



# A Visual Guide to *Carex* of Arizona

This is a supplement to the treatment of *Carex* for the Vascular Plants of Arizona project, which includes keys, species descriptions, and range maps. It can be used to help verify an identification resulting from use of the treatment, and to appreciate the beauty and diversity of sedges in the genus *Carex* found in Arizona.



*Carex albonigra* – Black and white sedge

Group D

- Clumping habit
- 2–3 similar upright spikes in a compact head
- Upper spike with male flowers below female flowers
- Scales dark with whitish margins, acute tipped
- Alpine scree and meadows above timberline



*Carex alma* – Bountiful sedge

Group F

- Clumping habit, from thick short dark brown rhizomes
- Robust plants, leaves to 6 mm wide
- All spikes similar and sessile
- Lower branches of inflorescence with multiple spikes
- Perigynia widest at bottom, long tapered, strongly veined
- Streambanks, springs, seeps



*Carex aquatilis* – Water sedge

Group E

- Rhizomatous habit, forming large stands
- Male spikes above female spikes, lower spikes on peduncles
- Perigynia flattened, without veins, with short, entire beak
- Scale midvein usually not reaching tip
- Wet meadows, streambanks, pond margins



*Carex atherodes* – Awned sedge

Group C

- Rhizomatous habit, forming large stands
- Robust plants, with hairy lower leaf sheaths
- Male spikes above female spikes, lower spikes on peduncles
- Perigynia inflated, with long beaks with long teeth
- Pistillate scales awn-tipped
- Wet meadows, marshes, and ponds



*Carex athrostachya* – Slenderbeak sedge

Group H

- Densely clumping habit
- All spikes similar and sessile, in a compact head
- One or more bracts much longer than inflorescence head
- Perigynia winged, with narrower bump at base
- Wet meadows, cattle tanks, seasonal pond margins



*Carex aurea* – Golden sedge

Group E

- Rhizomatous habit, often mixed in with other graminoids
- Small, lax plants
- Male spike above female spikes, lower spikes on peduncles
- Perigynia round and fleshy, golden when mature
- Wet meadows, seeps, streambanks



*Carex bebbii* – Bebb's sedge

Group H

- Densely clumping habit
- Inflorescence "beaded," easy to distinguish separate spikes
- Perigynia ovate, flat, and winged; spikes texture fine
- Wet meadows, streamsides



*Carex bella* – Southwestern showy sedge

Group D

- Loosely clumping from short rhizomes
- Mature inflorescences arching to pendant
- All spikes similar, long & narrow, lower spikes on long peduncles
- Terminal spike with more male flowers at base
- Green flattened perigynia contrast with shorter darker scales
- Forest floor to alpine, and along mountain streams



*Carex bolanderi* – Bolander's sedge  
(*Carex deweyana* var. *bolanderi*)

Group G

- Loosely to densely clumping habit
- Long, lax leaves
- All spikes similar, lower spike separated from a clustered head
- Perigynia without wings, with long tapered beaks & obvious teeth
- Streambanks, wet hillsides



*Carex brevior* – Shortbeak sedge

Group H

- Densely clumping habit
- Inflorescence "beaded," easy to distinguish separate spikes
- All spikes similar, sessile
- Perigynia almost orbicular, flat, and winged; spikes texture coarse
- Moist meadows, streambanks, lakeshores.



*Carex buxbaumii* – Buxbaum’s sedge

Group D

- Loosely clumping from short rhizomes
- Mature inflorescences arching to pendant
- All spikes similar, long and narrow, lower spikes on long peduncles
- Terminal spike with more male flowers at base
- Green flattened perigynia contrast with shorter darker scales
- Forest floor to alpine, and along mountain streams



*Carex canescens* – Silvery sedge

Group G

- Loosely to densely clumping habit
- Small plants, with stiffly upright stems
- All spikes similar, lower spikes separated from a clustered head
- Perigynia without wings, with short beaks & without teeth
- Pistillate scales often with silvery sheen
- Wet meadows, bogs, streambanks



*Carex chalciolepis* – Holm sedge

Group D

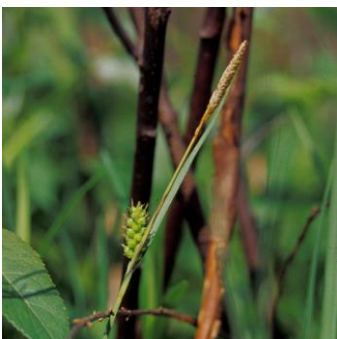
- Loosely to densely clumping from short rhizomes
- Mature inflorescences arching to pendant
- All spikes similar, short and wider, lower spike on short peduncle
- Terminal spike with male flowers at base
- Scales brown, longer than perigynia, acuminate, shaggy looking
- Alpine tundra and near timberline forests



*Carex chihuahuensis* – Chihuahuan sedge

Group F

- Loosely to densely clumping habit, from brown rhizomes
- Leaves to 4 mm wide
- All spikes similar and sessile
- Lower branches of inflorescence with multiple spikes
- Perigynia widest at bottom, contracted to beak, veined
- Streambanks, springs, seeps



*Carex conoidea* – Openfield sedge

Group C

- Densely clumping habit from short rhizomes
- Male spike above very short female spikes
- Inflorescence bract much longer than inflorescence
- Perigynia inflated, with impressed veins
- Wet meadows



*Carex crawei* – Crawe's sedge

Group C

- Rhizomatous habit, forming small patches
- Small plants, with stiffly upright stems
- Male spike above female spikes, lower spikes on short peduncles
- Perigynia inflated, with short beaks without teeth
- Pistillate scales shorter than perigynia, tipped with a short awn
- Wet soils at seeps and springs



*Carex curatorum* – Canyonlands sedge  
(*Carex scirpoidea* var. *curatorum*)

Group A

- Clumping habit, plants dioecious
- Single terminal spike, occasionally second small one subtending
- Perigynia densely hairy
- Pistillate scales dark reddish brown with green midstripe
- Riparian and hanging gardens in the Grand Canyon



*Carex deflexa* var. *boothii* – Northern sedge

Group B

- Loosely clumping, low plants, smaller than *C. rossii*
- Leaves lax, soft, with reddish bases
- Inflorescences basal as well as terminal on stems
- Single male spike above few female spikes with few perigynia ea.
- Perigynia lightly hairy on upper portion
- Alpine meadows and forests near timberline.



*Carex diandra* – Lesser panicled sedge

Group F

- Densely clumping, sometimes in large stands
- Inflorescences upright to arching
- All spikes similar, with male above female flowers
- Inflorescence has lower branches with several spikes each
- Perigynia with strong groove down center of back
- Wetlands, pond margins, on floating logs or vegetative mats



*Carex disperma* – Softleaf sedge

Group F

- Loosely clumping from many fine rhizomes
- Inconspicuous small plant, with lax leaves and stems
- All spikes similar, widely separated, few perigynia each
- Perigynia plump, egglike, with short beak, dark when mature
- Bogs, streamsides, shady forests



*Carex douglasii* – Douglas' sedge

Group F

- Rhizomatous, often forming large, low patches of turf
- Mostly dioecious, but often with a few flowers of the opposite sex
- All spikes similar, sessile
- Inflorescence has lower branches with several spikes each
- Pistils obvious on female plants and often a tangled mess
- Grasslands, forest openings and meadows, alkaline soils



*Carex duriuscula* – Needleleaf sedge  
(*Carex eleocharis*, *Carex stenophylla*)

Group F

- Rhizomatous, often forming large, low patches of loose turf
- All spikes similar, sessile, with male above female flowers
- Inflorescence short and compact
- Perigynia short, dark, shiny, abruptly contracted to beak
- Dry prairies, forest openings, dry disturbed soils



*Carex ebenea* – Ebony sedge

Group H

- Densely clumping habit
- Stems upright, longer than leaves
- All spikes similar, clustered in a compact head, "V" shaped at base
- Perigynia with wings, narrow, dark brown to blackish when mature
- Pistillate scales dark brown
- Wet to dry meadows and slopes at high elevations



*Carex echinata* – Star sedge

Group G

- Densely clumping habit, delicate plant
- Star-like short spikes of few, widely spreading perigynia
- Perigynia with long, tapering beaks
- Terminal spike with narrow section of male flowers at base
- Wet meadows, bogs, streambanks



*Carex elynoides* – Blackroot sedge

Group A

- Densely clumping, low compact matlike plants
- Wiry leaves
- Single spike with a few perigynia at base of male flowers
- Perigynia glabrous to slightly ciliate near beak
- Alpine tundra and scree



*Carex emoryi* – Emory's sedge

Group E

- Rhizomatous habit, forming large stands
- Male spikes above female spikes, lower spikes on peduncles
- Perigynia flattened, with light veins, short beak not bidentate
- Scale pale, midvein broad and not reaching tip
- Colorado River banks in Marble Canyon



*Carex endlichii* – Chiricahua sedge

Group E

- Clumping habit from short rhizomes, reddish orange bases
- Gynecandrous terminal spike above female spikes,
- Lower spikes on peduncles
- Flat perigynia somewhat inflated, often orange–brown at maturity
- Scale midvein usually not reaching tip
- Wet meadows, streambanks, springs



*Carex filifolia* – Threadleaf sedge

Group A

- Densely clumping, compact plants
- Wiry leaves
- Single spike with a few perigynia at base of male flowers
- Perigynia shortly hairy on upper half
- Dry, open slopes and plains, pinyon juniper woodland



*Carex geophila* – White Mountain sedge

Group B

- Densely clumping, low, tufted plants
- Leaves with tan, fibrous bases
- Inflorescences basal as well as terminal on stems
- Single male spike above few female spikes with few perigynia ea.
- Perigynia lightly hairy
- Dry forest habitat, early flowering in spring.



*Carex geyeri* – Elk sedge

Group A

- Turf forming to loosely clustered from thick, brown rhizomes
- Flat, leathery leaves
- Single spike with one to two large perigynia at base of male flowers, separated by a bare section of the rachis
- Perigynia smooth and glossy, veinless, beakless
- Dry montane woodlands, slopes, and meadows



*Carex hassei* – False golden sedge

Group E

- Rhizomatous habit, often mixed in with other graminoids
- Small, lax plants
- Male spike above female spikes, lower spikes on peduncles
- Perigynia round and fleshy, green to whitish when mature
- Wet meadows, seeps, streambanks



*Carex haydeniana* – Cloud sedge

Group H

- Densely clumping habit
- Stems arching, equal or longer than the leaves
- All spikes similar, clustered in a compact head, truncate at base
- Perigynia with wings, wide, dark brown to blackish when mature
- Pistillate scales dark brown
- Rocky alpine slopes above timberline



*Carex hystericina* – Bottlebrush sedge

Group C

- Densely clumping habit
- Single male spike above female spikes on peduncles.
- Short, fat, bottlebrush spikes densely packed with perigynia
- Perigynia spreading, with long beaks and small teeth
- Pistillate scales with long, serrated awns
- Wetlands, pond shores, and streambanks



*Carex interior* – Inland sedge

Group G

- Densely clumping habit, delicate plant
- Star-like short spikes of few, widely spreading perigynia
- Perigynia with short, abruptly contracted beaks
- Terminal spike with narrow section of male flowers at base
- Wet meadows, bogs, streambanks



*Carex jonesii* – Jones' sedge

Group F

- Loosely clumping habit
- Inflorescence headlike, difficult to distinguish separate spikes
- Perigynia widest at base, distended with pithy tissue
- Wet meadows, streamsides





***Carex kelloggii*** – Kellogg’s sedge  
(*Carex lenticularis* var. *lipocarpa*)

Group E

- Densely clumping habit
- Single male spike above female spikes, lower spikes on peduncles
- Perigynia with veins, short beak, not bidentate
- Wet meadows, streambanks, pond margins



***Carex lativena*** – Broadvein sedge

Group B

- Densely clumping, low, tufted plants
- Leaves with brown, fibrous bases
- Inflorescences basal as well as terminal on stems
- Single male spike above few female spikes with few perigynia ea.
- Perigynia hispidulous on upper portion to nearly glabrous
- Perigynia broad veined
- Dry forest floor and woodland habitat, early flowering in spring



***Carex leucodonta*** – Whitetooth sedge  
(Incl. in *Carex turbinata* in FNA)

Group B

- Loosely clumping habit, with short to long rhizomes
- Leaves with brown, fibrous bases
- Inflorescences terminal on stems, far exceeding leaves
- Single male spike above few female spikes with few perigynia ea.
- Perigynia short hairy, with many light veins
- Woodland habitat



***Carex microdonta*** – Littletooth sedge

Group C

- Rhizomatous habit, forming large patches
- Small plants, with wider leaves than *Carex crawei*
- Male spike above female spikes, lower spikes on short peduncles
- Perigynia inflated, with longer beaks than *Carex crawei*
- Pistillate scales shorter than perigynia, short awn-tipped
- Wet soils at seeps and springs



***Carex microptera*** – Smallwing sedge

Group H

- Clumping habit
- Inflorescence very compact, hard to distinguish separate spikes
- Truncate bottom to inflorescence “head”
- Perigynia thin, flat, and winged
- Wings usually widest below middle, at center of achene
- Wet meadows and slopes, springs, and streambanks



*Carex nebrascensis* – Nebraska sedge

Group E

- Rhizomatous habit, forming large stands
- Leaves up to 1 cm. wide, often bluish green
- Male spikes above female spikes, lower spikes short peduncles
- Perigynia with veins, short beak, bidentate
- Pistillate scale midvein reaching tip and often awned on lower scales
- Wet meadows, streambanks, pond margins, damp soils



*Carex obtusata* – Obtuse sedge

Group A

- Widely spaced small shoots from fine, dark brown rhizomes
- Narrow, stiff leaves, shorter than flowering stems
- Single spike with several perigynia at base of male flowers
- Perigynia dark, glossy, and veinless, with bidentate beak
- Dry meadows, grasslands, slopes, and thickets



*Carex occidentalis* – Western sedge

Group F

- Clumping habit, to slightly rhizomatous
- Elongate head of ascending spikes
- All spikes similar, with male flowers on top
- Perigynia apex and beak serrate margined
- Dry meadows, forest floors, widespread



*Carex oreocharis* – Grassyslope sedge

Group A

- Densely clumping, low compact plants
- Wiry leaves
- Single spike with a few perigynia at base of male flowers
- Perigynia hairy near beak
- Mountain meadows and open slopes



*Carex pachystachya* – Chamisso sedge

Group H

- Clumping habit
- Inflorescence compact to elongate
- Perigynia thick (plano-convex), winged, widely spreading in spike
- Riparian streamside habitat



***Carex pellita*** – Woolly sedge  
(*Carex lanuginosa*, misapplied)

Group B

- Rhizomatous habit, forming large stands
- Reddish based, older sheaths shredding and ladder-fibrillose
- Male spikes above female spikes, lower spikes short peduncles
- Perigynia densely hairy
- Wetland habitat, almost always in water or saturated soils



***Carex petasata*** – Liddon sedge

Group H

- Loosely clumping, short rhizomatous habit
- Inflorescence elongate, of several distinct, narrow heads
- All spikes similar, with many male flowers at base
- Perigynia winged, long, and with obvious veining
- Dry to moist meadows, open woods, grasslands



***Carex praeegracilis*** – Blackcreeper sedge

Group F

- Rhizomatous habit, forming large stands
- Rhizomes dark brown to black
- Inflorescence elongate, of many ascending heads
- All spikes similar, often all female or male
- Spikes with male above female if mixed
- Dry to wet meadows, often in alkaline soils



***Carex rossii*** – Ross' sedge

Group B

- Densely clumping, low, tufted plants
- Leaves lax, soft, with reddish bases
- Inflorescences basal as well as terminal on stems
- Single male spike above few female spikes with few perigynia ea.
- Perigynia lightly hairy on upper portion
- Dry forest floor habitat, early flowering in spring.



***Carex scoparia*** – Broom sedge

Group H

- Clumping habit
- Inflorescence compact to elongate, with distinct spikes
- All spikes similar, with male flowers at base
- Perigynia and scales appressed to ascending, smooth textured
- Perigynia and scales of similar color, green to tan
- Riparian habitat, and seasonal wetlands



*Carex senta* – Swamp sedge

Group E

- Rhizomatous, but often forming large, dense tussocks
- Older leaf base sheaths shredding and ladder fibrillose
- Male spikes above female spikes, lower spikes short peduncles
- Perigynia with veins, short beak, not bidentate
- Streambanks, tussocks in swift flowing water, wet meadows



*Carex serratodens* – Two-tooth sedge

Group D

- Densely clumping from short rhizomes
- Mature inflorescences stiffly upright
- Terminal male spike above female spikes on short peduncles
- Terminal spike sometimes with perigynia at top or middle
- Green spreading perigynia contrast with shorter darker scales
- Springs and streamsides in desert scrub and oak woodlands



*Carex siccata* – Dryspike sedge

Group F

- Rhizomatous habit, forming loose sections of turf
- Rhizomes light to medium brown
- Inflorescence elongate, of many ascending heads
- Middle spikes often all male, perigynia in upper and lower spikes
- Spikes with male above female if mixed
- Dry meadows, forest floors, alpine slopes, widespread



*Carex simulata* – Shortbeak sedge

Group F

- Rhizomatous habit, forming large stands
- Rhizomes light brown
- Inflorescence congested/cylindric, with many unisexual spikes
- Plants usually in all male or all female clones
- Perigynia small, dark, with short abruptly contracted beak
- Wet sites only, usually in standing water



*Carex specuicola* – Navajo sedge

Group D

- Loosely clumping from rhizomes, or forming large patches
- Mature inflorescences arching to pendant
- Terminal gynecandrous spike above female spikes on short peduncles
- Terminal spike rarely unisexual
- Pale flattened perigynia wider and rounder than narrow scales
- Hanging gardens, springs, and streamsides in sandstone canyons

*Carex stevenii* – Steven’s sedge

## Group D

- Loosely to densely clumping from short slender rhizomes
- Inflorescences slender but stiffly upright
- Terminal gynecandrous spike above female spikes on short peduncles
- Terminal spike with female flowers above male flowers
- Pale ascending perigynia longer and wider than dark scales
- Moist meadows and forests, streambanks, partial shade

*Carex stipata* – Awlfruit sedge

## Group F

- Clumping habit
- Inflorescence paniculate, with many branches with multiple spikes
- All spikes similar, with male flowers at top
- Inflorescence “spikey” looking
- Perigynia widest at base with pithy tissue, long tapered, veined
- Wetland habitat, pond margins, wet meadows

*Carex subfusca* – Brown sedge

## Group H

- Clumping habit
- Inflorescence compact to elongate, with distinct spikes
- Lower spikes often a little more remote from the terminal cluster
- All spikes similar, with male flowers at base
- Perigynia small, veined, and plano-convex
- Wet to moist meadows, forests, streambanks

*Carex thurberi* – Thurber’s sedge

## Group C

- Densely to loosely clumping from stout rhizomes
- Male spikes above female, lower spikes on peduncles
- Long, thin, bottlebrush spikes densely packed with perigynia
- Perigynia inflated, spreading, with long beaks and small teeth
- Pistillate scales with short, serrated awns
- Marshes, seeps, springs, and streambanks

*Carex ultra* – Cochise sedge  
(*Carex spissa* var. *ultra*)

## Group C

- Densely clumping from stout rhizomes, stems to 1.5 meters tall
- Pale, thick, tough leaves with serrated edges
- Many, long, robust, overlapping female spikes
- Perigynia flattened, ascending, with short beaks and no teeth
- Pistillate scales narrower than perigynia, awn tipped
- Desert to woodland seeps, springs, and streambanks



*Carex utahensis* – Utah sedge

Group D

- Rhizomatous, forming loose patches or colonies
- Inflorescences stiffly upright
- Terminal spike above shorter female spikes on short peduncles
- Terminal spike with various sexual configurations
- Opaque inflated perigynia longer and wider than scales
- Streambanks, with sunny exposure in Pinyon Juniper zone



*Carex utriculata* – Southern beaked sedge

Group C

- Rhizomatous habit, forming large stands
- Leaves to 1 cm wide, thick bases with obvious crosswalls
- Male spikes above female spikes, lower spikes on peduncles
- Perigynia inflated, with long beaks with teeth
- Pistillate scales without awns
- Wet meadows, marshes, and ponds, usually in water



*Carex vallicola* – Valley sedge

Group F

- Clumping habit
- Elongate head of mixed ascending and spreading spikes
- All spikes similar, with male flowers on top
- Perigynia apex and beak usually smooth to very finely serrated
- Dry meadows, forest floors, less common than *C. occidentalis*



*Carex vesicaria* – Blister sedge

Group C

- Loosely clumping habit from stout, short rhizomes
- Leaves to .5 cm wide, reddish bases with few crosswalls
- Male spikes above female spikes, lower spikes on peduncles
- Perigynia inflated, with long beaks with moderate teeth
- Pistillate scales without awns
- Wet meadows and seasonal ponds, usually at edge or above water



*Carex vulpinoidea* – Fox sedge

Group F

- Clumping habit
- Inflorescence paniculate, with many branches with multiple spikes
- All spikes similar, with male flowers at top
- Inflorescence with many fine hairlike bracts
- Perigynia widest at base, abruptly tapered
- Wetland habitat, pond margins, wet meadows



***Carex wootonii*** – Wooton’s sedge

Group H

- Clumping habit
- Inflorescence compact to elongate, with distinct spikes
- All spikes similar, with male flowers at base
- Perigynia large, winged, not veined
- Perigynia green contrasting with brownish scales
- Mountain meadows, forest edge



***Carex sp. nov. A*** – Arizona sedge

(*Carex sp. nov. aff. klamathensis*, previously misidentified as *Carex meadii*)

Group C

- Rhizomatous habit, often mixed in with other graminoids
- Small, lax plants
- Male spike above female spikes, lower spikes on peduncles
- Perigynia ovoid and fleshy, green to whitish when mature
- Wet meadows, bogs, streambanks



***Carex sp. nov. B*** – Pinaleño sedge

(*Carex cf. microptera*, “Pinaleño”)

Group H

- Clumping habit
- Lower spikes usually separated from tighter cluster above
- Perigynia thin, flat, and winged
- Wings usually widest at middle, above achene
- Wet meadows and slopes, springs, and streambanks