

SYRPHIDAE

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Introduction

Syrphidae are a family of insects commonly called flower or hover flies as adults and maggots as immatures. The adults, as their name implies, are usually found at flowers or hovering in the bright sunlight. The immatures are found in a wide range of habitats, both terrestrial and aquatic, but they can be grouped into four main types: 1) the terrestrial predacious leachlike larvae, which feed mainly on aphids, scales and thrips (subfamily Syrphinae); 2) the sluglike *Microdon* larvae, which are exclusively scavengers in ants' nests (subfamily Microdontinae); 3) the short-tailed maggots, which are mainly saprophagous and found in a wide range of decomposing plant materials (most of the subfamily Eristalinae (= Milesiinae); and 4) the long-tailed or rat-tailed maggots, which are aquatic filter feeders (tribes Callicerini, Sericomyiini and Eristalini of the subfamily Eristalinae). Syrphids are classified into 3 subfamilies and 18 tribes, with the known aquatic forms restricted to the subfamily Eristalinae, tribes Brachyopini (= Chrysogasterini) (some aquatic), Callicerini (some aquatic), Sericomyiini (all aquatic?) and Eristalini (all aquatic?). This present classification is based primarily on the adults and is outlined in Vockeroth (1969, Syrphinae) and Thompson (1969, Microdontinae; 1972, Eristalinae).

The Neotropical fauna is still poorly known, with probably more than one-third of the species still undescribed and with immature stages known for less than 1 percent of the species that have been described. The most recent tabulation of the fauna (Thompson et al. 1976) contains 1,635 species, of which 267 species belong to presumably aquatic groups. Hennig (1952) has provided a complete review of the immature stages of Diptera. No work dealing with the aquatic stages of Neotropical syrphids has appeared since his work but a few important general papers on the morphology of aquatic syrphids have (Hartley 1958, 1968, Roberts 1970) and should be noted as well as the recent taxonomic revisions of the British fauna (Dixon 1960, Hartley 1961).

Keys for the determination of adult syrphids to generic level can be found in Hull (1949, genera of world), Vockeroth (1969, tribes of Syrphinae, genera of Syrphini) and Thompson (1969, Neotropical genera of Microdontinae; 1972, tribes, Neotropical genera of Eristalinae). A complete index to the taxonomic literature of the Neotropical Syrphidae will be found in the fascicle for that family in "A Catalogue of the Diptera of the Americas south of the United States" (Thompson et al 1976).

Species keys for adults are few and scattered. Those for aquatic groups are listed below. The only complete set of keys to species is that for the West Indian fauna (Thompson 1981). No keys for the immature stages of Neotropical Syrphidae exist.



Los miembros de la familia Syrphidae se les denomina comunmente "flower flies" o "hover flies" en estado adulto y "maggots" en estadios larvales. Los adultos, como su nombre lo indica, generalmente se encuentran sobre las flores o revoloteando en lugares soleados. Los estadios inmaduros se encuentran en un amplia variedad de habitats, tanto terrestres como acuáticos, y pueden ser agrupados en cuatro tipos principales: 1) las larvas depredadoras terrestres similares a sanguijuelas, que se alimentan principalmente de áfidos, escamas, y tisanópteros (subfamily Syrphinae); 2) las larvas de *Microdon* que tienen forma de babosa, y que viven exclusivamente como comensales en los nidos de hormigas (subfamilia Microdontinae); 3) los gusanos de cola corta, los cuales son principalmente saprófagos y que se encuentran en muchos tipos de materia vegetal en descomposición (la mayoría pertenece a la subfamilia Eristalinae (= Milesiinae); y 4) los gusanos de cola larga o cola de rata, que son filtro-alimentadores acuáticos (tribus Callicerini, Sericomyiini y Eristalini, todos perteneciendo a la subfamilia Milesiinae). La familia Syrphidae se subdivide en 3 subfamilias y 18 tribus, siendo conocidas, especies con larvas acuáticas, sólo de la subfamilia Eristalinae; tribus Brachyopini (= Chrysogasterini) (algunas acuáticas), Callicerini (algunas acuáticas), Sericomyiini (todas acuáticas?) y Eristalini (todas acuáticas). Esta clasificación esta basada principalmente en las formas adultas y se encuentra esbozada en los estudios de Vockeroth (1969, Syrphinae) y Thompson (1969, Microdontinae; 1972, Eristalinae).

La fauna Neotropical todavía es poco conocida; probablemente menos de un tercio de sus especies ha sido descrito y en menos del 1% de las especies se conocen los estadios inmaduros. La tabulación mas reciente de esta fauna (Thompson et al. 1976) contiene 1635 especies, de las cuales, 267 pertenecen presumiblemente a grupos acuáticos. El estudio de Hennig (1952) contiene un resumen completo de los estadios larvales del orden Diptera. Ningún otro trabajo sobre los estados acuáticos de los syrphidos neotropicales se ha publicado; sin embargo unos importantes estudios de caracter general sobre la morfología de los syrphidos acuáticos (Hartley 1958, 1968, Roberts 1970) se han publicado y deben ser mencionados, así como las recientes revisiones de la fauna británica (Dixon 1960, Hartley 1961).

Las claves taxonómicas para la determinación de los syrphidos adultos a nivel genérico pueden encontrarse en los trabajos de Hull (1949, géneros del mundo), Vockeroth (1969, tribus de Syrphinae, géneros de Syrphini), y Thompson (1969, géneros neotropicales de Microdontinae; 1972, tribus, y géneros neotropicales de Eristalinae). Un índice completo de la literatura taxonómica para las formas neotropicales se puede encontrar en un fascículo de "A Catalogue of the Diptera of the Americas south of the United States" (Thompson et al 1976).

Las claves para la determinación específica de los adultos son pocas y dispersas. Aquellas para los grupos acuáticos se enlistan abajo. El único juego completo de claves a nivel específico es aquel para la fauna antillana (Thompson 1981). No existe ninguna clave para los estadios inmaduros de los syrphidos neotropicales.

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