

variability, effective population size - 220 plants, population area 150 meters square. Plants near stream about 3 m tall, very robust, branched above. Just at peak flowering, too early to determine seed set. No apparent insect damage, moderate to severe rust. Associated wild species: *Scripus*, *Typha*.

PI 592345. *Helianthus nuttallii* ssp. *rydbergii* (Britton) R. Long

Wild. NUT-2289; Ames 22210. Collected 09/04/1994 in Manitoba, Canada. Latitude 52 deg. 6' 5'' N. Longitude 100 deg. 43' 55'' W. Elevation 343 m. 8.0 km north of Cowan, Hwy. 10 N. Black-brown, sandy-loam soil, level area of roadside ditch, topography - swamp, moderate soil nutrient content, no salinity, imperfect drainage, tillage affected by stoniness. Open area, savannah, woodland vegetation. Smaller, scattered population in moist roadside ditch with small stream, by railroad tracks. Uniform population, effective population size - 200 plants. More typical *H. nuttallii*. Past peak flowering. No apparent insect or disease damage. Associated wild species: *Carex*, *Equisetum*, *Crepis*, *Cyperus*, *Typha*.

PI 592346. *Helianthus nuttallii* ssp. *rydbergii* (Britton) R. Long

Wild. NUT-2290; Ames 22211. Collected 09/04/1994 in Saskatchewan, Canada. Latitude 51 deg. 36' 58'' N. Longitude 102 deg. 18' 46'' W. Elevation 518 m. 3.2 km west of Mikado, Hwy. 5 W. Black-brown, sandy-loam soil, level area of roadside ditch, topography - swamp to plain (level), moderate soil nutrient content, no salinity, imperfect drainage, tillage affected by stoniness. Grassland and cropland vegetation. Dense, scattered population in swampy area of roadside ditch along both sides of railroad tracks, near small stream. Population scattered to higher and dryer area. Uniform population, effective population size - approximately 500 plants. Smaller heads. Many older heads black, seed set questionable. No apparent insect or disease damage. Associated wild species: *Rudbeckia*, *Sonchus*, *Cirsium*, *Cyperus*, *Carex*, *Aster*.

The following were collected by Mary Brothers, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Donated by Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Received 09/16/1994.

PI 592347. *Helianthus nuttallii* ssp. *rydbergii* (Britton) R. Long

Wild. NUT-2314; Ames 22212. Collected 09/11/1994 in Saskatchewan, Canada. Latitude 49 deg. 30' 31'' N. Longitude 104 deg. 17' 35'' W. Elevation 649 m. 4.3 km north of Radville, Hwy. 28 N. Brown, clay, silt soil, level area of roadside ditch, topography - plain (level), moderate soil nutrient content, no salinity, imperfect drainage, tillage not affected by stoniness. Cropland and grassland vegetation. Small population clumped by moist area in roadside ditch, along edge of wet area, near bridge. Uniform population, effective population size - 70 plants. Well past peak flowering, good seed set. Severe rust on all plants, some lower leaves dead from rust, most plants without green leaves, too late for assessment of insect damage. Associated wild species: *Solidago*, *Aster*.

PI 592348. *Helianthus nuttallii* ssp. *rydbergii* (Britton) R. Long

Wild. NUT-2319; Ames 22213. Collected 09/12/1994 in Saskatchewan, Canada. Latitude 49 deg. 13' 47'' N. Longitude 102 deg. 13' 33'' W. Elevation 532 m. 3.2 km west of Oxbow, Hwy. 18 W. Brown, sandy soil, level area of moist roadside ditch, topography - plain (level), poor soil nutrient