

THE UNIVERSITY OF BIRMINGHAM



*With the Compliments*

*of*

*Professor J. G. Hawkes*

Eingegangen

24 FEB. 1975

Edelgut

DEPARTMENT OF BOTANY,  
THE UNIVERSITY,  
BIRMINGHAM, 15.

Exp 1174 PER, BOL, ARG

P. 1-12	PER	HVHL 5405-5552
13-27	BOL	" 5553-5735
27 b	ARG overview collectors	separate list from Okada
28-34	BOL	" 6108-6196 (6184-6196 by Astley & Landeo)
35-37	PER	ASL 6197-6262
38-42	non-potato	HVHL from 5400 till 6076
42 b	BOL potato	" 6113

Potato Collecting Expedition to Peru, Bolivia and  
Argentina, 1974 (Supported by Dutch funding)

Universities of Wageningen and Birmingham

(Note: Non-potato collections are listed separately)

5405-5735 Collectors: J.G. Hawkes (Birmingham), A.M. van Harten  
(Wageningen) and Juan Landeo (C.I.P., Lima)

P E R U

HVHL

- 5405 Solanum sandemanii Dept. Arequipa, prov. Arequipa,  
Baños de Jesús, east of Arequipa,  
1km on road from B. de Jesús towards Puno. Lat. 16°  
24'S. Long. 71°30'W. 4 Mar. 74. Alt: 2,500m. Sandy  
soil (volcanic ash) in open places with small shrubs,  
near road. Small populations scattered here and there.  
Small plants in flower; mother tubers but no berries.  
Fls bright violet-purple. Some large shade plants in  
piles of stones. No evidence of nematodes. Tubers.
- 5407 S. sandemanii As 5405, but hill slope about 1km north  
of Baños de Jesús. Stony hillside in sandy  
loam. Locally frequent. Large population of small  
flowering and non-flowering plants. No evidence of  
nematode cysts. Tubers.
- 5408 S. tub. ssp. andigena <sup>DK</sup> Dept. Arequipa. Bought in Arequipa  
market from tubers said to be grown in Salamanca.  
4 Mar. 74. Tubers isodiametric, compressed, dark purple  
with lighter flecks. Eyes deep. "Papa negra".
- 5409 S. tub. ssp. andigena <sup>DK</sup> Dept. Arequipa. Bought in Arequipa  
market from tubers said to be grown in Campiña. 4 Mar. 74.  
Tubers  $\pm$  isodiametric, compressed; eyes deep; skin pale  
pink. "Papa rosada".
- 5410 S. tub. ssp. andigena <sup>DK</sup> Dept. Arequipa. Tubers bought in  
Arequipa market, said to have been grown in the vicinity  
of Arequipa. 4 Mar. 74. Tubers  $\pm$  isodiametric, compressed;  
eyes deep; skin white. "Papa blanca".
- 5413 S. tub. ssp. andigena Dept. and prov. Cuzco,  $\pm$  12km from  
Cuzco on Pisac road, Yuncaypata. Lat. 13°29'S. Long. 71°  
52'W. 8 Mar. 74. Alt: 3800m. Frequent in cultivated field,  
growing with oca (Oxalis tuberosa), meshua (Tropaeolum  
tuberosum), and ulluco (Ullucus tuberosus). Mixed ground-  
keepers and some varieties. Two sets of berries mixed,  
from two distinct plants. No tubers. Cult. Seeds.
- 5415 S. marinense Dept. and prov. Cuzco,  $\pm$  16km from Cuzco  
on road to Pisac, below Huancalle. Lat. 13°27'S. Long.  
71°52'W. 1 Mar. 74. Alt: 3,400m. Amongst shrubs on steep  
bank by road: Buddleia longifolia, Datura arborea,  
D. sanguinea, Sambucus peruviana, Tropaeolum peregrinum,  
etc. Tubers. Occasional.

## P E R U

- ✓5418 S. sparsipilum Dept. Cuzco, prov. Calca, road from Calca to Pisac, at 11km from Calca. Lat. 13°20'S. Long. 71°54'W. 8 Mar. 74. Alt: 3,000m. In maize and wheat fields and field borders by road. Weed. Plants spreading, with dark rich purple flowers. Note: potato fields seen lower down valley, indicating overlap of altitude zones for S. sparsipilum and cultivated potatoes. Abundant. Seed.
- 5419 <sup>acule</sup> S. sparsipilum As 5418 but 13km from Calca on road to Urubamba. Lat. 13°18'S. Long. 72°0'W. 8 Mar. 1974. Alt: 2950m. Weed of maize field and roadsides. Plants spreading; fls rich purple. Poor whitish berries, but very few; much sterility but possibly all one clone. Abundant weed. Seed.
- ✓5421 S. raphanifolium Dept. and prov. Cuzco, road from Cuzco to Tambo Machay, near the "grupo arqueológico del lago" (where Urgent collected), some 2km beyond Sacsahuaiman. Lat. 13°30'S. Long. 72°0'W. 9 Mar. 74. Alt: 3700m. Frequent, wild. In a scree slope of limestone on a side road 1km from main road. Small and large plants, some looking like S. megistacrolobum (when young) and others like S. raphanifolium (when older). S. canasense growing on upper part of scree. Seeds and tubers.
- 5422 S. canasense As 5421. On upper part of scree, above S. raphanifolium. Large plants in shade at base of cliff at top of scree; small plants in open on scree. Wild, occasional. Seeds and tubers.
- 5423 to 5451 Samples bought in Cuzco market, 9 March, 1974. Provenance as indicated below.
- 5423 S. tub. ssp. andigena Cultivated in prov. Urubamba, Chincheros. Tubers isodiametric, compressed; eyes deep; skin deep pink with large confluent yellow spectacles; flesh white. "Alcea ccompis".
- 5424 S. tub. ssp. andigena Cultivated in prov. Urubamba, Chincheros. Tubers round to oval, flattened; eyes shallow; skin red-purple; flesh yellow. "Puca boli".
- 5425 S. tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers + oval, rather irregular, somewhat flattened; eyes shallow; skin mottled red-purple to blue-purple; flesh pale yellow. "Boli".
- 5426 S. tub. ssp. andigena Cultivated in prov. Urubamba, Chincheros. Tubers round to oval, slightly flattened; eyes shallow; skin reddish-purple; flesh yellow. Selection "A" from a mixed sample. No vernacular name.
- 5427 S. tub ssp. andigena Cultivated in prov. Urubamba, Chincheros. Tubers oval to oblong, slightly flattened; eyes shallow; skin dark reddish-purple; flesh yellow. Selection "B" from a mixed sample. No vernacular name.

- 5423 to 5451 (continued) Samples bought in Cuzco market,  
March, 1974. Provenance as indicated below.
- 5428 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers isodiametric, compressed; eyes deep; skin yellow; flesh pale yellow. Selection "C" from mixed sample. No vernacular name.
- 5429 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers  $\pm$  isodiametric, compressed; eyes medium deep; skin dark purple; flesh pale yellow. Selection "D" from mixed sample. No vernacular name.
- 5430 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers long oval; eyes shallow; skin dark reddish-purple; flesh pale yellow, tinged purple at vascular ring. Some may be the same as 5431 - "Occe suitu". Mixed sample, selection "E".
- 5431 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers long oval to pyriform, tending to twist; eyes medium depth; skin dark purple; flesh white with purple vascular ring. "Occe suitu" (c.f. 5430)
- 5432 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers  $\pm$  oval, slightly flattened; eyes medium depth; skin dark reddish-purple; flesh yellow. Selection "A" from another mixed sample. No vernacular name.
- 5433 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers oval to short oblong, flattened; eyes medium deep; skin red-purple, mottled blue-purple; flesh yellow. Selection "B" from another mixed sample. No vernacular name.
- 5434 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers round, flattened; eyes shallow; skin pink; flesh pale yellow. Selection "C" from another mixed sample. No vernacular name.
- 5435 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers  $\pm$  isodiametric, flattened to compressed (perhaps two phenotypes ?); eyes medium deep; skin bright pink with large confluent yellow spectacles; flesh white. Selection "D" from another mixed sample. No vernacular name.
- 5436 S.tub ssp andigena Cultivated in prov. Urubamba, Chincheros. Tubers  $\pm$  isodiametric, flattened; eyes medium deep; skin yellow, slightly pink-tinged at heel; flesh pale yellow. Selection "E" from another mixed sample. No vernacular name.
- 5437 S.tub ssp andigena Cultivated in prov. Paucartambo, Paucartambo. Tubers long oval to fusiform (possibly two phenotypes); skin dark reddish-purple; eyes medium deep; flesh yellow. "Suitu".

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5423 to 5451 (continued) Samples bought in Cuzco market,  
9 March, 1974. Provenance as indicated below.

- 5438 S. tub. ssp andigena Cultivated in prov. Anta, Anta.  
Tubers  $\pm$  isodiametric, compressed; eyes deep; skin medium purple, flecked all over with dark purple; flesh pale yellow. "Imilla negra"
- 5439 S. tub. ssp. andigena Cultivated in prov. Anta, Anta.  
Tubers  $\pm$  isodiametric, compressed; eyes deep; skin dark purple with pink flecks here and there; flesh pale yellow. "Imilla negra"
- 5440 S. stenotomum Cultivated in prov. Anta, Pucyura.  
Tubers long oval to pyriform, slightly flattened; eyes shallow; skin medium purple with yellow spectacles; flesh pale yellow. "Alcca suito".
- 5441 S. Cultivated in prov. Anta, Pucyura.  
Tubers  $\pm$  isodiametric, compressed; eyes deep; skin very dark purple; flesh white. "Imilla negra".
- 5442 S. tub. ssp andigena Cultivated in prov. Anta, Huaipo (Laguna). Tubers round to short oval, very flattened; eyes shallow; skin bright pink with large yellow spectacles; flesh white. "Huairuru".
- 5443 S. stenotomum Cultivated in prov. Anta, Huaipo.  
Tubers isodiametric, compressed; eyes deep; skin dark purple; flesh white. No name given but obviously of the "Imilla negra" type.
- 5444 S. tub. ssp andigena Cultivated in prov. Anta, Huaipo.  
Tubers long oval-fusiform; eyes shallow to medium deep; skin pale yellow; flesh white. No vernacular name.
- 5445 S. tub. ssp andigena Cultivated in prov. Anta, Huaipo.  
Tubers long cylindrical "concertina" type; eyes deep, long; skin dark purple; flesh white with thick purple band at vascular ring. No vernacular name.
- 5446 S. Cultivated in prov. Anta, Huaipo.  
Tubers  $\pm$  isodiametric; eyes deep; skin blotched yellow and dark purple; flesh white. No vernacular name.
- 5447 S. tub. ssp andigena Cultivated in prov. Anta, Huaipo.  
Tuber (one only) oval, "Concertina" type; eyes deep; skin red, orange-flecked; flesh yellow. No vernacular name.
- 5448 S. tub. ssp andigena Cultivated in prov. Anta, Huaipo.  
Tubers long oval to fusiform, flattened; eyes shallow; skin dark purple; flesh white with a faint purple ring at vascular tissues. No vernacular name.
- 5449 S. tub. ssp. andigena Cultivated in prov. Anta, Huaipo.  
Tubers  $\pm$  oblong, swollen between eyes; eyes very deep; skin dark reddish-purple, splashed dark red; flesh white; faintly purple at vascular ring. No vernacular name.

- 5450 S.tub.ssp.andigena Bought in Cuzco market, 9 March, 1974. No exact provenance given. Tuber (one only) cylindrical, bent; eyes deep; skin bright pink; flesh white. No vernacular name.
- 5451 Ullucus tuberosus (See other list)
- /5452 S.raphanifolium Dept. Cuzco, prov. Quispicanchi, Piquillacta, near ruined Inca fortress. Lat. 13° 36'S. Long. 71° 48'W. 10 Mar. 74. Alt: 3,300m. Frequent on hillside among stones and Opuntia, Schinus molle, Cassia hookeriana, Loasa cuzcoensis. Seeds.
- 5453 to 5471 Samples bought in market of Catca, prov. Paucartambo. 10 March, 1974.  
All grown in Catca region.
- 5453 S.tub.ssp.andigena Tubers long oval to oblong, slightly flattened; eyes shallow; skin pale yellow; flesh cream. No vernacular name.
- 5454 S.tub.ssp.andigena Tubers broad oval, flattened; eyes shallow; skin pale yellow; flesh cream. No vernacular name.
- 5455 Sxchaucha Tubers isodiametric; eyes deep; skin yellow with purple blotches; flesh white. "Huaman uma".
- 5456 S.tub.ssp.andigena Tubers ± isodiametric, compressed; eyes deep; skin pale yellow; flesh pale yellow. "Jancco ccompis".
- 5457 S.tub.ssp.adg Tubers oval to oblong, flattened; eyes shallow; skin yellow, with purple blotches; flesh cream with purple blotches. No vernacular name.
- 5458 Sxchaucha Tubers long oval, flattened; eyes shallow; skin yellow with pink flecks round eyes and elsewhere; pigment in cork. No vernacular name.
- 5459 S.tub.ssp.adg Tubers isodiametric, compressed; eyes deep; skin bright pink with large confluent yellow spectacles. No vernacular name.
- 5460 S.tub.ssp.adg Tubers isodiametric, compressed; eyes deep; skin light purplish-pink; flesh cream. "Ccompis"?
- 5461 S.tub.ssp.adg Tubers round to short oval, flattened; eyes shallow; skin medium red-purple; flesh yellow. No vern. name.
- 5462 S.tub.ssp.andigena Tubers isodiametric to oolong; eyes deep; skin dark red, paling to dark yellow at crown. No vern. name.
- 5463 S.tub.ssp.andigena Tubers pyriform to fusiform, narrower at heel end; eyes few, shallow; skin very dark purple; flesh cream, with thick pigmented ring inside vascular ring. "Cuchiaca".
- 5464 S.tub.ssp.andigena Tubers oval; eyes few, shallow; skin dark purple; flesh almost totally purple, with only a few flecks of white. No vernacular name.

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- 5453 to 5471      Samples bought in market of Catca, prov. Paucartambo. 10 March, 1974. All grown in Catca region.
- 5465      S.tub ssp andigena      Tubers round to oval, very flattened; eyes few, shallow; skin dark purple; flesh white with purple vascular ring and purple blotches in medulla. No vern. name.
- 5466      S.tub ssp andigena      Tubers long pyriform-fusiform, slightly bent at heel; eyes few, shallow; skin dark purple; flesh yellow. No vernacular name.
- 5467      S.tub ssp andigena      Tubers disparate, may be different genotypes, ± oval, flattened a little; eyes medium deep; skin dark purple; flesh yellow, with a touch of pigment in the vascular ring. No vernacular name.
- 5468      S.      Tuber long oblong; eyes deep; skin dark purple with yellow spectacles. No vernacular name.
- 5469      S.      Tuber flattened pyriform; eyes medium deep; skin dark purple. (juz or cur?). No vernacular name.
- 5470      S.tub ssp andigena      Tubers ± fusiform, flattened slightly; eyes medium deep; skin yellow? No vernacular name.
- 5471      S.tub ssp andigena      Tubers ± isodiametric; eyes deep, with long brows; skin dark red-purple; flesh cream. No vern. name.
- 5472 to 5479      Samples bought in Cuzco market, separated from series 5423 to 5451. Provenance as indicated below. 9 March.
- 5472      S.tub ssp andigena      Cultivated in prov. Urubamba, Chincheros. Tubers isodiametric, compressed; eyes deep; skin bright pink; flesh cream. (Separated from 5428, "Puca imilla")
- 5473      S.tub ssp andigena      Cultivated in prov. Anta, Huaipo. Tuber round, very flattened; eyes medium deep; skin bright red. (Separated from 5442, "Huairuru".)
- 5474      S.tub ssp andigena      Cultivated in prov. Anta, Huaipo. Tuber fusiform, swollen below eyes; eyes deep; skin red; flesh yellow in cortex; medulla and vascular ring red. (Separated from 5444.)
- 5475      S.tub ssp andigena      Cultivated in prov. Anta, Huaipo. Tubers ± long oval to cylindrical; eyes shallow; skin medium brownish-purple; flesh white. (Separated from 5444).
- 5476      S.tub ssp andigena      Cultivated in prov. Anta, Huaipo. Tubers long oval, flattened; skin medium purple with large yellow areas; eyes medium deep. (Separated from 5444).
- 5477      S.tub ssp andigena      Cultivated in prov. Anta, Anta. Tuber ± isodiametric; eyes deep; skin dark purple with yellow semilunar spectacles. (Separated from 5439, "Imilla negra").

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- 5472 to 5479 (continued) Samples bought in Cuzco market, separated from series 5423 to 5451. Provenance as indicated below. March 9th.
- 5478 S. Cultivated in prov. Urubamba, Chincheros. Tuber oval-fusiform, flattened; eyes few, superficial; skin deep red-purple with yellow spectacles. (Separated from 5472, this having been separated from 5428).
- 5479 S. tub ssp. andigena Cultivated in prov. Urubamba, Chincheros. Tuber ± oval; eyes shallow; skin yellow, lightly tinged purple at the eyes. (Separated from 5472, this having been separated from 5428).  
(RHF x SPL)
- 5480 S. raphanifolium Dept. and prov. Cuzco, Cerro de Cachona, 6km from Cuzco on road to Paruro. Lat. 13° 32'S. Long. 71° 58'W. 11 Mar. '74. Alt: 3700m. Both wild and weed. Under shade of bushes (simple leaved small plants) and in a wheat field (compound leaves). Fls blue; a few round green berries. Locally frequent. Seeds.
- ✓ 5482 S. sparsipilum Dept. Cuzco, prov. Anta, Huarocondo, on railway from Cuzco to Machu Pichu. Lat. 13° 24'S. Long. 72° 16'W. In a ditch by railway line 10m from the station, abundant, weed. Seed. 11 Mar. 74. Alt: 2800m.
- 5483 S. raphanifolium Dept. Cuzco, prov. Acomayo, near Urcos, Tijicana, a few km from Urcos towards Puno on main Cuzco road. Lat. 13° 44'S. Long. 71° 35'W. 12 March. Alt. 3300m. On wall and in maize fields to right of road. Frequent, weed. No living collections.
- 5484 S. sparsipilum Collection data as for 5483. Frequent weed. No living collections.
- ✓ 5485 S. raphanifolium Dept. Cuzco, prov. Canchis, Raqchi, temple of Viracocha. Lat. 14° 11'S. Long. 71° 21'W. 12 Mar. 74. Alt: 3550m. Abundant weed in walls and stone heaps around the ruins, also in cultivations of field peas in the archaeological site. Seed.
- 5486 S. raphanifolium (or S. pumilum) Dept. Cuzco, prov. Canchis, Sicuani, hills above the town. Lat. 14° 16'S. Long. 71° 12'W. 12 Mar. 74. Alt: ± 3,700m. Steep grassy bushy slope on side of quebrada above the Calvario nearer to Cuzco. Wild, rare. Tubers.
- ? 5487 S. multidissectum Dept. Cuzco, prov. Canchis, Aguas Calientes, just below La Raya pass on Cuzco side, road from Cuzco to Puno. Lat. 14° 28'S. Long. 71° 4'W. 12 Mar. 74. Alt: 4,050m. By sides of railway embankment and by drainage ditches just above hot springs. Puna vegetation. Rosettes on top of banks, taller plants in ditches. Fls purple; berries dark purple tinged, some almost black. Mixed with 5488. Wild, abundant. Seed and tubers.

P E R U

- 5488 S.acaule Dept. Cuzco, prov. Canchis, Aguas Calientes, just below La Raya pass on Cuzco side of road from Cuzco to Puno. Lat. 14°28'S. Long. 71°4'W. 12 Mar. 74. Alt: 4,050m. On banks by drainage ditches, mixed with S.multidissectum (5487). Puna vegetation. Large plants with flowers and berries. Abundant. Wild. Seeds.
- 5489 S.juzepczukii <sup>OK</sup> Dept. Puno, prov. Lampa (?), 21km from Juliaca on road to Huancané. Lat. 15°20'S. Long. 70°5'W. 14 Mar. 74. Alt: 3820m. Cultivated in field by road, together with S.stenotomum, ssp. andigena, S.curtilobum. Frequent. Tubers long cylindrical-fusiform; eyes shallow; skin and flesh white. Plants mature. Tubers. "Ruqui" or "Huichuño".
- 5490 S.curtilobum Collection data as for 5489. Cultivated with 5489, S.juzepczukii, S.stenotomum and ssp. andigena. Frequent. Natural berries, probably from crosses with andigena, which occurred in the immediate vicinity. Seed. "Ruqui".
- 5491 S.juzepczukii or S.curtilobum <sup>OK</sup> Dept. Puno, prov. Huancané, Taraco. Sample bought in Taraco market, cultivated nearby. Lat. 15°18'S. Long. 69°58'W. 14 Mar. 74. Alt: 3,820m. Tubers long oval to cylindrical, slightly curved and flattened; eyes shallow. "Ruqui".
- 5492 S.curtilobum? <sup>lab ssp. andigena</sup> Collection data as for 5491. Tubers dark purple, oval to long oval; eyes shallow to medium deep. "Amaja".
- 5493 S.chaucha <sup>OK</sup> ? Collection data as for 5491. Tubers long fusiform, flattened slightly, a little curved; eyes few, superficial; skin red-purple with faint yellow splashes here and there. "Surimana".
- 5495 S.acaule Dept. Puno, prov. Huancané, 37km from Juliaca on road to Huancané. Lat. 15°17'S. Long. 69°50'W. 14 Mar. 74. Alt: 3820m. On edge of field by road, frequent. Very flat rosettes, only one with berries, three only. Seeds.
- 5496 S.acaule Dept. Puno, prov. Huancané, 11km from Huancané on road to Moho, 2km past Vilquechico. Lat. 15°13'S. Long. 69°41'W. 14 Mar. 74. Alt: 3820m. Stony places in open ground by road and under bushes (Muña, etc.), abundant. Wild. Stemless or stemmed plants according to habitat. Mass collection from about 50 plants for study of reproductive mechanisms in S.acaule (Inbreeding/outbreeding).
- 5497 S.acaule Collection data as for 5496. Abundant. Wild. Stemmed form from same area, growing amongst bushes. About 5 plants.
- 5498 S.acaule Collecting data as for 5496. Single plant collection made to test possible inbreeding mechanism in S.acaule.
- 5499 S.acaule As 5498. Another single plant collection.

5500 to 5509 (Part of 5498-5509 sequence designed to test possible inbreeding mechanisms in S. acaule)

5500 S. acaule Dept. Puno, prov. Huancané, 11km from Huancané on road to Moho, 2km past Vilquechico. Lat. 15°13'S. Long. 69°41'W. 14 Mar. 74. Alt: 3820m. Stony places in open ground by road and under bushes (Muña, etc.), abundant. Single plant collection. Seeds.

- 5501 S. acaule See above. (5500)
- 5502 S. acaule See above. (5500)
- 5503 S. acaule See above. (5500)
- 5504 S. acaule See above. (5500)
- 5505 S. acaule See above. (5500)
- 5506 S. acaule See above. (5500)
- 5507 S. acaule See above. (5500)
- 5508 S. acaule See above. (5500)
- 5509 S. acaule See above. (5500)

5510 to 5540 Samples bought in the Puno market, 14 March, 1974. Provenance as indicated below.

- 5510 S. stenotomum <sup>OK</sup> Said to have been cultivated in the Cuzco region. Tubers cylindrical, "concertina" type; eyes deep, numerous; skin red; flesh yellow. "Pitiquiña".
- 5511 S. tub. ssp. andigena Said to have been cultivated in the Cuzco region. Tubers long oval to pyriform, slightly curved at heel end; eyes few, deep; skin dark purple; flesh white with purple vascular ring and purple splashes in medulla. "Majtillo".
- 5512 S. Said to have been cultivated in the Cuzco region. Tuber oval, "lumpy"; eyes few, deep; skin dirty whitish-pink. "Ccoyllo" or "Runtusa" or "Papa flor lila".
- 5513 S. tub. ssp. andigena <sup>OK</sup> Said to have been cultivated in the Cuzco region. Tubers broad oval to oblong, flattened; eyes few, shallow; skin red-purple; flesh cream. "Boli".
- 5514 S. tub. ssp. andigena <sup>OK</sup> Said to have been cultivated in the Cuzco region. Tubers isodiametric compressed; eyes deep; skin pink; flesh pale yellow. "Ccompis".
- 5515 S. tub. ssp. andigena <sup>OK</sup> Said to have been cultivated in the Cuzco region. Tubers ± isodiametric, some compressed; eyes deep, numerous; skin black (very dark purple); flesh cream. "Imilla negra".

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5510 to 5540 (Continued) Samples bought in the Puno market,  
14 March, 1974. Provenance as indicated below.

- 5516 *S. stenotomum* <sup>tub. ssp. andigena</sup> Cultivated in Capachica, prov. and dept. Puno. Tubers long fusiform, flattened, curved; eyes few, deep; skin rich pink. "Uchu caspa".
- 5517 *S. stenotomum*? <sup>tub. ssp. andigena</sup> Cultivated in Capachica, prov. and dept. Puno. Tubers long oval to fusiform, irregular; eyes deep; skin dark reddish-purple (or bluish-purple ?); flesh cream. "Sama niña".
- 5518 *S. tub. ssp. andigena* Cultivated in Capachica, prov. and dept. Puno. Tubers oblong, cylindrical to oval; eyes deep; skin dark purple; flesh cream. "Chipanca".
- 5519 *S. tub. ssp. andigena* Cultivated in Mañazo, prov. and dept. Puno. Tubers oval to short pyriform, slightly flattened and some curved at heel; eyes few, deep; skin dark reddish-purple; flesh white. "Yana machu".
- 5520 *S. stenotomum* <sup>OK</sup> ~~2~~ Cultivated in Mañazo, prov. and dept. Puno. Tubers  $\pm$  isodiametric, compressed, "lumpy"; eyes deep; skin bright pinkish-purple; flesh cream. Looks more like adg tuber but has stn vernacular name: "Pitiquiña".
- 5521 *S. stenotomum*? <sup>tub. ssp. andigena</sup> Cultivated in Mañazo, prov. and dept. Puno. Tubers long oval to fusiform; eyes few, deep; skin bright pink; flesh white. "Huaico papa".
- 5522 *S. tub. ssp. andigena* <sup>OK</sup> Cultivated in Mañazo, prov. and dept. Puno. Tubers  $\pm$  isodiametric compressed; eyes deep; skin pale yellow; flesh white. "Imilla blanca".
- 5523 *S. stenotomum*? <sup>chancha</sup> Cultivated in Mañazo, prov. and dept. Puno. Tubers  $\pm$  isodiametric to cylindrical, very lumpy between eyes, like a bunch of grapes; eyes deep; skin dark red-purple; flesh yellow. "Piña".
- 5524 *S. tub. ssp. andigena* <sup>OK</sup> ~~2~~ Cultivated in Mañazo, prov. and dept. Puno. Tubers oval to long oval, flattened; eyes few, shallow; skin dark red-purple with yellow spectacles; flesh cream. "Alcca chalico".
- 5525 *S. tub. ssp. andigena* <sup>OK</sup> *S. juzepczukii* or *S. ajanhuiri*? Cultivated in Mañazo, prov. and dept., Puno. Tubers oval to oblong, flattened; eyes few, medium depth; skin red-purple with yellow spectacles; flesh cream. "Koisullu".
- 5526 *S. stenotomum* <sup>OK</sup> ~~2~~ Cultivated in Mañazo, prov. and dept. Puno. Tuber  $\pm$  isodiametric, lumpy; eyes deep; skin yellow. "Kello pitiquiña".
- 5527 *S. stenotomum*? <sup>chancha</sup> Cultivated in Mañazo, prov. and dept. Puno. Tubers  $\pm$  isodiametric to oblong, "bunch of grapes" type, very swollen between eyes; eyes deep; skin dark rich purple-red; flesh yellow with purple blotches. "Huancururo".

P E R U

5510 to 5540 (continued) Samples bought in the Puno market,  
14 March, 1974. Provenance as indicated below.

- 5528 *S. stenotomum*? <sup>tub. ssp. andigena</sup> Cultivated in Mañazo, prov. and dept. Puno. Tubers long oval to fusiform, slightly curved and flattened; eyes few, medium deep; skin bright pinkish-purple; flesh white. "Chuahuisca".
- 5529 *S. stenotomum*? <sup>OK</sup> Cultivated in Mañazo, prov. and dept. Puno. Tuber  $\pm$  isodiametric "concertina" type; eyes deep; skin red-purple. "Pitiquiña".
- 5530 *S. chaucha*? <sup>tub. ssp. andigena</sup> Cultivated in Mañazo, prov. and dept. Puno. Tubers oval to oblong, slightly flattened; eyes medium deep; skin yellow; flesh white. "Surimana".
- 5531 *S. tub. ssp. andigena* Cultivated at Ojerani, prov. and dept. Puno. Tubers long fusiform, flattened, curved; eyes few, shallow; skin pale yellow, with red eyes; flesh cream. "Tuni jacampia".
- 5532 *S. tub. ssp. andigena* Cultivated at Ojerani, prov. and dept. Puno. Tubers  $\pm$  isodiametric, slightly compressed; eyes deep; skin bright pink; flesh white. "Puca imilla".
- 5533 *S. tub. ssp. andigena*? Cultivated at Ojerani, prov. and dept. Puno. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin pink with yellow spectacles; flesh white. "Ccacca imilla".
- 5534 *S. stenotomum*? <sup>tub. ssp. andigena</sup> Cultivated at Ojerani, prov. and dept. Puno. Tubers fusiform; eyes few, shallow; skin deep pink; red at eyes. "Chula huisca".
- 5535 *S. stenotomum*? <sup>OK</sup> Cultivated at Ojerani, prov. and dept. Puno. Tubers long oval to fusiform, flattened, slightly curved; eyes shallow; skin pale pinkish-brown; flesh white. "Paula".
- 5536 *S. tub. ssp. andigena* Cultivated on the Isla de Taquili, Lake Titicaca, prov. and dept. Puno. Tubers round to oval, flattened; eyes few, medium deep; skin pinkish-purple; flesh cream. "Palama".
- 5537 *S. tub. ssp. andigena* Cultivated on Isla de Taquili, Lake Titicaca, prov. and dept. Puno. Tubers  $\pm$  isodiametric compressed; eyes deep; skin pale pink with yellow spectacles; flesh cream. "Alcaca yurima".
- 5538 *S. tub. ssp. andigena* Cultivated at Juli, prov. Chuquito, dept. Puno. Tubers round, flattened; eyes shallow; skin deep purple-red; flesh white. "Palama".
- 5539 *S. tub. ssp. andigena* <sup>OK</sup> Grown in Paucarcolla, prov. and dept. Puno. Tubers  $\pm$  isodiametric,  $\pm$  compressed; eyes deep; skin very dark purple; flesh white. "Imilla negra".
- 5540 Dried Oxalis tuberosa tubers. See other list)

## P E R U

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- 5541 *S. tub. ssp. andigenum* Dept. Puno, prov. Puno, distr. Platería, Centro Experimental de Camacani. Lat. 15° 58'S. Long. 69° 48'W. 15 March 74. Alt: 3850m. Grown in test plots; said to have been collected in Puno dept. Natural berries. Seeds.
- 5542 *S. acaule* Dept. Puno, prov. Puno, distr. Platería, Centro Experimental de Camacani. Lat. 15° 58'S. Long. 69° 48'W. 15 March 74. Alt: 3850m. Side of ditch by cow shed, frequent, wild. Flowers and abundant berries. Seeds.
- 5543 *S. tub. ssp. andigena?* OK Dept. Puno, prov. Puno, peninsula Chuquito, Perca. Lat. 15° 49'S. Long. 69° 48'W. 14 March 74. Alt: 3820m. Cultivated, frequent. Mixed gene-pool collection, probably all adg. *Heterodera pallida* seen in adjacent fields a few metres away, very probably also in this field also. Note: seed potatoes kept in this region, not exchanged. Mixed berries. Seeds.
- 5545 *S. acaule* Dept. Puno, prov. Puno, distr. Platería, Platería. At bases of walls in town on road leaving for Chuquito peninsula. Lat. 15° 58'S. Long. 69° 48'W. 15 Mar. 74. Alt: 3820m. Grassy places at bases of walls, frequent. Berries. Seed.
- 5546 *S. acaule* Dept. Puno, prov. Puno, near Platería, finca Arce. Lat. 15° 58'S. Long. 69° 48'W. 15 March 74. Alt: 3850m. Very abundant plants and berries, on heaps of stones near side road to finca; dominant. Fls blue. Seed.
- ✓5547 *S. canasense* Dept. Puno, prov. Puno, La Huerta. Lat. 15° 48'S. Long. 69° 59'W. 15 March 74. Alt: 3830m. In a kitchen garden, growing extremely luxuriantly. Plants 90-100cm tall; fls violet. Frequent. Seed.
- 5548 *S. acaule* Locality data as for 5547. Garden weed. Flat rosettes, abundant. Seed.
- 5549 *S.* Sample bought in Puno market, cultivated in Capachica, Ccotos, prov. Puno, dept. Puno. 14 March 74. Tuber oblong, slightly flattened; eyes medium deep; skin dark purple, yellow spectacles. Tuber.
- ✓5550 *S. canasense* Dept. Puno, prov. Puno, road from Puno south-east to Desaguadero, 18km from Puno. Lat. 15° 54'S. Long. 69° 50'W. 16 March 74. Alt: 3875 m. In stones round field by road, locally frequent. Flowers bright violet with darker central petal streaks, grey-hairy outside. Seed.
- 5551 *S. acaule* Dept. Puno, prov. Chucuito, a little past Ilave on road to Desaguadero at 65km from Puno. Lat. 16° 7'S. Long. 69° 36'W. 16 March 74. Alt: 3850m. Growing abundantly on tops of low mud walls; flat rosettes; flowers blue-purple. Fruit. Seeds.
- 5552 (cfr. *S. oplocense*?) Dept. Puno, prov. Chucuito, between Pomata and Desaguadero, 13km from Pomata, 31 from Desaguadero. Lat. 16° 22'S. Long. 69° 13'W. 16 Mar. 74. Alt: 3850m. Rocky hillside above road, no tubers or berries. Fls semi-stellate, violet-blue; stigma very narrow.

B O L I V I A

5553 to 5580 Samples bought in the La Paz market 17 March, 1974. Provenance as indicated below.

- 5553 S. stenotomum Cultivated at Pocota, prov. and dept. La Paz. Tubers  $\pm$  isodiametric, "lumpy", compressed; eyes deep; skin dark yellow; flesh dark yellow. "Zapallo".
- 5554 S. tub. ssp andigena Cultivated at Tiahuanaco, prov. Ingavi, dept. La Paz. Tubers oval to long oval, very flattened; eyes few, shallow; skin pink; flesh pale yellow. "Huila pala".
- 5555 S. tub. ssp andigena Cultivated at Tiahuanaco, prov. Ingavi, dept. La Paz. Tubers long oval to fusiform, slightly flattened; eyes deep, frequent; skin very dark purple; flesh white. "Khati" or "Huaico" = cooking potato. See 5557 - ajahuiri.
- 5556 S. tub. ssp andigena Cultivated in Tiahuanaco, prov. Ingavi, dept. La Paz. Tubers oval to  $\pm$  pyriform, very flattened and slightly curved; eyes few, shallow; skin and flesh pale yellow. "Papa runa". (doubtfully correct name).
- 5557 <sup>tub. ssp andigena</sup> S. ajahuiri? Cultivated at Tiahuanaco, prov. Ingavi, dept. La Paz. Tubers long oval to fusiform, slightly flattened and curved; eyes medium deep; skin dark red-purple; flesh pale yellow with purple vascular ring. "Ajahuiri". See 5555 - Khata.
- 5558 S. stenotomum Cultivated in Achacachi, prov. Omasuyos, dept. La Paz. Tubers very long cylindrical-fusiform, curved; eyes medium depth; skin dark purple with paler blotches; flesh white. "Huaicu". (= cooking potato).
- 5559 S. tub. ssp andigena Cultivated at Achacachi, prov. Omasuyos, dept. La Paz. Tuber curved, pyriform; eyes deep; skin purple, mottled with yellow. Separated from 5558.
- 5560 <sup>stenotomum</sup> S. chaucha? Cultivated at Achacachi, prov. Omasuyos, dept. La Paz. Tuber oval-cylindrical to slightly pyriform; eyes few, shallow; skin pale yellow; flesh cream. "Surimana".
- 5561 <sup>stenotomum</sup> S. chaucha? Separated from 5560. Tuber irregular pyriform to fusiform; eyes few, deep; skin yellow, suffused with pink here and there. "Surimana".
- 5562 <sup>OK</sup> S. chaucha? Separated from 5560. Tuber  $\pm$  oblong to fusiform; eyes deep; skin yellow, with irregular purple blotches at eyes and elsewhere. "Surimana".
- 5563 <sup>OK</sup> S. stenotomum? Cultivated at Achacachi, prov. Omasuyos, Tubers irregularly oval-fusiform; eyes few, deep; skin bright red-purple, sprinkled yellow. "Phiñu". (= Colorado brillante).

B O L I V I A

- 5553 to 5580 (continued) Samples bought in the La Paz market 17 March, 1974. Provenance as indicated below.
- 5564 S. stenotomum <sup>OK</sup>  $\times$  Cultivated at Achacachi, prov. Omasuyos, dept. La Paz. Separated from 5563. Tubers + fusiform to long cylindrical; eyes few, deep; skin deep reddish-purple; flesh yellow with pink medulla. "Phiñu" Perhaps the same as 5570 ?
- 5565 S. stenotomum ? Cultivated at Achacachi, prov. Omasuyos, dept. La Paz. Separated from 5563. Tubers broad fusiform, "concertina" type; eyes many, long and deep; skin violet-purple. Possibly each tuber is distinct. "Phiñu".
- 5566 S. chaucha <sup>OK</sup>  $\times$  Cultivated in Achacachi, prov. Omasuyos, dept. La Paz. Tubers cylindrical-fusiform, slightly flattened; eyes few, long, deep; skin very dark purple, almost black, with a few irregular yellow splashes; flesh white. "Surimana". (Perhaps the same as 5571).
- 5567 S. tub. ssp. andigena Cultivated on the altiplano near La Paz. Tubers + isodiametric, compressed, "lumpy"; eyes deep; skin bright mauve-pink with large yellow spectacles; flesh pale yellow. "Alka imilla".
- 5568 S. stenotomum Cultivated on the altiplano near La Paz. Tubers fusiform-pyriform, sharply bent near heel end, some completely bent back on themselves; eyes medium to deep, long, few; skin pinkish-mauve; flesh pale yellow. ("Khati").
- 5569 S. Cultivated on the altiplano near La Paz. Tubers round to broad oval, flattened; eyes few, long, medium deep; skin red-purple; flesh white. "Pala".
- 5570 S. stenotomum <sup>OK</sup>  $\times$  Cultivated at Pocota, prov. Ingavi, dept. La Paz. Tubers + oval-fusiform to pyriform, flattened; eyes long, medium deep; skin pinkish-purple; flesh pale yellow. "Phiñu rojo".
- 5571 S. stenotomum <sup>x chaucha</sup>  $\times$  ? Cultivated at Pocota, prov. Ingavi, dept. La Paz. Tubers cylindrical-fusiform, slightly flattened; eyes long, deep; skin very dark purple, almost black, with a few irregular yellow splashes; flesh white. "Phiñu negro". (Same as 5566 ?).
- 5572 S. tub. ssp. andigena <sup>OK</sup> Cultivated at Viacha, prov. Ingavi, dept. La Paz. Tubers isodiametric compressed; eyes deep; skin pale yellow; flesh cream. "Imilla blanca".
- 5573 S. stenotomum Cultivated at Copacabana, prov. Copacabana, dept. La Paz. Tubers irregularly long-oval to fusiform, flattened, "lumpy"; eyes rather deep; skin deep red-purple with yellow semilunar spectacles; flesh yellow. ("Khati").

B O L I V I A

5553 to 5580 (continued) Samples bought in the La Paz market 17 March, 1974. Provenance as indicated below.

- 5574 S. stenotomum Provenance unknown, probably dept. La Paz. Tubers vermiciform, bent or twisted, sometimes fusiform; eyes deep, depressed; skin very dark blue-purple; flesh yellow with pigmented vascular ring. ("Khati").
- 5575 S. stenotomum Provenance unknown, probably dept. La Paz. Tubers isodiametric to "concertina"-shaped; eyes deep; skin bright pink with yellow spectacles; flesh white. ("Piña").
- 5576 S. tub. ssp. andigena Provenance unknown, probably dept. La Paz. Tubers long-oval to fusiform, flat or curved; eyes few, deep; skin pink; flesh white. ("Khati").
- 5577 S. tub. ssp. andigena Provenance unknown, probably dept. La Paz. Tubers isodiametric, "lumpy"; eyes deep; skin dark blue-purple, splashed pink; flesh cream. ("Monda" = papas que se utilizan para pelar). (= potatoes for peeling)
- 5578 S. tub. ssp. andigena Separated from 5777. Tubers as for 5577 but with small yellow spectacles. ("Monda").
- 5579 S. tub. ssp. andigena Provenance unknown, probably dept. La Paz. Tubers oval, very flattened; eyes medium deep to shallow, long, few; skin bright red-purple; flesh pale cream. "Pala".
- 5580 S. tub. ssp. andigena Provenance unknown, probably dept. La Paz. Tubers long-fusiform to long-pyriform, flattened, curved.; eyes few, medium deep; skin yellow; flesh yellow. ("Khati").
- ✓5581 S. leptophyes ? Dept. La Paz, prov. Murillo, road below La Paz, 2km from Calacoto bridge towards Rio Abajo, Aranjuez, by gates of Instituto Biblico Nazareno. 19 March, 1974. Alt: 3250m. Lat: 16°34'S. Long. 68°5'W. Rocky slopes above road, with cacti and shrubs; a type of "prepuneña" vegetation. Small plants, wild, with roundish green berries, one with substellate blue-purple flower. Tubers available but not collected. Seeds.
- ✓5582 S. leptophyes ? Dept. La Paz, prov. Murillo, road below La Paz, 3km from Calacoto bridge towards Rio Abajo, by a brickworks. 19th March 1974. Alt: 3250m. Lat. 16°35'S. Long. 68°5'W. On dry clay hillsides with deep arroyos and clay pillars, very little vegetation. Occasional plants, wild; sun and shade forms. Purple substellate flowers. Seeds.
- 5583 to 5600 Samples bought in the Lahuachaca market, km 130 from La Paz on road to Cochabamba, prov. Aroma, dept. La Paz. Grown in same region, and provenance where known indicated below. 20/3/74.
- 5583 S. stenotomum Cultivated in the vicinity of Lahuachaca. Tubers fusiform-pyriform, curved at heel end or throughout; eyes few, deep to shallow; skin dark purple; flesh yellow. "Pitahuayaca".

B O L I V I A

- 5583 to 5600 Samples bought in the Lahuachaca market, km 136 from La Paz on road to Cochabamba, prov. Aroma, dept. La Paz. Grown in same region, and provenance where known indicated below. 20/3/74.
- 5584 S.tub.ssp.andigena Cultivated in Okajani. Tubers oval to round, very flattened; eyes few, shallow; skin pink; flesh cream. "Sotamari".
- 5585 S.chaccha ? <sup>steno</sup><sub>tolum</sub> Cultivated in Rio Seco, prov. Aroma, dept. La Paz. Tubers ± isodiametric or "concertina"-shaped, "lumpy"; eyes very deep; skin bright red-purple with narrow yellow spectacles; flesh cream. "Chojllu".
- 5586 S.tub.ssp.andigena <sup>OK</sup> Cultivated in Rio Seco, prov. Aroma, dept. La Paz. Tubers long-oval to fusiform, flattened and slightly curved; eyes few, shallow; skin and flesh pale yellow. "Sacampaya" (an Aymará word).
- 5587 S.stenotomum <sup>OK</sup> Cultivated in Rio Seco, prov. Aroma, dept. La Paz. Tubers long-oval, slightly flattened; eyes few, shallow; skin pink. "Huila phiñu" ("Pitahuayaca").
- 5588 S.tub.ssp.andigena Cultivated in the vicinity of Lahuachaca. Tubers ± isodiametric, depressed; eyes deep; skin red-purple with large yellow spectacles; flesh cream. "Ishla".
- 5589 S.tub.ssp.andigena Cultivated in the vicinity of Lahuachaca. Tubers oval, very flattened; eyes few, shallow; skin pale pink, shading to yellow; flesh pale yellow. "Pala pala".
- 5590 S.tub.ssp.andigena Cultivated in the vicinity of Lahuachaca. Tubers oval, flattened; eyes few, shallow; skin yellow. "Koyll
- 5591 S.tub.ssp.andigena <sup>tb</sup> S.apanturri? Cultivated in the vicinity of Lahuachaca. Tubers long-oval to fusiform; eyes deep, long; skin yellow with dark purple eyes; flesh yellow. "Chiar sinka".
- 5592 S.tub.ssp.andigena Cultivated in Colchani, prov. Aroma, dept. La Paz. Tubers isodiametric, compressed; eyes deep; skin dark purple, splashed pink; flesh cream. "Chiar imilla".
- 5593 S.stenotomum Cultivated in the vicinity of Lahuachaca. Tubers oval to irregular-fusiform, somewhat flattened; eyes few, shallow; skin dark red-purple; flesh white, purple in centre. "Pitahuayaca" (separated from 5583).
- 5594 S.tub.ssp.andigena Cultivated in the vicinity of Lahuachaca. Tubers oval; eyes few, shallow; skin pink. "Pitahuayaca" (separated from 5583).
- 5595 S.tub.ssp.andigena Cultivated in the vicinity of Lahuachaca. Tubers ± round to square, "imilla" type; eyes deep; skin dark purple with yellow spectacles; flesh white. "Alka imilla".
- 5596 S.apanturri <sup>tb, ssp. andigena</sup> Cultivated in the vicinity of Lahuachaca. Tuber oval-oblong, flattened; eyes deep, long; skin pale yellow with enlarged lenticels; flesh cream. "Yari" (Separated from 5590).

B O L I V I A

5583 to 5600 (continued) Samples bought in the Lahuachaca market, km 136 from La Paz on road to Cochabamba, prov. Aroma, dept. La Paz. Grown in same region, and provenance where known indicated below. 20/3/74.

- 5597 S.tub.ssp andigena Cultivated in Colchani, prov. Aroma, dept. La Paz. Tubers  $\pm$  isodiametric,  $\pm$  compressed, a little flattened; eyes deep; skin rich grey-purple; flesh yellow. "Sali imilla" (Separated from 5592).
- 5598 S.chacucha? <sup>stenotomum</sup> Cultivated in Rio Seco, prov. Aroma, dept. La Paz. Tubers  $\pm$  "concertina"-like; eyes very long and deep; skin bright red; flesh cream. "Chojillu" (Separated from 5585).
- 5599 S.tub.ssp andigena Cultivated in Colchani, prov. Aroma, dept. La Paz. Like "Chiar imilla" but with very hooded eyes. "Chiar monda". (Separated from 5592).
- 5600 S.tub.ssp andigena Cultivated in the vicinity of Lahuachaca. Tubers  $\pm$  square, flattened; eyes deep, long; skin purple with yellow spectacles; flesh cream. "Alka imilla". (Separated from 5595).
- 5601 S.berthaultii Dept. Cochabamba, prov. Cercado, on edge of city of Cochabamba, Cerro San Pedro, botanical garden. Lat. 17°25'S. Long. 66°10'W. 21 March, 1974. Alt: 2650m. Rough stony places, behind cactus terraces. Berries only collected; green, mottled white. A frequent weed in the vicinity. Type locality. Seed.
- 5603 S.toralapanum Dept. Cochabamba, prov. Arani, Estación experimental de Toralapa, 71-72km from Cochabamba, on road to Santa Cruz. Lat. 17°25'S. Long. 65°40'W. 22 Mar. 74. Alt: 3500m. A frequent weed of field borders and rough grassland. Seeds.
- 5604 to 5626 Natural berries sampled from the Bolivian potato germplasm collection at Toralapa. ?  
Samples taken from plants every tenth row.  
If none available, then taken from nearest row.  
22 March, 74. Exact provenance data not supplied in many cases. Reference numbers quoted.
- 5604 S. Belén collection. "Huila taraco" 187(187). ?
- 5605 S. Belén collection. "Puca imilla". 58(58). ?
- 5606 S. from Hualcani, Challapata, prov. Abaroa, dept. Oruro. "Puca imilla". 59(59). ?
- 5607 S. stenotomum ? From Toledo, prov. Poopó, dept. Oruro. "Akarapi". 10(80). Narrow leaflets.
- 5608 S. Cárdenas collection. "Cusi leule". 17(17). ?

5604 to 5626 (continued) Natural berries sampled from the Bolivian potato germplasm collection at Toralapa. Samples taken from plants every tenth row. If none available, then taken from nearest row. 22 March, 74. Exact provenance data not supplied in many cases. Reference numbers quoted.

5609 S. tub. ssp. andigena Belén collection. "Sipancachi". 174(16).

5610 S. Belén collection. "Mairaro". 102(115).

5611 S. curtilobum ? From Belén, near Achacachi, prov. Omasuyos, dept. La Paz. "Choque luki". 87(5). Many berries

cultivated? 5612 S. curtilobum ? From Tacahua, near Challapata, prov. Abaroa, dept. Oruro. "Moroko luki". 90(50).

5613 S. tub. ssp. andigena From Huaira pata, prov Mizque, dept. Cochabamba. "Chejchi llokalla". 97(32).

5614 S. Belén collection. "Jankanchi". 49(162).

5615 S. tub. ssp. andigena ? From Mohoza, prov. Inquisivi, dept. La Paz. "Runa". 56(59).

5616 S. tub. ssp. andigena ? From Toledo, prov. Poopó, dept. Oruro. "Parina". 138(77).

5617 S. Belén collection. "Jaku huayaca". 65(24).

5618 S. Belén collection. "Koyu". 78(189).

5619 S. ajanhuiri ? Belén collection. "Chaña yari". 201(104).

5620 S. From Moza, prov. dept. Oruro.  
"Zapallo". 202(46).

5621 S. ajanhuiri Cárdenas collection. "Janko ajanhuiri". 4(44).

5622 S. From Vila Vila, prov. Cercado, dept. Oruro. "Chiar pitu huayaca". 150(55).

5623 S. Belén collection. "Jahuancharani". 64(157).

5624 S. From Moza, prov. dept. Oruro.  
"Achacana". 8(70).

5625 S. stenotomum ? Belén collection. "Chejje phiñu". 141(30).

5626 S. stenotomum ? Belén collection. "Phiñu pepino".  
140(28).

5628 S. toralapanum Dept. Cochabamba, prov. Arani?, Totora Cocha. Berries given by Sr Carlos Alarcón at Toralapa. 22/3/74. Alt: 4000m.?

- 5629 S.acaule Dept. Cochabamba, prov. Arani ?, Totora Cocha. Berries given by Sr Carlos Alarcón at Toralapa. 22/3/74. Alt: 4000m ?
- 5630 S.acaule Dept. Cochabamba, prov. Arani, Coari. Lat. 17°26'S. Long. 65°35'W. Berries given by Sr Carlos Alarcón at Toralapa, 22 Mar. 74.
- 5634 S.microdontum Dept. Cochabamba, prov. Carrasco, Incallajta, 17km from the main road from Cochabamba to Santa Cruz, turning off at km 120. 22 Mar. 1974. Frequent in Ainus jorulensis forest above road, partial shade, deep rich soil to 1.5m tall, also in deep shade, much smaller. Flowers white; berries green, globose; very few tubers. Alt: 2900m. "Atocc papa". Note: by path from road to Inca ruins.
- 5637 S.microdontum Locality, etc as 5634. Another collection.
- ✓ 5638 S.sparsipilum Dept. Cochabamba, prov. Quillacollo, Llauquinquire, 4km N.E. of Quiliacollo. Lat. 17°23'S. Long. 66°15'W. 22 Mar. 74. Alt: 2600m. A cornfield (maize) weed, clay soil. Berries given by Sr E. Meneses.
- 5639 to 5651 Samples bought in the Cochabamba market, dept. Cochabamba, 23 Mar. 1974. Provenance indicated below.
- 5639 S.tub.ssp.andigena Cultivated in Melga, prov. Chapare, dept. Cochabamba. Tubers ± isodiametric, compressed; eyes deep; skin rich purple-red with large confluent yellow spectacles; flesh cream. "Alcca imilla".
- 5640 S.tub.ssp.andigena Cultivated in Melga, prov. Chapare, dept. Cochabamba. Tubers ± square or broader at heel end, somewhat flattened; skin brownish-purple; eyes deep; flesh cream. "Azul runa".
- 5641 S.tub.ssp.andigena Cultivated in Melga, prov. Chapare, dept. Cochabamba. Tubers ± isodiametric, compressed; eyes very deep; skin bright red-purple; flesh cream. "Puca imilla".
- 5642 Schaucha Cultivated in Tiraque, prov. Arani, dept. Cochabamba. Tubers ± isodiametric, compressed; eyes very deep; skin black-purple; flesh cream with purple vascular ring and blotches in medulla. "Koyllu imilla".
- 5643 S.tub.ssp.andigena Cultivated in Tiraque, prov. Arani, dept. Cochabamba. Tubers ± isodiametric, compressed; eyes deep; skin dark purple with yellow spectacles; flesh yellow. "Lunca imilla".
- 5644 Schaucha Cultivated in Tiraque, prov. Arani, dept. Cochabamba. Tubers like "yana imilla" but with very deep circular eyes; skin black-purple; flesh cream with purple vascular ring. "Koyllu".

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B O L I V I A

5639 to 5651 (continued) Samples bought in the Cochabamba Market, dept. Cochabamba, 23 Mar. 1974. Provenance indicated below.

- 5645 Schaucha Cultivated in Tiraque, prov. Arani, dept. Cochabamba. Tubers  $\pm$  isodiametric, compressed; eyes very deep, circular; skin deep red-purple; flesh cream with red vascular ring. "Koyllu".
- 5646 S. tub ssp andigena Cultivated in Colomi, prov. Chapare, dept. Cochabamba. Tubers oblong to oval, flattened; eyes medium depth; skin brownish-pink; flesh white. "Runa".
- 5647 S. tub ssp andigena Cultivated in Cliza, prov. Jordan, dept. Cochabamba. Tubers oval to oblong, slightly flattened; eyes medium deep; skin brownish-purple; flesh cream. "Runa".
- 5648 S. Cultivated in Colomi, prov. Chapare, dept. Cochabamba. Tubers square to oolong, flattened; eyes shallow; skin brownish-purple; flesh yellow. "Pali".
- Hybrids  
TXR
- ✓5649 S. spagazzinii Cultivated in Colomi, prov. Chapare, dept. Cochabamba. Tubers broad oval to broad oblong, flattened; eyes shallow; skin purplish-brown; flesh pale yellow. "Pali". (Part of sample 5648).
- 5650 S. tub ssp andigena Cultivated in Tiraque, prov. Arani, dept. Cochabamba. Tubers long-oval to short fusiform, slightly flattened; eyes medium deep; skin very dark purple; flesh yellow with dark purple blotches. "Yana koyllu".
- 5651 S. tub ssp adg. Cultivated in Tiraque, prov. Arani, dept. Cochabamba. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin yellow, some tubers with pale pink here and there; flesh white. "Yurac imilla".
- ✓5654 S. brevicaule ? Dept. Cochabamba, prov. Cercado, outskirts of Cochabamba, Cerro San Pedro, top of hill. Lat. 17°25'S. Long. 66°10'W. Wild, occasional, on stony hillside among herbs. Plants not in flower; a few small tubers. Collected by Sr E. Meneses.
- 5656 S. microdontum ssp. gigantophyllum Dept. Cochabamba, prov. Carrasco, 110km from Cochabamba on road to Santa Cruz. 24 Mar. 1974. Alt: 2950m. Amongst bushes by roadside, no berries, probably one clone. Fls white. Lat. and long. difficult to determine. Herbarium.
- 5657 S. toralapanum Dept. Cochabamba, prov. Carrasco, 110km from Cochabamba on road to Santa Cruz. 24 Mar. 74. Alt: 2950m. Stony rocky hillside with Puya spp, frequent. Tiny rosettes; all leaves simple. No flowers, seeds or good tubers.

## B O L I V I A

5659 to 5668 Samples bought in the Sucre market, dept. Chuquisaca, 25 March 1974. Provenance indicated below.

- 5659 S. tub ssp. adg. Cultivated at Potolo, prov. Orobeza, dept. Chuquisaca. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin black-purple; flesh cream. "Imilla negra".
- 5660 S. tub ssp. adg. As 5659. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin pink, with very large confluent yellow spectacles; flesh cream. "Alcca imilla".
- 5661 S. tub ssp. adg. As 5659. Tubers square to oblong, flattened; eyes deep; skin dark purple; flesh cream. "Yana runa".
- 5662 S. stenotomum Cultivated at Tarabuco, prov. Yamparaez, dept. Chuquisaca. Tubers long fusiform to vermiciform, some slightly flattened; skin brownish-yellow; eyes shallow; flesh cream. "Malcacho".
- 5663 S. tub ssp. adg. As 5662. Tubers  $\pm$  isodiametric, compressed or flattened; eyes medium deep; skin greyish-pink; flesh white. "Sonsa imilla".
- 5664 S. tub ssp. adg. As 5662. Tubers  $\pm$  isodiametric, slightly flattened; eyes medium depth; skin yellow; flesh cream. "Sipancachi".
- 5665 S. tub ssp. adg. Cultivated at Tocsupaya, prov. and dept. unknown. Tubers  $\pm$  oblong-oval, flattened; eyes shallow; skin brownish with purple flecks and flushes; flesh white. "Kallpa runa".
- 5666 S. Cultivated at Ravelo, prov. Chayanta, dept. Potosí. Tubers broad oval, widest at heel end, flattened; eyes shallow; skin bright red-purple with yellow flecks; flesh white. (Named "Sonsa imilla", but this is wrong; should be "Pali" or something similar)
- 5667 S. tub ssp. adg. Said to have been cultivated in the region of Potosí. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin yellowish-brown with ill-defined purple areas round eyes and especially along eyebrows; flesh pale yellow. "Sani imilla".
- 5668 S. stenotomum Cultivated at Tocsupaya, prov. and dept. unknown. Tubers long-oval, flattened, broader at heel end; eyes medium deep; skin yellow; flesh cream; lenticels large. "Marcacho".
- 5669 S. boliviense. Dept. Chuquisaca, prov. Orobeza, road from Sucre to Ravelo, Cuchitambo,  $\pm$  16km from Sucre. 25 Mar. 74. Alt: 3050m. Under shade of Eucalyptus in deep rich humid soil. Simple leaves, long stems, small tubers, one round berry, green with white raised spots. seeds and tubers. "Alco papa".

B O L I V I A

- 5671 S.toralapanum Dept. Chuquisaca, prov. Oropeza, 36km from Sucre on road to Ravelo. 25 Mar. 74. Alt: 3250m. Open habitat with rocks by dry watercourse, occasional. Tubers.
- 5672 S. Dept. Chuquisaca, prov. Oropeza, Sta Catalina, 13km from Sucre on road to Ravelo. 25 Mar. 74. Alt: 2950m. Weed; stony ground in barley field. Tubers. "Alka papa". Lat 19°0'S. Long. 65°21'W.
- 5673 S.tarijense Dept. Chuquisaca, prov. H.Siles, 29km from Sucre plaza on road from Sucre to Potosí, but bypassing Yotala. Lat. 19°11'S. Long. 65°15'W. 26 Mar. 74. Alt: 2750m. Under Schinus and Prosopis bushes, protected from grazing. Berries globular, green or green with white spots. Seeds.
- 5674 S. ssp adg' Dept. Chuquisaca, prov. Oropeza, Santa Catalina, 13km from Sucre on road to Ravelo. Grown and bought at Sta Catalina. Tubers ± square to oval, flattened or ± cylindrical; eyes deep; skin greyish-red-purple; flesh cream. 25 Mar. 1974. "Sonsa imilia". Lat. 19°0'S. Long. 65°21'W.
- 5675 S.tarijense Dept. Chuquisaca, prov. H.Siles, 41km from Sucre on new road to Potosí, bypassing Yotala. Lat. 19°15'S. Long. 65°20'W. 26 Mar. 74. Alt: 2450m. Under shade of Schinus molle trees, by right side of road, frequent. Plants maturing; no flowers, many berries, most on soil, green, liberally spotted with white slightly raised spots. Seed.
- 5676 S.oplocense Dept. Potosí, prov. Saavedra, 53km on new road from Sucre to Potosí, 2km past bridge over Rio Pilcomayo, above the small settlement Viñapampa. Lat. 19°18'S. Long. 65°20'W. 26 Mar. 74. Alt: 2250m. Under protection of a thorn hedge on right side of road, occasional, wild and weed. Plants finished flowering but no berries. (Seen nowhere else at this site, found here also in 1971; 2 roads, old and new, join here.)
- 5677 S.tarijense  
S.oplocense? Locality as 5676 but 57km from Sucre, 6km past Viñapampa. Lat. 19°19'S. Long. 65°20'W. 26 Mar. 74. Alt: 2350m. In shade of Schinus molle in very rich damp soil on right side of road in thorn hedge. Very large plants to ± 85cm; leaves to 40cm. Berries 1.5cm diam, green. Seed. Wild/weed, occasional.
- 5678 S.sucrense Dept. Potosí, prov. Saavedra, 83km from Sucre on road to Potosí, just below Retiro. Lat ±19°28'S. Long. 65°23'W. 26 Mar. 74. Alt: 2700m. Rare, wild/weed, under shade of bushes and hedge, in one place only. No flowers; tubers rather large. Tubers.
- 5679 S.tarijense/ berthaultii Locality as 5678. Wild, abundant, in thorn hedge and amongst bushes at upper edge of road. Plants densely glandular; flowers white on only plant in flower, but berthaultii also known to occur in this area. Mixed berry collection from about 100m strip; green with white spots. Seeds.

B O L I V I A

- 5680 S.tarijense/ berthaultii Dept. Potosí, prov. Saavedra, 84km from Sucre on road to Potosí, just above Retiro. Lat. $\pm$ 19°28'S. Long. 65°23'W. 26 Mar. 74. Alt: 2700m. Wild/weed, abundant, in and around edges of maize field above road. Seeds.
- 5681 S.oplocense Dept. Potosí, prov. Saavedra, 87km from Sucre on road to Potosí, 4km above Retiro. Lat.  $\pm$  19° 28'S. Long. 65°23'W. 26 Mar. 74. Alt: 3000m. Wild, occasional, growing among spiny shrubs on upper side of road. No berries or tubers.
- 5682 S.sucrense Locality as 5681. Weed?, rare, growing in wall above road on lower edge of maize field; one plant with flowers, very bushy, coarser than oplocense. Herbarium
- 5683 S.tarijense Locality as 5681. Wild, frequent, in scrub on lower side of road and under shade of Schinus molle above road. Plants glandular with green globular berries, with raised white spots. No flowers. N.Potosí Seeds.
- 5685 S.megistacrolobum Dept. Potosí, prov. Frias, 1km from Potosí on road to Lecherías. Lat. 19°37'S. Long. 65°45'W. 27 Mar. 74. Alt: 3800m. Wild, frequent, at base of wall, edge of potato field; plants nearly mature. Seeds.
- 5686 S.acaule Locality as 5685. Wild, abundant. Plants nearly mature. Seeds.
- 5687 to 5709 Samples collected from a potato field at time of harvest. All morphotypes distinguishable by eye separated out from mixed pile as distinct numbered samples, and names given by the peasants who were harvesting them. Seed tubers for this planting were obtained from prov. Frias, just north of Potosí and therefore in the same region. Locality of collections: Dept. Potosí, prov. Frias, 1km below Potosí on road to Lecherías. 27 Mar. 74. Alt: 3800m. Lat. 19°37'S. Long. 65°45'W.
- 5687 S.tub.ssp.adg. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin bright red-purple; flesh yellow with red pigment splashes in medulla. "Cunarana".
- 5688 S.tub.ssp.adg. Tubers  $\pm$  isodiametric, compressed; eyes deep; skin greyish-pink, deeper at eyes and heel; flesh white. "Paco imilla".
- 5689 S.tubssp.adg. Tubers long-oval to fusiform, some curved; eyes few, shallow; skin yellow, occasionally pink at eyes; flesh pale yellow. "Sacampaya".
- 5690 S.tub.ssp.adg. Tubers oval, flattened, broadest at heel end; eyes shallow to deep, few; skin blue-purple with paler stipple; flesh cream. "Yana runa".
- 5691 S.stenotomum? Twoers fusiform to pyriform, narrowest at heel end; eyes very deep and long; skin black-purple; flesh yellow with purple medullia. "Sairi".

B O L I V I A

- 5687 to 5709 (continued) Dept. Potosí, prov. Frias, 1km below Potosí on road to Lecherías. Lat.  $19^{\circ}37' S.$  Long.  $65^{\circ}45' W.$  27 Mar. 74. Alt: 3800m. Samples collected from a potato field at time of harvest. All morphotypes distinguishable by eye separated out from mixed pile as distinct numbered samples, and names given by the peasants who were harvesting them. Seed tubers for this planting were obtained from prov. Frias, just north of Potosí, and therefore in same region.
- 5692 S.tub ssp andigena Tubers cylindrical, very lumpy and "concertina"-like; eyes deep, wide; skin bright purple with yellow flecks and spectacles. "Chicca imilla".
- 5693 S.tub ssp andigena Tubers  $\pm$  isodiametric, compressed; eyes deep; skin yellow with slight flushes of pink on some, especially at heel; flesh white. "Yurac imilla".
- 5694 S.tub ssp andigena Tubers  $\pm$  isodiametric, compressed; eyes deep; skin pink with purple flecks and blotches, not evenly patterned; flesh cream. "Imilla".
- 5695 S.stenotomum Tubers  $\pm$  isodiametric but very swollen and "lumpy" between the eyes; eyes deep; skin yellow, slightly pink in eye sockets; flesh cream. "Lurun".
- 5696 S.tub ssp. andigena Tubers  $\pm$  isodiametric, compressed; eyes deep; skin dark purple with yellow or pink confluent spectacles; flesh white. "Alcca imilla".
- 5697 S.tub ssp andigena: Tubers  $\pm$  isodiametric; eyes deep; skin red, darker at eyes; flesh white with pink-flushed medulla. "Puca imilla". }
- 5698 S.stenotomum Tubers oval to fusiform, slightly flattened; eyes few, shallow; skin purple with semi-lunar spectacles; flesh cream. Tubers all small; a very rare morphotype in this field. "Koyllu".
- 5699 S.stenotomum Tubers oval to oblong-oval, strongly flattened; eyes shallow; skin blue-purple, stippled yellow towards heel and often with yellow semi-lunar spectacles; flesh pale yellow. "Chia papa".
- 5700 S.tub ssp andigena Tubers  $\pm$  isodiametric, compressed or flattened; eyes deep; skin bright red-purple with thin yellow spectacles, mostly at eyebrows; flesh white. "Puca chasca nähui".
- 5701 S.ajanhuiri Tubers irregularly fusiform, "concertina"-shaped; many deep long eyes; skin purple, darker at eyes; flesh white. "Yari".
- 5702 S.tub ssp andigena Tubers  $\pm$  isodiametric, compressed; eyes deep; skin medium red-purple with large confluent spectacles. "Alcca imilla".

B O L I V I A

- 5687 to 5709 (continued) Dept. Potosí, prov. Frias, 1km below Potosí on road to Lecherías. Lat.  $19^{\circ}37' S$ . Long.  $65^{\circ}45' W$ . 27 Mar. 74. Alt: 3800m. Samples collected from a potato field at time of harvest. All morphotypes distinguishable by eye separated out from mixed pile as distinct numbered samples, and names given by peasants harvesting them. Seed tubers for this planting were obtained from prov. Frias, just north of Potosí, and therefore from the same region.
- 5703 S. tub ssp andigena Tubers square to oblong, flattened, rather irregular; eyes very deep; skin blue-purple, stippled a bit lighter; flesh pale yellow. "Pichilla".
- 5704 S. tub ssp adg Tubers  $\pm$  isodiametric, compressed; eyes deep; skin pink with large confluent yellow spectacles; flesh white. "Alcca imilla".
- 5705 S. tub ssp adg Tubers oval to oblong, very flattened; eyes few, shallow; skin bright purple; flesh cream. "Abajeña".
- 5706 S. tub ssp adg Tubers  $\pm$  isodiametric, compressed; eyes deep; skin yellow, stippled purple round eyes and sometimes elsewhere also, but more thinly; flesh cream. "Sani imilla".
- 5707 S. tub ssp adg Tubers oval to oblong, flattened; eyes few, shallow to medium depth; skin yellow, red at eyes; flesh pale yellow. "Huila laira".
- 5708 S. tub ssp adg Tubers  $\pm$  isodiametric, compressed; eyes deep; skin dark blue-purple, sometimes stippled with paler pink-purple; flesh pale yellow. "Yana imilla".
- 5709 S. chachacha Tubers oval, flattened; eyes shallow; skin red-purple with semilunar yellow spectacles; flesh pale yellow. (no vernacular name).
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- ✓ 5710 S. sucrense  
S. oplocense Dept. Potosí, prov. Frias, Hacienda Cayara. Lat.  $\pm 19^{\circ}32' S$ . Long.  $\pm 65^{\circ}45' W$ . 28 Mar. 74. Alt: 3540m. In shade of Eucalyptus trees. Berries globular, some green (A), others green with white spots (B). Seeds and tubers. (Donor: Sr. A. Vidaurre)
- 5711 S. sucrense Locality, etc. as 5710. Berries slightly oval with two shallow longitudinal grooves. Seeds. (Donor: Sr. A. Vidaurre).
- ✓ 5712 S. sucrense? Dept. Potosí, prov. Frias, road from Potosí to Cayara, Lapalca. Lat. and Long.  $\pm$  same as 5710 and 5711. 28 Mar. 74. Alt: 3470m. Frequent weed in maize and bean fields on cultivation terraces below road. Tubers small, round to oval. "Alko papa".
- ✓ 5713 S. sucrense Dept. Potosí, prov. Frias, Hacienda Cayara. Lat.  $\pm 19^{\circ}32' S$ . Long.  $\pm 65^{\circ}45' W$ . 28 Mar. 74. Alt: 3540m. Frequent weed in kitchen garden belonging to Hacienda, very rich soil. Large plants. Tubers.

## B O L I V I A

- / 5714 S. sucrense Dept. Potosí, prov. Frias, Hacienda Cayara. Lat.  $\pm 19^{\circ}32' S.$  Long.  $\pm 65^{\circ}45' W.$  28 Mar. 74. Alt: 5540m. Frequent weed among stones and earth on top of kitchen garden wall at Hacienda. Probably same as 5713 but from dry habitat.
- 5715 S. canasense ? As 5714 for locality, etc., but 200m distant on rocky hillside to north-west of hacienda. Wild, occasional. Tubers.
- ✓ 5716 S. sucrense As 5714 for locality, etc., but in a wall amongst stones between two fields below the hacienda. Tubers.
- 5717 S. sucrense Herbarium only, of 5710.
- 5718 S. canasense ? As 5714 for locality, etc., but on top of a wall at the entrance to the hacienda. Tubers.
- 5719 S. tub. ssp. andigena ? Dept. Potosí, prov. Linares, 36km from Potosí (from Hotel Centenario) on road to Camargo. Lat.  $\pm 19^{\circ}50' S.$  Long.  $\pm 65^{\circ}45' W.$  29 Mar. 74. Alt: 3800m. Cultivated in small dry potato and bean patch with no irrigation in dry rocky valley with columnar cacti. Plants withered; tubers small, red, globular, deep-eyed. Tubers. OK
- ✓ 5720 S. sucrense ? Locality, etc as 5719. Wild/weed, occasional. On dry stony hillside with columnar and barrel cacti, prepuna formation. Plants very wilted and possibly frost-damaged, with no flowers or fruit. Tubers. (also S. megistacrolobum seen; ifd ought to be present)
- 5721 S. megistacrolobum Same locality, habitat, etc. as 5719 and 5720. Rare, wild. Tubers.
- 5722 S. tub ssp adg. Dept. Chuquisaca, prov. Nor Cinti, 124km from Potosí on road to Camargo,  $\pm$  3km before Padcaya. Lat.  $20^{\circ}15' S.$  Long.  $65^{\circ}11' W.$  29 Mar. 74. Alt: 3450m. weed or escaped cultivated potato, locally frequent, growing on edges of maize and potato fields. Tubers.
- 5723 S. sucrense(?) As 5722. Another sample. Seeds.
- ✓ 5724 S. sucrense Locality, etc. as for 5722. A frequent weed growing in hedge on roadside. Tubers.
- 5725 S. sucrense Locality, etc., as for 5722. A frequent weed, growing between stones. Tubers.
- ✓ 5726 S. sucrense Locality, etc. as for 5722. A frequent weed with globular berries covered with raised white spots. Seeds.
- 5727 S. tub, ssp, adg. Locality, etc. as for 5722. A frequent weed. Seeds.
- 5728 S. megistacrolobum Locality, etc. as 5722 but 1km before Padcaya. 29 Mar. 74. Alt: 3400m. In grass at base of adobe wall running parallel with road on west side. Seeds

27.  
B O L I V I A

- 5729 S.acaule Dept. Chuquísaca, prov. Nor Cinti, 126km from Potosí on road to Camargo, ± 1km from Padcaya. Lat  $20^{\circ}15'S$ . Long.  $65^{\circ}11'W$ . 29 Mar. 74. Alt: 3400m. Abundant wild plant growing in grass at base of adobe wall parallel with and just below road on west side. Seeds.
- 5730 S.leptophyes? Locality, etc. as for 5729. Rare, wild, in dry soil on side of road. Tubers.
- 5731 S.tub.ssp.adg. Dept. Chuquisaca, prov. Sud Cinti, bought from a store (bodega) by side of road 5km before reaching Culpina. Plants were grown in field on opposite side of road. Seed obtained from Potosí, prov. Saavedra, Betanzos. Collection data for this locality (Culpina) as follows: Lat.  $20^{\circ}50'S$ . Long.  $65^{\circ}0'W$ . 30 Mar. 74. Alt: ± 3000m. Tubers. "Jalca".
- 5732 S.tub.ssp.adg. Locality, etc. as 5731. Tubers. "Runa".
- 5733 S.acaule (var.?) Dept. Tarija, prov. Méndez, Cuesta de Sama, 13km from Iscayachi and 74km from Las Carreras on road to Tarija. Lat.  $21^{\circ}30'S$ . Long.  $64^{\circ}58'W$ . 30 Mar. 74. Alt: 3650m. Rocks by roadside, in soil-filled pockets; cloudy region, puna vegetation. Wild, occasional. Tubers.
- 5735 S.microdontum ssp. gigantophyllum Dept. Tarija, prov. Méndez, 20km from Iscayachi on road to Tarija. Lat.  $21^{\circ}30'S$ . Long.  $64^{\circ}57'W$ . 30 Mar. 74. Alt: 3100m. Wild, locally abundant, in a very damp gully (quebrada) by road side. Seeds.

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A R G E N T I N A

Collection numbers 5736 to 6107 from Argentina, as follows:

5736 - 5866 Collected by K.A. Okada and J. Hermsen from 25 to 30 March, 1974.

5867 - 6094 Collected by J.G. Hawkes, K.A. Okada, J. Hermsen and A. van Harten from 1 to 11 April, 1974.

6095 - 6107 Collected by J.G. Hawkes, K.A. Okada and A. van Harten on 16 April, 1974.

The field notes for all these collections have been provided by K.A. Okada.

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B O L I V I A

- 6108 S. tub. ssp. andigena Dept. Potosí, prov. Nor Chichas, 43km from Tupiza on road to Cotagaita (east branch), Rio Blanco. Lat.  $\pm 21^{\circ}0' S.$  Long.  $65^{\circ}35' W.$  17 Apr. 74. Alt: 3200m. Probable weed, growing in a maize field to right of road; possible escape from cultivation. Plants dead, with 0-1 roundish mis-shaped tubers per plant. Berries frequent. Seed; tubers.
- 6109 S. Dept. Potosí, prov. Nor Chichas, 48km from Tupiza on road to Cotagaita (east branch), Ramada. Lat.  $20^{\circ}56' S.$  Long.  $65^{\circ}38' W.$  17 Apr. 74. Alt:  $\pm 3250m$ ? Tubers, cultivated. "Sani imilla".
- 6110 S. As 6109. "Malcacha".
- 6111 K S. oplocense As 6109. Berries collected from field of 6109 and 6110. (S. oplocense growing in hedge). Seeds.
- 6112 S. oplocense ? Locality, etc. as 6109. Hedge by field where 6109 to 6111 collected. Herbarium only.
- 6113 OPZ*  
(see last page) 6114 S. oplocense As 6109 but 49km from Tupiza. In a maize field, weed or wild, occasional. Potatoes said never to have been grown here. Mature berries. Seeds.
- ✓ 6115 S. oplocense Dept. Potosí, prov. Nor Chichas, 32 km on road from Cotagaita to Potosí. Lat.  $\pm 20^{\circ}40' S.$  Long.  $65^{\circ}45' W.$  18 Apr. 74. Alt: ?  $\pm 3500m$ . Rare, under Acacia tree by road in very dry scrub vegetation with Opuntias. One plant only; tubers and berries.
- 6116 S. As 6115 but half km further on. Two plants. Herbarium only.
- 6117 S. stenotomum Dept. Potosí, prov. Nor Chichas, road at km 64 from Cotagaita towards Potosí. Lat. and Long. and altitude unknown. 18 Apr. 74. Cultivated field by road, all one variety. "Sacampaya". Tubers.
- ✓ 6118 S. oplocense Locality, etc. as for 6117. A locally abundant weed growing in shade of Acacias inside a bean field, with maize and potatoes ("sacampaya" - like 6117), on other side of road from 6117. Large population with frequent berries - white-spotted. Plants branched; leaves with red central nerves. Seeds.
- 6119 S. tub. ssp. andigena Dept. Potosí, prov. Nor Chichas, 113km from Cotagaita on road to Potosí, Caltapi Punco. Lat. and Long. uncertain. 18 Apr. 74. Alt:  $\pm 3400m$ ? Cultivated field near willow trees on river before road crosses to village. One berry per plant taken at random. (Note: weed potato on wall) Seeds.
- 6120 S. tuo. ssp. andigena Dept. Potosí, prov. Nor Chichas, 120km from Cotagaita on road to Potosí. Lat., Long. and alt: uncertain. 18 Apr. 74. One berry per plant taken at random. Seeds.

B O L I V I A

- 6121 S. tuo. ssp. andigena <sup>KK</sup> Dept. Potosí, prov. Nor Chichas, 120km from Cotagaita on road to Potosí. Lat., Long. and altitude uncertain. 18 Apr. 1974. Tubers from field where berry collection 6120 was made. Tubers with pale yellow skin and purple eyes.
- 6122 S. tuo. ssp. andigena <sup>stenotomum</sup> Locality, etc. as for 6121. Tubers pale yellow, oval.
- 6123 S. stenotomum Dept. Potosí, prov. Nor Chichas, 127km from Cotagaita on road to Potosí, Paljacancha. Lat. and Long. uncertain. 18 Apr. 1974. Alt: ± 3600m ? Tubers long oval; skin yellow; good cooking flavour. (Most of the field was this, just a few of 6124 and 6125). "Malcacho".
- 6124 S. tub ssp andigena Locality, etc. as for 6123. Tubers oval; skin red with purple eyes. "Puca".
- 6125 S. tub ssp andigena Locality, etc. as for 6123. Tubers purple with yellow semilunar spectacles; ± globular. "Ancañahui".
- ✓ 6126 S. sucrense Dept. Potosí, prov. Frias, 30km from Potosí on road to Oruro, just before Totora. Lat 19° 28'S. Long. 65° 50'W. 19 Apr. 74. alt: uncertain. An occasional weed in wall above road. Seeds.
- ✓ 6127 S. sucrense Locality, etc. as 6126. Another plant, growing near 6126. Seeds.
- ✓ 6128 S. sucrense Locality, etc. as 6126. Another plant, growing near 6126. Seeds.
- 6129 S. tub ssp adg. Dept. Potosí, prov. Frias, 31km from Potosí on road to Oruro just past Totora. Lat., Long. and Alt: uncertain. 19 Apr. 74. Cultivated in field by road. Yield poor. Tubers red. "Pali papa".
- 6130 S. tub ssp adg. Locality, etc. as 6129, growing in same field. Cultivated. "Imilla negra". Tubers.
- 6131 S. tub ssp adg. Locality, etc. as 6129, cultivated in same field. "Runa papa". Tubers.
- 6132 S. Locality, etc. as 6129, growing in same field. Cultivated. "Abajeño". Tubers.
- 6133 S. tub. ssp. adg. Locality, etc. as 6129, cultivated in same field. Most of the crop is this cultivar; the others seem to be admixtures. Tubers flattened oval; eyes shallow; skin purple with yellow spectacles. "Alcca papa". Tubers.
- 6134 S. tub. ssp. andigena Locality, etc. as 6129. Common in another part of the field. Tubers long; pale yellow skin. "Sacampaya".
- 6135 S. One berry per plant at random from 6129-6134. "Aconko" (= berries). Seeds.

B O L I V I A

- 6136 S. sucrense ? Dept. Potosí, prov. Frias, 31km from Potosí on road to Oruro just past Totora. Lat., Long. and Alt: uncertain. 19 Apr. 74. An occasional weed of a quinoa field next to potato crop, no hedge or dividing area between. Tubers. "Alko papa" (= dog potato)
- 6137 S. tub ssp adg Dept. Potosí, prov. Frias, 32km from Potosí on road to Oruro. Cultivated. In a field below the road. "Chajli". Tubers. 19 Apr. 74. No alt, lat, long.
- 6138 S. Locality, etc. as 6137. One berry per plant taken at random from field of 6137, though probably more variation than a single tuber sample would encompass. Seeds.
- 6139 S. tub ssp adg Dept. Potosí, prov. Frias, above Yocalla, 57km from Potosí on road to Oruro. Lat. 19° 25'S. Long. 65° 55'W. 19 Apr. 74. Alt: 3450m. Cultivated in a poor dry field. No berries. Tubers only, oval, dark purple.
- 6140 S. tub ssp adg Locality, etc. as 6139. Cultivated in same field. Tubers of imilla negra type.
- 6141 S. tub ssp adg Locality, etc. as 6139. Cultivated in same field. Tubers orange-pink.
- 6142 S. tub ssp adg Locality, etc. as 6139. Cultivated in same field. Tubers red.
- 6143 S. tub ssp adg Locality, etc. as 6139. Cultivated in same field. Tubers red with yellow flecks.
- 6144 S. tub ssp adg Locality, etc. as 6139. Cultivated in same field. Tubers yellow with red eyes.
- 6145 S. curtilobum Locality, etc. as 6139. Cultivated in same field. Tubers whitish.
- 6146 S. tub ssp adg Locality, etc. as 6139. Cultivated in same field. Tubers pale yellow, imilla type.
- 6147 S. tub ssp adg Locality, etc. as 6139 but 1 km further on towards Oruro. Tubers two shades of purple, imilla negra type.
- 6148 S. tub ssp adg Locality, etc. as 6147. Cultivated in same field. Tubers imilla type; skin red-purple with yellow spectacles. "Alca imilla".?
- 6149 S. curtilobum ? Locality, etc. as 6147. Cultivated in same field. Berries with few seeds.

B O L I V I A

6150 to 6163 Cultivated potatoes from the Bolivian National Germplasm Collection at the Estación Experimental de Toralapa, Cochabamba, given by Sr. Carlos Alarcón, on 10 April, 1974. Registration number of each collection shown below, but no provenance data supplied by donor.

- 6150 S. stenotomum ? № 36. Tubers oval, flattened; eyes shallow, few; skin red; flesh cream. "Huancu sullu".
- 6151 S. stenotomum ? № 54. Tubers ± isodiametric; eyes deep; skin pink with yellow spectacles; flesh yellow. "Huila alcra imilla".
- 6152 S. stenotomum ? № 68. Tubers ± isodiametric; eyes deep; skin yellow, flushed and splashed purple; flesh cream. "Jana puña".
- 6153 S. stenotomum ? (No number) Tubers ± isodiametric to oblong; eyes deep, long, sunken; skin yellow, purple away from eyes; flesh cream. No vernacular name.
- 6154 S. stenotomum ? № 150. Tuoers spindle-shaped, curved; eyes shallow; skin dark purple; flesh yellow. "Chiar pitu huayaca".
- 6155 S. stenotomum ? № 204. Tubers square to oblong, slightly flattened; eyes large, medium deep; skin yellow; flesh deep yellow like that of a squash. "Zapallo" (= squash).
- 6156 S. stenotomum ? № 203. Tubers ± isodiametric, "lumpy"; eyes deep; skin deep yellow; flesh deep yellow like that of a squash. "Zapallo" (= squash).
- 6157 S. juzepczukii ? № 12. Tubers oval, flattened; eyes few, deep, long; skin red-purple with yellow spectacles; flesh pale yellow. "Alkamari".
- 6158 S. juzepczukii ? № 100. Tubers ± oblong; eyes shallow; skin pale buff; flesh cream in cortex, red in medulla. "Yurac llucta".
- 6159 S. juzepczukii ? № 92. Tubers squarish to oval, flattened; eyes small, deep; skin brownish, with purple flecks; flesh pale yellow with purple flecks in vascular ring. "Janko luqui".
- 6160 S. juzepczukii ? № 80. Tubers long cylindrical to fusiform, flattened; eyes superficial, with very long brows; lenticels prominent; skin pale brown; flesh white. A very "wild"-looking tuber. "Luqui".
- 6161 S. curtilobum? № 87. Tubers square, flattened; eyes large, few, medium deep; skin pale brown; flesh pure white. Rather "wild"-looking but less so than 6160. "Choque luqui".

B O L I V I A

- 6150 to 6163 (continued) Cultivated potatoes from the Bolivian National Germplasm Collection at the Estación Experimental de Toralapa, Cochabamba, given by Sr. Carlos Alarcón, on 10 April, 1974. Registration number of each collection shown below, but no provenance data supplied by donor.
- 6162 S. curtilobum ? № 206. Tubers square, flattened; eyes large, few, medium deep; skin pale brown; flesh pure white. All points similar to 6161. "Janco choque pitu".
- 6163 S. curtilobum ? № 21. Tubers very similar to those of 6161 and 6162. "Choque pitu (blanco)".
- 6164 to 6183 Cultivated potato collection given by the Ministry of Agriculture regional office in Sucre, dept. Chuquisaca, 10 April, 1974. Provenance shown below for each collection.
- 6164 S. stenotomum Dept. Potosí, prov. Chayanta, region of Ravelo, Sabis-Mayu. Tubers "concertina"-shaped; eyes deep, long; skin very dark purple; flesh white. "Koillu".
- 6165 S. stenotomum Locality, etc. as 6164. Tubers of "imilla" type; skin very dark purple; flesh white. "Koillu".
- 6166 S. xchaucha Locality, etc. as 6164. Tubers very long cylindrical; eyes many, shallow; skin red; flesh white. "Michi aca".
- 6167 S. tub ssp. adg. Dept. Potosí, prov. Chayanta, region of Ravelo, Huchuna Pampa. Tubers of "imilla" type; skin pale yellow and pale pink; flesh cream. "Imilla blanca".
- 6168 S. tub ssp. adg. Locality, etc. as 6167. Tubers oval, very flattened; eyes shallow; skin reddish-brown; flesh white. "Aoajeño".
- 6169 S. stenotomum Locality, etc. as 6167. Tubers round; eyes short, deep; skin red-purple; flesh pale yellow, tinged with red here and there. "Kununara".
- 6170 S. tub ssp. adg. Dept. Potosí, prov. Chayanta, region of Ravelo, Suruhana. Tubers of "imilla" type; skin pinkish-purple; flesh white. "Imilla rosada".
- 6171 S. xchaucha Locality, etc. as 6170. Tubers long-oval to drop-shaped or cylindrical, flattened; eyes long, deep; skin purple with yellow spectacles; flesh yellow. "Dominguito".
- 6172 S. stenotomum Locality, etc. as 6170. Tubers long-fusiform; eyes long, very frequent; skin red, flecked yellow; flesh white. "Sulimani".

B O L I V I A

- 6164 to 6183 (continued) Cultivated potato collection given by the Ministry of Agriculture regional office in Sucre, dept. Chuquisaca, 10 April, 1974. Provenance for each collection shown below.
- 6173 S. stenotomum Dept. Potosí, prov. Chayanta, region of Ravelo, Suruhana. Tubers ovoid to roundish; eyes round, very deep; skin dark red-purple; flesh pale yellow. "Kulurara".
- 6174 S. tub ssp. adg Locality, etc. as 6173. Tubers of "imilla" type but more irregular; eyes deep; skin yellow; flesh white. "Pitu-papa".
- 6175 S. stenotomum Dept. Potosí, prov. Chayanta, region of Ravelo, Cajón Mayu. Tubers long-oval-oblong, flattened, irregular, swollen around eyes; eyes medium deep; skin dark purple with yellow spectacles; flesh pale yellow. "Alcco chuchu".
- 6176 S. tub ssp. adg. Locality, etc. as 6175. Tubers of "imilla" type; skin pink; flesh white. "Imilla blanca" (sic).
- 6177 S. tub ssp. adg Locality, etc. as 6175. Tubers oval to oblong, flattened; eyes medium deep; skin pinkish-brown; flesh cream. "Runa".
- 6178 S. tub ssp. adg Locality, etc. as 6175. Tubers long fusiform to long oval, slightly curved; eyes deep, few; skin and flesh pale yellow. "Sacampaya".
- 6179 S. stenotomum Locality, etc. as 6175. Tubers "concertina"-type, very irregular, swollen between the deep long eyes; skin very dark purple; flesh cream. "Kachún huakhachi".
- 6180 S. tub ssp. adg Locality, etc. as 6175. Tubers of "imilla" type; skin black; flesh white. "Imilla negra".
- 6181 S. chaucha Locality, etc. as 6175. Tubers cylindrical, "concertina"-like; eyes long, deep; skin reddish-brown; flesh with white cortex and purple medulla. "Charansiqui".
- 6182 S. tub ssp. adg Locality, etc. as 6175. Tubers broad-oval, very flattened; eyes few, superficial; skin pinkish-red; flesh white. "Sotamari".
- 6183 S. tub ssp. adg Locality, etc. as 6175. Tubers ± round to oval, slightly flattened; eyes few, deep to shallow; skin pinkish-brown; flesh cream. "Sonsa imilla".

37.  
34.  
B O L I V I A

6184 to 6195 Samples of cultivated potatoes taken from recently harvested piles of tubers at side of field by road. Dept. La Paz, prov. Los Andes, 50 km from El Alto (La Paz) on road to Desaguadero, near Tambillo, Cura Pucara. Lat. 16° 35' S. Long. 68° 32' W. 23 Apr. 74 Alt: 3800m. Vernacular names shown below. tubers.

- 6184 S.tub ssp adg "Pala pala".  
6185 S. chaucha <sup>OK</sup> ~~?~~ "Surimana". (A)  
6186 S. chaucha <sup>OK</sup> ~~?~~ "Surimana". (B) Different colour from (A).  
6187 S.ajanhuiri <sup>OK</sup> ~~?~~ "Ajahuiri".  
6188 S.tub ssp adg "Chiar imilla".  
6189 S.tub ssp adg "Huila imilla".  
6190 S.tub ssp adg "Coyo papa".  
6191 S.tub ssp adg "Sani imilla".  
6192 S.tub ssp adg "Janco imilla".  
6193 S. tub. ssp. andigena <sup>OK</sup> ~~?~~ "Sacampaya".  
6194 S. "Huaca lajra".  
6195 S.curtilobum <sup>OK</sup> ~~?~~ "Choque pitu".

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6196 S. (Cultivated). Dept. La Paz, prov. Ingavi, 102 km from El Alto (La Paz) on road to Desaguadero, between Guaqui and Desaguadero. Lat. 16° 35' S. Long. 68° 57' W. 23 Apr. 74. Alt: 3810m. Berries only, taken in a field of cultivated potatoes, now died down, at a rate of one berry per plant, scattered over field.

(End of Bolivian collections)

Note: The above numbers, from 6184 to 6196, were collected by David Astley and Juan Landeo

P E R U

(Collected by David Astley and Juan Landeo)

- 6197 (*cfr. opicocense*) Dept. Puno, prov. Chucuito, 31 km from Desaguadero on road to Puno. Lat.  $16^{\circ}22'S$ . Long.  $69^{\circ}13'W$ . 23 Apr. 1974. Alt: 3850m. Rocky hillside above road. Same locality as № 5552. Leaves 4-jugate, two pairs of interjects; leaves pubescent with some marginal hairs. Wild, rare; with grazing animals - cows, sheep, goats - in the vicinity. Tubers only.
- ✓ 6198 *S. canasense* Dept. Puno, prov. Puno, below the village of Chucuito, 18 km from Puno on road to Desaguadero. Lat.  $15^{\circ}54'S$ . Long.  $69^{\circ}50'W$ . 23 Apr. 74. Alt: 3850m. Wild, frequent, growing among the stones of a wall surrounding a barley field. From same locality as № 5550. Seeds.
- ✓ 6199 *S. canasense* Dept. and prov. Puno, La Huerta. Lat.  $15^{\circ}48'S$ . Long.  $69^{\circ}59'W$ . 24 Apr. 74. Alt: 3825. Frequent, growing wild and as a weed in a plot of ground belonging to Ing. Fidel Flores, near the Lake, under cypresses, where flowers and vegetables are cultivated. Locality of № 5547. (At 4.5km from Puno to Juliaca, turning to the right). Seeds.
- 6200 *S. acaule* Dept. Puno, prov. Lampa ?, 21 km from Juliaca on road to Huancané, turning to the right for 400m. Lat.  $15^{\circ}20'S$ . Long.  $70^{\circ}5'W$ . 24 Apr. 74. Alt: 3820m. Abundant, wild, in a field of quinoa, sown previously with potatoes. Same place as 5489 was collected. Seeds.
- 6201 to 6262 Dept. Puno, prov. Puno, distr. Platería, Centro Experimental de Camacani, 26 km from Puno to Desaguadero on right side of road. Samples taken from a collection of cultivated potatoes, said to have been made chiefly in Puno department. 24 Apr. 74. Alt: 3835m. Vernacular name (where known), row number (in arabics) and block number (in romans) given for each collection. Five or six berries taken from each variety. Seeds.
- 6201 *S. tub. ssp. andigena* "Machuye" 14 III.
- 6202 *S.* (No name) 36 III
- 6203 *S.* (no name) 46 III
- 6204 *S.* "Chiar imilla". 1 I
- 6205 *S.* "Chupic imilla". 10 I
- 6206 *S.* (no name or number)
- 6207 *S.* "Pichuya". 12 II
- 6208 *S.* (no name or numero)
- 6209 *S.* "Ucucari blanco". 56 II

- 6201 to 6262 (Continued) Dept. and prov. Puno, distr. Plateria, Centro Experimental de Camacani, 26km from Puno to Desaguadero on right side of road. Samples taken from a collection of cultivated potatoes, said to have been made chiefly in the Puno department. 24 Apr. '74. Alt: 3855m. Vernacular name (where known), row number (in arabics) and block number (in romans) given for each collection. 5 or 6 berries from each variety. Seeds.
- 6210 S. (no name or number)
- 6211 S. "Jjayyo imilla" (no number)
- 6212 S. "Lecke lecke pheghe". (no number)
- 6213 S. (no name or number)
- 6214 S. (no name or number)
- 6215 S. (no name or number)
- 6216 S. (no name or number)
- 6217 S. "Kello huayusca". 65 III
- 6218 S. "Puroma". 7 III
- 6219 S. (no name) 31 I
- 6220 S. "Torillo huacra". 45 I
- 6221 S. "Koillo". 8 II
- 6222 S. "Chirisaya" 13 II
- 6223 S. (no name) 32 I
- 6224 S. stenotomum? "Janco alcra phiñu" 39 I
- 6225 S. "Cousi" 62 II
- 6226 S. "Huila yarako". 32 II
- 6227 S. (no name) 39 III
- 6228 S. "Cusqueña". 23 II
- 6229 S. (no name) 16 I
- 6230 S. (no name) 55 III
- 6231 S. "Pinto milagro". 7 I
- 6232 S. "Karuma". 31 II
- 6233 S. "Yoccha imilla". 46 I
- 6234 S. (no name) 25 III
- 6235 S. "Amajaya". 11 I

- 6201 to 6262 (continued) Dept. and prov. Puno, Centro Experimental de Camacani, 26km on road from Puno to Desaguadero on right side of road. Samples from collection of cultivated potatoes said to be chiefly from Puno dept.  
 24 Apr. 74. Alt: 3835m. Vernacular name (where known), row number (in arabics) and block number (in romans) given for each collection. 5 or 6 berries from each variety. Seeds.
- 6236 S. (no name) 44 II  
 6237 S. "Chiar huaca lajra" 10 II  
 6238 S. (no name) 8 I  
 6239 S. "Huma huacalla" 38 I  
 6240 S. stenotomum ? "Janco alcca phiñu" 21 II  
 6241 S. (no name) 56 III  
 6242 S. curtilobum ? "Choque pitu" (amarga) 41 II  
 6243 S. "Papa flor" 5 II  
 6244 S. (no name) 50 II  
 6245 S. (no name) 21 I  
 6246 S. (no name) 32 III  
 6247 S. "Pisaca kauna" 33 II  
 6248 S. "Torillo nuacra" 27 II  
 6249 S. (no name) 31 III  
 6250 S. (no name) 47 III  
 6251 S. "Maico olanco" 2 III  
 6252 S. "Arroz" 6 III  
 6253 S. (no name) 49 II  
 6254 S. "Ccuchana" 13 III  
 6255 S. stenotomum ? "Kaisilla morada" 14 II  
 6256 S. (no name) 43 II  
 6257 S. (no name) 50 III  
 6258 S. (no name) 30 III  
 6259 S. "Alcca simuccu" 19 II  
 6260 S. "Paula choque" 12 I  
 6261 S. tub. spc. andigena "Renacimiento" 15 I  
 6262 S. "Granada negra" 6 II

Potato Collecting Expedition to Peru, Bolivia and Argentina, 1974. (Supported by Dutch funding)

Universities of Wageningen and Birmingham

Non-potato collections

Collectors: J.G. Hawkes (Birmingham), A.M. van Harten (Wageningen) and Juan Landeo (C.I.P., Lima)

P E R U

- 5400 Lycopersicon hirsutum Dept. Lima, prov. Huarochirí, road from Cieneguilla to Huarochirí at km 61-62 by bridge over Rio Lurin. Lat. 12°10'S. Long. 76°40'W. 17 Feb. 74. Alt: 1300m. Wild, rare, in waste area by road amongst bushes. Flowers yellow; fruits very hairy, green when unripe, flushed purple when ripe.
- 5401 Lycopersicon peruvianum Locality, etc. as 5400 but at km 75-76 and Alt: 2230m. Frequent in cactus and thorn bush scrub by road. Note: occurs right up to 3000m altitude, perhaps higher.
- 5402 Lycopersicon peruvianum Dept. Lima, prov. Huarochirí, Santa Eulalia valley on road to Huinco. Lat. 11°50'S. Long. 76°38'W. 28 Feb. 74. Alt: 1600m. Rather frequent, on dry rocky bank on upper side of road. Short calyx.
- 5403 Lycopersicon pimpinellifolium ? Locality, etc. as 5402. Herbarium only. Long calyx, yellow flower.
- 5404 Lycopersicon peruvianum Dept. Arequipa, prov. Arequipa, Baños de Jesús, 1 km on road to Puno from B. de Jesús, east of Arequipa. Lat. 16°24'S. Long. 71°30'W. 4 Mar. 74. Alt: 2450m. Frequent, wild, among bushes on stony banks by road. Flowers yellow; leaves varying in pubescence between different plants. Seeds.
- 5406 Iridaceae Locality, etc. as 5404. Rocky hillside in volcanic sand. Fls blue-violet. Small brown corms.
- 5411 Phaseolus vulgaris Dept. Arequipa, prov. Camaná, Camaná. Bought in Arequipa market, 6 Mar. 74. Small seeds, dark purplish-brown, white hilum. Some variation. "Frijol yenda".
- 5412 Arracacia esculenta Dept. and prov. Arequipa, region of Arequipa, Maquis. Bought in Arequipa market, 6 Mar. 74. Alt: ± 2300m. Cultivated. Long parsnip-like root of a yellowish colour.
- 5414 Solanum (Morella) Dept. and prov. Cuzco, road to Pisac, above Huancalle. Lat. 13°27'S. Long. 71°50'W. 8 Mar. 74. Alt: 3800m. Growing wild, occasional, in grass by road. Bush to 60cm. Purple stellate flowers. Herbarium specimen only.

39.  
P E R U

- 5416 Solanum (non-tuberiferous) Dept. Cuzco, prov. Calca, Pisac. Lat.  $13^{\circ}4'S.$  Long.  $71^{\circ}51'W.$  8 Mar. 74. Alt: 3100m. Stony hillside below ruins, growing with Nicotiana tomentosa. Shrub to 1 m. Leaves lanceolate, whitish-green. Occasional. Seeds.
- 5417 S. caripense Dept. Cuzco, prov. Pisac, 47 km from Cuzco,  $\pm 3-4$  km from Pisac, on road to Calca. Lat.  $13^{\circ}20'S.$  Long.  $71^{\circ}53'W.$  8 Mar. 74. Alt: 3000m. Occasional, on bushy slopes above road among Berberis, etc. Flowers pale mauve; berries pale green, globular, with two darker green streaks. Seeds.
- 5420 Hemerocallis hawkesii (ined.) Vargas. Bulbs taken from Prof. C. Vargas's garden in Urubamba, originally from Lucre, prov. Quispicanchi, dept. Cuzco. Lat.  $13^{\circ}38'S.$  Long.  $71^{\circ}44'W.$  8 Mar. 74. Alt:  $\pm 3000$ m.
- 5451 Ullucus tuberosus Bought in Cuzco market, south Peru. No exact locality given. 9 Mar. 74. Six distinct tuber colour types in a mixed sample.
- 5481 Arracacia equatorialis Const. Dept. and prov. Cuzco, Cerro de Cachona, road from Cuzco to Paruro at 6 km from Cuzco. Lat.  $13^{\circ}32'S.$  Long.  $71^{\circ}58'W.$  11 Mar. 74. Alt: 3700m. A weed of cultivated wheat field and also growing amongst bushes in grassy places. Specimen taken from wheat field with immature fruits and thick white rhizome. "Arracha silvestre".
- 5494 Hordeum sativum "hexastichon" Dept. Puno, prov. Huancané, 35 km from Juliaca on road to Huancané. Lat.  $15^{\circ}17'S.$  Long.  $69^{\circ}50'W.$  14 Mar. 74. Alt: 3820m. Cultivated in a small patch of ground near the road. Short-strawed. Probable land race. Grains.
- 5540 Oxalis tuberosa (dried) Bought in the Puno market, grown near Puno, dept. and prov. Puno. 14 Mar. 74. Chuño (frozen sun-dried tubers); tubers fusiform, flattened; many long eyes. "Kaya".
- 5543 Hordeum sativum "hexastichon" Dept. and prov. Puno, Chuquito peninsula, Perca. Lat.  $15^{\circ}49'S.$  Long.  $69^{\circ}48'W.$  14 Mar. 74. Alt: 3820m. Cultivated in a small field near the lake shore (L.Titicaca). Mixed awned, non-awned (hooded), with white, black or red glumes; short ears; varying straw length, 30-40cm. Grains.

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B O L I V I A

70.

- 5602 Begonia vietchii Obtained in the Cochabamba botanic garden; originally collected in the vicinity of Cochabamba, in the mountains. 21 Mar. 74. Tubers.
- 5627 Plantago Dept. Cochabamba, prov. Arani, Estación Experimental de Toralapa, 71-72 km from Cochabamba on road to Santa Cruz. Lat.  $17^{\circ} 25' S$ . Long.  $65^{\circ} 40' W$ . 22 Mar. 74. Alt:  $\pm 3500m$ . Wild, on dry stony slopes, forming rosettes of silvery leaves and thick branched almost vertical underground stems. Herbarium.
- 5631 Solanum As 5627. Wild, on stony slopes. Shrubby, non-tuberiferous plant with blue flowers. Seed.
- 5632 Solanum (Morella) Dept. Cochabamba, prov. Arani, between Tiraque and Monte Puncu, El Puente, 105 km from Cochabamba on road to Santa Cruz. Lat. and Long. unknown. 22 Mar. 74. Alt: 2900m. Wild, in grassland in deep rich humid soil, partial shade of Alnus jorullensis. Low creeping herb with underground rhizomes and very small berries. Seeds. Frequent.
- 5633 Solanum (cfr. jasminoides) As 5632. In Alnus jorullensis wood below road, partial shade, deep rich soil. Small tree to 3 m or more; flowers white with pale purple streak; berries frequent,  $\pm 1cm$  diam., black, round, shining, with very dark purple flesh and minute seeds. Frequent. Seeds.
- 5635 Ullucus Dept. Cochabamba, prov. Carrasco, Incallajta, 17km from the main road from Cochabamba to Santa Cruz, turning off at km 120. Lat. and Long. uncertain. 22 Mar. 74. Alt: 2900m. Frequent, wild, in damp woods of Alnus jorullensis, etc. Tubers pink.
- 5636 Solanum As 5635. Shrub to 2-3m with lanceolate leaves and green globular berries. Seeds. Frequent.
- 5652 Phaseolus vulgaris and P. lunatus Mixed seed sample bought in Cochabamba market, grown in the region. 23 Mar. 74. Cultivated. "Chuhuis" and "Pallar".
- 5653 Phaseolus vulgaris and P. lunatus Mixed seed sample bought in Quillacollo market, prov. Quillacollo, dept. Cochabamba and grown in the region. 23 Mar. 74. Given by Sr. Elias Meneses. "Chuhuis" and "Fallar".
- 5655 Solanum mammosum Dept. Cochabamba, prov. Chapare (?), Villa Tunari, by restaurant. Lat.  $16^{\circ} 27' S$ . Long.  $65^{\circ} 22' W$ . 23 Mar. 74. Alt:  $\pm 600m$ . Occasional weed (?) at forest margin. Fruit long oval, rounded acuminate with two horn-like protuberances at base. Collected by Mr Jim Bryan. Seeds.

71.  
B O L I V I A

- 5658 S. capsicastrum ? Dept. Cochabamba, prov. Campero?, between Aiquile and Sucre, 107km from Epizana. Lat. and Long. uncertain. 24 Mar. 74. Alt: 2150m. Abundant, wild, in hedges and waste places by road. Small shrub with yellow berries when ripe. Seeds.
- 5670 Begonia sp. Dept. Chuquisaca, prov. Oroya, 36 km from Sucre on road to Ravelo. Lat. and Long. uncertain. 25 Mar. 74. Alt: 3250m. Rare, wild, growing amongst rocks near a stream in a damp gully above road. Tuberiferous; leaves red beneath; stem and petiole bright red. Tubers.
- 5684 Solanum pulchellum Dept. Potosí, prov. Frias, 2 km below Potosí, Lecherías. Lat. 19°37'S. Long. 65°45'W. 27 Mar. 74. Alt: 3750m. Wild, frequent, in dry stony places without other vegetation. Plants nearly dead, berries ripe. Seeds.
- 5734 Begonia sp. Dept. Tarija, prov. Méndez, Cuesta de Sama, 13 km from Iscayachi, 74 km from Las Carreras on road to Tarija. Lat. 21°30'S. Long. 64°58'W. 30 Mar. 74. Alt: 3650m. Rocks by roadside in cloudy region, puna vegetation. Rare, wild. Tubers.

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A R G E N T I N A

Collectors: K.A.Okada and J. Hermsen.

- 5817 Ullucus tuberosus ? Bought in market at Villazón, Bolivia, said to have been brought from Cochabamba. Tubers with red spots and yellow flesh. Okada 5428. "Papa lisa".
- 5518 Ullucus tuberosus ? Bought in market at Villazón, Bolivia. Skin red. Okada 5429. "Papa lisa".
- 5481 Begonia sp. Salta, dept. Santa Victoria, La Huerta, near the school. Lat. 22°15'S. Long. 65°02'W. Alt: 2900m. Flowers red. Okada 5453.

Collectors: K.A.Okada, J.Hermsen, J.G.Hawkes and A. van Harten.

- 6001 Salpichroa origanifolia Prov. Salta, dept. Rosario de Lerma, Quebrada del Toro, Virrey Toledo, ruta nac. 51, km 35.5, 80m before reaching the railway crossing and tunnel. 24°54'S. 65°39'W. Alt: 1600m. 5 Apr. 74. Occasional, growing on roadside bank with S. chacoense. Seeds.
- 6002 Solanum (Morella ?) Locality, etc. as 6001. Waste place by road, rare. Leaves simple; berries in 3-furcate corymbs, bright red, size of small red-currants. Seeds.

## A R G E N T I N A

- 6003 Solanum cfr. incanum Prov. Salta, dept. Rosario de Lerma, 33 km from Salta on road to San Antonio de los Cobres, Quebrada del Toro, 9km from Campo Quijano. Alt: 2000m. Frequent in waste places by road. Leaf + as long as broad, thorny; fruit pale green, marbled darker, 3-4cm diam. Seeds.
- 6018 Physalis cfr. peruviana Prov. Salta, dept. Chicoana, Rio Malacante, 8km east of Mal Paso in Quebrada del Toro, 30m past bridge. Lat. 25°09'S. Long. 65°44'W. 8 Apr. 74. Alt: 1800m. Stony bank at side of road. Berries orange, completely enclosed by the brown calyx. Seeds. Okada 5629.
- 6040 Begonia Dept. Salta, dept. Chicoana, Cuesta del Obispo, national route 59, km 57. Lat. 25°10'S. Long. 65°52'W. 8 Apr. 74. Alt: 3000m. Frequent in a low wall below road in the same bend as 6038 and 6039 were collected. Okada 5651. Seeds.
- 6050 (Amaryllidaceae) Prov. Salta, dept. La Poma, 3 km north of Sauzalito, near Rio Salado, on national route 40. Lat. 24°49'S. Long. 66°10'W. 9 Apr. 74. Alt: 2800m. Frequent, in a dry side quebrada near S. specazzinii Okada 5661. 3 bulbs.
- 6068 Phaseolus lunatus Prov. Salta, dept. Cachi, Quebr. de las Arcas, Las Pailas, Finca Sucesión Guayer, 14 km north-east of Cachi, 10km from the crossroads with Cachi Adentro. Lat. 25°02'S. Long. 66°14'W. 10 Apr. 74. Alt: 2640m. Cultivated. Seeds white. Okada 5679. Seeds. "Poroto pällar". }
- 6076 Cassia aphylla Prov. Salta, dept. Cachi, between Seclantas and Molinos, on route 40. 10 Apr. 74. Alt: 2200m. Seeds. Okada 5687.

## B O L I V I A

Collectors: J.G. Hawkes, A. van Harten and J. Landeo.

- 6113 S. oplocense Dept. Potosí, prov. Nor Chichas, 49 km from Tupiza on road to Cotagaita, near Ramada. Lat: 20°56'S. Long. 65°38'W. 17 Apr. 74. Alt: ± 3250m. Rare, in hedge by cultivated field on right side of road. Wild. 1 tuber only, which died later.