

An Updated Survey of Caddisflies (Trichoptera, Insecta) from Doi Suthep-Pui and Doi Inthanon National Parks, Chiang Mai Province, Thailand

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ABSTRACT.—The caddisfly fauna on two mountains in northern Thailand, Doi Suthep-Pui and Doi Inthanon National Parks, has been intensively studied since 1987. This paper provides a current checklist of species annotated with details of their altitudinal range and phenology. A total of 345 species is recorded, with 199 species known from Doi Suthep-Pui, and 249 species from Doi Inthanon.

KEY WORDS: Caddisflies; Trichoptera; Doi Suthep-Pui; Doi Inthanon

INTRODUCTION

The pioneering publication of the study on caddisflies in Thailand was that of Martynov in 1931, in which three species, *Stenopsyche siamensis*, *Macronema fastosum*, *Asotocerus ochraceus* were first recorded. In 1987, intensive studies on the Trichoptera fauna were begun by Hans Malicky and Porntip Chantaramongkol. Twelve years later they gave a progress summary of their results in which 491 species in Thailand were listed (Malicky and Chantaramongkol, 1999).

The most intensively studied areas in Thailand are Doi Suthep-Pui (98°47'-98°56'E, 18°47'-18°55'N; 1,685m) and Doi Inthanon (98°27'-98°40'E, 18°19'-18°40'N; 2,565m) National Park, located on the Thanon Thong Chai range of northern Thailand. They are

important natural hotspots of biodiversity in northern Thailand and most of their forests and streams are in good natural condition. Geologically, both mountains are largely comprised of para-gneiss with granite in the higher elevation, and Doi Suthep-Pui consists partially of sedimentary rocks. Doi Suthep-Pui covers an area of about 261 km², with an altitude range 400-1,685m. Doi Inthanon has an area of about 482 km² and altitudes between 400-2,565m. Both areas are well protected as National Parks.

A preliminary survey of Doi Suthep-Pui resulted in 131 species (Chantaramongkol and Malicky, 1997), and of Doi Inthanon in 171 species (Malicky and Chantaramongkol, 1993). These studies were continued by postgraduate students (Sompong, 1998; Thani, 1998; Prommi, 1999; Kaewtapee, 2001; Thamsenanupap, 2001) under the supervision of Chantaramongkol, P. and Malicky, H. This present paper provides an updated list of the caddisfly fauna on Doi Suthep-Pui and Doi Inthanon National Parks derived from all available publications about these insects in

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both areas including new records from monitoring during 2001-2003 and unpublished records. In addition, the present state of knowledge in faunistics, altitudinal distribution and phenology of each species is annotated.

MATERIALS AND METHODS

The data were taken from 35 publications in a series called Studies of Trichoptera from Thailand, several master and doctoral theses made at Chiang Mai University, unpublished records from the files of Prof. Hans Malicky, and the results from field monitoring by the first author exclusively on Doi Suthep-Pui and Doi Inthanon during 2001-2003.

RESULTS

A total of 345 species of Trichoptera is now known from both areas. These belong to 25 families of which Hydropsychidae and Philopotamidae include the highest number of species. Phryganeidae, Limnocoentropodidae and Uenoidae have not been found on Doi Suthep-Pui to date, and Dipseudopsidae are not yet found on Doi Inthanon. The total number of species is 199 for Doi Suthep-Pui and 249 for Doi Inthanon. Table 1 is a checklist of all the species names annotated with the altitudinal range, abundance status, phenology and literature or other citation.

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
Rhyacophillidae						
<i>Himalopsyche acharai</i> M&C 1989	X(400-1200)	XX(400-2300)	m	c	1-12	3,15,16
<i>Rhyacophila bicolor</i> <i>doiangka</i> MALICKY 1999	-	X(1700-2500)	e	r	4	28
<i>Rhyacophila bifida</i> KIMMINS 1953	-	X(2300)	m	r	3	3
<i>Rhyacophila blenda</i> M&C 1993	-	X(1200-2300)	e	p	3,10	12a,16
<i>Rhyacophila cornuta</i> KIMMINS 1953	XX(400-900)	XX(900-1700)	m	p	1-4,6-8,12	1,3,15,16,
<i>Rhyacophila drokpa</i> SCHMID 1970	-	XX(1200-1600)	m	c	1,3,5-11	16
<i>Rhyacophila drosampa</i> SCHMID 1970	-	X(900-1200)	m	p	7	16
<i>Rhyacophila falita</i> ROSS 1956	-	X(1700)	m	p	9	3
<i>Rhyacophila gyamo</i> SCHMID 1970	X(900-1200)	X(1200-3200)	m	p	1-4,6,12	15,16
<i>Rhyacophila inaequalis</i> DENNING & SCHMID 1971	XX(400-1200)	X(1200-1300)	m	p	1-5,7,8,12	3,15,16,Denning & Schmid, 1971, Chantaramongkol et al, 1999
<i>Rhyacophila</i> <i>kyimdongpa</i> SCHMID 1970	-	X(1600-1700)	m	p	1	16
<i>Rhyacophila manna</i> M&C 1993	XX(700-900)	-	e	p	1-4,12	12a,15
<i>Rhyacophila mayestrii</i> MALICKY 1991	-	XX(1200-1600)	e	r	2,5,7-11	5,16

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Rhyacophila muktepa</i> SCHMID 1970	X(900)	X(1600-1700)	m	r	3,9	16
<i>Rhyacophila murhu</i> M&C 1989	-	XX(2000-2300)	e	p	2-4	3,16
<i>Rhyacophila petersorum</i> SCHMID & DENNING 1971	XX(400-1200)	XX(500-2300)	m	c	1-12	1,3,15,16, Denning & Schmid, 1971, Chantaramongkol et al, 1999
<i>Rhyacophila pemba</i> SCHMID 1970	-	X(1300)	m	?	5	Author (Malicky)
<i>Rhyacophila pornitipae</i> MALICKY 1987	XX(900-1200)	XX(1200-1700)	m	p	1-3,8	1,3,15,16,
<i>Rhyacophila quana</i> M&C 1989	XX(400-1200)	XX(1200-2300)	m	c	1-12	3,15,16, Chantaramongkol et al, 1999
<i>Rhyacophila ramingwongi</i> MALICKY 1987	XX(400-1200)	XX(1000-1200)	m	p	1,8-11	1,15,16
<i>Rhyacophila scissa</i> MORTON 1900	-	X(1200-2300)	m	p	3-11	16
<i>Rhyacophila scissoides</i> KIMMINS 1953	XX(400-1200)	XX(900-1700)	m	c	1-12	15,16
<i>Rhyacophila suehensis</i> MALICKY 1987	XX(400-1200)	XX(1200-1400)	m	a	1-12	1,3,15,16, Chantaramongkol et al, 1999
<i>Rhyacophila verugia</i> M&C 1993	-	XX(2000-2300)	e	p	3-4	12a,16
<i>Rhyacophila voccia</i> M&C 1993	X(400)	X(1300-2300)	m	p	3,4,9,10,12	12a,15,16
<i>Rhyacophila wanichacheewai</i> MALICKY 1987	X(400)	-	e	r	2	1,15
<i>Rhyacophila xayide</i> M&C 1989	-	XX(1200-2300)	e	p	1-4,10	3,16
Glossosomatidae						
<i>Agapetus chinensis</i> MOSELY 1942	-	XX(900-1300)	m	p	2,4,5,7,12	16
<i>Agapetus dangorum</i> OLÁH 1988	XX(400-900)	-	m	p	1-2,5-7,12	15
<i>Agapetus halong</i> OLÁH 1988	XX(400-1200)	X(500-600)	m	c	1,4-12	15,16
<i>Agapetus lalus</i> M&C 1992	XX(400-700)	-	e	c	1,4-8	11,15
<i>Agapetus vercondarius</i> M&C 1992	X(400)	-	e	r	1,12	15
<i>Agapetus viricatus</i> M&C 1992	XX(400-900)	-	e	p	1-6,8,11-12	11,15
<i>Agapetus voccus</i> M&C 1992	X(400)	X(1200-1700)	m	p	3-5	11,15,16,
<i>Glossosoma atitto</i> M&C 1992	X(400)	XX(1200-2300)	m	p	3,5-12	11,15,16,

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Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Glossosoma elvisso</i> M&C 1992	-	XX(400-1300)	m	p	1-2,4-5,12	11,16
<i>Glossosoma jentumar</i> M&C 1992	X(400-1200)	XX(1200-1700)	m	p	1-4,8-10	11,15,16,
<i>Glossosoma malayanum</i> BANKS 1934	X(400-1200)	XX(900-1700)	m	p	1-5	15,16
<i>Nepaloptila jisunted</i> M&C 1992	-	X(900-1000)	e	r	1	11,16
<i>Nepaloptila kanikar</i> M&C 1992	-	XX(500-600)	m	p	1,4,12	11,16
<i>Nepaloptila ruangjog</i> M&C 1992	-	XX(2000-2300)	e	p	2-4	11,16
<i>Padunia karaked</i> M&C 1992	-	XX(500-1000)	m	p	1-2,4,12	11,16
<i>Poeciloptila briatec</i> M&C 1992	-	X(400-1000)	m	p	4,12	11,16
Hydroptilidae						
<i>Orthotrichia deukalion</i> MALICKY & PROMMI 2000	X(550)	-	E	p	11	30
<i>Ugandatrichia hairanga</i> OLÁH 1989	X(400)	-	m	r	8,12	15
<i>Ugandatrichia hintama</i> OLÁH 1989	-	X(750)	m	?	3	Author (Malicky)
<i>Ugandatrichia hongae</i> OLÁH 1989	-	X(1300)	m	?	1,12	Author (Malicky)
<i>Ugandatrichia kerdmuang</i> M&C 1991	XX(400-1000)	XX(500-1000)	m	p	2,4-8,11-12	7,15,16
<i>Ugandatrichia maliwan</i> M&C 1991	XX(400-1200)	XX(500-1300)	m	a	1-12	7,15,16
<i>Ugandatrichia sanana</i> OLÁH 1989	-	X(1600-1700)	m	r	1-2	16
Philopotamidae						
<i>Chimarra akkaorum</i> C&M 1989	XX(400-1200)	X(400-1700)	m	c	2-8,10-12	2,15,16, Chantaramongkol et al, 1999
<i>Chimarra alleni</i> C&M 1989	XX(400-700)	-	m	p	1,6,11	2,15, Chantaramongkol et al, 1999
<i>Chimarra aneca</i> M&C 1993	-	XX(400-1200)	m	p	4,6-11	12b,16
<i>Chimarra argeia</i> M&C 1997	X(700)	-	e	p	2	20
<i>Chimarra atara</i> M&C 1993	XX(400-700)	-	m	p	1-4,9,11	12b,15
<i>Chimarra atnia</i> M&C 1993	XX(400-900)	-	m	p	1-12	12b,15
<i>Chimarra bimbitona</i> MALICKY 1979	-	X(400-600)	m	p	1,2,4,10,12	16

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Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Chimarra burmana</i> KIMMINS 1957	X(900)	-	m	p	5,8	2,15
<i>Chimarra</i> <i>chiangmaiensis</i> C&M 1989	XX(400-600)	X(400-1300)	m	c	1-12	2,15,16, Chantaramongkol et al, 1999
<i>Chimarra cumata</i> M&C 1993	-	XX(1200-1300)	e	p	4-6	12b,16
<i>Chimarra devva</i> M&C 1993	-	XX(1200-1700)	e	p	1,3,7-11	12b,16
<i>Chimarra dirke</i> MALICKY&THAMSE NANUPAP 2000	X(700)	-	e	r	9	31
<i>Chimarra exapia</i> M&C 1993	-	X(1600-1700)	e	p	1,3,10	12b,16
<i>Chimarra htinorum</i> C&M 1989	XX(400-1200)	XX(1200-1300)	m	c	1-12	2,15,16, Chantaramongkol et al, 1999
<i>Chimarra</i> <i>inthanonensis</i> C&M 1989	-	X(1600-2300)	e	r	1-5	2,16
<i>Chimarra jolivetii</i> JACQUEMART 1979	-	XX(400-1700)	m	c	1-7,10-12	16
<i>Chimarra karenorum</i> C&M 1989	-	X(1600-1700)	e	c	2,4	2,16
<i>Chimarra lahuorum</i> C&M 1989	-	XX(1200-1700)	e	c	1-12	2,16
<i>Chimarra lannaensis</i> C&M 1989	XX(400-1200)	XX(900-1700)	m	c	1-12	2,15,16, Chantaramongkol et al, 1999
<i>Chimarra lavuaorum</i> C&M 1989	XX(700)	-	e	p	1-4,9,12	2,15
<i>Chimarra litugena</i> M&C 1993	-	X(1200-1300)	e	r	10	12b,16
<i>Chimarra litussa</i> M&C 1993	XX(900-1200)	XX(1200-1400)	m	p	3-5,8	12b,15,16
<i>Chimarra matura</i> M&C 1993	-	X(1600-1700)	e	r	1,10	12b,16
<i>Chimarra mlabriorum</i> C&M 1989	-	X(1200)	m	p	4-6	16
<i>Chimarra momma</i> M&C 1993	XX(700-1200)	XX(1200-1300)	m	p	2-6,9-10	12b,15,16
<i>Chimarra monorum</i> C&M 1989	XX(400-1200)	X(400-1300)	m	p	1-5,10-12	2,15,16, Chantaramongkol et al, 1999
<i>Chimarra nahesson</i> M&C 1993	X(500-1200)	XX(1200-1700)	m	p	1-4,10	12a,15,16
<i>Chimarra noebia</i> M&C 1993	X(1200)	-	e	r	3	12b, 15
<i>Chimarra okuihorum</i> MEY 1998	-	X(600)	m	r	5	Author (Thapanya)
<i>Chimarra pipake</i> M&C 1993	XX(400-700)	-	m	p	1,3-4,9-11	12b,15

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Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Chimarra schwendingeri</i> C&M 1989	-	X(1200-1700)	m	p	3-5	16
<i>Chimarra scopulifera</i> KIMMINS 1957	-	X(1600-1700)	m	r	1-3	16
<i>Chimarra spinifera</i> KIMMINS 1957	XX(400-1200)	XX(1200-1300)	m	c	1-12	2,15,16, Chantaramongkol et al, 1999
<i>Chimarra suthepensis</i> C&M 1989	XX(400-1200)	XX(1200-1300)	m	a	1-12	2,15,16
<i>Chimarra toga</i> M&C 1993	X(400)	-	e	r	3	12b,15
<i>Chimarra uppita</i> M&C 1993	X(400)	-	m	p	3-6,12	12b,15
<i>Chimarra yaorum</i> C&M 1989	X(1200)	XX(1200-1300)	m	p	3-6,9-12	2,15,16
<i>Dolophilodes adnamat</i> M&C 1993	XX(500-1200)	XX(1200-1700)	m	p	1,3-4, 8,10,12	12a,15,16
<i>Dolophilodes bicolor</i> KIMMINS 1955	-	X(1600-1700)	m	r	5,9	16
<i>Dolophilodes bullu</i> M&C 1993	-	XX(2000-2300)	e	p	3-5	12a,16
<i>Dolophilodes torrentis</i> KIMMINS 1955	-	XX(2000-2300)	m	p	1-4	16
<i>Gunungiella segsafiazga</i> M&C 1993	XX(700-900)	-	m	p	1-3	12a,15
<i>Gunungiella iraiafiazga</i> M&C 1993	-	X(1300)	m	p	3-4	Author (Malicky)
<i>Kisaura cina</i> M&C 1993	XX(400-1200)	XX(1200-1700)	m	c	1-5,8-12	12a,15,16
<i>Kisaura consagia</i> M&C 1993	XX(500-900)	X(700-1300)	m	c	1-12	12a,15
<i>Kisaura intermedia</i> KIMMINS 1955	X(900-1200)	XX(1200-2300)	m	p	1-4,6,10-11	15,16
<i>Kisaura longispina</i> KIMMINS 1955	-	XX(1200-2300)	m	p	3,4,10	16
<i>Kisaura sura</i> M&C 1993	XX(400-200)	X(1200-1700)	m	c	1-12	12a,15,16
<i>Kisaura surasa</i> M&C 1993	XX(700-1200)	-	e	p	1,3-4,9,12	12a,15
<i>Womaldia etto</i> M&C 1993	XX(700-900)	-	m	p	1,4	12a,15
<i>Womaldia gressitti</i> ROSS 1956	X(1600)	XX(1200-1700)	m	p	2,4-7,12	15,16
<i>Womaldia inthanonensis</i> M&C 1993	-	X(1600-2300)	e	p	10	12b,16
<i>Womaldia nyctimon</i> SCHMID 1991	-	X(750)	m	?	3	Author (Malicky)
<i>Womaldia relictia</i> MARTYNOV 1935	-	XX(1200-2300)	m	p	2-5	16

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Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Womaldia serrata</i> KIMMINS 1955	-	X(2000-2300)	m	r	1-4	16
Stenopsychidae						
<i>Stenopsyche</i> <i>haimavatika</i> SCHMID 1969	-	X(500-1700)	m	p	1-2,4-5	16
<i>Stenopsyche hamata</i> NAVÁS 1930	-	X(400-600)	m	c	3-6	16
<i>Stenopsyche</i> <i>himalayana</i> MARTYNOV 1926	-	X(500-1700)	m	p	1,12	16
<i>Stenopsyche siamensis</i> MARTYNOV 1931	X(400-1200)	X(400-600)	m	p	1-2,4-9,12	Martynov 1931, 15,16
Polycentropodidae						
<i>Kambaitipsyche</i> <i>hykion</i> M&C 1991	-	XX(1600-2300)	e	p	3,4,9	7,16
<i>Nyctiophylax</i> <i>archemoros</i> MALICKY 1999	-	X(1300)	e	r	5	28
<i>Nyctiophylax aristaios</i> MALICKY 1999	-	X(1300)	e	r	5	28
<i>Nyctiophylax</i> <i>chiangmaiensis</i> M&C 1993	XX(400-700)	-	m	p	1-12	12a,15
<i>Nyctiophylax</i> <i>suthepensis</i> M&C 1993	XX(400-900)	-	m	c	1-12	12a,15
<i>Nyctiophylax zadok</i> M&C 1993	X(400)	-	m	p	4,10	12a,15
<i>Pahamacyana jihmita</i> SCHMID & DENNING 1979	XX(400-700)	-	e	p	5-6,9-11	15, Schmid & Denning 1979
<i>Plectrocnemia</i> <i>arphachad</i> M&C 1993	-	X(1200-2300)	e	p	3,10,12	12a,16
<i>Plectrocnemia eber</i> M&C 1993	-	X(1600-2300)	m	p	3,10	12a,16
<i>Plectrocnemia</i> <i>eccingoma</i> M&C 1993	-	X(1200-1700)	e	p	3	12a,16
<i>Plectrocnemia resa</i> M&C 1993	-	X(1300)	m	p	4-5	Author (Malicky)
<i>Polyplectropus admin</i> M&C 1993	XX(400)	XX(400)	m	p	2-12	12a,15
<i>Polyplectropus</i> <i>apsyrtos</i> MALICKY 1999	-	X(1300)	e	p	4	28
<i>Polyplectropus arni</i> M&C 1993	-	XX(500-1300)	e	p	4-6	12a,16
<i>Polyplectropus ibykos</i> M&C 2003	X(800)	-	e	?	3	Author (Malicky)
<i>Polyplectropus menna</i> M&C 1993	XX(400-1200)	X(700-1200)	m	c	1-12	12a,15

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Polyplectropus nahor</i> M&C 1993	-	X(1600-1700)	m	p	?	16
<i>Pseudoneureclipsis achim</i> M&C 1993	XX(700-1200)	-	e	p	2-4	12a,15
<i>Pseudoneureclipsis amon</i> M&C 1993	X(400)	X(400)	m	p	2,5	12a,15
<i>Pseudoneureclipsis josta</i> M&C 1993	X(500-1200)	XX(1200-1300)	m	p	3-5	12a,15,16
<i>Pseudoneureclipsis philemon</i> MALICKY & PROMMI 2000	X(550)	-	e	r	5	30
<i>Pseudoneureclipsis saccheda</i> SCHMID & DENNING 1979	XX(400-700)	-	e	p	5-6,10-12	15,Schmid & Denning 1979, Chantaramongkol et al, 1999
<i>Pseudoneureclipsis sukrip</i> M&C 1993	-	XX(1000-1300)	e	p	4-6	12b,16
<i>Pseudoneureclipsis usia</i> M&C 1993	XX(400-700)	-	e	c	1,4-11	12a,15
Dipseudopsidae						
<i>Dipseudopsis benardi</i> NAVÁS 1930	X(400)	-	m	p	10	Weaver & Malicky, 1994
<i>Dipseudopsis robustior</i> ULMER 1929	X(400-650)	-	m	p	1,3,5-6, 8,10-11	15,Weaver & Malicky, 1994, Chantaramongkol et al, 1999
<i>Dipseudopsis varians</i> ULMER 1929	X(400)	-	m	p	1,3-11	15,Weaver & Malicky, 1994, Chantaramongkol et al, 1999
Ecnomidae						
<i>Ecnomus alkinoos</i> M&C 1997	-	X(1640-1700)	e	p	4,5	20
<i>Ecnomus areion</i> MALICKY 1999	-	X(1300)	m	r	4	28
<i>Ecnomus eurytos</i> MALICKY & SILALOM 2000	X(650)	-	e	r	?	30
<i>Ecnomus jojachin</i> M&C 1993	XX(400-700)	-	m	p	1,5-7,12	12a,15
<i>Ecnomus puro</i> M&C 1993	X(400)	-	m	p	4-6	12a,15
<i>Ecnomus suadrus</i> M&C 1993	XX(700-900)	-	m	p	2-5,8-11	12a,15
<i>Ecnomus venimar</i> M&C 1993	XX(400-700)	-	e	p	2-3, 5-6,8-11	12a,15
Psychomyiidae						
<i>Eoneureclipsis querquobad</i> M&C 1989	XX(900-1200)	XX(1600-1700)	m	p	2-7	6,15,16

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references – continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Lype atnia</i> M&C 1993	XX(400-1200)	XX(400-1300)	m	p	1-4,7,12	12a,15,16
<i>Paduniella dendrobia</i> M&C 1993	-	X(1200-1700)	e	p	3,12	12b,16
<i>Paduniella maeklangensis</i> M&C 1993	-	XX(900-1000)	e	p	2-3,6	12b,16
<i>Paduniella sampati</i> M&C 1993	XX(400)	-	m	p	2,4-6,10	12b,15
<i>Paduniella semarangensis</i> ULMER 1913	X(400-1200)	X(400-1300)	m	p	?	15,16
<i>Paduniella suwannamali</i> M&C 1993	-	X(400-1000)	m	p	4	12b,16
<i>Paduniella wangtakraiensis</i> M&C 1993	-	X(400-600)	m	p	4	12b,16
<i>Psychomyia arthit</i> M&C 1993	-	XX(400-600)	m	p	1-2,4,6	12b,16
<i>Psychomyia barata</i> M&C 1993	XX (600-900)	-	e	p	1-9	12b,15
<i>Psychomyia benyagai</i> M&C 1993	-	X(1200-1300)	m	p	4,7	12b,16
<i>Psychomyia chompu</i> M&C 1993	X(400-1200)	XX(500-1300)	m	p	1-7,12	12b,15,16
<i>Psychomyia kaiya</i> M&C 1993	X(400-600)	XX(400-600)	m	p	1,4,6-7,12	12b,15,16
<i>Psychomyia lak</i> M&C 1993	X(400-600)	XX(400-600)	m	p	2,4-5, 7,10,12	12b,15,16
<i>Psychomyia monto</i> M&C 1993	XX(400-700)	-	m	p	3-10	12b,15
<i>Tinodes acheron</i> M&C 1996	X(500-1000)	-	e	p	4	19
<i>Tinodes anakkunci</i> MALICKY 1995	X(700)	-	m	?	6	Author (Malicky)
<i>Tinodes cincibilus</i> M&C 1993	-	X (1200-1600)	e	p	4	12a,16
<i>Tinodes mogetius</i> M&C 1993	-	XX(1200-1700)	e	p	3-6,9-10	12a,16
Xiphocentronidae						
<i>Abaria ateduna</i> M&C 1992	-	X(1200-1300)	e	p	8-10	11,16
<i>Abaria guatila</i> M&C 1992	X(400)	-	e	p	1,5,10	11,15
<i>Cnodocentron brogimarus</i> M&C 1992	XX(700-900)	-	e	p	1,3,12	11,15
<i>Drepanocentron curmisagius</i> M&C 1992	XX(400-900)	-	m	p	1,3-10,12	11,15
<i>Drepanocentron vercaius</i> M&C 1992	X(900-1200)	-	m	p	2-4	11,15

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Melanotrichia attia</i> M&C 1992	-	X(900-1700)	e	p	2-12	11,16
<i>Melanotrichia samaconius</i> M&C 1992	-	X(500-600)	m	p	12	11,16
Arctopsychidae						
<i>Arctopsyche hynreck</i> M&C 1991	X(400)	XX(1200-1700)	m	c	1-12	7,15,16
<i>Arctopsyche variabilis</i> SCHMID 1968	-	X(1600-2300)	m	p	3-4	16
<i>Parapsyche intawitschajanon</i> M&C 1992	-	X(2000-2300)	e	r	3	11,16
Hydropsychidae						
<i>Aethaloptera sexpunctata</i> KOLENATI 1859	X(400)	-	m	?	1	Author (Malicky)
<i>Amphipsyche meridiana</i> ULMER 1909	X(400)	-	m	?	9-11	Author (Malicky)
<i>Cheumatopsyche admetos</i> M&C 1996	XX(1000)	-	e	p	4	19
<i>Cheumatopsyche angusta</i> ULMER 1930	XX(400)	X(1000-1300)	m	c	1-12	Author (Malicky)
<i>Cheumatopsyche banksi</i> MOSELY 1942	X(400)	-	m	p	1-3,9-10	Author (Malicky)
<i>Cheumatopsyche caieta</i> M&C 1997	-	XX(1300)	m	c	3-4,7-11	22
<i>Cheumatopsyche ceres</i> M&C 1997	X(400)	XX(900-1300)	m	c	1-12	22
<i>Cheumatopsyche charites</i> M&C 1997	-	X(400-1200)	m	?	1,3-4, 9-10,12	Author (Malicky)
<i>Cheumatopsyche chione</i> M&C 1997	-	X(540)	e	r	2	22
<i>Cheumatopsyche chrysothemis</i> M&C 1997	X(400)	-	m	p	4-6	Author (Malicky)
<i>Cheumatopsyche cocles</i> M&C 1997	XX(500-1000)	-	m	c	1-4,11	22
<i>Cheumatopsyche copia</i> M&C 1997	XX(400-700)	X(500)	m	c	1-5,7,12	22
<i>Cheumatopsyche criseyde</i> M&C 1997	-	XX(400-1000)	m	c	1-2,4,6, 9,10-12	22
<i>Cheumatopsyche globosa</i> ULMER 1910	XX(400)	-	m	?	2-6,9-12	Author (Malicky)
<i>Diplectrona aurovittata</i> ULMER 1906	XX(400-900)	XX(900-1600)	m	a	1-12	Author (Malicky)
<i>Diplectrona burha</i> SCHMID 1961	X(400-500)	-	m	p	1-2,4-5, 9-10	Author (Malicky)
<i>Diplectrona eurydike</i> M&C 2002	XX(400-1200)	XX(1300)	m	p	1-6,8,11-12	Author (Malicky)
<i>Diplectrona harpyia</i> M&C 2002	-	XX(1200-2300)	e	c	1-4,10	34

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references – continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Dipterotreron hermione</i> M&C 2002	XX(400-1200)	XX(1200-1600)	m	c	1-6,9,12	34
<i>Dipterotreron joannisi</i> NAVÁS 1932	XX(400-1200)	XX(1200-1700)	m	c	1-12	Author (Malicky)
<i>Hydatomanicus adonis</i> M&C 1996	XX(400-1200)	-	m	c	1,3-4,11-12	19
<i>Hydatomanicus klanklini</i> M&C 1993	XX(400-700)	-	m	c	1-12	12a,15
<i>Hydromanicus abiud</i> M&C 1993	XX(400-1200)	-	m	c	1-12	12a,15
<i>Hydromanicus almansor</i> M&C 1993	-	X(1300)	m	?	5	Author (Malicky)
<i>Hydromanicus eliakim</i> M&C 1993	XX(400)	XX(1200-1700)	m	c	1-12	12a,15,16
<i>Hydromanicus inferior</i> C&M 1995	XX(400-600)	XX(400-1000)	m	c	1-12	15,16
<i>Hydromanicus punctusalis</i> MEY 1996	-	X(1200)	m	r	3	Author (Thapanya)
<i>Hydromanicus sealthiel</i> M&C 1993	XX(500-1200)	XX(1200-1300)	m	p	1,3-4, 8-10,12	12a,15,16
<i>Hydromanicus serubabel</i> M&C 1993	XX(500-1000)	-	m	c	1-12	12a,15
<i>Hydromanicus truncatus</i> BETTEN 1909	XX(400-1200)	XX(1200-1700)	m	c	1-12	16
<i>Hydropsyche adrautos</i> M&C 1996	X(400)	XX(500-1700)	m	p	1-12	Author (Malicky)
<i>Hydropsyche arcturus</i> M&C 2000	XX(400-1200)	XX(1200-1600)	m	c	1-12	29
<i>Hydropsyche askalaphos</i> M&C 2000	X(400-700)	XX(400-1600)	m	c	1-4,6, 8-9,12	29
<i>Hydropsyche atropos</i> M&C 2000	-	X(1200)	m	p	3-4,7,9	29
<i>Hydropsyche attis</i> M&C 2000	X(400)	-	m	c	4,12	29
<i>Hydropsyche baubo</i> M&C 2000	-	X(2300)	m	p	4-5,10	29
<i>Hydropsyche binaria</i> MEY 1996	X(400)	XX(1200-2300)	m	c	1-3,9-10	29
<i>Hydropsyche bonuseventus</i> M&C 2000	-	XX(500-1200)	m	p	1-2,4-7,9	Author (Malicky)
<i>Hydropsyche bootes</i> M&C 2000	XX(400-1100)	XX(900-1300)	m	c	1-12	29
<i>Hydropsyche briareus</i> M&C 2000	X(400-900)	XX(400-1200)	m	c	1-5,12	29
<i>Hydropsyche camillus</i> M&C 2000	XX(400-1200)	X(400-600)	m	p	1-12	Author (Malicky)
<i>Hydropsyche cerva</i> LI & TIAN 1990	-	X(1200-1600)	m	p	3,9	Author (Malicky)
<i>Hydropsyche clitumnus</i> M&C 2000	-	XX(1200)	m	c	1-12	29

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Hydropsyche doctersi</i> ULMER 1951	-	X(420-900)	m	p	3,4	29
<i>Hydropsyche dolosa</i> BANKS 1939	XX(400-1000)	XX(400-1200)	m	p	1-5,9-12	Author (Malicky)
<i>Hydropsyche napaea</i> MEY 1996	-	X(1200)	m	p	12	29
<i>Hydropsyche pallipenne</i> BANKS 1938	X(400-500)	-	m	p	1-4,9-12	Author (Malicky)
<i>Hydropsyche uvana</i> MEY 1995	XX(400-700)	XX(1000-1200)	m	p	1-12	Author (Malicky)
<i>Macrostemum bellerophon</i> M&C 1998	-	X(1200)	e	p	8-11	24
<i>Macrostemum fastosum</i> WALKER 1852	XX(700-1200)	XX(400-1300)	m	c	3-10	15,16,24
<i>Macrostemum floridum</i> NAVÁS 1929	XX(400-700)	-	m	c	4-11	24
<i>Macrostemum hestia</i> M&C 1998	-	X(1300-1600)	m	p	3-5	24
<i>Macrostemum midas</i> M&C 1998	XX(400)	X(400-600)	m	p	4-6,9-11	24
<i>Potamyia alleni</i> M&C 1997	XX(400-1100)	X(1200)	m	c	9-12	22
<i>Potamyia boenzigeri</i> M&C 1997	X(700)	-	m	p	1-4,12	Author (Malicky)
<i>Potamyia flavata</i> BANKS 1934	XX(400)	-	m	?	1-7,9-12	Author (Malicky)
<i>Potamyia horvati</i> M&C 1997	-	XX(500-1200)	m	c	1,2,4,9,12	22
<i>Potamyia panakeia</i> M&C 1997	-	XX(400-600)	m	c	1,3,4,6	22
<i>Potamyia phaidra</i> M&C 1997	X(400-700)	X(400-1200)	m	p	1-6,9,12	Author (Malicky)
<i>Pseudoleptonema quinquefasciatum</i> MARTYNOV 1935	-	XX(400-900)	m	c	3-4	24
<i>Trichomacronema paniae</i> M&C 1991	XX(500-1200)	XX(500-1700)	m	c	1-10	9,16
Phryganeidae						
<i>Eubasilissa maclachlani</i> WHITE 1862	-	XX(1200-2300)	m	p	3-4,10-12	16
Brachycentridae						
<i>Micrasema asuro</i> M&C 1992	-	X(1300)	m	p	5	Author (Malicky)
<i>Micrasema fortiso</i> M&C 1992	XX(400)	XX(1200-1300)	m	c	3-11	11,15,16
<i>Micrasema helveio</i> M&C 1992	XX(700-900)	-	e	p	1,9	11,15
<i>Micrasema turbo</i> M&C 1992	-	XX(1200-1700)	e	p	5-6,8,11	11,16

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
Limnocoenopodidae						
<i>Limnocoenopus apollon</i> MALICKY 1999	-	X(1200)	e	p	5	28
<i>Limnocoenopus hysbald</i> M&C 1991	-	XX(1200-1300)	e	p	5,7-8	7,16
<i>Limnocoenopus inthanonensis</i> M&C 1989	-	XX(1200-2300)	e	p	4,9	6,16
<i>Limnocoenopus siribhumensis</i> M&C 1989	-	X(1200-1300)	e	p	10-11	6,16
Goeridae						
<i>Goera atygo</i> M&C 1992	-	XX(1200-1700)	m	p	4-5,9-10	10, 16
<i>Goera ilo</i> M&C 1992	-	XX(1200-1700)	m	p	4-5,7-9	10, 16 10, 15,
<i>Goera mandana</i> MOSELY 1938	XX(700-1200)	-	m	p	5,11	Chantaramongkol et al, 1999
<i>Goera manilla</i> M&C 1992	XX(400)	-	e	p	1,2,4-6,9	15
<i>Goera redsat</i> M&C 1992	-	XX(400-1200)	m	p	1,4-7	10, 16
<i>Goera redsamar</i> M&C 1992	-	X(400-1700)	m	p	4,10	10, 16
<i>Goera schmidi</i> DENNING 1982	X(435)	-	e	p	11	10,15, Denning 1982
<i>Goera solicur</i> M&C 1992	-	XX(400-600)	e	p	2,4	16
<i>Goera tarumana</i> MALICKY 1978	X(400)	-	m	?	5	15
<i>Goera uniformis</i> BANKS 1931	X(400)	-	m	p	4-5,7,9	10,15, Chantaramongkol et al, 1999
<i>Larcasia lannaensis</i> M&C 1996	XX(550)	-	e	p	4	9
Limnephilidae						
<i>Moropsyche gerolan</i> M&C 1991	-	X(1200-2300)	m	p	1,2,4	7,16
<i>Moropsyche huaysailianga</i> M&C 1989	XX(600-1200)	X(1200-1700)	m	p	1-6,10-12	6,15,16
<i>Moropsyche sutemium</i> M&C 1991	X(?)	X(1600-1700)	m	p	1	7,15,16
<i>Nothopsyche muqua</i> M&C 1989	-	X(1200-1300)	e	r	1	16
Uenoidae						
<i>Uenoa hiberna</i> KIMMINS 1964	-	X(1200-1300)	m	p	4	16
<i>Uenoa lobata</i> HWANG 1957	-	X(2000-2300)	m	r	?	16

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
Lepidostomatidae						
<i>Adinarthrella brunnea</i> MOSELY 1941	-	X(2000-2300)	m	r	?	16
<i>Adinarthrella parva</i> MOSELY 1941	-	X(2000-2300)	m	r	12	16
<i>Adinarthrum moulmina</i> MOSELY 1949	XX(400-1000)	XX(1200-2300)	m	p	1-12	16, Chantaramongkol et al., 1999
<i>Anacrinoecia digitata</i> MOSELY 1949	-	X (2000-2300)	m	r	?	16
<i>Crunoeciella hirta</i> NAVÁS 1932	XX(400)	XX(1200-1300)	m	c	1-12	16
<i>Dinarthrum aprilius</i> M&C 1994	X(950)	X(2000-2300)	m	r	4,11	14,16
<i>Dinarthrum augustus</i> M&C 1994	-	XX(1200-1700)	e	p	4-5,9-10	14,16
<i>Dinarthrum baenzigeri</i> M&C 1994	-	XX(1200-1300)	e	p	4-5,11	14,16
<i>Dinarthrum brueckmanni</i> M&C 1994	-	XX(500-2000)	m	c	2-10	14,16
<i>Dinarthrum curatius</i> MALICKY & PROMMI 2000	X(650-1200)	X(650-1200)	m	p	5,11	30
<i>Dinarthrum daidalion</i> MALICKY & PROMMI 2000	XX(650)	-	e	p	11	30
<i>Dinarthrum februaryi</i> M&C 1994	XX(400-1200)	XX(1200-1700)	m	c	1-7,9-10	14,15,16
<i>Dinarthrum fischeri</i> M&C 1994	X(400)	XX(1200-1700)	m	c	1-12	14,15,16
<i>Dinarthrum inthanon</i> M&C 1994	-	XX(1200-2300)	e	p	3-5,12	14,16
<i>Dinarthrum kurseum</i> MOSELY 1941	X(700)	-	m	?	1	
<i>Dinarthrum lannaensis</i> M&C 1994	-	XX(1600-1700)	e	p	3,7	14,16
<i>Dinarthrum martius</i> M&C 1994	XX(400-900)	-	e	p	1,3,5-10	14,15
<i>Dinarthrum octobrius</i> M&C 1994	-	X(2000-2300)	e	p	4,10	14,16
<i>Dinarthrum prasetaiensis</i> M&C 1994	XX(400-1200)	XX(1200-1300)	m	p	1,3-9,11	14,15,16
<i>Dinarthrum septembrius</i> M&C 1994	-	XX(1200-1700)	e	p	4-5,8-11	14,16
<i>Dinarthrum siribhum</i> M&C 1994	-	X(1600-1700)	e	r	3	14,16
<i>Dinarthrum tungrayawensis</i> M&C 1994	XX(600-1200)	-	m	p	1-5,9	14,15

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references – continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Goerodes abruptus</i> BANKS 1931	XX(400-1200)	X(1200-1300)	m	p	1,4-5,7,10	16
<i>Goerodes doligung</i> MALICKY 1979	XX(400-700)	-	m	p	1-6,8-12	15, Chantaramongkol et al, 1999
<i>Lepidostoma montatan</i> M&C 1994	X(400-600)	-	e	p	1-2,10-11	14,15
<i>Lepidostoma ratanapruxi</i> M&C 1994	-	X(2000-2300)	e	p	3,4	14,16
<i>Lepidostoma varithi</i> M&C 1994	-	X(1600-1700)	e	r	1	14,16
<i>Paraphlegopteryx angkangensis</i> WEAVER 1994	-	X(1600-2300)	m	p	3,6	16
<i>Paraphlegopteryx malickyi</i> WEAVER 1994	-	X(2000-2300)	m	p	3,6,10	16
<i>Zephyropsyche weaveri</i> M&C 1994	-	X(2000-2300)	e	p	3	14,16
Helicopsychidae						
<i>Cochliophylax admata</i> M&C 1992	-	X(1600-1700)	e	r	3	11,16
<i>Cochliophylax angusta</i> ULMER 1951	X(400-600)	X(1700)	m	?	1-2,5-6,10	15
<i>Helicopsyche ategenta</i> M&C 1992	X(600)	-	e	r	2	11,15
<i>Helicopsyche namtok</i> M&C 1993	X(?)	-	e	p	11-12	12b,15
<i>Helicopsyche rodschana</i> M&C 1992	XX(400-600)	X(500-600)	m	p	5,7	11,15,16
<i>Helicopsyche siama</i> JOHANSON 1994	X(?)	-	e	?	?	15
Odontoceridae						
<i>Inthanopsyche trimeresuri</i> MALICKY 1989	-	XX(1200-2300)	m	p	2-5	4,16
<i>Lannapsyche chantaramongkolae</i> MALICKY 1989	XX(400-1200)	XX(900-1700)	m	p	1-5,7-12	4,15,16, Chantaramongkol et al, 1999
<i>Marilia aerope</i> M&C 1996	XX(700)	X(540)	m	p	4	15,16,19
<i>Marilia mogtiana</i> MALICKY 1989	-	XX(500-1300)	m	p	1-12	16
<i>Marilia sumatrana</i> ULMER 1951	XX(600)	X(400)	m	p	1-12	4,15,16, Chantaramongkol et al, 1999
<i>Psilotreta abudeb</i> M&C 1991	-	X(1200)	e	r	5	Author (Thapanya)
<i>Psilotreta baureo</i> MALICKY 1989	XX(400-1200)	XX(1600-1700)	m	p	1-2,4-5, 8-9,11-12	4,15,16

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references - continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Psilotreta quin</i> M&C 1991	-	XX(900-1000)	e	p	4-5	7,16
<i>Psilotreta watananikorni</i> M&C 1995	-	X(600)	e	?	1	Author (Malicky)
Leptoceridae						
<i>Adicella acutangularis</i> YANG & MORSE 2000	XX(400)	-	m	?	1,5,12	Author (Malicky)
<i>Adicella evadne</i> SCHMID 1994	XX(400-1000)	XX(1200-1600)	m	r	1-5,8-12	33
<i>Adicella iphimediaia</i> M&C 2002	X(1200)	X(2300)	m	p	3,4	33
<i>Adicella kanake</i> M&C 2002	XX(600)	XX(1200-1700)	m	p	1-5,8-10,12	33
<i>Adicella khytaimestra</i> M&C 2002	-	X(2300)	e	?	4	Author (Malicky)
<i>Adicella koronis</i> MALICKY & THANI 2002	X(600-1100)	-	m	c	2-4,12	33
<i>Adicella larentia</i> MALICKY & CHEUBARN 2002	XX(400-1200)	XX(1200-1600)	m	c	1-5,7,12	33
<i>Ceraclea iambe</i> MALICKY & PROMMI 2002	X (650)	-	e	p	1,3	33
<i>Ceraclea iuno</i> M&C 1991	-	X(1060)	e	?	3	Author (Malicky)
<i>Leptocerus chiangmaiensis</i> M&C 1991	XX(400)	-	m	p	2,4-6,8,12	8, 15
<i>Leptocerus demophon</i> MALICKY & PROMMI 2000	X(650)	-	e	r	1	30
<i>Leptocerus dirghachuka</i> GORDON & SCHMID 1987	XX(400)	-	m	?	3-6,12	15
<i>Leptocerus euros</i> MALICKY & PROMMI 2002	X(550)	-	e	p	12	33
<i>Leptocerus inthanonensis</i> M&C 1991	X(400-600)	XX(400-600)	m	p	1,4	8, 15,16
<i>Leptocerus suthepensis</i> M&C 1991	XX(400)	-	m	p	5-6,11-12	8,15
<i>Oecetis hades</i> M&C 2003	-	X(600)	e	r	5	Author (Thapanya)
<i>Oecetis tripunctata</i> FABRICIUS 1793	-	X(1000)	m	r	5	Author (Thapanya)
<i>Mystacides elongata</i> YAMAMOTO & ROSS 1966	XX(400)	XX(400-1200)	m	?	4-6,11-12	Author (Malicky)

TABLE 1. Caddisflies from Doi Suthep-Pui and Doi Inthanon with the altitudinal preference, distribution, abundance, phenology and references – continued.

Name	Doi Suthep-Pui (altitude, m)	Doi Inthanon (altitude, m)	Distribution	Abundance	Phenology (month)	References
<i>Parasetodes maculata</i> BANKS 1911	-	X(540)	m	?	1,3-4,6	Author (Malicky)
<i>Setodes akrura</i> GORDON & SCHMID 1987	-	X(600)	m	r	5	Author (Thapanya)
<i>Setodes argentiguttatus</i> GORDON & SCHMID 1987	X(500)	-	m	p	1	Author (Malicky)
<i>Setodes tcharurupa</i> SCHMID 1987	X(400)	-	m	p	5-12	15, Chantaramongkol et al, 1999
<i>Trichosetodes anaksepuluh</i> M&C	X(500)	-	?	?	1	Author (Malicky)
<i>Triplectides indicus</i> WALKER 1852	X(400)	X(500-1200)	m	?	2-12	Author (Malicky)
Sericostomatidae						
<i>Gumaga orientalis</i> MARTYNOV 1935	X(500)	X(600)	m	?	4	Author (Malicky)
Calamoceratidae						
<i>Anisocentropus brevipennis</i> ULMER 1906	XX(400)	-	m	p	1-12	15
<i>Anisocentropus diana</i> M&C 1994	X(400-1400)	XX(1600-1700)	m	p	2,4,6,9	13,15,16
<i>Anisocentropus janus</i> M&C 1994	XX(400-1000)	XX(500-1300)	m	p	1-11	13,15,16
<i>Anisocentropus magnus</i> BANKS 1931	-	X(1000)	m	r	5	Author (Thapanya)
<i>Anisocentropus pan</i> M&C 1994	XX(400-1200)	X(1300)	m	p	1-12	13,15
<i>Anisocentropus pandora</i> M&C 1994	-	XX(1200-1700)	m	p	4-5,9-10	13,16
<i>Anisocentropus salsus</i> BETTEN 1909	-	XX(1200-1300)	m	p	5,10-11	13,16
<i>Ganonema delios</i> MALICKY & PROMMI 2000	X(950)	-	e	r	3	30
<i>Ganonema dracula</i> M&C 1994	-	XX(1000-1700)	m	p	3	13,16
<i>Ganonema extensum</i> MARTYNOV 1935	XX(400-1200)	XX(1200-1300)	m	p	2-11	13,16
Molannidae						
<i>Molanna oglamar</i> M&C 1989	XX(400-1200)	XX(1200-1700)	m	p	1-12	6,15,16
<i>Molannodes alticola</i> M&C 1996	-	X(2300)	e	p	4	19
<i>Molannodes hydorn</i> M&C 1991	X(1100)	-	e	r	1	7,15
<i>Molannodes lirr</i> M&C 1989	XX(400)	-	m	p	1-6,9-10,12	6,15

Abbreviations

M&C - Malicky and Chantaramongkol

C&M - Chantaramongkol and Malicky

X - This species was found only once in this area.

XX = This species was recorded several times there. Numbers in brackets, e.g. (400-1200) represent the altitudinal range of the records in meters in this area.

e = This species was only found in either of these two areas and is possibly endemic.

m = This species was also found in other sites including neighboring countries.

r = "rare" means that 1-2 specimens were found.

p = from 3-20 specimens were found.

c = "common": about 20-100 specimens were found.

a = "abundant": more than 100 specimens were found.

Phenology: the numbers refer to the months in which adults were found.

References: The number refers to the numbers in the series "Study on caddisflies of Thailand" which is cited in the reference list; the extra references are given in full such as; Martynov, 1931; Denning and Schmid, 1971; Denning, 1982; Chantaramongkol et al., 1999. "Author" means an unpublished new record with the name of the collector in brackets.

? = Unable to evaluate the data now

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