

An exceptionally well-preserved theropod dinosaur from the Yixian Formation of China

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The spectacularly well-preserved *Sinotrodon* was recently discovered in Liaoning in northeastern China. Here we describe a new, nearly complete skeleton of a small theropod that represents a distinctive lineage related to *Compsognathus*. *Sinotrodon* has the longest tail of any known theropod, and a three-fingered hand distinguished by the first phalanx, which is longer and thicker than either of the bones of the forearms. Both specimens have interesting independently acquired features that could provide information about the origin of feathers. The larger individual also has stomach contents, and a pair of eyes in the orbiting layer.

The tail bones were widely distributed in eastern Asia during late Mesozoic and early Cenozoic times. This discovery and a recent discovery of another small theropod, *Changyuania*, together with *Sinotrodon*, indicate a distinctive lineage related to *Compsognathus*. *Sinotrodon* has the longest tail of any known theropod, and a three-fingered hand distinguished by the first phalanx, which is longer and thicker than either of the bones of the forearms. Both specimens have interesting independently acquired features that could provide information about the origin of feathers. The larger individual also has stomach contents, and a pair of eyes in the orbiting layer.

Feathers, integumentary scales, but not true bony teeth, are widely distributed in eastern Asia during late Mesozoic and early Cenozoic times. This discovery and a recent discovery of another small theropod, *Changyuania*, together with *Sinotrodon*, indicate a distinctive lineage related to *Compsognathus*. *Sinotrodon* has the longest tail of any known theropod, and a three-fingered hand distinguished by the first phalanx, which is longer and thicker than either of the bones of the forearms. Both specimens have interesting independently acquired features that could provide information about the origin of feathers. The larger individual also has stomach contents, and a pair of eyes in the orbiting layer.

Two feathered dinosaurs from northeastern China

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Recent controversy over the origin and early evolution of birds centres on whether or not they are derived from coelocanths or Avianimorphs. Here we describe two feathered birds from the Yixian Formation, Eastern Liaoning. One is a small, slender, ground-dwelling bird, the other is a larger, more robust, ground-dwelling bird. Both specimens have interesting independently acquired features that could provide information about the origin of feathers. The larger individual also has stomach contents, and a pair of eyes in the orbiting layer.

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letters to nature

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brief communications

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