A New Species of Posidonia from the Inai Series (?) in the Southern Kitakami Mountainland, Japan*

By

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The pelecypod described here was found by Yosiyuki IWAYA in a boulder of a dark gray hard sandy slate at the shore east of the beak of Biwa (琵琶湖), Shizukawa-machi, Motoyoshi-gun, Miyagi Prefecture, and added to the collection of the Geological Institute, Imperial University of Tokyo. Judging from the facts that the rock-aspect is typical of the Inai member and that the locality stands in the terrain of the upper Inai series, it is most probable that the boulder was derived somewhere from the upper part of the series. While the Anisic ammonites have been known to occur in the upper Inai series at Inai and other places in the southern Kitakami mountainland, no pelecypod is so far known and this is really the first announcement.

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strong in the next 7 mm. and weakening in the peripheral zone; the ribs in the middle zone numbering seven to ten and A-shaped; fine radial lines crossing the ribs and furrows in the outer half.

Remark:——Four specimens illustrated are the cotypes. Seeing that the concentric ribs are broadly spaced in the middle part, narrowly spaced in the umbonal and peripheral parts, it may be judged that the specimens in figs. A and B are full-grown shells. Dimensions of the valve in the mature stage are about 22 mm. in length, 15 mm. in height and 2 mm. in thickness. Irregular wrinkles as frequently seen in Estheria cannot be observed in the specimens even under a high magnifying lens. In the external mould, however, there are very fine and numerous radial lines which are faintly impressed in the peripheral zone as seen in the specimens in figs. B and D, but they are not strong enough to be impressed in the internal mould. The absence of the radial ribs and the anterior triangular area precludes this form from Daonella as well as Halobia, and Posidonia remains for its generic reference.

With the assistance of DIENER and KUTASSY's catalogues1) comparison was made with many Triassic species of the genus, as far as their literatures are accessible. Most of them are semi-elliptical or obliquely semi-ovate in outline, but subcircular in P. wengensis var. cycloidalis KITTL2) and high oblique and elongated in P. bosniaca3) and low oblique in P. obliqua4). P. madisonensis and P. jacksoni5) are quite distinct from most others of Posidonia. The relative length of the hinge margin with the shell also varies among the species. The hinge line is long in P. pannonica, P. böckhi, P. bittneri6), and several other species. In P. bittneri, P. ovalis, and P. becheri the radial marking is absent, but it may be present in P. pannonica and P. wengensis.

While this form agrees with P. bittneri and P. pannonica7) in outline, the presence of weak radial lines shows its alliance to P. pannonica and P. wengensis. Therefore it is certain that this form belongs to the group of P. pannonica. Close comparison, however, reveals some differences between this and P. pannonica. Namely, the position of its umbo is more central and its outline is broader. KITTL who restudied Mojsisovics' types noted that P. alta is an immature form of P.

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1) C. DIENER: (1923), Lamellibranchiata Triadica. Fossilium Catalogus, Pars. 19.
   C. DIENER & A. KUTASSY: (1931), Lamellibranchiata Triadica. Fossilium Catalogus, Pars. 51.
2) E. KITTL: (1912), Materialen zu Einer Monographie der Halobiidae und Monotidae der Trias. Result. der Wiss. Erforsch. des Balatonsees, 1 Bd., Teil Pal., Bd. 2.
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*pannonica* and "*Daonella*" obsoleta is if not identical, extremely close to the species. If Kittl's reference is correct, the difference of outline in the young stage is certainly considerable between *P. pannonica* and *P. japonica*. The *pannonica* bearing limestone at Vászoly was referred to the Noric by Mojsisovics, but later to the Muschelkalk by Kittl. If its age is Aniso-Ladinic as cited in Dieners's catalogue, *P. pannonica* and *P. japonica* may be approximate in age, because the locality where the boulder was found lies near the top of the Inai series.

Dieners's *Posidonomya aff. pannonica* from the Muschelkalk has a low oblique outline remarkably produced postero-ventrally through which it can easily be distinguished from *P. pannonica* as well as *P. japonica*. Reed's *Posidonomya cfr. wengensis* from the Middle Triassic Formation of Yunnan is a small specimen which resembles *P. japonica* in outline, but the comparison of the two in the same stage of growth shows the differences in that the concentric ribs are distinct, strong and widely spaced and fine lines radiate from the umbo in the former whereas in the latter the concentric ribs are weak, the furrows narrow and the radial lines absent. Furthermore the hinge line is relatively shorter in the former than in the latter. Compared to Yin's *P. aff. wengensis* from the Ladinic formation of Omeishan which is evidently different from *P. wengensis*, this has more densely populated concentrics and less distinct radial lines, but both forms agree with each other in the subcentral position of the umbo.

北上山地南部井内統 (?) 産の *Posidonia* 1 新種 (摘要)

小林 貞一・深澤 恒雄

産絹巻本吉郡志津川町亀亀崎東方海岸の転石中の *Posidonia* を研究結果、Aniso-Ladinic より記載された *Posidonia pannonica* に類似せる 1 新種なる事例をし *Posidonia japonica* と命名す。本化石を含む転石は共の産地より井内統上部より将来せるものと推察す。