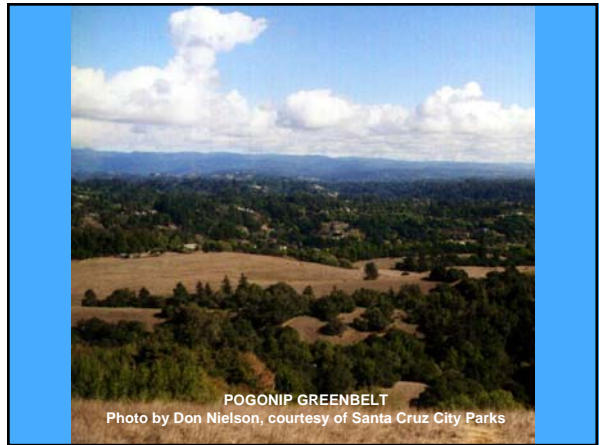


It's Up to Us:
The Future of the Santa Cruz
Sunflower (tarplant) and Coastal Prairie



Grey Hayes, PhD
Elkhorn Slough
Coastal Training Program

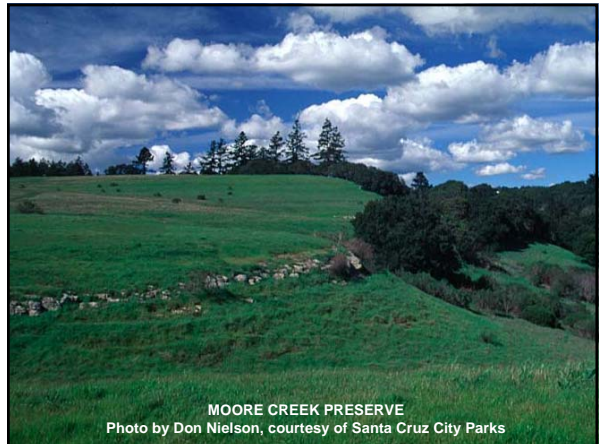




POGONIP GREENBELT
Photo by Don Nielson, courtesy of Santa Cruz City Parks



Photo by Don Nielson, courtesy of Santa Cruz City Parks



MOORE CREEK PRESERVE
Photo by Don Nielson, courtesy of Santa Cruz City Parks

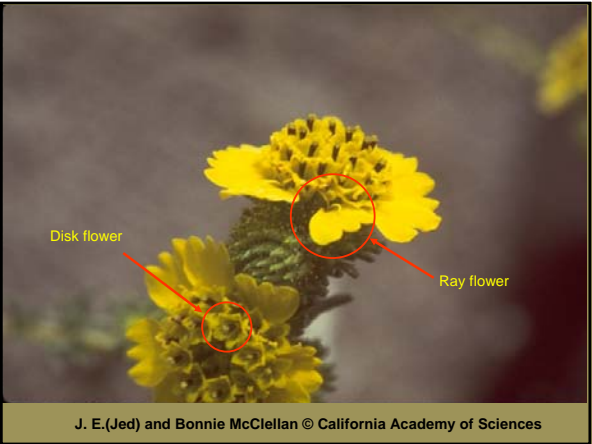
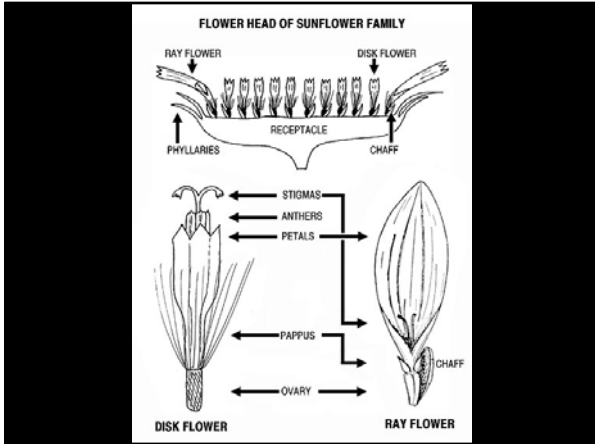
What is the Santa Cruz Sunflower?



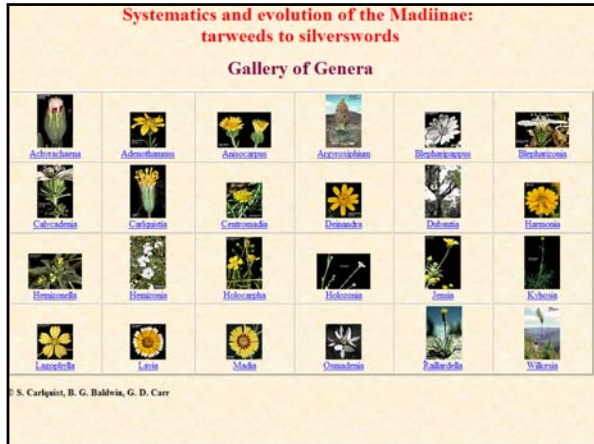
© 2003 George W. Hartwell

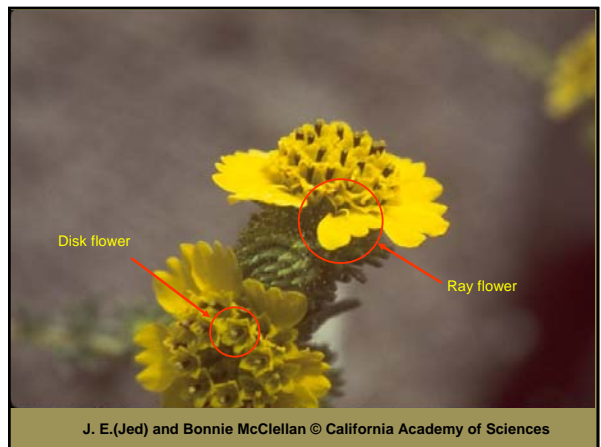


J. E.(Jed) and Bonnie McClellan © California Academy of Sciences



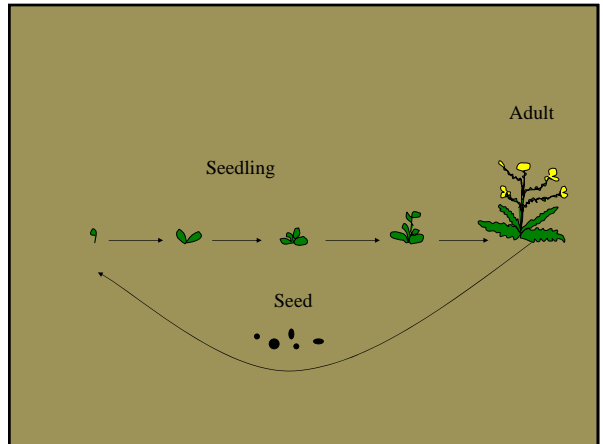
J. E.(Jed) and Bonnie McClellan © California Academy of Sciences

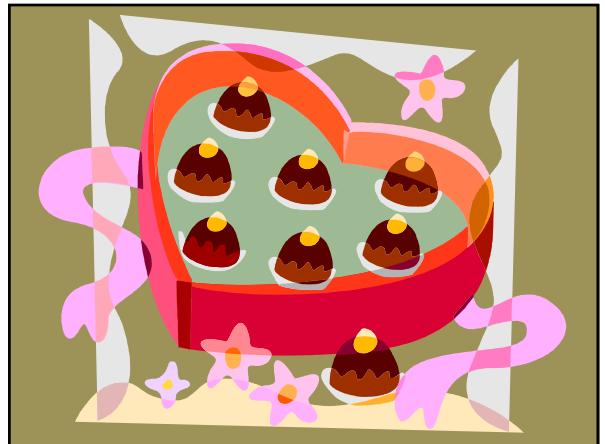


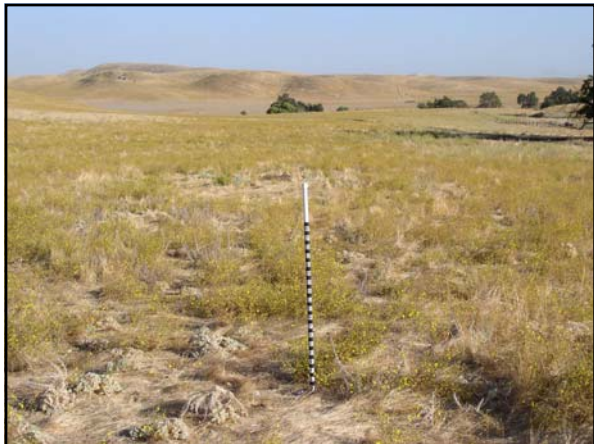





The Life of a Santa Cruz Sunflower













Narrow tarplant


Holocarpha virgata ssp. *virgata*




© Br. Alfred Brousseau, Saint Mary's College




Graceful tarplant
Holocarpa virgata ssp. *elongata*



© 2005 Vince Scheidt




© 2003 Christopher L. Christie



Heerman's tarweed
Holocarpa heermannii

San Joaquin tarweed
Holocarpa obconica ssp. *obconica*
and *H. o.* ssp. *autumnalis*

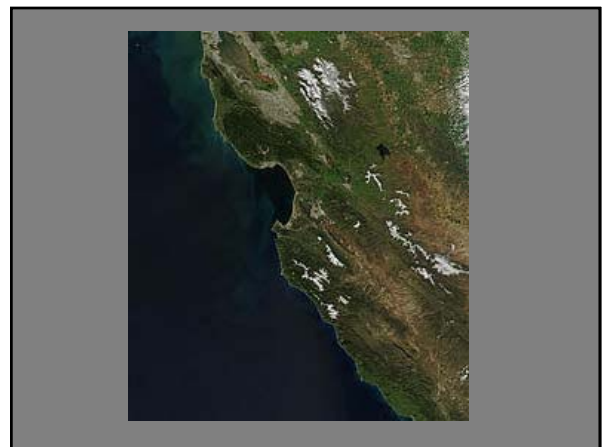
No photo available




Santa Cruz Sunflower
Holocarpa macradenia

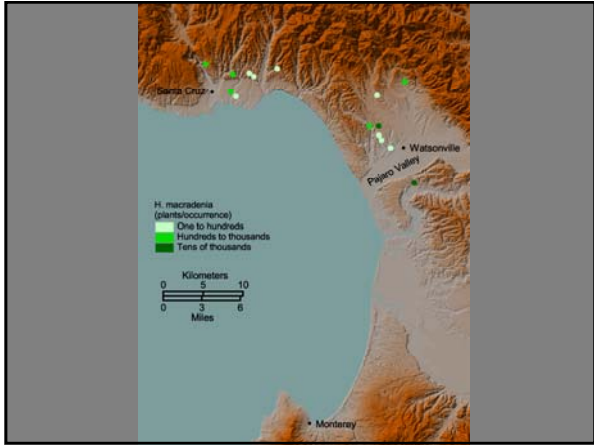


Photo by Kevin Merk





- ### 16 Populations
- Watsonville Airport
 - Buena Vista
 - Arana Gulch
 - Spring Hills Golf Course
 - De Laveaga
 - Winkle Avenue
 - Porter Ranch
 - O'Neil Ranch
 - Fairway Drive
 - Harkin Slough
 - Graham Hill
 - Tarplant Hill
 - Apple Hill
 - Anna Jean Cummings
 - Twin Lakes
 - -Wildcat Canyon-



Graham Hill

30 ac private lands under development

Includes 17 ac conservation easement for Santa Cruz Sunflower

De Laveaga

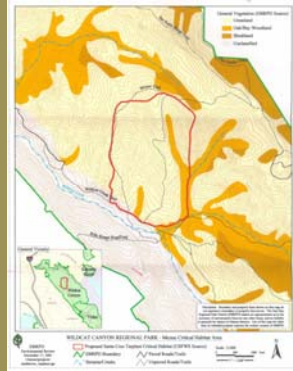
State National Guard 5 ac surrounded by city park

Watsonville

Private	840
City	309
State	56
Total	1,205

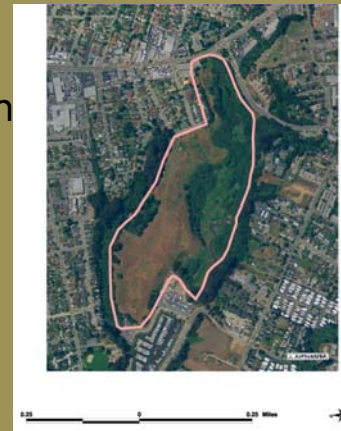
East Bay Regional Parks

130 ac



Arana Gulch

City of Santa Cruz
64 ac



Twin Lakes

State
Parks
26 ac



Rodeo Gulch and Soquel

Rodeo

Private lands with
approved development
proposal 26 ac

Soquel

Private lands
45 ac

County park
55 ac



Porter Gulch

Private lands
with rural
development
15 ac with
conservation
easement

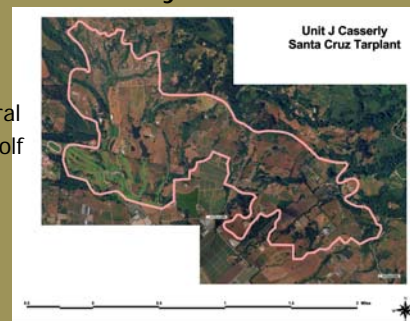
Land Trust of
Santa Cruz
County
20 ac



Casserly

Private lands
(ranchlands, rural
development, golf
course)

1,112 ac



Elkhorn

Private land
(Elkhorn Slough
Foundation)

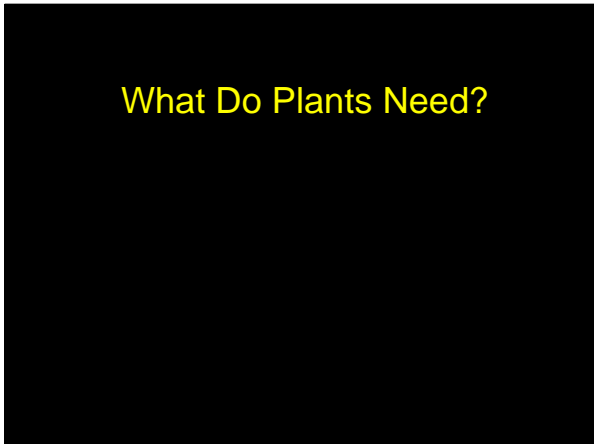
168 ac



Santa Cruz Gardens Story

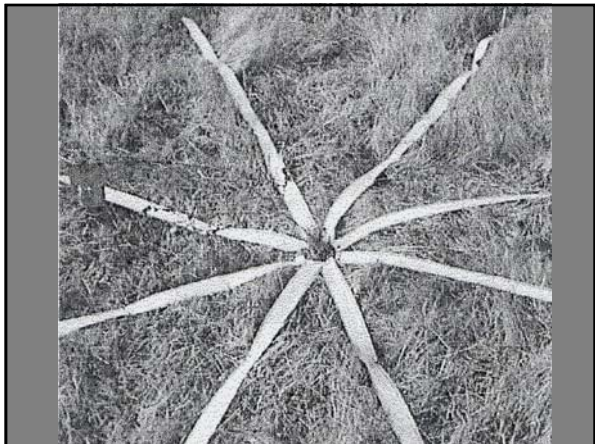
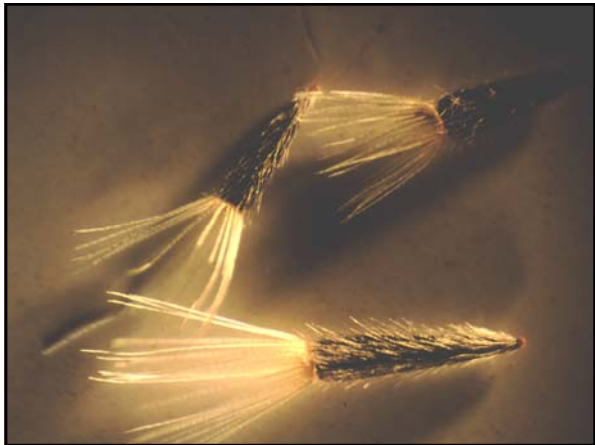


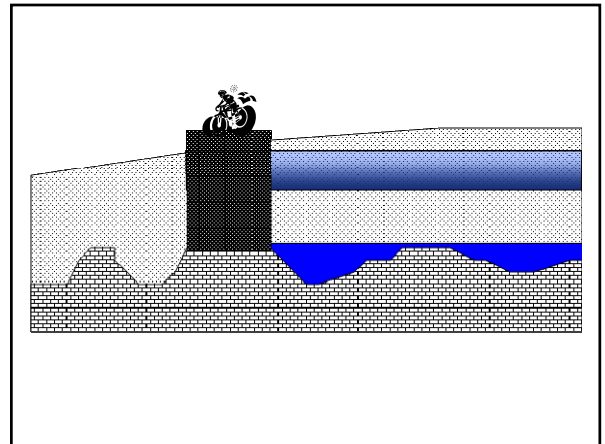
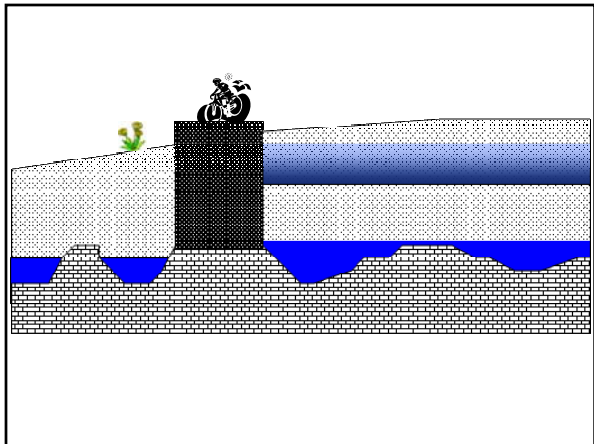
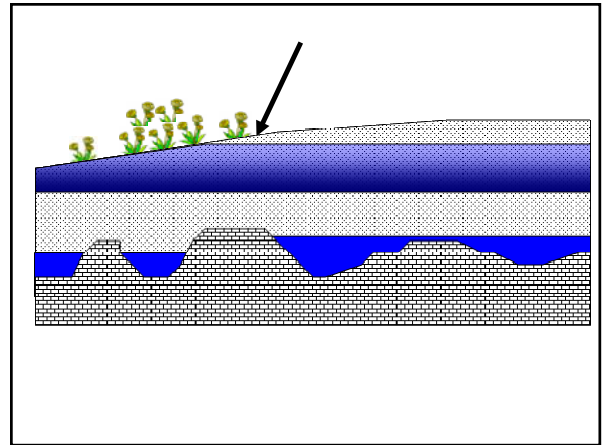
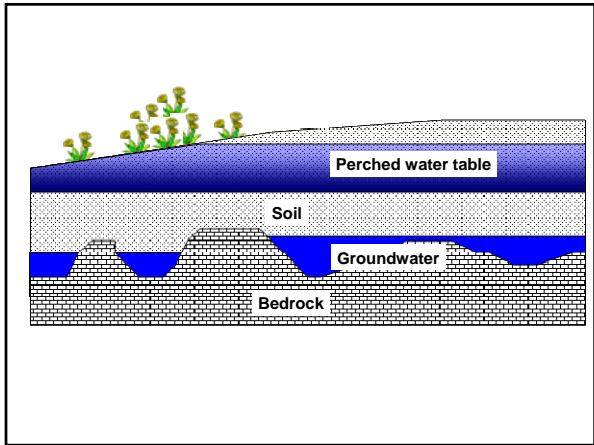
What Do Plants Need?

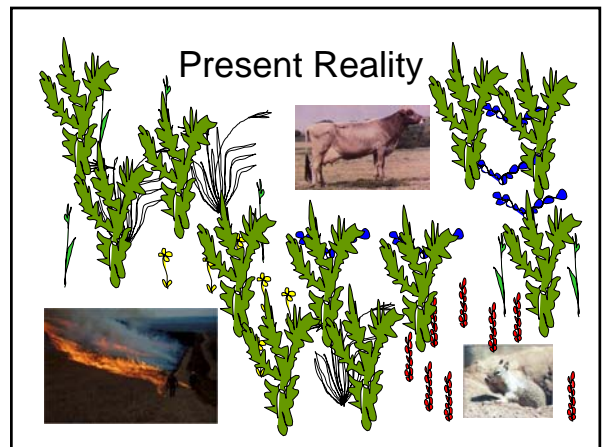
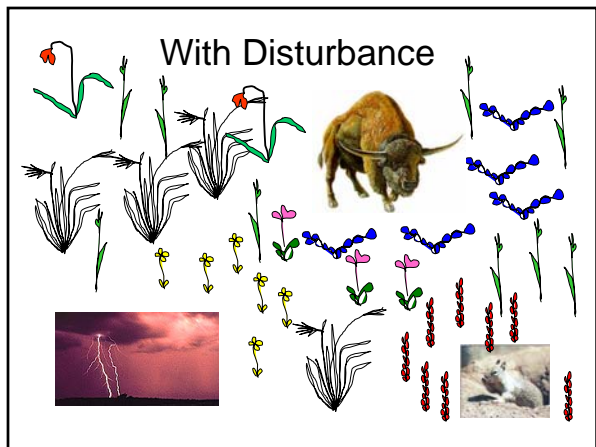
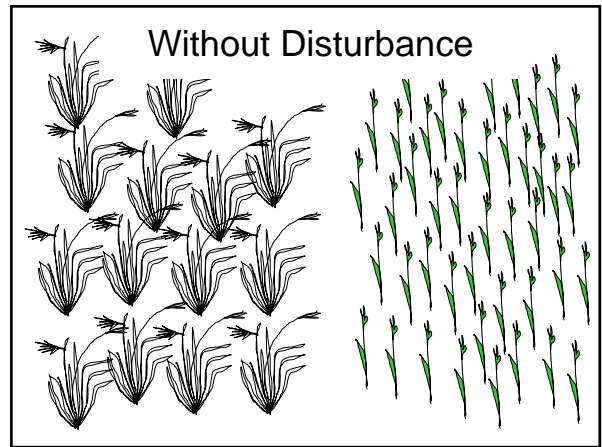
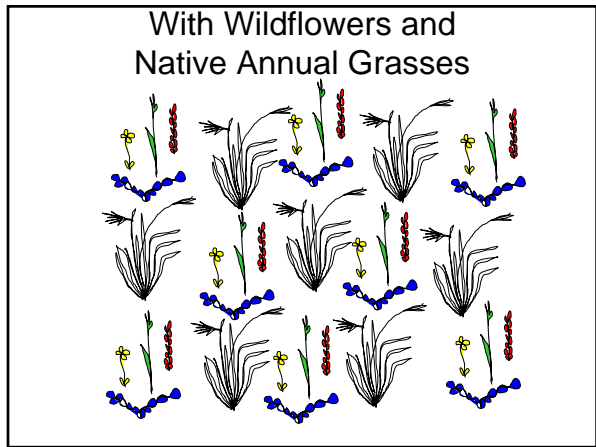
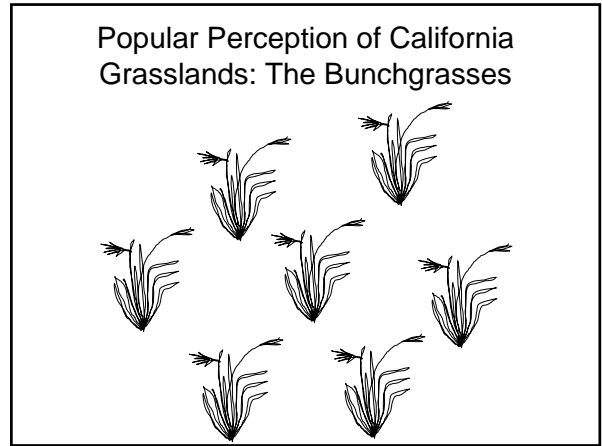
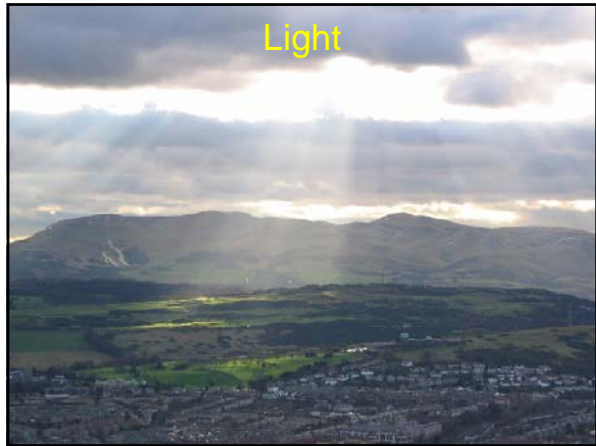


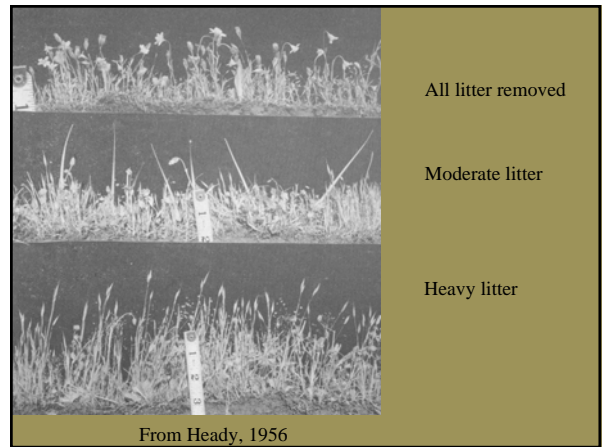
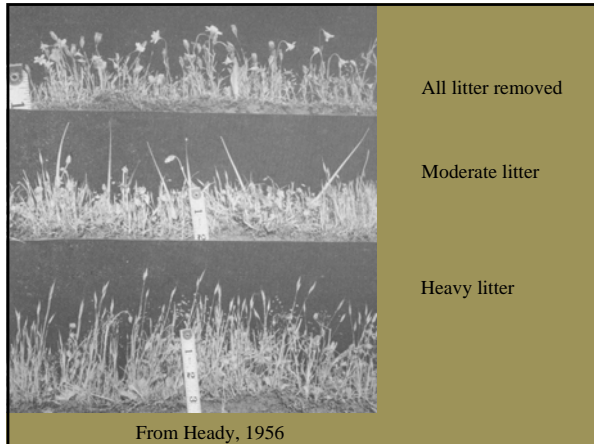
Pollinators



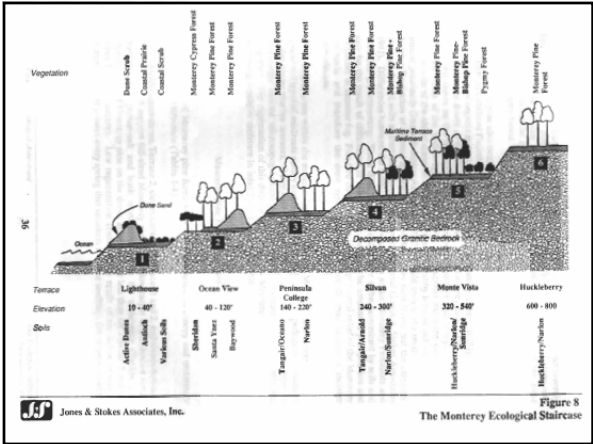
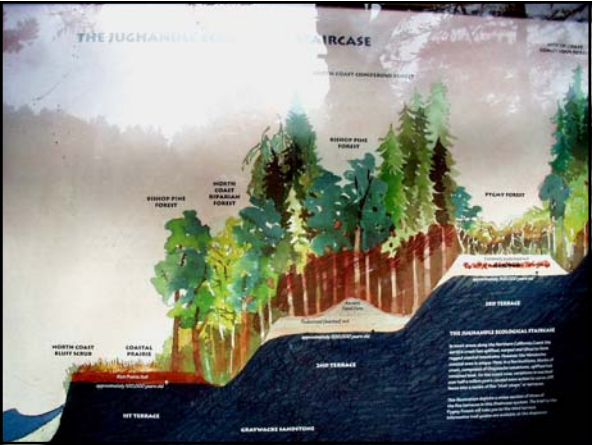
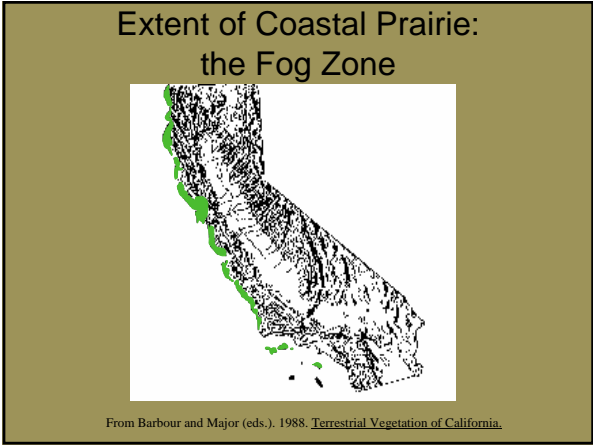


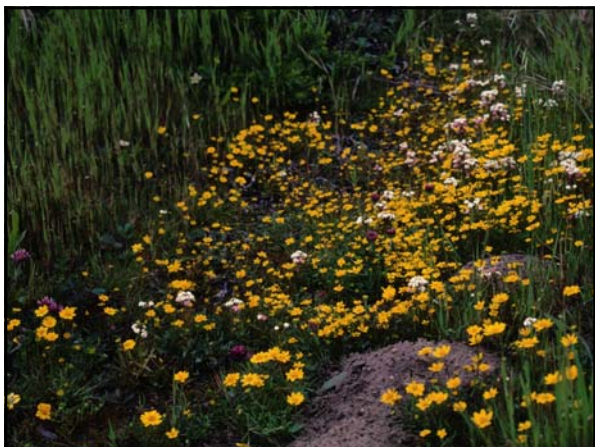






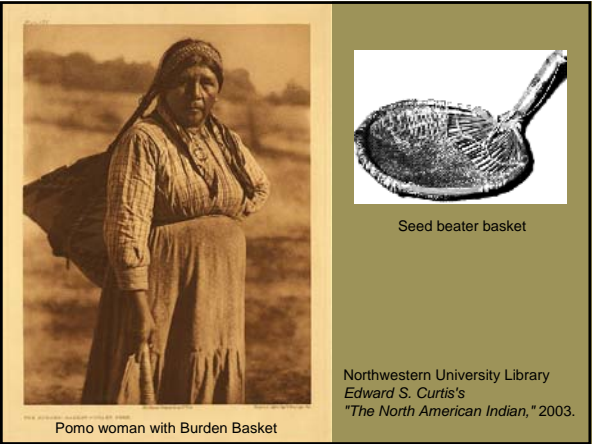
Why does the Santa Cruz Sunflower grow where it does?







What can we do to help protect the Santa Cruz Sunflower?



How many species do YOU need?

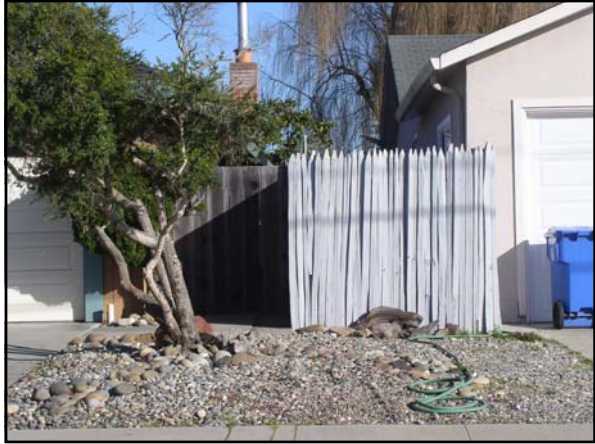
- Help Save Species By:
- Better understanding them
 - Voting for representatives that support species conservation
 - Working where you live to improve habitat
 - Giving to and volunteering for organizations that help save species

Vote for representatives that support species conservation





Work where you live
to improve habitat





Give to and volunteer for
organizations that help
save species



Photo by Don Nielson, courtesy of Santa Cruz City Parks