New data on cranial anatomy of the ceratopsian dinosaur *Psittacosaurus major*

Hai-Lu You, Kyo Tanoue, and Peter Dodson

Acta Palaeontologica Polonica 53 (2), 2008: 183-196 doi:<http://dx.doi.org/10.4202/app.2008.0202>

An exceptionally preserved skull and mandible of ceratopsian dinosaur *Psittacosaurus major* revealed many anatomical details such as the existence of an elliptical median interpremaxillary foramen, a prominent neurovascular canal on the internal wall of the beak, long, slightly divergent basiptyergoid processes developed as vertical blades with a deep cleft between them, and horizontally oriented vomer. The new specimen shows two autapomorphies of *Psittacosaurus major*, the transversely narrow dorsal skull roof and very prominent dentary flanges, confirming the presence of two large-skulled psittacosaur species in the Lujiatun Bed of the Lower Cretaceous Yixian Formation in Beipiao City, western Liaoning Province, China, the long- and narrow-skulled *P. major*, and broad-skulled *P. lujiatunensis*.

Key words: Dinosauria, Ceratopsia, *Psittacosaurus*, Cretaceous, Yixian Formation, Liaoning, China

Hai-Lu You [youhailu@gmail.com], Institute of Geology, Chinese Academy of Geological Sciences, 26 Baiwanzhuang Road, Beijing 100037, P.R. China; Kyo Tanoue [tanoue@sas.upenn.edu], Department of Earth and Environmental Science, University of Pennsylvania, 240 S. 33rd Street, Philadelphia, PA 19104-6316, USA; Peter Dodson [dodsonp@vet.upenn.edu], School of Veterinary Medicine and Department of Earth and Environmental Science, University of Pennsylvania, 3800 Spruce Street, Philadelphia, PA 19104-6045, USA.

distribution, and reproduction in any medium, provided the original author and source are credited.

[Full text \(618.3 kB\)](#)