

Washington Flora Checklist

A checklist of the Vascular Plants of Washington State

Hosted by the University of Washington Herbarium

Family: Cyperaceae

205 terminal taxa (species, subspecies, and varieties).

The Washington Flora Checklist aims to be a complete list of the native and naturalized vascular plants of Washington State, with current classifications, nomenclature and synonymy.

Taxa included in the checklist:

- * Native taxa whether extant, extirpated, or extinct.
- * Exotic taxa that are naturalized, escaped from cultivation, or persisting wild.
- * Waifs (e.g., ballast plants, escaped crop plants) and other scarcely collected exotics.
- * Interspecific hybrids that are frequent or self-maintaining.
- * Some unnamed taxa in the process of being described.

Family classifications follow [APG IV](#) for angiosperms, PPG I (J. Syst. Evol. 54:563?603. 2016.) for pteridophytes, and Christenhusz et al. (Phytotaxa 19:55?70. 2011.) for gymnosperms, with a few exceptions. Nomenclature and synonymy at the rank of genus and below follows the [2nd Edition of the Flora of the Pacific Northwest](#) except where superseded by new information.

Accepted names are indicated with blue font; synonyms with black font.
Native species and infraspecies are marked with **boldface** font.

Please note: This is a working checklist, continuously updated. Use it at your discretion.

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Available online at <https://burkeherbarium.org/waflora/>

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Monocots:

Cyperaceae [FNA23, HC, HC2] Sedge Family

Synonyms: (none)

Originally based on draft treatment by Peter Zika, March 2000; next updated 2004 based on Flora of North America, Volume 23; most recent update in 2009 based on "Field Guide to the Sedges of the Pacific Northwest" (SPNW) [2008].

References: (none)

Amphiscirpus [FNA23, HC2]

Notes Roy. Bot. Gard. Edinburgh. 33: 308. 1974.
Nevada clubrush

Amphiscirpus nevadensis (S. Watson) Oteng-Yeb. [FNA23, HC2]

Notes Roy. Bot. Gard. Edinburgh. 33: 308. 1974.
Nevada bulrush

Schoenoplectus nevadensis (S. Watson) J. Sojak
Scirpus nevadensis S. Watson [HC]

FNA23: "Amphiscirpus nevadensis superficially resembles some dwarfed forms of Schoenoplectus pungens, with which it sometimes grows; S. pungens is readily distinguished by its trigonous culms and leaf blades, prominently 2-fid, awned scales, and beaked achenes. Amphiscirpus nevadensis differs from all North American species of Schoenoplectus in its wiry culms and leaves, prominently ciliate ligules, absence of evident internal aerenchyma, and beakless achenes. It has been reported from Delta, Manitoba."

Bolboschoenus [FNA23, HC2]

Syn. Deut. Schweiz. Fl., ed. 3. 3: 2531. 1905.
tuberous bulrush

Bolboschoenus fluviatilis (Torr.) Soják [FNA23, HC2]

Cas. Nár. Mus., Odd. Prír. 141: 62.
river bulrush

Schoenoplectus fluviatilis (Torr.) M.T. Strong [KZ99]
Scirpus fluviatilis (Torr.) A. Gray [HC]
Scirpus maritimus L. var. *fluviatilis* Torr.

FNA23: "Bolboschoenus fluviatilis frequently forms dense, monospecific, often entirely vegetative stands, and it is more common than recorded because vegetative colonies are often overlooked (E. W. Chester and B. E. Wofford 1992). The only record for Alabama is an 1870 collection from the East Fowl River in the Mobile Delta, where the species has not been collected since. It was intentionally introduced into New Hampshire (D. J. Padgett and G. E. Crow 1993). The report from New Mexico by M. L. Fernald (1950) cannot be confirmed because no specimen is known. Putative hybrids with Bolboschoenus maritimus occur in California. Bolboschoenus novae-angliae probably originated from B. fluviatilis × B. robustus (J. Browning et al. 1995). Introgression from B. maritimus and/or B. robustus is suggested by the larger exocarp cells (evident in surface view) in some North American plants. The Eurasian B. yagara (Ohwi) Y. C. Yang & M. Zhan differs from B. fluviatilis in its narrower leaves and smaller achenes."

Bolboschoenus maritimus (L.) Palla [FNA23, HC2]

Syn. Deut. Schweiz. Fl., ed. 3. 3: 2531.
seacoast tuberous bulrush

Schoenoplectus maritimus (L.) Lye [KZ99]
Scirpus maritimus L. [HC]

ssp. *paludosus* (A. Nelson) T. Koyama [FNA23, HC2]

Acta Phytotax. Geobot. 31: 148. 1980.

saltmarsh bulrush, seacoast bulrush

Scirpus campestris Britton

Scirpus maritimus L. var. *paludosus* (A. Nelson) Kük. [HC]

Scirpus pacificus Britton ex Parish

Scirpus paludosus A. Nelson

FNA23: "Bolboschoenus maritimus belongs to a difficult, worldwide complex, in which the delimitation of specific and infraspecific taxa is still unclear. The new lectotype and epitype from the Baltic coast of Sweden selected by S. G. Smith and I. Kukkonen (1999) are used here as the basis for redefining *B. maritimus* subsp. *maritimus*, which was previously defined to include *B. yagara* (Ohwi) Y. C. Yang & M. Zhan (J. Browning et al. 1996; Z. Hroudová et al. 1998). It seems likely that some populations of both *Bolboschoenus maritimus* subsp. *maritimus* and *B. maritimus* subsp. *paludosus* have been introduced into the flora from Eurasia. Many bipistillate specimens from Eurasia and Africa are very similar to American plants. Further study may show that these plants should be included in *Bolboschoenus maritimus* subsp. *paludosus*. Plants from seashores have bright brown floral scales and medium to dark brown achenes; plants from the western interior have bright brown to very pale floral scales and/or achenes. Around Chicago, Illinois, *Bolboschoenus maritimus* subsp. *paludosus* is spreading with other halophytes in roadside ditches where salts accumulate; it is likely to occur elsewhere in similar conditions. *Bolboschoenus maritimus* subsp. *paludosus* is planted for waterfowl food (H. A. George 1963, as *Scirpus robustus*), and in California it is sometimes mixed with *B. glaucus* and hybrids. The tough inner vascular cores of the rhizomes are used by Native Americans of the Pacific Coast in making baskets."

Carex [FNA23, HC, HC2]

Sp. Pl. 2: 972. 1753; Gen. Pl. ed. 5, 420. 1754.

sedge

Carex abrupta Mack. [FNA23, HC2]

Bull. Torrey Bot. Club. 43: 618.

abrupt-beaked sedge

Carex albonigra Mack. [FNA23, HC, HC2, SPNW]

Fl. Rocky Mts. 137, 1060.

black-and-white-scaled sedge

Carex amplifolia Boott [FNA23, HC, HC2, SPNW]

Fl. Bor.-Amer. 2: 228, plate 226.

big-leaf sedge

FNA23: "Carex amplifolia is confined to temperate western North America, where it is usually uncommon or rare from coastal lowlands to middle elevations in the mountains."

Carex angustata Boott [FNA23, HC2, SPNW]

Fl. Bor.-Amer. 2: 218.

narrow-leaved sedge

Carex egregia Mack.

Carex eurycarpa T. Holm [HC]

Carex oxycarpa T. Holm

See L. Standley, 1985. FNA23: "Carex angustata is a member of the *C. stricta* complex based on the scabrous, red-brown, bladeless ladder-fibrillose sheaths, the veined perigynia, the hypostomic leaves, and the low chromosome numbers. It is distinguished from sympatric members of the group, *C. nudata* and *C. senta*, by the rhizomatous habit, the few-veined perigynia, and the scabrous stems and from the often-sympatric *C. aquatilis* by the scabrous, veined sheaths and the veined perigynia."

Carex anthoxantha J. Presl & C. Presl [FNA23, HC2, SPNW]

Reliq. Haenk. 1: 203.

grassy-slope arctic sedge, yellow-flowered sedge

Carex aperta Boott [FNA23, HC, HC2, SPNW]

Fl. Bor.-Amer. 2: 218, plate 219.

Columbia sedge

Carex accedens T. Holm
Carex accutina L.H. Bailey var. *tenuior* L.H. Bailey
Carex aperta Boott var. *umbrosa* Kük.
Carex aperta Boott var. *viridans* Kük.
Carex stylosa C.A. Mey. var. *virens* L.H. Bailey
Carex turgidula L.H. Bailey

FNA23: "Carex aperta and C. haydenii appear to be a very closely related, allopatric pair of species that may not be closely related to other members of the section. This species-pair is distinguished by the inflated perigynia, the acute scales that are longer than the perigynia, and the unique chromosome number. Carex aperta is distinguished from C. haydenii by its rhizomatous habit, the dull brown achenes, and the entire beak. It is sometimes mistaken for the sympatric taxa that also lack veins on the perigynia, C. aquatilis and C. scopulorum; mature specimens can easily be identified by the inflated perigynia."

Carex aquatilis Wahlenb. [FNA23, HC, HC2]

Kongl. Vetensk. Acad. Nya Handl. 24: 165.
water sedge

var. **aquatilis** [FNA23, HC2, SPNW]

Kongl. Vetensk. Acad. Nya Handl. 24: 165.
water sedge

Carex acutinella Mack.
Carex interimus Maguire
Carex pachystoma T. Holm
Carex suksdorfii Kük.
Carex variabilis L.H. Bailey

FNA23: "Carex aquatilis is circumboreal and variable; four extensively intergrading varieties are recognized in North America. The species is distinguished by amphistomic (epistomic in var. dives) papillose leaves, glabrous sheaths with a concave apex, perigynia that lack veins and are usually brown-spotted on the proximal half, and have glossy achenes. The circumboreal Carex aquatilis var. aquatilis is very common in wetlands of the northern and montane portions of North America. The plants are usually rhizomatous; in very wet or flooded sites they may form cespitose clumps. Carex aquatilis var. aquatilis is distinguished from the sympatric Carex stricta by the sheaths not ladder-fibrillose, obovoid and veinless perigynia that are rounded at apex, glossy achenes, and amphistomic leaves. It is often confused with C. emoryi, and distinguished by perigynia that lack veins, concave sheath apex, glossy achenes, and amphistomic leaves. In western North America, it is often sympatric with C. scopulorum and may be distinguished by the pale brown perigynia, glossy achenes, and amphistomic leaves. Carex aquatilis and C. scopulorum occasionally hybridize; hybrids have been named as C. xsphacelata T. Holm and C. xchionophila T. Holm. Carex aquatilis var. aquatilis overlaps and may intergrade with C. aquatilis var. dives along the Pacific Coast, with var. minor along the Arctic coast, and with var. substricta in the Great Lakes-New England region. Much of var. aquatilis in the southern part of its range has been called var. altior (L. H. Bailey) Rydberg. The type for var. altior is a specimen of C. emoryi."

var. **dives** (T. Holm) Kük. [FNA23, HC2, SPNW]

Pflanzenr. 28[IV,20]: 311.
Sitka sedge

Carex dives T. Holm
Carex howellii L.H. Bailey
Carex panda C.B. Clarke
Carex sitchensis Prescott ex Bong. [HC, VPBC4]

Some authorities continue to treat C. sitchensis as a separate species e.g. A. Ceska in Illustrated Flora of British Columbia, 2001. FNA23: "Carex aquatilis var. dives is the most robust variety of C. aquatilis and the only member to have pendent spikes, ellipsoid perigynia, and epistomic leaves. Carex aquatilis var. dives intergrades with var. aquatilis and does not appear to be distinct at the specific level. It may hybridize with C. lyngbyei."

Carex arcta Boott [FNA23, HC, HC2, SPNW]

Ill. Carex. 155, plate 497.

northern clustered sedge

Carex canescens L. ssp. *polystachya* Boott
Carex canescens L. var. *oregana* L.H. Bailey
Carex heleonastes L. f. var. *scabriuscula* Kük.
Carex kunzei Olney

***Carex atherodes* Spreng. [FNA23, HC, HC2, SPNW]**

Syst. Veg. 3: 828.
awned sedge, wheat sedge

FNA23: "Carex atherodes is a major wetland species in portions of the Midwest and West and becomes increasingly uncommon and local in the eastern portions of its range. It forms large clones and can tolerate deeper water than most Carex. Glabrous forms occur and seem to be more common in the western portion of the range. Carex atherodes rarely hybridizes with C. trichocarpa."

***Carex athrostachya* Olney [FNA23, HC, HC2, SPNW]**

Proc. Amer. Acad. Arts. 7: 393.
slender-beak sedge

Carex athrostachya misspelled

FNA23: "Carex athrostachya intergrades with C. unilateralis."

***Carex atosquama* Mack. [FNA23, HC2, SPNW]**

Proc. Biol. Soc. Wash. 25: 51.
black-scale sedge

Carex apoda Clokey
Carex atrata L. ssp. *atosquama* (Mack.) Hultén
Carex atrata L. var. *atosquama* (Mack.) Cronquist [HC]
Carex viridior Mack.

***Carex aurea* Nutt. [FNA23, HC, HC2, SPNW]**

Gen. N. Amer. Pl. 2: 205.
golden sedge, pumpkin sedge

***Carex bebbii* (L.H. Bailey) Olney ex Fernald [FNA23, HC, HC2, SPNW]**

Proc. Amer. Acad. Arts. 37: 478.
Bebb's sedge

Carex tribuloides Wahlenb. var. *bebbii* L.H. Bailey

FNA23: "In addition to typical perennial behavior, Carex bebbii may reach reproductive stage from seed in a single season, thus behaving as a facultative annual. Carex athrostachya and C. crawfordii may share this reproductive feature."

***Carex bolanderi* Olney [FNA23, HC2, SPNW]**

Proc. Amer. Acad. Arts. 7: 393.
Bolander's sedge

Carex deweyana Schwein. var. *bolanderi* (Olney) W. Boott

Segregated from C. deweyana in FNA.

***Carex brevior* (Dewey) Mack. ex Lunell [FNA23, HC, HC2, SPNW]**

Amer. Midl. Naturalist. 4: 235.
Plains oval sedge, short-beaked sedge

Carex festucea Schkuhr ex Willd. var. *brevior* (Dewey) Fernald
Carex straminea Willd. ex Schkuhr var. *brevior* Dewey

FNA23: "Carex brevior seems to display an unusually broad, aneuploid chromosome series that does not readily correlated with any features of external morphology (P. E. Rothrock and A. A. Reznicek 1998). The chromosome variation may, however, have a geographic relationship. Among the plants observed, the lowest number came from northeast Texas while the highest number (n = 34) came from Manitoba (Å. Löve and D. Löve 1981b). Records of Carex brevior from ruderal habitats east and south of its main range are likely introductions."

Carex breweri Boott [FNA23, HC, HC2, SPNW]

Ill. Carex. 142, plate 455.

Brewer's sedge

(see also *Carex engelmannii*)

Carex breweri Boott var. *breweri* [HC]

FNA23: "A. Cronquist (1969) considered *Carex breweri* and *C. engelmannii* conspecific; he distinguished them at the varietal level by a difference in pistillate scale characters. The correlated differences in perigynium shape and veins, the dimensions of most structures, and the foliar anatomy support their retention as distinct species."

Carex brunnescens (Pers.) Poir. [FNA23, HC, HC2]

Encycl., Suppl. 3: 286.

brown sedge

ssp. **brunnescens** [FNA23, HC2]

brown sedge

Carex brunnescens (Pers.) Poir. ssp. *alaskana* Kalela

Carex brunnescens (Pers.) Poir. ssp. *brunescens* [SPNW, FNA23], orthographic variant

Carex brunnescens (Pers.) Poir. ssp. *pacifica* Kalela

Carex brunnescens (Pers.) Poir. ssp. *vitis* (Fr.) Kalela

Carex canescens L. var. *alpicola* Wahlenb.

Carex canescens L. var. *persoonii* (Sieber) H. Christ

Carex gebhardii Hoppe

Carex gracilis Ehrh.

Carex persoonii Sieber

Carex vitilis Fr.

FNA23: "*Carex brunnescens* is variable across its wide distribution; it deserves a monographic treatment. Many taxa have been described. Most variation is presumably of ecophenotypic nature; when growing in shady habitats the species is slender and weak and the scales are not or but little colored; in more exposed sites it is stiffer, and the scales become strongly brownish tinged. Only two subspecies are recognized here. Subspecies *alaskana* and subsp. *pacifica* (see A. Kalela 1965) seem to grade to the typical subsp. *brunnescens*. A short-leaved plant with short and red tinged perigynia from western United States (Colorado, Montana, Utah, Wyoming) may represent a southern subspecies and should be studied in greater detail. "

Carex buxbaumii Wahlenb. [FNA23, HC, HC2, SPNW]

Kongl. Vetensk. Acad. Nya Handl. 24: 163.

brown bog sedge, Buxbaum's sedge

Carex buxbaumii Wahlenb. var. *anticostensis* Raymond

Carex holmiana Mack.

Carex polygama Schkuhr

Carex californica L.H. Bailey [FNA23, HC, HC2, SPNW]

Mem. Torrey Bot. Club. 1: 9.

California sedge

Carex canescens L. [FNA23, HC, HC2]

Sp. Pl. 2: 974.

silvery sedge

ssp. **canescens** [FNA23, HC2, SPNW]

Sp. Pl. 2: 974.

grey sedge, silvery sedge

Carex canescens L. var. *robustina* Macoun

Carex canescens L. var. *robustior* Blytt ex Andersson

Carex subloliacea (Fernald) E.P. Bicknell

FNA23: "*Carex canescens* subsp. *canescens* is a variable taxon with a wide circumpolar distribution; it is found throughout the distribution range of the species, except the southernmost parts of southeastern United States. Many varieties and forms have been described in the subspecies.

Slender, short plants with subglobose spikes and small, short-beaked perigynia have often been called var. *subloliacea*. Those plants represent both subspecies treated herein and to a minor part also *C. lapponica*. Tall, robust plants with stout, relative dark perigynia from mountainous regions (especially British Columbia and Alaska) may represent an ecotype and are often called var. *robustior*. Similar specimens have been collected from southern South America (Tierra del Fuego, Falkland Islands). The status of the taxon needs further study."

***Carex capillaris* L. [FNA23, HC, HC2, SPNW]**

Sp. Pl. 2: 977. (as *capillari*).

hair sedge

Carex boecheriana Å. Löve, D. Löve & Raymond

Carex chlorostachys Steven

Carex fuscidula V.I. Kreczetovicz ex T.V. Egorova

FNA23: "Carex capillaris is somewhat variable and is often divided into two infraspecific taxa. Plants from the south are larger, have pale brown pistillate scales, and serrulate perigynium beaks. Northern plants are smaller, have medium brown pistillate scales, and smooth perigynium beaks. These characteristics are only weakly correlated, making it difficult to assign individuals to these taxa except in a very arbitrary manner. When recognized, the southern plants are called subsp. *capillaris* (*C. chlorostachya* Steven, *C. capillaris* var. *major* Drejer ex Blytt), and the northern plants are called subsp. *fuscidula* (V. I. Kreczetovicz ex T. V. Egorova) Å. Löve & D. Löve. T. V. Egorova (1964) recorded the Asian species *Carex delicata* C. B. Clarke (as *C. karoii*) from Colorado; no specimens have been seen that confirm that report, and it seems likely an error because T. V. Egorova (1999) indicated the species is restricted to Asia. This species has dense lateral spikes with 15?30 perigynia, the perigynia rounded at the apex and abruptly beaked, with the beak 0.1?0.2 mm. *Carex tiogana* D. M. Taylor & J. Mastrogriuseppe from northern California cannot be satisfactorily distinguished from *C. capillaris*, although it possesses an uncommon combination of characteristics. It is probably best treated as a variety or subspecies of *C. capillaris*. Until a more satisfactory account of the variability in *C. tiogana* and its relationship with *C. krausei* is produced, its status must remain uncertain."

***Carex capitata* L. [FNA23, HC, HC2]**

Syst. Nat. ed. 10. 2: 1261.

capitate sedge

Carex arctogena Harry Sm.

Carex capitata L. ssp. *capitata* [KZ99]

Carex capitata L. var. *arctogena* (Harry Sm.) Hultén

FNA says this species does not occur in WA. SPNW shows the range of this species to be well south of Washington. No vouchers at WTU. This species is considered excluded until further evidence appears indicating that it should be included in the Washington flora. FNA23: "In Scandinavia (L. Reinhammar 1999) and Russia (T. V. Egorova 1999), *Carex arctogena* is distinguished from *C. capitata* on ecologic and morphologic grounds and also by allozymes at the rank of species. In North America the distinctions are not clear; two taxa can be observed, but there are also numerous specimens of uncertain determination. When making new collections, it is important to evaluate the differences seen elsewhere and to pay close attention to habitat and habit (see below). Separate status at some rank may be appropriate for the taxon "arctogena"• in North America too. If *C. antarctogena* Roivainen from Tierra del Fuego is placed within *C. capitata* as D. M. Moore and A. O. Chater (1971) and D. M. Moore (1983) have done, then the species occurs at both the northern and the southern extremes of the Americas. *Carex capitata* and *C. arctogena* differ in habitat (boreal mires versus alpine heaths), habit (mat-forming versus tufted), and morphology of the pistillate scales (much shorter and narrower than perigynia and with narrow hyaline margins versus as long as perigynia and with broad hyaline margins) and perigynia (beak gradually formed and smooth versus beak and may be sparingly serrulate)."

***Carex chordorrhiza* Ehrh. ex L. f. [FNA23, HC2, SPNW]**

Suppl. Pl. 414.

cordroot sedge, creeping sedge, rope-root sedge

FNA says this species does not occur in WA but WTU has vouchers collected from Okanogan County. Also recorded by Peter Zika as an introduced species in cranberry bogs in Oregon. FNA23: "Easily overlooked, *Carex chordorrhiza* is uncommon and local in much of its range, especially in districts with predominantly acidic soils. However, it can form extensive stands and be a dominant species in some

boreal wetlands. Oregon collections represent occurrences in commercial cranberry bogs and are presumably introductions. The rhizomes are short and rarely collected; the leafy vegetative stems elongate dramatically as the season progresses. At first erect to ascending, the stems eventually lie flat and next season send out roots and shoots from the nodes. These horizontal stems typically become overgrown by moss or form networks in shallow water, thus appear to be rhizomes."

***Carex circinata* C.A. Mey. [FNA23, HC, HC2, SPNW]**

Mém. Acad. Imp. Sci. St.-Petersbourg Divers Savans. 1: 209, plate 6.
coiled sedge

***Carex comosa* Boott [FNA23, HC, HC2, SPNW]**

Proc. Linn. Soc. London. 1: 258.
bearded sedge, bristly sedge

FNA23: "Carex comosa is uncommon and local in the west and south of glaciated regions in the east except in some coastal areas. Carex comosa rarely forms sterile hybrids with *C. pseudocyperus* and *C. hystericina*."

***Carex concinnoides* Mack. [FNA23, HC, HC2, SPNW]**

Bull. Torrey Bot. Club. 33: 440.
northwestern sedge, tetrastigmatic sedge

FNA23: "Carex concinnoides is the only North American sedge with four stigmas per pistil. It is most similar to *C. richardsonii*; differs in its more closely aggregated, short-pedunculate pistillate spikes with very short-sheathing bracts. These close relatives are sympatric only at the northern and eastern edge of the range of *C. concinnoides*."

***Carex cordillerana* Saarela & B.A. Ford [FNA23, HC2, SPNW]**

Syst. Bot. 26: 715, figs. 1C, 2C, 3C, 4C, 8.
cordilleran sedge

Carex saximontana Mack. [FNA23, HC2], misapplied

Vouchers of this species at WTU have historically been called *C. backii*.

***Carex crawei* Dewey [FNA23, HC, HC2, SPNW]**

Amer. J. Sci. Arts, ser. 2. 2: 246.
Crawe's sedge

Last collected in WA in 1841. FNA23: "Though widespread, Carex crawei is usually rare or local except near the shores of the Great Lakes, glades in the Interior Highlands, and prairie swales on parts of the Great Plains. Other authors have reported it from Nova Scotia (H. J. Scoggan 1978?1979, part 2; earlier mentioned by M. L. Fernald 1948 on the authority of J. M. Macoun 1899); no specimens to substantiate the reports have been found. The perigynia in Carex crawei are usually smaller than in *C. microdonta*. A few specimens from Ontario and New York with all other characteristics of *C. crawei* have larger and slightly beaked perigynia that approach those of *C. microdonta*."

***Carex crawfordii* Fernald [FNA23, HC, HC2, SPNW]**

Proc. Amer. Acad. Arts. 37: 469, plate 1, figs. 12?14.
Crawford's sedge

Occurs as an introduced weed in coastal WA and OR cranberry bogs.

***Carex cusickii* Mack. ex Piper & Beattie [FNA23, HC, HC2, SPNW]**

Fl. N.W. Coast. 72.
Cusick's sedge

Carex teretiuscula Gooden. var. *ampla* L.H. Bailey

FNA23: "Although infrequent or local in most parts of its range, Carex cusickii is fairly common in and west of the Cascade Mountains. Reports of *C. cusickii* from Utah probably are based on specimens of *C. diandra*. Carex cusickii is more similar to *C. prairea* than either species is to *C. diandra*. Both are typically more robust than the latter, having wider leaves and sometimes larger inflorescences and larger perigynia. The characteristics distinguishing the first two, although seemingly unimportant, are constant and appear to have populational significance. Furthermore, the geographic ranges of the species, although contiguous in the western part of the Cariboo Forest Region of southern British Columbia, are wholly discrete except for the remarkable occurrence of *C. prairea* in Flathead County, Montana. It remains to be determined if any

real overlapping or recombining of characteristics occurs among the several species of section Heleoglochin, or whether the difficulty in drawing precise lines between them in the herbarium is merely the consequence of inadequate specimens and reliance on too few characters."

Carex davyi Mack. [FNA23, HC2]

Bull. Torrey Bot. Club. 43: 606.

Constance's sedge, Davy's sedge

Carex constanceana Stacey [FNA23]

Treated as a synonym of *C. petasata* by H&C. FNA23: "*Carex constanceana*, known from only one locality, has not been collected since the early 1900s. It has features of *C. petasata* and of *C. davyi*. In one flora *C. constanceana* was included in *C. petasata* (A. Cronquist 1969)."

Carex deflexa Hornem. [FNA23, HC2]

Fors. Oecon. Plantel. ed. 3. 1: 938.

mountain mat sedge

var. **boottii** L.H. Bailey [FNA23, HC2]

Mem. Torrey Bot. Club. 1: 43.

northern sedge

Carex brevipes W. Boott, illegitimate name

Carex globosa Boott var. *brevipes* W. Boott ex Mack.

Carex rossii Boott var. *brevipes* (W. Boott) Kük.

FNA23: "*Carex deflexa* var. *boottii* is sometimes included in *C. rossii*. The varieties are said to differ in the degree of spreading of the rhizomes; var. *boottii* is more caespitose in habit and has stouter rootstocks than var. *deflexa*. That character varies considerably within each variety, and may be dependent on the compaction and particle size of the soil in which a plant is growing. These taxa clearly form a complex that requires further study. The name *Carex brevipes* was first proposed by W. Boott (in S. Watson 1876?1880, vol 2, p. 246) but then withdrawn (p. 485), so was not validly published by him. Subsequent authors used the name, attributing it to W. Boott. It was validly published at species rank by K. K. Mackenzie (1931?1935) and at varietal rank by L. H. Bailey."

Carex densa (L.H. Bailey) L.H. Bailey [FNA23, HC, HC2, SPNW]

Mem. Torrey Bot. Club. 1: 50.

dense sedge

Carex breviligulata Mack.

Carex brongniartii Kunth var. *densa* L.H. Bailey

Carex chrysoleuca T. Holm

Carex dudleyi Mack. [JPM]

Carex vicaria L.H. Bailey [KZ99]

Carex vicaria L.H. Bailey var. *costata* L.H. Bailey

Carex vulpinoidea Michx. var. *vicaria* (L.H. Bailey) Kük.

FNA23: "*Carex densa* has been subdivided into as many as four species. Variable characters of the taxon include the compaction of the inflorescence, the shape of the sheath apex, the size and number of veins on the perigynium, the length of the pistillate scale awn, and the development of spongy tissue basal and lateral to the perigynium. The morphologic variation shows no geographic or ecologic pattern and cannot be separated consistently by visual or statistical analyses. The most frequently recognized taxa, *C. densa* and *C. dudleyi*, are end-points along a morphologic continuum of spongy tissue development. The perigynium of typical *C. densa* has well-developed spongy tissue, giving an ovate shape and rounded base. In contrast, the typical *C. dudleyi* lacks development of spongy tissue, giving a rhombic shape and tapered base. These extremes are connected by a continuous range of intermediate forms that display the same range of variation found in *C. vulpinoidea*. A single species is here recognized; however, further study may clarify patterns of biological variation within the complex taxon."

Carex deweyana Schwein. [FNA23, HC, HC2]

Ann. Lyceum Nat. Hist. New York. 1: 65.

Dewey's sedge

(see also *Carex bolanderi*, *Carex infirmivervia*, *Carex leptopoda*)

var. **deweyana** [FNA23, HC2, SPNW]

Ann. Lyceum Nat. Hist. New York. 1: 65.
Dewey's sedge

***Carex diandra* Schrank [FNA23, HC, HC2, SPNW]**

Cent. Bot. Anmerk. 57 [49].
lesser panicked sedge, lesser tussock sedge

FNA23: "Although common northward (but not at the highest latitudes except in District of Mackenzie and Yukon), this circumboreal sedge is occasional to rare throughout much of its United States range. *Carex diandra* was reported from Tennessee by J. K. Underwood (1945) and in lists of Tennessee plants on the basis of an old specimen that has been destroyed. H. A. Gleason and A. Cronquist's (1963, 1991) report for Missouri, quoted in later floras and catalogues, is believed to be erroneous. See comments under *C. prairea*."

***Carex disperma* Dewey [FNA23, HC, HC2, SPNW]**

Amer. J. Sci. Arts. 8: 266.
short-leaf sedge
Carex tenella Schkuhr

***Carex divulsa* Stokes [FNA23, HC2]**

Bot. Arr. Brit. Pl., ed. 2: 2: 1035.
Leers's sedge

ssp. *leersii* (Kneuck.) W. Koch [HC2]

Mitt. Bad. Landesvereins Naturk. Naturschutz Freiburg 1(Heft 11): 259.
Leer's sedge

Planted as an ornamental and locally escaping in King Co.

***Carex douglasii* Boott [FNA23, HC, HC2, SPNW]**

Fl. Bor.-Amer. 2: 213, plate 214.
Douglas's sedge

FNA23: "The stigmas of *Carex douglasii* are very long and form a tangled mat that persists essentially until the perigynia mature, giving a distinctive appearance to pistillate inflorescences of the species. Though the plants are uniform in appearance superficially, the perigynia are quite variable in shape and size."

***Carex eburnea* Boott [FNA23, HC2]**

Fl. Bor.-Amer. 2: 226, plate 225.
bristle-leaved sedge

Known from Pend Oreille County. Reports of *Carex krausei* in WA belong here.

***Carex echinata* Murray [FNA23, HC2]**

Prodr. Stirp. Goett. 76.
star sedge

Carex muricata L. [FNA23, HC], misapplied

ssp. *echinata* [FNA23, HC2, SPNW]

Prodr. Stirp. Goett. 76.
star sedge

Carex angustior Mack.

Carex ormantha (Fernald) Mack.

FNA23: "*Carex echinata* subsp. *echinata* is a complex, variable entity; plants of relatively sterile habitats from Newfoundland to Minnesota and south locally to the mountains of Tennessee and North Carolina have very narrow perigynia with the spikes either in congested heads or more laxly arranged and may be called *C. echinata* var. *angustata* (J. Carey) L. H. Bailey. Plants from the San Bernardino Mountains, Coast Ranges, Sierra Nevada, and some of the volcanic peaks in California, Oregon, and Washington tend to have very elongate inflorescences with widely spaced spikes and may be called *C. echinata* var. *ormantha* Fernald. In some areas these variants appear reasonably distinct, but over most of the species range intergrades between the extremes are frequent."

ssp. *phyllomanica* (W. Boott) Reznicek [FNA23, HC2, SPNW]

Contr. Univ. Mich. Herb. 14: 195.

coastal star sedge

Carex phyllomanica W. Boott [HC]

***Carex engelmannii* L.H. Bailey [FNA23, HC2, SPNW]**

Proc. Amer. Acad. Arts. 22: 132. (as engelmannii).

Engelmann's sedge

Carex breweri Boott var. *paddoensis* (Suksd.) Cronquist [HC]

Carex engelmannii L.H. Bailey var. *paddoensis* (Suksd.) Kneucker

Carex paddoensis Suksd.

FNA23: "Carex engelmannii occurs north and east of the range of C. breweri; both species occur on Mt. Adams, Washington. Carex engelmannii is most similar to C. subnigricans. It differs in the inrolled scale margins, the larger, sessile perigynia, the stipitate achene, and leaf cross sectional shape. It occurs in drier habitats usually to the north and east of the range of C. subnigricans. Relationships among the three species placed in the section, as well as their relationships to other unispicate sections, should be studied further."

***Carex exsiccata* L.H. Bailey [FNA23, HC2, SPNW]**

Mem. Torrey Bot. Club. 1: 6.

big inflated sedge

Carex vesicaria L. var. *major* Boott [HC]

FNA23: "Carex exsiccata is regarded by some authors, with some justification, as C. vesicaria var. major. It is a coarser plant with leathery, lanceolate perigynia gradually tapered to the apex that occurs at lower elevations and is usually readily distinguishable although some plants from the Cascades are difficult to place. In the west, typical C. vesicaria occurs mostly above 1400 m. Some authors (B. Boivin 1967?1979; T. M. C. Taylor 1983) treat all western plants as C. exsiccata, distinct from the eastern North American and Eurasian C. vesicaria. The Rocky Mountain, Cascade Range, and Sierra Nevada plants do not differ substantially from eastern plants, except that sometimes they have darker perigynia and scales."

***Carex feta* L.H. Bailey [FNA23, HC, HC2, SPNW]**

Bull. Torrey Bot. Club. 20: 417.

green-sheath sedge

Carex straminea Willd. ex Schkuhr var. *mixta* L.H. Bailey

***Carex filifolia* Nutt. [FNA23, HC, HC2]**

Gen. N. Amer. Pl. 2: 204.

thread-leaved sedge

var. *filifolia* [FNA23, HC2, SPNW]

Gen. N. Amer. Pl. 2: 204.

thread-leaf sedge

FNA separates C. filifolia into two varieties only one of which occurs in WA.

***Carex flava* L. [FNA23, HC, HC2, SPNW]**

Sp. Pl. 2: 975.

yellow sedge, yellow-green sedge

Carex flava L. var. *fertilis* Peck

Carex flava L. var. *gaspensis* Fernald

Carex flava L. var. *laxior* (Kük.) Gleason

Carex laxior (Kük.) Mack.

FNA does not list for WA. but good voucher specimens can be found at WTU and perhaps other herbaria.

***Carex fracta* Mack. [FNA23, HC, HC2, SPNW]**

Erythea. 8: 38.

fragile-sheath sedge

***Carex geyeri* Boott [FNA23, HC, HC2, SPNW]**

Trans. Linn. Soc. London, Bot. 20: 118.

elk sedge, Geyer's sedge

Carex gynocrates Wormskjöld ex Drejer [FNA23, HC2, SPNW]

Naturhist. Tidsskr. 3: 434.

yellow bog sedge

Carex alascana Boeckeler

Carex dioica L. [HC], misapplied

Carex dioica L. var. *gynocrates* (Wormskjöld ex Drejer) Ostenf. [HC]

Carex halliana L.H. Bailey [FNA23, HC, HC2, SPNW]

Bot. Gaz. 9: 117.

Hall's sedge

Carex oregonensis Olney ex L.H. Bailey

Carex hassei L.H. Bailey [FNA23, HC2, SPNW]

Bot. Gaz. 21: 5.

false golden sedge

Carex saliniformis Mack.

SPNW: "Taxonomy of *Carex hassei* and relatives is controversial. It has often been merged with *C. aurea* and/or northern and eastern *C. garberi*. Even treated as a separate species, *C. hassei* has more variation than is typical of most *Carex* species. Variants include coastal CA plants called *C. saliniformis*; serpentine plants of NW CA and SW OR with a mix of 2 and 3 stigmas; small neat plants of alkaline springs in NV; and plae, robust plants of the San Bernadino Mts. of S CA."

Carex haydeniana Olney [FNA23, HC, HC2, SPNW]

Botany (Fortieth Parallel). 366.

cloud sedge, Hayden's sedge

Carex festiva Dewey var. *decumbens* T. Holm

Carex macloviana d'Urv. ssp. *haydeniana* (Olney) Roy L. Taylor & MacBryde

Carex nubicola Mack.

FNA lists for WA but its occurrence needs to be documented. KZ, 2004, reports a voucher at WS from Walla Walla, County. Identification needs to be verified. SPNW does not show this species occurring anywhere near Washington. Until a voucher is located confirming the Washington occurrence, this species is considered excluded.

Carex hendersonii L.H. Bailey [FNA23, HC, HC2, SPNW]

Proc. Amer. Acad. Arts. 22: 115. (as hendersoni).

Henderson's sedge

Carex heteroneura W. Boott [FNA23, HC2, SPNW]

Bot. California. 2: 239.

different-veined sedge, smooth-fruited sedge

(see also *Carex atosquama*)

Carex atrata L. var. *erecta* W. Boott [HC]

FNA23: "Intermediates between *Carex epapillosa* and *C. heteroneura* occur in California, Nevada, and Utah."

Carex hoodii Boott [FNA23, HC, HC2, SPNW]

Fl. Bor.-Amer. 2: 211, plate 211.

Hood's sedge

Carex hystericina Muhl. ex Willd. [FNA23, HC2, SPNW]

Sp. Pl. 4(1): 282.

porcupine sedge

Carex hystricina misspelled [HC]

FNA does not list for WA but several vouchers exist at WTU and probably other herbaria. FNA23: "*Carex hystericina* is widespread and common, even weedy, in regions with calcareous substrates. It hybridizes uncommonly with *C. pseudocyperus* and more rarely with *C. comosa*, *C. schweinitzii*, *C. utriculata*, and *C. vesicaria*. Hybrids are sterile and intermediate in morphology. The species epithet is often, but not originally, spelled "*hystricina*."•

Carex illota L.H. Bailey [FNA23, HC, HC2, SPNW]

Mem. Torrey Bot. Club. 1: 15.
small-head sedge

FNA23: "Carex illota is unlike all other members of sect. Ovales in having perigynia lacking wings and margins consistently entire from perigynia base to beak tip."

Carex infirmivervia Naczi [FNA23, HC2, SPNW]

Novon. 12: 528, fig. 7.
weak-veined sedge

Carex inops L.H. Bailey [FNA23, HC2]

Proc. Amer. Acad. Arts. 22: 126.
long-stolon sedge

ssp. **inops** [FNA23, HC2, SPNW]

Proc. Amer. Acad. Arts. 22: 126.
long-stolon sedge

Carex pensylvanica Lam. var. *vespertina* L.H. Bailey [HC]

Carex verecunda Holm

Carex vespertina (L.H. Bailey) Howell

Carex integra Mack. [FNA23, HC, HC2]

Bull. Torrey Bot. Club. 43: 608.
smooth-beaked sedge

WA population, on Mt. Adams, is disjunct and has not been seen since 1909.

Carex interior L.H. Bailey [FNA23, HC, HC2, SPNW]

Bull. Torrey Bot. Club. 20: 426.
inland sedge

Carex scirpoides Schkuhr ex Willd.

FNA23: "When Carex interior occurs with C. sterilis, C. echinata, and (rarely) C. atlantica, usually sterile intermediates, presumably hybrids, may occasionally be found."

Carex interrupta Boeckeler [FNA23, HC, HC2, SPNW]

Linnaea. 40: 432.
green-fruited sedge, interrupted sedge

Carex interrupta Boeckeler var. *distenta* Kük.

FNA23: "Carex interrupta, an uncommon species, is distinguished by the very small, green, glabrous perigynia distended and often split by the developing achenes. Relationships of the species with other members of the section are not clear; it shares distinctive characteristics with C. torta and C. endlichii, the next two species."

Carex jonesii L.H. Bailey [FNA23, HC, HC2, SPNW]

Mem. Torrey Bot. Club. 1: 16.
Jones' sedge

Carex nervina L.H. Bailey var. *jonesii* (L.H. Bailey) Kük.

FNA23: "The affinities and sectional placement of Carex jonesii are unclear. Although C. jonesii has often been considered to be part of the C. nervina-C. neurophora complex, it is distinguished from those species by numerous vegetative and reproductive characteristics, including basal leaves with short sheaths with rapidly disintegrating hyaline fronts and perigynia with smooth beaks, oblique, rather than bidentate at the mouth. Carex jonesii is frequently confused with other western montane sedges that have capitate inflorescences. It is most often confused with C. illota due to the strong similarity of the perigynia (somewhat shorter and more rounded apically in C. illota). Although C. illota is placed in sect. Ovales based on the gynecandrous spikes, that character can be very difficult to determine in mature plants due to the condensed inflorescence. The ovate, spongy-based perigynia of C. illota suggest a closer relationship with C. jonesii than with typical members of sect. Ovales."

Carex kelloggii W. Boott [HC2]

Bot. California [W.H.Brewer] 2: 240.

Kellogg's sedge, lakeshore sedge

var. ***impressa*** (L.H. Bailey) B. L. Wilson & Otting [HC2]

J. Bot. Res. Inst. Texas 7(1): 53.

few-ribbed sedge, mountain shore sedge

Carex interrupta Boeckeler var. *impressa* L.H. Bailey

Carex lenticularis Michx. var. *impressa* (L.H. Bailey) L.A. Standl. [FNA23, SPNW]

Carex limnaea Holm

Carex paucicostata Mack. [SPNW, FNA23]

var. ***kelloggii*** [HC2]

Kellogg's sedge, lakeshore sedge

Carex hindsii C.B. Clarke var. *brevigluma* Kük.

Carex lenticularis Michx. var. *lipocarpa* (Holm) L.A. Standl. [FNA23, SPNW]

Carex lenticularis Michx. var. *paullifructus* Kük.

Carex vulgaris L.H. Bailey var. *lipocarpa* Holm

var. ***limnophila*** (Holm) B. L. Wilson & R. E. Brainerd [HC2]

J. Bot. Res. Inst. Texas 7(1): 53.

coastal shore sedge

Carex goodenovii Gay var. *limnophila* (Holm) M.E. Jones

Carex hindsii C.B. Clarke

Carex lenticularis Michx. var. *limnophila* (Holm) Cronquist [FNA23, HC, SPNW]

Carex vulgaris L.H. Bailey var. *limnophila* Holm

Carex kobomugi Ohwi [FNA23, HC2, SPNW]

Mem. Coll. Sci. Kyoto Imp. Univ., Ser. B, Biol. 5(3): 2

Japanese sedge

FNA23: "Before *Carex kobomugi* was formally recognized it was included in *C. macrocephala* Willdenow ex Sprengel. *Carex kobomugi* was collected during the early 1900s from ballast and sand near Portland, Oregon, but recent collections are not known; the habitat there may no longer exist. Clones of *C. kobomugi* have been registered by the U.S. Soil Conservation Service and the New Jersey Agricultural Experiment Station for long-term stabilization of coastal sand dunes. Its introduced range will likely expand." SPNW reports it established in sand dunes in southwestern WA.

Carex lacustris Willd. [FNA23, HC2]

Sp. Pl. 4(1): 306.

lake sedge

Carex laevisculmis Meinsh. [FNA23, HC, HC2, SPNW]

Bot. Centralbl. 55: 195.

smooth-stemmed sedge

Carex deweyana Schwein. ssp. *sparsiflora* L.H. Bailey

FNA23: "*Carex laevisculmis* is divergent from the rest of the members of *Carex* sect. *Deweyanae* and may not belong to this section. Compared to the other taxa in the section, *C. laevisculmis* has shorter, more spreading perigynia, with lower length to width ratios and shorter beaks. In this flora, placement of *C. laevisculmis* in *Carex* sect. *Deweyanae* follows the recommendation of A. A. Reznicek and P. W. Ball (1980), although K. K. Mackenzie's (1931?1935, parts 2?3, pp. 99?114) placement of this species in *Carex* sect. *Stellulatae* may be correct. Reports of *Carex laevisculmis* from Colorado appear to be based on misidentifications."

Carex lasiocarpa Ehrh. [FNA23, HC, HC2, SPNW]

Hannover. Mag. 22: 132.

wiregrass sedge

Carex lanuginosa Michx. [HC]

Carex lanuginosa Michx. var. *americana* (Fernald) B. Boivin

Carex lasiocarpa Ehrh. ssp. *americana* (Fernald) D. Löve & J.-P. Bernard

Carex lasiocarpa Ehrh. var. *americana* Fernald [HC]

FNA23: "*Carex lasiocarpa* is a dominant of boreal wetlands, often forming huge stands. Large stands of

the species are quite striking at a distance because of their pale straw color derived from the dried and faded, curly, filiform leaf apices of the vegetative shoots. Sometimes extensive stands occur without fertile culms. The reported hybrids between *Carex lasiocarpa* and *C. stricta* require confirmation (J. Cayouette and P. M. Catling 1992). North American plants have, on average, slightly smaller perigynia and shorter beak teeth than European and Asian plants and have been distinguished as subsp. *americana* (Fernald) Hultén."

***Carex leporina* L. [HC, HC2, SPNW]**

Sp. Pl. 2: 973.

hare sedge, oval broom sedge, oval sedge

SPNW: "This ruderal species has been considered native to Europe and probably introduced to North America, but recent phylogenetic research suggests that *C. leporina* evolved in western North America and was introduced to Europe. Flip-flopping between names *C. leporina* and *C. ovalis* is due to confusion about which plant specimen should be considered the type for the name *C. leporina*."

***Carex leporinella* Mack. [FNA23, HC, HC2, SPNW]**

Bull. Torrey Bot. Club. 43: 605.

Sierra hare sedge

***Carex leptalea* Wahlenb. [FNA23, HC, HC2, SPNW]**

Kongl. Vetensk. Acad. Nya Handl. 24: 139.

delicate sedge, jelly bean sedge

Carex jimcalderi B. Boivin

Carex leptalea Wahlenb. ssp. *leptalea* [KZ99]

Carex leptalea Wahlenb. ssp. *pacifica* Calder & Roy L. Taylor

Carex leptalea Wahlenb. var. *harperi* (Fernald) Weath. & Griscom

Carex leptalea Wahlenb. var. *tayloris* B. Boivin

FNA23: "*Carex leptalea* has the widest geographic range of any North American sedge. Plants vary in color, stature, length of spikes, length, shape, and degree of overlap of perigynia, and color and shape of apex of pistillate scales (other minor characteristics are indicated in J. A. Calder and R. L. Taylor 1965 and B. Boivin 1967?1979). Three morphotypes probably warrant formal taxonomic recognition. Because they intergrade to some degree, the modern tendency is to treat them as only extreme phases in a wide-ranging, complex species. A major study is needed to clarify the taxonomy. The typical phase, *Carex leptalea* subsp. *leptalea*, tends to be a more slender plant with thinner culms, narrower leaves and smaller spikes and perigynia (2.5?3.5 mm) than subsp. *harperi* and subsp. *pacifica*. Its pistillate scales, which vary in shape of apex, are yellowish green to brownish, and its achenes are obtusely angled. That phase is quite uniform and occurs throughout much of the continent, extending south to the uplands of North Carolina, Tennessee, Missouri, South Dakota, New Mexico, and California. Small plants from Alaska, Yukon, Alberta, British Columbia, and eastward, var. *tayloris*, are extremes of the phase. The most distinct variant, *Carex leptalea* subsp. *harperi* [*C. harperi*, *C. leptalea* var. *harperi*], has longer [3.4?4.9(?5.4) mm], more slender perigynia that overlap more strongly and are subtended by whitish scales. Its spikes are, on the average, longer, and its achenes are sharply angled. The phase occurs from Florida to Texas, north to New Jersey, Pennsylvania, Indiana, and Missouri. Various authors have reported it from farther north, but it is doubtful whether subsp. *harperi* occurs beyond the range given. *Carex leptalea* subsp. *pacifica* [*C. jimcalderi*] resembles subsp. *harperi* in its longer perigynia [(3?)3.4?4.7 mm]) and proximal pistillate scales with the midvein excurrent into a cusp or awn, but differs in its brown-margined scales and obtusely angled achenes. This phase occurs only west of the Coast-Cascade Mountains from the Alaska Panhandle south through the offshore islands and mainland coast of British Columbia to Thurston County, Washington."

***Carex leptopoda* Mack. [FNA23, HC2, SPNW]**

Fl. Rocky Mts. 124, 1060.

short-scaled sedge, slenderfoot sedge

Carex deweyana Schwein. ssp. *leptopoda* (Mack.) Calder & Roy L. Taylor

Carex deweyana Schwein. var. *leptopoda* (Mack.) B. Boivin

Split out as separate species from *C. deweyana*.

***Carex limosa* L. [FNA23, HC, HC2, SPNW]**

Sp. Pl. 2: 977.

mud sedge

Carex livida (Wahlenb.) Willd. [FNA23, HC, HC2, SPNW]

Sp. Pl. 4(1): 285. 1805.

pale sedge

Carex limosa L. var. *livida* Wahlenb.

Carex livida (Wahlenb.) Willd. var. *grayana* (Dewey) Fernald

Carex livida (Wahlenb.) Willd. var. *radicaulis* Paine [KZ99]

Carex livida (Wahlenb.) Willd. var. *rufiniformis* Fernald [KZ99]

FNA23: "The distribution of *Carex livida* is very scattered; it is uncommon to rare over much of its range, especially in districts with predominantly acidic soils."

Carex longii Mack. [FNA23, HC2, SPNW]

Bull. Torrey Bot. Club. 49: 373.

Long's sedge

Carex luzulina Olney [FNA23, HC, HC2, SPNW]

Proc. Amer. Acad. Arts. 7: 395.

spring sedge, woodrush sedge

Carex ablata L.H. Bailey

Carex luzulina Olney var. *ablata* (L.H. Bailey) F.J. Herm. [FNA23]

Carex luzulina Olney var. *luzulina* [FNA23]

Carex owyheensis A. Nelson

Carex lyngbyei Hornem. [FNA23, HC, HC2, SPNW]

Fl. Dan. 11(32): 6, plate 1888.

Lyngbye's sedge

Carex cryptocarpa C.A. Mey.

Carex lyngbei Hornem. var. *cryptocarpa* (C.A. Mey.) Hultén

Carex lyngbyei Hornem. var. *robusta* (L.H. Bailey) Cronquist [HC]

Carex salina Wahlenb. var. *robusta* L.H. Bailey

FNA23: "*Carex lyngbyei* is the common sedge of the Pacific coastal salt marshes. It may easily be distinguished from sympatric species by the large, pendent, pedunculate spikes and the leathery, yellow-brown perigynia. Although the species is also reported to occur in Japan and Korea, some Asian collections show significant morphologic and habitat differences from the North American plants. It is probably most closely related to *Carex paleacea* and to the South American *C. darwinii*, and differs from *C. paleacea* primarily by having acute, rather than awned, scales. Previous reports from eastern North American were misidentifications (J. Cayouette 1987)."

Carex macloviana d'Urv. [FNA23, HC2]

Mém. Soc. Linn. Paris. 4: 599.

Falkland Islands sedge

Carex macrocephala Willd. ex Spreng. [FNA23, HC, HC2, SPNW]

Syst. Veg. 3: 808.

bighead sedge

Carex anthericoides J. Presl & C. Presl

Carex macrochaeta C.A. Mey. [FNA23, HC, HC2, SPNW]

Mém. Acad. Imp. Sci. St.-Pétersbourg Divers Savans. 1: 224.

long-awn sedge

FNA23: "T. V. Egorova (1999) included *Carex macrochaeta* in sect. *Scitae*. The species commonly has a white or cream tomentum on many roots, although most individuals have at least some roots with a yellowish tomentum. The sectional placement of this species requires further investigation."

Carex magellanica Lam. [FNA23, HC2]

Encycl. 3: 385.

boreal bog sedge, poor sedge

ssp. *irrigua* (Wahlenburg) Hiitonon [FNA23, HC2, SPNW]

Suom. Kasvio. 161.

poor sedge

Carex limosa L. var. *irrigua* Wahlenburg
Carex magellanica Lam. var. *irrigua* (Wahlenb.) Britton, Sterns & Poggenb.
Carex paupercula Michx. [HC]

FNA23: "Carex magellanica is one of the bipolar disjunct species of Carex discussed by D. M. Moore and A. O. Chater (1971). Carex magellanica subsp. magellanica occurs in cool temperate regions of South America. It is distinguished from C. magellanica subsp. irrigua by the terminal spike being almost always gynecandrous, the lateral spikes with (2?)3?7 staminate flowers, and the pistillate scales (1.3?)1.6?2.3 mm wide."

Carex media R. Br. ex Richardson [FNA23, HC2, SPNW]

Narr. Journey Polar Sea. 750.
Montana sedge, Scandinavian sedge

Carex alpina Lilj. var. *inferalpina* Wahlenb.
Carex angarae Steud.
Carex norvegica Retz. [FNA23, HC, HC2], misapplied
Carex norvegica Retz. ssp. *inferalpina* (Wahlenb.) Hultén [KZ99]
Carex norvegica Retz. var. *inferalpina* (Wahlenb.) B. Boivin
Carex vahlii Schkuhr var. *inferalpina* (Wahlenb.) Fernald

FNA23: "Carex media is circumboreal with extensions southward to the mountains of Montana, Oregon, and Washington, the driftless area of Iowa and Wisconsin, and the maritime provinces of eastern Canada. It occurs together with C. norvegica only in Quebec and Newfoundland (Labrador), where intermediates are known. All references to C. norvegica west of Hudson Bay are to this species."

Carex mertensii J.D. Prescott ex Bong. [FNA23, HC, HC2, SPNW]

Mém. Acad. Imp. Sci. St.-Pétersbourg Divers Savans. 2: 168.
Mertens' sedge

Carex columbiana Dewey

FNA23: "Carex mertensii is represented in Japan and the Russian Far East by the vicariant C. urostachys Franchet [C. mertensii J. D. Prescott var. urostachys (Franchet) Kükenenthal]."

Carex micropoda C.A. Mey. [FNA23, HC2, SPNW]

Mém. Acad. Imp. Sci. St.-Pétersbourg Divers Savans. 1: 210, plate 6.
timberline sedge

Carex crandallii Gand.
Carex jacobi-peteri Hultén
Carex pyrenaica Wahlenb. ssp. *micropoda* (C.A. Mey.) Hultén
Carex pyrenaica Wahlenb. var. *mondsii* Kelso

FNA23: "There is as much variation within the Rocky Mountain Carex crandallii as between C. crandallii and C. micropoda of Alaska and British Columbia. J. A. Calder and R. L. Taylor (1968) reported a weak distinction between a predominately distigmatic coastal race ("micropoda"•) and a tristigmatic one ("pyrenaica"•) from the interior. T. V. Egorova (1999) illustrated the shapes of perigynia for C. pyrenaica and C. micropoda, and the differences are consistent with what others have noted. Nevertheless, until a more reliable set of characters is found to distinguish these two taxa, all of the North American plants shall be treated as C. micropoda. W. A. Weber and R. C. Wittmann (1992) maintain the North American plants distinct from the European C. pyrenaica at the rank of species, a view that is accepted here. A thorough, worldwide review of relationships among taxa is warranted."

Carex microptera Mack. [FNA23, HC, HC2, SPNW]

Muhlenbergia. 5: 56.
small-winged sedge

Carex festivella Mack.
Carex limnophila F.J. Herm. [HC]
Carex macloviana d'Urv. ssp. *festivella* (Mack.) Á. Löve & D. Löve
Carex macloviana d'Urv. var. *microptera* (Mack.) B. Boivin
Carex microptera Mack. var. *crassinervia* F.J. Herm.
Carex microptera Mack. var. *limnophila* (F.J. Herm.) Dorn

FNA23: "In high montane habitats it is sometimes difficult to distinguish Carex microptera from C.

haydeniana."

Carex nardina Fr. [FNA23, HC, HC2, SPNW]

Novit. Fl. Suec. Mant. 2: 55. 1839.

spikenard sedge

Carex elyniformis A.E. Porsild

Carex hepburnii Boott

Carex nardina Fr. ssp. *hepburnii* (Boott) Á. Löve, D. Löve & B.M. Kapoor [KZ99]

Carex nardina Fr. var. *atriceps* Kük.

Carex nardina Fr. var. *hepburnii* (Boott) Kük.

Carex stantonensis M.E. Jones

FNA23: "Much has been written about variation in *Carex nardina*, but little has been resolved. Russian taxonomists have long maintained that *C. nardina* is a species restricted to Iceland, Svalbard, Norway, and Sweden and is distinct at the rank of species from *C. hepburnii* (T. V. Egorova 1999). The differences of perigynia, cited by Egorova and well illustrated in A. Cronquist (1969), can define two taxa, which have been viewed as minor variations (E. Hultén 1958) or good species. The Scandinavian material does appear to constitute a single taxon, *C. nardina*. In North America both forms occur, but without the clear geographic limits offered by A. E. Porsild (1943). *Carex nardina* and *C. hepburnii* differ in the following characteristics: perigynia shape: ovate or spindle-shaped versus obovate or broadly elliptic; size: (3?)3.5?5 × 1.4?1.6 mm versus 3?5 × 1.5?2mm; beak formation and size: gradually formed, 0.5 mm, obscure to 0.4 mm; stipe formation and size: distinct, 0.5?1 mm versus obscure (less than 0.2 mm); and range: Iceland, Svalbard, Norway, North America, Russian Far East versus Sweden and possibly North America. In time, perhaps, a clearer picture of the taxa in North America will emerge. *Carex nardina* superficially resembles taxa in *Carex* sect. *Filifoliae* and can be confused with *Kobresia myosuroides*."

Carex nebrascensis Dewey [FNA23, HC, HC2, SPNW]

Amer. J. Sci. Arts, ser. 2. 18: 102.

Nebraska sedge

Carex jamesii Torr.

Carex nebrascensis Dewey var. *eruciformis* Suksd.

Carex nebrascensis Dewey var. *praevia* L.H. Bailey

Carex nebrascensis Dewey var. *ultriformis* L.H. Bailey

FNA23: "*Carex nebrascensis* is a common low- to mid-elevation western species that is morphologically somewhat similar to *C. aquatilis*; it differs in the obovoid, distended, veined perigynia with a bidentate beak and the awned scales. The amphistomatous leaves of the species are glabrous and often glaucous even when mature. Cattle frequently graze on *C. nebrascensis*."

Carex neurophora Mack. [FNA23, HC, HC2, SPNW]

Ill. Fl. Pacific States. 1: 298, fig. 706.

alpine nerve sedge

Carex vernacula L.H. Bailey var. *hobsonii* Maguire

Carex nigricans C.A. Mey. [FNA23, HC, HC2, SPNW]

Mém. Acad. Imp. Sci. St.-Pétersbourg Divers Savans. 1: 211, plate 7.

black alpine sedge

Carex nudata W. Boott [WTU]

Bot. California. 2: 241.

torrent sedge

Carex acutina L.H. Bailey

Carex bishallii C.B. Clarke

Carex nudata W. Boott var. *anomala* L.H. Bailey

Carex suborbiculata Mack.

Carex tenacissima Suksd.

FNA23: "*Carex nudata* is also a member of the *C. stricta* group and is distinguished from sympatric members of the group by flowering from first-year shoots and having very narrow inflorescence bracts and somewhat elongated, heavily veined perigynia. It has a very distinctive growth form and habitat, dense tussocks among rocks in streambeds."

Carex obnupta L.H. Bailey [FNA23, HC, HC2, SPNW]

Proc. Calif. Acad. Sci., ser. 2. 3: 104.

slough sedge

Carex magnifica Dewey ex Piper

FNA23: "<i>Carex obnupta</i> occasionally hybridizes with <i>C. nudata</i>."

Carex obtusata Lilj. [FNA23, HC, HC2, SPNW]

Kongl. Vetensk. Acad. Nya Handl. 14: 69.

blunt sedge

FNA does not show this species occurring in WA; specimens from WA at WTU.

Carex pachycarpa Mack. [HC2]

Bulletin of the Torrey Botanical Club 43: 616-618.

furrowed broomsedge

Carex multicostata Mack. [FNA23, HC], misapplied

Long confused with *Carex multicostata*, which is restricted to the mountains of California and adjacent Nevada.

Carex pachystachya Cham. ex Steud. [FNA23, HC, HC2, SPNW]

Syn. Pl. Glumac. 2: 197.

starry sedge, thick-headed sedge

Carex festiva Dewey var. *gracilis* Olney

Carex festiva Dewey var. *pachystachya* (Cham. ex Steud.) L.H. Bailey

Carex macloviana d'Urv. ssp. *pachystachya* (Cham. ex Steud.) Hultén

Carex macloviana d'Urv. var. *pachystachya* (Cham. ex Steud.) Kük.

Carex pachystachya Cham. ex Steud. var. *gracilis* (Olney) Mack.

Carex pachystachya Cham. ex Steud. var. *monds-coulteri* Kelso

Carex pallescens L. [FNA23, HC2, SPNW]

Sp. Pl. 2: 977.

pale green sedge

Carex pallescens L. var. *neogaea* Fernald

Populations in Clark Co. and in sw BC are recent introductions in disturbed sites. SPNW: "The idea that the NE WA and N ID populations of *C. pallescens* are native is plausible because they grow in relatively undisturbed wet meadows with other apparently native plants that are from eastern N America. Introduced populations are to be looked for in disturbed wet meadows elsewhere in the PNW."

Carex pansa L.H. Bailey [FNA23, HC, HC2, SPNW]

Bot. Gaz. 13: 82.

sand sedge

Carex arenicola Fr. Schmidt ssp. *pansa* (L.H. Bailey) T. Koyama & Calder

FNA23: "*Carex pansa* is striking not only for its sand-dune habitat, but its very dark scales, basal sheaths, and rhizomes scales. Although *C. pansa* is sometimes united with the east Asian *C. arenicola* as subsp. *pansa*, the North American species seems clearly closer to *C. praegracilis*. *Carex arenicola*, though occupying a similar habitat, differs in its usually more elongate, ellipsoid inflorescences, mostly bisexual spikes, pale and dull brown pistillate scales with an inconspicuous hyaline margins, usually larger perigynia (ca. 3.7?5.2 mm) that somewhat exceed the scales, anthers with very short apiculus (<0.1 mm), and paler brown, bladeless basal sheaths and rhizomes scales."

Carex parryana Dewey [FNA23, HC, HC2]

Amer. J. Sci. Arts. 27: 239, fig. 65.

Parry's sedge

Carex pauciflora Lightf. [FNA23, HC, HC2, SPNW]

Fl. Scot. 2: 543, plate 6, fig. 2. 1777.

few-flowered sedge

FNA23: "*Carex pauciflora* is sometimes confused with *C. microglochin*, though *C. pauciflora* is easily

distinguished by the lack of an evident rachilla. Compared to *C. microglochin*, the shoots of *C. pauciflora* tend to be more definitely tufted, the culms are more sharply 3-angled and roughened distally, and the achenes fill less of the perigynia. *Carex pauciflora* has a catapult dispersal mechanism (E. E. Hutton 1976) in contrast to the putative clinging mechanism of *C. microglochin* and presumably *C. camptoglochin* V. I. Kreczetowicz and *C. parva* Nees (see comments under the previous species). Dispersal by animals is possible for *C. pauciflora* as well. People walking through bogs may find perigynia attached to their clothing (L. Brouillet, pers. comm.)."

***Carex pellita* Muhl. ex Willd. [FNA23, HC2, SPNW]**

Sp. Pl. 4(1): 302.

woolly sedge

C. lanuginosa Michx is misapplied in WA. FNA23: "*Carex pellita* is abundant and variable in much of its range and a common plant of roadside ditches and other early successional or disturbed habitats. It is sometimes subsumed under *C. lasiocarpa*, as var. *latifolia* (Boeckeler) Gilly, but it is distinct in the field and has a quite different biology and distribution. However, slender and depauperate individuals can be difficult to distinguish in the herbarium. The name *Carex lanuginosa* has been used for this species in many floras, but the type of this name is *C. lasiocarpa*. *Carex pellita* hybridizes occasionally with *C. hyalinolepis* (= *C. xsubimpressa*) and rarely with *C. lacustris*, *C. trichocarpa* (= *C. xcaesariensis*, A. A. Reznicek and P. M. Catling 1985), and *C. utriculata*."

***Carex pendula* Huds. [FNA23, HC2, SPNW]**

Fl. Angl. 352.

pendulous sedge

FNA23: "*Carex pendula* is a handsome, robust clump-forming species with glaucous foliage; it is sometimes cultivated, especially in water gardens. It has a propensity to self-sow and is beginning to appear outside of cultivation on roadsides and stream banks. Its potential as an invasive species is unknown."

***Carex petasata* Dewey [FNA23, HC, HC2, SPNW]**

Amer. J. Sci. Arts. 29: 246, plate W, fig. 72.

Liddon's sedge

Carex liddonii Boott

FNA23: "Much too broad a range has been ascribed previously to this taxon. Reports from the Rocky Mountains are based mostly on misidentifications of *Carex petasata* and *C. tahoensis*, both of which differ in having reddish brown pistillate scales and larger perigynia that are distinctly veined adaxially."

***Carex phaeocephala* Piper [FNA23, HC, HC2, SPNW]**

Contr. U. S. Natl. Herb. 11: 172.

mountain hare sedge

FNA23: "Reports of *Carex phaeocephala* from northern Canada are based on other species, mostly *C. tahoensis*."

***Carex pluriflora* Hultén [FNA23, HC, HC2, SPNW]**

Acta Univ. Lund., n. s. 38: 367, fig. 4a?d.

black bog sedge

Carex rariflora (Wahlenb.) Sm. var. *pluriflora* (Hultén) B. Boivin

Carex stygia T. Holm, ambiguous

FNA23: "The name *Carex stygia* has been incorrectly applied to specimens of *C. pluriflora*. T. V. Egorova (1999) treated *C. pluriflora* as a subspecies of *C. rariflora*."

***Carex praeceptorum* Mack. [FNA23, HC, HC2, SPNW]**

N. Amer. Fl. 18: 95.

teacher's sedge

Carex canescens L. var. *dubia* L.H. Bailey

Carex heleonastes L. f. var. *dubia* (L.H. Bailey) B. Boivin

Carex praeceptorum Mack. [JPM], orthographic variant

***Carex praegracilis* W. Boott [FNA23, HC, HC2, SPNW]**

Bot. Gaz. 9: 87.

clustered field sedge

FNA23: "Carex praeagrilis is extensively and recently spreading east of its native range, especially along expressways to which road salt is applied in winter (A. A. Reznicek and P. M. Catling 1987)."

Carex praticola Rydb. [FNA23, HC, HC2, SPNW]

Mem. New York Bot. Gard. 1: 84.

northern meadow sedge

Carex piperi Mack. ex Piper & Beattie [KZ99]

Carex platylepis Mack.

Carex pratensis Drejer

KZ treats *C. piperi* as a separate species.

Carex preslii Steud. [FNA23, HC2, SPNW]

Syn. Pl. Glumac. 2: 242. 1855.

Presl's sedge

H&C treats *C. preslii* as a synonym of *C. pachystachya*. FNA23: "Carex preslii has been synonymized with *C. pachystachya* (A. Cronquist 1969; C. L. Hitchcock and A. Cronquist 1973; A. Cronquist et al. 1972+)."

Carex propposita Mack. [FNA23, HC, HC2, SPNW]

N. Amer. Fl. 18: 126.

Smoky Mountain sedge

Carex raynoldsii Dewey [FNA23, HC, HC2, SPNW]

Amer. J. Sci. Arts, ser. 2. 32: 39. 1861.

Raynolds' sedge

Carex lyallii Boott

Carex retrorsa Schwein. [FNA23, HC, HC2, SPNW]

Ann. Lyceum Nat. Hist. New York. 1: 71.

retrorse sedge

FNA23: "Very rarely, specimens appear to be intermediate between *Carex retrorsa* and *C. lupulina* or *C. lupuliformis*; they are likely hybrids."

Carex rossii Boott [FNA23, HC, HC2, SPNW]

Fl. Bor.-Amer. 2: 222.

Ross' sedge

Carex deflexa Hornem. ssp. *media* L.H. Bailey

Carex deflexa Hornem. var. *farwellii* Britton

Carex deflexa Hornem. var. *rossii* (Boott) L.H. Bailey

Carex diversistylis A. Roach

Carex farwellii (Britton) Mack.

Carex novae-angliae Schwein. var. *rossii* (Boott) L.H. Bailey

Carex rostrata Stokes [HC, HC2, FNA23, SPNW]

Fl. Bor. -Amer. 2: 173. 1803, not Stokes 1787.

northern beaked sedge

Carex rostrata Stokes var. *ambigens* Fernald

C. rostrata misapplied to the taxon *C. utriculata* in H&C. FNA23: "Carex rostrata is infrequent and local in large portions of its range, often forming large colonies where found. Carex rostrata hybridizes with *C. oligosperma* and *C. saxatilis*; rare sterile intermediates with *C. utriculata* are likely hybrids. The vast majority of records of *C. rostrata* from North America are *C. utriculata*."

Carex saxatilis L. [FNA23, HC, HC2, SPNW]

Sp. Pl. 2: 976.

limestone sedge, russet sedge

Carex ambusta Boott

Carex compacta R. Br. ex Dewey

Carex miliaris Michx.

Carex physocarpa J. Presl & C. Presl
Carex xphysocarpoides Lepage [KZ99]
Carex rhomalea (Fernald) Mack.
Carex saxatilis L. ssp. *laxa* (Trautv.) Kalela

FNA23: "Carex saxatilis is highly variable in North America. Plants from western North America, often named C. physocarpa, tend to be robust with long peduncles on the pistillate spikes, wide leaves, and large perigynia. These characters decrease in size eastward across North America with successively smaller plants usually referred to as C. saxatilis and C. miliaris. This weak east/west cline is confounded by large amounts of variation within small geographic areas and phenotypic plasticity. B. A. Ford et al. (1991) and B. A. Ford and P. W. Ball (1992) have demonstrated that these segregates represent elements in a continuum rather than discrete taxa. Hybrids between Carex saxatilis and C. vesicaria (= C. xstenolepis Lessing; = C. xmainensis Porter ex Britton) and C. saxatilis and C. utriculata (= C. xphysocarpoides Lepage) have been found in North America (B. A. Ford et al. 1993). These hybrids are infrequent, largely sterile, and intermediate in morphology between the two parents."

Carex scirpoidea Michx. [FNA23, HC, HC2]

Fl. Bor.-Amer. 2: 171.
single-spike sedge

Carex scirpiformis Mack.
Carex scirpina Tuck.

ssp. **pseudoscirpoidea** (Rydb.) D.A. Dunlop [FNA23, HC2, SPNW]

Novon. 7: 355.
western single-spiked sedge

Carex pseudoscirpoidea Rydb.
Carex scirpoidea Michx. var. *pseudoscirpoidea* (Rydb.) Cronquist [HC]

ssp. **scirpoidea** [FNA23, HC2, SPNW]

Fl. Bor.-Amer. 2: 171.
northern single-spike sedge

Carex athabascensis F.J. Herm.
Carex michauxii Schwein.
Carex scirpoidea Michx. var. *europaea* Kük.
Carex scirpoidea Michx. var. *scirpiformis* (Mack.) O'Neill & Duman
Carex scirpoidea Michx. var. *scirpoidea* [HC]
Carex wormskioldiana Hornem.

FNA23: "Subspecies of Carex scirpoidea grow in a variety of habitats in northern North America. Taxa previously recognized as varieties or separate species are treated here as subspecies of C. scirpoidea. Within the C. scirpoidea complex, all subspecies have the same chromosome number, possess similar achene micromorphology and leaf anatomy, interbreed in greenhouse experiments, and have morphologic characteristics that mostly fall within the normal range for C. scirpoidea. Carex scirpoidea subsp. scirpoidea is the widest ranging of the subspecies and includes taxa formerly recognized by other caricologists. G. Kükenthal (1909) recognized C. scirpoidea var. europaea from a single locality in Norway. These plants are short in stature, like plants of C. scirpoidea subsp. scirpoidea from alpine habitats, and values for most morphologic characters fall within the normal range for subsp. scirpoidea. Another taxon, C. scirpiformis, was recognized by K. K. Mackenzie (1908) and treated at the varietal rank by H. O'Neill and M. Duman (1941) based on wide, hyaline pistillate scale margins and light-colored pubescence. Width of the hyaline portion of the scale margins and the color of pubescence are extremely variable characters in the group. F. J. Hermann (1957) recognized C. athabascensis as a separate species based on the overall robust habit and small, ovoid achenes. Achenes from the type specimens fall at the wide end of the range of variation of achene width in C. scirpoidea. Carex scirpoidea subsp. scirpoidea is recognized by the lack of persistent leaf bases on the flowering shoots, ovate perigynia that are tightly enveloped by the perigynia on all sides, and leaves widely V-shaped in transverse section."

ssp. **stenochlaena** (Holm) Á. Löve & D. Löve [FNA23, HC2, SPNW]

Taxon. 13: 202. 1964.
Alaska singlespike sedge

Carex scirpoidea Michx. var. *stenochlaena* Holm [HC]
Carex stenochlaena (Holm) Mack.

FNA23: "Subspecies of *Carex scirpoidea* grow in a variety of habitats in northern North America. Taxa previously recognized as varieties or separate species are treated here as subspecies of *C. scirpoidea*. Within the *C. scirpoidea* complex, all subspecies have the same chromosome number, possess similar achene micromorphology and leaf anatomy, interbreed in greenhouse experiments, and have morphologic characteristics that mostly fall within the normal range for *C. scirpoidea*. *Carex scirpoidea* subsp. *stenochlaena* is distinguished by lanceolate perigynia that are longer than 3 mm, tapering gradually to a beak, and over 2.5 times as long as wide. The pistillate spikes are clavate, loosely flowered at the base and borne on slender, lax culms (the spikes droop). The pistillate scales are longer than 3 mm and subtend hirsute perigynia. Specimens of *Carex scirpoidea* subsp. *stenochlaena* from the Bitterroot Range in Ravalli County, Montana, best characterize the subspecies. Some specimens from Washington and northern British Columbia exhibit tendencies towards *C. scirpoidea* subsp. *scirpoidea*, in which perigynia are just 2.5 times as long as wide and spikes are less clavate, more loosely flowered. *Carex scirpoidea* subsp. *stenochlaena* from British Columbia and Yukon have a tendency to intergrade with subsp. *scirpoidea*."

***Carex scoparia* Schkuhr ex Willd. [FNA23, HC, HC2]**

Sp. Pl. 4(1): 230. 1805.
pointed broomsedge

Carex scoparia Schkuhr ex Willd. var. *scoparia* [FNA23, SPNW]

FNA23: "*Carex scoparia* is variable and may, in fact, be a complex of at least 2 species. Given current understanding, 2 varieties are recognized. Some populations of *Carex scoparia* from the central and southern Appalachian Mountains have unusually long beaks (greater than 3.7 mm). When long beaks occur in more robust plants with large spikes and spreading perigynia, the plants look remarkably different from typical lowland or western populations. *Carex scoparia* var. *scoparia* grows syntopically with other species from sect. Ouales and may form sterile hybrids. P. E. Rothrock et al. (1997) documented putative hybrids between *C. scoparia* and *C. alata*, *C. hormathodes*, *C. straminea*, and *C. suberecta*."

***Carex scopulorum* T. Holm [FNA23, HC, HC2]**

Amer. J. Sci. 164: 422, figs. 1?6. 1902.
mountain sedge

var. *bracteosa* (L.H. Bailey) F.J. Herm. [FNA23, HC2, SPNW]

Leaf. W. Bot. 9: 16. 1959.
Sierra alpine sedge

Carex campylocarpa Holm

Carex gymnoclada Holm

Carex scopulorum T. Holm var. *scopulorum* [FNA23], misapplied

FNA23: "*Carex scopulorum* is the common species of sect. Phacocystis in subalpine, seasonally wet meadows in the western mountains. It is replaced on the western slope of the Cascade range by *C. spectabilis*, a member of sect. Scitae. Where sympatric with *C. aquatilis*, *C. scopulorum* occurs in drier portions of the habitat. *Carex scopulorum* is frequently confused with members of sect. Racemosae because of the similarity in habitat, size, inflorescence dimensions, and perigynium shape; it is distinguished by the two stigmas and flattened achenes. *Carex scopulorum* is probably most closely related to *C. bigelowii*, based on the similarity in vegetative morphology, hypostomic leaves, perigynia characteristics (absence of veins), and chromosome numbers. A common sedge of the central Rocky Mountains, *Carex scopulorum* var. *bracteosa* is distinguished from var. *scopulorum* by the scabrous stems and sheaths and by the narrower, more ellipsoid perigynia. It is usually distinguishable from var. *prionophylla* by the absence of bladeless, ladder-fibrillose sheaths; the two taxa may be difficult to identify in areas where both occur."

var. *prionophyllum* (Holm) L.A. Standl. [HC2]

Syst. Bot. Monogr. 7: 86. 1985.
firethread sedge

Carex scoparia Schkuhr ex Willd. var. *tessellata* Fernald & Wiegand [FNA23]

Carex scopulorum T. Holm var. *prionophylla* (Holm) L.A. Standl. [FNA23, SPNW], orthographic variant

FNA23: "Carex scopulorum var. prionophylla usually occurs at somewhat lower elevations than var. bracteosa. Where the two are sympatric, they can be distinguished by the bladeless, ladder-fibrillose basal sheaths and the narrower ellipsoid perigynia of var. prionophylla."

Carex sheldonii Mack. [FNA23, HC, HC2]

Bull. Torrey Bot. Club. 42: 618. 1915.

Sheldon's sedge

Recently (2015) collected in WA.

Carex siccata Dewey [FNA23, HC, HC2, SPNW]

Amer. J. Sci. Arts. 10: 278, plate F, fig. 18.

dry-spike sedge

Carex aenea Fernald [HC], misapplied

Carex foenea Willd. [FNA23, HC2], misapplied

Carex foenea Willd. var. *enervis* D.K. Evans & Mohlenbr.

Carex foenea Willd. var. *foenea*, misapplied

Carex foenea Willd. var. *tuberculata* F.J. Herm.

Taxonomy and nomenclature follows SPNW. SPNW: "Carex siccata can be a community dominant in the herbaceous layer of open conifer forest. Where common, it can furnish good forage for cattle and horses, but it is rare in the PNW. It reduces erosion, especially in sandy soils, and has been used in the habitat restoration projects outside the PNW, sometimes on old mine sites. This species has been involved in a three-way confusion of names involving C. foenea and C. aenea. Carex siccata is the only one of the three actually known to grow in the PNW." FNA23: "Though most frequently smooth adaxially and more or less distinctly veined, the perigynia of Carex siccata are quite variable in venation and surface texture. Throughout the range of the species, plants with perigynia veinless or, essentially so, occur occasionally. Those plants have been designated as C. foenea var. enervis Evans & Mohlenbrock. Less commonly, the perigynia are tuberculate adaxially. Such plants have been designated as C. foenea var. tuberculata F. J. Hermann and specimens have been seen from Washington, Colorado, Arizona, and Wisconsin, and reported from Alberta and New Mexico. They probably occur sporadically throughout the range. Rarely, plants are both veinless and tuberculate. Carex siccata is a very common species of open pinelands in portions of its western range; it becomes very local in much of the easternmost portions of its range. The name Carex foenea has, unfortunately, commonly been misapplied to the species in some recent literature."

Carex simulata Mack. [FNA23, HC, HC2, SPNW]

Bull. Torrey Bot. Club. 34: 604. 1908.

analogue sedge

Carex spectabilis Dewey [FNA23, HC, HC2, SPNW]

Amer. J. Sci. Arts. 29: 248, plate X, fig. 76. 1836.

showy sedge

Carex invisula L.H. Bailey

Carex nigella Boott

Carex spectabilis Dewey var. *superba* Holm

Carex tolmiei Boott

Carex tolmiei Boott var. *invisula* (L.H. Bailey) Kük.

Carex stenoptila F.J. Herm. [FNA23, HC2]

Leaf. W. Bot. 4: 194. 1945.

riverbank sedge

Recently (2013) collected for the first time in WA in Okanogan County. Previously only known from Rocky Mountains.

Carex stipata Muhl. ex Willd. [FNA23, HC, HC2]

Sp. Pl. 4(1): 233. 1805.

awl-fruited sedge, sawbeak sedge

var. **stipata** [FNA23, HC2, SPNW]

Sp. Pl. 4(1): 233. 1805.

awl-fruited sedge, sawbeak sedge

Carex stipata Muhl. ex Willd. var. *crassicurta* Peck

Carex stipata Muhl. ex Willd. var. *subsecuta* Peck

***Carex straminiformis* L.H. Bailey [FNA23, HC, HC2, SPNW]**

Mem. Torrey Bot. Club. 1: 24.

Mt. Shasta sedge

***Carex stylosa* C.A. Mey. [FNA23, HC, HC2, SPNW]**

Mém. Acad. Imp. Sci. St.-Pétersbourg Divers Savans. 1: 222, plate 12. 1831.

long-style sedge

Carex beringiana Cham. ex Steud.

Carex nigritella Drejer

Carex stylosa C.A. Mey. var. *nigritella* (Drejer) Fernald

***Carex subbracteata* Mack. [FNA23, HC2]**

Bull. Torrey Bot. Club. 43: 612. 1917 (as sub-bracteata).

small-bracted sedge

Carex harfordii Mack. [FNA, JPM2], misapplied

FNA23 lists this as endemic to California. Several collections in WA from San Juan County by Peter Zika, and found in British Columbia by Frank Lomer. These records represent introductions and not disjunct native populations. *Carex subbracteata* is very similar to and perhaps conspecific with *C. gracilior* (R. Whitkus 1988).

***Carex subfusca* W. Boott [FNA23, HC, HC2, SPNW]**

Bot. California. 2: 234.

rusty sedge

Carex macloviana d'Urv. ssp. *subfusca* (W. Boott) T. Koyama

Carex teneraeformis Mack

Carex teneriformis Mack.

Both SPNW and FNA23 show this species occurring in WA.

***Carex sychnocephala* J. Carey [FNA23, HC, HC2, SPNW]**

Amer. J. Sci. Arts, ser. 2. 4: 24. 1847.

many-headed sedge

FNA23: "Because *Carex sychnocephala* often lacks conspicuous rhizomes and has a small diffuse root system, it may appear to be annual. In some situations, it may actually grow as an annual."

***Carex sylvatica* Huds. [FNA23, HC2, SPNW]**

Fl. Angl. 353.

European woodland sedge

***Carex tahoensis* Smiley [FNA23, HC2, SPNW]**

Univ. Calif. Publ. Bot. 9: 119. 1921.

Lake Tahoe sedge

Carex eastwoodiana Stacey

FNA23: "*Carex tahoensis* resembles *C. phaeocephala* somewhat, but often occurs at lower elevations, has longer achenes, and more coriaceous perigynia that are clearly veined adaxially. *Carex tahoensis* was originally described as a California endemic, but is much more widespread. The precise distribution is as yet unclear because of confusion with *C. phaeocephala* and *C. petasata*. Many reports of *C. xerantica* from the Rocky Mountain region are based on this species."

***Carex tenera* Dewey [FNA23, HC, HC2]**

Amer. J. Sci. Arts. 8: 97. 1824.

quill sedge, slender sedge

Carex tenera Dewey var. *tenera* [FNA23, SPNW]

FNA23: "The name *Carex straminea* has been incorrectly applied at times to *C. tenera* var. *tenera*."

***Carex tenuiflora* Wahlenb. [FNA23, HC2, SPNW]**

Kongl. Vetensk. Acad. Nya Handl. 24: 147. 1803.

sparse-flower sedge

***Carex tribuloides* Wahlenb. [FNA23, HC2]**

Kongl. Vetensk. Acad. Nya Handl. 24: 145. 1803.

tribulation sedge

var. *tribuloides* [FNA23, HC2, SPNW]

Kongl. Vetensk. Acad. Nya Handl. 24: 145.

blunt broom sedge

Carex projecta Mack. [FNA23, SPNW], misapplied

Native to eastern and central North America; naturalized in King and Pierce counties; not reported for WA in FNA.

***Carex tumulicola* Mack. [FNA23, HC, HC2, SPNW]**

Bull. Torrey Bot. Club. 34: 154. 1907.

foothill sedge

***Carex unilateralis* Mack. [FNA23, HC, HC2, SPNW]**

Erythea. 8: 43.

one-sided sedge

FNA23: "Carex unilateralis intergrades with *C. athrostachya*."

***Carex utriculata* Boott [FNA23, HC2, SPNW]**

Fl. Bor.-Amer. 2: 221.

beaked sedge, inflated sedge, Northwest Territory sedge

Carex laevirostris (Blytt ex Fr.) Fr.

Carex rhynchophysa C.A. Mey.

Carex rostrata Stokes var. *utriculata* (Boott) L.H. Bailey

This taxon keys to *C. rostrata* in H&C. FNA23: "Carex utriculata is abundant and variable and is often a dominant of wetlands in subarctic, boreal, and north-temperate wetlands. American authors usually treat the taxon as part of the variation of *Carex rostrata*, but it is a very different plant with a quite different leaf shape in cross section and very different leaf anatomy. Plants from the western and northern portions of the range often have perigynia strongly tinged with purple, though that coloration can also occur rarely elsewhere. Rarely, *Carex utriculata* forms hybrids with *C. exsiccata*, *C. hystericina*, *C. lacustris*, *C. pellita*, *C. rostrata*, *C. rotundata*, *C. saxatilis*, and *C. vesicaria*. The hybrids are sterile and intermediate in morphology."

***Carex vallicola* Dewey [FNA23, HC, HC2, SPNW]**

Amer. J. Sci. Arts, ser. 2. 32: 40.

valley sedge

Carex rusbyi Mack.

Carex vallicola Dewey var. *rusbyi* (Mack.) F.J. Herm.

Discovered in after publication of H&C

***Carex vernacula* L.H. Bailey [FNA23, HC2, SPNW]**

Bull. Torrey Bot. Club. 20: 417.1893.

foetid sedge

Carex foetida All. [HC]

Carex foetida All. var. *vernacula* (L.H. Bailey) Kük. [HC]

FNA23: "Carex vernacula is very similar to and often united with the European *C. foetida* Allioni, which has serrulate-margined perigynium beak and proportionately longer leaves. The numerous distinctions drawn between these two by K. K. Mackenzie (1931?1935, parts 2?3, pp. 29?30) have not proved consistent with examination of more material."

***Carex vesicaria* L. [FNA23, HC, HC2, SPNW]**

Sp. Pl. 2: 979. 1753 (as *vesicariu*).

inflated sedge, oxbow sedge

(see also *Carex exsiccata*)

Carex vesicaria L. var. *vesicaria* [HC]

FNA23: "Carex vesicaria hybridizes with *C. saxatilis* and, very rarely, with *C. hystericina* and *C. utriculata*. *Carex vesicaria* as here treated broadly as a variable circumpolar species. K. K. Mackenzie (1931?1935) recognized a small segregate, *Carex raeana* Boott, but specimens referred here are either depauperate *C. vesicaria* or hybrids. T. V. Egorova (1999) recognized *C. vesicaria* as a Eurasian and North American species but also recognized a primarily North American *C. monile*, occurring locally in Asia as well. The two species were differentiated by characteristics of perigynium length and width, pistillate spike size, and beak and beak teeth size and proportions. The North American material is so variable in perigynium size and shape and inflorescence size that recognizing the two entities seems difficult. Further study of variation in North American material and the relationships of North American and Eurasian material are needed. Indeed, the complex is in need of detailed systematic study on a worldwide scale."

***Carex viridula* Michx. [FNA23, HC2]**

Fl. Bor.-Amer. 2: 170. 1803.

green sedge

ssp. *viridula* [FNA23, HC2, SPNW]

Fl. Bor.-Amer. 2: 170.

greenish sedge, little green sedge

Carex chlorophila Mack.

Carex irregularis Schwein.

Carex oederi Ehrh. [HC]

Carex oederi Retz. var. *pumila* (Cosson & Germain) Fernald

Carex oederi Retz. var. *viridula* (Michx.) Kük. [HC]

Carex pulchella (Lönnroth) Lindm.

Carex scandinavica E.W. Davies

Carex serotina Méral

Carex subglobosa Miel.

Carex viridula Michx. var. *viridula* [FNA23]

FNA23: "Carex viridula subsp. *viridula* includes numerous variants, some of which have been treated as distinct species, such as *C. serotina* and *C. scandinavica*. The variation patterns are continuous across all of the segregates. Because of its ecologic amplitude, the taxon may occur with other members of the section, and in areas of sympatry hybrids often are formed. Hybrids between *C. viridula* and other species in the section are sterile hybrids among the subspecies of *C. viridula* are partially fertile (B. Schmid 1982)."

***Carex vulpinoidea* Michx. [FNA23, HC, HC2, SPNW]**

Fl. Bor.-Amer. 2: 169. 1803.

fox sedge

Carex microsperma Wahlenb.

Carex multiflora Willd.

Carex multiflora Willd. var. *microsperma* (Wahlenb.) Dewey

Carex scabrior Dewey

Carex vulpinoidea Michx. var. *microsperma* (Wahlenb.) Dewey

Carex vulpinoidea Michx. var. *pycnocephala* F.J. Herm.

Carex vulpinoidea Michx. var. *scabrior* (Dewey) Alph. Wood

Carex vulpinoidea Michx. var. *segregata* Farw.

Carex vulpinoidea Michx. var. *setacea* (Dewey) Kük.

Carex vulpinoidea Michx. var. *vulpinoidea* [KZ99]

FNA23: "Carex vulpinoidea is widely distributed in North America and frequently grows as a weed in wet roadside ditches and fields. It is quite variable, particularly in the degree to which the spongy tissue lateral to the achene is developed. The development of that tissue determines the shape of the perigynium and the degree to which the perigynium appears to contract into the achene, as discussed by F. M. B. Boott (1858?1867). The flowering stems shorter than the leaves, the pale brown, elliptic perigynia, and the preference for moist substrates of *C. vulpinoidea* readily distinguish it from *C. annectens*."

***Carex zikae* E.H. Roalson & M.J. Waterway [HC2]**

Botanical Journal of the Linnean Society 179: 18. 2015.

short-stemmed sedge, Zika's sedge

Carex brevicaulis Mack. [FNA23, HC, SPNW], illegitimate name

Carex deflexa Hornem. var. *brevicaulis* (Mack.) B. Boivin

Cyperus [FNA23, HC, HC2]

Sp. Pl. 1: 44. 1753; Gen. Pl. ed. 5, 26. 1754.

cyperus, flatsedge

Cyperus acuminatus Torr. & Hook. [FNA23, HC, HC2]

Ann. Lyceum Nat. Hist. New York. 3: 435. 1836.

sharp-pointed flatsedge, taper-tip flatsedge

Cyperus acuminatus Torr. & Hook. var. *cyrtolepis* (Torr. & Hook.) Kük.

Cyperus cyrtolepis Torr. & Hook.

Cyperus bipartitus Torr. [FNA23, HC2]

Ann. Lyceum Nat. Hist. New York. 3: 257. 1836.

shining cyperus, shining flatsedge

Cyperus niger Ruiz & Pav. var. *rivularis* (Kunth) V.E. Grant

Cyperus rivularis Kunth [HC]

Cyperus diandrus Torr. [FNA23]

Cat. Pl. New York. 90. 1819.

umbrella flatsedge

Cyperus eragrostis Lam. [FNA23, HC2]

Tabl. Encycl. 1: 146.

tall flatsedge

Cyperus vegetus Willd.

FNA8: "The distributions of *Cyperus eragrostis* in British Columbia, Alabama, Pennsylvania, South Carolina, and Texas represent introduced populations."

Cyperus erythrorhizos Muhl. [FNA23, HC, HC2]

Descr. Gram. 20. 1817.

redroot flatsedge

Cyperus cupreus J. Presl & C. Presl

Cyperus erythrorhizos Muhl. var. *cupreus* (J. Presl & C. Presl) Kük.

Cyperus halei Torr. ex Britton

Cyperus occidentalis Torr.

Cyperus washingtonensis Gand.

Cyperus esculentus L. [FNA23, HC, HC2]

Sp. Pl. 1: 45.

yellow nut-grass

var. **leptostachyus** Boeckeler [FNA23, HC2]

Linnaea. 36: 290. 1870.

yellow nutgrass

Chlorocyperus phymatodes (Muhl.) Palla

Cyperus esculentus L. var. *angustispicatus* Britton

Cyperus esculentus L. var. *phymatodes* (Muhl.) Kük.

Cyperus fulvescens Liebm.

Cyperus phymatodes Muhl.

Cyperus repens Elliott

Cyperus tuberosus Pursh

FNA23: "*Cyperus esculentus* var. *leptostachyus* is the most common of the varieties nearly throughout the range of the species in North America. *Cyperus esculentus* is a widespread and polymorphic species. Although seven varieties have been recognized (G. Kükenthal (1935?1936), recent studies based primarily on spikelet features provided support for four varieties (P. Schippers et al. 1995). *Cyperus esculentus* var. *esculentus* is restricted to the Old World."

Cyperus fuscus L. [FNA23, HC2]

Sp. Pl. 1: 46. 1753.

brown flatsedge, brown galingale

Cyperus lupulinus (Spreng.) Marcks [FNA23, HC2]

Trans. Wisconsin Acad. Sci. 62: 271. 1974.

Great Plains flatsedge

Scirpus lupulinus Spreng.

ssp. *lupulinus* [FNA23, HC2]

Trans. Wisconsin Acad. Sci. 62: 271.

Great Plains flatsedge

Cyperus bushii Britton

Cyperus lupulinus (Spreng.) Marcks × *Cyperus schweinitzii* Torr. [HC2]

Cyperus schweinitzii Torr. [FNA23, HC, HC2]

Ann. Lyceum Nat. Hist. New York. 3: 276. 1836.

sand flatsedge

Cyperus alterniflorus Schwein.

FNA23 states that: "*Cyperus schweinitzii* is introduced, but not naturalized, in Massachusetts and Washington." This statement is incorrect as it relates to Washington. Publication of that volume in the FNA series predated digitization of specimens in the Pacific Northwest.

Cyperus squarrosus L. [FNA23, HC2]

Cent. Pl. II. 6. 1756.

awned flatsedge

Chlorocyperus inflexus (Muhl.) Palla

Cyperus aristatus Rottb. [HC]

Cyperus aristatus Rottb. var. *runyonii* O'Neill

Cyperus inflexus Muhl.

Dichostylis aristata (Rottb.) Palla

Mariscus squarrosus (L.) C.B. Clarke

FNA8: "*Cyperus squarrosus* can be recognized by its small size and annual habit combined with its oblong-lanceolate floral scales bearing five to eleven conspicuous ribs and excurved awns. Some collections have been misidentified as *C. acuminatus*, an annual species of subg. *Pycnostachys* that has ovate-lanceolate, three-ribbed floral scales and digitately clustered spikelets."

Cyperus strigosus L. [FNA23, HC, HC2]

Sp. Pl. 1: 47. 1753.

false flatsedge, straw-colored flatsedge

Cyperus hansenii Britton

Cyperus stenolepis Torr.

Cyperus strigosus L. var. *hansenii* (Britton) Kük.

Mariscus stenolepis (Torr.) C.B. Clarke

Mariscus strigosus (L.) C.B. Clarke

FNA23: "*Cyperus strigosus* is usually among the more common *Cyperus* species throughout its range. Small individuals flowering the first year may be difficult to distinguish from *C. polystachyos*, *C. odoratus*, *C. erythrorhizos*, and *C. esculentus*, which may be sympatric. *Cyperus strigosus* has trigonous achenes and three stigmas, unlike *C. polystachyos*; *C. strigosus* has flattened spikelets, unlike the subcylindric ones of *C. odoratus*; *C. strigosus* has floral scales usually 3 mm or more, unlike the smaller (1.2?1.5 mm) ones of *C. erythrorhizos*; *C. strigosus* has deciduous floral scales and a cormlike stem base with stolons, unlike *C. esculentus*. *Cyperus strigosus* appears to be closely related to the neotropical *C. camphoratus* Liebm.; both species have deciduous floral scales and deciduous spikelets (G. C. Tucker 1994). Plants segregated as *C. stenolepis* cannot be distinguished consistently from *C. strigosus* on any single character, rather they appear to be merely large individuals of *C. strigosus* with long floral scales and frequently septate inflorescence bracts (M. L. Horvat 1941)."

***Dulichium* [FNA23, HC, HC2]**

Syn. Pl. 1: 65. 1805.

dulichium

***Dulichium arundinaceum* (L.) Britton [FNA23, HC, HC2]**

Bull. Torrey Bot. Club. 21: 29. 1894.

three-way sedge

Cyperus arundinaceus L.

Dulichium arundinaceum (L.) Britton var. *arundinaceum* [FNA23]

Dulichium arundinaceum (L.) Britton var. *boreale* Lepage [FNA23]

***Eleocharis* [FNA23, HC, HC2]**

Prodr. 224. 1810.

spike-rush

***Eleocharis acicularis* (L.) Roem. & Schult. [FNA23, HC, HC2]**

Syst. Veg. 2: 154. 1817.

needle spikerush

Eleocharis acicularis (L.) Roem. & Schult. var. *gracilescens* Svenson

Eleocharis acicularis (L.) Roem. & Schult. var. *occidentalis* Svenson

Eleocharis acicularis (L.) Roem. & Schult. var. *porcata* S.G. Sm.

Eleocharis acicularis (L.) Roem. & Schult. var. *submersa* (Nilsson) Svenson

Scirpus acicularis L.

FNA8: "Eleocharis acicularis is abundant and ecologically important throughout much of its range. It occurs in a wide variety of habitats, including acid waters. I have not seen voucher specimens for reports from Alabama and Florida. I have not seen vouchers for the reported chromosome numbers of $2n = 30?38$ or $50?58$. Eleocharis acicularis often forms large rooted mats or floating masses, which when submerged, are often non-flowering. Submerged, usually nonflowering plants are abundant throughout much of the range of the species (H. K. Svenson 1929; P. E. Rothrock and R. H. Wagner 1975). They have been called E. acicularis forma fluitans (Doellinger) Svenson; E. acicularis forma inundata Svenson; E. acicularis forma longicaulis (Desmazières) Hegi; E. acicularis forma submersa (Nilsson) Norman; and E. acicularis var. submersa (Nilsson) Svenson. The culms of the submerged plants are terete, smooth, soft to flaccid, translucent, and the partitions of the air cavities within are clearly visible. Submerged plants may closely resemble aquatic forms of some other species, especially Eleocharis parvula, E. robbinsii, and Schoenoplectus subterminalis (Torrey) Sojak (N. C. Fassett 1957; E. G. Voss 1967, 1972?1996, vol. 3). Although E. acicularis is very variable, recognition of varieties is premature pending a worldwide taxonomic revision of subg. Scirpidium. Much of the variation is apparently due to phenotypic plasticity in response to environmental factors, especially water depth (P. E. Rothrock and R. H. Wagner 1975). The named varieties intergrade extensively, and achenes, which are important in defining the varieties, are often absent. H. K. Svenson (1929) recognized four varieties and two forms for North America, but later (1957) did not recognize infraspecific taxa. "

***Eleocharis bella* (Piper) Svenson [FNA23, HC, HC2]**

Rhodora. 31: 201. 1929.

pretty spikerush

Eleocharis acicularis (L.) Roem. & Schult. var. *bella* Piper

Eleocharis acicularis (L.) Roem. & Schult. var. *minima* Torr. ex Britton

FNA23: "Eleocharis bella and E. acicularis seem to be amply distinct; putative hybrids are unknown. The occasional plants of E. bella with evident rhizomes, which include the type, are otherwise identical to plants apparently without rhizomes. Eleocharis bella is very similar to E. cancellata. "

***Eleocharis coloradoensis* (Britton) Gilly [FNA23, HC2]**

Amer. Midl. Naturalist. 26: 66. 1941.

dwarf spike-rush

Eleocharis parvula (Roem. & Schult.) Link ex Bluff, Nees & Schauer var. *anachaeta* (Torr.) Svenson [HC]

Scirpus coloradoensis Britton

One specimen at WTU annotated by Galen Smith (1999) with the following note: "Most probably. No

flower in proximal scale. No achene or tubers." FNA23: "Most authors, except C. L. Gilly (1941), H. L. Mason (1957), and R. R. Yeo (1980), have included *Eleocharis coloradoensis* in *E. parvula* or *E. parvula* var. *anachaeta*. In typical *E. coloradoensis*, which occurs from Saskatchewan south to Kansas and in California to 2100 m elevation, the achenes are usually distinctly rugulose or rough, often pitted-cellular, their apices usually truncate, and the tubercles are usually brown, often rudimentary, clearly distinct from the achene, and apparently partly sunken into the achene summit. Some plants from the southern Great Plains to the Mexican border, including the type of *E. parvula* var. *anachaeta* from Louisiana, may deserve taxonomic recognition. They differ from typical *E. coloradoensis* in having nearly smooth achenes with the apex tapered to a tubercle that is difficult to distinguish from the achene. C. L. Gilly (1941) separated these plants as *E. membranacea* (Buckley) Gilly; application of that name is doubtful because achenes are lacking from the type. R. R. Yeo (1980) studied the life-history of *E. coloradoensis* in the Sacramento Valley, California, and showed that it can be used to control several aquatic weeds in irrigation canals. The $n = 4$ count reported from Kansas under *E. parvula* var. *anachaeta* (Anonymous 1964) and on voucher specimens at GH and UC, is probably erroneous; the label on a duplicate voucher specimen at NDA includes the information " $n = 3$ II's + a chain of IV" (i.e., $n = 5$). The record from Washington is somewhat doubtful because the specimen lacks achenes. Literature reports of *E. parvula* from Illinois and Tennessee may refer to *E. coloradoensis*; I have not seen specimens."

***Eleocharis engelmannii* Steud. [FNA23, HC2]**

Syn. Pl. Glumac. 2: 79. 1855 (as *engelmanni*).
Engelman spikerush

Eleocharis engelmannii Steud. var. *detonsa* A. Gray
Eleocharis engelmannii Steud. var. *monticola* (Fernald) Svenson
Eleocharis engelmannii Steud. var. *robusta* Fernald
Eleocharis monticola Fernald
Eleocharis monticola Fernald var. *leviseta* Fernald
Eleocharis ovata (Roth) Roem. & Schult. var. *detonsa* (A. Gray) Mohlenbr.

***Eleocharis erythropoda* Steud. [FNA23, HC2]**

Syn. Pl. Glumac. 2: 76. 1855.
bald spike-rush, redfoot spike-rush

***Eleocharis geniculata* (L.) Roem. & Schult. [FNA23, HC2]**

Syst. Veg. 2: 150. 1817.
capitate spike-rush

***Eleocharis macrostachya* Britton [FNA23, HC2]**

Fl. S.E. U.S. 184, 1327. 1903.
creeping spikerush

Eleocharis perlonga Fernald & Brackett
Eleocharis xyridiformis Fernald & Brackett

FNA23: "*Eleocharis macrostachya* probably occurs in Saskatchewan; I have not seen specimens. It is extremely variable. Cytotaxonomic studies (S.-O. Strandhede 1967; L. J. Harms 1968) and morphology suggest that it is a diploid-polyploid complex at least partly of hybrid origin from *E. palustris* and both *E. erythropoda* and *E. uniglumis*. The $2n = 38$ plants of *E. macrostachya* may comprise the American counterpart of the European *E. palustris* subsp. *vulgaris*, which presumably originated from *E. palustris* subsp. *palustris* and *E. uniglumis* (S.-O. Strandhede 1966). Although recognition of infraspecific taxa is premature, the following three intergrading variants are notable: Variant b is very variable in comparison with variant a. It differs from variant a in having culms terete or slightly compressed; distal leaf-sheath apices often obtuse, tooth rarely present, to 0.1 mm; spikelets broadly lanceoloid to ovoid; floral scales $3.5\text{?}4\text{?}4.5 \times 1.7\text{?}2+$ mm; achenes $1.3\text{?}1.5$ mm, rarely to 1.8 mm; culm stomates $60\text{?}72 \text{ }\mu\text{m}$; chromosome numbers (for which I have seen vouchers, all from Kansas and South Dakota), $2n = \text{ca. } 38$. It is wide-ranging, known from inland localities at 20?2300 m from Manitoba west to Yukon and British Columbia, south to Alabama, Mississippi, Louisiana, Texas, New Mexico, Arizona, and California, and in Mexico from Baja California. Intermediates between variant b and both *Eleocharis erythropoda* and *E. uniglumis* are widespread, and intermediates with *E. ambigens* occur in Louisiana. Most plants of variant b have floral scales to 4 mm and achenes to 1.5 mm; plants with scales to $4\text{?}5$ mm and achenes sometimes more than 1.6 mm occur in California, Nevada, Oregon, and Washington. Variant c differs from variant b in having spikelet scales mostly uniformly dark chestnut-brown, not carinate, $(3.5\text{?})4\text{?}5.5 \times 2\text{?}2.5$ mm. Its

achenes are often unusually large, 1.3?1.8(?) × 1.1?1.5 mm. It is known from near sea level on the coasts of British Columbia, Ontario, and Quebec (James Bay and Magdalen Islands); Alaska, California, Oregon, and Washington. Some plants are intermediate between variant c and variant b. Several specimens I have seen from far eastern Russia are very similar to American plants of *Eleocharis macrostachya*, variant c. Except for having incompletely amplexicaulous proximal scales, and subproximal scales often without a flower, variant c closely resembles many Eurasian specimens of *E. uniglumis*."

***Eleocharis mamillata* (H. Lind.) H. Lind. [FNA23, HC2]**

Herb. Norm. 44: 108. 1902 (as *Heleocharis*).

soft-stem spike-rush

Scirpus mamillata H. Lind.

ssp. *mamillata* [FNA23, HC2]

In I. Dörfner, Herb. Norm. 44: 108. (as *Heleocharis*).

soft-stemmed spikerush

FNA23: "*Eleocharis mamillata* has been confused in North America with *E. macrostachya* and *E. palustris*. In addition to the perianth bristle and achene differences as given in the key, *E. mamillata* differs from *E. palustris* in culm stomate shape and distance between epidermal collenchyma strands (S. M. Walters 1953b; S.-O. Strandhede and R. Dahlgren 1968). *Eleocharis mamillata* subsp. *mamillata*, with the tubercle mamillate, usually shorter than wide, and subsp. *austriaca* (Hayek) Strandhede, with the tubercle conic, longer than wide, are recognized in Europe; in North America only *E. mamillata* subsp. *mamillata* is thus far known. The stamen filaments usually remain attached to the shed achenes, and together with the bristles they keep the achenes in ball-like aggregates that drift with winds and water currents (S.-O. Strandhede 1966)."

***Eleocharis nitida* Fernald [FNA23, HC2]**

Rhodora. 8: 129. 1906.

quill spike-rush

Recently (2023) collected in Pierce County.

***Eleocharis obtusa* (Willd.) Schult. [FNA23, HC2]**

Mant. 2: 89. 1824.

blunt spikerush

Eleocharis obtusa (Willd.) Schult. var. *ellipsoidales* Fernald

Eleocharis obtusa (Willd.) Schult. var. *gigantea* Fernald

Eleocharis obtusa (Willd.) Schult. var. *jejuna* Fernald

Eleocharis obtusa (Willd.) Schult. var. *peasei* Svenson

Scirpus obtusus Willd.

FNA23: "Extremely uncommon plants of *Eleocharis obtusa* without perianth bristles may be called *E. obtusa* var. *peasei* (type from New Hampshire). Robust plants with distinct caudices, floral scales 2.5 mm, and achenes 1.2?1.3 mm (*Eleocharis obtusa* var. *gigantea* Fernald) are rare (specimens seen from the Washington-British Columbia border [type], Arkansas, and the Hawaiian Islands). Dwarf plants (*E. obtusa* var. *jejuna* Fernald, type from Maine), with unusually small achenes and floral scales, and tubercles often less than 0.5 mm wide, are occasional in the East and are easily confused with *E. ovata* and *E. aestuum*. A few specimens are intermediate with *E. engelmannii*. *Eleocharis obtusa* is sometimes treated as conspecific with *E. ovata*, which consistently differs in its mostly 2-fid styles, mostly two stamens, and especially its narrower tubercles (B. M. H. Larson and P. M. Catling 1996). *Eleocharis macounii* Fernald has been treated as a synonym of *E. obtusa* (H. K. Svenson 1957) but is more probably a hybrid between *E. intermedia* and *E. obtusa* (P. M. Catling and S. G. Hay 1993; see 34. *E. intermedia*)."

***Eleocharis ovata* (Roth) Roem. & Schult. [FNA23, HC, HC2]**

Syst. Veg. 2: 152. 1817.

ovoid spikerush

Eleocharis obtusa (Willd.) Schult. var. *ovata* (Roth) Drepalik & Mohlenbr.

Scirpus ovatus Roth

Scirpus ovatus Roth var. *heuseri* Uetrichtz

FNA23: "Although *Eleocharis ovata* has often been confused with *E. obtusa*, B. M. H. Larson and P. M. Catling (1996) showed that these species may be distinguished by non-overlapping widths of the tubercles,

at least in Canada. The records of *E. ovata* in New Brunswick, Newfoundland, Nova Scotia, and Prince Edward Island are based on B. M. H. Larson and P. M. Catling (1996) and the records in Illinois, Indiana, Missouri, Montana, New Jersey, Oregon, and Washington are based on D. M. Hines (1975). *Eleocharis ovata* probably also occurs in Manitoba and Saskatchewan."

***Eleocharis palustris* (L.) Roem. & Schult. [FNA23, HC, HC2]**

Syst. Veg. 2: 151. 1817.
common spikerush

Eleocharis smallii Britton
Scirpus palustris L.

FNA23: "Eleocharis palustris is the most widespread and common species of the extremely difficult circumboreal "E. palustris complex,"• which in North America comprises *E. palustris*, *E. mamillata*, *E. macrostachya*, *E. erythropoda*, *E. uniglumis*, *E. kamtschatica*, and *E. ambigens*. Two or more of these species have been combined by recent authors. The complex has been studied extensively only in northern Europe (S.-O. Strandhede 1965, 1966), where *E. palustris*, *E. mamillata*, and *E. uniglumis* are recognized (S.-O. Strandhede 1966). European studies and preliminary studies in North America by S.-O. Strandhede (1967) and L. J. Harms (1968) indicate that unstable chromosome structure and number as well as interspecific hybridization contribute to the taxonomic complexity of the *E. palustris* complex. *Eleocharis palustris* is extremely variable worldwide. Recognition of infraspecific taxa outside northwestern Europe is premature..... At least 4 variants are notable in North America: Variant d comprises most of the plants that cannot be placed in the preceding variants. Most of these plants closely resemble most specimens that I have seen from northern Eurasia and as described for *Eleocharis palustris* subsp. *palustris* by S.-O. Strandhede (1966). Variant d has distal leaf sheaths often splitting or disintegrating, the summit margins not reddish, and apices usually broadly obtuse. In North America variant d is mostly subarctic and boreal; it is known from Newfoundland and Labrador to Alaska, south to New York, Wisconsin, Minnesota, Iowa, New Mexico, and California. Some plants of variant d that have markedly narrow tubercles mostly much (to 2 times) higher than wide and narrow achenes only 0.9?1.1 mm wide may deserve taxonomic recognition; they are known from Manitoba west to British Columbia and Alaska, south to Colorado, Utah, and California. Specimens of variant d from scattered western localities from Alaska and Yukon south to California have floral scales 4?5 mm and achenes 1.6?1.9 mm and are very similar to variant c."

***Eleocharis parvula* (Roem. & Schultes) Link ex Bluff Nees, & Schauer [FNA23, HC, HC2]**

Comp. Fl. German. ed. 2. 1: 93. 1836.
little-head spikerush
(see also *Eleocharis coloradoensis*)

Eleocharis parvula (Roem. & Schult.) Link ex Bluff, Nees & Schauer var. *parvula* [HC]
Eleocharis pygmaea Torr.
Scirpus nanus Spreng.
Scirpus parvulus Roem. & Schult.

FNA23: "Plants without well-developed bristles are otherwise typical *Eleocharis parvula*. S.-O. Strandhede and R. M. T. Dahlgren (1968) provided a detailed description from Scandinavia; the mostly curved tubers of North American plants are differently shaped than the ovoid, mostly nearly straight tubers illustrated by them. *Eleocharis parvula* is very uncommon inland. Plants lacking spikelets and having rather broad culms with evident aerenchyma (*E. parvula* forma *spongiosa* Fassett) that are submerged in tidal zones closely resemble small plants of *Sagittaria graminea*. *Eleocharis parvula* has also been reported from North Dakota, South America, and Africa; I have not seen specimens. Plants without achenes or tubers cannot be reliably identified to species. Literature reports from Cuba, Mexico, and Venezuela may be based on specimens of *E. coloradoensis*. "

***Eleocharis quinqueflora* (Hartm.) O. Schwarz [FNA23, HC2]**

Mitt. Thüring. Bot. Ges. 1: 89. 1949.
few-flowered spike-rush

Eleocharis fernaldii (Svenson) Á. Löve
Eleocharis pauciflora (Lightf.) Link [HC, JPM]
Eleocharis pauciflora (Lightf.) Link var. *fernaldii* Svenson
Eleocharis quinqueflora (Hartm.) O. Schwarz ssp. *fernaldii* (Svenson) Hultén
Scirpus quinqueflorus Hartm.

FNA23: "The chromosome numbers for *Eleocharis quinqueflora* reported for North America ($2n = 80$) are in doubt because vouchers and other information are lacking. The often-cited $n = 10$ is probably erroneous. S.-O. Strandhede and R. M. T. Dahlgren (1968) gave $2n = 132$ and 134 from Scandinavia. Recognition of infraspecific taxa within *E. quinqueflora* is premature pending a worldwide revision of subg. *Zinserlingia*. It has been reported from North Dakota, although I have not seen specimens. About five varieties and subspecies of *E. quinqueflora* have been described worldwide. Most specimens from eastern North America and some from the West can be placed in *Eleocharis quinqueflora* subsp. *fernaldii* (Svenson) Hultén, which is characterized by its small size (culms to $15\text{ cm} \times 0.5\text{ mm}$) and small bulbs. Specimens of *E. quinqueflora* from 2000?3600 m in California, which are atypical, especially in that the proximal scales of the spikelets do not subtend flowers, may deserve taxonomic recognition. Those plants are also small, with culms only to $15\text{ cm} \times 0.5\text{ mm}$; hard caudices are often present at the culm-tuft bases; small, narrowly ovoid bulbs are sometimes present; and perianth bristles are absent or rudimentary. Very few specimens of *E. quinqueflora* are intermediate with *E. suksdorfiana*."

***Eleocharis rostellata* (Torr.) Torr. [FNA23, HC, HC2]**

Fl. New York. 2: 347. 1843.

walking sedge, beaked spikerush

Scirpus rostellatus Torr.

FNA23: "*Eleocharis rostellata* is highly competitive, often forming large monospecific colonies. The South American *E. platypus* C. B. Clarke is often treated as a synonym of *E. rostellata*. *Eleocharis rostellata* superficially closely resembles *E. suksdorfiana* in its culms, spikelets, and achenes, but differs in the absence of creeping rhizomes, presence of stoloniferous culms, absence of a flower in the proximal scale, and achene surface details. The collection of *E. rostellata* I have seen from Miami-Dade County, Florida, is from 1877. I have not seen vouchers for Archuleta County, Colorado, by H. D. Harrington (1954), or for the localities in Montana and South Carolina, which are based on the map in H. K. Svenson (1934)."

***Eleocharis suksdorfiana* Beauverd [FNA23, HC2]**

Bull. Soc. Bot. Genève. 13: 267. 1922.

Suksdorf spikerush

Eleocharis pauciflora (Lightf.) Link var. *suksdorfiana* (Beauverd) Svenson

Eleocharis quinqueflora (Hartm.) O. Schwarz var. *suksdorfiana* (Beauverd) J.T. Howell

FNA23: "Although *Eleocharis suksdorfiana* is usually included in *E. quinqueflora*, it clearly differs qualitatively as given in the key. A collection from hot springs in Ruby Valley, Elko County, Nevada, has stout perianth bristles less than half of the achene length and may represent an undescribed taxon related to *E. suksdorfiana*. *Eleocharis suksdorfiana* closely resembles *E. rostellata* in its achenes, tubercles, culms, and caudices; it differs in the presence of long horizontal rhizomes and the absence of stoloniferous culms. The achenes of *E. suksdorfiana* are often finely longitudinally ridged, but in *E. rostellata* they are often rugulose. Specimens from Coconino and Santa Cruz counties, Arizona, are probably *E. suksdorfiana* but lack achenes so cannot be identified with certainty."

***Eleocharis uniglumis* (Link) Schult. [FNA23, HC2]**

Mant. 2: 88. 1824.

slender spike-rush

***Eriophorum* [FNA23, HC, HC2]**

Sp. Pl. 1: 52. 1753; Gen. Pl. ed. 5, 27. 1754.

bog cotton, cotton-grass

***Eriophorum angustifolium* Honck. [FNA23, HC2]**

Verz. Gew. Teutschl. 153. 1782.

many-spiked bog cotton, many-spiked cotton-grass

ssp. *angustifolium* [FNA23, HC2]

Verz. Gew. Teutschl. 153.

many-spiked cottongrass

Eriophorum polystachion L. [HC]

***Eriophorum chamissonis* C.A. Mey. [FNA23, HC, HC2]**

Fl. Altaica. 1: 70. 1829.

Chamisso's cotton-grass, russet cotton-grass

Eriophorum altaicum Meinsh. var. *neogeum* Raymond

Eriophorum chamissonis C.A. Mey. var. *aquatile* (Norman) Fernald

Eriophorum rufescens Andersson

Eriophorum russeolum Fr. ssp. *rufescens* (Andersson) Hyl.

Eriophorum russeolum Fr. var. *albidum* F. Nylander

Eriophorum russeolum Fr. var. *leucothrix* (Blomgren) Hultén

Eriophorum russeolum Fr. var. *majus* Sommier

FNA23: "The *Eriophorum chamissonis* complex contains taxa based mainly on stem size and bristle color (M. Raymond 1954). Much of the variation appears to be continuous with abundant intermediates; experimental studies are needed to determine the biological basis of the variation."

***Eriophorum gracile* W.D.J. Koch ex Roth [FNA23, HC, HC2]**

Catal. Bot. 2: 259. 1800.

slender cotton-grass

Eriophorum gracile W.D.J. Koch var. *caurianum* Fernald [KZ99]

Eriophorum gracile W.D.J. Koch var. *gracile* [KZ99]

***Eriophorum virginicum* L. [FNA23, HC2]**

Sp. Pl. 1: 52. 1753.

tawny cotton-grass

***Eriophorum viridicarinatum* (Engelm.) Fernald [FNA23, HC, HC2]**

Rhodora. 7: 89. 1905.

tassel cotton-grass

Eriophorum latifolium Hoppe var. *viridicarinatum* Engelm.

***Isolepis* [FNA23, HC2]**

Prodr. 221. 1810.

club-rush

***Isolepis cernua* (Vahl) Roem. & Schult. [FNA23, HC2]**

Syst. Veg. 2: 106.

low club-rush

Isolepis cernua (Vahl) Roem. & Schult. var. *cernua*

Scirpus cernuus Vahl [HC]

Scirpus cernuus Vahl ssp. *californicus* (Torr.) Thorne

Scirpus cernuus Vahl var. *californicus* (Torr.) Beetle

FNA23: "*Isolepis cernua* is widespread and variable. Four varieties were recognized by A. M. Muasya and D. M. Simpson (2002). Only var. *cernua* is known from North America. The earliest collection I have seen from the Pacific Coast is from 1888; the earliest collection I have seen from Texas is from 1974."

***Isolepis setacea* (L.) R. Br. [FNA23, HC2]**

Prodr. 222. 1810.

Eurasian bulrush, bristle-leaf sedge

Scirpus setaceus L.

Not in H&C; Native to Eurasia. FNA23: "*Isolepis setacea* belongs to a distinct group of species characterized by ridged achenes (A. M. Muasya et al. 2001). *Isolepis setacea* was collected in 1874 on waste at Camden, New Jersey, and in the 1880s at Philadelphia, Pennsylvania; it has not persisted in the East. It has been known from the Pacific Coast since at least 1921. It is reported as native to Eurasia and Africa. It is cultivated as an ornamental."

***Kobresia* [FNA23, HC, HC2]**

Sp. Pl. 4(1): 205. 1805.

kobresia

***Kobresia myosuroides* (Vill.) Fiori [FNA23, HC, HC2]**

Fl. Italia. 1: 125. 1896.

Bellard's kobresia, Pacific bog sedge

Kobresia bellardii (All.) Degl. ex Loisel. [JPM]

Lipocarpus [FNA23, HC2]

Narr. Exped. Zaire. 459. 1818.

hemiparaph, lipocarpus

Hemiparaph [HC]

Lipocarpus aristulatus (Coville) G.C. Tucker [FNA23, HC2]

J. Arnold Arbor. 68: 410. 1987.

halfchaff sedge

Cyperus aristulatus (Coville) Batters

Hemiparaph aristulatus (Coville) Smyth

Hemiparaph intermedia Piper

Hemiparaph micrantha (Vahl) Pax var. *aristulatus* Coville

Lipocarpus micrantha (Vahl) G.C. Tucker [FNA23, HC2]

J. Arnold Arbor. 68: 410. 1987.

small-flowered halfchaff sedge

Cyperus subsquarrosus (Muhl.) Batters

Hemiparaph micrantha (Vahl) Pax [HC]

Hemiparaph micrantha (Vahl) Pax var. *minor* (Schrad.) Friedland

Hemiparaph subsquarrosa (Muhl.) Nees

Hemiparaph subsquarrosa (Muhl.) Nees var. *minor* (Schrad.) Nees

Isolepis subsquarrosa (Muhl.) Schrad.

Isolepis subsquarrosa (Muhl.) Schrad. var. *minor* Schrad.

Scirpus micranthus Vahl

Scirpus subsquarrosus Muhl.

Lipocarpus occidentalis (A. Gray) G.C. Tucker [FNA23, HC2]

J. Arnold Arbor. 68: 410.

western halfchaff sedge

Cyperus hemioccidentalis Goetgh.

Hemiparaph occidentalis A. Gray [HC]

Rhynchospora [FNA23, HC, HC2]

Enum. Pl. 2: 229. 1805 (as *Rhynchospora*).

beakrush

Rhynchospora alba (L.) Vahl [FNA23, HC, HC2]

Enum. Pl. 2: 236. 1805 (as *Rhynchospora*).

white beakrush

Dichromena alba (L.) J.F. Macbr.

Phaeocephalum album (L.) House

Rhynchospora luguillensis Britton

Schoenus albus L.

Triodon albus (L.) Farw.

FNA23: "The smooth-bristled *Rhynchospora alba* forma *laeviseta* Gale mostly occurs with the typical antrorsely barbellate type in Pennsylvania, the Great Lakes, British Columbia, Newfoundland, and Nova Scotia."

Schoenoplectus [FNA23, HC2]

Verh. K.K. Zool.-Bot. Ges. Wien. 38(Sitzungsber.): 49. 1888.

bulrush, naked-stem bulrush, club-rush

Schoenoplectus acutus (Muhl. ex Bigelow) Á. Löve & D. Löve [FNA23, HC2]

Bull. Torrey Bot. Club. 81: 33.

American bulrush, common tule

Schoenoplectus acutus (Muhl. ex Bigelow) Å. Löve & D. Löve var. *acutus* [FNA23]
Schoenoplectus acutus (Muhl. ex Bigelow) Å. Löve & D. Löve var. *occidentalis* (S. Watson) S.G. Sm. [FNA23]
Scirpus acutus Muhl. ex Bigelow [HC]
Scirpus acutus Muhl. ex Bigelow var. *occidentalis* (S. Watson) Beetle
Scirpus lacustris L. var. *occidentalis* S. Watson
Scirpus x rubiginosus Beetle

***Schoenoplectus americanus* (Pers.) Volkart ex Schinz & R. Keller [FNA23, HC2]**

Fl. Schweiz ed. 2. 1: 75.
 American three-square bulrush, Olney's three-square bulrush
Scirpus americanus Pers. [HC]
Scirpus olneyi A. Gray [HC]

FNA23: "The secondary involucral bracts of *Schoenoplectus americanus* lack blades and closely resemble floral scales, in contrast to *S. pungens* and *S. deltarum*. Although mostly very locally distributed, *S. americanus* is ecologically important in many coastal marshes. In recent years it has seriously declined (e.g., in Maryland and Louisiana). It may occur in southwestern Kansas; I have not seen a specimen. It probably has been extirpated from the Missouri station, based on one collection from 1886 (G. Yatskievych, pers. comm.). The report from New Hampshire is based on M. L. Fernald (1950). The stations on the Maine and Connecticut coasts, at Lake Champlain in Vermont, and in Oklahoma are based on putative *S. americanus* x *S. pungens* specimens. Some plants in the southwest are atypical in having nearly flat culm sides and leaf blades to 1.5 times as long as their sheaths as in the type of *Scirpus monophyllus* J. Presl & C. Presl from Peru. The name *Scirpes americanus* was long misapplied to *Schoenoplectus pungens*; *Schoenoplectus americanus* was known as *Scirpus olneyi* (A. E. Schuyler 1974)."

***Schoenoplectus x kuekenthalianus* (Junge) D.H. Kent [FNA23, HC2]**

Watsonia 18(2): 213.
 Kuekenthal's bulrush

***Schoenoplectus mucronatus* (L.) Palla [FNA23, HC2]**

Verh. K.K. Zool.-Bot. Ges. Wien. 38(Sitzungsber.): 49.
 ricefield bulrush, rough-seed bulrush
Scirpus mucronatus L.

FNA23: "*Schoenoplectus mucronatus* was collected before 1900 in New Brunswick and New Jersey; apparently the plants did not persist. It has also been reported from New York and Pennsylvania; I have not seen specimens. Elsewhere, it has become firmly established. It is an important ricefield weed in California (M. K. Bellue 1947), where it was first observed in 1942 and is called "ricefield bulrush."• It was first observed in the Midwest in 1971. *Schoenoplectus mucronatus* is cultivated for wildlife food near the Columbia River in Clark County, Washington, but apparently is not established in that area. *Schoenoplectus mucronatus* is very similar to *S. triangulatus* (Roxburgh) Soják of Asia, which differs in its larger spikelets, spikelet scales, and anthers."

***Schoenoplectus pungens* (Vahl) Palla [FNA23, HC2]**

Verh. K.K. Zool.-Bot. Ges. Wien. 38(Sitzungsber.): 49.
 chairmaker's club-rush, common three-square
Scirpus olneyi A. Gray [HC], misapplied
Scirpus pungens Vahl

The taxonomy of this species is confusing; see FNA for explanation. FNA3: "Three varieties of *Schoenoplectus pungens* (under *Scirpus americanus*) were recognized for North America by T. Koyama (1963), and three more or less equivalent varieties were recognized by S. G. Smith (1995). These varieties are described informally and illustrated here but not formally recognized because their morphologic delimitation should be evaluated and their exact ranges are still uncertain. "*Schoenoplectus americanus*, *S. pungens*, and *S. deltarum* belong to the small "*Scirpus americanus* complex"• T. Koyama (1963), in which the species are sometimes difficult to delimit. *Schoenoplectus pungens* was long known incorrectly as *S. americanus* Persoon; the type of that name is conspecific with plants formerly treated as *S. olneyi* A. Gray (A. E. Schuyler 1974). Putative *Schoenoplectus pungens* x *S. americanus* hybrids [= *S. xcontortus* (Eames) S. G. Smith] are locally common. 2n = ca. 86?128."

Schoenoplectus saximontanus (Fernald) J. Raynal [FNA23, HC2]

Adansonia, n.s. 16: 141.

Rocky Mountain bulrush

Scirpus bergsonii Schuyler

Scirpus saximontanus Fernald

Scirpus supinus L. var. *saximontanus* (Fernald) T. Koyama

FNA23: "The distribution of *Schoenoplectus saximontanus* is very scattered (local)."

Schoenoplectus subterminalis (Torr.) Soják [FNA23, HC2]

Cas. Nár. Mus., Odd. Prír. 140: 127.

swaying club-rush, water club-rush

Scirpus subterminalis Torr. [HC]

FNA23: "*Schoenoplectus subterminalis* often forms lawnlike, underwater mats that are entirely vegetative or have only the inflorescences emergent. This species is probably extirpated from Illinois. *Schoenoplectus subterminalis* var. *terrestris* Paine [= *S. subterminalis* forma *terrestris* (Paine) Fernald] probably does not deserve taxonomic recognition."

Schoenoplectus tabernaemontani (C.C. Gmel.) Palla [FNA23, HC2]

Verh. K.K. Zool.-Bot. Ges. Wien. 38(Sitzungsber.): 49.

great bulrush, soft-stem bulrush

Schoenoplectus validus (Vahl) Á. Löve & D. Löve

Scirpus lacustris L. ssp. *creber* (Fernald) T. Koyama

Scirpus lacustris L. ssp. *glaucus* (Sm.) Hartm.

Scirpus lacustris L. ssp. *tabernaemontani* (C.C. Gmel.) Syme

Scirpus lacustris L. ssp. *validus* (Vahl) T. Koyama

Scirpus tabernaemontani C.C. Gmel.

Scirpus validus Vahl [HC]

FNA23: "*Schoenoplectus validus*, described from the Caribbean, and *S. tabernaemontani*, described from Europe, are here treated as one variable, cosmopolitan species without infraspecific taxa, pending further studies (J. Browning et al. 1995b; S. G. Smith 1995). Most North American plants have spikelets with reddish papillae or prickles on the scales, whereas some plants of coastal and boreal North America closely resemble most plants of northwestern Europe and southern Africa in their densely reddish prickly-papillose scales and are similar to the type of *Scirpus glaucus* J. E. Smith. *Schoenoplectus tabernaemontani*, *S. acutus*, *S. heterochaetus*, *S. lacustris*, and *S. triqueter* belong to the very difficult *S. lacustris* complex. The entire complex except *S. triqueter* was treated as the single species *Scirpus lacustris* (T. Koyama 1962b). Many Old World authors treat *Schoenoplectus tabernaemontani* as *S. lacustris* var. *tabernaemontani* or subsp. *glaucus*. Much of the local infraspecific variation in the *Schoenoplectus lacustris* complex is probably because of hybridization. Some studies support the recognition of separate species in this group (J. Browning et al. 1995b). Hybrids in North America include *S. acutus* × *S. tabernaemontani*, widespread and common, especially in the east; *S. acutus* × *S. heterochaetus* = *S. xoblongus* (T. Koyama) Soják, widespread but uncommon; *S. heterochaetus* × *S. tabernaemontani* = *S. xsteinmetzii* (Fernald) S. G. Smith, eastern and most uncommon; *S. tabernaemontani* × *S. triqueter* = *S. xkuekenthalianus* (Junge) Kent, lower Columbia River in Oregon and probably Washington; and *S. acutus* var. *occidentalis* × *S. californicus*, local in California. Except for its trigonous culms, *S. triqueter* is very similar to the *S. lacustris* complex and freely hybridizes with *S. tabernaemontani*, both in North America and Europe."

Schoenoplectus triqueter (L.) Palla [FNA23, HC2]

Verh. K.K. Zool.-Bot. Ges. Wien. 38(Sitzungsber.): 49.

stream bank bulrush, triangular club-rush

Scirpus triqueter L.

FNA23: "In North America *Schoenoplectus triqueter* is known only from the tidal Columbia River system (B. W. Lightcap and A. E. Schuyler 1984), where it forms fertile hybrids with *S. tabernaemontani* [*S. xkuekenthalianus* (Junge) D. H. Kent = *Scirpus xscheuchzeri* Brugg]. Fertile hybrids between the same species also occur in Europe."

Scirpus [FNA23, HC, HC2]

Sp. Pl. 1: 47. 1753; Gen. Pl. ed. 5, 26. 1754.

bulrush

(see also *Amphiscirpus*, *Bolboschoenus*, *Isolepis*, *Schoenoplectus*, *Trichophorum*)

Scirpus atrocinctus Fernald [FNA23, HC2]

Proc. Amer. Acad. Arts. 34: 502. 1899.

common woolly sedge

Scirpus cyperinus (L.) Kunth var. *brachypodos* (Fern.) Gilly [HC], orthographic variant

Scirpus cyperinus (L.) Kunth var. *brachypodus* (Fernald) Gilly

FNA23: "Scirpus atrocinctus differs from *S. pedicellatus* by having more intense pigmentation in its inflorescence, both in the scales and the bases of the involucre bracts. Scales of *S. atrocinctus* are usually distinctly blackened, at least distally, and those of *S. pedicellatus* show either no black pigment at all or indistinct blackening beside the distal part of the midrib. Brown streaking throughout the scale is usually prominent in both species. The bases of the involucre bracts are almost always solid black in *S. atrocinctus* and reddish brown, brownish, or merely tinged or bordered with black in *S. pedicellatus*. The scales of *S. pedicellatus* also differ from those of *S. atrocinctus* in usually having a short mucro. All of these characteristics are variable. The two species are usually quite distinct when they grow close together, and they are not known to hybridize with each other (although each species hybridizes with *S. cyperinus*). It is often difficult to identify isolated herbarium specimens with confidence. *Scirpus atrocinctus* often hybridizes with *S. cyperinus* and forms hybrid swarms. The type of *S. pedicellatus* forma *viviparus* F. G. Bernard appears to be *S. atrocinctus* x *cyperinus*."

Scirpus cyperinus (L.) Kunth [FNA23, HC, HC2]

Enum. Pl. 2: 170. 1837.

cotton-grass bulrush

Eriophorum cyperinum L.

Scirpus cyperinus (L.) Kunth var. *andrewsii* (Fernald) Fernald

Scirpus cyperinus (L.) Kunth var. *pelius* Fernald

Scirpus rubricosus Fernald

Pacific Northwest populations are recently expanded and many new populations are found on roadsides, all suggesting a recent introduction from eastern North America and not a native species.. FNA23: "Scirpus cyperinus is extremely variable. A form common in the northern part of its range, south to Iowa, northern Ohio, Maryland, and (in the Appalachians) North Carolina and Tennessee, has bases of the involucre bracts and the involucels blackish, the spikelets sessile or nearly so in glomerules, and the scales relatively short, ovate, and brownish. This form has often been treated as *S. cyperinus* var. *pelius*. A more robust southern form, extending north to southern Missouri and Illinois, Kentucky, Virginia, and (along the coast) New Jersey and Massachusetts, has the bases of the involucre bracts and the involucels reddish brown, the spikelets mostly solitary, and the scales relatively long, narrowly elliptic, and reddish brown. This form has often been treated as a distinct species, *S. rubricosus* (or under the illegitimate name *S. eriophorum* Michaux). These two morphologies intergrade so extensively that it is not practical to recognize them taxonomically at any rank. *Scirpus cyperinus* often hybridizes with *S. atrocinctus* and *S. pedicellatus*, forming hybrid swarms. Some plants appear to have characteristics of all three species; the names *Scirpus atrocinctus* var. *grandis* Fernald and *S. atrocinctus* forma *grandis* (Fernald) D. S. Carpenter are based on such a specimen."

Scirpus microcarpus J. Presl & C. Presl [FNA23, HC, HC2]

Reliq. Haenk. 1: 195.

panicled bulrush, small fruited bulrush

Scirpus microcarpus J. Presl & C. Presl var. *longispicatus* M. Peck

Scirpus microcarpus J. Presl & C. Presl var. *rubrotinctus* (Fernald) M.E. Jones

Scirpus rubrotinctus Fernald

Scirpus sylvaticus L. var. *digynus* Boeckeler

FNA23: "Populations of *Scirpus microcarpus* from eastern United States have been treated as a distinct species, *S. rubrotinctus* Fernald. Populations from the central part of the continent are intermediate for the characters Fernald used to separate *S. rubrotinctus*. The taxonomy of the group should be reinvestigated. Populations from the Queen Charlotte Islands (British Columbia) have a different chromosome number (2n

= 64; R. L. Taylor and G. A. Mulligan 1968) than populations from New York and Pennsylvania (2n = 66; A. E. Schuyler 1967, 1976)."

***Scirpus pallidus* (Britton) Fernald [FNA23, HC, HC2]**

Rhodora. 8: 163. 1906.

pale bulrush

Scirpus atrovirens Willd. var. *pallidus* Britton

FNA23: "Scirpus pallidus has been confused with *S. atrovirens*. The awned rather than mucronate scales distinguish *S. pallidus* from all similar species. The perianth bristles are similar to those of *S. atrovirens*; the scales of *S. pallidus* are almost always black, rather than brownish as in *S. atrovirens*. Inflorescences of *S. pallidus* consist of relatively few, large glomerules (the largest glomerule in the inflorescence usually has 50 or more spikelets). Some individuals of *S. atrovirens* may have glomerules with as many as 65 spikelets. *Scirpus pallidus* occasionally hybridizes with *S. atrovirens*."

***Trichophorum* [FNA23, HC2]**

Syn. Pl. 1: 69. 1805.

deergrass

***Trichophorum cespitosum* (L.) Schur [FNA23, HC2]**

Verh. Mitth. Siebenbürg. Vereins Naturwiss. Hermannstadt. 4: 78.

tufted club-rush

Baeothyron cespitosum (L.) A. Dietr.

Scirpus bracteatus Bigelow

Scirpus cespitosus L. [HC]

Scirpus cespitosus L. var. *callosus* Bigelow

Scirpus cespitosus L. var. *delicatulus* Fernald

FNA23: "Segregates defined on the basis of characters such as the number of flowers per spike and distal leaf sheath morphology have been recognized at varietal or subspecific ranks in North America and Europe. In North America, at least, these characters are variable within populations and appear to have no geographic integrity. North American plants of *Trichophorum cespitosum* appear to be identical to subsp. *cespitosum* (cf. R. A. DeFilipps 1980). No cytological differences have been detected between European and North American populations; all counted plants have 2n = 104 or n = 52."