

In the year 1876 a large *Pentacrinus* colony was discovered at Sennecey-le-Grand. Numerous very perfect individuals were obtained and carefully described by de Loriol.¹ He found a verticil of cirri on every joint, and described their faces as follows:—“La surface articulaire est plane; les pétales de la rosette articulaire sont fort étroits, et ont l'apparence de cinq petites rigoles aboutissant aux cinq angles du pentagone et limitées par deux petits bourrelets parallèles, plus élevés sur l'une des faces de l'article que sur l'autre, et couverts de très fines crénelures.” The figure which he gives (pl. ii. fig. 10) shows the complete correspondence of these joints with those of the Liassic *Extracrinus*; and he found this correspondence also in the other characters of the type. The radials extend slightly downwards over the top stem-joints, and the characters of the arm-divisions are almost exactly as in *Extracrinus*, except that the main arms and the armllets which they bear are more equal in size than in the typical species.

De Loriol identified this species with *Pentacrinus dargniesi* of Terquem and Jourdy, though he considered it as belonging to the same group as *Extracrinus briareus*; but he hesitated to adopt Austin's genus, and he subsequently stated that there was no reason to do so.²

He also pointed out that the characters of the stem-joints and cirri of Quenstedt's two species *Pentacrinus briareus zollerianus* and *Pentacrinus briareus achalmianus*, both from the Brown Jura (Inferior Oolite), indicate their affinity to this group. In the same memoir he described and figured some other stem-joints presenting all the *Extracrinus*-characters from the same formation (Bajocien) of Langres, and he subsequently found both these types at corresponding horizons in Switzerland. He referred at the same time to the *Pentacrinus nodotianus*, d'Orbigny, which was described by its founder as being “voisine du *Pentacrinus briareus*.” Very similar stem-joints, each bearing five cirri, and having crenulated linear petals, occur in the Coralline Oolite of various parts of Switzerland, and are described as *Pentacrinus buchsgauensis* by de Loriol, who notes their resemblance to those of *Pentacrinus briareus* as a point of special interest.³

We may therefore, I think, consider it certain that *Extracrinus* extends up above the Lias into the Lower Jurassic rocks of the Continent, and the same is undoubtedly the case in England. The Great Oolite of Minchinhampton contains stem-joints with the same linear, crenulated petals as those of the Liassic *Extracrinus briareus*; while similar joints, together with arm-fragments showing the characteristic inequality of division, abound in the Forest Marble at Malmesbury.

To the genus *Extracrinus* I would also refer the *Pentacrinus asteriscus* from the

¹ Notice sur le *Pentacrinus* de Sennecey-le-Grand, p. 7. Both in this work and in the Swiss Crinoids this type is called *Pentacrinus dargniesi* by de Loriol. But the plates are lettered *Pentacrinus chabasi*, P. de Loriol.

² Swiss Crinoids, p. 116.

³ *Ibid.*, pp. 153, 154.