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#### Abstract

A new Pterosaur, *Hongshanopterus lacustris* gen. et sp. nov., from the Early Cretaceous Jiufotang Formation, western Liaonin, China is described. The specimen (IVPP V14582) consists of a skull preserved in palatal view and some isolated cervical vertebrae. Based on the labiolingually compressed teeth with a triangular crown *Hongshanopterus lacustris* is referred to the Istiodactylidae. It presents several plesiomorphic features such as the teeth not confined to the anterior third of the skull but extended more posteriorly, and is thus considered the most primitive member of this group. This new species also differs from other istiodactylids by having more teeth, some showing the crown distinctively directed posteriorly. Three other members of the Istiodactylidae are currently represented in the Jiufotang deposits: *Nurhachius ignaciobritoi*, *Istiodactylus sinensis* and *Longchengpterus zhaoi*. To those we add *Liaoxipterus brachyognathus*, previously classified in the Ctenochasmataidae but that also has triangular labiolingually compressed teeth, and is a potential senior synonym of *Lonchengpterus zhaoi*. The palatal anatomy of *Hongshanopterus lacustris* also agrees with previous hypothesis that considers Istiodactylidae more closely related to the Anhangueridae than to *Pteranodon* (or Pteranodontidae)