ASTERACEAE FROM WOOL MILL SITES IN SOUTH CAROLINA, INCLUDING NEW RECORDS FOR NORTH AMERICA

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ABSTRACT

Documentation is given for 73 taxa of Asteraceae collected in 1957–1960 from wool mill sites in Berkeley County and Florence County, South Carolina. Twenty-eight (28) of these taxa are first reports for the flora of South Carolina; seventeen (17) others represent the first documentation for earlier reports for the state. Six (6) are first reports for North America: Chevreulia sarmentosa, Gamochaeta argentina, and Panphalea heterophylla (native to South America), and Peripleura arida, Stuartina hamata, and Vittadinia sulcata (native to Australia). Calotis cuneifolia (native to Australia) is reported for North America for the second time. Fifty-nine (59) of the 73 taxa are not native to South Carolina; of these, 29 are native to continents other than North America, while 30 are native to North America but from regions outside of the state.

RESUMEN

Se ofrece documentación de 73 taxa de Asteraceae colectados en el intervalo 1957–1960 en los condados de Berkeley y Florence County, Carolina del Sur. Veintiocho (28) de estos taxa son primeras citas para la flora de Carolina del Sur; otros diez y siete (17) representan los primeros testigos para citas previas en el estado. Seis (6) son primeras citas para Norte América: Chevreulia sarmentosa, Gamochaeta argentina, and Panphalea heterophylla (nativa de Sur América), y Peripleura arida, Stuartina hamata, y Vittadinia sulcata (nativa de Australia). Calotis cuneifolia (nativa de Australia) se cita para Norte América por segunda vez. Cincuenta y nueve (59) de los 73 taxa no son nativos de Carolina del Sur; de estos, 29 son nativos de otros continentes diferentes de Norte América, mientras que 30 son nativos de Norte América pero de regiones fuera del estado.

In the years 1957 through 1960, as part of the Flora of the Carolinas project and working from the University of North Carolina-Chapel Hill herbarium, Harry Ahles and companion John Haesloop made repeated collecting trips to two 'wool combing mills' in South Carolina. One of these was in Jamestown in Berkeley Co., the other north of Johnsonville in Florence Co.; both sites are located on the coastal plain, 40–50 kilometers from the coast and about 60 kilometers from each other. Some of the collections were identified and incorporated into the general collections at NCU several decades ago; others were mounted but were not identified or inserted into the general collections until 2001. Only a few of these were included in the account of the Flora of the Carolinas (Radford et al. 1968). Some have been the basis of recent reports (without documentation) for distribution records (Kartesz 1999 and others).

The wool combing mills received raw fleece and processed it toward production of clean wool for spinning. Early stages in the process are mechanical shaking (removes dirt and some plant matter), "scouring" (removes chemical substances and sand), and "combing" (removes finer plant material as well as shorter, weaker fibers). Waste from these processes at the South Carolina mills was the source of propagules for species collected by Ahles and Haesloop. Delivery of the raw wool probably was by railroad, because both of the sites are along the CSX Railroad, which runs roughly parallel to the coast. Both mills apparently are still in operation.

Seventy-three taxa (73) of Asteraceae in 54 genera are represented in the collections identified here. Twenty-eight (28) of these are first reports for the flora of South Carolina; seventeen (17) others represent the first documentation for earlier reports for the state. Six (6) are first reports for North America: *Chevreulia sarmentosa*, *Gamochaeta argentina*, and *Panphalea heterophylla* are native to South America; *Peripleura arida*, *Stuartina hamata*, and *Vittadinia sulcata* are native to Australia. *Calotis cuneifolia* (native to Australia) is reported for North America for the second time. Fifty-nine (59) of the species are not native to South Carolina; of these, 29 are native to continents other than North America, while 30 are native to North America but from regions outside of the state.

It would be useful to reinvestigate the status of these taxa in South Carolina, in order to determine which have persisted or increased their distribution. A number of the taxa reported here may have the potential to spread and become damaging weeds, or they may simply be waifs (sensu Nesom 2000).

Collections by Ahles and Haesloop were made in 1957 (April, May, July, September, October), 1958 (April, May, June, July, September), 1959 (May, July), and 1960 (May, July). From each of the two wool mill sites, collections were provided with essentially the same label data, except for the collection number and date.

SOUTH CAROLINA. Berkeley Co.: waste ground around Santee Wool Combing Mill, Jamestown on S.C. Rte. 45, [Apr–Oct 1957–1960], *H.E. Ahles* [collection number] with J.G. Haesloop.

SOUTH CAROLINA. Florence Co.: waste ground around the Wellman Wool Combing Mill, north of Johnsonville on S.C. Rte. 41, [Apr-Oct 1957–1960], H.E. Ahles [collection number] with J.G. Haesloop.

PLANT LIST

The genera and species are arranged alphabetically. If more than one collection was made for a single species, the citations are arranged chronologically. Vouchers are located at NCU, unless otherwise indicated.

Achillea millefolium L.

Berkeley Co.: 13 Jun 1958, Ahles 42939 Berkeley Co.: 27 May 1959, Ahles 52717 Native to western Asia, widely naturalized in the U.S.A.; previously known from South Carolina (Radford et al. 1968).

Amblyolepis setigera DC. Berkeley Co.: 8 Apr 1957, *Ahles 22614* Native to Texas and Mexico; first report for South Carolina.

Ambrosia artemisiifolia L.

Berkeley Co.: 27 May 1959, Ahles 52805 Native to North America and widely distributed; previously known from South Carolina (Radford et al. 1968).

Amphiachyris dracunculoides (DC.) Nutt.

Berkeley Co.: 28 Sep 1957, Ahles 35585 Berkeley Co.: 30 Oct 1957, Ahles 38195 Berkeley Co.: 22 Sep 1958, Ahles 49216

Native to the south-central U.S.A. as far east as Alabama and Tennessee; reported for South Carolina by Kartesz (1999), documented here

Anthemis cotula |

Berkeley Co.: 20 May 1957, Ahles 25827 Florence Co.: 28 May 1957, Ahles 26690 Berkeley Co.: 27 May 1959, Ahles 52797 Florence Co.: 11 Jul 1960, Ahles 53756

Native to Europe and Asia, widely naturalized in the U.S.A.; previously known from South Carolina (Radford et al. 1968).

Arctium minus Bernh.

Berkeley Co.: 11 Jul 1960, *Ahles 53824*Native to Europe, widely naturalized in the U.S.A.; previously known from South Carolina (Radford et al. 1968).

Artemisia annua L.

Berkeley Co.: 11 Jul 1960, *Ahles 53848*Native to eastern Europe and Asia, naturalized in various states of the USA; first report for South Carolina

Artemisia biennis Willd. var. biennis

Berkeley Co.: 20 May 1957, Ahles 25897
Berkeley Co.: 27 May 1959, Ahles 52762
Berkeley Co.: 11 Jul 1960, Ahles 53814
Native to western and northern U.S.A. and
Canada; first report for South Carolina.

Artemisia vulgaris L. var. vulgaris

Berkeley Co.: 25 May 1960, Ahles 53402 Berkeley Co.: 25 May 1960, Ahles 53403 Native to Europe and Asia, widely naturalized in

Canada and the eastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

Bidens bipinnata L.

Berkeley Co.: 20 May 1957, *Ahles 25836* (NCU, SMU)

Berkeley Co.: 14 May 1958, Ahles 40488

Native to the southern and eastern U.S.A. and

Mexico; previously known from South Carolina (Radford et al. 1968).

Bidens pilosa L.

Florence Co.: 14 May 1958 Ahles 40446 Florence Co.: 30 Oct 1957, Ahles 38153 Florence Co.: 28 May 1957, Ahles 26699 Florence Co.: 22 Sep 1958, Ahles 49139

Native to Mexico and Central America, naturalized in the southwestern and southeastern U.S.A. and a few other states; previously known from South Carolina (Radford et al. 1968).

Bidens polylepis Blake

Berkeley Co.: 5 Jul 1957, Ahles 30809

Native to the eastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

Bidens frondosa L.

Berkeley Co.: 22 Sep 1958, Ahles 49204
Native and widespread in North America; previously known from South Carolina (Radford et al. 1968).

Calotis cuneifolia R. Br.

Berkeley Co.: 8 Apr 1957, Ahles 22537
Berkeley Co.: 14 May 1958, Ahles 40564
Berkeley Co.: 13 Jun 1958, Ahles 42935, 42973
Native to Australia, reported in the U.S.A. only for Massachussetts (Sorrie 1992); first report for South Carolina.

Carduus pycnocephalus L.

Berkeley Co.: 8 Apr 1957, Ahles 22550
Native to northern Africa and western Asia, naturalized in scattered states of western and Gulf coast U.S.A.; reported for South Carolina by Kartesz (1999), documented here.

Carthamus baeticus (Boiss. & Reut.) Lara (syn = *Carthamus lanatus* L.subsp.*baeticus* (Boiss. & Reut.) Nyman

Berkeley Co.: 13 Jun 1958, Ahles 42899

Berkeley Co.: 27 May 1959, *Ahles 52774* (det. D.J. Keil 1997)

Berkeley Co.: 27 May 1959, *Ahles 52854* Berkeley Co.: 25 May 1960, *Ahles 53372*

Native to southern Europe and northern Africa,

naturalized in scattered states, mostly along the Pacific coast; reported for South Carolina by Kartesz (1999), documented here.

Centaurea americana Nutt.

Berkeley Co.: 27 May 1959, Ahles 52776
Berkeley Co.: 27 May 1959, Ahles 52843
Berkeley Co.: 25 May 1960, Ahles 53492
Native primarily to the central U.S.A.; reported for South Carolina by Kartesz (1999), documented here

Centaurea melitensis |

Berkeley Co.: 8 Apr 1957, Ahles 22624
Berkeley Co.: 14 May 1958, Ahles 40542 (det. L. Shinners)

Berkelev Co.: 13 Jun 1958, Ahles 42919

Native to southern Europe and northern Africa, naturalized in the western U.S.A. and various other states; reported for South Carolina by Cronquist (1980), documented here.

Centaurea solstitialis L.

Berkeley Co.: 25 May 1960, Ahles 53487 Berkeley Co.: 11 Jul 1960, Ahles 53846 (det. L. Shinners)

Native to western Asia and the Mediterranean region of Europe, naturalized and weedy in most of the U.S.A.; reported for South Carolina by Hill and Horn (1997).

Chaetopappa asteroides (Nutt.) DC. var. asteroides

Berkeley Co.: 8 Apr 1957, Ahles 22551

Native to northern Mexico and the south-central U.S.A.; first report for South Carolina.

Chevreulia sarmentosa (Pers.) Blake
Berkeley Co.: 14 May 1958, Ahles 40509
Native to South America (Brazil, Paraguay, Uruguay, Bolivia, Argentina); first report for the U.S.A. and South Carolina.

Conyza bonariensis (L.) Crong.

1968).

Berkeley Co.: 14 May 1958, Ahles 40568
Berkeley Co.: 21 Jul 1958, Ahles 46996
Native to South America, naturalized in most southern states of the U.S.A.; previously known from South Carolina (Radford et al.

Coreopsis tinctoria Nutt. var. tinctoria

Berkeley Co.: 27 May 1959, *Ahles 52825* Berkeley Co.: 11 Jul 1960, *Ahles 53822* Native and widespread in North America; previously known from South Carolina (Radford et al. 1968).

Coreopsis verticillata L.

Berkeley Co.: 13 Jun 1958, Ahles 42900

Native to the southern U.S.A.; previously known from South Carolina (Radford et al. 1968).

Cotula australis (Sieber) Hook.f.
Berkeley Co.: 8 Apr 1957, Ahles 22592
Native to Australia and New Zealand; naturalized in various western U.S.A. states and

Florida: first report for South Carolina.

Dittrichia graveolens (L.) W. Greuter

Berkeley Co.: 28 Sep 1957, Ahles 35595

Native to the Mediterranean region, naturalized in various regions, including Australia, New Zealand, and California (Preston 1997), and reported from various other localities in the U.S.A. (Gleason & Cronquist 1991; Mitchell & Tucker 1997; Preston 1997; Tucker 1995); first report for South Carolina. In view of the other species reported here from Australia, it seems likely that the wool mill plants of Dittrichia graveolens also originated from there rather than from the native region of the species.

Dracopis amplexicaulis (Vahl) Cass.

Berkeley Co.: 20 May 1957, Ahles 25840
Berkeley Co.: 25 May 1960, Ahles 53369
Native primarily to the south-central U.S.A.; reported for South Carolina by Kartesz (1999), documented here.

Dyssodia papposa (Vent.) A.S. Hitchc.
Berkeley Co.: 8 Apr 1957, Ahles 22620
Berkeley Co.: 20 May 1957, Ahles 25892
Berkeley Co.: 14 May 1958, Ahles 40483
Berkeley Co.: 14 May 1958, Ahles 40553
Native to the southwestern and central U.S.A.; first report for South Carolina.

Eupatorium dubium Willd.

Berkeley Co.: 15 Jul 1959, Ahles 52950
Native to Atlantic coast states of the U.S.A., from South Carolina northward; previously known from South Carolina (Radford et al. 1968).

Evax multicaulis DC.

Berkeley Co.: 8 Apr 1957, *Ahles 22591* Berkeley Co.: 14 May 1958, *Ahles 40511* Native to Mexico and various states of the southern U.S.A.; reported for South Carolina by Cronquist (1980), documented here.

Evax prolifera Nutt. ex DC.

Berkeley Co.: 14 May 1958, *Ahles 40512*, *40513* Berkeley Co.: 27 May 1959, *Ahles 52737*

Native to Mexico and various states of the Great Plains and southern U.S.A.; first report for South Carolina

Facelis retusa (Lam.) Schultz-Bip. Berkeley Co.: 27 May 1959, *Ahles 52731* Berkeley Co.: 27 May 1959, *Ahles 52858*

Native to South America and naturalized in states of the Gulf coast and southern Atlantic coast; previously known from South Carolina (Radford et al. 1968).

Flaveria trinervia (Spreng.) Mohr

Berkeley Co.: 28 Sep 1957, Ahles 35584 Berkeley Co.: 21 Jul 1958, Ahles 47035 Berkeley Co.: 22 Sep 1958, Ahles 49172

Berkeley Co.: 22 Sep 1958, Ahles 49215

Native to northwestern Mexico and the southwestern United States, naturalized in a few states of eastern U.S.A.; first report for South Carolina.

Gaillardia pulchella Foug. var. drummondii

(Hook.) B.L.Turner

Berkeley Co.: 8 Apr 1957, Ahles 22528 Berkeley Co.: 20 May 1957, Ahles 25852 Berkeley Co.: 14 May 1958, Ahles 40460 Berkeley Co.: 13 Jun 1958, Ahles 42902 Berkeley Co.: 13 Jun 1958, Ahles 42950 Berkeley Co.: 13 Jun 1958, Ahles 42969 Berkeley Co.: 25 May 1960, Ahles 53367

Native primarily to the south-central U.S.A. but naturalized in various other states; reported for South Carolina by Kartesz (1999), documented here. The collections were determined by annotation as var. drummondii by B.L. Turner & T.J. Watson in 1995.

Gamochaeta antillana (Urb.) Anderb.

Berkeley Co.: 8 Apr 1957, Ahles 22529

Florence Co.: 8 Apr 1957, *Ahles 22628*

Probably native to the Caribbean region and perhaps South America, perhaps southeastern USA; first recognized by this name and circumscription in the U.S.A. by Nesom (2004).

Gamochaeta argentina Cabr.

Berkeley Co.: 8 Apr 1957, Ahles 22594
Native to South America (Argentina a)

Native to South America (Argentina and Uruguay); first report for the U.S.A. and South Carolina.

Gamochaeta calviceps (Fern.) Cabr.

Berkeley Co.: 27 May 1959, Ahles 52842

Perhaps native to the southeastern USA, apparently naturalized worldwide; recognized by this name and circumscription in the U.S.A. by Nesom (2004).

Gamochaeta pensylvanica (Willd.) Cabr.

Berkeley Co.: 8 Apr 1957, Ahles 22590

Probably native to South America (Nesom 2004), naturalized in the southern U.S.A. and throughout the world; previously known from South Carolina (Radford et al. 1968).

Gamochaeta simplicicaulis (Willd. ex Spreng.)

Cabr.

Berkeley Co.: 5 Jul 1957, Ahles 30825 Berkeley Co.: 21 Jul 1958, Ahles 47038 Berkeley Co.: 15 Jul 1959, Ahles 52959 Berkeley Co.: 11 Jul 1960, Ahles 53783

Native to South America, naturalized in a few states of Atlantic gulf coast U.S.A.; previously known from South Carolina, first reported by Nesom (1999).

Grindelia lanceolata Nutt. var. lanceolata

Berkeley Co.: 13 Jun 1958, Ahles 42920

Native to the south-central U.S.A.; first report for South Carolina. The plant is sterile, but the identification is probably correct. The plant has relatively broad leaves like plants from east Texas.

Gutierrezia sarothrae (Pursh) Britt. & Rusby

Berkeley Co.: 28 Sep 1957, Ahles 35269

Native to Mexico and the western U.S.A.; first report for South Carolina.

Gutierrezia texana (DC.) Torr. & A. Gray var. **texana**

Berkeley Co.: 11 Jul 1960, Ahles 53821

Berkeley Co.: 22 Sep 1958, Ahles 49193

Native to Mexico and Texas, naturalized or possibly native in a few other states of central U.S.A.; first report for South Carolina.

Helenium amarum (Raf.) H. Rock var. **badium** (A. Gray ex S. Wats.) Waterfall

Berkeley Co.: 20 May 1957, Ahles 25829 Berkeley Co.: 20 May 1957, Ahles 25834 Berkeley Co.: 14 May 1958, Ahles 40478 Berkeley Co.: 13 Jun 1958, Ahles 42936 Berkeley Co.: 27 May 1959, Ahles 52727

Native to Texas and Oklahoma; reported for South Carolina by Kartesz (1999), documented here.

Helenium elegans DC. var. elegans

Berkeley Co.: 25 May 1960, *Ahles 53357*Native to Texas, Oklahoma, and Louisiana; reported for South Carolina by Kartog (1999)

Native to Texas, Oklahoma, and Louisiana; reported for South Carolina by Kartesz (1999), documented here.

Helenium microcephalum DC. var. **microcephalum**

Berkeley Co.: 20 May 1957, *Ahles 25844* (NCU, SMU)

Berkeley Co.: 5 Jul 1957, Ahles 30803 Berkeley Co.: 21 Jul 1958, Ahles 47002 Berkeley Co.: 27 May 1959, Ahles 52719 Berkeley Co.: 25 May 1960, Ahles 53405 Florence Co.: 26 May 1960, Ahles 53560

Florence Co.:11 Jul 1960, *Ahles 53750* (NCU, SMU) Berkeley Co.:11 Jul 1960, *Ahles 53816*

Native to Texas, Oklahoma, New Mexico, and Colorado; reported for South Carolina by Kartesz (1999), documented here.

Helianthus annuus L.

Berkeley Co.: 20 May 1957, Ahles 25862
Berkeley Co.: 13 Jun 1958, Ahles 42987
Florence Co.: 22 Sep 1958, Ahles 49145
Berkeley Co.: 27 May 1959, Ahles 52777
Berkeley Co.: 25 May 1960, Ahles 53456
Berkeley Co.: 11 Jul 1960, Ahles 53770
Berkeley Co.: 11 Jul 1960, Ahles 53820
Native or naturalized across the entire U.S.A.;

Native or naturalized across the entire U.S.A.; previously known from South Carolina (Radford et al. 1968).

Heliomeris multiflora (Nutt.) Blake var. **multi- flora** (syn = *Viguiera multiflora* (Nutt.) Blake)

Berkeley Co.: 14 May 1958, Ahles 40541
Berkeley Co.: 27 May 1959, Ahles 52778
Native to the western USA and Mexico; first report for South Carolina.

Hymenoxys odorata DC.

Berkeley Co.: 8 Apr 1957, *Ahles 22512* Berkeley Co.: 8 Apr 1957, *Ahles 22603* Native to the southwestern U.S.A.; first report for South Carolina.

Hypochaeris brasiliensis (Less.) Griseb. var. **tweedei** (Hook. & Arn.) Baker

Berkeley Co.: 8 Apr 1957, *Ahles 22623*Berkeley Co.: 28 Sep 1957, *Ahles 35593*Berkeley Co.: 27 May 1959, *Ahles 52730*

Native to South America, naturalized in states along the Gulf coast and southern Atlantic; previously known from South Carolina, first reported by Shinners (1966) from a wool mill collection.

Hypochaeris glabra L.

Berkeley Co.: 14 May 1958, *Ahles 40469* Berkeley Co.: 13 Jun 1958, *Ahles 42954* Berkeley Co.: 27 May 1959, *Ahles 52738*

Native to South America, naturalized in states along the Gulf coast and southern Atlantic and various others; previously known from South Carolina (Radford et al. 1968).

Iva annua 🗆

Berkeley Co.: 28 Sep 1957, Ahles 35606 Berkeley Co.: 30 Oct 1957, Ahles 38194

Probably native to the central and eastern U.S.A.; previously known from South Carolina (Anonymous 1997), documented here.

Iva axillaris Pursh

Berkeley Co.: 13 Jun 1958, Ahles 42961
Native to western North America; first report for

Iva xanthifolia Nutt.

Berkeley Co.: 14 May 1958, Ahles 40531
Berkeley Co.: 27 May 1959, Ahles 52803
Native to most states of the U.S.A. except the Southeast; first report for South Carolina.

Krigia virginica (L.) Willd.

Berkeley Co.: 8 Apr 1957, Ahles 22627 Florence Co.: 8 Apr 1957, Ahles 22546 Florence Co.: 9 Apr 1958, Ahles 38274 Native to the eastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

Lactuca graminifolia Michx.

Berkeley Co.: 13 Jun 1958, Ahles 42968

Native to coastal states of the southeastern

U.S.A.; previously known from South Carolina (Radford et al. 1968).

Panphalea heterophylla Less. (identification by John Pruski)

Berkeley Co.: 8 Apr 1957, *Ahles 22585*Native to South America (Brazil, Uruguay, Argentina); first report for the U.S.A. and South Carolina (Pruski & Nesom 2004).

Parthenium hysterophorus L.

Berkeley Co.: 20 May 1957, Ahles 25850 Berkeley Co.: 5 Jul 1957, Ahles 30810 Berkeley Co.: 22 Sep 1958, Ahles 49161 Berkeley Co.: 15 Jul 1959, Ahles 52960

Apparently native to the West Indies and adjacent North America and South America, naturalized in various states of south-central U.S.A. and elsewhere; first report for South Carolina.

Peripleura arida (Burbidge) Nesom (syn = *Vittadinia arida* Burbidge)

Berkeley Co.: 14 May 1958, Ahles 40547

Native to Australia; first report for the U.S.A.
and South Carolina

Pseudognaphalium stramineum (Kunth) Anderb.

Berkeley Co.: 11 Jul 1960, *Ahles 53825*Native to Mexico and the western U.S.A., naturalized in Virginia, North Carolina, and South Carolina; previously known from South Carolina (Radford et al. 1968).

Ratibida columnifera (Nutt.) Woot. & Standl.

Berkeley Co.: 20 May 1957, Ahles 25830
Berkeley Co.: 14 May 1958, Ahles 40468
Berkeley Co.: 27 May 1959, Ahles 52712
Berkeley Co.: 27 May 1959, Ahles 52801
Berkeley Co.: 27 May 1959, Ahles 52860
Berkeley Co.: 25 May 1960, Ahles 53370
Berkeley Co.: 25 May 1960, Ahles 53371
Berkeley Co.: 25 May 1960, Ahles 53491
Florence Co.: 11 Jul 1960, Ahles 53753

Native to Mexico and the central U.S.A., widely naturalized; reported for South Carolina by Kartesz (1999), documented here.

Rudbeckia hirta L. var. **angustifolia** (T.V. Moore) Perdue

Berkeley Co.: 20 May 1957, Ahles 25863 Berkeley Co.: 13 Jun 1958, Ahles 42916 Berkeley Co.: 27 May 1959, Ahles 52830

Native to the coastal states of southeastern

U.S.A.; previously known from South Carolina (Anonymous 1997), documented here.

Soliva sessilis Ruiz & Pavon (syn = *Soliva* pterosperma (Juss.) Less.)

Berkeley Co.: 27 May 1959, Ahles 52718

Native to South America, naturalized in the southeastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

Sonchus oleraceus L.

Berkeley Co.: 8 Apr 1957, Ahles 22615

Native to Europe, northern and western Asia, and northern Africa, widely naturalized in North America; previously known from South Carolina (Radford et al. 1968).

Stuartina hamata Philipson

Berkeley Co.: 8 Apr 1957, *Ahles 22593*Native to Australia; first report for the U.S.A. and South Carolina.

Symphyotrichum divaricatum (Nutt.) Nesom (syn = Aster subulatus Michx. var. ligulatus Shinners)

Berkeley Co.: 30 Oct 1957, Ahles 38169

Native to northern Mexico and the south-central U.S.A.; first report for South Carolina.

Tagetes minuta L.

Berkeley Co.: 20 May 1957, *Ahles 25845* Berkeley Co.: 28 Sep 1957, *Ahles 35609* Berkeley Co.: 22 Sep 1958, *Ahles 49188*

Native to South America, in the U.S.A. naturalized mainly in Atlantic coastal states; previously known from South Carolina (Radford et al. 1968).

Tetraneuris linearifolia (Hook.) Greene var. **linearifolia** (syn = *Hymenoxys linearifolia* Hook.)

Berkeley Co.: 8 Apr 1957, Ahles 22513

Native to Texas, New Mexico, Oklahoma, and Kansas; first report for South Carolina.

Thymophylla tenuiloba (DC.) Small var. **tenuiloba**) (syn = *Dyssodia tenuiloba* (DC.) B.L. Robins. var. *tenuiloba*)

Berkeley Co.: 8 Apr 1957, Ahles 22580

Native to Mexico and Texas, naturalized in a few Gulf coast states (e.g. Florida and Mississippi, Cronquist 1980; Alabama, Lelong 1988); first report for South Carolina.

Uropappus lindleyi (DC.) Nutt.

Florence Co.: 26 May 1960, *Ahles 53543*Native to the southwestern U.S.A.; first report for South Carolina

Verbesina encelioides (Cav.) var. encelioides

Berkeley Co.: 20 May 1957, Ahles 25548 Florence Co.: 28 May 1957, Ahles 26719 Berkeley Co.: 5 Jul 1957, Ahles 30812 Berkeley Co.: 14 May 1958, Ahles 40486, 40554 Florence Co.: 21 Jul 1958, Ahles 46950 Berkeley Co.: 22 Sep 1958, Ahles 49180 Berkeley Co.: 27 May 1959, Ahles 52810 Berkeley Co.: 15 Jul 1959, Ahles 52945 Florence Co.: 26 May 1960, Ahles 53546

Florence Co.: 11 Jul 1960, *Ahles 53762*Native to Mexico and the western U.S.A., naturalized in several states of the southeastern U.S.A.; previously known from South Carolina, reported by Coleman (1974), documented here.

Vittadinia sulcata N. Burbidge

Berkeley Co.: 8 Apr 1957, *Ahles 22538*Native to Australia; first report for the U.S.A. and South Carolina

Xanthium spinosum L.

Berkeley Co.: 8 Apr 1957, Ahles 22608 Berkeley Co.: 20 May 1957, Ahles 25872 Florence Co.: 28 May 1957, Ahles 26689 Berkeley Co.: 30 Oct 1957, Ahles 38199 Berkeley Co.: 13 Jun 1958, Ahles 42924 Native to South America, widely naturalized in

North America; reported for South Carolina by Kartesz (1999), documented here.

Xanthium strumarium L. var. **canadense** (P. Miller) Torr. & A. Gray

Berkeley Co.: 5 Jul 1957, Ahles 30848
Native to North America and widely distributed
as a weed; previously known from South
Carolina (Radford et al. 1968).

ACKNOWLEDGMENTS

I am grateful for help from the staff of herbarium NCU and for comments on the manuscript by Linda Lee (USCH). John Pruski (MO) provided the identification of *Panphalea heterophylla*.

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