

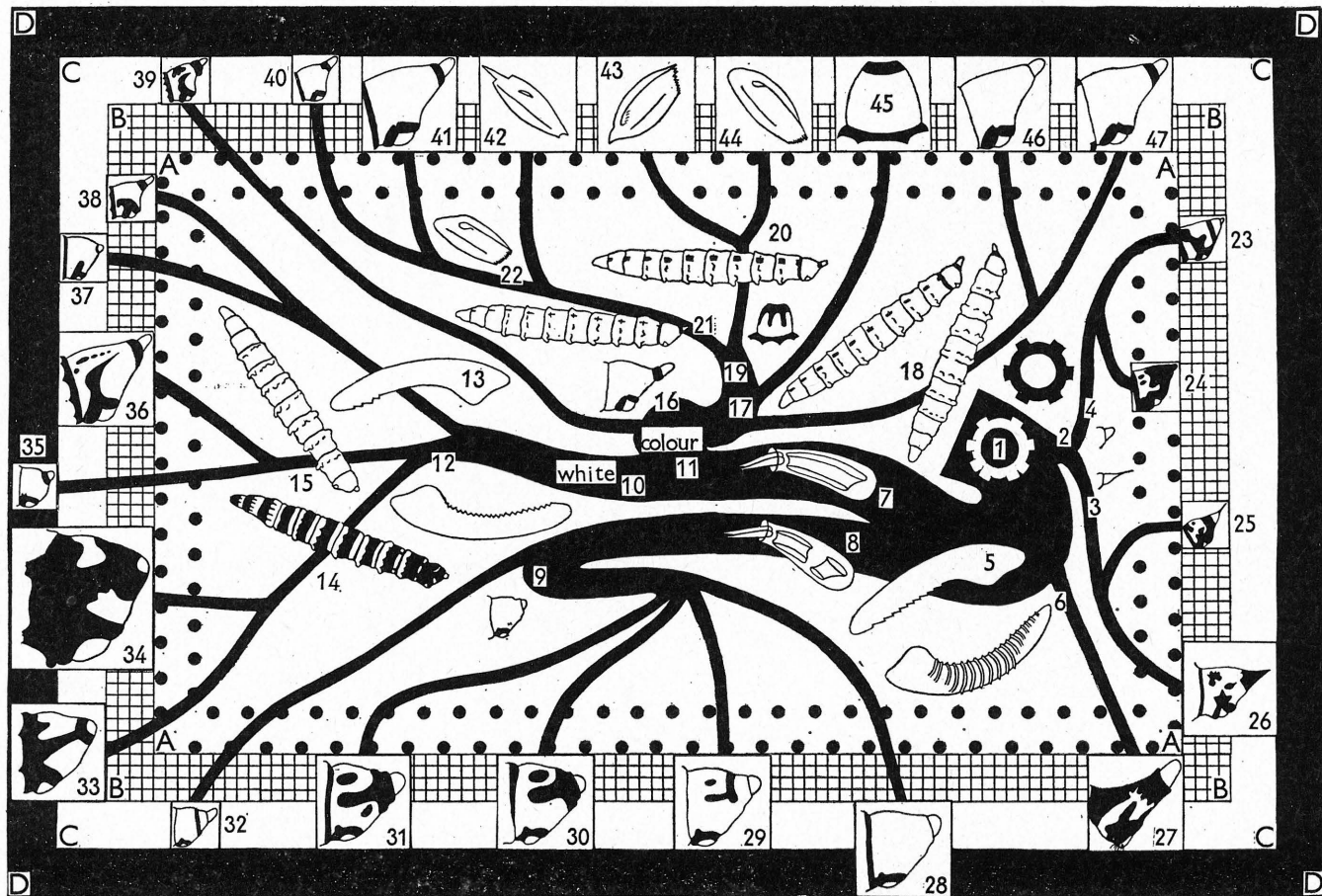
## A pictorial key to the last instar larvae of some European Tabanidae (Diptera)

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The need for an up-to-date guide to the larvae of European horse-flies has long been apparent. It is the aim of this account to cover, at least partially, the existing gap by a simple pictorial dichotomous key of the last instar larvae for field use with a demonstration of its ecological range. Although larvae of Tabanidae are usually spoken of as an aquatic group, they are as much associated with land as water. This paper can be looked upon as a preliminary attempt to summarize the author's incomplete knowledge. It is believed that a concise treatise dealing with the larvae of Tabanidae will serve a useful purpose and be of interest to entomologists, workers in parasitology and those who have no specialized knowledge of the systematics of horse-fly larvae. An entomological hand lens should provide adequate magnification.

Figs. 1—47: 1 — Abdominal segments with 4 pairs of pseudopods (cross-section). 2 — Abdominal segments with 3 pairs of pseudopods. 3 — Respiratory siphon with a stigmatal spine. 4 — Siphon without a stigmatal spine. 5 — Mandibula ventrally with teeth only. 6 — Mandibula with groove crosses. 7 — Canal of second antennal segment continued. 8 — Canal of second antennal segment interrupted. 9 — Very short siphon on the rounded abdominal segment. 10 — Larvae white. 11 — Larvae pink, red, orange, brown, grey or green. 12 — Mandibula with many teeth on its whole length beneath. 13 — Mandibula with several teeth only on its apical part beneath. 14 — Larvae with dark wide pubescent rings on all segments. 15 — Larvae without wide expressive pubescent rings. 16 — Anal segment without pubescent maculation. 17 — Dorsal pseudopods with distinct dark patches laterally. 18 — No dark patches to dorsal pseudopods laterally. 19 — Prothoracic ring with distinct longitudinal pubescent stripes. 20 — Dark patches on abdominal segments broad. 21 — Patches on abdominal segments narrow. 22 — Lateral sclerite rounded anteriorly. 23 — *Chrysops relictus* Meig., 24 — *C. caecutiens* (L.), 25 — *C. rufipes* Meig., 26 — *C. viduatus* (Fabr.), 27 — *Heptatoma pellucens* (Fabr.), 28 — *Haematopota pluvialis* (L.), 29 — *H. scutellata* (Ols., M. & Chv.), 30 — *H. crassicornis* Wahl., 31 — *H. subcylindrica* Pand., 32 — *H. csikii* Szil., 33 — *Tabanus maculicornis* Zett., 34 — *T. bromius* L., 35 — *T. quatuornotatus* Meig., 36 — *T. autumnalis* L., 37 — *Atylotus sublunaticornis* (Zett.), 38 — *A. fulvus* (Meig.), 39 — *T. mikii* Br., 40 — *Hybomitra distinguenda* (Verr.), 41 — *H. nitidifrons confiformis* Chv. & M., 42 — *H. muehlfeldi* (Br.), 43 — *H. ciureai* (Seg.), 44 — *H. bimaculata* (Macq.), 45 — *H. arpadi* (Szil.), 46 — *H. tropica* (L.), 47 — *H. lundbecki* Lyneb. A — Banks and beds of rapid streams. B — Banks and grounds of gutters, drains, ponds and lakes. C — Marshy meadows or peat-bogs. D — Pasturelands and fields.



## SUMMARY

The first original guide to the knowledge of the last instar larvae of 25 European species of Tabanidae of 6 genera. Pictorial key is predetermined for field use with demonstration of ecological range of all included species of larvae.

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