Ranunculaceae (Buttercup Family) Key Key to species in Newfoundland and Labrador

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1a.	Plants aquatic or amphibious, with submergent leaves, very dissected (capillary) or deeply palmately-lobed; sepals 4–5, flowers with white or yellow petals.		
1b.	Plan and	ts terrestrial or amphibious; terrestrial plants with simple or compound leaves, or amphibious wetland plants with simple unlobed or lobed leaves; sepals present or absent; flowers with a e, yellow, or purple perianth.	
	2a.	Plants amphibious, leaves submergent or emergent, long-petiolate; submersed leaves flaccid (not retaining their shape when removed from water), 1–9 cm broad, palmately divided into 3 flat segments with several linear subdivisions; emergent leaves larger and firmer, with broader, palmately 3–5-lobed blades; petals 4–14 (usually 5), yellow; achenes glabrous. **Ranunculus gmelinii** (Gmelin's water crowfoot)	
	2b.	Plants aquatic, leaves all submergent; leaf blades all very dissected (leaves capillary), dichotomously-branched 3–5 times into 60–150 filiform segments; petals 5, white with yellow claws; achenes usually pubescent.	
3a.	150 less	llary leaves flaccid, 2.5–7 cm long, fan-shaped (flabellate) to circular (orbicular), with up to ultimate segments; upper stems, leaves, and stipules glabrous or finely hairy; petals usually than 5 mm long, margins not usually overlapping during flowering (anthesis); beak of achene nt or minute (less than 0.1 mm long).	
3b.	Capillary leaves firm to somewhat rigid, 1–2.5 cm long, broadly fan-shaped (flabellate) to nearly circular, with 60–80 ultimate segments; upper stems, leaves, and stipules finely hairy; petals 7–10 mm long, margins overlapping during flowering (anthesis); beak of achene 0.2–0.5 mm long Ranunculus subrigidus (stiff water-crowfoot)		
	4a.	Leaves bipinnately compound, or ternately compound with 3 bipinnate—tripinnate segments; leaflets lanceolate to ovate with serrate margins, or leaflets oblong, obovate, or flabellate, unlobed or lobed, margins entire.	
	4b.	Leaves simple, unlobed or lobed, palmately divided, trifoliolate, or palmately compound; leaf or leaflet margins entire, crenate, dentate, serrate, lobed, or deeply incised	
5a.	Plants with large compound leaves (ternately compound), with each of the 3 divisions bipinnatel compound; leaflets lanceolate to ovate, 3–9 cm long; margins coarsely serrate; flowers several, i an erect, terminal raceme; pedicels are slender, green to purplish-brown, and 6–15 mm long; sepals 4–5, petaloid and dropping soon after the flowers open (caducous); petals 4–10, white, spatulate, 2.5–4 mm long; pistil 1, fruits are fleshy, ovoid, red or white berries, 0.5–1.1 cm long.		
5b.	Plan unlo purp	ts with small or large bipinnately compound leaves; leaflets oblong, obovate, or flabellate, bed or 2–7 lobed, margins entire; flowers nodding or erect, several to many; sepals 4–5, le or white; petals 5 and purple, or petals lacking; pistils 1–several; fruit a cluster of follicles thenes	

	6a. Plants 3–7 dm tall, basal leaves 10–30 cm long, leaflets entire or 2–7-lobed; flowers nodding; sepals 5, purple; petals 5, purple, tapering upward into a tubular spur, 1.4–2.2 cm long, curved inward at the tip; stamens numerous; pistils 5; fruit a cluster of oblong follicles each 1.5–2.5 cm long and terminating in a slender beak.
	6b. Plants 0.5–30 dm tall, basal leaves pinnately or bipinnately compound, 2–50+ cm long; leaflets entire or 3–5-lobed; flowers nodding or erect; sepals 4–5, inconspicuous, white to purplish; petals lacking; stamens 8–15; pistils 2 to several; fruit a cluster of longitudinally ridged achenes.
7a.	Plants 0.5–2 dm tall; basal leaves bipinnately compound, leaflets fan-shaped (flabellate), to 1 cm long, 3–5-lobed, apices rounded; cauline leaves absent; flowers bisexual, few in a raceme; achenes 2–6, ovoid, 2–3.5 mm long, beakless
7b.	Plants 5–30 dm tall; basal and cauline leaves bipinnately or ternately compound; leaflets oblong to obovate, 1–7 cm long, unlobed or 2–3-lobed (seldom 4-lobed); cauline leaves present, sessile; flowers mostly unisexual, numerous in a panicle; achenes several, ellipsoid, 3–5 mm long, with a short, straight to curved beak, < 1–2.5 mm long
	8a. Plants 1–8 dm tall, with basal and cauline leaves all simple, broad, and unlobed, about 2–12 cm long by 1–19 cm wide; leaf blades are ovate, cordate, reniform, or nearly orbicular; leaf bases are cordate or divergent; margins are entire to dentate; flowers have a yellow
	perianth of 3–12 petaloid sepals or petals, and 10 to many stamens
9a.	Plants with basal leaves and erect flowering stems 1–8 dm tall; leaves are simple and unlobed, 5–12.5 cm long by 1–19 cm wide; leaf blades are ovate, cordate, or reniform; bases are divergent to deeply cordate, apices are rounded, and margins are entire to dentate; flowers have 5–12 yellow sepals, 1–2.5 cm long, 0 petals, 10–40 stamens, and a star-like aggregate cluster of 5–15 follicles (follicetum); occurring mainly in wNfld., the Avalon and Burin Peninsulas, and seLabrador
9a.	Plants with basal leaves and erect flowering stems 1–3 dm tall; leaves are simple and unlobed, 1.8–3.7 cm long by 2–4 cm wide; leaf blades are ovate, cordate, or deltate, bases are divergent, cordate, or sagittate; apices are blunt (obtuse) or rounded, margins are entire or broadly crenate; flowers have 3 ovate sepals, 4–9 mm long; petals usually 8–9 (occas. to 12), yellow, 1–1.5 cm long and oblanceolate to obovate; stamens many; achenes are beakless and somewhat hairy at the tip introduced in eNfld

	10a.	Small amphibious or wetland plants of shallow water, wet mud flats, shorelines, and pools in bogs or tundra; leaf simple, blades ascending or lying flat on a wet substrate, unlobed or 2–5-lobed, with tapering to cordate leaf bases; fruit a small cluster of achenes (achenetum).
	10b.	
11a. 11b.	blade lance plant with 5–11 Stem	s usually creeping, some with erect flowering stems; leaves simple, basal or cauline; leaf es ascending, with narrow, tapering (attenuate or cuneate) leaf bases; blades are oblong, olate, or oblanceolate unlobed or 2–3-lobed, and usually less than 2 cm wide (occasional s of <i>Ranunculus flammula</i> var. <i>flammula</i> may have erect flowering shoots and basal leaves long petioles and wider floating ovate blades); sepals 3–5, green, yellow, or purple; petals yellow, white, or pinkish
		r or mud surface, leaf blades shallowly 3–5-lobed with cordate leaf bases; plants of wetland ats in insular Newfoundland and/or Labrador
	12a. 12b.	Leaf blades are undivided and narrowly elliptic, oblong, or oblanceolate, 1.5–3.6 cm long by up to 2 cm wide, or 2–3-lobed, with narrow lanceolate lobes in the upper half of the blade, margins are entire; flowers have 3 purple sepals, 6–10 mm long, and 7–11 white to pinkish petals, 8–13 mm long; plants of nLabrador
13a.	Leaf blades are linear to filiform, < 1–3 cm long by up to 1 mm wide; sepals are 1–2 mm long, petals are 2.5–5 mm long; plants of Nfld. and extending north to Saglek, northern-most-Labrador. **Ranunculus flammula** var. reptans** (creeping spearwort)	
13b.		olades are linear to ovate, < 1–4.5 cm long by up to 1 cm wide, sepals are 2–4 mm long, s are 3–7 mm long; plants of insular Nfld
	14a. 14b.	Leaf blades are ovate, lanceolate, or oblanceolate, 1.8–4.5 cm long by up to 1 cm wide, margins are entire or finely serrate; sepals are 3–4 mm long; petals are usually 5–7 mm long

15a.	a. Stems to 5 dm long, cauline leaves are usually opposite; leaf blades are reniform or cordate a 3–7-lobed, with blunt to rounded lobes; bases are divergent to cordate; flowers have 5 ellipt petals, white with yellow claws, 2–4 mm long, and 4–12 stamens; introduced in stream marg St. John's, eNfld		
15b.	Stems 1–4 dm long, flowering stems erect, to 3 dm tall; cauline leaves alternate; leaf blades are ovate to flabellate, and 3–7-lobed; flowers have 3–5 sepals, 3–5 yellow petals, and 8–30 stamens; plants of fresh water and brackish habitats in Nfld. and Lab		
	16a.	Leaves 0.6–3.8 cm long, blades ovate to flabellate, shallowly 3–7-lobed (usually 3-lobed in our area); bases are truncate to slightly cordate; flowers have 5 sepals, 2.5–6 mm long, 5 petals, 2–7 mm long, and 20–30 stamens; fruiting heads are ovoid to cylindrical, 6–12 mm long. Plants from throughout Newfoundland, north to central Labrador	
	16b.	Leaves 0.3–1.2 cm long, blades ovate to flabellate, deeply 3-lobed, with oblanceolate to obovate lobes; bases are widely divergent to truncate; flowers have 3–4 sepals, 2–4 mm long, 3–5 petals, 2–5 mm long, and 8–12 stamens; fruiting heads are spherical, 3–5 mm long. Plants mainly of Labrador, extending south to nwNfld.	
17a.	caulir lobes	arctic-alpine buttercups (<i>Ranunculus</i>) with erect stems to 2 dm tall; leaves mostly basal, ne leaves absent or 1–3; leaf blades simple, ovate to reniform or palmately divided into 3–5; sepals 5, green or yellowish; petals 5, yellow or white; fruit a cluster of achenes netum); plants of northern and northwestern Labrador, often near snowbeds	
17b.	Plants basal 3–9, o	of wetland or terrestrial habitats; stems erect, more than 2 dm tall, or creeping; leaves and often also cauline, leaf blades simple and deeply divided or palmately compound; sepals often petaloid, of various colours, petals absent or 2–8; fruit a cluster of achenes netum) or a cluster of follicles (follicetum).	
	18a.	Dwarf plants to 3.5 cm tall; all leaves are palmately 3–5-lobed with rounded lobes; leaf blades are up to 1 cm long by up to 1.3 cm wide; sepals are 2–4 mm long, the lower surface is pubescent with colourless hairs; petals are 1.5–3 mm long	
	18b.	Plants 5–20 cm tall; leaves ovate to reniform and unlobed, or palmately 3–5-lobed; leaf blades are 0.1–3 cm long and wide; sepals are 4–11 mm long, the lower surface is pubescent with colourless or rusty-brown hairs; petals are 4–12 mm long	
19a.	lobes lower	leaves are reniform with crenate margins or deeply palmately 3–5-lobed, the oblanceolate are often further 2–3-lobed near the apex; sepals are 4–6 mm long by 2–3 mm wide, the surface is pubescent with colourless hairs; petals are 4–5 mm long	
19b.	Basal long b	leaves are palmately 3–5-lobed, the lobe margins are entire or crenate; sepals are 6–11 mm by 3–6 mm wide, the lower surface is densely pubescent with rusty-brown hairs; petals are mm long	

	20a.	fruiting heads are 7–14 mm long; plants usually on acidic substrates
	20b.	•
21a.	a. Plants to 15 dm tall; basal and cauline leaf blades are 5–10 cm broad, deeply palmately divided into 3–7 lobes, further divided 1–2 times into narrow linear-lanceolate segments; flowers several, in racemes to 28 cm tall, with irregular (bilateral) symmetry, and 5 purple or blue-violet petaloid sepals, including a hood-shaped upper sepal, 2 lateral sepals, and 2 lower sepals. The 2 narrow, erect petals are highly-modified, each ending in an S-shaped (sigmoid) nectary; petals are attached behind the numerous stamens and enclosed within the hooded sepals. The fruit is a small clusters of 2–3 ellipsoid follicles	
21b.	flowe	s to 13 dm tall; leaf blades are palmately divided or compound; flowers are solitary or in fewered clusters; flowers have regular symmetry, 4–8 sepals (green or petaloid), 4–8 petals, and pany stamens; the fruits are clusters of achenes or follicles
	22a.	Plants short, less than 1 dm tall, glabrous throughout; basal leaves arising from a slender rhizome, with 3 leaflets (trifoliolate) or blades deeply divided into 3 obovate or flabellate segments and appearing trifoliolate; cauline leaves or leaf-like (foliaceous) involucral bracts absent; the flowering stalk (scape) is 3–17 cm tall and naked; showy perianth parts are 4–8 (usually 6–7), and white or yellow.
	22b.	Plants tall or short, less than 1 to 13 dm tall, glabrous or pubescent; rhizomes present or lacking; basal leaves deeply divided into 3–9 segments; flowering stalks bear either cauline leaves or whorls of 2–3 involucral bracts; showy perianth parts 4–9, of various colours, most often white or yellow.
23a.	Basal leaves with 3 leaflets (trifoliolate), arising from slender (filiform), golden-yellow rhizomes; leaflets are obovate, very shiny (lustrous) on the upper surface; each leaflet has 3–5 lobes with broad cuspidate serrations on the margins; flowers have 4–8 petaloid sepals, 4–11 mm long, white or cream-coloured and tinged with purple on the lower surface; the 4–7 inconspicuous yellow-orange petals are modified into narrow club-shaped (clavate) nectaries, shorter than the 30–60 stamens; the fruit is an aggregate of 3–9 ellipsoid follicles, 4–7 mm long, with a beak 2–4 mm long	
23b.		

	24a. 24b.	Flowering stems bear 1–2 whorls of 2–3 leaf-like (foliaceous) involucral bracts a few centimetres below the flowers, involucral bracts are smaller, but similar in shape to the basal leaves; flowers have 4–9 (usually 5–6) petaloid sepals, white, yellow, or variously coloured; petals are absent	
25a.	acher	leaves are palmately-divided into 3–7 lobes; flower have yellow or white petaloid sepals; nes are smooth (glabrous), flat, in spherical or broad clusters, about 1–4 cm wide	
25b.	(Anemonastrum)		
	26a.	Plants short, 0.5–1 dm tall; basal leaf 1, reniform to nearly orbicular, 1.5–3 cm long, and deeply 3–5-lobed; involucral bracts 2, opposite, sessile, similar in shape to the basal leaf blades, in a single whorl situated near the middle of the stem; flowers are solitary, with 6–8 yellow petaloid sepals; the fruit is a broad cluster of achenes, 3–4 mm long, not winged, with a long recurved beak 4–6 mm long, minutely hooked at the tip; plants of snowbeds, alpine meadows, and thickets; native to far-northern Labrador. **Anemonastrum richardsonii* (Richardson's anemone)	
	26b.	Plants taller, 2–8 dm tall; basal leaves 1–5, orbicular in general outline, 4–10 cm long by 5–15 cm wide, deeply divided into 5–7 oblanceolate lobes, each sharply toothed or incised near the apex; involucral bracts deeply 3-lobed, sessile, similar in shape to the basal leaf blades, occurring in 2 whorls situated near the middle of the stem, the lower whorl with 3 bracts, the upper whorl with 2 bracts; flowers solitary or 2–3, usually with 5 white petaloid sepals; the fruit is a cluster of broadly-winged achenes, 3–6 mm long, with a straight, narrow beak 2–6 mm long; plants of streambanks, pond margins, wet fens, wet meadows, and thickets; native to western Nfld	
27a.	Plants short, 0.5–3.5 dm tall; leaf blades are 1.4–1.8 cm long and deeply divided into 3 dark green, glossy, obovate segments; lateral leaflets sometimes deeply divided to below the middle; margins are crenate at the apex; the 2–3 involucral bracts are sessile, similar in shape to the basal leaves, and situated in a single whorl below or near the middle of the stem; flowers are solitary, with 4–7 white petaloid sepals, tinged with blue on the lower surface; fruiting heads are spherical, with slender dark red beaks that extend beyond the woolly base of the achenes; plants of limestone barrens, snowbeds, alpine meadows, and thickets, preferring calcareous soil; native to sw/w/nw/c Nfld. and nw/nLabrador		
27b.	furthe solita	s larger, 3–13 cm tall; basal leaves are deeply palmately divided into 3–5 segments that are er divided or incised; involucral bracts are borne on short petioles, in 1–2 whorls; flowers ry or 2–9, usually with 5 petaloid sepals; fruiting heads are usually ovoid to cylindrical; plants sic or calcareous substrates in Nfld	

28a. Plants 3–7 dm tall, very hairy; basal leaves have 3–5 segments, twice divided into segments arrow lobes with entire margins; 3–5 involucral bracts occur in 2 whorls. Flowers creamy-white to pink petaloid sepals; fruiting heads are spherical to ovoid, 0.8–1.8 by 0.8-1.1 cm wide; achenes have short, slender beaks; plants of rocky slopes, cliffs scree slopes; native to w/nw/ne/cNfld	have cm long , and
28b. Plants 3–13 dm tall, sparsely hairy; basal leaves have 3–5 segments sharply incised the apex into 2–3 lobes, with coarsely serrate margins; the cuneate base has concar straight sides and entire margins; 2–3 involucral bracts occur in each of 1–2 whorls; have white petaloid sepals; fruiting heads are ovoid to cylindrical, 1.5–2 cm long by cm wide; achenes are woolly at the base, with prominent glabrous beaks 1–1.5 mm plants of streambanks and adjacent rocky cliffs or ledges; native to western Nfld **Anemone virginiana** var. alba** (riverbank a	towards ve to flowers 0.7-1.1 long;
29a. Basal leaves simple and unlobed, with crenate margins, or basal leaves 3–9-lobed; cauline sessile, deeply 3–5-lobed, with oblanceolate to linear segments.	
29b. Basal and lower- to mid-stem cauline leaves ternately compound, with 3 leaflets, the term all leaflets stalked; erect shoots may sometime have 3–5-lobed lower basal leaves	ninal or
30a. Sepals 4–9 mm long, shorter than the petals, which are 5–17 mm long	
Plants to 10 dm tall; basal leaves pentagonal to orbicular in outline, deeply palmately divided 5 segments, each further divided 1–2 times; lower cauline leaves similar to basal leaves, be narrower lobes; upper cauline leaves deeply divided into 3 linear lobes; petals 5 (to many garden cultivars); stamens numerous; fruiting heads globose, 5–7 mm in diameter; introd seLabrador and throughout Nfld	out with in some uced in uttercup)
Plants to 4.5 dm tall; basal leaves palmately divided into 3–9 oblong to obovate lobes; cau leaves deeply divided into narrow lanceolate or linear lobes; petals 5; stamens 15–25; fruit heads obovate or cylindrical, 7–15 mm long by 5–8 mm wide; native to n/nwLabrador and Northern Peninsula, Nfld	iting d the
32a. Plants with a bulbous, corm-like base; basal and most cauline leaves palmately 3–5-with obovate segments, 2–3 lobed towards the apex, or margins with coarse blunt achenes with curved, prominently hooked beaks, 1–1.4 mm long; native plants of riforested habitats in swNfld	teeth; ich,
32b. Plants lacking a bulbous base; basal leaves ovate, reniform, or nearly orbicular or 3-with crenate margins, cauline leaves with shallowly lobed or entire margins; achene minute, straight to slightly curved beaks, less than 0.2 mm long.	-5-lobed es with
33a. Basal leaves with reniform to orbicular blades, margins crenate; cauline leaves sessile, dec divided into 1–3 oblanceolate to linear lobes; petals narrowly triangular, 1.5–3.5 mm long mm wide; fruiting heads ovoid, 3–6 mm long; plants of forest and meadow or field habita native to Nfld. (but absent from the Avalon and Burin), N through c/wLabrador	ts;

33b.	Basal leaves broadly ovate, with 3–5 shallowly-lobed blades, margins crenate; cauline leaves short-petiolate, deeply 3-lobed, each segment with 3–several shallow lobes; petals obovate, 2–5 mm long by 1–3 mm wide; fruiting heads cylindrical, 5–13 mm long; plants of coastal areas, preferring nitrogen-rich substrates, such as near bird rocks, kelp beds, and ditches; native to e/neNfld			
	34a.	with sepals longer than the petals; sepals 2.5–5.5 mm long, petals 2–5 mm long; fruiting heads cylindrical, 6–18 mm long, twice as long as wide; native plants of marshes and wetland habitats from c/w/ne/nwNfld., north to central Labrador.		
	34b.	Stems erect to decumbent, prostrate, or creeping, sometimes rooting at the nodes, stems and petioles with stiff or silky, spreading, ascending, or appressed hairs; flowers with sepals equal to or shorter than the petals; sepals 3–10 mm long, petals 3.5–18 mm long; fruiting heads globose or ovoid; native or introduced plants of various habitats		
35a.	petal	s nearly erect to decumbent; sepals and petals about equal in length; sepals 3–6 mm long, s 3.5–6 mm long; native plants of marshes and wetland habitats of ne/w/nw Nfld		
35b.	Stem	s erect, prostrate or creeping; sepals 4–10 mm long, shorter than the petals, which are 6–18 ong		
	36a.	Stems are densely hairy with stiff, downward-pointing (retrorse) hairs; leaf blades are 2–13.4 cm long by 2.4–16.8 cm wide; achenes with a ± straight, lanceolate beak 0.8–2.6 mm long; plants native in wetlands habitats of swNfld		
	36b.	Stems are nearly smooth (glabrous) to hairy, with spreading, ascending, or appressed hairs; leaf blades are 1–8.5 cm long by 1.5–10 cm wide; achenes with beaks 0.2–1.2 mm long; plants introduced, usually in moist to wet, disturbed areas		
37a.	a. Plants decumbent or creeping, rooting at the nodes; lacking a bulbous base; stems and pet with stiff, spreading to appressed hairs, sometimes glabrous; basal and lower cauline leave cm long and 10 cm wide; upper blade surface often marked with pale or whitish blotches the lobes; sepals spreading to somewhat reflexed; achenes with a slightly curved beak, 0.7 mm long; throughout Nfld. and in e/nw/seLabrador Ranunculus repens (creeping but			
37b.	Plant long, blade	s erect, not rooting at the nodes; with a bulbous, corm-like base; stems and petioles with silky, ascending hairs; basal and lower cauline leaves to about 5.4 cm long and wide; upper a surface not mottled; sepals strongly reflexed; achenes with a short beak, 0.2–0.8 mm long; on only from the Avalon Peninsula and wNfld <i>Ranunculus bulbosus</i> (bulbous buttercup)		