

## Family Acalyptonotidae WALTER, 1911

1911 Acalyptonotidae WALTER, *Naturwissenschaftliche Untersuchungen des Sarek-Gebirges in Schwedisch-Lappland*, geleitet von Dr. Axel Hamberg 4: 608.

**Diagnosis:** Idiosoma dorsally flattened, ventrally convex. Dorsal integument membranous, longitudinally striated in the nominate subgenus, but with a large plate in a subgenus described from North America. Lateral eyes lying below the integument. Venter covered by a shield including coxae and in general also the circumgenital area with the excretory pore. Suture lines Cx-I/II and Cx-III/IV incomplete, suture lines Cx-II/III reaching the medial margin of Cx-III+IV which in general is reduced to a medial angle. Legs without sexual dimorphism; IV-L-5 occasionally with one long seta, but typical swimming setae absent. Genital field in a shallow bay formed by posterior margins of Cx-IV, in its anterior part flanked by Cxgl-2; number of acetabula varying from 3 to 16 pairs, in males in a single row on each side in the membranous integument between gonopore and genital flaps (which are fused into the ventral shield), in females in 1-3 rows on distinct genital plates which either lie posterolaterally in the membranous area surrounding the gonopore, or are fused into the ventral shield. Gnathosoma separated from coxae; palp five-segmented; distoventral part of P-4 projecting to form an obtuse or slightly pointed angle, here bearing a small, thickened seta.

**Remarks:** A monophyletic, monotypic family, but with uncertain taxonomic relations. Distribution Holarctic. Larvae have been described for a North American species only; these are parasitic on Tanytarsini (Diptera, Chironomidae) (I.M. SMITH 1983f). Deutonymphs have not been described for any species.

### Genus *Acalyptonotus* WALTER, 1911

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Type species: *Acalyptonotus violaceus* WALTER, 1911 by original designation.

**Diagnosis:** Only genus, with the characters of the family.

**Remarks:** In addition to the Holarctic *A. violaceus*, two species described from western North America are attributed to the subgenus *s. str.* (SMITH 1983f), one other North American species to the monotypic subgenus, *Paenecalyptonotus* I.M. SMITH, 1976 (genus ranked down by I.M. SMITH 1983f).

#### 1. *Acalyptonotus violaceus* WALTER, 1911 (9-69 b-d)

1911 *Acalyptonotus violaceus* WALTER, *Naturwissenschaftliche Untersuchungen des Sarek-Gebirges in Schwedisch-Lappland*, geleitet von Dr. Axel Hamberg 4: 608.

**Description:** Colour violet. Idiosoma oval in shape. P-2 with 5 setae, 3 of these at dorsodistal corner. Male: Idiosoma length/width 830/700  $\mu\text{m}$ , slightly tapering anteriorly. Genital field with 6 pairs of acetabula, the most anterior one the longest. Female: Idiosoma length/width 840-1000/750  $\mu\text{m}$ , distinctly tapering posteriorly. Genital field reverse heart-shaped, with 11 pairs of acetabula.

**Habitat and Biology:** Profundal of lakes. In a Finnish lake at a depth of 17-32 m, from early June to early September (BAGGE 1979a). Preadult stages and life cycle unknown.

**Distribution:** Holarctic. In Europe confined to middle and northern Sweden, Finland and Karelia (Russia). Taxonomic identity of Nearctic and Palaearctic populations questionable, requiring further investigation (SMITH 1983f).