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## ***Oligoneuria (Yawari) anatina* sp. nov. (Ephemeroptera: Oligoneuriidae) from the extreme north of Brazil**

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### **Abstract**

*Oligoneuria (Yawari) anatina* sp. nov. is described and illustrated based on nymphs and imagoes collected in the municipality of Serra do Navio, state of Amapá, Brazil. The main characteristics that can be used to distinguish the new species from other species of the genus are, in imagoes: 1) forewing with spectral cross veins between IRS and MP2 (male) or between IRS and IMP (female), 2) posterior margin of styliger plate distally rounded and with paired rounded projections; in nymphs: 1) vertex of head with two pairs of tubercles, 2) lateral margin of anterior projection of head straight. Cytochrome Oxidase subunit I (COI) sequences were used to associate male imago and immature stages of the new species.

**Key words:** aquatic insects, molecular association, Neotropical Region, new species, taxonomy

### **Introduction**

*Oligoneuria* was erected by Pictet (1843) to host the type species *Oligoneuria anomala* Pictet, 1843, described from a female imago from the Brazilian Atlantic Forest (state of Rio de Janeiro); later, Puthz (1973) recorded this species from Paraguay. The genus comprises seven species: *Oligoneuria (Oligoneuria) anomala* Pictet, 1843, *Oligoneuria (Oligoneurioides) amandae* Salles, Soares, Massariol & Faria, 2014, and *Oligoneuria (Oligoneurioides) macabaiba* Gonçalves, Da-Silva & Nessimian, 2011 know from the Atlantic Forest; and *Oligoneuria (Oligoneurioides) amazonica* (Demoulin, 1955), *Oligoneuria (Oligoneurioides) itayana* Kluge, 2007, *Oligoneuria (Oligoneurioides) mitra* Salles, Soares, Massariol & Faria, 2014, and *Oligoneuria (Yawari) truncata* Salles, Soares, Massariol & Faria, 2014 know from the Amazon Forest. Most of the species have the nymph, male and female imago described. The exceptions are *O. (Oa.) anomala* described based on female imago and *O. (Oo.) macabaiba* based on imagoes of both sexes.

The genus *Oligoneuria* was recently reviewed and subdivided into three subgenera (Salles *et al.* 2014). *Oligoneuria s.s.* encompasses *O. (Oa.) anomala* and can be distinguished by the presence of cross veins in all fields of female forewing. The subgenus *Yawari* includes *O. (Y.) truncata* and can be diagnosed mainly by the posterior margin of styliger plate strongly expanded and lacking projections and the presence of a curved medial process on penis lobes on male imago; nymphs have inner margin of mid and hind tarsi with tuft of setae before apex and outer lamella of gill I is present. The subgenus *Oligoneurioides* contains the remainder of the species and can be recognized by the posterior margin of styliger plate with paired projections and penis simple (without medial process) on male imago; nymphs have inner margin of mid and hind tarsi with few setae before apex and outer lamella of gill I is vestigial (Salles *et al.* 2014).

The aim of this paper is to describe a new species of *Oligoneuria (Yawari)* from northern Brazil, based on nymphs, male and female imagoes.