



***Sinaktassia tangi*, a new Chinese Mesozoic genus and species of Aktassiidae (Odonata: Petaluroidea)**

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Although the Petalurida make up what is probably one of the most inclusive anisopteran clades (Bybee *et al.*, 2008; Dumont *et al.*, 2010), fossils of this group are rarer than other taxa of dragonflies. No Cenozoic and only eight Mesozoic Petalurida have been described from Europe, Central Asia, China, and South America (Nel & Paicheler, 1992; Nel *et al.*, 1998, 2001; Petrulevičius & Nel, 2003; Huang *et al.*, 2006). The Aktassiidae Pritykina, 1968 is a strictly Mesozoic family divided into the two subfamilies Aktassiinae Nel *et al.*, 1998 (Middle-Late Jurassic), and Pseudocymatophlebiinae Nel *et al.*, 1998 (Early Cretaceous).

Here we describe a new well-preserved fossil of Petalurida attributable to a new genus and species of the family Aktassiidae from the Early Cretaceous Yixian Formation, Western Liaoning, China. This fossil is the most recent representative of the Aktassiinae. The genus *Aktassia* is known from the Jurassic of Mongolia, Chinese Inner Mongolia (Nel *et al.*, 1998; Huang *et al.*, 2006), and Kazakhstan (Pritykina, 1968).

The nomenclature of the dragonfly wing venation used in this paper is based on the interpretations of Riek (1976) and Riek & Kukalová-Peck (1984), as amended by Nel *et al.* (1993) and Bechly (1996). The higher classification of fossil and extant Petalurida is based on Nel *et al.* (1998).

Systematic palaeontology

Order Odonata Fabricius, 1793

Superfamily Petaluroidea Needham, 1903

Family Aktassiidae Pritykina, 1968

Subfamily Aktassiinae Nel *et al.*, 1998

Type genus. *Aktassia* Pritykina, 1968, other included genera: *Aeschnogomphus* Handlirsch, 1906, *Sinaktassia* **gen. nov.**

Genus *Sinaktassia* gen. nov.

Type species. *Sinaktassia tangi* **sp. nov.**

Etymology. A combination of the Latin name 'Sinica' for China and the name of the closely related genus *Aktassia*. Gender feminine.

Diagnosis. Forewing characters only; hind wing unknown. Wing falcate, slender, and longer than 80 mm; postnodal space very narrow, with many cells distal of Pt; Pt elongate; pterostigmal brace present and shifted slightly basal to Pt; IR1 basally strongly zigzagged, long; only one row of cells between RA and RP1 at level of Pt; space between RP1 and RP2 greatly expanded, with more than 8-9 rows of cells; PsA hypertrophied; subdiscoidal triangle widened, T transverse; subdiscoidal triangle divided by cross-veins; more than two rows of cells in basal part of postdiscoidal area between level of distal angle of T and level of midfork; groups of cells and secondary veins in areas between main veins; Bqs-area ('bridge-space') narrowed; distal side of T not angulated; only three rows of cells in postdiscoidal area just distal of T; no