

## Key to the Orchidaceae of Prince Edward Island

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- 1a. Plants without leaves (excluding bracts)
- 2a. Plants lacking chlorophyll, myco-heterotrophic
  - Corallorhiza*
- 2b. Plants with chlorophyll, autotrophic; lacking leaves at flowering time
- 3a. Flowers solitary, pink; lip speckled with magenta and with yellow centre
  - Arethusa bulbosa*
- 3b. Flowers arranged in a spike, white to yellowish; lip pure white or with green or yellow patch
  - Spiranthes*
- 1b. Plants with leaves
- 4a. Flowers usually solitary, sometimes paired
- 5a. Lip petal inflated, pouch-like; flowers primarily pink, white, or yellow; leaves 2 or more
  - Cypripedium*
- 5b. Lip petal not inflated, simple or fringed; flowers pink; leaf solitary
- 6a. Grass-like leaves absent at flowering time, developing afterwards; floral bracts small, inconspicuous
  - Arethusa bulbosa*
- 6b. Elliptic leaves well-developed at flowering time; floral bracts large, conspicuous
  - Pogonia ophioglossoides*
- 4b. Flowers many, arranged in a spike or raceme
- 7a. Leaves mostly basal, at most with 1 or 2 at proximal end of stem
- 8a. Plants with a solitary basal leaf; flowers pink, non-resupinate
  - Calopogon tuberosus*
- 8b. Plants with more than one basal leaf; flowers white, green to brown, or yellow, resupinate
- 9a. Leaves several; flowers white, arranged in a spike

10a. Lower petals simple; leaves narrowly lanceolate, entirely green

Spiranthes

10b. Lower petals pouch-like; leaves ovate to elliptic, usually marked with white to pale green

Goodyera

9b. Leaves usually two; flowers green to brown, yellow, sometimes white, arranged in a raceme

11a. Lip petals without a nectar spur; leaves 2, ascending

*Liparis loeselii*

11b. Lip petals with a nectar spur; leaves 2 and prostrate, or 1 and ascending

Platanthera (in part)

7b. Leaves definitely on stem

12a. Leaves 2, opposite to sub-opposite

Listera

12b. Leaves 1-several, alternate

13a. Lower stem leaves reduced to bladeless sheaths

*Epipactis helleborine*

13b. Lower stem leaves with well-developed blades

14a. Flowers minute, 3-4 mm wide, greenish; lower petal without a spur

Malaxis

14b. Flowers larger, white, yellow, green, or pink; lower petal with a spur

Platanthera (in part)

## Corallorhiza Gagnebin

- 1a. Perianth 3.5-7.0 mm long; sepals and petals 1-veined; capsule greenish; scape to 3.5 dm tall with sheaths toward base.

*C. trifida*

- 1b. Perianth 4.7-15.0 mm long; sepals and petals 3-veined; capsule yellowish-brown or brownish; scape to 6.5 dm tall with sheaths extending beyond middle

*C. maculata*

### ***Corallorhiza maculata*** (Raf.) Raf.

- 1a. Middle lobe of the lip: expanded only slightly or not at all distally, widest part less than 1.5 times as wide as the base; floral bracts 0.5-1.0 mm long, usually entire

*C. m. var. maculata*

- 1b. Middle lobe of the lip: distinctly expanded distally, widest part over 1.5 times as wide as the base; floral bracts 1.0 to 4.5 mm long, usually two- to three-lobed

*C. m. var. occidentalis*

## Cypripedium L.

- 1a. Leaves 2, basal; scapose stem with single pale pink to crimson-pink, occasionally pure white flower; lip open along full length

*C. acaule*

- 1b. Leaves more than 2, cauline; lip open only at base

- 2a. Lip yellow; sepals sharply acute; stems finely pubescent, to 8 dm tall

*C. parviflorum*

- 2b. Lip white, usually with pink or purple markings; sepals obtuse or rounded; stems conspicuously hirsute, to 10 dm tall

*C. reginae*

## Goodyera R. Br.

- 1a. Leaf blades 4-6 cm long, only midvein outlined in white or entirely pale green above; perianth 6-9 mm long; plants 20-50 cm tall

*G. oblongifolia*

- 1b. Leaf blades to 4 cm long, usually with pale green or white lines throughout; perianth 1.5-5.5 cm long; plants 5-35 cm tall

- 2a. Base of mature lip petal with deep pouch, nearly as deep as long, tip portion strongly recurved; perianth about 4 mm long; racemes +/- one-sided; leaves 1-3 cm long, widest near base, tapering to acute tip.

*G. repens*

- 2b. Base of mature lip petal with shallow pouch, longer than deep, tip portion only slightly recurved; perianth about 5 mm long; racemes loosely spiral; leaf blades 2-5 (-6) cm long, tapering from near middle to each end.

*G. tessellata*

**Listera** R. Br.

1a. Stem distance from leaves to first flower about  $\frac{1}{2}$  as long as leaves

*L. convallarioides*

1b. Stem distance from leaves to first flower about 2-3 times length of leaves

2a. Rachis and pedicels glabrous; lip purplish-green, 4-5 mm long with 2 forward-projecting hornlike teeth at base, 1.5 mm long, not auricled; leaves spreading

*L. cordata*

2b. Rachis and pedicels glandular; lip dull maroon-red, 5-10 mm long, without conspicuous horns, auricled at base; leaves ascending

*L. australis*

***Malaxis* Sol. ex Sw.**

- 1a. Lip entire, apex pointed; pedicels 2.0-4.5 mm long; raceme slender, elongate, flowers +/- equally distributed along rachis; leaf sheathing base of stem

*M. brachypoda*

- 1b. Lip 2-lobed at apex, with indistinct central tooth; pedicels (3.8-) 5.0-10.0 (-13.0) mm long; raceme thick, rounded, flowers clumping near apex of rachis; leaf +/- sheathing bottom ½ of stem.

*M. unifolia*

## Platanthera Rich.

- 1a. Leaves 1 or 2, basal (except in *P. clavellata*, usually 1 leaf sheathing to base)
- 2a. Leaf 1, rarely 2, elliptic, linear-oblong to oblanceolate
- 3a. Leaf sheathing lower  $\frac{1}{4}$  -  $\frac{1}{3}$  of stem; lip broadest towards 3-toothed apex; spur much exceeding lip  
*P. clavellata*
- 3b. Leaf sheathing base of stem; lip broadest at base, tapering to apex; spur equalling lip or only slightly longer  
*P. obtusata*
- 2b. Leaves 2, basal, +/- orbicular
- 4a. Scape naked (rarely with 1 bract); flowers sessile, yellowish-green; lip upcurved; spur 0.9-2.5 cm long, tapering to rounded tip  
*P. hookeri*
- 4b. Scape with 1-6 bracts below inflorescence; flowers whitish-green with short pedicels; lip not upcurved; spur 0.8-2.8 cm long (to 4.5 cm in *P. macrophylla*) with parallel sides and slightly enlarged tip
- 5a. Average length of spurs less than 28 mm, average length of hemipollinaria less than 4.6 mm  
*P. orbiculata*
- 5b. Average length of spurs 28 mm or more, average length of hemipollinaria 4.6 mm or more  
[*P. macrophylla*]
- 1b. Leaves more than 2, mostly on stem
- 6a. Lip entire or toothed, not 3-parted
- 7a. Flowers pure white; lip usually markedly expanded near base to 1-3 mm wider than below; space between anthers greater at apex than base  
*P. dilatata*
- 7b. Flowers green to greenish yellow; lip lanceolate, usually not dilated or only slightly dilated at base to 0.4-1.0 mm wider than below; space between anthers greater at base than apex
- 8a. Lip of fresh flowers dull yellowish-green, rhombic-lanceolate, 2.5-6.0 mm long; anthers not separated by more than 0.3 mm at their apices, viscidia orbicular; spur stout and club-shaped; flowers usually scentless and self-pollinating  
*P. aquilonis*

8b. Lip of fresh flowers green to whitish-green, lanceolate, 5.0-12.0 mm long; anthers separated by 0.6—1.5 mm at their apices, viscidia oblong; spur slenderly cylindrical to somewhat clavate; flowers moderately to strongly sweetly pungent and cross-pollinating

*[P. huronensis]*

6b. Lip fringed

9a. Lip fringed, but not 3-parted; flowers white; spur (15-) 18-20 (-27) mm long

*P. blephariglottis*

9b. Lip deeply 3-parted; spur 1-4 cm long

10a. Lateral lobes of lip incised more than half way to base; flowers yellowish-green to greenish-white

*P. lacera*

10b. Lateral lobes of lip incised less than half way to base; flowers pink-purple

11a. Inflorescence 2.5-4.5 cm in diameter; perianth 4-7 mm long; lip 6-16 mm broad; opening to spur a horizontally-oriented rectangular shape

*P. psycodes*

11b. Inflorescence 5-9 cm in diameter; perianth 9-12 mm long; lip 1.8-3.0 cm broad; opening to spur oval to round

*P. grandiflora*

## Spiranthes Rich.

- 1a. Leaves broadly elliptic to round-ovate, usually flat on the ground, present or absent at anthesis; lower petal with central green patch  

*S. lacera*
- 1b. Leaves lanceolate, ascending, present at anthesis; lower petal either entirely white or with yellow colouration
- 2a. Lip constricted below expanded tip and +/- sharply deflexed; lateral sepals partly united with dorsal sepals and lateral petals to form a hood  

*S. romanzoffiana*
- 2b. Lip oblong, ruffled but not constricted below tip; lateral sepals free
- 3a. Lower petal with yellow colouration, with rounded glands beneath; lateral sepal tips linear-lanceolate  

*S. ochroleuca*
- 3b. Lower petal essentially white, with conical and reduced glands beneath; lateral sepals lanceolate  

*S. cernua*