

I- INTRODUCTION

Family Tipulidae is one of the largest families of suborder Nematocera (Order Diptera). At least 13,000 species belonging to 300 genera and subgenera classified under two subfamilies (Tipulinae and Limoniinae) are known in the world (Sabrosky, 1965; Hutson, 1977 and Theowald, 1986).

The tipulid flies resemble mosquitoes with their slender bodies and long legs. Most species are larger in size than over grown mosquitoes, but a few are smaller than the smallest one (Little, 1972 & Borrer 1976).

The adults of family Tipulidae are commonly known as "crane-flies" in America, "daddy long legs" in Britain and the large larvae are called "Leather-jackets" (Alexander, 1922). Crane flies live only few days and are found chiefly in damp habitats with abundant vegetation, the main occupations of adult mating and eggs laying.

The Larvae have a wide variety of habits from semiaquatic, aquatic, to completely terrestrial. The aquatic tipulid larvae are predaceous and considered as beneficial biological agents (Alexander, 1954 and Skaife, 1979). The terrestrial larvae are major economic pests of cultivated crops as cereals (wheat, rice, maize & barley) and clover. Other larvae are harmful to the grasses of damp meadows and many herbaceous garden plants, the damage occurs in the soil by gnawing plant roots and shred its leaves that are close to the ground (French, 1984; Jones and Margaret, 1984; Shrimpton, 1984 and Dennis, 1987). Some species of the genera *Tipula* Linnaeus and *Nephrotoma* Meigen destroy many trees of economic importance as seedling fire, Larch and injure the young of other coniferous and deciduous trees (Alexander 1920).

The present work deals with the study of this economically important family through the following points:

- 1- Collection of specimens of adult tipulid flies in 15 localities representing 15 governorates in Egypt.

2- Morphological study of two common tipulid species as representatives of the two subfamilies: Limoniinae and Tipulinae.

3- Taxonomic studies of the species, genera and subfamilies including; identification, keys, diagnostic characters and synonyms.