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Trichoptera from Chang island, southeastern Thailand, with the description of three new species

Stanislav MELNITSKY & Hans MALICKY

Introduction

Chang island (Koh Chang) is the second largest island of Thailand, located on the Thai east coast 310 km away from Bangkok near the border to Cambodia in the Gulf of Thailand. Koh Chang the largest among the 52 islands of Trat Province, covering an area of 425 square km, about 30 km long and 14 km wide. The interior of the island is mountainous and covered with tropical rainforest. The highest elevation is Khao Salak Phet, which is 743 m above sea level. More than 900 species of caddisflies are known from Thailand. However data on the Trichoptera of eastern Thailand are very limited. The material described here was collected in Chang island in February 2007. All holotypes are deposited in the Zoological Institute of the Russian Academy of Sciences, St Petersburg, Russia, some of the paratypes are deposited in the collection of the second author.

Locality 1:

Thailand, Trat Province, Chang island, river Khlong Plu, over the Khlong Plu Waterfall, h=126 m, 12°03'56.74''N, 102°18'51.30''E, at UV light trap, 21 February 2007, leg. Melnitsky.

Locality 2:

Thailand, Trat Province, Chang island, river Khlong Plu, downstream from Khlong Plu Waterfall, h=95 m, 12°03'46.42''N, 102°18'43.69''E, at UV light trap, 16 February 2007, leg. Melnitsky.

Locality 3:

Thailand, Trat Province, Chang island, river Khlong Chab, downstream from Python Waterfall, h=192 m, 12°06'22.07''N, 102°17'56.27''E, at UV light trap, 19 and 23 February 2007, leg. Melnitsky.

Locality 4:

Thailand, Trat Province, Chang island, river Prao Thalay Waterfall, h= m, 11°59'05.21''N, 102°19'34.37''E, 18 February 2007, leg. Melnitsky.

List of material

Rhyacophilidae

Rhyacophila inaequalis DENNING & SCHMID, 1971
Material: 4 males, Loc. 1.

Rhyacophila sp.

Material: 1 pupa (female), Loc. 3, 19.02.2007.

Glossosomatidae

Glossosoma sp.

Material: 6 larvae, 1 pupa (female)

Hydroptilidae

Chrysotrichia vulcanus MALICKY & CHANTARAMONGKOL, 2007

Material: 15 males, Loc. 2; 2 males, Loc. 1.

Southernmost point of distribution.

Helyethira tros MALICKY & CHANTARAMONGKOL, 2007

Material: 1 male, Loc. 1.

Southernmost point of distribution.

Orthotrichia biokrotta sp. n.

Material: Holotype male, Loc. 1; Paratype: 2 males, Loc. 2.

Oxyethira bogambara SCHMID, 1958

Material: 1 male, Loc. 1; 17 males, Loc. 2.

Ugandatrichia kerdmuang MALICKY & CHANTARAMONGKOL, 1991

Material: 1 female, Loc.2

Philopotamidae

Chimarra pipake MALICKY & CHANTARAMONGKOL, 1993

Material: 9 males and 11 females, Loc. 1.

Chimarra okuihorum MEY, 1998

Material: 65 males and 1 female, Loc. 1.

Chimarra sp.

Material: 4 larvae, Loc. 4.

Stenopsychidae

Stenopsyche siamensis MARTYNOV, 1931

Material: 12 pupae, 12 larvae, Loc.1.

Polycentropodidae

Nyctiophylax khaoyaiensis MAL. & CHANTARAMONGKOL, 1993

Material: male, Loc. 1.

Nyctiophylax zadok MALICKY & CHANTARAMONGKOL, 1993

Material: 2 male, 2 females, Loc. 1; 4 males, Loc. 2.

Pahamunaya akontios MALICKY & CHANTARAMONGKOL, 1997

Material: male, Loc. 1.

Southernmost point of distribution.

Polyplectropus alkyone MALICKY & CHANTARAMONGKOL, 1997

Material: male, Loc. 1.

Southernmost point of distribution.

Psychomyiidae

Psychomyia amphiaras MALICKY & CHANTARAMONGKOL, 1997

Material: 11 males, 5 females, Loc. 2; male, Loc.3.

Southernmost point of distribution.

Tinodes kuchlik sp. n.

Material: Holotype male, Loc. 2; Paratype: male, Loc. 1.

Tinodes ragu MALICKY & CHANTARAMONGKOL, 1993

Material: male, Loc.1; 6 males, Loc.2.

Southernmost point of distribution.

Ecnomidae

Ecnomus totiio MALICKY & CHANTARAMONGKOL, 1993

Material: male, numerous females, Loc. 2; 3males, numerous females, Loc. 3.

Ecnomus venimar MALICKY & CHANTARAMONGKOL, 1993

Material: male, Loc.2; male, Loc. 3, 23.02.2007; 1 pupa (male), Loc. 3, 19.02.2007.

Southernmost point of distribution.

Ecnomus vibenus MALICKY & CHANTARAMONGKOL, 1993

Material: male, Loc.1; male, Loc. 3, 23.02.2007.

Southernmost point of distribution.

Hydropsychidae

Cheumatopsyche chrysothemis MAL. & CHANTARAMONGKOL, 1997

Material: 11 males, 4 females, Loc. 1; 6 males, numerous females, Loc. 2.

Hydromanicus serubabel MALICKY & CHANTARAMONGKOL, 1993

Material: 1 male, 9 females, Loc. 1.

Southernmost point of distribution.

Hydropsyche cacus MALICKY & CHANTARAMONGKOL, 2000

Material: male, Loc.1.

Southernmost point of distribution.

Hydropsyche sp.

Material: 13 larvae, Loc.1; 6 larvae, Loc. 3.

Macrostemum cf. similior (BANKS, 1931)

Material: 2 males, 15 females, 4 pupae, Loc. 1; 5 males, Loc. 2.

If correctly identified, first record for Thailand, the northernmost point of distribution. Type revision was not possible.

Potamyia sp.

Material: 3 larvae, Loc.1; 1 larva, Loc. 3.

Lepidostomatidae

Lepidostoma abruptum (BANKS, 1931)

Material: 10 males, 4 females, Loc. 3, 23.02.2007

Lepidostoma sp.

Material: 2 larvae, Loc. 3, 19.02.2007

Goeridae

Goera sp.

Material: 2 larvae, Loc.1; 1 larva, Loc.3, 19.02.2007.

Helicopsychidae

Helicopsyche nastia sp. n.

Material: Holotype male, Loc.1

Leptoceridae

Oecetis hyperion MALICKY, 2005

Material: 2 males, 1 females, Loc.1

First record for Thailand, the northernmost point distribution.

Oecetis sp.

Material: 1 pupa (female), Loc.1

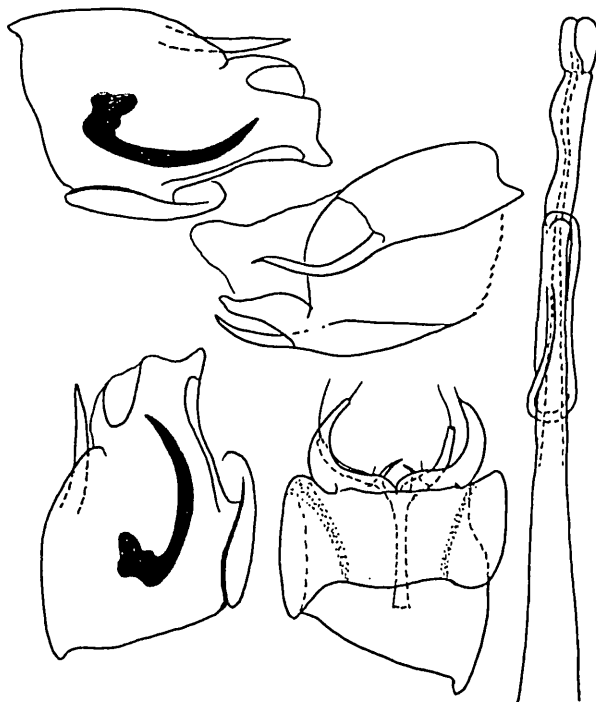
Setodes thonetii MALICKY & CHANTARAMONGKOL 2006

Material: 16 males, 4 females, Loc. 2

Descriptions of new species

Orthotrichia biokrotta MALICKY & MELNITSKY, new species (Hydroptilidae)

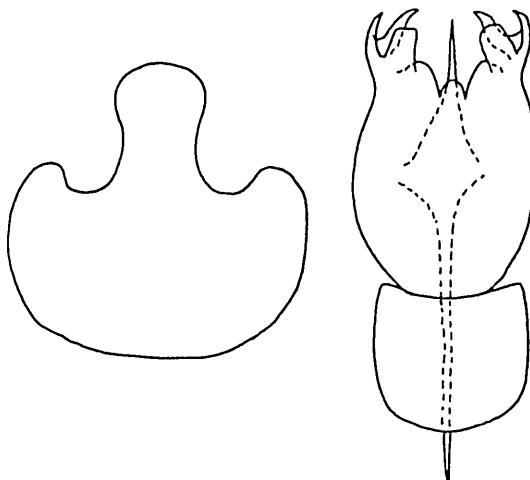
Brown, fore wing length 1,8 mm. Male genitalia highly asymmetric, as usual in the genus. A member of the *litoralis* group. The shape of the structures must be taken from the figures. The species is easily recognized by the shape of the big inner spine which is different from all other species: it is moderately long, sabre – shaped with a thickened base. This is similar to *O. thyone* MALICKY & CHANTARAMONGKOL 2007 from Thailand which corresponds in the slender form of the inferior appendages and their upper branches, but in



O. thyone the inner spine is straight, longer and with a smaller base.

Holotype ♂: Loc.1; paratypes 2♂: Loc.2.

Tinodes kuchlik MALICKY & MELNITSKY, new species (Psychomyiidae)



Tinodes kuchlik:

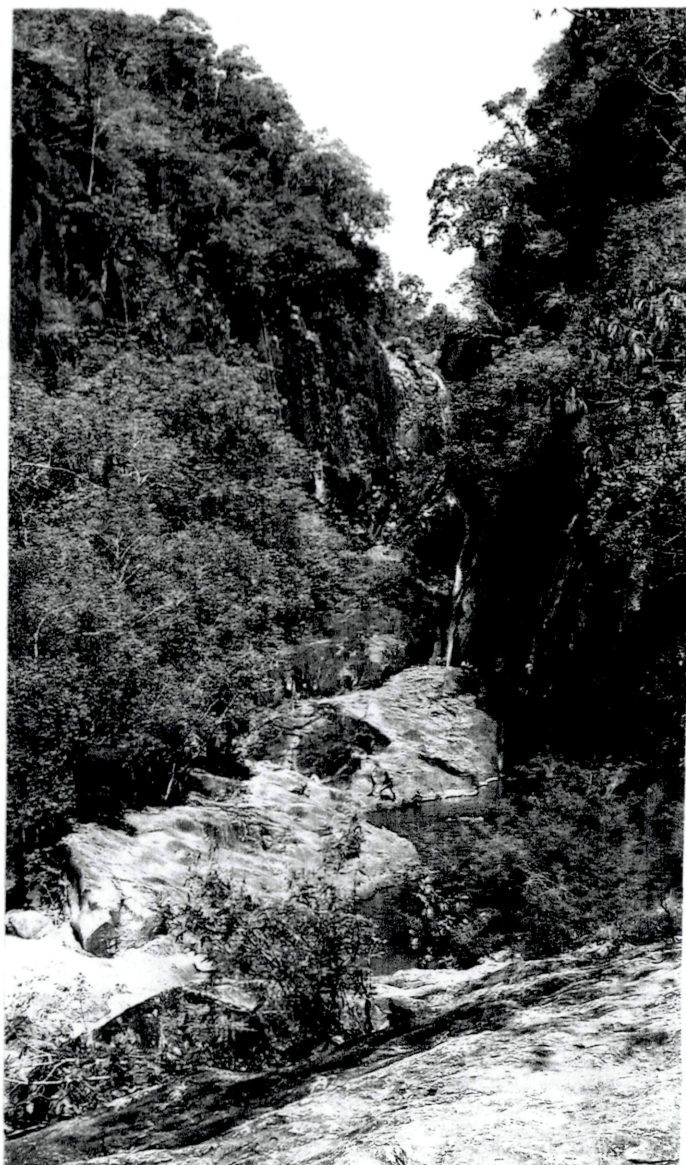
Yellowish brown, forewing length 3,5 m. Male genitalia; Sternite 9 in lateral view slender, rectangular; lateral arms starting from its anterior upper corner and somewhat extending anteriorly. Tergite 9 in dorsal view mushroom shaped. Inferior appendages oval, with two distal teeth and a short finger-like second segment; in ventral view these appendages are fused over almost their entire length. Inner basal appendage with a large, thick, and caudally directed impair spine. Upper appendages rather broad, with a slender stalk. Phallic apparatus in lateral view long and broad, with rows of large bristles along the middle of the ventral edge and in its distal part. This species is similar to *T. physetes* MALICKY 1995 from Vietnam, but the distal structures of the inferior appendages are longer in *physetes*, and there are various differences in the proportions of the structures.

Holotype ♂: Loc.2; paratype ♂: Loc.1.

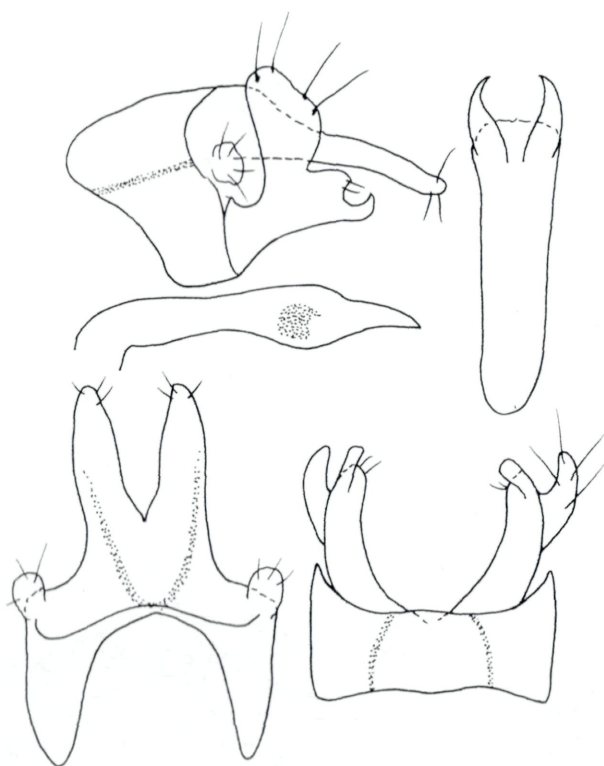
Helicopsyche nastia MALICKY & MELNITSKY, new species (Helicopsychidae)

Pale brownish, length of a forewing 3 mm. Maxillary palps with four segments. Male genitalia as in *H. chrysothoe* SCHMID 1993 from Kameng and Bhutan with the typical form of the inferior appendages, but the two long ends of segment 10 are in dorsal view much thinner and pointed in *chrysothoe*. The phallic apparatus has two distal spines which are slightly bent inwards, and a rounded sclerite.

Holotype ♂ and 1♂ paratype: Loc.1.



Klong Plu waterfall on Koh Chang Island (Locality 2)



CORRECTION

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to: *Rhyacophila cabrankensis* nov. spec.
from Croatia
(Braueria 34:14, 2007)

The name of the second author is correctly written:

Ana Previšić

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

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