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ESCALLONIACEAE R. Brown ex Dumortier
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ESCALLONIACEAE R. Brown ex Dumortier

* Escallonia Family

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Shrubs [**trees, annual herbs**]. **Leaves** alternate (spirally arranged), simple; stipules absent; petiole absent [present]; blade surfaces usually glandular and resinous, margins serrate or doubly serrate, sometimes minutely so. **Inflorescences** terminal [axillary], racemes or panicles [cymes or flowers solitary]. **Flowers** bisexual; perianth and androecium epigynous [hypogynous]; hypanthium present; sepals persistent, [4--]5[--9], often connate proximally; petals [4--]5[--9], erect [spreading], distinct; stamens [4--]5[--9], alternate with petals, distinct; filaments inserted at edge of disc, distinct; anthers versatile [basifixed]; disc surrounding base of style [base of ovary]; pistils 1[2--5]-carpellate; ovary inferior [superior], [1--]2[--5]-locular, placentation parietal [axile]; styles 1[2, +/- distinct]; stigmas 1[2], terminal. **Fruits** capsular. **Seeds** 20--100.

Genera 6, species ca. 68 (1 species in the flora): introduced; Central America, South America, Indian Ocean Islands (Réunion), Australia.

Many species of Escalloniaceae occur at high elevations in the Andes; some South American species grow at lower elevations in Brazil, Chile, and Uruguay. In some parts of the southern Andes, the family is ecologically important and includes conspicuous elements of the landscape (K. R. Young 1993). In Australia and Africa, it is represented by only a few, narrowly distributed species.

This family is morphologically heterogeneous, with no obvious morphological synapomorphies. Historically, most authors included members of this family within Saxifragaceae (H. G. A. Engler 1930) or Grossulariaceae (A. Cronquist 1981); recently, however, these genera consistently have been placed, with strong statistical support, within the campanulids (D. E. Soltis et al. 2000; J. Lundberg 2001; Angiosperm Phylogeny Group 2009; D. C. Tank and M. J. Donoghue 2010). Although

Escalloniaceae is a well-supported clade, relationships within the family, and between the family and other members of the campanulids, remain uncertain (Tank and Donoghue).

SELECTED REFERENCE Mori, S. A. 2004. Escalloniaceae. In: N. P. Smith et al., eds. Flowering Plants of the Neotropics. Princeton. Pp. 145--146.

1. ESCALLONIA Mutis ex Linnaeus f., Suppl. Pl. 21, 156. 1782 * [For Antonio Escallón y Flórez, 1739--1819, eighteenth-century Spanish advisor to the king of Spain and student of natural sciences of José Mutis) **I**

Plants usually evergreen. **Leaf blades** obovate to elliptic. **Inflorescences** pedunculate, branches stipitate-glandular [glabrous]. **Pedicels** present, bracteoles present or absent. **Flowers**: calyx lobes erect or spreading; petals spatulate [obovate]; discs conic [flat]; ovary 2-locular; stigma capitate [2-fid]. **Capsules** septicidal, proximal portion eventually breaking. **Seeds** fusiform or broadly fusiform, longitudinally ridged. $x = 12$.

Species ca. 40 (1 in the flora): introduced, Oregon; Central America; South America; introduced also in Europe, New Zealand.

Some species and hybrids of *Escallonia* are grown as ornamentals, especially in the United States (California, Oregon), Europe (England, France, Ireland), and New Zealand. Q. B. Zielinski (1955) drew exclusively on material from the nursery trade to obtain chromosome counts for a quarter of the species in the genus. Some species are easy to cultivate and grow rapidly. In South America, the wood of some species of *Escallonia* is used for fuel, to make charcoal, and in construction. A dye is extracted from the heartwood of *Escallonia resinosa* Persoon (S. A. Mori 2004).

SELECTED REFERENCES Sleumer, H. 1968. Die Gattung *Escallonia* (Saxifragaceae). Verh. Kon. Ned. Akad. Wetensch., Afd. Natuurk., Sect. 2, 58: 1--146. Zapata, F. 2010. Phylogenetics and Diversification of *Escallonia* (Escalloniaceae). Ph.D. dissertation. University of Missouri - St. Louis.

1. Escallonia rubra (Ruiz & Pavón) Persoon, Syn. Pl. 1: 235. 1805 * Redclaws **F I**

Stereoxylon rubrum Ruiz & Pavón, Fl. Peruv. 3: 15, plate 236, fig. b. 1802

Plants (30--)80--100(--150) cm. **Twigs** densely hairy and stipitate-glandular, especially distally, stalked glands often 2--3 times as long as nonglandular hairs, sometimes bearing spreading hairs along stalk or, rarely, glabrescent. **Leaf blades** 13--75 x 4--34 mm, viscid, base tapering to cuneate, surfaces glandular-punctate, abaxial surface dull, glabrous or hairy along veins, glandular-punctate, adaxial surface shiny, not glandular-punctate, glabrous or hairy along impressed midvein, margins serrate to doubly serrate, rarely revolute, apex acute to obtuse. **Inflorescences** 4--40-flowered, 5--10 cm. **Pedicels** 3--9(--18) mm; bracteoles absent or 1--3 x 0.1--0.3 mm, margins glandular. **Flowers:** hypanthium campanulate, 2.2--5.5(--8) x 2.3--6 mm, somewhat coriaceous, densely stipitate-glandular and hairy proximally, free portion glabrous, sparsely hairy, or sparsely stipitate-glandular and sparsely hairy; calyx lobes 1.5--3.5 x 1--2 mm, margins entire,

sparsely glandular, sometimes sparsely ciliate proximally, apices acute; petals pink to pinkish red, sometimes paler adaxially, linear-spatulate, 10--16 mm, claw erect, linear, 7--10 x 1--2 mm, limb spreading, obovate or round, 3--6 x 2.6--3.5 mm, margins obscurely undulate; filaments white, flattened, 8--10 mm; anthers 2--2.8 x 0.5--0.9 mm; style 8--11 mm; stigmas 0.9--1.7 mm diam. **Seeds** brown or reddish brown, 0.6--1 mm. $2n = 24$.

Flowering Jul--Oct. Roadsides; 0--20 m; introduced; Oreg.; South America (Argentina, Chile); introduced also in New Zealand.

H. Sleumer (1968) recognized five varieties within *Escallonia rubra*. Horticultural plants from North America are often referred to var. *macrantha* (Hooker & Arnott) Reiche, with leaves broadly elliptic to obovate, leaf margins glabrous, and hypanthium glandular-pubescent. Analyses of morphologic data suggest that characters used to distinguish the varieties vary freely and that *E. rubra* is best treated as a morphologically variable complex (F. Zapata 2010). The range of morphologic variation in this species overlaps with that in other, morphologically similar species (for example, *E. rosea* Grisebach). However, a combination of morphological, molecular, and bioclimatic data suggests that E. rubra is a distinct species (Zapata).

P. F. Zika et al. (2000) were the first to report *Escallonia rubra* from a clearly naturalized population in North America. First gathered along a lakeshore in Coos County in 1997, the species has now also been collected in Lincoln and Tillamook counties. It is not clear whether collections from California are from naturalized plants.