

Original article

On the *Procompsognathus* postcranium (Late Triassic, Germany)[☆]Sur le squelette postcrânien de *Procompsognathus*
(Trias supérieur, Allemagne)

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Abstract

A review of the historical background of the material housed in the Staatliches Museum für Naturkunde (Stuttgart) and ascribed to *Procompsognathus triassicus* (Upper Triassic, Germany) is provided. The systematic position of the postcranial remains is discussed. The combined results of cladistic analyses suggest that the type material, an incomplete postcranial skeleton in two pieces (SMNS 12591), is from a theropod close to *Segisaurus* and *Coelophysis*. An isolated manus (SMNS 12352a) is definitely not theropodan, but could be from any small basal archosaur. The remarkable diversity of the carnivorous guild that dwelled in southern Germany before the end-Triassic events is underlined.

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Résumé

Un historique du matériel rapporté à *Procompsognathus triassicus* (Trias supérieur, Allemagne) et conservé au Staatliches Museum für Naturkunde (Stuttgart) est dressé. La position systématique des restes postcrâniens est discutée. Les résultats combinés d'analyses cladistiques suggèrent que le matériel-type, un squelette postcrânien incomplet en deux fragments (SMNS 12591), provient d'un théropode proche de *Segisaurus* et de *Coelophysis*. Une main isolée (SMNS 12352a) n'appartient clairement pas à un théropode, mais pourrait provenir de tout archosaure basal de petite taille. La remarquable diversité de la guildes des carnivores qui fréquentaient la région de l'Allemagne méridionale avant les événements de la fin du Trias est soulignée.

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Keywords: Dinosauria; Theropoda; *Procompsognathus*; Triassic; Germany; Systematics**Mots clés :** Dinosauria ; Theropoda ; *Procompsognathus* ; Trias ; Allemagne ; Systématique**1. Introduction**

The Keuper of southern Germany has yielded a very rich Late Triassic tetrapod fauna unrivalled elsewhere in Europe (Schoch and Wild, 1999). The Stubensandstein (Middle Norian-Rhaetian; Kozur and Bachmann, 2005) is particularly important in having produced at least one important crocodylomorph species and a not well-appreciated theropod assemblage (Sereni and Wild, 1992; Rauhut and Hungerbühler,

2000). In this respect, the White Quarry at Pfaffenhofen, West of Heilbronn (Baden-Württemberg), is no doubt the most important Stubensandstein site (Berckhemer, 1938; Hungerbühler, 1998). Discoveries such as *Procompsognathus* (Fraas, 1913) and *Saltoposuchus* (Huene, 1921) took place there about one century ago, a few years before the quarry was abandoned. Unfortunately, the site is now largely obscured by rubble and overgrown and its status as a protected natural monument impairs further possible new excavations.

The aim of this paper is to provide a reassessment of the systematics of two postcranial specimens from Pfaffenhofen: the type of *Procompsognathus triassicus* (SMNS 12591) and a manus that was referred to this enigmatic taxon (SMNS 12352a).

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Fig. 1. SMNS 12591, main piece, incomplete postcranial skeleton, *Procompsognathus triassicus*. Scale bar = 5 cm.
 SMNS 12591, pièce principale, squelette postcrânien incomplet, *Procompsognathus triassicus*. Barre d'échelle = 5 cm.

Institutional abbreviation: SMNS, Staatliches Museum für Naturkunde, Stuttgart, Germany.

2. Historical background

Shortly before World War I, [Fraas \(1913\)](#) reported the discovery at Pfaffenhofen, more than four years earlier, of an incomplete dinosaur skeleton (SMNS 12591, two pieces; [Figs. 1 and 2](#)) including the skull (SMNS 12591a). He found that his specimen was so similar to *Compsognathus* ([Wagner, 1859](#)) that it was undoubtedly a forerunner of it and he accordingly named it *Procompsognathus triassicus*. It is probably on the basis of the same material that he coined *Hallopus celerrimus* about two years before ([Fraas, 1912](#)), but this name is unavailable under Article 12 of the International

Code of Zoological Nomenclature ([International Commission on Zoological Nomenclature, 1999](#)). Later, he alluded to this specimen again ([Fraas, 1914a, 1914b](#): pp. 129–128), but he was unable to achieve the description of it before passing away in 1915.

A full account of *Procompsognathus triassicus* was provided by [Huene \(1921\)](#), who also hinted at the existence of a second specimen found in 1908 in the same strata and at the same place. This second specimen included half a skull (SMNS 12352) and a hand (SMNS 12352a, [Fig. 3](#)), which were found purportedly in close association. He was unable to find distinctive morphological characters differentiating the two specimens ([Huene, 1921](#)). He noted a difference in the length of the maxillary tooth row, but he considered that this could be readily explained by age or sex like the obvious size difference, SMNS 12352 being larger. He concluded that a shared generic identity was undeniable and referred SMNS 12352 to *Procompsognathus* cf. *triassicus* ([Huene, 1921](#)). Later, [Huene \(1921\)](#) identified on the main slab of *Saltoposuchus connectens* (SMNS 12597), what he thought were probable cranial remains belonging to *Procompsognathus triassicus*.

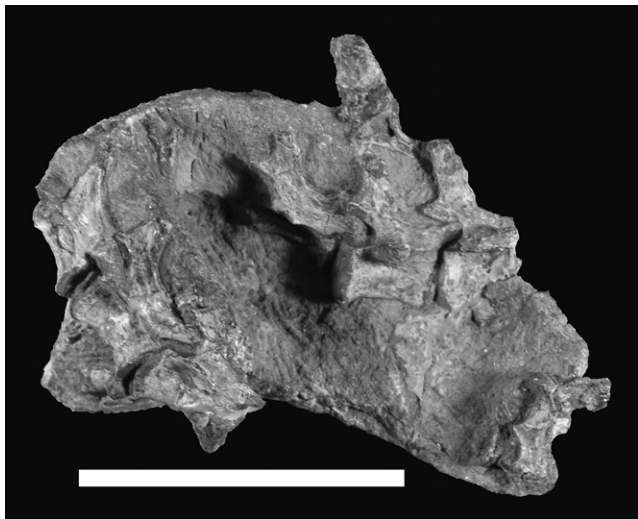


Fig. 2. SMNS 12591, minor piece, caudal vertebrae, *Procompsognathus triassicus*. Scale bar = 5 cm.
 SMNS 12591, pièce mineure, vertèbres caudales, *Procompsognathus triassicus*. Barre d'échelle = 5 cm.



Fig. 3. SMNS 12352a, left manus, indeterminate archosaur ("sphenosuchian" crocodylomorph?). Scale bar = 1 cm.
 SMNS 12352a, main gauche, archosaure indéterminé (crocodylomorphe « sphénosuchien » ?). Barre d'échelle = 1 cm.

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