

A CLASSIFICATION OF THE RANUNCULACEAE WITH SPECIAL REFERENCE TO THE WESTERN HEMISPHERE

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ABSTRACT

A classification of the Ranunculaceae of the Western Hemisphere is presented as consisting of three subfamilies, 16 tribes, two subtribes, 30 genera, and an estimated 437 species. Two tribes (**Eranthideae**, **Xanthorhizeae**) are described as new, and six taxa are given a new tribal status (**Adonideae**, **Aquilegieae**, **Coptideae**, **Thalictreae**, **Trautvetteriae**, **Trollieae**).

KEY WORDS: Ranunculaceae, classification, nomenclature, taxonomy, Western Hemisphere

The following classification of Ranunculaceae portrays a subfamilial, tribal, and subtribal classification of the 30 genera of Ranunculaceae native or naturalized within the Western Hemisphere. Other genera will be noted and included in a subsequent and more detailed paper. In the classification proposed here, Ranunculaceae consists of three subfamilies, which are classified further into tribes, and in one case, subtribes. Data and cladistic analyses that support the classification system adopted here will be published elsewhere. Every attempt has been made to secure the oldest correct name for each taxon recognized. The authors will be grateful if any errors of omission or citation are called to their attention. The numbers of species, in some cases estimated, are given within parentheses following the reference to the protologue of each genus. We estimate there are 437 species of Ranunculaceae within the Western Hemisphere.

RANUNCULACEAE A.L. de Jussieu, *Gen. pl.* 321. 1789. Crowfoot Family.

Subfam. I. Hydrastidoideae Engler & Gilg, *Syllabus*, ed. 7. 188. 1912.

1. *Hydrastis* L., *Syst. nat.*, ed. 10, 2:1069, 1088, 1374. 1759. (1).
Golden seal, Orangeroot.

Subfam. II. Ranunculoideae

Tribe 1. Ranunculeae

2. *Ranunculus* L., *Sp. pl.* 1:548. 1753. *Gen. pl.*, ed. 5. 243. 1754.
(141). Buttercup, Crowfoot.
3. *Krapfia* D.C., *Syst. nat.* 1:228. 1818. (8).
4. *Myosurus* L., *Sp. pl.* 1:284. 1753. *Gen. pl.*, ed. 5. 137. 1754. (5).
Mouse-tail.
5. *Hamadryas* Commerson ex de Jussieu, *Gen. pl.* 232. 1789. (5).
6. *Laccopetalum* Ulbrich, Bot. Jahrb. Syst. 37:404-408. 1906. (1).

Tribe 2. **Trautvetterieae** (Tamura) Duncan & Keener, *stat. nov.* BASSIONYM: Trautvetteriinae Tamura, Sci. Rep. Osaka Univ. 16:42. 1967.

7. *Trautvetteria* Fischer & Meyer, Index sem. hort. petrop. 1:22.
1835. (1). False-bugbane.
8. *Kumlienia* E. Greene, Bull. California Acad. Sci. 1:337. 1886. (2).

Tribe 3. Anemoneae DC., *Syst. nat.* 1:129. 1818.

Subtribe 1. Anemoninae Spach, *Hist. nat. vég.* 7:190. 1839.

9. *Anemone* L., *Sp. pl.* 1:538. 1753. *Gen. pl.*, ed. 5. 241. 1754. (36).
Anemone.
10. *Hepatica* P. Miller, *Gard. Dict.*, abr. ed. 4. 1754. (1). Hepatica,
Liverleaf.
11. *Pulsatilla* P. Miller, *Gard. Dict.*, abr. ed. 4. 1754. (2). Pasque-
flower, Prairie-smoke.
12. *Barneoudia* Gay, *Fl. chil.* 1:19. 1845. (3).
13. *Oreithales* Schlechtendal, Linnaea 27:559-560. 1954. (1).

Subtribe 2. Clematidinae Lotsy, Vortr. bot. Stammesgesch. 3:584.
1911.

14. *Clematis* L., *Sp. pl.* 1:543. 1753. *Gen. pl.*, ed. 5. 242. 1754. (47).
Clematis.

Tribe 4. Helleboreae DC., *Syst. nat.* 1:130, 306. 1818.

15. *Helleborus* L., *Sp. pl.* 1:557. 1753. *Gen. pl.*, ed. 5. 244. 1754.
(2). Hellebore.

Tribe 5. Cimicifugeae Torrey & A. Gray, *Fl. N. Amer.* 1:34. 1838.

16. *Cimicifuga* Wernischeck, *Gen. pl.* 298, 321. 1763. (6). Bugbane.

17. *Actaea* L., *Sp. pl.* 1:504. 1753. *Gen. pl.*, ed. 5. 222. 1754. (3).
Baneberry.

Tribe 6. **Eranthideae** Duncan & Keener, *tribus novum*.

Diagnosis: Herbae pumilae rhizomatibus tuberosis; folia palmata; folia rosulae petiolata; folia caulis sessilia verticillata; flores solitarii sessiles; sepala lutea grandia persistentia; petala peltata bilabiata nectarifera; stamina numerosa (18-44); folliculi stipitati. Typus genus: *Eranthis* Salisbury.

Dwarf herbs with tuberous rhizomes; leaves palmately divided; basal leaves petiolate; cauline leaves sessile, whorled; flowers solitary, sessile; sepals yellow, large, persistent; petals peltate, 2 lipped, nectariferous; stamens numerous (18-44); follicles stipitate. One genus, *Eranthis* Salisbury, native to the Mediterranean region.

18. *Eranthis* Salisbury, *Trans. Linn. Soc.* 8:303. 1807. (1). Winteraconite.

Tribe 7. **Nigelleae** Schrödinger, *Abh. K. K. Zool.-Bot. Ges. Wien* 4, Heft 5, p. 58. 1909.

19. *Nigella* L., *Sp. pl.* 1:534. 1753. *Gen. pl.*, ed. 5. 238. 1754. (1).
Love-in-a-mist.

Tribe 8. **Adonideae** (Spach) Duncan & Keener, *stat. nov.* BASIONYM: Adonidinae Spach, *Hist. nat. vég.* 7:222. 1839.

20. *Adonis* L., *Sp. pl.* 1:547. 1753. *Gen. pl.*, ed. 5. 242. 1754. (3).
Pheasants-eye.

Tribe 9. **Calthaeae** J.S. Presl in K.B. Presl, *Fl. sicul.* 1:20. 1826.

21. *Caltha* L., *Sp. pl.* 1:558. 1753. *Gen. pl.*, ed. 5. 244. 1754. (7).
Marsh-marigold.

Tribe 10. **Trollieae** (Heintze) Duncan & Keener, *stat. nov.* BASIONYM: Trolliinae Heintze, *Cormofyternas fylogeni* 103. 1927.

22. *Trollius* L., *Sp. pl.* 1:556. 1753. *Gen. pl.*, ed. 5. 243. 1754. (2).
Globe-flower.

Tribe 11. **Delphinieae** Schrödinger, *Abh. K. K. Zool.-Bot. Ges. Wien* 4, Heft 5, p. 58. 1909.

23. *Aconitum* L., *Sp. pl.* 1:432. 1753. *Gen. pl.*, ed. 5. 236. 1754.
(13). Monkshood, Wolfsbane.

24. *Delphinium* L., *Sp. pl.* 1:530. 1753. *Gen. pl.*, ed. 5. 236. 1754.
(73). Delphinium, Larkspur.

25. *Consolida* (DC., *Syst. nat.* 1:341. 1818) S.F. Gray, *Nat. arr. Brit. pl.* 2:711. 1821. (3). Garden Larkspur.

Subfam. III. Isopyroideae Schrödinger, Abh. K. K. Zool.-Bot. Ges. Wien 4, Heft 5, p. 59. 1909.

Tribe 12. **Coptideae** (Tamura) Duncan & Keener, *stat. nov.* BASSIONYM: Coptidoideae Tamura, Sci. Rep. Osaka Univ. 17:52. 1968.

26. *Coptis* Salisbury, Trans. Linn. Soc. 8:305. 1807. (4). Goldthread.

Tribe 13. **Xanthorhizeae** Duncan & Keener, *tribus novum*.

Diagnosis: Fruticuli ligno noninduratis; radices lutae; folia pinnata nitida; foliola acute fissa vel incisa vel serrata; inflorescentiae paniculatae cernuae; flores parvi; sepala 5; petala 5; integumenta 2 integumento interiore quam integumento exteriori longiore; folliculi monospermi (ovulo unico abortivo). Typus genus: *Xanthorhiza* Marshall.

Shrublets with wood not becoming hard; roots yellow; leaves pinnate, shiny; leaflets sharply cleft, incised, or serrate; inflorescences paniculate, drooping; flowers small; sepals 5; petals 5; integuments 2, the inner integument longer than the outer; follicles one seeded (one ovule aborts). One genus, *Xanthorhiza* Marshall, native to southeastern United States.

27. *Xanthorhiza* Marshall, *Arbust. amer.* 167. 1785. (1). Yellow Root.

Tribe 14. Isopyreae Schrödinger, Abh. K. K. Zool.-Bot. Ges. Wien 4, Heft 5, p. 59. 1909.

28. *Enemion* Rafinesque, Jour. Phys. 91:70. 1820. (5). False Rue Anemone.

Tribe 15. **Aquilegieae** (Tamura) Duncan & Keener, *stat. nov.* BASSIONYM: Aquilegiinae Tamura, Sci. Rep. Osaka Univ. 17:48. 1968.

29. *Aquilegia* L., *Sp. pl.* 1:533. 1753. *Gen. pl.*, ed. 5. 237. 1754. (24). Columbine.

Tribe 16. **Thalictreae** (Heintze) Duncan & Keener, *stat. nov.* BASSIONYM: Thalictroideae Heintze, *Cormofyternas fylogeni* 103. 1927.

30. *Thalictrum* L., *Sp. pl.* 1:545. 1753. *Gen. pl.*, ed. 5. 242. 1754. (35). Rue.



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