

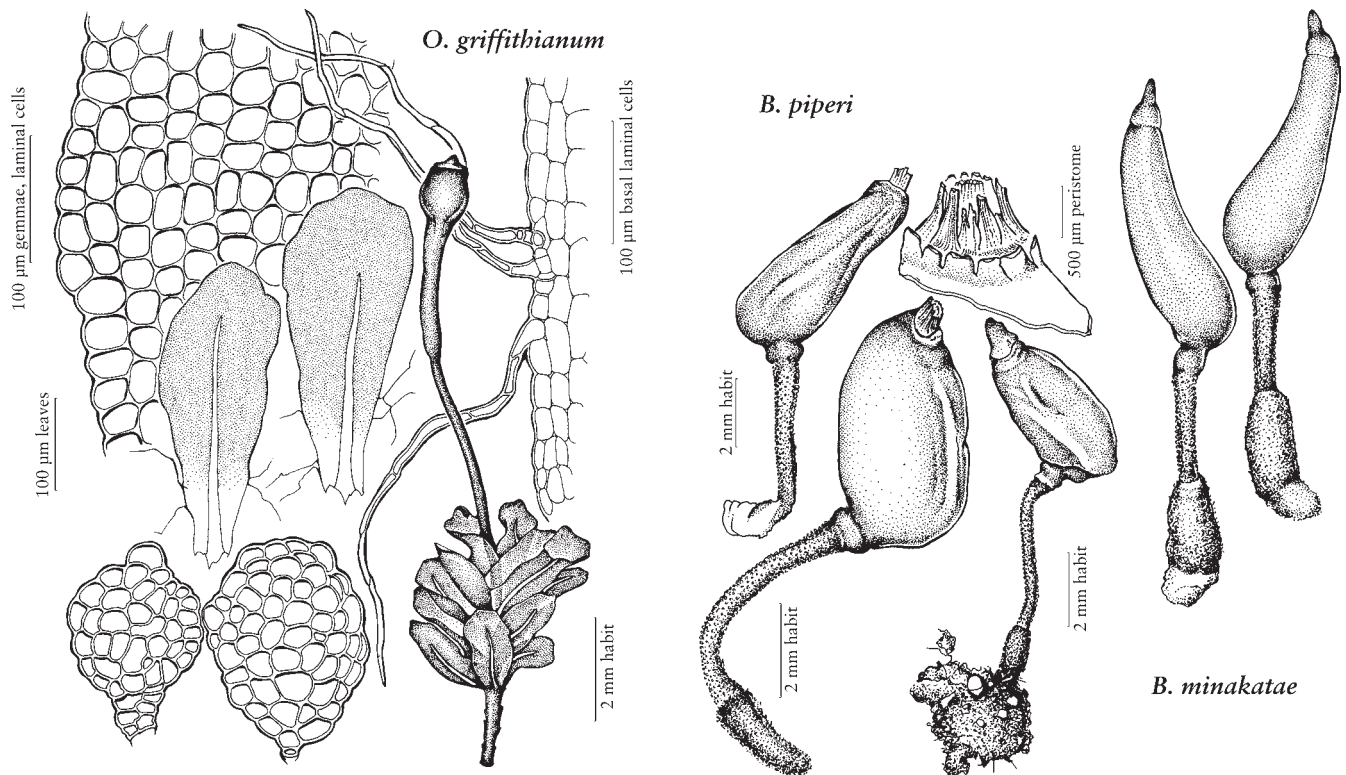
## 6. OEDIPODIACEAE Schimper

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Plants gregarious to loosely tufted, 5–10(–20) mm, light-green when moist, dark green when dry; protonema thallose, branched. Stems erect, simple or forked by innovation. Leaves small and remote toward stem base, larger and crowded in open rosettes distally; rounded-obtuse at the apex; margins plane or somewhat undulate, entire except for long, flexuose cilia at basal margins of distal leaves; costa single, broad at leaf base, ending 6–10 cells before the apex; alar cells absent. **Specialized asexual reproduction** by discoid brood bodies produced among rosettes of leaves, mingled with sex organs, particularly antheridia, and on protonema. **Sexual condition** variably synoicous and autoicous; perigonial and perichetial leaves scarcely differentiated. Seta present, single, long. Capsule erect, subglobose or hemispheric, wide-mouthed, neck long, fleshy, 2–4 mm, tapered toward seta, hollow for the greater part of its length; stomata numerous, stomates present in distal part of capsule, with 2 guard cells; peristome and annulus absent; operculum strongly convex and bluntly umbonate or weakly convex and more or less apiculate; columella included. Calyptra small, cucullate, smooth and naked, readily deciduous. Spores tetrahedral, with densely crowded papillae.

Genus 1, species 1: North America, s South America, Europe, Asia, s Africa.

The Oedipodiaceae has been placed in the Funariales and, more commonly, in the Splachnales. Sometimes *Oedipodium* has been placed in the Splachnaceae because of the remarkably differentiated neck of the capsule that is somewhat similar to the expanded hypophysis of that family. In addition to the distinctive capsule neck, Oedipodiaceae is further characterized by the branched-thallose protonema bearing discoid brood bodies, and also by rosettes of erect-spreading leaves with stalked, discoid brood bodies often mingled with sex organs; leaves broadly rounded above a very narrow base, and leaf cells with tiny corner thickenings. The brood bodies of *Oedipodium* are somewhat like those of *Alophosia*, of the Polytrichaceae. However, the nature of the protonema in *Oedipodium*, and the production of brood bodies on the protonema and also in rosettes that are somewhat like the gemma cups of *Tetraphis*, suggest a closer relationship of Oedipodiaceae to the Tetrarhizaceae.



OEDIPODIUM • BUXBAUMIA

1. OEDIPODIUM Schwägrichen, Sp. Musc. Frond. Suppl. 2(1,1): 15. 1823 • [Greek *oidema*, swelling or tumor, and Latin *podium*, platform, alluding to capsule neck]

Stems of nearly uniform, thin-walled cells. Leaves soft and fleshy when moist, somewhat shrunken when dry, 2–3 mm. Brood bodies light-green, stalked, triangular-discoïd, up to 300 µm across, with growing points at either side. Capsule brown or red-brown, urn 1–1.2(–2) mm; exothecial cells irregularly hexagonal with thick brown walls, broader than long in 3–8 rows at the mouth, the cells of the neck longer and wider with pale, thin walls. Spores 30–38 µm, papillae small, blunt, club-shaped.

Species 1: North America, s South America, Eurasia, Atlantic Islands.

1. *Oedipodium griffithianum* (Dickson) Schwägrichen, Sp. Musc. Frond. Suppl. 2(1,1): 15. 1823 [F]



*Bryum griffithianum* Dickson, Fasc. Pl. Crypt. Brit. 4: 8, plate 10, fig. 10. 1801; *Gymnostomum griffithianum* (Dickson) Smith

Leaf distal median cells 25–65 × 45 µm, thin-walled except for the tiny corner thickenings, marginal cells quadrate, basal cells rectangular. Antheridia mingled

with hyaline, filiform paraphyses. Seta wrinkled-striate, often twisted when dry.

Protected niches on moist soil or humus, most commonly in crevices of siliceous rocks; low to moderate elevations; Greenland; B.C., Nfld. and Labr. (Nfld.), Yukon; Alaska, Wash.; n Europe; South America (Tierra del Fuego); e Asia; Atlantic Islands (Falkland Islands).