

The Ardeid

Research & Resource Management at Cypress Grove Preserve

Audubon Canyon Ranch, Fall 1991

A FIRST LOOK AT HEP

ACR's North Bay Counties Heron/Egret Project

Wherever a nesting colony of herons or egrets occurs, there is an essential energy that somehow sequins the surrounding matrix of life. An active colony seems to animate other birds and insects, define the vegetation, mark one's location in space and time as it gathers up the life around. For the sensitive observer, there is an awareness of connections. This is what one feels; however, what we know is more limited. At this time, more is known about the landscape of Venus than about the population ecology of San Francisco Bay Area ardeids.

ACR's North Bay Counties Heron/Egret Project (HEP) is greatly increasing what is known about herons and egrets in our region. In a 1978 survey of the coastal region from Ukiah south to the Santa Barbara County line, the State Department of Fish and Game found 32 Great Blue Heron colonies, and 4 colonies each of Great Egrets, Snowy Egrets, and Black-crowned Night Herons. In 1991, ACR launched its second annual heron/egret inventory, limited to northern San Francisco Bay counties, and documented 44 active Great Blue Heron colonies, as well as 15 Great Egret, 8 Black-crowned Night Heron, and 4 Snowy Egret colonies. This amazing difference is not a measure of increasing heron or egret populations. Rather, it is the product of excellent reconnaissance by ACR Field Observers who, like their

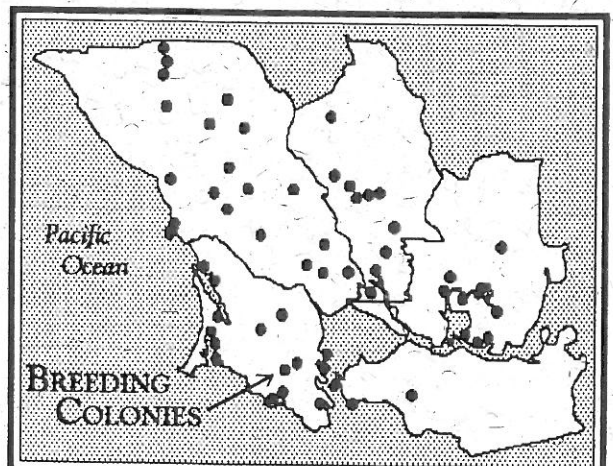
subjects, have become sentinels over our wetlands.

Results indicate that Great Blue Heron colonies tend to be smaller and more dispersed throughout inland areas, particularly near lakes and rivers, than other colonial ardeids. Black-crowned Night Herons and Great and Snowy Egrets concentrate, with a few exceptions, in larger colonies near coastal (marine) wetlands. By documenting the locations, habitat, ownership, and land use associated with nesting colonies, ACR has created a data base that could prove useful in protecting these sites.

HEP is more than just an annual inventory of active colonies -- it is a new chapter in the annals of life in our region. Field Observers record data on the number of active nests, nesting stage, behavior, and reproductive output at each colony. The estimated reproductive success among Great Blue Herons, based on pre-fledging brood size, was 1.99 young per nest in 1991, a slight decrease from 2.27 in 1990. The HEP data base can be used to study biological patterns in the region, by investigating reproductive differences in relation to colony location, size, stability, seasonal timing and surrounding habitat.

Here's an example: Average pre-fledging brood size in Great Blue

Heron colonies did not differ, in general, between inland and coastal (less than 5 miles from marine feeding areas) colony sites. However, inland nests were slightly less productive overall than coastal nests (1.86 and 2.09 young per nest, respectively). This is because inland nests produced slightly more young when associated with smaller colonies, while coastal nests were more productive when associated with larger colonies. But why? Possible factors include local differences in predation, nesting habitat, weather, and the distribution of feeding areas. At this point, these patterns are only suggestive and may not persist over time. (A difference this large is expected to occur 12 percent of the time by random chance alone.) However, the story is building. We are making connections. Inspired by ACR's breeding colony near Bolinas Lagoon, we have created an extremely effective regional watch that may help us to protect these beautiful birds and their wetland feeding areas.



CURRENTS

Some Thoughts on

RESOURCE MANAGEMENT AT ACR

(The following is adapted from a memo to the Research and Resource Management Committee --JK)



As Audubon Canyon Ranch becomes more involved and committed to active resource management roles, we are fortunate that ACR volunteers, directors, and staff are especially sensitive and thoughtful toward nature. The values that brought us to ACR provide an excellent basis from which to develop a resource management program.

We know that nature is awesome and ubiquitous,
powerful and fragile,
dynamic and enduring.

We know that nature is more complex than we can ever know.

We know that nature very often knows best.

So our approach remains biocentric. We should continue to ask if, as John Muir put it, "righteous management" is essentially hands-off management.

We also know that cliché's like "manage people not wildlife" grossly oversimplify the real problems. Much of wildlife management could be viewed as the removal or mitigation of human-caused stresses on ecosystems, to allow natural recovery to proceed... to whatever end nature deems best. This is also an oversimplified view. For example, endangered species do not re-colonize on their own. What happens when the natural role of fire is removed from chaparral at Bouverie Audubon Preserve, from changing forests at Bolinas Lagoon Preserve, and from the coastal grasslands at CGP? HOW can we control German ivy? What is the pristine face of the artifact we call Livermore Marsh? (Or the sound of one hand clapping, for that matter?)

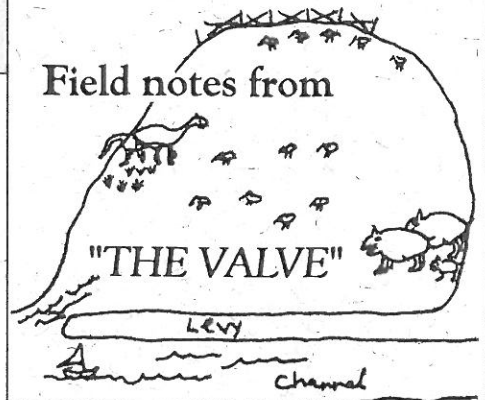
The dynamic balance of species abundances in a given ecosystem is a complex function of environmental processes that operate at local, regional, and global scales -- and often within the realm of human ecology. Although we want nature to manage or heal herself, there remain a plethora of contingencies and confounding questions.

Our best position is clearly the most difficult one: to consider the problem of management pro-actively. Hands-off management should be deliberate, not neglectful. Active management should derive from a high degree of scientific literacy, and balanced with a sensitivity to nature's autonomy. Management practices should be monitored and evaluated in terms of how they work, not merely if they work. Pro-active stewardship of natural resources should be a point of excellence.

All of this, of course, is already happening. And ACR is developing management priorities guided by its usual love and respect for the land. The development and implementation of resource management plans is the central work of the ACR Research and Resource Management Committee. CGP Field Observers provide the hands-on solutions. There is much good work to do.



Field notes from



The following excerpts were taken from the back of Tomales Bay Shorebird Census Forms submitted by Terry Nordbye; his count area is at Bivalve, near the south end of the bay. We thank Terry for reminding us of the broader census experience.

8/23/90 (12:00) Birds were spread wide on all exposed portions but the north quarter section. In one and a half hours the Bivalve had almost completely flooded, the peeps seemed to be hanging on to the remaining mud and we did not notice any big fly-offs. With our remaining time we gathered up on the bluff and fantasized about leaving our jobs and drifting out with the flocks into the remaining beautiful day.

12/7/90 (10:30) Us counters are organizing and we ain't gonna take it anymore. If you want to see us toiling out in them mudflats in rain, sleet and snow, stressing our eyes and minds again next season, I suggest you consider these demands: (1) coffee and donuts -- maybe a tailgate party; (2) counting class. I was gonna try and get 300 signatures but I was the only one around.

2/4/91 (13:45) As soon as I stepped out of my truck at the edge of the bluff I looked out at the busy yet tranquil flats, and my crazy business morning melted away. I took a deep breath for peace and the way it always was. It was then a light rain. I turned north and saw the big heavy pushin' south, like a bulldozer. We hurried and 1/3 of the way through our count some major rain rolled in. I kept looking up at the road at my truck and pretended to be sitting in it with the heater and radio on, sipping on a cappuccino counting cars passing on Highway 1. Bob, the stealthy, driven bird-kinda-guy that he is, kept saying "Let's try and get some numbers." We did finish the count, but the water put such

IN PROGRESS

a strain on the optic endings that I would not qualify this count as very accurate. The main thing is that it did rain and it's still raining and I hope your - our [coastal prairie] grass patch is happy.

8/29/91 (11:15) *Mystery of the Peeps: In my dreams and visions, eyes closed, I see long wide scattered peeps on the gray and sunlit mudflats. As I float by and zero in with my bi-nocs, my heart feels at home and full. The setting is a mirror of human life, hundreds of anonymous birds, feet planted and skipping on the very surface of the earth, day after day, mile after mile, just eating, jabbering, body language. This is their mission, their job, and when we watch we see the reflection of our lives: just here because the mud is good, the sun is warming our back.*

10/31/91 (15:20) *Divide and Conquer: We split up at 2:20 PM. Bob was well off and armed with Kowa's latest low-dispersion fluoride cannon -- hard to miss a shot with that baby. I slid down the cliffs to the beach head, launched the styro approach craft, and landed by the old abandoned railroad. Being careful not to scare away the target, I crawled for a quarter mile on my belly, dragging my cannon and field glasses. I had my silly hat on so I did not feel awkward. It paid off 'cause when I got to the site, and finished plucking the foxtails out of my chest and socks, it was zero hour and the birds to be counted were all there.*

The Tomales Bay Shorebird Project is in its third year of monitoring seasonal populations at ten locations on Tomales Bay, including *The Valve*.

Marin Islands Update



The Marin Islands National Wildlife Refuge is close to becoming a reality! To help protect the largest breeding colony of herons and egrets in the San Francisco Bay Area, please send donations to Marin Islands, c/o Marin Audubon Society, Box 599, Mill Valley, CA 94942.

PLANT WARS

The Italian Thistle "mow plots" at CGP are showing some promise after two years of treatment; annual grasses have invaded and the recruitment of young thistles appears to have dramatically decreased. We are attempting a new strategy with ice plant: shading (not "solarization") with black plastic.

TOMALES BAY

PLANT SPECIES INVENTORY

Grant Fletcher has computerized known records of Tomales Bay area flora. Please call CGP if you would like to contribute to this valuable data base.

COASTAL PRAIRIE

Numbers of California voles have remained low following the spring '91 crash. Last year's re-introduced native perennial grasses are thriving. The 1991 cohort of seedlings is ready to plant. Please call CGP if you would like to help.

LIVERMORE AND OLEMA MARSHES

A management has been completed, with objectives that focus on improving habitat for (freshwater) migrating shorebirds, breeding passerines, and rails. The plan includes measures to control sedimentation, hydrology, and plant succession.

CORDYLANTHUS

We are completing a paper on the habitat ecology and status of *Cordylanthus maritimus palustris* in West Marin. *C. m. palustris* is a rare salt marsh annual, eligible for state listing as threatened or endangered, and listed by the federal government as C2: insufficient data.

BAT RAYS

Todd Hopkins of U.C. Davis and his volunteers are long-lining and tagging California bat rays, and fitting some with sonic transmitters so daily and seasonal movements can be tracked. The project focuses on the physiological adaptations of bat rays to seasonal estuaries like Tomales Bay.

HARBOR SEALS

Mary Ellen King will continue her study on "disturbance behaviors" at haul sites near ACR's Tom's Point. We have also produced an informational flier on harbor seal disturbance in Tomales Bay that is being distributed to all visitors at Lawson's Landing Resort.

SHOREBIRDS

Shorebird use of the huge mudflats at the south end of Tomales Bay has been mysteriously low during the last two fall migrations... The second annual report on the Tomales Bay Shorebird Project is available from the CGP office. New censusers are always welcome.

AQUACULTURE

We have begun the third year of a five-year study of the possible effects of oyster farming on the use of intertidal habitat by wintering shorebirds. No conclusive results yet.

WINTER WATERBIRDS

As our third waterbird season approaches, we are planning five Tomales Bay-wide surveys; however, we need calm, dry weather. Three successful counts out of five would provide a good look at this winter's waterbird populations.

NORTH BAY COUNTIES HERON/EGRET PROJECT

Get HEP! The Heron/Egret Project is preparing for its third season with a good understanding of colony locations and an army of enthusiastic Field Observers from Marin, Sonoma, Napa, Solano, and Contra Costa Counties.

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 Cypress Grove Preserve field observers, volunteers, and supporters. 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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T H E W A T C H

Field Observers contributing to T.B. Shorebird Project (s), T. B. Winter Waterbird Census (w), Aquaculture/Shorebird Project (a), North Bay Counties Heron/Egret Project (h), CGP Coastal Prairie Restoration Study (p), ACR Marsh Monitoring Project (m), and other activities (o) include:

Shirley Akers (h)
Sarah Allen (so)
Harold Appleton (p)
Bob Baez (sw)
Hugh Bain (sh)
Norah Bain (sh)
Bonnie Baker (p)
Tom Baty (w)
Rosilyn Bazaruto (w)
Gay Bishop (sh)
Janet Bosshard (hp)
Anne Bowhay (p)
Tom Bradner (h)
Sandra Brod (h)
Brian Lullick (sw)
Tom Byron (h)
Marge Cameron (p)
Sarah Cameron (p)
Cathleen Cannon (h)
Philip Cannon (h)
Marianne Caratti (h)
Joanne Castro (h)
Yvonne Chan (so)
Harold Connor (h)
Nancy Conzet (h)
Walt & Diana Creber (p)
Eric & Ann Davis (h)
Patricia deBon (h)
Rosamond Day (h)
Mark Dean (s)
Linda De Vere (o)
John Dillon (swpo)
Don Dvorak (p)
Ted Elliot (h)
Jules Evens (sam)
Joe Ferreira (h)
Binny Fischer (h)
Virginia Fletcher (shpo)
Grant Fletcher (shwpo)
Carol Foley (h)
Carol Fraker (h)
Keith Fraser (h)
Nicole Gallagher (spo)
Steve Gerber (h)
Rich Gibson (p)
Quinton Goodrich (hs)
Margaret Greene (h)
Philip & Tamara Greene (h)
Gayle Greeley (s)
Mimi Griffen (h)

Peggy Gross (h)
Madelon Halpern (h)
Keith Hansen (h)
Eithne Haran (h)
Kirk Hastings (hswpmo)
Jill Hedgecock (h)
Edna Hickok (h)
Laree Holmes (hp)
Daniel Jacobs (p)
Jennifer Joell (h)
Susan Kelly (hp)
Shane Kelly (p)
Jim Ketsdever (h)
Mary Ellen King (ho)
Olga Kist (h)
Carol Kuelper (sp)
Darlene Lam (so)
Angela Lanway (h)
Marsha Lee (o)
Robin Leong (h)
Penny Livingston (p)

Flora Maclise (shpo)
Jo Maillard (h)
John Maron (s)
Scott Mathieson (h)
Ellen Mcknight (hp)
Harmony Mercedes (hp)
Jane Merryman (h)
Aspen Meyers (s)
June Morgan (h)
Milt Morgan (po)
Pix Morgan (p)
Laura Mosely (po)
Bill Mosely (p)
Dave Mosely (p)
Gary Muerle (h)
Dan Murphy (w)
Terri Nevins (h)
Terry Nordbye (as)
John Petersen (h)
Ray & Judy Peterson (h)
Richard Plant (w)

Grace Pratt (h)
Helen Pratt (h)
Peter Pyle (h)
Tom Queer (h)
Dan Reinking (a)
Ellen Sabine (sh)
Karen & Dan Sandri (h)
Barbara Salzman (h)
Fran Scarlet (h)
Elaine Senf (hwp)
John Shoemaker (h)
Laurie Silver (h)
Dana Silvermale (p)
Guy Smith (h)
Anne Spencer (shwpo)
Rich Stallcup (sam)
Jean Starkweather (h)
Judy Temko (spho)
Don Tiernan (h)
Janet Thiessen (shw)
Forest Tomlinson (sw)
Lois Vansandt (hp)
Tanis Walters (sw)
John Watkins (hp)
Penny Watson (w)
Tom White (w)

Diane Williams (sw)
David Wimpfheimer (ahps)
Chris Wood (hw)

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John Kelly
Land Steward
Kirk Hastings
Administrator
Susan Kelly
Staff Writer, The Ardeid
John Kelly

IN THE FIELD

December	7	Native grass planting day at CGP (9:30 AM)
	13	Early Winter Tomales Bay Shorebird Census
	14	Tomales Bay Waterbird Census
January	11	Tomales Bay Waterbird Census
	24	Late Winter Tomales Bay Shorebird Census
February	1	Tomales Bay Waterbird Census
	7	Late Winter Tomales Bay Shorebird Census (Double header!)
	16	Tomales Bay Waterbird Census
	20	Late Winter Tomales Bay Shorebird Census (Double header!)
	21	Planning/Orientation Meeting for the 1992 Heron/Egret Project Please call CGP (415/663-8203) for information.
	29	Tomales Bay Waterbird Census -- Backup Day
March	6	Late Winter Tomales Bay Shorebird Census -- Backup Day

Tuesdays: Shorebird Flock Movements and Roost Counts on Tomales Bay.
Please call CGP (415/663-8203) for information.



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