

Two New Species of *Aulacospira* from Eastern Thailand (Pulmonata: Stylommatophora: Pupillidae)

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ABSTRACT.— *Aulacospira depressus* n. sp. and *A. khaobote* n. sp. (Pulmonata: Pupillidae: Gastrocoptinae) are described from limestone hills, Rayong and Srakeo Provinces, Thailand. This is the third report in total 6 species of this genus occurring in Thailand. Both species have the prominent sulci on the last two whorls. Shell narrowly umbilicated with incised sutures, slightly deflected tubas without apertural barrier. The shell of *A. depressus* is highly depressed. A broad distinct spiral sulcus above the extended peripheral angel begins from the penultimate whorl continuously to the apertural edge. The shell of *A. khaobote* is helicoid and has rounded whorls. The broad sulcus is distinct located continuously from penultimate whorl to apertural edge.

KEY WORDS: *Aulacospira depressus*, *Aulacospira khaobote*, Pulmonata, Pupillidae, Thailand

INTRODUCTION

The publication on “Introduction to microsnails of Thailand by Panha and Burch (2005) has been included 4 species of the genus *Aulacospira* Möllendorff, 1890. They are *A. khaopraturun* Dumrongrojwattana and Panha, 2005; *A. lampangensis* Panha and Burch, 2001; *A. pluangtong* Panha and Burch, 2004 and *A. smaesarnensis* Panha and Burch, 2001. Three of them were reported from the east but *A. lampangensis* was found in the north of Thailand (Panha and Burch, 2001; Panha et al., 2004; Dumrongrojwattana and Panha, 2005).

During a terrestrial snails survey by the senior author in eastern Thailand, two new

species of *Aulacospira* were found in May and July 2003. They were collected from limestone hills at Khao Chakan, Srakeo Province and Wat Tam Khao Bote, Rayong Province, Thailand (Fig. 1). These two new species are very resemble to the recent described *A. khaopraturun*. The new species are named and described below.

Aulacospira depressus n. sp.
(Fig. 2)

Description of holotype. Shell minute, brownish, highly depressed, 1.0 mm high, 2.5 mm wide (Table 1). Approximately 3¼ whorls and free tuba projecting downward with almost no trumpet-shaped aperture, normally a common feature of the genus. The smooth protoconch is terminated by the radial sulci of the teleconch. The shell of is highly depressed. A broad distinct spiral sulcus above the

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FIGURE 1. Map showing location of type locality, Wat Tam Khao Bote, Rayong Province (1); Khao Chakan, Sraokeo Province (2).

extended peripheral angel begins from the penultimate whorl located continuously to the apertural edge. No apertural barriers were observed.

Type locality- Thailand, Khao Chakan, an isolated limestone hill of Sraokeo Province at 13° 48' 02" N, 102° 12' 49", 85 meters elevation.

Type Material- Holotype (BuUZM-MS 0076) and five shell paratypes (BuUZM-MS 0077) are deposited in the Burapha University

TABLE 1. Shell dimensions (in mm) of *Aulacospira depressiana* n. sp.

Types	Height	Width
Holotype	1.00	2.51
Paratype		
1	0.99	3.15
2	1.10	2.89
3	0.98	2.65
4	1.03	2.47
5	0.98	2.49
6	1.01	2.76
7	0.97	2.71
8	1.12	2.51
9	1.14	2.59
10	1.10	2.78

Zoological Museum. Four paratypes (BuUZM-MS 0079) are deposited in the collection of the Chulalongkorn University Zoological Museum.

Etymology- The specific epithet *depressus* refers to the highly depressed character of the shell.

Geographic distribution and habitat- *Aulacospira depressus* seems to be limited to eastern Thailand. Our specimens were found on limestone walls only at the Khao Chakan, Sraokeo Province. *Cryptozona siamensis* and *Cyclophorus volvulus* were also found in this habitat.

Diagnosis- Shell highly depressed. The spiral sulcus located continuously from the penultimate whorl through the apertural edge, and the lack of apertural barriers are the dominant characters for the new species.

Aulacospira khaobote n. sp.

(Fig. 3)

Description of holotype- Shell minute, brownish, helicoid, 1.77 mm high, 2.38 mm wide (Table 2). Approximately 4 whorls and free tuba projecting a little downward with almost no trumpet-shaped aperture. The shell is helicoid and has rounded whorls. The broad sulcus is distinct, located continuously from penultimate whorl to the apertural edge. last whorl. No apertural barriers were observed.

Type locality- Wat Tam Khao Bote, an isolated limestone hill of Rayong Province at 13° 09' 19" N, 101° 38' 05", 30 meters elevation.

TABLE 2. Shell dimensions (in mm) of *Aulacospira khaobote* n. sp.

Types	Height	Width
Holotype	1.77	2.38
Paratype		
1	1.89	2.25
2	1.69	1.91
3	1.86	2.12
4	1.59	2.11
5	1.65	2.15
6	1.68	2.12
7	1.80	2.09

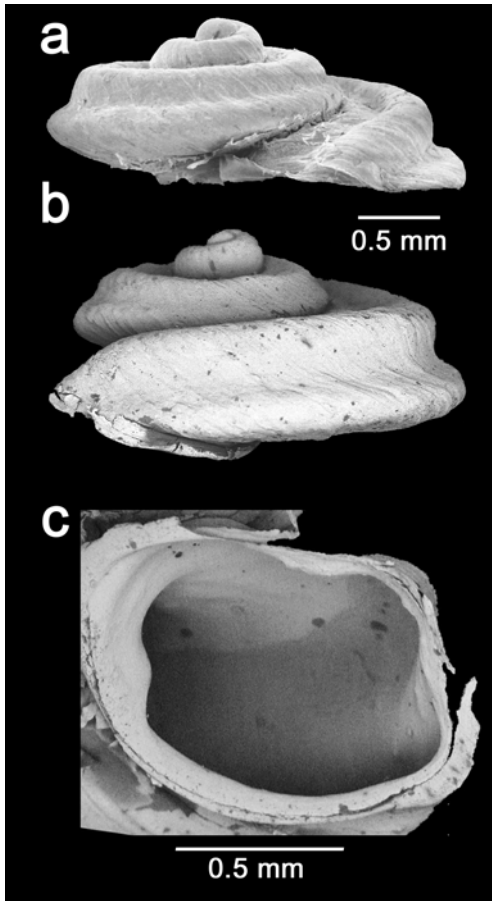


FIGURE 2. *Aulacospira depressus* n.sp., holotype. a, apertural view; b, abapertural view; c, shell aperture.

Type Material- Holotype (BuUZM-MS0083) and four shell paratypes (BuUZM-MS0084) are deposited in the Burapha University Zoological Museum. Three paratypes (BuUZM-MS0086) are deposited in the collection of the Chulalongkorn University Zoological Museum.

Etymology- The specific epithet *khaobote* is from the hill name, the locality of the new species.

Geographic distribution and habitat- *Aulacospira khaobote* seems to be limited to eastern Thailand. Our specimens were only found on limestone walls at Wat Tam Khao Bote, Rayong Province.

Diagnosis- *Aulacospira khaobote* has helocoid shell characteristic with elevated spire, deeply incised sutures. The spiral sulcus

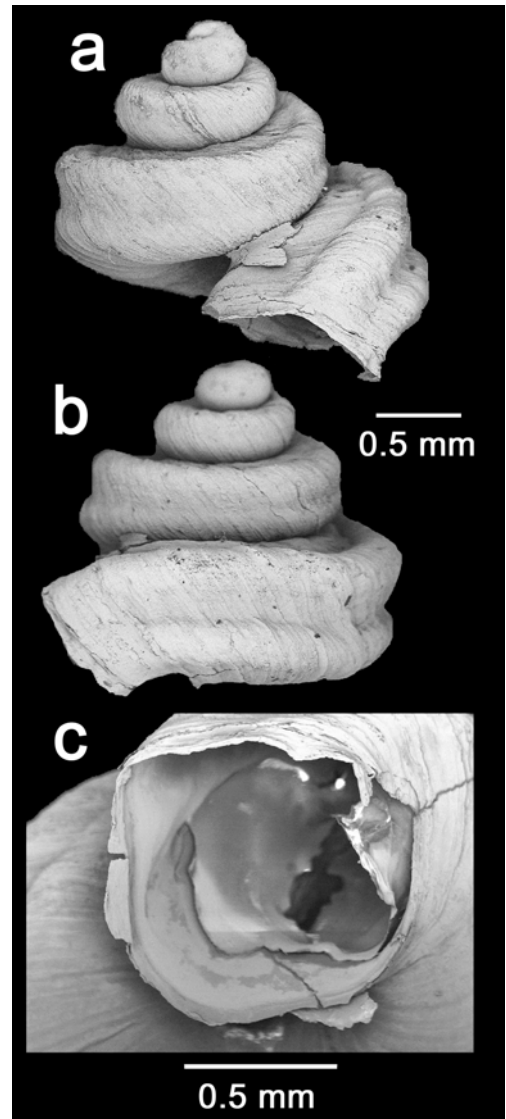


FIGURE 3. *Aulacospira khaobote* n.sp., holotype. a, apertural view; b, abapertural view; c, shell aperture.

is prominent as *A. depressus* which located from the penultimate whorl to the apertural edge. No apertural barriers were observed.

Remarks- *Aulacospira khaobote* n. sp. is somewhat similar in shell morphology to *A. smaesarnensis* Panha and Burch, but the new species has a very prominent spiral sulcus and no apertural barriers were observed.

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