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(See Below)

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Newsletter of the Coyote Creek  
Riparian Station

Volume 1

October, 1986

Number 1

As you have doubtless noticed, this newsletter is without a name. To tell the truth, it doesn't fit to just call it the CCRS newsletter, and we wish to have something with a little bit more prestige and individuality. Some of the suggestions thus far have been "Riparia," and "Gleanings." I'm sure that there are many additional inspired titles rattling around in the collective crania of our readers, and so we're going to accept suggestions from the gallery. The person submitting the "winning" title should receive a prize of some sort, so we'll offer one free day of banding at the Station for first place, and two days for second place. Send entries to S.B.Meyer 1590 Whitton Ave., San Jose, Calif. 95116.

#### PRESIDENT'S REPORT

by Allan Sillett

Coyote Creek Riparian Station (CCRS) is a membership, non-profit, tax exempt organization dedicated to: (1) research on the biology of birds and other animals of riparian and wetland habitats, (2) research on the restoration and management of riparian and wetland habitats and their inhabitants, and (3) the sharing of our findings in reports and publications. Our field station, laboratory and research area are located on limited access public land along the west bank of lower Coyote Creek where it meets San Francisco Bay.

In December of 1981 the Avian Biology Laboratory (ABL) of San Jose State University (SJSU) began studies on the birds of the research area on permit from the San Jose/Santa Clara Water Pollution Control Plant. In late 1982 and 1983 volunteers from the San Francisco Bay Bird Observatory (SFBBO) became increasingly involved in the long-term bird banding program. On invitation from the ABL, the SFBBO Board of Directors resolved (27 December, 1983) to assume responsibility for the operation of the "Riparian Biomonitoring Station on Coyote Creek." This arrangement was finalized with appropriate permit from the City of San Jose in January of 1985. The CCRS Steering Committee was formed in 1985.

On 27 May 1986, apparently because of philosophical differences and managerial problems with our CCRS group, the SFBBO Board of Directors decided that CCRS must establish itself as a separate organization. With the encouragement of Dr. H. Thomas Harvey, CCRS was adopted

in early June, 1986 by the South San Francisco Bay Resource Center in Alviso. This has given us welcome temporary shelter, including essential tax exempt status. As our first newsletter goes to press in October, CCRS is in the final stages of becoming a separate California Non-profit Corporation.

Our ongoing research is about to enter an exciting new phase as construction of the Lower Coyote Creek Flood Control Project, by the Santa Clara Valley Water District gets underway. Included are: (1) substantial plantings of native trees and shrubs including western sycamores, live oaks, valley oaks, Fremont cottonwoods, white alders, California bays, California box elders, toyons, coffeeberrys, black sage and others; and (2) formation of managed wetland habitat including a delta-like series of channels and islands in the transition zone between Coyote Creek and San Francisco Bay. We anticipate participation in these developments and in subsequent management of especially those habitats which lie within our research area.

Over the next few months, CCRS members will be carrying out vegetational surveys, bird and mammal censuses, erecting bird houses to attract more hole nesting species (Wood Ducks to Chickadees), and continuing with our baseline biomonitoring program using mist nets, live traps and bird banding.

The expansion in our activities has resulted in the need for new members to help support our program. If working with us on any of the above projects



## President's Report cont'd.

interests you, or if you prefer to just lend your financial support to our endeavors, you are invited to become a member of CCRS. You may, if you wish call me at (415) 947-0729 or CCRS at (408) 262-9204 to arrange a visit to our field station and research area.

## BANDING ACTIVITY SUMMARIES

### JANUARY 1 TO JUNE 30

by Elsie Richey

A total of 2,183 birds were captured from January through the end of June 1986. These birds were processed (data were taken and bands, if not in place, were applied) as new or recaptured individuals. In addition, 627 house finches were released without processing. There were a total of 52 species represented in these captures. One thousand four hundred and forty-four birds were captured at least one additional time.

Six species accounted for most of the captures, with more than 100 individuals each: Swainson Thrush (112), Song Sparrow (179), Golden-crowned Sparrow (140), White-crowned Sparrow (271=124 pugetensis + 147 gambelii), Red-winged Blackbird (176), and House Finch (481 processed).

Several "rare" species were taken: White-throated Sparrow, Tri-colored Blackbird, Gray Flycatcher (2), Bewick's Wren, Nashville Warbler, Black-chinned Hummingbird (2), Allen Hummingbird (2), Western Wood Peewee, Red-shafted Flicker, and Ash-throated Flycatcher. Scrub Jay and Starling each contributed one capture.

### JULY 1 TO SEPTEMBER 30

by SBM

During the months of July, August and September, 3225 birds were captured, processed, and released. Of these 1011 were recaptures and 2214 were new bandings. There were also 211 unbanded House Finches released without processing as we only band a maximum of 10 of these each banding day. These numbers reflect an increase in the number of banding days each month as well as the summer influx of breeding birds and the fledging of their young. This year to date CCRS has banded 3953 birds and processed 2355 recaptures of 69 different species.

New species for the summer include Rufous Hummingbird (2 individuals captured), Red-breasted Sapsucker (1), Willow Flycatcher (39), Least Flycatcher

(4), Hammond Flycatcher (7), House Wren (1), Loggerhead Shrike (13), Solitary Vireo (1), Warbling Vireo (7), MacGillivray Warbler (6), Western Tanager (6), and Rufous-sided Towhee (1). The most numerous species caught, however, included Western Flycatcher (398), Swainson Thrush (114), Song Sparrow (225), and the ubiquitous, prolific House Finch (578 banded + 2111 unbanded). Several uncommon captures were made as well. These include Sharp-shinned Hawk (1), American Kestrel (1), Black-chinned Hummingbird (2), Belted Kingfisher (1), red-breasted sapsucker (1), Red-shafted Flicker (1), Scrub Jay (2), House Wren (1), Ruby-crowned Kinglet (1), Solitary Vireo (1), Myrtle Warbler (1), Rufous-sided Towhee (1), and Oregon Junco (3).

## BANDING SUMMARY, 1982-1985

by Michael Rigney

Since its informal beginnings in 1982, one of the major components of CCRS research has been the use bird banding to demonstrate trends in populations. And, as is the case with most endeavors, beginnings are awkward and you are never quite as thorough as you would have liked to have been (something about hindsight always being 20-20).

As I looked at the data collected over the past four years I was immediately struck by the wide variety of types of birds banded. For example, you will note from the summary that 525 waterbirds (excluding ducks) were banded at a "riparian station". No small feat in and of itself but when you realize that these birds were banded in sewage sludge lagoons it takes on added significance, not only because one does not readily associate shorebirds with sewage but also one does not normally associate with people who associate with sewage lagoons. And many of these birds were not your "run-of-the-mill" shorebirds, e.g., Semipalmated Sandpiper, Baird's Sandpiper and Pectoral Sandpiper.

Landbirds were equally well represented with such unusual species as Lazuli Bunting, Blue-gray Gnatcatcher, California Thrasher (birds usually found in chaparral) and White-throated Sparrow (an eastern bird). However, as interesting and exciting as rarities are, the task for which bird banding is best suited is the understanding and definition of population dynamics in common species. It is here that bird banding is unexcelled in its ability to detect subtle yet vitally important trends. The one important qualifier in considering banding data is that it must be consistent both in its quantity and quality.

Although CCRS has banded an impressive number of individuals (6,357) and a healthy number of species (94) I would be remiss if I did not admit that 1982-

## Banding Summary cont'd.

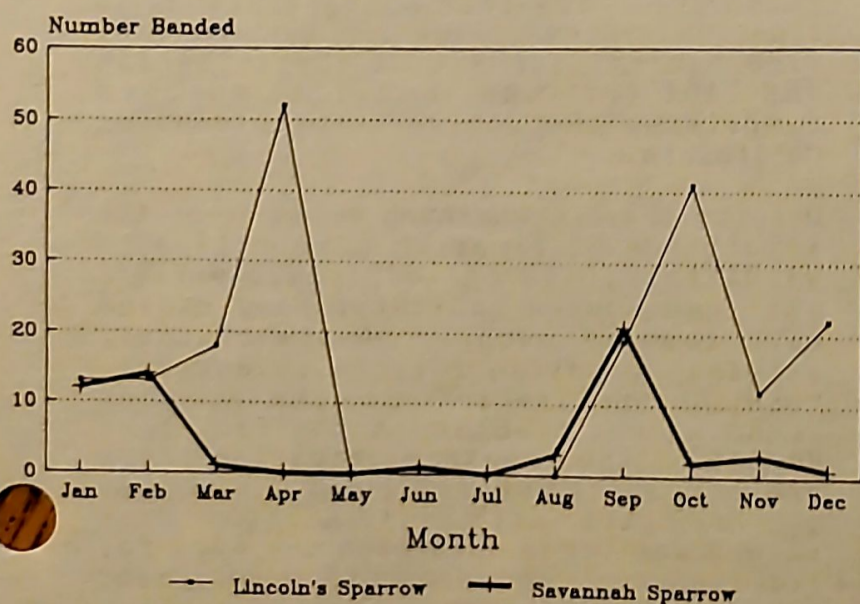
1985 data is inconsistent. In 1982 the important migration months of May and September were not worked. (It should also be noted that only Dick Mewaldt and Lloyd Cowley banded at CCRS that year). 1983 saw the banding program really get off the ground but again migration periods were not thoroughly covered. Participation by volunteers declined in 1984 and little shorebird banding was conducted. In 1985 participation hit a peak as accommodations become more luxurious with the addition of a permanent base. Data collected and its frequency in 1985 became something with potential. It is entirely possible that we will have banded more birds and worked more days in 1986 than in the previous four years combined.

So where does this leave us when trying to interpret the data from the previous four years? I feel fairly confident that, when taken together it will provide the basis for preliminary investigations and may lead to clues in defining experimental strategies which we might employ in the future.

One thing is certain. Without the capable and inspired leadership of L. R. Mewaldt and the many volunteers who have spent countless hours cutting netlanes, taming the ever present cockleburrs, and diligent attention to data-taking in the wee hours of the morning, the consistency of 1986's data would be unattainable.

In the coming newsletter I will be looking at "lumped" data from the previous years for groups of allied species such as thrushes, warblers, swallows, blackbirds and sparrows. I will include pertinent data and will ask (hopefully) pertinent questions derived from that data. As this issue's offering I submit Lincoln's Sparrow and Savannah Sparrow for your perusal and contemplation.

### Lincoln's Sparrow and Savannah Sparrow Birds Banded from 1982-1985



data lumped for all years

## BIRDS BANDED AT COYOTE CREEK RIPARIAN STATION

SPECIES	1982	1983	1984	1985	TOTAL
Green Heron	-	1	-	-	1
Cinnamon Teal	1	-	-	-	1
Gadwall	2	-	-	-	2
Ruddy Duck	-	1	-	-	1
Sharp-shinned Hawk	-	-	1	-	1
Cooper's Hawk	-	-	1	-	1
Red-tailed Hawk	-	-	1	-	1
American Kestrel	-	-	-	1	1
Ring-necked Pheasant (a)	-	-	-	5	5
California Quail	-	-	-	42	42
Virginia Rail	1	-	-	-	1
Killdeer	3	18	2	-	23
Semipalmated Plover	6	27	-	-	33
Lesser Yellowlegs	-	3	-	-	3
Spotted Sandpiper	-	1	-	-	1
Black-necked Stilt	-	3	4	-	7
Least Sandpiper	3	70	10	-	83
Semipalmated Sandpiper	-	3	-	-	3
Baird's Sandpiper	1	-	-	-	1
Western Sandpiper	27	321	13	-	361
Pectoral Sandpiper	-	2	-	-	2
Dunlin	-	-	1	-	1
Long-billed Dowitcher	-	3	-	-	3
Short-billed Dowitcher	-	2	-	-	2
Red-necked Phalarope	1	-	-	-	1
Mourning Dove	-	2	-	54	56
Barn Owl	-	-	-	1	1
Allen Hummingbird (a)	-	1	-	4	5
Anna Hummingbird (a)	-	1	-	5	6
Downy Woodpecker	-	-	-	6	6
Red-shafted Flicker	-	-	-	5	5
Western Wood Pewee	-	-	-	1	1
Willow Flycatcher	-	-	-	1	1
Western Flycatcher	1	16	7	135	159
Black Phoebe	7	86	53	35	181
Ash-throated Flycatcher	1	-	-	2	3
Barn Swallow	21	19	19	13	72
Violet-green Swallow	-	13	-	-	13
Cliff Swallow	-	24	-	10	34
Rough-winged Swallow	-	2	-	-	2
Scrub Jay	1	6	-	12	19
Chestnut-bk. Chickadee	1	5	5	14	25
Bushtit	30	23	13	56	122
Brown Creeper	-	1	-	-	1
Bewick's Wren	-	1	5	11	17
House Wren	-	1	-	1	2
Marsh Wren	1	10	-	-	11
Winter Wren	-	2	-	7	9
Golden-cr. Kinglet	-	-	1	-	1
Ruby-crowned Kinglet	7	9	8	10	34
Blue-gray Gnatcatcher	-	1	-	-	1
Swainson's Thrush	-	7	2	52	61
Hermit Thrush	14	15	6	45	80
American Robin	4	2	4	3	13
Varied Thrush	1	-	-	1	2
Mockingbird	1	3	1	13	18
California Thrasher	-	-	-	1	1
Starling	19	20	1	1	41
Loggerhead Shrike	1	2	-	8	11
Warbling Vireo	-	-	1	5	6
Orange-cr. Warbler	5	4	2	25	36
Yellow Warbler	-	9	6	37	52
Myrtle Warbler	41	7	38	2	88
Audubon's Warbler	18	19	7	18	62
MacGillivray's Warbler	-	-	-	3	3
Yellowthroat	5	8	11	24	48
Wilson's Warbler	-	8	2	44	54
Western Tanager	-	-	-	2	2
Black-headed Grosbeak	-	4	-	9	13
Lazuli Bunting	-	1	-	-	1
Rufous-sided Towhee	2	-	4	-	6
Brown Towhee	4	15	4	31	54
Chipping Sparrow	-	-	-	1	1
Savannah Sparrow	6	21	4	8	39
Fox Sparrow	8	14	8	42	72
Song Sparrow	42	147	68	231	488
Lincoln Sparrow	29	55	11	91	186
White-throated Sparrow	-	3	-	-	3
Golden-crowned Sparrow	52	135	76	435	698
Gambel's wh-cr Sparrow	87	264	82	389	822

## WHAT IS "RIPARIAN"

Puget Sound wh-cr Sp.	46	57	56	214	373
Oregon Junco	1	1	-	11	13
Red-winged Blackbird	13	93	6	94	206
Tricolored Blackbird	1	16	1	6	24
Brown-headed Cowbird	-	5	1	9	15
Brewer's Blackbird	-	4	1	-	5
Western Meadowlark	5	-	-	5	10
Bullock's Oriole	-	3	-	5	8
Purple Finch	-	1	-	-	1
House Finch	1	97	77	1063	1238
Pine Siskin	4	-	-	-	4
American Goldfinch	1	10	81	3	95
Lesser Goldfinch	-	9	-	4	13
House Sparrow	-	10	11	2	23
Total New Captures	526	1747	715	3369	6357
Recaptures	?	?	?	1597	?
Species	44	66	44	60	94

(a)= Tail-clipped; not banded.

## OUR WISH LIST

by Al Schmitz

Due to the generosity of a number of interested people, our station at Coyote Creek is taking on the look of real proficiency. We are grateful to those donors of a standard file cabinet, a heavy-duty rotary mower, several office desks and tables, a steel bookcase, a freezer, a wheelbarrow, and books and journals.

There are many things that we need. A row boat for instance, an electric motor for the boat, folding chairs, a large projection screen, bookcases, office supplies, a small microwave oven, and lumber suitable for making nest boxes. All of these things are on our wish list. And money, of course, and new members.

If you have any of the above items that you care to contribute, they would be greatly appreciated, and, of course they would count as a tax exemption for you.

**ed. note--** A recent incident of vandalism has taken our electronic scale as a casualty, and we are now looking for an inexpensive source of good quality metric scales.



## NEWS AND NOTES

PERSONS WISHING TO CONTRIBUTE MATERIALS relating to avian population studies, or to other research undertaken at CCRS should observe the following guidelines: Reports and letters should be typed, double-spaced, and with at least one-inch margins all around; author's name, address and phone number should be included for editing purposes; papers should be submitted on, or prior to, the fifteenth day of the last month of the quarter (*vis.* 15th March, June, September, and December).

One of the most frequently asked questions of CCRS personnel is, "what does 'riparian' mean?" Those of us in the environmental community sometimes take for granted the general public's knowledge of important ecological terms. It is, however, true that few people know exactly what "riparian" means nor do they appreciate why a research station should be established to study it. With this in mind, it seems appropriate that we should spend some time explaining what we feel "riparian" refers to and why Coyote Creek Riparian Station was established.

The word "riparian" is derived from the latin "riparia" which means stream or lake bank. In ecological parlance, riparian vegetation refers to an association of plant species which: 1) typically grows adjacent to fresh water courses; 2) and needs or tolerates a higher level of soil moisture than upland plants. Riparian habitat refers to that biological support system in and immediately adjacent to rivers, streams and lakes which is necessary to the survival of its animal inhabitants.

So important is this special habitat that no less than six major scientific conferences have been convened within the last 10 years to disseminate information on its importance and its decline. One common theme has emerged from the many papers delivered at these various conferences and that is that the riparian community is one of the most important wildlife habitats in North America. The relatively small amount of total area representative of riparian systems provides a strikingly disproportionate amount of habitat for wildlife. Of all mammal species in North America, 42% can be found in the riparian community of the western United States. Some of the highest breeding bird densities in the continental United States have been reported from riparian zones. In many areas nearly 50% of the avifauna are primarily associated with and/or reach their greatest concentrations in riparian systems. Riparian systems provide habitat for 83% of the amphibian and 40% of the reptile species comprising the native herpetofauna of California.

Despite the overwhelming evidence of the importance of riparian communities to wildlife, it is one of this country's most endangered habitats. Many states have lost as much as 90-95% of their original riparian forests to agriculture, channelization or damming. Compounding the problem is the fact that 80-90% of the remaining riparian lands are in private ownership and in the past all agencies with jurisdiction over rivers and lakes have seen the need for flood control and economic development as much more important than protecting the fragile band of vegetation which clings precariously to the banks.

## Riparian cont'd.

All too slowly this view is changing. We who know the habitat value of riparian zones welcome the enlightened views of the "new" Army Corps of Engineers and the Santa Clara Valley Water District whose concern for habitat preservation and enhancement has established that flood control and riparian vegetation are not mutually exclusive terms.

In the coming issues we will be outlining the exciting developments which promise to provide a living laboratory for the study of riparian establishment, growth, maturation and ultimate preservation. We hope that you will support our study of this important biological resource and share in our appreciation of the delicacy of the natural environment.

### THANKS TO HARVEY AND STANLEY ASSOC.

The Coyote Creek Riparian Station, its members and volunteers owe a great deal of gratitude to Harvey and Stanley Associates of Alviso. When in May of this year our relationship with SFBBO was severed, Dr. Thomas Harvey and Mr. John Stanley, principals of H & S Associates, Inc. provided their nonprofit branch called the South San Francisco Bay Resource Center as a temporary non-profit "umbrella" so that we might maintain our non-profit status.

In addition, the company has allowed us use of their copying and computer facilities. This newsletter, as well as our continued existence as a tax exempt organization would not have been possible without their benevolent intervention.

We have also recently acquired Dr. Harvey's services as a member of our Board of Directors. He brings to the Board a lifetime of invaluable experience and expertise on matters relating to the ecology of the San Francisco Bay region. Welcome aboard Tom and thanks again to the staff of Harvey and Stanley for their continued moral and logistic support.



Dick Mewaldt and Syndie Meyer ponder the "skull" of a migrant.



photo by David Johnson

President Sillett and Manager/Biologist Mewaldt confer on the location of a net.

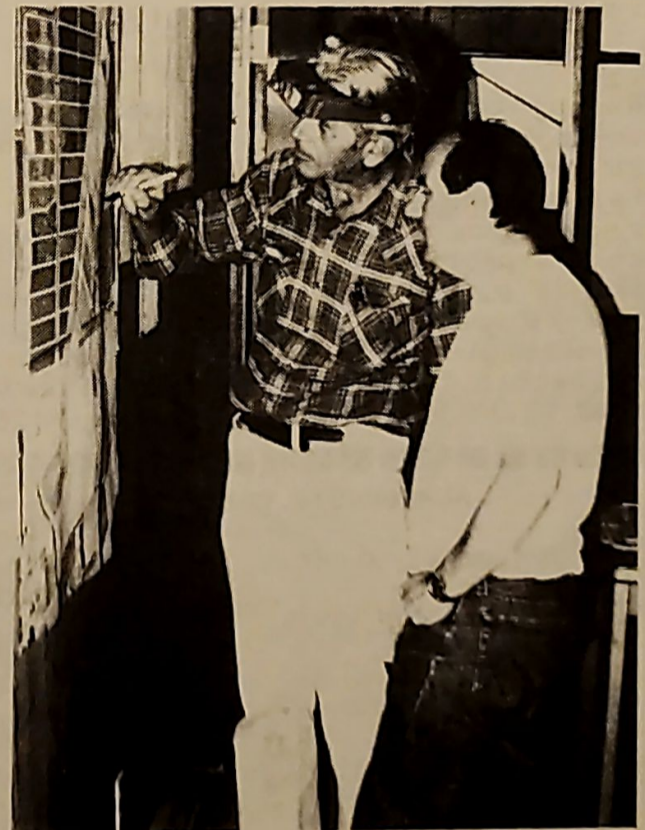


photo by David Johnson

## EDITOR'S NOTE

This is the first edition of the quarterly CCRS newsletter/journal. The purpose of this publication is to inform our membership of the activities at the Station, and to share the results of our research, and related studies, with others interested in the study of riparian habitats. This first edition is being sent to a large number of individuals and organizations as an announcement of our activities and intentions. Subsequent issues will be sent to members. This will keep the membership informed of the banding activities and other research projects of the Station. Summaries of our banding efforts, papers on specific questions generated by our data, or reports on related topics and areas, will be some of the material in future issues. Readers, especially active members, are urged to contribute to the analysis of our data. Persons wishing to participate in the quarterly and annual summaries are especially welcome. Persons interested in contributing to the news letter should contact S.B. Meyer at either 258-4026 or wk: 263-1814 (Syndie).

We would like to thank the following people for their contributions to the newsletter: Al Schmitz, Dave Johnson, Elsie Richey, Allen Sillett, and Michael Rigney. The newsletter personnel are Syndie B. Meyer (ed.), and Michael D. Rigney (layout and publishing).

The Coyote Creek Riparian Station is a non-profit research organization under IRS statute 501 (c) 3. At present, we are a branch of the South San Francisco Bay Resource Center but hope to have our own non-profit status soon. If you would like to support our activities or would like to participate in our on-going projects please fill out the form below and return to us with your membership dues. Thank you.

### MEMBERSHIP CLASSES

( )	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.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

I WOULD LIKE MORE INFORMATION ON HOW I CAN VOLUNTEER. ( )

**STATION OPERATIONS:** As of this writing, and throughout the fall migration, the station is operating on a seven day week. Banding activities begin one half hour before dawn and continue until at least 12-noon. Persons skilled in bird identification are urged to attend so that we may efficiently mark and release the hundreds of birds that are captured each morning. All persons interested in participating should contact the station manager/biologist (Dick Mewaldt: (408)258-7491, or (408)262-9204) for further information and instruction.

**BOARD OF DIRECTOR'S** monthly meeting will be held at 10:00am Saturday, October 25, 1986 at CCRS. Members are welcome to observe.

### MEMBERSHIP

EVELYN HART CASE	LIFE
PENOLOPE DELEVORYAS	REGULAR ACTIVE
MARYLIN FOWLER	LIFE ACTIVE
TIM GATES	REGULAR
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WINIFRED HURLBERT	REGULAR
DAVE JENSEN	REGULAR
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MAX LINCOLN MD	REGULAR ACTIVE
CLARICE LINCOLN	REGULAR ACTIVE
L. RICHARD MEWALDT PhD	LIFE ACTIVE
SYNDIE B. MEYER	REGULAR ACTIVE
ELSIE RICHEY	REGULAR ACTIVE
MICHAEL RIGNEY	REGULAR ACTIVE
THERESA RIGNEY	REGULAR
TOM ROUNTREE	REGULAR
ALFRED SCHMIDTZ	REGULAR ACTIVE
ALLEN SILLETT	REGULAR ACTIVE

### CCRS BOARD OF DIRECTORS

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	WK: (408) 263-1814
DICK MEWALDT (TREAS)	(408) 258-7491
	CCRS (408) 262-9304
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