13. *Solanum tuberosum* L. (potato)

Pl. 568 k, l; Map 2648

Plants perennial (but usually blooming the first year), fibrous-rooted, with slender, fleshy offsets bearing narrowly oblong to ovoid, oblong-ellipsoid, or depressed-globose tubers. Stems 15–70 (–100) cm long, erect or ascending, sometimes reclining at maturity, sometimes angled or with narrow, wavy wings of green tissue decurrent from the leaf bases, sparsely to moderately pubescent with short, spreading, multicellular, nonglandular hairs, sometimes also sticky; unarmed. Leaves unarmed, short-petiolate. Leaf blades 7–18 cm long, those of the larger leaves irregularly pinnately compound (the smaller leaves merely deeply pinnately divided), the leaflets strongly unequal, the main leaflets 5–9, 1–8 cm long, the terminal leaflet usually larger than the lateral ones, narrowly attached and mostly short-stalked, interspersed along the rachis with much smaller leaflets, ovate to broadly ovate, oblong-ovate, or elliptic, rounded or more commonly tapered to a bluntly or sharply pointed tip, tapered to rounded at the sometimes somewhat oblique base, the margins entire, the surfaces sparsely to moderately pubescent with short, nonglandular hairs, especially along the main veins on the undersurface. Inflorescences terminal or appearing lateral from the uppermost nodes, rounded or flat-topped panicles, with (3–) 7–25 well-spaced flowers, the flower stalks inconspicuously jointed at or above the midpoint. Flowers ascending to spreading. Calyces 4–9 mm long, deeply 5-lobed, spreading to slightly reflexed at fruiting, the lobes variously ovate-triangular to linear above a short, ovate-triangular base, the outer surface nonglandular-hairy, sometimes also with scattered, sessile to short-stalked glands. Corollas 12–28 mm long, white to purple, shallowly lobed to above the midpoint, the lobes broadly ovate to broadly triangular, spreading at full flowering, the margins usually somewhat corrugated or slightly ruffled, the inner surface glabrous, the outer surface minutely hairy toward the tip. Anthers 5–7 mm long, narrowly oblong, lacking a sterile tip, dehiscent by terminal pores. Ovary 2-locular, the surface glabrous, the style exserted from the anther ring. Fruits 1.0–2.5 cm long, globose, lacking granules, the surfacelabrous, green mottled with dark green, becoming yellow or more commonly strongly purplish-mottled with age, somewhat shiny, sometimes with widely scattered, small, white flecks. Seeds 1.8–2.2 mm long, ovate to broadly oblong-ovate in outline, flattened, not winged, the surface appearing fuzzy (covered with an outer layer of disrupted cell walls that render the surface mucilaginous when wetted), whitish green to light brown. 2n = 24, 36, 48. June–August.

Introduced, uncommon, known thus far only from a historical collection from the city of St. Louis (native of South America, escaped sporadically in North America). Railroads and open disturbed areas.

*Solanum tuberosum* is an extremely important food crop and a principal source of carbohydrates for humans around the world. Potato starch also has a variety of uses, ranging from cooking to the basis for a kind of electrophoretic gel in laboratory analyses. In recent years, potato cultivation has become more widespread in the sandy soils of the Sikeston Ridge in the northern portion of the Mississippi Lowlands Division. Potato domestication occurred more than 7,000 years ago in Andean South America (Hawkes, 1990), and it is possible that independent domesticationalso occurred in Chile. A large number of cultivars of the potato are grown, differing most notably in a suite of tuber characteristics involving size, shape, texture, color, etc. The cultivated potatoes have variously been classified taxonomically as seven or more species with additional infrataxa (Hawkes, 1990) or as a single species with varying numbers of cultivar groups (Huamán and Spooner, 2002).