



## Three new legskates of the genus *Sinobatis* (Rajoidei: Anacanthobatidae) from the Indo–West Pacific

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### Abstract

Three new species of legskates (Anacanthobatidae) are described from the Indo–Australian region. Two of these species conform to the subgenus *Sinobatis* Hulley of *Anacanthobatis* von Bonde & Swart, which is herein elevated to genus level based primarily on clasper morphology. *Sinobatis* presently includes *S. borneensis* (South China Sea and Taiwan) and possibly *S. melanosoma* (East and South China Seas and Taiwan), as well as the new species, *S. bulbicauda* **sp. nov.** (eastern Indonesia and northwestern Australia, SE Indian Ocean) and *S. filicauda* **sp. nov.** (northeastern Australia, SE Pacific Ocean). The third new species, *S. caerulea* **sp. nov.** (northwestern Australia, SE Indian Ocean), is provisionally placed in *Sinobatis* in the absence of an adult male. The new species are distinguishable from each other, and from nominal Indo–Pacific legskates, based on their morphometrics, meristics, tail morphology and coloration. Legskates exhibit marked intraspecific variation in shape associated with their soft, flexible bodies, and considerable ontogenetic and sexual differentiation.

**Key words:** *Sinobatis*, new species, Anacanthobatidae, Rajoidei, legskate, Indo–West Pacific

### Introduction

Members of the family Anacanthobatidae, otherwise known as legskates, have restricted distributions on continental and insular slopes of the western North Atlantic, southwestern Indian Ocean and western Pacific (Séret, 1986; Compagno, 2005), as well as the southeastern Indian Ocean (Last and Stevens, 1994). Legskates, which consist of two currently recognised genera, *Anacanthobatis* von Bonde and Swart, 1923 and *Cruriraja* Bigelow and Schroeder, 1948, are often placed in the family Anacanthobatidae (e.g. Compagno, 2005; Eschmeyer, 2007; Ebert & Compagno, 2007). However, their classification is unstable and an alternative scheme (e.g. McEachran and Dunn, 1998; Nelson, 2006) has placed them in the skate family Rajidae (subfamily Rajinae). Similarly, various schemes exist at generic and subgeneric levels. Hulley (1972) placed *Cruriraja* in its own family Crurirajidae, and recognised two other supraspecific taxa, *Anacanthobatis* and *Springeria* Bigelow and Schroeder, 1951, as members of the family Anacanthobatidae. Later Hulley (1973) relegated *Springeria* and two newly defined taxa, *Sinobatis* and *Schroederobatis*, to subgenera of *Anacanthobatis*. Members of these groups possess major differences in clasper morphology that are considered to be diagnostic of genera in other rajoid groups.

Eleven nominal species of *Anacanthobatis* are known (Séret, 1986; Eschmeyer, 2007) of which 5 have been considered valid from the Western Pacific (Compagno, 2005): *Anacanthobatis borneensis* Chan, 1965, *A. donghaiensis* (Deng, Xiong and Zhan, 1983), *A. melanosoma* (Chan, 1965), *A. nanhaiensis* (Meng and Li