

Adapting agriculture to climate change:
collecting, protecting and preparing crop wild relatives

Peru



Seed Collecting Guide

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The content of this collecting guide is intended only as a general reference for future collecting missions; the contents and data within are not guaranteed to be complete, correct, timely, current or up-to-date at the time of publishing. For general information and resources on collecting crop wild relatives, visit cwrdiversity.org.

Cover photos

TOP LEFT: Terraces in Peru, CREDIT: Michael Major/Crop Trust;

TOP RIGHT: *Solanum hispidum*, CREDIT: Stan Shebs/Wikimedia;

BOTTOM LEFT: *Pennisetum orientale*, CREDIT: M. Martin Vicente/Flickr;

BOTTOM RIGHT: *Solanum acaule*, CREDIT: Sandy Knapp.

This work was undertaken as part of the initiative “Adapting Agriculture to Climate Change” which is supported by the Government of Norway. The project is managed by the Global Crop Diversity Trust with the Millennium Seed Bank of the Royal Botanic Gardens, Kew, in partnership with national and international genebanks and plant breeding institutes around the world. It is implemented in accordance with the International Treaty on Plant Genetic Resources for Food and Agriculture. For further information see the project website: www.cwrdiversity.org/

Many individual scientists, herbaria, genebanks and specialist institutes are contributing advice and information to the Project and these guides. The Project aims to collect the wild relatives of 29 key crops, conserve them in genebanks, and prepare them for use in plant improvement programs to breed new crop varieties adapted to future climates.



The boundaries and names shown on the maps included in this guide do not imply official endorsement or acceptance by the Adapting Agriculture to Climate Change Project. Data source: GADM, Version 1.0 via diva-gis.org

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The Harlan and de Wet Crop Wild Relatives Checklist was developed by Holly Vincent and Nigel Maxted at the University of Birmingham.

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International Center for Tropical Agriculture
Since 1967 *Science to cultivate change*

The Gap Analysis work which informed the list of species included in this guide, and all the map files, were produced by the Gap Analysis team at CIAT: Andy Jarvis, Nora Castañeda, Colin Khoury and Julian Ramirez-Villegas.

RBG Kew is involved in the research and collection phases of the project. This collecting guide was developed based on the work of the Millennium Seed Bank Enhancement Project Species Targeting Team.

Royal Botanic Gardens
Kew



The Crop Wild Relatives Project is led by the Global Crop Diversity Trust. This work was undertaken as part of the initiative.

Specimen data was kindly provided to this project by many individuals and organisations who are listed on the website: <http://www.cwrdiversity.org/home/data-sources>

This data set will be made available for download. Please refer to the website for more information on this dataset.

This collecting guide has been compiled by:

Richard Allen

Collecting Guide Compiler
Crop Wild Relatives Project
Herbarium, Library Art & Archives
Royal Botanic Gardens, Kew

Dr Ruth Eastwood

Crop Wild Relatives Project Co-ordinator
Millennium Seed Bank Partnership
Seed Conservation Department
Royal Botanic Gardens, Kew

This collecting guide consists of species profiles and information sheets contained within this folder, alongside a CD which contains localities of the taxa in an excel file.

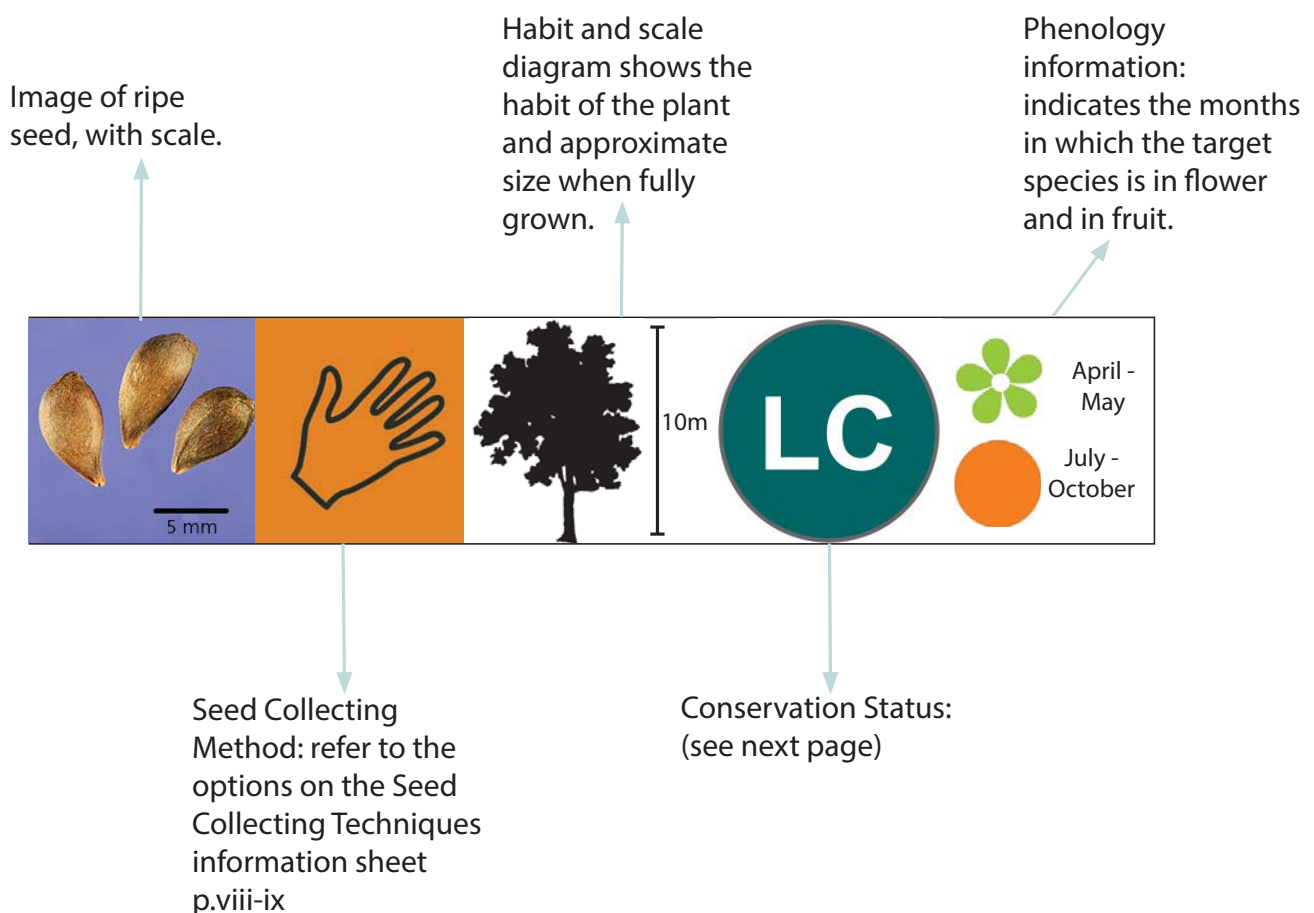
The species included in this guide are a selection of the wild relatives of the 29 key crops which this project covers (African Rice, Alfalfa, Apple, Bambara groundnut, Banana, Barley, Bread Wheat, Butter Bean, Carrot, Chickpea, Common Bean, Cowpea, Eggplant, Faba bean, Finger millet, Grasspea, Lentil, Oat, Pea, Pearl millet, Pigeon pea, Plantain, Potato, Rice, Rye, Sorghum, Sunflower, Sweet potato, Vetch). It is not a definitive guide to the Crop Wild Relatives in this country.

The guides are designed to be used both in the planning of a collecting trip, and also in the field.

At the front of this guide there is a phenology table showing the flowering and fruiting times of all the taxa to indicate which species may be found at a certain time of year, or when to collect target species.

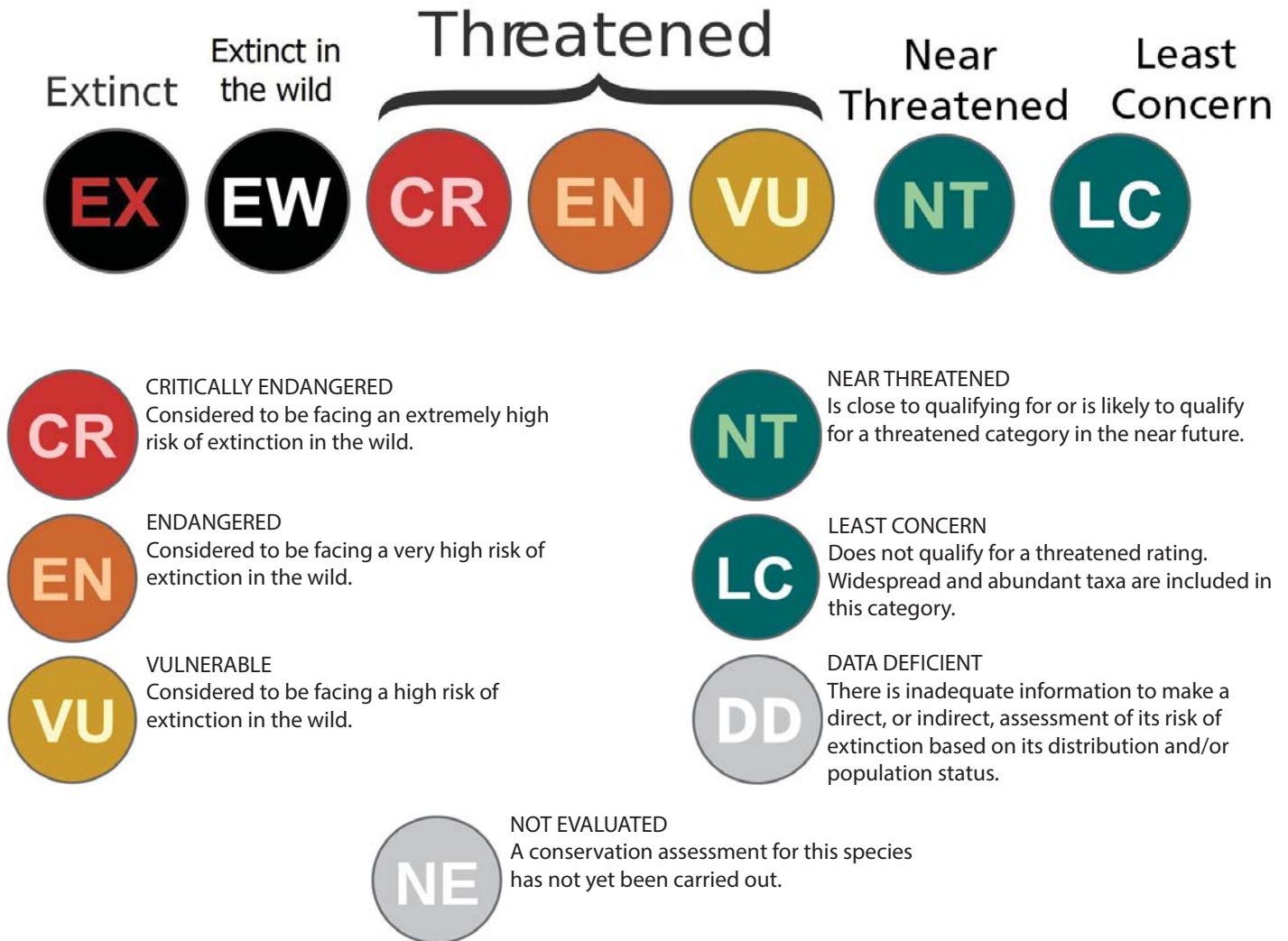
Synonyms for each species are listed in the Appendix at the end of this guide.

On each species profile, there is a collection of images to help identify the target species, accompanied by a series of symbols :



Conservation Status:

Assessments are completed using 2001 IUCN Red List Categories and Criteria version 3.1 with the following categories:

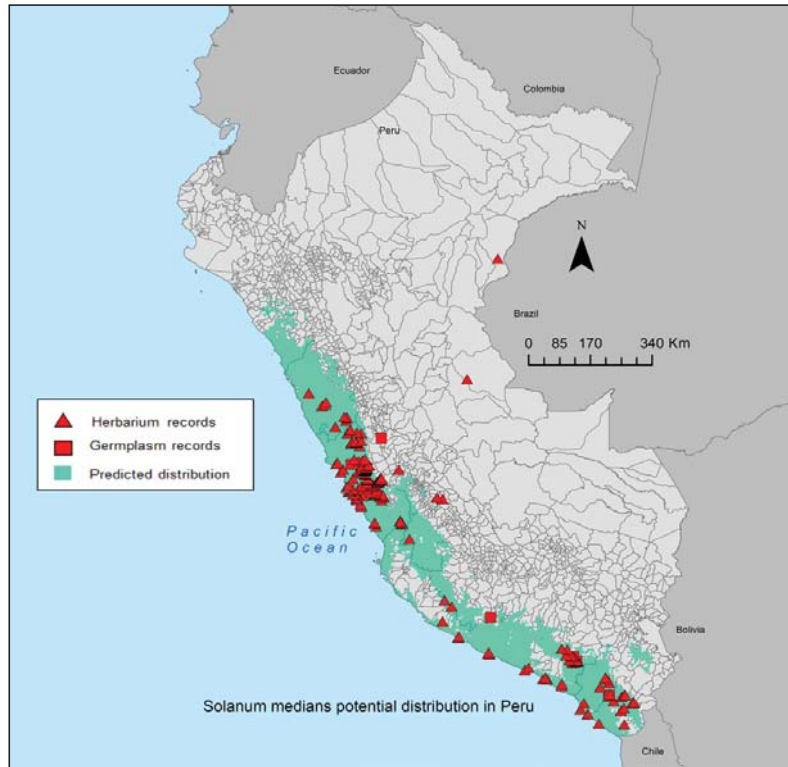


Where a full conservation assessment has not been completed, a preliminary conservation rating may be indicated. Preliminary assessments are produced using specimen locality data and GIS, which calculates two parameters accepted by IUCN as suitable measures of range: namely extent of occurrence (EOO) and area of occupancy (AOO). These values derived for each species are then compared with thresholds set out by IUCN under Criterion B.

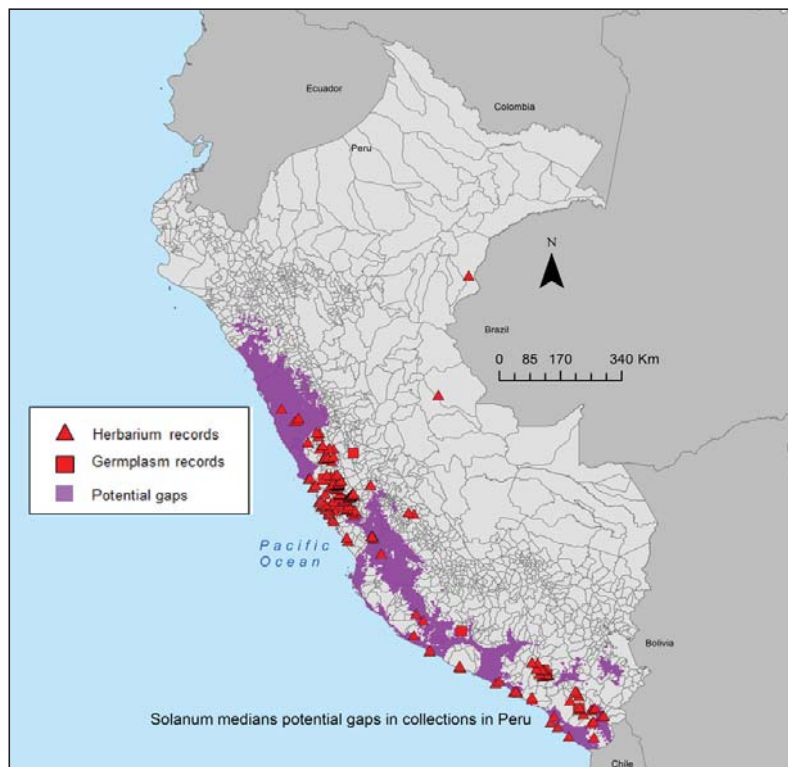
Where a preliminary conservation assessment has been calculated this is indicated by the word PRELIM:



Two maps are provided for each target species. The first map shows a point distribution of all the known localities of this species based on herbarium specimen records and existing data-sets. The area shaded on this map shows the predicted distribution based on Maxent.



The second map shows the potential gaps in gene bank collections, where seed collections should be targeted.



The following resources are available online.

Kew technical information sheets

- Assessing a potential seed collection:
<http://brahmsonline.kew.org/Content/Projects/msbp/resources/Training/02-Assessing-population.pdf>
- Post-harvest handling of seed collections:
<http://brahmsonline.kew.org/Content/Projects/msbp/resources/Training/04-Post-harvest-handling.pdf>

Other sheets covering the following topics are available from

<http://brahmsonline.kew.org/msbp/Training/Resources>

- Protocol for comparative seed longevity testing
- Measuring seed moisture status using a hygrometer
- Selecting containers for long-term seed storage
- Low-cost monitors of seed moisture status
- Small-scale seed drying methods
- Equilibrating seeds to specific moisture levels
- Identifying desiccation-sensitive seeds
- Seed bank design: seed drying rooms
- Seed bank design: cold rooms for seed storage
- Cleaning seed collections for long-term conservation

ENSCONET seed collecting manual for wild species

http://ensconet.maich.gr/PDF/Collecting_protocol_English.pdf

Seed conservation: turning science into practice

<https://academic.oup.com/aob/article/95/5/888/201951>

Collecting plant genetic diversity: Technical guidelines (Bioversity)

http://cropgenebank.sgrp.cgiar.org/index.php?option=com_content&view=article&id=390&Itemid=557

FAO – Commission on Genetic Resources for Food and Agriculture

<http://www.fao.org/nr/cgrfa/en/>

IUCN Red List Categories and Criteria (Version 3.1)

<https://iucn-csg.org/red-list-categories/>

Plants of the World Online

<http://plantsoftheworldonline.org/>

For more information about the Crop Wild Relatives Project and to access the Harlan and de Wet Crop Wild Relatives checklist, please visit the website:

www.cwrdiversity.org

Identification Keys

Interactive identification keys can be accessed using the links below.

[Kew Grassbase interactive identification key](http://www.kew.org/data/grasses-db/ident.htm)

<http://www.kew.org/data/grasses-db/ident.htm>

Michael Way and Kate Gold, Seed Conservation Department

Seed collecting from wild plants requires care, resourcefulness and determination. There are many different collecting techniques. The most appropriate technique will depend on the species, particularly the type of dispersal unit (fleshy fruit, dry fruit, individual seeds etc). This information sheet outlines the manual techniques most commonly used to make seed collections of adequate quality and quantity, for long term conservation.

Hand picking of whole fruits

The most basic and flexible of techniques, hand picking or plucking, has many benefits. Consider though, if you can use a more efficient technique.



Plucking is particularly suitable when:

- target fruits can easily be selected by eye (e.g. due to colour or texture change of fruit coat, or swelling of fruit);
- non-target (e.g. immature or damaged) fruit cannot be excluded from the collection by more efficient techniques;
- fruits are easily accessible and collectors can tie buckets or similar containers around the waist, releasing both hands for collecting;
- collecting many-seeded fleshy or dry indehiscent fruits; and
- making small seed collections.

Pruning clusters of fruit

This technique is typically used to collect tree seeds. Cut groups or clusters of fruits using secateurs or tree pruners. Assess for ripeness and damage before adding seeds to the collection.

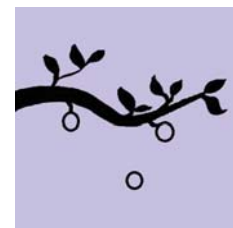


This is a very effective technique when:

- seed is clustered at the distal (terminal) parts of branches;
- the species is abundant and a small associated loss of branch and foliage is acceptable;
- seed is beyond reach of the collectors and has to be obtained using tree pruners.

Shaking branches

Careful shaking of branches will sometimes dislodge the best available seed, which can be collected in buckets or on a tarpaulin held or spread out beneath the plant. Start with gentle taps, and carefully check each sample of seed dislodged. Light shaking will often dislodge fully ripe fruits and seeds, leaving immature, poorly developed and damaged seeds to be retained on the parent plant. Too-heavy beating of branches may cause damage to the tree, and may also dislodge other plant material and associated insects, necessitating additional cleaning of the collection.



Shaking branches may be useful when collecting:

- dehiscent fruits with medium large seeds;
- seeds with irritant plumes (e.g. *Cercocarpus* of the Rosaceae);
- spiny trees such as *Prosopis* (Fabaceae);
- on level, open terrain suitable for tarpaulin use.

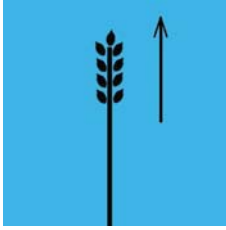
This technique may not be suitable for light, plumed seed from Bombacaceae and Asclepiadaceae, which may be carried away by air currents.



ABOVE: Stripping seed heads may be appropriate for grasses
Credit: Global Crop Diversity Trust/Britta Skagerfalt

Stripping entire seed-heads

This is a popular technique for collecting seed from grasses and may be suitable for other species with erect inflorescences (seedheads). Grasp the seedheads at the base with a gloved hand and slide the hand upwards, dislodging many or all of the seeds. This technique may introduce a proportion of immature seeds into the collection. Such seeds might need further postharvest ripening which can be time consuming and is best avoided.

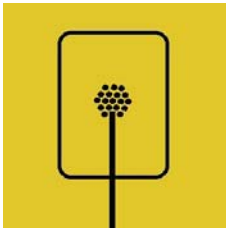


The stripping technique is most suitable for:

- dense, mono-specific stands of target species with no weed or other species present; and
- inflorescences which are completely and consistently at the natural dispersal stage.

Bagging seed-heads

If there is frequent access to the collecting site, and if seeds would otherwise be lost, fix a well-tied mesh bag loosely over pre-dispersal seed heads. Seeds are captured as soon as they are shed, and can be periodically removed. This has been successfully used on a small scale, e.g. for collecting *Fouquieria* spp.



Collecting from the ground

You will frequently find seeds on the ground below trees or shrubs, but they will often be damaged by pests or pathogens. The seeds may have been on the ground for several months, and could even date from the previous year. Such seed will have aged and life-span in storage will be reduced. Inspect the seed carefully, noting any variation in the fruit, seed coat and internal tissues.



In general, only collect from the ground when:

- the parent tree(s) can be determined without doubt;
- you are certain that you are collecting recently dispersed seeds;
- seeds have not suffered significant damage from pests or pathogens; and
- other techniques or collecting options are unsuitable.

Collecting fleshy fruits

- Collect fleshy fruits directly into strong plastic bags or tubs with as much air as possible.
- Pack the bags in a rigid plastic container to ensure that the fruits are not squashed and help prevent them getting too hot and fermenting during transit.
- You may need to remove the seeds from fleshy fruits either during or immediately after the field trip.



ABOVE Collecting small seeds into paper bags
Credit: Ruth Harker/ RBG Kew

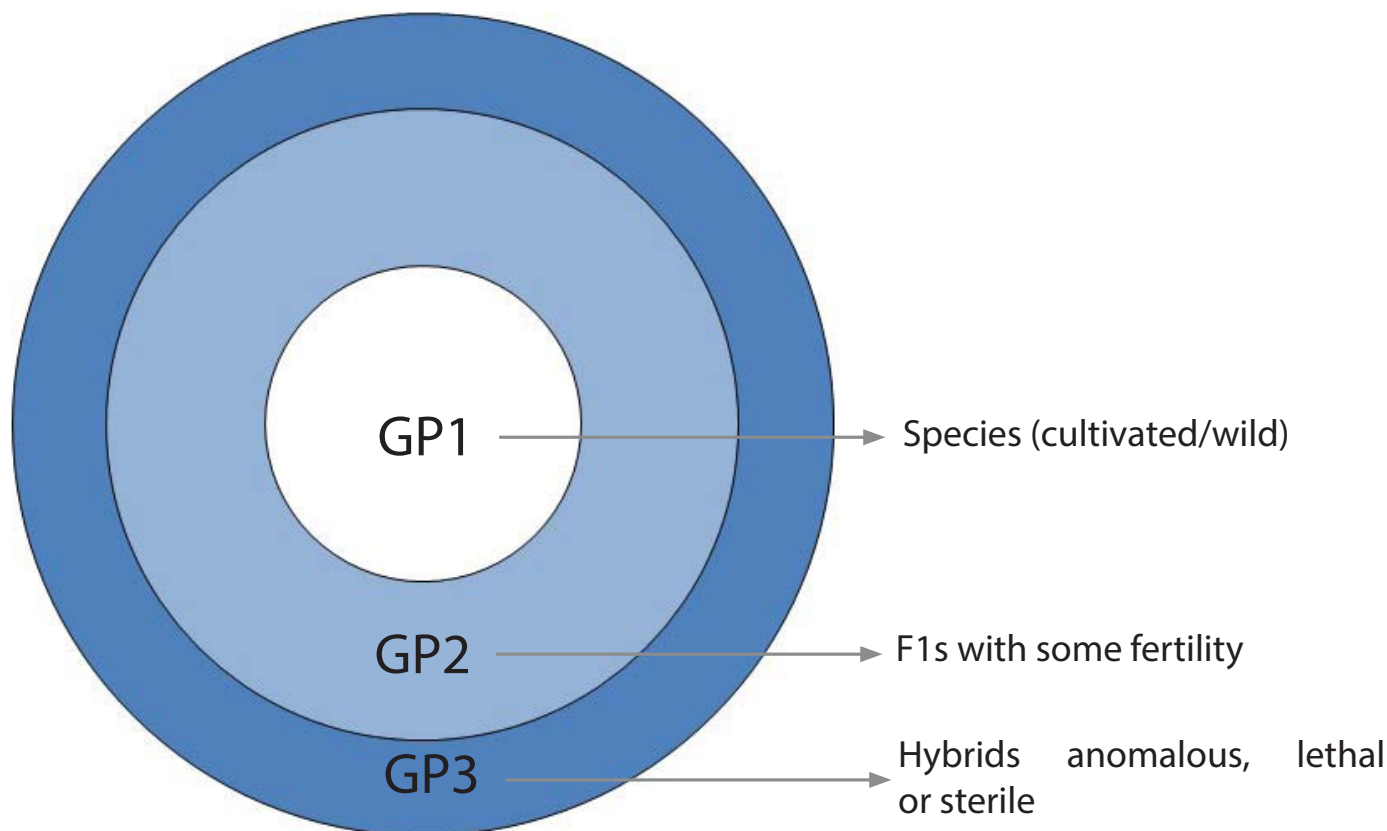
Containers

Collect into buckets, cloth or paper bags, and check each person's sample carefully before combining into a single population collection. Using buckets has the advantage of allowing you to monitor the quality of the collection whilst associated insects disperse freely. Place collections of dry, ripe seed into cloth or paper bags for transit. Store any awned seed or hooked fruit, that would damage or get stuck in cotton bags, in cardboard boxes or strong paper bags. Never collect or store seeds in plastic bags. Label all seed containers inside and out with a unique collection number, and seal them securely. It is best to prepare sufficient labels before filling the containers.

Each target species in this guide is a wild relative of a crop. On each species profile it is indicated how closely related the target species is to the crop using either the Gene Pool concept or the Taxon Group concept. Species more closely related to the crop are higher priorities for collecting.

Gene Pool Concept

Harlan and de Wet, 1971



Taxon Group Concept

Maxted et al. 2006

Taxon Group 1 – cultivated/wild form of the crop

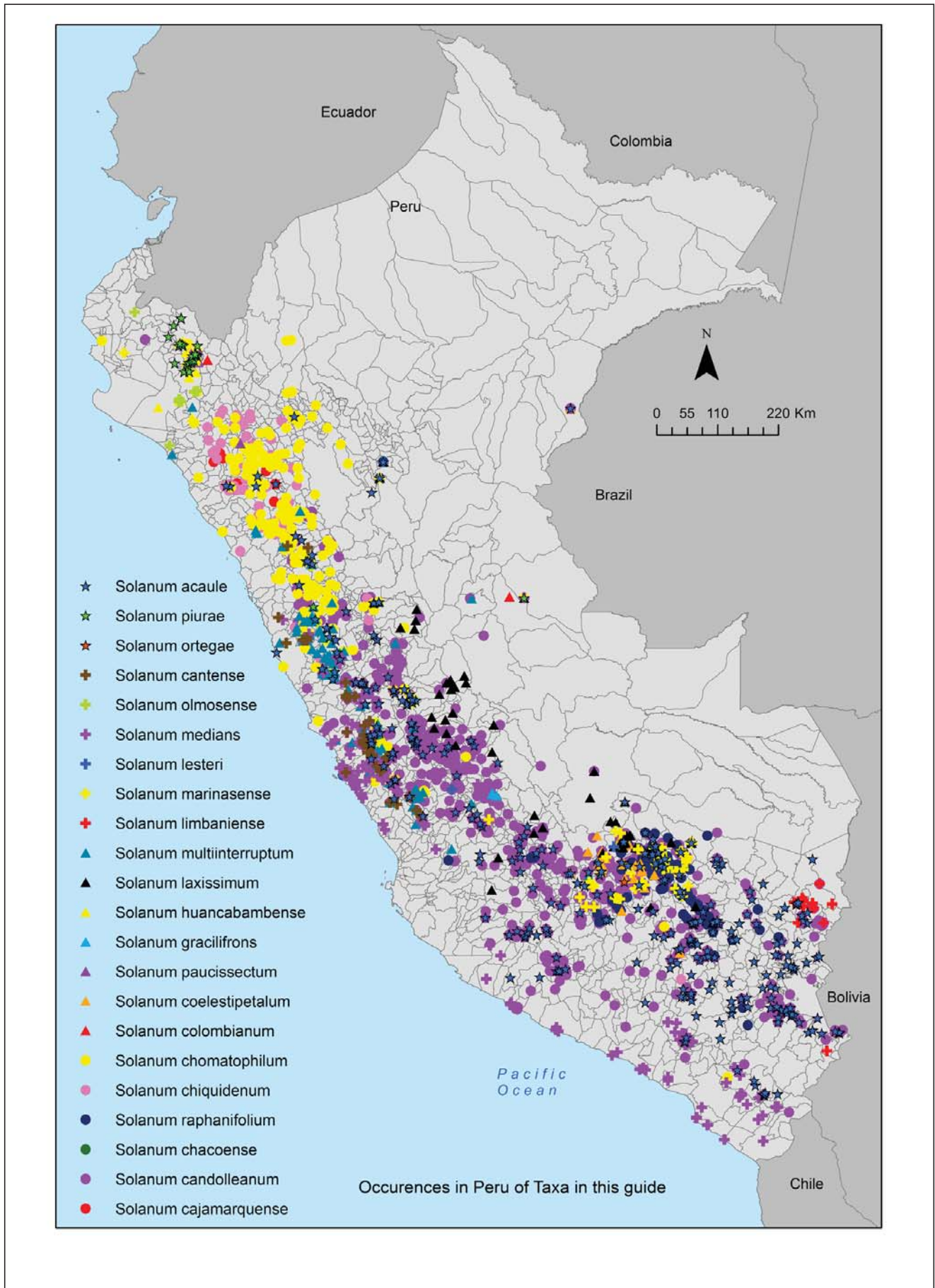
Taxon Group 2 – species in same series/section as crop

Taxon Group 3 – species in same subgenus as crop

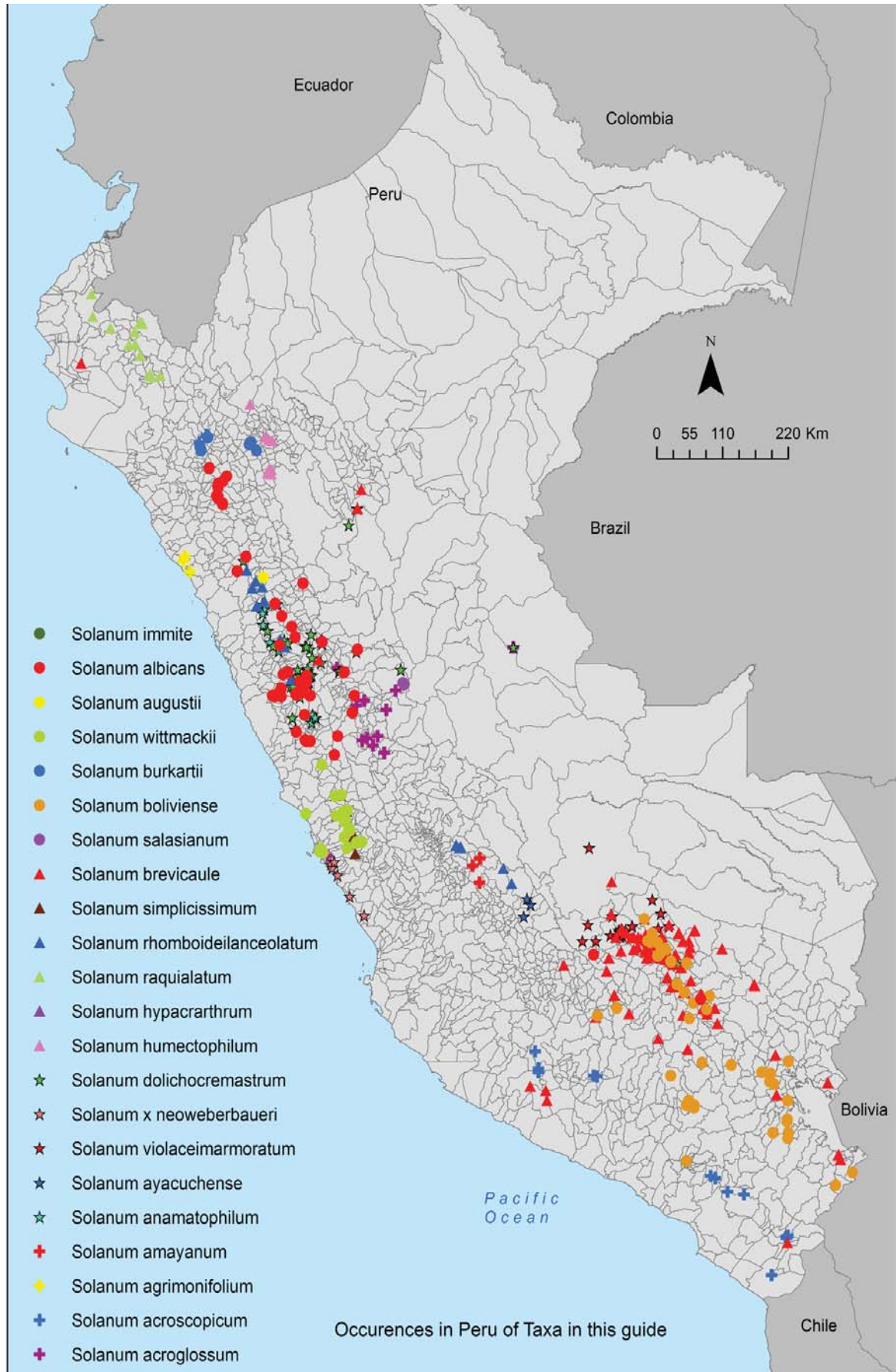
Harlan, J. and J. de Wet (1971). Towards a rational classification of cultivated plants. *Taxon* 20: 509-517.

Maxted, N., B.V. Ford-Lloyd, S.L. Jury, S.P. Kell and M.A. Scholten (2006). Towards a definition of a crop wild relative. *Biodiversity and Conservation* 14: 1-13.

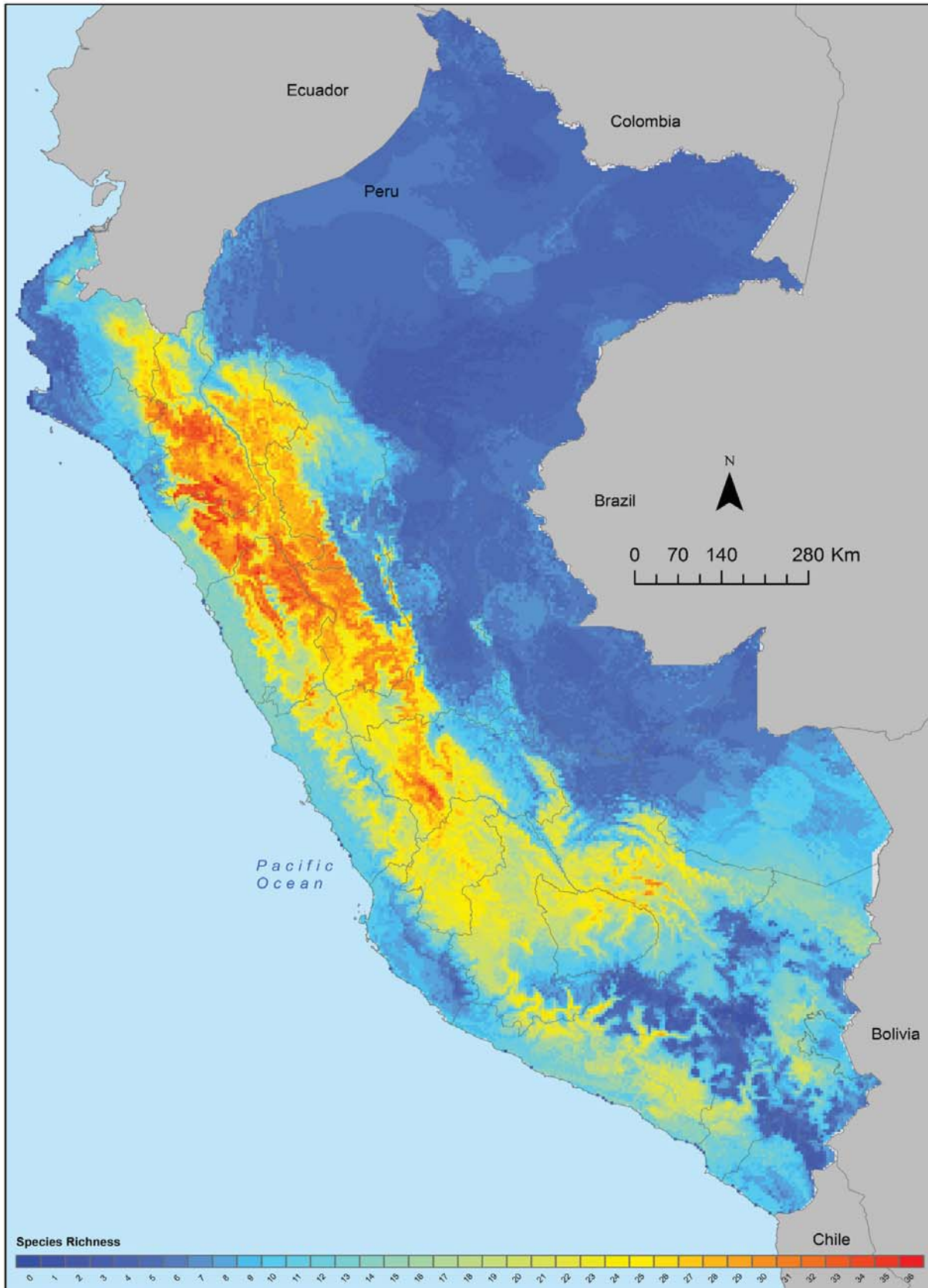
Occurences of all taxa in this guide, as a point distribution



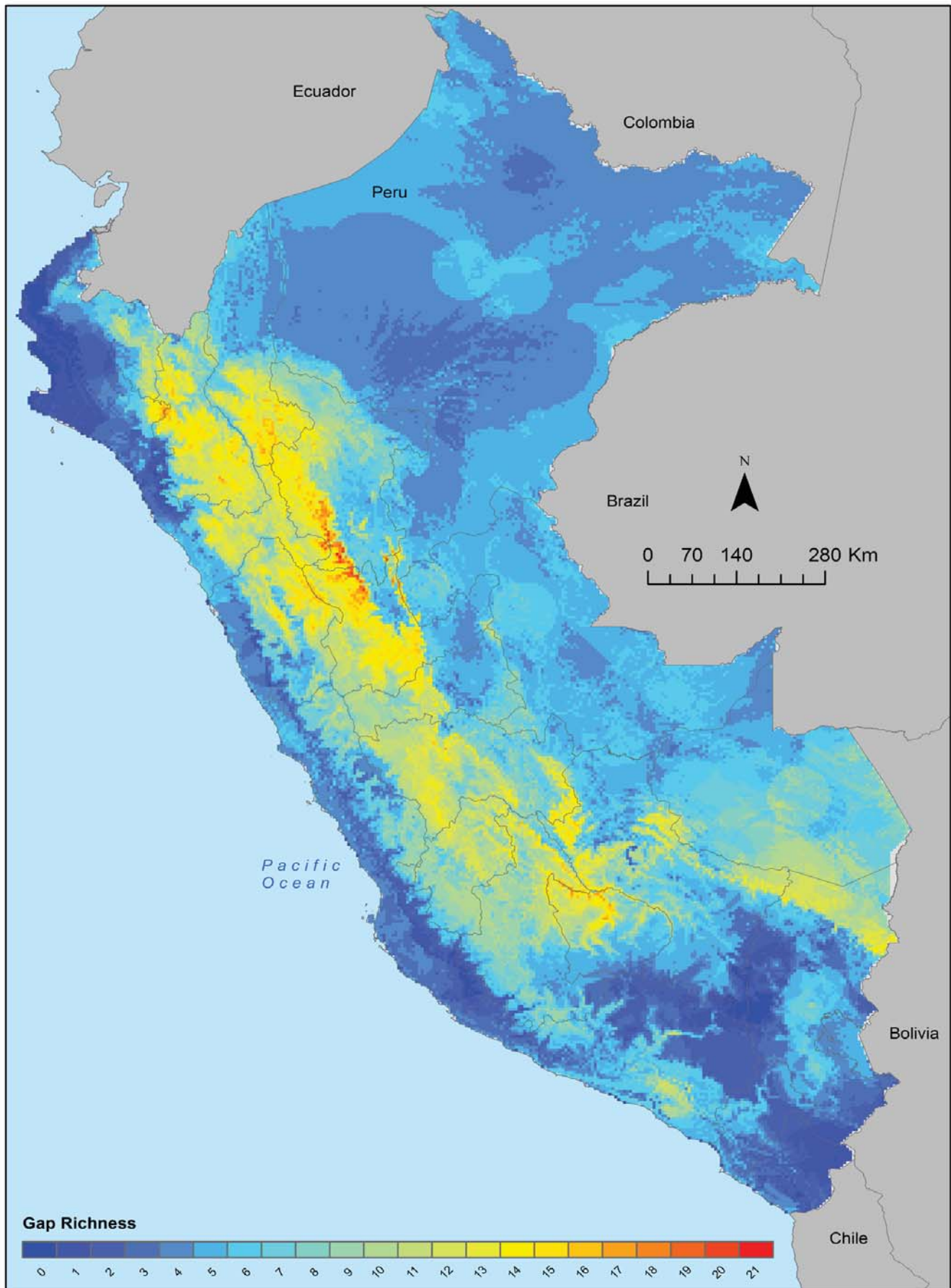
Occurrences of all taxa in this guide, as a point distribution



Species richness



Gap richness



Species in this guide

Family	Taxon	Genepool	Collection Priority	Sheet
Solanaceae	<i>Solanum acaule</i>	Potato	Low	1
Solanaceae	<i>Solanum acroglossum</i>	Potato	Low	2
Solanaceae	<i>Solanum acroscopicum</i>	Potato	Low	3
Solanaceae	<i>Solanum albicans</i>	Potato	Low	4
Solanaceae	<i>Solanum amayanum</i>	Potato	Low	5
Solanaceae	<i>Solanum anamatophilum</i>	Potato	Low	6
Solanaceae	<i>Solanum augustii</i>	Potato	Low	7
Solanaceae	<i>Solanum ayacuchense</i>	Potato	High	8
Solanaceae	<i>Solanum boliviense</i>	Potato	Low	9
Solanaceae	<i>Solanum brevicaule</i>	Potato	Low	10
Solanaceae	<i>Solanum burkartii</i>	Potato	Low	11
Solanaceae	<i>Solanum cajamarquense</i>	Potato	High	12
Solanaceae	<i>Solanum candolleanum</i>	Potato	Low	13
Solanaceae	<i>Solanum cantense</i>	Potato	High	14
Solanaceae	<i>Solanum chacoense</i>	Potato	Low	15
Solanaceae	<i>Solanum chiquidenum</i>	Potato	Low	16
Solanaceae	<i>Solanum chomatophilum</i>	Potato	Low	17
Solanaceae	<i>Solanum coelestispetalum</i>	Potato	Low	18
Solanaceae	<i>Solanum colombianum</i>	Potato	Low	19

Species in this guide

Family	Taxon	Genepool	Collection Priority	Sheet
Solanaceae	<i>Solanum dolichocremastrum</i>	Potato	Low	20
Solanaceae	<i>Solanum gracilifrons</i>	Potato	High	21
Solanaceae	<i>Solanum huancabambense</i>	Potato	Low	22
Solanaceae	<i>Solanum humectophilum</i>	Potato	Low	23
Solanaceae	<i>Solanum hypacrarthrum</i>	Potato	Low	24
Solanaceae	<i>Solanum immite</i>	Potato	Low	25
Solanaceae	<i>Solanum laxissimum</i>	Potato	Low	26
Solanaceae	<i>Solanum limbaniense</i>	Potato	High	27
Solanaceae	<i>Solanum marinasense</i>	Potato	Low	28
Solanaceae	<i>Solanum medians</i>	Potato	Low	29
Solanaceae	<i>Solanum mochiquense</i>	Potato	Low	30
Solanaceae	<i>Solanum multiinterruptum</i>	Potato	Low	31
Solanaceae	<i>Solanum X neoweberbaueri</i>	Potato	Low	32
Solanaceae	<i>Solanum olmosense</i>	Potato	High	33
Solanaceae	<i>Solanum ortegae</i>	Potato	High	34
Solanaceae	<i>Solanum paucissectum</i>	Potato	Low	35
Solanaceae	<i>Solanum piurae</i>	Potato	High	36
Solanaceae	<i>Solanum raphanifolium</i>	Potato	Low	37
Solanaceae	<i>Solanum raquialatum</i>	Potato	Low	38

Species in this guide

Family	Taxon	Genepool	Collection Priority	Sheet
Solanaceae	<i>Solanum rhomboideilanceolatum</i>	Potato	High	39
Solanaceae	<i>Solanum salasianum</i>	Potato	High	40
Solanaceae	<i>Solanum simplicissimum</i>	Potato	Low	41
Solanaceae	<i>Solanum violaceimarmoratum</i>	Potato	Low	42
Solanaceae	<i>Solanum wittmackii</i>	Potato	Low	43

Phenology table

Taxon	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<i>Solanum acaule</i>	Green	Green	Green	Green	Green	Green						Green
<i>Solanum acroglossum</i>	Orange	Orange	Orange	Orange	Orange	Orange						Orange
<i>Solanum acroscopicum</i>		Green	Green	Green	Green	Green						
<i>Solanum albicans</i>		Orange	Orange	Orange	Orange	Orange						
<i>Solanum amayanum</i>			Green									
<i>Solanum ananathophilum</i>		Green	Green	Green	Green	Green						
<i>Solanum augustii</i>			Orange	Orange	Orange	Orange						
<i>Solanum ayacuchense</i>		Green	Green	Green	Green	Green						
<i>Solanum boliviense</i>	Green	Green	Green	Green	Green	Green						
<i>Solanum boliviense</i>	Orange	Orange	Orange	Orange	Orange	Orange						
<i>Solanum boliviense</i>	Green	Green	Green	Green	Green	Green						
<i>Solanum boliviense</i>	Orange	Orange	Orange	Orange	Orange	Orange						
<i>Solanum brevicaule</i>	Green	Green	Green	Green	Green	Green						
<i>Solanum brevicaule</i>	Orange	Orange	Orange	Orange	Orange	Orange						
<i>Solanum burkartii</i>												
<i>Solanum cajamarquense</i>			Green	Green	Green	Green						
<i>Solanum cajamarquense</i>			Orange	Orange	Orange	Orange						
<i>Solanum candolleianum</i>	Green	Green	Green	Green	Green	Green						
<i>Solanum candolleianum</i>	Orange	Orange	Orange	Orange	Orange	Orange						
<i>Solanum cantense</i>			Green	Green	Green	Green						
<i>Solanum cantense</i>			Orange	Orange	Orange	Orange						

Phenology table

Taxon	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<i>Solanum boliviense</i>	Green	Green	Orange	Green	Orange							
<i>Solanum brevicaule</i>	Green	Green	Orange	Green	Orange							
<i>Solanum burkartii</i>												
<i>Solanum cajamarquense</i>			Green	Orange	Green	Orange						
<i>Solanum candolleanum</i>	Green	Green	Orange	Green	Orange							
<i>Solanum cantense</i>			Green	Orange	Green	Orange						
<i>Solanum chacoense</i>	Green	Green	Orange	Green	Orange	Green	Orange		Green	Orange		Green
<i>Solanum chiquidenum</i>			Green	Orange	Green	Orange						
<i>Solanum chomatophilum</i>			Green	Orange	Green	Orange						
<i>Solanum coelestispetalum</i>	Green	Green	Orange	Green	Orange							
<i>Solanum colombianum</i>	Green	Green	Orange	Green	Orange	Green	Orange		Green	Orange		Green
<i>Solanum dolichocremastrum</i>			Green	Orange	Green	Orange						
<i>Solanum gracilifrons</i>		Green	Orange	Green	Orange							
<i>Solanum huancabambense</i>		Green	Orange	Green	Orange	Green	Orange					
<i>Solanum humectophilum</i>			Green	Orange	Green	Orange						
<i>Solanum hypacrarthrum</i>			Green	Orange	Green	Orange						

Phenology table

Taxon	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
<i>Solanum rhomboideilanceolatum</i>	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)								
<i>Solanum salasianum</i>			Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)							
<i>Solanum simplicissimum</i>	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)								
<i>Solanum sogarandinum</i>	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)									
<i>Solanum violaceimarmoratum</i>	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)		
<i>Solanum wittmackii</i>			Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)	Flower (Green), Fruit (Orange)							

KEY



Species in flower



Species in fruit

data gathered from literature and herbarium specimens

Primary genepool of *Solanum ajanhuiri* Juz. & Bukasov

HABIT: Herbaceous 0.1-0.3 m tall, rosette forming to erect. Stems 2-4 mm in diameter at base of plant, green, sometimes purple or green and purple mottled.

LEAVES: Leaves odd-pinnate, the blades 9-24.5 x 2.2-6 cm, membranous to chartaceous, subglabrous to moderately pubescent adaxially and abaxially with short multicellular hairs; lateral leaflet pairs 4-6, subequal except for the most proximal 1-2 pairs that are greatly reduced in size, to unequal with the most distal pairs clearly larger; most distal lateral leaflets 1.6-4.4 x 0.8-2.4 cm, broadly ovate to broadly elliptic, the apex obtuse, the base typically oblique to cuneate.

INFLORESCENCES: 3-7 cm, typically a monochasium, with all flowers apparently perfect, the axes pubescent with short multicellular hairs; peduncle highly contracted, 1-4 mm long; pedicels 13-35 mm long, spaced 1-10 mm apart, articulation absent.

FLOWER: Homostylous, 5-merous. Calyx 3-5 mm long, the lobes 1-4 mm. Corolla 1.4-2.5 cm in diameter, rotate, blue to more rarely white or blue and white streaked adaxially and abaxially.

FRUIT: Globose to slightly ovoid berry, 1-2 cm wide, 1-2.2 cm long, green to green tinged with purple when ripe, glabrous.

SEED: Ovoid, whitish to greenish in fresh condition and drying brownish, with a thick covering of "hair-like" lateral walls of the testal cells.

Habitat:

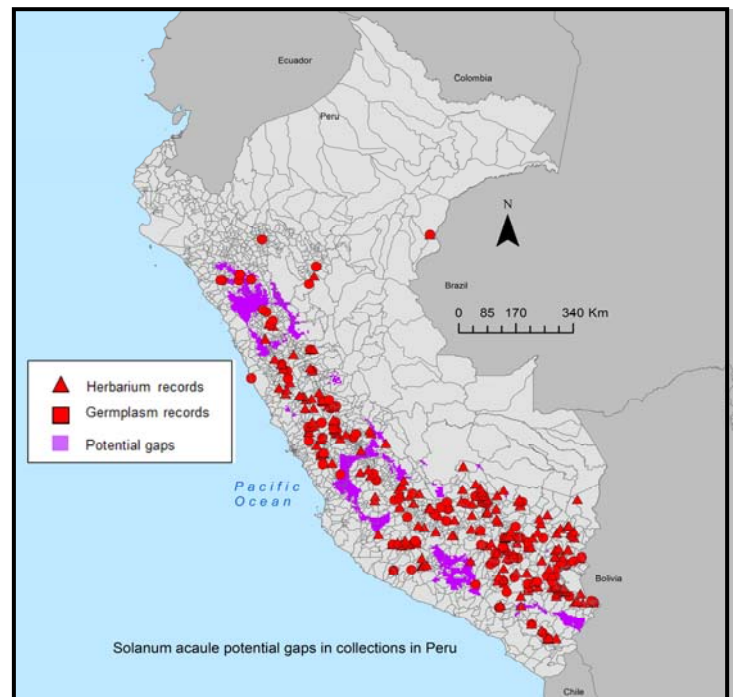
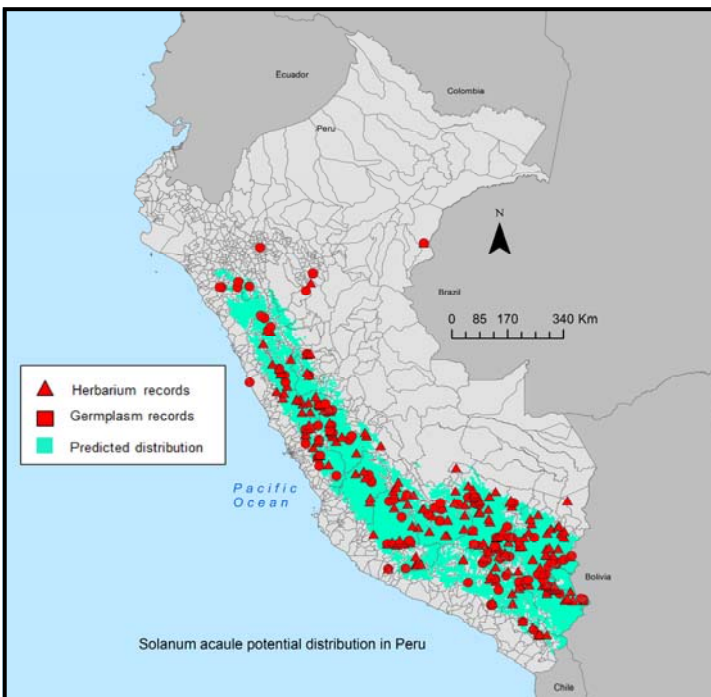
Found on dry rocky hillsides, high puna, among herbs, spiny shrubs and low woods, along streamsides, dry river beds and alluvial cones.

Distribution:

Widespread and common in upland habitats from northern Peru (Dept. Cajamarca), south through Bolivia to northern Argentina (Prov. San Juan), and with one record in northern Chile (Antofagasta Region).

Altitude: 2400 - 4700 m

<i>Solanum acaule</i>	May be confused with: <i>Solanum albicans</i>
Pedicels, glabrous, articulation absent or inconspicuous.	Pedicels densely pilose. More clearly articulated, silvery-white pubescence.



References: Ochoa, C.M., (2004) The Potatoes of South America, Peru (Part 1)

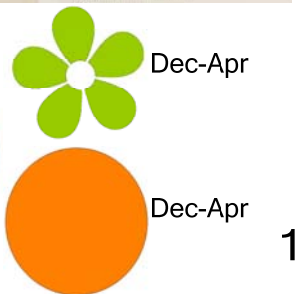
Primary gene pool of *Solanum ajanhuiri* Juz. & Bukasov



No seed image available



0.1-0.3 m



Gene Pool Secondary relative of *Solanum tuberosum* L.**HABIT:** Herbs 0.15-0.75 m tall, erect. Stems 2-6 mm in diameter at base of plant, unwinged, glabrous, woody.**LEAVES:** Odd-pinnate, the blades 6.5-13.5 x 3.3-11 cm, light green abaxially and dark green adaxially, coriaceous, glabrous to glabrescent with very short hairs abaxially; lateral leaflet pairs 2-4, decreasing in size toward the leaf base, with the terminal leaflet generally subequal to the laterals; terminal leaflet 4-7.5 x 2-2.6 cm, ovate to elliptic, the apex acute to acuminate, the base attenuate.**INFLORESCENCES:** 5.5-11.5 cm, terminal with a subtending axillary bud, with 10-26 flowers, with all flowers apparently perfect; peduncle 1.7-8.6 cm long; pedicels 25-35 mm long in flower and fruit, spaced 3-5 mm apart, articulated high in the distal half.**FLOWERS:** Homostylous. Calyx 3-10 mm long, the tube 1-3 mm, the lobes ca. 8-9 mm, ovate to lanceolate, with linear acumens 3-4 mm long, glabrous. Corolla 3-4 cm in diameter, pentagonal to rotate, lilac to blue, glabrous abaxially and adaxially.**FRUIT:** Globose berry, 1.5-1.8 cm in diameter, medium to deep green with purple stripes when ripe, glabrous.**SEED:** Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.**Habitat:**

Rich soils, among herbs and shrubs.

Distribution:

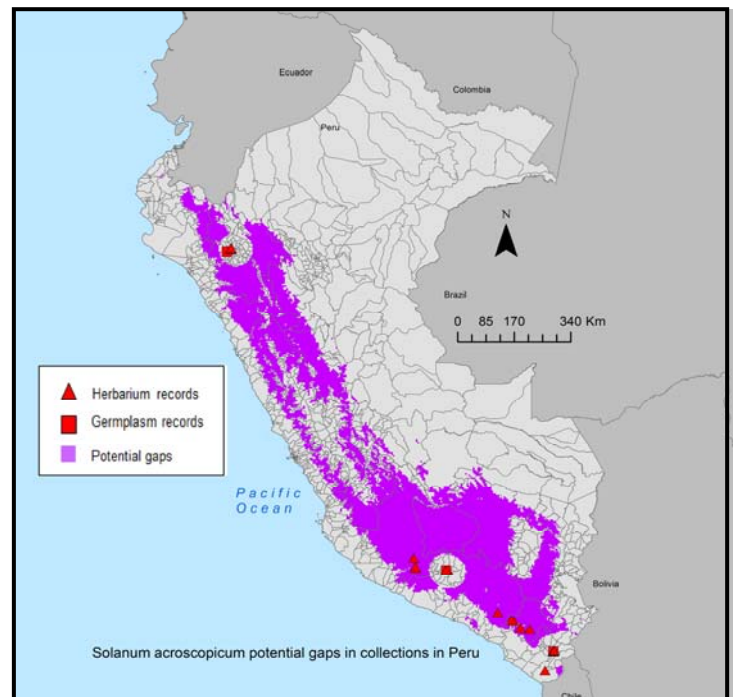
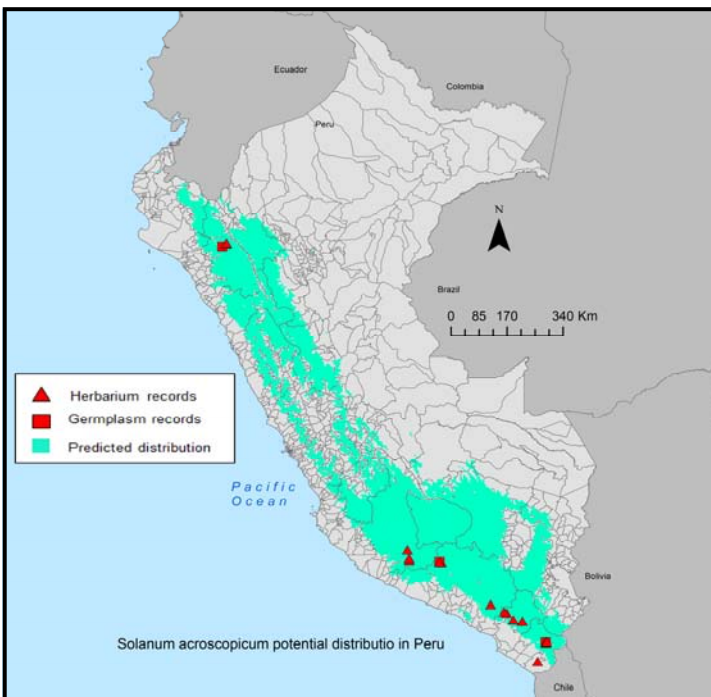
Central Peru (Depts. Huánuco and Pasco), on creeks in the Andes.

Altitude: 2052 - 3800 m*Solanum acroglossum*May be confused with:
Solanum piurae

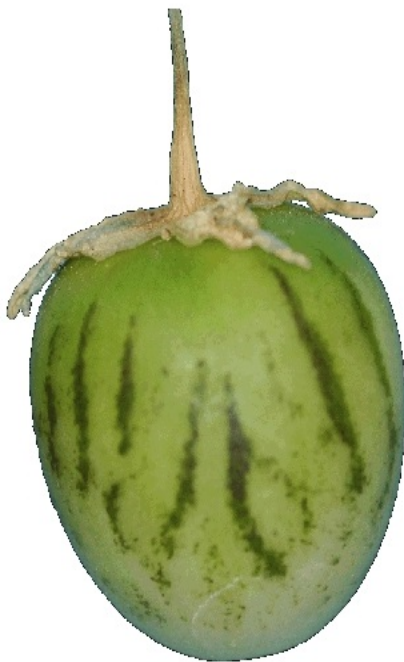
Sessile lateral leaflets.



Petiolulate lateral leaflets.


**References:** <http://solanaceaesource.org/solanaceae/solanum-acroglossum>

Gene Pool Secondary relative of *Solanum tuberosum* L.



Credit: A.Salas

No seed image available



Credit: A.Salas/CIP

0.15-0.75 m

NT
PRELIM



Jan-May

Jan-May

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.30-2.0 m tall, erect. Stems 5-20 mm in diameter at base of plant, unwinged or narrowly winged, glabrous, light green or with purple dots in the basal part.

LEAVES: Odd-pinnate, blades 9-31 x 5.5-18 cm, medium green abaxially and adaxially, chartaceous, glabrous to glabrescent with very short white hairs adaxially, glabrous abaxially; terminal leaflet 3.5-10.5 x 0.7-2.7 cm, ovate to elliptic, the apex acute to acuminate, the base attenuate; interjected leaflets 0-16, sessile to short petiolulate, ovate to orbicular; petioles 0.8-2.6 cm, glabrous; Pseudostipules 5-15 mm long, glabrous to subglabrous.

INFLORESCENCES: 5.3-17.5 cm; 10-40 flowers; peduncle 2-12 cm long; pedicels 15-40 mm long in flower and fruit, articulated high in the distal half.

FLOWERS: Homostylous; calyx 3-8 mm long, the lobes 2-7 mm, ovate to apiculate, with linear acumens 2-7 mm long glabrous; corolla 2.5-4 cm in diameter, pentagonal to rotate-pentagonal, lilac to purple, edges flat, not folded dorsally, glabrous abaxially and adaxially but with short white hairs on the corolla acumens

FRUITS: Globose berry, 1.5-2 cm in diameter, green, sometimes with white dots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

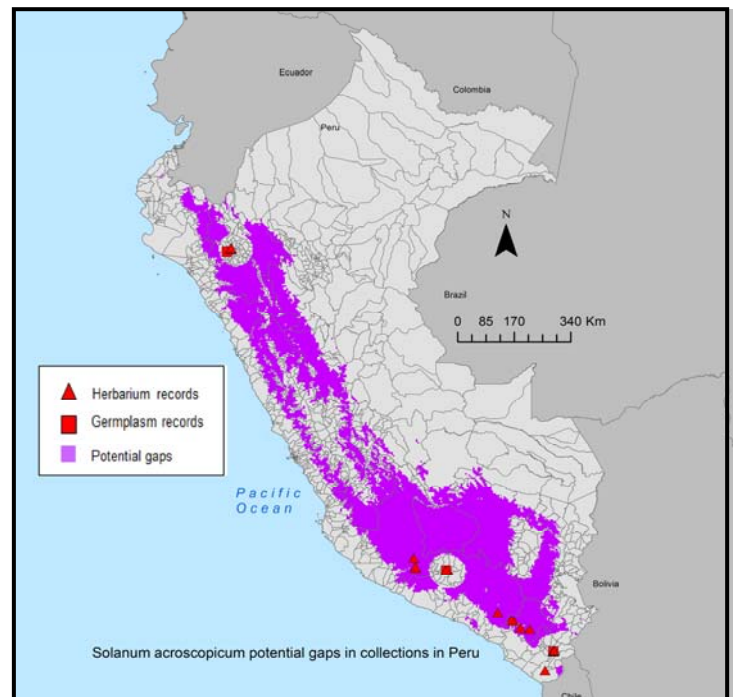
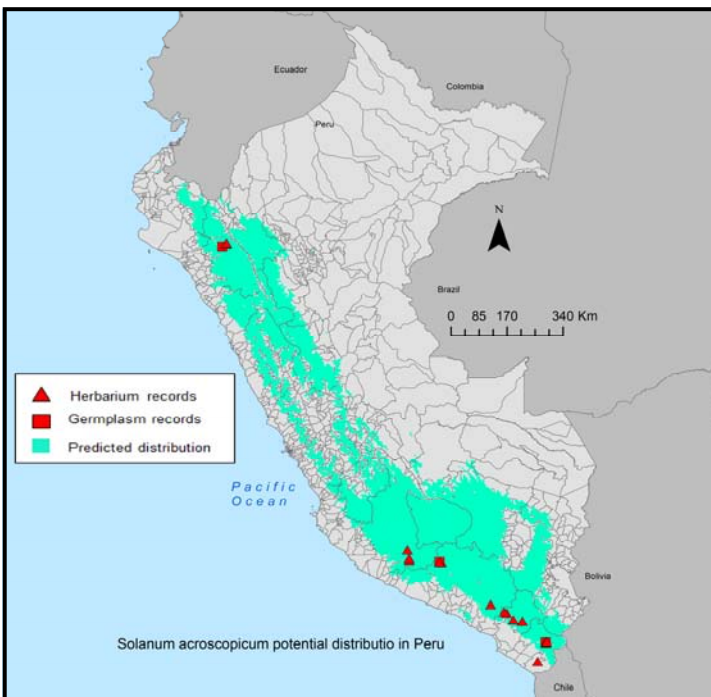
On rocky cracks and humid places and in the shade, in rich soils, among herbs or shrubs.

Distribution:

Peru (Depts. Arequipa, Ayacucho, Cajamarca and Tacna).

Altitude: 2350 - 3900 m

<i>Solanum acroscopicum</i>	May be confused with: <i>Solanum trinitense</i>
Lilac to purple corollas.	White corollas.



References: <http://solanaceaesource.org/taxonomy/term/105376/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



No seed image available



0.30-2.0 m



Feb-Jun

Feb-Jun

HABIT: Herbs strongly rosette-forming. Stems 3-5 mm in diameter at base of plant, light green, unwinged, densely pubescent with whitish hairs 3-6 mm long.

LEAVES: Odd-pinnate, the blades 5-18.5 x 1.5-6.5 cm, green, membranous to chartaceous, densely pubescent with whitish pilose hairs adaxially and abaxially, the hairs longer on the veins and rachis, lateral leaflet pairs 2-5, decreasing in size toward the base, with the terminal leaflet larger than the laterals; petioles 1-4 cm, pubescent as the stems.

INFLORESCENCES: 3-7 cm, distinct in this species, typically a monochasium with an "extra" flower at its base, with 3-7 flowers; peduncle highly contracted and often single-flowered, 3-4 mm long; pedicels 15-30 mm long in flower and fruit; pedicels 15-30 mm long in flower and fruit, spaced 1-10 mm apart, articulated in the distal third.

FLOWERS: Homostylous, 5-merous. Calyx 5-6 mm long, the tube 1-2 mm, the lobes 1-4 mm, acute to acuminate to lanceolate; corolla 1.5-1.8 cm in diameter, rotate, light blue to white or more rarely light to dark violet, the tube 1-2 mm long

FRUITS: Fruit a globose berry, 1-1.5 cm in diameter, light green, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Open grasslands, non gently sloping hillsides.
Also on rocky mountain slopes.

Distribution:

Peru, Ecuador.

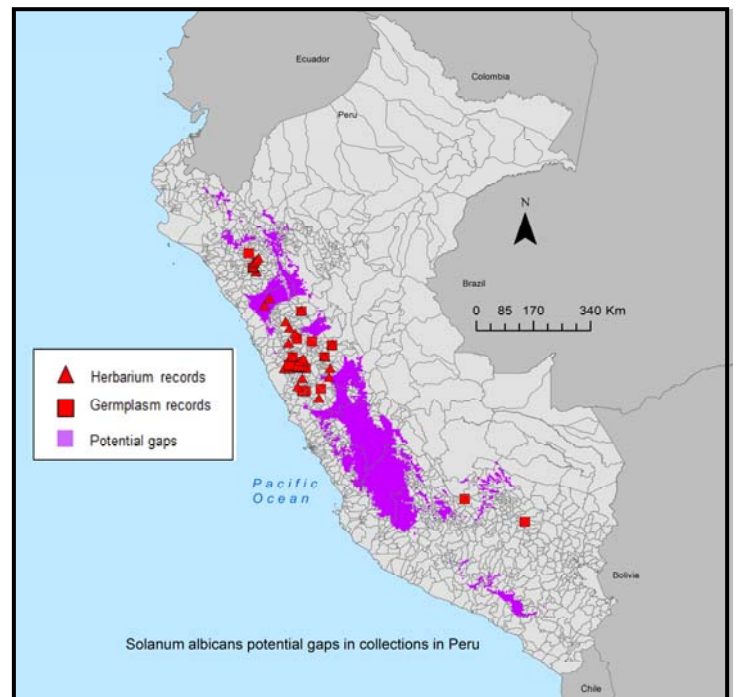
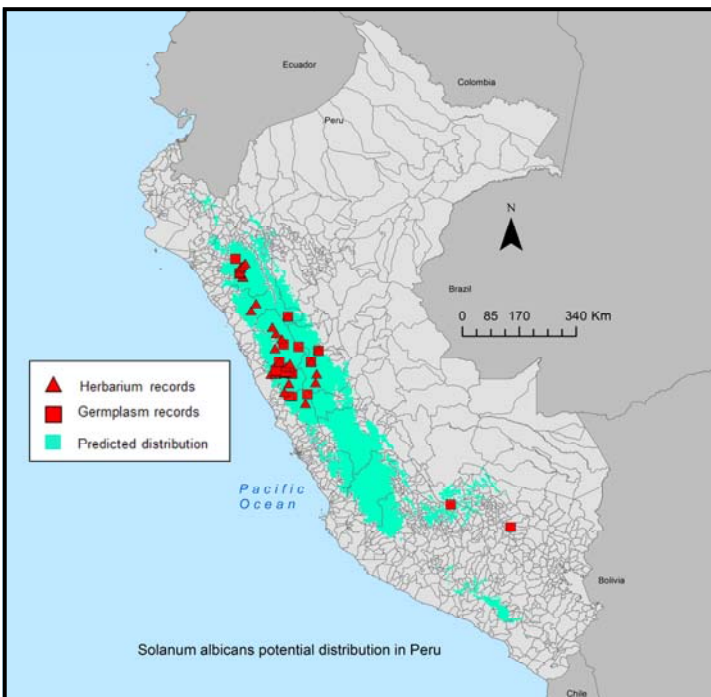
Altitude: 3340 - 4800 m

Solanum albicans

Pedicels densely pilose. More clearly articulated, silvery-white pubescence.

May be confused with:
Solanum acaule

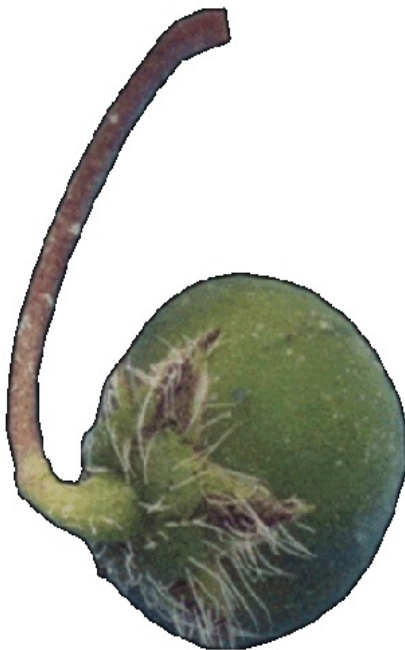
Pedicels, glabrous, articulation absent or inconspicuous.



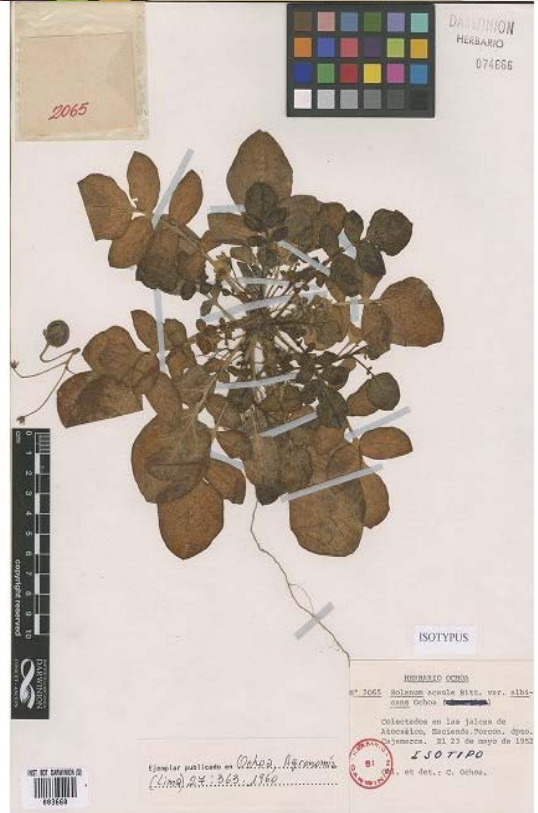
References: <http://solanaceaesource.org/solanaceae/solanum-albicans>




Credit: A.Salas



Credit: A.Salas



No seed image available




10-30 cm



Jan-May

Jan-May

HABIT: Herbs 0.1-0.4 m tall, erect. Stems 3-6 mm in diameter at the base of the plant, unwinged, light green, densely pubescent with whitish hairs 3-6 mm long. Pseudostipules minute-6 mm long, elliptic, pubescent.

LEAVES: 7-18 cm long, 5-9 cm wide, odd-pinnate, dark green adaxially and light green abaxially, membranous, densely pubescent with whitish hairs 3-6 mm long adaxially, slightly less dense abaxially; petioles 0.5-2 cm long, densely pubescent; most distal lateral leaflets 3.5-5 cm long, 1.3-2.5 cm wide, broadly to narrowly elliptical; terminal leaflet 6-12 x 2.5-5.5 cm, elliptical to ovate, the apex acute to acuminate, the base acute to obtuse; interjected leaflets 0-6, sessile.

INFLORESCENCES: 15-17 cm long, terminal with a subtending axillary bud, generally in the distal half of the plant, usually forked, with 10-15 flowers, the axes densely pubescent; peduncle 7-11 cm long; pedicels 2-4.5 mm long, articulated somewhat distal to the middle.

FLOWERS: 5-merous, all perfect. Calyx 8-12 mm long, the lobes 6-8 mm long, long attenuate to acute, with linear acumens 3-5 mm long, sparsely to densely pubescent with white hairs. Corolla 3.5-4.5 cm in diameter, rotate-pentagonal, dark purple.

FRUITS: Globose berry, 1.5-2 cm in diameter, light green with white stripes, glabrous.

Habitat:

Rocky slopes, grassland.

Distribution:

Species is only known from the Province of Tayacaja in the Department of Huancavelica.

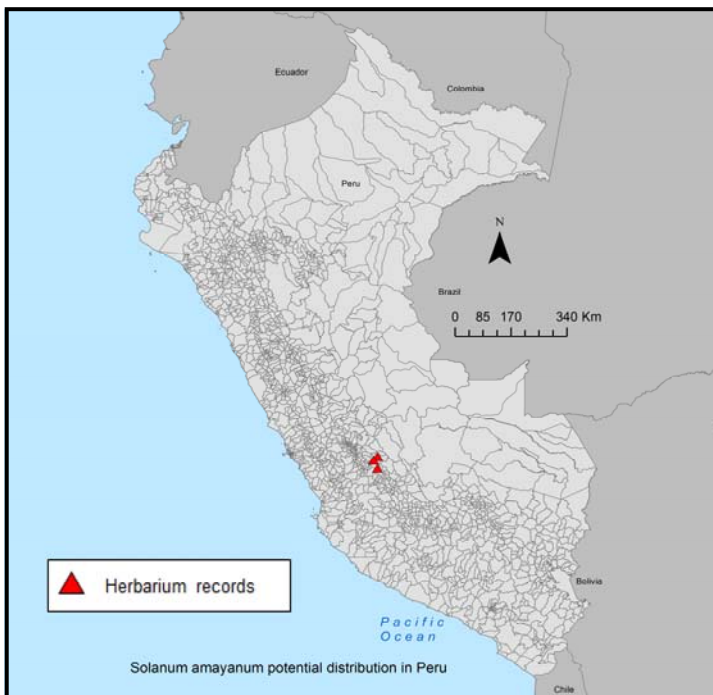
Altitude: 3000 - 3900 m

Solanum amayanum

May be confused with:
Solanum bukasovii

Pedicel articulation at or somewhat distal to the middle. Stem very pubescent.

Pedicel articulation within 6 mm of the calyx. Stem narrowly winged, sparsely pilose.



All populations priority
for collection.

References: Ochoa, C.M., (2004) The Potatoes of South America, Peru (Part 1)



Credit: A.Salas



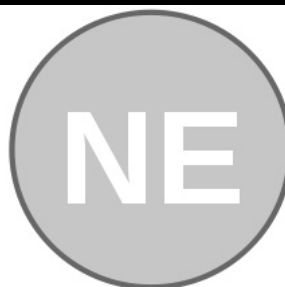
Credit: A.Salas

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image
available



20-50
cm



Mar

No Data

HABIT: Herb 20-60 cm tall, erect. Stems 2-6 mm in diameter at base of plant, unwinged, glabrous to sub-glabrous, woody.
LEAVES: Leaves odd-pinnate, the blades 8-16 x 5.2-9 cm, dark green adaxially and light green abaxially, coriaceous, shiny and glabrous to subglabrous adaxially, pubescent with very short white hairs abaxially; lateral leaflet pairs 4-10; terminal leaflet 2.6-5.2 x 0.15-0.6 cm, lanceolate to linear, the apex obtuse to slightly acute, falcate, the base cuneate.
INFLORESCENCE: 8.5-12.5 cm, terminal with a subtending axillary bud, generally in the distal half of the plant, usually forked, with 4-12 flowers, with all flowers apparently perfect, the axes subglabrous; peduncle 1.6-12.4 cm long; pedicels 16-51 mm long.
FLOWERS: Homostylous; Calyx 5-6 mm long, the tube 1-2 mm, the lobes 4-5 mm, lanceolate, with linear acumens 4-5 mm long, sparsely pubescent with white long hairs. Corolla 2-4.4 cm in diameter, pentagonal to rotate, lilac to blue; edges flat, not folded dorsally, glabrous abaxially and adaxially; style 3-10 mm x ca. 1 mm, exceeding stamens by 1-6 mm
FRUITS: Globose to ovoid berry, 1.1-2 cm in diameter, light green with purple stripes when ripe, glabrous.
SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

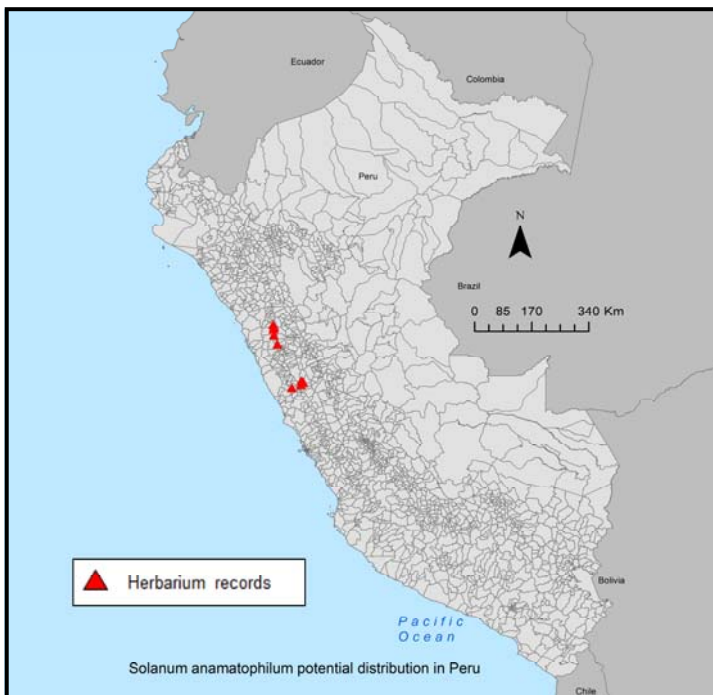
On poor rocky soils, among cactus and bromeliads.

Distribution:

Central Peru (Dept. Ancash)

Altitude: 1720 - 2800 m

<i>Solanum anamatophilum</i>	May be confused with: <i>Solanum infundibuliforme</i>
Erect habit.	Rosette plant.

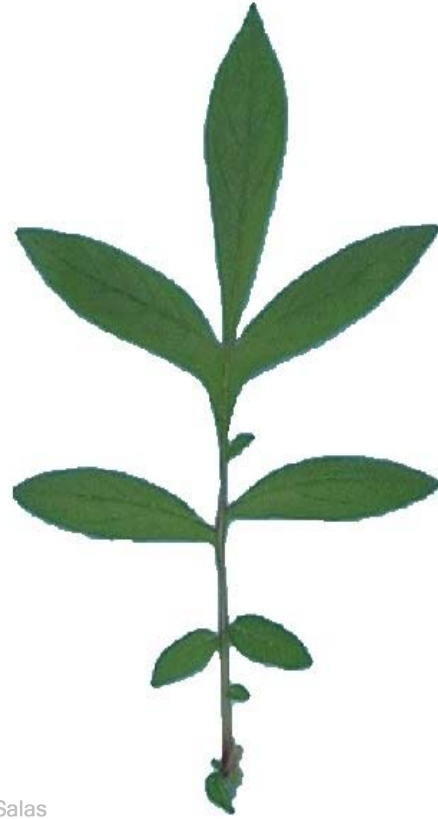


All populations priority
for collection.

References: <http://solanaceaesource.org/solanaceae/solanum-anamatophilum>



Credit: A.Salas



Credit: A.Salas



RBG Kew



RBG Kew

No seed
image
available



20-60
cm



Mar-May

Mar-May

HABIT: Herbs 0.2-0.8 m tall, erect. Stems 4-7 mm in diameter at base of plant, unwinged, glabrous to finely puberulent or moderately pubescent with whitish and short simple hairs, dark green.

LEAVES: Odd-pinnate, the blades 13-30 x 6-13 cm, dark green, coriaceous, glabrous adaxially, glabrous to glabrescent with very short hairs abaxially; terminal leaflet 3.5-5.9 x 1.3-2.6 cm, ovate to elliptic, the apex acute to acuminate, the base attenuate to slightly decurrent.

INFLORESCENCES: 6-15 cm, terminal with a subtending axillary bud, generally in distal half of the plant, usually forked, 12-27 flowers, all flowers apparently perfect, the axes glabrous; peduncle 6.5-20 cm long; pedicels 30-55 mm long in flower and fruit, spaced 1-10 mm apart, articulated high in the distal half.

FLOWERS: Calyx 10-18 mm long, the tube 2-8 mm, the lobes 8-12 mm, linear, the acumens 2.4-5.9 mm long, glabrous; Corolla 3.4-4.8 cm in diameter, semi-stellate to pentagonal, white with lilac tips to light blue. Ovary glabrous; style 9-13 mm x ca. 1 mm, exceeding stamens by 3-6 mm.

FRUITS: Globose berry, 1.7-2.2 cm in diameter, deep green to purple with white stripes when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Rocky slopes.

Distribution:

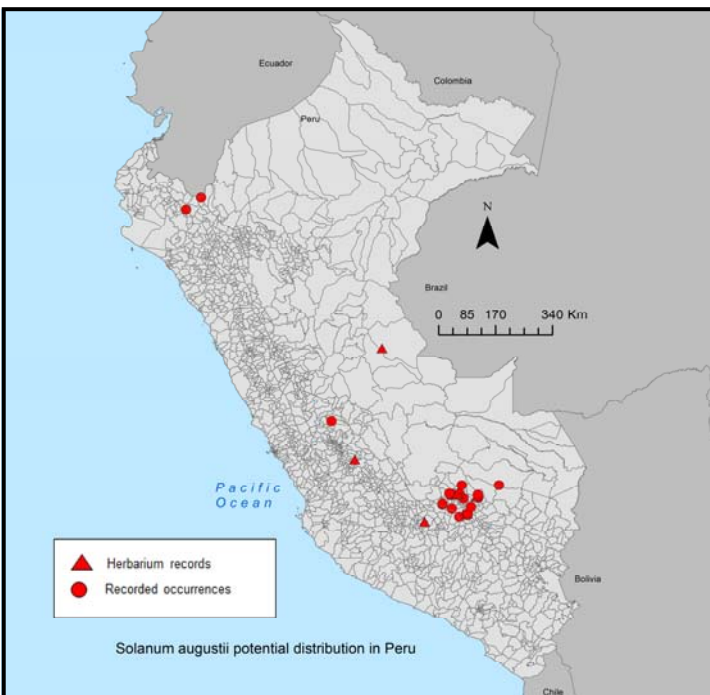
Central Peru, (Dept. Ancash).

Altitude: 2300 - 3800 m*Solanum augustii*May be confused with:
Solanum albornozii

Globose fruits.



Ovoid fruits.



All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/105760/descriptions>



Credit: A.Salas



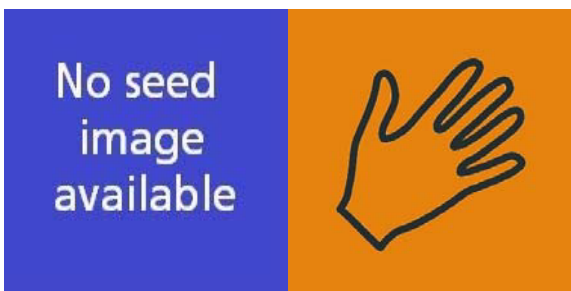
Credit: A.Salas



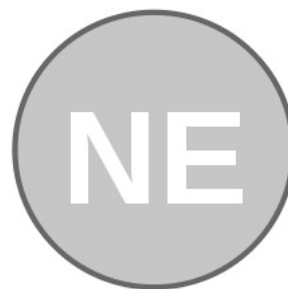
Credit: A.Salas



Credit: A.Salas/CIP



20-80
cm



Apr-May

Apr-May

Secondary Genepool of *Solanum tuberosum* L.

Habit: Plant spreading decumbent to erect, up to 0.7 m tall. Stoloniferous and tuber bearing, lightly short pilose to puberulent throughout; stems branched.

LEAVES: Odd pinnate, up to 20 cm long, shiny on the upper surface, without or usually with one or more interstitial leaflets; leaflets 7 to 11, usually 9, ovate-elliptic to elliptic or elliptic lanceolate, rounded to somewhat truncate at the oblique base acute to shortly acuminate at apex, up to 5.5 cm long and 2.8 cm wide; terminal leaflet sometimes slightly larger than the lateral ones.

INFLORESCENCE: Pseudoterminal and/or lateral, up to 10 flowered.

FLOWERS: Pale violet colour, usually with a white star in the centre; corolla rotate-pentagonal, about 2 cm in diameter.

FRUIT: Pale Green, ovoid-conical, cuspidate, up to 2.5 cm long and 1.5 cm thick.

SEEDS: Unknown.

Habitat:

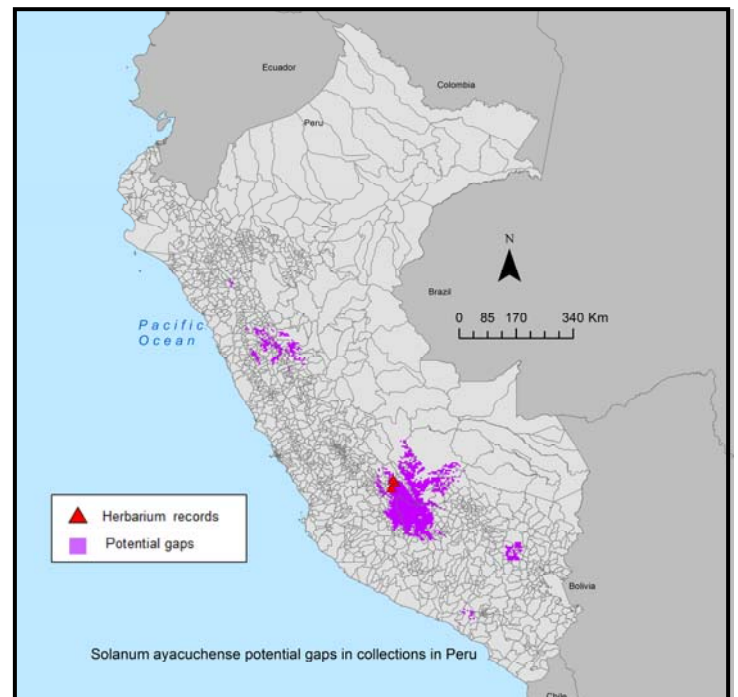
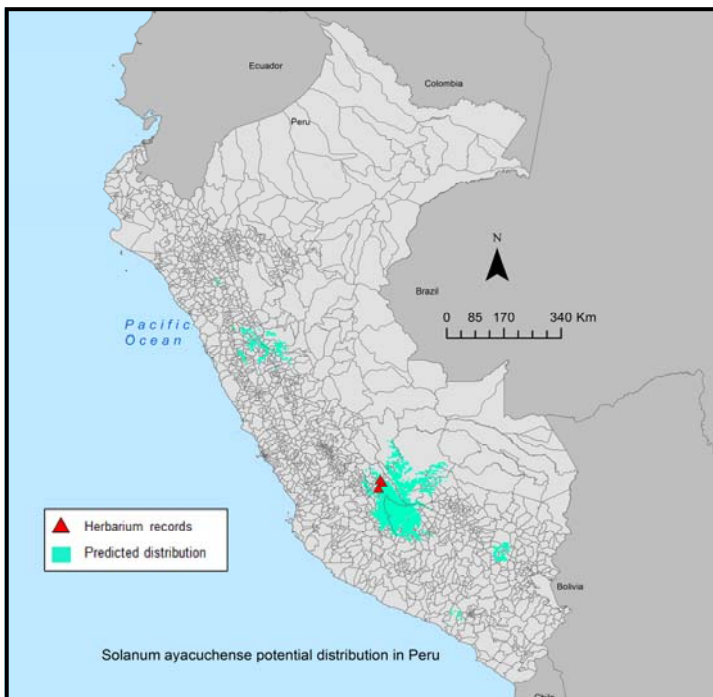
Mountains. Moist thickets of herbs and shrubs.

Distribution:

Native to Peru. Restricted to locality Yanta Yanta.

Altitude: 3000 m

<i>Solanum ayacuchense</i>	May be confused with: <i>Other Solanum species</i>
Long petiolules (6-15 mm long), ovate to elliptic-lanceolate terminal leaflet, glabrous calyx and small rotate pale violet corolla.	



References: Ochoa, C.M., (2004) The Potatoes of South America, Peru (Part 1)

Secondary Genepool of *Solanum tuberosum* L.

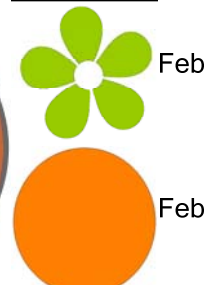


Jstor/USM

No seed image available



up to 0.7 m



Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.1-0.3 m tall, rosette forming to semi-erect. Stems 1.5-4 mm in diameter at base of plant, unwinged, finely puberulent to moderately pubescent with coarse whitish simple hairs, green.

LEAVES: Odd-pinnate, the blades 5.8-19.8 x 2.4-5.8 cm, medium green, membranous to chartaceous, moderately pubescent adaxially and abaxially, with hairs like those of the stems; most distal lateral leaflets (when present) 1-3.8 x 0.3-1.8 cm, ovate to elliptic, the apex acute to obtuse to rounded; petioles 0.8-3.4 cm, or sometimes without clearly marked petioles on specimens decurrent to the base of the leaf, finely puberulent to moderately pubescent with coarse whitish simple hairs.

INFLORESCENCES: 0.8-5 cm, 2-10 flowers, peduncle 0.8-4.5 cm long; rachis 1-8 cm long; pedicels 10-30 mm long in flower and fruit.

FLOWERS: Homostylous; Calyx 4-10 mm long, lobes 3-8 mm, long attenuate; Corolla 2.5-3.8 cm in diameter, pentagonal, violet, the tube 1-2 mm long, the acumens 1-2 mm long, the corolla edges flat, not folded dorsally, glabrous abaxially, minutely puberulent adaxially, especially along the midribs.

FRUITS: Globose berry, 2-2.5 cm in diameter, medium to deep green when ripe, often with scattered white dots, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

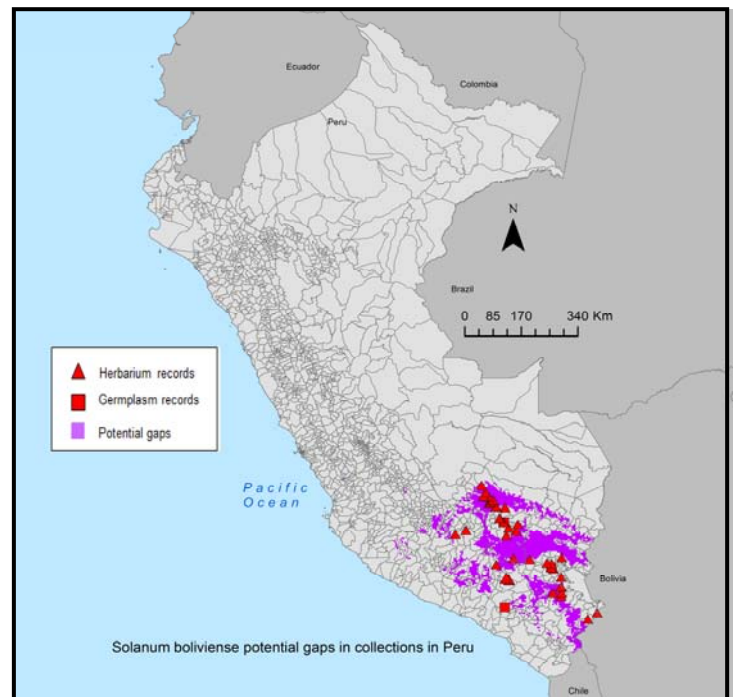
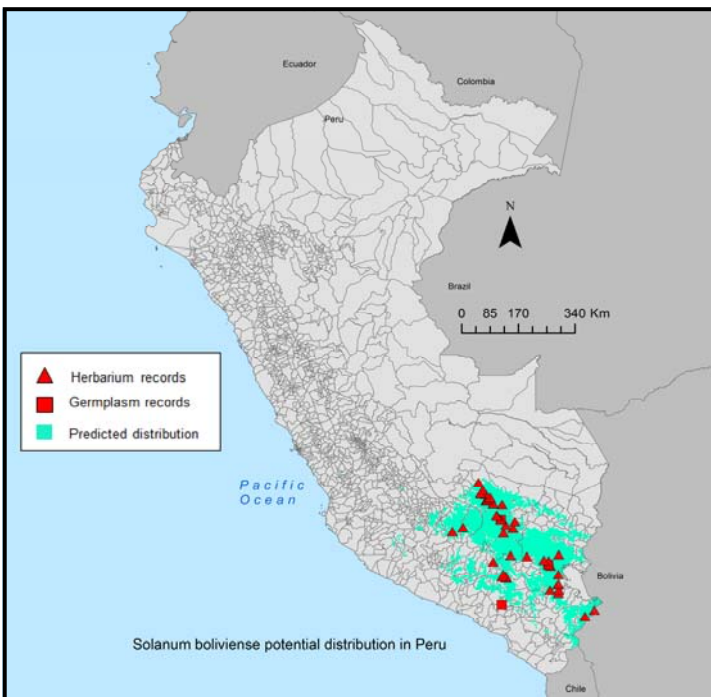
Dry mountain rocky slopes, among bushes and large tussocks or on bare soil, growing close to and within cattle enclosures, along mountain roads and paths, edge of fields, sometimes as a weed, along streambanks.

Distribution:

Southern Peru (Depts. Apurímac and Cusco) to northwest Argentina

Altitude: 1600 - 4270 m

<i>Solanum boliviense</i>	May be confused with: <i>Solanum acaule</i> , <i>Solanum x aemulans</i>
Articulated pedicels and pentagonal corolla.	




References: <http://solanaceaesource.org/solanaceae/solanum-boliviense>

Gene Pool Secondary relative of *Solanum tuberosum* L.



No seed image available



10-30 cm



Jan-Apr



Jan-Apr

Gene Pool Primary relative of *Solanum tuberosum* L.

HABIT: Herbs 20-60 cm tall, erect, stems 2-6 mm in diameter at base of plant, green to purple or green and purple mottled, subglabrous to moderately to densely pubescent with short non-glandular hairs, sometimes glaucous.

LEAVES: Leaves odd-pinnate, the blades 5.5-27 cm long, 2.5-17 cm wide, light to dark green, membranous to chartaceous, sometimes tinged with purple, especially abaxially, or glaucous, glabrous to subglabrous to moderately to densely pubescent, often more densely pubescent abaxially; lateral leaflet pairs 2-6, with the pairs ranging greatly from subequal most distal lateral leaflets larger, to subequal; most distal lateral leaflets, lanceolate to elliptic to narrowly to broadly ovate, the apex acute to acuminate, base symmetrical to oblique, truncate to cuneate.

INFLORESCENCES: 4-13 cm long, terminal with a subtending bud, generally borne in distal half of plant forked, with 5-18 flowers.

FLOWERS: Calyx 4-10 mm long, the tube 1-2 mm long, the lobes 1.5-7 mm long, long attenuate to acute, purple violet to light blue, sometimes with a greenish-yellow to white star, the tube 1-2 mm long.

FRUITS: 1-1.8 cm in diameter, globose, green to green with scattered white dots, generally glabrous but occasionally moderately pubescent.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish.

Habitat:

Sunny fields, grasslands, in the partial shade of cacti or bushes or in woodlands, at the border of or sometimes invading cultivated fields, in dry rocky areas, or in alluvial sandy soil, or rich soil, in steep valleys and streamsides, and along roadsides.

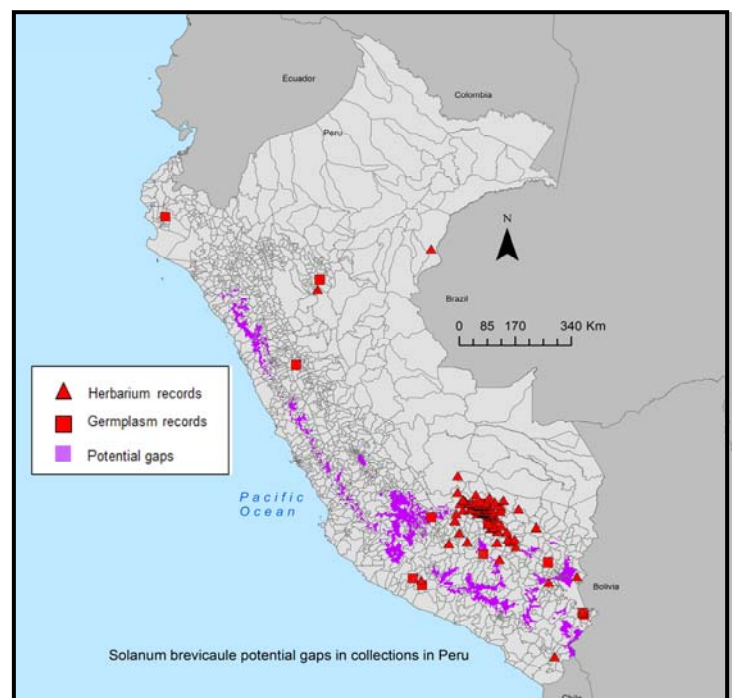
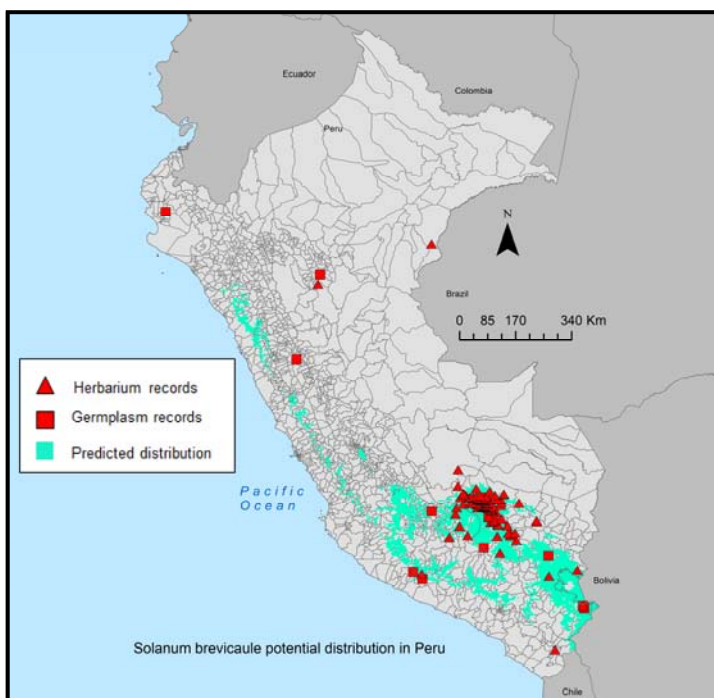
Altitude: 1500 - 4180 m

Distribution:

Argentina, Bolivia, and Peru

Solanum brevicaule

May be confused with:
Other Solanum species



References: <http://solanaceaesource.org/taxonomy/term/105966/descriptions>

Gene Pool Primary relative of *Solanum tuberosum* L.



Credit: A.Salas



Credit: A.Salas



RBG Kew

No seed image available



20-60 cm

LC PRELIM



Jan-Apr

Jan-Apr

Secondary Genepool of *Solanum tuberosum* L.

HABIT: Semierect to erect herb.

LEAVES: Odd-pinnate, the blades 14-22 x 7-11 cm, medium green, membranous to chartaceous, sparsely pubescent adaxially and abaxially. Pseudostipules minute to 5 mm long, pubescent with hairs like those of the stem.

Inflorescences 5-13.5 cm, terminal with a subtending axillary bud, generally in distal half of the plant, usually forked, with 15-34 flowers.

FLOWERS: Homostylous, 5-merous. Calyx 5-6 mm long, the tube 1-2 mm, the lobes 3-4 mm. Corolla 2.5-5.5 cm in diameter, pentagonal to rotate, violet to dark purple, often with a darker purple stripe in the middle of each lobe.

FRUIT: A conical berry, 1.4-2.2 cm long, 1-2.5 cm wide, light green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

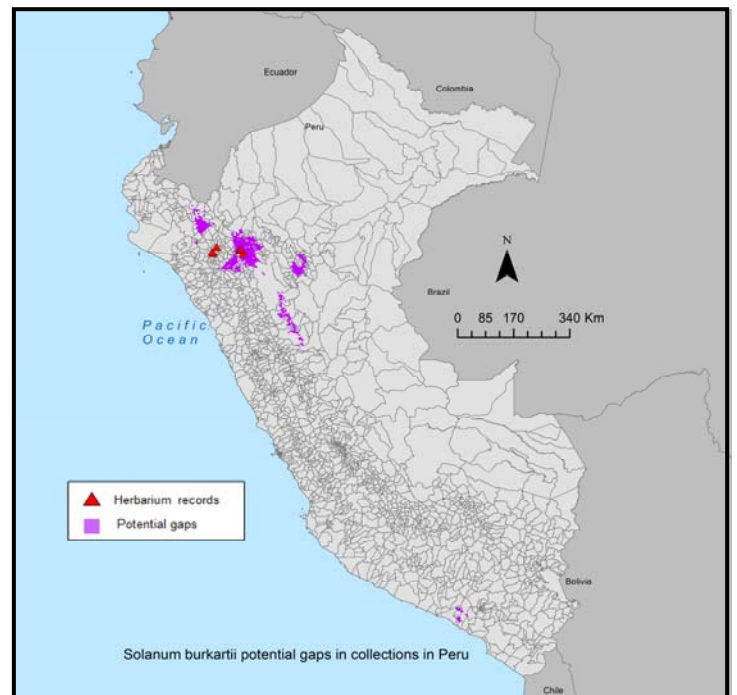
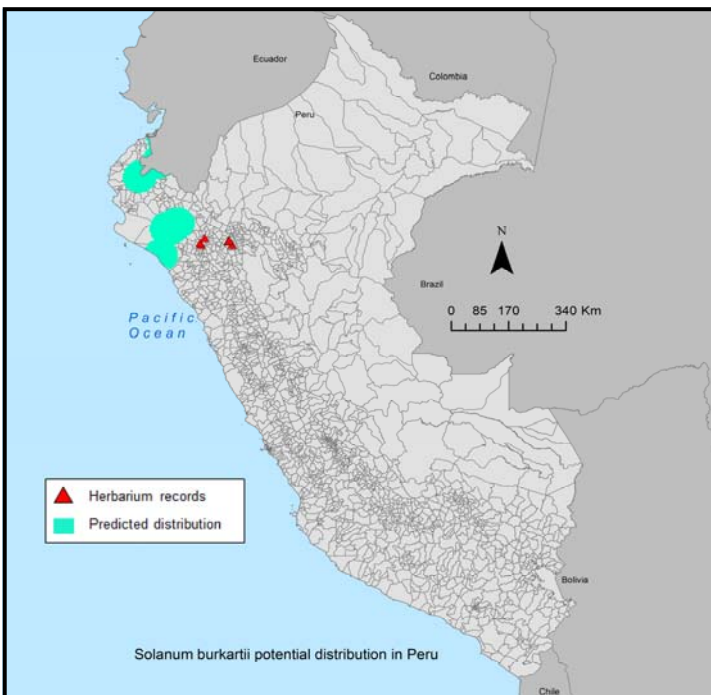
Margins of tree forests or in thickets of shrubs and herbs. Typically, it occurs in very moist quebradas in soils rich in humus.

Distribution:

Endemic to the Province of Luya, Dept. of Amazonas, Northeastern Peru.

Altitude: 2800 - 3000 m

<i>Solanum burkartii</i>	May be confused with: <i>Solanum buesii</i>
Corolla, pentagonal to rotate.	Corolla, rotate-stellate



References: Spooner, D.M. & D. Fajardo, 2010, *Solanum burkartii*. In *Solanaceae Source*. Downloaded 10th August 2012.
<http://www.nhm.ac.uk/research-curation/research/projects/solanaceaesource/taxonomy/description-detail.jsp?spnumber=1459>

Secondary Gene pool of *Solanum tuberosum* L.



Jstor/USM

No seed image available



1.5 m

EN
PRELIM



Mar-Jul

Mar-Jul

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.25-0.94 m tall, erect. Stems 2-9 mm in diameter at base of plant, brown to yellow, sometimes winged, the wings 0-0.34 cm wide, densely pubescent with whitish hairs.

LEAVES: Odd-pinnate, the blades 6.6-18 x 5.6-13.1 cm, dark green to yellowish, coriaceous, densely pubescent adaxially and abaxially with very short white hairs, ovate to oblanceolate, the apex acute to acuminate, the base typically sessile and attenuate to rounded, asymmetric; petioles 1-2 cm, densely pubescent with whitish simple hairs; pseudostipules 0.4-5 mm long, densely pubescent as the stems.

INFLORESCENCES: 3.2-17.5 cm, terminal with a subtending axillary bud, generally in distal half of the plant, with 10-60 flowers, with all flowers apparently perfect; peduncle 2.5-13.5 cm long; pedicels 16-54 mm long in flower and fruit.

FLOWER: Calyx 7-9 mm long, the tube 1-3 mm, the lobes 3-4 mm, linear, the acumens 1-2 mm long, densely pubescent as the stems. Corolla 2.6-4.8 cm in diameter, pentagonal to rotate, white; corolla edges flat, not folded dorsally, sub-glabrous adaxially with hairs on the margins of the petal acumens, pubescent abaxially.

FRUITS: Globose berry, 1.2-2.1 cm in diameter, light green, sometimes with purple stripes when ripe, glabrous.

SEED: Ovoid and ca. 2 mm long, whitish to greenish.

Habitat:

Rocky slopes, among bushes.

Distribution:

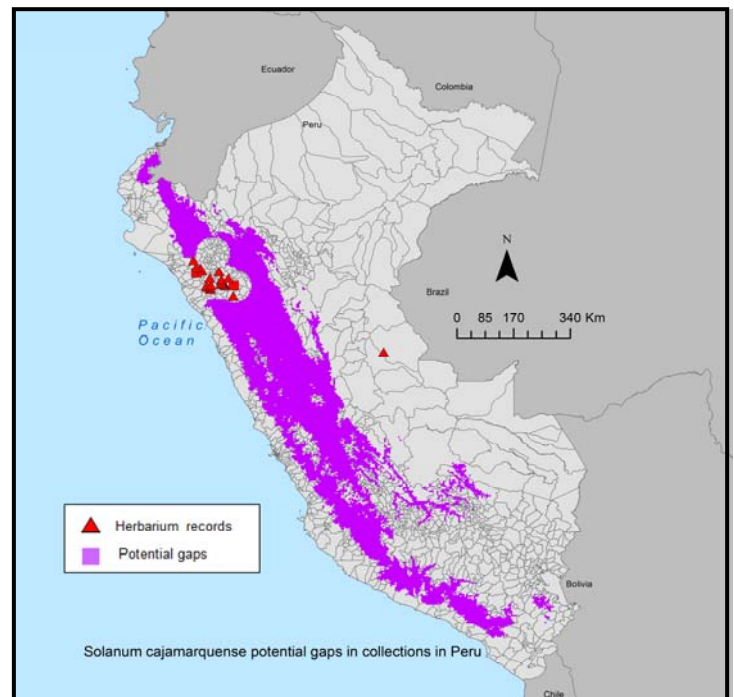
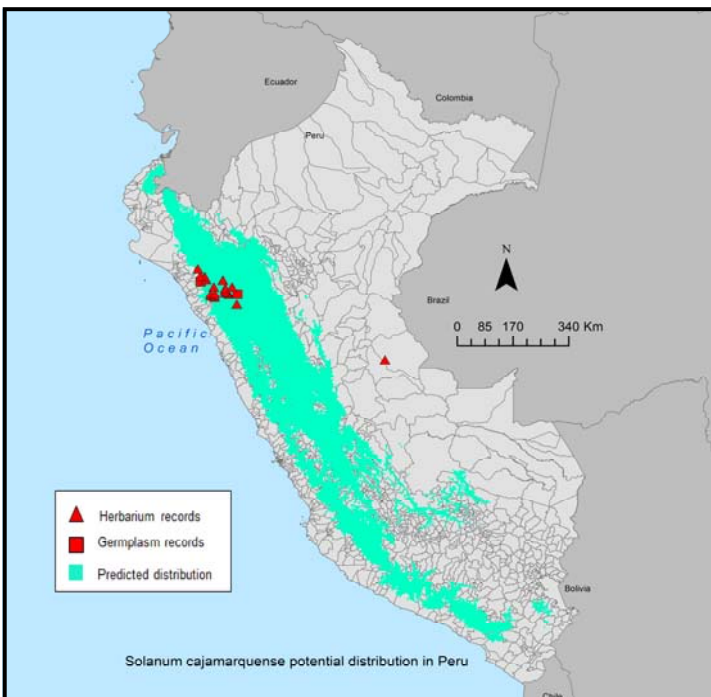
Northern Peru (Dept. Cajamarca).

Altitude: 2200-3000 m*Solanum cajamarquense*

Calyx 10-12 (-15) mm long; Corolla 3.5-4 cm diam.; Fruit light green, sparsely flecked with small white spots.

May be confused with:
Solanum hypacrarthrum

Calyx 6-7 mm long; Corolla 2.5-3 cm diam.; Fruit light green, with vertical green-violet strips.



References: <http://solanaceaesource.org/taxonomy/term/106028/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



Credit: A.Salas

Credit: A.Salas

No seed image available



0.25-0.94 m



Mar-May

Mar-May

Gene Pool Primary relative of *Solanum tuberosum* L.[Accepted name of *Solanum bukasovii*]

HABIT: Herbs 3-120 cm tall, subrosette to ascending to erect. Unwinged or with wings up to 4 mm, green to purple or green and purple mottled, subglabrous to moderately to densely pubescent with short non-glandular hairs, sometimes glaucous.

LEAVES: Odd-pinnate, the blades 3-35 cm long, 3-38 cm wide, light to dark green, sometimes tinged with purple, especially abaxially, or glaucous, glabrous to subglabrous to moderately to densely pubescent, often more densely pubescent abaxially.

INFLORESCENCES: 3-18 cm long, terminal with a subtending bud, generally borne in distal half of plant forked, with 3-20 flowers; peduncle 1.5-10 cm long, pubescent with hairs like those of the stem; pedicels 5-30 mm long in flower and fruit, articulated at or somewhat distal to the middle.

FLOWERS: Calyx 4-10 mm long, the lobes 2-5 mm long, long attenuate to acute; Corolla 2.5-5 cm in diameter, pentagonal to rotate-pentagonal, purple violet to light blue, sometimes with a greenish-yellow to white to purple star.

FRUITS: Globose to slightly ovoid, 1.5-3.3 cm long, 1.6-3.5 cm in diameter, green to green with scattered white dots, or whitish tinged with green, or green with purple stripes.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

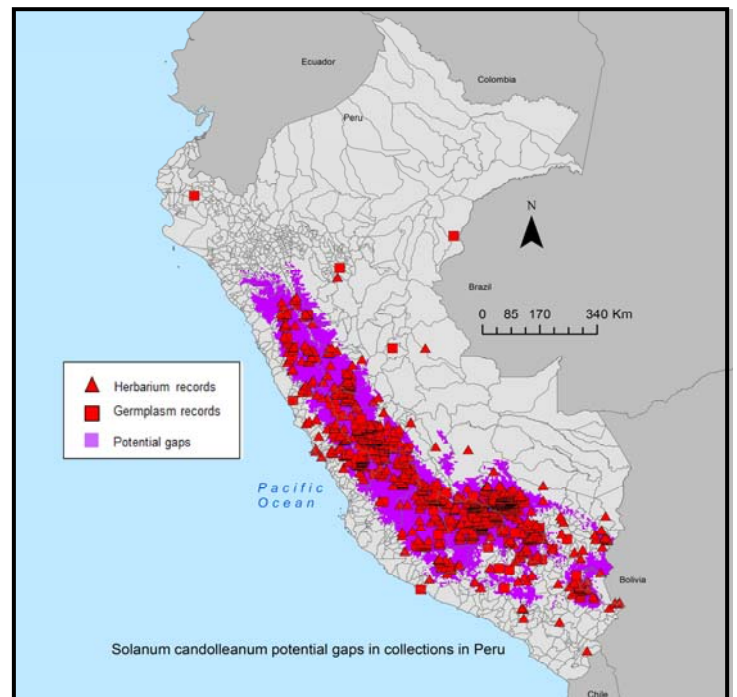
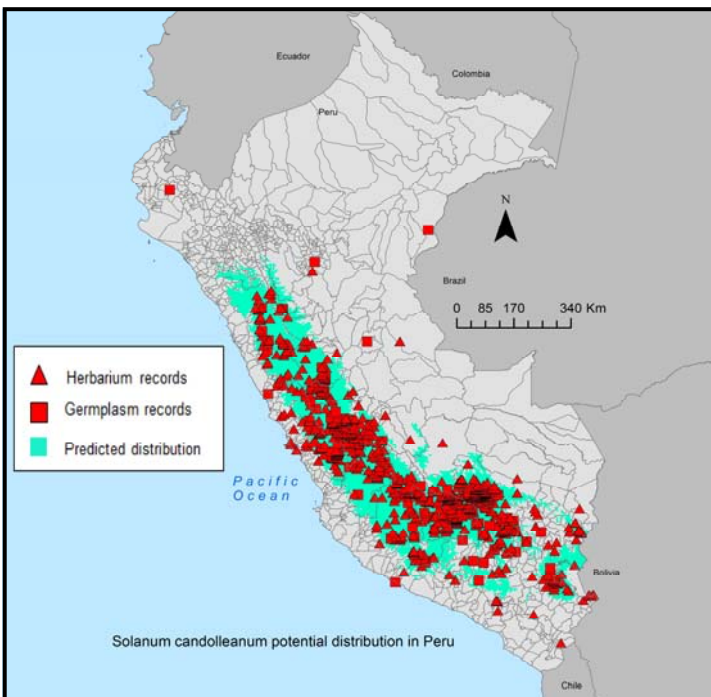
Wide range of habitats from roadsides, fields, in rich and poor soils, among grasses, streamsides, about and invading cultivated fields, in pockets of and bases of cliff faces, fields, and in high altitude grasslands.

Distribution:

Central Peru (Depts. Ancash and Huanuco), south to extreme northwestern Bolivia (Dept. La Paz, near the border with Peru).

Altitude: 1600 - 4400 m

<i>Solanum candolleanum</i>	May be confused with: <i>Solanum wittmackii</i>
Coarsely pubescent throughout.	Subglabrous or pilose and glanduliferous.



References: <http://solanaceaesource.org/taxonomy/term/98954/descriptions>



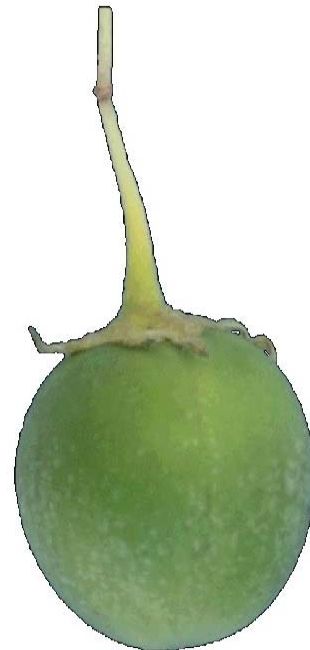
Credit: A.Salas



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas



Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.3-1.3 m tall, erect. Stems 1.5-4 mm in diameter at base of plant, brown to yellow, unwinged, glabrous to finely puberulent to moderately pubescent with whitish to brownish simple hairs.

LEAVES: Odd-pinnate, the blades 4.4-14.5 x 4-14.5 cm, light green to yellowish, coriaceous, glabrous adaxially, glabrous to glabrescent with very short hairs abaxially, finely ciliate at the margins; most distal lateral leaflets 2.7-8 x 1.1-2.7 cm, ovate to elliptic, the apex acute to acuminate, the base typically sessile and attenuate to rounded; terminal leaflet 3.5-8.5 x 1.4-4 cm, ovate to elliptic, the apex acute to acuminate, the base attenuate

INFLORESCENCES: 4.5-17.5 cm, terminal with a subtending axillary bud, generally in distal half of the plant; with 7-18 flowers.

FLOWERS: Homostylous; Calyx 4-10 mm long, the tube 1-2 mm, the lobes 5-11 mm, long linear, the acumens 2.5-4.4 mm long, glabrous. Corolla 2.5-5 cm in diameter, pentagonal to rotate, white, the tube 1-2 mm long, the corolla edges flat, not folded dorsally, glabrous abaxially and adaxially.

FRUITS: Globose berry, 0.9-1.9 cm in diameter, medium to deep green with purple stripes when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

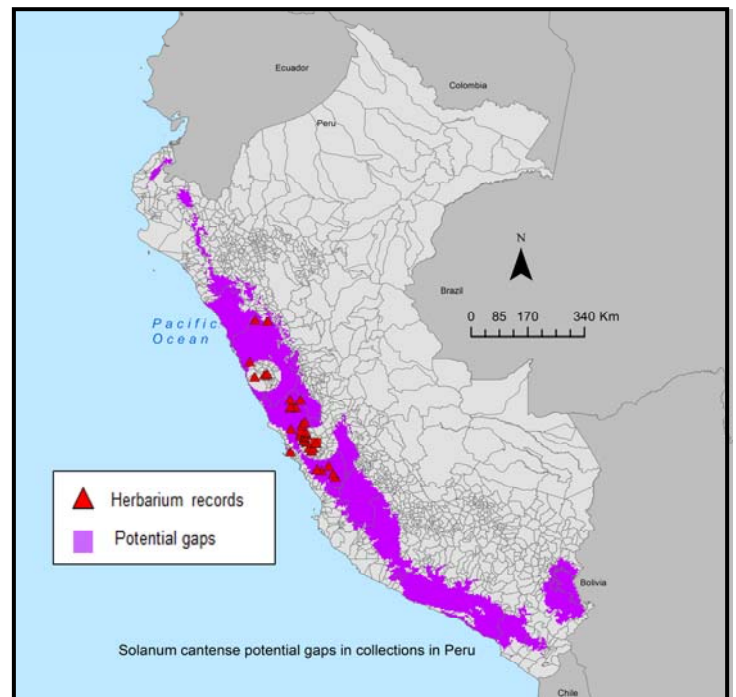
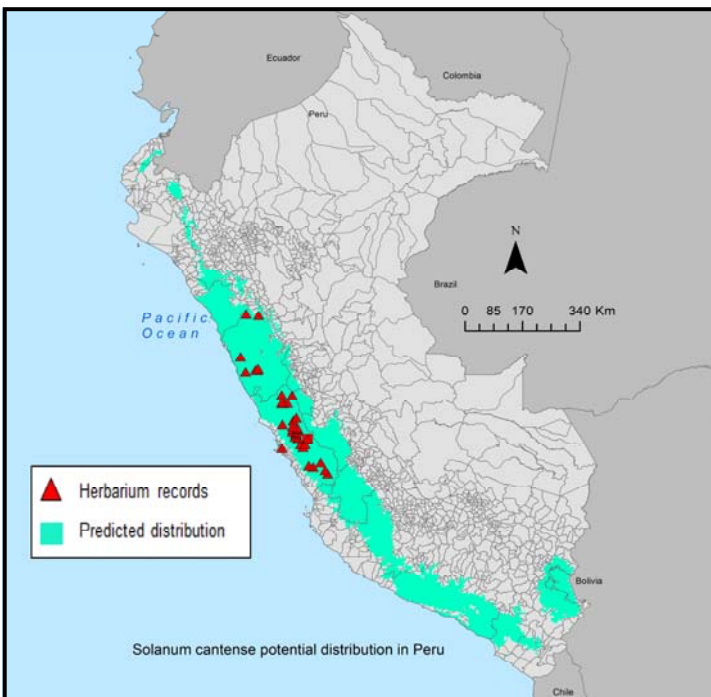
Rocky slopes, on poor soil, among herbs or shrubs.

Distribution:

Central Peru (Depts. Ancash and Lima).

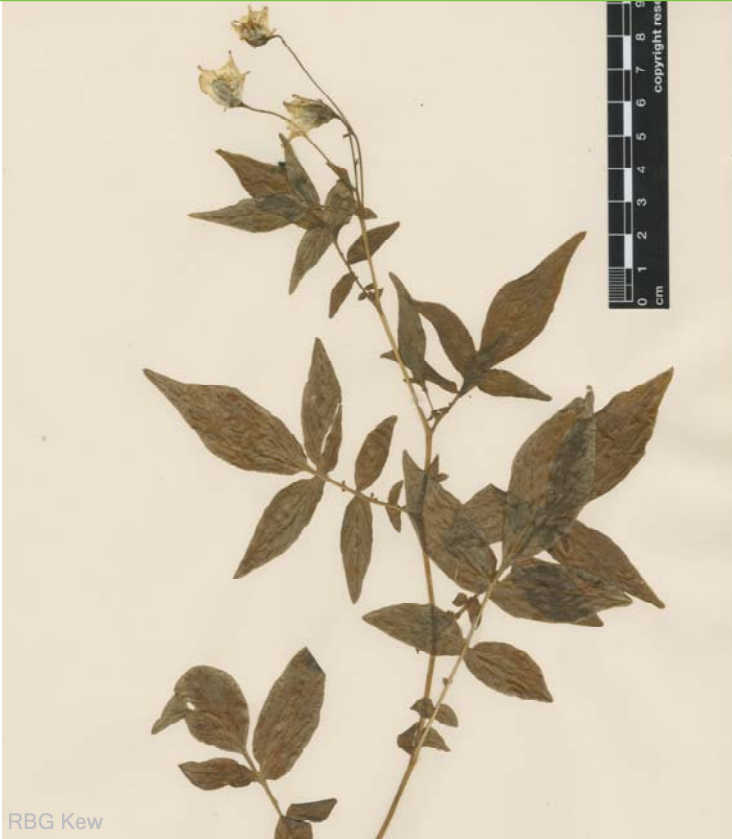
Altitude: 2350 - 3400 m

<i>Solanum cantense</i>	May be confused with: <i>S. acroglossum</i> ; <i>S. chiquidenum</i> ; <i>S. piurae</i>
Glabrous on the corolla lobes adaxially; white corolla. Non-decurrent lateral leaflets.	<i>S. acroglossum</i> : Corolla blue-purple; decurrent lateral leaflets. <i>S. chiquidenum</i> : Corolla white; with short scabious hairs. <i>S. piurae</i> : Corolla blue-purple.



References: <http://solanaceaesource.org/solanaceae/solanum-cantense>

Gene Pool Secondary relative of *Solanum tuberosum* L.



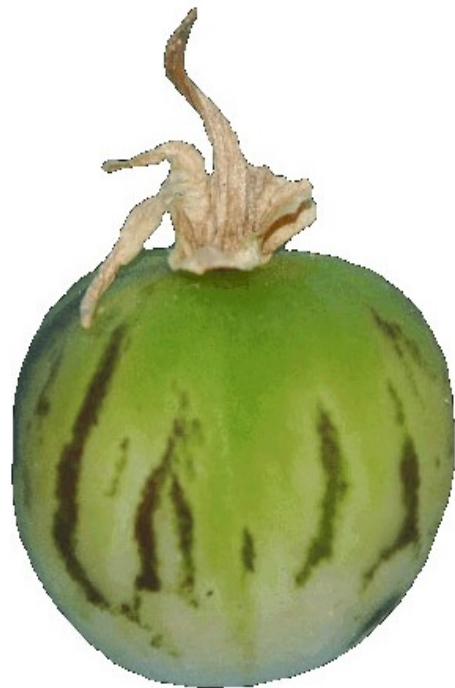
RBG Kew



Credit: A.Salas




Credit: A.Salas



Credit: A.Salas

No seed image available



Credit: A.Salas

0.3-1.3 m

NT
PRELIM



Mar-May

Mar-May

HABIT: Herbs 0.5-2 m tall, erect. Stems 3.5-10 mm in diameter at base of plant, green to purple or green and purple mottled, unwinged or with wings to 2 mm, glabrous to densely short pubescent.

LEAVES: Leaves odd-pinnate, the blades 10-39 x 6-24 cm, green, membranous to chartaceous, glabrous to densely short-pubescent adaxially and abaxially with hairs like those of the stems; most distal lateral leaflets 2.7-9 x 0.9-3.5 cm, narrowly to broadly ovate to elliptic, the apex acute to acuminate, the base typically oblique, rounded to truncate, petiolules 0-5 mm long; terminal leaflet 4.1-9.4 x 0.9-4.3 cm, ovate to elliptic; petioles 1-4 cm, glabrous to densely short pubescent.

INFLORESCENCES: 2-15 cm, terminal with a subtending axillary bud, generally in distal half of the plant, usually forked, with 8-25 flowers.

FLOWERS: Homostylous, calyx 3-5 mm long, the tube 1-2 mm, the lobes 1-4 mm; Corolla 1.6-3.7 cm in diameter, deeply stellate to pentagonal, pure white to creamy yellow-white adaxially and abaxially.

FRUITS: Globose to slightly ovoid berry, 1.5-2 cm in diameter, green to green with purple streaks when ripe, often with scattered white dots, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

In a wide diversity of habitats, in full sun or in dense shade, in dry or moist areas, among bushes, in scrub or thorn forests or savannas, near the seashore, in moist subtropical forests, on rocky slopes, in cultivated fields, banana plantations, or roadsides.

Altitude: 0 - 3700 m

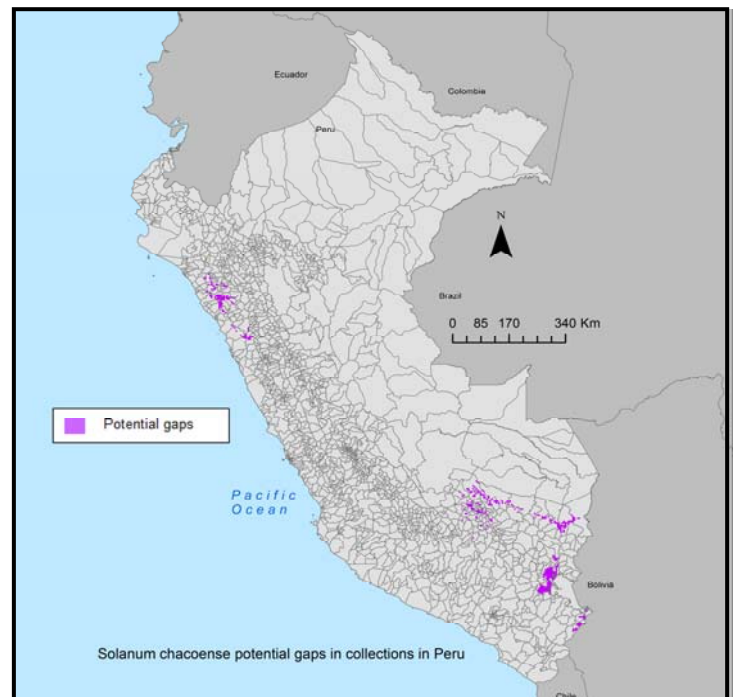
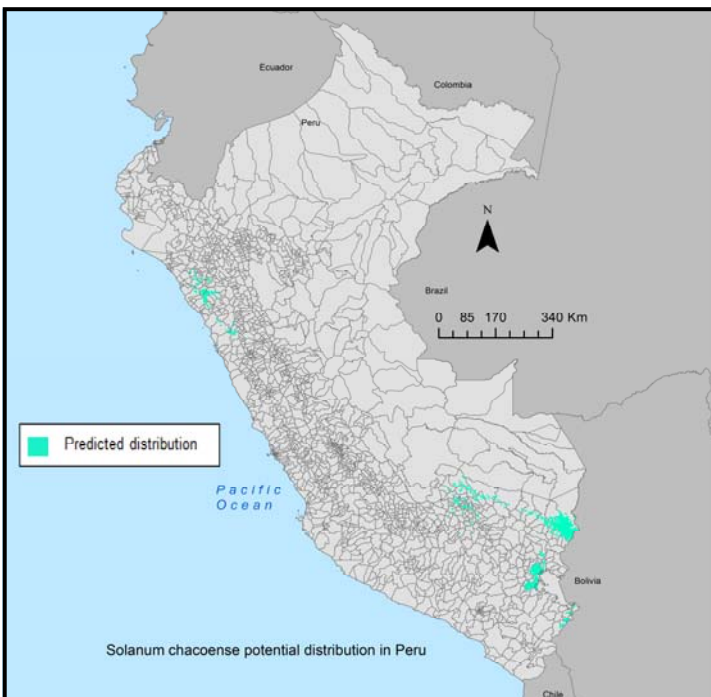
Distribution:

Southern Peru (Dept. Puno) to central Argentina (Depts. La Pampa and Buenos Aires).

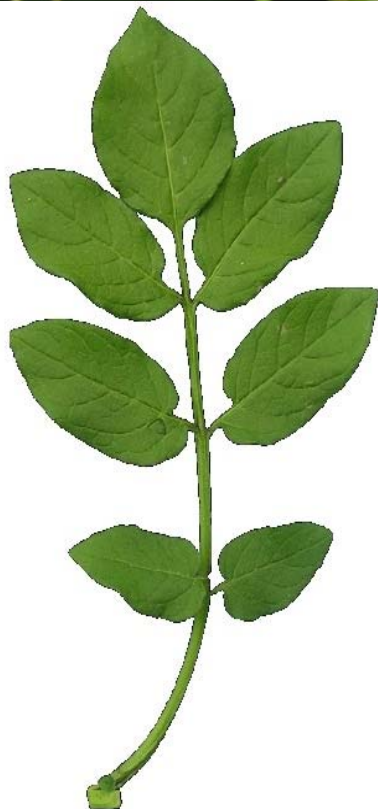
Solanum chacoense

May be confused with:
Other Solanum Species

Non-ciliate leaf margins; acute apex of the terminal leaflet.




References: <http://solanaceaesource.org/taxonomy/term/106188/descriptions>



Credit: A.Salas

Credit: A.Salas

No seed image available



Credit: A.Salas

0.5-2 m

LC PRELIM



Sep-Jul

Sep-Jul

HABIT: Herbs 0.5-1.5 m tall, erect. Stems 3-8 mm in diameter at base of plant, green, sometimes with purple spots, sometimes with very narrow wings 0-2.5 mm long, glabrous or glabrescent with short and acute hairs; articulated high in the distal half.

LEAVES: Odd-pinnate, 4.9-31 x 4.4-29 cm, usually light green abaxially, sometimes with some light purple coloration, usually deep green adaxially; terminal leaflet 2.1-15.3 x 2-9.4 cm, ovate to elliptic, the apex acute to acuminate, the base usually attenuate; interjected leaflets 0-2, sessile to short petiolulate, ovate to orbicular; petioles 0.4-5.1 cm.

INFLORESCENS: 4-12 cm; 10-60 flowers, with all flowers apparently perfect; peduncle 2.2-12.9 cm long; pedicels 14-46 mm long in flower and fruit.

FLOWERS: Homostylous; calyx 5-13 mm long, lobes 5-14 mm, ovate to lanceolate, with acumens 1-7 mm long, usually glabrous; corolla 2.1-4.3 cm in diameter, pentagonal to rotate, white to purple, the tube 1-2 mm long, edges flat, not folded dorsally, usually glabrous abaxially and adaxially

FRUITS: Ovoid, 1.2-1.7 cm wide, 1.2-1.9 cm long, usually light green with deep green stripes when ripe, glabrous, occasionally scabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

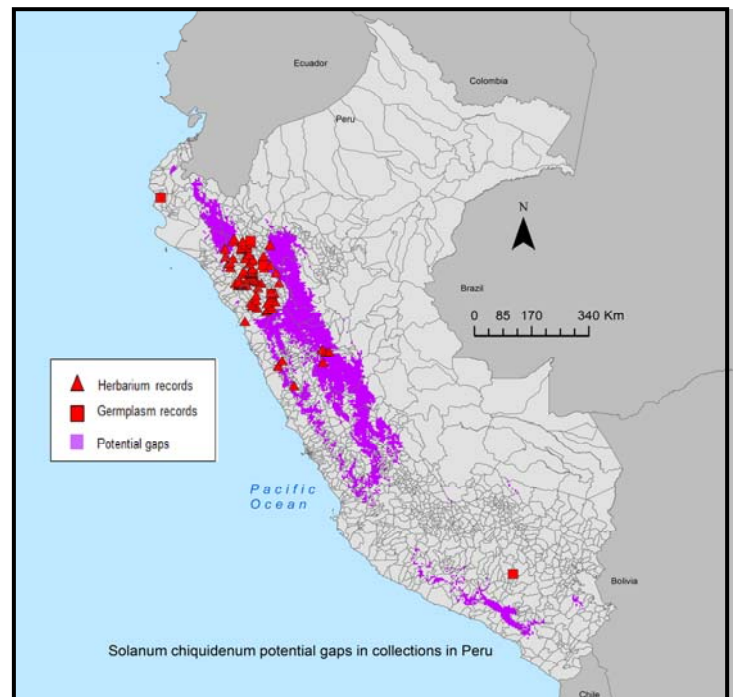
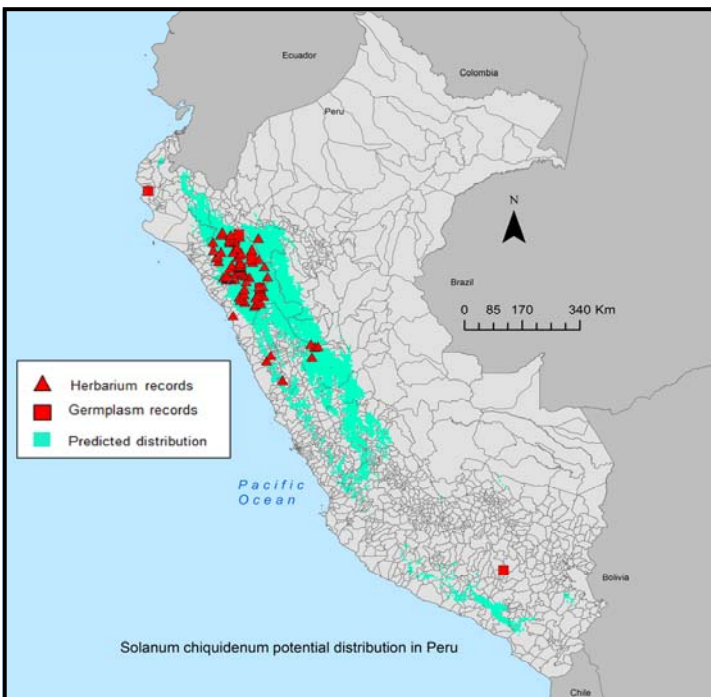
On rocky or eroded slopes, poor soils or rich organic soils, margins of crop fields, among shrubs.

Distribution:

North and central Peru (Depts. Ancash, Cajamarca, Huánuco, La Libertad).

Altitude: 1500 - 3800

<i>Solanum chiquidenum</i>	May be confused with: <i>Solanum cantense</i>
Rugose on the adaxial side of the leaves	Smooth on the adaxial side of the leaves



References: <http://solanaceaesource.org/taxonomy/term/106231/descriptions>



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas

No seed image available

An icon of a hand with the index finger pointing to the right, set against an orange background.

Credit: A.Salas

0.5-1.5 m

LC
PRELIM



Mar-Jun

Mar-Jun

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.1-0.9 m tall, erect. Stems 0.5-7 mm in diameter at base of plant, usually unwinged, completely glabrous to glabrescent.

LEAVES: Odd-pinnate, the blades 4.9-23.5 x 2.8-10.3 cm, light to deep green throughout, sometimes with some light purple coloration to completely purple abaxially, usually glabrous to glabrescent with white short hairs adaxially, glabrous to glabrescent with short hairs abaxially; most distal lateral leaflets 1.5-5.9 x 0.5-3.4 cm, ovate to elliptic, the apex acute to acuminate, the base petiolulate or sessile and attenuate to rounded, asymmetric.

INFLORESCENCES: 4-18.5 cm, terminal with a subtending axillary bud, generally in distal half of the plant; 2-38 flowers; ; peduncle 0.4-12.8 cm long; pedicels 10-80 mm long in flower and fruit.

FLOWERS: Homostylous; calyx 4-18 mm long, the tube 1-3 mm, the lobes 3-10 mm, ovate to lanceolate; corolla 1.8-5.2 cm in diameter, pentagonal to rotate, lilac to blue, the tube 1-2 mm long, edges flat.

FRUITS: Variable in shape, globose, ovoid to elliptic, 1-3.4 cm long and 0.9-3.1 cm wide light, medium to deep green, sometimes with deep green or purple stripes when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

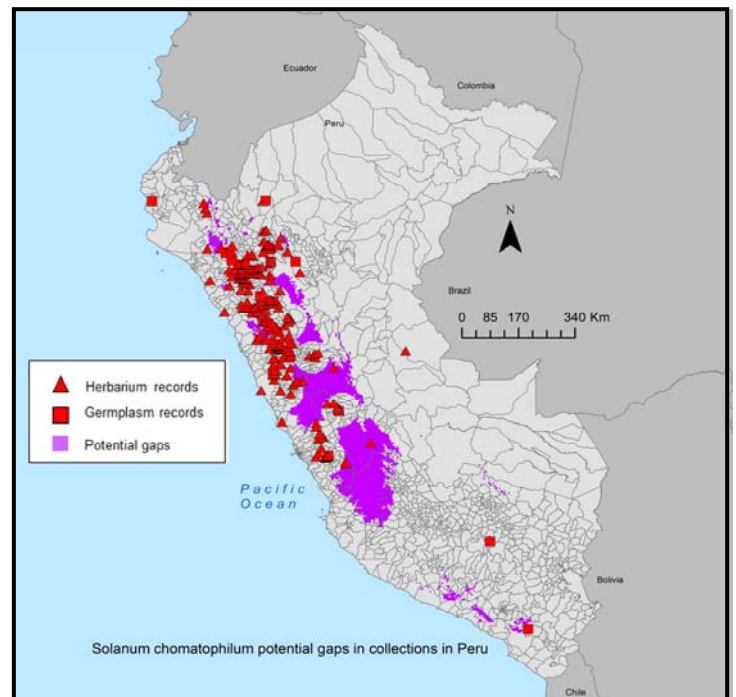
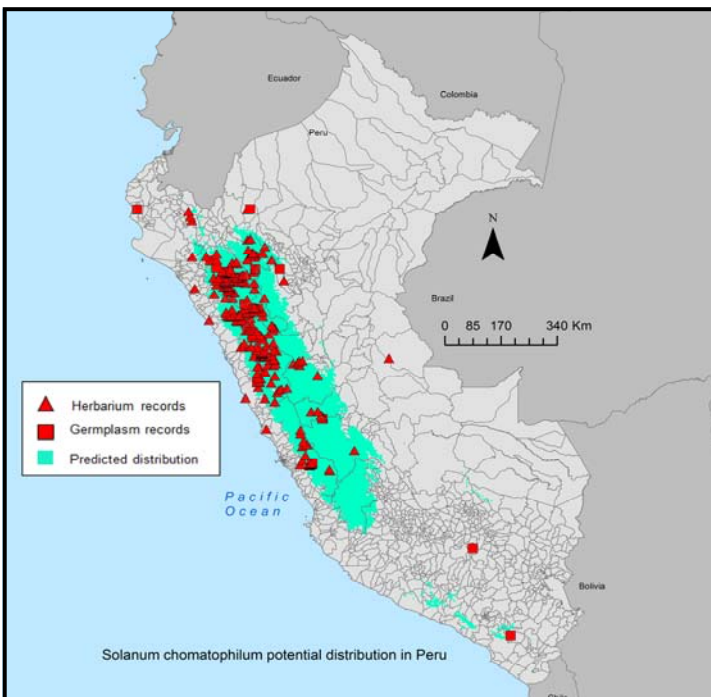
Along streamsides, on rocky or eroded slopes, poor soils or rich organic soils, on wet shrubby habitats, or in the sub-paramos, punas and grasslands, among herbs, shrubs or trees.

Distribution:

Ecuador (Provs. Azuay and Pichincha), north and central Peru (Depts. Amazonas, Ancash, Cajamarca, Huánuco, La Libertad, Lima, Junín, Pasco and San Martín).

Altitude: 1950 - 4000 m

<i>Solanum chomatophilum</i>	May be confused with: <i>Solanum albornozii</i> , <i>Solanum augustii</i>
Lilac to blue corollas.	White corolla.



References: <http://solanaceaesource.org/taxonomy/term/106250/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



Credit: A.Salas




Credit: A.Salas



Credit: A.Salas

No seed image available



0.1-0.9 m

LC PRELIM



Mar-Jun

Mar-Jun

Gene Pool Primary relative of *Solanum tuberosum* L.

HABIT: Herbs up to 8 m tall, more or less silvery pilose throughout, stem erect to erect-ascending, branched, commonly pigmented, shortly pilose.

LEAVES: Odd pinnate, up to 30 cm long, shortly petiolate, dark green and shiny pubescent on upper surface, pale grayish green and more densely and finely pubescent on lower surface; leaflets 7 or 9, elliptic-lanceolate, subtruncate to cordate or sometimes broadly rounded at the oblique base, obtuse to acute or shortly acuminate at the apex, up to 7 cm long and 3.5 cm wide; pseudostipular leaves broadly lunate, up to 1.5 cm long.

INFLORESCENCE: Pseudoterminal and/or lateral, cymosely paniculate, 10-24 flowered, finely pilose, peduncle rather stout, up to 7 cm long, pedicels slender, 1.5-3 cm long, prominently articulate about or well above the middle. flowers bright violet-blue to purplish; calyx 7-10 mm long, divided to below the middle into ovate-lanceolate lobes that are constricted above into a narrowly lanceolate apical portion, pilose; corolla rotate-pentagonal, 3-3.5 cm in diam., the acumens short, anthers lanceolate in outline, 4-6 mm long; style 6-8 mm long, cellular-papillose below the middle, the noticed stigma globose.

FRUITS: broadly ovoid to globose, about 1 cm in diameter.

Habitat:

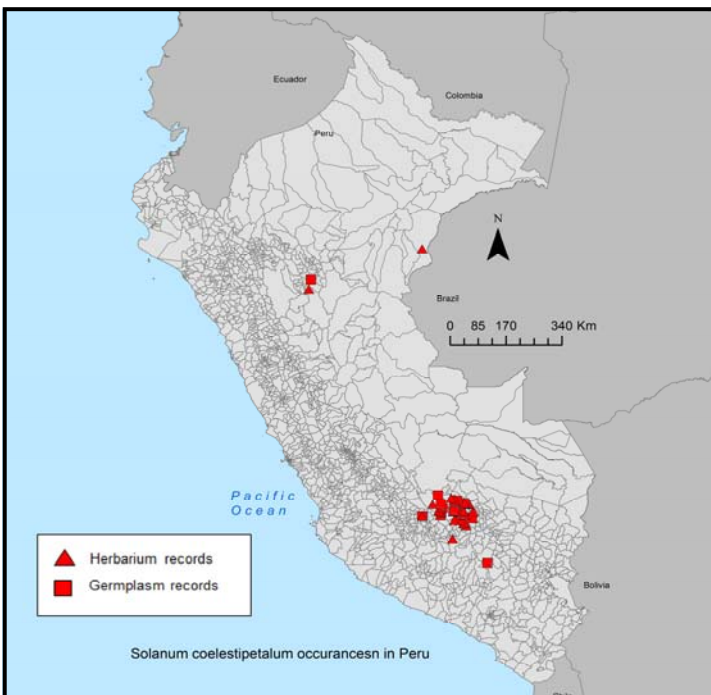
On rocky slopes, among shrubs.

Distribution:

Peru (Dept. Apurimac and Cisco)

Altitude: 2220 - 3600 m

<i>Solanum coelestipetalum</i>	May be confused with: <i>Solanum amabile</i>
Stems shortly pilose.	Stems are densely pilose.



All populations priority
for collection.

References: Ochoa, C.M., (2004) The Potatoes of South America, Peru (Part 1)

Gene Pool Primary relative of *Solanum tuberosum* L.



Credit: A.Salas



Credit: A.Salas




Credit: A.Salas



RBG Kew

No seed image available



up to 8 m

LC
PRELIM



Jan-Mar

Jan-Mar

Gene Pool Secondary relative of *Solanum tuberosum* L.[Accepted name of *Solanum jaenense*]

HABIT: Herbs 0.3-2.2 m tall, semierect to erect. Stems 2-13 mm in diameter at base of plant, green to green mottled with purple, unwinged or with wings to 0.8 mm wide, subglabrous to finely puberulent with whitish simple hairs.

LEAVES: Odd-pinnate, blades 6.5-52 x 3.5-22 cm, medium to dark green, membranous to chartaceous, finely to coarsely pubescent adaxially and abaxially with hairs like those of the stems; terminal leaflet 2-12.2 x 0.8-5.8 cm, ovate to elliptic, the apex acuminate, the base attenuate.

INFLORESCENCES: 6-17.5 cm; calyx 4-11 mm long, lobes 4-8 mm, long attenuate, the acumens 0.8-3.1 mm long, glabrous to subglabrous; corolla 2-4.2 cm in diameter, pentagonal to rotate, white throughout to white tinged with purple or violet to purple or violet throughout, the rays sometimes darker purple or white.

FLOWERS: Homostylous; calyx 4-11 mm long, lobes 4-8 mm, long attenuate, glabrous to subglabrous; corolla 2-4.2 cm in diameter, pentagonal to rotate, white throughout to white tinged with purple or violet to purple or violet throughout, the rays sometimes darker purple or white.

FRUITS: Conical berry, 1-2.5 cm long, 0.7-2.4 mm wide, medium to deep green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

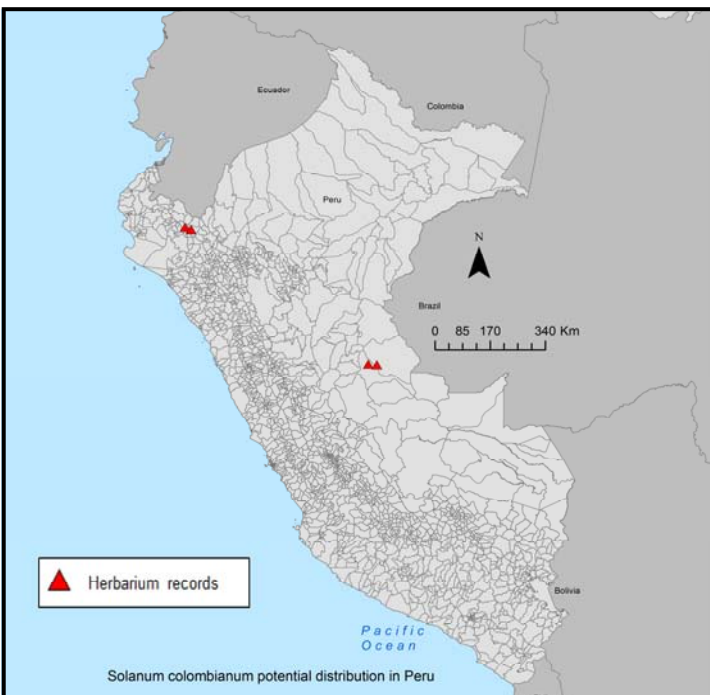
Among shrubs, often in disturbed habitats such as streamsides or roadsides or landslides, or in recently burned woods or forest clearings where populations can be extensive.

Distribution:

From western Venezuela (Distrito Federal) to northern Peru (Dept. Cajamarca)

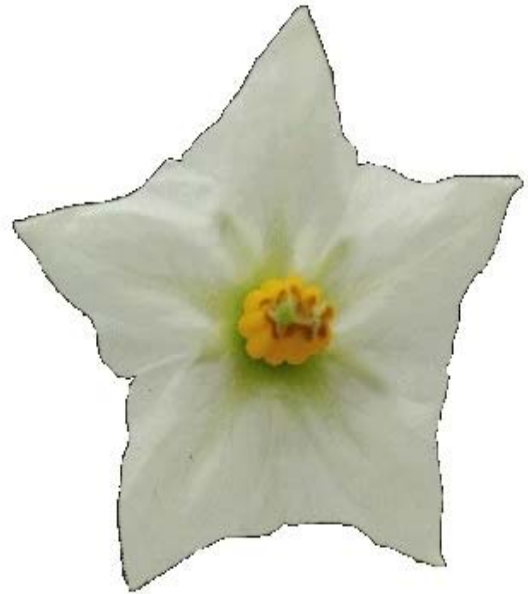
Altitude: 1800-3950 m

<i>Solanum colombianum</i>	May be confused with: <i>Other Solanum species</i>
Style usually less than 7.5 mm long. Leaflets mostly acute or shortly acuminate.	



All populations priority
for collection.

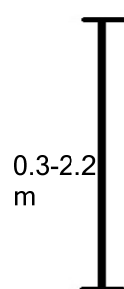
References: <http://solanaceaesource.org/taxonomy/term/106338/descriptions>



Credit: A.Salas



Credit: A.Salas



Jan-Dec

Jan-Dec

HABIT: Herbs 0.3-1 m tall, erect to slightly decumbent. Stems 0.1-0.9 mm in diameter at base of plant, green or green mottled with purple or entirely purple, usually unwinged, densely pubescent with short white hairs.

LEAVES: Odd-pinnate, the blades 6-18.5 x 3-11 cm, deep green adaxially, light green to sometimes purple abaxially, densely pubescent abaxially and adaxially with short white hairs; lateral leaflet pairs 1-5, decreasing in size toward the leaf base, with the terminal leaflet considerably larger than the laterals; apex acute, base widely decurrent onto the rachis; petioles 0.5-1.5 cm, densely pubescent with short white hairs.

INFLORESCENCES: 4-15.2 cm, terminal with a subtending axillary bud, with 2 - 20 flowers; peduncle 1.1-8.4 cm long; pedicels 9-41 mm long in flower and fruit, spaced 3-5 mm apart.

FLOWERS: Homostylous; calyx 4-7 mm long, the tube 1-3 mm, the lobes 3-4 mm, ovate to lanceolate; corolla 2.4-4.8 cm in diameter, pentagonal to rotate, usually deep purple, the tube 1-2 mm long, the acumens 2-5 mm long, the corolla edges flat, not folded dorsally;

FRUITS: Ovoid to globose berry, 1.2-2.6 cm wide, 1.3-2.9 cm long, deep green, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

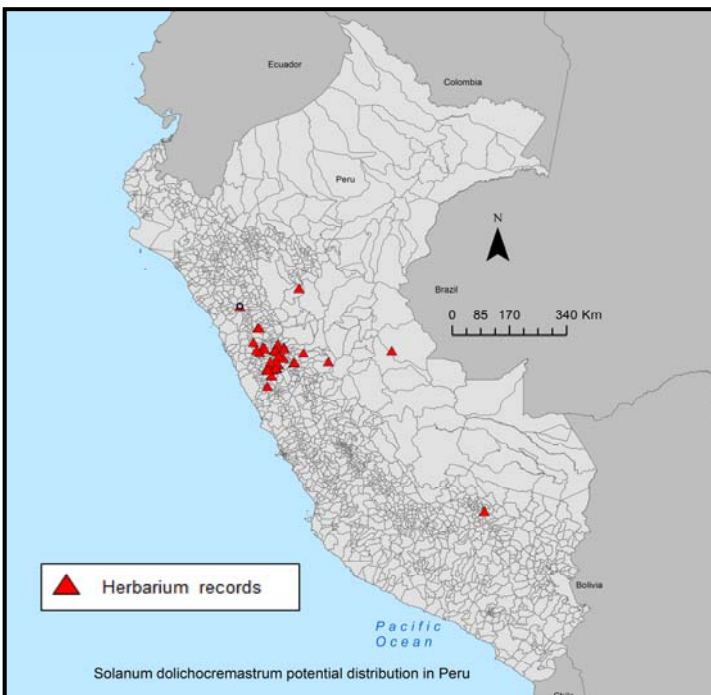
In rich humus of deforested soils, also in much poorer soils, where it may grow among stones and rocks.

Distribution:

Peru (Depts. Ancash and Huánuco)

Altitude: 3400 - 4400 m

<i>Solanum dolichocremastrum</i>	May be confused with: <i>Solanum sogarandinum</i>
Erect plant.	Rosette forming plant.



All populations priority for collection.

References: <http://solanaceaesource.org/taxonomy/term/108359/descriptions>; Ochoa, C.M., (2004) The Potatoes of South America, Peru (Part 1)



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas

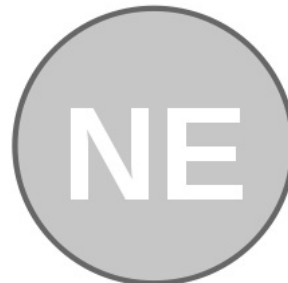


Credit: A.Salas

No seed
image
available



0.3-1
m



Feb-Jul

Feb-Jul

Gene Pool Secondary relative of *Solanum tuberosum* L.

Habit: Herbs 45 cm tall, erect. Tubers typically borne singly at the end of each stolon. Stems 2 mm in diameter at base of plant, green and green and purple mottled, unwinged, glabrous. Pseudostipules 3-7 mm long, glabrous.

LEAVES: 7-14 cm long, 4-6.5 cm wide, odd-pinnate, medium green adaxially, lighter green abaxially, membranous, glabrous adaxially and mostly glabrous; petioles 0.5-1.5 cm long, glabrous; lateral leaflet pairs 7-8, longest in the middle and decreasing in length towards the apex and base of the leaf; most distal lateral leaflets 2-3 cm long, 2-7 cm wide, linear-lanceolate, the apex acute, the base sessile to subsessile, symmetrical to asymmetrical; terminal leaflet 3-4 cm long, 0.4-0.5 cm wide, linear-lanceolate, the apex acute, the base attenuate.

INFLORESCENCE: 3-7 cm long, 2-6 flowers, the axes glabrous; peduncle 2.5-5 cm long; pedicels 15-20 mm long in flower and fruit, articulated in the middle.

FLOWERS: 5-merous, all perfect; calyx ca. 5-7 mm long, the lobes ca. 2 mm long, acute to attenuate, the acumens 1-2 mm long, glabrous; corolla 2.0-2.5 cm in diameter, rotate pentagonal, white, with a greenish star.

FRUIT: Subglobose berry, 1-1.2cm long, 1.0-1.3 cm wide, light green, glabrous.

Habitat:

Rocky slopes and in bushy forests among cacti, grasses, and other herbs.

Distribution:

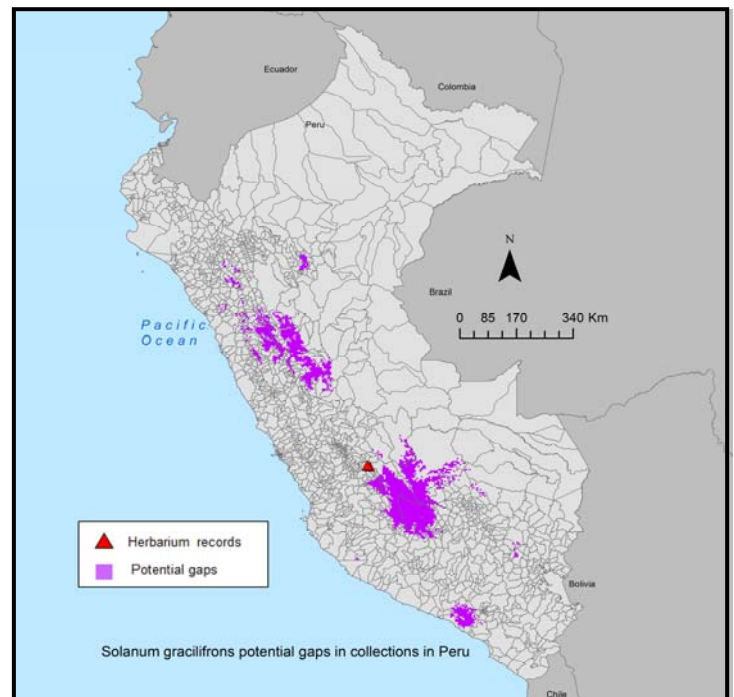
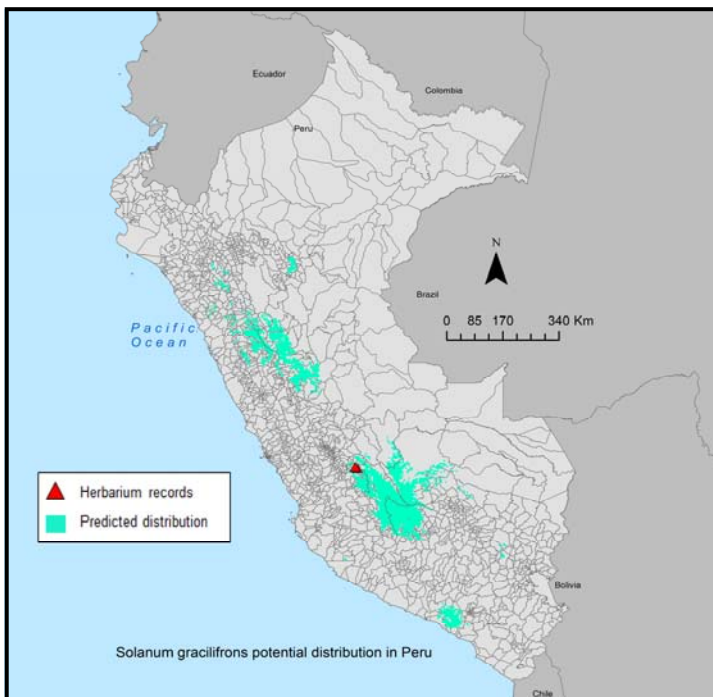
Central Peru in the Department of Hunacavelica, Tayacaja Province.

Altitude: 1600 - 2700 m

Solanum gracilifrons

May be confused with:
Other Solanum Species

Highly dissected leaves with linear lanceolate leaflets. The highly dissected leaves with linear lanceolate leaflets make it highly distinctive & unlikely to be confused with any other wild species.

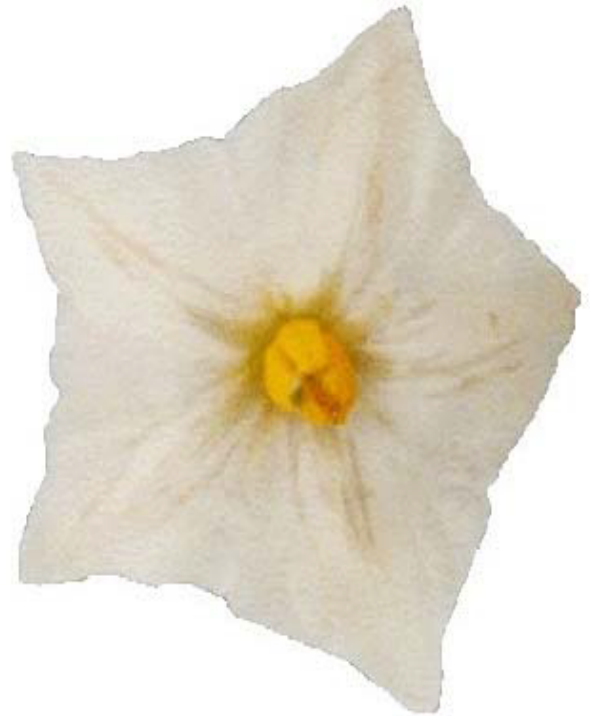


References: <http://solanaceaesource.org/taxonomy/term/107167/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



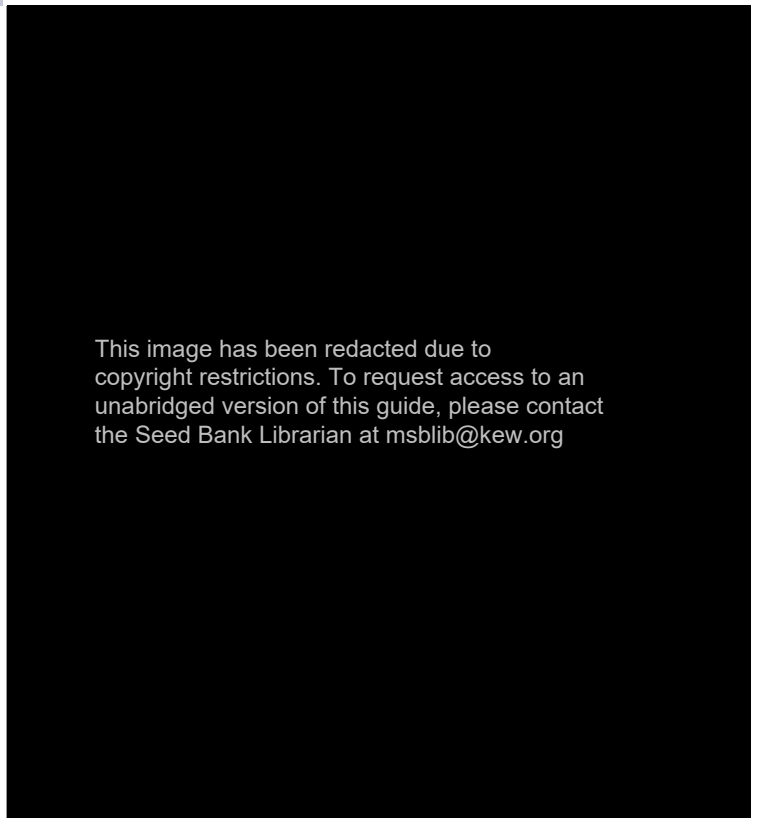
Credit: A.Salas



Credit: A.Salas



Credit: A.Salas



No seed image available



up to 45 cm

Jan-Mar

Jan-Mar

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.25-0.75 m tall, erect. Stems 2-8 mm in diameter at base of plant, green or green mottled with purple, usually unwinged but sometimes with a wing 1-3 mm, glabrous; tubers typically placed one at the end of each stolon.

LEAVES: Odd-pinnate, blades 11.8-21 x 5.5-11.6 cm, dark green abaxially, light green adaxially, chartaceous, usually glabrous adaxially and abaxially; most distal lateral leaflets 3.2-5.5 x 1.5-2.8 cm, ovate to elliptic, terminal leaflet 3.5-7 x 1.6-3.2 cm, ovate to elliptic, the apex acute, the base attenuate; pseudostipules 2-10 mm long, glabrous to subglabrous; interjected leaflets 0-18.

INFLORESCENCE: 3.5-16 cm, with 6-33 flowers, with all flowers apparently perfect, the axes glabrous to glabrescent with short white hairs; peduncle 1-12.3 cm long; pedicels 12-44 mm long in flower and fruit, spaced 3-5 mm apart, articulated high in the distal half.

FLOWER: Homostylous; Calyx 3-10 mm long, the tube 1-3 mm, the lobes 2-7 mm, ovate; corolla 2.1-3.9 cm in diameter, substellate to pentagonal, white, the tube 1-2 mm long

FRUITS: Ovoid berry, 0.9-2.2 cm wide, 0.9-2.3 cm long, medium to deep green with white dots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Among bushes, in forests, on rocky slopes.

Distribution:

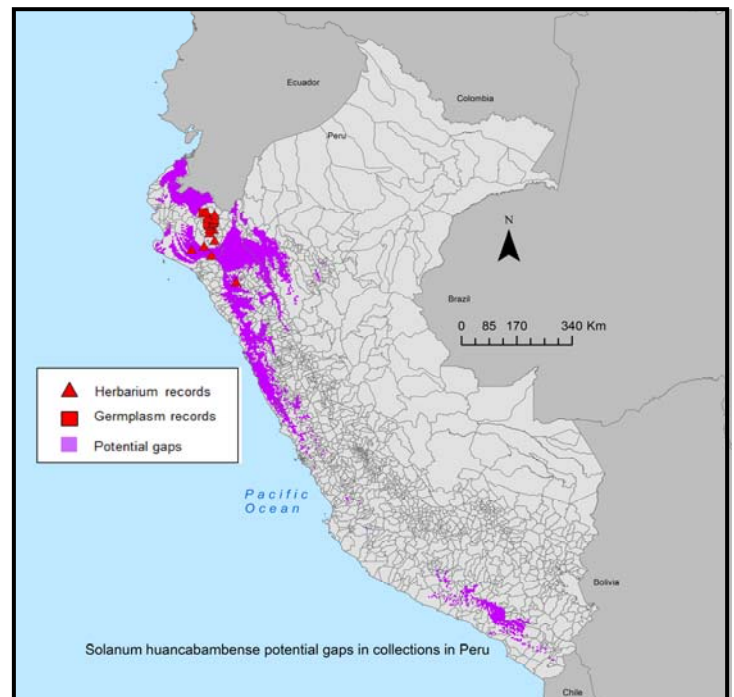
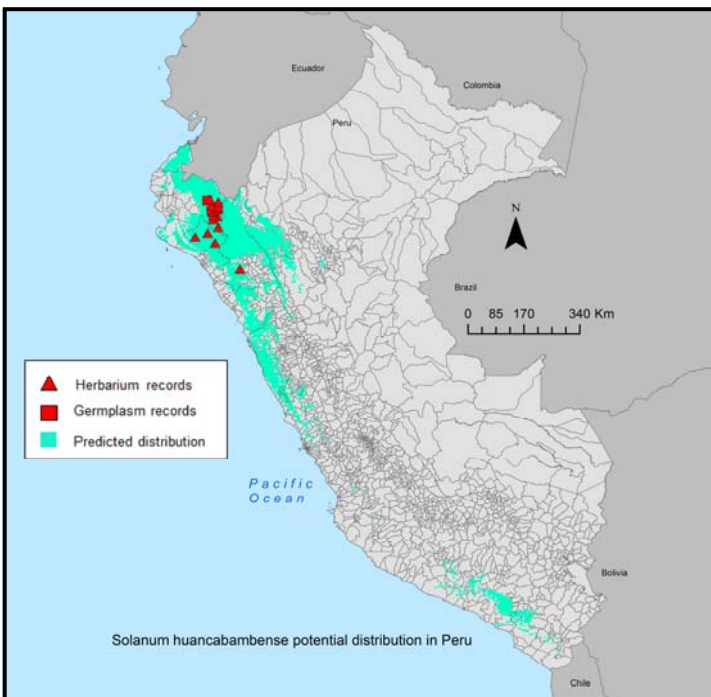
Northern Peru (Depts. Cajamarca, Lambayeque and Piura).

Altitude: 1650 - 3460 m*Solanum huancabambense*

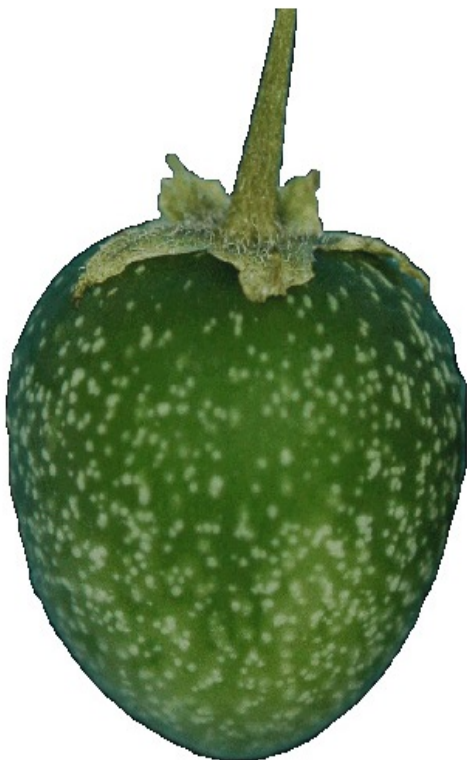
Substellate to pentagonal corollas and ovate calyx lobes, interjected leaflets 0-18.

May be confused with:
Solanum trinitense

Pentagonal to rotate corollas and lanceolate calyx lobes, interjected leaflets 36-44.


References: <http://solanaceaesource.org/taxonomy/term/107383/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



Credit: A.Salas

No seed image available



0.25-0.75 m



PRELIM



Feb-Jun



Feb-Jun

HABIT: Herbs 0.3-0.7 m tall, erect. Stems 2-6 mm in diameter at base of plant, green, usually unwinged but sometimes with a narrow wing 0.4-1.5 mm, glabrous.

LEAVES: Odd-pinnate, the blades 7.8-16.4 x 4.6-13.6 cm, dark green abaxially, light green adaxially, coriaceous, glabrescent adaxially with scarce short scabrous white hairs, glabrous abaxially; terminal leaflet generally subequal to the most distal pair of lateral leaflets; most distal lateral leaflets 1.7-7 x 1-3.2 cm, ovate to elliptic, the apex acute to acuminate; interjected leaflets 0-9, sessile, ovate to orbicular; petioles 0.9-3 cm, glabrous to glabrescent with short white hairs. Pseudostipules 3-10 mm long, glabrous to subglabrous.

INFLORESCENCES: 3-19 cm, with 10-41 flowers; peduncle 10-4.3 cm long; pedicels 15-28 mm long in flower and fruit, spaced 3-5 mm apart, articulated high in the distal half.

FLOWERS: Homostylous; calyx 4-7 mm long, the tube 1-3 mm, the lobes 2-4 mm, ovate, usually glabrous; corolla 2.5-3.5 cm in diameter, substellate to pentagonal, white with a deep purple central star, edges flat, not folded dorsally, glabrous abaxially and adaxially

FRUIT: Ovoid berry, 1.1-1.5 cm wide, 1.4-1.7 cm long, light to medium green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Humid forests or brushy slopes.

Distribution:

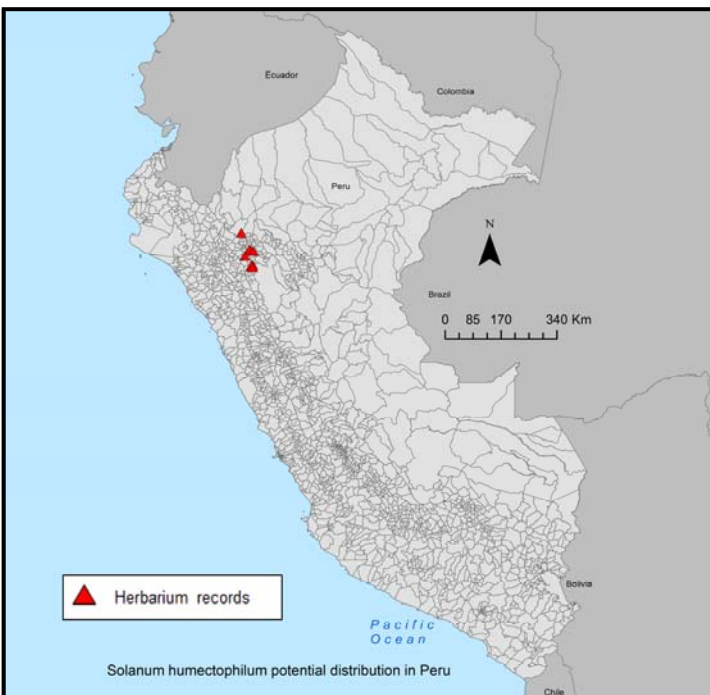
Northern Peru (Dept. Amazonas).

Altitude: 2750 - 3200 m*Solanum humectophilum*

Glabrous calyx and white corollas with a deep purple central star.

May be confused with:
Solanum andreaeanum

Subglabrous to densely pubescent calyx and lilac to deep purple corollas throughout.



All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/107398/descriptions>



Credit: A.Salas

Credit: A.Salas

No seed image available



30-70 cm



Mar-May

Mar-May

HABIT: Herbs 0.3-0.7 m tall, erect. Stems 1-8 mm in diameter at base of plant, green or green mottled with purple, usually unwinged but sometimes with a narrow wing to 1 mm, glabrous.

LEAVES: Simple or odd-pinnate, the blades 6.6-21.1 x 3.1-12 cm, dark green abaxially and light green adaxially, coriaceous, glabrescent adaxially with scarce short white hairs, usually glabrous abaxially; most distal lateral leaflets 0.6-5.8 x 0.3-3.3 cm, ovate to elliptic, the apex acute to acuminate, the base typically sessile and narrowly decurrent onto the rachis; terminal leaflet 4.8-18 x 3.1-10.4 cm.

INFLORESCENCES: 2.8-18 cm, 8-34 flowers, all flowers apparently perfect; peduncle 1.8-10.7 cm long; pedicels 13-41 mm long in flower and fruit, spaced 3-5 mm apart, articulated very high in the distal half.

FLOWERS: Homostylous; calyx 8-10 mm long, the tube 3-7 mm, the lobes 2-4 mm, ovate; corolla 2.8-4.9 cm in diameter, rotate, white, the tube 1-2 mm long, edges flat, not folded dorsally, glabrous abaxially and adaxially.

FRUITS: Ovoid to pyriform berry, 0.8-1.6 cm wide, 0.8-1.7 cm long, light to medium green, sometimes with white spots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

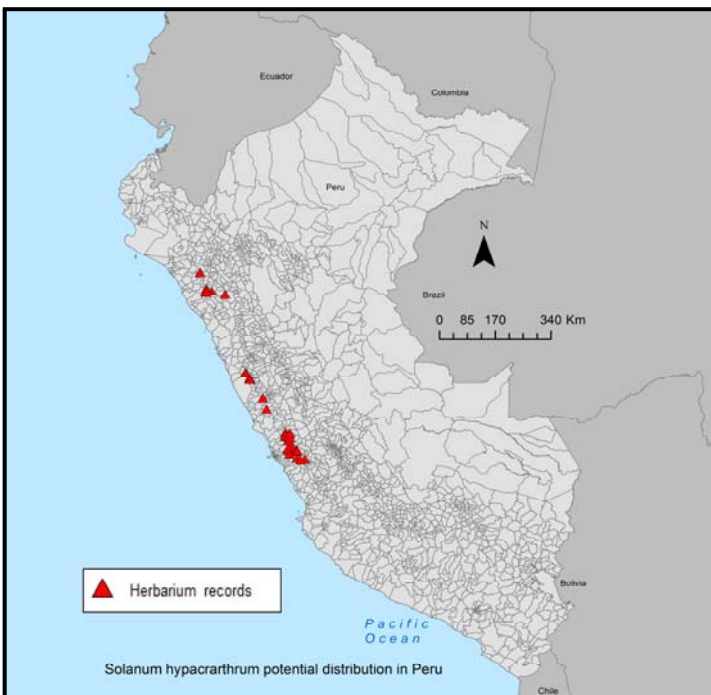
On rocky hills, among bushes and other herbaceous vegetation.

Distribution:

Central to northern Peru (Depts. Ancash, Cajamarca and Lima).

Altitude: 1800 - 3800 m

<i>Solanum hypacrarthrum</i>	May be confused with: <i>Solanum simplicissimum</i>
Green midvein in the terminal leaflet.	Red coloration the midvein in the terminal leaflet.



All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/107412/descriptions>

SOLANACEAE

Gene Pool Tertiary relative of *Solanum tuberosum* L.

Solanum hypacrarthrum Bitter

Papa de Gentil



No seed image available



30-70 cm



Mar-Jun

Mar-Jun

Gene Pool Tertiary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.2-1 m tall, erect. Stems 2-8 mm in diameter at base of plant, green to green mottled with purple, unwinged, glabrous.

LEAVES: Odd-pinnate, blades 7.5-15.2 x 6.5-9.2 cm, dark green adaxially and abaxially, chartaceous, glabrous adaxially and abaxially; most distal lateral leaflets 3.3-4.4 x 1-1.6 cm, ovate to ovate-lanceolate, the apex acute to acuminate, the base typically petiolulate and attenuate to rounded; terminal leaflet 3.9-5 x 1.4-1.6 cm, ovate to ovate-lanceolate, apex acuminate, the base attenuate; interjected leaflets 0-19; petioles 1-3 cm, glabrous. Pseudostipules 5-9 mm long, glabrous.

INFLORESCENCES: 5.5-15 cm, 15-36 flowers, with all flowers apparently perfect; peduncle 1.3-8.7 cm long; pedicels 17-42 mm long in flower and fruit, spaced 3-5 mm apart, articulated slightly above the middle.

FLOWERS: Homostylous; calyx 3-7 mm long, the tube 1-3 mm, the lobes 2-3 mm, usually ovate to lanceolate; corolla 2.2-4.2 cm in diameter, pentagonal to rotate, white, the tube 1-2 mm long, edges flat, not folded dorsally, glabrous adaxially and abaxially

FRUITS: Globose berry, 1-1.7 cm in diameter, medium to deep green, sometimes with purple spots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Among rocks, sandy soils, lomas and around crop fields.

Distribution:

Peru (Depts. Ancash, Cajamarca, La Libertad and Lima).

Altitude: 80 - 3700 m

<i>Solanum immite</i>	May be confused with: <i>Other Solanum Species</i>
This species stands alone in its morphological characteristics. Its leaves are unlike any other tuber-bearing species in having a very slender, acuminate-lanceolate leaflets.	

Reported from
Peru, but no
localities
known

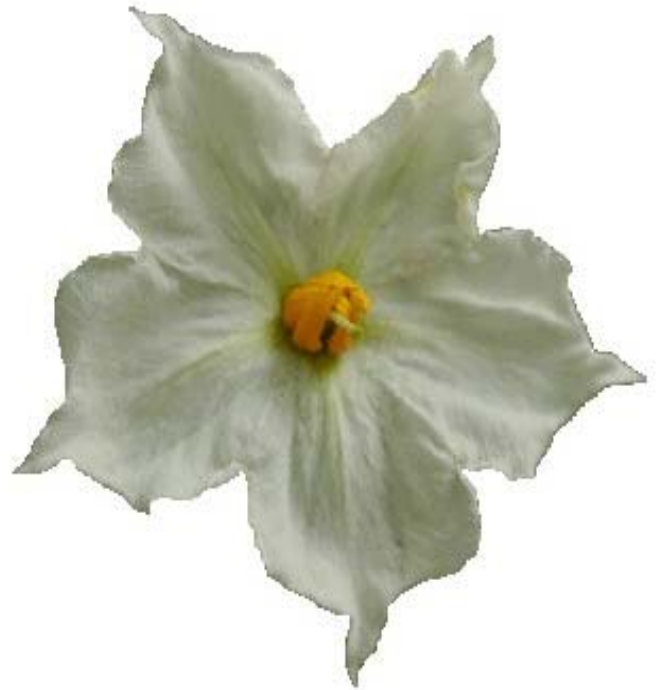
All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/107439/descriptions>

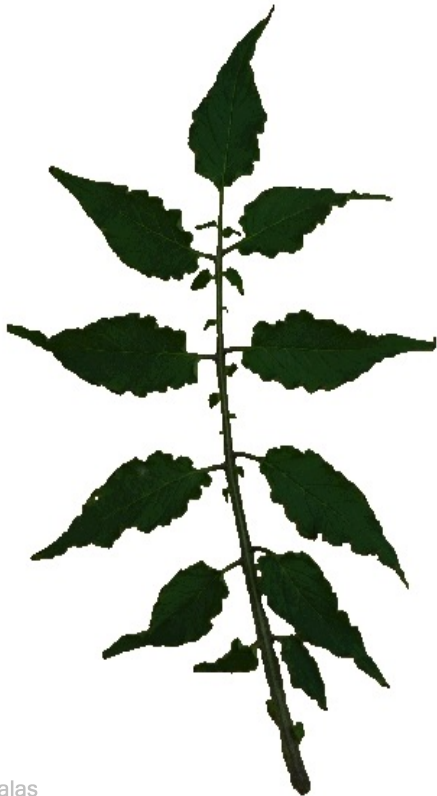
Gene Pool Tertiary relative of *Solanum tuberosum* L.



Credit: A.Salas



Credit: A.Salas




Credit: A.Salas

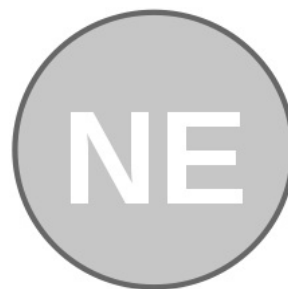


Credit: A.Salas

No seed image available



0.2-1 m



Jan-Oct

Jan-Oct

HABIT: Herbs 0.5 to over 3 m tall, prostrate to erect. Stems 3-20 mm in diameter at base of plant, green to green mottled with purple, with straight wings 1 mm wide or more, usually glabrous to subglabrous.

LEAVES: odd-pinnate, the blades 12.2-30 x 7-15.5 cm, medium green, sometimes with purple pigmentation abaxially, membranous to chartaceous, sparsely pubescent adaxially and abaxially; terminal leaflet 3.5-7.5 x 1-3 cm, elliptic to lanceolate, the apex acuminate elongated, the base rounded or obtuse, with secondary leaflets on the petiolule absent; petioles 2.5-10 cm, glabrous to sparsely pubescent with hairs like those of the stems.

INFLORESCENCES: 5-10.5 cm; with 13-36 flowers; peduncle 5-12.5 cm long; pedicels 11-32 mm long in flower and fruit, spaced 1-10 mm apart; articulated from the middle to the proximal fourth, rarely in the distal half.

FLOWER: Homostylous; calyx 9-14 mm long, the tube 1-2 mm, the lobes 4-8 mm, long attenuate; corolla 1.2-2.5 cm in diameter, pentagonal to rotate, blue-violet to purple or pale violet, the rays light violet or white

FRUITS: Conical berry, 1.5-2.3 cm long, 1.2-1.9 cm wide, light green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

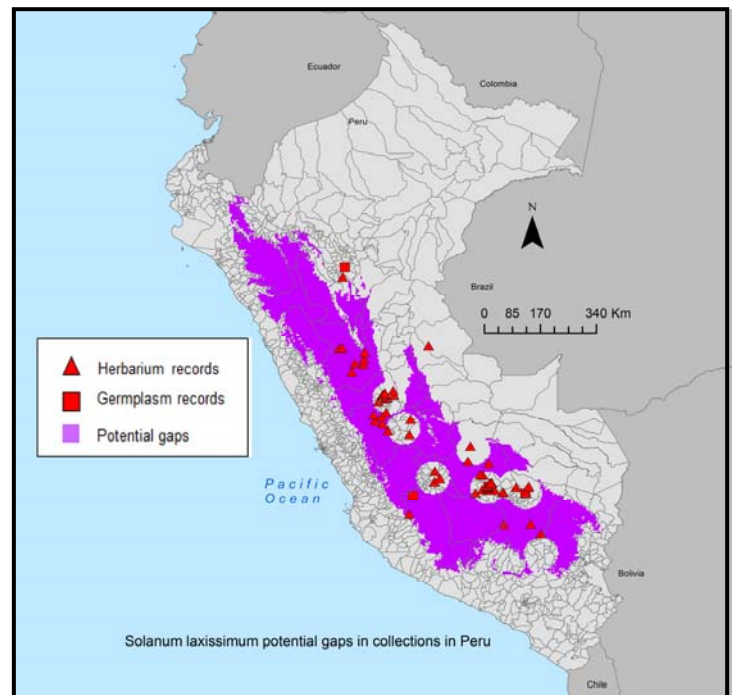
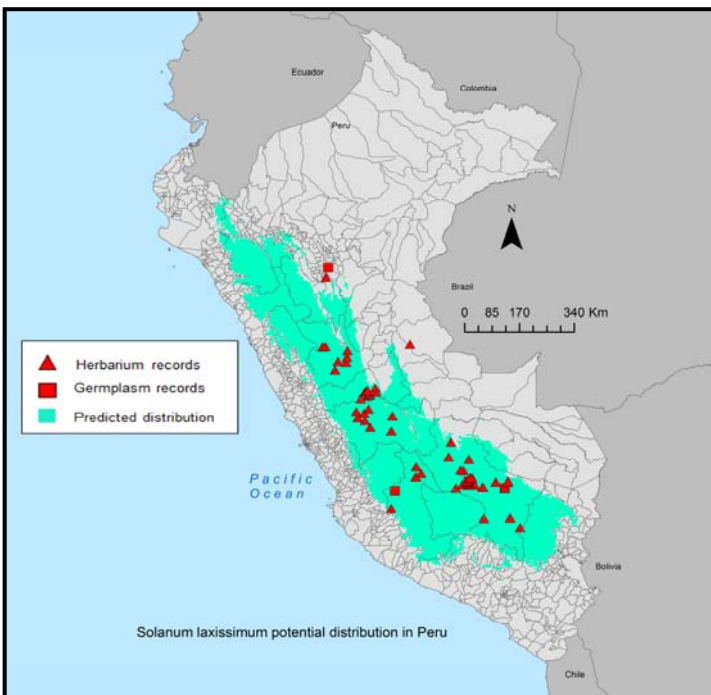
In moist habitats, at forest edges.

Distribution:

Endemic to central to southern Peru (Depts. Ayacucho, Cuzco, Huánuco, Junín and Pasco).

Altitude: 670 - 4150 m

<i>Solanum laxissimum</i>	May be confused with: <i>Other Solanum species</i>
Acute or attenuate elongated leaflets with purple colour sometimes present abaxially, sparsely pubescent leaves, winged stem.	



References: <http://solanaceaesource.org/taxonomy/term/107813/descriptions>



Credit: Stefan De Haan



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas

No seed image available



0.5-3 m

LC
PRELIM



Jan-Dec

Jan-Dec

HABIT: Herbs 10-50 cm tall, semierect. Stems 3-6 mm in diameter at base of plant, green mottled with purple, unwinged or with narrow wings, glabrous.

LEAVES: Odd-pinnate, blades 6-13 x 3.5-8 cm, chartaceous, subglabrous to sparsely pubescent adaxially and abaxially; most distal lateral leaflets 2-5 x 0.8-2 cm, ovate-lanceolate, the apex acuminate, the base sessile or with petiolules 1-2 mm, symmetrical; terminal leaflet 3.5-8 x 1.5-2.5 cm, ovate-lanceolate, the apex acuminate, the base obtuse, with secondary leaflets on the petiolule absent.

INFLORESCENCES: 4.5-6.5 cm, 4-17 flowers, with all flowers apparently perfect, the axes pilose; peduncle 3.5-7.5 cm long; pedicels 8-23 mm long in flower and fruit, spaced 1-10 mm apart, articulated in the middle to proximal third.

FLOWERS: Homostylous; calyx 5-7 mm long, lobes 4.5-10 mm, acuminate; Corolla ca. 2.5 cm in diameter, rotate, purple to light lilac, the rays darker than interpetalar tissue, edges flat, not folded dorsally, glabrous adaxially, minutely puberulent abaxially, especially along the midribs, ciliate at the margins, especially at the tips of the corollas.

FRUITS: Conical berry, 1.1-2.2 cm long, 0.8-2.1 cm wide, light green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

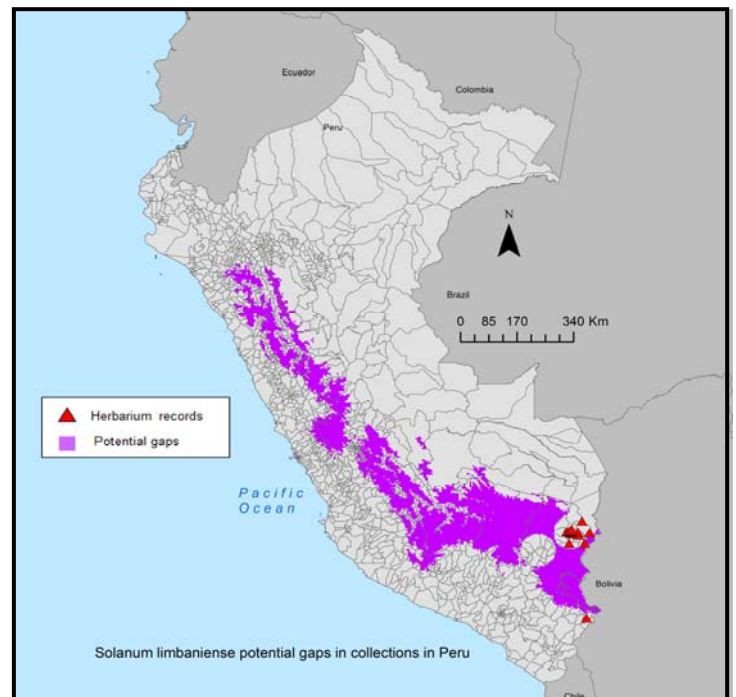
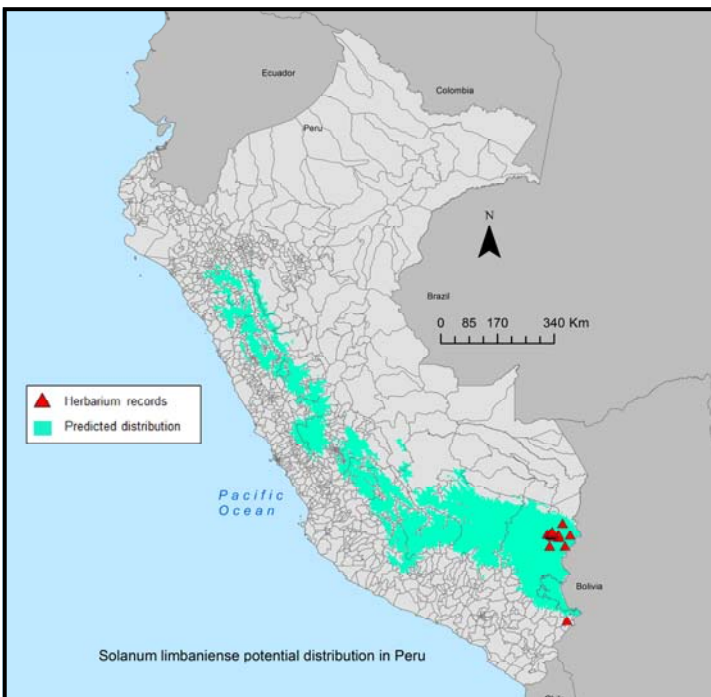
Moist habitats, road sides and disturbed forests.

Distribution:

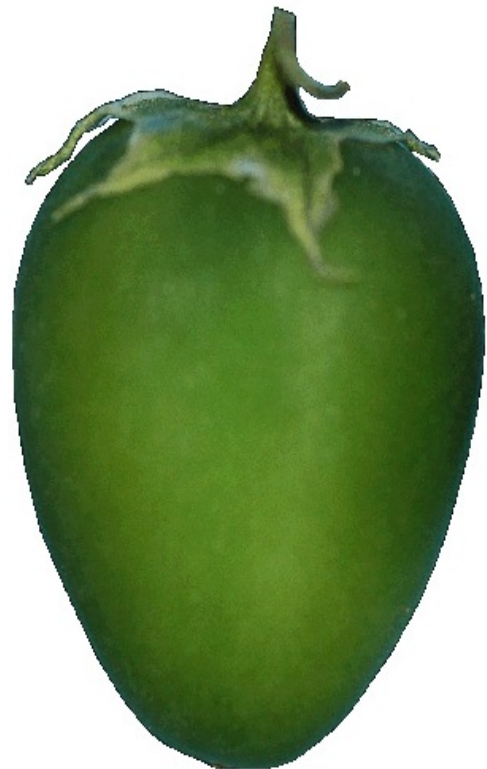
Southern Peru (Dept. Puno).

Altitude: 2900 - 3750 m

<i>Solanum limbaniense</i>	May be confused with: <i>Solanum neovavilovii</i>
Glabrous to subglabrous leaves and calyx, ovate-lanceolate leaflets with acuminate apices, terminal leaflet larger than lateral leaflets, and rotate purple to light lilac corolla.	More pubescent.



References: <http://solanaceaesource.org/taxonomy/term/107880/descriptions>



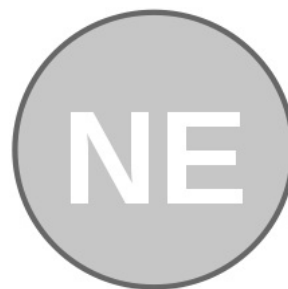
Credit: A.Salas

Credit: A.Salas

No seed image available



10-50 cm



Jan-Apr

Jan-Apr

HABIT: Herbs up to 1m tall, stem slender to stout, glabrous to slightly pilose.

LEAVES: Odd-pinnate, 8-17 cm long, deep green or yellowish green and shiny above or densely pilose, densely whitish tomentose on the lower surface, without or with interstitial leaflets, the rachis sparsely pilose; leaflets 5 or 7, rarely 9; lateral leaflets sessile to shortly or occasionally auriculate at the base, up to 7x2.8 cm; terminal leaflets similar to but somewhat larger than the lateral ones; pseudostipular leaves about 8 mm long, strongly lunate-falcate.

INFLORESCENCE: Pseudoterminal, (3-)7-18 flowered, cymosely paniculate; peduncle 3.5-7 cm long, slender, branched above, slightly pilose, hairs unequally long; pedicels slender, 1-2 cm long, articulate about or below the middle and sometimes 6-8 mm below the calyx, shortly pilose.

FLOWERS: Azure blue to lavender or deep bluish purple, showy; calyx 8-12 mm long, divided to below the middle into ovate-lanceolate long acuminate lobes, the lower margins scarious, prominently long-pilose, commonly mottled with purple; corolla rotate-pentagonal to occasionally rotate-stellate, usually about 2.5-3.5 cm diameter, lobes triangular, densely pilose.

FRUITS: Globose, 1.5-2 cm, light green, white spotted.

SEEDS: Unknown.

Habitat:

Among trees and shrubs on stony banks in shade or sometime in open, in quebradas and about fields.

Distribution:

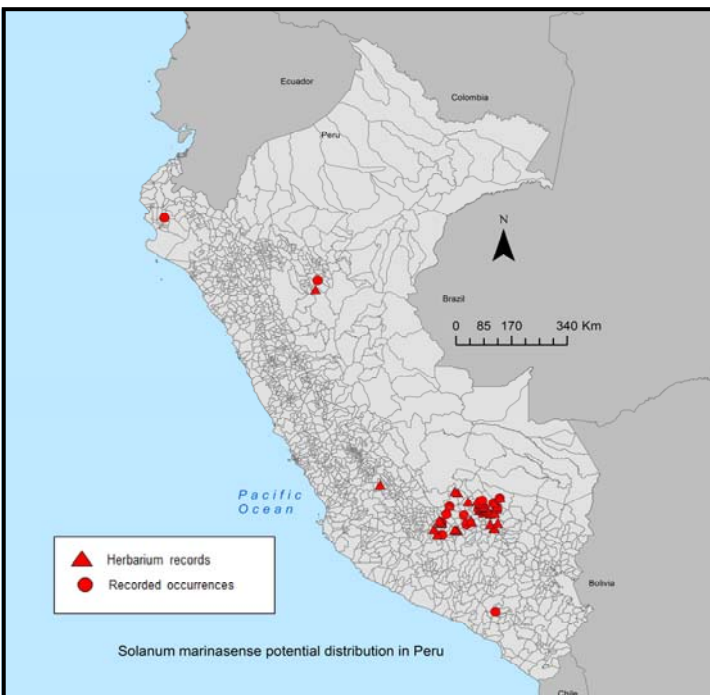
Southern Peru (Dep. Apurimac, Cusco).

Altitude: 2050 - 3500 m

Solanum marinasense

May be confused with:

This species is unique and not closely related to any others.



All populations priority for collection.

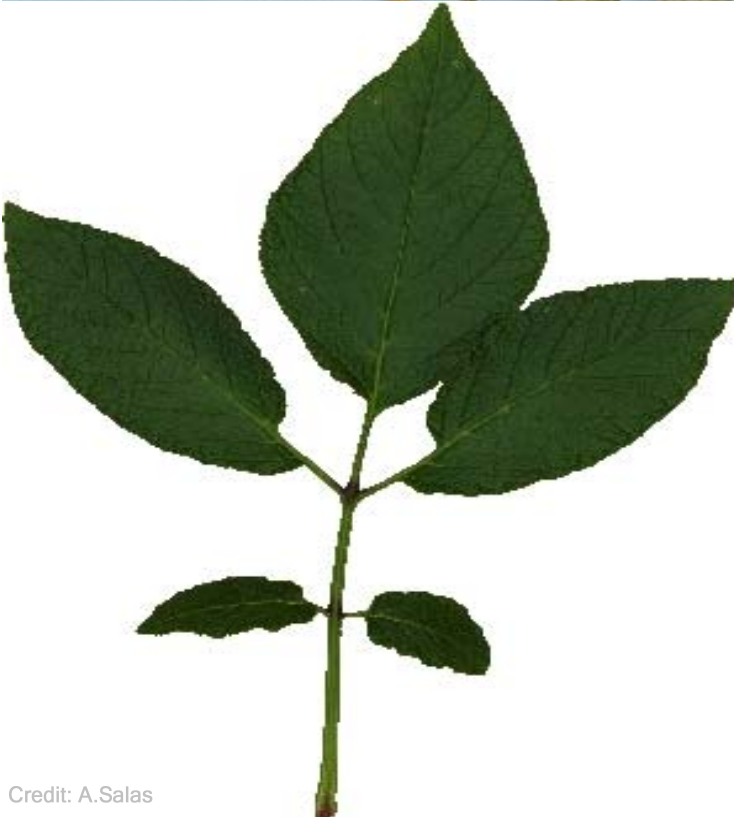
References: Correll, D.S., (1962), The Potato and its Wild Relatives



Credit: A.Salas



Credit: A.Salas



Credit: A.Salas

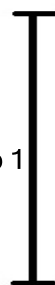


Credit: A.Salas

No seed image available



up to 1 m



Jan-May

Jan-May

Gene Pool Secondary relative of *Solanum tuberosum* L.[Accepted name of *Solanum arahuayum*]

HABIT: Herbs 0.2-0.6 m tall, erect. Stems 3-5 mm in diameter at base of plant, dark green, sometimes tinged with purple, unwinged or with wings to 1 mm wide, coarsely pilose with typically whitish non-glandular erect trichomes.

LEAVES: Odd-pinnate, blades 8-15 x 5-15 cm, medium to dark green sometimes tinged with purple abaxially, membranous to chartaceous, moderately pubescent adaxially and abaxially with hairs like the stems; most distal lateral leaflets 1.5-10 x 0.4-8 cm, narrowly to broadly ovate to more rarely orbicular; terminal leaflet 3-14 x 1-8 cm.

INFLORESCENCES: 2.5-10 cm, 5-15 flowers, the axes pubescent with hairs like those of the stem; peduncle 1.3-8 cm long; pedicels 1.5-8 mm long in flower and fruit.

FLOWERS: Homostylous; Calyx 6-11 mm long, the tube 1-2 mm, the lobes 3-5 mm, linear to long attenuate, pubescent with hairs like those of the stem. Corolla 2.8-3.5 cm in diameter, pentagonal to rotate, dark blue to violet and typically with a green central star adaxially and abaxially.

FRUIT: Globose to slightly ovoid berry, ca. 1.5 cm wide, 1.5-1.8 cm long, medium to deep green when ripe, often with scattered white dots, glabrous.

SEEDS: Ovoid and 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

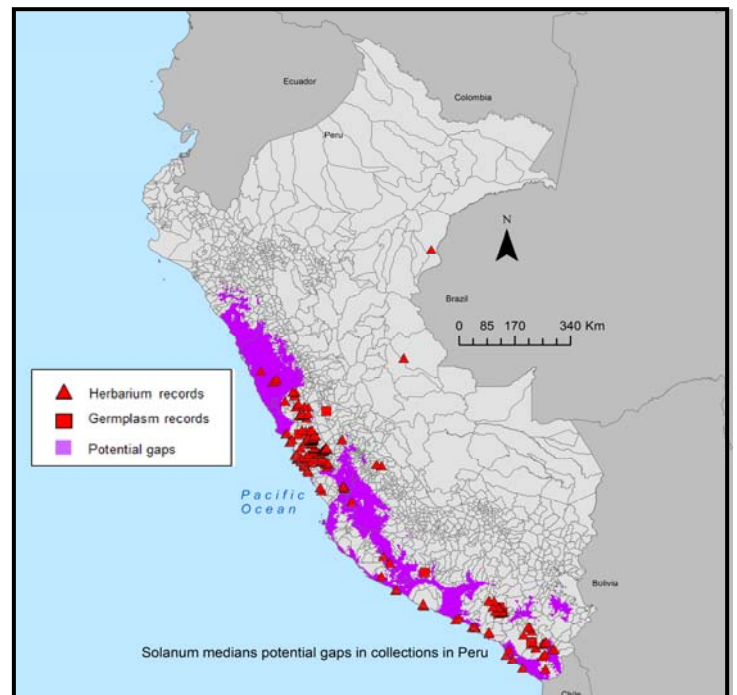
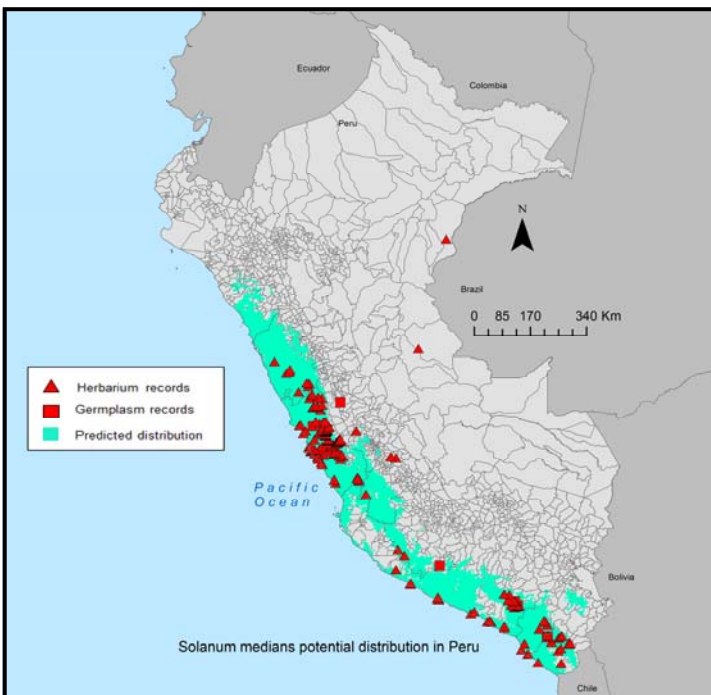
Sunny habitats along the dry coastal lomas to high frigid areas near snow fields, along field margins and streamsides.

Distribution:

Central Peru (Dept. Ancash) south to northern Chile in Regions I (Tarapacá) and II (Antofagasta), along the western slopes of the Andes.

Altitude: 200 - 3800 m

<i>Solanum medians</i>	May be confused with: <i>Solanum neoweberbaueri</i>
Moderately pubescent leaves and calyx. Pedicels, which are typically articulate in the distal half.	Subglabrous to sparsely pubescent leaves and calyx. Pedicels, which are typically articulate in the middle or slightly below the middle.



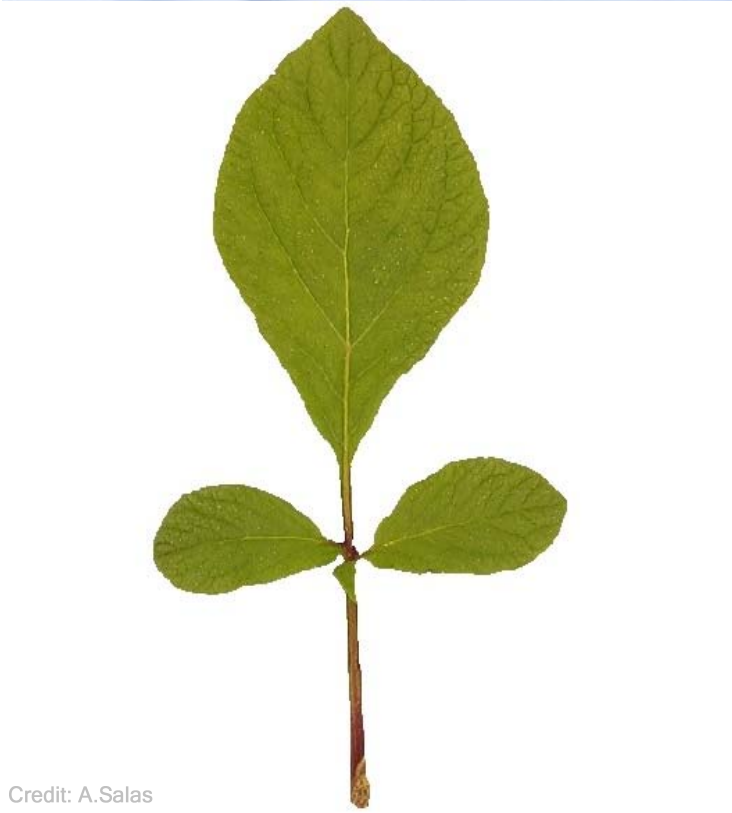
References: <http://solanaceaesource.org/taxonomy/term/108139/descriptions>



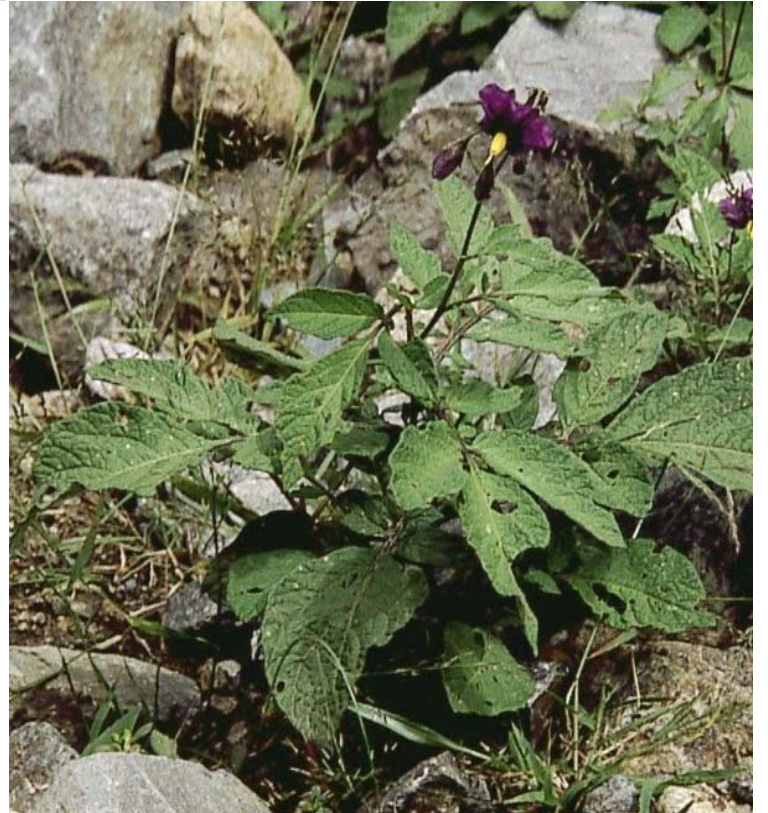
Credit: A.Salas/CIF



Credit: A.Salas



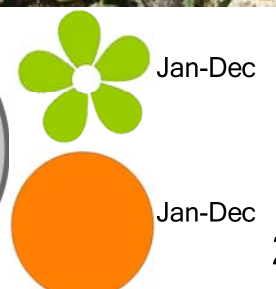
Credit: A.Salas



No seed image available



0.2-0.6 m



Gene Pool Tertiary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.2-0.8 m tall, erect. Stems 2-9 mm in diameter at base of plant, light green, unwinged or with narrow wings to 2 mm, glabrous.

LEAVES: Odd-pinnate, the blades 6.6-22 x 4-13.5 cm, dark green adaxially, light green abaxially, coriaceous, glabrous adaxially, glabrous to puberulent abaxially; interjected leaflets 0-37, usually sessile, ovate to orbicular; petioles 1-3 cm, glabrous; most distal lateral leaflets 2.2-4.5 x 1.2-2.3 cm, ovate to elliptic, the apex acute, the base typically petiolulate and attenuate to rounded; pseudostipules 2-12 mm long, glabrous to subglabrous.

INFLORESCENCES: 6.8-14.5 cm, terminal with a subtending axillary bud, generally in distal half of the plant, with 1-53 flowers; peduncle 0.5-5.8 cm long; pedicels 5-41 mm long in flower and fruit.

FLOWER: Homostylous; calyx 3-7 mm long, the tube 1-3 mm, the lobes 1-4 mm, usually ovate to lanceolate, with linear acumens 1-2 mm long, glabrous to glabrescent with white short hairs; corolla 2.3-5.9 cm in diameter, pentagonal to rotate, white, the tube 1-2 mm long, the acumens 2-3 mm long.

FRUITS: Globose berry, 1.1-2.7 cm in diameter, light green with small white dots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Loose sandy soil on the coast and on dry Rocky soil on the mountains.

Distribution:

Peru (Depts. Ancash, Cajamarca, La Libertad, Lambayeque, Lima and Piura).

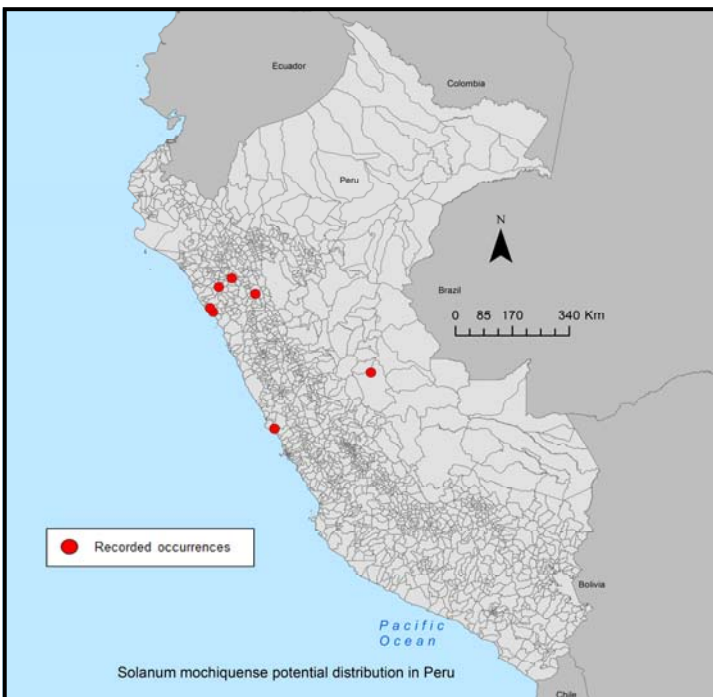
Altitude: 150 - 3000 m

Solanum mochiquense

May be confused with:
Solanum cajamarquense

A very distinctive wild potato species with its combination of coriaceous and glabrous leaves, which are particularly shiny and dark green.

Very pubescent plant.



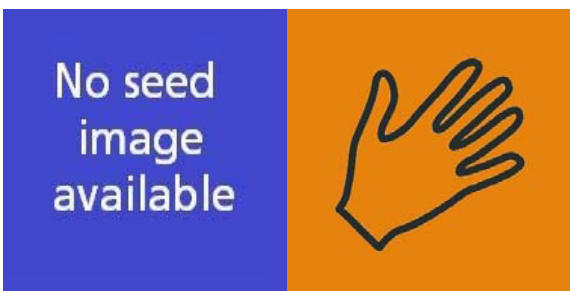
All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/108286/descriptions>

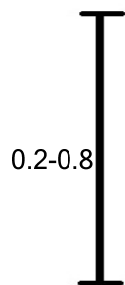
Gene Pool Tertiary relative of *Solanum tuberosum* L.



Credit: A.Salas



Credit: A.Salas



Mar-Oct

Mar-Oct

HABIT: Herbs 30-120 cm tall, ascending to erect; stems 3-10 mm in diameter at base of plant, unwinged or with wings up to 2 mm wide, green to green and purple mottled, subglabrous to subglabrous with at most only very scattered short non-glandular hairs. Pseudostipules 5-17 mm long, lunate, glabrous to subglabrous like the stem.

LEAVES: 11-28 cm long, 5-16 cm wide, odd-pinnate, medium to dark green, chartaceous, subglabrous; most distal lateral leaflets 3.5-9.0 cm long, 2.0-4.5 cm wide, elliptic to broadly obovate, the apex acute to acuminate or blunt and almost rounded, the base symmetrical to oblique, cuneate.

INFLORESCENCES: 10-25 cm long, generally borne in distal half of plant, with 8-15 flowers; peduncle 6-20 cm long; pedicels 20-45 mm long in flower and fruit, articulated at or somewhat distal to the middle, sometimes within 4 mm of the apex of the pedicel.

FLOWERS: 5-merous, all perfect, calyx 5-8 mm long, the lobes 3-6 mm long, long attenuate to acute; corolla 2.5-4.5 cm in diameter, rotate to rotate-pentagonal, blue to purple or white to cream-white, often with white to green to pale violet star adaxially.

FRUITS: Globose to slightly ovoid berry, 1.5-3.3 cm long, 1.6-3.5 cm wide, pure green to green.

Habitat:

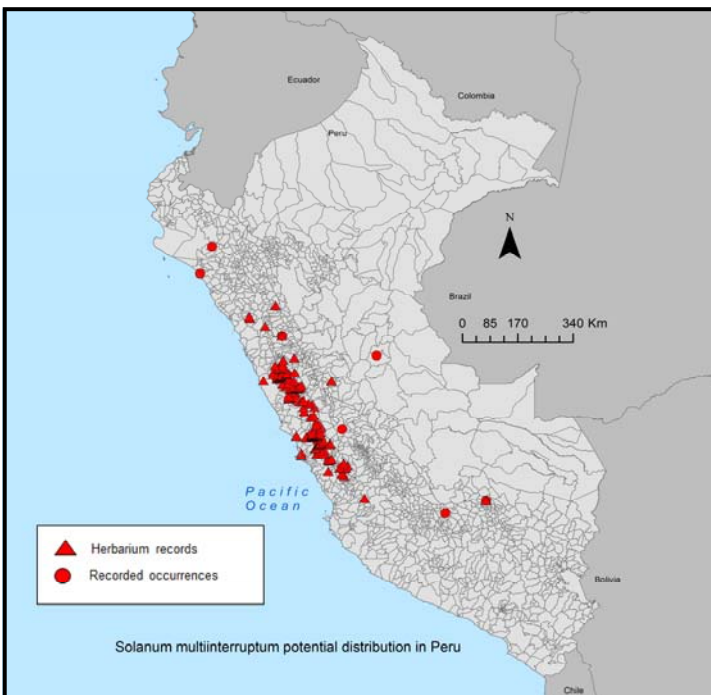
Rocky or Rocky-clay soils among boulders, cliffs and stone walls, or on mountain slopes in moist, well drained soil. In thickets, forests and grasslands.

Distribution:

Peru (Departments of Ancash, Huancavelica, and Lima).

Altitude: 2100 - 2800 m

<i>Solanum multiinterruptum</i>	May be confused with: <i>Solanum bukasovii</i>
30-120 cm tall, erect, ascending, bushy.	25-40 cm tall, weakly ascending, rosette-forming.

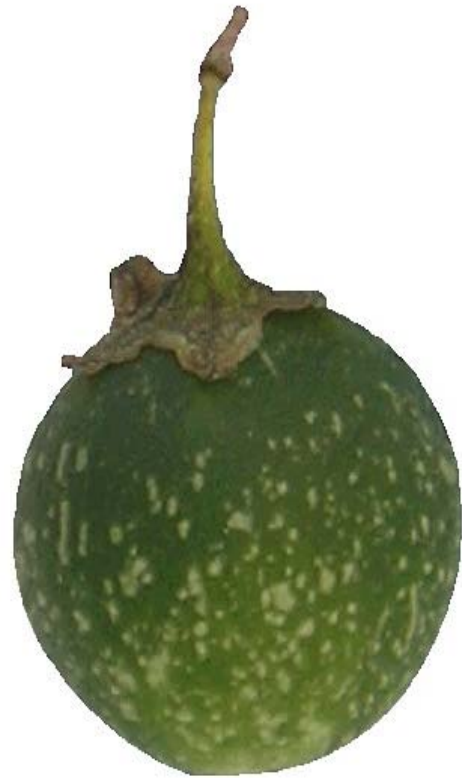


All populations priority for collection.

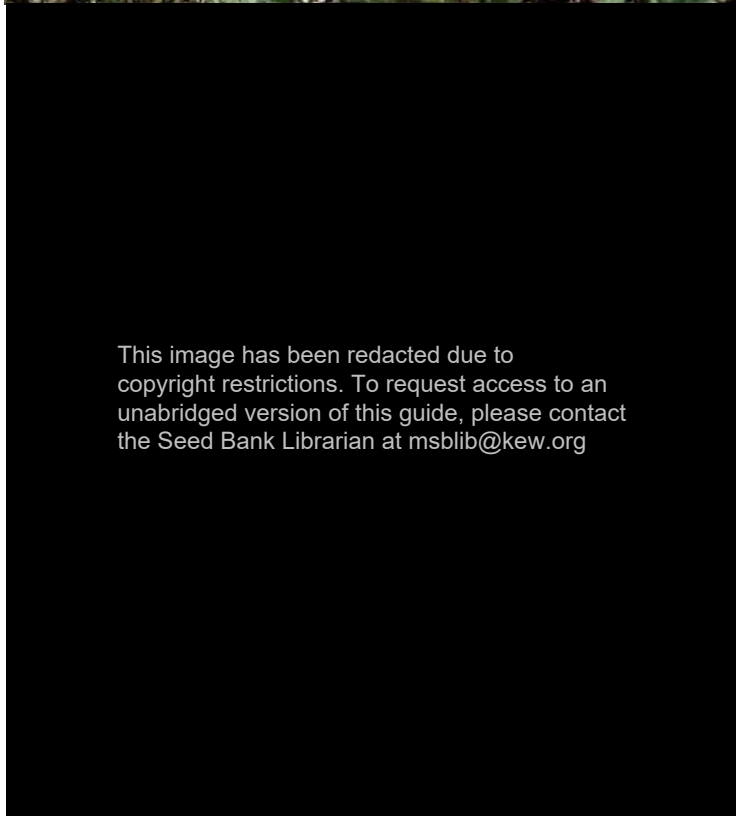
References: <http://solanaceaesource.org/taxonomy/term/108359/descriptions>; Ochoa, C.M., (2004) The Potatoes of South America, Peru (Part 1)



Credit: A.Salas/CIP



Credit: A.Salas/CIP



Credit: A.Salas/CIP

No seed
image
available



30-120
cm



Feb-May

Feb-May

HABIT: Herbs 0.2-0.5 m tall, erect. Stems 2-6 mm in diameter at base of plant, subglabrous to sparsely pubescent with simple hairs, light to dark green and rarely tinged with purple.

LEAVES: Odd-pinnate, the blades 7-16.6 x 4-10 cm, light green, membranous to chartaceous, subglabrous to sparsely pubescent adaxially and abaxially; lateral leaflet pairs 1-3; most distal lateral leaflets 1.8-6.5 x 0.5-2.8 cm, narrowly to broadly ovate, the apex acute to acuminate, the base typically sessile; terminal leaflet 1.7-8.5 x 0.8-3.5 cm.

INFLORESCENCES: 7-21 cm, terminal with a subtending axillary bud, generally in distal half of the plant, usually forked, with 2-25 flowers, with all flowers apparently perfect; peduncle 3-8.5 cm long; rachis 4-13 cm long; pedicels 2-6.5 mm long in flower and fruit, spaced 1-10 mm apart, articulated typically in the distal half.

FLOWERS: Calyx 6-7 mm long, the tube 1-2 mm, the lobes ca. 5 x 6 mm. Corolla 2.7-4.7 cm in diameter, pentagonal to rotate, white to blue to lilac with a white star or white and blue mottled above and below, the corolla edges flat, glabrous abaxially, minutely pubescent adaxially.

FRUIT: Plants sterile, the ovaries never maturing to fruits.

SEED: Seeds not formed; plants sterile.

Habitat:

Sandy or rocky soils.

Distribution:

(Department of Lima) in the coastal lomas, growing among rocks, often on slopes.

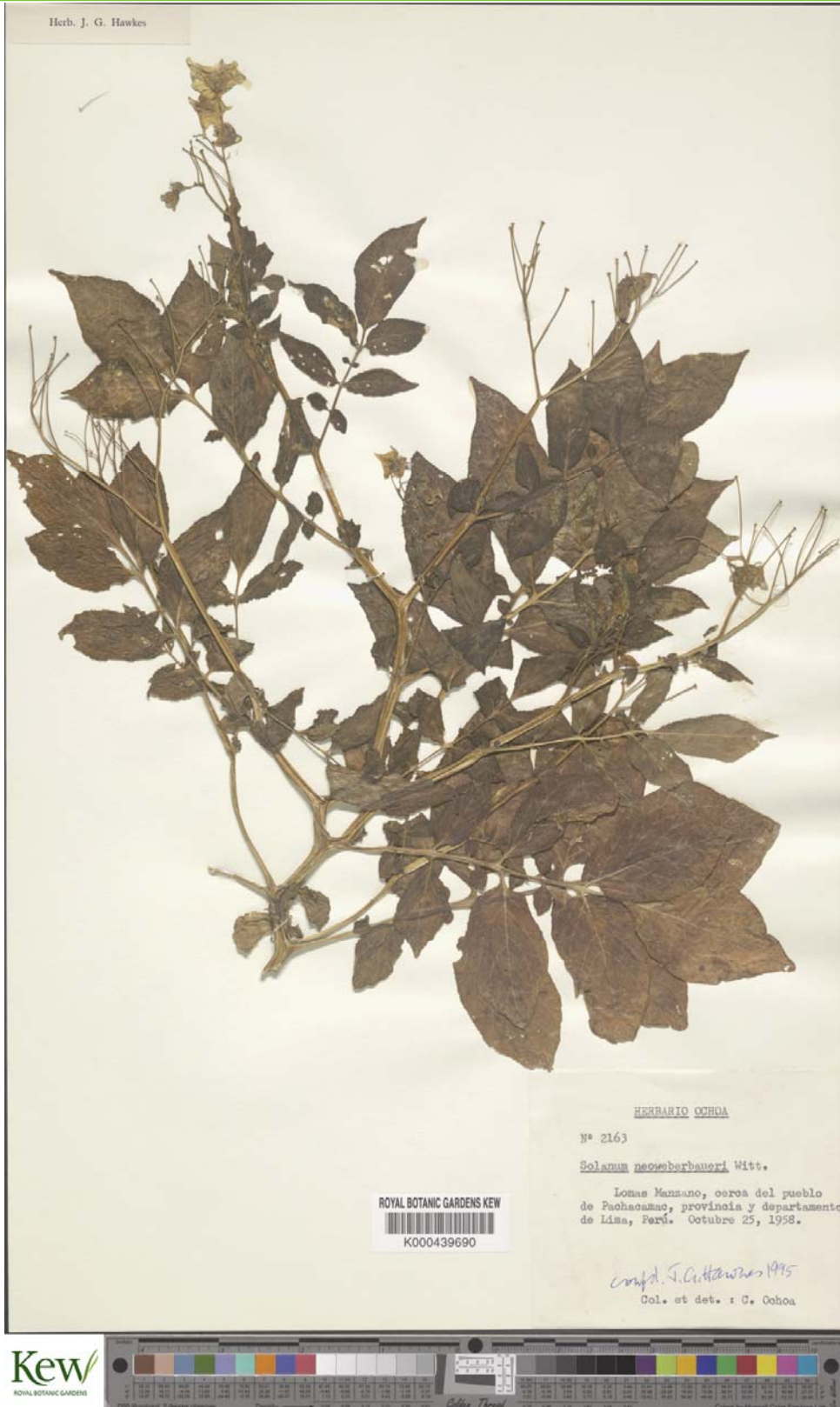
Altitude: 200 - 750 m

<i>Solanum neweberbaueri</i>	May be confused with: <i>Solanum medians</i>
Subglabrous to sparsely pubescent leaves and calyx. Pedicels, which are typically articulate in the middle or slightly below the middle.	Moderately pubescent leaves and calyx. Pedicels, which are typically articulate in the distal half.



All populations priority
for collection.

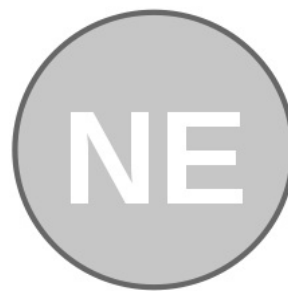
References: <http://solanaceaesource.org/taxonomy/term/108440/descriptions>



No seed image available



20-50 cm



Oct

No Data

HABIT: Herbs 0.4-1.5 m tall, erect. Stems 0.3-7 cm in diameter at base of plant, purple to purple and green mottled, winged, glabrous.

LEAVES: Odd-pinnate, the blades 9.9-33 x 6.5-18.6 cm, dark green adaxially, light green to purple abaxially, coriaceous, glabrous adaxially and abaxially; terminal leaflet 5.5-9.9 x 1.8-4.5 cm, ovate to elliptic, the apex strongly acuminate, the base cuneate and decurrent onto the rachis; petioles 0.5-4 cm, glabrous. Pseudostipules 4-12 mm long, glabrous.

INFLORESCENCES: 5-13.5 cm, with 8-16 flowers, all flowers apparently perfect, the axes glabrous to glabrescent with white medium hairs; peduncle 2.1-7.1 cm long; pedicels 8-23 mm long in flower and fruit, spaced 3-5 mm apart, articulated high in the distal half.

FLOWERS: Homostylous; calyx 4-7 mm long, the tube 2-4 mm, the lobes 2-3 mm, usually ovate to lanceolate, with linear acumens 1-2 mm long, glabrous; corolla 1.5-2.5 cm in diameter, stellate, white, the tube 1-2 mm long, the acumens inconspicuous, the corolla edges flat, not folded dorsally, glabrous adaxially and abaxially.

FRUITS: Ovate to pyriform berry, 1.5-2 cm long but width unknown, green throughout but sometimes with tiny white dots, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Amongst bushes in mist rain forests, with understory of herbaceous plants.

Distribution:

Ecuador (Loja), and Peru (Lambayeque).

Altitude: 1200 - 2650 m

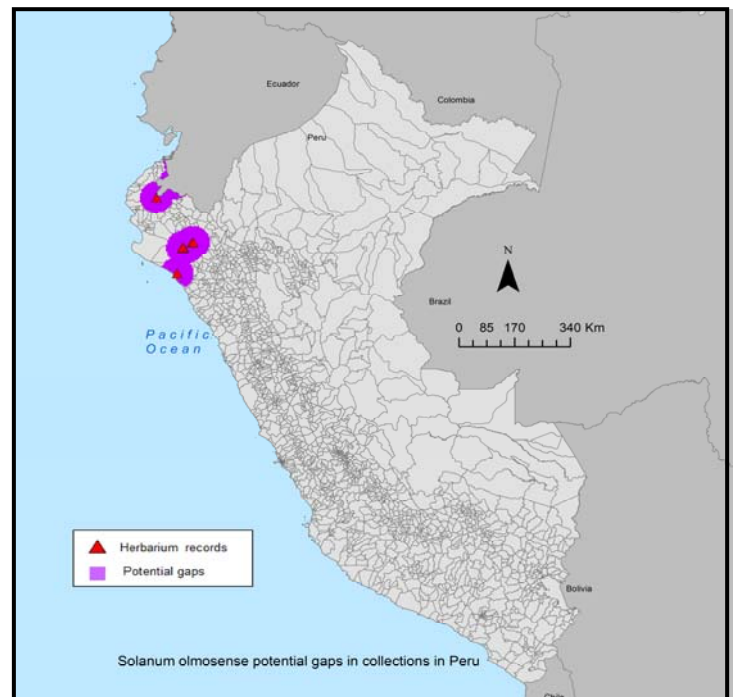
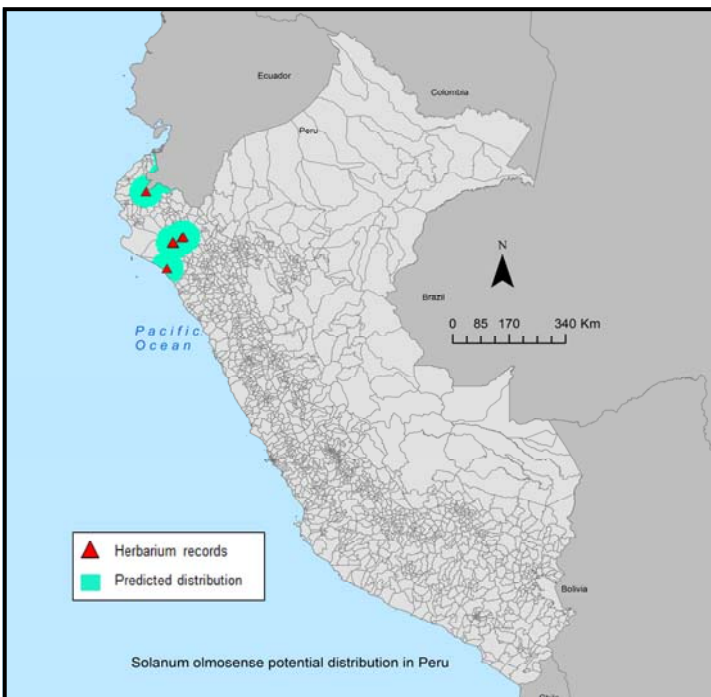
Solanum olmosense

May be confused with:
Solanum raquilatum

Stellate corollas.



Rotate corollas.



References: <http://solanaceaesource.org/taxonomy/term/108687/descriptions>



No seed image available



0.4-1.5



Mar-May

Mar-May

Primary Genepool of *Solanum tuberosum* L.

HABIT: Plants robust, 40-60 cm tall, stems erect, branched, stoloniferous and tuberiferous, narrowly winged, straight wings. Tubers white-grayish to light brown.

LEAVES: Imparipinnate leaves, 18.5-25.0 cm long by 11.5-17.5 cm wide, short and sparsely pilose with 2-3 pairs of lateral leaflets and 0- 1 pair of interjected leaflets; terminal leaflet ovate to ovate-elliptic, larger and wider than the laterals.

INFLORESCENCE: Cymose. Peduncle 10-12 cm long by 1.5-2.0 mm in diam at base. Pedicels 25-30 mm long and 0.5-0.7 mm in diam, articulated at 8-9 mm below calyx.

FLOWER: Calyx asymmetrical, 10-12 mm long, lobes narrowly lanceolate, attenuate toward the apex or narrowed in acute acumens of 4-5 mm long. Corolla violet, rotate, 3.5-4.0 cm in diam. Anthers narrowly lanceolate, 6.5-7.0 mm long; filaments 2.0-2.5 mm long. Style 10.5-11.5 mm long; stigma broadly capitate.

FRUITS: Globose to subglobose, 2.0-2.5 cm long, pale green with scattered white dots, not verrucose.

SEEDS: Unknown

Habitat:

Unknown.

Distribution:

Peru.

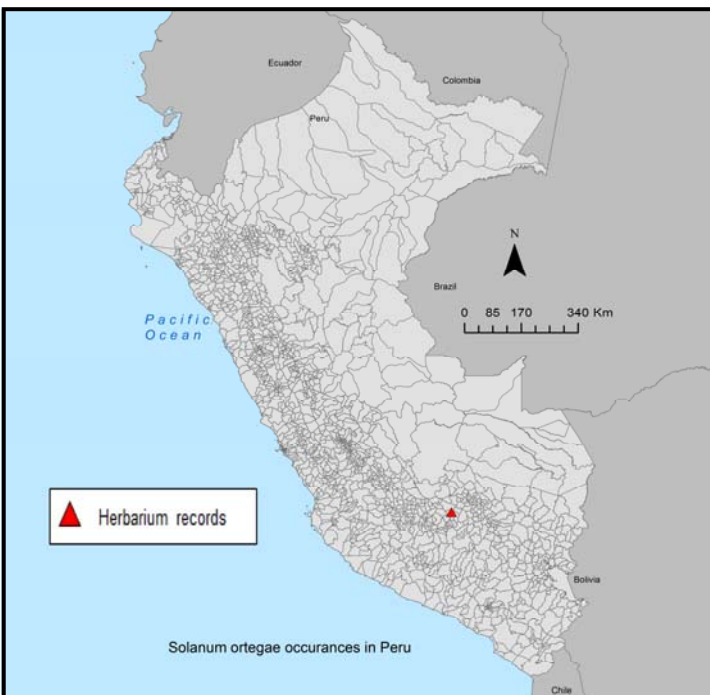
Altitude: up to 2600 m

Solanum ortegae

Leaflets, 4-10 cm long x 1-4 cm wide, apex, obtuse to subpointed; base conspicuously asymmetrical.

May be confused with:
Solanum velardei

Leaflets, 2-5 cm long x 1-3 cm wide, elliptical-lanceolate, with pointed tips; cordate base.



All populations priority
for collection.

References: Phytologia 85(4): 271 (-272). 1998

Primary Genepool of *Solanum tuberosum* L.

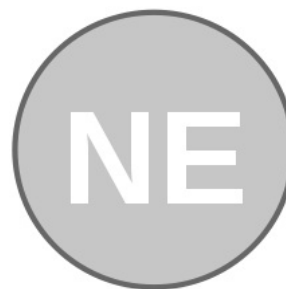


Herbario Universidad Nacional Mayor de San Marcos/Jstor

No seed image available



40-60 cm



Mar

No Data

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.15-0.75 m tall, erect, sometimes with a rosette habit. Stems 1-7 mm in diameter at base of plant, purple to purple and green mottled, unwinged, glabrous.

LEAVES: Odd-pinnate, blades 5.6-12.3 x 1.9-6.6 cm, dark green adaxially, light green with a purple coloration on the veins or completely purple abaxially, coriaceous, glabrous adaxially and abaxially; most distal lateral leaflets 0.9-3.6 x 0.5-1.2 cm, ovate to elliptic, the apex acute, the base typically petiolulate and attenuate to rounded; terminal leaflet 3.4-7.5 x 2-2.7 cm, ovate to elliptic, the apex acute, the base attenuate; interjected leaflets 0-2, usually sessile, ovate to orbicular.

INFLORESCENCES: 6-15 cm, 4-22 flowers, with all flowers apparently perfect, the axes glabrous; peduncle 0.7-9.5 cm long; pedicels 15-61 mm long in flower and fruit, spaced 3-5 mm apart, articulated at or slightly above the middle.

FLOWERS: Homostylous; calyx 5-8 mm long; corolla 2.4-5.6 cm in diameter, pentagonal to rotate, white to lilac to light blue, edges flat, not folded dorsally, glabrous abaxially and adaxially.

FRUITS: Ovoid berry, 0.9-2.5 cm wide, 1-2.5 mm long, medium to deep green with white spots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

Among bushes, in moist or poor soils, in slopes near crop fields.

Distribution:

Northern Peru (Depts. Cajamarca, Piura).

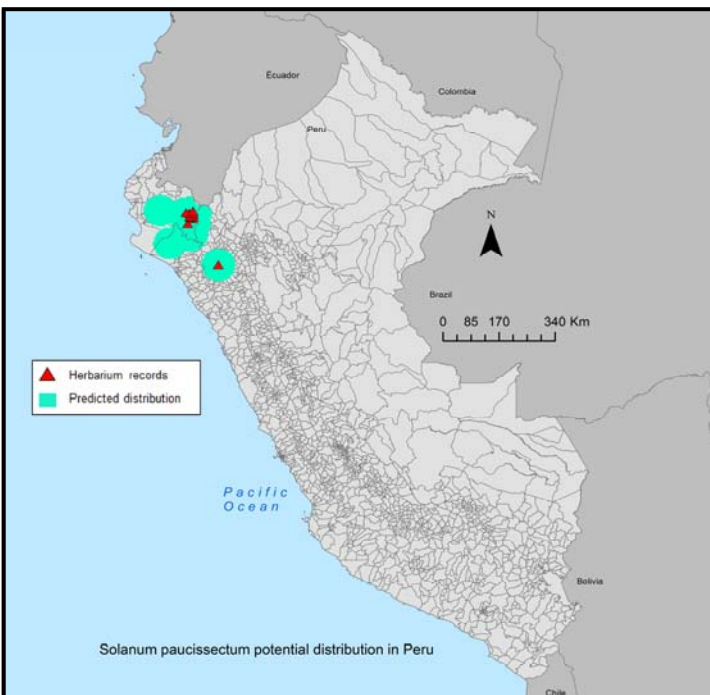
Altitude: 2350 - 3360 m

Solanum paucissectum

May be confused with:
Solanum chilliasense

Acute leaflet tips and entire leaflet margins.

Leaflets acuminate at the tips and undulate margins.



Reported from
Peru, but no
localities
known

References: <http://solanaceaesource.org/taxonomy/term/108840/descriptions>



Jstor/United States National Herbarium

No seed image available



0.15-0.75 m

EN
PRELIM

Feb-May

Feb-May

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.15-0.8 m tall, erect. Stems 2-8 mm in diameter at base of plant, purple, usually unwinged but sometimes with a narrow wing up to 1 mm, glabrous.

LEAVES: Odd-pinnate, the blades 9.4-20.1 x 6.1-12.8 cm, dark green adaxially, light green abaxially, coriaceous, glabrous adaxially and abaxially with ciliate margins that are rough to the touch; most distal lateral leaflets 3.7-6.8 x 1.1-2.7 cm, ovate to elliptic, the apex acute to acuminate, the base typically petiolulate and attenuate to rounded; terminal leaflet 5.3-9 x 2.3-3.6 cm, ovate to elliptic, the apex acute to acuminate.

INFLORESCENCES: 7.1-17.5 cm, 4-39 flowers, with all flowers apparently perfect, the axes glabrous; peduncle 1-10 cm long; pedicels 11-45 mm long in flower and fruit, articulated high in the distal half.

FLOWERS: Calyx 3-5 mm long, the lobes 1-2 mm, usually ovate to lanceolate, with linear acumens 1-2 mm long, glabrous; corolla 2.4-3.8 cm in diameter, pentagonal to rotate, lilac to blue, the tube 1-2 mm long, edges flat, not folded dorsally.

FRUITS: Ovoid berry, 1.2-1.8 cm wide, 1-2 mm wide, medium to deep green, sometimes with white dots when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

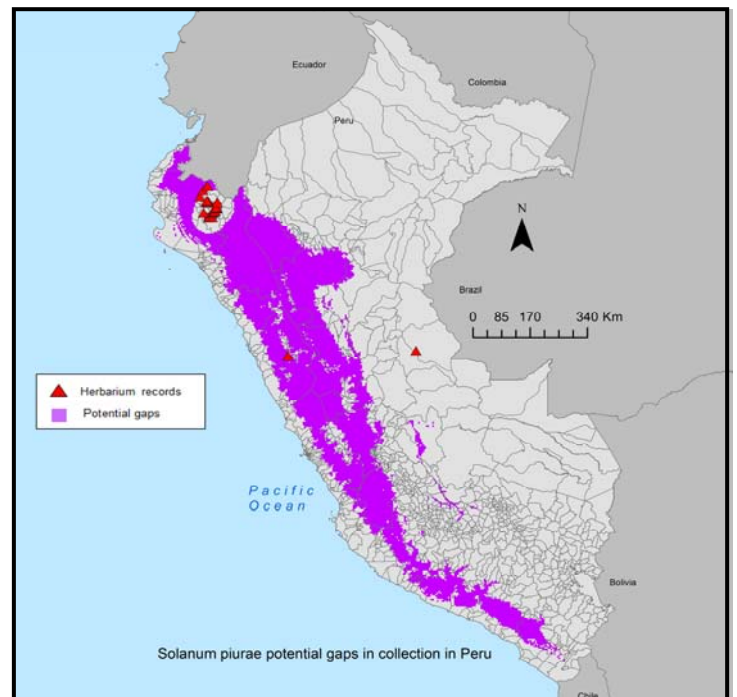
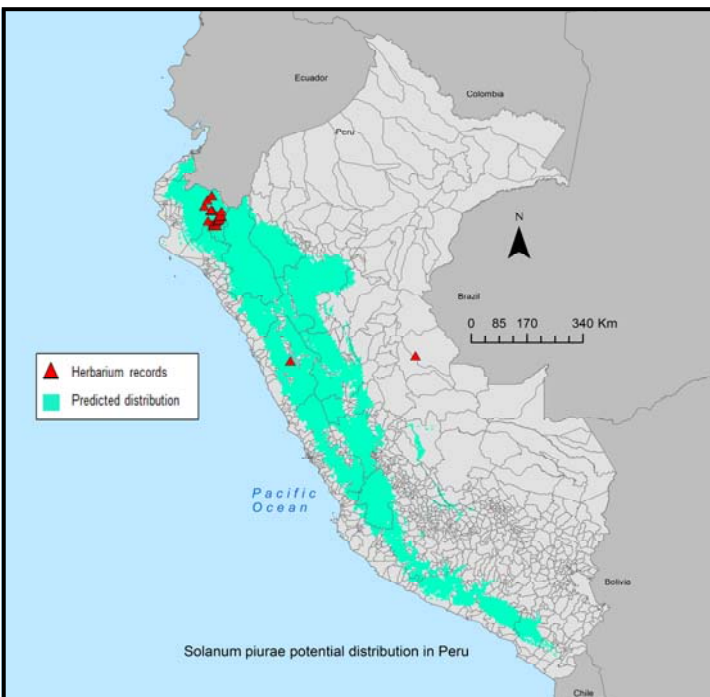
Among bushes and rocks but also in humid soils.

Distribution:

Endemic to northern Peru (Dept. Piura).

Altitude: 2000 - 3360 m

<i>Solanum piurae</i>	May be confused with: <i>Solanum acroglossum</i>
Petiolulate lateral leaflets.	Sessile lateral leaflets.




References: <http://solanaceaesource.org/taxonomy/term/108966/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



No seed image available



15-80 cm



Apr-Jun



Apr-Jun

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 10-40 cm tall, typically erect; sometimes low-growing. Stems 3-4 mm in diameter at base of plant, green to brown to purple, unwinged, sparsely pilose.

LEAVES: Odd-pinnate, the blades 2-20 x 1.5-9 cm, dark green adaxially, gray-green abaxially, sparsely pilose adaxially, more densely and finely pilose abaxially; most distal lateral leaflets 0.5-8 x 0.2-4 cm, ovate to obovate, the apex rounded to slightly pointed or apiculate, the base typically decurrent on the rachis; terminal leaflet 1.5-12 x 1-8 cm, broadly elliptic or broadly ovate to obovate, the apex broadly rounded and apiculate, the base cuneate.

INFLORESCENCES: 4-15 cm, 1-12 flowers; peduncle 2.5-14 cm long, sparsely pilose and somewhat glandular; pedicels 15-35 mm long in flower and fruit, articulated very high in the distal half at 5-8 mm below base of calyx.

FLOWERS: Calyx 6-7 mm long; corolla 2.5-3.5 cm in diameter, pentagonal to rotate-pentagonal, violet to deep purple adaxially and abaxially; corolla edges flat, not folded dorsally, glabrous adaxially, minutely puberulent abaxially, especially along the midribs, ciliate at the margins.

FRUITS: Globose to subovoid berry, 1.5-2 cm wide, 1.6-2.2 cm long, light green, sometimes scattered with small white dots, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

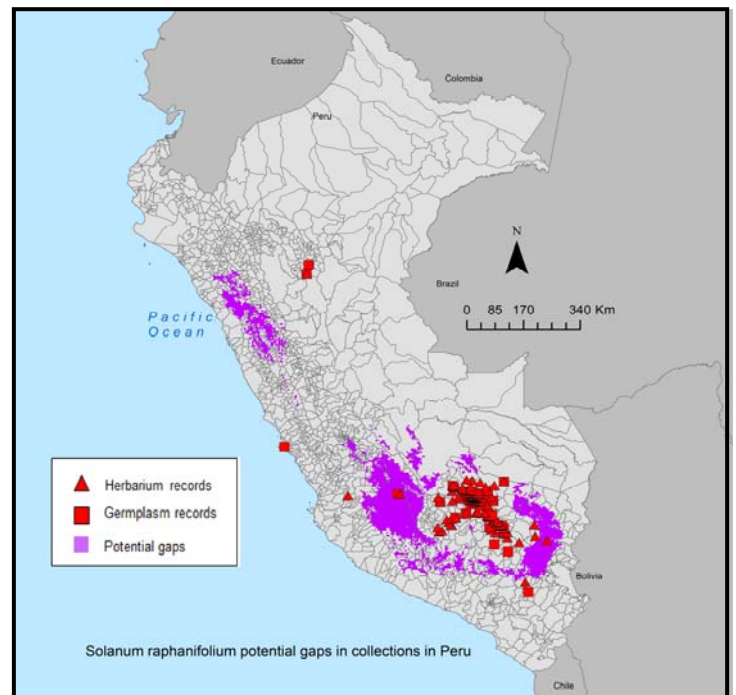
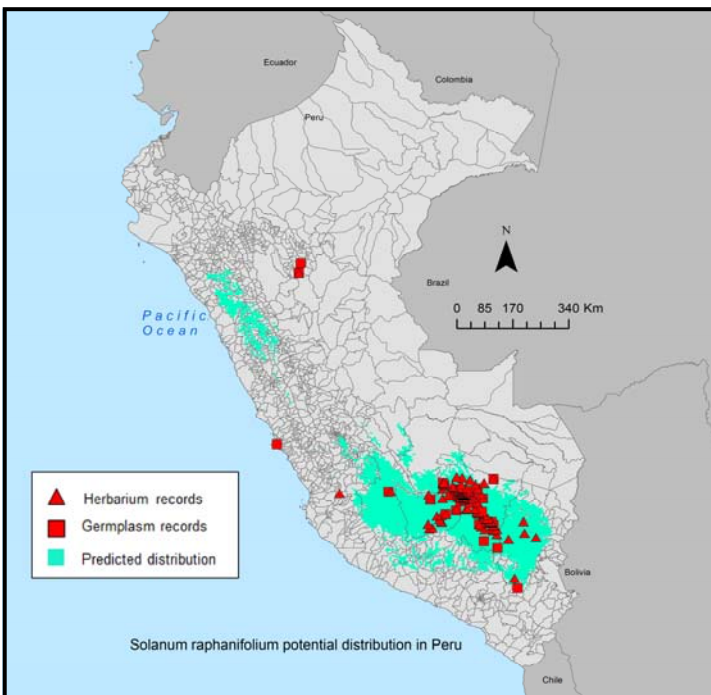
Often as a weed in cultivated fields, at the edge of forests, along roadsides, in rock piles or near stone walls, on eroded slopes, in rocky areas, among herbs and mosses, in full sun to deep shade, often in disturbed soil.

Distribution:

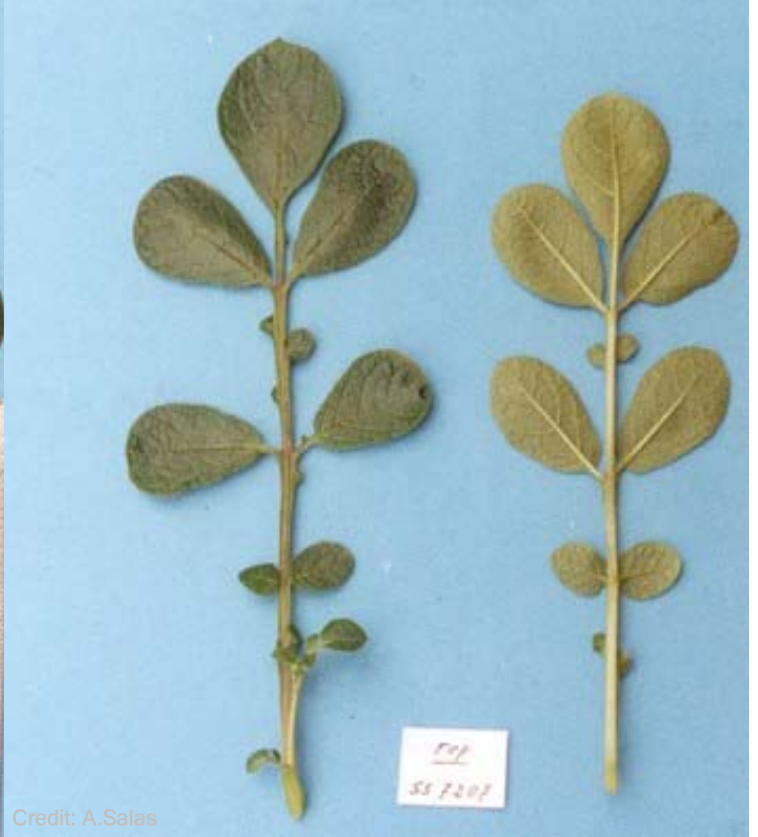
Southern Peru (Depts. Cuzco, Apurímac, Puno).

Altitude: 2700 - 4500 m

<i>Solanum raphanifolium</i>	May be confused with: <i>Solanum sogarandinum</i> , <i>Solanum boliviense</i>
Typically erect.	Rosette forming.



References: <http://solanaceaesource.org/taxonomy/term/109230/descriptions>



No seed image available



10-40 m



NT
PRELIM



Jan-Apr

Jan-Apr

Gene Pool Tertiary relative of *Solanum tuberosum* L.[Accepted name of *Solanum ingaeifolium*]

HABIT: Herbs up to 2 m tall. Stems up to 15 mm in diameter at base of plant, purple to purple and green mottled, broadly winged, glabrescent with scarce hairs.

LEAVES: Odd-pinnate, the blades 11-47 x 4.6-26 cm, dark green adaxially, light green abaxially, coriaceous, glabrescent adaxially with white short hairs, glabrous abaxially, the rachis prominently winged; ; terminal leaflet 4-11.6 x 1.6-4.6 cm, ovate to elliptic, the apex acuminate, the base cuneate; petioles 0.4-1.5 cm, glabrous. Pseudostipules 5-20 mm long, usually glabrous.

INFLORESCENCES: 7-15.6 cm, 12-30 flowers, with all flowers apparently perfect, the axes glabrous; peduncle 1.5-7.5 cm long; pedicels 13-22 mm long in flower and fruit, spaced 3-5 mm apart, articulated high in the distal half.

FLOWERS: Calyx 4-6 mm long, the tube 1-3 mm, the lobes 1-3 mm, usually ovate, glabrous; corolla 2.2-4 cm in diameter, pentagonal to rotate, white to lilac, the tube 1-2 mm long, the acumens 2-3 mm long, the corolla edges flat, not folded dorsally, glabrous adaxially and abaxially.

FRUITS: Globose to ovoid berry, 1.3-1.6 mm wide, 1.5-2 cm long, medium to deep green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

In very humid soils, among forests of bushes and shrubs.

Distribution:

Endemic to northern Peru (Dept. Piura).

Altitude: 1350 - 3100 m

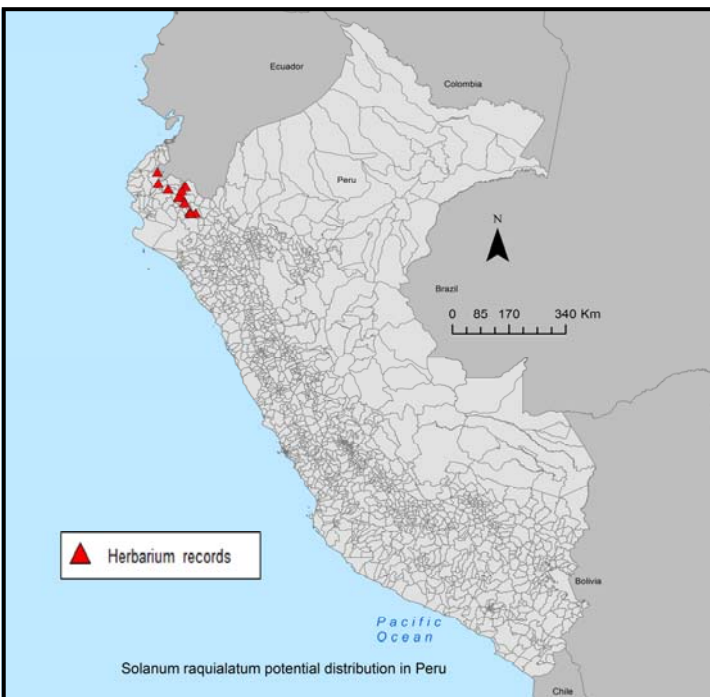
Solanum raquialatum

May be confused with:
Solanum olmosense

Rotate corollas.

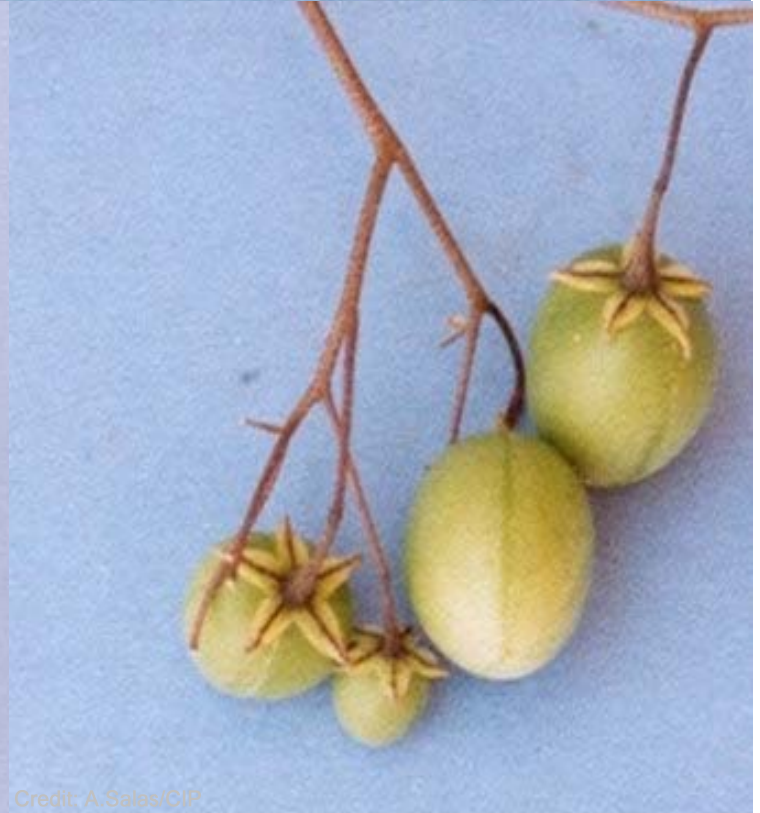


Stellate corollas.



All populations priority
for collection.

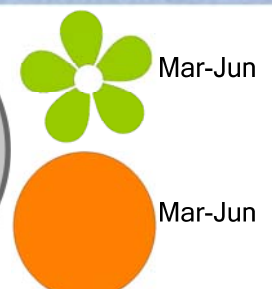
References: <http://solanaceaesource.org/taxonomy/term/98222/descriptions>



No seed
image
available



up to 2
m



Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 30-50 cm tall, erect. Stems 1.5-5 mm in diameter at base of plant, green to brown or purple, sometimes with narrow wings, medium to densely and coarsely pubescent with whitish hairs. Pseudostipules minute to 9 mm long, pubescent with hairs like those of the stem.

LEAVES: 12-15 cm long, 4-7 cm wide, medium to dark green adaxially, lighter-green or purplish abaxially, membranous to rough textured, densely pubescent with white appressed hairs adaxially and abaxially; petioles 0.5-2.5 cm long, pubescent as the stems, leaflet margins entire; lateral leaflet pairs 2-4.

INFLORESCENCES: 6.5-16 cm long, 8-10 flowers, the axes densely pubescent with hairs like those of the stem; peduncle 2-9.5 cm long, pubescent with hairs like the stem; pedicels 15-35 mm long in flower and fruit, articulated near or somewhat above the middle.

FLOWERS: Calyx 6-10 mm long, the lobes 4-8 mm long, ovate to lanceolate, acute to the apex, the acumens 2-3 mm long, pubescent with hairs like those of the stem. Corolla 2-4 cm in diameter, rotate to rotate-pentagonal, purple adaxially and abaxially with a greenish star adaxially.

FRUIT: Ovoid berry, ca. 3 cm long, ca. 1.8 cm wide, dark green, glabrous.

Habitat:

Among bushes and trees in humid soil.

Distribution:

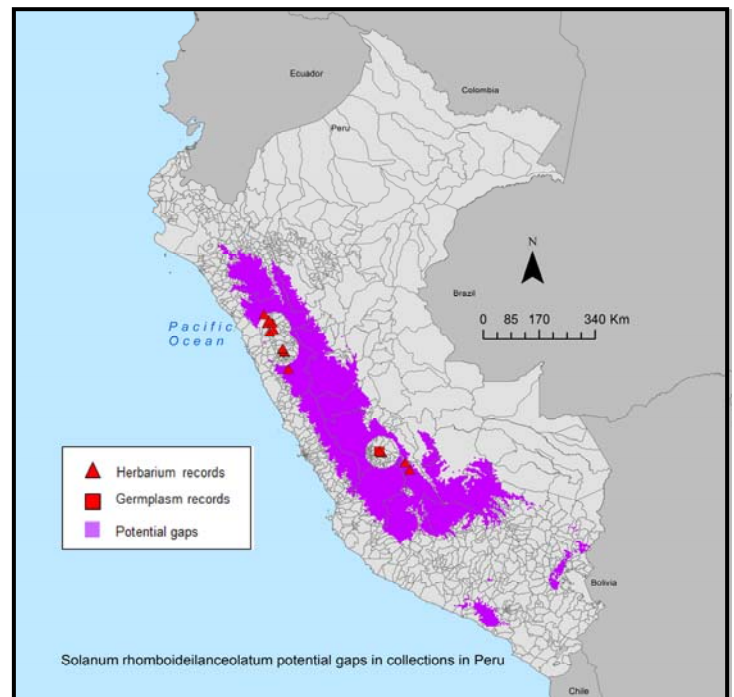
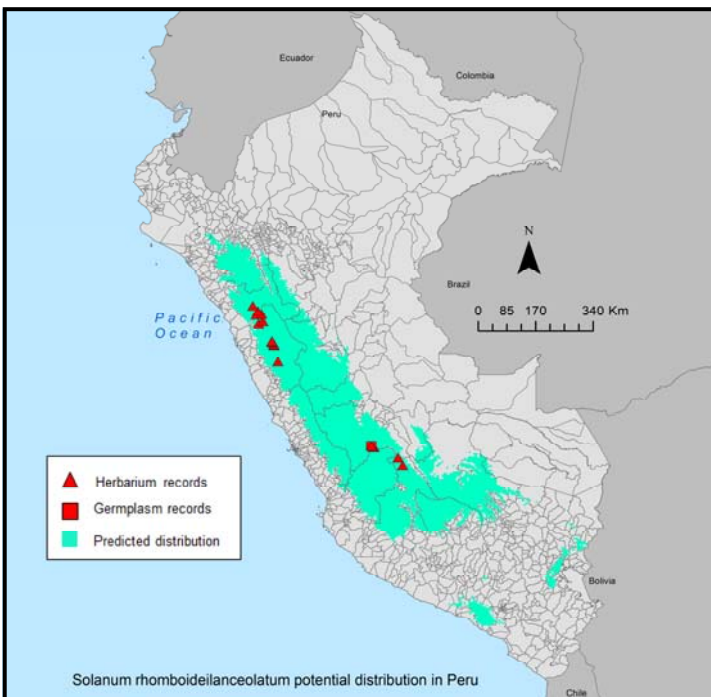
Endemic to south-central Peru (Departments of Ayacucho and Junín).

Altitude: 2100 - 3100 m*Solanum rhomboideilanceolatum*May be confused with:
Solanum ancophilum

Ovoid fruit.



Globose fruit.

References: <http://solanaceaesource.org/taxonomy/term/109281/descriptions>

Gene Pool Secondary relative of *Solanum tuberosum* L.



No seed image available



30-50 cm

NT
PRELIM



Jan-Apr

Jan-Apr

HABIT: Plants robust, erect to erect-ascending, 50-60 (-100) cm or more tall. Stem generally simple, light green, internodes (2.5-) 4-6 cm long.

LEAVES: Imparipinnate 15-22 cm long, including the petiole, by 12-15 cm broad, with 2-3 pairs of leaflets and 2-4 pairs of very small interjected leaflets. Leaflets darker green and more densely pilose above and lighter green and less pilose on the veins and leaflets below. Lateral leaflets elliptic lanceolate. Terminal leaflet somewhat larger and more broadly elliptic-lanceolate than the laterals.

INFLORESCENCE: Cymose-paniculate, 3-4 (-20) flowered.

FLOWER: Calyx asymmetrical, 5.5 mm long. Corolla rotate, 3 cm in diameter, pale violet with short acumens and a broad base, internal star pale yellow.

FRUIT: Long-conical, light green, 1.5 cm long.

SEEDS: Unknown.

Habitat:

Moist, temperate and cloudy climate, preferentially growing in soils rich in humus among thicket shrubs or along the margins of forest.

Distribution:

Endemic to Peru, growing in the Ceja de Montana.

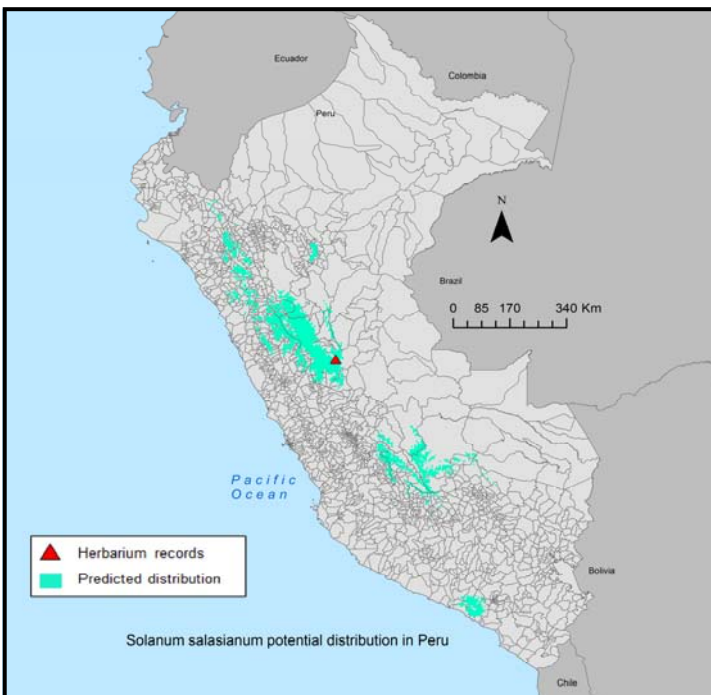
Altitude: 2800 - 3000 m

Solanum salasianum

May be confused with:
Solanum urubambae

Leaves are more segmented with shorter petioles (2-3.5 cm long), corolla strongly rotate.

Petioles 2-10.5 cm, corolla pentagonal to rotate.

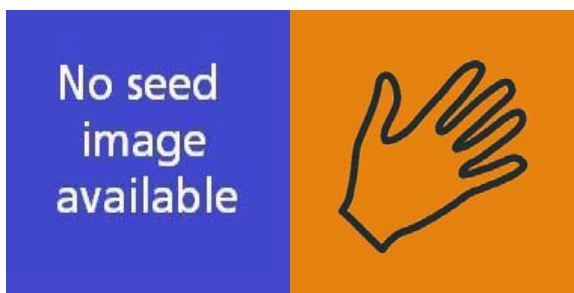


All populations priority
for collection.

References: The potatoes of South America : Peru. Part 1, The wild species / by C.M. Ochoa; translated by Donald Ugent.

NO IMAGE AVAILABLE

If you know of an image or link to an image of this species please let us know cropwildrelatives@kew.org



1 m



Mar-May

Mar-May

Gene Pool Tertiary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.3-1.1 m tall, erect. Stems 3-6 mm in diameter at base of plant, green mottled with purple, unwinged, glabrous.

LEAVES: Simple, the blades 5-17 x 2.5-7 cm, dark green adaxially and light green abaxially, ovate to elliptic, coriaceous, glabrous adaxially and abaxially; base attenuate, sometimes cuneate; margin entire; apex rounded to acute; interjected leaflets absent; petioles 0.2-1.5 cm, glabrous. Pseudostipules 7-18 mm long, glabrous, with serrate and ciliate margins.

INFLORESCENCES: 5-9 cm, 12-20 flowers, with all flowers apparently perfect, the axes glabrous; peduncle 1.75-5.2 cm long; pedicels 16-33 mm long in flower and fruit, spaced 3-5 mm apart, articulated high in the distal half.

FLOWERS: Calyx 5.5-6.5 mm long, the tube 1-3 mm, the lobes 2-3 mm, usually ovate to lanceolate, with linear acumens 1-2 mm long, glabrous; corolla 2.8-3.6 cm in diameter, rotate, white, the tube 1-2 mm long, the acumens 2-3 mm long, the corolla edges flat, not folded dorsally, glabrous abaxially and adaxially.

FRUITS: Globose berry, 1.3-1.9 cm in diameter, medium to deep green with dark green or purple stripes when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

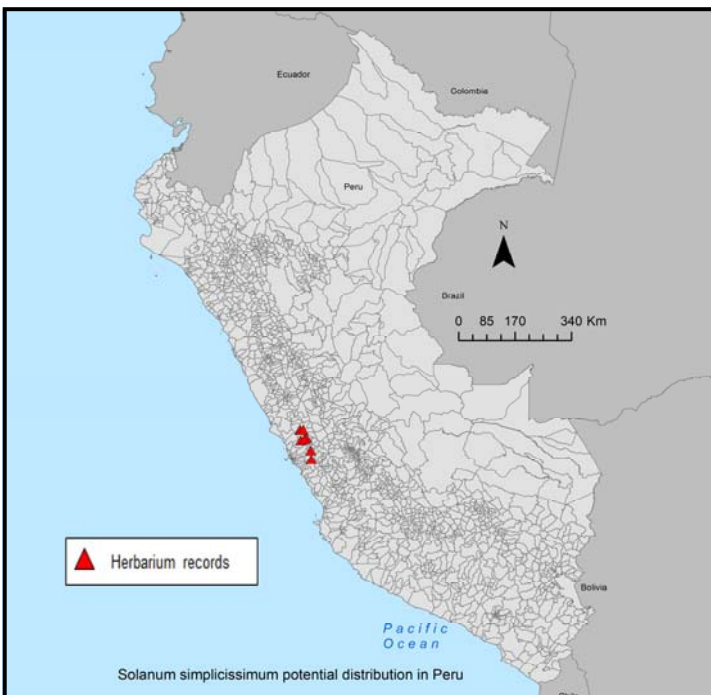
On or near dry rocky cliffs and slopes.

Distribution:

Central Peru (Dept. Lima).

Altitude: 1600 - 2720 m

<i>Solanum simplicissimum</i>	May be confused with: <i>Solanum hypacrarthrum</i>
Red coloration of the midvein in the terminal leaflets.	Green midveins in the terminal leaflets.



All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/109597/descriptions>

Gene Pool Tertiary relative of *Solanum tuberosum* L.



Credit: Stefan De Haan



Credit: Stefan De Haan

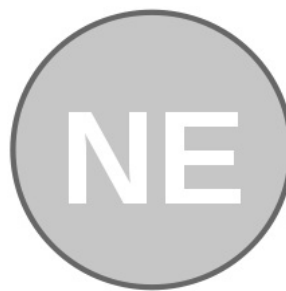


Herbario Universidad Nacional Agraria La Molina/Jstor

No seed image available



0.3-1.1 m



Jan-Apr

Jan-Apr

Gene Pool Secondary relative of *Solanum tuberosum* L.

HABIT: Herbs 0.5-3 m tall, semierect to erect. Stems 3-15 mm in diameter at base of plant, green to green mottled with purple, unwinged or with very narrow wings less than 0.8 mm wide, puberulent to glabrous with whitish simple hairs.

LEAVES: Odd-pinnate, the blades 5-30 (38) x 5-23 (30) cm, medium green, membranous to chartaceous, sparsely to densely pubescent adaxially, densely pubescent abaxially; lateral leaflet pairs 2-4, subequal or the leaflets decreasing in size gradually from the leaf base, terminal leaflet usually larger than the laterals; petioles 2-10.5 cm, finely to coarsely pubescent with hairs like those of the stems.

INFLORESCENCES: 10-19.5 cm, with 4-48 flowers, the axes puberulent with hairs like those of the stem; peduncle 2.5-9 cm long; pedicels 10-27 mm long in flower and fruit.

FLOWERS: Homostylous; calyx 7-9 mm long, the tube 1-2 mm, the lobes 4-11 mm, long attenuate; corolla 1.5-2.2 cm in diameter, pentagonal to rotate, light purple to dark purple rarely white, the rays light or dark purple; edges not folded.

FRUITS: Conical berry, 1.4-2.7 cm long, 1-2.4 cm wide, light green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

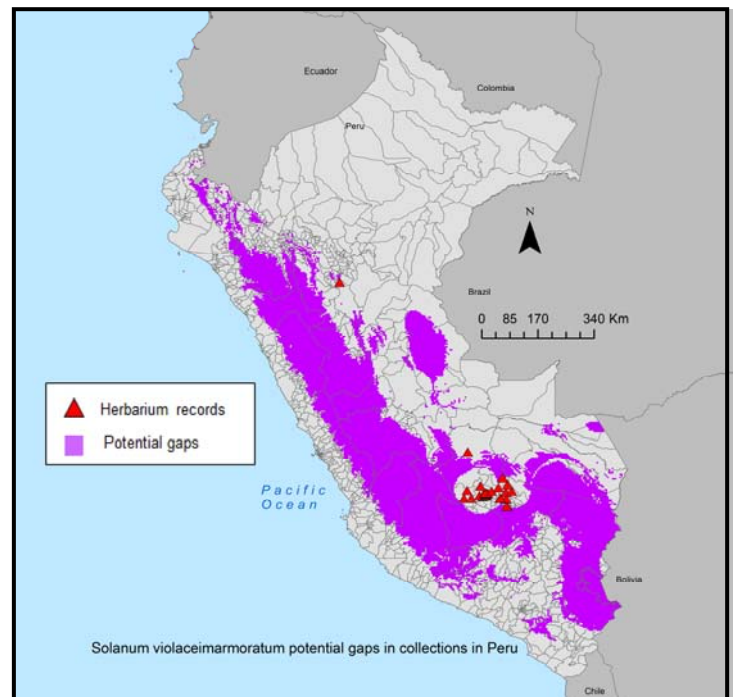
Often in rich organic soils, in sunny openings in woods or at forest edges, or montane forest shrubs, often in disturbed habitats such as streambanks or roadsides or landslides.

Distribution:

Southern Peru (Dept. Cuzco) to central Bolivia (Dept. Cochabamba).

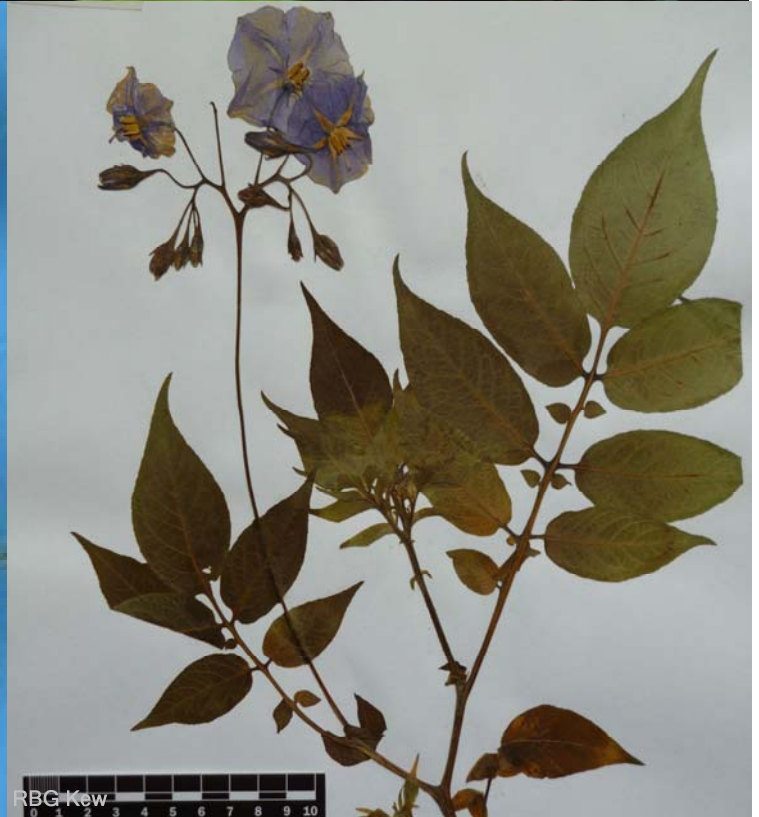
Altitude: 1800 - 3800 m

<i>Solanum violaceimarmoratum</i>	May be confused with: <i>Other Solanum Species</i>
Large plants and leaves, dense leaf pubescence, and terminal leaflet dimension larger than the lateral leaflets with round leaflet bases.	



References: <http://solanaceaesource.org/taxonomy/term/110376/descriptions>

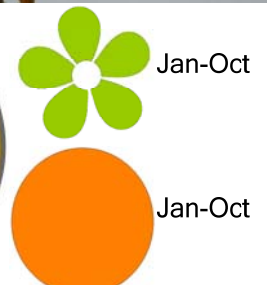
Gene Pool Secondary relative of *Solanum tuberosum* L.



No seed image available



0.5-3 m



Gene Pool Tertiary relative of *Solanum tuberosum* L.

Papa de Gentil, Papa de San Juan

HABIT: Herbs 25-90 cm tall, ascending to erect. Stems 1.5-4 mm in diameter at base of plant, grayish-green, unwinged, densely pubescent with short non-glandular trichomes 120-210 µm in length, with tetralobulate heads 50-70 µm in diameter, and silvery-white and silky multicellular hairs 4-5 mm long.

LEAVES: Odd-pinnate, the blades 10-35 x 6-16.5 cm, green, membranous to chartaceous, densely pubescent adaxially and abaxially, with hairs like those of the stems; terminal leaflet 2.5-8 x 1-2.5 cm, narrowly ovate to elliptic, the apex acute to obtuse, the base rounded to cuneate to attenuate; petiolules sessile to 4 mm; petioles 1-2.5 cm, pubescent as the stems.

INFLORESCENCE: 6-13 cm; 7-35 flowers, with all flowers apparently perfect, the axes pubescent with hairs like those of the stem; peduncle 4.5-8 cm long; pedicels 2-5 mm long in flower and fruit, articulated at the middle or in the distal half.

FLOWERS: Calyx 5-6 mm long; corolla 3.5-4.5 cm in diameter, pentagonal to rotate, lilac to light violet to purple adaxially and abaxially

FRUITS: Globose berry, 1.5-2 cm in diameter, light green when ripe, glabrous.

SEEDS: Ovoid and ca. 2 mm long, whitish to greenish in fresh condition and drying brownish.

Habitat:

In open areas or at the borders of forests, in sandy clay or rocky soil, on cliffs or hillsides.

Distribution:

Endemic to central Peru (Dept. Lima), on the lomas and uplands on the western slopes of the Andes.

Altitude: 2200 - 3400 m

Solanum wittmackii

Fruits: rounded; Glandular trichomes.



May be confused with:

A member of Solanum series Conicibaccata

This group of species has conical, not round, fruits and lacks glandular trichomes.



Reported from
Peru, but no
localities
known

All populations priority
for collection.

References: <http://solanaceaesource.org/taxonomy/term/110470/descriptions>



Credit: Stefan De Haan

Credit: Stefan De Haan



Credit: A. Salas



RBG Kew

No seed image available



25-90 cm



Mar-May

Mar-May

Appendix - Synonyms

Taxon	Sheet	Synonyms
<i>Solanum acaule</i>	1	<i>Solanum acaule</i> var. <i>caulescens</i> Bitter; <i>Solanum acaule</i> var. <i>checcae</i> Hawkes; <i>Solanum acaule</i> var. <i>punae</i> (Juz.) Hawkes; <i>Solanum acaule</i> subsp. <i>punae</i> (Juz.) Hawkes & Hjert.; <i>Solanum depexum</i> Juz.; <i>Solanum marinum</i> Pojarkova; <i>Solanum punae</i> Juz.; <i>Solanum schreiteri</i> Bukasov; <i>Solanum uyunense</i> Cárdenas
<i>Solanum acroglossum</i>	2	No Synonyms
<i>Solanum acroscopicum</i>	3	No Synonyms
<i>Solanum albicans</i>	4	<i>Solanum acaule</i> var. <i>albicans</i> Ochoa; <i>Solanum acaule</i> subsp. <i>albicans</i> (Ochoa) Hawkes
<i>Solanum amayanum</i>	5	No synonyms
<i>Solanum anamatophilum</i>	6	No synonyms
<i>Solanum augustii</i>	7	No synonyms
<i>Solanum ayacuchense</i>	8	No synonyms
<i>Solanum boliviense</i>	9	No synonyms
<i>Solanum brevicaule</i>	10	<i>Solanum colominense</i> Cárdenas; <i>Solanum incamayoense</i> Okada; <i>Solanum leptophyes</i> f. <i>gourlayi</i> (Hawkes) Correll; <i>Solanum gourlayi</i> subsp. <i>vidaurrei</i> (Cárdenas) Hawkes & Hjert.; <i>Solanum liriunianum</i> Cárdenas & Hawkes; <i>Solanum mollepujroense</i> Cárdenas & Hawkes
<i>Solanum burkartii</i>	11	<i>Solanum irosinum</i> Ochoa; <i>Solanum irosinum</i> forma <i>tarrosum</i> Ochoa
<i>Solanum cajamarquense</i>	12	No synonyms
<i>Solanum candolleanum</i>	13	No synonyms
<i>Solanum cantense</i>	14	No synonyms
<i>Solanum chacoense</i>	15	<i>Solanum bitteri</i> Hassl.; <i>Solanum arnezii</i> Cárdenas; <i>Solanum boegeri</i> Bukasov; <i>Solanum caipipendense</i> Cárdenas; <i>Solanum cuevoanum</i> Cárdenas; <i>Solanum emmeae</i> Juz. & Bukasov; <i>Solanum dolichostigma</i> Buk. ex Lechn. in Buk.; <i>Solanum jujuyense</i> Hawkes; <i>Solanum knappei</i> Juz. & Bukasov; <i>Solanum parodii</i> Juz. & Bukasov; <i>Solanum saltense</i> Hawkes; <i>Solanum subtilius</i> Bitter; <i>Solanum laplaticum</i> Bukasov; <i>Solanum gibberulosum</i> Juz. & Bukasov
<i>Solanum chiquidenum</i>	16	<i>Solanum chiquidenum</i> var. <i>cachicadense</i> Ochoa; <i>Solanum chiquidenum</i> var. <i>porconense</i> Ochoa
<i>Solanum chomatophilum</i>	17	No synonyms
<i>Solanum coelestispetalum</i>	18	No synonyms

Appendix - Synonyms

Solanum colombianum	19	Solanum caquetanum Ochoa; Solanum colombianum var. meridionale Hawkes; Solanum colombianum f. quindiuense Bukasov; Solanum colombianum var. trianae Bitter; Solanum colombianum f. zipaquiranum Hawkes; Solanum cuencanum Juz. & Bukasov; Solanum dolichocarpum Bitter; Solanum filamentum Correll; Solanum solisii Hawkes; Solanum tundalomense Ochoa; Solanum venezuelicum Bukasov
Solanum dolicho cremastrum	20	No synonyms
Solanum gracilifrons	21	No synonyms
Solanum huancabambense	22	No synonyms
Solanum humectophilum	23	No synonyms
Solanum hypacrarthrum	24	No synonyms
Solanum immite	25	Solanum immite var. vernale Correll; Solanum mathewsii Bitter
Solanum laxissimum	26	Solanum laxissimum f. rockefelleri (Vargas) Correll; Solanum rockefelleri Vargas
Solanum limbaniense	27	No synonyms
Solanum marinasense	28	Solanum canasense var. xerophyllum (Vargas) Correll; Solanum cuzcoense Ochoa; Solanum lechnoviczii var. xerophyllum Vargas; Solanum marinasense var. dentifolium Vargas; Solanum pampasense f. glabrescens Correll
Solanum medians	29	Solanum medians var. angustifoliolum Ochoa; Solanum medians var. autumnale Correll; Solanum medians var. majorifrons Bitter; Solanum tacnaense Ochoa
Solanum mochi quense	30	Solanum earl-smithii Correll
Solanum multiinterruptum	31	No synonyms
Solanum X neoweberbaueri	32	Solanum medians f. neoweberbaueri Correll
Solanum olmosense	33	No synonyms
Solanum ortegae	34	No synonyms
Solanum paucissectum	35	No synonyms
Solanum piurae	36	Solanum chomatophilum f. pilosum Correll
Solanum raphanifolium	37	Solanum hawkesii Cárdenas
Solanum raquialatum	38	Solanum rachialatum Ochoa
Solanum rhomboideilanceolatum	39	Solanum ancophilum (Correll) Ochoa; Solanum rhomboideilanceolatum var. ancophilum Correll
Solanum salasianum	40	No synonyms
Solanum simplicissimum	41	No synonyms
Solanum violaceimarmoratum	42	Solanum violaceimarmoratum var. papillosum Hawkes
Solanum wittmackii	43	Solanum vavilovii Juz. & Bukasov; Solanum wittmackii var. glauciviride Bitter