

NREM 358 Forest Herbaceous Layer: Ecology and Identification
Week one: Liliaceae, Ranunculaceae

Family Liliaceae (lily family) – Monocots, with parallel leaf veins; showy flowers on terminal inflorescences; flowers with six parts; sepals and petals not differentiated = tepals.

***Allium tricoccum* (wild leek)** – Two basal leaves, usually 10-20 cm tall, 2-6 cm wide; inflorescence an umbel on a scape (a leafless stalk arising from ground); flowers white, blooms in June and July, although leaves emerge very early in spring; fruit a capsule with shiny black seeds. Rich mesic woods.



2. ***Erythronium albidum* (trout lily)** – Brown and purple mottled elliptical leaves, one in non-flowering and two in flowering plants, less than 10 cm tall; single flower on a scape, white tinged with purple or pink; petals completely reflexed (turned outward) in full bloom, a spring ephemeral, blooms in April – May; fruit a green capsule that turns brown when mature; seeds large tan with a white elaiosome (fat body for ant dispersal) attached. Woods.



3. ***Polygonatum biflorum* (Solomon's seal)** – Single arching stem up to 1 meter tall; leaves alternate, lanceolate to sometime oval; 2-3 greenish white flowers from axils of leaves, blooms in May-June; fruit a dark blue berry. Mesic woods.



4. ***Smilacina racemosa* (false Solomon's seal)** – Single arching stem less than 1 meter tall; leaves two ranked (emerging from stem in one plane), with deeply incised veins compared to

Polygonatum; inflorescence terminal, with showy white flowers, blooms in June-July; fruit a showy red-purple berry. Rich mesic woods.



5. **Trillium nivale (snow trillium)** – Very small plants with a whorl of three leaves; a single flower arising from central stalk, with outer green segments and larger showy white inner segment; a spring ephemeral and one of the earliest species to bloom in the woods, usually blooming by late March. Rich mesic woods.



6. **Uvularia grandiflora (large-flowered bellwort)** – Stem arching, less than 0.5 meters tall; single stalk in non-flowering plants, double stalked in flowering plants; leaves perfoliate (base wraps around stem); single drooping showy yellow flower, blooms in May; fruit a green capsule; seeds similar to Erythronium, ant dispersed. Rich mesic woods.



Family Ranunculaceae (buttercup family) – Leaves compound or dissected, petioles sheathing (wrapping) around the stem; showy flowers with numerous distinct stamens; fruit an aggregate (several to many separate carpels that stick together).

***Anemone quinquefolia* (wood anemone)** – Very short plants, usually less than 10 cm tall; leaves usually with 5 main lobes; single showy white flower with 4-6 petaloid sepals. A spring ephemeral blooming in April and senescing by the end of May; fruit a cluster of achenes with small elaiosome for ant dispersal. Woods.



2. ***Anemone virginiana* (thimbleweed, windflower)** – Plant up to 1 meter tall, but usually around 0.5 meters tall; leaves and stem very pubescent (hairy), stems leaves usually three with 3-5 main lobes, basal leaves similar in appearance; 1-few showy white flower with 5 petaloid sepals; achenes in a thimble-shaped head and covered with dense woolly white pubescence, blooms in May. Open woods and woodland edges.



3. ***Thalictrum thalictroides* (*Anemonella thalictroides*) (rue anemone)** – Plant very small, usually 7-10 cm; compound leaves in a whorl of 3, leaflets with shallow rounded lobes toward tip; flowers usually pink, but sometimes white, in an umbel of 1-several; fruit a small cluster of achenes with small elaiosome for ant dispersal; a spring ephemeral blooming in April and senescing by the end of May. Mesic woods.



4. ***Aquilegia canadensis* (wild columbine)** – Plants 0.5 to up to 1 meter tall; leaves alternate and basal, compound with lobed leaflets; showy nodding flowers, rose colored and yellowish on upper parts, alternating with the sepals, blooms May-Jun; fruit of 5 beaked follicles, with small shiny black seeds. Open woods and woodland edges.



5. ***Hepatica acutiloba* (hepatica)** – Small plant, less than 10-15 cm tall; leaves and stem very pubescent; leaves simple lobed (liver shaped); 1-several scapes, each with 1 white to pink showy flower with petaloid sepals, subtended by three bracts; blooms in April, but leaves persist through season; achenes oblong, thickest toward middle, with small elaiosome for ant dispersal. Wooded slopes.



6. ***Isopyrum biternatum* (false rue anemone)** – Weak branching stems less than 40 cm tall; leaves both alternate and basal, compound with three lobed leaflets; white flowers from leaf axils and terminate stems, petaloid sepals; fruit a cluster of small greenish follicles; a spring ephemeral blooming in April and senescing by the end of May. Woods.



7. ***Ranunculus abortivus* (small flowered crowfoot)** – Stem trailing, 1-several/plant, branching freely above; basal leaves simple and kidney shaped; stem leaves linear and/or with linear lobes; flowers with true petals, very small and yellow; blooms April-May; fruit a head of small brown achenes. Open woods, woodland edges, moist areas.



8. ***Ranunculus hispidus* (hispid buttercup)** – Creeping stems that arch and root at nodes; leaves pubescent, 3-lobed and toothed; flowers bright yellow with true petals, 1-several/stem; fruit a head of large achenes, dark brown at maturity, blooms in April, but foliage persists. Low moist woods, rich wooded slopes.

