

AN ANNOTATED CATALOGUE OF THE
BERTRAM WHITTIER WELLS
BIG SAVANNAH
(PENDER CO., NORTH CAROLINA)
COLLECTIONS IN THE
NORTH CAROLINA STATE UNIVERSITY HERBARIUM

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Abstract. Described as an upland grass-sedge bog, Big Savannah represented an exceedingly rare community type in North Carolina, being completely treeless but hosting a rich herbaceous flora. Unfortunately, the savanna remained unprotected and was lost by the 1950s. Despite the detailed floristic inventory and community descriptions published by B.W. Wells, voucher specimens were never cited. The objective of this study was to compile a vouchered checklist of the plants of the lost Big Savannah by cataloguing the extant Wells collections from the site. Such a checklist can be useful in addressing taxonomic problems arising from changes in nomenclature and providing a specimen-based foundation for restoration efforts of this community type. As Wells' specimens are intercalated with other collections at NCSC, a herbarium "crawl" was undertaken to identify the pertinent collections. The resulting checklist includes 231 specimens comprising 136 species.

Keywords: Bertram Whittier Wells, Big Savannah, Pender County, North Carolina

North Carolina Coastal Plain savannas rank among the most species rich communities in the world – at least when examined at very small scales (Walker & Peet 1983). Wells & Shunk (1928) conducted the first floristic inventory of a North Carolina savanna: Big Savannah (Pender Co.) (Shelingoski et al. 2005). Described as an upland grass-sedge bog, Big Savannah represented an exceedingly rare community type in North Carolina, being completely treeless but hosting a rich herbaceous flora (Wells & Shunk 1928; Wells 1932). Unfortunately, the savanna remained unprotected and was lost to "plow and bulldozer" by the 1950s (Shelingoski et al. 2005). Despite the detailed floristic inventory and community descriptions provided by Wells & Shunk (1928),

voucher specimens were not cited. Thus, species records provided by Wells & Shunk (1928) would remain unverified were it not for the fact that Wells did indeed make collections from Big Savannah and that these continue to survive in the herbarium of North Carolina State University (NCSC). The objective of this study was to compile a vouchered checklist of the plants of the lost Big Savannah by cataloguing the extant Wells collections from the site. Such a checklist can be useful in addressing taxonomic problems arising from changes in nomenclature since Wells & Shunk (1928) and providing a specimen-based foundation for restoration efforts of this community type (Shelingoski et al. 2005).

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METHODS

This study was undertaken as a component of a graduate course in modern herbarium management and curation taught by the senior author. As Wells' specimens are intercalated with other collections at NCSC, a herbarium "crawl" (i.e., examination of every specimen) was undertaken to identify Wells collections. A roughly equal number of cabinets was assigned to each author for searching. All of B.W. Wells' Big Savannah specimens were removed from the main collection and placed in a separate cabinet. Specimens from the Big Savannah collection were then divided equally among each author for identification and curation. Specimens were identified using Radford et al. (1968), except for those in Juncaceae, Cyperaceae, Poaceae, and Xyridaceae which were identified using the recent Flora of North America treatments (Allred 2003; Ball & Reznicek 2002; Brooks

& Clemants 2000; Campbell 2003; Dávila Aranda & Hatch 2003; Freckmann & Lelong 2003a-b; Kral 2002a-c; Reznicek et al. 2002; Sánchez-Ken & Clark 2003; Tucker et al. 2002; Webster 2003; Wipff 2003). Nomenclature follows PLANTS (USDA, NRCS 2004), except for Juncaceae, Cyperaceae, Poaceae, and Xyridaceae which follow the respective Flora of North America treatments (Allred 2003; Ball & Reznicek 2002; Brooks & Clemants 2000; Campbell 2003; Dávila Aranda & Hatch 2003; Freckmann & Lelong 2003a-b; Kral 2002a-c; Reznicek et al. 2002; Sánchez-Ken & Clark 2003; Tucker et al. 2002; Webster 2003; Wipff 2003), and Orobanchaceae which follows Olmstead et al. (2001) and Weakley (2005). Author abbreviations follow Brummitt & Powell (1992).

RESULTS

The B.W. Wells collection from Big Savannah includes 231 specimens comprising 136 species (Tables 1 & 2). Specimens were collected over a period of 39-43 days, mostly in 1924 (N=100) and 1925 (N=129) (Table 2). Label information is generally sparse and mostly limited to identification of locality (e.g., Big Savannah or margin/transition Big Savannah). An annotated checklist of Big Savannah species follows. Taxa are arranged alphabetically by family, genus, and species within the major groups of ferns and allies, monocots, and eudicots. Species are listed by current names as determined by one of the authors, followed by the original label information in quotes (incl. the original determination [authorities not corrected]; the nomenclatural authority of Wells and Shunk may have been Small 1913). The fol-

lowing abbreviations were used to identify specimen condition: Fl=Flowers present; Fr=Fruits present; Imm=Immature; Infl=Inflorescence; Repr=Reproductive; St=Sterile. Symbols following specimen records indicate the determiner: ♣ = Krings, ♦ = Harris, ♥ = Inman, ♠ = Lee, • = Richardson. Specimens of *Oxyypolis filiformis* (Walt.) Britton are on loan to ILL and were determined by Mary Ann Feist. Arrows follow names that have been crossed out on the collection label and precede corrected names. Species preceded by "wv" are also vouchered from the nearby Wells Savannah – thought to be a remnant of the same community type as Big Savannah (Shelingoski et al. 2005). Species preceded by "ws" have been sight identified from the Wells Savannah by Richard LeBlond (pers. comm.), but not yet vouchered.

TABLE 1. Taxonomic summary of Wells collections from Big Savannah.

	<i>Families</i>	<i>Genera</i>	<i>Species</i>
Ferns & Allies	2	2	4
Monocots	10	33	66
Eudicots	19	38	66
<i>Total</i>	31	73	136

TABLE 2. Dates of Wells collecting events at Big Savannah, followed by number of specimens collected.

2 Jul 1924: 69	May 1925: 1	10 Jul 1925: 2	28 Jan 1926: 1
29 Jul 1924: 1	1 May 1925: 12	11 Jul 1925: 1	10 Jun 1926: 1
4 Sep 1924: 21	17 May 1925: 2	24 Jul 1925: 2	11 Jun 1926: 3
12 Sep 1924: 3	18 May 1925: 15	25 Jul 1925: 1	13 Jun 1926: 1
24 Sep 1924: 1	20 May 1925: 4	Aug 1925: 1	8 Oct 1926: 1
18 Oct 1924: 4	21 May 1925: 1	3 Sep 1925: 2	13 Oct 1950: 5
19 Oct 1924: 1	23 May 1925: 3	4 Sep 1925: 14	7 Jul (no yr; 1924?): 1
4 Apr 1925: 6	11 Jun 1925: 1	5 Sep 1925: 1	25 Aug (no yr; 1925?): 1
14 Apr 1925: 1	12 Jun 1925: 4	9 Sep 1925: 1	1925: 2
19 Apr 1925: 1	13 Jun 1925: 20	11 Sep 1925: 1	
30 April 1925: 1	1 Jul 1925: 1	8 Oct 1925: 16	Total: 231

A few collections from Big Savannah are included that were not collected by Wells: *Fimbristylis puberula* (Michx.) Vahl (*Martins s.n.*), *Magnolia virginiana* L. (*Buell s.n.*), *Rhynchospora nitens* (Vahl) A. Gray (*Fox s.n.*); *Vaccinium crassifolium* Andr. (*Martins s.n.*), and *Vaccinium tenellum* Aiton (*Martins s.n.*). These were not included in determining the taxonomic summary or species counts for the Wells collection proper (Table 1 & 2). Other collections of species cited by Wells & Shunk (1928) that may be from Big Savannah include *Chaptalia tomentosa* Vent. (from an "Orange grass savannah near Burgaw;" *Buell 3480*). Eleven species collected from Big Savannah are now state listed (following Franklin & Finnegan 2004): *Agalinis linifolia* (Nutt.) Britton (W1), *Asclepias longifolia* Michx. (W1), *Helonium pinnatifidum* (Nutt.) Rydb. (SR-P), *Eryngium integrifolium* Walt. (SR), *Lysimachia loomsii* Torr. (W1), *Pinguicula lutea* Walt. (SR), *Platanthera nivea* (Nutt.) Luer (T), *Polygala hookeri* Torr. & A. Gray (SR-T), *Solidago pulchra* Small (SR-L), *Spiranthes floridana* (Wherry) Luer (SR-P), and *Spiranthes longilabris* Lindl. (SR-T). Among species listed by Wells & Shunk (1928), but for which no vouchers could be found (see Table 3), the following are currently listed: *Rhynchospora oligantha* A. Gray (SR), *R. pallida* M.A. Curtis (W1), *Carduus lecontei* (Torr. & A. Gray) Pollard (= *Cirsium lecontei* Torr. & A. Gray) (SR), *Dionaea muscipula* J. Ellis (SR). The status codes are defined in Table 4.

Ferns and allies

LYCOPODIACEAE

- ^{wv}*Lycopodiella alopecuroides* (L.) Cranfill
 "Lycopodium alopecuroides L.; Big Savannah," *Wells s.n.*,
 2 Jul 1924, St, ♣

- Lycopodiella prostrata* (R.M. Harper) Cranfill
 "Lycopodium prostratum Harper; Big Savannah," *Wells s.n.*, 2 Jul 1924, St, ♣

OSMUNDACEAE

- ^{wv}*Osmunda cinnamomea* L.
 "Anchistea virginica, Big Savannah," *Wells s.n.*, 2 Jul 1924, St, ♣
- ^{wv}*Osmunda cinnamomea* L.
 "Osmunda cinnamomea L.; Big Savannah,"
 [handwriting and label match, but collector's name not indicated on label], 2 Jul 1924, Repr, ♣
- ^{wv}*Osmunda regalis* L.
 "Osmunda regalis L.; Big Savannah," *Wells s.n.*, 2 Jul 1924, St, ♣

Angiosperms

Monocots

AMARYLLIDACEAE

- Hypoxis hirsuta* (L.) Coville
 "Hypoxis hirsuta; (Early and late forms), Big Savannah," *Wells s.n.*, 4 Apr 1925, Fl, ♣

CYPERACEAE

- Carex crinita* Lam.
 "Carex crinita; Transition, Edge of Woods, Big Sav.,"
Wells s.n., 1 May 1925, Fl, ♣
- ^{wv}*Carex glaucescens* Elliott
 "Carex crinita; Big Savannah," *Wells s.n.*, 4 Sep 1924,
 Fr & Fl, ♣

- ^{wv}*Carex glaucescens* Elliott
 "Carex crinita Lam.; Margin, Big Savannah," [label

TABLE 3. Species listed by Wells & Shunk (1928), but not represented by vouchers at NCSC.

Ferns and Allies	IRIDACEAE	<i>Aster elodes</i>	FABACEAE
LYCOPODIACEAE	<i>Iris verna</i>	<i>Chondrophora nudata</i>	<i>Chamaecrista nictitans</i>
<i>Lycopodium carolinianum</i>		<i>Trilisia odoratissimus</i>	
	LILIACEAE	<i>Carduus lecontei</i>	HYPERICACEAE
BLECHNACEAE	<i>Melanthium dispersum</i>	<i>Eupatorium capillifolium</i>	<i>Hypericum opacum</i>
<i>Anchistea virginica</i>		<i>Helianthus angustifolius</i>	
	ORCHIDACEAE	<i>Helianthus elongatus</i>	LAMIACEAE
Gymnosperms	<i>Blephariglottis ciliaris</i>	<i>Chrysopsis argentea</i>	<i>Koellia aristosa</i>
PINACEAE		<i>Sericocarpus linifolius</i>	<i>Scutellaria integrifolia</i>
<i>Pinus palustris</i>	POACEAE	<i>Solidago juncea</i>	
<i>Pinus taeda</i>	<i>Andropogon mohrii</i>	<i>Thysanthera semifloscularis</i>	LENTIBULARIACEAE
	<i>Andropogon perangustatus</i>		<i>Utricularia subulata</i>
Angiosperms	<i>Andropogon virginicus</i>	CISTACEAE	
MONOCOTS	<i>Aristida chapmanii</i>	<i>Lechea tenuifolia</i>	NYSSACEAE
CYPERACEAE	<i>Arundinaria tecta</i>		<i>Nyssa biflora</i>
<i>Rhynchospora baldwinii</i>	<i>Panicum barbulatum</i>	CUSCUTACEAE	<i>Nyssa sylvatica</i>
<i>Rhynchospora oligantha</i>		<i>Cuscuta</i> sp.	
<i>Rhynchospora pallida</i>	EUDICOTS		POLYGALACEAE
<i>Rhynchospora rariflora</i>	ASTERACEAE	DIONAEACEAE	<i>Polygala cruciata</i>
<i>Scleria hirtella</i>	<i>Mesadenia lanceolata</i>	<i>Dionaea muscipula</i>	
	<i>Aster coridifolius</i>		

TABLE 4. Applicable status codes and definitions (from Franklin & Finnegan 2004).

Status code	Status	Definition
T	Threatened	“Any resident species of plant which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range’ (GS 19B 106:202.12).”
SR	Significantly rare	“Species which are rare in North Carolina, generally with 1-100 populations in the state, generally substantially reduced in numbers by habitat destruction (and sometimes also by direct exploitation or disease).”
-L	Limited	“The range of the species is limited to North Carolina and adjacent states (endemic or near endemic). These are species which may have 20-50 populations in North Carolina, but fewer than 50 populations rangewide. The preponderance of their distribution is in North Carolina and their fate depends largely on conservation here. Also included are some species with 20-100 populations in North Carolina, if they also have only 50-100 populations rangewide and declining.”
-T	Throughout	“These species are rare throughout their ranges (fewer than 100 populations total).”
-P	Peripheral	“The species is at the periphery of its range in NC. These species are generally more common somewhere else in their ranges, occurring in North Carolina peripherally to their main ranges, mostly in habitats which are unusual in North Carolina.”
W1	Watch list	“Any other species believed to be rare and of conservation concern in the state but not warranting active monitoring at this time [...]”

- matches, but collector's name not indicated on label], 24 Jul 1925, Fr & Fl, ♠
- ^{wV}*Carex glaucescens* Elliott
 “*Carex crinita* Lam.; Margin, Big Savannah,” *Wells s.n.*, 4 Sep 1925, Fr & Fl, ♠
- Cyperus retrorsus* Chapm.
 “*Cyperus ovularis*, Sta. 1, in low spot, Burgaw,” *Wells s.n.* [handwriting and label match, but collector's name not indicated on label], 10 Jul 1925, Fr, ♣
- ^{wV}*Fuirena breviseta* (Coville) Coville
 “*Fuirena squarrosa* Michx. var. *breviseta* Coville; Edge of Big Savannah,” *Wells s.n.*, 4 Sep 1924, Fr, ♣
- ^{wS}*Fimbristylis puberula* (Michx.) Vahl
 “*Fimbristylis spadicea*; (not common) Moist area; Transit. Sta. 1; Burgaw,” *Martins s.n.*, No date, Fr, ♣
- ^{wV}*Rhynchospora chapmanii* M.A. Curtis
 “*Rhynchospora chapmanii* M.A. Curtis; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♣
- ^{wS}*Rhynchospora ciliaris* (Michx.) C. Mohr
 “*Rhynchospora fascicularis* (Michx.) Vahl. [sic]; Big Savannah,” *Wells s.n.*, 4 Sep 1924, Fr, ♠
- Rhynchospora glomerata* (L.) Vahl
 “*Rhynchospora glomerata* L. (Vahl.) [sic]; Big Savannah,” [label matches, but collector's name not indicated on label], 2 Jul 1924, Fr, ♠
- Rhynchospora glomerata* (L.) Vahl
 “*Rhynchospora glomerata* L. (Vahl); Big Savannah,” *Wells s.n.*, 13 Jun 1925, Fr, ♠
- Rhynchospora latifolia* (Baldw. ex Elliott) W.W. Thomas
 “*Dichromena latifolia* Baldw.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♠
- Rhynchospora latifolia* (Baldw. ex Elliott) W.W. Thomas
 “*Dichromena latifolia* Baldw.; Big Savannah,” [label matches, but collector's name not indicated on label], 2 Jul 1924, Fr, ♠
- ^{wV}*Rhynchospora nitens* (Vahl) A. Gray
 “*Psilocarya nitens* (Vahl) Wood; Road ditch, ‘Big Savannah,’ near Burgaw,” *Fox s.n.*, 19 Oct 1946, Fr, ♣
- ^{wV}*Rhynchospora plumosa* Elliott
 “*Rhynchospora semiplumosa* A. Gray; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♠
- ^{wV}*Rhynchospora plumosa* Elliott
 “*Rhynchospora semiplumosa* A. Gray; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♠
- ^{wV}*Rhynchospora plumosa* Elliott
 “*Rhynchospora chapmanii* M.A. Curtis; Big Savannah,” *Wells s.n.*, 1 May 1925, Fr (imm), ♠
- ^{wV}*Rhynchospora plumosa* Elliott
 “*Rhynchospora plumosa* Elliott; Big Savannah,” *Wells s.n.*, 12 Jun 1925, Fr, ♠
- ^{wV}*Rhynchospora torreyana* A. Gray
 “*Rhynchospora torreyana* A. Gray; Trans. Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♠
- ^{wV}*Rhynchospora torreyana* A. Gray
 “*Rhynchospora torreyana* A. Gray; near Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♠
- Scleria ciliata* Michx. var. *glabra* (Chapm.) Fairey
 “*Scleria triglomerata*; Trans. Sta. 1, Burgaw,” *Wells s.n.*?, 10 Jul 1925, Fr, ♣
- ^{wV}*Scleria muehlenbergii* Steud.
 “*Scleria trichopoda* C. Wright; Big Savannah,” [label matches, but collector's name not indicated on label], 2 Jul 1924, Fr, ♠
- ^{wV}*Scleria muehlenbergii* Steud.
 “*Scleria trichopoda* C. Wright; Transition, Big Savannah,” *Wells s.n.*, 4 Sep 1924, Fr, ♠
- ^{wV}*Scleria muehlenbergii* Steud.
 “*Scleria trichopoda* C. Wright; Trans., Big Savannah,” [label matches, but collector's name not indicated on label], 4 Sep 1924, Fr, ♠
- ^{wV}*Scleria muehlenbergii* Steud.
 “*Scleria trichopoda* C. Wright; Big Savannah,” [label matches, but collector's name not indicated on label], 4 Sep 1924, Fr, ♠
- ^{wV}*Scleria muehlenbergii* Steud.
 “*Scleria trichopoda* C. Wright; Big Savannah,” *Wells s.n.*, 4 Sep 1924, Fr, ♠
- ^{wV}*Scleria pauciflora* Muhl. ex Willd. var. *caroliniana* (Willd.) Wood
 “*Scleria ciliata* Michx.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♠

^{wV}*Scleria pauciflora* Muhl. ex Willd. var. *caroliniana* (Willd.) Wood
 “*Scleria ciliata* Michx.; Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣

^{wV}*Scleria pauciflora* Muhl. ex Willd. var. *caroliniana* (Willd.) Wood
 “*Scleria ciliata* Michx.; Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣

^{wS}*Scleria triglomerata* Michx.
 “*Scleria triglomerata* Michx.; Big Savannah,” *Wells s.n.*, 4 Apr 1925, Fl, ♣

ERIOCAULACEAE

^{wV}*Eriocaulon decangulare* L.
 “*Eriocaulon decangulare*, Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♣

^{wV}*Eriocaulon decangulare* L.
 “*Eriocaulon decangulare* L.; Big Savannah,” [label matches, but collector’s name not indicated on label], 2 Jul 1924, Fr, ♣

HAEMODORACEAE

^{wV}*Lachnanthes caroliniana* (Lam.) Dandy
 “*Gyrotheca tinctoria* (Walt.) Salisb.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣

IRIDACEAE

Iris tridentata Pursh
 “*Iris tripetala* Walt.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♣

Iris tridentata Pursh
 “*Iris tripetala* Walt.; (trans. type), Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣

Iris tridentata Pursh
 “*Iris tripetala*, Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fl, ♣

^{wS}*Sisyrinchium capillare* E.P. Bicknell
 “*Sisyrinchium mucronatum* Michx.; Big Savannah,” *Wells s.n.*, 19 Apr 1925, Fl, ♣

Sisyrinchium fuscum E.P. Bicknell
 “*Sisyrinchium angustifolium* Mill.; Big Savannah,” *Wells s.n.*, 1 May 1925, Fr, ♣

JUNCACEAE

Juncus marginatus Rostk.
 “*Juncus aristulatus pinetorum* (Michx.) Cov.; Near Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♣

LILIACEAE

^{wV}*Aletris farinosa* L.
 “*Aletris aurea* Walt.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♣

^{wV}*Aletris farinosa* L.
 “*Aletris farinosa* L.’ Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♣

^{wV}*Aletris farinosa* L.
 “*Aletris farinosa* L.; Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣

^{wV}*Lilium catesbaei* Walt.
 “*Lilium catesbaei* Walt.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣

Tofieldia glabra Nutt.
 “*Tofieldia glabra* Nutt.; Big Savannah,” *Wells s.n.*, 18 Oct 1924, Fl, ♣

^{wS}*Tofieldia racemosa* (Walt.) B.S.P.
 “*Triantha racemosa*; Big Savannah,” [label matches, but collector’s name not indicated on label], 2 Jul 1924, Fl, ♣

^{wV}*Zigadenus densus* (Desr.) Fernald
 “*Tracyanthus angustifolius* (Michx.) Small; Big Savannah,” *Wells s.n.*, 1 May 1925, Fl, ♣

^{wV}*Zigadenus densus* (Desr.) Fern.
 “*Tracyanthus angustifolius*, Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣

^{wV}*Zigadenus glaberrimus* Michx.
 “*Zygadenus* [sic] *glaberrimus* Michx.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣

^{wV}*Zigadenus glaberrimus* Michx.
 “*Zygadenus* [sic] *glaberrimus* Michx.; Big Savannah,” [label matches, but collector’s name not indicated on label], 2 Jul 1924, Fl, ♣

ORCHIDACEAE

^{wS}*Calopogon barbatus* (Walt.) Ames
 “*Limodorum pallidum*; Big Savannah,” *Wells s.n.*, 1 May 1925, Fl, ♣

^{wV}*Calopogon pallidus* Chapm.
 “*Limodorum pallidum*; Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣

^{wV}*Cleistes divaricata* (L.) Ames
 “*Pogonia divaricata* Michx.; (Trans.) Big Savannah,”

- Wells s.n.*, 18 May 1925, Fl, ♣
- ^{wS}*Platanthera blephariglottis* (Willd.) Lindl.
“*Blephariglottis blephariglottis* (Willd.) Rydt. [sic]; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣
- Platanthera cristata* (Michx.) Lindl.
“*Blephariglottis cristata* (Michx.) Raf.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣
- Platanthera lacera* (Michx.) G. Don
“*Blephariglottis lacera*; Big Savannah,” *Wells s.n.*, 13 Jun 1925, Fl, ♣
- Platanthera lacera* (Michx.) G. Don
“*Blephariglottis lacera* (Michx.) Rydb.; Big Savannah,” *Wells s.n.*, 13 Jun 1925, Fl, ♣
- Platanthera nivea* (Nutt.) Luer
“*Gymnadeniopsis nivea*; Big Savannah,” [label matches, but collector’s name not indicated on label], 2 Jul 1924, Fl, ♣
- Platanthera nivea* (Nutt.) Luer
“*Gymnadeniopsis nivea*; Big Savannah,” [label matches, but collector’s name not indicated on label], 4 Sep 1924, Fr, ♣
- ^{wS}*Pogonia ophioglossoides* (L.) Ker-Gawl.
“*Pogonia ophioglossoides* (L.) Ker-Gawl.; Big Savannah,” *Wells s.n.*, 1 May 1925, Fl, ♣
- ^{wS}*Pogonia ophioglossoides* (L.) Ker-Gawl.
“*Pogonia ophioglossoides* (L.) Kerr.; Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣
- Spiranthes floridana* (Wherry) Cory
“*Ibidium gracile* (Bigel.) House; Big Savannah,” *Wells s.n.*, 18 May 1925, Fl, ♣
- Spiranthes longilabris* Lindl.
“*Ibidium praecox* (Walt.) House; Big Savannah,” *Wells s.n.*, 18 Oct 1924, Fl, ♣
- ^{wV}*Spiranthes praecox* (Walt.) S. Watson
“*Ibidium praecox*; Sta. 1, Burgaw,” *Wells s.n.* [handwriting, label, and date match, though collector’s name not on label], 12 Jun 1925, Fr, ♣
- Spiranthes vernalis* Engelm. & A. Gray
“*Ibidium gracile* (Bigel.) House; Big Savannah,” *Wells s.n.*, 23 May 1925, Fl, ♣
- Spiranthes vernalis* Engelm. & A. Gray
- “*Ibidium praecox* (Walt.) House; Big Savannah,” *Wells s.n.*, 23 May 1925, Fl, ♣
- POACEAE
- ^{wV}*Agrostis hyemalis* (Walt.) B.S.P.
“*Agrostis hyemalis* (Walt.) B.S.P.; Old field near Big Savannah,” *Wells s.n.*, 18 May 1925, Fr, ♣
- Andropogon gerardii* Vitman
“*Andropogon furcatus* Muhl.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fr, ♣
- ^{wV}*Andropogon glomeratus* (Walt.) B.S.P.
“*Andropogon glomeratus*; Low ground near swamp, Big Sav.,” *Wells s.n.*, 10 Jun 1926, Fr, ♣
- ^{wV}*Andropogon gyrans* Ashe
“*Andropogon elliotii* [sic]; Upper Big Savannah,” Wells label, but his name crossed out; replacing name illegible, 28 Jan 1926, Fr, ♣
- ^{wV}*Anthaenania rufa* (Nutt.) J.A. Schultes
“*Anthaenania rufa*, 2nd Transition – Big Savannah,” *Wells s.n.*, 11 Sep 1926, Fr, ♣
- ^{wV}*Anthaenania rufa* (Nutt.) J.A. Schultes
“*Anthaenania rufa* (Ell.) Schult.; Big Savannah near Burgaw,” *Boyce, Wells, and Shunk 1561*, 13 Oct 1950, Fr, ♣
- ^{wS}*Aristida purpurascens* Poir. var. *virgata* (Trin.) Allred
“*Aristida virgata* [no locality except Pender Co. provided, but likely from Big Savannah based on the date of collection],” *Wells s.n.*, 4 Sep 1925, Fr, ♣
- ^{wV}*Chasmanthium laxum* (L.) Yates
“*Uniola laxa* (L.) B.S.P.; Early Trans. Big Sav.,” *Wells s.n.*, 9 Sep 1925, Fr, ♣
- ^{wV}*Ctenium aromaticum* (Walt.) Alph. Wood
“*Campulosus aromaticus* (Walt.) Scribn.; Big Savannah,” [label matches, but collector’s name not indicated on label], 2 Jul 1924, Fr, ♣
- ^{wV}*Ctenium aromaticum* (Walt.) Alph. Wood
“*Campulosus aromaticus* (Walt.) Scribn.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♣
- ^{wV}*Ctenium aromaticum* (Walt.) Alph. Wood
“*Campulosus aromaticus* (Walt.) Scribn.; Big Savannah,” [label matches, but collector’s name not indicated on label], 2 Jul 1924, Fr, ♣

- Dichanthelium aciculare* (Desv. ex Poir.) Gould & C.A. Clark
 “*Panicum linearifolium* Scribn.; Big Savannah,” *Wells s.n.*, May 1925, Fr, ♥
- Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark subsp. *implicatum* (Scribn.) Freckmann & Lelong
 “*Panicum unciphyllum* Trin. => *columbianum* Scribn.; R.R. Bank, Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♥
- Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark subsp. *implicatum* (Scribn.) Freckmann & Lelong
 “*Panicum columbianum* Scribn; R.R. Bank near Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♣
- ^{wv}*Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark subsp. *longiligulatum* (Nash) Freckmann
 “*Panicum longiligulatum* Nash; Big Savannah,” *Wells s.n.*, 18 May 1925, Fr, ♣
- ^{wv}*Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark subsp. *longiligulatum* (Nash) Freckmann
 “*Panicum wrightianum*; Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♣
- ^{wv}*Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark subsp. *longiligulatum* (Nash) Freckmann
 “*Panicum longiligulatum* Nash; Big Savannah,” *Wells s.n.*, 13 Jun 1925, Fr, ♣
- Dichanthelium acuminatum* (Sw.) Gould & C.A. Clark subsp. *leucothrix* (Nash) Freckmann & Lelong
 “*Panicum leucothrix* Nash; Big Savannah,” *Wells s.n.*, 20 May 1925, Fr, •
- ^{wv}*Dichanthelium consanguineum* (Kunth) Gould & C.A. Clark
 “*Panicum consanguineum* Kunth; Margin, Big Savannah,” *Wells s.n.*, 30 April 1925, Fr, ♥
- ^{wv}*Dichanthelium consanguineum* (Kunth) Gould & C.A. Clark
 “*Panicum consanguineum* Kunth; Transition, Big Savannah,” *Wells s.n.*, 1 May 1925, Fr, ♥
- Dichanthelium dichotomum* (L.) Gould subsp. *microcarpon* (Muhl. ex Elliott) Freckmann & Lelong
 “*Panicum barbulatorum* Michx; Woods, Margin Big Sav.,” *Wells s.n.*, 5 Sep 1925, Fr, ♣
- ^{wS}*Dichanthelium dichotomum* (L.) Gould subsp. *roanokense* (Ashe) Freckmann & Lelong
 “*Panicum roanokense* Ashe; Big Savannah, (---- trans),” *Wells s.n.*, 20 May 1925, Fr, •
- ^{wS}*Dichanthelium dichotomum* (L.) Gould subsp. *roanokense* (Ashe) Freckmann & Lelong
 “*Panicum roanokense* Ashe; 2nd Trans., Big Savannah,” *Wells s.n.*, 11 Jun 1926, Fr, •
- ^{wv}*Dichanthelium ensifolium* (L.) Gould subsp. *ensifolium*
 “*Panicum ensifolium* Baldw.; Big Savannah,” *Wells s.n.*, 1 May 1925, Fr, ♥
- Dichanthelium portoricense* (Desv. ex Ham.) B.F. Hansen & Wunderlin subsp. *patulum* (Scribn. & Merr.) Freckmann & Lelong
 “*Panicum nashianum*, R.R. Bank, Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♣
- Dichanthelium portoricense* (Desv. ex Ham.) B.F. Hansen & Wunderlin subsp. *patulum* (Scribn. & Merr.) Freckmann & Lelong
 “*Panicum nashianum* Scribn. => *lancearium*; Woods and ditch banks, Big Savannah,” *Wells s.n.*, 8 Oct 1925, Fr, ♣
- ^{wv}*Dichanthelium scabriusculum* (Elliott) Gould & C. A. Clark
 “*Panicum scabriusculum* Ell.; Trans. near woods, Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, •
- ^{wv}*Dichanthelium scabriusculum* (Elliott) Gould & C. A. Clark
 “*Panicum scabriusculum* Ell.; Ditchbank, Big Savannah,” *Wells s.n.*, 13 Jun 1925, Fr, •
- ^{wv}*Dichanthelium scabriusculum* (Elliott) Gould & C. A. Clark
 “*Panicum scabriusculum* Ell.; 2nd Trans., Big Sav.,” *Wells s.n.*, 11 Jun 1926, Fr, •
- ^{wv}*Dichanthelium scoparium* (Lam.) Gould
 “*Panicum scoparium* Lam.; R.R. bank, Big Savannah,” *Wells s.n.*, 13 Jun 1926, Fr, ♣
- Dichanthelium strigosum* (Muhl. ex Elliott) Freckmann subsp. *strigosum*
 “*Panicum ciliatum* Ell. => *strigosum* Muhl.; Big Savannah,” *Wells s.n.*, 13 Jun 1925, Fr, •
- Dichanthelium wrightianum* (Scribn.) Freckmann
 “*Panicum wrightianum* Scribn.; Big Savannah,” *Wells s.n.*, 20 May 1925, Fr, •
- Dichanthelium wrightianum* (Scribn.) Freckmann
 “*Panicum wrightianum*; Big Savannah,” *Wells s.n.*, 8 Oct 1925, Fr, •

- ^{wv}*Muhlenbergia capillaris* (Lam.) Trin. var. *trichopodes* (Elliott) Vasey
 “*Muhlenbergia expansa* (Lam.) Trin.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fr, ♦
- ^{wv}*Muhlenbergia capillaris* (Lam.) Trin. var. *trichopodes* (Elliott) Vasey
 “*Muhlenbergia expansa*; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, ♦
- ^{wv}*Panicum anceps* Michx. var. *rhizomatum* (Hitc. & Chase) Freckmann & Lelong
 “*Panicum rhizomatum* Hitchc.; Early Trans., Big Sav.,” *Wells s.n.*, 4 Sep 1924, Fr, •
- ^{wv}*Panicum virgatum* L.
 “*Panicum scabriusculum* Ell. => *virgatum* L.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fr, •
- ^{wv}*Panicum virgatum* L.
 “*Panicum virgatum* L.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fr, ♦
- ^{wv}*Panicum virgatum* L.
 “*Panicum virgatum* L.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fr, •
- ^{wv}*Panicum virgatum* L.
 “*Panicum virgatum cubense*, Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fr, •
- ^{wv}*Panicum virgatum* L.
 “*Panicum virgatum cubense*, OS., Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fr, •
- ^{wv}*Panicum virgatum* L.
 “*Panicum virgatum* L.; Margin, Big Savannah,” *Wells s.n.*, 17 May 1925, Fr, ♣
- ^{wv}*Panicum virgatum* L.
 “*Panicum virgatum* L.; Big Sav. Trans.,” *Wells s.n.*, 20 May 1925, Fr, ♣
- ^{wv}*Saccharum giganteum* (Walt.) Pers.
 “*Erianthus compactus* Nash; Margin, Big Sav.,” *Wells s.n.*, 8 Oct 1925, Fr, ♣
- ^{wv}*Schizachyrium scoparium* (Michx.) Nash subsp. *scoparium*
 “*Andropogon scoparius*, Margin Big. Sav.,” *Wells s.n.*, 8 Oct 1925, Fr, ♣

Sorghastrum nutans (L.) Nash
 “*Sorghastrum nutans* (L.) Nash; Margin, Big Sav.,” *Wells s.n.*, 8 Oct 1925, Fr, ♦

Indet.

“*Muhlenbergia expansa*; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, St, ♣

XYRIDACEAE

^{wv}*Xyris ambigua* Beyr. ex. Kunth
 “*Xyris ambigua* Beyr.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fl (imm), ♦

^{wv}*Xyris ambigua* Beyr. ex. Kunth
 “*Xyris flexuosa* Muhl. => *Xyris ambigua* Beyr.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Imm, ♦

^{wv}*Xyris ambigua* Beyr. ex. Kunth
 “*Xyris ambigua* Beyr.; Big Sav.,” *Wells s.n.*, 29 Jul 1924, Fr, ♦

^{wS}*Xyris baldwiniana* J.A. Schultes
 “*Xyris baldwiniana* R. & S.; Big Sav.,” *Wells s.n.*, 13 Jun 1925, Fr, ♣

^{wv}*Xyris caroliniana* Walt.
 “*Xyris flexuosa* Muhl.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fl, ♦

E u d i c o t s

APIACEAE

^{wv}*Eryngium integrifolium* Walt.
 “*Eryngium integrifolium* Walt.; Big Savannah,” *Wells s.n.*, 12 Sep 1924, Fl, ♣

^{wS}*Eryngium yuccifolium* Michx.
 “*Eryngium aquaticum* L.; Big Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣

^{wS}*Eryngium yuccifolium* Michx.
 “*Eryngium aquaticum* L.; Big Savannah,” [handwriting and label match, but collector’s name not indicated on label], 2 Jul 1924, Fl, ♣

Oxypolis filiformis (Walt.) Britton

“*Oxypolis filiformis* (Walt.) Britton; Big Savannah,” *Wells s.n.*, 4 Sep 1924

- Oxypolis filiformis* (Walt.) Britton
 “*Oxypolis filiformis* (Walt.) Britton; Big Savannah,”
Wells s.n., 4 Sep 1924
- Oxypolis filiformis* (Walt.) Britton
 “*Oxypolis filiformis* (Walt.) Britton; Big Savannah,”
Wells s.n., 4 Sep 1924
- APOCYNACEAE
- Asclepias lanceolata* Walt.
 “*Asclepias rubra* L. => *lanceolata* Walt.; Near Big
 Sav.,” *Wells s.n.*, 13 Jun 1925, Fl, ♣
- ^{wv}*Asclepias longifolia* Michx.
 “*Acerates floridana* (Lam.) A.S. Hitchcock; Big Savan-
 nah,” [label matches, but collector’s name not indi-
 cated on label], 2 Jul 1924, Fl, ♣
- ^{wv}*Asclepias longifolia* Michx.
 “*Acerates floridana* (Lam.) A.S. Hitchcock; Big Savan-
 nah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣
- ^{wv}*Asclepias longifolia* Michx.
 “*Acerates floridana* (Sam. [sic]) A.S. Hitchcock; Big
 Savannah,” *Wells s.n.*, 2 Jul 1924, Fl, ♣
- ^{wv}*Asclepias longifolia* Michx.
 “*Acerates floridana* (Lam.) A.S. Hitchcock; Big Savan-
 nah,” *Wells s.n.*, 17 May 1925, Fl, ♣
- AQUIFOLIACEAE
- ^{wv}*Ilex myrtifolia* Walt.
 “*Ilex myrtifolia*; Big Savannah,” *Wells s.n.*, 21 May
 1925, Fl, ♣
- ASTERACEAE
- ^{wS}*Carphephorus paniculatus* (J.F. Gmelin) Hebert
 “*Trilisia paniculata* (Walt.) Cass.; Margin Big Sav.,”
Wells s.n., 8 Oct 1925, Fl, ♣
- ^{wv}*Cirsium virginianum* (L.) Michx.
 “*Carduus virginianum* L.; Margin, Big Sav.,” *Wells s.n.*, 4
 Sep 1925, St, ♦
- ^{wv}*Coreopsis falcata* F.E. Boynton
 “*Coreopsis falcata* F.E. Boynton; Big Savannah,” *Wells*
s.n., 18 May 1925, Fl, ♣
- Coreopsis gladiata* Walt.
 “*Coreopsis angustifolia* Ait.; Big Savannah,” *Wells s.n.*, 2
 Jul 1924, Fl, ♦
- Coreopsis gladiata* Walt.
 “*Coreopsis gladiata* Walt.; Trans., Big Sav.,” *Wells s.n.*, 4
 Sep 1925, Fl, ♦

- Coreopsis gladiata* Walt.
 “*Coreopsis angustifolia* Ait.; Big Sav.,” *Wells s.n.*, 8 Oct
 1925, Fl, ♦
- Elephantopus nudatus* A. Gray
 “*Elephantopus tomentosus* L.; Early trans., Big Sav.,”
Wells s.n., 4 Sep 1925, Fl & Fr, ♦
- ^{wv}*Erigeron vernus* (L.) Torr. & A. Gray
 “*Erigeron vernus* (L.) T. & G.; Big Savannah,” *Wells*
s.n., 1 May 1925, Fl, ♦
- ^{wv}*Eupatorium leucolepis* (DC.) Torr. & A. Gray
 “*Eupatorium mohrii* Greene; Trans., Big Sav.,” *Wells*
s.n., 4 Sep 1925, Fl & Fr, ♦
- ^{wv}*Eupatorium leucolepis* (DC.) Torr. & A. Gray
 “*Eupatorium mohrii* Greene; Savannah,” *Wells s.n.*, 4
 Sep 1925, Fl & Fr, ♣
- ^{wv}*Eupatorium rotundifolium* L.
 “*Eupatorium rotundifolium*; Big Savannah,” *Wells s.n.*
 [handwriting and label match, but collector’s name
 not indicated on label], 4 Sep 1924, Fr, ♣
- ^{wv}*Eurybia paludosa* (Aiton) Nesom
 “*Aster paludosus*; Big Sav.,” *Wells s.n.*, 8 Oct 1925, Fl &
 Fr, ♦
- Helenium pinnatifidum* (Nutt.) Rydb.
 “*Helenium vernale* Walt.; Big Savannah,” *Wells s.n.*, 14
 Apr 1925, Fl, ♦
- ^{wS}*Helianthus angustifolius* L.
 “*Helianthus angustifolius* L.; Big Savannah,” *Wells s.n.*,
 18 Oct 1924, Fl, ♦
- ^{wv}*Helianthus heterophyllus* Nutt.
 “*Helianthus heterophyllus*; Big Savannah,” *Wells s.n.*, 2
 Jul 1924, St, ♦
- ^{wv}*Helianthus heterophyllus* Nutt.
 “*Helianthus heterophyllus* Nutt.; Big Savannah,” *Wells*
s.n., 4 Sep 1924, Fl, ♦
- ^{wv}*Helianthus heterophyllus* Nutt.
 “*Helianthus heterophyllus*; leaves, Big Sav.,” *Wells s.n.*, 1
 Jul 1925, St, ♦
- ^{wS}*Liatis pilosa* (Aiton) Willd. var. *graminifolia* (Willd.)
 Stucky & Pyne
 “*Lacinaria graminifolia* (Walt.) Kuntz; Margin, Big
 Sav.,” *Wells s.n.*, 8 Oct 1925, Fl & Fr, ♦

- ^{wV}*Liatrix spicata* (L.) Willd. var. *resinosa* (Nutt.) Gaiser
“*Lacinaria flabellata* Small; Big Savannah,” *Wells s.n.*, 12
Sep 1924, Fl & Fr, ♦
- ^{wV}*Liatrix spicata* (L.) Willd. var. *resinosa* (Nutt.) Gaiser
“*Lacinaria spicata*; Not frequent, OS, Big Sav.,” *Wells*
s.n., 8 Oct 1925, Fl & Fr, ♦
- ^{wV}*Liatrix spicata* (L.) Willd. var. *resinosa* (Nutt.) Gaiser
“*Lacinaria flabellata* Small => *webbsii* Alexander =>
flabellata Small; Big Sav.,” *Wells s.n.*, 8 Oct 1925, Fl &
Fr, ♦
- ^{wV}*Marshallia graminifolia* (Walt.) Small
“*Marshallia williamsonii* Small; Big Savannah,” [label
matches, but collector’s name not indicated on label],
4 Sep 1924, Fl, ♦
- ^{wV}*Marshallia graminifolia* (Walt.) Small
“*Marshallia williamsonii* Small; Big Savannah,” *Wells*
s.n., 4 Sep 1924, Fl, ♦
- ^{wS}*Prenanthes autumnalis* Walt.
“*Nabalus virgatus* (Michx.) DC.; Big Savannah,” *Wells*
s.n., 18 Oct 1924, Fl, ♦
- ^{wS}*Prenanthes autumnalis* Walt.
“*Prenanthes autumnalis* Walt.; Big Savannah near Bur-
gaw,” *Boyce, Wells, and Shunk 1574*, 13 Oct 1950, Fl, ♦
- Solidago puberula* Nutt. var. *pulverulenta* Chapm.
“*Solidago puberula* Nutt. var. *pulverulenta* (Nutt.)
Chapm.; Big Savannah near Burgaw,” *Boyce, Wells, and*
Shunk 1573 [Mixed material under this number, each
on a separate sheet], 13 Oct 1950, Fl & Fr, ♦
- ^{wV}*Solidago pulchra* Small
“*Solidago salicina* Ell. => *stricta* ?; Big Savannah,”
[handwriting and label match, but collector’s name
not indicated on label], 4 Sep 1924, Fl & Fr, ♦
- ^{wV}*Solidago pulchra* Small
“*Solidago patula* Muhl. ?; Margin, Big Sav.,” *Wells s.n.*, 4
Sep 1925, Fl, ♦
- ^{wV}*Solidago pulchra* Small
“*Solidago stricta* Ait.; OS, Big Sav.,” *Wells s.n.*, 8 Oct
1925, Fl & Fr, ♦
- ^{wV}*Solidago stricta* Aiton
“*Solidago stricta* Ait.; Big Savannah,” *Wells s.n.*, 19 Oct
1924, Fl & Fr, ♦
- ^{wV}*Solidago stricta* Aiton
- “*Solidago stricta* Ait.; Big Savannah near Burgaw,”
Boyce, Wells, and Shunk 1573 [Mixed material under
this number, each on a separate sheet], 13 Oct 1950,
Fl & Fr, ♦
- ^{wV}*Solidago stricta* Aiton
“*Solidago stricta* Ait.; Big Savannah near Burgaw,”
Boyce, Wells, and Shunk 1676, 13 Oct 1950, Fl & Fr, ♦
- ^{wV}*Symphytichum dumosum* (L.) Nesom var. *dumosum*
“*Aster dumosus* var. *gracilentus* T. & G.; Margin, Big
Sav.,” *Wells s.n.*, 8 Oct 1925, Fl & Fr, ♦
- CAMPANULACEAE
- ^{wV}*Lobelia canbyi* A. Gray
“*Lobelia canbyi*; Big Sav.,” *Wells s.n.*, 4 Sep 1924, Fl, ♦
- ^{wV}*Lobelia canbyi* Gray,
“*Lobelia canbyi* A. Gray; Big Sav.,” *Wells s.n.*, 8 Oct
1925, Fl, ♦
- Lobelia glandulosa* Walt.
“*Lobelia amoena* Michx.; Margin, Big Sav.,” *Wells s.n.*, 8
Oct 1925, Fl, ♦
- ^{wS}*Lobelia nuttallii* Roem. & Schult.
“*Lobelia nuttallii*; Sta. 1, Burgaw,” *Wells s.n.*
[handwriting and label match, but collector’s name
not indicated on label], 12 June 1925, Fl, ♣
- DROSERACEAE
- ^{wV}*Drosera capillaris* Poir.
“*Drosera rotundifolia* L.; Big Sav.,” *Wells s.n.*, 18 May
1925, Fl, ♦
- ^{wV}*Drosera intermedia* Hayne
“*Drosera intermedia* Hayne; In swamp area (low water
table), near Big Sav.,” *Wells s.n.*, 11 June 1926, St, ♦
- ERICACEAE
- ^{wV}*Vaccinium crassifolium* Andr.
“*Vaccinium crassifolium*; Sta 3, Burgaw, NC, Sta 2,”
Martins s.n., 17 May 1925, Fr, ♣
- Vaccinium tenellum* Aiton
“*Vaccinium vacillans*?; Burgaw, N.C. Sta. 2,” *Martins*
s.n., 17 May 1925, Fr, ♣
- FABACEAE
- Desmodium tenuifolium* Torr. & A. Gray
“*Meibomia tenuifolia* (T. & G.) Kuntze; Trans. Big
Sav.,” *Wells s.n.*, 4 Sep. 1925, Fl & Fr, ♦
- Lespedeza capitata* Michx. var. *capitata*

"*Lespedeza capitata* L.; Trans. Big Sav.," *Wells s.n.*, 4 Sep. 1925, Fl, ♦

Zornia bracteata J.F. Gmelin

"*Zornia bracteata*; Sta. 1, Burgaw," *Wells s.n.*
[handwriting and label match, but collector's name
not indicated on label], 1925, Fl, ♣

FAGACEAE

Quercus laevis Walt.

"*Quercus catesbaei*; Sta. 1, Burgaw," *Wells s.n.*
[handwriting and label match, but collector's name
not indicated on label], 1925, St, ♣

GENTIANACEAE

Sabatia campanulata (L.) Torr.

"*Sabbatia* [sic] *campanulata* (L.) Britton; Big Savan-
nah," *Wells s.n.*, 2 Jul 1924, Fl, ♥

Sabatia campanulata (L.) Torr.

"*Sabbatia* [sic] *campanulata* (L.) Britton; Big Savan-
nah," *Wells s.n.*, 13 Jun 1925, Fl, ♥

Sabatia campanulata (L.) Torr.

"*Sabbatia* [sic] *angustifolia* (Michx.) Britton; Big Sav.,"
Wells s.n., Aug 1925, Fl, ♥

^{wv}*Sabatia difformis* (L.) Druce

"*Sabatia paniculata* (Michx.) Pursh => *lanceolata* (Walt.)
T. & G.; Big Savannah," *Wells s.n.*, 2 Jul 1924, Fl, ♥

^{wv}*Sabatia difformis* (L.) Druce

"*Sabatia angularis* (L.) Pursh => *lanceolata* (Walt.) T. &
G. => *paniculata* (Michx.) Pursh; Big Savannah,"
Wells s.n., 2 Jul 1924, Fl, ♥

^{wv}*Sabatia difformis* (L.) Druce

"*Sabatia lanceolata* (Walt.) T. & G. => *paniculata*
(Michx.) Pursh; Big Savannah," *Wells s.n.*, 13 Jun
1925, Fl, ♥

Sabatia gentianoides Elliott

"*Sabatia dodecandra*; Margin Big Sav.," *Wells s.n.*, 24 Jul
1925, Fl, ♥

HYPERICACEAE

^{wv}*Hypericum crux-andreae* (L.) Crantz

"*Ascyrum stans*; Trans., Margin Big Savannah," *Wells*
s.n., 25 Jul 1925, Fl, ♥

^{wv}*Hypericum denticulatum* Walt.

"*Hypericum acutifolium* Ell.; Big Savannah," *Wells s.n.*, 2
Jul 1924, Fl, ♥

^{wv}*Hypericum galioides* Lam.

"*Hypericum ambiguum*; Trans., Margin Big Sav.," *Wells*
s.n., 7 Jul (no yr; 1924?), Fl & Fr, ♥

Hypericum reductum W.P. Adams

"*Hypericum aspalathoides* Willd.; Big Savannah," *Wells*
s.n., 2 Jul 1924, Fl, ♥

LENTIBULARIACEAE

^{wS}*Pinguicula caerulea* Walt.

"*Pinguicula elatior* Michx.; Big Savannah," *Wells s.n.*, 4
Apr 1925, St (but with infl stalk), ♥

Pinguicula lutea Walt.

"*Pinguicula lutea* Walt.; Big Savannah," *Wells s.n.*, 2 Jul
1924, Fl, ♥ SR-P

LINACEAE

^{wv}*Linum floridanum* (Planch.) Trel.

"*Carhartolinum medium* (Planch [sic]) Small; Big Savan-
nah," *Wells s.n.*, 2 Jul 1924, Fl imm, ♥ SR-T

^{wv}*Linum floridanum* (Planch.) Trel.

"*Carhartolinum medium*; Big Savannah," *Wells s.n.*?, 2
Jul 1924, Fl imm, ♥ SR-T

MAGNOLIACEAE

^{wv}*Magnolia virginiana* L.

"*Magnolia virginiana* (L.) [sic]; Big Savanna, Burgaw,"
Buell s.n., 16 Apr 1938, Fl, ♣

MELASTOMATACEAE

^{wv}*Rhexia alifanus* Walt.

"*Rhexia Alifanus* Walt.; Big Savannah," *Wells s.n.*, 2 Jul
1924, Fl, ♥

^{wv}*Rhexia lutea* Walt.

"*Rhexia ciliosa* Michx.?.; Big Savannah," *Wells s.n.*, 2 Jul
1924, Fr, ♥

^{wv}*Rhexia lutea* Walt.

"*Rhexia lutea* Walt.; Big Sav.," *Wells s.n.*, 13 Jun 1925,
Fl, ♥

^{wv}*Rhexia petiolata* Walt.

"*Rhexia ciliosa*; Trans. Sta. 1, Burgaw," [handwriting
and label match, but collector's name not indicated
on label], 11 July 1925, Fl, ♣

ONAGRACEAE

^{wv}*Ludwigia hirtella* Raf.

"*Ludwigia hirtella* Raf.; Big Savannah," *Wells s.n.*, 2 Jul
1924, Fl, •

^{wv}*Ludwigia hirtella* Raf.

"*Ludwigia hirtella* Raf.; Big Savannah," [label matches, but collector's name not indicated on label], 2 Jul 1924, Fl, •

OROBANCHACEAE

Agalinis linifolia (Nutt.) Britton

"*Gerardia linifolia* Nutt.; Big Savannah," [label matches, but collector's name not indicated on label], 4 Sep 1924, Fr, •

Agalinis linifolia (Nutt.) Britton

"*Gerardia linifolia* Nutt.; Big Savannah," [label matches, but collector's name not indicated on label], 4 Sep 1924, Fl & Fr, •

Agalinis linifolia (Nutt.) Britton

"*Gerardia linifolia* Nutt.; Big Savannah," *Wells s.n.*, 4 Sep 1925, Fl & Fr, •

Agalinis linifolia (Nutt.) Britton

"*Gerardia linifolia* Nutt.; Big Savannah," *Wells s.n.*, 4 Sep 1925, Fl, •

Agalinis linifolia (Nutt.) Britton

"*Gerardia linifolia* Nutt.; Big Savannah," *Wells s.n.*, 4 Sep 1925, Fl, •

Agalinis obtusifolia Raf.

"*Gerardia divaricata* Chap. [sic] => *erecta* Walt.; Big Savannah," *Wells s.n.*, 4 Sep 1924, Fl, •

Agalinis obtusifolia Raf.

"*Gerardia divaricata* Chapm. => *erecta* (Walt.) [sic]; Big Sav.," *Wells s.n.*, 4 Sep 1925, Fl, •

Agalinis purpurea (L.) Pennell

"*Gerardia purpurea* L.; Big Savannah," *Wells s.n.*, 8 Oct 1925, Fl, •

Agalinis virgata Raf.

"*Gerardia virgata* Raf.; Big Savannah," *Wells s.n.*, [no date], Fl & Fr, •

Seymeria cassioides (J.F. Gmelin) S.F. Blake

"*Afzelia cassioides* (Walt.) J.F. Gmel.; Big Savannah," [handwriting and label match, but collector's name not indicated on label], 12 Sep 1924, Fl, •

Seymeria cassioides (J.F. Gmelin) S.F. Blake

"*Afzelia cassioides* (Walt.) J.F. Gmel.; Trans. Big Savannah," *Wells s.n.*, 3 Sep 1925, Fl, •

Seymeria cassioides (J.F. Gmelin) S.F. Blake

"*Afzelia cassioides* (Walt.) J.F. Gmel.; Trans. Big Savannah," *Wells s.n.*, 3 Sep 1925, Fl, •

Seymeria cassioides (J.F. Gmelin) S.F. Blake

"*Afzelia cassioides*; Fruit; Margin, Big Sav.," *Wells s.n.*, 8 Oct 1926, Fr, •

POLYGALACEAE

Polygala cymosa Walt.

"*Polygala cymosa* Walt.; Big Savannah," *Wells s.n.*, 2 Jul 1924, Fl & Fr, •

Polygala hookeri Torr. & A. Gray

"*Polygala brevifolia* Nutt.; Big Savannah," *Wells s.n.*, 2 Jul 1924, Fl, •

^{wv}*Polygala lutea* L.

"*Polygala lutea* L.; Big Savannah," *Wells s.n.*, 2 Jul 1924, Fl, •

^{wv}*Polygala lutea* L.

"*Polygala lutea* L.; Big Savannah," [label matches, but collector's name not indicated on label], 2 Jul 1924, Fl, •

^{wv}*Polygala lutea* L.

"*Polygala lutea*; Sta. 1, Burgaw," [handwriting and label match, but collector's name not indicated on label], 12 Jun 1925, Fl, ♣

Polygala mariana Mill.

"*Polygala* sp. => *mariana* Mill.; Big Savannah," *Wells s.n.*, 2 Jul 1924, Fl, •

^{wv}*Polygala ramosa* Elliott

"*Polygala ramosa* Ell.; Big Savannah," *Wells s.n.*, 2 Jul 1924, Fl & Fr, •

^{wv}*Polygala ramosa* Elliott

"*Polygala ramosa*; Big Sav.," *Wells s.n.*, 25 Aug (no yr), Fl & Fr, •

PRIMULACEAE

^{wv}*Lysimachia loomsii* Torr.

"*Lysimachia loomsii*; (Transitions) Big Savannah," *Wells s.n.*, 18 May 1925, Fl, •

^{wv}*Lysimachia loomsii* Torr.

"*Lysimachia loomsii* Torr.; Big Sav. Transitions," *Wells s.n.*, 23 May 1925, Fl, •

RUBIACEAE

Oldenlandia uniflora L.

"*Oldenlandia uniflora*; Sta. 1, Burgaw," *Wells s.n.*

[handwriting and label match, but collector's name not indicated on label], 11 Jun 1925, Fl, ♣

SARRACENIACEAE

^{wV}*Sarracenia flava* L.

"*Sarracenia flava* L.; Big Savannah," [handwriting and label match, but collector's name not indicated on label], 2 Jul 1924, St, ●

^{wV}*Sarracenia flava* L.

"*Sarracenia flava* L.; Big Savannah," [handwriting and label match, but collector's name not indicated on label], 4 Sep 1924, Fr, ●

^{wV}*Sarracenia flava* L.

"*Sarracenia flava*; Big savannah," *Wells s.n.*, 4 Apr 1925, Fl, ●

^{wV}*Sarracenia flava* L. and ^{wV}*S. purpurea* L. [mixed collection]

"*Sarracenia purpurea* L.; (study in hybridization (?); Big Savannah," *Wells s.n.*, 18 May 1925, St, ●

^{wV}*Sarracenia purpurea* L.

"*Sarracenia purpurea* L.; Big Savannah," *Wells s.n.*, 2 Jul 1924, St, ●

^{wV}*Sarracenia purpurea* L.

"*Sarracenia purpurea* L.; Big Savannah," *Wells s.n.*, 1 May 1925, Fl, ●

Sarracenia rubra Walt.

"*Sarracenia flava* L. => *rubra*; Big Savannah," *Wells s.n.*, 2 Jul 1924, St, ●

VIOLACEAE

Viola affinis Leconte

"*Viola affinis* Le Conte; Woods near Big Sav.," *Wells s.n.*, 1 May 1925, Fl, ●

Viola affinis Leconte

"*Viola affinis* Le Conte; Woods near Big Sav.," *Wells s.n.*, 1 May 1925, Fl, ●

^{wS}*Viola primulifolia* L.

"*Viola primulifolia* L.; Big Savannah," *Wells s.n.*, 4 Apr 1925, Fl, ●

DISCUSSION

Study of the Wells collections at NCSC allows resolution of some, but not all curiosities appearing in Wells & Shunk (1928). Wells & Shunk (1928) cited "*Juncus aristulatus* var. *tinctorum*" as a component of the *Panicum* consocieties (or bog transition). The origin of this varietal name had remained a mystery (LeBlond, unpubl.). However, the Wells collection at NCSC includes a specimen originally determined as "*Juncus aristulatus pinetorum*." The varietal name was handwritten and likely later erroneously published as *tinctorum* by Wells & Shunk (1928). This name and the Wells specimen belong to *Juncus marginatus* Rostk. following Brooks & Clemants (2000).

"*Lobelia amoena*" is also cited by Wells & Shunk (1928) as a component of the *Panicum* consocieties. However, *Lobelia amoena* Michx. is known in North Carolina only from the mountains (Radford et al. 1968). The Wells collection originally so determined is actually referable to *L. glandulosa* Walt. – this latter species known from Coastal Plain savannas, bogs, swamp forests, and marshes (Radford et al. 1968).

"*Sabatia angularis*" is another taxon cited by

Wells & Shunk (1928) as a component of the *Panicum* consocieties. However, LeBlond (unpubl.) noted that this species had not yet been recorded for Pender Co. as of 1968 (see Radford et al. 1968) – unless overlooked. The species occurs throughout North Carolina, however the Wells specimen originally so determined is referable to *Sabatia difformis* (L.) Druce.

"*Sabatia paniculata*" was cited as a component of the *Campulosus* consocieties by Wells & Shunk (1928). However, the Wells collection originally so determined is also referable to *Sabatia difformis* (L.) Druce. LeBlond (unpubl.) noted that *Sabatia paniculata* is a synonym of *S. brevifolia* Raf., a plant not reaching further north than South Carolina (see Radford et al. 1968).

"*Scleria ciliata*" was also cited by Wells & Shunk (1928) from the *Campulosus* consocieties. LeBlond (unpubl.) noted that *S. ciliata* Michx. var. *ciliata* is unknown from the North Carolina outer Coastal Plain whereas var. *glabra* (Chapm.) Fairey is the most common occurrence there. This latter taxon is represented in the Wells collection by a single specimen (*Wells s.n.*, 10 Jul 1925), originally deter-

mined "*Scleria trichopoda*." The specimens originally determined "*Scleria ciliata*" (Wells s.n.: 2 Jul 1924 & 18 May 1925 [2 sheets]) were referred to *S. pauciflora* Muhl. ex Willd. var. *caroliniana* (Willd.) Wood by Fairey (see also Rezicek et al. 2002).

Specimens originally determined as *Eryngium aquaticum* L. are referable to *E. yuccifolium* Michx. *Eryngium aquaticum* var. *ravenelii* (A. Gray) Mathias & Constance is known from North Carolina Coastal Plain savannas (Weakley 2005), but is not represented by vouchers in the Wells collection.

Hypericum species are represented in the Wells collection by *H. crux-andreae* (L.) Crantz, *H. denticulatum* Walt., *H. galioides* Lam., and *H. reductum* (Svens.) W.P. Adams. LeBlond (unpubl.) noted that the "*Hypericum reductum*" of Big Savannah may

likely belong to an undescribed taxon (*Hypericum* sp. 2 in Weakley 2005). Unfortunately, the specimen does not bear fruit, requisite for diagnosis following the key in Weakley (2005). Until further studies of the *Hypericum* sp. 2/*H. reductum* complex are complete, the Wells collection remains referred to *H. reductum*.

Unfortunately, a number of taxa cited for Big Savannah by Wells & Shunk (1928) appear to remain unvouchered (Table 3), making resolution of taxonomic problems difficult. Hopefully, additional study of the existing specimens, along with the community descriptions provided by Wells & Shunk (1928), may at least provide an insightful baseline for restoration efforts of this apparently extirpated community type.

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