SNOWY DRIFT:
The exodus of Snowy Egrets from West Marin Island

John Kelly

In April of 1993, you could see the flurries of snowy egrets from miles away. Periodically, they would rise high into the air above the nesting colony at West Marin Island off San Rafael. For several decades, the Island has been the most important heron and egret colony site in the San Francisco Estuary. Each spring and summer, it has supported as many as 900 breeding pairs of herons and egrets, including Black-crowned Night-Herons, Great Egrets, Snowy Egrets, and occasional pairs of Great Blue Herons. However, in 1993 there was trouble in the air.

Binny Fischer was the first to notice that the Snowies were being disturbed. While monitoring reproductive success of Great Egrets on West Marin Island, from a vantage point only a few hundred yards away on the western tip of East Marin Island, Binny and I observed repeated disturbance flights of Snowies. Apparently, a Red-tailed Hawk was causing all the havoc by circling the Island and periodically diving into the colony. We never saw it capture anything. After each disturbance, the Red-tailed Hawk would perch on the Island, usually on the same snag at the edge of the colony, until its next mischievous foray. The harassment continued periodically for several weeks.

Interestingly, Great Egrets and Black-crowned Night-Herons did not generally leave their nests, possibly because they were already committed to brooding eggs or chicks. Snowies, on the other hand, had only recently arrived at the Island and were still courting and selecting nesting sites. The relatively greater sensitivity of Snowies to these disturbances reflects behaviors often observed in other species. For example, Great Blue Herons flush more readily from nesting colonies early in the season; after making a significant investment of time or energy required for reproduction, they become more tenacious and are less easily disturbed. At the peak of the 1993 nesting season, it was evident that the number of Snowy nests (98) had declined by over 55% compared to the year before (see Figure). This was the smallest Snowy Egret colony the Island had seen since 1979.

Helen Pratt and the Marin Audubon Society began their annual counts in 1979.

When ACR completed the first regional assessment of heron and egret populations in 1991, the results generated a serious concern about the breeding distribution of Snowy Egrets: virtually all of their eggs were laid in one "basket" - West Marin Island. This was an important consideration in establishing the Marin Islands National Wildlife Refuge in 1992.

During the 1992 nesting season, field observers on ACR's North Bay Counties Heron/Egret Project documented...
CYPRESS GROVE PRESERVE
of AUDUBON CANYON RANCH

A Brief History

Clerin Zumwalt

This land was once a part of the far-reaching Nicasio Land Grant which included much of Marin County from Nicasio Valley northwest to Tomales Bay. One of the early owners of this land was Henry Halleck, General-in-Chief of the Union Army during the Civil War who later became primary author of the California constitution.

In the 1870's, soon after the North Coast Railway was built, the bulk of the Nicasio Land grant was divided into ranches while Cypress Grove was developed as a hunting lodge. The lodge comprised most of the buildings we see today, including the main house known as the Clifford Conly Center. Over the years, the "Grove" experienced numerous owners, some of whom improved the buildings and developed the gardens, while others allowed general deterioration.

In the early 1920's, when Clifford Conly was nine years old, his family were guests at Cypress Grove for a day of canoeing and picnicking. It was one of those rare spring days at the Grove and it deeply impressed Clifford. He said then and there that he would some day own the place. His time came some thirty years later. When he bought Cypress Grove in 1952, it was in deplorable condition; but Mr. Conly, an extremely capable and highly regarded San Francisco architect, interior designer, and landscape architect, began a thorough program of restoration. Many of the hunting lodge cottages had to be razed. Those remaining were groomed into delightful guest cottages. These cottages and his main house were furnished with priceless antique furniture, some of it dating back to 16th century England.

The restored buildings, beautiful gardens and flourishing greenhouses, were in polished condition by the time he sold his San Francisco business and retired here in 1964 at age fifty. Mr. Conly soon became recognized as a horticultural artist, gourmet cook and genial host. Those who were invited to be his guests were greatly privileged.

Mr. Conly had barely settled when the dark shadow of high density development threatened the entire east shore and adjoining hills along Tomales Bay. The West Marin General Plan proposed 50,000 homes, several shopping centers, and industrial recreation complexes, encompassing all of the land from Point Reyes Station to Tomales.

In 1971, Audubon Canyon Ranch became alerted to this looming threat and began purchasing shoreline properties wherever they were affordable and available. Since then, ACR has acquired nearly 500 acres of shoreline properties around Tomales Bay. When ACR approached Clifford Conly, he saw the advantage of joining forces so he immediately bequested Cypress Grove to ACR. He also began a program of deeding a percentage of ownership in the property on a regular basis. Clifford then committed one of his buildings to ACR docents who began observing the flora and fauna of the region. In 1988 a formal research program, with staff, was established. In August 1992, Mr. Conly formally presented the lands of Cypress Grove to Audubon Canyon Ranch. Now, Cypress Grove Preserve continues as ACR's center for field research and natural resource management.
**SNOWY DRIFT...**

(from page 1)

new Snowy Egret colonies at three sites -- Santa Rosa, Red Rock Island, and Napa State Hospital. The number of Snowy Egret nests at West Marin Island declined slightly that year, but was well within expected range of variation, based on the previous 12 years of monitoring (see Figure). The observed colonization of three new sites kindled thoughts about enhanced stability that might result from a more dispersed breeding distribution.

During the 1993 nesting season, when the Red-tailed Hawk was harassing Snowies at West Marin Island, ACR field observers noticed that Snowy Egrets were appearing in greater numbers at all six other colonies within the five-county region of Marin, Sonoma, Napa, Solano, and Contra Costa Counties (see Figure). Could these birds have been refugees from the Red-tailed Hawk attacks at West Marin Island? We were certainly suspicious at this point, but cautious about false conclusions. Even if true, such a shift was best interpreted as a response to unusual disturbance, and we did not think the trend would continue.

We could not have been more wrong. In April 1994, West Marin Island was again visited repeatedly by a (the!) Red-tailed Hawk. Again, Great Egrets, Black-crowned Night-Herons, and Great Blue Herons seemed undisturbed. This time, however, all but 8 pairs of Snowies abandoned the island. Snowy Egret nesting colonies at nearby Red Rock and Brooks Islands increased more than threefold, and the colony at Napa State Hospital increased more than sevenfold. We also logged the first known Snowy Egret nesting records in Suisun Bay. Decentralization of the regional Snowy Egret breeding population had clearly occurred (see Figure). Will this new distribution persist? Was this regional shift caused by the mischievous flights of a single Red-tail? Is the breeding population better off nesting at several colonies, or have the birds abandoned an unusually valuable nesting area?

Needless to say, we are excited to see where the Snowies settle in 1995.

**IN PROGRESS**

**ECOLOGY OF CORDYLANTHUS**


**TOMALES BAY PLANT SPECIES INVENTORY**

Marin chapter of the California Native Plant Society listed plant species at Tom's Point on March 22. An interesting discovery was a rare native thistle--(*Cirsium andrewsii*) above the north bluff.

**COASTAL PRAIRIE**

With the construction of a new leach field in the annual grassland area at Cypress Grove Preserve, new terrain has been made available for the reproduction of native bunch grasses. Please join us on the next grass planting day, Sat. 14 January, 1995. Please call (415)663-8203 for information.

**HARBOR SEALS**

We need field observers to help monitor disturbance behaviors of harbor seals near ACR's Tom's Point. The study also tracks pupping success and haul-out abundances. Please call Mary Ellen King at 707/537-1546.

**SHOREBIRDS**

The fall and early winter Tomales Bay Shorebird censuses have drawn a prodigious turnout of field observers. We have reduced the fall and spring migration censuses to one count each but continue to conduct three baywide counts each in early and late winter to focus on wintering shorebird populations.

**COMMON YELLOWTHROATS**

ACR Field Biologists have completed field work on a three-year study of Salt Marsh Common Yellowthroat foraging "nice." Results will help guide management of Livermore and Olema Marshes, and contribute to our knowledge of this "species of special concern."

**WINTER WATERBIRDS**

Will waterbird numbers on Tomales Bay rebound if the spawning population of Pacific Herring continue to recover? Experienced birders are needed to help census winter waterbirds by boat.

**BLACK RAILS**

Chris Wood is studying vocalizations of California Black Rails (listed as Threatened in CA) at Olema Marsh, and has discovered some undescribed calls.

**PLANT WARS**

We are continuing to remove African ice plant from ACR's Tom's Point, using black plastic sheeting (shading) for 4-6 month periods. Native plants such as Vancouver wild-rye and Juncus (rush) now dominate the treated areas.

**NORTH BAY COUNTIES**

**HERON/E GRET PROJECT**

HEP is beginning its fifth year of monitoring all known colony sites in the northern San Francisco Bay area (see lead article). More field observers are needed for the 1995 season.

**AQUACULTURE EFFECTS ON SHOREBIRDS**

A report on ACR’s five-year study of effects of oyster farming on the use of intertidal habitat by wintering shorebirds, by John Kelly, Jules Evans, Rich Stallcup and David Wimpfheimer, has been submitted to The California Department of Fish and Game. Results suggested that areas developed for aquaculture may exhibit a net decrease in total shorebird abundance. Western Sandpipers (*Calidris mauri*) and Dunlin (*Calidris alpina*) significantly avoided aquaculture areas. Willets (*Catoptrophorus semipalmatus*) occurred in significantly greater abundance on aquaculture plots than on control plots. Four other species showed no preferences for control or aquaculture plots.

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**The Ardeid**

Ardeid (Ar-DEE-id), n., refers to any member of the family Ardeidae, which includes herons, egrets, and bitterns.

The Ardeid is published twice yearly by Audubon Canyon Ranch as an offering to Field Observers, volunteers, and supporters of Cypress Grove Preserve. To receive The Ardeid, please call or write to Cypress Grove Preserve. Subscriptions are available free of charge; however, contributions are gratefully accepted.

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The following Field Observers have contributed to CGP projects since the last newsletter:

A = Aquaculture Project
B = Arborist
D = Harbor Seal study
G = CGP gardens
H = Heron/Egret Project
I = TB Plant Spp. Inventory
M = Marsh Monitor. Project
P = Coastal Prairie
R = TB Shorebird Project
V = Heron vocal aging
W = TB Waterbird Census
O = Other activities

Dan Abraham (P)
Russ Agnew (S)
Sarah Allen (S)
Nancy Angelasko (W)
Bob Davis (SW)
Norah & Hugh Bain (S)
Nancy Barbours (H)
Sue Bart (O)
Tom Batty (W)
Gay Bishop (S)
Edith Black (D)
Alister Blevins (P)
Patti Blumin (H)
Janet Bossard (HP)
John Boyd (H)
Tom Bradner (H)
Mary Brezen (H)
Ken Burton (WS)
Phil Burton (H)
Diane Carpenter (O)
Ann Cassidy (P)
Courtney Cline (D)
Eric Davis (H)
Mark Dean (S)
Jim DeVore (H)
Cora Disney (H)
Leslie Dougherty (M)
Roberta Downey (M)
Dick and Jenny Downing (H)
Carol Dutton (SF)
Lew Edison (S)
Ted Elliot (H)
Julie Evans (AS)
Gary Faulk (SW)
Binny Fischer (H)
Virginia Fletcher (SHIPO)
Grant-Fletcher (SWHIPO)
Carol Foley (H)
Carol Fraker (H)
Gail Garmon (W)
Patrick Garvey (PMW)
Richard Gibson (H)
Margaret Greene (H)
Philip Greene (HV)
Madelon Halpern (H)
Daphne Hatch (W)
Holly Heinzmann (W)
Catherine Hickey (H)
Catherine M. Hickey (HS)
Edna Hickok (H)
Lisa Hugh (S)
Maggie Hynes (HWP)
Daniel Jacobs (P)
Tim Jenkins (H)
Ruth Johnston (P)
 Lynnette Kahn (SHI)
Mary Ellen King (DFW)
Richard Kirschman (SW)
Felix Knauth (D)
Carol Kuebler (S)
Judith Lamoure (G)
Jim Larkin (D)
William LeGro (W)
Robin Leong (H)
Michele Lapes (WP)
Eileen Libby (P)
Ruby Long (F)
Christina MacInnes (H)
Flora Maciase (MHOS)
Jo Malillard (H)
Aspen Movers (W)
Chris Mcauliffe (H)
Margaret McClure (W)
Fred McLellan (H)
John McDonagh (S)
Harmony Mercedes (P)
Maggie Metcalf (H)

Jean Miller (H)
Anne Murphy (P)
Dan Murphy (W)
Phil Murphy (P)
Murid Niehaus (W)
Terry Nordbye (ADFMWS)
Don Pagnac (POG)
Ray Paul (H)
Karen Paul (DSP)
John Peterson (H)
Yvonne Pierce (W)
Richard Plant (W)
Myrtle Potonsik (H)
David Potter (H)
Grace Pratt (H)
Helen Pratt (HV)
Linnnea Pritchard (P)
Linda Reichel (H)
Eric Reineker (W)
Jami Ross (W)
Edna Rossenas (P)
Ellen Sabine (HS)
Fran Scarlett (H)
Craig Scott (DSPW)
Brian Simon (W)
Nikki Simpson (P)
Hillary Smith (W)
Joe Smith (DW)

Hildie Spautz (S)
 Rich Stallcup (ASM)
Bob Stewart (P)
Sarah Tappen (WP)
Janet Thiessen (FW)
Gil Thomson (H)
Don Tisner (H)
Forest Tomlinson (WA)
Irwin Twigg (H)
Bill Van Schack (S)
Brett Walker (S)
Janet Walker (MP)
Tanis Walters (S)
Mike Warren (TD)
Ralph and Rosalie Webb (H)
Adeline Whitmore (H)
Diane Williams (S)
Ken Wilson (H)
David Wimpfheimer (AWSF)
Chris Wood (HMOA)
Gregory Wright (P)
Jules Evans
Terry Nordbye
Rich Stallcup
David Wimpfheimer
Sarah Allen
Faith Duncan
Jules Evans
Grane Fletcher
Philip Greene
Mary Ellen King
Flora Maciase
Helen Pratt
Rich Stallcup
Chris Wood

IN THE FIELD

January 14
Native grass planting
Tomas Bays Waterbird count
Tomas Bays Shorebird count (late winter census)
Native grass planting
(please call CGP @ (415) 663-8203 for information)

February 5
Tomas Bays Waterbird count
Tomas Bays Shorebird count (late winter census)
Tomas Bays Shorebird count (late winter census)
Tomas Bays Waterbird count

March 25
Heron/Egret Project meeting at ACR's Fischer Canyon.
(please call CGP @ (415) 663-8203 for information)

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