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Redescription of *Barilius ornatus* Sauvage (Cypriniformes: Cyprinidae) with data from a population from the eastern part of the Isthmus of Kra, Thailand

ANURATANA TEJAVEJ

315/1 Sukhumvit 31, Bangkok 10110, Thailand.

E-mail: opsarius@yahoo.com

Abstract

Barilius ornatus, the first described species of *Barilius* from Southeast Asia, is redescribed with data from additional specimens from the eastern part of the Isthmus of Kra. The species is characterized by having 37–40 scales (rarely 36) along the lateral line, 6–7 scale rows above the lateral line, 17–20 (rarely 16 or 21) predorsal scales, 12–14 circumpeduncular scales, anal-fin origin opposite from the 6th branched dorsal-fin ray to behind the last branched dorsal-fin ray, head depth 17–21% SL, predorsal length not more than 58% SL, dark pigment on dorsal fin concentrated at the edge of the branched dorsal-fin rays, generally short and thin rostral and maxillary barbels (if present), 1–2 small caudal spots or no caudal spot, and small dentary tubercles. With data from additional specimens *B. ornatus* can be clearly differentiated from *Barilius barnoides* Vinciguerra and *Barilius infrafasciatus* Fowler. The status of *Barilius caudicellatus* Chu, and *Barilius barila* Hamilton are also discussed.

Key words: *Barilius barnoides*, *Barilius infrafasciatus*, *Barilius caudicellatus*, *Barilius barila*, Chumphon

Introduction

At least four species of *Barilius* Hamilton (1822) are found in Thailand (Tejavej 2010). Of these *Barilius ornatus* Sauvage is the oldest name, having been described in 1883 based on two specimens provided by M. Harmand (Sauvage 1883). Their locality was given as Menam, Siam. Although it has been presumed that “Menam” refers to the Chao Phraya River as reported by Smith (1945) and Kaewpaitoon (1979), the word “menam” means “river” in Thai, and it could refer to any river in Siam (Thailand) at that time; for example Mekong River was referred to as “Me Nam Kawng” (McCarthy 1900). Even if “Menam” is the Chao Phraya River it is not known what part of this large basin (with four main northern tributaries) these specimens are from.

Smith (1945) reported that *Barilius ornatus* had not been found again since its description. No other species of *Barilius* other than *B. koratensis* Smith has been found in the Chao Phraya River mainstream from Nakorn Sawan Province downstream since the original description of *B. ornatus* (Tejavej 2010). It is not known whether or not Harmand collected these specimens himself or obtained them from someone else. With only two type specimens, it is difficult to separate *B. ornatus* from similar taxa with certainty, and *B. barnoides* Vinciguerra 1890, *B. infrafasciatus* Fowler, and *B. caudicellatus* Chu 1984 were regarded as synonyms of *B. ornatus* by Tejavej (2010). With further study *Barilius* in the Maeklong basin that was previously included within *B. ornatus* was found to be distinguishable from *B. ornatus* by the presence of a large caudal blotch and the anal-fin origin opposite the 2nd–4th branched dorsal-fin ray, and described as *Barilius signicaudus* by Tejavej (this volume, p. xx). Thus *Barilius ornatus* is diagnosed from *B. signicaudus* and other Southeast Asian *Barilius* by having no or a small caudal spot, 37–43 scales along the lateral line (rarely 36), predorsal scales 17–23 (rarely 16), circumpeduncle scales 16 or less (rarely 15–16), head depth not less than 16.8%SL, dark pigment on dorsal fin concentrated at the edge of the branched dorsal-fin rays, generally short and thin rostral and maxillary barbels (if present), and small dentary tubercles.

In recent years, a species of *Barilius* was found in streams and rivers from Chumphon Province in the eastern part of the Isthmus of Kra in Southern Thailand. It is found to be very similar to type specimens of *B. ornatus* and