

36. Record of an Ammonite from the Shimanto Belt of the Kuma Area, Kyushu^{*)}

By Tatsuro MATSUMOTO and Minoru TAMURA

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This is the first record of ammonite from the Shimanto Belt of Kumamoto Prefecture (Kyushu), where mega-fossils are generally poor. The specimen, collected several years ago by the late Mr. Hajime Itazaki, has been recently sent to us for study by courtesy of Mr. Mamoru Itazaki (his son) and Mr. M. Morita.

The fossil locality is about 500 m NEE of Itazaki (Kuma village) on the right side of the Nakazono-gawa, a tributary to the River Kuma (Fig. 1). The ammonite was embedded in dark grey shale containing sandy laminae, which is a part of the alternating shale and sandstone. This is referred to the Itazaki Formation of the Itshochi Group⁴⁾ which occupies the northern subbelt of the Shimanto Belt in this region.

The ammonite is of identical species with the one from the Tomochi Formation⁶⁾ distributed in the northern part of the Kyushu Mountains. It is described below as a new species of *Eodouvilleicer*, which indicates the uppermost part of the Aptian (Lower Cretaceous).

The Itazaki Formation is of turbidite facies, whereas the Tomochi Formation is of neritic facies. As has been mentioned previously,⁷⁾ ornate ammonites of shallow sea facies occur occasionally in turbidites of the Shimanto Belt. This is exemplified again by the present record. The fact may imply either the transportation by turbidity current from the habitat in shallower sea or the postmortem floating of a shell for some distance to the off-shore area or the both combined.

Palaeontological description.

Genus *Eodouvilleicer* Casey, 1961

Type species:—*Douvilleicer horridum* Riedel, 1937.

Diagnosis:—Evolute shell of small to moderate size, with round, depressed or polygonal whorl section; simple ribs with umbilical, lateral and ventrolateral tubercles. They may appear at different

^{*)} With palaeontological description by T. Matsumoto.

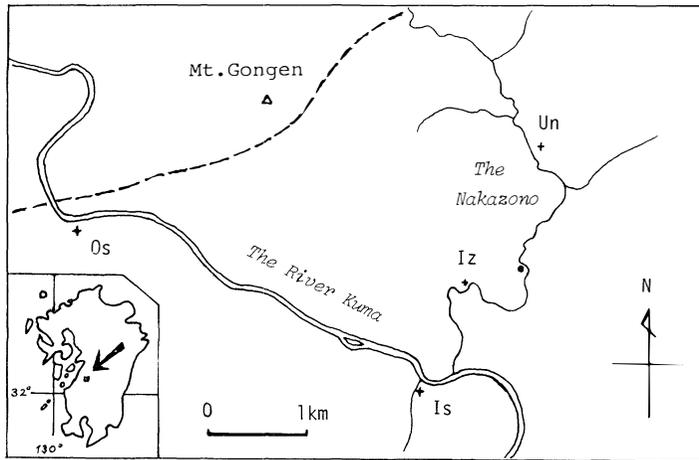


Fig. 1. Map of the Kuma area, Kyushu. ● ammonite locality, + hamlet. Is, Itschochi; Iz, Itazaki; Os, Ohsakama; Un, Urano. Broken line, boundary of the Chichibu and the Shimanto belts.

growth-stages and the ventrolateral ones typically doubled in late growth-stage.

Remarks:—Casey³⁾ wrightly regarded this genus as ancestral to *Douvilleicerias*, assigning it to the Douvilleiceratidae. The above diagnosis is revised from the original. It includes, in addition to *E. horridum*,⁹⁾ “*Douvilleicerias*” *santafecinum* Burckhardt²⁾ (=“*Chelonicerias*” *boulei* Basse¹⁾), “*D.*” *clansayense* Jacob,⁵⁾ *E. matsumotoi* Obata⁸⁾ and *E. kumaense* sp. nov. “*Epicheloniceras*” *badkhyzicum* Urmanova¹⁰⁾ is probably identical with *E. horridum*. They are from the Upper Aptian (mostly uppermost Aptian) of Colombia, France, Japan and Turkmenia.

Eodouvilleicerias kumaense sp. nov.

Material:—Holotype, GK. H6904 (Fig. 2A) in the Geological Collection of Kyushu University. Paratype, Itazaki’s specimen reported above, whose plaster casts are kept in Kyushu University and Kumamoto University (Fig. 2B).

Diagnosis:—Shell evolute and rather small; umbilicus of moderate size, about 40% of diameter; whorl depressed in section with broadly rounded venter, inflated flanks, abruptly rounded umbilical shoulder and fairly high umbilical wall.

Ribs simple, rectiradiate, equally long, fairly strong, of moderate density, separated by slightly broader interspaces up to the middle growth-stage but more crowded later and somewhat broadened on crossing the venter. Umbilical tubercles bullate and pointed weakly

at the shoulder; lateral tubercles moderately strong; ventrolateral tubercles the largest and divided into inner and outer ones in late growth-stages. A few lirae or striae sometimes discernible on the interspaces.

Ramrks:—The holotype was described previously⁶⁾ under *E. n.* sp. (?) aff. *E. horridum*. The paratype is secondarily deformed but shows clearly the diagnostic features in lateral view. The rib begins to appear at about 5 mm in diameter, fairly distant at first, showing the increase of density with growth. The suture is not clearly exposed, but for small incisions on the lateral saddles.

Measurements (in mm):—

Table I

Specimen	Diameter	Umbilicus	Height	Breadth	B./H.
Holotype	—	—	13.5	19.7	1.46
Paratype	51.0(1)	21.0(.41)	17.4(.34)	—	—
" (−90°)	33.5(1)	13.0(.39)	12.0(.36)	—	—

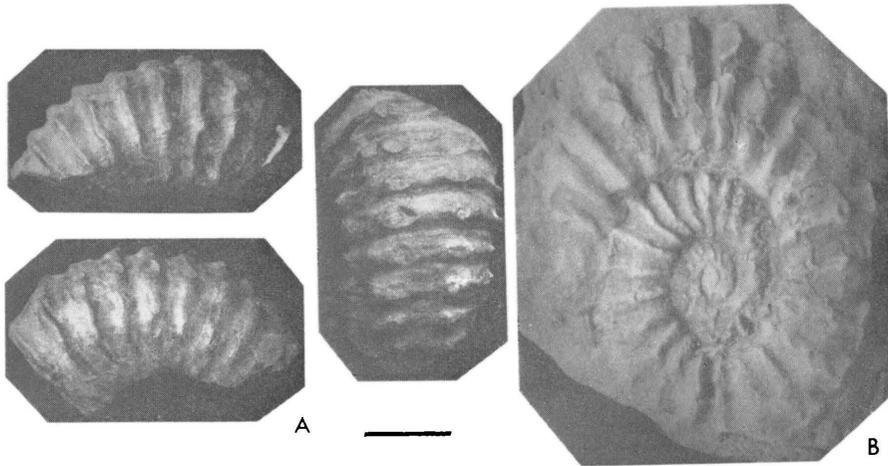


Fig. 2. *Eodouvilleiceras kumaense* sp. nov. A: Holotype (in two lateral and ventral views). B: Plaster cast of paratype (lateral view). Scale bar: 10 mm (Photos by M. Tamura).

Comparison:—This species is allied to *E. horridum* (Riedel),⁹⁾ from the Upper Aptian of Colombia, but differs in the rib density and intensity. The ribs number 23 in the outer whorl of the former but 18 in that of the latter; 15 in the inner whorl of the former but 10 in the latter. The ribs and tubercles are stronger in *E. horridum* than in ours. The holotype of *E. horridum* is somewhat larger than the specimens from Kyushu. These differences are probably beyond the extent of variation.

E. matsumotoi,⁸⁾ which is represented by a number of specimens from the Miyako Group of Northeast Japan, has still more distant and less numerous ribs than *E. horridum* and is much smaller than *E. kumaense*.

Occurrence:—Holotype, from loc. Km 4043B, about 1700 m SE of Tomochi, Kumamoto Prefecture. It occurred in the lower part of the Tomochi Formation, together with *Diadochoceras* cf. *nodosocostatiforme* (Shimizu), indicating the uppermost Aptian.⁶⁾ Paratype as reported above.

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