



## New species and records of the genus *Dolophilodes* Ulmer (Trichoptera: Philopotamidae) from India

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### Abstract

The genus *Dolophilodes* Ulmer (Trichoptera: Philopotamidae) is reviewed from India, with the description of 3 new species: *D. malickyi* **sp. nov.** and *D. punjpullaensis* **sp. nov.** from Punjpulla (Himachal Pradesh) and *D. morsei* **sp. nov.** from Lumla (Arunachal Pradesh). *Dolophilodes ornatula* Kimmins is reported for the first time from India. This species, *D. tibetana* Kimmins and *D. indica* Martynov are redescribed with additional collection records. A key to males of the known Indian species of this genus is provided.

**Key words:** New species, keys, Himachal Pradesh, Arunachal Pradesh

### Introduction

The genus *Dolophilodes* was described by Ulmer (1909) with *D. ornata* as its type species from China. Martynov (1935) was the first to add *Dolophilodes indica* as a new species under this genus from India. Ross (1956) treated *Dolophilodes* as a subgenus of *Sortosa* Navas 1918 while revising the Philopotamidae of the world based primarily on the simplicity of the male genitalia and the primitive condition of the wing venation. He inferred that the genus originated in the Oriental region, where the greatest number and its most primitive species occur (Ross 1956). Kimmins (1955) followed the diagnostic features of Ross (1948, 1949) and commented in a footnote, “In the original description the median cell is said to be open. Later writers give it as closed and Dr. Ulmer informs me that his original diagnosis was incorrect in this detail. The type of *D. ornata* is no longer in existence, having been burnt in the air attack upon Hamburg.” He added 14 new species which included *Dolophilodes tibetana* from India and 13 other species from northeastern Myanmar. Since then, even after 56 years, no additional species were recognized under this genus from India. The identification of *Dolophilodes* species is comparatively difficult because differences in the shape of their genitalia are quite subtle. Four of 14 species originally described in this genus by Kimmins (1955) have now been transferred to genus *Kisaura* Ross. *Dolophilodes tibetana* and *D. indica* are the only species of *Dolophilodes* presently known from India. With the present text, the number of Indian species of this genus is updated to 6 with an addition of 3 new species and 1 as the first record from India. A key to males of the known Indian species is provided.

### Material and methods

Adult caddisflies were collected during 1–4 hours after dusk in 2008–2011 (April–October) with light traps, either 135-W, ultra-violet, mercury-vapour bulbs (with alternating current) or 22-W Circline fluorescent BL tubes (Bio-Quip, with 12-volt, rechargeable batteries). Genitalia were cleared in 10% KOH solution overnight, then observed and preserved with the remainder of the specimen in 80% ethyl alcohol with a drop of glycerol. Additional specimens were cleared using the lactic acid method of Blahnik & Holzenthal (2004) and Blahnik et al. (2007). The terminology corresponds in general to that of Blahnik (1997) for genus *Chimarra* and Schmid (1998) for genus