

A Brief Overview of the Sixty Common or Uncommon Sedges (*Carex* spp.) of Hamilton/Halton/Peel According to the Brilliant and Undoubtedly Soon-to-be-Famous Organization Scheme of Carl Rothfels, Royal Botanist, Esq. with Additional Rare Species of Peel Commented Upon in the Appropriate Places, and annotations by [Natalie Iwanycki, botanist with the not so honkingly-huge inflated head!](#)

C. J. Rothfels, June 13, 2005

Updated by [N. Iwanycki, June 20 2009](#)

Short story – there are a lot of sedges. [True sedges or the genus *Carex* is the most species-rich in the sedge family \(Cyperaceae\). There are actually enough sedges to warrant naming the study of *Carex* species, or Carices – “caricology”.](#) Although there are many, many species, generally, they look very different from each other – much more different than red maple and sugar maple, for example, but we’re less used to looking at them so don’t remember the differences, or really know what to look for. Now there ARE certainly groups of species of sedge that are difficult, don’t get me wrong, just not as many as you might expect.

Long story – I’ve divided the common and uncommon sedges of our area into nine groups (while cheating a bit with a’s and b’s, etc). This may or many not help. We’ll see. These groups do not necessarily represent taxonomic groups (i.e. species in a given group may or may not be closely related to each other).

Summary List of CJR’s Groups:

[Group 1: Sedges of wet areas \(normally marshes\) with upright spikelets, which come off of the main stem...PAGE 2](#)

[Group 2: Sedges of wet places \(normally marshes\) with hanging \(spiky-looking\) spikelets...PAGE 3](#)

[Group 3: Sedges of forests with thin drooping spikelets...PAGE 3](#)

[Group 4: Sedges with honking-huge inflated perigynia...PAGE 4](#)

[Group 5: Spikyish hard-to-describe sedges where the spikelets mostly wrap around the main stem instead of having a stalk, and the perigynia are flat \(or flattish\)...PAGE 4](#)

[5a: Relatively unspiky spiky sedges, with really flat perigynia.](#)

[5b: Spiky spiky sedges with spaced out spikelets \(not overlapping; scattered like pearls on a necklace, well, more like stars on a necklace...\).](#)

[Group 6: Sedgy-sedges. These are the sedges you think of when you hear sedge...PAGE 6](#)

[6a: The messy sedges.](#)

[6b: Laxiflorae and friends with really broad leaves.](#)

6c: Things that look like Laxiflorae, but aren't, because their perigynia are more regular and barrel-shaped with nice strong fine veins.

6d: Things that look slightly less like Laxiflorae, but could still get confused.

Group 7: Dryland sedges with red bases and small stalkless spikelets at the top of the stems...PAGE 7

Group 8: Sedges with really thin leaves and really small spikelets with very few perigynia that are generally odd-looking...PAGE 8

Group 9: Misc. sedges that didn't fit elsewhere...PAGE 8

The Groups:

Group 1: Sedges of wet areas (normally marshes) with upright spikelets, which come off of the main stem.

We'll start off with an infamous group, the *C. aquatilis*/*C. stricta* group. These are thin-leaved tussock-forming sedges of fens and marsh edges with flat perigynia stacked into tight cigar-shaped spikelets. You need the basal parts of the plants to confirm members of this group: *C. stricta* has ladder-like fibres connecting the sheaths at the bottom of the plant, *C. aquatilis* does not. The easiest way to differentiate them, though, is by the leaf (a.k.a. "bract") that comes out from the base of the lowest spikelet. In *C. aquatilis* that leaf is substantially longer than the rest of the inflorescence, whereas, in *C. stricta*, it is about the same size. *C. stricta* is common, *C. aquatilis* is rare. We could, conceivably, get some others (*C. emoryi*, *C. lenticularis*, etc.), but let's not get out of control.

The others in this group have three-sided achenes (and thus more-or-less rounded perigynia). First there's *C. scabrata*, which doesn't fit that well into this group, but better than elsewhere. It grows in shaded wet areas usually, and has untidy small ascending/spreading spikelets **and very scabrous (rough) upper leaf surfaces**. The others have fatter spikelets: *C. pellita* has hairy perigynia in one or two squat spikelets, like the last digit of a finger. Long rhizomes connect the plants. *Carex lacustris* and *C. utriculata* both have wide leaves, long thick spikelets and form occasionally large patches in shallow water. *Carex lacustris*, in particular, is often sterile, so you have to search around to find a fertile plant. It has shiny solid-looking perigynia and wider, blueish-grey tinted leaves that are **"W" shaped in cross section**, whereas *C. utriculata* has more weak, mini-balloon-like perigynia, **thinner yellow-green tinted leaves that are "V" shaped in cross-section**. Finally, *C. retrorsa*, which has spreading-to-ascending spikelets. Its perigynia are smaller than *C. tuckermanii* (see Group 4), more backwards-pointing, and "untidy." I'd say that *C. tuckermanii* likes the edges of swamp pools, whereas *C. retrorsa* is more likely to be found along ditches, wet meadows, etc., but that might just be me. **I've certainly seen them growing together at the edge of the same pond.** *C. tuckermanii* has larger, more inflated perigynia and has a small notch in each achene, while *C. retrorsa* doesn't.

Provincially rare ones:

Carex torta – this species is in the *aquatilis/stricta* group. Like *stricta*, it has the leaf at the base of the lowest spikelet shorter than the inflorescence, but its perigynia are green and smooth.

Rare ones: (these ones are all in the second group, the ones with roundish perigynia)

Carex atherodes – can grow in fairly deep water, and can form large clones. It is very similar to *Carex lacustris*, but its perigynia are even larger, and its leaves and leaf sheaths are slightly hairy.

Carex buxbaumii – very pretty. It has stubby little spikelets, like *Carex pellita*, but usually they're quite closely packed together, towards the end of the stem. And they have dark scales that contrast nicely with the light perigynia.

Carex lasiocarpa – like *Carex pellita*, but the leaves are really thin.

Carex lurida – this species belongs in between Group 1 and Group 2, in that its spikelets are pretty erect, but sometimes are spreading, or almost hanging. Like the Group 2 sedges, it has awns on its scales, so looks spiky. To conclusively separate it from *Carex retrorsa*, *Carex comosa* et al., look at the achenes – they're "rough-papillose" in *C. lurida*, smooth in the others.

Carex vesicaria – this is the slightly-smaller, clumped version of its big rhizomatous cousin (*C. utriculata*). It also looks a little similar to *C. retrorsa* and *C. tuckermanii*

Group 2: Sedges of wet places (normally marshes) with hanging (spiky-looking) spikelets.

Much easier than Group 1. There are three main sedges that fall into this category: *C. pseudo-cyperus* with its often backward pointing perigynia and straight teeth on the beaks of the perigynia; *C. comosa* which looks similar but has huge spreading teeth on the beaks (feels like velcro – you can stick spikelets together); and *C. hystericina* which has shorter, droopier spikelets without cool teeth (perigynia also rounder, not backward-pointing). It's really common. The final sedge put in this group differs from the others in that its droopy spikelets look spiky not because they have pointed beaks to the perigynia, but because they have pointed tips ("awns") to the scales (thus it's the scales, not the perigynia, that are spiky). It's *C. crinita*.

Rare ones: there are also two similar looking species that are closest to Group 2, although maybe they should be in their own group. Both have short inflorescences that droop on thin stalks in a very elegant way, and are found in bogs and fens.

Carex limosa – fen species. Large brown scales cover the perigynia, and are unawned.

Carex magellanica – bog species, often under conifers. Scales do not cover the perigynia, and they have awns (often called *Carex paupercula*).

Carex sprengelii – a real weirdo of hardwood forests. The achenes have a round little body, then a super long thin beak. The spikelets droop, on long thin stalks, but are wide, like *Carex castanea*. [The long, thin beaks give the spikelets a messy curly look.](#)

Group 3: Sedges of forests with thin drooping spikelets.

Very little habitat overlap with Group 2, and these guys have thinner unspiky spikelets. *Carex gracillima*, which is common in wet meadows, edges, etc., has blunt-tipped perigynia, whereas *C. arctata* has beaks and is more confined to shaded forest habitats.

Rare ones:

Carex castanea – this species is related to those of Group 3, but its spikelets are fatter, so it looks more like *Carex limosa* or *Carex magellanica*.

Carex formosa – ah, the “Handsome Sedge.” And very handsome it is. In moist meadows, forests, etc., where it favours calcium rich soils, this species looks like a sleeker, glossier version of *Carex arctata*, with slightly wider inflorescences.

Carex prasina – this species looks a lot like *Carex arctata*, but has a very different habitat and habit. Instead of growing in woodlands, it grows along shaded streams, in seepage areas, etc., where it forms large clumps of tall leaves of a very particular shade of bluey green. Once you learn to recognize it, the leaves are enough for an ID.

Group 4: Sedges with honking-huge inflated perigynia – wet or mesic habitats.

There are two species with mace-like inflorescences – *C. grayi* which actually does have a tight spherical mace-like inflorescence, the kind that leprechaun knights might clobber each other with, and *C. intumescens* which looks like an incomplete *C. grayi*. It is smaller, and its inflorescence is less complete, less spherical. It's also much more common. I've generally seen *C. intumescens* in forest habitats that are slightly more on the moist side. Then there's *C. lupulina*, which is like the above, but with the perigynia stacked into a cylinder, pointing upwards, instead of a ball. *C. tuckermanii* could be confused with *C. lupulina* (cylindric spikelets) but the spikelets are rather droopy (see the comments in Group 1).

Group 5: Spikyish hard-to-describe sedges where the spikelets mostly wrap around the main stem instead of having a stalk, and the perigynia are flat (or flattish). Now we're approaching the heart of sedge-dom. I'm going to split this group into sub-groups.

5a: Relatively unspiky spiky sedges, with really flat, winged perigynia – a.k.a the Ovales tribe. The perigynia tend to be arranged more neatly and tightly packed against each other, so the effect is of less spikiness. These are the Ovales sedges, and basically you have to key them out, carefully, to be sure of any identifications. We have three groups of common ones: *Carex tenera* with small spikelets that are quite separated from each other (not overlapping), round, is really thin-leaved, and likes forests; *Carex tribuloides* that grows in wet areas and has larger more pointy spikelets, which could be crowded (i.e. overlapping) or not; and *Carex bebbii*/*C. cristatella* both like wet, open habitats, not too soggy, and have tidy round spikelets densely packed onto the tip of the stem. In *C. cristatella*, there are many stems without inflorescences (completely vegetative), and there's a loose leaf sheath where the leaves leave the stem, that flares out at the top (the sheaths have winged margins that merge with the edges and midvein of the leaf). *Carex bebbii* lacks these features. *C. cristatella*

seems to have much rounder spikelets compared to *C. bebbii*, and the perigynia tend to stay greener (in colour) for longer, compared to *C. bebbii* whose perigynia turn rusty brown when ripe.

Rare ones: there are loads of Ovales sedges, and they are tricky. The comments below are just a guide – you'll need to collect these to confirm them.

Carex crawfordii – small, with really pointy spikelets crowded together at the end of the stem. More crowded than *C. scoparia* and *C. tribuloides* (the other pointy-spikelet species). Likes dry habits.

Carex brevior – big, tall plant, with big round spikelets of big round flat winged perigynia. Kinda like *Carex molesta*, except that it grows in acid sandy, open areas. *C. merritt-fernaldii* looks quite similar but is generally thought to be restricted to the Canadian Shield.

Carex molesta – big, tall plant, with big round spikelets of big round flat winged perigynia. Kinda like *Carex brevior* & *C. merritt-fernaldii*, expect that it grows in calcareous fields, etc., usually where it's a little damp.

Carex projecta – shares the sheath and vegetative shoot characters with *C. cristatella* (as does *C. tribuloides*). It is, in many ways, intermediate between those two (perigynia not as round or tightly clustered as *C. cristatella*, and not as pointy and loosely scattered as *C. tribuloides*). Its wide leaves differentiate it from *C. tenera*, *C. normalis*, etc.

Carex scoparia – longish point perigynia, usually in sandy acidic habitats.

Carex sychnocephala – this is a freaky little dude, with super narrow perigynia, in a dense head, and a long bract (i.e. “leaf”) at the base of the inflorescence.

5b: Spiky spiky sedges with spaced out spikelets (not overlapping; scattered like pearls on a necklace, well, more like stars on a necklace...). First, there's *C. interior*, which grows in shaded wet often coniferous places, almost always on organic soil. The male flowers clasp the base of each spikelet (look for empty scales). Then there are the two hardwood forest ones – *C. rosea* and *C. radiata*. They look very similar (little rose-like spikelets strung along the stem, with male flowers at tops of spikelets), with *C. radiata* being a smaller more delicate version of *C. rosea*. Remember that some floras refer to *Carex radiata* as *C. rosea*, and *C. rosea* as *C. convoluta*!

Rare ones:

Carex echinata – a larger version of *Carex interior*.

5c: Spiky spiky sedges with overlapping spikelets. Arg. This group is annoying. I'll start with the two rich forest species that have the spikelets arranged into a very tight “head,” making the whole thing look like a giant pin. They are *C. cephalophora* and *C. cephaloidea*. Easy to remember because “ceph” means head, as in encephalitis, or cephalopod. *Carex cephaloidea* is a larger version of *C. cephalophora*; *Carex cephalophora* also usually has little bristly bracts (“leaves”) sticking out of the inflorescence between spikelets,

which *C. cephaloidea* usually lacks. *C. cephaloidea* has loose sheaths and isn't as common as *C. cephalophora*. And then there's *C. sparganioides*, which looks like *C. rosea* (5b) on steroids (it's a tall, robust sedge with wide leaves!), except that the spikelets start to overlap each other, especially towards the tip of the inflorescence. It likes moistish places, path edges, etc. *Carex spicata*, the only non-native sedge that we'll discuss today, is locally common in old moist fields, etc. It has bigger perigynia, in over-lapping rose-like spikelets, its perigynia are green-gold at maturity, and its reddish or purplish at the base. Then *C. stipata*, *C. laevivaginata*, and *C. alopecoidea* both have larger, more branched, inflorescences and all like wet ground. *Carex stipata/ laevivaginata/ alopecoidea* (you'll have to use a key to tell them apart) have stout easily compressed stems. You can crush them, like triangular gnats, between your fingers! *Carex stipata* has crinkled sheaths, while the two others don't. *C. alopecoidea* has perigynia that are tear-dropped shaped, while *C. stricta* and *C. laevivaginata* have perigynia that are slightly more triangular in shape, with gradually tapering beaks. In contrast, *Carex vulpinoidea* has a tough wiry stem, smaller spikelets and thin leaves. It's dirt common, in ditches, wet meadows, etc., and is easy recognized by the several wispy bracts coming out from the inflorescence which give it a fury appearance. Then there's *Carex diandra*, which I didn't know what to do with. It looks like the above species, but grows in dense clumps of thin stems, usually in standing water of marshes, and has smaller less-branched inflorescences (and smaller perigynia than the "ceph" ones).

Rare ones:

Carex muhlenbergii – closely related to *Carex spicata*, this is a native species, with denser heads and broader perigynia, and no red or purple tingeing. It also likes open habitat, generally on sandier soil in higher quality meadows. *Carex prairea* – this species is close to *Carex diandra*, but less "spiky" if that means anything, and with copper tinting to the leaf sheaths and a more spaced-out inflorescence. It is found in fens.

Group 6: Sedgy-sedges. These are the sedges you think of when you hear sedge. They are impossible to describe, other than that they're not spiky, they have generally rounded or barrel-shaped perigynia. They grow in meadows or forests, not in marshes or really wet areas. The perigynia are in clear spikelets that are usually stalked (rather than wrapped around the stem as in Group 5).

6a: The messy sedges.

We might as well get them over with. The Laxiflorae and friends – second only to Ovales for evilness. They have slightly lopsided perigynia in untidy stalked

spikelets. Grow in forests and moist edges. *Carex laxiculmis* and *C. digitalis* both have really triangular perigynia, and their lower spikelets are on long droopy thin stalks. *Carex digitalis*, which grows in oak uplands, also has male flowers (little scales) at the base of the spikelets. *Carex laxiflora* and *Carex leptonevia* theoretically don't have droopy lower spikelets. In *C. laxiflora*, the perigynia are spaced out in the spikelet, such that they hardly overlap. And *Carex leptonevia* has one strong vein on each face of the perigynia, rather than a bunch of strong veins (that's a simplified version – you need to collect these if you want to be sure, [and a dissecting microscope is helpful, if not essential to see these differences](#)). Then there's *Carex blanda* – it usually has slightly broader leaves, and densely packed spikelets that are really close to each other, so they are forced to diverge from the end of the stem at a weird angle.

Provincially rare ones:

Carex gracilescens – blooms super early, and looks like the other Laxiflorae, except that the bases are reddish or purplish. It has closely-packed perigynia. I've only ever seen this once, and I thought it was a completely different species (*C. tetanica* – related to *Carex woodii*), so take that as you will.

6b: Laxiflorae and friends with really broad leaves.

These guys are pretty distinct. They grow in uplands and have wide ribbon-like leaves. *Carex plantaginea* has red bases to the plant, and a red-and-green barber pole for a fertile stalk. Very pretty. *Carex platyphylla* has whitey-green leaves ([glaucous](#)), white/brown bases, and blooms early. I can't seem to find *Carex albursina*, even though it should be common. It looks sort of mid-way between *Carex platyphylla* and *Carex blanda* (which can get broadish leaves). It lacks the glaucous leaves of *C. platyphylla*. Be aware that the leaves of *C. blanda* can get pretty wide at times. The definitive feature is that the scales on the perigynia are blunt tipped instead of having the awn extend into a little pointy spike. [Once you see it, it's obvious.](#)

6c: Things that look like Laxiflorae, but aren't, because their perigynia are more regular and barrel-shaped with nice strong fine veins.

First there's *Carex grisea*, which is a weak-stemmed sprawling plant of floodplains and other moist areas. And then a slightly smaller, slightly more-sparsely-flowered version of forests, *Carex hitchcockiana*. [You can't mis-ID C. hitchcockiana as it clearly has hairy ventral sheaths, but the rest of the plant is hairless.](#) People working along the talus forest of the escarpment should look, also, for the very rare *C. oligocarpa*, which is a smaller version of *C. hitchcockiana*, but has red bases instead of brown.

Provincially rare ones:

Carex conoidea – usually on acidic soil, on lake edges, wet meadows, etc. It has more perigynia, and they're smaller, than *Carex grisea*.

6d: Things that look slightly less like Laxiflorae, but could still get confused.

Carex woodii grows in big patches of thin light leaves in rich forests; you have to really look to find a fertile one. The spikelets are sparsely flowered, and the plants have strong rhizomes (unlike the previous species in Group 6). *Carex hirtifolia*, as its name suggests, has hairy leaves. Not as hairy as the wood-rushes (*Luzula*), but still hairy. It's also a woodland species. Then there's two wet meadow species. *Carex granularis* is very common, [mainly in open areas or woodland edges](#), and has tighter, tidier spikelets than the Laxiflorae do. And *Carex aurea* is a small sedge with really plump sparse perigynia that almost look juicy (they actually have more of a nutty flavour...) [and they are golden in colour](#).

Rare ones:

Carex vaginata – this species is related to *C. woodii* (has the same few-flowered spikelets on thin stalks), but grows in calcareous swamps.

Carex pallescens – this species, with chubby little perigynia in neat cylindrical spikelets, is the only member of its group covered here. It probably looks most like *Carex granularis*, but its spikelets are shorter and fatter, among other things.

Group 7: Dryland sedges with red bases and small stalkless spikelets at the top of the stems.

Carex pennsylvanica is probably the most common dry woodland sedge we have, often forming large patches of often sterile plants. It's got long strong rhizomes, [and it flowers early](#). Then there are its two non-rhizomatous look-alikes: the smaller *Carex peckii* with its thin stem overtopping the narrow leaves, and the broader-leaved chunkier *C. communis*. [All three of these species have round, short-beaked and hairy perigynia](#). Also closely related to these guys are a group of very cool little sedges that have all or most of their spikelets nestled down at the base of the leaves where they are almost impossible to see. You have to get down on your hands and knees to realize that it's not just a patch of leaves. Two species, closely related, distinguished mainly by the length of the beak of the perigynia: *Carex umbellata* and *C. tonsa* (which itself has two varieties).

Group 8: Sedges with really thin leaves and really small spikelets with very few perigynia that are generally odd-looking.

Carex eburnea is a very distinctive sedge of dry areas, coniferous areas, cliff-edges, etc. Very thin leaves in dense patches. Small black perigynia in teeny spikelets. *Carex leptalea* is hard to describe, but unique. It has a nice terminal spikelet with perigynia that look like small grains of rice. It, and the next two species, grows in moist/swampy areas, often shady, often boggy ([with a decent organic layer in the soil](#)). I like to call *Carex trisperma* the "trapeze sedge," since

there are normally three spikelets spaced out at the end of the stem, and the last two hang out like trapeze-ers. The first spikelet has a long thin leaf-like bract that accentuates the trapeze look. There are two varieties – if you find a very thin-leaved version of *Carex trisperma* in a sphagnum bog, collect it! It is probably *C. trisperma* var. *billingsii*, which may soon be recognized as a distinct species. *Carex disperma* grows in similar habitats, often shaded, but has fat round perigynia in pairs. Very cute.

Group 9: Misc. sedges that didn't fit elsewhere.

Carex flava: wet meadows and fen edges, etc. Spiky yellow stalkless perigynia. *Carex viridula* – while also related to *Carex flava*, this species is more distinct – it is small, green, and spiky. Rather cute, really. Look for it in gravel pits, and look for the sterile hybrid between it and *Carex flava* (called *Carex Xsubviridula* wherever both parents occur).

Carex pedunculata: very common very overlooked sedge of woodlands. It blooms early (May), so most people miss it. But, blessedly, it is easily recognized even when sterile. The bluey-green leaves are ribbon-like, untapering, about 1/2cm across. And they always die back at the tips. So look for untapering leaves with dead tips. *It is reddish/purple at the base, and the red colour seems to end abruptly, at right angles to the stem (if you look closely you will see it is the lowest ventral sheath that is actually red).*

Carex deweyana: also fairly common in woodlands. This is a scruffy flimsy silvery-looking sedge (the spikelets look silvery *as the scales have a nice sheen to them*). The stalk droops, like it's had a hard day. *The perigynia of C. deweyana and C. bromoides are really long and narrow.*

Carex bromoides: related to *C. deweyana*, but with very different habitats. This species forms big tussocks in swampy pools. Can be recognized pretty much on habit alone (tussocks of thin leaves in a swamp); *the leaves tend to flop and sprawl out rather than ascend.*

Carex canescens: this species likes boggy areas. It has match-head sized spikelets of smooth perigynia scattered along the end of the stem, and a strong bluey cast to the leaves.

Rare ones:

Carex brunnescens – this is the smaller cousin of *Carex canescens*. It has few perigynia per spikelet, lacks the blue-green cast, and grows in a variety of non-boggy habitats (*C. canescens* is more restricted). *On first glance, it looks like Carex radiata/rosea but the mature perigynia are brown.*

Carex chordorrhiza – looks like nothing else – if you're lucky enough to trip over the long trailing stems in a cool bog somewhere, then you've found this rare species. It has a messy cluster of perigynia at the end of the stem, but is easily recognized vegetatively.

Carex cryptolepis – very close to *Carex flava*, this species is a little smaller, and has yellow-green scales on the perigynia, instead of brown ones.

Carex siccata – a species of dry fields, tallgrass remnants, etc. The spikelets are messy, with big scales, and clustered at the top of the stem.

Carex pauciflora – this is another weirdo – very small, with long narrow perigynia stuck to the end of the stem like some haphazard punk haircut. Or a really bad comb. Confined to boggy habitats.

And that's that. The biggest hurdle is getting used to the names, and associating the names with the plants... The organisms, alive, in their habitats, are much more distinctive than either my rambling descriptions, or the squished versions that you can find in herbaria. Of course, this is not an exhaustive list of the sedges of our area – only the more common ones, so if something seems different, it probably is! As you get familiar with the common species, you'll find that you're able to start "filling in" the rarer ones; you'll have a context for them that you didn't have before. Enjoy your Carices!!!!