

Some photographic records of Odonata in Cambodia

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Abstract

Between 2006 and 2011, 22 Odonata species were photographed in southwestern Cambodia. *Agriocnemis lacteola* Selys, 1877 and *Coeliccia yamasakii* Asahina, 1984 are new additions to the regional fauna.

Introduction

During the course of survey work for Fauna & Flora International in Cambodia, the second author has accumulated a number of photographic records of Odonata taken primarily in the Southwest of the country. Most of them appeared reliably identifiable by the first author. Paucity of data concerning Odonata of Cambodia (Kosterin 2010, 2011; Roland & Roland 2010; Roland et al. 2011) makes it useful to publish even these anecdotal records, especially due to the fact that two of them - indicated below with asterisks - are new country records.

Results

Below we list the photographed species with some data on the habitat, elevation and location. Protected areas are abbreviated as follows: PSWS – Phnom Samkos Wildlife Sanctuary, CCPF – Central Cardamom Protected Forest, RNP – Ream National Park (Fig. 1).





Figure 1. Location of sites where Odonata were photographed (red dots) in Cambodia: 1-2, Tumpor village and Phnom Dalai Mt.; 3, Pramouy village; 4, Phnom Samkos Mt.; 5, O'Som village; 6, Phnom Penh city; 7-8, Chhay Reap village and Ta Chhay River; 9, Koh Rong Island; 10, Ream National Park; 11 - Kampong Trach town. Map source: http://upload.wikimedia.org/wikipedia/commons/thumb/f/ff/Cambodia_Pailin_locator_map.svg/664px-Cambodia_Pailin_locator_map.svg.png

1. *Aristocypha fenestrella*: ♂, Phnom Samkos Mt., primary forest stream at 1000 m a.s.l., Pursat Province, Cardamom Mts., PSWS, December 2010.
2. *Heliocypha perforata limbata*: ♂, O'Som village, along slow stream at 550 m a.s.l., Veal Veang District, Pursat Province, Cardamom Mts., PSWS, March 2002; ♂, Ta Chhay River at 100 m a.s.l., Koh Kong Province, January 2010.
3. *Euphaea masoni*: ♂, fast-flowing river at 350 m a.s.l. near Tumpor village, Cardamom Mts., PSWS, October 2010.
4. *Lestes concinnus*: ♀, dry grassland at 50 m a.s.l. around Chay Reap village, Koh Kong Province, January 2010.
5. **Agriocnemis lacteola*: ♂ (Fig. 2), O'Som village vicinity, Veal Veng District,



Pursat Province, Cardamom Mts., CCPF, January 2011. Quite common in rough grassland near slow-flowing rivers and streams and standing marshy pools at 500-600 m a.s.l.

6. *Agriocnemis nana*: ♂, marshy grassland near O'Som village at 500 m a.s.l., Cardamom Mts., CCPF, January 2011. ♀, Chhay Reap village, Koh Kong Province, January 2011.
7. *Ceriagrion cerinorubellum*: ♂, coastal margin on Koh Rong Island, Koh Kong Province, August 2010.
8. *Ischnura senegalensis*: ♂, swampy grasslands in Chhay Reap village environs, Koh Kong Province, January 2010; ♀, O'Som, Cardamom Mts., CCPF, January 2011; ♂, Kampong Trach, Kampot Province, February 2010.
9. *Mortonagrion arborens*: ♂, small stream in secondary forest at 300 m a.s.l., PSWS, December 2010.
10. *Pseudagrion rubriceps*: ♂, ♀, Chhay Reap village, Koh Kong Province, January 2011.
11. *Coeliccia kazukoae* (= *C. megumii*, see Kosterin 2011): a tandem, primary forest at 1000 m on Phnom Dalai, Cardamom Mts., October 2010; ♂, primary forest along slow stream at 1000 m on Phnom Samkos Mt., Pursat Province, Cardamom Mts., PSWS, December 2010.
12. **Coeliccia yamasakii*: ♂ (Fig. 3), Phnom Samkos Mt., primary forest at 1000 m a.s.l., away from water, Pursat Province, Cardamom Mts., PSWS, September 2010; ♀ (Fig. 4), the same place but at 900 m a.s.l., December 2010.
13. *Copera marginipes*: ♂, Chhay Reap village environs, dry grassland at 50 m a.s.l., Koh Kong Province, January 2010.
14. *Prodasineura autumnalis*: ♂, secondary forest at 300 m a.s.l. along small river at base of Phnom Samkos Mt., Pursat Province, Cardamom Mts., PSWS, September 2010.
15. *Aethriamanta aethra*: ♂, ♀, garden habitat beside pond with lotus flowers, Ta Khamao near Phnom Penh., January 2011.
16. *Diplacodes nebulosa*: ♂, scrubland near Pramouy, Pursat Province, PSWS, January 10, 2010. ♂, ♀, Chhay Reap village, Koh Kong Province, January 2011.
17. *Nannophya pygmaea*: ♂, Ream National Park (RNP) at 50 m a.s.l., Kampong Saom Province, February 2010.
18. *Neurothemis tullia*: ♂, ♀, Chhay Reap village, Koh Kong Province, January 2011.
19. *Orthetrum sabina*: ♂, scrubland near Pramouy, Pursat Province, PSWS, January 10, 2010.



20. *Rhyothemis phyllis*: ♂, Phnom Penh city centre; May 2006; ♂, RNP, at 50 m a.s.l., May 2006.
21. *Rhyothemis obsolescens*: ♂, Koh Rong Island, swampy grassland at 10 m a.s.l., August 2010.
22. *Trithemis aurora*: ♂, Ta Chhay River at 200 m a.s.l., Koh Kong Province, January 2010.



Figure 2. *Agriocnemis lacteola* Selys, 1877, a male, O'Som village vicinity, Veal Veng District, Pursat Province, Cardamom Mts., Central Cardamom Protected Forest, January 2011.

Discussion

New records for Cambodia are *Agriocnemis lacteola* Selys, 1877 (Fig. 2) and *Coeliccia yamasakii* Asahina, 1984 (Fig. 3, 4). The former is a rare species with scattered records in South Asia. *C. yamasakii* was earlier considered as an endemic of SE Thailand, where is quite common in Chon Buri, Rayong and Chanthaburi Provinces (Hämäläinen & Pinratana 1999; Kosterin & Vikhrev 2009) but recently was also found in the Vietnamese island Phu Quoc (Do et al. 2011); hence it is now known at the opposite, westernmost and easternmost, ends of the same Cardamom ecoregion. Hence, it was expected in the neighbouring Koh Kong Province of Cambodia. Nevertheless, a special search of this species by the first author in that province in the Cardamom foothills up to 400 m a.s.l. in April and November/December 2010 and August 2011 was not suc-





Figure 3. *Coeliccia yamasakii* Asahina, 1984, a male, Phnom Samkos Mt., primary forest at 1000 m a.s.l., away from water, Pursat Province, Cardamom Mts., Phnom Samkos Wildlife Sanctuary, September 2010.



Figure 4. *Coeliccia yamasakii* Asahina, 1984, a female, Phnom Samkos Mt., primary forest at 900 m a.s.l., Pursat Province, Cardamom Mts., Phnom Samkos Wildlife Sanctuary, December 2010.



cessfull; only *Coelicerca kazukoe* (described from Cambodia and occurring in the same SE area of Thailand) was found invariably common. It is tempting to explain the finding of *C. yamasakii* at a much higher elevation (900 - 1000 m a.s.l.) in the Cardamom geologically. There are basalt rocks appearing in the central areas Cardamoms while their foothills are composed by sandstone with some admixture of limestone. Noteworthy that in Chanthaburi Province, the second author observed *C. yamasakii* as common at the Krating stream (Kosterin & Vikhrev 2008) descending from rocks also of magmatic origin.

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