Vegetables from *Brassica oleracea*

Cabbage, kale, Brussels sprouts, broccoli, cauliflower
TEXT FIG. 25.7

[Diagram showing the taxonomic classification of a jaguar (Panthera pardus): Domain (Eukarya), Kingdom (Animalia), Phylum (Chordata), Class (Mammalia), Order (Carnivora), Family (Felidae), Genus (Panthera), Species (Panthera pardus).]
Solanum maternum (Solanaceae), a New Bolivian Relative of the Tree Tomato

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Abstract. A new species endemic to Bolivia, Solanum maternum, is described. Solanum maternum belongs to a group of taxa formerly recognized as the genus Cyphomandra. Solanum maternum is morphologically very similar to the tree tomato, Solanum betaceum, and may be its closest wild relative.

The former genus Cyphomandra Sunduea encompasses a group of about 30 species of shrubs and small trees with usually large, pendent fruits. The group is characterized by the presence of an enlarged connective region on the abaxial anther surface; this structure may play a role in pollination by attracting volatile compounds that attract male euglossine bees (Graci, 1993; Sazima et al., 1993; Soares et al., 1998). Other characteristics of the Cyphomandra group that occur in most, but not all, species include Prévost's architectural model, very large chromosomes, and gametophytic self-incompatibility (Bohs, 1994).

Recent molecular evidence indicates that the Cyphomandra group is nested within Solanum (Bohs & Olmstead, 1997; Olmstead & Palmer, 1992, 1997; Spooner et al., 1993), and all Cyphomandra species have now been transferred or returned to Solanum (Bohs, 1995), where the first described species were placed. The infrageneric taxonomy of Solanum is currently under study and no infrageneric rank is consistently used at present for the Cyphomandra group. The monophyly of the Cyphomandra group and the relationship of this group to others within Solanum, particularly its putative sister group, Solanum sect. Cyphomandropsis Bitter, are issues that need to be examined before a taxonomic designation is made.

Species of the Cyphomandra group have been of interest because many produce edible fruits that are gathered from the wild or grown as minor crops. The most important in this regard is Solanum betaceum Cavainilles, the tree tomato, which is frequently cultivated in Latin America and commonly sold in American markets. Solanum betacenum has also been an item in international commerce, usually sold under the name "tamarillo." Until recently, little was known about the place of origin of the tree tomato, which is usually regarded as being a cultivar. A group of species from Bolivia has now been identified as the closest wild relatives of S. betaceum, based on morphological and crossing data (Bohs, 1991, 1994). The species described here is a new member of this species complex and bears great morphological similarity to S. betaceum.

Evidence presented below indicates that the new species is interfertile with S. betaceum and with other members of the S. betacenum species complex.

Solanum maternum Bohs, sp. nov. TYPE: Bolivia. Santa Cruz: Prov. Caballeros, Siberia-El Ensaline, 5 km entrada hacia Khara Huasi, carretera entre Comarapa-Cochabamba, 17'35'S, 64'43'W, 2300 m, 8-9 May 1992, (fl, fr), I. Vargas & E. Prado 1273 (holotype, NY; isotypes, DUKE, MO not seen, USZ not seen).

Solanum maternum, sp. nov. presents Solanum betaceum Cavainilles, aff. as a saffron color, abaxially glabrous, four times larger than the latter, with the base cordate and almost straight, the base cordate with basal lobes 1-4 cm long; petioles 11-22 cm long; petioles 11-22 cm long; crown leaves 4 per sympodial unit, the blade ovate, 6.5-2.1 cm long, 5-14 cm wide, length of the base cordate to spathulate with basal lobes 1-3 cm long; petioles 2.5-11 cm long; Infloribus unbranched or branched, ca. 20-40 flowers, 5-10 cm long; peduncle 3-4 cm long; pedicels 2-8 cm long; pedicels 15-20 mm long, 20-35 mm long in fruit, ca. 1-10 mm apart, articulated above the Novon 7: 341-345. 1997.