

NEW VASCULAR PLANT COUNTY RECORDS FROM ALABAMA

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ABSTRACT

Three species and one variety of introduced vascular plants are reported as new to Alabama, and one native species excluded from the *Annotated Checklist of the Vascular Plants of Alabama*, and the Alabama Plant Atlas is documented as present in the state. Those species reported as new for the state are *Chloris canterae*, *Lupinus polycarpus*, *Phelipanche* [*Orobanche*] *ramosa*, and *Prunus persica* var. *nucipersica*. *Rudbeckia nitida* is confirmed as native and extant in Alabama.

New records for native and established exotic species have accumulated for Alabama as a result of field studies. Complete sets of the voucher specimens are housed at TROY, UWAL, and VDB. State records were determined using the Alabama Plant Atlas (Keener et al. 2016), the North American Plant Atlas (Kartesz 2015), and searches of literature.

CHLORIS CANTERAE Arechav. (Poaceae)

Voucher. **Alabama.** Conecuh Co.: Gravel parking lot, full sun, dry, disturbed soil, Evergreen, Industrial Park Road 0.4 mi S of Alabama Hwy 83, 31.451267° -86.967933°, 13 Jun 2015, *Diamond* 26466. Houston Co.: Dry sandy clay soil of roadside in full sun, Hilltop Road 0.04 mi N of Judge Logue Road, 31.200983° -85.678600°, 15 Oct 2015, *Diamond* with P.C. Harris 26928.



Figure 1. *Chloris canterae* in a gravel parking lot in Conecuh County.

This represents the first reports of this taxon from Alabama. *Chloris canterae* is native to South America and has been previously reported as introduced in Georgia, Louisiana, Mississippi, South Carolina, and Texas in the USA (Barkworth 2003; Kartesz 2015; USDA, NRCS 2016). Two varieties have been reported as occurring in the USA: *C. canterae* Arechav. var. *canterae* and *C. canterae* var. *grandiflora* (Roseng. & Izag.) D.E. Anderson. The two varieties differ in disposition of leaves, width of leaves, and length of panicle branches. Our material corresponds to *C. canterae* Arechav. var. *canterae*. *Chloris canterae* was scattered at the Houston County locality, growing with *Cynodon dactylon* and *Paspalum notatum* on a sandy roadside maintained by mowing and herbicide application. The Conecuh County site was a gravel parking lot in full sun (Fig. 1). At this site *C. canterae* was the only species growing in much of the parking area.

LUPINUS POLYCARPUS E.L. Greene (Fabaceae)

Voucher. **Alabama.** Montgomery Co.: Roadside bank by cow pasture along Montgomery County Hwy. 17, 1/4 mi S of Co. Hwy 54, 32.346577° -86.430760°, 25 Mar 2012, *Diamond* 22876.



Figure 2. *Lupinus polycarpus* on roadside bank along a cow pasture in Montgomery Co., Alabama.

Native to California, Oregon, and Washington in the USA, this collection represents the first report of this taxon from Alabama. It has been reported as introduced in Wayne County Michigan (Kartesz 2015; USDA, NRCS 2016) where it was collected as a ballast waif in 1894 (Reznicek et al. 2016). *Lupinus polycarpus* is a small flowered annual species sometimes sold in “wildflower” seed mixtures. It is possible that the species was introduced to Alabama by this means. However, no other exotic species commonly included in wildflower seed mixes were observed at the site. The site is also located in a rural area of the county and not a “typical” site for wildflower plantings (Fig. 2). When first discovered, this site was adjacent to a hay field. After the area was fenced and cattle introduced this species disappeared from the pasture side of the fence. *Lupinus polycarpus* has been

observed at the site yearly since its discovery. Other species present at the site include *Scleranthus annuus*, *Plantago virginica*, *Hypochaeris glabra*, *Carex cherokeensis*, and *Salvia lyrata*.

PHELIPANCHE [Orobanche] **RAMOSA** (L.) Pomel (Orobanchaceae)

Voucher. **Alabama**. Montgomery Co.: Montgomery, sandy soil, grassy roadside in full sun at intersection of Co. Hwy 54 and Western Blvd, 32.344733° -86.371967°, 17 Mar 2016, *Diamond* with P.C. Harris 27259.



Figure 3. *Phelipanche ramosa* on a roadside in Montgomery Co., Alabama.

This represents the first report of this taxon from Alabama. It has been reported from California, Illinois, Kentucky, South New Jersey, North Carolina, Texas, and Virginia in the USA (Kartesz 2015; USDA, NRCS 2016). *Phelipanche ramosa* is native to the regions surrounding the Mediterranean but is now a cosmopolitan weed of various crop species worldwide (Parker 2009). Several dozen individuals of this species were observed at the site growing among grasses and spring annuals (Fig. 3). This intersection is frequently utilized by persons setting up roadside stands to sell livestock and produce. Other species present include *Lolium perenne* var. *aristatum*, *Paspalum notatum*, *Sherardia arvensis*, *Trifolium campestre*, and *Trifolium incarnatum*.



Figure 4. *Rudbeckia nitida* on a moist sandy roadside in Conecuh Co., Alabama

RUDBECKIA NITIDA Nutt. (Asteraceae)

Voucher. **Alabama**. Conecuh Co.: Common, moist sandy roadside in full sun, Co. Hwy 42, 1.5 mi SE of County Hwy 6; 31.246590° -86.753365°, 24 Jun 2016, *Diamond* 27508.

Confusion exists over the presence of this taxa in Alabama. This species has been reported from Macon and Monroe counties in Alabama (Kartesz 2015) and is also attributed to Alabama by the Plants Database (USDA, NRCS 2016) and Weakley (2015). However Urbatsch and Cox (2006) listed the native range of the species as Florida and Georgia in their treatment of the genus in Flora of North America and stated that “a report for Alabama has not been confirmed.” Cronquist (1980) listed as range of the species as Florida and Georgia with “outliers in Manatee Co., Fla, and Macon Co., Ala.” Kral (1983) gave the range of the species as Florida and Georgia with one occurrence “in east Alabama.” When the *Annotated Checklist of the Vascular Plants of Alabama* was compiled (Kral et al. 2011), the committee developing the list was unable to locate a voucher of this species from Alabama and it was omitted from the list. The Alabama Plant Atlas website (Keener et al. 2016) was developed from the Alabama Checklist as a virtual environment which could be updated as flora data for Alabama is continually gathered and compiled. *Rudbeckia nitida* has not been added to the Plant Atlas website as occurring in Alabama. This collection serves to verify the presence of this taxa in the state.

PRUNUS PERSICA (L.) Batsch var. **NUCIPERSICA** (Suckow) C.K. Schneid. (Rosaceae)

Voucher. **Alabama**. Montgomery Co.: Montgomery, just N of Fourney Street (dirt) along a drainage ditch, fruit glabrous, 32.395784° -86.289900°, 10 May 2016, *Diamond* with B. Campbell 27379.

This represents the first report of this taxon from Alabama. It has been reported from Georgia, Louisiana, South Carolina, and Texas in the USA (USDA, NRCS. 2016). *Prunus persica* var. *nucipersica* is a smooth-fruited sport of the common peach (resulting from a recessive allele) that has arisen many times in cultivation (Faust & Timon 1995). A single tree was present at the Alabama site. The area was heavily disturbed by storm water runoff and overflow of the drainage ditch and by city maintenance of the ditch and adjacent right-of-way. The area is also utilized as a “dump” by locals for tires, old appliances and furniture, household garbage, and lawn waste. Many exotic species were present at the site including *Ligustrum sinense*, *Liriope muscari*, *Rosa multiflora*, and *Triadica sebifera*.

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LITERATURE CITED

- Barkworth, M.E. 2003. *Chloris* (Poaceae). Pp. 204–218, in Flora of North America North of Mexico, Vol. 25, part 2. Oxford Univ. Press, New York and Oxford.
- Cronquist, A. 1980. Vascular Flora of the Southeastern United States. Volume 1, Asteraceae. Univ. of North Carolina Press, Chapel Hill.
- Faust, M. and B. Timon. 1995. Origin and dissemination of peach. Hort. Rev. 17: 331–379.
- Kartesz, J.T. 2015. North American Plant Atlas. <<http://bonap.net/napa>>. The Biota of North America Program (BONAP). Chapel Hill, North Carolina. [Maps generated from J.T. Kartesz. 2015. Floristic Synthesis of North America, Version 1.0. BONAP, in press].

- Keener, B.R., A.R. Diamond, L.J. Davenport, P.G. Davison, S.L. Ginzburg, C.J. Hansen, C.S. Major, D.D. Spaulding, J.K. Triplett, and M. Woods. 2016. Alabama Plant Atlas. [S.M. Landry and K.N. Campbell (original application development), Florida Center for Community Design and Research. Univ. of South Florida]. Univ. of West Alabama, Livingston.
- Kral, R. 1983. A Report on Some Rare, Threatened, or Endangered Forest-related Vascular Plants of the South, Vol. II. USDA Forest Service Techn. Publ. R8-TP 2.
- Kral, R., A.R. Diamond Jr., S.L. Ginzburg, C.J. Hansen, R.R. Haynes, B.R. Keener, M.G. Lelong, D.D. Spaulding, and M. Woods. 2011. Annotated Checklist of the Vascular Plants of Alabama. BRIT Press, Bot. Res. Inst. of Texas, Fort Worth.
- Parker, C. 2009. Observations on the current status of *Orobanche* and *Striga* problems worldwide. *Pest Manag. Sci.* 65: 453–459.
- Reznicek, A.A., E.G. Voss, and B.S. Walters. 2016. Michigan Flora Online. Univ. of Michigan, Ann Arbor. <<http://michiganflora.net/home.aspx>> Accessed 16 September 2016.
- Urbatsch, L.E. and P.B. Cox. 2006. *Rudbeckia* (Asteraceae). Pp. 44–60, in *Flora of North America North of Mexico*, Vol. 21, part 3. Oxford Univ. Press, New York and Oxford.
- USDA, NRCS. 2016. The PLANTS Database. National Plant Data Team, Greensboro, North Carolina. Accessed September 2016.
- Weakley, A.S. 2015. Flora of the Southern and Mid-Atlantic States. Working draft of May 21, 2015. Univ. of North Carolina Herbarium, North Carolina Botanical Garden, Chapel Hill. <<http://www.herbarium.unc.edu/flora.html>> Accessed 28 June 2016.