Supplemental material 4

Comparisons of *Tegulariscaptor minor* with *Geotrypus* spp.

The type species *G. acutidentatus* differs from *Tegulariscapheus minor* gen. nov. in: i) the shortened premolar part of the dentary with the overlapping p2-p4 and the reduced p2; ii) crista obliqua merging the posterior wall of the trigonid at midpoint; iii) the better-developed metaconid of m1; iv) the smaller lingual heel with only a tiny protocone on the P4; v) the more anteriorly shifted lingual heel and the near-absence of a paracingulum and metacingulum in M1; vi) the more robust humerus ; vii) the completely fused bicipital tunnel; vii) the larger and blade-like teres tubercle; viii) reduced width of the minor sulcus.

Geotrypus antiquus from the type locality Les Chauffours, France from several localities in the Quercy area, France, from Switzerland and from Enspel, Germany (Crochet 1995; Schwermann & Martin 2012) differs from *Te. minor* gen. nov. in: i) the gapped lower premolars; ii) the slightly divided mesostyle of upper molars; iii) p1 caniniform; iv) reduced protocone of P4; v) the more robust humerus with the pectoral process terminating more laterally; vi) the completely fused bicipital tunnel; vii) larger teres tubercle.

Geotrypus ehrensteinensis from the Late Oligocene faunas of Ehrenstein 4 and Eggingen-Mittelhart 1, Germany differs from *Te. minor* gen. nov. in (Ziegler 1990, pl. 7, figs 4-5): i) the loss of one lower incisor; ii) the overlapping p2 and p3, p2 being significantly smaller; iii) the reduced protocone of the P^4.; iv) the divided mesostyle of the upper molars; v) the better-developed metaconid of m1.

Geotrypus montisasini from some early Miocene sites in Ulm, Germany and nearby localities differs from *Te. minor* gen. nov. in (Ziegler 1990; pl. 8-9, fig. 1-5): i) the loss of one lower incisor and p2, and the overlapping p3 and p4; ii) the absence of

metacristid and entocristid in the lower molars; iii) the much more robust humerus; iv) the completely fused bicipital tunnel; v) the highly reduced minor sulcus; vi) the larger and blade-like teres tubercle.

Geotrypus tomerdingensis from the early Miocene fauna of Tomerdingen near Ulm differ from *Te. minor* gen. nov. (Zielger 1990; pl. 7-8, figs 4-5) in: i) the more robust humerus; ii) the larger and blade-like teres tubercle; iii) the completely fused bicipital tunnel; iv) the enlarged and distally terminating pectoral crest; v) reduced width of the minor sulcus.

Van den Hoek Ostende (2001) described two species from the early Miocene of Turkey. *Geotrypus haramiensis* was recorded from the type locality Harami 3 and from Harami 1 and Kilcak. It differs from *Te. minor* gen. nov. in: i) loss of p2, single-rooted p3 and overlapping lower premolars; ii) the absence of a metacristid in m2; iii) the divided mesostyle of M2 and M3; iv) the more robust humerus; v) larger teres tubercle.

Geotrypus kesekoeyensis is only known from some isolated teeth from the type locality Kesekoy, it differs from *Te. minor* gen. nov. in: i) the absence of a metacristid in m1; ii) the projecting precingulid in m2; iii) the crista obliqua does not reach the posterior wall of the trigonid in the m2.; iv) the elongated P4 with a small lingual heel and reduced protocone.