

Baja Flora – San Diego Natural History Museum

BajaFlora.org
February 2009

BajaFlora is a project of the Botany Department of the San Diego Natural History Museum with the goal of consolidating the available floristic data on the plants of the Baja peninsula, Mexico.

The data is presented in narrative, photographic, and geographic (mapping) forms.

SAN DIEGO NATURAL HISTORY MUSEUM
Your Nature Connection

THE FLORA OF
BAJA CALIFORNIA

[Introduction](#) [Maps](#) [Photos, Documents](#) [Log In](#)

This web site is under development. Items will be added as funds allow.

**The Flora
of
Baja
California**

Sponsored by:
San Diego
Natural History
Museum

Department of
Botany
Jon P. Rebman,
Ph.D., Curator

Fouquieria columnaris

Beeriopsis guadalupensis

San Diego Natural
History Museum
Botany Department
PO Box 121390
San Diego, CA 92112-
1390

Dr. Jon Rebman, Curator of Botany, has begun work on major efforts to document the plants of the two states of Baja California. He is updating, expanding, and rewriting the 1989 book by Norman Roberts, *Baja California Plant Field Guide*. In a parallel effort, he is preparing a new *Checklist of the Vascular Flora of Baja*

California, which will include the literature, synonymy, endemism, and both English and Spanish common names of the Baja flora. Every included plant will be vouchered, and the voucher specimen sheet will be available on the web site.

The BajaFlora web site, which makes available the collection and voucher data from multiple herbaria, including the two major collections from Baja California, will serve as the central repository of the data collected as part of these efforts.

Currently the web site presents a publically available set of pages and an area available only by login. The login areas will be opened to the public upon publication of the documents noted above.

Plant Photos

The web site currently includes over 12,000 photographs of plants and habitats of Baja, and more are being added as the scanning and uploading project continues. Web site users can search the collection by plant name and get a number of pages of thumbnails and brief data for each photo.

Clicking any thumbnail brings up the full-size photo with complete data. Unlike many on-line plant photo sources, the plants in these photos have been correctly identified by a qualified botanist.

[Baja Flora Home](#)

Search the SDNHM Photographic Collection of Plants of Baja California
(This is a work in progress. You may find a few photos not from Baja California, and some duplicates.)

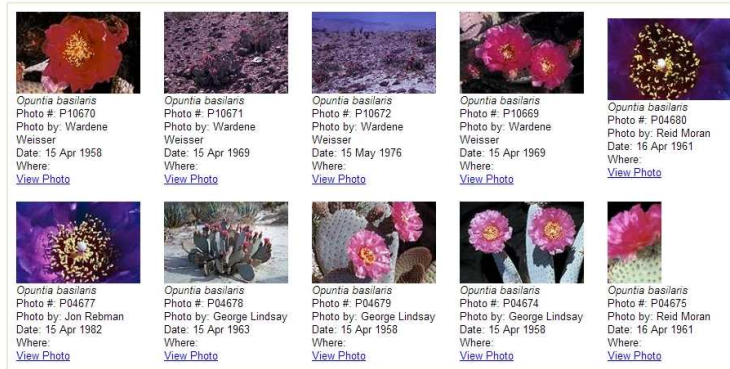
(1) Select one or more search criteria by entering a name or the first part of a name to search for. Do not use wildcards.
(2) Select Thumbnails or Data List (photos can be viewed from either).
(3) Click the Run Search button to see a list of the available photographs.

Genus:

Spec Ep:

[Thumbnails](#) [List](#)

Genus and Specific epithet required for Thumbnail search. Genus alone OK for List search.



Moran Field Notes

In addition to the collection data, photographs and map, the web will bring together other information relative to the subject of Baja vegetation, wherever it is found. For example, here is presented a searchable version of the field notes of Dr. Reid Moran. Moran, a former curator at SDNHM, was a prolific collector of Baja plants. The SDNHM herbarium holds approximately 26,000 of his specimens.

The Field Notes of Reid Moran

Dr. Reid Moran was a collector of plants at the San Diego Natural History Museum from 1936 to 1993. He collected plants in Baja California, Mexico, and in the United States. His field notes are a valuable resource for the study of Baja California vegetation. The notes are available in a searchable format on this website. The notes are available in a searchable format on this website. The notes are available in a searchable format on this website.

Search the Field Notes

Find: in: Date: Specimen #: Person: Place: Page #:

Notes on the Table of Contents to see which books have been scanned to date.

As of 15 January 2009, scanning the field notes through Book 17 is complete. This site page lists only the books in the field notes section of the back issue. The first 17 books are listed in the table of contents of the back issue. The scanned books are:

[Book 1](#) [Book 2](#) [Book 3](#) [Book 4](#) [Book 5](#) [Book 6](#) [Book 7](#) [Book 8](#) [Book 9](#) [Book 10](#) [Book 11](#) [Book 12](#) [Book 13](#) [Book 14](#) [Book 15](#) [Book 16](#) [Book 17](#)



Web site users can search his 17 field books, written from 1936 through 1993, for specimen numbers, dates, or names of persons and places.

Scanning and indexing these books is an ongoing volunteer effort.

Historic Place Names

Reading label information on old specimens can be difficult without a reference for the old place names. The web site provides some help for that problem with an interactive mapping application, using Google™ Maps. A user can enter a name or part of a name into the text box and the map will produce icons at each location that name appears in the historical record. Clicking an icon brings up the data for that location, and a table on the page lists all the names found.

Alternatively, a user can click anywhere on the map, and the map will zoom to that location and display icons at all locations within a few miles that are in the historical names list.



Database Search

Instit	Number	Family	Species	Pres.	Collector	Coll. Num.	Date	Latitude	Longitude	Elevation	State	Locality
SD	82859	Asteraceae	Acourtia microcephala	■	Reid Moran	13269	Jun 25, 1965	31	0	0	BC	Occasional in shrubs 1.5 miles from highway on road to El Refugio.
SD	82861	Asteraceae	Acourtia microcephala	■	Reid Moran	13222	May 30, 1965	31.3	-115.51667	100	BC	Pink open 2 miles southwest of San Vicente.
SD	82873	Asteraceae	Acourtia microcephala	■	Reid Moran	13269	Jun 18, 1965	31.38557	-115.41667	175	BC	Occasional north hillside 7.5 miles northeast of Rancho Escondido.
SD	71914	Asteraceae	Acourtia microcephala	■	Reid Moran	16553	Jul 27, 1969	31.53333	-115.09667	1300	BC	7.5 miles southwest of El Rayo.
SD	75192	Asteraceae	Acourtia microcephala	■	Reid Moran	17589	May 20, 1973	31.53333	-115.03333	1250	BC	2 miles northeast of El Rayo.
SD	75472	Asteraceae	Acourtia microcephala	■	Reid Moran	18428	Jul 06, 1969	30.85333	-115.75	875	BC	4 miles west of Valadanes.
SD	102926	Asteraceae	Acourtia microcephala	■	Reid Moran	27672	Jun 23, 1978	32.48333	-115.6	775	BC	Northwest base of Cerro el Diecero, 11 km south-southwest of Tequis.
CH	105190	Asteraceae	Acourtia microcephala	■	Ducke et al.	57828	Jul 05, 1970	31.06	-115.0	480	BC	Canyon of Arroyo Medanos, 6 km

Users can search all or any one of the collections by plant name, collector name, year or year span of collection, or locality.

SDNHM, in a joint effort with other herbaria holding collections of Baja plants, has assumed the role of consolidating the collections data to form a consortium of Baja collections. Web site users are able to search the combined collections of SDNHM, San Diego State University, Rancho Santa Ana, Pomona College, Centro del Investigaciones Biologicas del Noroeste, La Paz (HCIB), and Universidad Autonoma de Baja California, Ensenada (BCMEX).

Search by Map Polygon

SAN DIEGO NATURAL HISTORY MUSEUM
Your Future Collection

THE FLORA OF BAJA CALIFORNIA

Click on map for Latitude: 24.22189 Longitude: -112.22187

Find Collections in a Defined Area (Polygon)

Instructions: 1. Draw a polygon on the map (click the **Draw Drawing Polygon** button, and click the mouse to enter a **Coordinate** (NAD83) direction). Do not close the polygon. 2. Press the **Exit Key** to stop drawing. 3. Click the button: **Find Collections in Area**. A list of associated will appear below the map. Results will only be at plants in the San Diego Natural History Museum herbarium collected from that area. Note: The state source for this page is updated periodically. For absolutely current data, use **Search by Area**.

[Draw drawing polygon](#) [Drawing mode \(disabled\)](#) [Find Collections in Area](#)

100 Records found in the defined area as follows:

Scientific Name	Collector	Date	Locality	Number	Other
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1001	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1002	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1003	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1004	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1005	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1006	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1007	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1008	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1009	
<i>Adiantum capillare</i>	Winters	1938	San Felipe	1010	

An interactive map feature allows users to define an area, by drawing on the map using their mouse, and find a list of specimens collected within that area.

Mapping Species

SAN DIEGO NATURAL HISTORY MUSEUM
Your Future Collection

THE FLORA OF BAJA CALIFORNIA

Click on map for Latitude: 24.22189 Longitude: -112.22187

Map Baja California Plant Species

Plant Name: [Map the Plant](#)

[Large Map](#) [Small Map](#)

[Click the map for lat/lon.org](#)

4 Records for Larrea mexicana (Cyperaceae):

Number	Date	Collector	Locality	Number	Other
1001	Jan 15, 1938	Winters	San Felipe	1001	
1002	Jan 15, 1938	Winters	San Felipe	1002	
1003	Jan 15, 1938	Winters	San Felipe	1003	
1004	Jan 15, 1938	Winters	San Felipe	1004	

The web site offers a number of mapping options. A Google™ Maps application maps any number of species with a table of specimen data, and provides all the functionality of the Google Maps.

Another mapping tool, a quick map, maps up to two plants on a fixed map. This option also allows the user to map using the Berkeley Mapper, a mapping application offered by UC Berkeley.

Vouchers

SAN DIEGO NATURAL HISTORY MUSEUM
Your Nature Connection

THE FLORA OF BAJA CALIFORNIA

Search the Baja Voucher Collection

To search the database:
 (1) Select one or more search criteria by entering a name or the first part of a name to search for. Do not use wildcards.
 (2) Check the **With Images** box to see specimen sheets.
 (3) Click the **List Specimens** button.

Family:
 Genus:
 Spec Ep:

With Images
List Specimens

Catalog Number: SD105978
Asteraceae *Acoutia microcephala*
Collector: Reid Moran
Number: 29085 **Date:** Aug 03, 1985
Phenology: Flower
Latitude: 31.8958° **Longitude:** -116.365°
Elevation (meters): 640
Location: Baja California, Arroyo Las Cruces, 20 km east of Ensenada
Habitat: Common on burned chaparral slope

Catalog Number: SD115895
Asteraceae *Acoutia palmeri*
Collector: James Herickson
Number: 8952 **Date:** Apr 11, 1973
Phenology: Flower
Latitude: 27.4833° **Longitude:** -112.567°
Elevation (meters): 1035

Web site users can search for views of the voucher specimens. Search results will display a set of thumbnails that match the search criteria; clicking a thumbnail brings up a full size display of the scanned image.

Regional Photographs

In conjunction with the plant photos described earlier, the photographic collection also includes thousands of photos of regional areas of the Baja peninsula.

SAN DIEGO NATURAL HISTORY MUSEUM
Your Nature Connection

THE FLORA OF BAJA CALIFORNIA

Click on map for
 Latitude:
 Longitude:

Cape Region | Mark the Selected Region | Clear the Map

Select a region from the drop-down list. Click the Mark the Selected Region button. Mouse over the icons to see regional photos.

This web page is under development, and provided for review. It will continue to grow. Cape Region, Sierra Juárez, and Cerros Tizón photo locations and captions are fictional. Seafoam Island photo locations are correct but the locations of the island on the Virtual Earth map is in error. Other selected regions will produce a primary icon that will link to the photo collection but will not place individual photo icons on the map. Some listed photos are not yet released.

SDNHM Baja Photo # 10202
 La Palmilla
 Probably a drug smuggler
 Jan 18, 1959
 Click the image

Users can select a region on the map and find a set of photographs that depict that region. Each icon painted on the map, when clicked, will reveal a photo taken from that locality, along with the pertinent data related to the photo. clicking the thumbnail on the map will bring

up the full size photo. For each region, a number of selected photos will appear as icons on the map. the larger collection of photos from that region can be accessed by clicking the large icon placed on the location.



Clicking the large icon produces an array of multiple pages of photographs from the selected region. And like the images on the map, clicking these thumbnails will bring up the full size photo.

Geographic Spatial Searching The web site provides a tool for searching for specimens within a defined area, within a specified distance from an area, within a specified distance from a line or polyline, and within a specified distance from a latitude/longitude point. Some areas, such as the Ecological Regions of the Baja peninsula, are predefined. However, a tool is provided to allow users to draw and save their own polygons, lines, or routes.

Draw and save your own lines and polygons



The page shown here is used to review existing shapes (polygons, lines, routes) made available or drawn and saved by the user. User-generated shapes are available only to the user who created them. In the example to the left, the screen is showing the ecological region, Chaparral, and a route created by the user that follows the road from Rosarito to Santa Rosalia.

Spatial Search (searching relative to a shape)

Users can run searches for specimens located geographically relative to any of the preprogrammed shapes or the shapes they drew and saved themselves using the page shown above. These searches can be displayed on the page or downloaded to an Excel spreadsheet.

Ref #	Family	Species	Collector Name	Date	Collector No.	Latitude/Longitude	Locality
3079528	Asteraceae	Phymosiphon aff. rugosus	J	Feb 11, 1984	Field Notes 411894	27.4897 -112.563	17 km SW, west side of ridge of this region, this region, Mexico
3028868	Asteraceae	Rhus toxica	Super Bush	Feb 11, 1984	Field Notes 411887	27.4887 -112.563	In arroyo on east side of ridge of this region, this region, Mexico
3028920	Asteraceae	Rhus toxica	Super Bush	Feb 10, 1973	Field Notes 420207	27.4822 -112.6	North slope of ridge of this region, this region, Mexico
3011087	Asteraceae	Rhus toxica	Super Bush	Apr 10, 1973	SDNHM 40007	27.4920 -112.563	North slope of ridge of this region, this region, Mexico
4048932	Zygophyllaceae	Larrea tridentata	Chaparral	4/21/1988	Baja Baja 40020	27.6 -112.567	Desierto de Vizcaino, 16 E mi. al E del Rancho San José 24 0900
4049173	Zygophyllaceae	Larrea tridentata	Chaparral	5/16/1988	San Juan Playa	27.20 -113	Desierto Vizcaino, 3 km north of E de San Juanito, on water tower

Photograph Uploads

The website provides a tool for users to upload their own regional and plant photos with the relevant data.

Upload a Photograph to Baja Flora

Field Numbers [Special Instructions](#)

Institution Code: Mat No.: Photo Date (MM/DD/YYYY):

Name: Specific Name: Photo:

Region: State: Country: Mexico Locality:

Photo Type: Eigen Herbar Other Her Other

Region Name: Region Latitude: Region Longitude:

Species:

Photo Ref: Photo Ref: Photo Ref:

Name File: Check this box to label your photographs.

PLEASE UPLOAD YOUR PHOTOS TO THE COMPUTER BEFORE UPLOADING TO THE WEBSITE. PLEASE CHECK THE FILE SIZE AND MAKE SURE IT IS UNDER 1MB. PLEASE USE THE FOLLOWING FILE NAMING CONVENTION: [Institution Code] [Date] [Region] [State] [Country] [Locality] [Species] [Photo Ref].