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Noteworthy Collections from the District of Columbia and Maryland

DISTRICT OF COLUMBIA

These collections add 11 species of vascular plants to the known flora of the District of Columbia and three new records to the State of Maryland. District and State records are based on reviews of Brown and Brown (1984), Dabrydeen and Levi (1998), Fleming and Kanai (1992), Hermann (1946), Kartesz (1999) and Shetler and Orli (2000) and on searches of herbaria at CM, DOV, MARY, NA, and US. Herbarium acronyms follow Holmgren et al. (1990). Nomenclature follows Kartesz (1999).

Alopecurus carolinianus Walt. (POACEAE)—**District of Columbia:** Anacostia Park, Poplar Point, seasonally wet meadow with sparse herbaceous competition approximately 100 m south of the Anacostia River, 30 April 2002, *Steury 020430.1* (National Capital Parks-East Herbarium, MARY, US). At least 2,000 flowering stems were observed over an area measuring 30 m × 17 m. A common associate was *Veronica peregrina* L. spp. *pergrina*.

Significance. This is the first record of *Alopecurus carolinianus* (Carolina or tufted meadow-foxtail) for the District of Columbia. Native to the continental United States, it has been recorded along the East Coast from Florida to New York, extending west to California, except in Nevada (Kartesz 1999). Typically found on moist open ground and old wet fields (Hitchcock 1950), it is cited as "rare" in Maryland and Pennsylvania (Brown and Brown 1984, Kartesz 1999).

Ludwigia leptocarpa (Nutt.) Hara (ONAGRACEAE)—**District of Columbia:** Kenilworth Park, Kingman Marsh, open edge of tidal marsh along the western bank of the Anacostia River and at the edge of a small pond adjacent to the marsh, 12 September 2001, *Steury 010912.2* (National Capital Parks-East Herbarium, US). Five plants, four in flower and fruit, were observed. The largest plant measured 1.6 m tall. A common associate was *Juncus effusus* L. *Significance.* This is the first record of *Ludwigia leptocarpa* (angle-stem primrose-willow) for the District of Columbia. Native to the southeastern continental United States and tropical America in swamps, pond-margins, and ditches (Gleason and Cronquist 1991), it has been recorded from Texas to Missouri and Pennsylvania (Kartesz 1999). This species is cited as "rare" in West Virginia and Maryland (Kartesz 1999, Maryland Department of Natural Resources Wildlife and Heritage Division 2001).

Ammannia coccinea Rothb. (LYTHRACEAE)—**District of Columbia:** Kenilworth Park, Kingman Marsh, tidal sandy mud near center of marsh, 17 September 2001, *Steury and Kraft 010917.1* (National Capital Parks-East Herbarium). One plant with numerous fruiting and flowering branches was observed on the date of collection. A common associate was *Ludwigia peploides* (Kunth) Raven. *Significance.* Cited as rare for the District of Columbia (Kartesz 1999), no specimens of this taxon from the District of Columbia were found at CM, DOV, NA, MARY, or US and the species is not cited for the District of Columbia by Shetler and Orli (2000). Reported from Hawaii, Puerto Rico, tropical America, and in the continental United States from California and New Mexico, north to North Dakota, Minnesota, and east to New Jersey, on wet shores and muddy (often alkaline) places (Fernald 1950, Kartesz 1999), this report represents a rare collection of this species in the District of Columbia.

Eriochloa contracta A.S. Hitchc. (POACEAE)—**District of Columbia:** Kenilworth Park, dry to seasonally moist meadow just southeast of the junction of Kenilworth Marsh and the Anacostia River, 12 September 2001, *Steury 010912.1* (National Capital Parks-East Herbarium, MARY, US). Thousands of plants observed in fruit on the date of collection over an area of at least 30 m × 15 m. *Significance.* This is the first record of *Eriochloa contracta* (prairie cup-grass) from the

District of Columbia central United States fields and wet place (Carolina and Virgi 1992).

Ranunculus Park, Kenilworth. 000510.1 (NA, N: Gardens, at least *Significance.* flowered crowfoot. Australia, it is nat Florida, along the Missouri and Illin Whittemore 1997) *Cyperus dif* depressions and d Road, 13 Septem *Significance.* District of Colum the southern Un Pennsylvania (G) for this species f (Patuxent Wildl Wildlife Research unnamed drain intentionally int and Stewart 197 *Amaranthu* open disturbed ; Road, 14 Septen least 30 plants (*Significan* District of Colu America along disturbed sites, *Cruciatu* Anacostia Park Point, 5 July 20 were observed ; *Significat* the District of (states along th isolated popula *Salvinia* Kenilworth Ar

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District of Columbia and the eastern most record from North America. Native to the southern-central United States from Nebraska to Colorado, Louisiana and Arizona on open ground, low fields and wet places (Hitchock 1950) it has been introduced on the East Coast in Florida, South Carolina and Virginia (Arlington, Page and Powhatan Counties) (Kartesz 1999, Harvill et al. 1992).

Ranunculus parviflorus L. (RANUNCULACEAE)—District of Columbia: Kenilworth Park, Kenilworth Aquatic Gardens, on grassy paths between Lily ponds, 10 May 2000, *Steuery* 000510.1 (NA, National Capital Parks-East Herbarium, US). At the Kenilworth Aquatic Gardens, at least 100 plants were observed in flower and fruit on 10 May 2000.
Significance. This is the first record of *Ranunculus parviflorus* (stickseed or small-flowered crowfoot) from the District of Columbia. Native to Europe, the Pacific Islands and Australia, it is naturalized in North America along the East Coast from New York to northern Florida, along the Gulf Coast to eastern Texas, northward in the interior states to southern Missouri and Illinois and along the West Coast from California to Washington (Kartesz 1999, Whittemore 1997).

Cyperus difformis L. (CYPERACEAE)—District of Columbia: Kenilworth Park, wet depressions and ditches between Kingman Marsh and the Anacostia River just north of Benning Road, 13 September 2000, *Steuery* 000913.2 (National Capital Parks-East Herbarium, US). Hundreds of plants in fruit observed over a distance of at least 500 m.

Significance. This is the first record of *Cyperus difformis* (variable flat sedge) for the District of Columbia. Native to the Old World tropics, it is naturalized at scattered locations in the southern United States from California to Virginia, reaching northward to Nebraska and Pennsylvania (Gleason and Cronquist 1991, Kartesz 1999). There are only two known records for this species from Maryland, both from Prince Georges County: 30 August 1956, *F.M. Uhler* (Patuxent Wildlife Research Center Herbarium), drawn down sewage lagoon at Patuxent Wildlife Research Center, and 22 September 2000, *Strong, Simmons and Beier* 2630 (US), along unnamed drainage into Henson Creek south of Suitland. This species was apparently intentionally introduced at the Patuxent Wildlife Research Center in the 1950s (Hotchkiss and Stewart 1979).

Amaranthus blitum L. (AMARANTHACEAE)—District of Columbia: Kenilworth Park, open disturbed soils between Kingman Marsh and the Anacostia River just north of Benning Road, 14 September 2000, *Steuery* 000914.17 (National Capital Parks-East Herbarium, US). At least 30 plants observed in fruit over an area of approximately 200 m × 30 m.
Significance. This is the first record of *Amaranthus blitum* (purple amaranth) for the District of Columbia. An Old World species of unknown origin, it has been introduced in North America along the Gulf and East Coasts from Texas to Quebec and occasionally inland at disturbed sites, as in Utah (Gleason and Cronquist 1991, Kartesz 1999).

Cruciatia pedemontana (Bellardi) Ehrend. (RUBIACEAE)—District of Columbia: Anacostia Park, meadow along the eastern shore of the Anacostia River just east of Poplar Point, 5 July 2001, *Steuery* 010705.1 (National Capital Parks-East Herbarium, US). Seven plants were observed in fruit on the date of collection.
Significance. This is the first record of *Cruciatia pedemontana* (Piedmont-bedstraw) for the District of Columbia. Native to Europe, this species is introduced on disturbed sites in most states along the Gulf and East Coasts of North America between Texas and New York, with isolated populations in Montana and Idaho (Gleason and Cronquist 1991, Kartesz 1999).

Salvinia molesta Mitchell (SALVINIACEAE)—District of Columbia: Kenilworth Park, Kenilworth Aquatic Gardens, in Lily display ponds, 5 September 2000, *Steuery* 000905.2

Anoda cristata (L.) Schlecht. (MALVACEAE)—**Queen Annes County:** Chino Farms, edge of agricultural field, 10 October 2002, Steury 021010.5 (US). *Significance.* This is the first known record for Maryland. *Anoda cristata* (crested anoda) is native to the southwestern United States and tropical America (Gleason and Cronquist 1991). Along the East Coast of North America it has been reported as adventive from Florida to New York and Ontario, including the District of Columbia and all states bordering Maryland, except for Delaware (Kartesz 1999).

Washington and in the east from Texas to Missouri, Ohio, and Virginia (Kartesz 1999). for this species along the East Coast of North America. Native to eastern Asia, *Fatoua villosa* (mulberry weed) is established in North America along the West Coast in California and

Significance. These are the first records for Maryland and the northern most sites known **County:** Takoma Park, yard, 30 September 1990, F. Meyer 22475 (NA). Biddle and Lovegrove Streets, 15 August 2000, Steury and Saffer 990800 (US); **Montgomery** *Fatoua villosa* (Thunb.) Nakai (MORACEAE)—**Baltimore City:** Alleyway near corner of

reported from North America only in New Jersey (Gleason and Cronquist 1991, Kartesz 1999). *Significance.* This is the first record for Maryland. Native to Europe, this taxon has been flower and fruit on the date of collection.

Black Branch, 20 April 2002, Steury 020420.1 (RM, MICH, US). Thousands of plants observed in fallow field on bare soil along the east side of Church Road just south of Rt. 214 and north of *Spergula morsionii* Boreau (CARYOPHYLLACEAE)—**Prince Georges County:** Bowie,

MARYLAND

Maryland (Bailey and Bailey 1976, Kartesz 1999). America in a band across the central United States from California to Tennessee, ranging north to Michigan and south to Florida, but not established on the East Coast except in Georgia and District of Columbia. Native to southern Europe, this species has been reported in North *Significance.* This is the first record of *Saccharum ravennae* (ravenna grass) for the probably escapes from a nearby abandoned greenhouse.

US). At least fourteen tufts occurred scattered over approximately 23.6 hectares. These are Point, meadow, 16 October 2000, Steury 001016.1, (National Capital Parks-East Herbarium, *Saccharum ravennae* (L.) L. (POACEAE)—**District of Columbia:** Anacostia Park, Poplar

Georgia (Gleason and Cronquist 1991, Kartesz 1999). on waste places in North America from British Columbia to Quebec, south to Oregon, Texas, and lesser toadflax) for the District of Columbia. Native to Europe, this species has been introduced *Significance.* This is the first record of *Chaenorrhinum minus* (dwarf-snapdragon or and fruit over a distance of 3 m.

000629.1, (National Capital Parks-East Herbarium, US). Seventeen plants observed in flower Anacostia Park, gravely edge of parking area near south end of park, 29 June 2000, Steury *Chaenorrhinum minus* (L.) Lange (SCROPHULARIACEAE)—**District of Columbia:** has been introduced in Texas, Louisiana, Alabama, Florida, and South Carolina (Kartesz 1999). Australia, the South Pacific and the Americas (Jacono 1999). In the continental United States it Columbia winter. Native to southeastern Brazil, *Salvinia molesta* is naturalized in Africa, Asia, plants were found in the pond, indicating that the *Salvinia* did not survive the District of *Salvinia* plants were still fairly common in early November. However, in 2001 no *Salvinia* eradicate this noxious weed through hand removal in early September was unsuccessful, and aquatic species was discovered by Richard Orr during the summer of 2000. An attempt to *Significance.* This is the first record of *Salvinia molesta* (kariba-weed) for the District of summer of 2000 in a lily pond of approximately 0.2 hectares.

(National Capital Parks-East Herbarium, US). Thousands of plants were observed during the

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Appreciation is extended to B. Isaac (CM), R. Naczi (DOV), E. Terrell (MARY), and K. Conrad (NA) for checking their collections.—BRENT W. STEURY, NATIONAL PARK SERVICE, 1900 ANACOSTIA DRIVE, S.E., WASHINGTON, D.C. 20020. email address: Brent_Steury@nps.gov

LITERATURE CITED

- BAILEY, L.H. and E.Z. BAILEY. 1976. Hortus third, a concise dictionary of plants cultivated in the United States and Canada. MacMillan Publishing Co., Inc., New York, New York.
- BROWN, M.L. and R.G. BROWN. 1984. Herbaceous plants of Maryland. Port City Press, Inc., Baltimore, Maryland.
- DARBYDEN, S. and J.A. LEVI. 1998. Introduced plant species in Maryland. Maryland Naturalist 42:35-51.
- FERNALD, M.L. 1950. Gray's manual of botany, 8th ed. American Book Co., New York, New York. (Reprint 1970, Van Nostrand Reinhold Co., New York, New York)
- FLEMING, P. and R. KANAL. 1992. Newly documented species of vascular plants in the District of Columbia. Castanea 57:132-146.
- GLEASON, H.A. and A. GRONQUIST. 1991. Manual of vascular plants of northeastern United States and adjacent Canada, 2nd ed. The New York Botanical Garden, Bronx, New York.
- HARVILL, A.M., T.R. BRADLEY, C.F. STEVENS, T.F. WIEBOLT, D.M.E. WARE, D.W. OGLE, G.W. RAMSEY, and G.P. FLEMING. 1992. Atlas of Virginia flora III. Virginia Botanical Associates, Burkeville, Virginia.
- HERMANN, F.J. 1946. A checklist of plants in the Washington-Baltimore area, 2nd ed. Conference on District Flora, Smithsonian Institution, Washington, D.C.
- HITCHCOCK, A.S. 1950. Manual of the grasses of the United States. Miscellaneous Publication No. 200, 2nd ed. revised by A. Chase. United States Department of Agriculture, United States Government Printing Office, Washington, D.C.
- HOLMGREN, P.K., N.H. HOLMGREN, and L.C. BARNETT. 1990. Index Herbariorum. Part I: The herbaria of the world, 8th ed. New York Botanical Garden, Bronx, New York.
- HOTCHKISS, N. and R.E. STEWART. 1979. Vegetation and vertebrates of the Patuxent Wildlife Research Center: outline of ecology and annotated lists (reprint with new supplements of vegetation of the Patuxent Research Refuge, Maryland). U.S. Fish and Wildlife Service, Laurel, Maryland.
- JACONO, C.C. 1999. *Salvinia molesta* (Salvinaceae), new to Texas and Louisiana. Sida 18:927-928.
- KARTZ, J.T. (C.A. Meacham, software). 1999. Synthesis of the North American flora. Version 1.0. Biota of North America Program, North Carolina Botanical Garden, Chapel Hill, in cooperation with The Nature Conservancy, Natural Resources Conservation Service, U.S.D.A., and the U.S. Fish and Wildlife Service, U.S.D.I.
- MARYLAND DEPARTMENT OF NATURAL RESOURCES WILDLIFE AND HERITAGE DIVISION. 2001. Rare, threatened and endangered plants of Maryland. Department of Natural Resources, Annapolis, Maryland.
- SHETLER, S.G. and S.S. ORL. 2000. Annotated checklist of the vascular plants of the Washington-Baltimore area. Part I. Ferns, gymnosperms and dicotyledons (preliminary draft). Smithsonian Institution, Washington, D.C.
- WHITTEMORE, A.T. (Flora of North America Editorial Committee). 1997. Flora of North America. Volume 3. Magnoliophyta: Magnoliaceae and Hamamelidae. Oxford University Press, Inc., New York, New York.

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