yutzy, who was also then with PRBO, and I began teaching this class together and have done so year every year since then.

For the first nine years the class was held in Crane Flat Meadows in the heart of Yosemite Park. New Park regulations prohibiting non-Park Service personnel from conducting research (which involved handling wildlife) in the Park forced us to hold the class at nearby Ackerson Meadow for three years. Ackerson Meadow became unavailable to us when the property changed ownership. The class is now being held in Lundy Canyon, high above Mono Lake, on the eastern side of the Sierran Crest.

Primarily billed as an introduction to bird-banding, the class has attracted a wide variety of people - from Park Service naturalists, avid birders, and science teachers to



Bob Yutzy (with baseball cap) and Mike Rigney prepare to band two Clark's Nutcrackers caught in mist nets in Lundy Canyon, Mono County.

housewives, professional cowboys and (this year for the first time) a blasting contractor. Despite the differences in occupations and life styles, the awe and excitement produced by hearing a bird's heart beat for the first time, or seeing the intricate color variations of feathers is always an integral part of the attraction. The course has consistently been one of the most popular offered by the Association.

All of us who have taught the course through the years had hoped that, aside from the educational goals of the class, data could be gathered which would offer insight into summer dispersal and early migratory patterns in the Sierra. Unfortunately, having to move the location several times has not been conducive to consistency. We have, however, gotten a glimpse of some differences in bird species compositions for differing locations in the Sierra.

At Crane Flat Meadow, warblers dominated all other groups in numbers of species and numbers of individuals. One landmark year (1979) 449 birds (including 220 Orange-crowned Warblers!) were banded in two days. The previous year only 79 birds. With its dense growth of willows and moist meadow habitats, Crane Flat was apparently ideal for dispersing juvenile warblers and migrating adults.

Ackerson Meadow was nearly 3,000 feet lower than Crane Flat and much hotter. Here, sparrows and finches such as Lincoln's and Fox Sparrows, Oregon Juncos and Lesser Goldfinches were most predominant. MacGillivray's Warblers were the most prevalent of the Wood-warblers.

Lundy Canyon is located approximately 15 miles northwest of Lee Vining at an altitude of 8,500 feet. The avifauna here is radically different than either Ackerson or Crane Flat Meadows. With its mixture of mountain moraine, sage brush and dense willow thickets, the birds we have encountered have been mixtures of those one might expect in the Great Basin Desert with those found in high mountain meadows. This past summer we banded Green-tailed Towhees, Clark's Nutcrackers, American Dippers and a Belted Kingfisher. Together with assorted Nashville Warblers, Wilson's Warblers and Red-breasted Sapsuckers, we managed to band 89 individuals of 22 species. The relatively low number of birds was probably due to unseasonably cold weather which may have caused some of the warblers to leave early for the warm tropics.

For the past two years all birds caught during the course have been banded with bands issued to CCRS. Although the eastern Sierra is a bit far afield from the environs of Coyote Creek, it does offer us the opportunity to recruit new volunteers and members. Many of the course participants come from the Bay Area and some past graduates have seen duty at the "Creek".

I know it is probably too soon for most people to be scheduling their summers, but if you have the last weekend in August free and like to participate in outdoor rituals you might consider "Banding in the Sierra". For more information write the Yosemite Association, P.O. Box 230 El Portal, CA 95318.

SFBBO MONTHLY MEETINGS

We bring to your attention the fine programs arranged by San Francisco Bay Bird Observatory for its monthly meetings. They are usually held the first Thursday of each month at the San Francisco Bay National Wildlife Refuge Environmental Education Center in Alviso. The Observatory allows time at each meeting for CCRS newsbriefs and announcements.

Nov. 2 **David Suddjian**

Topic: Santa Cruz County Breeding Bird Atlas

Dec 7 **Don Starks**

Topic: Gull Identification

Jan 4 **Louise Accurso**

Topic: Ducks of San Francisco Bay

A SEARCH FOR BORRELIOSIS IN CCRS BRUSH RABBITS (SYLVILAQUS BACHMANI)

by D.C. Regnery¹ and R.S. Lane²

In some parts of the San Francisco Bay area a high percentage of the brush rabbits (Sylvilagus bachmani) in certain populations have antibodies that react with Borrelia burgdorferi, the causative agent of Lyme disease (Borreliosis) (Lane and Regnery). Because brush rabbits were especially plentiful near the headquarters of CCRS during May, 1989, it was hoped that this population might provide an opportunity to study some of the parameters of the epizootiology of Borreliosis. Consequently we initiated a study of the population by live trapping twelve rabbits to obtain sera and any information that seemed relevant to Borrelia infections.

We found no Lyme disease antibodies in the sera of the twelve rabbits examined. The sample included six individuals that, on the basis of their weights and pelage wear, were at least one year old. The remaining six were between 7 and 14 weeks old. Thus, the sample should have been sufficiently inclusive to detect infections had they occurred during the previous year or within a particular age group.

Each rabbit supported a population of feeding rabbit ticks (Hawmaphysalis leporispalustris) a species known to be sometimes infected with Borrelia burgdorferi (Lane and Burgdorfer). The mean number of ticks per rabbit was 15.4 with a range of 0 to 52. As might be anticipated, there were fewer ticks per rabbit in the case of the older rabbits than with the young individuals.

Although there is no evidence that Borrelia burgdorferi exists in rabbits at CCRS, comparisons of this area with other areas that either have or lack the bacterium, will reveal the conditions necessary for Lyme disease.

LITERATURE CITED

- Lane, R.S., and Burgdorfer W. 1988 Spirochetes in mammals and ticks (Acari:Ixodidae) from a focus of Lyme Borreliosis in California. *Journal of Wildlife Diseases* 24: 1-9.
- Lane, R.S. and Regnery, D.C., 1989 Lagomorphs as sentinels for surveillance of Borreliosis in the far western United States. *Journal of Wildlife Diseases* 25: 189-193.

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NEW MEMBERS

We welcome 9 new members who joined us in the last three months:

Buneman, Ruth	Member
Castellano, Laura	Member
Feighner, Michael	Member
Hill, Geoffrey	Member
McCain, Lisa	Active Member
Nordstrom, Mary E.	Member
Rogers, Michael	Member
Spoelman, Jean-Marie	Member
Starbird, Jane K.	Active Member

Membership renewals are coming in very well. some have upgraded their membership category or made an additional contribution.

We are pleased to welcome **Mark E. Sutherland** of the Santa Clara County Sheriff's Department as our newest Life Member. **Mark** and his wife **Liela** are concentrating their **Active** service to CCRS in our riparian revegetation program.

Life Membership payments in their entirety and 10% of all other membership payments and general contributions are placed in the CCRS Endowment Fund thereby assuring the future of Coyote Creek Riparian Station.

NEOTROPICAL NEWS HIGHLIGHTS BIRD-BANDING

by J. Hawkeye Rondeau

National Geographic, "La Ruta Maya", 10/89. In Chan Chich, Belize ornithologist Bruce Miller has netted and banded 50 of the 260 species recorded there-- "...possibly including a sub-species of robin never reported there."

San Francisco Chronicle, Thursday 9/28/89. White-crowned Manakin emerges from mist net on front page. Associated feature story on "Vanishing Rain Forests" notes critical relationship between numbers of bird species and the size of various forest islands that are created as more and more land is cleared for agriculture or ranching. Not surprisingly, causal relationships between decreasing numbers of arthropods such as ants and antbirds have been noted.

CCRS ANNUAL MEETING

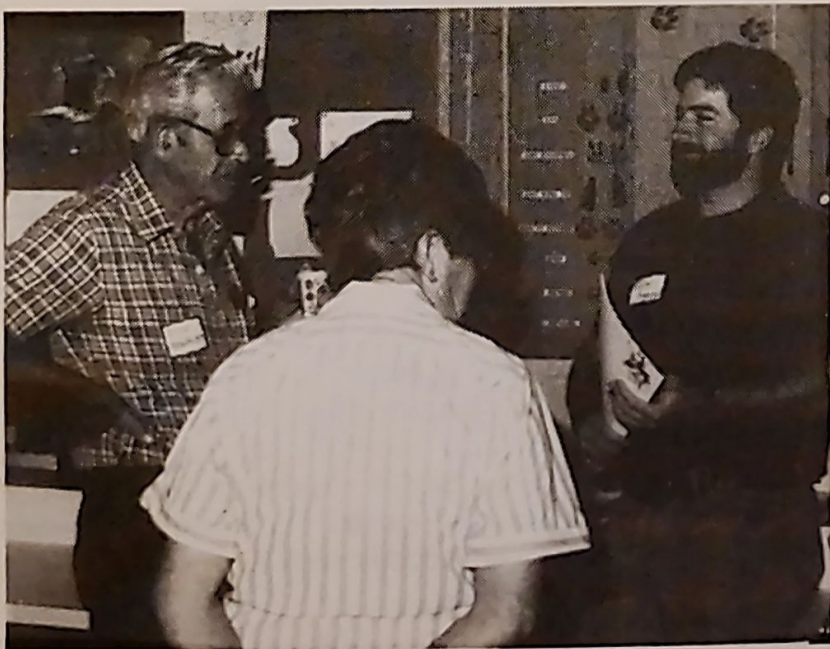
by Michael Rigney

Approximately 40 people attended the Second Annual Coyote Creek Riparian Station Membership Meeting on Saturday, 23 September, 1989. The meeting was held at the San Francisco Bay National Wildlife Refuge's Environmental Education Center. A brief meeting of Active Members took place in advance of the General Membership meeting. The Active Members are the voting members of our non-profit corporation and every year at the Annual Meeting elect (or reelect) three members to the Board of Directors. This year incumbent Board Member Michael Rigney, Max Lincoln, and L. Richard Mewaldt were elected to another term. Dick Mewaldt and Elsie Richey gave presentations on the financial and membership status of the organization, and Biologist Blair Wolf gave a summary of the year's banding.

The General Membership meeting was treated to fine presentations by Dick Mewaldt on some of this year's avifaunal oddities and discussed the recent changes in CCRS's environment caused by the ongoing flood control project being constructed by the Santa Clara Valley Water District. Elinor Spellman presented a report on her group's efforts at native plant establishment and Refuge Biologist Kevin Foerster talked about Refuge activities and planned acquisitions.

The meeting adjourned to CCRS just after noon for a sumptuous buffet lunch arranged by Elsie Richey. Those attending then broke into separate groups for tours of the revegetation plot, the mist net transect lanes, the native plant restoration areas. The meeting was capped off by a Dick Mewaldt led tour of the newly established water-bird area.

We wish to thank Refuge Manager Dr. Rick Coleman and Biologist Kevin Foerster for their kind efforts on our behalf in providing facilities for our meeting.



Dick Mewaldt and SFBNWR biologist Kevin Foerster confer during a break in the Annual Meeting. Elsie Richey is the interested bystander.

Photo by John Delevoyas

COYOTE CREEK RIPARIAN STATION

Coyote Creek Riparian Station is a non-profit California membership corporation with United States and California tax exempt status. CCRS is dedicated to research on, and to the restoration and management of riparian and wetland habitats including the wildlife and other animals that live there. CCRS is located on City of San Jose, Department of Water Pollution Control limited-access land along the last two kilometers of the west bank of Coyote Creek where it meets San Francisco Bay.

Coyote Creek Riparian Station operates in cooperation with the Santa Clara Valley Water District, San Jose/Santa Clara Water Pollution Control Plant, H. T. Harvey & Associates, John Stanley & Associates, San Jose State University, U. S. Bird Banding Laboratory, Laurel, MD., San Francisco Bay National Wildlife Refuge, and the California Department of Fish and Game.

RipariaNews is published quarterly for the information of our CCRS membership, the personnel of the several cooperating federal, state, and local agencies, and for other organizations and individuals concerned with environmental issues. Please let us know of persons or organizations who might benefit from or enjoy our RipariaNews.

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