

A close-up photograph of a green leaf, showing a detailed network of veins. The veins are a lighter green color, contrasting with the darker green of the leaf's surface. The veins form a complex, branching pattern across the entire leaf.

Voluntaria in Newport Beach



VOLUTARIA IN NEWPORT BEACH

HISTORY

More than we knew
Value of Early Detection
& accurate identification.

CURRENT SITUATION

Management to date
Scope of the infestation
Current management

ECOLOGICAL IMPACTS

Newport Beach vs. to
Borrego Springs
Impact to native ecology

FUTURE MANAGEMENT

Where do we go from here?



History of the Newport Beach Infestation

Current Situation

Ecological Impacts

Future Management Actions and Goals



History of the Newport Beach Infestation

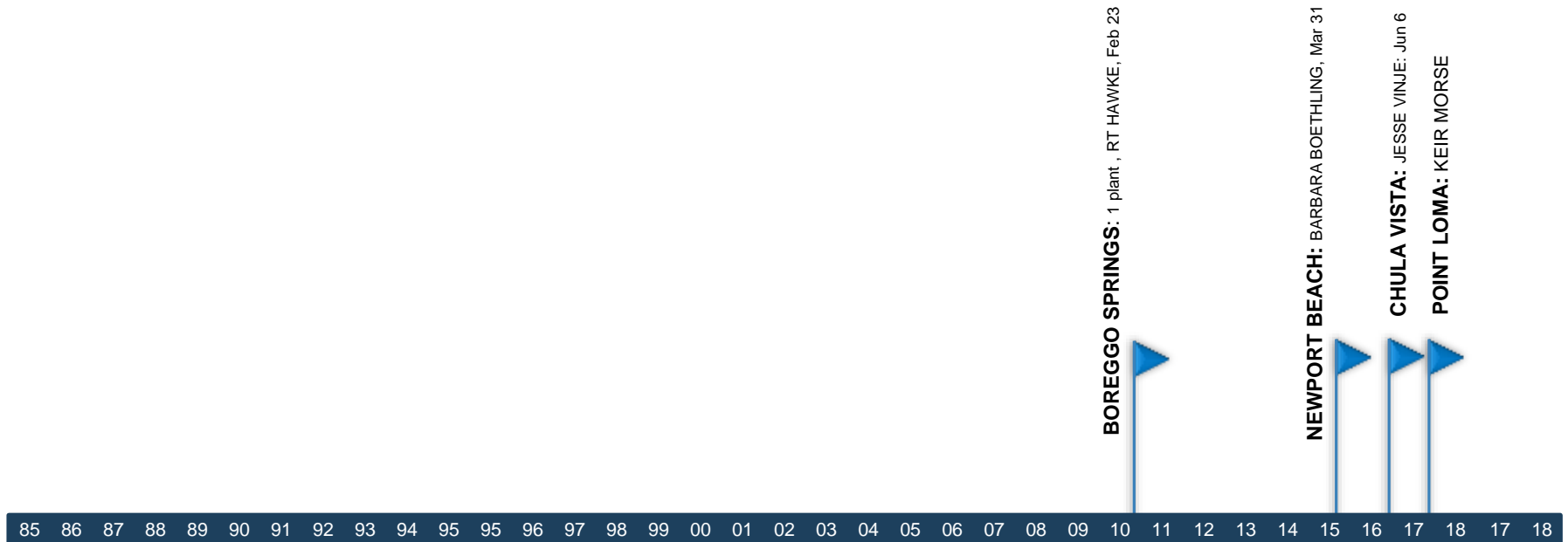
Current Situation

Ecological Impacts

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VOLUTARIA THE CALIFORNIA INVASION





Big Canyon, Newport Beach

Mar 3, 2015

BARBARA BOETHLING





VOLUTARIA THE CALIFORNIA INVASION



85 86 87 88 89 90 91 92 93 94 95 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 18

NEWPORT BEACH: BARBARA BOETHLING, Mar 31

Jan 29

Jan 8



VOLUTARIA THE CALIFORNIA INVASION



85 86 87 88 89 90 91 92 93 94 95 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 17 18

BOREGGO SPRINGS: 1 plant, RT HAWKE, Feb 23

NEWPORT BEACH: BARBARA BOETHLING, Mar 31

CHULA VISTA: JESSE VINJE: Jun 6

POINT LOMA: KEIR MORSE



INTRODUCTION PLANT FAMILIES INDEX
VASCULAR PLANTS OF UPPER NEWPORT BAY

Helianthus muricata L.
Compositae

Flower Family

in
Helianthus
Common Starthistle
Crowned Thistle



March Photo

HABIT: Annual, 2-6 dm. high, 4f- villous below, subglabrous above; basal lvs. lyrate-ovate; stem-ter, loosely paniculate, ending in single heads; invol. ovoid, ca. 15 mm. long; pappus imbricate in many ranks, ovate, entire, the terminal spine 3-4 mm. long; fls. white; gks. dark.
It is and with transverse pits between the pappus of outer imbricate scales and inner white bristles.
It escapes at Santa Barbara. Blooms March-April.
It is found in open areas with low vegetation near the Big Canyon plant in fine sand with minimal silt and clods formed are easy to break with the fingers.
It includes *Helianthus grandifolius*, *Atriplex* sp., and *Erigeron* sp.
Ancient Greek name, without clear application. (Munz, *Flora So. Calif.* 124). *Helianthus*, muricata, roughened
leaves or prickly. (Boyle 18).

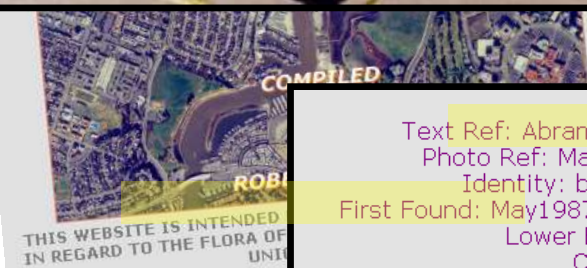
General Information: Rare in the study area, having been found only in Big Canyon where it may have been introduced after the area was graded to create the fresh water pond. In March 2002, I found several specimens near the bluff top on the westerly side of the bay between 22nd St and Delia. (my comments). The outer flowers of *C. cyaneus*, a European native but extensively cultivated in the U.S., are used as a condiment and eaten. (Munz, *Flora So. Calif.* 124). The outer flowers of *C. cyaneus*, a European native but extensively cultivated in the U.S., are used as a condiment and eaten. (Munz, *Flora So. Calif.* 124).



May Photo

Text Ref: Abrams, Vol. IV 542; Munz, *Flora So. Calif.* 135.
Photo Ref: May 1 87 # 17,18,19; Mar-April 88 # 3A,4A.
Identity: by R. De Ruff, confirmed by F. Roberts.
First Found: May1987. Lat. 33° 37' 50.7" N; Long. 117° 53' 01.2" W.
Lower Big Canyon, southerly of the pond.
Computer Ref: Plant Data 364
Plant Specimen: With R. L. De Ruff plant specimens.
Last Edit: 7/10/10.

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Records are made available under the [CCH Data Use Terms](#).

Specimen number	UCR188936
Determination	<i>Volutaria tubuliflora</i> More information: Jepson Online Interchange
Collector, number, date	Robert DeRuff, 364, 2003-Mar-
County	Orange
Locality	Newport Beach, Upper Newport Bay, bluff top between Delhi Ditch and 23rd Street
Elevation	19 m
Voucher information	<i>macromorphology</i> Uncommon annual, several plants found here and across the Bay at Big Canyon as early as 1987. 19 m
Annotations and/or curatorial actions	current determination (uncorrected): <i>Volutaria tubuliflora</i>
Notes	USGS quad: Newport Beach 7.5' Q.;
Comment	
Help	

Related searches:

1. [taxon=Volutaria tubuliflora](#)
2. [county=Orange; taxon=Volutaria tubuliflora](#)
3. [county=Orange; collector=DeRuff](#)
4. [collector=DeRuff; taxon=Volutaria tubuliflora](#)
5. [collector=DeRuff; number=364](#)
6. [collector=DeRuff; number=364; include nearby numbers](#)
7. [Possible GBIF records \[External\]](#)
8. [Plot elevation range \(from Jepson Manual\) against latitude](#)

[Check for yellow flag](#)

Explanations of the fields are available by clicking on the left-hand headings. Information about the collector is available by clicking on the collector name. The location can be mapped by clicking on "BerkeleyMapper". Other possibly pertinent records can be retrieved by clicking on "Related searches".



Herbarium of U. C. Riverside (UCR)

Plants of Orange County, California, USA

Centaurea muricata L.

AST

Upper Newport Bay, bluff top between Delhi Ditch and 23rd Street. (Newport Beach: 33°39'07"N, 117°53'22"W). Alt.: 19m. Annual grassland.

Annual. Uncommon, several plants found here. Found across Bay at Big Canyon as early as 1987.

Robert DeRuff 364

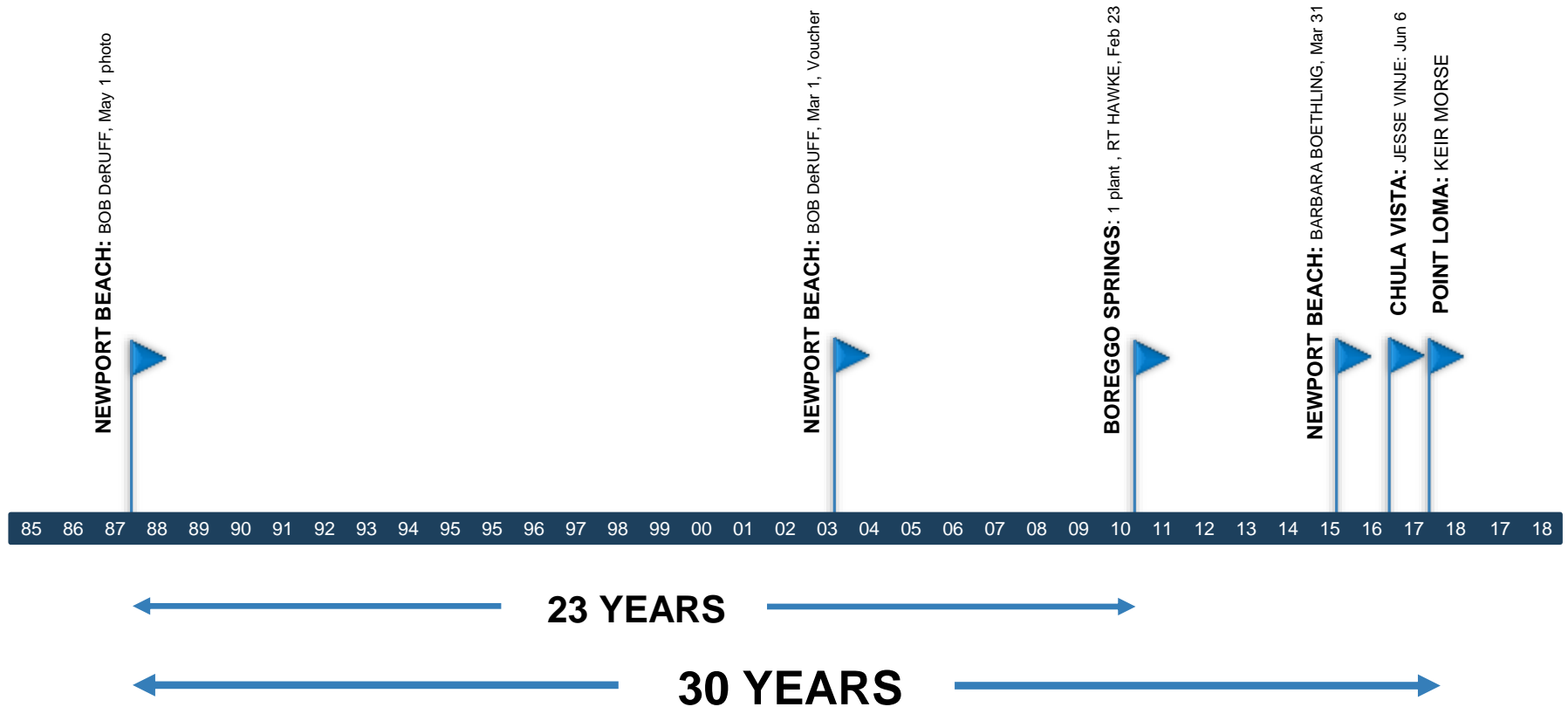
Mar 2003

Entered into UCR Database (516FMR)





VOLUTARIA THE CALIFORNIA INVASION



Volutaria's



Volutaria muricata
(=*Centaurea muricata*)



Volutaria tubuliflora



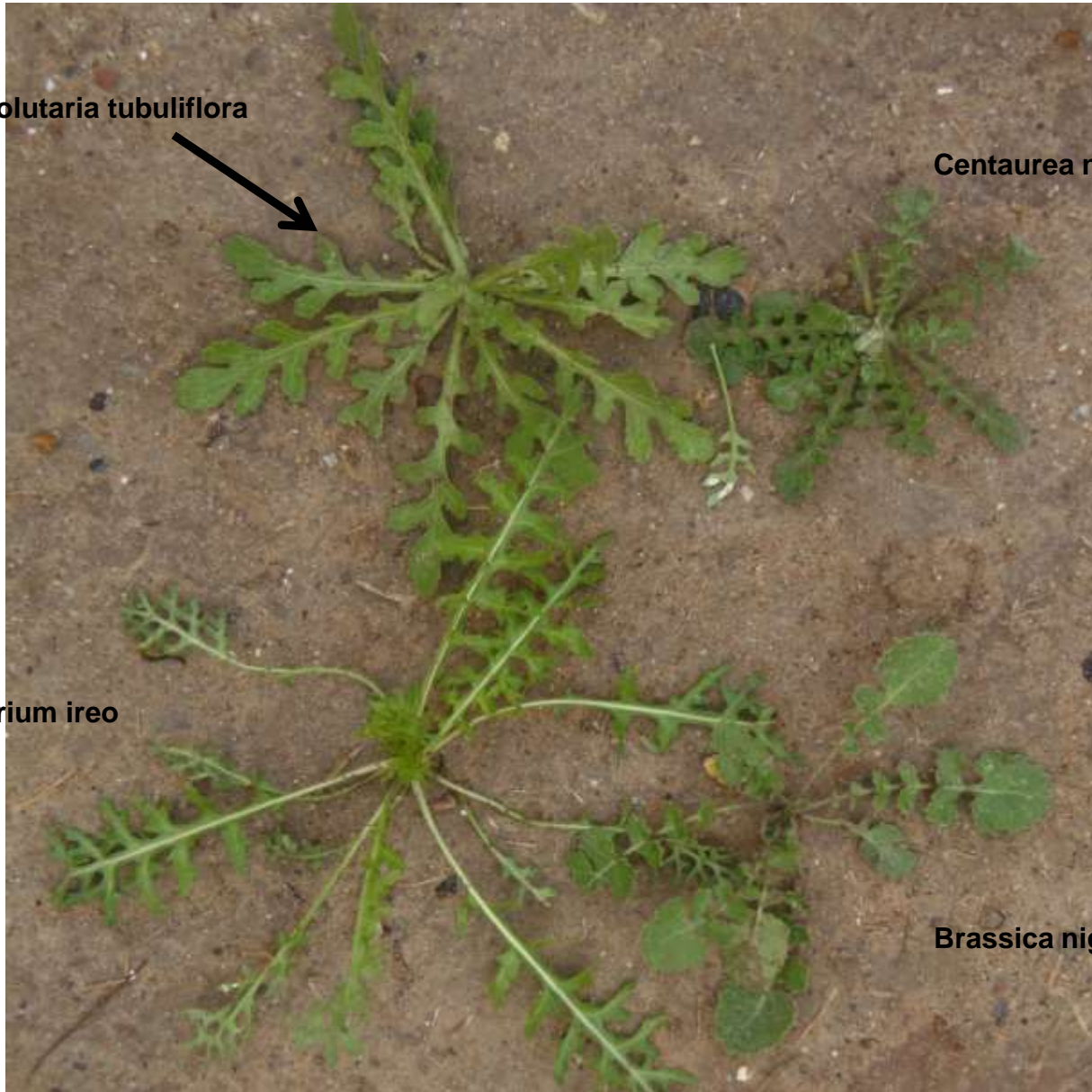
Volutaria tubuliflora



Centaurea melitensis

Sisymbrium ireo

Brassica nigra



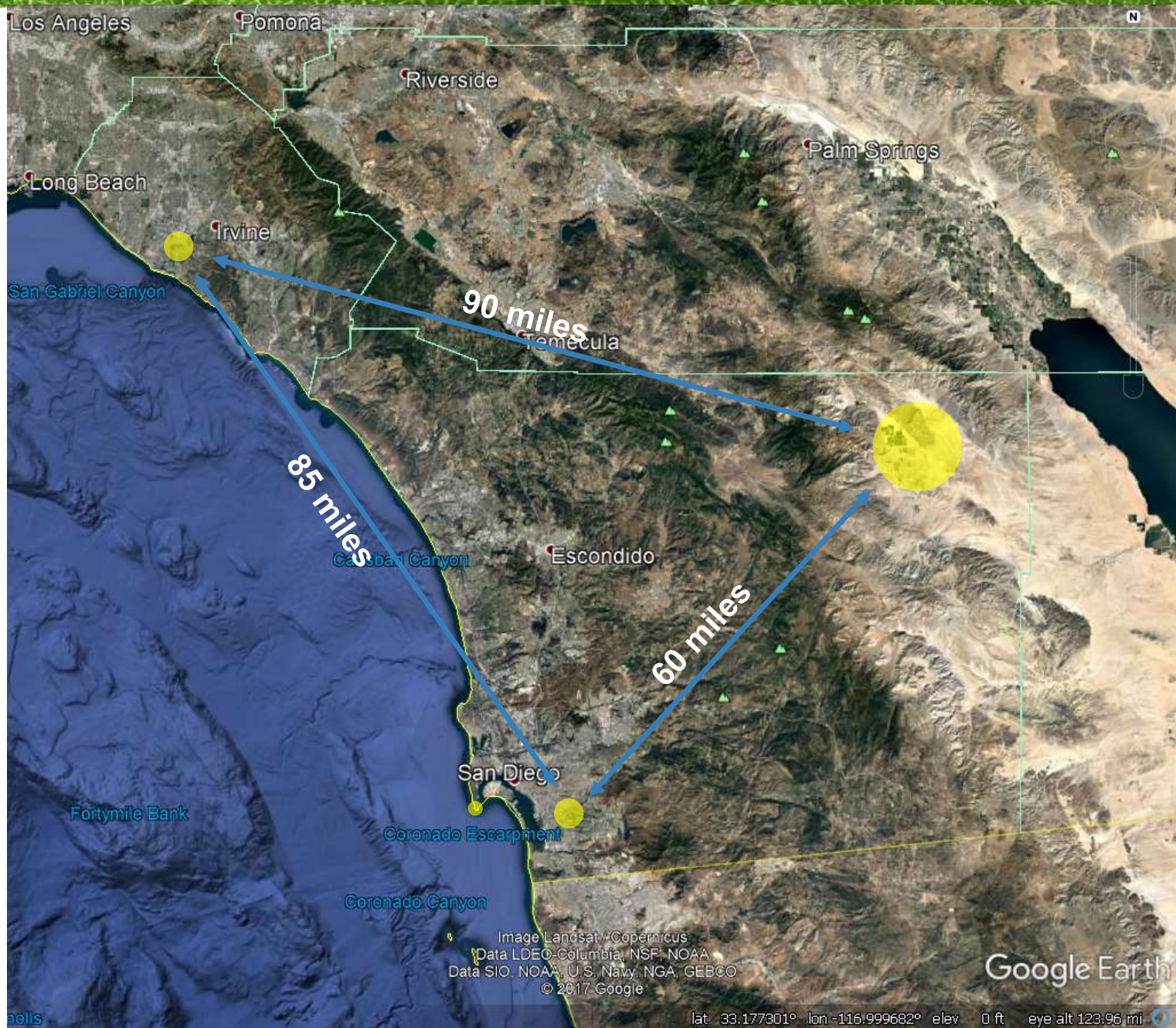


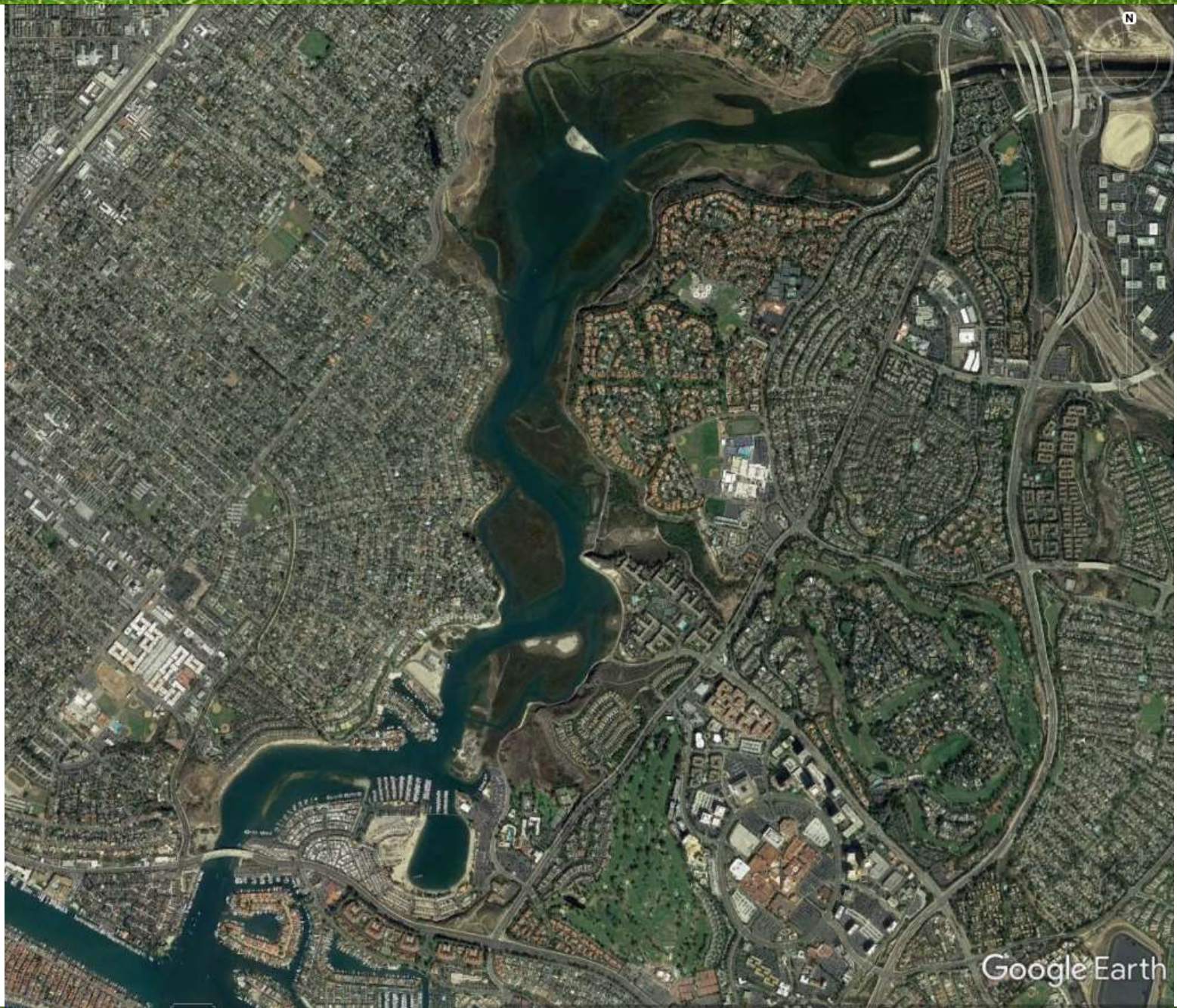
History of the Newport Beach Infestation

Current Situation

Ecological Impacts

Future Management Actions and Goals





Google Earth

Irvine Blvd.

Managed by Orange County Parks

Gross cover: 2.5 acres

2017: 4,000 plants treated or hand pulled



Big Canyon

Managed by Irvine Ranch Conservancy, under contract from City of Newport Beach

Gross cover: 2 acres

2015: 4,200 plants removed

2016: 2,000 plants removed

2017: 1,000 plants removed





History of the Newport Beach Infestation

Current Situation

Ecological Impacts

Future Management Actions and Goals

- **Disturbed sites**
- **Exposed soils**

- **Road edges, trail edges**
- **Seldom within native vegetation**



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Competition from non-native *Brassica nigra*



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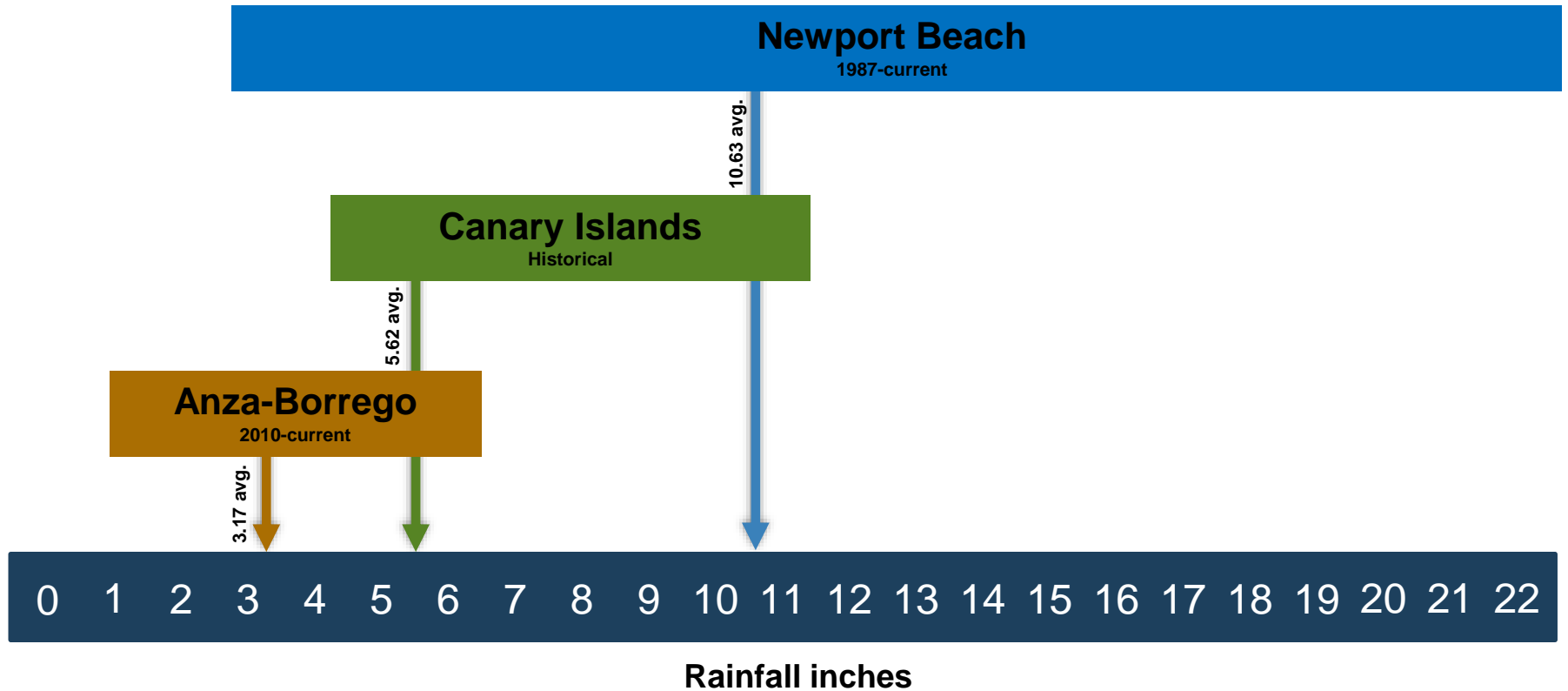


Competition from non-native *Brassica nigra*





Volutaria Annual Precipitation Niche





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Future Management

Big Canyon

Continuation of management by Irvine Ranch Conservancy, under contract by City of Newport Beach

Irvine Blvd.

Management by Orange County Parks. Less certain.



Needs:

Comprehensive annual surveys throughout the entire bay. 3,300 acres.

Long term continuation of IRC management contract in Big Canyon.

Comprehensive management plan by OC Parks at Irvine Blvd. colony.



VOLUTARIA IN NEWPORT BEACH

**Thank you to: Jason Giessow, Dendra, Inc.
Keir Morse, Biological Consultant, San Diego
Jennifer Naegele, Resource Specialist Orange Co. Parks
Riley Pratt, Irvine Ranch Conservancy**

**Ron Vanderhoff CA Native Plant Society, Orange County
invasives@occnps.org**