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**XANTHIUM**

***Xanthium strumarium* L. var. *canadense* (P. Mill.) T.& G.**

Common cocklebur

Habitat/Range: Moist disturbed sites and waste areas; rare in SC BC; introduced from Eurasia.

**BALSAMINACEAE**

**IMPATIENS**

- 1. Saccate sepals not spurred ..... *I. ecalcarata*
- 1. Saccate sepals spurred.
  - 2. Leaves or at least some of them, opposite or whorled, finely serrate, flowers red or pinkish ..... *I. glandulifera*
  - 2. Leaves alternate, coarsely serrate; flowers orange or yellowish.
    - 3. Spurs straight, directed backward ..... *I. parviflora*
    - 3. Spurs curved or deflexed forward.
      - 4. Flowers less than 2 cm long, without spots ..... *I. aurella*
      - 4. Flowers more than 2 cm long, spotted or mottled.
        - 5. Flowers orange, brown spotted or mottled ..... *I. noli-tangere*
        - 5. Flowers yellow, sparingly flecked with brownish-purple ..... *I. capensis*

***Impatiens aurella* Rydb.**

Orange touch-me-not

Habitat/Range: Moist sites in the steppe vegetation or lower montane zones; rare in S BC east of the Coast-Cascade Mountains; S to ID and MT.

***Impatiens capensis* Meerb. (*I. biflora* Walt; *I. noli-tangere* ssp. *biflora* [Walt.] Hult.)**

Spotted touch-me-not

Habitat/Range: Moist forests and openings in the lowland and lower montane zones; rare, known only from several collections in the lower Fraser Valley; E to MB and MN and S to NE WA, MT, FL and AL.

***Impatiens ecalcarata* Blank. (*I. biflora* Walt. var. *ecalcarata* [Blank.] M.E. Jones)**

Spurless or western touch-me-not

Habitat/Range: Moist forests in the montane zone; rare in SC and SE BC; S to MT and N OR.

***Impatiens glandulifera* Royle (*I. roylei* Walp.)**

Policeman's helmet

Habitat/Range: Roadsides and waste places in the steppe vegetation and lowland zones; infrequent in the lower Fraser Valley and extreme SC BC; introduced from Asia.

***Impatiens noli-tangere* L. (*I. occidentalis* Rydb.)**

Common touch-me-not

Habitat/Range: Moist sites in the lowland, steppe vegetation and montane zones; common S of 57°N; circumboreal, N to SE AK, E to MB, and S to ID and OR; Eurasia.

***Impatiens parviflora* DC.**

Small touch-me-not or balsam

Habitat/Range: Moist disturbed sites in the lowland zone; infrequent in the Vancouver area; introduced from Asia.

**BERBERIDACEAE**

- 1. Leaves simple ..... *Berberis*
- 1. Leaves pinnate or ternately compound.
  - 2. Leaves pinnate, spinulose-margined, evergreen; shrubs ..... *Mahonia*
  - 2. Leaves ternately compound, coarsely toothed, deciduous; herbs ..... *Achlys*

**ACHLYS*****Achlys triphylla* (J.E. Smith) DC.**

Vanilla-leaf, or deer foot

Habitat/Range: Moist forests and open sites in the lowland and montane zones; frequent on Vancouver Island, the Gulf Islands and the adjacent lower mainland; S to NW CA.

**BERBERIS*****Berberis vulgaris* L.**

Common barberry

Habitat/Range: Disturbed sites in the lowland and steppe vegetation zones; rare, known from several locations in SW and SC BC; introduced from Eurasia.

**MAHONIA**

- 1. Leaflets usually 9-19, palmately nerved ..... *M. nervosa*
- 1. Leaflets usually 5-9, pinnately nerved.
  - 2. Leaves more than twice as long as broad with mostly 12-29 prominent spinulose teeth; plants 1.5-45 dm tall ..... *M. aquifolium*
  - 2. Leaves less than twice as long as broad with 15-43 inconspicuous spinulose teeth; plants 1.5-10 dm tall ..... *M. repens*

***Mahonia aquifolium* (Pursh) Nutt. (*Berberis aquifolium* Pursh)**

Tall Oregon-grape

Habitat/Range: Mesic to dry sites in the lowland, steppe vegetation and subalpine zones; common in S BC; E to AB and S to ID and OR.

***Mahonia nervosa* (Pursh) Nutt. (*Berberis nervosa* Pursh)**

Dull Oregon-grape

Habitat/Range: Mesic to dry sites in the lowland, steppe vegetation and subalpine zones; common in SW BC, infrequent eastward in S BC; S to CA.

***Mahonia repens* (Lindl.) G. Don (*Berberis aquifolium* Pursh var. *repens* [Lindl.] Scoggan, *B. repens* Lindl.)**

Creeping Oregon-grape

Habitat/Range: Dry sites in the steppe vegetation and montane zones; common in SE BC, rare in C and SC BC; E to AB and S to SD, TX, NM, NV and NE CA.

**BETULACEAE**

- 1. Fruit a rounded nut, borne in an involucre of fused bractlets; leaves usually cordate ..... *Corylus*

1. Fruit a flattened nutlet, without an involucre; leaves rarely cordate.
  2. Fruiting catkin conelike, hardened and persistent after the release of the nutlets; pith usually 3-angled in cross-section ..... *Alnus*
  2. Fruiting catkin cylindrical, deciduous with the release of the nutlets; pith usually flattened in cross-section ..... *Betula*

**ALNUS**

1. Leaves finely once- or twice-serrate; axillary buds sessile, pointed; staminate catkins sessile ..... *A. crispa*
1. Leaves coarsely to irregularly serrulate-denticulate; axillary buds pedunculate, blunt or short-pointed; staminate catkins pedunculate.
  2. Leaf margins revolute; fruits with narrow wing margins ..... *A. rubra*
  2. Leaf margins not revolute; fruits wingless ..... *A. tenuifolia*

***Alnus crispa* (Ait.) Pursh** (*A. crispa* ssp. *laciniata* Hult., *A. sinuata* [Regel] Rydb., and *A. viridis* [Chaix] DC. var. *sinuata* Regel = ssp. *sinuata*, *A. viridis* ssp. *crispa* [Ait.] Turrill = ssp. *crispa*)

Green alder (ssp. *crispa*) and Sitka alder (ssp. *sinuata*)

Habitat/Range: Moist slopes, streambanks, bogs and fens in all but the alpine zone; ssp. *crispa* frequent in N BC, ssp. *sinuata* common throughout S BC, becoming less frequent and transitional to ssp. *crispa* in N BC; circumboreal, E to PQ and S to NC, MN, CO and CA.

Notes: Two subspecies occur in BC.

1. Leaf margins shallowly lobed as well as finely serrate ..... ssp. *sinuata* (Regel) Hult.
1. Leaf margins not at all, or only slightly lobed, mostly merely finely serrate ..... ssp. *crispa*

***Alnus rubra* Bong.** (*A. oregona* Nutt.)

Red alder

Habitat/Range: Moist forests in the lowland and montane zones; common in coastal BC; N to SE AK and S to CA.

***Alnus tenuifolia* Nutt.** (*A. incana* [L.] Moench ssp. *rugosa* [DuRoi] Clausen var. *occidentalis* [Dippel] C.L. Hitchc., *A. incana* ssp. *tenuifolia* [Nutt.] Breit., *A. tenuifolia* var. *occidentalis* [Dippel] Collier in Schneid.)

Mountain alder

Habitat/Range: Moist forests, streamsides, bogs and fens in the montane zone; common in BC east of the Coast-Cascade Mountains; N to AK, YT and NT, E to SK, and S to NM, AZ and CA.

**BETULA**

1. Nutlet wings narrower than the nutlet; leaves relatively thick and leathery in texture, usually less than 3 cm long, petioles less than 1 cm long; shrubs up to about 2 m tall.
  2. Twigs densely glandular and indistinctly puberulent; leaves with 3, or less, lateral veins and 10, or less, teeth on each side; nutlet wings relatively narrow, less than half the width of the nutlet ..... *B. glandulosa*
  2. Twigs densely pubescent and slightly glandular; leaves with 4, or more, lateral veins and 10, or more, teeth on each side; nutlet wings equal to about half the width of the nutlet ..... *B. pumila*
1. Nutlet wings at least as wide as the nutlet; leaves relatively thin and membraneous, usually more than 3 cm long, petioles more than 1 cm long; trees or tall shrubs 3 m or taller.

3. Small trees or shrubs 3-10 m tall; bark dark reddish-brown to black; fruiting bracts with pointed lateral lobes ..... *B. occidentalis*
3. Medium to large trees 10-30 m tall; bark white or brown, often peeling; fruiting bracts with rounded lateral lobes.
4. Leaves essentially rounded in outline and pubescent below, rarely glandular; twigs puberulent or pubescent but usually not glandular.
  5. Leaves 4-10 cm long; twigs pubescent with both short and long hairs; native species found throughout most of BC ..... *B. papyrifera*
  5. Leaves 2-5 cm long; twigs puberulent with short hairs; introduced horticultural species of extreme SW BC ..... *B. pubescens*
4. Leaves essentially angular in outline and glabrous below; twigs glandular.
  6. Bark thin, smooth, pale and papery; twigs with wart-like resin glands; native species of NE BC ..... *B. neoalaskana*
  6. Bark thick, rough, dark and furrowed; twigs with numerous small glands, sometimes sticky; introduced horticultural species of extreme SW BC ..... *B. pendula*

***Betula glandulosa* Michx.** (*B. glandulosa* var. *sibirica* [Ledeb.] Blake, *B. nana* L. ssp. *exilis* [Sukats.] Hult.)  
 Scrub, bog, dwarf or bog glandular birch  
 Habitat/Range: Wet bogs, fens or streamsides and dry upland sites from the montane to the alpine zones; common throughout BC east of the Coast-Cascade Mountains; N to AK, YT and NT, E to NB and NS, and S to MN, CO and N CA.

***Betula neoalaskana* Sarg.** (*B. papyrifera* Marsh. var. *neoalaskana* [Sarg.] Raup)  
 Alaska paper or northwestern white birch  
 Habitat/Range: Wet bogs, fens, swamps or moist forest sites in the montane zone; frequent in NE BC; N to AK, YT and NT and E to ON.

***Betula occidentalis* Hook.** (*B. papyrifera* Marsh. ssp. *occidentalis* [Hook.] Hult., *B. papyrifera* Marsh. var. *occidentalis* [Hook.] Sarg.)  
 Water, black, red or mountain birch  
 Habitat/Range: Wet to moist streambanks, forests and marshes in the steppe vegetation and montane zones; frequent in S BC east of the Coast-Cascade Mountains, rare northward; N to AK, YT and NT, E to NF, and S to CO, UT and CA.

***Betula papyrifera* Marsh.**  
 Paper, white or canoe birch  
 Habitat/Range: Moist to mesic sites in the lowland, steppe vegetation and montane zones; var. *commutata* frequent in extreme SW BC, var. *papyrifera* common throughout BC east of the Coast-Cascade Mountains; N to AK, YT and NT, E to NF, and S to MN, PA, CO and NE OR.  
 Notes: Numerous apparent hybrids between *B. papyrifera* and *B. neoalaskana* or *B. occidentalis* (e.g., *B. X utahensis* Britt. and *B. subcordata* Rydb.) have been formally named (see Brayshaw 1976, Scoggan 1979). Two varieties occur in BC.

1. Mature bark white; fruiting bracts with ascending lateral lobes ..... var. *papyrifera*
1. Mature bark white, yellowish- to reddish-brown or dark gray; fruiting bracts with lateral lobes diverging at right angles ..... var. *commutata* (Regel) Fern.

***Betula pendula* Roth**  
 European birch  
 Habitat/Range: Wet bogs or marshes in the lowland zone; frequent horticultural escape in the lower Fraser Valley, less common on extreme SE Vancouver Island; horticultural species introduced from Eurasia.

**Betula pubescens Ehrh.** (*B. alba* L.)

Silver birch

Habitat/Range: Wet bogs in the lowland zone; rare horticultural escape in the lower Fraser Valley and extreme SE Vancouver Island; introduced from Europe.

Notes: This species apparently hybridizes with *B. pendula* and *B. papyrifera* in our area (Brayshaw 1976).

**Betula pumila L. var. glandulifera Regel** (*B. glandulosa* var. *glandulifera* [Regel] Gleason, *B. pumila* var. *glandulifera* f. *hallii* [Howell] Brayshaw, *B. glandulosa* var. *hallii* [Howell] Hitchc.)

Low, swamp or scrub glandular birch

Habitat/Range: Bogs, fens and wet sites in all vegetation zones; frequent throughout BC, east of the Coast-Cascade Mountains except in extreme SW BC; N to AK, YT and NT, E to PQ, and S to WY and OR.

**CORYLUS**

1. Twigs sparsely to moderately hairy, sometimes slightly glandular; fruits completely enclosed by bristly bractlets ..... *C. cornuta*

1. Twigs both hairy and glandular; fruits not completely enclosed by the thinly downy, lacerated bractlets . . .  
..... *C. avellana*

**Corylus avellana L.**

Hazelnut

Habitat/Range: Mesic sites in the lowland zone; rare on Salt Spring Island and the Lower Fraser Valley; horticultural species introduced from Europe.

**Corylus cornuta Marsh.** (*C. californica* [A. DC.] Rose, *C. cornuta* var. *glandulosa* Boivin = *C. cornuta* var. *californica*)

Beaked or California hazelnut

Habitat/Range: Mesic sites in the lowland and montane zones; var. *cornuta* common south of 56°N east of the Coast-Cascade Mountains, var. *californica* frequent on S Vancouver Island and the lower Fraser Valley, becoming rare to the east; E to NF and S to GA (var. *cornuta*) and E to ID and S to CA (var. *californica*).

Notes: Two varieties occur in BC.

1. Involucral beaks about twice as long as the fruit; fruits thinly puberulent; twigs sparsely hairy . . . . .  
..... var. *cornuta*

1. Involucral beaks about equal in length to the fruit; fruits glabrous; twigs hairy, sometimes glandular  
..... var. *californica* (A. DC.) Sharp

**BORAGINACEAE**

1. Calyces greatly enlarged in fruit; flowers axillary; plants scrambling, with retrosely-prickly stems .....  
..... *Asperugo*

1. Calyces not enlarged in fruit; flowers in terminal cymes; habit various.

2. Corollas rotate, greater than 1 cm wide; stamens connivent; rare garden escape ..... *Borago*

2. Corollas funnelform, salverform or tubular-campanulate, less than 1 cm wide; stamens not connivent.

3. Corollas irregular; stamens exserted ..... *Echium*

3. Corollas regular; stamens included.

4. Nutlets armed with prickles or bristles.

- 5. Nutlets flattened, with sunken centre and hooked marginal bristles; low, white-flowered annuals ..... *Pectocarya*
- 5. Nutlets rounded or angled with glochidiate prickles.
  - 6. Nutlets spreading, broadest near apex, uniformly prickly all over ..... *Cynoglossum*
  - 6. Nutlets erect, broadest near base, predominate or largest prickles marginal.
    - 7. Fruiting pedicels reflexed; inflorescences mostly lacking bracts beneath each flower ..... *Hackelia*
    - 7. Fruiting pedicels erect; inflorescences with bracts beneath each flower ..... *Lappula*
- 4. Nutlets not armed with prickles or spines.
  - 8. Corollas tubular-campanulate.
    - 9. Stems glabrous or with few, relatively soft hairs; fornices nearly absent or much shorter than anthers; flowers blue; native ..... *Mertensia*
    - 9. Stems with stiff, spreading hairs; fornices equalling anthers; corolla purplish to white, usually not blue; introduced ..... *Symphytum*
  - 8. Corollas salverform.
    - 10. Nutlets nearly round, smooth and shining, with small basal scar; flowers usually blue ..... *Myosotis*
    - 10. Nutlets usually pointed, dull and wrinkled or if smooth, with broad, flat base or with lateral scar; flower colour various.
      - 11. Nutlets attached basally, with broad, flat base.
        - 12. Flowers bright blue, with prominent fringed fornices; rare garden escape ..... *Anchusa*
        - 12. Flowers white, yellow or greenish, without fornices and without fringes ..... *Lithospermum*
      - 11. Nutlets attached laterally.
        - 13. Flowers bright orange-yellow ..... *Amsinckia*
        - 13. Flowers white.
          - 14. Nutlets with a long groove, mostly smooth; leaves mostly alternate; annuals or perennials ..... *Cryptantha*
          - 14. Nutlets with a raised scar, mostly rough; basal leaves usually opposite; annuals ..... *Plagiobothrys*

### **AMSINCKIA**

- 1. Leaves toothed; one pair of calyx lobes partially united; plants maritime ..... *A. spectabilis*
- 1. Leaves entire; calyx lobes all free; plants not usually maritime.
  - 2. Corollas with well-developed hairy fornices ..... *A. lycopsoides*
  - 2. Corollas without fornices.

- 3. Corollas 2-3 mm wide ..... *A. menziesii*
- 3. Corollas 5-10 mm wide ..... *A. intermedia*

***Amsinckia intermedia* Fisch. & Mey.**

Common fiddleneck

Habitat/Range: Roadsides and waste places in the lowland and lower montane zones; frequent in BC east of the Coast-Cascade Mountains, also on S Vancouver Island; S to NM and Baja CA, E to ID.

***Amsinckia lycopsoides* (Lehm.) Lehm.**

Bugloss fiddleneck

Habitat/Range: Dry, disturbed sites in the lowland and lower montane zones; infrequent in extreme S BC, probably introduced at Atlin; N to S AK, S to MT and CA.

***Amsinckia menziesii* (Lehm.) A. Nels. & J.F. Macbr.**

Small-flowered fiddleneck

Habitat/Range: Moist to dry disturbed sites in the steppe vegetation and montane zones; common in S BC east of the Coast-Cascade Mountains, rare northward; N to AK and YK, S to CA.

***Amsinckia spectabilis* Fisch. & Mey.**

Seaside fiddleneck

Habitat/Range: Moist coastal sandy beaches; rare on the Queen Charlotte Islands, Vancouver Island and the Gulf Islands; S to N Baja CA.

**ANCHUSA**

***Anchusa officinalis* L.**

Alkanet, or common bugloss

Habitat/Range: Roadsides and waste places; rare garden escape in SC BC and S Vancouver Island; introduced from Europe.

**ASPERUGO**

***Asperugo procumbens* L.**

Madwort, or catchweed

Habitat/Range: Barnyards and waste places; infrequent in SC and SE BC; introduced from Eurasia.

**BORAGO**

***Borago officinalis* L.**

Common borage

Habitat/Range: Waste places; rare in SC and SE BC; introduced from Europe.

**CRYPTANTHA**

- 1. Plants perennials with distinct tuft of basal leaves.
  - 2. Basal leaves spatulate; nutlets rough on both surfaces ..... *C. celosioides*
  - 2. Basal leaves oblanceolate; nutlets smooth on ventral surface ..... *C. nubigena*
- 1. Plants annuals, lacking tuft of basal leaves.
  - 3. Flowers large, 4-8 mm wide ..... *C. intermedia*

- 3. Flowers small, not over 2 mm wide.
- 4. Nutlets warty ..... *C. ambigua*
- 4. Nutlets smooth.
  - 5. Nutlets lanceolate ..... *C. fendleri*
  - 5. Nutlets ovate.
    - 6. Nutlets compressed, with scar toward one margin ..... *C. affinis*
    - 6. Nutlets not compressed, scar median ..... *C. torreyana*

***Cryptantha affinis* (A. Gray) Greene**

Common cryptantha

Habitat/Range: Dry to mesic sites in the lowland and steppe vegetation zones; infrequent in S BC along the coast and E of the Coast-Cascade Mountains; S to CA, E to SW AB and S to WY.

***Cryptantha ambigua* (A. Gray) Greene**

Obscure cryptantha

Habitat/Range: Dry sites in the steppe vegetation zone; rare in SC and SE BC; S to CO, NV and NE CA.

***Cryptantha celosioides* (Eastw.) Payson (*C. nubigena* [Greene] Payson var. *celosioides* [Eastw.] Boivin)**

Cockscomb cryptantha

Habitat/Range: Dry sites in the steppe vegetation zone; rare in extreme SC BC; S to NE and NV.

***Cryptantha fendleri* (A. Gray) Greene**

Fendler's cryptantha

Habitat/Range: Dry sites in the steppe vegetation zone; rare in extreme SC BC; S to NE and AZ.

***Cryptantha intermedia* (A. Gray) Greene var. *grandiflora* (Rydb.) Cronq. in Hitchc. et al.**

Large-flowered cryptantha

Habitat/Range: Dry to mesic sites in the lowland and lower montane zones; rare, known from only three widely-scattered locations; S to ID and CA.

***Cryptantha nubigena* (Greene) Pays.**

Sierra cryptantha

Habitat/Range: Dry sites in the steppe vegetation zone; rare, known only from near Osoyoos; E to SW AB and S to C CA.

***Cryptantha torreyana* (A. Gray) Greene**

Torrey's cryptantha

Habitat/Range: Dry to mesic, open sites in the lowland and steppe vegetation zones; infrequent in SC BC and on S Vancouver Island; S to UT, WY and CA.

**CYNOGLOSSUM**

- 1. Corollas blue; stems naked below inflorescences; native perennials ..... *C. boreale*
- 1. Corollas dull red-purple (rarely white); stems leafy at least to base of inflorescences; weedy introduced biennials ..... *C. officinale*

***Cynoglossum boreale* Fern.**

Northern hound's-tongue, or northern wild comfrey

Habitat/Range: Mesic, open sites in lower montane zone; infrequent in C and N BC; E to NF, S to IN and CT.

**Cynoglossum officinale L.**

Common hound's-tongue

Habitat/Range: Dry, disturbed sites in the lowland and steppe vegetation zones; common E of the Coast-Cascade Mountains; introduced from Europe.

**ECHIUM**

**Echium vulgare L.**

Viper's bugloss, or blueweed

Habitat/Range: Roadsides and waste places; common in C and S BC, east of the Coast-Cascade Mountains, infrequent on the coast; introduced from Europe.

**HACKELIA**

- 1. Corollas 1-3 mm wide; annuals or biennials ..... *H. deflexa*
- 1. Corollas 4-20 mm wide; biennials or perennials.
  - 2. Corollas white ..... *H. diffusa*
  - 2. Corollas blue.
    - 3. Nutlets with marginal prickles only ..... *H. floribunda*
    - 3. Nutlets with central prickles in addition to marginal ones.
      - 4. Marginal prickles united for at least one-third their length, forming a cup ..... *H. ciliata*
      - 4. Marginal prickles mostly distinct to base, not forming a cup ..... *H. micrantha*

**Hackelia ciliata (Dougl. ex Lehm.) I.M. Johnst.**

Okanogan stickseed or hackelia

Habitat/Range: Dry sites in the steppe vegetation zone; rare, known only from Rock Creek in SC BC; S to N and C WA.

**Hackelia deflexa (Wahl.) Opiz in Bercht. ssp. americana (A. Gray) Hult.**

Nodding stickseed or hackelia

Habitat/Range: Dry, often disturbed sites in steppe vegetation and lower montane zones; frequent east of the Coast-Cascade Mountains; circumboreal, E to PQ and S to WA, CO and IA.

**Hackelia diffusa (Dougl. ex Lehm.) I.M. Johnst.**

Spreading stickseed or hackelia

Habitat/Range: Dry sites in steppe vegetation zone; rare, found only in the Thompson-Fraser River highlands; S to WA and OR.

**Hackelia floribunda (Lehm.) I.M. Johnst.**

Many-flowered stickseed or hackelia

Habitat/Range: Moist to mesic sites in the lowland and steppe vegetation zones; frequent E of Coast-Cascade Mountains in S BC; E to W ON and S to CA and NM.

**Hackelia micrantha (Eastw.) J.L. Gentry (*H. jessicae* [McGregor] Brand)**

Blue stickseed or hackelia

Habitat/Range: Dry to mesic sites in the lowland, steppe vegetation and montane zones; frequent E of Coast-Cascade Mountains in C and S BC; E to AB and S to UT and CA.

**LAPPULA**

- 1. Nutlets with single row of marginal prickles ..... *L. redowskii*
- 1. Nutlets with 2 rows of marginal prickles ..... *L. echinata*

***Lappula echinata* Gilib.** (*L. squarrosa* [Retz.] Dumort., *L. myosotis* Moench)

Bristly or common stickseed

Habitat/Range: Dry to mesic, usually disturbed sites, common in S BC east of the Coast-Cascade Mountains, less frequent northward; introduced from Eurasia.

***Lappula redowskii* (Hornem.) Greene**

Western stickseed

Habitat/Range: Xeric to mesic sites in lowland and steppe vegetation zones; common east of the Coast-Cascade Mountains, less common on the coast and northward; circumpolar, S to S America; Eurasia.

Note: Two varieties occur in BC.

- 1. Prickles of nutlets distinct to base; the common variety ..... var. *redowskii*
- 1. Prickles of nutlets fused at base, forming a cup; rare ..... var. *cupulata* (A. Gray) M.E. Jones

**LITHOSPERMUM**

- 1. Plants taprooted annuals; flowers white ..... *L. arvense*
- 1. Plants perennials; flowers greenish to yellow.
  - 2. Corollas yellow-green, lobes entire ..... *L. ruderale*
  - 2. Corollas bright yellow, lobes erose ..... *L. incisum*

***Lithospermum arvense* L.** (*Buglossoides arvense* [L.] I.M. Johnston)

Corn gromwell

Habitat/Range: Roadsides and open, dry, disturbed areas in the lowland and steppe vegetation zones; infrequent in S BC; introduced from Europe.

***Lithospermum incisum* Lehm.**

Yellow gromwell

Habitat/Range: Xeric sites in the steppe vegetation zone; infrequent east of the Coast-Cascade Mountains; E to IN and S to MX.

***Lithospermum ruderale* Dougl. ex Lehm.**

Lemonweed, or Columbia gromwell

Habitat/Range: Xeric sites in the steppe vegetation zone; common east of the Coast-Cascade Mountains; S to CO and N CA.

**MERTENSIA**

- 1. Plants decumbent, glaucous, succulent, maritime ..... *M. maritima*
- 1. Plants erect, not glaucous or succulent, not maritime.
  - 2. Leaves with distinct lateral veins; plants usually much greater than 15 cm tall ..... *M. paniculata*
  - 2. Leaves lacking distinct lateral veins; plants usually less than 15 cm tall ..... *M. longiflora*

***Mertensia longiflora* Greene**

Long-flowered bluebells or mertensia

Habitat/Range: Mesic sites in the steppe vegetation zone; common in S BC east of the Coast-Cascade Mountains; S to W MT, ID and N CA.

Notes: Often misidentified as *M. oblongifolia* in BC.

***Mertensia maritima* (L) F.S. Gray**

Sea bluebells or mertensia, sea-lungwort, or oysterleaf

Habitat/Range: Sandy seashores; rare in BC, known only from the Queen Charlotte Islands; circumpolar, N to AK, YT and NT and E to NF, N Europe, E Asia.

***Mertensia paniculata* (W. Ait.) G. Don**

Tall bluebells, or panicled mertensia

Habitat/Range: Moist to mesic sites in the montane, subalpine and alpine zones; frequent in N BC, infrequent southward; N to AK, E to PQ and S to OR.

Notes: Two varieties occur in BC.

- 1. Leaves strigose to hirsute on both surfaces; calyces pubescent; plants infrequent to frequent throughout BC ..... var. *paniculata*
- 1. Leaves glabrous above; calyces glabrous; plants rare, known only from extreme SE BC ..... var. *borealis* (J.F. Macbr.) L.O. Williams

**MYOSOTIS**

- 1. Calyces with appressed hairs, lacking hooks.
  - 2. Corollas 2-5 mm wide, the tube equal to the calyces ..... *M. laxa*
  - 2. Corollas 5-10 mm wide, the tube longer than calyces ..... *M. scorpioides*
- 1. Calyces with spreading hairs, some of which are hooked.
  - 3. Corollas 4-10 mm wide.
    - 4. Stems lax, usually branching above ground; more or less uniformly leafy throughout; introduced at low elevations ..... *M. sylvatica*
    - 4. Stems erect, from branching rootstock forming tight erect clumps; leaves largest basally, gradually reduced upward; native, common at high elevations ..... *M. alpestris*
  - 3. Corollas 1-3 mm wide.
    - 5. Calyces asymmetrical, 2 lobes longer than other 3 ..... *M. verna*
    - 5. Calyces symmetrical, all 5 lobes equal.
      - 6. Fruiting pedicels equal to or longer than calyces ..... *M. arvensis*
      - 6. Fruiting pedicels shorter than calyces.
        - 7. Corollas blue, tube equal to calyces ..... *M. micrantha*
        - 7. Corollas yellow, aging blue, tube surpassing calyces ..... *M. discolor*

***Myosotis alpestris* F.W. Schmidt (*M. asiatica* [Vesterg.] Schischkin & Sergievskaja in Krylov, *M. sylvatica* Hoffm. var. *alpestris* [F.W. Schm.] Koch)**

Mountain forget-me-not

Habitat/Range: Meadows and openings in the montane and subalpine zones; common in N BC, less common southward; circumpolar, N to AK, and S to ID, SD and WY; Eurasia.

***Myosotis arvensis* (L.) Hill**

Field forget-me-not

Habitat/Range: Moist to mesic sites in open forests and waste places in the lowland zone; frequent in SW BC; introduced from Europe.

***Myosotis discolor* Pers.**

Common forget-me-not

Habitat/Range: Moist meadows and roadsides in the lowland zone; frequent on S Vancouver Island, the Gulf Islands and adjacent coast, rare E of the Coast-Cascade Mountains; introduced from Europe.

***Myosotis laxa* Lehm.**

Small-flowered forget-me-not

Habitat/Range: Moist, open areas in the lowland zone; common along the coast and in S BC; circumboreal, S to N CA.

***Myosotis scorpioides* L.**

Common forget-me-not

Habitat/Range: Moist, open areas in the lowland zone; common in S BC; introduced from Europe.

***Myosotis stricta* Link ex Roemer & Schultes (*M. micrantha* auct. non Pallas)**

Blue forget-me-not

Habitat/Range: Moist to mesic sites in the lowland zone; frequent in S BC; introduced from Europe.

***Myosotis sylvatica* G.F. Hoffm.**

Wood forget-me-not

Habitat/Range: Open woods and disturbed places in the lowland zone; frequent in S BC, rare elsewhere; introduced from Europe.

Notes: White or pink-flowered populations or individuals among blue-flowered populations are relatively common.

***Myosotis verna* Nutt.**

Spring forget-me-not

Habitat/Range: Moist to mesic sites in the lowland zone; infrequent throughout BC; E to ON and S to FL, TX and OR.

**PECTOCARYA*****Pectocarya penicillata* (H. & A.) A. DC. (*P. linearis* [R. & P.] DC. var. *penicillata* [H. & A.] M.E. Jones)**

Winged combseed

Habitat/Range: Dry sites in steppe vegetation zone; rare in SC BC; S to ID, UT and MX; disjunct to Argentina; Chile.

**PLAGIOBOTHRYS**

1. Flowering plants with basal rosette of leaves; cauline leaves alternate; nutlets cruciform with warty surface ..... *P. tenellus*
1. Flowering plants lacking distinct basal rosette; cauline leaves opposite; nutlets ovate.
  2. Corollas large, 5-10 mm wide; ..... *P. figuratus*
  2. Corollas small, 1-4 mm wide; ..... *P. scouleri*

***Plagiobothrys figuratus* (Piper) I.M. Johnst. ex M.E. Peck**

Fragrant popcornflower

Habitat/Range: Moist to mesic sites in the lowland zone; rare on SE Vancouver Island and the Gulf Islands; N to SW AK and S to OR.

***Plagiobothrys scouleri* (H. & A.) I.M. Johnst.**

Scouler's popcornflower

Habitat/Range: Moist sites in the lowland zone; frequent on S Vancouver Island and SC BC; E to MB and S to CA and NM.

***Plagiobothrys tenellus* (Nutt. ex Hook.) A. Gray**

Slender popcornflower

Habitat/Range: Mesic to dry sites in the lowland zone; rare on S Vancouver Island and the Gulf Islands; S to ID, UT and Baja CA.

**SYMPHYTUM**

1. Stems not winged with decurrent leaf bases; corolla lobes erect ..... *S. asperum*

1. Stems winged with decurrent leaf bases; corolla lobes recurved at tip ..... *S. officinale*

***Symphytum asperum* Lepech.**

Rough or prickly comfrey

Habitat/Range: Waste places and roadsides in the lowlands; frequent in S BC, infrequent northward; introduced from Europe.

***Symphytum officinale* L.**

Common comfrey

Habitat/Range: Waste places and roadsides in the lowlands; infrequent in S BC; introduced from Europe.

**BRASSICACEAE<sup>16</sup>**

1. Fruits stipitate, the stipes at least 1 mm long.

2. Petals purple (rarely white); fruits an elliptic to oval silicle; stipes 7-12 mm long ..... *Lunaria*

2. Petals white; fruits a slender silique; stipes 1-4 mm long ..... *Thelypodium*

1. Fruits sessile or the stipes less than 1 mm long.

3. Fruits composed of 2 distinct segments, the basal portion usually valvular, although often indehiscent, usually seed-bearing, sometimes sterile, the upper segment often not valvular, sometimes fertile but usually sterile, sometimes consisting entirely of the scarcely narrowed, often flattened or otherwise beaklike style.

4. Siliques of 2 rather similar parts, each 1-locular, usually 1-seeded, sometimes 0 or 2-seeded, indehiscent, finally breaking apart; style absent ..... *Cakile*

4. Siliques of 2 dissimilar parts; seeds sometimes several, usually in the lower part or if in the upper then the style usually conspicuous and beaklike or the siliques torulose or lomentaceous.

5. Plants stipitate-glandular and pilose; petals pink to magenta; siliques breaking cross-wise, not dehiscent; styles beaklike ..... *Chorispora*

5. Plants not stipitate-glandular; petals mostly yellow or white, rarely purplish tinged; siliques often dehiscent; styles beaklike or beakless.

<sup>16</sup> Key adapted from Hitchcock et al (1964) and Scoggan (1978).

- 6. Styles beakless, not differentiated from the upper portion of the beaked valves; siliques with a very short, sterile, basal segment distinct from the valvular fertile portion ..... *Raphanus*
- 6. Styles beaklike and usually sharply differentiated from the body of the silique; siliques without a lower sterile segment.
  - 7. Beaks stout, often much flattened, not styliiform, usually well over 5 mm long ..... *Brassica*
  - 7. Beaks usually not flattened, more obviously styliiform, less than 5 mm long ..... *Erucastrium*
- 3. Fruits composed of only 1 segment, this seed-bearing; styles often conspicuous but smaller in diameter than the valves and usually not beaklike.
- 8. Fruits a silicle, varying from cordate to oval, somewhat oblong, elliptic, or obovate, sometimes didymous or only 1-seeded.
- 9. Silicles from greatly compressed to somewhat inflated, but never globose or terete in section, not didymous.
- 10. Seeds 1 per locule.
  - 11. Silicles broadly winged, oblong, more or less samaroid; glabrous biennial or perennial herbs with auriculate cauline leaves ..... *Isatis*
  - 11. Silicles more nearly oval or rotund; usually pubescent annuals without auriculate leaves.
    - 12. Silicles inflated, broadly elliptic in section, very strongly reticulate-pitted; petals yellow; upper cauline leaves auriculate ..... *Neslia*
    - 12. Silicles strongly compressed, or inflated but not conspicuously reticulate-pitted or the cauline leaves not auriculate; petals white or purplish-tinged.
  - 13. Silicles 2-locular.
    - 14. Plants scapose; pubescence not stellate or malpighiaceo-strigose ..... *Draba*
    - 14. Plants not scapose; pubescence stellate or malpighiaceo-strigose.
      - 15. Valves of the silicles nerveless; pubescence stellate ..... *Alyssum*
      - 15. Valves of the silicles 1-nerved; pubescence malpighiaceo-strigose ..... *Lobularia*
  - 13. Silicles 1-locular.
    - 16. Fruits less than 5 mm long and pubescent with hooked hairs ..... *Athysanus*
    - 16. Fruits usually more than 5 mm long and glabrous or if pubescent then without hooked hairs ..... *Thysanocarpus*
- 10. Seeds 2 or more per locule.
  - 17. Plants scapose, the scapes bearing a solitary terminal flower; seeds conspicuously wing-margined ..... *Idahoa*
  - 17. Plants either not scapose, or the scapes supporting 2-or more-flowered racemes; seeds unwinged.

18. Silicles oblong to elliptic, usually over twice as long as broad ..... *Draba*
18. Silicles oval to obovate, not over twice as long as broad.
19. Petals yellow; plants perennials, densely stellate with appressed hairs ..... *Lesquerella*
19. Petals usually white or if pale yellow then either annuals or not appressed stellate.
20. Styles not over 1 mm long; silicles oval in outline, less than 5 mm long; petals not bilobed ..... *Alyssum*
20. Styles usually 2-3 mm long; silicles oval-elliptic to obovate, usually at least 5 mm long; petals often bilobed.
21. Petals white, deeply bilobed; seeds slightly winged; silicles compressed, not thickly biconvex in section ..... *Berteroa*
21. Petals pale yellow, not deeply bilobed; seeds unwinged; silicles somewhat turgid, thickly biconvex in section ..... *Camelina*
9. Silicles from conspicuously to only slightly obcompressed, or so greatly inflated as to be terete and often didymous.
22. Silicles 1-locular and 1-seeded, samaroid; plants glabrous, glaucous, auriculate-leaved biennial or perennial ..... *Isatis*
22. Silicles 2-locular and usually several-seeded, not samaroid; plants various.
23. Plants aquatic, scapose, the leaves linear, more or less terete, acicular ..... *Subularia*
23. Plants not aquatic or if appearing so then not scapose and the leaves not acicular.
24. Plants fleshy maritime herbs; basal leaves with slender petioles that are considerably longer than the reniform to oval, simple blades; seeds numerous, biseriate ..... *Cochlearia*
24. Plants various but not usually maritime; basal leaves various; seeds commonly few and usually not biseriate.
25. Silicles inflated, sometimes didymous.
26. Petals yellow.
27. Pubescence stellate; plants usually of dry sites ..... *Physaria*
27. Pubescence, if any, unbranched; plants usually of moist sites ..... *Rorippa*
26. Petals white or purple.
28. Plants annuals; leaves pinnatifid ..... *Coronopus*
28. Plants perennials; leaves simple.
29. Petals 2-4 mm long; leaves 1-10 cm long ..... *Cardaria*
29. Petals 5-7 mm long; leaves 10-55 cm long ..... *Armoracia*
25. Silicles more or less obcompressed, not inflated.

- 30. Silicles obcordate to triangular, with more than 1 seed per locule; cauline leaves auriculate ..... *Capsella*
- 30. Silicles not obcordate or triangular, or seeds only 1 per locule, or cauline leaves not auriculate.
  - 31. Plants stellate-pubescent.
    - 32. Silicles usually more than 7 mm long, usually didymous or at least with a prominent apical sinus ..... *Physaria*
    - 32. Silicles less than 7 mm long, never didymous, usually without an apical sinus or the sinus not over 1 mm deep ..... *Lesquerella*
  - 31. Plants glabrous to pubescent with simple hairs.
    - 33. Seeds 1 per locule ..... *Lepidium*
    - 33. Seeds 2-several per locule.
      - 34. Cauline leaves more or less auriculate; silicles usually more than 4 mm long ..... *Thlaspi*
      - 34. Cauline leaves, if any, not auriculate; silicles not more than 4 mm long.
        - 35. Plants semiscapose; filaments with small, scalelike basal appendages; seeds 2 per locule ..... *Teesdalia*
        - 35. Plants leafy-stemmed; filaments not appendaged at the base; seeds more than 2 per locule ..... *Hutchinsia*
- 8. Fruits an elliptic to linear silique, in normal specimens the fruit more than 1-seeded.
  - 36. Leaves (at least the basal and lower-stem leaves) more or less pinnatifid.
    - 37. Petals pale to deep yellow.
      - 38. Plants more or less pubescent with forked or stellate hairs ..... *Descurainia*
      - 38. Plants glabrous to pubescent with simple hairs.
        - 39. Racemes bracted nearly or quite throughout; stems retrorsely strigose-pilose ..... *Erucastrum*
        - 39. Racemes bractless except sometimes at the base; stems glabrous or pubescence spreading and relatively stiff (except sometimes retrorse in *Sisymbrium loeslii*).
        - 40. Styles (or what appears to be the styles) beaklike, nearly as broad as the valves.
          - 41. Siliques 1-celled, indehiscent, usually torulose ..... *Raphanus*
          - 41. Siliques 2-celled, tardily dehiscent, not torulose ..... *Barbarea*
      - 40. Styles not beaklike, if prominent then much narrower than the valves.
        - 42. Leaves linear, 4 mm wide or less; valves with an obscure midnerve ..... *Schoenocrambe*
        - 42. Leaves broad (at least below), over 4 mm wide; valves with a prominent midnerve.

- 43. Stem-leaves strongly auriculate clasping ..... *Barbarea*
- 43. Stem-leaves not clasping.
  - 44. Seeds uniserate; valves of pods nerved ..... *Sisymbrium*
  - 44. Seeds biserate; valves of pods nerveless .... *Rorippa*
- 37. Petals white or pinkish to purple.
  - 45. Seeds biserate ..... *Nasturtium*
  - 45. Seeds uniserate.
    - 46. Plants copiously grayish-pubescent with both long, soft, simple, forking hairs and shorter freely branched hairs ..... *Smelowskia*
    - 46. Plants glabrous or pubescent with simple hairs only.
      - 47. Siliques indehiscent, usually torulose ..... *Raphanus*
      - 47. Siliques dehiscent, not torulose.
        - 48. Plants annuals or biennials; upper cauline leaves not pinnatifid ..... *Thelypodium*
        - 48. Plants perennials, or if annuals or biennials then the upper cauline leaves pinnatifid ..... *Cardamine*
- 36. Leaves entire to coarsely toothed or sometimes lobed or lyrate, rarely distinctly pinnatifid.
  - 49. Petals creamy, yellow, dark orange or reddish.
    - 50. Stem leaves strongly cordate-clasping ..... *Conringia*
    - 50. Stem leaves not clasping.
      - 51. Plants glabrous and somewhat glaucous ..... *Schoenocrambe*
      - 51. Plants pubescent with forked or branched hairs and often simple hairs.
        - 52. Seeds uniserate; pubescence consisting of appressed 2-pronged hairs ..... *Erysimum*
        - 52. Seeds biserate; pubescence consisting mostly of stellate or branched stalked hairs with or without simple hairs ..... *Draba*
  - 49. Petals white to pink or purple.
    - 53. Plants pubescent with forked, stellate, branched or dendritic hairs with or without simple hairs.
      - 54. Petals 15-25 mm long ..... *Hesperis*
      - 54. Petals usually less than 15 mm long.
        - 55. Siliques moderately to strongly compressed.
          - 56. Siliques shorter, less than 8 times as long as broad ..... *Draba*
          - 56. Siliques much elongate, usually at least 8 times as long as broad.
            - 57. Seeds wingless; petals pink to purple ..... *Erysimum*
            - 57. Seeds winged or if wingless, then the petals white or cream, rarely pink ..... *Arabis*

55. Siliques terete, subterete, or slightly 4-angled, slightly if at all compressed.
58. Stem leaves sagittate-clasping, seeds biserate; siliques glabrous  
..... *Halimolobos*
58. Stem leaves not clasping; seeds uniserate or biserate; siliques  
glabrous or pubescent.
59. Siliques torulose ..... *Braya*
59. Siliques not torulose or only slightly so.
60. Siliques glabrous; plants annuals ..... *Arabidopsis*
60. Siliques pubescent; plants perennials .... *Halimolobos*
53. Plants glabrous or pubescent with simple hairs only.
61. Plants scapose or subscapose.
62. Plants glandular-pubescent, rarely glabrous; siliques 4-7 mm wide  
..... *Parrya*
62. Plants not glandular-pubescent; siliques usually less than 4 mm wide.
63. Siliques 1.0-3.5 cm long; plants glabrous ..... *Cardamine*
63. Siliques less than 1.0 cm long; plants subglabrous to pubescent  
..... *Braya*
61. Plants leafy-stemmed.
64. Stem leaves auriculate-clasping.
65. Plants glabrous and glaucous ..... *Thellungiella*
65. Plants pubescent ..... *Arabis*
64. Stem leaves not clasping.
66. Siliques indehiscent ..... *Chorispora*
66. Siliques dehiscent.
67. Leaves lanceolate to oblanceolate or narrowly obovate.
68. Plants glabrous; leaves entire; seeds uniserate .....  
..... *Eutrema*
68. Plants usually pubescent; leaves often toothed, at least  
below; seeds uniserate or biserate ..... *Arabis*
67. Leaves deltoid to cordate-rotund or reniform.
69. Plants native perennials with slender, elongate rhizomes;  
petals 7-9 mm long ..... *Cardamine*
69. Plants introduced biennials from a taproot, garlic-scented;  
petals less than 7 mm long ..... *Alliaria*

### **ALLIARIA**

***Alliaria petiolata* (Bieb.) Cav. & Grande** (*A. officinalis* Andr. ex Bieb.)

Garlic mustard

Habitat/Range: Disturbed sites and waste places; rare on SE Vancouver Island; introduced from Eurasia.

**ALYSSUM**

- 1. Ovules and seeds 1 per locule ..... *A. murale*
- 1. Ovules and seeds 2 per locule.
  - 2. Silicles glabrous; styles about 1 mm long ..... *A. desertorum*
  - 2. Silicles stellate-pubescent; styles 0.5 mm long, or less ..... *A. alyssoides*

***Alyssum alyssoides* L.**

Pale alyssum

Habitat/Range: Roadsides and waste places; infrequent in SC and SE BC, rare on S. Vancouver Island; introduced from Europe.

***Alyssum desertorum* Stapf**

Desert alyssum

Habitat/Range: Dry sites in the steppe vegetation zone; rare in SC BC, introduced from Eurasia.

***Alyssum murale* Waldst. & Kit.**

Wall alyssum

Habitat/Range: Disturbed sites and waste places; rare garden escape in SW BC, introduced from Eurasia.

**ARABIDOPSIS**

***Arabidopsis thaliana* (L.) Heynh.**

Mouse-ear or Thale cress

Habitat/Range: Roadsides, fields and waste places; frequent on Vancouver Island, the Gulf Islands and Lower Mainland, rare in SE BC; introduced from Eurasia.

**ARABIS**

Notes: This is a very difficult genus, with extreme variation in individuals and populations and no key will be satisfactory for identification of all specimens. Mature fruits and seeds are necessary for determination of many species.

- 1. Mature siliques predominately erect or angled upward.
  - 2. Cauline leaves auriculate at base.
    - 3. Mature siliques tightly appressed against stem.
      - 4. Stems glabrous or sparsely hirsute at base; petals 7-12 mm long; siliques 2-3 mm thick; seeds with wings up to 1 mm wide ..... *A. drummondii*
      - 4. Stems densely hirsute at base; petals 4-9 mm long; siliques 1-2 mm thick; seeds with wings up to 0.3 mm wide.
        - 5. Seeds uniseriate; siliques flattened; sepals gibbous-based ..... *A. hirsuta*
        - 5. Seeds biseriate; siliques terete; sepals not gibbous-based ..... *A. glabra*
    - 3. Mature siliques somewhat spreading away from stem.
      - 6. Stems 25-80 cm tall, usually from an unbranched rootstock ..... *A. divaricarpa*
      - 6. Stems 10-25 cm tall, usually from a branched rootstock.
        - 7. Basal leaves usually toothed; leaves usually gray pubescent ..... *A. microphylla*
        - 7. Basal leaves entire; leaves glabrous, green ..... *A. lyallii*
- 2. Cauline leaves not auriculate at base.

- 8. Basal leaves, at least some, lyrate-pinnatifid ..... *A. lyrata*
- 8. Basal leaves entire to dentate ..... *A. nuttallii*
- 1. Mature siliques arching, drooping or reflexed.
  - 9. Fruiting pedicels reflexed, siliques angled downward ..... *A. holboellii*
  - 9. Fruiting pedicels more or less erect, siliques curved downward.
    - 10. Plants generally greater than 30 cm tall ..... *A. sparsiflora*
    - 10. Plants generally less than 20 cm tall ..... *A. lemmonii*

***Arabis divaricarpa* A. Nels.**

Spreading-pod rockcress

Habitat/Range: Meadows, gravelly and rocky places in the montane to alpine zones; var. *divaricarpa* is common east of the Coast-Cascade Mountains, var. *interposita* is known only from Chilcotin and Lytton; N to AK, E to NB and VT, S to CA and CO.

Notes: Two varieties occur in BC.

- 1. Pedicels and upper stems glabrous ..... var. *divaricarpa*
- 1. Pedicels and upper stems pubescent ..... var. *interposita* (Greene) Roll.

***Arabis drummondii* A. Gray**

Drummond's rockcress

Habitat/Range: Rock outcrops, gravelly soils in the montane to alpine zones; common throughout BC; N to AK and NT, E to NF, S to CA and DE.

***Arabis glabra* (L.) Bernh. var. *glabra***

Tower mustard

Habitat/Range: Rock outcrops and waste areas in the lowland and montane zones; common throughout BC; E to PQ, and S to GA and N CA; apparently introduced from Europe.

***Arabis hirsuta* (L.) Scop.**

Hairy rockcress

Habitat/Range: Rock outcrops, waste places and open areas, from the lowland to montane vegetation zones; common throughout BC, (var. *eschscholtziana* along the coast, vars. *pycnocarpa* and *glabrata* inland); circumpolar, S to CA, NM and GA.

Notes: Three weakly defined varieties occur in BC.

- 1. Leaves usually toothed; coastal ..... var. *eschscholtziana* (Andrz.) Roll.
- 1. Leaves usually entire; interior.
  - 2. Petals to 5 mm long ..... var. *pycnocarpa* (M. Hopkins) Roll.
  - 2. Petals to 9 mm long ..... var. *glabrata* Torr. & Gray

***Arabis holboellii* Hornem.**

Holboell's rockcress

Habitat/Range: Mesic to dry rocky slopes, gravelly areas and grasslands in the steppe vegetation and montane to alpine zones; common throughout BC east of the Coast-Cascade Mountains; S to CA, E to PQ and MI; Greenland.

Notes: An extremely variable species. Five varieties occur in BC.

- 1. Cauline leaves usually not auriculate at base ..... var. *pendulocarpa* (A. Nels.) Roll.
- 1. Cauline leaves usually auriculate at base.
  - 2. Fruiting pedicels recurved; siliques often curved ..... var. *pinetorum* (Tidestrom) Roll.

2. Fruiting pedicels abruptly reflexed; siliques usually straight.
3. Petals mostly less than 7 mm long; base of stem with coarse, simple or forked hairs . . . . .  
. . . . . var. *collinsii* (Fern.) Roll.
3. Petals mostly over 7 mm long; base of stem with fine, dendritic, appressed hairs.
4. Mature siliques 2-2.5 mm thick; leaves green; cauline leaves not revolute . . . . .  
. . . . . var. *holboellii*
4. Mature siliques 1.5-2 mm thick; leaves grayish; cauline leaves revolute . . . . .  
. . . . . var. *retrofracta* (Grah.) Rydb.

***Arabis lemmonii* S. Wats.**

Lemmon's rockcress

Habitat/Range: Mesic meadows and talus slopes in the alpine zone; infrequent in C and S BC; S to CO and CA.

***Arabis lyallii* S. Wats.**

Lyall's rockcress

Habitat/Range: Dry to mesic meadows, rock outcrops and scree slopes in the montane zone; frequent in S BC, east of the Coast-Cascade Mountains; N to YK, S to CA and UT.

***Arabis lyrata* L. ssp. *kamchatica* (Fisch. ex DC.) Hult.**

Lyre-leaved rockcress

Habitat/Range: Mesic to moist gravel banks, talus slopes and disturbed areas in the montane to alpine zones; common throughout BC; amphiberingian, N to AK, S to WA, E to SK; E Asia.

***Arabis microphylla* Nutt. in T. & G. var. *microphylla***

Littleleaf rockcress

Habitat/Range: Mesic meadows in the montane to alpine zones; infrequent in S BC east of the Coast-Cascade Mountains; S to MT, WY and OR.

***Arabis nuttallii* B.L. Robins. in A. Gray**

Nuttall's rockcress

Habitat/Range: Rock outcrops and talus slopes in the alpine zone; rare in S BC; E to S AB and S to NV and WY.

***Arabis sparsiflora* Nutt. in T. & G.**

Sickle-pod rockcress

Habitat/Range: Mesic sites in open grasslands, gravel beaches and disturbed areas in the lowland, steppe vegetation and montane zones; infrequent in C and S BC, rare northward; N to YT and S to W MT.

**ARMORACIA**

***Armoracia rusticana* Gaertn., Mey. & Scherb. (*A. lapathifolia* Gilib.)**

Common horseradish

Habitat/Range: Moist, disturbed sites; rare garden escape in S BC; introduced from Eurasia.

**ATHYSANUS**

***Athysanus pusillus* (Hook.) Greene**

Common sandweed

Habitat/Range: Moist to wet, grassy sites in the lowland and steppe vegetation zones; rare in S BC; S to ID and CA.

**BARBAREA**

1. Uppermost leaves lobed, rarely pinnatifid, lowermost leaves with 1-2 pairs of lateral lobes; styles 2-3 mm long, distinctly beaklike ..... *B. vulgaris*
1. Uppermost leaves lyrate-pinnatifid, lowermost leaves with 2-10 pairs of lateral lobes; styles 0.5-1.5 mm long, not beaklike.
  2. Siliques 1.5-5 cm long; basal leaves with 2-5 pairs of lateral lobes ..... *B. orthoceras*
  2. Siliques 4.5-8 cm long; basal leaves with 4-10 pairs of lateral lobes ..... *B. verna*

***Barbarea orthoceras* Ledeb.** (*B. americana* Rydb., *B. orthoceras* var. *dolichocarpa* Fern.)

American winter cress

Habitat/Range: Moist sites in forests and along streams in the lowland, steppe vegetation and montane zones; common along the coast, less frequent elsewhere in BC; N to AK, YT and NT, E to NF, and S to MN, NH, CO, AZ and CA.

***Barbarea verna* (P. Mill.) Asch.**

Early winter cress

Habitat/Range: Fields and waste places; rare in S BC; introduced from Eurasia.

***Barbarea vulgaris* R. Br.** (*B. vulgaris* var. *brachycarpa* Rouy & Foucaud)

Bitter or common winter cress, or yellow rocket

Habitat/Range: Moist to wet roadsides, fields and disturbed sites; frequent in SC BC, rare northward; introduced from Eurasia.

**BERTEROA*****Berteroa incana* (L.) DC.**

Hoary alyssum

Habitat/Range: Fields and waste places; frequent in SC and SE BC; introduced from Eurasia.

**BRASSICA**

1. Silique beaks conspicuously flattened, 3-nerved; valves 3-nerved.
  2. Siliques bristly - hirsute, 3.5-4.5 mm wide ..... *B. hirta*
  2. Siliques usually glabrous, 2-3 mm wide ..... *B. kaber*
1. Silique beaks more or less terete, usually 1-nerved; valves 1-nerved.
  3. Cauline leaves sessile, auriculate-clasping.
    4. Leaves glabrous to sparsely hirsute; petals 10-14 mm long ..... *B. napus*
    4. Leaves bristly; petals 6-8 mm long ..... *B. campestris*
  3. Cauline leaves sessile to petiolate, not auriculate-clasping.
    5. Siliques more or less tightly appressed-ascending, 1-2.5 cm long, the midnerve as prominent as the sutures ..... *B. nigra*
    5. Siliques spreading ascending, 2-4 cm long, the midnerve less prominent than the sutures ..... *B. juncea*

***Brassica campestris* L.** (*B. rapa* L. ssp. *campestris* [L.] Clapham)

Rape or field mustard

Habitat/Range: Roadsides, fields and waste places; frequent in BC S of 56°N; introduced from Eurasia.

**Brassica hirta Moench** (*Sinapis alba* L.)

White mustard

Habitat/Range: Roadsides, fields and waste places; rare in S BC; introduced from Eurasia.

**Brassica juncea (L.) Czern.** (*Sinapis juncea* L.)

Indian, brown, leaf or Chinese mustard

Habitat/Range: Fields and waste places; rare on S Vancouver Island and in the Dawson Creek area; introduced from Asia.

**Brassica kaber (DC.) L.C. Wheeler** (*Sinapis arvensis* L.)

Charlock, or wild mustard

Habitat/Range: Fields and waste places; rare in SW and SC BC: introduced from Eurasia.

**Brassica napus L.**

Turnip, or winter rape

Habitat/Range: Fields and waste places; rare in BC S of 55°N; introduced from Eurasia.

**Brassica nigra (L.) Koch in Rohl.**

Black mustard

Habitat/Range: Fields and waste places; rare in SW BC; introduced from Europe.

**BRAYA**

1. Cauline leaves present; pods linear, about 1 mm wide ..... *B. humilis*

1. Cauline leaves absent; pods plump, 2-3 mm wide ..... *B. purpurascens*

**Braya humilis (C.A. Mey.) B.L. Robins.** (*B. richardsonii* [Rydb.] Fern.)

Dwarf or low braya

Habitat/Range: Moist to dry forests and gravelly slopes in the montane to the alpine zones; infrequent in N BC, rare southward in the Rocky Mountains; N to AK, YT and NT, E to NF and disjunct in CO.

Notes: An adequate monograph of North American *Braya* (especially those of the far north) has yet to be done.

**Braya purpurascens (R. Br.) Bunge ex Ledeb.** (*B. americana* [Hook.] Fern., *B. glabella* Rich., *B. henryae* Raup)

Purple braya

Habitat/Range: Dry, alpine scree slopes; rare in N BC: circumpolar, N to AK, YT and NT and E to PQ.

**CAKILE**

1. Fruits slightly to much constricted at the joints; leaves mostly spatulate and sinuately toothed, sometimes pinnately lobed or nearly entire ..... *C. edentula*

1. Fruits usually expanded at the joints into projecting wings; at least the lower leaves usually distinctly pinnatifid ..... *C. maritima*

**Cakile edentula (Bigel.) Hook.** (*C. edentula* var. *californica* [Heller] Fern.)

American searocket

Habitat/Range: Sandy shorelines; common on the coast; N to AK and S to CA, also along the Great Lakes and the Atlantic Coast.

**Cakile maritima Scop.**

European searocket

Habitat/Range: Disturbed sites; rare on west coast of Vancouver Island; introduced from Europe.

**CAMELINA**

1. Plants pubescent at least below, with both long, simple and stellate hairs; silicles 4-7 mm long; seeds mostly less than 1 mm long ..... *C. microcarpa*
1. Plants glabrous or, if sparsely pubescent, then the simple hairs not exceeding the stellate; silicles 6-9 mm long; seeds 1-2 mm long ..... *C. sativa*

***Camelina microcarpa* Andr. ex DC.**

Littlepod or hairy flax

Habitat/Range: Roadsides, fields and waste places; rare in SC and NE BC; introduced from Eurasia.

***Camelina sativa* (L.) Crantz**

Falseflax, or gold-of-pleasure

Habitat/Range: Roadsides, fields and waste places; rare in SC BC and S Vancouver Island; introduced from Eurasia.

**CAPSELLA*****Capsella bursa-pastoris* (L.) Medic.**

Shepherd's purse

Habitat/Range: Roadsides, fields and waste places; common throughout BC; introduced from Eurasia.

**CARDAMINE**

Notes: The complex of similar species including *C. breweri*, *hirsuta*, *oligosperma*, *parviflora*, *pensylvanica* and *umbellata* is often considered to be one polymorphic species, *C. oligosperma*, and is variously treated in different manuals.

1. Lower leaves mostly simple.
  2. Plants 2-10 cm tall; leaves in distinct basal rosette; petals 3-5 mm long ..... *C. bellidifolia*
  2. Plants 20-60 cm tall; leaves not in distinct basal rosette; petals 7-12 mm long.
    3. Cauline leaves lobed or compound ..... *C. pulcherrima*
    3. Cauline leaves entire and simple ..... *C. cordifolia*
1. Lower leaves mostly compound.
  4. Petals 8-15 mm long.
    5. Basal leaves pinnately compound ..... *C. pratensis*
    5. Basal leaves 3-5 foliate.
      6. Rhizomes tuberous; upper cauline leaves with lanceolate, usually entire segments; common in SW BC ..... *C. pulcherrima*
      6. Rhizomes slender, not tuberous; upper cauline leaves ovate, with 3-5 large teeth; rare on the Queen Charlotte Islands and W Vancouver Island ..... *C. angulata*
  4. Petals 2-6 mm long.
    7. Plants rhizomatous perennials.
      8. Basal or lower cauline leaves, at least some of them simple ..... *C. breweri*
      8. Basal and lower cauline leaves all pinnately compound.

- 9. Cauline leaves numerous; basal rosettes often not present; plants often partially submerged; S BC ..... *C. occidentalis*
- 9. Cauline leaves few (often 1-3); basal rosettes more prominent than cauline leaves; plants not partially submerged; N BC ..... *C. umbellata*
- 7. Plants annuals or biennials, lacking rhizomes.
  - 10. Lateral leaflets of cauline leaves linear or narrowly oblanceolate, not over 2 mm wide ..... *C. parviflora*
  - 10. Lateral leaflets of cauline leaves broader, oblanceolate to ovate, greater than 2 mm wide.
    - 11. Stems glabrous at base; leaf blades sparsely hirsute ..... *C. hirsuta*
    - 11. Stems hirsute at base; leaf blades glabrous.
      - 12. Petioles ciliate; mature siliques mostly 1.2-1.5 mm thick ..... *C. oligosperma*
      - 12. Petioles lacking cilia; mature siliques mostly 0.7-1.0 mm thick ..... *C. pensylvanica*

***Cardamine angulata* Hook.**

Angled bitter-cress

Habitat/Range: Moist woods and riverbanks in the lowland zone; rare on the Queen Charlotte Islands and Vancouver Island; N to S AK and S to N CA.

***Cardamine bellidifolia* L. var. *bellidifolia***

Alpine bitter-cress

Habitat/Range: Moist scree slopes and mossy rocks in the upper montane to alpine zones; frequent in northern BC, rare southward and on Vancouver Island; circumpolar, E to NF and S to ME, NH and N CA.

***Cardamine breweri* S. Wats.**

Brewer's bitter-cress

Habitat/Range: Standing water, streambanks, boggy areas in the lowland and montane zones; frequent in S BC; S to WY, NV and N CA.

Notes: Two varieties occur in BC.

- 1. Terminal lobe of lower cauline leaves cordate at base ..... var. *orbicularis* (Greene) Detl.
- 1. Terminal lobe of lower cauline leaves cuneate or rounded at base ..... var. *breweri*

***Cardamine cordifolia* A. Gray var. *Iyallii* (S. Wats.) Nels. & Macbr.**

Heart-leaved or large mountain bitter cress

Habitat/Range: Streambanks and moist meadows in the montane to alpine zones; infrequent in S BC, east of the Coast-Cascade Mountains; S to ID, NV and N CA.

***Cardamine hirsuta* L.**

Hairy bitter-cress

Habitat/Range: Waste places, roadsides and open woods in the lowland zone; frequent in S BC; introduced from Eurasia.

***Cardamine occidentalis* (S. Wats. ex B.L. Robins.) Howell**

Western bitter-cress

Habitat/Range: Streambanks and lakeshores in the lowland zone; infrequent in S BC; N to AK and S to CA.

***Cardamine oligosperma* Nutt.**

Little western or few-seeded bitter-cress

Habitat/Range: Waste places, roadsides and open woods in the lowland and lower montane zones; common in S BC, less frequent northward; amphiberian, S to MT and CA; Siberia.

***Cardamine parviflora* L.**

Small-flowered bitter-cress

Habitat/Range: Dry sandy or rocky places in the lowland zone; rare in widely scattered localities; N to NT, E to NF, S to TX, FL and OR.

***Cardamine pensylvanica* Muhl. ex Willd.**

Pennsylvanian bitter-cress

Habitat/Range: Moist sites in open woods and waste places in the lowland and montane vegetation zones; common throughout BC, especially southward; E to NF and S to TX, FL and N CA.

***Cardamine pratensis* L. var. *angustifolia* Hook.**

Cuckoo bitter-cress, cuckoo-flower, or lady's-smock

Habitat/Range: Moist, peaty meadows in the lowland and montane zones; infrequent in widely scattered localities (some likely introduced); circumpolar, N to AK, E to NF and S to OH and MS; Eurasia.

***Cardamine pulcherrima* Greene var. *tenella* (Pursh) C.L. Hitchc. (*C. nuttallii* Greene)**

Slender toothwort, or beautiful bitter-cress

Habitat/Range: Moist woods in the lowland zone; common on S Vancouver Island, the Gulf Islands and adjacent mainland of BC; S to N CA.

***Cardamine umbellata* Greene (*C. oligosperma* var. *kamtschatica* [Regel] Detl.)**

Siberian or umbellate bitter-cress

Habitat/Range: Streambanks in the montane zone; rare in N BC; N to AK and YT and S to N CA.

**CARDARIA**

- 1. Silicles and sepals with short simple hairs ..... *C. pubescens*
- 1. Silicles and sepals glabrous.
  - 2. Silicles cordate ..... *C. draba*
  - 2. Silicles not cordate ..... *C. chalepensis*

***Cardaria chalepensis* (L.) Handel-Mazzetti (*C. draba* ssp. *chalepensis* [L.] O.E. Schulz)**

Chalapa hoary-cress

Habitat/Range: Roadsides, fields and waste places; rare in SC BC; introduced from Eurasia.

***Cardaria draba* (L.) Desv.**

Heart-podded hoary-cress

Habitat/Range: Roadsides, fields and waste places; infrequent in S BC; introduced from Eurasia.

***Cardaria pubescens* (C.A. Mey.) Jarm.**

Globe-pod hoary-cress

Habitat/Range: Roadsides, fields and waste places; infrequent in SC BC, rare northward to Dawson Creek; introduced from Eurasia.

**CHORISPORIA*****Chorispora tenella* (Pall.) DC.**

Blue mustard

Habitat/Range: Dry roadsides and waste places; rare in SC BC; introduced from Eurasia.

**COCHLEARIA**

***Cochlearia officinalis* L. ssp. *oblongifolia* (DC.) Hult.**

Scurvy grass, or spoonwort

Habitat/Range: Moist sandy shorelines, marshes and mudflats; frequent on the coast, circumboreal, N to AK, YT and NT and S to WA.

**CONRINGIA**

***Conringia orientalis* (L.) Dumort.**

Hare's-ear mustard

Habitat/Range: Roadsides, fields and waste places; rare in SW and SC BC; introduced from Eurasia.

**CORONOPUS**

***Coronopus didymus* (L.) Sm.**

Lesser swine-cress

Habitat/Range: Fields and waste places; rare on SE Vancouver Island; introduced from Europe.

**DESCURAINIA**

1. Siliques 7-12, rarely 15 mm long; pedicels less than half the length of the siliques, seeds 1- or 2- ranked; leaves generally pinnate.
  2. Siliques somewhat clavate, rounded above, about as long or shorter than the pedicels; seeds 2-ranked, at least in part ..... *D. pinnata*
  2. Siliques linear, pointed above, usually longer than the pedicels; seeds 1- ranked *D. richardsonii*
1. Siliques 11-33 mm long; pedicels more than half the length of the siliques; seeds 1-ranked, leaves, or at least some of them bi- or tri-pinnate.
  3. Pedicels 1-9 mm long; stems sparsely to densely stipitate-glandular; racemes clustered at the top ...  
..... *D. sophioides*
  3. Pedicels 7-14 mm long; stems not stipitate-glandular; racemes elongated ..... *D. sophia*

***Descurainia pinnata* (Walt.) Britt. (*D. pinnata* var. *filipes* [A. Gray] Peck, *D. pinnata* var. *intermedia* [Rydb.] C.L. Hitchc.)**

Western tansymustard

Habitat/Range: Dry open sites and waste places in the montane and steppe vegetation zones; common in S BC; S to E WA, E CA, CO and NV.

***Descurainia richardsonii* (Sweet) O.E. Schulz in Engl. (*D. richardsonii* var. *viscosa* [Rydb.] Peck)**

Richardson's tansymustard

Habitat/Range: Roadsides, disturbed sites and waste places in the montane and steppe vegetation zones; common in S BC, rare (and possibly introduced northward); N to AK, YT and NT, E to PQ and S to KS, MN, CO, NM, and CA.

***Descurainia sophia* (L.) Webb ex Prantl**

Flixweed

Habitat/Range: Roadsides, fields and waste places; frequent throughout BC except Queen Charlotte Islands and adjacent coast; introduced from Eurasia.

***Descurainia sopheroides* (Fisch.) O.E. Schulz**

Northern tansymustard

Habitat/Range: Moist to mesic disturbed sites and waste places; rare in N BC; amphiberingian, N to AK, YT and NT and E to N to MB, Siberia.

**DRABA<sup>17</sup>**

1. Large succulent plants with leaves up to 30 cm long and silicles 18-22 mm long; seeds 1.5 mm long, black (W seacoast plants, from Vancouver Island to Alaska; mostly on highly nitrified substrate of bird-nesting sites) ..... *D. hyperborea*
1. Small non-succulent plants with leaves shorter than 15 cm and silicles less than 18 mm long; seeds less than 0.5 mm, brown.
  2. Styles less than 0.15 mm long.
    3. Annual or biennial plants of lowland habitats.
      4. Petals deeply bilobed, white; cauline leaves absent ..... *D. verna*
      4. Petals emarginate, yellow; cauline leaves present.
        5. Silicles about six times as long as broad ..... *D. reptans*
        5. Silicles less than three times as long as broad ..... *D. nemorosa*
    3. Perennial plants of alpine habitats.
      6. Lower leaf surfaces glabrous or with simple to multiforked hairs; cruciform to stellate hairs absent<sup>18</sup> ..... *D. crassifolia*
      6. Lower leaf surfaces with mainly cruciform to stellate hairs.
        7. Lower leaf surfaces with mainly stellate hairs ..... *D. praealta*
        7. Lower leaf surfaces with mainly cruciform hairs.
          8. Upper leaf surfaces with mainly trifid and cruciform hairs ..... *D. stenoloba*
          8. Upper leaf surfaces with mainly simple or bifid hairs; stems mainly with simple hairs ..... *D. albertina*
  2. Styles more than 0.15 mm long.
    9. Silicles with mainly short-stalked cruciform or stellate hairs.
      10. Cauline leaves (3) 5-8 (12); usually some flowers or silicles in leaf axils; fruiting racemes usually occupying top half of stem; silicles narrower at base and apex, frequently twisted; pedicels usually appressed to stem ..... *D. cana*
      10. Cauline leaves (0) 1-4 (5); inflorescence leafless; fruiting racemes occupying top third of stem; silicles narrowed equally at base and apex, not twisted; pedicels spreading to semierect ..... *D. cinerea*
    9. Silicles glabrous or with simple to forked hairs.
      11. Lower leaf surfaces predominantly with simple to many-forked hairs.
        12. Lower leaf surfaces with mainly 4- to many-forked hairs.
          13. Forked hairs less than 0.25 mm broad, concentrated towards apex of leaves, mainly 7- to many-forked ..... *D. lactea*

<sup>17</sup> Key adapted from Mulligan (1976).<sup>18</sup> Strong magnification may be required when examining hairs of *Draba*.

- 13. Forked hairs more than 0.25 mm broad, uniformly distributed on lower surfaces of leaves, mainly less than 7-forked ..... *D. alpina*
- 12. Lower leaf surfaces mainly with simple to three-forked hairs.
  - 14. Stem glabrous ..... *D. fladnizensis*
  - 14. Stem pubescent.
    - 15. Petals narrower than sepals; stigmas capitate ..... *D. stenopetala*
    - 15. Petals broader than sepals; stigmas bilobed.
      - 16. Style over 0.5 mm long ..... *D. densifolia*
      - 16. Style less than 0.5 mm long.
        - 17. Lower leaf surfaces with some simple hairs; silicles usually glabrous ..... *D. alpina*
        - 17. Lower leaf surfaces lacking simple hairs; silicles puberulent . . . . .  
..... *D. corymbosa*
- 11. Lower leaf surfaces predominantly with cruciform to stellate hairs.
  - 18. Lower leaf surfaces mainly with cruciform hairs.
    - 19. Stem leaves (2) 3-6 (10); fruiting stems usually more than 15 cm high .....  
..... *D. borealis*
    - 19. Stem leaves 0-2 (3); fruiting stems usually less than 15 cm high.
      - 20. Lowest pedicels shorter than silicles; basal leaves compacted.
        - 21. Petals white; stems leafless or with one leaf; upper leaf surfaces with some stellate hairs ..... *D. porsildii*
        - 21. Petals yellow; stems leafless; upper leaf surfaces lacking stellate hairs ..... *D. macounii*
      - 20. Lowest pedicels usually about same to twice length of silicles; basal leaves loosely tufted ..... *D. longipes*
  - 18. Lower leaf surfaces mainly with stellate hairs.
    - 22. Lower leaf surfaces mainly with long-stalked stellate hairs.
      - 23. Upper leaf surfaces with long-stalked stellate hairs ..... *D. ventosa*
      - 23. Upper leaf surfaces with long, simple or once- or twice-forked hairs.
        - 24. Stems and pedicels with simple, rarely forked hairs; leaves greater than 2 mm broad ..... *D. ruaxes*
        - 24. Stems and pedicels with stellate and forked, rarely simple, hairs; leaves less than 2 mm broad ..... *D. paysonii*
    - 22. Lower leaf surfaces predominantly with short-stalked or sessile hairs.
      - 25. Stellate hairs on lower leaf surfaces mainly with 9 or more rays.
        - 26. Stellate hairs on lower leaf surfaces sessile ..... *D. oligosperma*
        - 26. Stellate hairs on lower leaf surfaces stalked.
          - 27. Stellate hairs less than 0.2 mm in diameter.

- 28. Both leaf surfaces canescent with stellate hairs; stems and pedicels canescent with stellate hairs; rays of stellate hairs mainly parallel of leaf surfaces ..... *D. nivalis*
- 28. Stellate hairs mostly on underside of green leaf, especially towards apex; stems and pedicels usually glabrous; rays of stellate hairs pointing in many directions ..... *D. lactea*
- 27. Stellate hairs more than 0.2 mm in diameter.
  - 29. Cauline leaves 2-10, rarely fewer; stems over 10 cm high .....  
..... *D. glabella*
  - 29. Cauline leaves 0-1; stems less than 10 cm high (occasionally taller in *D. incerta*).
    - 30. Stellate hairs mostly with one longer central axis; lowest pedicel usually twice length of silicle; petals yellow .....  
..... *D. incerta*
    - 30. Stellate hairs without a longer central axis; lowest pedicel less than twice length of silicle; petals white.
      - 31. Petals over 4.0 mm long; styles over 0.5 mm long; silicles narrowly elliptic ..... *D. palanderiana*
      - 31. Petals 4.0 mm, or shorter; styles less than 0.5 mm long; silicles narrowly oblong .... *D. lonchocarpa*
- 25. Stellate hairs on lower surfaces of leaves mainly with 8 or less rays.
  - 32. Stems with zero to two leaves.
    - 33. Stems with 1-2 leaves, usually more than 2 mm broad; silicles appressed to stem; stem and pedicels frequently pubescent .....  
..... *D. lonchocarpa* (var. *vestita*)
    - 33. Stems leafless or rarely with 1 leaf, less than 2 mm broad. silicles spreading; stem and pedicels usually glabrous ..... *D. porsildii*
  - 32. Stems with 4 or more leaves.
    - 34. Stems with more than 10 leaves; pedicels appressed to stem .....  
..... *D. aurea*
    - 34. Stems with less than 10 leaves; pedicels spreading.
      - 35. Lowest pedicel about same length to twice length of silicle; some of the cruciform and stellate hairs long-stalked; petals creamy yellow ..... *D. praealta*
      - 35. Lowest pedicel shorter than silicle; all of the cruciform and stellate hairs short-stalked; petals white.
        - 36. Styles more than 0.5 mm long ..... *D. borealis*
        - 36. Styles less than 0.5 mm long ..... *D. glabella*

***Draba albertina* Greene** (*D. stenoloba* var. *nana* [O.E. Schulz] C.L. Hitchc.)

Slender draba or whitlow-grass

Habitat/Range: Mesic to dry openings and meadows from the montane to alpine zones; infrequent in SC and SE BC, rare northward to Atlin and westward to central Vancouver Island; N to YT and NT, E to SW and S to CO and CA.

***Draba alpina* L.** (*D. alpina* var. *pilosa* [Adams] Regel, *D. pilosa* Adams ex DC.)

Alpine draba or rock-cress

Habitat/Range: Dry meadows and rocky slopes in the subalpine and alpine zones; rare in N BC; N to AK, YT and NT, and E to PQ.

***Draba aurea* Vahl in Horn.** (*D. aurea* var. *leiocarpa* [Pays. & St. John] C.L. Hitchc.)

Golden draba or whitlow-grass

Habitat/Range: Dry openings, meadows and talus slopes from the montane to alpine zones; common throughout BC east of the Coast-Cascade Mountains; N to AK, YT and NT, E to PQ and S to N WA, ID, MT, NM and AZ.

***Draba borealis* DC.** (*D. maxima* Hult., *D. mccallae* Rydb.)

Northern draba or whitlow-grass

Habitat/Range: Mesic meadows in the subalpine and alpine zones; frequent in N BC; N to AK, YT and NT and W to SW AB.

***Draba cana* Rydb.**

Lance-leaved draba or whitlow-grass

Habitat/Range: Dry meadows and cliffs in the subalpine and alpine zones; frequent in N BC, less frequent southward east of the Coast-Cascade Mountains; circumpolar, N to AK, YT and NT, E to PQ and S to CO, VT and NV.

Notes: In North America this species has often been incorrectly placed under *D. lanceolata* Royle, an Asian species.

***Draba cinerea* J.E. Adams**

Gray-leaved draba or whitlow-grass

Habitat/Range: Dry meadows and cliffs in the alpine zone; rare in N BC; circumpolar, N to AK, YT and NT and E to N PQ; Eurasia.

***Draba corymbosa* R. Br. ex DC.** (*D. bellii* Holm, *D. macrocarpa* J.E. Adams)

Baffin's Bay draba or whitlow-grass

Habitat/Range: Mesic to dry meadows in the alpine zone; rare in NW BC; N to AK, YT and NT and E to PQ.

***Draba crassifolia* Grah. in Jameson**

Rocky Mountain draba or whitlow-grass

Habitat/Range: Mesic to dry meadows and cliffs in the subalpine and alpine zones; infrequent throughout BC east of the Coast-Cascade Mountains; N to AK, YT, and NT, E to PQ and S to CO, AZ and CA.

***Draba densifolia* Nutt. in T.& G.**

Nuttall's draba or whitlow-grass

Habitat/Range: Mesic to dry openings, meadows, and cliffs from the upper montane to alpine zones; rare in SC BC; E to SW AB, S to WY, VT and CA, disjunct in AK.

Notes: American authors often mistakenly treat this species as synonymous with *D. stenopetala*.

***Draba fladnizensis* Wulf. in Jacq.**

Austrian draba or whitlow-grass

Habitat/Range: Mesic to dry meadows, cliffs and talus slopes in the subalpine and alpine zones, rare in N BC; circumpolar, N to AK, YT and NT, E to AB and S to CO and VT; Eurasia.

***Draba glabella* Pursh var. *glabella***

Smooth draba or whitlow-grass

Habitat/Range: Moist to mesic meadows and cliffs in the subalpine and alpine zones; rare in N BC; circumpolar, N to AK, YT and NT and E to NF.

Notes: The name *D. hirta* L. is sometimes misapplied to this species.

***Draba hyperborea* (L.) Desv.**

North Pacific draba or whitlow-grass

Habitat/Range: Mesic coastal cliffs; locally frequent from N Vancouver Island northward; amphiberian, N to AK; E Asia.

***Draba incerta* Pays.**

Yellowstone draba or whitlow-grass

Habitat/Range: Dry meadows and cliffs in the upper montane, subalpine and alpine zones; common throughout BC east of the Coast-Cascade Mountains; N to AK and YT, E to AB and S to WA, ID, MT and WY, disjunct in PQ.

***Draba lactea* Adams (*D. allenii* Fern.)**

Milky draba or whitlow-grass

Habitat/Range: Mesic to dry meadows and cliffs in the subalpine and alpine zones; rare in N BC; circumboreal, N to AK, YT and NT; Eurasia.

***Draba lonchocarpa* Rydb. (*D. lonchocarpa* var. *exigua* O.E. Schulz in Engl. and *D. nivalis* Lilj. var. *elongata* S. Wats. = var. *lonchocarpa*, *D. lonchocarpa* var. *denudata* O.E. Schulz in Engl. and *D. nivalis* var. *denudata* [O.E. Schulz in Engl.] C.L. Hitchc. = var. *vestita*, *E. nivalis* var. *thompsonii* C.L. Hitchc. = var. *thompsonii*)**

Lance-fruited draba or whitlow-grass

Habitat/Range: Mesic to dry meadows, cliffs and scree slopes in the subalpine and alpine zones; var. *lonchocarpa* common throughout BC E of the Coast-Cascade Mountains, var. *thompsonii* rare in and E of the Coast-Cascade Mountains south of 57°N, var. *vestita* rare in coastal and west-central BC; var. *lonchocarpa* ranges N to AK, YT and NT, E to AB, and KS to OR, MT and WY, var. *thompsonii* ranges S to N WA and var. *vestita* ranges N to SC AK.

Notes: Three varieties occur in BC.

1. Stems with 1 or 2 leaves, usually more than 2 mm wide; silicles usually appressed to stem; stems and pedicels frequently pubescent ..... var. *vestita* O.E. Schulz
1. Stems leafless or rarely with 1 leaf, less than 2 mm wide; silicles usually spreading; upper stems and pedicels usually glabrous.
  2. Silicles more than 2 mm wide ..... var. *thompsonii* (C.L. Hitchc.) Rollins
  2. Silicles less than 2 mm wide ..... var. *lonchocarpa*

***Draba longipes* Raup**

Long-stalked draba or whitlow-grass

Habitat/Range: Moist meadows and cliffs in the subalpine and alpine zones; rare in N BC; N to AK, YT and W NT and E to AB.

***Draba macounii* O.E. Schulz in Engl.**

Macoun's draba or whitlow-grass

Habitat/Range: Mesic to dry meadows and scree slopes in the subalpine and alpine zones; rare in N BC; N to AK, S YT and SW NT and E to AB.

***Draba nemorosa* L.**

Woods draba or whitlow-grass

Habitat/Range: Moist to dry open sites in the lowland, steppe vegetation and montane zones; common in S BC, rare northward; circumpolar, N to AK, YT and NT, E to PQ and S to CO and N CA; Eurasia.

***Draba nivalis* Lilj.**

Snow draba or whitlow-grass

Habitat/Range: Dry meadows and scree slopes in the subalpine and alpine zones; infrequent throughout BC; N to AK, YT and NT and E to NF.

***Draba oligosperma* Hook.**

Few-seeded draba or whitlow-grass

Habitat/Range: Dry rocky slopes, cliffs and meadows from the steppe vegetation to the alpine zones; infrequent in S BC, rare northward; N to AK, YT and NT, E to SW AB and S to WY, CO, NV and CA.

***Draba palanderiana* Kjellm.**

Palander's draba or whitlow-grass

Habitat/Range: Mesic to dry meadows and cliffs in the subalpine and alpine zones; rare, known only from the Cassiar area; N to AK, YT and W NT.

Notes: The name *D. caesia* Adams has often been misapplied to this species.

***Draba paysonii* Macbr. (*D. paysonii* var. *treleasii* [O.E. Schulz] C.L. Hitchc.)**

Payson's draba or whitlow-grass

Habitat/Range: Dry meadows and cliffs in the subalpine and alpine zones; infrequent in S BC; N to AK, E to SW AB and S to WY, VT, NV and CA.

***Draba porsildii* Mulligan**

Porsild's draba or whitlow-grass

Habitat/Range: Talus slopes and cliffs in the subalpine and alpine zones; rare in NE and SE BC; N to AK, S YT and W NT, E to SW AB.

***Draba praealta* Greene**

Tall draba or whitlow-grass

Habitat/Range: Moist to mesic forests and meadows in the steppe vegetation, montane and subalpine zones; infrequent in S BC east of the Coast-Cascade Mountains, rare northward; N to AK, YT and NT, E to AB and S to WY, NV and OR.

***Draba reptans* (Lam.) Fern.**

Carolina draba or whitlow-grass

Habitat/Range: Dry sites in the steppe vegetation and lower montane zones; rare in SC BC; E to AB and S to TX, GA, CO, NM, AZ and CA.

***Draba ruaxes* Pays. & St. John (*D. ventosa* var. *ruaxes* [Pays. & St. John] C.L. Hitchc.)**

Coast Mountain draba or whitlow-grass

Habitat/Range: Dry meadows and cliffs in the subalpine and alpine zones; rare in the Coast-Cascade Mountains; N to AK and YT and S to N WA.

***Draba stenoloba* Ledeb.**

Alaska draba or whitlow-grass

Habitat/Range: Moist to dry meadows and cliffs in the subalpine and alpine zones; infrequent throughout BC; N to AK, YT, W NT and SW AB.

***Draba stenopetala* Trautv.**

Star-flowered draba or whitlow-grass

Habitat/Range: Mesic to dry meadows and cliffs in the subalpine and alpine zones; rare, known only from Mt. Edziza; amphiberingian, N to AK and YT.

***Draba ventosa* A. Gray**

Wind River draba or whitlow-grass

Habitat/Range: Dry meadows and cliffs in the subalpine and alpine zones; rare in SE BC; N to YT, E to SW AB and S to WY and VT.

***Draba verna* L. (*Erophila verna* [L.] Chev.)**

Common draba or whitlow-grass

Habitat/Range: Dry, open sites; locally frequent on SE Vancouver Island, the Gulf Islands and the adjacent lower mainland, rare in SC BC; introduced from Eurasia.

**ERUCASTRUM*****Erucastrum gallicum* (Willd.) O.E. Schulz**

Dog mustard

Habitat/Range: Fields and waste places; rare, known only from Radium; introduced from Eurasia.

**ERYSIMUM**

1. Petals pink to pinkish purple; plants alpine ..... *E. pallasii*
1. Petals yellow to deep orange; plants not alpine.
  2. Petals 3-12 mm long.
    3. Petals 3-5 mm long; siliques 1.5-3 cm long ..... *E. cheiranthoides*
    3. Petals 6-12 mm long; siliques 2.5-5 cm (rarely 1.5 cm) long ..... *E. inconspicuum*
  2. Petals 15-25 mm long.
    4. Herbage usually greenish; siliques flattened; plants alpine ..... *E. arenicola*
    4. Herbage usually grayish; siliques not markedly flattened; plants lowland or montane.
      5. Seeds in 1 row; nectary glands present at base of filaments ..... *E. asperum*
      5. Seeds more or less in 2 rows; nectary glands absent ..... *E. cheiri*

***Erysimum arenicola* S. Wats. var. *torulosum* (Piper) C.L. Hitchc. in C.L. Hitchc. & Cronq. (*E. torulosum* Piper)**

Sand-dwelling wallflower

Habitat/Range: Moist to mesic rocky or talus slopes in the alpine zone; rare on Vancouver Island; S to OR.

***Erysimum asperum* (Nutt.) DC. (*E. capitatum* [Dougl.] Greene)**

Prairie rocket, or western wallflower

Habitat/Range: Dry sites in the montane zone; rare, scattered throughout BC; E to S MB and S to KS, MN, NM and N CA.

***Erysimum cheiranthoides* L. (*E. cheiranthoides* ssp. *altum* Ahti)**

Wormseed mustard

Habitat/Range: Roadsides, fields and waste places; frequent throughout BC except the Queen Charlotte Islands and adjacent coast; circumboreal, native status uncertain.

***Erysimum cheiri* (L.) Crantz (*Cheiranthus cheiri* L.)**

Common wallflower

Habitat/Range: Rock outcrops and waste places in the lowland zone; infrequent garden escape on SE Vancouver Island; introduced from Europe.

***Erysimum inconspicuum* (S. Wats.) MacMill.**

Small wallflower, or small-flowered rocket

Habitat/Range: Dry open sites in the steppe vegetation and montane zones; frequent throughout BC east of the Coast-Cascade Mountains; N to AK, YT and NT, E to PQ and S to KS, NC, VT, NM and CA.

***Erysimum pallasii* (Pursh) Fern.**

Pallas' wallflower

Habitat/Range: Dry talus slopes in the alpine zone; rare, known only from Mt. Edziza; circumpolar, N to AK, YT and NT.

**EUTREMA**

***Eutrema edwardsii* R. Br. in Parry**

Edward's wallflower

Habitat/Range: Dry talus slopes in the subalpine and alpine zones; rare in N BC; circumboreal, N to AK, YT and NT; Eurasia.

**HALIMOLOBOS**

1. Cauline leaves lanceolate to oblong, auriculate-clasping at the base; siliques glabrous, seeds in 2 rows; plants of N BC ..... *H. mollis*

1. Cauline leaves linear-lanceolate to narrowly oblanceolate, not auriculate-clasping at the base; siliques finely stellate-pubescent, seeds in 1 row; plants of SC BC ..... *H. whitedii*

***Halimolobos mollis* (Hook.) Rollins (*Arabis hookeri* Lange)**

Soft halimolobos

Habitat/Range: Dry slopes and open forests in the montane zone; rare in N BC; N to AK, YT and NT.

***Halimolobos whitedii* (Piper) Rollins**

Whited's halimolobos

Habitat/Range: Dry sites in the steppe vegetation zone; rare in SC BC; S to N WA.

**HESPERIS**

***Hesperis matronalis* L.**

Dames's-violet

Habitat/Range: Roadsides, fields and disturbed sites; frequent garden escape on Vancouver Island and adjacent mainland, rare eastward in S BC; introduced from Eurasia.

**HUTCHINSIA**

***Hutchinsia procumbens* (L.) Desv. (*Hymenolobus procumbens* [L.] Nutt. ex T.& G.)**

Hutchinsia

Habitat/Range: Moist saline or alkaline sites in the steppe vegetation zone; rare in SC BC; E to NF and S to CO and CA; also known in Chile, Eurasia, N Africa and Australia.

**IDAHOA**

***Idahoia scapigera* (Hook.) A. Nels. & J.F. MacBr.**

Scalepod

Habitat/Range: Moist seepages to dry slopes; rare on S Vancouver Island and the Gulf Islands, rare eastward in S BC; S to ID and CA.

**ISATIS*****Isatis tinctoria* L.**

Dyer's woad, or asp-of-Jerusalem

Habitat/Range: Roadsides and waste places; rare garden escape, known only from the Duncan and Nelson areas; introduced from Europe.

**LEPIDIUM<sup>19</sup>**

1. Middle and upper leaves suborbicular, deeply cordate clasping with a closed sinus and slightly overlapping lobes, thus appearing perfoliate ..... *L. perfoliatum*
1. Middle and upper leaves narrower, linear to broadly lanceolate, if clasping, then not appearing perfoliate.
  2. Silicles 5 to 6 mm long.
    3. Middle and upper leaves not clasping, silicles on strongly ascending to appressed pedicels ..... *L. sativum*
    3. Middle and upper leaves clasping the stem, silicles on spreading pedicels.
      4. Annuals or biennials usually with a single erect stem; anthers yellow; silicles covered with small white vesicles, styles included to slightly exerted from shallow apical notch ..... *L. campestre*
      4. Perennials with numerous ascending stems; anthers violet; silicles with few or no vesicles, styles mostly exerted from shallow apical notch ..... *L. heterophyllum*
  2. Silicles 2.5-3.5 mm long.
    5. Silicles puberulent, at least on the margin.
      6. Silicles 2.5-3 by 1.5-2 mm, nearly elliptic, narrowed into acute apical teeth; inflorescence congested into numerous axillary racemes as well as terminal ones ... *L. ramosissimum*
      6. Silicles 3-3.5 by 2.5-3 mm, round-obcordate to short oblong-obovate, rounded to abruptly curved into obtuse apical teeth; inflorescence a single raceme or of sparsely branched racemes ..... *L. densiflorum*
    5. Silicles glabrous.
      7. Silicles oval, orbicular to rotund; petals conspicuous, as long or slightly longer than sepals ... *L. virginicum*
      7. Silicles ovate, obovate to round obcordate, petals shorter than sepals or lacking.
        8. Silicles ovate to obovate, narrowed into acutish apical teeth ..... *L. bourgeauanum*
        8. Silicles round obcordate to short-obovate, rounded to abruptly curved into obtuse apical teeth ..... *L. densiflorum*

***Lepidium bourgeauanum* Thell.**

Branched or Bourgeau's pepper-grass

Habitat/Range: Disturbed sites; rare in C and SE BC; N to YT and NT and E to MB, also introduced E to NF.

***Lepidium campestre* (L.) R. Br.**

Field pepper-grass

Habitat/Range: Fields, roadsites and waste places; infrequent in SE BC; introduced from Eurasia.

<sup>19</sup> Key adapted from Mulligan (1961).

***Lepidium densiflorum* Schrad.**

Prairie pepper-grass

Habitat/Range: Dry, open sites in the steppe vegetation and montane zones, also in disturbed sites (var. *densiflorum*); var. *densiflorum* frequent throughout BC, var. *elongatum* frequent in S and NW BC, var. *macrocarpum* frequent in S and E BC, and var. *pubicarpum* rare in SC BC; var. *densiflorum* native from SE BC to MB, introduced elsewhere, var. *elongatum* ranges N to YT and NT, var. *macrocarpum* ranges E to SK, and var. *pubicarpum* ranges S to VT and CA.

Notes: Four varieties occur in BC.

- 1. Silicles averaging 2.5 mm long, glabrous; pedicels slightly flattened . . . . . var. *densiflorum*
- 1. Silicles averaging 3 mm long, glabrous or puberulent; pedicels conspicuously flattened.
  - 2. Silicles glabrous . . . . . var. *macrocarpum* Mulligan
  - 2. Silicles puberulent.
    - 3. Silicles puberulent on both surfaces . . . . . var. *pubicarpum* (A. Nelson) Thell.
    - 3. Silicles puberulent only on the margins . . . . . var. *elongatum* (Rydb.) Thell.

***Lepidium heterophyllum* (DC.) Benth. (L. *smithii* Hook.)**

Smith's pepper-grass

Habitat/Range: Fields, roadsides and waste places; rare on S Vancouver Island; introduced from Europe.

***Lepidium perfoliatum* L.**

Clasping-leaved pepper-grass

Habitat/Range: Roadsides and waste places; infrequent in SC BC; introduced from Eurasia.

***Lepidium ramosissimum* A. Nels.**

Branched pepper-grass

Habitat/Range: Dry sites in the lowland and steppe vegetation zones; rare in E BC and on the Gulf Islands; E to ON and S to NM, native status uncertain in BC.

***Lepidium sativum* L.**

Garden cress

Habitat/Range: Roadsides and waste places; rare garden escape in SE BC and S Vancouver Island; introduced from Eurasia.

***Lepidium virginicum* L.**

Tall pepper-grass

Habitat/Range: Mesic to dry, open sites in the lowland zone; rare on S Vancouver Island, the Gulf Islands and the adjacent mainland; S to OK, TX, NM, AZ and CA.

**LESQUERELLA**

- 1. Silicles 5-8 mm long, slightly longer than wide; cauline leaves few; plants of extreme N BC . . . . . *L. arctica*
- 1. Silicles 3-4 mm long; as wide as long; cauline leaves usually numerous; plants of S BC . . . . . *L. douglasii*

***Lesquerella arctica* (Wormsk. ex Hornem.) S. Wats. var. *arctica* (L. *purshii* [S. Wats.] Fern. var. *arctica*)**

Arctic bladderpod

Habitat/Range: Mesic to dry sites in the montane to alpine zones; rare in extreme N BC; amphiberian, N to AK, YT and NT; NW Asia.

***Lesquerella douglasii* S. Wats.**

Columbia bladderpod

Habitat/Range: Dry sites in the steppe vegetation and montane to alpine zones; infrequent in S BC; S to ID and N OR.

**LOBULARIA*****Lobularia maritima* (L.) Desv.**

Sweet alyssum

Habitat/Range: Waste places; rare garden escape on SE Vancouver Island; introduced from Europe.

**LUNARIA*****Lunaria annua* L.**

Honesty

Habitat/Range: Roadsides and waste places; rare garden escape in S BC; introduced from Europe.

**NASTURTIIUM**<sup>20</sup>

1. Styles usually over 1 mm long; seeds more or less 1-rowed with about 100 pits on each face .....  
 ..... *N. microphyllum*
1. Styles absent or less than 1 mm long; seeds distinctly 2-rowed with about 25 pits on each face .....  
 ..... *N. officinale*

***Nasturtium microphyllum* (Boenn.) Reichenb. (*N. officinale* R. Br. in W. Ait. var. *microphyllum* [Boenn.] Thell., *Rorippa microphyllum* [Boenn.] Hyl.)**

One-rowed water cress

Habitat/Range: Wet sites in the lowland and montane zones; rare, known only from S Vancouver Island and Atlin; probably introduced from E Canada.

***Nasturtium officinale* R. Br. in W. Ait. (*Rorippa nasturtium-aquaticum* [L.] Hayek)**

Common water cress

Habitat/Range: Streams and shallow ponds in the lowland and montane zones; frequent in S BC, rare northward; introduced from Europe.

**NESLIA*****Neslia paniculata* (L.) Desv.**

Ball mustard

Habitat/Range: Fields and waste places; infrequent in S BC, rare northward; introduced from Eurasia.

**PARRYA*****Parrya nudicaulis* (L.) Boiss. (*P. nudicaulis* ssp. *interior* Hult.)**

Northern parrya

Habitat/Range: Moist to mesic sites in the alpine zone; rare in extreme NW BC; amphiberian, N TO AK, YT and NT; Asia.

**PHYSARIA*****Physaria didymocarpa* (Hook.) A. Gray var. *didymocarpa***

Common twinpod

Habitat/Range: Dry sites in the steppe vegetation and montane zones; rare in SE BC; E to SW AB and S to WA, ID, and WY.

<sup>20</sup> Key adapted from Scoggan (1978).

**RAPHANUS**

- 1. Flowers usually yellow; siliques usually 4-12 seeded, rarely 2 or 3 seeded, 3-6 mm wide ..... *R. raphanistrum*
- 1. Flowers usually purple; siliques 1-3 seeded, rarely 4 or 5 seeded, 5-10 mm wide ..... *R. sativus*

***Raphanus raphanistrum* L.**

Wild radish

Habitat/Range: Fields and waste places; frequent in SW BC, rare in SC BC; introduced from Eurasia.

***Raphanus sativus* L.**

Garden radish

Habitat/Range: Disturbed sites and waste places; infrequent garden escape in SW BC; introduced from Eurasia.

**RORIPPA**

Notes: This is a difficult genus with many forms having been given specific status by various authors. There is a great deal of overlap in morphological characters among the taxa.

- 1. Plants rhizomatous perennials ..... *R. sylvestris*
- 1. Plants annuals or biennials, lacking rhizomes.
  - 2. Siliques 4-6 valved, globose or pear-shaped; rare in N BC ..... *R. barbareifolia*
  - 2. Siliques 2 valved, ovate to linear; mostly in S BC.
    - 3. Fruiting pedicels mostly 4-12 mm long, longer than siliques; stems usually erect, 3-10 dm tall ..... *R. palustris*
    - 3. Fruiting pedicels mostly 2-4 mm long, shorter than siliques; stems often spreading or decumbent, to 4 dm tall.
      - 4. Siliques oval to oblong, 2-6 mm long, 2-2.5 mm thick, usually not curved ..... *R. curvipes*
      - 4. Siliques linear oblong; 6-15 mm long, 1-1.5 mm thick, usually curved ..... *R. curvisiliqua*

***Rorippa barbareifolia* (DC.) Kitagawa**

Hoary yellow cress

Habitat/Range: Roadsides in the montane zone; rare, known from one collection along the Alaska Highway, where probably introduced; AK and NT.

***Rorippa curvipes* Greene var. *integra* (Rydb.) Stuckey (*R. obtusa* [Nutt.] Britt.)**

Blunt-leaved yellow cress

Habitat/Range: Moist sandy soils in the lowland to lower montane zones; infrequent in S BC E of the Coast-Cascade Mountains; S to MI, MO, TX, CA and N MX.

***Rorippa curvisiliqua* (Hook.) Bess. ex Britt.**

Western yellow cress

Habitat/Range: Moist soil in waste places, meadows and open woods in the lowland and lower montane zones; common in S BC; S to MT, CO and Baja CA.

Notes: Several poorly defined varieties are sometimes recognized, but are not treated here.

***Rorippa palustris* (L.) Bess. (*R. islandica* [Oed.] Borbas)**

Marsh yellow cress

Habitat/Range: Wet meadows and boggy areas in the lowland and lower montane zones; common throughout BC; circumboreal, throughout North America.

Notes: At least six poorly defined varieties have been attributed to the BC flora, but are not treated here.

***Rorippa sylvestris* (L.) Bess.**

Creeping yellow cress

Habitat/Range: Lawns, waste places and fields in the lowland and montane zones; frequent on S Vancouver Island, the Gulf Islands and adjacent mainland, rare eastward and northward; introduced from Europe.

**SCHOENOCRAMBE*****Schoenocrambe linifolia* (Nutt.) Greene**

Plains or rush mustard

Habitat/Range: Dry sites in the steppe vegetation zone; infrequent in SC BC; S to MT, NM and NV.

**SISYMBRIUM**

1. Siliques closely and tightly appressed to the rachis; petals 3-4 mm long ..... *S. officinale*
1. Siliques spreading to erect, not appressed; petals 5-8 mm long.
  2. Pedicels slender, much thinner than the fruits; siliques ascending to erect, 2-3.5 cm long .....  
..... *S. loeselii*
  2. Pedicels stout, nearly as thick as the fruits; siliques spreading, rigid, 5-10 cm long .....  
..... *S. altissimum*

***Sisymbrium altissimum* L.**

Tall tumble-mustard

Habitat/Range: Fields and waste places; common in S BC; introduced from Eurasia.

***Sisymbrium loeselii* L.**

Loesel's tumble-mustard

Habitat/Range: Fields and waste places; rare in S BC; introduced from Eurasia.

***Sisymbrium officinale* (L.) Scop.**

Hedge mustard

Habitat/Range: Fields and waste places; frequent in SW BC; introduced from Eurasia.

**SMELOWSKIA**

1. Siliques linear to narrowly oblong, tapering at both ends, 5-13 mm long; basal leaves strongly ciliate along the petioles ..... *S. calycina*
1. Siliques oblong to ovate, tapering only at the apex, 3-6 mm long; basal leaves not ciliate ..... *S. ovalis*

***Smelowskia calycina* (Steph.) C.A. Mey. in Ledeb.**

Alpine smelowskia

Habitat/Range: Dry alpine talus slopes; rare in extreme SE BC; amphiberian, N to AK, YT and NT, E to SW AB and S to CO, VT and NV.

***Smelowskia ovalis* M.E. Jones**

Short-fruited smelowskia

Habitat/Range: Mesic to dry sites in the alpine zone; rare in extreme SC BC; S to N CA.

**SUBULARIA**

***Subularia aquatica* L. ssp. *americana* Mulligan & Calder**

Awlwort

Habitat/Range: Streams, shorelines and shallow ponds; infrequent in S BC; N to AK, YT and NT, E to NF and S to WY and CA.

**TEESDALIA**

***Teesdalia nudicaulis* (L.) R. Br.**

Shepherd's cress

Habitat/Range: Mesic to dry, usually disturbed sites in the lowland zone; locally frequent in SW BC; introduced from Europe.

**THELLUNGIELLA**

***Thellungiella salsuginea* (Pall.) O.E. Schulz in Engl. (*Arabidopsis salsuginea* [Pall.] N. Busch)**

Salt-water cress

Habitat/Range: Dry saline lakes and meadows in the steppe vegetation zone; rare in SE BC; amphiberingian, N to YT and NT, E to MB and S to CO; Eurasia.

**THELYPODIUM**

- 1. Siliques strongly ascending-erect, 3-6 mm long ..... *T. milleflorum*
- 1. Siliques spreading, 4-11 mm long ..... *T. laciniatum*

***Thelypodium laciniatum* (Hook.) Endl. in Walp.**

Thick-leaved thelypody

Habitat/Range: Dry sites in the steppe vegetation zone; rare in SC BC; S to ID, NV and CA.

***Thelypodium milleflorum* A. Nels. (*T. laciniatum* var. *milleflorum* [A. Nels.] Pays.)**

Many-flowered thelypody

Habitat/Range: Dry sites in the steppe vegetation zone; rare in SC BC; S to ID and NV.

**THLASPI**

***Thlaspi arvense* L.**

Field pennycress

Habitat/Range: Fields and waste places; common throughout BC except Queen Charlotte Islands and adjacent mainland; introduced from Eurasia.

**THYSANOCARPUS**

***Thysanocarpus curvipes* Hook.**

Sand lacepod

Habitat/Range: Dry sites in the lowland zone; locally frequent on SE Vancouver Island; S to ID and CA.

**BUDDLEJACEAE****BUDDLEJA*****Buddleja davidii* Franch.**

Butterfly-bush

Habitat/Range: Disturbed sites in the lowland zone; rare horticultural species known from several locations on SE Vancouver Island and the lower Fraser Valley; introduced from China.

**CACTACEAE****OPUNTIA**

1. Stem joints not much flattened, readily detached from the plant; spines strongly barbed; areoles white-woolly ..... *O. fragilis*
1. Stem joints flattened, not readily detached from the plant; spines only slightly barbed; areoles rusty-woolly or not woolly ..... *O. polyacantha*

***Opuntia fragilis* (Nutt.) Haw.**

Brittle prickly-pear cactus

Habitat/Range: Dry sandy or gravelly sites in the lowland and steppe vegetation zones; common in S BC east of the Coast-Cascade Mountains, less frequent on SE Vancouver Island and the Gulf Islands; E to ON and S to KS, IL, TX and N CA.

***Opuntia polyacantha* Haw.**

Plains prickly-pear cactus

Habitat/Range: Dry sandy or gravelly sites in the steppe vegetation zone; common in S BC east of the Coast-Cascade Mountains, less frequent in NE BC; E to S SK and S to MO, TX, AZ and E OR.

**CALLITRICHACEAE****CALLITRICHE**

1. Pistillate flowers borne on distinct pedicels, much longer than the fruits; styles sharply reflexed ..... *C. marginalis*
1. Pistillate flowers sessile or subsessile; styles ascending (sometimes reflexed in *C. stagnalis*).
  2. Fruits encircled by a conspicuous wing margin ..... *C. stagnalis*
  2. Fruits wingless or wing-margined toward the summit.
    3. Leaves all linear, single-nerved, their bases not joined by a ridge or wing ..... *C. hermaphroditica*
    3. Leaves linear below, lanceolate, obovate or spatulate above, their bases joined by a small, winglike ridge.
      4. Carpel faces with rather regular vertical lines of tiny pitlike markings; fruits slightly wing-margined above ..... *C. verna*
      4. Carpel faces with irregularly distributed tiny pitlike markings; fruits scarcely, if at all wing-margined.
        5. Fruits obovate or slightly heart-shaped in outline, broadest above the middle; submersed leaves usually broader than the stem; plants long-stemmed ..... *C. heterophylla*

- 5. Fruits usually more nearly round or ovate in outline; submersed leaves much narrower than the flattened stem; plants short-stemmed ..... *C. anceps*

***Callitriche anceps* Fern.**

Two-edged water-starwort

Habitat/Range: Shallow ponds and shorelines in the lowland and montane zones; rare along the coast in BC; N to AK, YT and NT, E to NF and S to WA, UT and GA.

***Callitriche hermaphroditica* L.**

Northern water-starwort

Habitat/Range: Slow-moving streams and sloughs in the lowland, steppe vegetation and montane zones; common in SW BC, less frequent in SC and SE BC; circumboreal, N to AK, YT and NT, E to NF and S to MN, MI, NM and CA; Eurasia.

***Callitriche heterophylla* Pursh ssp. *bolanderi* (Hegelm.) Calder & Taylor.**

Diverse-leaved water-starwort

Habitat/Range: Slow-moving streams and shorelines in the lowland zone; frequent on S Vancouver Island, rare in SE BC; N to SE AK, E to NF and S to TX, OK and CA, also in South America.

***Callitriche marginata* Torr.**

Winged water-starwort

Habitat/Range: Vernal pools in the lowland zone; rare, known only from Mittenatch Island and Victoria; S to CA and MX.

***Callitriche stagnalis* Scop.**

Pond water-starwort

Habitat/Range: Slow-moving streams and ponds; infrequent in S BC; introduced from Europe.

***Callitriche verna* L. (*C. palustris* L.)**

Spring water-starwort

Habitat/Range: Slow-moving streams and shorelines in the lowland, steppe vegetation and montane zones; frequent in S BC; circumboreal, N to AK, YT and NT, E to NF and S to NE, VA, NM and CA, Eurasia.

**CAMPANULACEAE**

- 1. Filaments and anthers united into a tube; corollas irregular.
  - 2. Flowers sessile in leaf axils ..... *Downingia*
  - 2. Flowers pedicelled in terminal bracted racemes ..... *Lobelia*
- 1. Filaments and anthers distinct; corollas regular.
  - 3. Perennials (except for one biennial species); flowers pedicellate or pedunculate ..... *Campanula*
  - 3. Annuals; flowers sessile or subsessile.
    - 4. Corollas shorter than the calyx lobes; leaves lanceolate ..... *Githopsis*
    - 4. Corollas longer than the calyx lobes; leaves rotund or rotund-ovate.
      - 5. Upper flowers blue, 3-6 mm long, inserted opposite the bracts ..... *Heterocodon*
      - 5. Upper flowers pale lavender to purple, 8-13 mm long, inserted in the bract-axils ..... *Legouisia*