

SHORT NOTE – NOTA BREVE

***DISTEFANICERAS*, A NEW NAME FOR THE GENUS *DISTEFANIA* FUCINI, 1931 (MOLLUSCA, CEPHALOPODA), PREOCCUPIED BY *DISTEFANIA* CHECCHIA-RISPOLI, 1917 (CRUSTACEA). TAXONOMIC IMPLICATIONS FOR SOME LATE PLIENSBACHIAN-EARLIEST TOARCICAN HILDOCERATIDAE**

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Abstract. *Distefania*, one of the several ammonites genera described during the thirties in the upper Pliensbachian faunas from Taormina (Sicily), is involved by a case of homonymy. A recent study on the ammonoid assemblages of the late Pliensbachian-early Toarcian transition in the Apennines evidenced that it would be useful to keep a separate and valid name for this previously underrated Mediterranean genus, in order to better understand the time intervals and improve correlations. Moreover, it shows morphologic and sutural differences compared to the genera with which it is usually mistaken, and its vertical range is partially different as well. Therefore, in accordance with the ICZN rules, the form in question is here renamed as *Distefaniceras*.

Riassunto. *Distefania*, uno dei molti generi di ammoniti descritti durante gli anni '30 nelle faune del Pliensbachiano superiore di Taormina (Sicilia), è implicato in un caso di omonimia. Un recente studio sulle associazioni fossili del passaggio fra Pliensbachiano superiore e Toarciano inferiore nell'Appennino ha mostrato che sarebbe utile mantenere un nome distinto e valido per questo genere mediterraneo precedentemente sottovalutato, in modo da aumentare la comprensione degli intervalli cronologici e migliorare le correlazioni. Del resto, esso presenta differenze morfologiche, suturali e di distribuzione stratigrafica rispetto ai generi con i quali viene di norma confuso. Pertanto, in accordo con le regole dell'ICZN, la forma in questione viene qui rinominata *Distefaniceras*.

Introduction

In his monograph on the late Pliensbachian ammonites from Taormina (Sicily), Fucini (1931) proposed

the establishment of various genera that proved important for the biostratigraphy; however, some of them cannot be considered valid from the nomenclatorial point of view. This is the case of *Di-Stefania* (or, according to the modern orthography, *Distefania*), name which originally was not provided of diagnosis and type species indication (Vecchia 1949, p.142-143), and most of all which turned out to be preoccupied by the Cenomanian decapod crustacean *Distefania* Checchia-Rispoli, 1917 (Haas 1951, p. 122). Perhaps also for these reasons, this genus of the subfamily Arieticeratinae has been used only very rarely (for instance by González-Donoso et al. 1971; Venturi & Ferri 2001; partly by Mouterde et al. 1971), and in the literature it is mostly considered a subjective synonym of other taxa (both belonging to Mediterranean and north-west European faunas), such as *Canavaria* Gemmellaro, 1886 (Arkel et al. 1957, p. L254; Ferretti 2004, p. 556), *Tauromeniceras* Mouterde, 1967 (Braga 1983, p. 314), *Emaciaticerias* Fucini, 1931 (Braga 1983, p. 270, 290), *Leptaleoceras* Buckman, 1918 (Wiedenmayer 1980, p. 122; Braga 1983, p.250). Nevertheless, we believe that it would be useful to keep a separate and valid name for all these forms, since they can be distinguished on the basis of morphological and sutural elements, and their vertical range is only partially overlapping. Such a practice would allow a better understanding of the stratigraphical intervals, thus improving their correlatability. This has been re-

cently evidenced by a detailed study on several Apennine sections (Bilotta et al. 2009), from which it can be noted that the genus at issue characterizes both the terminal part of the late Pliensbachian and the mid-late portion of the first Toarcian zone.

Consequently, in accordance with the Article 67.8 of the International Code on Zoological Nomenclature (1999), we propose *Distefaniceras* nom. nov. as a replacement name for *Distefania* Fucini, 1931. The type species we choose was described by Fucini (1931, p. 144, pl. 19, figs. 8-14) as *Di-Stefania matteuccii*; the lectotype is the specimen of pl. 19, fig. 11 (here reproduced in Fig. 1A), since it clearly shows the most typical traits of this genus which differentiate it from other taxa of the same rank; the remaining exemplars are therefore paralectotypes.

Fucini (1931) ascribed to his *Di-Stefania* several species, some of which were named (but not figured) by Gemmellaro (1886). It is sometimes hard to disentangle among all these nominal forms, often characterized by an high degree of polymorphism, but we think that at least *D. fabianii*, *D. falculum* and *D. matteuccii* can be considered as separate entities attributable to *Distefaniceras*. Other species originally indicated as *Di-Stefania* but with different rib flexuosity could perhaps fall within the ambit of the genus, but their mutual differences are often minimal, and indeed Wiedenmayer (1980) and Braga (1983, p. 272) treat most of them as conspecific. A further possible member of *Distefaniceras* is the taxon designated by Fucini (1931) as *Naxensiceras imitator*.

In order to give a better outline of the genus subject of the present note, we deem it convenient to provide a diagnosis, reported in the following paragraph.

Systematic palaeontology

The adopted taxonomic hierarchy follows the scheme of Venturi & Bilotta (2008, p. 897-901).

Class **Cephalopoda** Cuvier, 1798

Subclass **Ammonoidea** Zittel, 1884

Order **Psiloceratida** Houša, 1965

Superfamily Hildoceratoidea Hyatt, 1867

Family Hildoceratidae Hyatt, 1867

Subfamily Arieticeratinae Howarth, 1955

Genus *Distefaniceras* nom. nov.

Type species: *Distefania matteuccii* (Fucini, 1931)

Diagnosis. Moderately evolute shell, with poorly overlapping whorls and coil with a quite fast height increase. Subrectangular whorl section, higher than wide, with flattened flanks. Rather narrow ventral area, keeled and slightly bisulcate.

Ornamentation formed by ribs, rectiradiate on the phragmocone and flexuous-projected on the body chamber; these ribs fade when they arrive near the keel.

Quite simple suture line, with E near as long as L, which is pointed, has a broad base and is poorly branching; short and enlarged U₂; tooth-like A lobe in the ES saddle, which is broader and a little more advanced than LS₁.

Remarks. The main differential elements between *Distefaniceras* and the forms with which it was formerly confused are the rib pattern (straight on the phragmocone, flexuous on the body chamber; Fig. 1B, D) and the simple suture line (Fig. 1C, E).

More in particular, a detailed comparison shows that *Canavaria* has a more evolute coiling and lacks ventral furrows; its ribs are coarser and always rectiradiate, even on the body chamber; in the suture line,

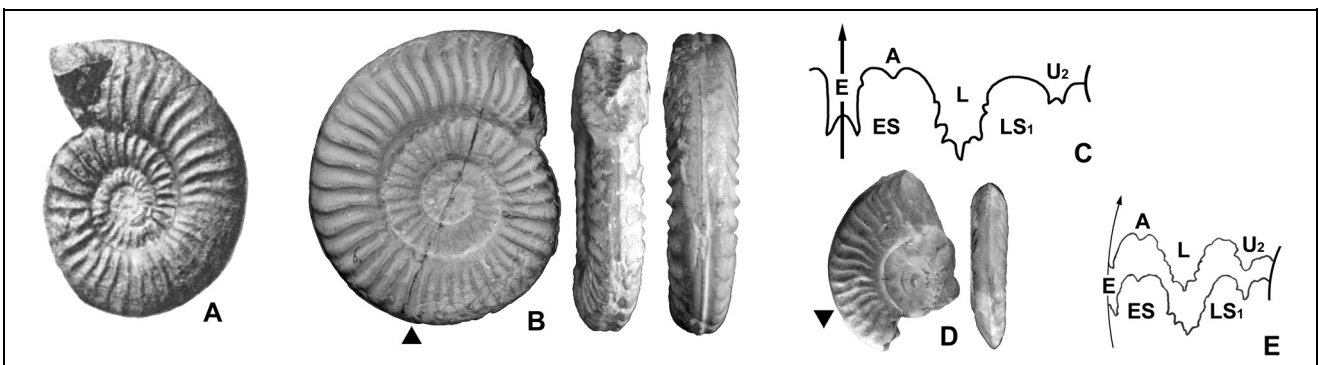


Fig. 1 - Three specimens of *Distefaniceras*, all figured at natural size; a black triangle marks the beginning of the body chamber, when it can be distinguished. Letters on the suture drawings are as follows: A, accessory lobe; E, external lobe; ES, external saddle; L, lateral lobe; LS₁, first lateral saddle; U₂, outermost umbilical lobe. A) Lateral view of *Distefaniceras matteuccii* (Fucini, 1931) (lectotype, from Taormina, Sicily, housed in the Geologic Museum "G. G. Gemmellaro", Palermo, inventory number MGUP-013.540; refigured from Fucini 1931, pl. 19, fig. 11). B) Lateral and ventral views of a *Distefaniceras matteuccii* (Fucini, 1931) from the Umbria-Marche Apennines (Mount Serrone section, *Koninckella* horizon Vb; Venturi private collection, inventory number SE 9). C) Suture line of the same specimen, magnified about $\times 4$. D) Lateral and ventral view of a *Distefaniceras falculum* (Fucini, 1931) from the Umbria-Marche Apennines (Maranghi Quarry section, horizon 3; Venturi private collection, inventory number BU 10). E) Suture lines of the same specimen, magnified about $\times 4$. Suture drawings by F. Venturi.

LS1 is typically very narrow, and the E lobe is usually shorter than in *Distefaniceras*.

Tauromeniceras is generally more evolute, its ribs are seldom flexuous and most of all show an evident umbilical nodosity; the suture is less simple, with a longer L lobe and a tendentially more developed umbilical portion.

Emaciatoceras lacks the bisulcate venter, its ribs are always rectiradiate and they are already markedly fading before the ventrolateral edge (especially on the body chamber); at a parity of diameter, its suture line is more indented, with a more developed U2, and LS1 saddle broader than ES (whereas in *Distefaniceras* the saddle width ratio is inverted).

Leptaleoceras is more evolute, has a subtrapezoidal or subogival whorl section and lacks ventral furrows; its ribs are more dense, and their flexuosity, if present, is less marked; furthermore, the ornamentation is visible only from the diameter of about 12-14 mm, whereas *Distefaniceras* is clearly ribbed already from the diameter of about 6 mm. No information is available on the suture of the original Buckman (1918) material, and therefore a comparison on this aspect is impossible; in any case, *Leptaleoceras* seems to be a more typically north-west European genus, so much so that Buckman (1918, p. 285), referring to the type species wrote 'The

considerable Italian literature on Domerian Hildoceratidae has revealed neither to Mr. Lang nor to myself anything really like this species'.

Stratigraphical range. In the Apennines, the genus is known from the latest Pliensbachian (upper part of the Emaciatum zone) to the upper (but not topmost) portion of the first Toarcian zone (Mirabilis zone, corresponding to the standard Tenuicostatum zone). In southern Spain, forms referable to *Distefaniceras* are reported in the mid-late part of the late Pliensbachian (Mouterde et al. 1971; Braga 1983) and perhaps also at the transition with the early Toarcian (González-Donoso et al. 1971), whereas in the Lombard Prealps (Wiedenmayer 1980) this taxon seems to be mostly restricted to the middle portion of the late Pliensbachian (corresponding to the standard Gibbosus subzone).

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