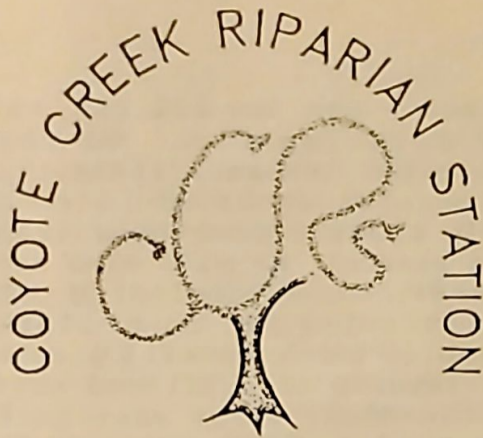


RipariaNews



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Riparian Station

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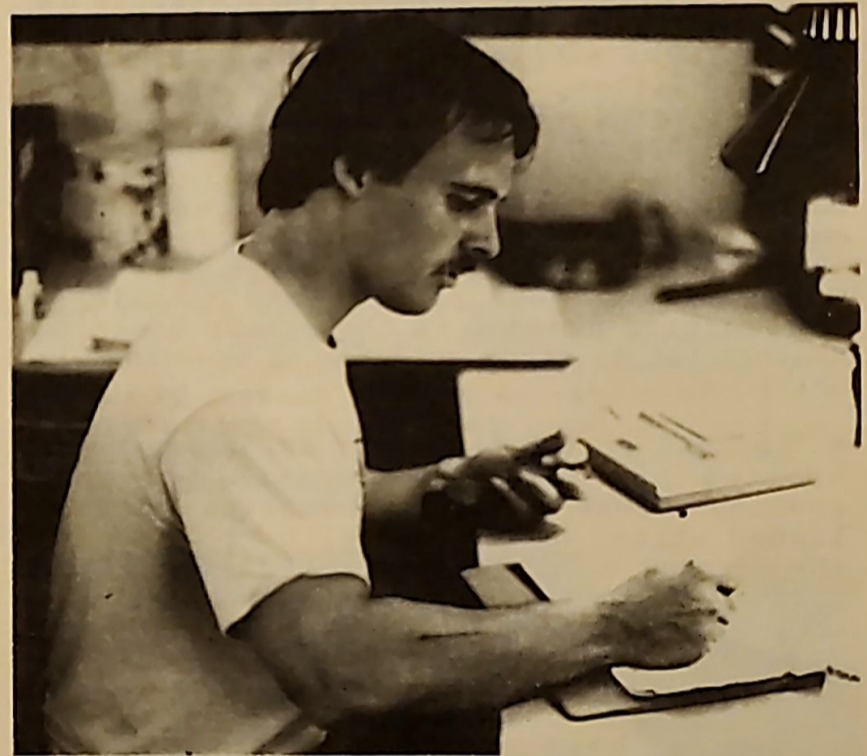
CCRS' FIRST YEAR

by Allan Sillett

CCRS has just celebrated its first birthday as an independent organization. This has been a significant year for a number of reasons. We have obtained our tax exempt, non-profit status, membership has grown from a small cadre of active volunteers to approximately 110, we have obtained our first contracts and we have appointed our first employee.

The backbone of our research activities at CCRS continues to be our baseline biomonitoring program. The success of this program depends heavily upon regular and consistent biological sampling of our research area. In 1986 we made tremendous strides toward our goal of daily monitoring. Mist nets were run on 184 days and during spring and fall migrations, nets were run 30 out of 76 days and 57 out of 76 days respectively. We know from the data gathered thus far that some species migrate in "waves". This means that in order to obtain accurate data on these species we must operate on a daily basis during migration periods. (See Dick Mewaldt's article in this issue which deals with migratory patterns of the Swainson's Thrush).

Coverage this spring and early summer has been excellent; the nets were run every day in May and all but two days in June. This sort of intensive coverage has been hard on our volunteers, some of whom were called upon to work three or more days a week. Please, even if you think you might only like to observe a banding station in operation call the Station or Dick Mewaldt and arrange a visit. Who knows? You may end up becoming our most active volunteer!



Maurice Wild, pictured here banding a Swainson's Thrush, started as a volunteer at CCRS this past year and has graduated to Saturday "Crew Chief". Photo by J. Delevoryas.

The Coyote Creek Riparian Station is a non-profit membership organization dedicated to the study, restoration and management of riparian habitat. Our research facility is located adjacent to Coyote Creek near Alviso, California. Our research projects are conducted by volunteers under the guidance of a Board of Directors and Manager/Biologist, Dr. L. Richard Mewaldt. We welcome all persons interested in the protection and enhancement of California's rivers and streams to contact us about volunteering or membership. Our telephone number is (408) 262-9204 or you may contact Dick Mewaldt at (408) 258-7491. The quarterly newsletter "RipariaNews" is edited by Michael Rigney and Syndie Meyer and publication assistance is afforded by Harvey and Stanley Associates, Inc. of Alviso, California.



SANTA CLARA COUNTY BREEDING BIRD ATLAS

by Bill Bousman

The Santa Clara County Breeding Bird Atlas study group has been formed. Organized as an affiliate of the Coyote Creek Riparian Station. As an affiliate of CCRS, it will be effectively autonomous. While benefiting from the tax exempt status of CCRS, it will be largely responsible for its own finances. People who wish to participate in the Atlas program are asked to join CCRS. A portion of their basic dues will go into the Atlas fund. Present members of CCRS may declare (by written note to CCRS) their wish to affiliate with the Atlas study group and their dues will be prorated.

What is a breeding bird atlas? Essentially, the entire county is divided into blocks that are 5 kilometers on a side. This results in approximately 165 atlas blocks in Santa Clara County. Over a five year period, 1988-1992, we will attempt to determine what bird species breed within each of these blocks. The evidence of breeding will be represented by a set of standardized breeding atlas codes. These codes include "confirmed" (CO), an active nest with eggs or young, "probable" (PR), a bird singing on the same territory within a two week period, and "possible" (PO), a bird present in the proper breeding habitat but no other evidence of breeding was obtained.

At the end of the five year Atlas period, a species map will be prepared for each species. These maps will comprise the published atlas. Each block will be coded for the nesting evidence - a large circle = confirmed, a medium circle = probable and a small circle = possible. Thus, a quick examination of the map will show where the species nests in the county.

The Atlas, when published, will provide a tremendous resource for determining the breeding status of Santa Clara County's rich avifauna. It will also give a much-needed baseline of data upon which to build. As with many of CCRS's efforts, it will provide the opportunity for volunteer ornithologists to make a major scientific contribution. Volunteers provide the only means to make such a costly and time-consuming endeavor feasible. To insure that the atlas maintains a high degree of scientific competence, Dr. L. Richard Mewaldt has agreed to chair the atlas's scientific advisory panel.

This year the Atlas project is engaged in a pilot study to develop the experience necessary to get the Atlas operational by next year. Those of us working on the pilot project have discovered that working with one Atlas block is a wonderfully enjoyable experience. It has forced us to try to better understand why certain species nest where they do and to also look much more closely at the world around us. Each visit seems to result in a new discovery. And one of the nicest parts is the realization that next year the whole process can begin again with a new block.

The Atlas study group can use all kinds of help. First and most important we need atlasers for each block. We anticipate that each block will require about 32 hours of atlas work (that's about 8 four-hour trips during the nesting season). We will also need help with some other chores, including getting landowner permission for those blocks that are not on public land. We will also be taking incidental reports of confirmed nesting anywhere in the county. For each incidental report we need a short note on the nesting evidence and the UTM coordinates of the nest. If you can't read the UTM grid on a topo map, then a detailed sketch map will do. Lastly, we just need peoples' financial support. Our present plan is to publish four newsletters a year to keep everybody abreast of Atlas progress. If you are interested write to Bill Bousman, 321 Arlington Way, Menlo Park, CA 94025.

THE WHITE-CROWNED SPARROW YEAR

by Max W. Lincoln, M.D.

Two races of White-crowned Sparrows (*Zonotrichia leucophrys*) winter at CCRS. The Gambel's White-crowned Sparrow breeds primarily in mid to northern Canada and Alaska, while the Puget Sound White Crowned Sparrow breeds in the immediate vicinity of Puget Sound, from southwestern British Columbia to northwestern Washington (Cortopassi and Mewaldt 1965). The typical white-crowned year at CCRS extends from September to April (Table 1)

Table 1. Numbers of White-crowned Sparrows banded by months in the 1986-1987 season.

Month	Gambel's WCS	Puget Sound WCS
Jul	0	0
Aug	0	0
Sep	13	40
Oct	211	127
Nov	102	49
Dec	26	25
Jan	34	17
Feb	55	9
Mar	43	25
Apr	88	22
May	0	0
Jun	0	0

with most of the new bandings of our wintering populations taking place in the fall months. The slight slight increase in new bandings during the months of February to April represent captures in the outlying portions of our research area and spring transients.

In March and April the two races of white-crowns complete their prenuptial molts, put on their migratory fat and set out for their respective breeding grounds. In contrast to

their nearly simultaneous arrival in the fall, in the spring most Puget Sound white-crowneds have left by mid-April (Figure 1) while many Gambel's white-crowneds linger through the end of April.

Total Captures of White-crowned Sparrows During the Months of April and May, 1987

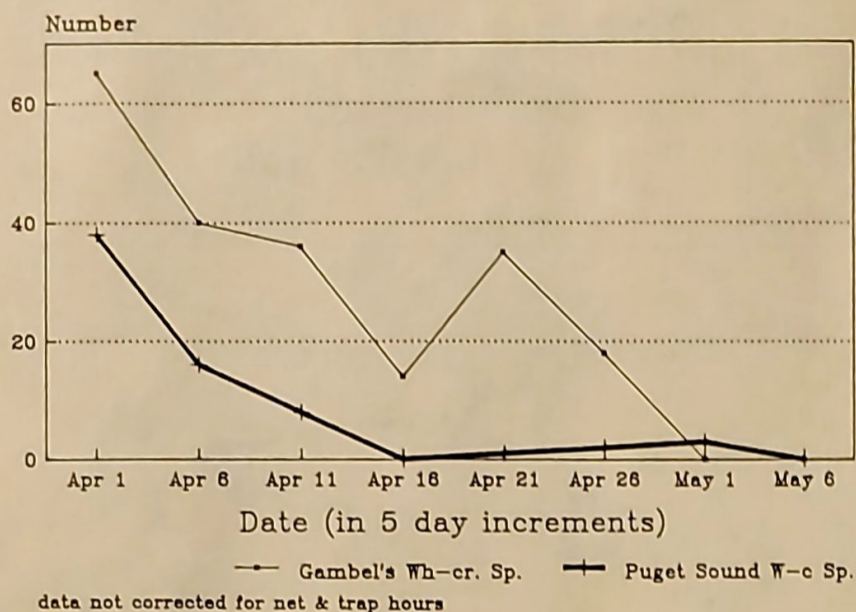


Figure 1

In this article we report some preliminary results from our cooperative project with Dr. W. B. Quay of Napa. Dr. Quay has found that some species of passerine birds begin producing sperm while still in migration (Quay 1985). We have used the "cloacal lavage" technique (see Lincoln 1987 and Quay 1984 for details of the procedure) developed by Dr. Quay to check for the presence of sperm in the terminal portions of the reproductive tracts of our wintering white-crowneds.

Beginning in mid-March we lavaged male White-crowned Sparrows (as determined by wing length) with fully developed white crowns. These birds were either one or more years old or "birds of the year" completing their first prenuptial molt. We lavaged 31 Gambel's White-crowned Sparrows a total of 35 times (140 lavage samples) and 17 Puget Sound White-crowned Sparrows a total of 21 times (84 lavage samples). Dr. Quay, who examined the lavage samples using phase-contrast microscopy, reports that none (N=224) of the samples contained sperm. This confirms preliminary findings by Quay (unpublished) from white-crowneds sampled in the Napa, California area. These results tend to support the findings of Mewaldt et al. (1968) who found that Puget Sound sparrows show only very slight testicular recrudescence as they complete the prenuptial molt and develop migratory restlessness.

From a procedural standpoint, it is of some interest to report the case history of one Puget Sound sparrow which we lavaged four times:

Lavage Date	Status of "Decks" (old - mm - new)	Body Weight (grams)
03-12-87	Old	25.4
03-21-87	55	24.8
03-26-87	New	26.0
03-31-87	New	27.0

Our notes confirm that these four lavages, performed by three different station volunteers, did not interfere with the prenuptial molt or with the accumulation of premigratory fat. Since cloacal lavage is a relatively new ornithological research technique, it is important to verify the relative safety of this minor invasive technique.

Acknowledgements

I am grateful to the many volunteer banders at CCRS who worked with the white-crowned sparrow populations. I especially thank Penney Delevoryas and Maurice Wild who assisted me with cloacal lavages. I appreciate the help of Dick Mewaldt and Mike Rigney in the preparation of this manuscript and its figure.

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ASK THE SWAINSON'S THRUSH

By

L. Richard Mewaldt

This spring we gathered much useful data from the 306 passage Swainson's Thrushes which came into our Coyote Creek mist nets more than 480 times. They were presumably enroute from their wintering area (lower Middle America or northern South America) to breeding grounds (northern California to Alaska [AOU 1983]). Beginning with a single capture on 26 April, they peaked with 28 on 19 May (Figure 1). Although we captured our last new thrushes of the season (7) on 3 June, we had recaptures through 10 June.

New Captures of Swainson's Thrush Coyote Creek - Spring 1987

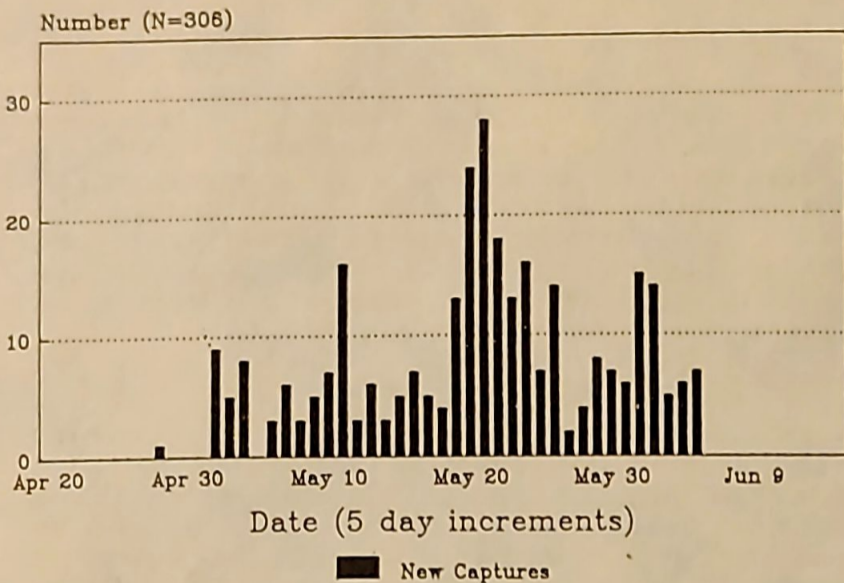


Figure 1

Juvenile Swainson's Thrushes retain their buffy-tipped greater secondary coverts through their postjuvinal molt in July-August of their hatching year. As long as these coverts are not molted, or the buffy tips are not worn off, young birds are distinguishable from birds one or more years old during their first fall, winter, and spring seasons (Table 1). Because the buffy tips tend to wear off over winter and into the spring months, this method tends to underestimate the number of ten-month-old thrushes in spring migration.

Reproductive failure in 1986? The 26 percent juveniles recorded in the fall 1986 migration is well below the 58 percent juveniles recorded on nearby Mission Ridge (Wool Ranch)

Table 1. Juvenal passage Swainson's Thrushes at Coyote Creek in 1986 and 1987.

Season	New captures	Juveniles	Percent
Spring 1986	113	34	30
Fall 1986	126	33	26
Spring 1987	306	104	34

in the combined falls of 1970 and 1971 (Stewart et al. 1974). This tends to corroborate the reproductive failure reported for northern California in the summer and fall of 1986 (DeSante and Geupel 1987). The somewhat larger numbers of juveniles (34 percent) we detected in the Coyote Creek sample in the spring of 1987 is somewhat less supportive of a reproductive failure in 1986. However, before CCRS can contribute substantially to migration age ratio patterns, we must learn what is usual for our sampling location. This is especially important in view of a probable "coastal effect" (Stewart et al. 1974, Ralph 1981). They found larger than expected numbers of two- to four-month old Swainson's Thrushes migrating south along both the Pacific and Atlantic coastal strands. How much this "coastal effect" may influence the age ratio of Swainson's Thrushes at CCRS is yet unknown.

Males migrate first. It is known that males of some species, as in Gambel's White-crowned Sparrow (King et al. 1965), precede females in spring migration. At Coyote Creek longer winged thrushes, presumably males (Stewart 1971), are most abundant as birds of passage in early May (Figure 2). The shorter wing lengths of late May probably indicate that females consist most of the passage thrushes in late May and early June.

Wing Lengths of Passage Swainson's Thrushes

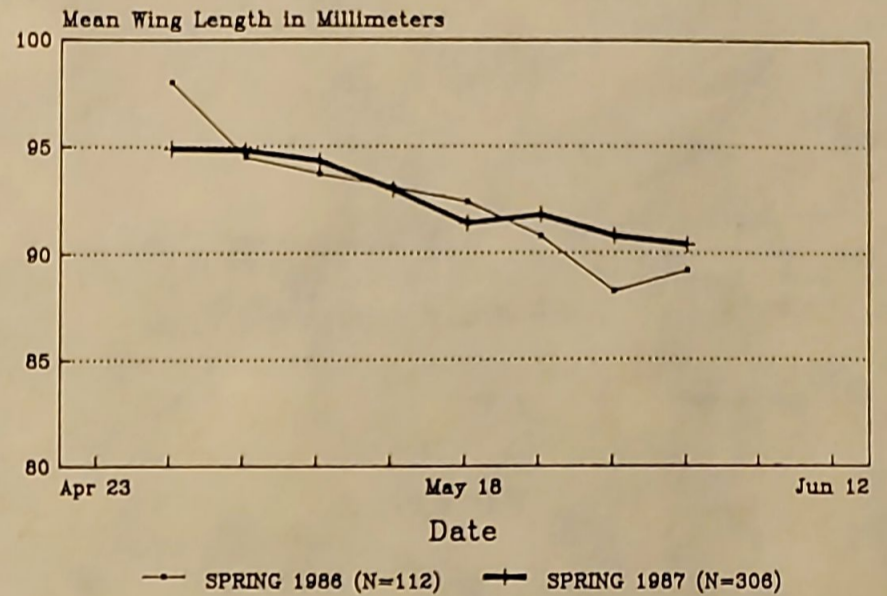


Figure 2

Migratory Fat. It is also well known that most migrants store large amounts of extra body fat immediately prior to migration and that most also renew those fat stores at stop-overs enroute (King 1972). Data from our captures in 1986 and 1987 suggest drastically different spring and fall arrival weights at Coyote Creek (Figure 3). Logic suggests at least two explanations. One, they arrive in fall from areas where feeding conditions were favorable and in spring from

Swainson's Thrush Spring & Fall Body Weights

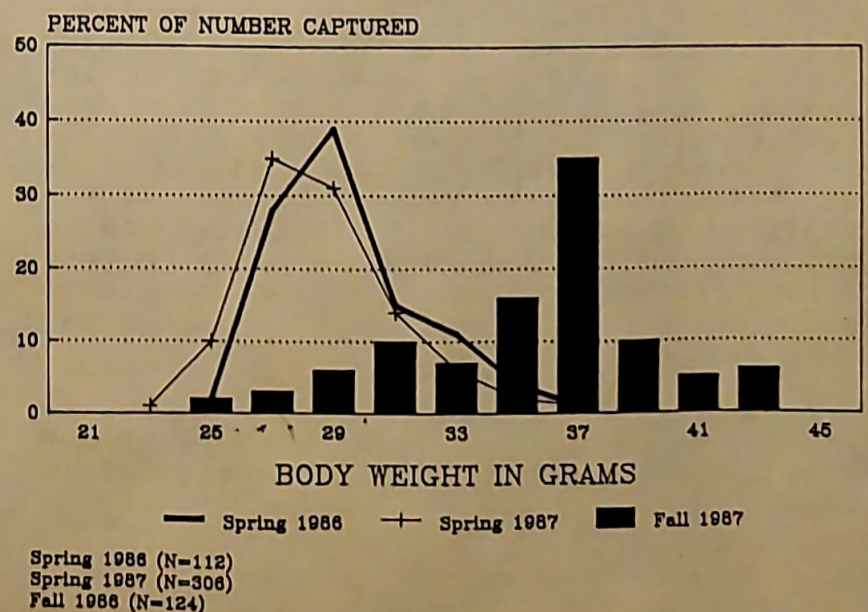


Figure 3

^{spring} areas where food was less plentiful. Or two, their physiological response to distance from migratory goal differs, causing fall migrants (far from their winter goal) to store much fat, and ~~fall~~ migrants (near their breeding home) to store less fat. It is likely that explanation number two is closer to truth.

Rate of fat renewal. In the spring of 1987, of the 306 new captures, 95 were were recaptured 170 times yielding useful information on rate of replenishment of migratory fat (Figure 4). Here we see that recaptures on

Migratory Weight Renewal in Swainson's Thrushes Spring 1986 & 1987

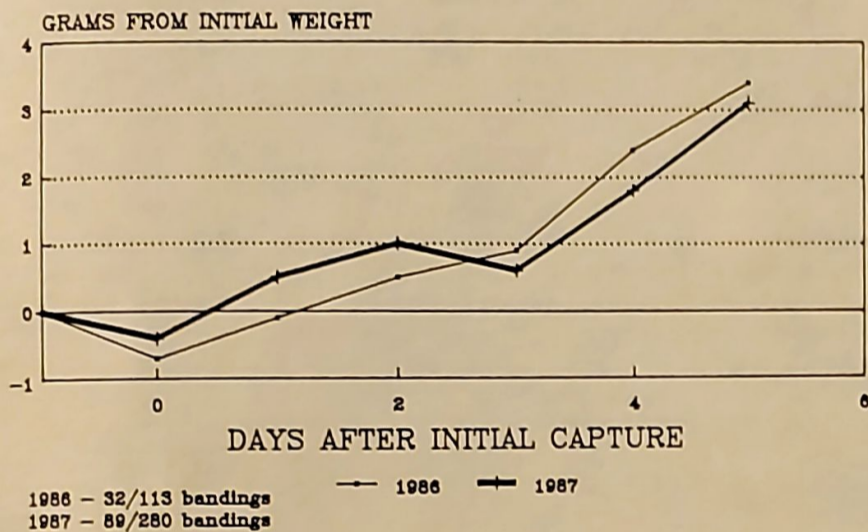


Figure 4

the day of capture (day 0) had lost nearly a gram. This is likely a response to our experimental intervention. [We make all weighings between dawn and mid-morning.] By the next morning (day 1) any such loss was usually regained. By day 5 the mean weight increase was slightly over three grams, or something more than a ten percent increase in fat storage. Is the rate of fat renewal on enroute stopovers related to food available and thus a reflection of the quality of the habitat? Note that the curves for 1986 and 1987 were very similar even though 1986 was a very wet spring and it was very dry in the spring of 1987. Perhaps with more experience, here and elsewhere, we will be able to use such rates of migratory weight renewal as a measure of riparian habitat quality.

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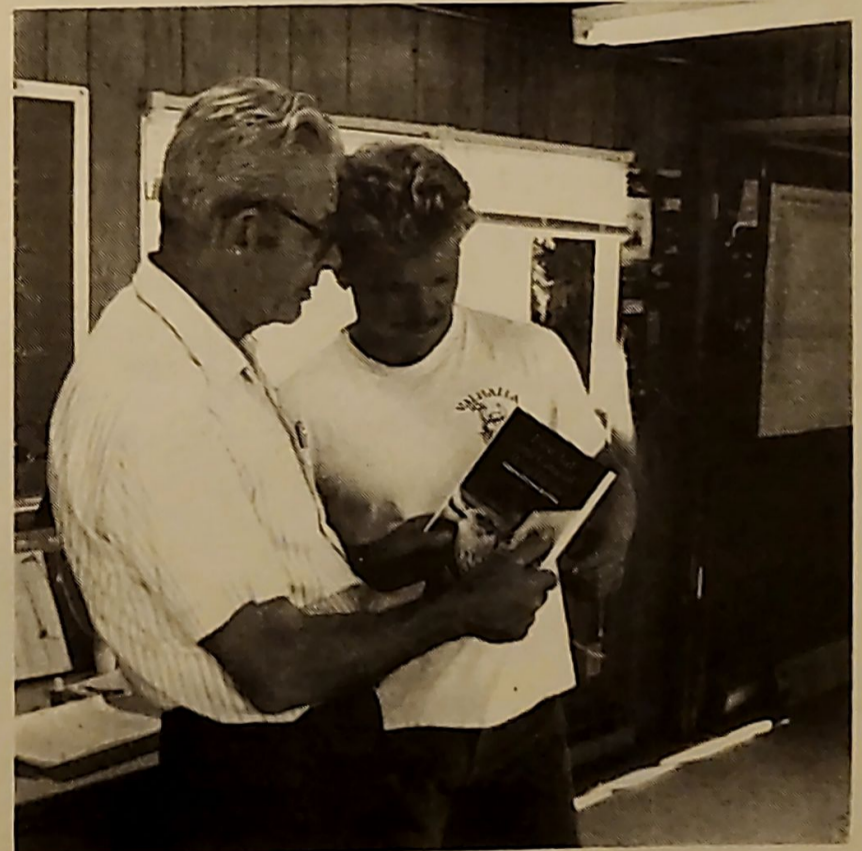
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BIOLOGIST HIRED

In an effort to relieve Dick Mewaldt of some of the burden of running CCRS' daily activities, Mr. Blair Wolf has been hired as half-time biologist and bird-banding coordinator.

Blair comes to us via Dick's recent ornithology class at San Jose State University. He is a native San Josean and a 1987 graduate (B.S.) in Zoology from SJSU. In addition to his zoology background, Blair has acquired skills in nuclear reactor operation and scuba diving from a six year stretch in the Navy. He has also served a one year internship at the U.C. Davis Raptor Center.



Blair Wolf, Biologist and Dick Mewaldt, Station Manager discuss a recent addition to CCRS's growing library. Photo by M. Rigney.

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Blair will begin work on his Master's degree next year at SJSU and ultimately go on for his PhD. His areas of interest include raptor biology, physiological ecology and population biology.

Blair has already accomplished a great deal in his first few months at CCRS. Among other things, he has begun a banding program and developed traps to capture hummingbirds, instituted a regular program of net replacement and lane maintenance and has worked with Dick Mewaldt to insure quality control in our data collection.

The tremendous workload of running such an intensive operation as CCRS has been a strain on our regular volunteers and Dick Mewaldt in particular. The addition of Blair Wolf as the first Coyote Creek Riparian Station biologist will enable all of us to concentrate on moving forward our plans for increased banding and censusing. We welcome Blair and hope that his tenure with CCRS is both rewarding and satisfying.

ARE YOU A MEMBER?

Senior or Student	\$10.00	annually
Regular	\$15.00	annually
Sustaining	\$75.00	annually
Corporate	\$500.00	annually
Life	\$500.00	Single payment*

*Becomes part of the General Endowment Fund.

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The Board of Directors of the Coyote Creek Riparian Station is the governing body for all business affairs of the organization. The quarterly meetings of the Board are open to all members of CCRS. Contact the CCRS office at (408) 262-9204 for dates and locations of regular board meetings.

NEW MEMBERS

We welcome 16 new members who joined us in the last three months:

Andrew Cohen	Active Member
Marie Culwell	Member
Geoffrey & Janet Geupel	Members
Richard Goette	Active Member
Cindy Goral	Active Member
Evelyn & Joseph (PhD.) Hester	Members
Stephanie Jones	Active Member
Michael Marangio	Member
Joseph Marshall, PhD	Member
Anita & Oliver (PhD.) Pearson	Members
Allen Robinson	Member
Jayne Smith	Member
Dolores Wild	Member

We are especially pleased to report that Vi Nisonger has changed her Regular Membership to a Life Membership and that David Johnson has purchased the remaining 2/5 of his Life Membership. These two Life Memberships, in their full amount, and 10% of all other memberships help assure the future of CCRS by being placed into the CCRS Endowment Fund.

FIRST ANNUAL MEETING

The Coyote Creek Riparian Station will hold its first annual membership meeting on Saturday, 26 September, 1987 at the offices of Harvey and Stanley Associates, Inc., 906 Elizabeth St., Alviso, California. All regular and active members, guests and people interested in the activities of the Station are invited to attend.

The meeting will begin at 10:00 am with a brief slide show summarizing CCRS' activities to date by Station Manager, Dr. L. Richard Mewaldt. The membership will be apprised of the organization's current and projected financial status and current and anticipated research projects. In addition, Active Members will be called upon to elect three new members to the Board of Directors.

We will be treated to a lunch provided by the members and have the opportunity to get to know other members, organization officers and Board members. It should be a splendid event with lots of good company, a pleasant surrounding and a chance for everyone to plan for the future growth of the Coyote Creek Riparian Station.

Riparian Research, Restoration and management