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NEW FLORISTIC RECORDS FOR NEBRASKA–5

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ABSTRACT

Recent field and herbarium studies have revealed the presence of 57 species, two varieties, and three hybrids of vascular plants and one moss not previously published with verification from Nebraska. Twenty-eight taxonomic entities are considered likely native in Nebraska, including: ×*Achnella caduca*, *Arabis divaricarpa*, *Aster ascendens*, *Atriplex suckleyi*, *Callitriche heterophylla*, *Campylium stellatum*, *Carex hirtifolia*, *Carex lasiocarpa* var. *americana*, *Chenopodium cycloides*, *C. pallescens*, *Dioscorea quaternata*, *Draba brachycarpa*, *Eleocharis wolfii*, *Elatine brachysperma*, *Elodea bifoliata*, ×*Elyhordeum iowense*, ×*Elyhordeum montanense*, *Eragrostis secundiflorus* ssp. *oxylepis*, *Erigeron lonchophyllus*, *Houstonia pusilla*, *Maianthemum canadense*, *Mirabilis exaltata*, *Myosotis verna*, *Pedicularis crenulata*, *Plantago rhodosperma*, *Potentilla simplex*, *Scutellaria parvula* var. *parvula*, and *Stachys hispida*. Of the remaining 35 species and varieties, seven are indigenous to North America and seem to have entered the state along roadsides in recent years (*Achnatherum robustum*, *Amaranthus powellii*, *Anemopsis californica*, *Argemone hispida*, *Bouteloua simplex*, *Solanum elaeagnifolium*, and *Sphaeralcea cuspidata* var. *angustifolia*), while the remaining 27 represent Eurasian or tropical American introductions. Of these, eight species (*Allium vineale*, *Centaurea maculosa*, *Digitalis lanata*, *Elaeagnus umbellata*, *Lonicera maackii*, *Myriophyllum spicatum*, *Pueraria lobata*, and *Rhamnus frangula*) are serious pests outside Nebraska.

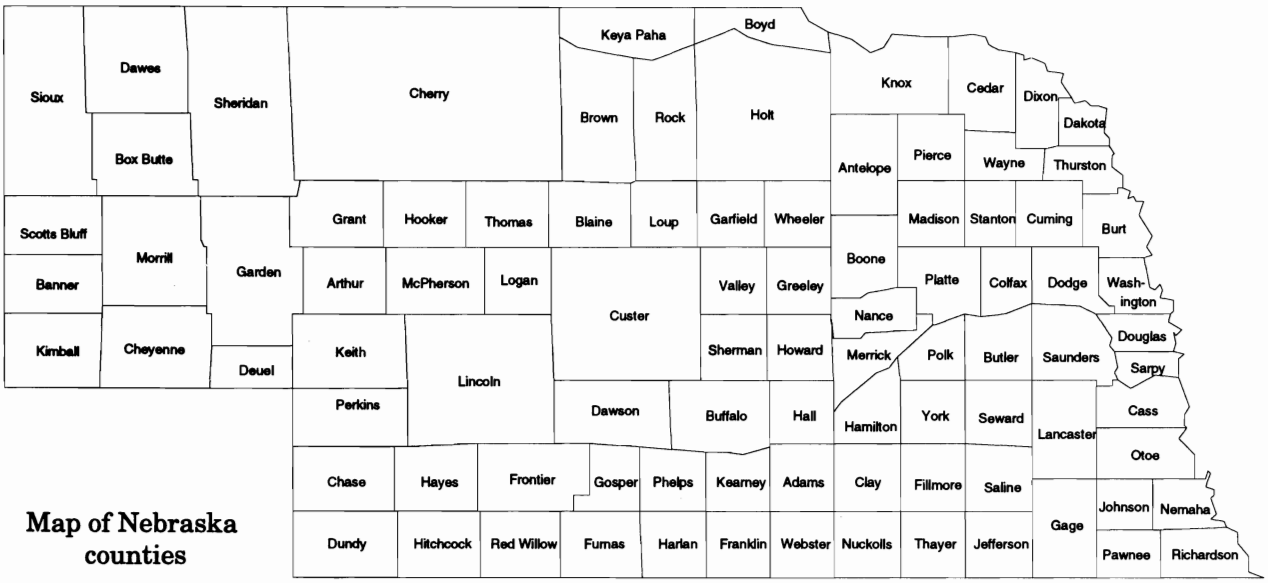
† † †

This is the latest in a series of papers updating the status of Nebraska's flora following publication of the *Flora of the Great Plains* (Great Plains Flora Association 1986, hereinafter referred to as the *Flora*), and it documents 57 species, two varieties, and three intergeneric hybrids of vascular plants and one moss species which, to our knowledge, have not been previously published as occurring in Nebraska, were mistakenly attributed to the State based on misidentifications, or were reported without specimen evidence. Twenty-eight taxonomic entities are presumed native in Nebraska, while of the 35 remaining entities, seven are indigenous to North America, 26 are Eurasian exotics, and one is adventive from tropical America. The information presented here is based on field surveys undertaken in the 1992–1998 field seasons, as well as herbarium studies conducted during that period in preparation of a forthcoming Nebraska flora manual. Notes about these taxonomic entities and specimen citations are provided to make these data more widely available to botanists working on the *Flora of North America* project. All Nebraska distributional data are maintained in a computerized database by Robert B. Kaul of the University of Nebraska–Lincoln. Non-Nebraska distributional notes are taken from the *Atlas of the Flora of the Great Plains* (GPFA, 1997, hereinafter referred to as the *Atlas*) or the *Flora* unless otherwise noted. Synonyms used in the *Flora* are provided in brackets.

Abbreviations for herbaria in which voucher specimens are deposited are from Holmgren *et al.* (1990)—CSCN: Chadron State College in Chadron, Nebraska; KANU: McGregor Herbarium, University of Kansas, Lawrence; MO: Missouri Botanical Garden, St. Louis; NEB: Bessey Herbarium, University of Nebraska–Lincoln; OMA: University of Nebraska at Omaha; RM: Rocky Mountain Herbarium, University of Wyoming, Laramie; SDU: University of South Dakota, Vermillion; US: U.S. National Herbarium, Washington, D.C.

MOSSES

Campylium stellatum (Hedwig) C. Jensen (Amblystegiaceae). This moss of calcareous wetlands is known from the eastern edge of the Great Plains in northern Minnesota (Wheeler *et al.* 1991) and has also been reported from Iowa (Crum & Anderson 1981). It was



Map of Nebraska counties

recently collected in CHERRY COUNTY—base of *Carex prairea* tussocks in fen on east side of U. S. Highway 83, *ca* 35 miles south of Valentine (*R. Steinauer 365*, 8 July 1998, MO, NEB), disjunct *ca* 300 miles southwest of its main range in Minnesota. It was growing in the same fen as *Carex lasiocarpa*, another northern species far disjunct from its main range.

VASCULAR PLANTS

Achnatherum robustum (Vasey) Barkworth (Poaceae). This conspicuous southwestern grass was not included in the *Atlas* or the *Flora,* but it has been reported from the western margin of the Great Plains in eastern Wyoming (Dorn 1992) and has recently been collected near the Wyoming border in KIMBALL COUNTY—well established along roadsides of Stateline Road, 1 mile east, 4.25 miles north of Pine Bluffs, Wyoming (*Rolfsmeier 13599*, 25 July 1997, CSCN, KANU, NEB), where it is likely a recent introduction. Additionally, an old specimen from HALL COUNTY (Grand Island: *J. M. Bates 2267*, 3 June 1902, NEB), which was so annotated by Mary Barkworth in 1982, certainly represents a temporary introduction.

×***Achnella caduca*** (Beal) Barkworth (Poaceae). This naturally occurring, sterile intergeneric hybrid of Indian ricegrass (*Achnatherum hymenoides*) and green needlegrass (*Nassella viridula*) is reported from badlands in North Dakota (Johnson & Rogler 1943), and has now been found in similar habitats in northwestern Nebraska: SHERIDAN COUNTY—base of eroded clay banks in prairie near Lime Kiln Creek, 6 miles west of Whiteclay (*Rolfsmeier 14084, T. Hildebrand & G. Steinauer,* 10 July 1998, NEB); SIOUX COUNTY—eroding clay slopes near Whitehead Creek, Pasture 45, Oglala National Grasslands (*Rolfsmeier 14129*, 17 July 1998, NEB).

Allium tuberosum Rottler *ex* Sprengel (Liliaceae). Garlic chive was unreported outside cultivation in our area, but specimens from populations established in waste areas have been collected in Council Bluffs, Iowa (OMA) and in Nebraska in DOUGLAS COUNTY—open weed-infested field at 77th and Pratt Streets, Omaha (*O. Larsen s. n.*, 18 October 1973, OMA. It was collected in 1997 as a lawn weed at another site in Omaha (OMA) and in a weedy field in Lincoln, LANCASTER COUNTY (*Kaul 7702*, 1998, NEB).

Allium vineale L. (Liliaceae). Field garlic is a European onion that is widespread and noxious in the eastern U. S. (Cronquist 1991), and it closely approaches the State in northeastern Kansas and southwestern Iowa (Wilson 1992). It was recently collected in DOUGLAS COUNTY—Elmwood Park, just east of University of Nebraska at Omaha campus (*Sutherland 7180*, 30 June 1997, OMA), where it has been well-established for at least 30 years. It was unidentified until recently because it occurs in lawns in a city park that are usually mowed before the plants can flower.

Alyssum parviflorum Fischer *ex* Bieberstein [*A. minus* (L.) Rothmaler var. *micranthum* (C. A. Meyer) Dudley] (Brassicaceae). This Eurasian annual was reported from western Kansas in the *Flora*, is present in eastern Wyoming (Dorn 1992), and is "extremely abundant" in Colorado (Weber & Wittmann 1996). It is now apparently becoming common in portions of the Nebraska Panhandle. The oldest collection we have seen is from MORRILL COUNTY—-roadside along Nebraska Highway 88, 3 miles south of Bridgeport (*H. Karcher 257*, 28 April 1986, CSCN), and recent collections have been made in KIMBALL and SCOTTS BLUFF counties (NEB). It has been observed as a common weed in the city of Scottsbluff.

Amaranthus powellii S. Watson (Amaranthaceae). This native pigweed of the western U. S. was reported to be very rare in the Great Plains by McGregor (1986) and is present in Kansas, Colorado, and Wyoming. It has recently been detected in the southwest part of the Nebraska Panhandle and has probably invaded the State from the west. The earliest collection that can be identified with certainty is from SCOTTS BLUFF COUNTY—roadside 5 miles north, 1.5 miles west of Scottsbluff (*D. Nason 172*, 30 August 1977, CSCN). Recent collections have been made from BANNER (CSCN), CHEYENNE, and KIMBALL coun-

ties (NEB), and at least in the latter county it has been observed as a locally common roadside weed.

Anemopsis californica (Nuttall) Hooker & Arnott (Saururaceae). Yerba mansa is a distinctive species of alkaline meadows and is native to the southwestern U. S., with scattered populations introduced northward in central Kansas and in the Denver-Boulder area of Colorado (Weber & Wittmann 1996). A recent collection from SCOTTS BLUFF COUNTY—roadside ditch along Nebr. 71 in Scottsbluff (*H. Karcher 823*, 28 July 1991, CSCN)—represents its northernmost known locality in the Great Plains.

Anthriscus caucalis M. Bieberstein (Apiaceae). Bur-chervil is a European annual introduced in scattered places in the U. S., but it was not reported in the *Atlas* or the *Flora*. It has recently been collected in SARPY COUNTY—woodland along Quail Drive, Capehart (*D. Bradshaw 16*, 4 June 1996, OMA).

Arabis divaricarpa A. Nelson (Brassicaceae). This northern species of rock cress was reported (as *A. divaricata* Nutt.) from Scotts Bluff County in the *Atlas* based on misidentified specimens of *Thelypodium integrifolium*. It was recently collected in THOMAS COUNTY—juniper-ash wooded bluffs and ravines on south side of the Dismal River, *ca* 14 miles south of Seneca (*G. Steinauer 155*, 23 June 1994, NEB). Rollins (1983) considers *A. divaricarpa* a complex of stabilized hybrids that may involve several parental species, the most common being *A. drummondii* and *A. holboelii*. This site is outside the range of both those species.

Argemone hispida A. Gray (Papaveraceae). Hairy prickly poppy occurs along the Rocky Mountain foothills from southeastern Wyoming southward, and it just enters the western margin of the Great Plains. A mixed collection with *A. polyanthemos* from GARDEN COUNTY—south side of U. S. Highway 26 near railroad tracks 5 miles east of Lisco (*M. Dworak 1322*, 24 July 1975, NEB)—was recently discovered during preparation of the forthcoming Nebraska Flora. It is likely introduced from the west and has since not been recollected.

Aster ascendens Lindley [*A. chilensis* Nees ssp. *ascendens* (Lindley) Cronquist] (Asteraceae). This widespread aster of western North America is known from the margin of the Great Plains in northeastern Wyoming, and it was recently discovered along the Niobrara River near the Wyoming border in SIOUX COUNTY—open terrace meadow *ca* 8 miles west and 2 miles south of Harrison (*T. Hildebrand 2972*, 16 August 1997, NEB, RM)—representing the easternmost native population reported.

Astragalus cicer L. (Fabaceae). Chick-pea milkvetch, a European legume introduced in portions of the western U. S., has recently become established in the Panhandle in SCOTTS BLUFF County—roadside at Scottsbluff municipal airport (*Rolfsmeier 11804*, 15 July 1995, KANU, NEB, RM, US), and SIOUX COUNTY—dry sandy terrace of the Niobrara River *ca* 1 mile east of Wyoming border (*R. Steinauer 149*, 19 August 1997, NEB).

Atriplex suckleyi (Torrey) Rydberg [*Atriplex dioica* (Nuttall) Macbride] (Chenopodiaceae). Sillscale is an inconspicuous plant of badlands in the northern Great Plains and was reported from Thomas County (where appropriate habitat does not exist) in the *Atlas* and the *Flora,* without supporting specimen evidence. Its presence in Nebraska is verified by a recent collection from DAWES COUNTY—eroded shale slopes north of Beaver Cr., 17 miles north, 5 miles west of Hay Springs (*Rolfsmeier 14097, T. Hildebrand, & G. Steinauer*, 10 July 1998, NEB).

Ballota nigra L. (Lamiaceae). Black horehound, native to the Mediterranean region, is established in scattered places in the U. S., including just outside our border in Mills County, Iowa, where it has been established since 1946 (Wilson 1993). A single collection from SARPY COUNTY—wet, sunny area off north stream at Fontenelle Forest (*M. Garabrandt 861 & Sutherland*, 24 July 1987, OMA—documents its presence in Nebraska.

Bouteloua simplex Lagasca (Poaceae). This diminutive grass is known from scattered locations in the southwestern Plains and is now known from southwestern Nebraska, where it is likely an accidental roadside introduction: KEITH COUNTY—disturbed ground along margin of Nebraska Highway 61, 5.5 miles south, 0.25 miles west of Ogallala (*Rolfsmeier 10977*, 28 August 1992, NEB, OMA).

Callitriche heterophylla Pursh (Callitrichaceae). This widespread aquatic species is reported from several states surrounding Nebraska, including Iowa, Kansas, Missouri, and South Dakota. A specimen from ADAMS COUNTY—Pauline (*H. Hapeman s .n.*, July 1892, NEB)—that was reported as *C. verna* in the *Atlas* was so annotated during preparation of the *Callitriche* treatment for the forthcoming Nebraska Flora.

Carex hirtifolia Mackenzie (Cyperaceae). Known from just outside our boundary in northeastern Kansas and Mills County, Iowa (OMA), this sedge was recently collected for the first time in Nebraska in DOUGLAS COUNTY—pristine oak-basswood forest north of Omaha (*Rolfsmeier 13960, M. Bullerman & G. Steinauer*, 5 June 1998, NEB)—extending its known range slightly westward from extreme eastern Kansas. *Carex albursina*, recently reported as new to the State (Rolfsmeier & Wilson 1997) is also present at this site.

Carex lasiocarpa Ehrhart var. ***americana*** Fernald (Cyperaceae). This boreal sedge occurs along the northeastern margin of the Great Plains in western Minnesota (Wheeler *et al.* 1991) and is reported from northwestern Iowa (Eilers & Roosa 1994). It was recently discovered in CHERRY COUNTY—fen on east side of U. S. 183, *ca* 35 miles south of Valentine (*R. Steinauer 348*, 6 July 1998, NEB), 360 MILES southwest of the Minnesota population. This sedge grows near a fen containing a large population of the similarly disjunct *Carex limosa*.

Centaurea maculosa Lamarck (Asteraceae). Spotted knapweed is serious pest in portions of the Great Plains (Barkley 1986) and, although it is considered a noxious

weed in Nebraska (Stubbendieck *et al.* 1994), we have specimens from only the extreme northwestern part of the State. The oldest collection we have seen is from SIOUX COUNTY—two miles east of Nebraska Highway 29 along River Road at Agate Fossil Beds National Monument (*J. Toll 81*, 20 September 1992, OMA)—and it has not been relocated at that site, despite recent intensive field surveys. It was subsequently collected in Sioux County along a roadside at Fort Robinson State Park in 1994, in DAWES COUNTY at the U. S. Forest Service Red Cloud Picnic Area south of Chadron later that same year, and at a railroad crossing on U. S. Highway 385 northwest of Chadron in 1998 (all CSCN). Barkley (1986) reports that this species persists for only a short time in portions of the Great Plains, but at least the population at the Forest Service's picnic area has persisted for five years and appears to be spreading (R. Weedon, pers. comm.).

Cerastium pumilum Curtis (Caryophyllaceae). This Eurasian chickweed closely resembles the similar *C. semidecandrum*, from which it differs in having petals that exceed the sepals. It is previously unreported in the Great Plains, and was recently found growing with *C. semidecandrum* in CASS COUNTY—disturbed sandy soil in campground at Louisville Lakes State Recreation Area (*Rolfsmeier 11504*, 28 April 1995, KANU, NEB, US).

Chelidonium majus L. (Papaveraceae). Celandine is a perennial Eurasian ornamental well-established in the eastern U. S. west to Iowa and Missouri (Cronquist 1991), and it has recently escaped from cultivation and is spreading in DOUGLAS COUNTY—weed along Canyon Rd. near 36th St., Omaha (*M. Garabrandt s. n.*, 5 June 1995, OMA). It was recollected at this site exactly three years later, and it continues to spread along the margin of a well-preserved upland oak-basswood forest.

Chenopodium cycloides A. Nelson (Chenopodiaceae). This little-known goosefoot was previously reported as far north as extreme southwestern Kansas. We now have collections from southwestern Nebraska, extending its range 150 miles northward: DUNDY COUNTY—sandsage prairie dunes 6 miles north, 1 mile east of Haigler (*Rolfsmeier 12954, R. Schneider, & G. Steinauer*, 9 September 1996, KANU, NEB); and PERKINS COUNTY—sandsage prairie dunes 8.5 miles south, 6.5 miles west of Grant (*Rolfsmeier 11183*, 10 September 1992, CSCN, KANU, NEB).

Chenopodium pallescens Standley (Chenopodiaceae). Another little-known goosefoot growing at scattered localities in surrounding states, including Kansas, Missouri, and Wyoming, is now known with certainty from two Nebraska localities: RICHARDSON COUNTY—pasture *ca* 3 miles south, 5 miles west of Falls City (*P. Shildneck C-7733*, 27 August 1975, KANU, NEB); and SEWARD COUNTY—disturbed roadbank 3 miles south, 3.5 miles east of Seward (*Rolfsmeier 11398*, 21 July 1994, NEB, US). Two additional specimens at NEB (LANCASTER COUNTY: salt marshes [*J. G. Smith s. n.*, 20 July 1890] and OTOE COUNTY: roadsides at Palmyra [*C. A. Turrell s. n.*, 20 August 1894]) are immature, but probably also represent this species.

Chenopodium urbicum L. (Chenopodiaceae). This European goosefoot is introduced in scattered locations in eastern North America and is unreported from our region. Several old specimens were recently uncovered , misidentified as *C. rubrum* and *C. murale*, respectively. The oldest collection is from CHERRY COUNTY (*J. M. Bates s. n.*, September 1889, NEB), and two subsequent collections were made in Omaha (DOUGLAS COUNTY) by William Cleburne in 1895 and 1897 (NEB). No Nebraska collections made this century are known.

Dianthus barbatus L. (Caryophyllaceae). Sweet William is reported to escape from cultivation in northern portions of the U. S. (Cronquist 1991), but was not included in the *Flora*. It appears to be locally established in the Pine Ridge area of northwestern Nebraska in DAWES COUNTY—local in bottom of pine-wooded ravine on upper end of Big Bordeaux Creek (*Rolfsmeier 9272*, 20 July 1991, NEB), and SIOUX COUNTY—abundant along Sow Belly Creek, 4.7 miles northeast of Harrison (*J. Hardy 434, R. Weedon, & B. Heiser*, 22 August 1978, CSCN).

Digitalis lanata Ehrhart (Scrophulariaceae). Grecian foxglove is a European ornamental reported to rarely escape from cultivation in the eastern U. S. (Cronquist 1991), and it has recently been discovered naturalized and becoming noxious in Kansas (Freeman *et al.* 1998). A well-established population was discovered in a pasture in southeastern LANCASTER COUNTY— *ca* 1 mile east of Holland (*anonymous s. n.*, June 1992, NEB).

Dioscorea quaternata (Walter) J. F. Gmelin (Dioscoreaceae). Although *Dioscorea villosa* was reported from southeastern Nebraska in the *Atlas* and the *Flora*, Al-Shehbaz and Schubert (1989) report that that species is restricted to the Atlantic Coast, with scattered populations introduced westward to Kentucky. They state that most of the reports of *D. villosa* from the western edge of its range are actually *D. quaternata*, which differs from *D. villosa* in that the lower leaves are whorled. Though they mention that *D. quaternata* is rare in Kansas, Nebraska is not included by them in its range. The specimen upon which the *D. villosa* report is based (SDU) was not reexamined by us, but a recent collection from RICHARDSON COUNTY—margin of oak forest at Rulo Bluffs Preserve (*Rolfsmeier 13907*, 22 May 1998, NEB)—verifies the presence of *D. quaternata* in Nebraska.

Draba brachycarpa Nuttall (Brassicaceae). Shortpod draba, which occurs south and east of Nebraska, was erroneously reported from Keya Paha County in the *Atlas*, based on a misidentification of *Draba reptans*. *D. brachycarpa* was collected for the first time in the State just recently in PAWNEE COUNTY—heavily grazed prairie pasture *ca* 1 mile south, 3 miles west of Pawnee City (*R. Steinauer 257*, 13 April 1998, NEB)—extending its range northward in the Plains.

Elaeagnus umbellata Thunberg (Elaeagnaceae). Autumn olive has been planted as an ornamental and for wildlife habitat in Nebraska since at least the late 1980s. It was collected as an escape in Kansas in 1995 and is believed to be naturalized in much of Missouri since the late

1980s, where it is reportedly a serious pest (Freeman *et al.* 1998). The first collection that likely represents an escape in Nebraska was made in 1990 in WASHINGTON COUNTY—wooded area near farm pond (*T. Petznick 71*, 18 September 1990, OMA)— with subsequent collections made in 1993 from the Lancaster-Saunders County line (NEB), Sarpy County in 1995 (OMA), and Jefferson County in 1997 (NEB), all from public lands where it may originally have been planted. It was collected as an escape with certainty in LANCASTER COUNTY—near shore at Wagon Train State Recreation Area (*R. Kaul 7266*, 9 May 1994, NEB), where it has been in cultivation since at least 1988. It has also been collected as an escape at Branched Oak Lake and at Wilderness Park, both in Lancaster County, and is becoming a pest at those sites (R. Kaul, pers. comm.).

Elatine brachysperma A. Gray (Elatinaceae). This inconspicuous aquatic is very similar to, and is occasionally lumped into, *E. triandra*, but is distinguished by its smaller seeds. It is reported from the extreme southern portion of the Great Plains in Oklahoma, and specimens were recently discovered from FILLMORE COUNTY—intermittently wet ground 3 miles west of Fairmont (*W. Kiener 17154*, 15 August 1944, NEB) and KEARNEY COUNTY—depression in roadside ditch near Axtell (*W. Tolstead s. n.*, 23 July 1941, NEB).

Eleocharis wolfii (A. Gray) Patterson (Cyperaceae). This spikerush was deleted from the Nebraska list by Rolfsmeier (1995), based on misidentifications of *E. acicularis*. A population of true *E. wolfii* was located soon after publication of that paper, in CHERRY COUNTY—Sandhills wet meadow *ca* 21 miles north of Mullen (*Rolfsmeier 12457*, 20 June 1996, CSCN, KANU, NEB).

Elodea bifoliata H. St. John (Hydrocharitaceae). This aquatic species is native to portions of the Great Plains, Rocky Mountains and Pacific Northwest and was recently reported from northwestern Kansas (Freeman *et al.* 1998). A specimen from KIMBALL COUNTY—abundant in Lodgepole Park Lake, 8 miles west of Kimball (*S. Stephens 65620*, 12 June 1973, KANU), originally reported as *E. canadensis* in the *Atlas*, was annotated as *E. bifoliata* by Ronald McGregor in 1995. We have been unable to relocate the plant at that site.

×***Elyhordeum iowense*** Pohl (Poaceae). This sterile hybrid of slender wildrye (*Elymus villosus*) and foxtail barley (*Hordeum jubatum*) has recently been collected in southwestern Iowa (Wilson 1992), and a collection from LANCASTER COUNTY—along railroad tracks at Jamaica Station (*Sutherland and R. Kaul 1785*, 27 June 1968, OMA)—was recently determined to be this hybrid, establishing its presence in Nebraska.

×***Elyhordeum montanense*** (Scribner) Bowden (Poaceae). This sterile hybrid of Virginia wildrye (*Elymus virginicus*) and foxtail barley (*Hordeum jubatum*) has recently been reported from southwestern Iowa (Wilson, 1993). Three pollen-sterile specimens appear to be assignable here, based upon comparison with photographs in Bowden (1958): GAGE COUNTY—Beatrice (*J. M Bates 5146*, 9 July 1910, NEB); LANCASTER COUNTY—Lincoln (*J. M. Bates s. n.*, 25 August 1897, NEB); and WEBSTER COUNTY—Red Cloud (*J. M. Bates 3293*, 23 July 1904, NEB).

Eragrostis secundiflora J. Presl ssp. ***oxylepis*** (Torrey) S. D. Koch (Poaceae). This grass of the southern plains has recently been found disjunct from its main range in southwestern and central Kansas. Two recent collections from southwestern Nebraska—CHASE COUNTY—disturbed sandsage prairie on west end of Enders Reservoir (*Rolfsmeier 10997*, 28 August 1992, CSCN, KANU, NEB) and DUNDY COUNTY—sandsage prairie dunes *ca* 6 miles north, 1 mile east of Haigler (*Rolfsmeier 12956, R. Schneider & G. Steinauer*, 9 September 1996, CSCN, KANU, NEB)—extend its known range northward.

Eremopyrum triticeum (Gaertner) Nevski (Poaceae). This annual grass from Russia is established in dry regions of the western U. S. and is not included in the *Atlas* or the *Flora*. It has been collected in SCOTTS BLUFF COUNTY—roadside ditch at Riverside Park, Scottsbluff (*Rolfsmeier 11637*, 13 June 1995, CSCN, KANU, NEB, OMA, RM, US).

Erigeron lonchophyllus Hooker (Asteraceae). This western species just enters the Great Plains in western Minnesota (Wheeler *et al.* 1991) and North Dakota and is apparently disjunct in the Black Hills of South Dakota. A recent collection from SIOUX COUNTY—alkaline wet meadow in the Niobrara River valley, *ca* 1 mile east of the Wyoming border (*R. Steinauer 145*, 19 August 1997, NEB), extends its range in the Plains *ca* 150 km southward from the Black Hills. It was found in the same meadow as *Pedicularis crenulata*, another disjunct western species.

Filago arvensis L. (Asteraceae). Filago is an innocuous Eurasian range weed present in eastern Wyoming (Dorn 1992) and is recently becoming common in northwestern Nebraska. Our oldest collection is from SIOUX COUNTY—disturbed places in clayland mixed-grass prairie in Pasture 31E, Oglala National Grasslands (*Rolfsmeier 11716*, 6 July 1995, CSCN, KANU, NEB, RM, US). It has since been collected commonly in the Oglala National Grasslands in Dawes and Sioux counties.

Fumaria vaillantii Loiseleur (Fumariaceae). This Eurasian fumitory was reported from North and South Dakota by Boufford (1997) and was erroneously reported for Nebraska by Rolfsmeier *et al.* (1987), based upon specimens of *F. officinalis*. Specimens of true *F. vaillantii* were later collected in DAWSON COUNTY—waste ground along U. S. Highway 30, Gothenburg (*Rolfsmeier 11656*, 15 June 1995, CSCN, KANU, NEB, OMA, US).

Gypsophila scorzonerifolia Seringe (Caryophyllaceae). This rank Eurasian perennial has been reported from scattered stations in Colorado (Weber & Wittman, 1996) and Wyoming (Dorn, 1992) and has now been found in western Nebraska in SCOTTS BLUFF COUNTY—scattered near abandoned house 0.5 miles east, 1.75 miles north of Lyman (*Rolfsmeier 10762A*, 18 July 1992, NEB, US).

Heliotropium curassavicum L. var. ***curassavicum*** (Boraginaceae). Our native heliotrope is variety *obovatum* de Candolle, which has long been known from the Ne-

braska Panhandle. The typical variety is native to tropical America and is established in the southern U. S. (Cronquist 1991), but has not been reported from our range. We have seen a single specimen from LANCASTER COUNTY—salt basin *ca* 1.5 miles north of 27th and Arbor Streets, Lincoln (*J. Ducey s. n.*, 7 October 1980, NEB).

Houstonia pusilla Schoepf [*Hedyotis crassifolia* Rafinesque] (Rubiaceae). Small bluets was reported for Nebraska in the *Flora*, but no specimens have been found to substantiate that report. It was recently collected in PAWNEE COUNTY—common in heavily grazed prairie pasture *ca* 1 mile south, 3 miles west of Pawnee City (*R. Steinauer 254*, 13 April 1998, NEB), extending its known range in the Plains northward from eastern Kansas.

Ligustrum vulgare L. (Oleaceae). Common privet is frequently planted in our range, but according to Hartman (1986) it does not become established outside cultivation. We have found it thoroughly established in upland woods in OTOE COUNTY—slopes of woodland along South Table Creek, Nebraska City (*Rolfsmeier 8823*, 7 June 1991, NEB, US). It has also been observed in woods along nearby North Table Creek (R. Kaul, pers. comm.).

Lonicera maackii (Ruprecht) Herder (Caprifoliaceae). Amur honeysuckle was reported in the *Flora* as an escape from cultivation only in southeastern Kansas, but it is a widespread and serious pest in the southeastern U. S. (Luken & Theiret 1995). Specimens apparently occurring outside cultivation have been collected in Nebraska as early as 1987: SARPY COUNTY—along trail in Fontenelle Forest (*R. Benedict s. n.*, 28 October 1987, OMA). More recently, specimens have been collected in DODGE COUNTY in 1994 (NEB), and from DOUGLAS, NEMAHA, and a second location in Sarpy County in 1996 (OMA). Many of the plants were large, isolated shrubs at woodland margins and have not been observed to be spreading aggressively at this time.

Lysimachia nummularia L. (Primulaceae). This European ornamental is naturalized in moist ground along rivers in eastern Kansas and elsewhere in the east and central U. S. It has now been found to be established and abundant in similar habitats along the Platte River in COLFAX COUNTY—margins of sloughs in open riparian woods at Whitetail Wildlife Management Area (*Rolfsmeier 14039*, 25 June 1998, NEB), DODGE COUNTY—wet ground in riparian woods at Hormel Park, south of Fremont (*Rolfsmeier 14035*, 25 June 1998, NEB), and PLATTE COUNTY—wet meadow in floodplain forest 5 miles southwest of Columbus (*R. Kaul 7475, M. Kaul & M. Gutzmer*, 18 September 1996, NEB).

Maianthemum canadense Desfontaines var. ***interius*** Fernald (Liliaceae). Wild lily-of-the-valley is a widespread woodland plant of northeastern North America that is present in the northeastern Great Plains and disjunct in the Black Hills. It has recently been collected in BROWN COUNTY—springbranch canyon south of the Niobrara River on the Niobrara Valley Preserve (*G. Steinauer 96*, 23 August 1993, NEB) in northern Nebraska, *ca* 210 miles southwest of its main range in northeastern South Dakota and over 150 miles southeast of the Black Hills populations.

Mirabilis exaltata (Standley) Standley (Nyctaginaceae). This four-o'clock of the southern plains was recently found in DUNDY COUNTY—sandsage prairie dunes *ca* 6 miles north, 1 mile east of Haigler (*Rolfsmeier 12957, R. Schneider & G. Steinauer*, 9 September 1996, NEB), disjunct northward from southwestern Kansas. Turner (1993) reports this species as indistinguishable from *M. glabra* in Texas, but our specimens appear distinct from that species within our range.

Myosotis micrantha Pallas (Boraginaceae). This inconspicuous Eurasian annual was not included in the *Atlas* or in the *Flora*. It was first collected in Nebraska in CASS COUNTY—disturbed sandy soil in campground at Louisville Lakes State Recreation Area (*Rolfsmeier 11503*, 28 April 1995, CSCN, KANU, NEB, OMA, US) where it was found growing with *Cerastium pumilum*, also new to the State.

Myosotis verna Nuttall (Boraginaceae). This inconspicuous ephemeral spring annual is widespread in the southeastern plains, with scattered populations westward to northeastern Wyoming (Dorn, 1992). We have recently found it to be locally abundant on the Oglala Grasslands in northwestern Nebraska: SIOUX COUNTY—mesic draw in mixed-grass prairie, Pasture 31E, *Rolfsmeier 12265*, 7 June 1996, CSCN, KANU, NEB). It was subsequently found in southeastern Nebraska: JOHNSON COUNTY—disturbed tall-grass prairie at Osage South Wildlife Management Area, *Rolfsmeier 13936 & M. Bullerman*, 29 May 1998, NEB).

Myriophyllum spicatum L. (Haloragaceae). Eurasian milfoil is a serious pest of aquatic habitats north of our range (Aiken *et al.* 1979) and was first collected in Nebraska in 1980 in HALL COUNTY—Mormon Island Lake (*R. N. Larsen s. n.*, 19 October 1980, NEB) and LANCASTER COUNTY—Hedgefield Lake, 8 miles south of Cheney (*B. Dodd* 278, 22 September 1980, NEB). Both specimens, which are sterile, were annotated by E. N. Nelson and R. W. Couch of Oral Roberts University in 1985. This species rarely flowers in Nebraska, and we have only a single flowering specimen: LANCASTER COUNTY—abundant in Wildwood Lake, *ca* 6 miles north-northwest of Raymond (*R. Kaul 6338 & G. Nieto-Feliner*, 20 September 1988, NEB), where it is now nearly absent. Specimens from MERRICK COUNTY—Hord Lake (*R. Kaul 7070A & M. Kaul*, 19 October 1991, NEB) probably also represent this species. In Nebraska, Eurasian milfoil does not seem to be as serious a pest as *Potamogeton crispus*, another Eurasian aquatic.

Pedicularis crenulata Bentham (Scrophulariaceae). This lousewort of the mountain west is distributed discontinuously in eastern California and Nevada, and in western Colorado and southern Wyoming (Cronquist *et al.* 1984). It was recently found for the first time in the Great Plains disjunct in SIOUX COUNTY—alkaline wet meadow along the Niobrara River *ca* 1 mile east of the Wyoming border (*T. Hildebrand 3022*, 19 August 1997, NEB).

Plantago rhodosperma Decaisne (Plantaginaceae). This native plantain has long been known from just outside our boundary, in northern Kansas, and was recently discovered in JEFFERSON COUNTY—rocky tall-grass prairie

ca 1.5 mi. southwest of Thompson (*R. Steinauer 307*, 13 June 1998, NEB)—extending its known range slightly northward.

Potentilla simplex Michaux (Rosaceae). Old-field cinquefoil is known from scattered localities just outside the State in Iowa, Kansas, and Missouri. A specimen from WASHINGTON COUNTY—low meadow north of Arlington (*A. Lallman s. n.*, 10 April 1931, NEB)—was recently discovered by Robert Kaul.

Pueraria lobata (Willdenow) Ohwi (Fabaceae). Kudzu is a well-known noxious weed of the southeastern United States, its range extending as far north as Massachussetts and New York in the eastern U. S. (Cronquist 1991). McGregor (1986) reported it as planted and rarely flowering in eastern Kansas, and it now has been collected in Nebraska in OTOE COUNTY—disturbed slope along railroad tracks south of Minersville (*G. Pollack s. n.*, 25 October 1998, OMA). According to local residents, it has existed there for *ca* 15 years and does not appear to produce fruit at that site.

Rhamnus frangula L. (Rhamnaceae). European alder-buckthorn is an ornamental shrub that is widely escaped and frequently an aggressive weed of wet soils in the northeastern United States (Cronquist 1991). It has recently been discovered to be thoroughly established in well-preserved native riparian habitats along the Middle Loup River in the vicinity of Rockville in SHERMAN COUNTY—wet prairie hay meadow 1 mile southwest of Rockville (*Rolfsmeier 13174A & P. Larson*, 10 June 1997, CSCN, KANU, NEB, OMA, US), and cottonwood woodland 2 miles southeast of Rockville (*Rolfsmeier 13719 & P. Larson*, 14 August 1997, CSCN, NEB). In both sites it occurs in subirrigated or seasonally wet ground, and though it is often cultivated in eastern Nebraska, it rarely persists as an escape in well-drained soils with us.

Scleranthus annuus L. (Caryophyllaceae). This Eurasian knawel is found throughout the eastern U. S. westward to Kansas and Oklahoma and has now been found established in DODGE COUNTY—disturbed sandy soil at Fremont Lakes State Recreation Area (*Rolfsmeier 11553*, 2 June 1995, CSCN, KANU, NEB, OMA, US).

Scutellaria parvula Michaux var. ***parvula*** (Lamiaceae). The typical variety of small skullcap has been reported from just outside our area in northwestern Missouri. An old specimen from SAUNDERS COUNTY—Swedeburg (*P. A. Rydberg 163*, July 1889, NEB) was discovered by Linda Rader.

Solanum elaeagnifolium Cavanilles (Solanaceae). Silverleaf nightshade is native to the southwestern United States and extends northward in the Plains to Kansas and western Missouri. Recent collections from LANCASTER COUNTY—Nine-Mile Prairie, off Highway 34, near airport (*L. F. Wendel 198*, 5 July 1992, OMA) and BUFFALO COUNTY—grazed upland prairie 4 miles east, 4 miles north of Elm Creek (*J. Dorn 99*, 15 September 1994, in the herbarium of the University of Nebraska at Kearney)—extend its range northward. Although both populations are from prairie, it appears this plant is recently introduced into the State.

Sphaeralcea angustifolia (Cavanilles) D. Don var. ***cuspidata*** A. Gray (Malvaceae). Narrowleaf globe mallow is native to the southwestern U. S., with scattered populations known as far north as southwestern Kansas. A collection from KIMBALL COUNTY—roadside along U. S. Highway 30 east of Bushnell (*Rolfsmeier 11809*, 15 July 1995, CSCN, KANU, NEB)—represents its northernmost known locality.

Stachys hispida Pursh (Lamiaceae). This species is known from north and east of Nebraska in North Dakota, Iowa, and Missouri (Mulligan & Munro 1989), and a specimen from SARPY COUNTY—swampy area near railroad at Fontenelle Forest (*I. Nelson 82 & Z. Flebbe*, 23 July 1951, NEB)—was recently uncovered during preparation of the Nebraska Flora. It was recollected at this site in 1986 (OMA). Though frequently lumped with *S. tenuifolia*, our specimens more closely resemble and were identified as *S. palustris* and were reportedly growing to nearly 2 m tall.

Stellaria pallida (Dumortier) Piré (Caryophyllaceae). This Eurasian chickweed is very similar to the familiar common chickweed (*Stellaria media*) and is sometimes included as a subspecies of it. *S. pallida* is a very common weed of urban areas in southeastern Nebraska, and it has been observed by the first author to be more common than *S. media* in Lincoln. The oldest Nebraska collection was made in RICHARDSON COUNTY—driveway along Nebraska Highway 159 between Falls City and Preston (*P. Shildneck C-6095*, 20 April 1974, NEB)—although the presence of this species in Nebraska was not detected until 1995. Subsequent collections have been made in GAGE, JEFFERSON, LANCASTER, NEMAHA, OTOE, PAWNEE, SALINE, and SEWARD counties (all NEB). It is widespread in Kansas, where the oldest collection was made in 1931 (Freeman *et al.* 1998).

Torilis arvensis (Hudson) Link (Apiaceae). Field hedge parsley is a weedy European umbel established throughout southeastern U. S., long known near our border in northeastern Kansas. Collections from RICHARDSON COUNTY—slope at base of oak-forested bluff, Fourmile Creek Wildlife Management Area (*Rolfsmeier 10953*, 23 August 1992, CSCN, KANU, NEB, OMA, US)—and WEBSTER COUNTY—open prairie (*Bartok s. n.*, 1995) establish its presence in Nebraska.

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