A Big Earth Data Platform for Three Poles

**Coexistence of Indarctos and Amphimachairodus (Carnivora) in the Late Early Hemphillian of Florida, North America**

1、Description

Fossils of the ursid Indarctos from Withlacoochee River 4A of Florida (late early Hemphillian North American Land Mammal
Age, Hh2, ~ 7.5–6.5 Ma) represent the best sample of this genus in North America, including both craniodental and
postcranial specimens, yet only the skull has been described. In this study, we describe the other material of this bear from
the same locality and review the records of Indarctos in North America. Indarctos from Withlacoochee River 4A has dental
characters in accordance with those of typical Indarctos oregonensis, but has distinctly more slender postcranial bones.
Indarctos from other localities of North America contains two morphs with regards to postcranial robustness, but lacks a
clear geographic pattern. Indarctos from Withlacoochee River 4A shares traits with the Old World Indarctos zdanskyi and
may be its descendant in the New World. The machairodont from Withlacoochee River 4A shows typical characters (e.g.,
presence of distinct P4 preparastyle and mandibular flange) that allow referral to Amphimachairodus rather than to Nimravides.
Its morphology also shows a stronger affinity of this population to the Old World Amphimachairodus horribilis rather
than to Hh3 Amphimachairodus coloradensis. Previously, most North American records of Amphimachairodus were late
Hemphillian (Hh3–4, ~ 6.5–4.5 Ma), when it co-occurred with a different ursid, “Agriotherium.” The Withlacoochee River
4A specimens provide evidence that Amphimachairodus dispersed from Asia during the Hh2. The special morphology of
Indarctos and the presence of Amphimachairodus in a Hh2 fauna suggest that the environment had begun to change before
the significant fauna turnover between the early and late Hemphillian.

2、Keywords

Theme：Others,Macrofossils,Paleoclimate Reconstruction
Discipline：Others,Palaeoenvironment
Places：Florida
Time：Miocene

3、Data details

1.Scale：None

2.Projection：

3.Filesize：200.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：50.0 | - |
| west：80.0 | - | east：130.0 |
| - | south：30.0 | - |

5、Time frame:2020-10-25 16:00:00+00:00--2021-12-18 16:00:00+00:00

6、Reference method

References to data:

QIGAO Jiangzuo . Coexistence of Indarctos and Amphimachairodus (Carnivora) in the Late Early Hemphillian of Florida, North America. A Big Earth Data Platform for Three Poles, doi:10.1007/s10914-021-09546-92022

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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