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Twinnia hydrooides NOVÁK (Diptera, Simuliidae) from the Swiss Alps

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During a trip through Switzerland in June 1958, a number of larval and pupal black flies were collected, and adults were reared from pupae. The most unusual species was *Twinnia hydrooides* Novák (1956), previously known only from Czechoslovakia. This genus was described first by STONE and JAMNBACK (1955) from specimens collected in Labrador, Canada.

T. hydrooides was found in only one small rivulet at an altitude of about 1850 m., or 30 m. above St. Moritz-Bad, in the Engadin valley just below a path through open woods leading to Hahnensee. The habitat was a spring-feld trickle (4° C.) emerging from a small pipe in the mountainside and running down a steep slope over soggy, leafy soil through small stones, water cress (*Nasturtium*) and moss.

Three males were reared, and three pupae (two male and one female) and 21 larvae were preserved in 95 % ethyl alcohol. The smallest larva was just less than half the length of the one mature larva. The finding of five male pupae and one female pupa on June 29 indicates that this was close to the time of first emergence as males in most simuliid species develop a day or two earlier than the females. These specimens were compared with descriptions of *T. hydrooides* (NOVÁK 1957a, 1957b, 1959) and with those of *Twinnia tatreensis* NOVÁK (1959) and the male and female genitalia proved them to be the former. One larva of *Prosimulium inflatum* L. DAVIES (1957) in the second last instar was collected at the same place.

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