

- 2004b. – Révision du genre *Syrmoptera* Karsch (Lepidoptera, Lycaenidae). *Lambillionea*, **104** (3): 433-445.
- 2004c. – Révision des *Deudorix* africains (Lepidoptera, Lycaenidae). *Lambillionea*, 200 p., 16 pl. coul.
- 2005a. – Révision des genres *Ornipholidotos* Bethune-Baker et *Torbenia* Libert (Lepidoptera, Lycaenidae). *ABRI – Lambillionea*, 174 p., 6 pl. coul.
- 2005b. – Révision du genre *Telipna* Aurivillius (Lepidoptera, Lycaenidae). *ABRI – Lambillionea*, 89 p., 13 pl. coul.
- 2007. – Révision du genre *Pseudaletis* Druce (Lepidoptera, Lycaenidae). *ABRI – Lambillionea*, 78 p., 13 pl. coul.
- STEMPFER H., 1967. – The genera of the African Lycaenidae (Lepidoptera: Rhopalocera). *Bulletin of the British Museum (Natural History)* (Entomology) Supplement **10**, 332 p.
- TITE G. E., 1966. – A revision of the genus *Anthene* from the oriental region. *Bulletin of the British Museum (Natural History)* (Entomology), **18** (8): 256-275.

Yair BEN-DOV & Mehmet Bora KAYDAN. – *Puto pilosellae* (Šulc), new synonymy and distribution records (Hem. Coccoidea, Putoidea)

The hairy Puto mealybug, *Puto pilosellae* (Šulc), was first described at the end of the 19th century from the present Czech Republic. Later publications provided records of this mealybug species from wide territories throughout the Palaearctic Region, from France in the west to China in the east (BEN-DOV, 1994, 2008).

Recently we have studied new and old accessions of *P. pilosellae* from several Mediterranean and European countries (see Material examined), and it became necessary to compare their taxonomic characters with those of two mealybug species, originally described from the Palaearctic Region, namely, *Phenacoccus euphorbiaefolius* Bodenheimer, 1943, and *Phenacoccus poterii* Bodenheimer, 1943.

The following acronyms are used in this note: **ICVI**, Coccoidea collection, Department of Entomology, Agricultural Research Organization, Bet Dagan, Israel; **CPVT**, Coccoidea collection, Yuzuncu Yil University, Agriculture Faculty, Plant Protection Department, 65080 Kampüs/VAN, Turkey.

**Taxonomy and Nomenclature.** – The nomenclatural history of the hairy Puto mealybug is summarized in the following list of synonyms and combinations, together with two new synonyms.

*Puto pilosellae* (Šulc)

- Ceroputo pilosellae* Šulc, 1898: 2.  
 = *Phenacoccus tomlini* Green, 1930: 320. Synonymy by MAROTTA & TRANFAGLIA, 1993: 188.  
 = *Phenacoccus ferrisi* Kiritchenko, 1936: 140. Synonymy by DANZIG, 1999: 89.  
 = *Phenacoccus euphorbiaefolius* Bodenheimer, 1943: 17, **n. syn.**  
 = *Phenacoccus poterii* Bodenheimer, 1943: 31, **n. syn.**  
 = *Ceroputo pannosus* Borchsenius, 1949: 288. Synonymy by TEREZNIKOVA, 1975: 32.  
 = *Ceroputo clematidis* Matesova, 1957: 165. Synonymy by DANZIG, 1999: 89.  
*Puto pilosellae*; Tereznikova, 1975: 243. Change of combination.

The taxonomic characters of the material studied by us agree with the redescription and illustration of *P. pilosellae* prepared by MAROTTA & TRANFAGLIA (1993).

**Geographical distribution.** – This species is newly recorded here from Cyprus, Iraq, Israel, Lebanon and Spain. In earlier publications (see BEN-DOV, 1994, 2008) it has been recorded from Armenia, Bulgaria, China, Czech Republic, France, Georgia, Germany, Hungary, Italy, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Mongolia, North Korea, Poland,

Russia [Primor'ye Kray, Sakhalin Oblast, St. Petersburg Oblast, Yakutia-Sakha], Slovenia, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

**Material examined.** – **Cyprus:** Kyrenia, 20.iv.1932, *Sanguisorba spinosa* (Rosaceae) (ICVI). **Hungary:** (all collected by F. Kozár) Pilis Vaddllokövek, 24.v.1983, *Thymus praecox* (Lamiaceae) (ICVI); Bükk Szarvaskö, 28.vi.1984, *Thymus* (Lamiaceae) (ICVI); Zirc Disznósret, 23.v.1985, *Thymus* (Lamiaceae) (ICVI); Jósvalfö, 29.vii.1987, *Fragaria* (Rosaceae) (ICVI); Nagy, *Hieracium* (Asteraceae) (ICVI). **Iraq:** Sulimaniye, on Euphorbiaceae, 14.x.1942 (*F.S. Bodenheimer*), type series of *Phenacoccus euphorbiaefolius* Bodenheimer, 1943, lectotype here designated and 12 paralectotypes (ICVI). **Israel:** Jerusalem, Mt Scopus, 2.ix.1942, *Poterium spinosum* (Rosaceae), (*F.S. Bodenheimer*), type series of *Phenacoccus poterii* Bodenheimer, 1943, lectotype here designated and 13 paralectotypes. (ICVI); Kedoshim Forest, 12.iii.1979, in litter of *Poterium spinosum* (*Y. Ben-Dov*) (ICVI). **Lebanon:** Northern Lebanon, September 2000, on Euphorbiaceae (*M.R. Wilson*) (ICVI). **Spain:** Monegros Nature Reserve, 27.iv.1991, *Salvia lavandulifolia* (Lamiaceae) (*Javier Blasco-Zumeta*) (ICVI). **Slovenia:** Portorosz, 24.vi. 1981, *Thymus* sp. (Lamiaceae) (*F. Kozár*) (ICVI). **Turkey:** Ankara, vii, viii, ix. 2002-2003, *Sanguisorba minor* (Rosaceae) (*M.B. Kaydan*) (CPVT); Hakkari-Beyköy (1832 m), 14.ix.2005, *Euphorbia* sp., *E. sequieriana* (Euphorbiaceae) and *Heliotropium europium* (Boraginaceae) (*M.B. Kaydan*) (CPVT); Bitlis-Hizan (1909 m), 22.vi.2006, *Euphorbia* sp. (*M.B. Kaydan*) (CPVT); Van-Çatak, (1515 m), 3.vii.2007, *Euphorbia* sp. (*M.B. Kaydan*) (CPVT).

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#### REFERENCES

- BEN-DOV Y., 1994. – *A systematic catalogue of the mealybugs of the world (Insecta: Homoptera: Coccoidea: Pseudococcidae and Putoidae) with data on geographical distribution, host plants, biology and economic importance*. Andover, UK: Intercept Limited, 686 p.
- 2008. – ScaleNet, *Puto pilosellae*. June, 2008. <http://www.sel.barc.usda.gov/catalogs/pseudoco/Putopilosellae.htm>
- BODENHEIMER F.S., 1943. – A first survey of the Coccoidea of Iraq. *Government of Iraq, Ministry of Economics, Directorate General of Agriculture, Bulletin*, **28**: 1-33.
- BORCHSENIUS N.S., 1949. – [Insects Homoptera. suborders mealybugs and scales (Coccoidea). Family mealybugs (Pseudococcidae). Vol. VII.]. *Fauna SSSR. Zoologicheskii Institut Akademii Nauk SSSR*, N.S., **38**, 382 p. [In Russian].
- DANZIG E.M., 1999. – [Mealybugs of the genus *Puto* Signoret (Homoptera, Pseudococcidae) of Russia and neighboring countries.]. (In Russian). *Entomologicheskoe Obozrenye*, **78**: 79-91.
- GREEN E.E., 1930. – A new species of *Phenacoccus* (Coccidae) from the eastern Alps. *Annals and Magazine of Natural History*, **5**: 320-322.
- KIRITCHENKO A.N., 1936. – Some new Pseudococcinae of the fauna of USSR (Homoptera, Coccoidea). *Revue d'Entomologie de l'URSS*, **26**: 130-159.
- MAROTTA S. & TRANFAGLIA A., 1993. – Le specie del genere *Puto* Signoret (Homoptera Coccoidea Pseudococcidae) dell'Europa centrale e del bacino del Mediterraneo. *Bollettino del Laboratorio di Entomologia Agraria "Filippo Silvestri"*, **48**: 171-205.
- MATESOVA G.I., 1957. – [New species of Coccids (Homoptera, Coccoidea) from southeastern Kazakhstan]. *Entomologicheskoe Obozrenye*, **36**: 163-174. [In Russian].
- ŠULC K., 1898. – Studie o coccidech. – II. *Sitzungsberichte der K. Bohmisch Gesellschaft der Wissenschaften (1897)* **66**: 1-19.
- TEREZHNIKOVA E.M., 1975. – [About the synonymy of two Coccoid species]. *Vestnik Zoologii. Institut Zoologii Akademiyi Nauk Ukrainskoi SSR. Kiev*, n° **4**: 32.
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