

The Anacapa Island Challenge

'Iceplant Free by 2016!'

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Ken Owen, Channel Islands Restoration





Pt. Conception

Santa Barbara

Ventura

Los Angeles Metropolitan Area

San Miguel

Santa Cruz

Anacapa

Santa Rosa

Santa Barbara

Santa Catalina

San Nicolas

San Clemente

San Diego
Metropolitan Area

PACIFIC OCEAN

Anacapa Island



East Anacapa

Middle Anacapa

West Anacapa

Human History on Anacapa...a compressed view

For many thousands of years it was
ANYAPAX : The Mirage in the Sea

(Ee-nya'-PAKH")





Chumash people and their ancestors used Anacapa as a stopover on longer voyages and to gather sea foods.

Anacapa was settled at times but not intensively.

THE ISLAND IS ALONE...

Cabrillo sighted Anacapa Island in 1542 and 'learned from nearby Indians that the island was [now] uninhabited'.

No account of a landing on Anacapa has been recorded prior to Coast Survey work in the early 1850s.

Europeans and Asians arrive and use Anacapa, variously...

Seal and otter hunters...

Chinese abalone gatherers...

Smugglers & Renegades...

Fishers...

Hopeful gold miners...

And a host of other colorful characters



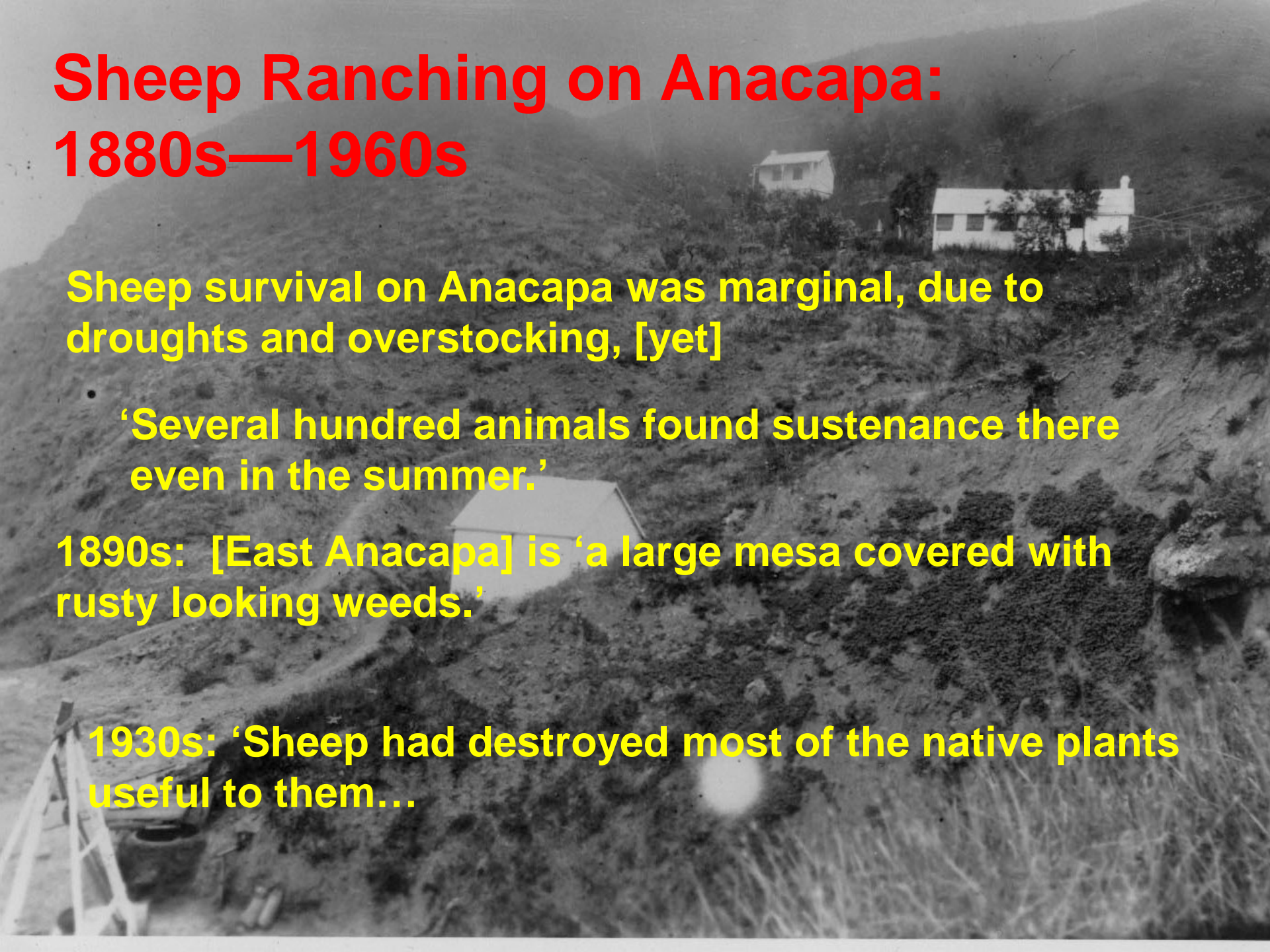
Sheep Ranching on Anacapa: 1880s—1960s

Sheep survival on Anacapa was marginal, due to droughts and overstocking, [yet]

‘Several hundred animals found sustenance there even in the summer.’

1890s: [East Anacapa] is ‘a large mesa covered with rusty looking weeds.’

1930s: ‘Sheep had destroyed most of the native plants useful to them...’



The Coast Guard Era: 1930s – 1960s



Land is cleared, roads are built, borrow pits are dug out.

Rabbits are introduced, and **proliferate!**



1950s: Coast Guard introduced iceplant for erosion control and beautification.

The NPS Era 1960s to present: Native flora and fauna survivors recover



Anacapa's Natural Treasures:

Its Endemic Plants & Animals

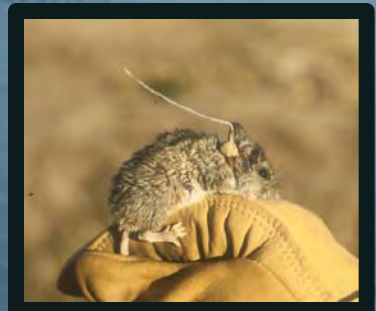


Island Rose Mallow

24 ENDEMIC PLANTS



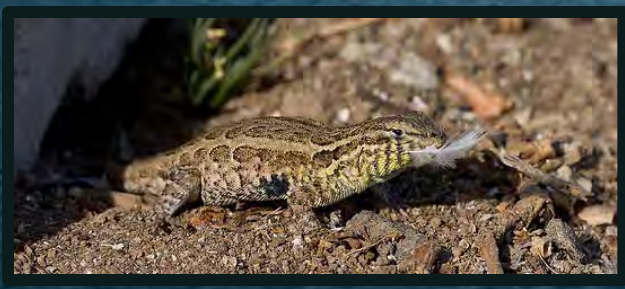
Anacapa Chicory



Anacapa Deer Mouse



Channel Islands Slender Salamander



Anacapa Side-blotched Lizard



Limu Shoulderband Snail

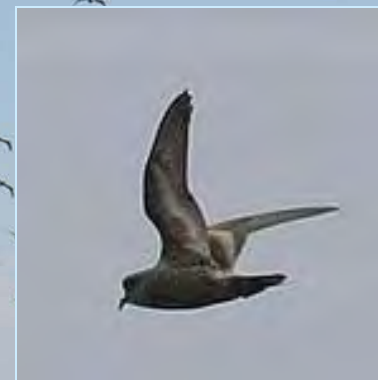
ANACAPA PROVIDES **CRITICAL** SEA BIRD NESTING SITES



Xantus' Murrelet



Cassin's Auklet



Ashy Storm Petrel

These three are species of concern in Southern California

Anacapa and Santa Barbara Islands support the only breeding colonies of California Brown Pelican in California



Ecosystem Restoration on Anacapa

- Whole-ecosystem approach
- Not about replacing a static picture of the past
- Works to remove the barriers to ecosystem recovery
- Ensures the survival of species
- Allows systems to continuously evolve and change

...National Park Service philosophy of ecological restoration

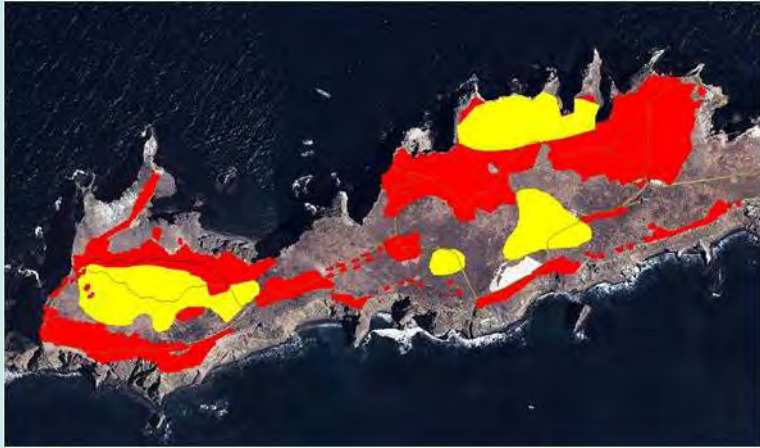
What's the Problem with Iceplant ?

It's the last major barrier to recovery.





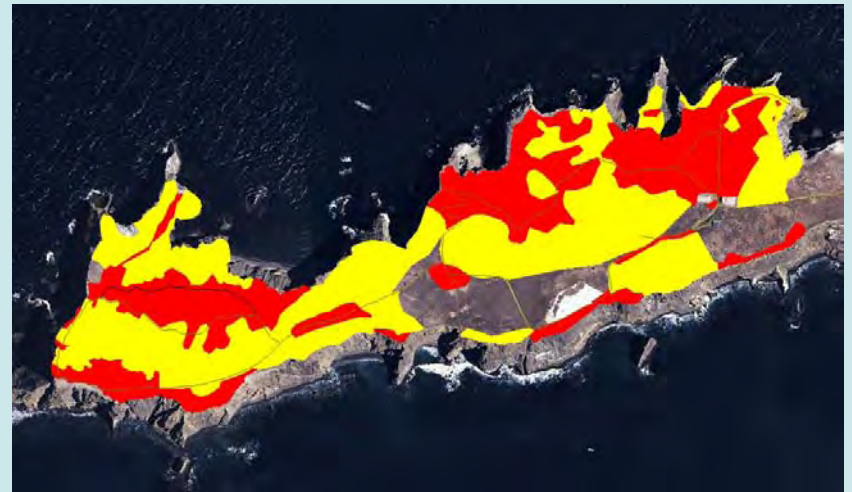
1989



**12 acres dense iceplant
12 acres scattered iceplant**

2010

**18 acres dense iceplant
26 acres scattered iceplant**





**2010:
What it is now...**

**1978:
What once was,
and could be
again.**



‘I want Anacapa to be iceplant free by 2016!’

-- CINP Superintendent Russell Galipeau, 2008

- Anacapa Island is the Park’s highest priority for restoration.
- Replacing iceplant with native plants will complete the restoration of the whole island.

H..m..mm....where to begin...



Step 1: Make the Easy Gains First

Pull or spray isolated patches of iceplant among good cover of other plants. Iceplant decomposes in place.

Step 2: Clear areas of high native plant numbers and diversity.



Typical Results after pulling iceplant from around remnant natives



Yet to be treated

**Five Years
after pulling**

**Two Years
after pulling**

Step 3: Use herbicides on areas of dense iceplant with few natives.



Preparation for herbicide application: 'Haloing' around natives



Dudleya rosettes

Step 4: Deal with Iceplant-Frankenian 'Turf'

Difficult but rewarding



The hard way

Improvement: Pre-cut small sections with brush cutter...

Then apply Kid Power!





Iceplant pulled in February 2010

Photo taken April 2010



Alkali Heath
(*Frankenia salina*)

'Tarping' (aka 'Solarization')

February, 2010



June, 2010



Trampling & Crushing

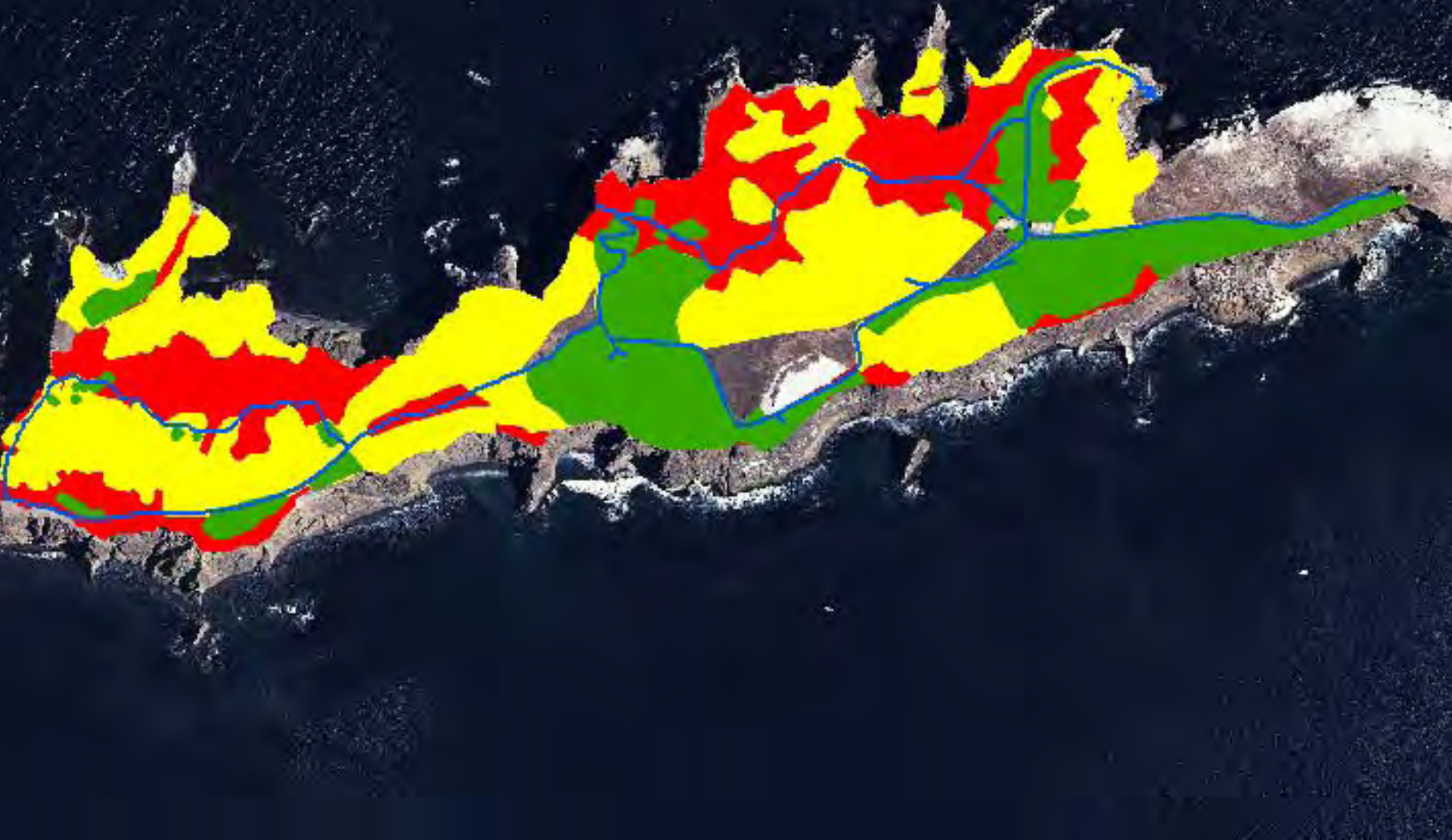


Biological Control

Dead patches of 'Freeway
Iceplant' (*Carpobrotus edulis*)



To date, iceplant has been treated with these methods on about 14 acres.



Just another day in the Park...

'Simple' projects are major campaigns...



New nursery almost ready



...but it's worth it!

Scaling up Restoration: 2011-2013

- More iceplant area will be treated more rapidly
- More people needed on the island to do the work
- More travel and cargo transport needed
- More potential for harm to animal populations
- More potential for other weeds to invade
- More need for active revegetation

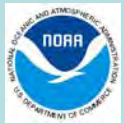
Resources for the next phase of Restoration



Funding for 3 years for iceplant eradication; commitment to the long-term support for ongoing Anacapa restoration



Partnership with NPS to bring expertise, volunteers, citizen support and additional funds to the project



B-Wet Program for nursery staffing & school group participation



Whale Tail Program for school group participation



Patagonia (Ventura store) for nursery construction funding

Special considerations while doing intensive restoration on Anacapa:

Channel Islands Salamander & Limu Shoulder-band Snail

- Provide temporary cover in cleared areas
- Use aquatic-approved herbicides
- Plan treatments by moisture level

Little is known of their island distribution, so we will:

- Design 'mosaic' pattern of treatments
- Avoid trampling & crushing vegetation



Anacapa is an important Western Gull Rookery



Design appropriate seasonal timing and location of treatments.



Come on out and join us!



CIR volunteers on Anacapa

Acknowledgements:

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Channel Islands Restoration

NOAA B-Wet Program

Patagonia (Ventura store)



**And somebody always has to
have the last word...**

