

Introduction to Herbario Virtual Austral Americano
[<http://www.herbariovaa.org/index.php>]

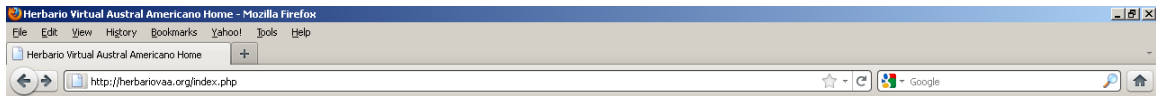
By Leslie R. Landrum, Edward Gilbert and Anne Barber

School of Life Science
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The purpose of this website, **Herbario Virtual Austral Americano**, is primarily to support the distribution of herbarium specimen data for plants that grow in southern South America (Argentina and Chile). As we begin, in July 2011, it will distribute data from specimens held at some North American herbaria, and will provide a structure for the distribution of other data sources as well. The site uses [Symbiota Virtual Flora Software](#) that is especially designed to distribute natural history information from multiple sources, including images, descriptive text, checklists, interactive keys and museum specimens. The internet has provided many new opportunities to inexpensively share information and the scientific community has been quick to take advantage of this new resource. For examples, see [Useful Links](#). Although no funding exists for this site we have been able to use resources created for other sites, these sometimes supported by grants to Arizona State University from the USA National Science Foundation (BDI [0847966](#)).

El propósito de este sitio web, **Herbario Virtual Austral Americano**, es de apoyar la distribución de los datos de especímenes de herbario de plantas que crecen en el sur de Sudamérica (Argentina y Chile). Para empezar, en julio 2011, distribuirá los datos de especímenes guardados en algunos herbarios norteamericanos, y proporcionará una estructura para la distribución de otras fuentes de datos también. El sitio utiliza [Software Symbiota Virtual Flora](#) que es diseñado especialmente para distribuir información de historia natural de múltiples fuentes, inclusive imágenes, texto descriptivo, listados de especies, claves interactivas y especímenes de herbario. La Internet ha proporcionado muchas nuevas oportunidades de compartir económicamente información y la comunidad científica ha sido rápida en aprovechar este nuevo recurso. Para ejemplos, vea los [Useful Links](#). Aunque ningún financiamiento exista para este sitio nosotros hemos podido utilizar recursos creados para otros sitios, estos a veces apoyados por subsidios a Arizona State University por la National Science Foundation de EEUU (BDI [0847966](#)).

In the following pages we attempt to provide enough information to the reader so that he or she may take advantage of this new resource.



HERBARIO VIRTUAL AUSTRAL AMERICANO

Herbario Virtual Austral Americano

- Search Collections
- Image Library
- Games
- Useful Links
- Floristic Projects**
 - [Flora de Chile](#)
- Dynamic Floras**
 - Dynamic Checklist
- Log In
- New Account
- Sitemap

Herbario Virtual Austral Americano

The internet has provided many new opportunities to inexpensively share information and the scientific community has been quick to take advantage of this new resource. For examples, see Useful Links. Although no funding exists for this site, **Herbario Virtual Austral Americano**, we have been able to use resources created for other sites, these sometimes supported by grants to Arizona State University from the USA National Science Foundation (0847966). The purpose of this website is primarily to support the distribution herbarium specimen data for plants that grow in southern South America (Argentina and Chile). As a beginning it will distribute data from specimens held at some North American herbaria, and will provide a structure for the distribution of other data sources as well. The site uses Symbiota Virtual Flora Software that is especially designed to distribute natural history information from multiple sources, including images, descriptive text, checklists, interactive keys and museum specimen data.

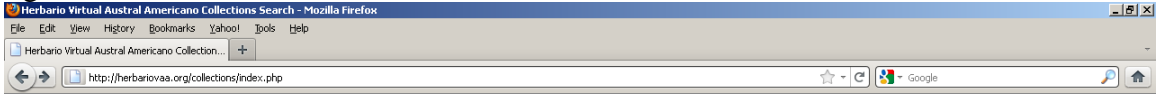
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Searching Collections:

Herbario Virtual Austral Americano so far includes data from the herbaria MO, NY, F and ASU for Chile and Argentina. You can choose which herbaria to search by clicking on “Search Collections” on the upper left. You then see a new page.

You can select one or more collections to search. And then click on “next” on lower right. I have selected all collections.



Select Collections to be Searched

Specimens

Select/Deselect all Collections

- Arizona State University Vascular Plant Herbarium (ASU)
- Field Museum of Natural History (FM)
- Missouri Botanical Garden (MO)
- New York Botanical Garden (NY)

next



This action takes me to the next page and I enter some information for a search: in this case the Asteraceae for taxon, Chile for country, Valparaiso for “State/Province” [Region for Chile], and “Campana” for locality. I think that most specimens from Cerro la Campana will have Campana in the locality. By including the country Chile I eliminate possible localities in Argentina (e.g., Finca La Campana in Jujuy) with “Campana” in their names and by including Valparaiso I do the same for other possible localities in Chile.

The screenshot shows a web browser window titled "Herbario Virtual Austral Americano Collection Search Parameters - Mozilla Firefox". The address bar contains the URL: [http://herbariova.org/collections/harvestparams.php?db\[\]=8db\[\]=46db\[\]=18db\[\]=28db\[\]=38xx=258y=17](http://herbariova.org/collections/harvestparams.php?db[]=8db[]=46db[]=18db[]=28db[]=38xx=258y=17). The page features a header with the text "HERBARIO VIRTUAL AUSTRAL AMERICANO" and a banner image of a plant branch. Below the header, there is a navigation menu with "Home > Collections > Search Criteria".

The main content area is titled "Select Search Parameters" and includes the instruction: "Fill in one or more of the following query criteria and click 'Search' to view your results." The search criteria are organized into several sections:

- Taxonomic Criteria:** Includes a checkbox for "Include Synonyms from Taxonomic Thesaurus" and a dropdown menu for "Family or Scientific Name" with "Asteraceae" selected.
- Locality Criteria:** Includes dropdown menus for "Country" (Chile), "State/Province" (Valparaiso), and "Locality" (Campana).
- Latitude and Longitude:** Includes a "Bounding box coordinates in decimal degrees" section with input fields for Northern, Southern, Western, and Eastern Longitude, and a "Point-Radius search" section with input fields for Latitude, Longitude, and Radius (Miles).
- Collector Criteria:** Includes input fields for "Collector's Last Name" and "Collector's Number".

Each section has a "search" button. The browser's taskbar at the bottom shows the Start button, several application icons, and the system tray with the time 3:04 PM.

I get a list of 12 specimens. I can transform this list into a Species List or Map by clicking on those words in the tabs at the top. This is certainly an incomplete list, but as more specimens are added to the collective database it will become more complete. As it is, it may be useful in making an identification.

Species List
Specimen List
Maps

Dataset: All Collections

Taxa: Asteraceae

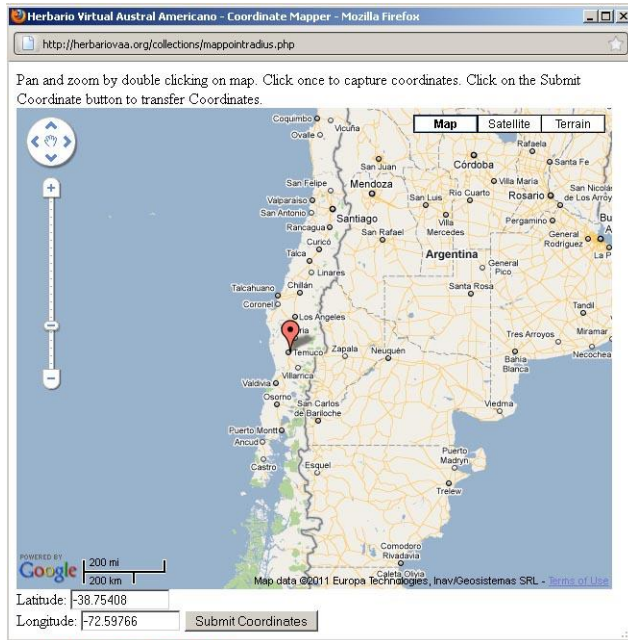
Search Criteria: Valparaiso; Campana

Page 1, records 1-12 of 12

Missouri Botanical Garden

 MO	<p><i>Erigeron campanensis</i> Valdeb., Lowrey & Stuessy</p> <p>2478463 Morrison, J. L., Wagenknecht & R. 17153 16 January 1932</p> <p>Chile, Valparaiso, Valparaiso, Cerro Campana, 15 km NE of Granizos, very rocky habitat</p> <p>Full Record Details</p>
 MO	<p><i>Franseria bipinnatifida</i> (Less.) Nutt.</p> <p>1410167 James & Andrea Solomon 4220 24 December 1978</p> <p>Chile, Valparaiso, Quillota, Parque Nacional La Campana. Ca. 6 km above Olmué.</p> <p>Full Record Details</p>
 MO	<p><i>Gnaphalium viravira</i> Molina</p> <p>3326127 Otto Zöllner 8088</p> <p>Chile, Valparaiso, Valparaiso en el cerro La Campana.</p> <p>Full Record Details</p>
 MO	<p><i>Gochmatia foliolosa</i> (D. Don) D. Don ex Hook. & Arn.</p> <p>100263518 17146 17 January 1939</p> <p>Chile, Valparaiso, Cerro Campana, 15 km northeast of Granizos; rocky soil.</p> <p>Full Record Details</p>
 MO	<p><i>Haplopappus glutinosus</i> Cass.</p> <p>3344895 Otto Zollner 7491 10 March 1974</p> <p>Chile, Valparaiso, On the mountain La Campana.</p> <p>Full Record Details</p>
 MO	<p><i>Perezia nutans</i> Less.</p> <p>100269244 17142 17 January 1939</p> <p>Chile, Valparaiso, Cerro Campana, 15 km northeast of Granizos, along road to mine; rocky soil.</p> <p>Full Record Details</p>
 MO	<p><i>Perezia nutans</i> Less.</p> <p>100217949 5182 19 January 1936</p> <p>Chile, Valparaiso, Upper southwest slope of Campana de Quillota; at foot of main peak; steep, rocky slope in open woods of lower <i>Nothofagus obliqua</i>.</p>

Suppose I want a list of all species of *Nothofagus* and *Berberis* near Temuco, Chile. I could use the words Temuco and Chile to define an area but I could be more precise by using the Point Radius method. If I know the coordinates for Temuco I can enter them. But if I do not, I can find them by clicking on the blue and green globe in the Point Radius box and finding Temuco. Then I click on “Submit Coordinates” at the bottom.




That takes me back to the search page and I put “*Nothofagus*; *Berberis*” in the Taxonomic Criteria box. I also set the point radius at 100 km.

Herbario Virtual Austral Americano Collection Search Parameters - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

Herbario Virtual Austral Americano Collection... +

http://herbariovaa.org/collections/harvestparams.php



**HERBARIO VIRTUAL
AUSTRAL AMERICANO**

Michay
Berberis darwinii

[Home](#) > [Collections](#) > [Search Criteria](#)

Select Search Parameters

Fill in one or more of the following query criteria and click 'Search' to view your results.

Taxonomic Criteria:

Include Synonyms from Taxonomic Thesaurus

Family or Scientific Name:

Locality Criteria:

Country:

State/Province:

County:

Locality:

Latitude and Longitude:

Bounding box coordinates in decimal degrees				Point-Radius search			
Northern Latitude:	<input type="text"/>	N	<input type="text"/>	Latitude:	<input type="text" value="-38.78835"/>	N	<input type="text"/>
Southern Latitude:	<input type="text"/>	N	<input type="text"/>	Longitude:	<input type="text" value="-72.68555"/>	W	<input type="text"/>
Western Longitude:	<input type="text"/>	W	<input type="text"/>	Radius:	<input type="text" value="100"/>	Kilometers	<input type="text"/>
Eastern Longitude:	<input type="text"/>	W	<input type="text"/>				

Collector Criteria:

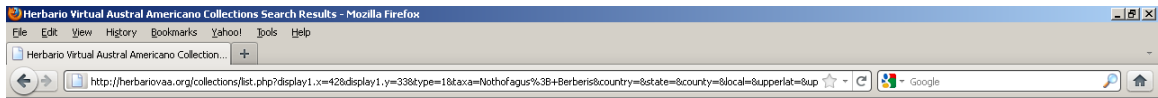
Collector's Last Name:

Collector's Number:

search

Start | Sent Items - Microsoft O... | Document4 - Microsoft ... | Google - Mozilla Firefox | Herbario Virtual Austr... | 11:17 AM


I find 48 specimens and then transform them into a species list.



Michay
Berberis darwinii

[Home](#) > [Collections](#) > [Search Criteria](#) > [Specimen Records](#)

Species List Specimen List Maps

Taxonomic Filter: Raw Data  

Taxa Count: 9

BERBERIDACEAE

- Berberis actinacantha*
- Berberis congestiflora*
- Berberis darwinii*
- Berberis microphylla*
- Berberis rotundifolia*
- Berberis valdiviana*

NOTHOFAGACEAE

- Nothofagus alpinus*
- Nothofagus dombeylei*
- Nothofagus obliqua*



There are still no images for the species of *Berberis*, but if I click on one of the names of *Nothofagus*, I will see images, and these can be expanded.

Herbario Virtual Austral Americano Image Details: #1170 - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

Herbario Virtual Austral Americano Collec... Herbario Virtual Austral Americano Image... +

http://herbariovaa.org/imagelib/imgdetails.php?imgid=1170

**HERBARIO VIRTUAL
AUSTRAL AMERICANO**

Michay
Berberis darwinii



Scientific Name: *Nothofagus dombeyi* (Mirb.) Oerst.
Photographer: Leslie Landrum
Notes: Large trees growing near streams, 23 Sept 2010
ASU Herbarium
[Open Medium Sized Image](#)
[Open Large Image](#)

Do you see an error or have a comment about this image?
If so, send email to: les.landrum@asu.edu

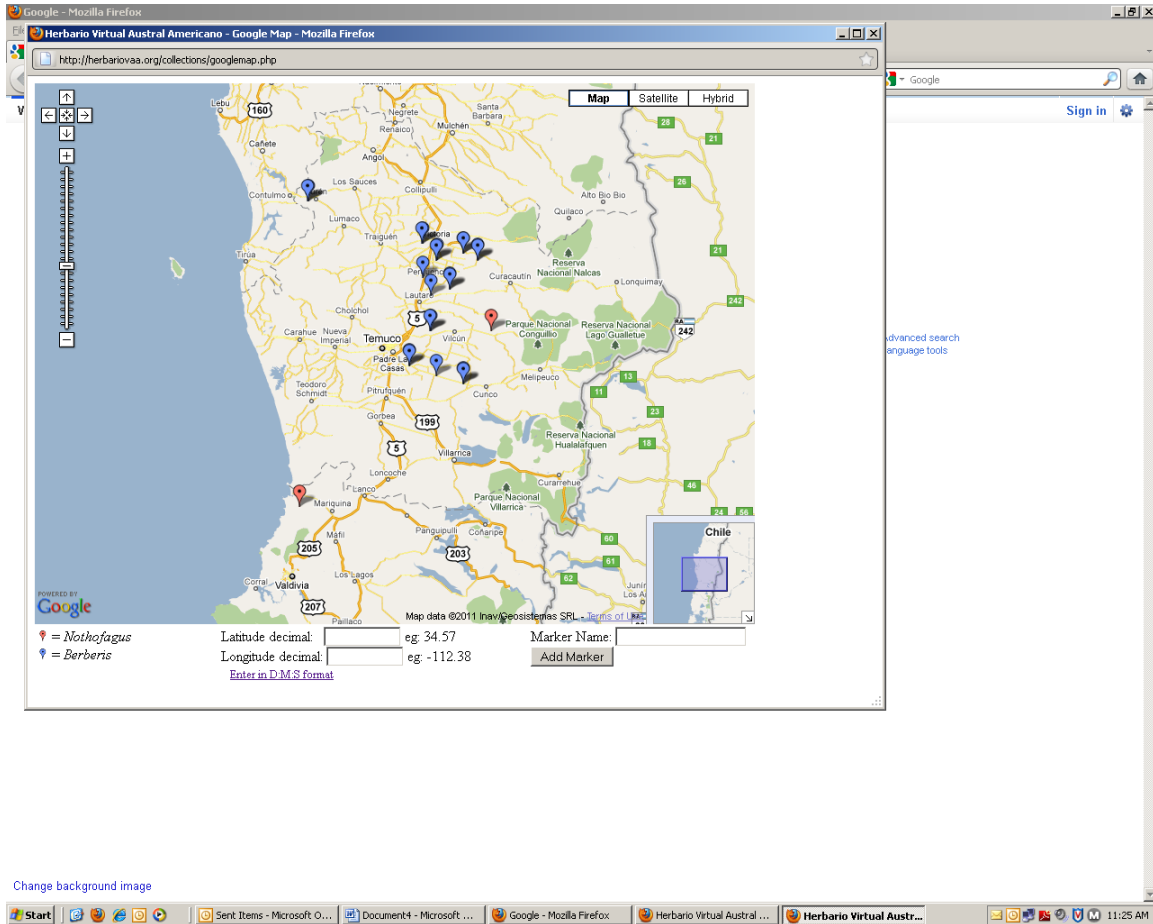
Click on Image to Enlarge

http://herbariovaa.org/imagelib/seinet/Fagaceae/photos/Coigue7600.jpg

Start | Sent Items - Microsoft O... | Document4 - Microsoft ... | Google - Mozilla Firefox | Herbario Virtual Austr... | 11:21 AM

For instance this is an image of *Nothofagus dombeyi*. As more images are added this feature will become a useful identification tool.

Or, I can make a map of the specimens. The *Berberis* specimens are blue and the *Nothofagus* specimens are red. By clicking on a marker, I can find which specimen is responsible for that marker.



Another feature of Symbiota Software is the ability to make static checklists. As a sample we have added **Flora de la Reserva Nacional Pingüino de Humboldt** by Gina Arancio and Paola Jara of the Universidad de La Serena based on their book by that name. On the home page in Floristic Projects you can click on Flora de Chile. Only a few lists now appear, but many more can be added.

Clicking on the Flora de la Reserva Nacional Pinguino de Humboldt takes you to a new page.

The screenshot shows a web browser window with the URL <http://herbariova.org/checklists/checklist.php?id=58proj=2>. The page header features the text "HERBARIO VIRTUAL AUSTRAL AMERICANO" and a photograph of a plant branch. Below the header, the page title is "Flora de la Reserva Nacional Pinguino de Humboldt" with a link to "Games". The authors are listed as "Gina Arancio, Paola Jara" with a "More Details" link. A "Species List" section provides summary statistics: Families: 27, Genera: 42, Species: 57 (species rank), and Total Taxa: 57 (including ssp. and var.). The list is organized by family: AIZOACEAE (listing *Mesembryanthemum crystallinum*, *Mesembryanthemum nodiflorum*, *Tetragonia espinosae*, *Tetragonia maritima*, and *Tetragonia ovata*), ALSTROEMERACEAE (listing *Alstroemeria philippii*), AMARYLLIDACEAE (listing *Rhodophiala bagnotii*), ANACARDIACEAE (listing *Schinus molle*), and APIACEAE (listing *Cyclosporum laciniatum* and *Eryngium pulchellum*). An "Options" panel on the right includes a search box, checkboxes for "Common Names" and "Synonyms", a "Filter" dropdown menu, and checkboxes for "Original Checklist", "Common Names", "Display as Images", "Notes & Vouchers", and "Taxon Authors", along with a "Rebuild List" button.

There are already some images associated with these names. Clicking on *Schinus molle* for instance will bring up images and more images will be added with time.

Right after the name of the checklist there is the word “Games.” Clicking on that word gives you a selection of two games that you can play with a checklist: the Name Game (good for learning spellings) and the Flash Card Quiz (good for learning to recognize species).

Herbario Virtual Austral Americano follows the pattern of the Southwest Environmental Information Network (SEINet; <http://swbiodiversity.org/seinet/index.php>). Interactive keys are a feature of SEINet that can eventually be added to Herbario Virtual Austral Americano.

We encourage you to create an account with Herbario Virtual Austral Americano. Perhaps you will want to become a contributor of photographs, a checklist or specimen data. Please feel free to contact us by email (les.landrum@asu.edu).