NOTEWORTHY COLLECTIONS

MINNESOTA

DIGITALIS GRANDIFLORA Miller (Scrophulariaceae). Yellow Foxglove.

Previous knowledge. Digitalis grandiflora is a biennial or perennial native to Eurasia, where it grows in woods (Tutin et al. 1972). In eastern North America, D. grandiflora occasionally escapes from cultivation (Magee & Ahles 1999). D. grandiflora has been reported outside of cultivation from Baraga and Houghton Counties in upper Michigan (Voss 1996). We are not aware of other collections from the upper Great Lakes.

Significance. A population of D. grandiflora was found in Duluth, Minnesota, apparently the first escape of this species in the state. The plants were on a steep, open northeast-facing bank about 1 km from Lake Superior. This is a residential neighborhood, in which the population’s founders may have been cultivated. The species was absent from a similar bank across the avenue, suggesting that spread by seed is weak. The plants had large rhizomes bearing numerous scars from flowering stems, and have been observed flowering vigorously every year since their discovery. We infer that D. grandiflora behaves as a perennial in this environment, allowing it to persist and spread locally even if reproduction by seed is ineffective. This species contains some of the same cardiac glycosides as D. lanata Ehrh. and D. purpurea L. (Hollman 1985), suggesting that caution be taken to prevent skin contact or ingestion by humans, livestock, or pets.

MINNESOTA. ST. LOUIS CO.: narrow patch about 12 m long between sidewalk and overgrown lot, plants in flower, with Campanula rapunculoides L., SW side of 24th Ave. E above Superior St., Duluth, NW¼ SW¼ Sec. 13, T50N, R14W, 22 Jul 1997, Walton 2542 (DUL, MIN).

ELAEAGNUS COMMUTATA Bernh. (Elaeagnaceae). Silver-berry.

Previous knowledge. Elaeagnus commutata is a shrub to small tree native to Canada and northern United States (Gleason & Cronquist 1991). Its native range in Minnesota is confined to the northwestern counties (Ownbey & Morley 1991). Plants have been collected about 50 km west of Thunder Bay, Ontario, Hartley 238 (LKHD), and on the Lake Superior shore in Pukaskwa National Park, Ontario, Garton & Smits 17704 (LKHD).

Significance. Numerous young stems of E. commutata were growing in ballast throughout about 30 m of railroad in Duluth, Minnesota, a line that has not had traffic for several years. The presumed parent was a fruiting clump with stems up to 2.5 m tall, which existed a few meters from trackside. Also, thousands of stems from a few cm to 1.5 m tall were found on a steep Mesabi Iron Range (Minnesota) mine dump in gaps in a plantation of Pinus resinosa Ait. and P. banksiana Lamb., with which E. commutata was planted for reclamation in the 1970s. E. commutata, a nitrogen-fixing species (Visser et al. 1990), has been planted for revegetation of poor soils. It could not be found in apparently suitable open habitats that adjoined this pine plantation. These seem to be the first reports of local spread by this species outside of its native range in the Great
Lakes area, some 200–250 km from the nearest known native range limit. The Duluth site is about 3 km from similar habitat in Wisconsin.

**MINNESOTA. ST. LOUIS CO.:** plant in flower and fruit, mixed-species thicket in waste ground near railroad, between 41st & 42nd Aves. W below Grand Ave., Duluth, NW¼ NW¼ Sec. 8, T49N, R14W, 6 Jul 1999, Schimpf & Newman 273 (DUL); plants in flower, gaps in pine plantation, S end of W slope of mine surface overburden dump just S of Mountain Iron, SW¼ NE¼ Sec. 9, T58N, R18W, 10 Jun 2000, Schimpf 281 (DUL, MIN).

**FILAGO ARvensis** L. (Asteraceae). Field Filago.

Previous knowledge. *Filago arvensis* is a European annual that has seldom been collected in the eastern United States (Gleason & Cronquist 1991). In the upper Great Lakes area the only reported populations are from northern lower Michigan, from which there are no collections in recent decades (Voss 1996), and Manitoulin Island, Ontario, in Lake Huron (Scoggan 1979).

Significance. This is apparently the first record for Minnesota; it represents several hundred plants at a remote site in the Superior National Forest, where it was associated with many other short-lived weedy species. Some heads were still in flower, while others had dispersed fruit.

**MINNESOTA. ST. LOUIS CO.:** in full sun on dry gravel and sand of recent logging trail, SW¼ SE¼ Sec. 19, T59N, R13W, 25 Aug 1998, Walton 3338 (DUL).

**GERANIUM ROBERTIANUM** L. (Geraniaceae). Herb Robert.

Previous knowledge. *Geranium robertianum* is an annual or biennial considered by some (e.g., Voss 1985) to be native to eastern North America, and is clearly native to much of the Palearctic region (Tutin et al. 1968). The populations closest to Minnesota appear to be in eastern upper Michigan (Voss 1985), the Door Peninsula of Wisconsin (Wisconsin State Herbarium 1999), and the southern reaches of northwestern Ontario (Scoggan 1978).

Significance. This is apparently the first report for Minnesota. The extent of occurrence was limited, so that wider naturalization in the state is far from certain. Plants were in flower and fruit.

**MINNESOTA. ST. LOUIS CO.:** common in a shady bed where *Convallaria majalis* L. is cultivated, along foundation on E side of residence, Duluth, plants to 60 cm, stem bases red, NW¼ SE¼ Sec. 7, T50N, R13W, 26 Jul 1999, Schimpf & Newman 277 (DUL, MIN).

**LEUCANTHEMELLA SEROTINA** (L.) Tsvelev (Asteraceae). Giant Daisy.

Previous knowledge. *Leucanthemella serotina* is a tall perennial native to wet habitats in southeastern Europe (Tutin et al. 1976). It has been collected infrequently outside of cultivation in the northeastern U.S. The collections closest to Minnesota are from Iron County, Michigan (Voss 1996) and Douglas County, Wisconsin (Wisconsin State Herbarium 1999).

Significance. This is apparently the first collection for Minnesota. The plants grew at the upland edge of a wetland of the lower St. Louis River, which is subject to water-level fluctuations driven by seiches in Lake Superior. Stortz & Sydor (1980) found typical within-day changes in water level to be at least 15 cm at an open-water measurement point about 6 km downstream from this collection site.
Neighboring species were *Typha latifolia* L., *Calamagrostis canadensis* (Michx.) P. Beauv., *Carex laevigata* Willd. and *C. lasiocarpa* Ehrh., *Lythrum salicaria* L., *Potentilla palustris* (L.) Scop., *Aster borealis* Prov., and *Cicuta bulbifera* L.

**MINNESOTA.** ST. LOUIS CO.: a single clump covering about 0.3 m$^2$, junction of steep slope with wetland just S of Oliver Bridge, Duluth, plants in flower and with mature seeds, SW ¼ NE ¼ Sec. 11, T48N, R15W, 19 Oct 1999, Walton 3947 (DUL).

**POA BULBOSA** L. (Poaceae). Bulbous Bluegrass.

Previous knowledge. *Poa bulbosa* is a viviparous weedy perennial native to Eurasia (Tutin et al. 1976). Although Minnesota is one of few states from which it has not been reported (USDA, NRCS 1999), the species is much less common in eastern than in western North America (Gleason & Cronquist 1991). This is likely due to the propensity of the plants to aestivate (Ofir & Kigel 1999) while summer-active competitors can take advantage of frequent rain.

Significance. This is apparently the first report for Minnesota, only some 20 km from North Dakota. At the time of collection plants had aestivated and those still bearing bulblets in “infructescences” could be found only where fixed objects had protected them from mowing. *P. bulbosa* had been observed in active growth on 16 May 1999 widely spread over about 2 ha of maintained turf at the same site, but purplish bulblets had not yet become evident.

**MINNESOTA.** CLAY CO.: turf of general public campground, Buffalo River State Park, with scattered deciduous trees, SE ¼ Sec. 10, T139N, R46W, 13 Jul 1999, Schimpf 270 (DUL).

**SCROPHULARIA NODOSA** L. (Scrophulariaceae). Woodland Figwort.

Previous knowledge. *Scrophularia nodosa* is a perennial native to woods in most of Europe (Tutin et al. 1972). It has been sparingly cultivated in North America, and a few escapes have been reported for New England (Gleason & Cronquist 1991, Magee & Ahles 1999). This species seems not to have been reported for the upper Great Lakes area.

Significance. This is apparently the first report for Minnesota. Two small patches were found on opposite sides of the same small tributary to Lake Superior, in moist clay soil under deciduous trees in a community containing both native and naturalized species. A third small patch was seen about one block downstream from the collection site. The surrounding area is residential, and the site is about 250 m from the lakeshore. The plants were flowering and fruiting. The rhizomes are conspicuously nodular, petioles of the principal leaves are about 1/4 the length of their laminas, petals have green tips, and the staminode is dark brown and about as long as wide. These character states separate these plants from *S. marilandica* L.


Previous knowledge. *Senecio vulgaris* is an annual from Eurasia that is widely naturalized in North America. Fernald (1950) lists flowering as early as March,
Gleason & Cronquist (1991) as early as May. All nine previous Minnesota collections in DUL & MIN were taken in flower from June through October.

Significance. Individuals were collected in flower in Duluth, Minnesota, as early as April after extremely mild winters in recent years. This suggests that this species may behave as a winter annual, or less likely as a biennial, and flower early where microclimate is warmed near buildings. The population did not fruit until May. These plants are shorter and more tomentose than summer or autumn collections in DUL.

**MINNESOTA.** ST. LOUIS CO.: cultivated deciduous shrub bed with bark-chip surface about 1 m from SE side Heller Hall, University of Minnesota, Duluth, center NW¼ Sec. 14, T50N, R14W, 27 Apr 1998, Schimpf 269 (DUL); same location, but about 2 m from building, 22 Apr 2000, Schimpf 279 (DUL).

**LITERATURE CITED**


---Gary B. Walton and David J. Schimpf
Olga Lakela Herbarium
Department of Biology
University of Minnesota
Duluth, MN 55812-3003