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Autor: Cook, C.D.K.
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Generic description

- Rotala**, L., Mantissa 143, 175. Oct. 1771 ≡ *Rotula* Loureiro, Fl. Cochinch. 121: 1790 orth. mut.
= *Ammannia* L., Sp. Pl. 119. 1753, pro parte. **Type:** *A. latifolia* L.
= *Peplis* L., Sp. Pl. 332. 1753, pro parte. **Type:** *P. portula* L.
= *Suffrenia* Bellardi, Mém. Acad. Sci. Lit. Beaux-Arts Turin “pour les années 10: 1802, et 11: 1803” — Sci. Phys. Math. “an. 12: 1804” — p. 445, t. 1, f. 1, on table 1 is written: “Mém. Acad. Sci. Turin 7: 452”. **Type:** *S. filiformis* Bellardi.
= *Sellowia* Roth ex Roemer & Schultes, Syst. Veg. 5(31): 407. 1819. **Type:** *S. uliginosa* Roth ex Roemer & Schultes.
= *Winterlia* Sprengel, Syst. 1: 519. 1824, non Moench 1794.
= *Boykiana* Rafin., Neogenyton 2. 1825, nom. rej. **Type:** *B. humilis* (Michx.) Rafin. ≡ *Ammannia humilis* Michx. ≡ *Boykinia* Rafin., New Fl. 4: 66. 1838. orth. mut., non *Boykinia* Nuttall, 1834, nom. cons.
= *Ameletia* DC., Mém. Soc. Phys. Genève 2(2): 82. 1826. **Type:** *A. indica* (Willd.) DC. ≡ *Peplis indica* Willd.
= *Nimmonia* (*Nimmoia* orth. mut.) Wight, Madras J. Lit. Sci. 5: 312. 1837. **Type:** *N. floribunda* Wight.
= *Nexilis* Rafin., New Fl. 4: 9. 1838. **Type:** *N. indica* (Willd.) Rafin. ≡ *Peplis indica* Willd.
= *Hypobrichia* M. A. Curtis ex Torrey & Gray, Fl. N. Amer. 1: 479. 1840. **Type:** *H. nuttallii* M. A. Curtis ex Torrey & Gray.
= *Rhyacophila* Hochst., Flora (Regensburg) 24: 659. 1841. **Type:** *R. repens* Hochst.
= *Quartinia* Endl., Gen. Suppl. 2: 94. 1842, non A. Richard 1840. **Type:** *Q. turfosa* A. Richard.
= *Hydrolythrum* Hooker fil. in Hooker, Ic. Pl. Ser. 2, t. 1007. 1843. **Type:** *H. wallichii* Hooker fil.
= *Tritheca* (Wight & Arnott) Miq., Fl. Ind. Bat. 1(1): 614. 1855. **Type:** *T. pentandra* (Roxb.) Miq. ≡ *Ammannia pentandra* Roxb.
= *Ditheca* (Wight & Arnott) Miq., Fl. Ind. Bat. 1(1): 615. 1855. **Type:** *D. densiflora* (Roth ex Roemer & Schultes) Miq. ≡ *Ammannia densiflora* Roth ex Roemer & Schultes.

Type: *R. verticillaris* L.

Aquatic, amphibious or terrestrial, annual or perennial, glabrous herbs. Stems creeping, ascending, erect or floating, simple or branched. *Leaves* decussate, whorled or rarely alternate, simple, entire, sessile or rarely shortly petiolate; stipules absent (in *R. hexandra* stipule-like outgrowths present on the nodes between the leaves). *Bracts* leaf-like or scale-like; bracteoles 2 or absent (additional bracteoles occasionally present in the axils of the bracteoles in *R. hexandra*). *Flowers* bisexual, actinomorphic, monomorphic or dimorphic (heterostylous), occasionally cleistogamous, solitary in the axils of bracts, borne along the main axis or on lateral or terminal racemes. *Calyx* tubular, free from but often enclosing the ovary, hypanthial; calyx lobes 3-6, valvate, persistent; tooth-like calyx appendages or small interjected folds occasionally present between the calyx lobes; nectaries often present at the base of the calyx tube. *Petals* 0-6, minute or large and showy, inserted at the top of the calyx tube, usually crumpled in bud, entire, erose or pinnately divided in *R. fimbriata*. *Stamens* 1-6, episealous never more in number than the calyx lobes, inserted on the inner surface of the calyx tube on the lower half or occasionally basal and appearing free, occasionally replaced by staminodes; anthers dorsifixed, introrse. *Pollen* tricolporate, occasionally heterocolpate, isopolar or occasionally heteropolar, often dimorphic, pseudocolpi absent or if present 3 in number, pore generally in the middle of the principle colpi, amb triangular or circular or angulo-circular, columellae present, sexine granular, reticulate or granulo-reticulate. *Ovary* superior, 2-4 locules; placentation axile becoming free-central at maturity; style simple; stigma capitate or 2-lobed in *R. floribunda*; fruit a septicidally dehiscent capsule opening by 2-4 valves; the valves with microscopic, horizontal striations; one valve is crowned with the persistent style; seeds numerous or few, semi-ovoid to ellipsoidal, with mucilaginous hairs which invaginate before germination; germination epigeal; cotyledons simple.

Diagnostic features for *Rotala* with respect to the rest of the *Lythraceae*: capsule valves with microscopic, horizontal striations; placentation at maturity free-central; style crowning one of the valves; stamens as many or fewer than the calyx lobes; flowers solitary or in racemes (never in cymes).