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

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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 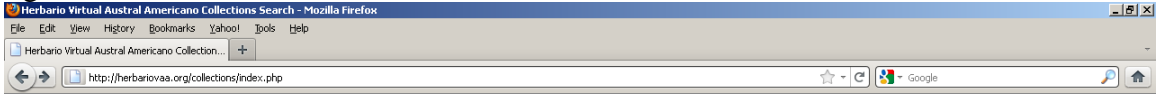interactivas y espécimenes de herbario. La Internet ha proporcionado muchas nuevas oportunidades de compartir económicamente información y la comunidad científica ha sido rápida en aprovechar este nuevo recurso. Para ejemplos, vea los Useful Links. Aunque ningun financiamento exista para este sitio nosotros 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 (BDI0847966).

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.
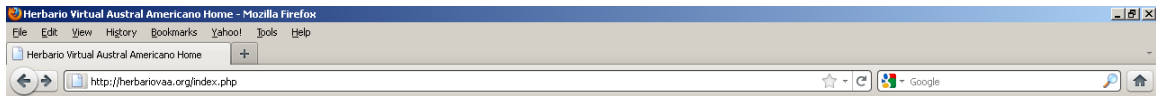
Herbario Virtual Austral Americano

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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.

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.

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 useful in making an identification.

Species List	Specimen List	Maps

Dataset: All Collections
Taxa: Asteraceae
Search Criteria: Valparaiso; Campana

1   Page 1, records 1-12 of 12

Missouri Botanical Garden

Erigeron campanensis Valdeb., Lowrey & Stuessy
2478463   Morrison, J. L., Wagenknecht & R. 17153   16 January 1932
Chile, Valparaiso, Valparaiso, Cerro Campana, 15 km NE of Granizos, very rocky habitat
Full Record Details

Franseria bipinnatifida (Less.) Nutt.
1410167   James & Andrea Solomon   4220   24 December 1978
Chile, Valparaiso, Quillota, Parque Nacional La Campana. Ca. 6 km above Olmué.
Full Record Details

Gnaphalium viravira Molina
3326127   Otto Zöllner   8088
Chile, Valparaiso, Valparaiso en el cerro La Campana.
Full Record Details

Gochnatia foliolosa (D. Don) D. Don ex Hook. & Arn.
100263518   17146   17 January 1939
Chile, Valparaiso, Cerro Campana, 15 km northeast of Granizos; rocky soil.
Full Record Details

Haplopappus glutinosus Cass.
3344895   Otto Zollner 7491   10 March 1974
Chile, Valparaiso, On the mountain La Campana.
Full Record Details

Perezia nutans Less.
100269244   17142   17 January 1939
Chile, Valparaiso, Cerro Campana, 15 km northeast of Granizos, along road to mine; rocky soil.
Full Record Details

Perezia nutans Less.
100217949   5182   19 January 1936
Chile, Valparaiso, Upper southwest slope of Campana de Quillota; at foot of main peak; steep, rocky slope in open woods of lower Nothofagus obliqua.

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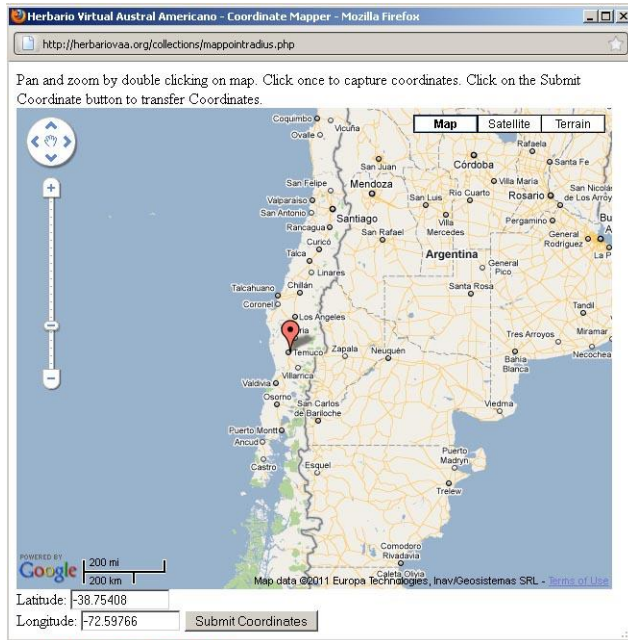
That takes me back to the search page and I put "Nothofagus; Berberis" in the Taxonomic Criteria box. I also set the point radius at 100 km.

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

**HERBARIO VIRTUAL
AUSTRAL AMERICANO**
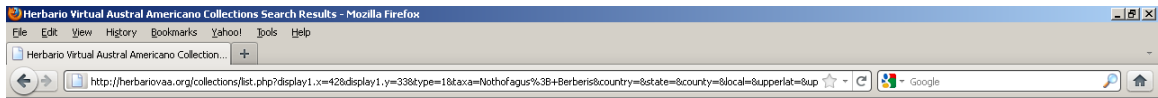
Michay
Berberis darwinii

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 alpina
Nothofagus dombeyi
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.

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.
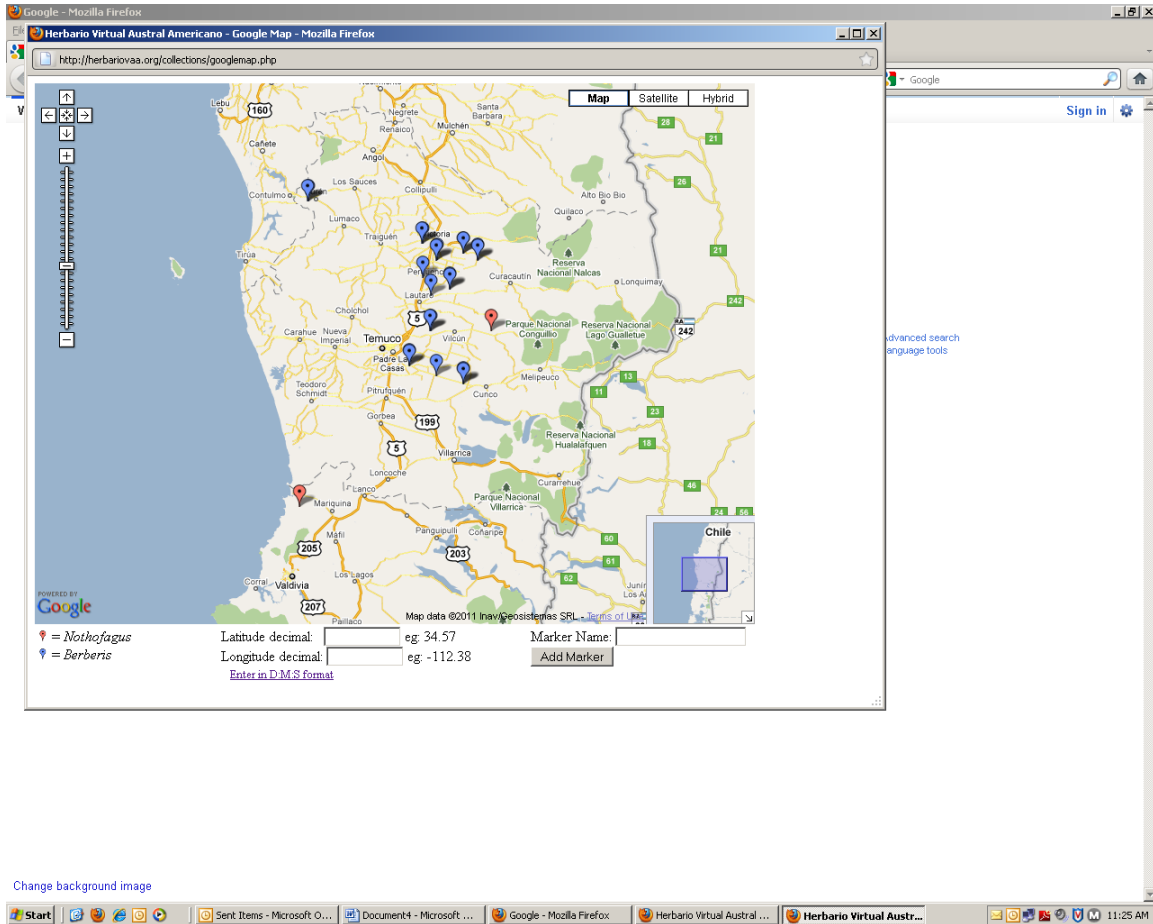
Another feature of Symbiota Software is the ability to make static checklists. As a sample we have added
Flora de la Reserva Nacional Pingüino de Humboldt by Gina Arancio and Paola Jara of the Universidad de La Serena based on their book by that name.   On the home page in Floristic Projects you can 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 Pingüino de Humboldt takes you to a new page.

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).