



Addendum to: Joseph Vachal (1838–1911): French entomologist and politician (*Zootaxa*, 3442, 1–52)

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A series of recent papers has compiled brief biographies and listed the scientific publications and taxa proposed for a number of bee researchers (Rasmussen *et al.* 2007; Zuparko 2007; Rasmussen & Ascher 2008; Rasmussen *et al.* 2009; Rasmussen 2012; Rasmussen *et al.* 2013). Unfortunately five taxa attributed in the original publication to Vachal were overlooked in the recent review of his taxonomic work (Rasmussen 2012). Whereas these five names for halictine bees appeared with brief Latin descriptions in the publication by Kohl (1905), all other hymenopteran taxa described by Kohl in this paper had descriptions in German. At least one of the halictine names has been attributed to Kohl (Warncke, 1984), but based on the fact that 1) Kohl gave Vachal the authorship (as “J. Vachal n. sp.”) and 2) the five descriptions are in a different language from the taxa described by Kohl in the same paper, these five names should all be referred to Vachal as pointed out by Ebmer (1976). The paper by Kohl (1905) lists all of the Hymenoptera collected from the surroundings of the snow-capped stratovolcano Mount Erciyes (Erciyes Dag, as Erdschias) of Kayseri Province in Turkey, the highest mountain of central Anatolia. Bee localities visited by the expedition include Bos Tepe and Ewlije-Dagh south of Kayseri and Yilanli Dag (as Illany-Dagh) west of Kayseri. “Bussara (vel Bussana)” is not listed in the gazetteer introducing the study or in Penther (1906), but is possible Bursa in northwest Turkey (Ebmer 2000). Thus, Rasmussen (2012) should be amended to reflect that Vachal described 791 new species (not 786). In addition Table 2 listing the collectors of specimens described by Vachal as new taxa should be amended to include: Penther, Arnold (1865–1931): Turkey (Erciyes and vicinity, “Bussara (vel Bussana)?” (probably Bursa)).

TABLE 4. Type localities for new taxa described by Vachal (addendum):

EURASIA

Turkey: Erciyes, Bos Tepe; Erciyes, Ewlije-Dagh; Erciyes, Yilanli Dag (Illany-Dagh); “Bussara (vel Bussana)?” (probably Bursa).

Bibliography of Joseph Vachal (addendum):

Vachal, J. in Kohl, F.F. (1905) Ergebnisse einer naturwissenschaftlichen Reise zum Erdschias-Dagh (Kleinasien) Ausgeführt von Dr. Arnold Penther und Dr. Emerich Zederbauer auf Kosten der “Gesellschaft zur Förderung der naturhistorischen Erforschung des Orients in Wien” (nunmehr “Naturwissenschaftlicher Orientverein in Wien”) im Jahre 1902: Hymenopteren. *Annalen des k.k. Naturhistorischen Hofmuseums (Wien)*, 20, 220–246, pl. 9–10.

List of taxa described by Joseph Vachal (addendum):

anellus, *Halictus* Vachal in Kohl, 1905: 238: n. sp., 1♀, Type loc. (holotype): Turkey, Erciyes, Bos Tepe, 17.vii.1902, 1600 m, Repository: Not located. Current status: *Lasioglossum (Sphecodogastra) anellum* (Vachal, 1905) [see Ebmer, 1995]. Halictidae.

metopias, *Halictus* Vachal in Kohl, 1905: 238: n. sp., 1♂, Type loc. (holotype): Turkey, Erciyes, Yilanli Dag (Illany-Dagh), 8.vii.1902, 1600 m, Repository: Not located. Current status: *Lasioglossum (Dialictus) annulipes* (Morawitz, 1876). Halictidae.

- patulus**, *Halictus* Vachal in Kohl, 1905: 239: n. sp., 1♀, Type loc. (holotype): Turkey, Erciyes, Ewlije-Dagh, 14.vii.1902, 1800 m, Repository: Not located. Current status: *Lasioglossum (Hemihalictus) pygmaeum patulum* (Vachal, 1905) [see Ebmer, 2000]. Halictidae.
- tenuiceps**, *Halictus* Vachal in Kohl, 1905: 239: n. sp., 1♀, 1♂, Type loc.: Turkey, Erciyes, Yilanli Dag (Illany-Dagh), 8.vii.1902, 1500 m, Repository: NMW. Current status: *Lasioglossum (L.) tenuiceps* (Vachal, 1905) [see Ebmer, 2011]. Halictidae.
- uncinus**, *Halictus* Vachal in Kohl, 1905: 239: n. sp., 1♀, Type loc. (holotype): Turkey, “Bussara (vel Bussana)?” (probably Bursa), Repository: Not located. Current status: *Lasioglossum (Hemihalictus) transitorium uncinum* (Vachal, 1905) [see Ebmer, 2000]. Halictidae.

According to M. Vizek of the Naturhistorisches Museum Wien (NMW) in Austria the type material of only a single species could be located there. Additional types may be located in some of the other collections hosting Vachal material (see Rasmussen, 2012). In addition to these updates to Rasmussen (2012), it is also evident from the foreword (p. 4) to volume 34 of *Annali del Museo Civico di Storia Naturale di Genova* that it was published after 20 April 1895 and not in 1894 as the imprint date of the volume suggests. Thus, the date of publication of 27 taxa proposed in Vachal (1895 (“1894”)) (cited as Vachal, 1894 in Rasmussen, 2012) should be reported as 1895. Authors such as Dalla Torre (1896) have cited the imprint year 1894, although others used the 1895 date (e.g., Snelling, 1988). Finally, updated current combinations or subgeneric placements are available for many taxa. These are available online and are continuously being updated in an online global checklist (Ascher & Pickering 2015). Most significantly this source follows Gibbs *et al.* (2013) in partitioning *Evylaeus* Robertson (often treated as a genus by European specialists) into multiple subgenera of *Lasioglossum* Curtis (e.g., expanded subgenera *Hemihalictus* Cockerell and *Sphecodogastra* Ashmead), with assignments to newly expanded subgenera made by JSA with reference to placements in formal species groups by European specialists (e.g., Ebmer, 2000). The online checklist also treats *Rhynchocolletes* Moure as a junior synonym of *Colletes* Latreille rather than a senior synonym of *Mourecotelles* Toro & Cabezas.

The type localities of Vachal’s species reported by Rasmussen (2012) also merit further discussion, as confusion about some African localities impedes understanding of distributions. The locality “Assinie” which has been interpreted as pertaining to Ethiopia (Vachal taxa) or Somalia (e.g., *Xylocopa caloptera* Pérez, 1901 and *X. cribrata* Pérez, 1901) by Eardley & Urban (2010), does not pertain to Abyssinia but rather to a port town in the Ivory Coast visited by the collector Charles Alluaud (as listed by Rasmussen, 2012). The locality “Uganda: Lorooghi” in Rasmussen is actually in Kenya and should be corrected. The “Samlia” waterfalls in Africa, were originally cited as “des chutes de Samlia, rivière N’Gami (Mocquerys),” e.g. for *Megachile duponti* Vachal, 1903. This locality has been placed in Sierra Leone (e.g., Wheeler, 1922), but Schouteden (1919) noted, “a été récoltée dans le Congo français par Mocquerys, aux “Chutes de Samlia, rivière N’Gami”, suivant l’etiquette, en réalité aux chutes de Samba, rivière N’Gonnié” in support of its interpretation (e.g., by Rasmussen, 2012) as Samba on the N’Gonnié river [presently Ngounié river] in Gabon. Further localities in Gabon and Equatorial Guinea are sometimes misplaced in the Democratic Republic of the Congo or attributed generally to the “Congo” (e.g., in Eardley & Urban, 2010), so we urge careful scrutiny of these and other historical collecting sites in Africa. Often information about the collector and precise collecting date of the material can provide evidence of the region visited, facilitating assessment of the distribution, so it is useful to include these data in type catalogs and databases.

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