

Solanum Series Etuberosa

COLLECTING in CHILE ^{1/}

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Some important agronomic characters of potato have been described in the species of the Series Etuberosa which are of interest in breeding programmes, e.g. resistance to frost, to Y and A virus and to leaf roll virus. The Etuberosa Series is included in the Sub-section Hyperbasarthrum Bitt. of the genus *Solanum*. Hawkes (1956) listed the following species in the series: *Solanum brevidens* Phil., *S. etuberosum* Lindl., *S. fernandezianum* Phil., *S. palustre* Poepp., *S. subandinum* Meigen.

Other workers consider *S. palustre* synonymous with *S. brevidens*, as for instance, *S. looseri* Juz. is synonymous with *S. etuberosum*.

There are several other species names considered by Hawkes and others to be synonyms.

These descriptions in the Etuberosa Series have a significant value in the taxonomy of Solanaceae. However, collections of material from the Series are scarce and descriptors have been based mainly on herbarium material; consequently, exact descriptions of the habitats are not always available nor is botanical seed for a more precise characterization.

In order to complement the descriptions, personnel of the Instituto de Producción Vegetal, Universidad Austral de Chile, Valdivia, explored Central Chile for sites in which plants of this Series (especially of *S. brevidens* and *S. etuberosum*) have either been observed or collected (see Fig. 1).

At the sites of Curanilahue, Lebu, Cañete, Contulmo and Traiguen, no specimens of these species were found, although they

have been described by Montaldo and Sanz (1962) from these areas. However, they may possibly be found in the mountainous valleys of Nahuelbuta because this area is similar to the sites in which *S. brevidens* was previously located (1, 2, 3, 14, and 15 in the maps).

Plant material was collected for the herbarium, as well as living plants and fruits (Table 1).

Samples 1315 to 1317 had fruits at the same time of collection and were classified as *S. brevidens*. Samples 1318 to 1327, according to their morphology, were classified as *S. etuberosum*. The latter material at the time of collection, was beginning to flower, and plants were collected for the herbarium and were also potted. No. 1344 was collected in Cordillera Pelada, Valdivia Province. Only one living plant was collected. Nos. 1327 and 1344 were found in different habitats to those previously described, and very distant from each other; the first, under a rock fully exposed to the sun, without surrounding vegetation. No. 1344 was located under a dead log in a natural pasture and fully exposed to sunlight.

All the material is being vegetatively reproduced to obtain true seed. No. 1346 was collected by Dr. Schlegel in the site Pirihueico and brought as living material (plant and fruit).

Part of the described items have been shipped to the Department of Botany of the University of Birmingham, UK.

Future explorations will be conducted into other sectors in which previous collections or descriptions have been done of the Series Etuberosa.

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Table 1. Specimens and their place of collection

Trip No.	Sample No.	Latitude	Longitude	Altitude	Place	Collection date
	<i>UACH</i>					
1	1 315	38°41' S	71°50' W	850	Fundo Venecia	6.1.78
2	1 316	38°41'	71°50'	850	Fundo Venecia	6.1.78
3	1 317	38°41'	71°50'	835	Fundo Venecia	6.1.78
4	1 318	36°54'	71°28'	1 240	Las Trancas	8.1.78
5	1 319	36°54'	71°28'	1 265	La Cascada	8.1.78
6	1 320	36°55'	71°20'	1 300	Gruta Los Pangues	8.1.78
7	1 321	36°54'	71°24'	1 750	Term. de Chillán	9.1.78
8	1 322	36°56'	71°32'	615	Estero Ponce	9.1.78
9	1 323	37°22'	71°34'	785	Estero Quillailebu	11.1.78
10	1 324	37°22'	71°34'	786	Estero Quillailebu	11.1.78
11	1 325	37°22'	71°34'	786	Estero Quillailebu	11.1.78
12	1 326	37°29'	71°20'	1 780	Cajón del Pino	12.1.78
13	1 327	37°22'	71°22'	1 220	Refugio Antuco	12.1.78
14	1 344	40°12'	73°23'	660	Roblental	22.4.78
15	1 346	39°50'	71°50'	950	Pirihueco	12.5.78

Resumen

Se recolectaron 15 muestras de la Serie *Etuberosa* en el sector Centro Sur de Chile, material del cual se tiene herbario, plantas y semillas de autofecundación.

Résumé

Quinze échantillons de la série *Etuberosa* ont été récoltés dans le secteur Centre-sud du Chili, matériel dont on dispose d'un herbarium, de plantes et de semences issues d'autofécundation.

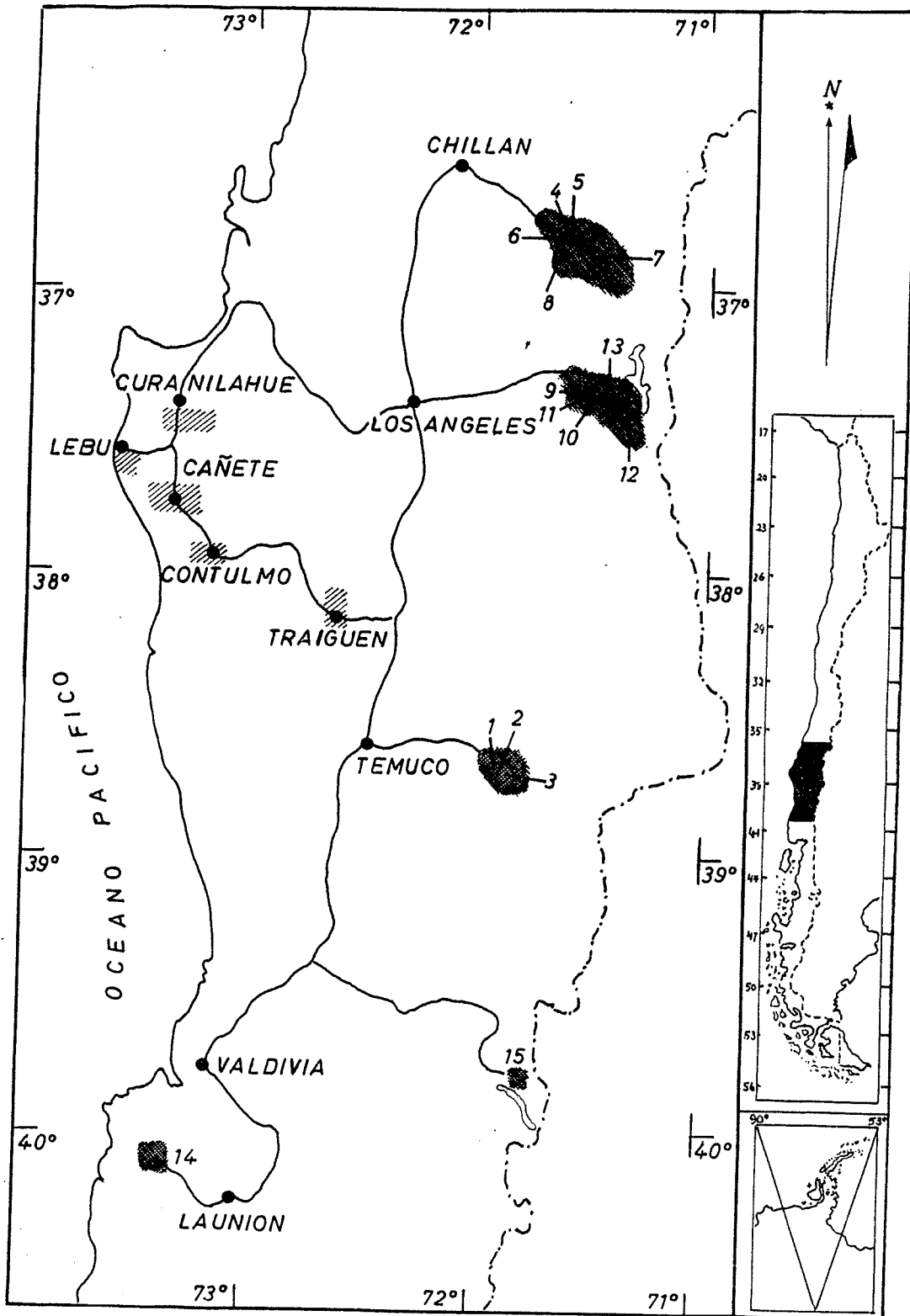


Fig. 1. Collection sites: 1. Fdo. Venecia, 2. Fdo. Venecia, 3. Fdo. Venecia, 4. Las Trancas, 5. La Cascada, 6. Gruta de Los Panguos, 7. Termas de Chillán, 8. Estero Ponce, 9. Estero Quillailebu, 10. Estero Quillailebu, 11. Estero Quillailebu, 12. Cajon del Pino, 13. Refugio Antuco, 14. Roblental, 15. Pirihueico.