Content

Dow, Rory A., Graham T. Reels and Robin W.J. Ngiam

Odonata collected at Usun Apau National Park, Miri Division, Sarawak, Malaysia in April and May 2012 1-17

Volume 79 2015
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, Milen Marinov, Rory Dow

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 79

- Date of publication: 10.03.2015
- Publisher: International Dragonfly Fund e.V., Schulstr. 7B, 54314 Zerf, Germany. E-mail: oestlap@online.de
- Responsible editor: Martin Schorr
Odonata collected at Usun Apau National Park, 
Miri Division, Sarawak, Malaysia 
in April and May 2012

Rory A. Dow¹, Graham T. Reels² & Robin W.J. Ngiam³

¹Naturalis Biodiversity Center, P.O. Box 9517, 2300 RA Leiden, The Netherlands
Email: Rory.dow230@yahoo.co.uk

²31 St Anne's Close, Winchester SO22 4LQ, Hants., United Kingdom
Email: gtreels@gmail.com

³National Biodiversity Centre, National Parks Board, Singapore
Email: ngiam_wen_jiang@nparks.gov.sg

Abstract

Results of a collecting expedition to the remote Usun Apau plateau in Sarawak are presented. Interesting records include *Telosticta kajang* (previously only known from the holotype), *Coeliccia* new species, *Amphicnemis* new species.

Key words: Sarawak, Borneo, Malaysia

Introduction

Usun Apau is a remote and relatively inaccessible volcanic plateau located at the headwaters of the Rajang and Baram rivers, in the southern part of the State's Miri Division (Figs. 1, 2). It was gazetted as a National Park in September 2005. At just over 49,000 ha, Usun Apau is the third largest terrestrial National Park in Sarawak, after Gunung Mulu and Pulong Tau. It is also one of the least visited.

As recorded by Arnold (1957), the area was first made known to the outside world when the Curator of the Sarawak Museum, Mr Tom Harrisson, and Mr David Leach, Director of Sarawak Lands and Surveys, journeyed from the Upper Baram to the Plie-eran valley and then down to the Rajang, in 1951. They found that a blank on the map of more than 4,000 km² was in reality an upland area of mountains, plateau and deep river valleys. They were the first Europeans to cross the Usun Apau (Arnold ibid.).

Subsequently, an Oxford University Expedition went to Sarawak in July 1955 to spend six months exploring and surveying Usun Apau and neighbouring areas (Arnold 1957).
Mountainous, thickly forested and drained by numerous streams and rivers, the expedition found Usun Apau to be uninhabited except for a few groups of nomadic Penan, a fact which Arnold (ibid.) ascribed to the rivers flowing from it passing through great series of cataracts and gorges, falling 300 m or more before reaching navigable stretches of water; the area was in fact so remote and inaccessible that the Oxford expedition had to rely on air drops for supplies. The activities of the expedition members apparently included zoological collecting, but we are not aware of any Odonata having been collected.

Figure 1. Map of Borneo showing the location of Usun Apau.
To quote / paraphrase Arnold's (1957) very precise descriptions of the area the expedition encountered: "The plateau is volcanic, a flat expanse of about 600 square miles [1,550 km²] dominated in the centre by three extinct volcanoes: Selidang 4,500 feet [1,370 m], Kenawang 4,200 feet [1,280 m], and Mabun 4,200 feet. Selidang is geographically the centre of the plateau, which averages 3,500 feet [1,070 m] in height. The northern, eastern and western edges of the tableland end in sheer escarpments of nearly 1,000 feet [305 m] and along the northern edge three rivers tumble off in 800 foot [245 m] waterfalls... On the southern side there are steep-sided valleys extending like fingers southwards... The plateau is split in two by a steep-sided valley, the Dapoi, running due north from Selidang: possibly this valley was a volcanic lake. The river cuts a deep gorge through the northern escarpment and then flows into the great Tinjar tributary of the Baram... The three extinct volcanoes form a triangle in the centre of the plateau and between them clouds gather so that the Dapoi valley receives enormous quantities of rain... One of the rivers originating near Selidang is the Julan, which flows north across the plateau and falls over the escarpment in a sheer drop of 800 feet... Along the top of the escarpment are many small hills covered with a peculiar mixture of primary forest and kerapa or kerangas jungle. Travel in these hills was extremely difficult. Kerapa is a peculiar form of stunted jungle growth, forming on poor soil with bad drainage, and characterised by small trees with gnarled trunks and huge roots reaching far over the ground. Kerangas is found on volcanic soils in which the trees are tall but with very thin trunks."
Usun Apau has remained essentially uninhabited to the present day, although in the 1980s there was apparently a brief, abortive attempt to establish a 'Millionaires' Club' golfing facility at the top of the northern escarpment, using helicopters, close to the spectacular Julan Waterfall. The remains of some small developments are visible close to the edge of the plateau not far from the Sungai Julan. An alternative explanation for these is that they were accommodation for a film crew making a film about the Orang Ulu; it is not clear which, if either, is the correct explanation. It appears that the Penan are now very scarce on the plateau, and the local Kenyah people living below the plateau rarely venture onto it. The Julan Waterfall (Fig. 3) is, however, the tallest in Malaysia and is slowly becoming a tourist destination for intrepid sight-seers, driving down from Miri along the logging road. There is no road access to the plateau itself, which can still only be reached by arduous hill trails.

![Figure 3. The Julan waterfall seen from a distance. Photo by Robin Ngiam.](image)

**The 2012 expedition**

In 2012 the first author Rory Dow secured funding from the International Dragonfly Fund and the Mohamed bin Zayed Species Conservation Fund which, in combination with funds brought in by Robin Ngiam, enabled the planning and execution of an 11-day dragonfly collecting expedition to Usun Apau, from 23 April to 4 May 2012. The two were joined in Miri by Graham Reels and expedition organisers Luke Southwell and Yusof Tegong.
On 23 April the group drove south from Miri along the Lapok Road and the Samling logging road, passing Mt Kalulong and Mt Dulit before arriving at Long Silat, Yusof’s longhouse, near to the northern escarpment of Usun Apau. The following morning the group drove a further two hours to the starting point of the trekking route up the northern escarpment, a kilometre or so from the main Julan Waterfall, rendezvousing with our team of six guides and porters (Fig. 4 shows almost the entire team). Various delays meant we were unable to ascend the escarpment on this day, and had to make camp only a few kilometres from where we had left the vehicles.

The following day the expedition reached the top of the escarpment (ca 1,200 m) and then turned eastward and battled through difficult terrain (as noted by Arnold 1957; the narrow-trunked trees in this *kerangas* forest do not provide a closed canopy, permitting much light to reach the forest floor and a dense, often impenetrable, understorey to develop) in the direction of the Julan Waterfall, passing scattered remnants of the ill-fated ‘Millionaires’ Club’ development (or whatever this really was) and eventually building a makeshift camp in fading light beside a tributary of the Julan. The next morning the group moved a kilometre further before establishing base camp (Fig.
5) at the tributary’s confluence with the Julan. Dragonfly surveying then commenced in earnest, focusing on the river and nearby streams and seepages. A few days later a small additional camp was established some way from the base camp, to facilitate better penetration of the plateau, although the difficulty of the terrain made it impossible to establish this camp as far in as had been hoped. Nevertheless the camp provided a second focal point for dragonfly collecting activities and brought an interesting area of swamp forest within collecting range. The expedition lasted until 4 May, on which day the group descended from the plateau, the core members returning to Miri late that night.

![Figure 5. Base camp on the Usun Apau plateau. Photo by Robin Ngiam.](image)

A total of 55 odonate species was collected during the period 24 April to 4 May. Details are provided below. Very unfortunately, the majority of the specimens collected in Usun Apau National Park were lost while being sent back to Europe. The writing of this report was delayed in the hope that the specimens might be located, but at this point in time that seems to be highly unlikely and we decided to proceed without them. Because of this, some species cannot be identified with certainty.

**Usun Apau Locations (Fig. 6):**

1. In the national park, but below the plateau (trailside and at pools).
2. Sungai Julan (Fig. 7) and its tributaries, excluding the ‘Millionaires’s Club’ stream
system and sub camp stream system. On average higher gradient than sites included under location 4. Coordinates for base camp at Sungai Julan: 3.025N, 114.648 E.

Figure 6. Satellite map showing the area of the 2012 expedition.

Figure 7. The Sungai Julan near base camp. Photo by Robin Ngiam.
3. ‘Millionaires’ Club’ stream system – a stream system in a montane forest formation, some of it disturbed by a failed attempt to build an exclusive resort (the so-called Millionaires’ Club) in the mid-1980s (but see Introduction) (Fig. 8). Coordinates: 3.035N, 114.641E.

4. Subcamp stream system. Coordinates for subcamp: 3.019N, 114.644E.

5. Swamp by Sungai Julan. Coordinates: 3.014N, 114.649E.


Figure 8. A stream in the ‘Millionaire’s Club’ area. Photo by Robin Ngiam.

**Zygoptera**

**Platystictidae**

1. *Drepanosticta* species cf *dentifera* Kimmins, 1936
Remarks about the *dentifera* complex have been made elsewhere (e.g. Dow 2012).
2. *Drepanosticta forficula* Kimmins, 1936
It is particularly unfortunate that all specimens of this species were lost. Usun Apau is not far from Mount Dulit, the type locality of *D. forficula* (Kimmins 1936), and so the Usun Apau taxon might be the true *D. forficula*, but there is at least one other species, closely related to, but distinct from, *D. forficula* in northern Borneo.
Loc 2, 3.

3. *Drepanosticta rufostigma* (Selys, 1886)
Loc 2: 5 ♂♂, 2 ♀♀, 1/5/2012, BA; ♂, 1/5/2012, RN; ♂, 1/5/2012, CW. Loc 3, 4.

4. *Telosticta kajang* Dow & Orr, 2012 (Fig. 9)
Until now this species was known only from the holotype male (Dow & Orr 2012), discovered in the Hose Mountains in 2011 (Dow & Ngiam 2011). It was moderately common on small high gradient tributaries of the Sungai Julan.

Figure 9. *Telosticta kajang* male, photo taken at Usun Apau by G.T. Reels.
Argiolestidae

5. *Podolestes* species
This large sized species is closely allied to *P. orientalis* Selys, 1862, and is also known from Batang Ai National Park (Dow, Reels & Ngiam in preparation) and Lanjak Entimau Wildlife Sanctuary (Dow & Choong in preparation). Most individuals were found in a swamp area, but one male was also found in a smaller muddy area beside a stream.
Loc 2. Loc 5: 2 ♂♂, 1/5/2012, GR; ♂, 1/5/2012, LS.

Calopterygidae

6. *Matronoides cyaneipennis* Förster, 1897
This upland and montane species was moderately common on streams close to the lip of the Usun Apau plateau. Interestingly at some locations it occurred together with the next species; the two are normally strictly segregated by gradient with *Neurobasis longipes* on low gradient streams and *Matronoides cyaneipennis* on higher gradient streams.
Loc 2: ♂, 1/5/2012, CW; 2 ♀♀, 2/5/2012, CW.
7. *Neurobasis longipes* Hagen, 1887
Loc 2. Loc 4; ♂, 30/4/2012, YT.
8. *Vestalis amaryllis* Lieftinck, 1965
Loc 2: 2 ♂♂, 1/5/2012, BA. Loc 4: ♂, 30/4/2012, RN; 2 ♂♂, 30/4/12, YT.

Figure 10. *Rhinocypha spinifer* male, photo taken at Usun Apau by G.T. Reels.

10. *Vestalis beryllae* Laidlaw, 1915
    Loc 1, 2.

**Chlorocyphidae**

    Loc 2.

12. *Rhinocypha spinifer* Laidlaw, 1931 (Fig. 10)
    This upland species dominated the chlorocyphid fauna of the sampled part of Usun Apau almost to the exclusion of all other members of the family.

**Devadattidae**

Unnamed *Devadatta* species from Sarawak are labelled as A-C; this scheme is consistent with that used in Dow & Reels (2013) and Dow et al. (2013b, 2015). However species B was not found on Usun Apau, and species C was not reported in the articles cited above. Material will be listed elsewhere; only the general locations where each species was found are listed here.

13. *Devadatta* species A
   All specimens of this species are among those that were lost.
   Loc 2, 3, 4.

14. *Devadatta* species C
   This unnamed species is most common at higher altitudes in the north eastern part of Sarawak and in the Crocker Range in Sabah.
   Loc 2, 4.

**Euphaeidae**

15. *Dysphaea* species
   This species is described in Hämäläinen, Dow & Stokvis (2015); material is listed in that publication.
   Loc 2, 4.

16. *Euphaea impar* Selys, 1859

17. *Euphaea subcostalis* Selys, 1873
    Loc 2: ♂, 29/4/2012, RN; 4 ♂♂, 1/5/2012, BA; 2 ♂♂, 1/5/2012, RN; ♂, 1/5/2012, CW.

18. *Euphaea subnodalis* (Laidlaw, 1915)
    Loc 2.
**Philosinidae**

19. *Rhinagrion borneense* (Selys, 1886) (Fig. 11)

![Rhinagrion borneense female, photo taken at Usun Apau by G.T. Reels.](image)

**Platycnemididae**

20. *Coelicia* new species *borneensis*-group
   A small sized member of the *borneensis*-group, differing in its anal appendages from all other species (named and unnamed) known from the group, but otherwise typical. Loc 2: ♂, 1/5/2012, RN; ?♀, 1/5/2012, CW.

21. *Coelicia cyaneothorax* Kimmins, 1936

22. *Coelicia* species cf *nemoricola* Laidlaw, 1912
23. *Coeliccia nigrohamata* Laidlaw, 1918  

24. *Elattoneura analis* (Selys, 1860)  
Loc 2. Loc 4: ♂, 30/4/2012, YT.

25. *Onychargia atrocyana* (Selys, 1865)  
Loc 5: ♂, 2 ♀♀, 2/5/2012, LS.

26. *Prodasineura dorsalis* (Selys, 1860)  
Loc 2, 3. Loc 4: 3 ♂♂, ♀, 30/4/2012, YT; ♂+♀, 30/4/2012, CW.

27. *Prodasineura hosei* (Laidlaw, 1913)  

28. *Prodasineura hyperythra* (Selys, 1886)  

**Coenagrionidae**

29. *Amphicnemis* new species  
This new species was found in a swamp close to the Sungai Julan, and has also been found at a similar altitude in small sections of swamp forest in old river beds in the Tama Abu range to the north of Usun Apau. It may be a genuinely upland species, the first such species known from *Amphicnemis sensu stricto*; all other known species inhabit lowland swamp forest.  
Loc 5: 2 ♂♂, 2 ♀♀, 2/5/2012, LS.

30. *Archibasis tenella* Lieftinck, 1949  
Loc 2. Loc 4: ♀, 30/4/2012, YT.

31. *Argiocnemis* species  
Loc 5.

32. *Ceriagrion bellona* Laidlaw, 1915  
Loc 5.

33. *Stenagrion dubium* (Laidlaw, 1912)  

34. *Teinobasis laidlawi* Kimmins, 1936  
The *Teinobasis* species known from Sundaland are mostly associated with lowland habitats, but *T. laidlawi* also occurs in upland areas, and was moderately common on the Usun Apau plateau, especially at location 5, where it occupied a niche that would be more typical for *T. rajah* Laidlaw, 1912 or *T. ruficollis* (Selys, 1877) in the lowlands of Borneo.  
Loc 2: ♀, 1/5/2012, BA; ♂, 1/5/2012, RN; ♀, 1/5/2012, CW. Loc 5.
Anisoptera

Aeshnidae

35. *Heliaeschna ?idae* (Brauer, 1865)
See Orr et al. (2013)
Loc 2.

36. *Indaeschna grubaueri* (Förster, 1904)
Loc 2.

Gomphidae

37. *Gomphidia* species
A female was collected, but is amongst the lost specimens; probably *G. maclachlani* (Selys, 1873).
Loc 2.

38. *Heliogomphus* species
All individuals of this species collected were either teneral or female (or both), rendering identification impossible. Loc 2: ♂, 1/5/2012, BA; ♀, 1/5/2012, RN; ♀, 3/5/2012, RD.
Loc 3, 4.

39. *Leptogomphus* species
Loc 2.

Macromiidae

40. *Macromia ?cydippe* Laidlaw, 1922

41. *Macromia westwoodi* Selys, 1874
*Macromia euterpe* Laidlaw, 1915 and *M. westwoodi* are extremely similar to each other, differing most notably in size. Many *Macromia* that could not be reliably separated in field conditions were collected, but the surviving specimens all match *M. westwoodi*.
Loc 2: ♂, 1/5/2012, BA; ♂, 1/5/2012, RN; 2 ♂♂, 1/5/2012, CW.

Libellulidae

42. *Cratilla metallica* (Brauer, 1878)
Loc 1.

43. *Hylaeothemis clementia* Ris, 1909
Loc 2: ♂, 2/5/2012, YT.

44. *Lyriothemis biappendiculata* (Selys, 1878)
45. *Lyriothemis cleis* Brauer, 1868  
Loc 1.

46. *Nesoxenia lineata* (Selys, 1879) (Fig. 12)  
Loc 5: ♂, 1/5/2012, LS.

![Image of *Nesoxenia lineata*](image)

Figure 12. *Nesoxenia lineata* male, photo taken at Niah National Park, Sarawak, by G.T. Reels.

47. *Orchithemis pulcherrima* Brauer, 1878  
Loc 5.

48. *Orthetrum chrysis* (Selys, 1891)  
Loc 5.

49. *Orthetrum pruinorum schneideri* Förster, 1903  

50. *Pornothemis serrata* Krüger, 1902  
This is normally thought of as a species of lowland swamp forest, so it was interesting to find it at an upland site.  
Loc 5: ♂, ♀, 1/5/2012, LS.

51. *Tyriobapta torrida* Kirby, 1889  
Loc 2, 5.
52. *Zygonyx iris errans* Lieftinck, 1953
Loc 2. Loc 4: ♂, 30/4/2012, CW.

53. *Zygonyx ?ida* Selys, 1869
A single female collected on the Sungai Julan was probably *Z. ida*, a species that seems to be very elusive in Borneo. Loc 2.

**Incertae sedis**

54. *Idionyx* species
Loc 2: 2 ♀♀, 2/5/2012, YT.

55. *Macromidia fulva* Laidlaw, 1915
Loc 2: ♂, 28/4/2012, RN.

**Acknowledgements**

We would like to thank the Sarawak Forest Department and Sarawak Forestry Corporation for granting permission to collect Odonata in Sarawak and Temengong Joseph Ngau Lian for allowing us to enter Usun Apau. Special thanks are due to all of the expedition members: Aspar, Benny, Calvin Wilfred, Enjok, Marhan and Ogang Udau; and especially to Luke Southwell and Yusof Tegong for organising the expedition. The expedition would not have been possible without financial support from the International Dragonfly Fund, the Singapore National Parks Board (for Robin Ngiam's involvement) and from the Mohamed bin Zayed Species Conservation Fund.

**References**


Figure 13. Something else encountered on the plateau. Photo by Robin Ngiam.
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:


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.
<table>
<thead>
<tr>
<th>Nr.</th>
<th>Jahr</th>
<th>geförderte Person bzw. Körperschaft</th>
<th>Fördergegenstand</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>2013</td>
<td>Oleg Kosterin, Russia</td>
<td>Progress study Cambodia 2013</td>
</tr>
<tr>
<td>91</td>
<td>2013</td>
<td>Dejan Kulijer, Bosia &amp; Herzegovina</td>
<td>Odonata fauna of karst streams and rivers of South Herzegovina (Bosnia and Herzegovina, West Balkan)</td>
</tr>
<tr>
<td>92</td>
<td>2013</td>
<td>Saeed, Muhammad &amp; Fazlullah Gujjar, Haripur, Pakistan</td>
<td>Distribution and diversity of Odonata with emphasis on Gomphidae and Cordulegastridae in the border region of Pakistan and Afghanistan</td>
</tr>
<tr>
<td>93</td>
<td>2013</td>
<td>Villanueva, Reagan, Philippinen</td>
<td>Odonata from Balabac Islands, Palawan, Philippines</td>
</tr>
<tr>
<td>94</td>
<td>2013</td>
<td>Villanueva, Reagan, Philippinen</td>
<td>Fieldwork to survey the odonatologically unstudied islands of Balut and Sarangani (The Philippines) and Talaud (Indonesia)</td>
</tr>
<tr>
<td>95</td>
<td>2013</td>
<td>Garrison, Rosser/von Ellenrieder, Natalia, Sacramento, USA</td>
<td>The genus Argia in Costa Rica</td>
</tr>
<tr>
<td>96</td>
<td>2013</td>
<td>Villanueva, Reagan, Philippinen</td>
<td>Odonata of Surigao del Sur, Philippines</td>
</tr>
<tr>
<td>97</td>
<td>2014</td>
<td>Dawn, Prosenjit, Kolkata, India</td>
<td>Rheophilous Odonata diversity of protected areas of Chhattisgarh, India</td>
</tr>
<tr>
<td>98</td>
<td>2014</td>
<td>Dow, Rory, UK/The Netherlands</td>
<td>Sarawak Odonata – documenting the status quo Odonata diversity prior logging</td>
</tr>
<tr>
<td>99</td>
<td>2014</td>
<td>Xu, Xin, Nankai University, Tianjin, China</td>
<td>Odonata of Mt Dabieshan in centre of eastern China</td>
</tr>
<tr>
<td>100</td>
<td>2014</td>
<td>Rychla, Anna, Polen</td>
<td>Untersuchung der Libellen von westpolnischen Mooren.</td>
</tr>
<tr>
<td>101</td>
<td>2014</td>
<td>Dow, Rory, UK/The Netherlands</td>
<td>Naming an Onychogomphus from Malaysia</td>
</tr>
<tr>
<td>102</td>
<td>2014</td>
<td>Vincent Kalkman/A.B. Orr, The Netherlands/Australia</td>
<td>Field guide New Guinea Anisoptera</td>
</tr>
<tr>
<td>103</td>
<td>2014</td>
<td>Marinov, Milen, Christchurch, New Zealand</td>
<td>Odonata of Samoa, revisiting the localities from Fraser 1925, 1926, 1927, 1953 and 1956</td>
</tr>
<tr>
<td>104</td>
<td>2014</td>
<td>Ahmed Zia, Pakistan</td>
<td>Species Complex of Zygoptera in Himalayan Foot Hills of Pakistan</td>
</tr>
<tr>
<td>105</td>
<td>2014</td>
<td>Garrison, Rosser, USA</td>
<td>Odonata of Guangdong and Hainan Provinces in China</td>
</tr>
<tr>
<td>106</td>
<td>2014</td>
<td>Saeed, Muhammad &amp; Fazlullah Gujjar, Haripur, Pakistan</td>
<td>Progress study: Distribution and diversity of Odonata with emphasis on Gomphidae and Cordulegastridae in the border region of Pakistan and Afghanistan and China</td>
</tr>
<tr>
<td>107</td>
<td>2014</td>
<td>Dejan Kulijer, Bosia &amp; Herzegovina</td>
<td>Dragonfly fauna of the Posavina region of Bosnia with special emphasis on the species of European conservation concern</td>
</tr>
<tr>
<td>108</td>
<td>2014</td>
<td>Oleg Kosterin, Russia</td>
<td>Odonata of Sen Monorom, Mondulkiri, Cambodia</td>
</tr>
<tr>
<td>109</td>
<td>2014</td>
<td>Schröter, A., Deutschland</td>
<td>Documentation and reorganisation of the Odonata collections of Georgian museums</td>
</tr>
<tr>
<td>110</td>
<td>2014</td>
<td>Tennessen, K., USA</td>
<td>Parasitation of Macromiidae nymphs by Mermithidae (Nematoda) in northern Wisconsin lakes</td>
</tr>
<tr>
<td>111</td>
<td>2015</td>
<td>Dow, Rory, UK/The Netherlands</td>
<td>Odonata of Ulu Moh, Sarawak, Malaysia</td>
</tr>
</tbody>
</table>