Case 2778

Asaphus eichwaldi Fischer von Waldheim in Eichwald, 1825 (currently Paladin eichwaldi; Trilobita): proposed conservation of neotype designation

Gerhard Hahn
Institut für Geologie und Paläontologie, Philipps-Universität, Hans-Meerwein-Strasse, D-3550 Marburg, Germany

Abstract. The purpose of this application is the conservation of the specific name of the Lower Carboniferous trilobite Asaphus eichwaldi Fischer von Waldheim in Eichwald, 1825 in its current usage. This would be achieved by confirmation of Osmólska’s (1970) neotype designation, although this differs from Fischer von Waldheim’s original definition.

1. In 1825 Fischer von Waldheim established two trilobite species from the Lower Carboniferous (Viséan) of the Moscow Basin in the region of Wereja (= Vereya). These nominal species were Asaphus Brogniarti (p. 54) (printed by what appears to be a lapsus calami as Asaphus Brogniarty on p. 58 in the plate explanation for pl. 4, fig. 5) and Asaphus Eichwaldi (pp. 54–55, pl. 4, fig. 4). Each species was represented only by a single isolated pygidium. The illustrations were poor, but showed that the pygidium of A. brogniarti was relatively long and triangular in shape, whereas that of A. eichwaldi was short and rounded. The specimens were housed in the St. Petersburg ‘Bergakademie’ (now the Tshernyshev’s Museum in Leningrad); no catalogue numbers were given. In his paper Fischer von Waldheim several times (e.g. p. 30) referred to the scientist Brongniart, but in all cases spelt his name ‘Brogniart’. Under Article 32c(ii) of the Code the nominal species brogniarti cannot be considered to be an incorrect original spelling. These two nominal species, Asaphus brogniarti and A. eichwaldi, are the oldest now nomenclaturally available for Carboniferous trilobites, although the name brogniarti (or brongniarti) Fischer von Waldheim has not been in use in the 20th century.

2. Despite the different shape of their pygidia, Fischer von Waldheim later (1837, p. 121) synonymized his two 1825 species under the name A. eichwaldi. He preferred this name ‘d’autant plus qu’un autre Trilobite porte déjà le nom de Brongniart’; in this he was referring to the Ordovician species Asaphus [now Eohomalonotus] brongniartii Delongchamp, 1825 (see Goldfuss, 1843, p. 562). In his 1837 paper Fischer von Waldheim did not refer to the nominal species brogniarti, but did use the spelling Brongniart for the name that he had spelt Brogniart in his 1825 paper.

3. Eichwald (1867, pp. 204–205, 208–209) referred to the two nominal species Asaphus brongniarti [sic] and A. eichwaldi and said that the type specimens could not be found in St. Petersburg. They have not been located since.

4. Woodward (1883), in his important monograph on Carboniferous trilobites, separated the two species eichwaldi and brongniarti [sic]. He placed eichwaldi in Phillipsia (pp. 22–23, pl. 4, figs. 2, 4–11, 13, 14). He placed brongniarti also in Phillipsia
and (pp. 35–36, pl. 6, fig. 12) synonymized it under Griffithides obsoletus Phillips, 1836. He justified giving priority to Phillips’s 1836 name by saying ‘it seems clearly undesirable to revive a specific name which its author had already cancelled, and to apply it to a form which certainly cannot be correlated with that originally intended to be described under the defunct name’. Woodward inverted the names assigned by Fischer von Waldheim (1825), naming as eichwaldi the species with the long, triangular pygidium and considering the species with the short, rounded pygidium to be ‘brongniarti’ (i.e. obsoletus). This incorrect assignment of eichwaldi has been followed by all subsequent authors. For example, Weber (1937, pp. 63, 134) in his description of the Carboniferous trilobites of the U.S.S.R. discussed Phillipsia (Griffithides?) eichwaldi sensu Woodward and figured (pl. 7, figs. 15–17) three pygidia similar to Fischer von Waldheim’s concept of Asaphus brogniarti but distinct from his concept of Asaphus eichwaldi. Today the name Paladin eichwaldi is given to the species with a long, triangular pygidium composed of many segments.

5. Osmólska (1970, p. 130) designated as neotype of Paladin eichwaldi one of the three pygidia figured by Weber (1937), i.e. the one figured by him in pl. 7, fig. 15 which she refigured (pl. 17, fig. 17). This specimen is registered TML 1557/5107 in the Tshernyshev’s Museum, Leningrad. However, it is possible that Osmólska mixed up the specimens since she indicated a different registration number, 1551/5107, and her figure differed in some details from Weber’s. Osmólska’s neotype designation stabilized the nominal species Paladin eichwaldi in its current usage, but did not meet the Code’s qualifying conditions for a neotype designation in two respects. Article 75d(4) of the Code requires evidence that the neotype is consistent with the former name-bearing type, but Osmólska’s neotype corresponded with Asaphus eichwaldi sensu Woodward and not with Fischer von Waldheim’s original concept. Article 75d(5) requires evidence that the neotype came as nearly as practicable from the original type locality and geological horizon, but Osmólska’s neotype came from the region of the River Vol in the Timan Mountains in the north of Russia whereas the original type locality was in the Moscow Basin. It follows that Osmólska’s neotype designation is of questionable validity and it is necessary for the Commission to confirm it.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to confirm that the specific name eichwaldi Fischer von Waldheim in Eichwald, 1825, as published in the binomen Asaphus eichwaldi, is to be interpreted by reference to the specimen designated as neotype by Osmólska (1970);

(2) to place on the Official List of Specific Names in Zoology the name eichwaldi Fischer von Waldheim in Eichwald, 1825, as published in the binomen Asaphus eichwaldi, and defined by the neotype designation by Osmólska (1970) as confirmed in (1) above.

References


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