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THE HISTORY OF THE PECULIAR GENUS FEDTSCHENKIA  
SAUSSURE (1880) (HYMENOPTERA: FEDTSCHENKHDAE)

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There are very few genera among the Hymenoptera whose systematic position has been uncertain and discussed for such a long time as the genus Fedtschenkia Saussure. Till 1963 only three species were known: F. grossa Saussure 1880 and F. indigotea Radoszkowsy 1886 from the palearctic region and F. anthracina Ashmead 1898 from the nearctic region.

It is due to the passionate researches and studies of Prof. H. Bytinski-Salz, who has contributed so much to the knowledge of the fauna of Hymenoptera of Palestine, that I was able to describe another species: F. palaestiniensis Guiglia 1963 (Loc. typ.: Beersheba) and later a second species: F. libanoni Guiglia 1966 (Loc. typ.: Valley of Bekaa).

Saussure (1880 p. 10) placed his new genus among the Scoliidae according to the similar formation of the antennae, legs and wing nervature, connected it with the Mutillidae and arranged it at the end of his generic key:

"Stirps 3 - Sexus subsimilis. Uterque sexus alatus. Corpus nitidum.

Alae ad secundum typum pertinentes, areolis cubitalibus 4 sese sequentibus (in seriem dispositis).

♀ Pygidium acutum. - ♂ Pygidium inerme Fedtschenkia nov. gen.

Some years later (1892, p. 301) he institutes the tribe "des Fedtschenkiens" which he considers as a group combining characters "entre les Mutillines et les Sapygides" ... "Sans la structure de l'armure de leur pattes, on reunirait les Fedtschenkiens aux Sapygides dont il se rapprochent beaucoup par leur formes generales, par la brevite de leurs pattes, par le fait que les deux sexes sont ailes, par la venulation des ailes, surtout celle des ailes posterieures, et par l'aiguillon des femelles qui est droit et court. "

Anders first (1899 p. 57) considers the Fedtschenkiinae as the first tribe among the Mutillidae; later (1903) he creates the subfamily Fedtschenkiinae among the family Mutillidae. Ashmead (1903) does not agree with this systematic position and points out that above all, the genus Fedtschenkia possesses in both sexes wings with complete nervature, whereas "all known

females in the Thynnidae, Myrmosidae and Mutillidae are always wingless, never winged. The abdomen in the male, too, is unarmed and totally unlike that in the Mutillidae and allied families". He therefore removes this genus from the Mutillidae and places it into the family of Cosilidae.

Börner (1919) in his work on the phylogenesis of Hymenoptera, moves the genus Fedtschenkia back to the Mutillidae and places it into the tribe of Myrmosini.

Pate (1947) returns to the approach of Saussure (1892): "... the cone-like conformation of the last female abdominal sternite which encloses the sting, the absence of a constriction between the first and second abdominal segment, the structure of the head and thorax, particularly that of the pleura, suggest, that Fedtschenkia may properly be placed in the Sapygidae". He subdivides this family in two well distinct subfamilies: Fedtschenkiinae and Sapyginae. Pate's view has been followed by Bohart (1951), Guiglia (1955) and Bradley (1955). Tobias (1965) basing himself chiefly on the structure of the genitalia of both sexes confirms the validity of the family of Fedtschenkiidae created by Bischoff (1927) and arranges it with the family of Sapygidae into one superfamily: Sapygoidea.

This arrangement justly founding the independence of the two families is confirmed not only by the morphological differences, but also by the different biological behaviour. In fact, although little is known on the ethology of this genus, the morphological characteristics as the spiny middle and hind tibiae and the fore tarsi of the female supplied with a distinct comb, suggest the opinion, that their habits are the same as those of fossorial Hymenoptera, while the Sapygidae live as parasites especially in the nests of Hymenoptera mellifera.

The taxonomic position of Fedtschenkia anthracina Ashmead (1898), the only species in the nearctic region, has been particularly debated. It has been described by the author as Telepheromyia (Fam.: Thynnidae) on the basis of two males from California (Los Angeles). Later Banks (1913) creates the new subgenus Cosilella of the genus Cosila on the base of a single female from Pasadena (California): Cosila (Cosilella) plutonis Banks. Krombein (1940 p. 418) points out the generic identity between Telepheromia Ashmead and Fedtschenkia Saussure. Pate (1947 p. 402) after confronting the types of both species comes to the conclusion that they are the male and female of the same species: Fedtschenkia anthracina (Ashmead). He states to have examined three males and eight females from the following states: California, Washington, Colorado. Bradley (1955 p.232) refers to F. anthracina also Plesia (Myzine) nigropilosella Cameron (1908) described from New Mexico.

The characteristic disjunct geographical distribution of the genus Fedtschenkia will be dealt with in another note actually in print. It demonstrates clearly the age of that genus which according to Tobias (1965) may be considered as a relict of the tertiary era, and according to Popov as remains of the pre-tertiary desertic fauna (Tobias 1965).

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