

Noteworthy Vascular Plants from Kentucky: A State Record, Range Extensions, and Various Species of Interest

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ABSTRACT

A total of 53 species is presented here, arranged in four groups: (1) a state record, *Polygonum densiflorum*, (2) range extensions in Kentucky (13 species), (3) various species of interest in the state (34 species, including 12 new populations for species listed and tracked by the Kentucky State Nature Preserves Commission), and (4) cultivated species possibly naturalized in the state (5 species).

INTRODUCTION

The species reported here primarily represent collections over the last several years based on student-related field research through the Berea College Herbarium (BEREA). Fourteen new state records involving BEREAs student research were recently published (Abbott et al. 2001). Several Kentucky floristic projects involving BEREAs students have also been published (Thompson et al. 1984, 1996, 2000; Thompson and FitzGerald Jr. 2003; Thompson and Fleming 2004; Thompson and Noe Jr. 2003) and others have appeared as abstracts (Abbott and Thompson 1993, 1994; Fleming et al. 1998; Thompson et al. 1995), but reports of most of the noteworthy species simply have not been formally published.

A recent dissertation (Medley 1993) and a recent book (Browne and Athey 1992) both provide lists of the vascular flora of Kentucky, but neither of them includes information from many of the specimens at BEREAs. Ongoing research has also yielded additional records since the two checklists. Small regional herbaria such as BEREAs are rarely utilized by workers outside the state; thus, their holdings remain largely unknown to other investigators.

There are several ongoing projects in the state that may culminate in a floristic atlas, a woody plant flora, and a manual of the flora of Kentucky. We report the following species to make knowledge of their presence available

to other in-state workers and the botanical community at large. Medley (1993) was the primary source for information on the distribution of species in Kentucky, but a problem for us is that he occasionally cited a species' presence in a county based on knowledge of our collections without referring to our actual specimens. Nonetheless, with very few exceptions, we only report species here that fill in "gaps" in Medley's report. Browne and Athey (1992) was also referred to, but Medley has most of the same information, typically in greater detail. Any of the species below considered endangered, threatened, rare, or special concern by the Kentucky State Nature Preserves Commission (KSNPC 2000) are indicated after the name by KSNPC, status, and the year of the listing-report used. Gleason and Cronquist (1991) was used for distributional information outside Kentucky and is the source of our nomenclature. Data on taxa not present in Gleason and Cronquist were found in Radford et al. (1968). Unless otherwise indicated, all specimens are deposited at BEREAs.

Fifty-three species are presented here, placed in four groups: (1) a state record, (2) range extensions in Kentucky (13 species), (3) various species of interest in the state (34 species, including 12 new populations for species listed and tracked by the Kentucky State Nature Preserves Commission), and (4) cultivated species that are possibly naturalized in the state (5 species).

KENTUCKY STATE RECORD

Polygonum densiflorum Meissner [Polygonaceae]

Native coastal plain species that ranges from New Jersey south to Florida, west to Texas, and interior to southern Missouri (Gleason and Cronquist 1991). It was to be expected in Kentucky (Beal and Thieret 1986), and it is present on the Mississippi Alluvial Coastal Plain in the contiguous states of Arkansas (Smith 1988), Missouri (Steyermark 1963), and Tennessee (Chester et al. 1997). Based on our examination of *Polygonum* specimens from Kentucky herbaria, Medley (1993) was correct in his assessment that there were not any Kentucky vouchers of *P. densiflorum*. Our collection is over 500 km east-northeast of any other collections from the above adjacent states.

Madison County: Berea College Forest, Red Lick Reservoir No. 2, ca. 2.2 km west of US 421 and KY at Bighill and 0.64 km south off gravel maintenance road; in cattail marsh near the earthen dam; infrequent. 24 Oct 2003; *Thompson 03-1208*, with J.R. Abbott.

RANGE EXTENSIONS

Castanea pumila (L.) P. Mill. var. *pumila* [Fagaceae] KSNPC Threatened (2000).

Johnson (1989) recorded this species as vouchered from eight counties in Kentucky but did not list Madison County. Medley (1993) stated there were five existing populations but that none was known with certainty to exist.

Madison County: Anglin Hollow, 2.5 km southeast on Long Branch Road from junction with Red Lick Road (KY 594); occasionally bush-hogged roadside wooded ledge at edge of field; rare, one shrub of several stems. 4 Oct 1993; *Abbott 6385*, with R.L. Thompson.

Crataegus coccinea L. [Rosaceae]

Medley (1993) cited only one specimen, from Letcher County without a collector or number. Ross Clark [EKY] first brought this species to our attention by identifying and annotating the following sheets (and others at BERA and EKY).

Laurel County: Lily Surface-mined Area, 0.32 km south of Lily and 3.2 km east of Ky

25 off Lily-McHargue Road; rare, single tree on northwest outslope. 12 Jun 1981; *Thompson 541*, with D.D. Taylor.

Madison County: Berea College Forest, ca. 3.2 km east of Berea on KY 21; along old powerline right-of-way north of road. 22 May 1983; *D.D. Taylor 3473*.

Rockcastle County: John B. Stephenson Memorial Forest State Nature Preserve, Anglin Falls Ravine; south-southwest trending, dry midslope, rare. 28 Jul 1997; *Thompson 97-161*, with C.A. Fleming.

Geum laciniatum Murray [Rosaceae]

Previously known only along the Ohio River and in the coastal plain portion of western Kentucky (Medley 1993). As described in Campbell et al. (1994), the site below was discovered by Randy L. Mears in 1993.

Laurel County: London, 1.2 km south of junction with C.R. 1006 on U.S. 25, on west side of road; swampy bottomland remnant. 19 Jun 1994; *Abbott 6999*, with R.L. Mears. This site was re-visited on 8 Aug 2002, and it has been partially developed. A large area has been filled in and has several large gravel piles. There is still a small, open, swampy strip adjacent to the nearby swamp woods, but this species was not relocated.

Heracleum maximum Bartr. [= *H. lanatum* Michx.] [Apiaceae] KSNPC Endangered (2000).

A widespread circumboreal species. In Kentucky, known with certainty only from Harlan county in the southeast (Medley 1993).

Lewis County: Brush Creek Island in the Ohio River; late old-field; rare. 14 Jun 1995; *Gelis BC-254*, with R.L. Thompson.

Lathyrus hirsutus L. [Fabaceae]

Native to Europe. In Kentucky known only from seven western counties (Medley 1993).

Madison County: Berea College Campus, south of the Alumni Building and Athletic Field, adjacent to Scaffold Cane Road (KY 595); fallow field. 3 Jun 1999; *Abbott 12685*.

Ludwigia hirtella Raf. [Onagraceae]

Medley (1993) reported this species from Edmonson and Metcalfe counties, in addition to Pulaski county based on the population re-

ported here, which is vouchered only by our collection.

Pulaski County: near Woodstock, 2.4 km east on Ocala Road from junction with KY 39, north of Hazeldell Church of Christ; opening in seasonally wet upland woods, successional grass-sedge meadow, occasional. 15 Jul 1991; *Abbott 1016*, with R.L. Thompson.

Lycopodium appressum (Chapman) Lloyd & Underw. [Lycopodiaceae]
[= *Lycopodiella appressa* (Chapman) Cranfill] KSNPC Endangered (2000).

Known from Calloway county in the coastal plain portion of western Kentucky. Medley (1993) also cited the population listed here (based on our collection).

Pulaski County: near Woodstock, ca. 1.6 km east on Ocala Road from junction with KY 39, north of road along trail; small opening in seasonally wet upland woods; rare, only one population, fewer than 10 square meters. 5 Jul 1991; *Abbott 829*, with R.L. Thompson. The population, revisited in 1994, was in stable condition.

Ranunculus parviflorus L. [Ranunculaceae]

Previously known with certainty only from a few counties in western Kentucky (Medley 1993).

Laurel County: off Willie Green Road at Sinking Creek, 0.32 km downstream; fallow field north of creek. 10 May 1994; *Abbott 6797*, with R.L. Mears.

Madison County: Fort Boonesborough State Park; yard in campground; rare. 21 May 1994; *Abbott 6911*.

Ranunculus pusillus Poir. [Ranunculaceae]

Frequent in western Kentucky (Medley 1993).

Laurel County: London, 0.32 km east of junction with KY 80 on KY 192, then south of highway; in mowed wet meadow, along small seep. 10 May 1994; *Abbott 6801*, with R.L. Mears.

Ranunculus sardous Crantz [Ranunculaceae]

Native to Europe. Frequent in western Kentucky (Medley 1993). These collections show the species to be fairly well established in central and southeastern Kentucky.

Bell County: Fonde Surface-mined Dem-

onstration Area; mixed hardwoods plantation, outslope; infrequent. 31 May 1989; *Thompson 89-949*.

Casey County: adjacent to the intersection of U.S. 127 and 70; in a wet meadow. 1 Jul 1988; *B. Hoagland 224* [BEREA; duplicate from EKY; identified as *R. pensylvanicus* in Hoagland and Jones (1992)].

Knox County: northeast of Corbin, ca. 2 km northwest of U.S. 25 on KY 830; grazed open roadside field; frequent. 25 Jul 1992; *Abbott 3344*.

Laurel County: North Corbin; east of U.S. 25W just north of Whitley County line; upper floodplain of Lynn Camp Creek. 2 May 1999; *Abbott 12554*.

Rockcastle County: east of Disputanta, 0.3 km east on Anglin Fork Road from Hammonds Fork Road, at junction with Anglin Creek and Clear Creek, wet open field; frequent. 9 May 1992; *Abbott 2090*.

Ranunculus sceleratus L. [Ranunculaceae]

Frequent along the Ohio River and in western Kentucky (Medley 1993).

Madison County: Fort Boonesborough State Park; sandy, open, upper beach along river; rare. 10 Jun 1992; *Abbott 2519*.

Urochloa platyphylla (Munro ex Wright) R. Webster [= *Brachiaria platyphylla* (Munro ex Griseb.) Nash] [Poaceae]

Native southeastern species (Radford et al. 1968). Previously known in Kentucky only from four western counties (Medley 1993).

Madison County: Fort Boonesborough State Park; river sand and mudflats; rare. 16 Aug 1992; *Abbott 4029*, with R.L. Thompson and R.L. Mears.

Veronica polita Fries [Scrophulariaceae]

Native to Eurasia. Reportedly rare in Campbell and Mason counties (Medley 1993). Medley (1993) reported *Veronica agrestis* (a very similar species) as frequent "probably throughout the state." We have never seen that species but have seen *V. polita* regularly enough to suspect that it is undoubtedly more common than collections indicate and that there may have been some confusion in Medley's report.

Boone County: south of Petersburg, 6.24 km north on KY 20 from junction with KY 18,

then northwest at junction with Woolper Creek; open field along lake on creek. 13 May 1994; *Abbott* 6838, with R.F.C. Naczi and R.L. Mears.

Garrard County: Camp Nelson Quarry, 2.72 km off KY 1845 from junction of U.S. 27 and 1.6 km west-northwest of Lamber Methodist Church; xeric aggregated gravel floor; infrequent. 1 Apr 1997; *Thompson* 97-189, with C.A. Fleming.

Jessamine County: waste place along Kentucky River, near Brooklyn Bridge. 30 Mar 1956; *D.M. Smith* 1261.

Madison County: Fort Boonesborough State Park; yards; frequent. 5 Mar 1992; *Abbott* 1322, with R.L. Thompson and G. Dandeneau.

VARIOUS SPECIES OF INTEREST

Achyranthes japonica (Miq.) Nakai [Amaranthaceae]

Native to eastern Asia. Previously reported for three counties along Tug Fork in eastern Kentucky. Medley (1993) also mentioned that the species is probably spreading, as confirmed by this collection and by Vincent and Cusick (1998), who reported it new to Ohio.

Lewis County: Brush Creek Island in the Ohio River; forested wetland; abundant. 3 Sep 1995; *Gelis* BC-1077, with R.L. Thompson.

Aconitum uncinatum L. [Ranunculaceae]
KSNPC Threatened (2000).

Previously reported from five counties from northern to southeastern Kentucky, including Laurel (Medley 1993). This collection represents a new population.

Laurel County: London, University of Kentucky Feltner 4-H Camp; gravelly streambank; rare. 25 Sep 1999; *Thompson* 99-1060, with E.W.J. FitzGerald Jr.

Aegopodium podagraria L. [Apiaceae]

Native to Eurasia; escaped in northeastern United States. Previously reported only from Jefferson county in Kentucky (Medley 1993).

Lewis County: Manchester Island No. 1 in the Ohio River; mature bottomland hardwoods; rare. 8 Jun 1996; *Gelis* M1-1211, with C.L. Fleming.

Alopecurus pratensis L. [Poaceae]

Native to Eurasia, widespreadly naturalized in the United States. Previously reported as rare in a few counties in northern Kentucky (Medley 1993).

Madison County: Berea College Forest, 1 mi south of Bighill, 175 feet from KY 421 roadside on northwest trending side slope dominated by sericea lespedeza. 16 May 2003; *Thompson* 03-50, with D.B. Poindexter.

Cacalia suaveolens L. [Asteraceae]

Known mostly from western Kentucky but also from unverified reports in a few other scattered counties (Medley 1993).

Lewis County: Manchester Island No. 1 in the Ohio River; rare along shaded riverbank. 29 Jul 1995; *Gelis* M1-767, with R.L. Thompson, J.R. Abbott, and A.E. Shupe.

Camelina microcarpa Andr. [Brassicaceae]

Native to the Old World. Previously known from a few counties in northern and central Kentucky (Medley 1993).

Laurel County: London, east of U.S. 25 on KY 1006 toward Levi Jackson Wilderness Road State Park, along gravel embankment of railroad tracks. 19 Jun 1994; *Abbott* 5187, with R.L. Mears.

Cardamine impatiens L. [Brassicaceae]

Native to Europe and introduced into the coastal states west to Michigan (Gleason and Cronquist 1991). Medley (1993) listed only Campbell and Jefferson counties in Kentucky.

Lewis County: Manchester Island No. 1 in the Ohio River; late oldfield; frequent. 4 May 1995; *Gelis* M1-71, with D. Snell.

Carex pedunculata Muhl. [Cyperaceae]

When the population below was vouchered, it was only the second known site for this species in Kentucky (Thompson et al. 2000). Now known in several counties in eastern Kentucky (Medley 1993).

Laurel County: Rock Creek Research Natural Area; mixed mesophytic hemlock forest near a small rockhouse recess on conglomerate ledge; very infrequent. 21 Apr 1985; *Thompson* 85-77. Verified by Dr. Robert F.C. Naczi, Delaware State University.

Chenopodium pumilio R. Br. [Chenopodiaceae]

Native to Australia. In Kentucky known previously from Trimble and Fayette counties (Medley 1993).

Lewis County: Manchester Island No. 1 in the Ohio River; seasonally flooded and eroded sandy bank, 28 Jul 1995; *Abbott* 7808, with R.L. Thompson and R.L. Gelis.

Chrysosplenium americanum Schwein. [Saxifragaceae] KSNPC Endangered (2000).

Rare in southeastern Kentucky (Medley 1993). Already known from Harlan County, but we report a new population.

Harlan County: Pine Mountain Settlement School; wooded spring seep into Issac's Creek; infrequent. 26 Mar 1998; *Thompson* 98-14.

Cypripedium calceolus L. var. *parviflorum* (Salisb.) Fern. [= *C. parviflorum* Salisb.] [Orchidaceae] KSNPC Threatened (2000).

Previously known from a few scattered locations in eastern Kentucky (Medley 1993). Our collection was the basis of Medley's (1993) report from Laurel county.

Harlan County: Sheppard Trail, near Pine Mountain Settlement School; on roadside embankment. 3 Jun 1997; *Thompson* 97-1298.

Laurel County: Rock Creek Research Natural Area uplands, northeast-facing pine-oak stand; rare. 7 May 1989; *Thompson* 89-644.

Disporum maculatum (Buckl.) Britt. [Liliaceae] KSNPC Special Concern (2000).

Known from several eastern counties in Kentucky, including Bell and Harlan (Medley 1993), but our collections voucher new populations.

Bell County: Fonde Surface-mined Demonstration Area; on highwall; infrequent. 21 Apr 1990, *Thompson* 90-278.

Harlan County: Pine Mountain Settlement School; north-trending mesic lower slope along the Split Rock Trail; infrequent to rare. 19 April 1988; *Thompson* 88-279.

Eriophorum virginicum L. [Cyperaceae]

Previously known in Kentucky only from Harlan county (Medley 1993).

Laurel County: south of Flatwoods and west of Frozen Camp Creek, in powerline right-of-way; wet sandy opening (disturbed drainage channel); several dozen fertile stems seen. 30

Jul 1993; *Abbott* 5897, with J.J.N. Campbell and S. Walker.

Floerkea proserpinacoides Willd. [Limnanthaceae]

Medley (1993) reported this species as rare near streams along the Ohio River in northern Kentucky, all west of these collections.

Lewis County: Manchester Island No. 2 in the Ohio River; mature bottomland hardwoods; occasional. 4 May 1995; *Gelis* M2-75, with D. Snell.

Gentiana flavida A. Gray [Gentianaceae] KSNPC Endangered (2001).

Previously reported from several scattered counties, some unvouchered or with uncertain identifications (Medley 1993).

Madison County: between Brushy Knob and Hacker Smith Mountain, near Lick Fork Creek; ca. 20 stems at edge of yard and remnant cedar glade thicket. 21 Aug 2002; *Thompson* 02-392, with M. Evans.

Geranium dissectum L. [Geraniaceae]

Native to Europe. Previously known from northern Kentucky in two counties, with a few other unverified reports (Medley 1993).

Madison County: Berea College Campus, south of Kettering Residence Hall and Agriculture Greenhouses; along edge of cultivated field adjacent to Scaffold Cane Road (KY 595); locally abundant. 23 Apr 1999; *Abbott* 12458.

Hexastylis heterophylla (Ashe) Small [Aristolochiaceae]

Known previously from Bell and Harlan counties (Medley 1993). Gleason and Cronquist (1991) treated the species as conspecific under *H. virginica*. According to Gaddy (1987), this species is distinct from *H. virginica*. Our plants have predominantly erect calyx lobes mostly 3–4 mm long (characteristics of *H. virginica*), and the details of the reticulation along the internal calyx of some flowers are also reminiscent of *H. virginica*, with relatively low relief and no distinct vertical ridges. Thus, we were tempted to follow Gleason and Cronquist. However, some calyx lobes are strongly reflexed and a few are ca. 5 mm long (especially when fresh), and some calices have a pronounced internal reticulation with distinct vertical ridges (characteristics of *H. het-*

erophylla). Even the flowers that are most like *H. virginica*, though, have anther connectives which are exerted beyond the anther (a distinctive *H. heterophylla* characteristic). Finally, Rob Naczi, of Delaware State University, who has field experience with many *Hexastylis* species, looked at our vouchers and then visited the site, concluding that, overall, our population is more like *H. heterophylla* than *H. virginica*.

Laurel County: ca. 100 m west of I-75 at junction with the Laurel River; a few plants near the river, more common upslope. 9 Apr 1994; *Abbott* 6532.

Linum usitatissimum L. [Linaceae]

Known previously from Fulton County in western Kentucky (Medley 1993) and reportedly vouchered from Madison County by Libby et al. (1997), although, contrary to the report, no specimen was left at BEREa.

Pulaski County: northeast of Hazeldell Church of Christ, ca. 1 mile west of junction with Alexander Road on Ocala Road; adventive in fallow field [near roadside edge]; rare. 2 Jul 1992; *Abbott* 2847, with R.L. Thompson.

Liparis loeselii (L.) L.C. Richard [Orchidaceae] KSNPC Threatened (2000).

Previously reported from a few counties in eastern Kentucky (Medley 1993). Thompson and MacGregor (1987) reported it from Bell County.

Clark County: abandoned limestone quarry, 1.4 km west of junction with KY 1924 on KY 418 and 0.32 km east of Lisletown (Halls on the River), adjacent to Kentucky River; raised spot in cattail-rush marsh; rare. 5 Aug 1994; *Thompson* 94-701, with E.W.J. FitzGerald, Jr.

Lobelia nuttallii Roemer & Schultes [Campanulaceae] KSNPC Threatened (2000).

Medley (1993) reported this species from four counties in southeastern Kentucky, including Laurel and Whitley, based partly on our collections. Campbell et al. (1994) reported several other populations in Laurel and Whitley counties, also based partly on our collections.

Laurel County: Lily Surface-mined Area, 0.32 km south of Lily and 3.2 km east of U.S. 25 off Lily-McHargue Road; old outslope

pond embankment; rare. 28 Jun 1981; *Thompson* 81-653, with D.D. Taylor.

McCreary County: 0.8 km north off U.S. 27 from Scott County (TN) line, and west on Cline Road for 0.48 km; wet meadow portion of field adjacent to mixed hardwoods stand; infrequent. 10 Aug 1993; *Thompson* 93-465.

Whitley County: south of Bark Camp, 0.8 km south of F.S. 191 from junction with KY 1193; in a mowed powerline right-of-way along edge of mixed pine-oak woods; rare. 1 Aug 1993; *Thompson* 93-447, with J.R. Abbott and A.E. Shupe.

Lysimachia vulgaris L. [Primulaceae]

Native to Eurasia. Rare in three counties along the Ohio River, west of this collection (Medley 1993).

Lewis County: Manchester Island No. 1 in the Ohio River; unconsolidated shoreline; rare. 22 Jun 1996; *Gelis* M1-1263, with C.A. Fleming.

Oenothera linifolia Nutt. [Onagraceae] KSNPC Endangered (2000).

Rare in four western Kentucky counties and McCreary County in southeastern Kentucky (Medley 1993).

Pulaski County: near Woodstock, 2.2 km east on Ocala Road from junction with KY 39, NW of Hazedell Church of Christ; in fallow field; rare. 23 Jul 1992; *Abbott* 3280, with R.L. Thompson.

Papaver dubium L. [Papaveraceae]

Native to Europe. Only known from Campbell and Kenton counties in northern Kentucky (Luken and Thieret 1987).

Madison County: near Redhouse, Louisville and Nashville Railroad right-of-way, 0.32 km north on KY 388 from junction of KY 3372; infrequent. 17 May 1998; *Thompson* 98-157.

Nicholas County: between gas pipeline and roadside off U.S. 68, 4 km southwest of Ellisville; scattered group of 20 plants. 27 May 1995; *Gelis* 326, with R.L. Thompson and D. Snell.

Platanthera integrilabia (Correll) Luer [Orchidaceae] KSNPC Threatened (2000).

A federal candidate for listing (USFWS 1999). Medley (1993) listed three counties from southern Kentucky.

Laurel County: Marsh Branch Road (F.S. 774), ca. 0.96 km south of KY 192, then north-east ca. 0.48 km in ravine just north of F.S. 4108; wet swampy streamhead in open woods; one large extended narrow population of hundreds of plants. 31 Jul 1993; *Abbott* 5954.

Poa bulbosa L. [Poaceae]

Native to Europe. Known from one county in northern Kentucky and three counties in western Kentucky (Medley 1993).

Laurel County: London, Levi Jackson Wilderness Road State Park; near campground restrooms; forested roadside with mowed understory. 10 May 1994; *Abbott* 6776, with R.L. Mears.

Madison County: Berea, along slope behind buildings at southeast corner of Chestnut and Boone streets; remnant woodland slope. 20 Apr 1992; *Abbott* 1911.

Ranunculus ficaria L. [Ranunculaceae]

Native to Eurasia. Previously known in Kentucky from three counties along the Ohio River, west of these collections (Medley 1993).

Lewis County: Manchester Island No. 1 in the Ohio River; mature bottomland hardwoods; rare. 11 Apr 1995; *Gelis* M1-35, with R.L. Thompson.

Rhamnus frangula L. [Rhamnaceae]

Native to Eurasia. Previously only vouchered as naturalized in Jefferson and Laurel counties (Medley 1993). Our site represents a new population.

Laurel County: London, University of Kentucky Feltner 4-H Camp; mesic oak-pine forest below earthen dam embankment along creek; rare. 16 May 2002; *Thompson* 02-44, with E.W.J. FitzGerald, Jr.

Scirpus fluviatilis (Torr.) Gray [Cyperaceae]
KSNPC Threatened (2000).

Previously listed for two counties in extreme western Kentucky (Medley 1993), and Jones (1994) reported it from Madison County. Our collection is the easternmost documented for Kentucky.

Bell County: Fonde Surface-mined Demonstration Area; settling pond edge; rare. 12 Aug 1989; *Thompson* 89-1273.

Sherardia arvensis L. [Rubiaceae]

Native to western Eurasia and northern Africa. Known previously from three scattered counties in Kentucky (Medley 1993).

Madison County: Fort Boonesborough State Park; mowed grass-legume field on west side of KY 388; locally abundant. 8 May 1996; *Abbott* 8565, with R.L. Thompson and B.S. Carlsward.

Sida hermaphrodita (L.) Rusby. [Malvaceae]
KSNPC Special Concern (2000).

Medley (1993) reported this species from several other counties along the Ohio River in Kentucky.

Lewis County: Manchester Island No. 2 in the Ohio River; late oldfield; rare, one colony located near island head. 21 Jul 1995; *Gelis* M2-517.

Silene ovata Pursh [Caryophyllaceae] KSNPC Threatened (2000).

Previously reported from five counties (Medley 1993), including Bell, which is undoubtedly based on this voucher.

Bell County: Log Mountain Surface-mined Demonstration Area; wooded outslope; infrequent. 26 Jul 1985; *Thompson* 85-1420, with R.A. Straw.

Spiranthes lucida (H. Eaton) Ames [Orchidaceae] KSNPC Threatened (2000).

Medley (1993) reported this species from seven counties (but some as sight records only) in southern central to southeastern Kentucky.

Clark County: abandoned limestone quarry, 1.4 km west of junction with KY 1924 on KY 418 and 0.32 km east of Lisletown, adjacent to Kentucky River; rare, a single colony in the *Juniperus* xeric community at the edge of a small pond. 17 Jun 1994; *Thompson* 94-426, with J.R. Abbott.

Stellaria aquatica (L.) Scop. [= *Myosoton aquaticum* (L.) Moench] [Caryophyllaceae]

Native to Europe. Previously reported as rare on river banks and seeps of five counties along the Ohio River (Medley 1993).

Lewis County: Brush Creek Island in the Ohio River; unconsolidated shoreline; frequent. 27 May 1995; *Gelis* BC-184, with R.L. Thompson.

Vallisneria americana Michx. [Hydrocharitaceae]

Known previously from two counties farther west (than this collection) along the Ohio River and from a few other scattered counties in Kentucky (Medley 1993).

Lewis County: Manchester Island No. 2 in the Ohio River; aquatic bed; infrequent. 17 Aug 1995; *Gelis* M2-860, with R.L. Thompson.

CULTIVATED SPECIES POSSIBLY NATURALIZED

The following species are included as they appeared to us to have been non-cultivated. It is possible, however, that they were planted many decades ago, although no homesite remnants were seen. Some of them were certainly spreading in the immediate area. Nonetheless, if it were possible to know the entire site history, perhaps all but the *Euonymus* and *Ligustrum* could be seen as having spread from cultivation or as persisting and may not truly be naturalized (e.g., Nesom 2000).

Akebia quinata (Houtt.) Dcne. [Lardizabaleaceae]

Native to eastern Asia. Previously known in Kentucky from Jefferson County (Medley 1993).

Rockcastle County: Daniel Boone National Forest, ca. 0.64 km from KY 1004 on a forest service road; roadside pine clear-cut area; rare. 27 Jul 1991; *Thompson* 91-739, with D.D. Taylor.

Euonymus alata (Thunb.) Siebold [Celastraceae]

Native to eastern Asia. Medley (1993) reported this species as infrequently naturalized in a few scattered counties in Kentucky.

Lewis County: Manchester Island No. 1 in the Ohio River; oldfield; rare. 8 Jun 1996; *Gelis* M1-1207, with C.A. Fleming.

Madison County: Berea College Campus, south of the Alumni Building and Athletic Field, along cross-country trail past Brushy Creek; mostly disturbed secondary hardwood forest, but with several scattered, exotic, usually-cultivated plants; apparently spontaneous, dozens of individuals seen along creek. 3 Jun 1999; *Abbott* 12681.

Kerria japonica (L.) DC. [Rosaceae]

Native to China and Japan. Medley (1993) mentioned it from cultivation. Gleason and Cronquist (2001) included this species as an occasional escape from cultivation.

Harlan County: Pine Mountain Settlement School; persisting in mixed mesophytic woods from site of old burned library near Issac's Creek; rare. 19 Apr 1988; *Thompson* 88-219. This species was also collected at Pine Mountain Settlement School as an apparently cultivated shrub near a woodland margin far from any buildings (*Abbott* 8585). This latter collection demonstrates how a planting in an out-of-the-way place could later be seen as possibly naturalized, especially when decades have passed and site usage has changed.

Madison County: Berea College Forest, ca. 3.68 km east of Berea on KY 21 from junction with KY 595; pine-oak woodland strip along north side of road; one multi-stemmed shrub growing at base of, and surrounded by, native trees and shrubs. 23 April 1993; *Abbott* 4674. Perhaps persisting from cultivation long ago but there is no evidence or local record of an old homesite in the immediate area. Not apparently spreading here. This could represent an escape from recent cultivation somewhere nearby.

Ligustrum obtusifolium Siebold & Zucc. [Oleaceae]

Native to eastern Asia. In disturbed areas in Fayette and Oldham counties (Medley 1993). Based on several specimens recently annotated at BEREa by Ross Clark (EKY), this species is much more commonly naturalized than previously reported.

Garrard County: Camp Nelson Quarry, 2.7 km on KY 1845 from junction with US 27; dry quarry floor near highwall talus area; rare, two fruiting shrubs. 2 Aug 2004; *Thompson* 04-1105.

Madison County: Berea College Campus, south of the Alumni Building and Athletic Field along cross-country trail past Brushy Creek; mostly disturbed secondary hardwood forest, but with several scattered, exotic, usually-cultivated plants; numerous individuals of various sizes present. 3 Jun 1999; *Abbott* 12682.

Rockcastle County: John B. Stephenson

Memorial Forest State Nature Preserve, Anglin Falls Ravine; northwest-trending lower slope in *Pinus-Liriodendron-Quercus* community; infrequent. 3 Oct 1997; *Thompson* 97-344, with A.N. Allen.

Lycium barbarum L. [Solanaceae]

Native to temperate Eurasia. Documented as sparingly naturalized along a few roadsides and creeks in four Kentucky counties, mostly on limestone-based soils (Medley 1993).

Clark County: roadside ditch along KY 418 ca. 0.16 km from junction with KY 1924; rare, site discovered by Ross Clark. 26 Sep 2003; *Thompson* 03-1066.

Madison County: Berea College Campus near Agriculture Annex; clustered in cut-back *Morus alba*. 19 Sep 1985; *Thompson* 85-1632.

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