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Cretaceous faunas from Zululand and Natal, South Africa‡. A new species of the ammonite genus *Salaziceras* Breistroffer, 1936, from the Lower Cenomanian Mzinene Formation

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A diminutive ammonite collected by E.C.N. Van Hoepen from the Cenomanian part of the Mzinene Formation of the Skoenberg in northern KwaZulu-Natal, is described as *Salaziceras simplex* sp. nov., and interpreted as one of the last survivors of the genus.

Keywords: Cretaceous, Cenomanian, *Salaziceras*, ammonite, KwaZulu-Natal, South Africa.

INTRODUCTION

We have previously recorded the type species of the diminutive Late Albian ammonite genus *Salaziceras* Breistroffer, 1936, from the Upper Albian part of the Mzinene Formation at Ndumu in northern KwaZulu-Natal (Klinger & Kennedy 1994), and interpreted the enigmatic *Acanthoceras naviculare* from Mont Raynaud, Madagascar, described by Boule *et al.* (1907, p. 30 (10), pl. 1 (8), fig. 1) as a hypermorphic giant species of this normally diminutive genus (Kennedy & Klinger 2008). Revision of the KwaZulu-Natal Stoliczkaiinae (in progress), led to the recognition of a second specimen of this genus from KwaZulu-Natal, which we describe below, and refer to a new species, *Salaziceras simplex*.

SYSTEMATIC PALAEONTOLOGY

Superfamily Acanthoceratoidea de Grossouvre, 1894

Family Flickiidae Adkins, 1928

Subfamily Salaziceratinae Wright & Kennedy, 1984

Genus *Salaziceras* Breistroffer, 1936

Type species

Ammonites salazacensis Hébert & Munier-Chalmas, 1875, p. 114, pl. 5, fig. 6, by original designation by Breistroffer (1936, p. 64).

Discussion

See Wright & Kennedy (1979, p. 686).

Occurrence

Upper Upper Albian, southern England, southeast France, Hungary, Morocco, Nigeria, northern KwaZulu-Natal, South Africa, and Madagascar. Lower Cenomanian of northern KwaZulu-Natal, South Africa.

***Salaziceras simplex* sp. nov.**, Fig. 1

Derivation of name

Simplex: simple.

Type

The holotype is SAM-PCZ022425 (formerly D 2945, ex E.C.N. Van Hoepen Collection), from the Lower Cenomanian Mzinene Formation at the Skoenberg, corresponding to locality 61 of Kennedy & Klinger (1975, p. 189, fig. 6), NNW of Hluhluwe, northern KwaZulu-Natal, coordinates 27°52′17″S, 32°20′19″E.

Diagnosis

A species of *Salaziceras* in which the earlier phragmocone whorls are ornamented by coarse bullate primary ribs separated by one or two intercalated ribs that extend across the venter, followed by a late phragmocone and early body chamber phase ornamented by bullate primary ribs only that efface on the ventrolateral shoulders and venter.

Dimensions

	D	Wb	Wh	Wb:Wh	U
SAM-PCZ 022424 (ex D2945)	16.4 (100)	10.4 (64.0)	9.0 (54.9)	1.17	– (–)
at	24.8 (100)	10.4 (44.0)	10.0 (40.3)	1.1	6.9 (27.8)

Description

The holotype is a well-preserved phragmocone and a 120° sector of body chamber, with extensive areas of limonitized shell preserved that largely obscure the sutures. Coiling is evolute, the umbilicus comprising 27.8% of the diameter, of moderate depth, with a convex wall and broadly rounded umbilical shoulder. The whorl section is

‡In current geopolitical terminology Zululand and Pondoland now form parts of the provinces of KwaZulu-Natal and the Eastern Cape. For the sake of continuity we retain the names Zululand and Natal in the title of our series of systematic descriptions of the invertebrate faunas from these regions from 1975 onwards.

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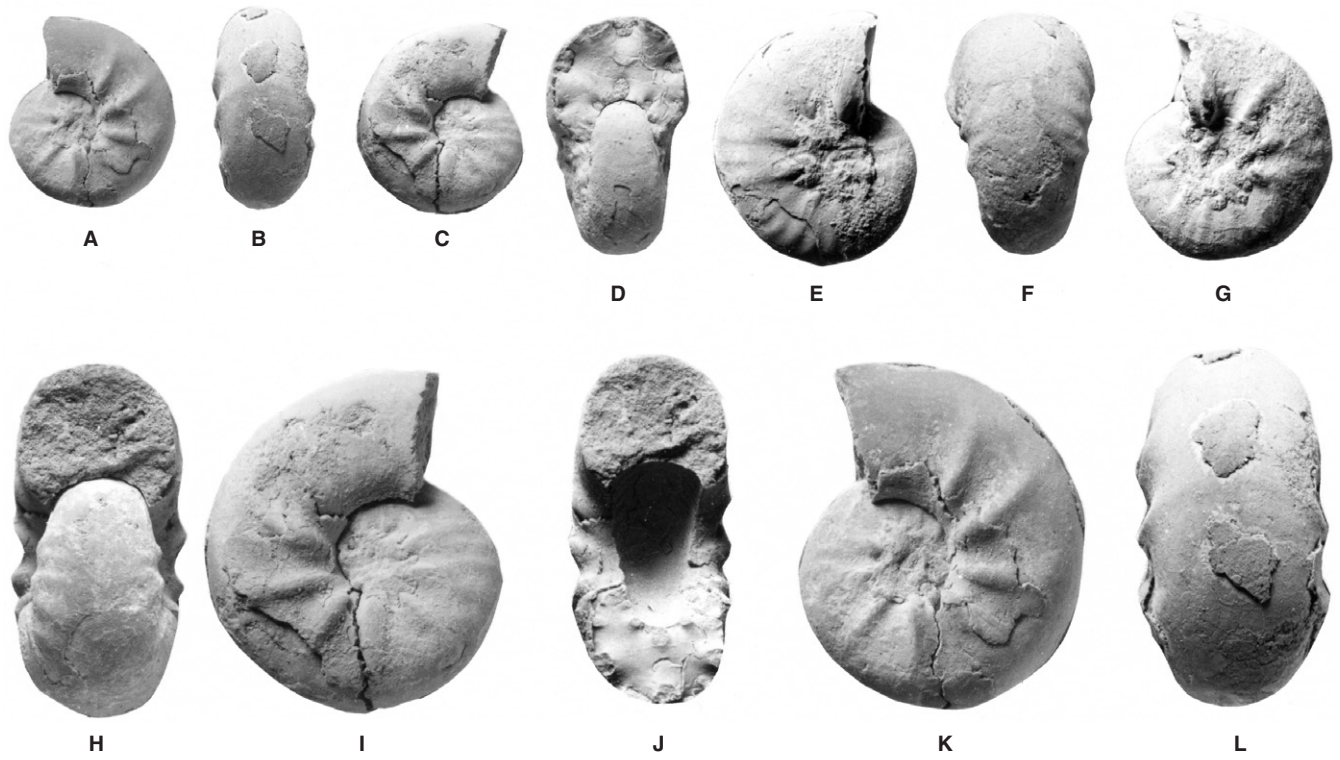


Figure 1. *Salaziceras simplex* sp. nov. The holotype is SAM-PCZ 022425 (formerly D. 2945, ex E.C.N. Van Hoepen Collection), from the Lower Cenomanian Mzinene Formation at the Skoenberg, corresponding to locality 61 of Kennedy & Klinger (1975, p. 189, fig. 6), NNW of Hluhluwe, northern KwaZulu-Natal, coordinates 27°52′17′′S, 32°20′19′′E. A–C are ×1; D–L are ×2.

depressed reniform, with the greatest breadth at the umbilical bullae and a costal whorl breadth to height ratio of up to 1.3 on the adapertural parts of the phragmocone. The intercostal whorl breadth to height ratio is 1.1 on the body chamber at the greatest preserved diameter. The nucleus of the specimen at 16.4 mm diameter has an estimated 12 progressively strengthening umbilical bullae per whorl. These give rise to low, broad, prorsiradiate ribs or, occasionally, a pair of ribs, while one or two shorter ribs intercalate low on the flank. The ribs strengthen across the outer flank before weakening, and crossing the venter in a very feeble convexity. Towards the end of the nucleus the ribs are near effaced on the venter. On a 120° sector at the adapertural end of the phragmocone and adapical end of the body chamber four strong, distant umbilical bullae give rise to a single prorsiradiate rib that effaces on the ventrolateral shoulders and venter, which are near smooth. The final 60° sector bears a single non-bullate rib, and is thereafter smooth; this change in ornament suggesting the proximity of the adult aperture. The sutures are not seen.

Discussion

Salaziceras simplex differs from typical forms of the type species, *S. salazacense salazacense* in the absence of ribs on the ventrolateral shoulders and venter of the latest parts of the phragmocone and body chamber (see illustrations in Scholz,1979, p. 92, pl. 21, figs 6–10, 13–15, 17; text-figs 25, 26A,B,H,I,J,L,M,U,V and Szives, 2007, p. 107, pl. 14, fig. 14; pl. 16, figs 7–12; pl. 20, figs 6, 8, 9 and references therein). *Salaziceras salazacense gracilicostatus* Scholz 1979 (p. 95, pl. 21, figs 11, 12; text-fig. 25) is a slender form, with crowded ribs that are well developed across the venter throughout the known ontogeny, and lack umbilical bullae on the primary ribs. *Salaziceras salazacense peyrolasense* Scholz 1979,(p. 93, pl. 21, figs 16, 18–20; text-figs 25, 26B, 27C–G,K,N,O,P,Q) is near smooth but for constrictions at a diameter that corresponds to the adapertural section of the nucleus of the holotype of *simplex*, thereafter developing very distant flank ribs, three per half whorl, lacking strong bullae. *Salaziceras lemoinei* Kennedy & Klinger, 2008 (p. 115, text-figs 1G–K, 2) is much larger (up to 53 mm in diameter), the primary ribs lacking umbilical bullae, and alternating with short intercalated ribs, all ribs strongly developed on the ventrolateral shoulders and venter of the adult body chamber.

Occurrence

As for type.

ABBREVIATIONS

D diameter (mm)
Wb whorl breadth (mm)
Wh whorl height (mm)
U umbilicus (mm)

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