International Dragonfly Fund - Report

Journal of the
International Dragonfly Fund

ISSN 1435-3393

Content

Volume 61 2013

The International Dragonfly Fund (IDF) is a scientific society founded in 1996 for the improvement of odonatological knowledge and the protection of species.

Internet: http://www.dragonflyfund.org/

This series intends to publish studies promoted by IDF and to facilitate cost-efficient and rapid dissemination of odonatological data.

Editorial Work: Martin Schorr

Layout: Martin Schorr

Indexed by Zoological Record, Thomson Reuters, UK

Home page of IDF: Holger Hunger

Printing: ikt Trier, Germany

Impressum: International Dragonfly Fund - Report - Volume 61

- Date of publication: 20.08.2013
- Publisher: International Dragonfly Fund e.V., Schulstr. 7B, 54314 Zerf, Germany. E-mail: oestlap@online.de
- Responsible editor: Martin Schorr

Epiophlebia sinensis Li & Nel 2011 in Li et al. (2012) (Odonata) newly recorded in North Korea

Fleck, Günther[1], Li, Jingke[2], Schorr, Martin[3], Nel, André[4], Zhang, Xueping[5], Lin, Lin[5] and Gao, Meixiang[5]

[1] France. E-mail: fleckgunther@gmail.com

[2] P.O. Box 22, Vientiane, Laos. E-mail: lucanus123@163.com

[3] International Dragonfly Fund. e.V. Schulstr. 7B 54314 Zerf Germany. E-mail: bierschorr@online.de

[4] CNRS UMR 7205, CP 50, Entomologie, Muséum national d'Histoire naturelle, 45 Rue Buffon, F-75005, Paris, France. E-mail: anel@mnhn.fr

[5] Key Laboratory of remote sensing monitoring of geographic environment, College of Heilongjiang Province, Harbin Normal University, Harbin, 150025, P.R. China. E-mail: hellozxp@163.com

Abstract

A male of *Epiophlebia sinensis* was collected in June 2012 in North Korea. The record is briefly documented and discussed.

Key words: "Anisozygoptera", Epiproctophora, Epiophlebioptera, China, North Korea, new records

Introduction

The infra-order Epiophlebioptera, probably originating from the Lower Jurassic is at present time constituted by a single relict genus *Epiophlebia* Calvert and three well identified species for which adults are known, *E. superstes* (Selys) from Japan, *E. laidlawi* Tillyard from Nepal, India (Sikkim) and Bhutan, and *E. sinensis* Li & Nel 2011 in Li et al. (2012) from China. Two larvae described by Carle (2012) are reported from Sichuan Province (China) (The first author do not recognise the validity of *E. diana* since it is impossible to distinguish the species from *E. sinensis* in the present state of knowledge.) and an additional unpublished record of an *Epiophlebia* specimen is reported

from northern Vietnam (but no details are available, Oleg Kosterin in litt.). Here, we report *E. sinensis* for the first time from North Korea.

Results

Material examined: One male (Figure 1), southern tributary of Sohongdan river, 5 km NEE Lake Samjiyon, NW Mt. Pukpotae (Mt. Pukphotae), 41°51'11"N 128°23'14"E, Samjiyon County, Ryanggang province, D.P.R. of Korea (Figure 2), 1—12-VI-2012, alt. 1380 m a.s.l., Che junhong leg.

Figure 1. ***Epiophlebia sinensis,*** **North Korea, northwest of Mt. Pukpotae**

Distribution of *E. sinensis* and note on habitat in North Korea: China (Heilongjiang Province) (Li et al. 2012), North Korea (this publication).

This disjointed distribution strongly suggests that *Epiophlebia sinensis* occurs as well in eastern and south-eastern Jilin Province of China.

The environment where the specimen was collected is surrounded by Broad-leaved forest mixed with Pinaceae. The main plant taxa encountered are *Tilia amurensis*, *Fraxinus mandshurica*, *Sorbus amurensis*, *Phellodendron amurensis*, *Juglans mandshurica*, *Picea* spp. (including *P. koraiensis*), *Quercus* sp. and numerous Polypodiales. For a more detailed description of the regional vegetation near Lake Samjiyon see Srutek et al. (2003).

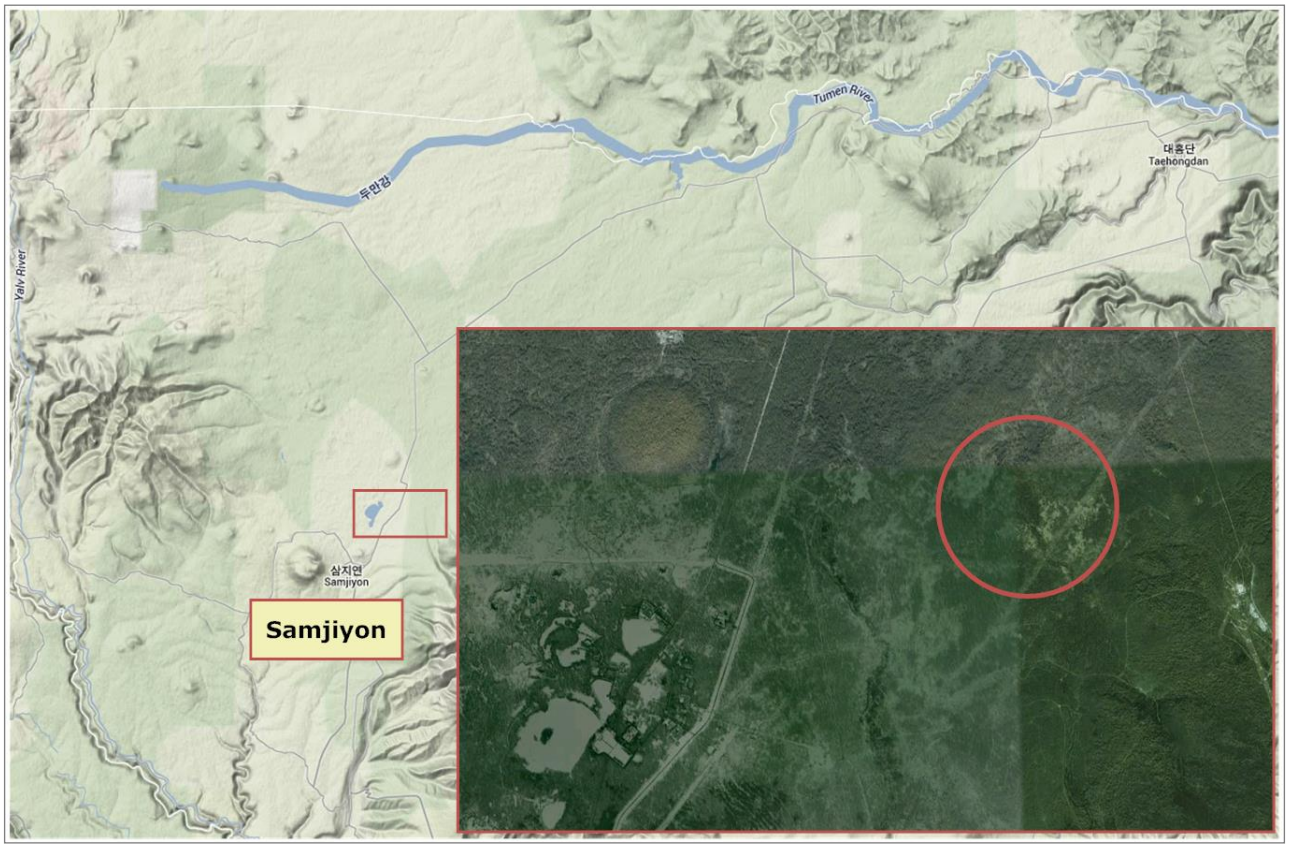

Figure 2: Sampling locality of *Epiophlebia sinensis*, five kilometres NEE of Lake Samjiyon, North Korea.

Measurements: Body length 47.2 mm; hindwing length 31.3 mm; abdomen length 41.2 mm.

The length of abdomen (41.2 mm) of *E. sinensis* from North Korea is smaller than that of *E. laidlawi* (45-47 mm; Asahina 1963) and ranges in that of *E. superstes* (37-44 mm; Ozono et al. 2012). Hindwing length (31.3 mm) is quite identical with that for *E. laidlawi* (30-31 mm) (Asahina 1963). It lies in the upper range of specimens of *E. superstes* (27-32 mm; Ozono et al. (2012).

There seems to be some variability in body length of *E. sinensis* because the holotype measures 52 mm and the hind wing 29 mm. These measurements lay within the ranges (48-56 mm; 27-32 mm) published by Ozono et al. (2012) for *E. superstes*. Both taxa seem to be less robust than *E. laidlawi* where Asahina (1963) measured a total body length of 60 mm in males.

Acknowledgements

This work was supported by a grant from the National Science Foundation of China (No. 41101049), innovation Talents Fund for Science and Technology of Harbin: 2011RFXXN039. We thank Sebastian Büsse, Göttingen and Heiner Lohmann, Rheinfelden for discussion and Oleg Kosterin, Novosibirsk for providing us with the infor-

mation of an unpublished record of *Epiophlebia* from northern Vietnam. Naoya Ishizawa, Tokorozawa compiled data on *E. superstes* from Japan.

The basis of the maps results from Google™ Earth.

References

Asahina, S. 1963. Description of the possible adult dragonfly of *Epiophlebia laidlawi* from the Himalayas. Tombo 6(3/4): 18-20.

Carle, F.L. 2012. A new *Epiophlebia* (Odonata: Epiophlebioidea) from China with a review of epiophlebian taxonomy, life history, and biogeography. Arthropod Systematics & Phylogeny 70(2): 75-83.

Li, J.-k., A. Nel, X.-p. Zhang, G. Fleck, M.-x. Gao, L. Lin & J. Zhou. 2012. A third species of the relict family Epiophlebiidae discovered in China (Odonata: Epiproctophora). Systematic Entomology 37(2): 408-412.

Ozono, A., I. Kawashima & R. Futahashi, R. 2012. Dragonflies of Japan. Bunichi-Sogo Syuppan, Co. Ltd. 532 pp.

Srutek, M., J. Kolbek & J. Leps 2003. Species and spatial structure of forests on the southeastern slope of Paektusan North Korea. Geobotany 28: 383-408.

INSTRUCTION TO AUTHORS

International Dragonfly Fund - Report is a journal of the International Dragonfly Fund (IDF). It is referred to as *the journal* in the remainder of these instructions. Transfer of copyright to IDF is considered to have taken place implicitly once a paper has been published in the journal.

The journal publishes original papers only. By *original* is meant papers that: a) have not been published elsewhere before, and b) the scientific results of the paper have not been published in their entirety under a different title and/or with different wording elsewhere. The republishing of any part of a paper published in the journal must be negotiated with the Editorial Board and can only proceed after mutual agreement.

Papers reporting studies financially supported by the IDF will be reviewed with priority, however, authors working in general with Odonata are encouraged to submit their manuscripts even if they have not received any funds from IDF.

Manuscripts submitted to the journal should preferably be in English; alternatively German or French will also be accepted. Every manuscript should be checked by a native speaker of the language in which it is written; if it is not possible for the authors to arrange this, they must inform the Editorial Board on submission of the paper. Authors are encouraged, if possible, to include a version of the abstract in the primary language of the country in which their study was made.

Authors can choose the best way for them to submit their manuscripts between these options: a) via e-mail to the publisher, or b) on a CD, DVD or any other IBM-compatible device. Manuscripts should be prepared in Microsoft Word for Windows.

While preparing the manuscript authors should consider that, although the journal gives some freedom in the style and arrangements of the sections, the editors would like to see the following clearly defined sections: Title (with authors names, physical and e-mail addresses), Abstract, Introduction, Material & Methods, Results, Discussion, Acknowledgments and References. This is a widely used scheme by scientists that everyone should be familiar with. No further instructions are given here, but every author should check the style of the journal.

Authors are advised to avoid any formatting of the text. The manuscripts will be stylised according to the font type and size adopted by the journal. However, check for: a) all species names must be given in *italic*, b) the authority and year of publication are required on the first appearance of a species name in the text, but not thereafter, and c) citations and reference list must be arranged following the format below.

Reference cited in the text should read as follows: Tillyard (1924), (Tillyard 1924), Swezey & Williams (1942). The reference list should be prepared according to the following standard:

Swezey, O. & F. Williams, 1942. Dragonflies of Guam. Bernice P. Bishop Museum Bulletin 172: 3-6.

Rebora, M., Piersanti, S. & E. Gaino. 2004. Visual and mechanical cues used for prey detection by the larva of Libellula depressa (Odonata Libellulidae). Ethology, Ecology & Evolution 16(2): 133-144.

Citations of internet sources should include the date of access.

The manuscript should end with a list of captions to the figures and tables. The later should be submitted separately from the text preferably as graphics made using one of the Microsoft Office products or as a high resolution picture saved as a .jpg or .tif file. Hand-made drawings should be scanned and submitted electronically. Printed figures sent by the post could be damaged, in which case authors will be asked to resubmit them.

Manuscripts not arranged according to these instructions may also be accepted, but in that case their publication will be delayed until the journal's standards are achieved.

Nr.	Jahr	geförderte Person bzw. Körperschaft	Fördergegenstand
68	2010	Graham Reels, Hong-Kong	African Odonata (Dijkstra & Clausnitzer, Eds) text edit
69	2011	Rory Dow, Niederlande	Expedition to the Odonata of the Hose Mts., Sarawak, Malaysia
70	2011	Dejan Kulijer, Bosia & Herzegovina	Odonata of the Livanjsko polje karst wetland area, with special emphasis on Coenagrion ornatum
71	2011	Do Manh, Cuong, Hanoi, Vietnam	Study of Odonata in north central Vietnam
72	2011	Kosterin, O.E., Russia	The Odonata of the Cardamon mountains in Cambodia – progress study August 2011
73	2011	Villanueva, Reagan, Philippinen	Odonata of Tawi-Tawi-Island, The Philippines
74	2011	Elena Dyatlova, Ukraine	Odonata of Moldavia – progress study
75	2011	Zhang, Haomiao, Guangzhou, China	The Superfamily Calopterygoidea in South China: taxonomy and distribution III – Travelling grant to the Guizhou and Yunnan Provinces, Summer 2011
76	2011	Marinov, Milen, Christchurch, New Zealand	Odonata at artificial light sources – review paper
77	2011	Do Manh, Cuong, Hanoi, Vietnam	Providing the Odonatological literature database
78	2010	Villanueva, Reagan, Philippinen	Stereomikroskop
79	2010	Villanueva, Reagan, Philippinen	Odonata of the Diomabok-Lake region south of Davao, The Philippines Follow-up
80	2011	Villanueva, Reagan, Philippinen	Odonata of the Catanduanes-Island, The Philippines
81	2012	Villanueva, Reagan, Philippinen	Odonata of Dinapique, The Philippines
82	2012	Dow, Rory, UK/The Netherlands	Odonata of Kalimantan, Borneo, Malaysia
83	2012	Marinov, Milen, Christchurch, New Zealand	Odonata species diversity of the "Eua Island, Kingdom of Tonga"
84	2012	Marinov, Milen, Christchurch, New Zealand	Odonata of Solomon-Islands
85	2012	Villanueva, Reagan, Philippinen	Palawan-Odonata, The Philippines
86	2012	Do Manh, Cuong, Hanoi, Vietnam	Mau Son Mountain Odonata, Vietnam
87	2012	Dow, Rory, UK/The Netherlands	Odonata of Gunung Pueh, Borneo, Malaysia
88	2013	Anna Rychla, Ukraine	Vorkommen der Arktischen Smaragdlibelle Somatochlora arctica (Zetterstedt, 1840) in Planregenmooren der polnischen Ostseeküste (S. arctia in bogs along the coast of the Polish Baltic Sea)
89	2013	Vincent Kalkman/A.B. Orr, The Netherlands/Australia	Field guide New Guinea Zygoptera
90	2013	Oleg Kosterin, Russia	Progress study Cambodia 2013
91	2013	Dejan Kulijer, Bosnia & Herzegovina	Odonata fauna of karst streams and rivers of South Herzegovina (Bosnia and Herzegovina, West Balkan)
92	2013	Villanueva, Reagan, Philippinen	Odonata from Balabac Islands, Palawan, Philippines
93	2013	Villanueva, Reagan, Philippinen	Odonata from Balut Island, Philippines
94	2013	Rory Dow, UK	Malaysian Odonata – Regional progress projects
95	2013	Rory Dow, UK	Sarawak Odonata – documenting the status quo Odonata diversity prior logging
96	2013	Garrison / Ellenrieder, Sacramento, USA	Argia in Costa Rica
97	2013	Villanueva, Reagan, Davao, Philippinen	Odonata of Mt. Lomot and Mt. Sumagaya, The Philippines