Supplemental description of *Pityosporites* from the Uge Member of the Taneichi Formation, Northeast Japan

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Abstract

*Pityosporites tohokuensis* n. sp. from the Santonian Uge Member of the Taneichi Formation at Taneichi is described and re-illustrated supplementally in this paper.

Introduction

The authors (1990) described and illustrated already many palynomorphs from the Santonian Uge Member of the Taneichi Formation outcropping in a long and narrow belt area along Rikuchu Coast in northeastern Honshu, Japan. At that time, they didn't describe carelessly *Pityosporites tohokuensis* n. sp., in spite of presentation of its photos. By reason of their such mistake, *Pityosporites tohokuensis* n. sp. is described and re-illustrated supplementally in this paper.

Description of *Pityosporites tohokuensis*

*Pityosporites tohokuensis* n. sp.

Pl. 1, figs. 1 - 5 (or Takahashi & Sugiyama, 1990: pl. 65, figs. 3, 4, 8; pl. 66, figs. 3, 6)

Description: Bisaccate, pinoid pollen grains. Outline spheroidal in polar view, subprolate in side-lateral view, and suboblate in oblique view. Sacci parvi-
saccate, moderately or roughly reticulate. Central body subprolate in polar and oblique views, finely punctate or foveolate; cap 2.5–3.5 μm thick, intrarugulate. Distal furrow between sacci laevigate or finely punctate, relatively narrow. Ventral root more or less concave or convex.

**Measurements**: Overall width of grain: 60–77 μm.
- Overall length of grain: 54–68.7 μm.
- Overall height of grain: 56 μm.
- Width of central body: 48–58 μm.
- Length of central body: 54–67 μm.
- Height of central body: 39 μm.
- Width of sacci: 24–34 μm.
- Length of sacci: 47–57 μm.

**Occurrence**: Uge Member; south of Kanuka (C31), Uge harbor (A) (C39), and Uge harbor (B) (C40).

**Holotype**: Pl. 1, figs. 5a, b (or Takahashi & Sugiyama, 1990: pl. 65, figs. 4); overall width of grain 77 μm, overall length of grain 68.7 μm, width of central body 58 μm, length of central body 67 μm, width of saccus 31 μm, length of saccus 54 μm; exine (cap) 2.5 μm thick; intrarugulate; slide C39—a.

**Name derivation**: *tohokuensis* = from Tohoku district of Honshu (Japan).

**Remarks**: Central body of *Pityosporites tohokuensis* n. sp. is morphologically subprolate in polar view and the new species is distinguished from *Pityosporites siegburgensis* Takahashi & Jux which possesses subprolate central body in having much larger size of grain and central body.

**Botanical affinity**: Pinaceae, *Pinus*.

**References**


Zaklinskaja, E. D. (1957): Stratigraphic significance of pollen grains of gymnosperms of the Cenozoic deposits of the Irtysh Basin and of the northern
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Explaination of plate 1
(All figures magnified X 800 unless otherwise mentioned)

Figs. 1–5.  *Pityosporites tohokuensis* n. sp.

Fig. 1: Slide C 40 – b, X 1000 ; figs. 2, 3, 4: slide C 31 – b ;
figs. 5 a, b : holotype, slide C 39 – a ; fig. 5 a : X 600.