



REVIEW ARTICLE

CONTRIBUTION TO THE ODONATA FROM THE ISLAND NEW GUINEA 1995 TO 2019

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ABSTRACT

From the early 1990 years I got several lots of Odonata from the New Guinea island incl. Irian Jaya (Indonesia). The material was collected by members of the Phyllodrom-Museum in Leipzig. In 2019 I have re-examined the whole Odonata collection of the Phyllodrom. In several lectures I have given information on the Odonate fauna of the island of New Guinea.

Methods: Abbreviations. m = male, f = female, L = larva, E = exuvia, H = hind wing, A = abdomen length, f. = figure, pl. = plate, tb. = table, AN = Ante Nodal, PN = Post Nodal, S. 1-10 = segment 1 to 10, T (Anisoptera), q (Zygoptera), l. a. = Lamina anterior, Ah = antehumeral stripe. **Results:** The following list is the content of my database. The locations are presented in Fig. 1.

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INTRODUCTION

Zygoptera, Calopterygidae: *Neurobasis australis* Selys, 1897, Papua New Guinea, Madang Prov., Foroka, 86km/ 46° to Mt. Hagen, 99km/ 256° to Madang, Cultural landscape, S - 5.725000 - O 144.841000, 6/1997: w, 30.04.1996, light capture, Mario Graul leg., 210 m, Lieftinck, 1955.

Chlorocyphidae: *Rhinocypha tinctoria dentiplaga* Lieftinck, 1938, Papua New Guinea, Morobe prov., Wau Valley, 1200m, Bambooflat, S -6.801374 - O 146.566470, 92/2010: m, 30.03.1998, leg. W. E. I. (local Collector), Lieftinck, 1938.

Rhinocypha tinctoria amanda Lieftinck, 1938 Indonesia, Irian Jaya, Kabupaten Jayapura, Clycop Mountains, stream above Sentani, S -2.527030 - O 140.454120 51/2019: m, 5.03.2007, leg. J. Hoffmann, Michalski, J., 2012, f. 113 L, M, C, Michalski, 2012 - Indonesia, New Guinea, Irian Jaya, Biak Island, 90m, S -0.87350 - O 135.985340, 779/2000: m, 17.-18.02.1998, M. Hoffmann leg.: Lieftinck, 1938, Tsuda, Shigeru, 1991, Lieftinck, 1948.

Rhinocypha tinctoria amanda Lieftinck, 1938, Papua New Guinea, Madang Prov., Foroka, 85km/ 46° to Mt. Hagen, 99km/ 256° to Madang, 210m, S -5.3330 - O 144.9030, 25/1999: m, 30.04.1998, M. Graul leg., Cultural landscape, Lieftinck, 1938: f. 4l - Papua New Guinea, Madang Prov., Foroka, 86km/ 46° to Mt. Hagen, 99km/ 256° to Madang, Cultural landscape, S -5.7250 - O 144.8410, 7/8/9/1997: 2m, 1w, 30.04.1996, Light capture, Michael Schaarschmidt leg., at 210m, Lieftinck, 1949, Lieftinck, 1938 - Papua New Guinea, West Highlands, Begesin Mission Station, 43km/ 237° to Madang, Cultural landscape, S -5.3850 - O 145.4460, 26/1999: m, 8.05.1996, M. Schaarschmidt leg., 280m, Lieftinck, 1938.

Rhinocypha tinctoria retrograda Lieftinck, 1938, Indonesia, New Guinea, Irian Jaya, Nabire, 200m, S -3.3670 - O 135.4830, 312/1998: w, 18.02.1996, Peter Salk leg., Lieftinck, 1938 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 54, S -3.5160 - O 135.6990, 24/1999: m, 5.04. 1998, M. Balke leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Paniai District, Sowa, Camp, Road Nabire-Llaga, Km 62, 300m, S -3.535540 - O 136.704420, 249/250/251/252/253/254/ 255/2001: 5 m, 2 w, 26.-27.02.1998, M. Hoffmann leg., Lieftinck, 1938, Lieftinck, 1953, 1949 - Indonesia, New Guinea, Irian Jaya, Paniai

District, Road, Nabire-Llaga, Km 57,710m, Southern exposure, S -3.504370 - O 135.721060, 474/475/2001: 2 w, 2.-3.03.1998, M. Hoffmann leg., Lieftinck, 1938. *Rhinocypha tincta sagitta* Lieftinck, 1938, Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.08640 - O 136.339750, 268/269/2001: 1 m, 1 w, 15.02.1998, M. Hoffmann leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Biak Island, 90m, S -0.873500 - O 135.985340, 262/263/264/265/266/267/270/271/2001: 6 m, 2 w, 17.02.1998, 18.02., M. Hoffmann leg., Lieftinck, 1949. *Rhinocypha tincta semitincta* Selys, 1869, Papua New Guinea, East New Britain Provinz, 33km SW Kokopo. Arabam Rapmarina River, 180m, S -4.5990 - O 152.1010, 274/275/2001: 2 m, 2.03.2000, M. Schaarschmidt, F. P. Roick leg., Lieftinck, 1938, from 'New Britain' - Papua New Guinea, East New Britain Provinz, Kokopo Arabam, 30km SW, 200m, S -4.595830 - O 152.1140, 272/273/276/2001: 3 m, 21.02.-4.03.2000, M. Schaarschmidt - F. P. Roick leg., Lieftinck, 1938 - Indonesia, New Guinea, Irian Jaya, Manokwari 10km W, 30m, small stream,

S -1.1330 - O 134.2830, 256/257/258/259/260/261/2001: 6 m, 24.05.1998, 11-15h, N. Naidenow leg., Lieftinck, 1938, Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Biak Island, Bosna Braidy, 10m, S -1.1500 - O 134.2830, 16/2000: m, 15.04.1998, 11-13h, N. Naidenow leg., Lieftinck, 1938 - Indonesia, New Guinea, Irian Jaya, Fak Fak district, Lake Yumur, 8m, S -2.9170 - O 132.2670, 27/1999: m, 5.04. 1998, M. Balke leg., Lieftinck, 1938, Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Manokwari, Afak mountains, 800m, S -0.850 - O 134.050, 311/1998: m, 6.-12.02.1994, Peter Salk leg., Light capture, Lieftinck, 1938 - Indonesia, New Guinea, Irian Jaya, Manokwari 30km W, Arfai 40km, S -1.1330 - O 134.2830, 28/23/1999: 1 m, 1 w, 1.06.1998, N. Naidenow leg., Lieftinck, 1938 - Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, S -1.1430 - O 134.2850, 17/18/19/20/21/22/23/2000: 5 m, 2 w, 4.05.1998, day capture, N. Naidenow leg., Lieftinck, 1938, Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, day capture, S -4.481830 - O 139.27250, 246/247/248/2001: 1 m, 2 w, 5.05.1998, 18-22h, N. Naidenow leg., Lieftinck, 1938 - Papua New Guinea, East New Britain Provinz, 33km SW Kokopo, Arabam Rapmarina River, 180m, S -4.5990 - O 152.1010, 274/275/2001: 2 m, 2.03.2000, M. Schaarschmidt, F. P. Roick leg., Lieftinck, 1938, from 'New Britain' - Papua New Guinea, East New Britain Provinz, Kokopo Arabam, 30km SW, 200m, S -4.595830 - O 152.1140, 272/273/276/2001: 3 m, 21.02.-4.03.2000, M. Schaarschmidt - F. P. Roick leg., Lieftinck, 1938. *Rhinocypha ustulata* Brauer, 1867, Indonesia, New Guinea, Irian Jaya, Manokwari, Afak mountains, 800m, S -0.850 - O 134.050, 313/1998: m, 6.-12.02.1994, Peter Salk leg., Light capture, Lieftinck, 1938, Cowley, 1937, Ris, 1915.

Megapodagrionidae *Metagrion pallidistylus* Selys, 1878, Indonesia, New Guinea, Irian Jaya, Paniai District, Station, Puspensat, Road Nabire-Llaga, Km 54,700m, S -3.492050 - O 135.732020, 788/2000: w, 4.-5.03.1998, day capture, M. Hoffmann leg., Ris, 1910, Tsuda, Shigeru, 1991, Michalski, 2012.

Metagrion ornatus (Selys, 1878), Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 54, S -3.5160 - O 135.6990, 50/1999: m, 5.04.1998, M. Balke leg., Lieftinck, 1935 - Indonesia, New Guinea, Irian Jaya, Sentani, Base of Mt. Cyclop, 70m, S -2.5780 - O 140.5150, 173/2012:

m, 27.04.1998, leg. N. Naidenow, Lieftinck, 1935, PN 22,5/23//24/24. - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 89/2000: m, 27.04.1998, N. Naidenow leg., Schmidt, 1967, Lieftinck, 1935 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, 70m, S -2.566670 - O 140.50, 601/2001: m, 27.04.1998, 14-16h, N. Naidenow leg., Lieftinck, 1935.

Metagrion subornatus (Lieftinck, 1949), Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, 70m, S -2.566670 - O 140.50, 603/604/2001: 2 w, 27.04.1998, 14-16h, N. Naidenow leg., Lieftinck, 1935, Lieftinck, 1956.

Megapodagrionidae *Arrhenocnemis amphidactylis* Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Kelila stream, S -3.736530 - O 138.707160, 633/636/2001: 1 m, 1 w, 9.02.2000, N. Berg & A. Michalczyk leg., Lieftinck, 1949, Bridges, 1994.

Coenagriidae *Pseudagrion civicum* Lieftinck, 1932, Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.086333 - O 136.339833, 698/2001: m, 16.02.1998, M. Hoffmann leg., Lieftinck, 1932 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 54, S -3.309000 - O 135.419000, 92/1999: w, 4.1998, M. Balke leg., Lieftinck, 1932.

Pseudagrion microcephalum (Rambur, 1842), Indonesia, Nabire, Irian Jaya, S -3.3090 - O 135.4190, 398/1995: m, 31.03.-6.04.1993, Peter Salk leg., Michalski, 2012.

Papuagrion rufipedum Lieftinck, 1937, Indonesia, Irian Jaya, Island Biak, S -1.038102 - O 135.980085, 641/2001: w, 1998, leg. Mathias Hoffmann, Lieftinck, 1937, Michalski, 2012.

Papuagrion occipitale (Selys, 1877), Indonesia, New Guinea, Irian Jaya, Manokwari, S -0.89450 - O 134.033330, 396/1995: w, 15.02.1994, Peter Salk leg., Michalski, 2012.

Teinobasis dominula Lieftinck, 1937, Papua New Guinea, Ramu-'Tal', S -4.750 - O 144.6670, 26/1997: w, 29.04.1996, Light capture, Wolfram Guidetti col., Kalkman & Orr, 2013.

Teinobasis rufithorax (Selys, 1877), Indonesia, New Guinea, Irian Jaya, Manokwari, 40m, S -0.89450 - O 134.033330, 627/2001: m, 20.05.1998, 10-15h, N. Naidenow leg., Lieftinck, 1942, Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.00040 - O 136.339750, 789/624/625/626/2000: 3 m, 1 w, 16.02.1996, M. Hoffmann leg., Ris, 1913, Lieftinck, 1933 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N'Biak, Nurwar, 10m, S -1.143330 - O 134.2850, 620/621/622/623/670/2001: 2 m, 3 w, 19.04.1998, 14-17h, N. Naidenow leg., Lieftinck, 1942, Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, 15-17h, S -1.1430 - O 134.2850, 83/84/85/86/93/1999: 2 m, 3 w, 14.04.1998, N. Naidenow leg., Ris, 1913.

Coenagriidae *Teinobasis dominula* Lieftinck, 1937, Papua New Guinea, Ramu-'Tal', S -4.750 - O 144.6670, 26/1997: w, 29.04.1996, Light capture, Wolfram Guidetti coll., Kalkman & Orr, 2013.

Teinobasis rufithorax (Selys, 1877), Papua New Guinea, New Ireland Provinz, Hans-Meyer Range, 50m, 60 km SE Namatanai, Hirudan River, S -4.006830 - O 152.846500, 671/672/674/2001: 3 m, 9.03.2000, day capture, M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1942, Ris, 1913.

Teinobasis scintillans Lieftinck, 1932, Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, day capture, S -1.1430 - O 134.2850, 90/91/92/2000: 3 m, 4.05.1998, N. Naidenow leg., Lieftinck, 1932.

Teinobasis serena Lieftinck, 1932, Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N'Biak, Nurwar, 10m, 15-17h, S -1.1430 - O 134.2850, 94/2000: w, 14.04.1998, N. Naidenow leg., Michalski, 2012, Lieftinck, 1949, Michalski, 2012.

Coenagriidae *Ischnura isoetes* Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3300m, S -4.130 - O 138.670, 683/684/685/2001: 1 m, 2 w, 27.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3300m, S -4.136190 - O 138.680580, 697/2001: w, 28.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1932, Lieftinck, 1949.

Ischnura senegalensis (Rambur, 1842), Papua New Guinea, Western New Britain, Lake Dakataua, 259m, S -5.022167 - O 150.139650, 110/2010: m, 1.-3.03.2003, leg. Mathias Hoffmann, Asahina, in Pinratana, 1993, Fraser, 1933, 'primary wood'.

Oreagrion armeniacum Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3300m, S -4.130 - O 138.670, 691/692/2001: 2 w, 27.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949, recorded up to 3850m.

Oreagrion oreandum Lieftinck, 1949, 686/687/2001: 2 m, 27.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3300m, S -4.130 - O 138.670, 689/2001: m, 27.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3300m, S -4.130 - O 138.670, 688/690/693/694/2001: 4 w, m, 27.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3300m, S -4.136190 - O 138.680580, 696/2001: w, 28.01.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3390m, road to Wamena 34.2km, S -4.133280 - O 138.713210, 598/599/600/695/2001: 2 m, 2w, 1998: M. Hoffmann leg., Lieftinck, 1949.

Xiphiagrion truncatum Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, S -3.3090 - O 135.4190, 89/90/1999: 2 m, 4.1998, N. Naidenow leg., Lieftinck, 1949 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 54, S -3.3090 - O 135.4190, 87/88/1999: 2 m, 4.1998, N. Naidenow leg., Lieftinck, 1949

Agriocnemis femina (Brauer, 1868) (Variable Wisp), Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, 14-17h, S -1.1430 - O 134.2850, 91/1999: w,

19.04.1998, M. Graul leg., Watson et al., 1991 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, S -2.566670 - O 140.50, 596/597/2001: 2 m, 23.01.2000, N. Berg & A. Michalczuk leg., Asahina, 1976, Lieftinck, 1932, 2001: m, 23.01.2000, N. Berg & A. Michalczuk leg., Asahina, 1976, Lieftinck, 1932, Papua New Guinea, East New Britain Provinz, Kokopo, S -2.5730 - O 150.7910, 592/506/508/517/536/546/ 557/574/586/ 549/571/2001: 80 m, 35 w, 20.02.2000, M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1932, Asahina, 1976, Lieftinck, 1932 - Papua New Guinea, West Highlands, Begesin Mission Station, 43km/237° to Madang, Cultural landscape, S -5.7250 - O 144.8410, 23/1997: 3 m, 6.05.1996, Light capture, Michael Schaarschmidt leg., at 280m, Lieftinck, 1932: India to Australia, Fraser, 1933.

Argiocnemis rubescens Selys, 1877, Papua New Guinea, New Ireland Provinz, Hans-Meyer Range, 50m, 60 km SE Namatanai, Hirudan River, S -4.006830 - O 152.84650, 680/681/2001: 2 w, 9.03.2000, day capture, M. Schaarschmidt & F. P. Roick leg., Theischinger & Hawking, 2006.

Mortonagrion martini (Ris, 1910), Papua New Guinea, New Ireland Province, Hans-Meyer Range 60km S, Namatanai, Hirudan River 50m (day capture), S -4.0 - O 152.833333, 642/2001: m, 9.03.2000, light capture, H. M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1932, Michalski, 2012 - Papua New Guinea, New Ireland Provinz, Hans-Meyer Range, 50m, 60 km SE Namatanai, Hirudan River, S -4.006830 - O 152.84650, 647/648/649/650/ 651/2001: 5 m, 9.03.2000, day capture, M. Schaarschmidt & F. P. Roick leg., Ris, 1900, Bridges, 1994 - Papua New Guinea, New Ireland Province, Hans-Meyer Range, 50m, 60 km SE Namatanai, Hirudan River, S -4.006830 - O 152.84650, 652/676/677/678/679/646/2001: 5 m, 1 w, 9.03.2000, day capture, M. Schaarschmidt & F. P. Roick leg., Ris, 1900, Bridges, 1994.

Palaiargia ceyx flammula Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Minjamblo, Arfak mountains, 1300m, day capture, S -1.1340 - O 133.8650, 96/2000: w, 28.05.1998, N. Naidenow leg., Michalski, 2012, Lieftinck, 1949.

Platycnemidae *Lochmaecocnemis malacodora* Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Kelila stream, S -3.736530 - O 138.707160, 628/629/630/631/632/634/635/2001: 6 m, 1 w, 9.02.2000, N. Berg & A. Michalczuk leg., Lieftinck, 1949.

Idiocnemis bidentata Selys, 1878, Indonesia, New Guinea, Irian Jaya, Manokwari 10km W, 30m, small stream, S -1.1330 - O 134.2830, 665/666/673/675/667/2001: 4 m, 1w, 24.05.2000, 11-15h, N. Naidenow leg., Lieftinck, 1949, Lieftinck, 1937, Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Manokwari, 40m, S -0.8950 - O 134.050, 655/660/653/2001: 3 m, 1 w, 20.05.2000, 10-15h, N. Naidenow leg., Lieftinck, 1949, Lieftinck, 1937, Ris, 1913.

Idiocnemis bidentata Selys, 1878, Indonesia, New Guinea, Irian Jaya, Manokwari, 40m, S -0.8950 - O 134.050, 657/658/659/661/662/654/656/663/664/2001: 5 m, 4w, 20.05.2000, 10-15h, N. Naidenow leg., Lieftinck, 1949, Lieftinck, 1937, Ris, 1913.

Idiocnemis inornata Selys, 1878, Papua New Guinea, East New Britain Provinz, 33km SW Kokopo, Arabam Rapmarina

- River, 180m, S -4.5990 - O 152.1010, 668/669/2001: 2 m, 2.03.2000, 'River', day capture, N. Naidenow leg., Lieftinck, 1932, Lieftinck, 1937.
- Idiocnemis inaequidens* Lieftinck, 1932, Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, S -2.516389 - O 140.582778, 27/1997: w, 12.02.2000, Heiko Deumer leg., Lieftinck, 1949, Lieftinck, 1937, Lieftinck, 1958, Lieftinck, 1932, 237° von Madang, Cultural landscape, Light capture.
- Platycnemidae *Palaiargia charmosyna* Lieftinck, 1932, Indonesia, New Guinea, Irian Jaya, Kabupaten Jayapura, Sentani, Mt. Cyclop, S -2.5410 - O 140.7140, 699/700/2001: 2 m, 23.01.2000, N. Berg & A. Michalczyk leg., Lieftinck, 1932, Fraser, 1933.
- Drepanosticta dorcadion* Lieftinck, 1949, Indonesia, New Guinea, Irian Jaya, Sentani, Cyclop Mountains, Light capture, S -2.527030 - O 140.454120, 602/2001: w, 27.04.1999, 14-16h, N. Naidenow leg., Lieftinck, 1935.
- Protoneuridae *Nososticta africana* (Schmidt, 1944), Papua New Guinea, East New Britain Provinz, 33km SW Kokopo, Arabam Rapmarina River, 180m, S -4.5990 - O 152.1010, 645/644/2001: 1 m, 1 w, 9.03.2000, light capture, H. M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1932, Michalski, 2012, Theischinger & Richards, 2015 - Papua New Guinea, New Ireland Province, Hans-Meyer Range 60km S, Namatanai, Hirudan River 50m, day capture, S -4.0 - O 152.833333, 639/2001: m, 9.03.2000, light capture, H. M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1932, Michalski, 2012, Theischinger & Richards, 2015, Theischinger, 2015.
- Nososticta aurantiaca* (Lieftinck, 1938), Indonesia, New Guinea, Irian Jaya, Manokwari, 40m, S -0.89450 - O 134.049670, 638/2001: m, 20.05.1998, 10-15h, N. Naidenow leg., Lieftinck, 1949, Bridges, 1994 - Indonesia, New Guinea, Irian Jaya, Manokwari, small stream, 30m, S -0.8830 - O 134.0330, 637/2001: m, 24.05.1998, 11-15h, N. Naidenow leg., Lieftinck, 1949, Bridges, 1994.
- Nososticta exul* (Selys, 1886), Indonesia, New Guinea, Irian Jaya, Fak Fak district, Lake Yumur, 80m, S -2.9170 - O 132.2670, 56/1999: w, 5.04.1998, M. Balke leg., Lieftinck, 1932, Lieftinck, 1938.
- Nososticta nigrifrons* (Ris, 1913), Indonesia, New Guinea, Irian Jaya, Fak Fak district, Lake Yumur, 80m, S -2.9170 - O 132.2670, 67/1999: w, 5.04.1998, M. Balke leg., PN 15/15-15/13, Lieftinck, 1938.
- Nososticta lorentzi* (Lieftinck, 1938), Indonesia, New Guinea, Irian Jaya, Fak Fak district, Lake Yumur, 80m, S -2.9170 - O 132.2670, 67/1999: w, 5.04.1998, M. Balke leg.: Sam, PN 15/15-15/13, Lieftinck, 1938.
- Nososticta nigrofasciata* (Lieftinck, 1932), Papua New Guinea, West Highlands, Begesin Mission Station, 43km/237° to Madang, Cultural landscape, S -5.380 - O 145.4460, 64/1999: m, 8.05.1998, M. Schaarschmidt leg., 280m, Lieftinck, 1932.
- Nososticta plagiata* (Selys, 1886), Indonesia, New Guinea, Irian Jaya, Manokwari, small stream, 30m, 11-15h, S -0.8830 - O 134.0330, 63/66/1999: 1 m, 1 w, 24.04.1998, N. Naidenow leg., Ris, 1913, Lieftinck, 1937.
- Nososticta salomonis* (Selys, 1886), Papua New Guinea, East New Britain Provinz, 33km SW Kokopo, Arabam Rapmarina River, 180m, S -4.5990 - O 152.1010, 640/2001: m, 2.03.2000, Light capture, H. M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1932, Michalski, 2012, Theischinger & Richards, 2015, Theischinger, 2015.
- Nososticta rangifera* (Lieftinck, 1949), Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, daily capture, S -1.1430 - O 134.2850, 95/2000: w, 4.05.1998, N. Naidenow leg., Michalski, 2012.
- Aeshnidae *Anax maclachlani* Foerster, 1898, Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, 'Km Papai distr.', S -3.5160 - O 135.6990, 47/1999: m, 5.04.1998, M. Balke leg., Martin, 1909, Lieftinck, 1942.
- Gynacantha basiguttata* Selys, 1892, Indonesia, New Guinea, Irian Jaya, Sentani, S -2.516389 - O 140.582778, 78/2019: w, 13.02.2000, col. Wolfram Guidetti, Michalski, 2012.
- Gynacantha kirbyi* Krueger, 1898, Indonesia, New Guinea, Irian Jaya, Manokwari, 40m, 10-15h, S -0.8950 - O 134.050, 70/1999: w, 20.04.1998, N. Naidenow leg., Ris, 1915 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 62, S -3.3090 - O 135.4190, 69/1999: m, 5.04.1998, M. Balke leg., Ris, 1915.
- Gynacantha mocsaryi* Förster, 1898, Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 170m, 15-16h, S -2.5780 - O 140.5150, 71/1999: Em, 20.04.1998, N. Naidenow leg., Ris, 1915, Watson et al, 1991.
- Gynacantha rosenbergi* Brauer, 1867, Papua New Guinea, Rigo, S -6.00 - O 144.0, 141/1992: m, 1.01.1977, Galic, Josef leg., Ris, 1915.
- Agyrtacantha dirupta* (Karsch, 1889), Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, S -2.566670 - O 140.50, 392/2001: w, 13.02.2000, N. Berg & A. Michalczyk leg., Ris, 1913, Lieftinck, 1937.
- Agyrtacantha dirupta* (Karsch, 1889), Papua New Guinea, East New Britain Provinz, 33km SW Kokopo, Arabam Rapmarina River, 180m, S -4.5990 - O 152.1010, 388/2001: m, 2.03.2000, 'River': daily capture, M. Selwanus leg. Ris, 1913, Lieftinck, 1937.
- Agyrtacantha tumidula* Lieftinck, 1937, Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.08640 - O 136.339750, 389/2001: w, 18.-19.02.1998, M. Hoffmann leg., Ris, 1913, Lieftinck, 1937.
- Gomphidae *Ictinogomphus lieftincki* (Schmidt, 1934), Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, 70m, S -2.566670 - O 140.50, 416/2001: w, 27.04.1998, 14-16h, N. Naidenow leg., Lieftinck, 1953, Lieftinck, 1942, Lieftinck, 1935.

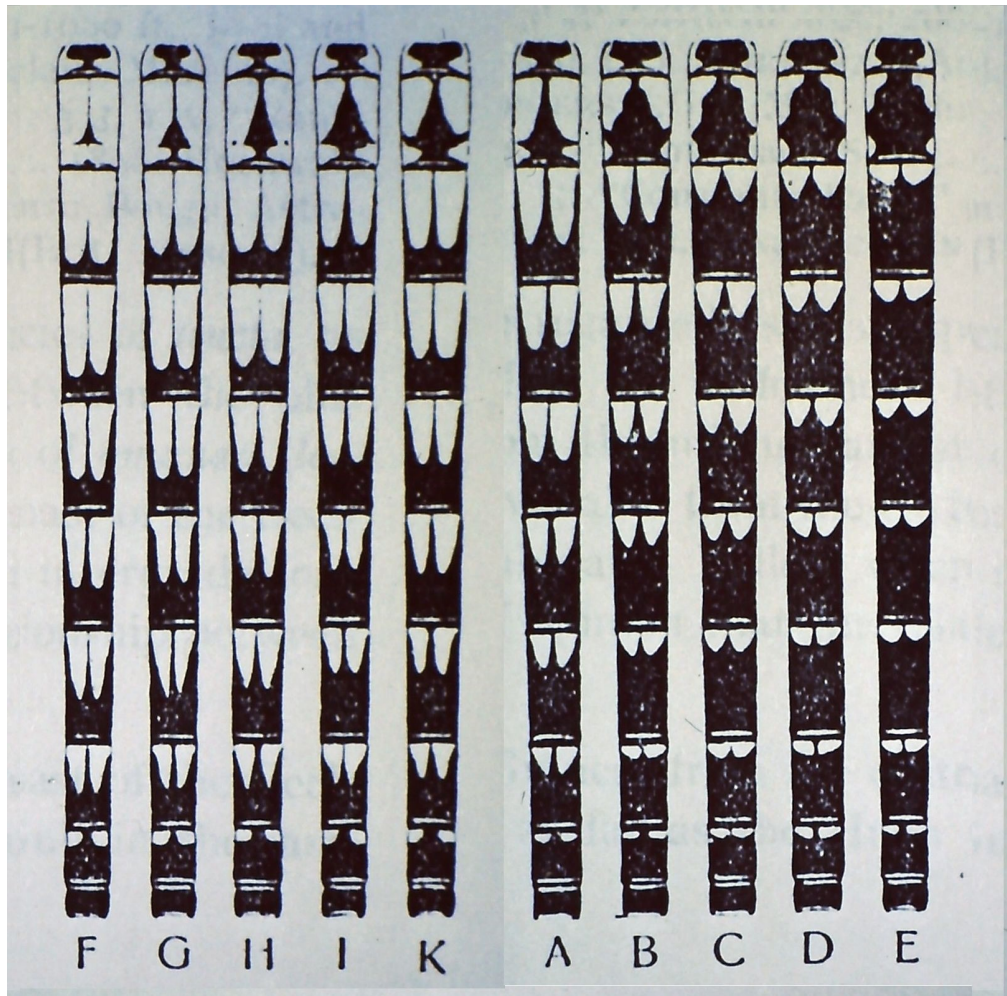


Fig. 1. Colour-pattern of abdomen of *Rhinocypha tincta* retrograde lieft (a-e), from Miei (Wandamen Bay), and same of *R. tincta sagitta* Lieft (f-k), form Soengei Anakasi (Bintoeni Bay), showing plus and minus variants and intermediates in series form one locality. Analapps. Omitted All figures are on the same scale (Lieftinck, 1949)

Corduliidae *Hemicordulia ericetorum* Lieftinck, 1942, Indonesia, New Guinea, Irian Jaya, Korupun, S -4.479170 - O 139.666170 434/2001: m, 9.05.1998, 10-14h, N. Naidenow leg., Lieftinck, 1942.

Hemicordulia silvarum Ris, 1913, Indonesia, New Guinea, Irian Jaya, Korupun, S -4.4790 - O 139.6660, 76/2000: m, 9.05.1998, 10-14h, N. Naidenow leg., Lieftinck, 1942, Ris, 1913.

Macromia melpome Ris, 1913, Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, S -1.1430 - O 134.2850 391/2001: w, 2.05.1998, 18-20h, N. Naidenow leg. Ris, 1913, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Illaga, Km 54, S -3.5160 - O 135.6990, 45/1999: w, 5.04.1998, M. Balke leg., Ris, 1913, Lieftinck, 1949.

Macromia tersichore Förster, 1900, Papua New Guinea, Madang Prov., Foroka, 86km/ 46° to Mt. Hagen, 99km/ 256° to Madang, Cultural landscape, S -5.3330 - O 144.9030, 46/1999: w, 29.04.1996, M. Graul leg., Ris, 1913, Lieftinck, 1949.

Libellulidae *Tetrathemis irregularis* Brauer, 1868, Papua New Guinea, East New Britain Provinz, 33km SW Kokopo, Arabam Rapmarina River, 180m, S -4.5990 - O 152.1010, 418/2001: w, 2.03.2000, day capture, M. Schaarschmidt & F.

P. Roick leg., Lieftinck, 1953, Lieftinck, 1942 - Papua New Guinea, New Ireland Provinz, Hans-Meyer Range, 50m, 60 km SE Namatanai, Hirudan River, S -4.006830 - O 152.84650, 417/472/473/2001: 3 m, 9.03.2000, daily capture, M. Schaarschmidt & F. P. Roick leg., Lieftinck, 1953, Lieftinck, 1942.

Nannophlebia biroi (Förster, 1900), Papua New Guinea, Madang Prov., Foroka, 86km/ 46° to Mt. Hagen, 99km/ 256° to Madang, Cultural landscape, S -5.7250 - O 144.8410, 15/1997: w, 30.04.1996, Light capture, Michael Schaarschmidt leg., at 210m, Nod. Ind, 5-6/6-5//5-5/5-5, Ris, 1909, Lieftinck, 1933.

Microtrigonia gomphoides Lieftinck, 1933, Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Illaga, S -3.3090 - O 135.4190, 79/1999: m, 5.04.1998, M. Balke leg., Lieftinck, 1933.

Brachydiplax denticauda (Brauer, 1867), Papua New Guinea, Port Moresby, Hohola, S -9.44380 - O 147.180267 82/2019: m, 2.03.1997, coll. Wolfram Guidetti, Michalski, 2012.

Nannophya pygmaea Rambur, 1842, Indonesia, New Guinea, Irian Jaya, Paniai District, Station, Pusppensat, Road Nabire-Illaga, Km 54, 700m, S -3.492050 - O 135.732020, 778/2000:

Table 1. The Species

Species	M	W	E/L
01. <i>Rhinocypha tincta dentipecta</i> Liefstinck, 1938	1	0	0
02. <i>Rhinocypha tincta amanda</i> Liefstinck, 1938	6	1	0
03. <i>Rhinocypha tincta retrograde</i> Liefstinck, 1938	16	6	0
04. <i>Rhinocypha tincta sagitta</i> Liefstinck, 1938	7	3	0
05. <i>Rhinocypha tincta semitincta</i> Selys, 1869	11	4	0
06. <i>Rhinocypha ustulata</i> Brauer, 1867	1	0	0
07. <i>Metagrion pallidistylus</i> Selys, 1878	0	1	0
08. <i>Metagrion ornatus</i> Selys, 1878	4	0	0
09. <i>Metagrion subornatus</i> (Liefstinck, 1949)	0	2	0
10. <i>Arrhenocnemis amphidactylis</i> Liefstinck, 1949	1	1	0
11. <i>Pseudagrion civicum</i> Liefstinck, 1932	1	0	0
12. <i>Pseudagrion microcephalum</i> (Rambur, 1842)	1	0	0
13. <i>Papuagrion rufipedum</i> Liefstinck, 1937	0	1	0
14. <i>Papuagrion occipitale</i> (Selys, 1877)	0	1	0
15. <i>Teinobasis dominula</i> Liefstinck, 1937	0	1	0
16. <i>Teinobasis rufithorax</i> (Selys, 1877)	10	7	0
17. <i>Teinobasis scintillans</i> Liefstinck, 1932	3	0	0
18. <i>Teinobasis serena</i> Liefstinck, 1932	0	1	0
19. <i>Ischnura isoetes</i> Liefstinck, 1949	1	3	0
20. <i>Ischnura senegalensis</i> (Rambur, 1842)	1	0	0
21. <i>Oreagrion armeniacum</i> Liefstinck, 1949	0	2	0
22. <i>Oreagrion oreandum</i> Liefstinck, 1949	5	7	0
23. <i>Xiphagrion truncatum</i> Liefstinck, 1949	3	1	0
24. <i>Agriocnemis femina</i> (Brauer, 1868)	64	36	0
25. <i>Agriocnemis rubescens</i> Selys, 1877	0	2	0
26. <i>Mortonagrion martini</i> (Ris, 1900)	11	1	0
27. <i>Palaiargia ceyx</i> Liefstinck, 1949	0	1	0
28. <i>Lochmaecocnemis malacodora</i> Liefstinck, 1949	6	1	0
29. <i>Idiocnemis bidentata</i> Selys, 1878	10	5	0
30. <i>Idiocnemis inornata</i> Selys, 1878	2	0	0
31. <i>Idiocnemis inaequidens</i> Liefstinck, 1932	0	1	0
32. <i>Palaiargia charmosyna</i> Liefstinck, 1932	2	0	0
33. <i>Drepanosticta dorcadion</i> Liefstinck, 1949	0	1	0
34. <i>Nososticta africana</i> (Schmidt, 1944)	2	1	0
35. <i>Nososticta aurantiaca</i> (Liefstinck, 1938)	2	0	0
36. <i>Nososticta exul</i> (Selys, 1886)	0	1	0
37. <i>Nososticta nigrifrons</i> (Ris, 1913)	0	1	0
38. <i>Nososticta nigrofasciata</i> (Liefstinck, 1932)	1	0	0
39. <i>Nososticta plagiata</i> (Selys, 1886)	1	1	0
40. <i>Nososticta salomonis</i> (Selys, 1886)	1	0	0
41. <i>Nososticta rangifera</i> (Liefstinck, 1949)	0	1	0
42. <i>Anax maclachlani</i> Foerster, 1898	1	0	0
43. <i>Gynacantha basiguttata</i> Selys, 1892	0	1	0
44. <i>Gynacantha kirbyi</i> Krueger, 1898	1	1	0
45. <i>Gynacantha mocsaryi</i> Förster, 1898	0	0	1
46. <i>Gynacantha rosenbergi</i> Brauer, 1867	1	0	0
47. <i>Agyrtacantha dirupta</i> (Karsch, 1889)	1	1	0
48. <i>Agyrtacantha tumidula</i> Liefstinck, 1937	0	1	0
49. <i>Actinogomphus lieftincki</i> (Schmidt, 1934)	0	1	0
50. <i>Hemicordulia ericetorum</i> Liefstinck, 1942	1	0	0
51. <i>Hemicordulia silvarum</i> Ris, 1913	1	0	0
52. <i>Macromia melpome</i> Ris, 1913	0	2	0
53. <i>Macromia terpsichore</i> Förster, 1900	0	1	0
54. <i>Tetrathemis irregularis</i> Brauer, 1868	3	1	0
55. <i>Nannophlebia biroi</i> (Förster, 1900)	0	1	0
56. <i>Microtrigonia gomphoides</i> Liefstinck, 1933	1	0	0
57. <i>Brachydiplax denticauda</i> (Brauer, 1867)	1	0	0
58. <i>Nannophya pygmaea</i> Rambur, 1842	1	0	0
59. <i>Raphismia bispina</i> (Hagen, 1867)	0	1	1
60. <i>Diplacina antigone</i> Liefstinck, 1933	0	1	0
61. <i>Diplacina arsinoe</i> Liefstinck, 1953	1	0	0
62. <i>Diplacina dioxippe</i> Liefstinck, 1963	2	2	0
63. <i>Diplacina ismene</i> Liefstinck, 1933	2	0	0
64. <i>Diplacina phoebe</i> Ris, 1919	0	2	0
65. <i>Diplacina smaragdina</i> Selys, 1878	4	3	0
66. <i>Agrionoptera longitudinalis</i> Selys, 1879	3	1	0
67. <i>Agrionoptera insignis</i> (Rambur, 1842)	1	7	0
68. <i>Protorthemis coronata</i> (Brauer, 1866)	2	1	0
69. <i>Orthetrum sabina</i> (Drury, 1773)	20	9	0
70. <i>Orthetrum caledonicum</i> (Brauer, 1865)	1	0	0
71. <i>Orthetrum glaucum</i> (Brauer, 1865)	13	1	0
72. <i>Orthetrum villosivittatum</i> (Brauer, 1868)	22	8	0
73. <i>Diplacodes bipunctata</i> (Brauer, 1865)	10	3	0
74. <i>Diplacodes trivialis</i> (Rambur, 1842)	5	4	0
75. <i>Diplacodes haematodes</i> (Burmeister, 1839)	0	2	0

76. <i>Crocothemis servilia</i> (Drury, 1773)	1	0	0
77. <i>Neurothemis decora</i> (Brauer, 1866)	7	1	0
78. <i>Neurothemis terminata</i> Ris, 1911	0	1	0
79. <i>Neurothemis papuensis</i> Liefstinck, 1942	9	4	0
80. <i>Neurothemis stigmatizans</i> (Fabricius, 1775)	38	40	0
81. <i>Neurothemis ramburi</i> (Brauer, 1866)	2	0	0
82. <i>Neurothemis manadensis</i> (Boisduval, 1835)	2	0	0
83. <i>Trithemis festiva</i> (Rambur, 1842)	1	0	0
84. <i>Huonia pinephela</i> Förster, 1903	7	4	0
85. <i>Huonia hylophila</i> Liefstinck, 1942	0	3	0
86. <i>Huonia thais</i> Liefstinck, 1953	1	1	0
87. <i>Huonia thalassophila</i> Förster, 1903	0	1	0
88. <i>Rhyothemis phyllis</i> (Sulzer, 1776)	1	3	0
89. <i>Pantala flavescens</i> (Fabricius, 1798)	25	15	0
90. <i>Tramea transmarina</i> Brauer, 1867	1	0	0
91. <i>Zyxomma elgneri</i> Ris, 1913	0	2	0
92. <i>Zyxomma multinervorum</i> Carpenter, 1897	2	4	0
93. <i>Urothemis bisignata</i> Brauer, 1868	1	0	0
94. <i>Neurobasis australis</i> Selys, 1897	0	1	0

Number of datasets: 614

m, 4.-5.03.1998, daily capture, M. Hoffmann leg., Ris, 1910, Tsuda, Shigeru, 1991.

Raphismia bispina (Hagen, 1867), Indonesia, New Guinea, Irian Jaya, Biak Island, Bosna Braidy, 10m, S -1.150 - O 134.2830, 471/2001: w, 21.04.1998, 13-16h, N. Naidenow leg., Ris, 1910, Fraser, 1960 - Indonesia, New Guinea, Irian Jaya, Biak Island, Bosna Braidy, 10m, 11-13h, S -1.150 - O 134.2830, 88/2000: Em, 15.04.1998, N. Naidenow leg., Ris, 1910.

Diplacina antigone Liefstinck, 1933, Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S - 2.5780 - O 140.5150, 85/2000: w, 27.04.1998, N. Naidenow leg., Liefstinck, 1953, Michalski, 2012.

Diplacina arsinoe Liefstinck, 1953, Indonesia, New Guinea, Irian Jaya, Korupun, S -4.479170 - O 139.666170, 420/2001: m, 9.05.1998, 10-14h, N. Naidenow leg., Liefstinck, 1953.

Diplacina dioxippe Liefstinck, 1963, Papua New Guinea, West Highlands, Col. Mission Station, 61km, 75° to Mt. Hagen, Cultural landscape, 1570m, S -5.7250 - O 144.5410, 16/17/18/19/1997: 2 m, 2 w, 24.04.1996, light capture, Mario Graul leg., Michael Schaarschmidt leg., Ris, 1919, Liefstinck, 1942, Liefstinck, 1953, Liefstinck, 1963.

Diplacina ismene Liefstinck, 1933, Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, 10-13h, S - 1.1340 - O 133.8650, 78/78/1999: 2 m, 26.05.1998, N. Naidenow leg., Liefstinck, 1933.

Diplacina phoebe Ris, 1919, Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Kelila stream, S -3.736530 - O 138.707160, 429/2001: w, 9.02.2000, N. Berg & A. Michalczyk leg., Liefstinck, 1953, Ris, 1919 - Indonesia, New Guinea, Irian Jaya, Korupun, S -4.479170 - O 139.666170, 421/2001: w, 9.05.1998, 10-14h, N. Naidenow leg., Liefstinck, 1953, Ris, 1919.

Diplacina smaragdina Selys, 1878, Indonesia, New Guinea, Irian Jaya, Manokwari, S -0.8950 - O 134.050, 17/2012: m, 10.02.1994, H. Deumer & M. Schaarschmidt leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.577500 - O 140.514830, 419/2001: m, 27.04.1998, 14-16h, N.

Naidenow leg., Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Sentani 'Base of Mt. Cyclop', 70m, 15-16h, S -2.578000 - O 140.5150, 84/2000: w, 25.04.1998, N. Naidenow leg., Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, 70m, S -2.566670 - O 140.50, 422/425/423/424/2001: 2 m, 2w, 27.04.1998, 14-16h, N. Naidenow leg., Lieftinck, 1953, Lieftinck, 1942, Lieftinck, 1935.

Agrionoptera longitudinalis Selys, 1879, Indonesia, New Guinea, Irian Jaya, Biak Island, 40km W' Biak, Sorido, S -1.1430 - O 134.2850, 428/2001: m, 24.04.1998, M. Selwanus leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, 10-14h, S -1.1340 - O 133.8650, 73/2000: m, 27.05.1998, N. Naidenow leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 54, S -3.5160 - O 135.6990, 44/1999: w, 5.04.1998, M. Balke leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.57750 - O 140.514830, 432/2001: m, 27.04.1998, 14-16h, N. Naidenow leg., Ris, 1909.

Agrionoptera insignis (Rambur, 1842), Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, 14-17h, S -1.1430 - O 134.2850, 57/74/1999: 2 w, 19.04.1998, M. Balke leg., Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, 15-17h, S -1.1430 - O 134.2850, 75/2000: m, 14.04.1998, N. Naidenow leg., Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.08640 - O 136.339750, 435/436/437/438/439/2001: 5 w, 16.02.1998, M. Hoffmann leg., Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, S -1.143330 - O 134.2850.

Protorthemis coronata (Kaup in Brauer, 1866), Indonesia, New Guinea, Irian Jaya, Manokwari, S -0.8950 - O 134.050, 143/2012: m, 15.02.1994, H. Deumer & M. Schaarschmidt leg., Ris, 1913b - Indonesia, New Guinea, Irian Jaya, Biak Island, S -1.00040 - O 136.339750, 426/2001: w, 1998, M. Selwanus leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Ilaga, Km 54, -3.3090 - O 135.4190, 30/1999: m, 5.04.1998, M. Balke leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Paniai District, Station, Puspenssat, Road Nabire-Llaga, Km 54, 700m, S -3.492050 - O 135.732020, 427/2001: m, 24.02.1998, day capture, M. Hoffmann leg., Ris, 1909.

Orthetrum sabina (Drury, 1773), Indonesia, New Guinea, Irian Jaya, Manokwari / 40m, S -1.1330 - O 134.2830, 62/2000: m, 20.05.1998, 10-15h, N. Naidenow leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.08640 - O 136.339750, 440/2001: w, 16.02.1998, M. Hoffmann leg., Lieftinck, 1942, Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.57750 - O 140.514830, 403/404/2001: 1 m, 1w, 27.04.1998, 14-16h, N. Naidenow leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 65/66/67/2000: 2 m, 1 w, 27.04.1998, N. Naidenow leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, S -2.566670 - O 140.50, 405/2001: w, 23.01.2000, N. Berg & A. Michalczyk leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, daily capture, S -1.1430 - O

134.2850, 64/2000: m, 5.05.1998, N. Naidenow leg., Ris, 1909: Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, S -4.0980 - O 138.9530, 61/1999, 400/401/ 402/410/2001: 4 m, 28.04.1998, 16-18h, N. Naidenow leg., Fraser, 1936, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, 14-17h, S -4.0980 - O 138.9530, 58/59/60/1999, 63/72/2000: 4 m, 1w, 29.04.1998, N. Naidenow leg., Fraser, 1936, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Habema Lake 3390m, road to Wamena 34.2km, S -4.133280 - O 138.713210, 393/2001: m, 29.01.2000, N. Berg & A. Michalczyk leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Suroba, S -4.024550 - O 138.958640, 408/409/2001: 2 m, 4.02.2000, N. Berg & A. Michalczyk leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Wamena city, 1700m, S -4.13850 - O 139.565330, 394/2001: w, 7.02.2000, A. Michalczyk & M. Hoffmann leg., Ris, 1909, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Wamena, R. Baliem, S -4.10720 - O 138.96060, 395/396/397/398/399/407/2001: 3 m, 3 w, 25.01.2000, N. Berg & A. Michalczyk leg., Ris, 1909, Lieftinck, 1942.

Orthetrum caledonicum (Brauer, 1865), Papua New Guinea, Port Moresby, Hohola, S -9.44380 - O 147.180267, 76/2019: m, 2.03.1997, col. Wolfram Guidetti, Watson, Theischinger & Abbey, 1991, Watson et al, 1991.

Orthetrum glaucum (Brauer, 1865), Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, daily capture, S -1.1430 - O 134.2850, 56/2000: m, 5.05.1998, N. Naidenow leg., Asahina, 1988 - Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, daily capture, S -1.1340 - O 133.8650, 57/2000: m, 28.05.1998, N. Naidenow leg., Asahina, 1988 - Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, 10-13h, S -1.1340 - O 133.8650, 50/58/59/2000: 3 m, 26.06.1998, N. Naidenow leg., Asahina, 1988 - Indonesia, New Guinea, Irian Jaya, Paniai District, Road, Nabire-Llaga, Km 57, 710m, Southern exposure, S -3.504370 - O 135.721060, 782/2000: m, 2.-3.03.1998, M. Hoffmann leg., Asahina, 1988 - Indonesia, New Guinea, Irian Jaya, Paniai District, Station Puspenssat, Road Nabire-Llaga, Km 54, 700m, S -3.492050 - O 135.732020, 780/781/783/456/2000: 3 m, 1 w, 4.-5.03.1998, daily capture, M. Hoffmann leg., Asahina, S., 1988 - Papua New Guinea, Col, S -5.012220 - O 141.347016, 77/2019: m, 6.03.1997, coll. Wolfram Guidetti, Michalski, 2012 - Papua New Guinea, West Highlands, Col. Mission Station, 61km/ 75° to Mt. Hagen, Cultural landscape, 1570m, S -5.7250 - O 144.5410, 20/21/22/1997: 3 m, 24.04.1996, Light capture, Mario Graul leg., Fraser, 1936, Ris, 1909, Lieftinck, 1949.

Orthetrum villosovitatum (Brauer, 1868), Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, S -4.481830 - O 139.27250, 446/450/2001: 1 m, 1w, 5.05.1998, 18-22h, N. Naidenow leg., Ris, 1900 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, daily capture, S -1.1430 - O 134.2850, 55/2000: m, 5.05.1998, N. Naidenow leg., Ris, 1911 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Manokwari / 40m, 10-15h, S -0.883330 - O 134.033330, 455/2001: w, 20.05.1998, 10-15h, N. Naidenow leg., Ris, 1900 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Kelila stream, S -3.736530 - O 138.707160, 452/2001: w,

9.02.2000, N. Berg & A. Michalczyk leg., Ris, 1900 - Indonesia, New Guinea, Irian Jaya, Korupun, S -4.4790 - O 139.6660, 445/451/2001: 2 m, 11.05.1998, 16-17h, N. Naidenow leg., Ris, 1900 (f. *bismarckianum*), 449/2001: m, 8.05.1998, 18-19h, N. Naidenow leg., Ris, 1900 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, 10-13h, S -1.1340 - O 133.8650, 49/51/52/53/54/2000: 5 m, 26.06.1998, N. Naidenow leg., Ris, 1911 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Monakwari, S -1.1430 - O 134.2850, 399/1995: m, 9.02.1995, Peter Salk leg., Ris, 1900, Ris, 1909; Lieftinck, 1933, Lieftinck, 1942: Molukka-N. Australia - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Illaga, Km 54, S -3.5160 - O 135.6990, 37/40/1999: 1 m, 1w, 5.04.1998, M. Balke leg., light capture, Ris, 1911 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Paniai District, Station, Pusppenssat, Road Nabire-Illaga, Km 54, 700m, S -3.492050 - O 135.732020, 441/2001: 25.02.1998, day capture, M. Hoffmann leg., Ris, 1900 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 170m, 14-16h, S -2.5780 - O 140.5150, 75/1999: m 24.04.1998, N. Naidenow leg., Ris, 1900 (f. *bismarckianum*) - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.577500 - O 140.514830, 42/443/444/447/448/2001,171/2012: 4 m, 2 w, 27.04.1998, 4-16h, N. Naidenow leg., Ris, 1900 (f. *bismarckianum*) - Papua New Guinea, P. N. Banz, near Bereme, primary wood, light capture, S -5.800174 - O 144.628690, 50/2019: w, 4.03.1997, leg. J. Hoffmann, Michalski, 2012 - Papua New Guinea, West Highlands, Col. Mission Station, 61km, 75° to Mt. Hagen, Cultural landscape, 1570m, S -5.725000 - O 144.541000, 36/1999: m, 24.04.1996, M. Schaarschmidt leg., Light capture, Ris, 1911 (f. *bismarckianum*) - Papua New Guinea, West Highlands, Col. Missionsstation, 61km, 75° to Mt. Hagen, Cultural landscape, 1570m, S -5.7250 - O 144.5410, 38/39/74/1999: 3 m, 24.04.1996, M. Schaarschmidt leg., Light capture, Ris, 1911 (f. *bismarckianum*) - Papua New Guinea, West New-Britain Prov., Logging-Road, near Bereme, primary wood, Light capture, S -5.761420 - O 150.560420, 49/2019: w, 14.02.2005, leg. J. Hoffmann, Michalski, 2012 - Papua New Guinea, Col., S -5.012220 - O 141.347016, 75/2019: m, 6.03.1997, col. Wolfram Guidetti, Michalski, 2012 - Papua New Guinea, East New Britain Province, Kokopo, S -2.573000 - O 150.7910, 464/466/465/467/468/2001: 2 m, 3 w, 20.02.2000, Kokopo, M. Schaarschmidt & F. P. Roick leg., Ris, 1911.

Diplacodes bipunctata (Brauer, 1865), Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, S -4.0980 - O 138.9530, 79/80/81/2000: 3 m, 28.04.1998, N. Naidenow leg. Ris, 1911 - Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, S -4.0980 - O 138.9530, 460/462/463/ 461/2001: 3 m, 1 w, 29.04.1998, 14-17h, N. Naidenow leg., Ris, 1911, Watson, Theischinger & Abbey, 1991 - Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, 14-17h, S -4.0980 - O 138.9530, 82/83/2000: 1 m, 1 w, 29.04.1998, N. Naidenow leg., Ris, 1911 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Suroba, S -4.024550 - O 138.008640, 458/459/2001: 2 m, 4.02.2000, N. Berg & A. Michalczyk leg., Ris, 1911, Watson, Theischinger & Abbey, 1991 - Indonesia, New Guinea, Irian Jaya, Kabupaten Jayawijaya, Wamena, R. Baliem, S -4.10720 - O 138.96060, 457/2001: m, 25.01.2000, N. Berg & A. Michalczyk leg., Ris, 1911, Watson, Theischinger & Abbey, 1991 - Indonesia, New Guinea, Irian

Jaya, Minjambo, Arfak mountains, 1300m, daily capture, S -1.1340 - O 133.8650, 87/2000: w, 28.05.1998, N. Naidenow leg., Ris, 1911.

Diplacodes trivialis (Rambur, 1842), Indonesia, New Guinea, Irian Jaya, S -3.3670 - O 135.4830, 319/1998: m, Peter Salk leg., Ris, 1911 - Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, 16-18h, S -4.0980 - O 138.9530, 76/1999: m, 28.04.1998, N. Naidenow leg., Ris, 1911 - Indonesia, New Guinea, Irian Jaya, Paniai District, Station, Pusppenssat, Road Nabire-Illaga, Km 54, 700m, S -3.492050 - O 135.732020, 787/2000: w, 4.-5.03.1998, daily capture, M. Hoffmann leg., Ris, 1911 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.57750 - O 140.514830, 469/2001: m, 27.04.1998, 14-16h, N. Naidenow leg., Ris, 1911 - Papua New Guinea, East New Britain Province, Kokopo, S -2.5730 - O 150.7910, 464/465/466/467/ 468/2001: 2 m, 3 w, 20.02.2000, Kokopo, M. Schaarschmidt & F. P. Roick leg., Ris, 1911.

Diplacodes haematodes (Burmeister, 1839), Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, 14-17h, S -4.0980 - O 138.9530, 81/1999: w, 29.04.1998, N. Naidenow leg., Ris, 1911, Watson et al., 1991 - Indonesia, New Guinea, Irian Jaya, 3km E Wamena, Wesaput-Pungima, 1500m, 16-18h, S -4.0980 - O 138.9530, 80/1999: w, 28.04.1998, N. Naidenow leg., Ris, 1911, Watson et al., 1991.

Crocothemis servilia (Drury, 1773), Papua New Guinea, Port Moresby, Hohola, S -9.44380 - O 147.180267, 81/2019: m, 2.03.1997, col. Wolfram Guidetti, Michalski, 2012.

Neurothemis decora (Brauer, 1866), Indonesia, New Guinea, Irian Jaya, Kopurun, S -4.479170 - O 139.666170, 297/2001: m, 24.04.1998, 15-17h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.5780 - O 140.5150, 296/297/2001: 2 m, 27.04.1998, 14-16h, N. Naidenow leg., Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 27/2000: m, 27.04.1998, N. Naidenow leg., Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Timika, S -4.0980 - O 138.9530, 151/152/2000: 2 m, Apr. 1997, Müller coll., Ris, 1911 - Papua New Guinea, Madang Prov., Foroka, 86km/ 46° to Mt. Hagen, 99km/256° to Madang, Cultural landscape, S -5.7250 - O 144.8410, 13/1997: w, 30.04.1996, light capture, Michael Schaarschmidt leg., at 210m, Ris, 1911, Lieftinck, 1942. *Neurothemis terminata* Ris, 1911, Indonesia, Irian Jaya, N. G., South of Manokwari, S -0.861522 - O 134.078796, 128/129/2012: 1 m, 1 w, 15.02.1994, leg. H. Deumer & M. Schaarschmidt, Orr, 2003.

Neurothemis papuensis Lieftinck, 1942, Papua New Guinea, Madang Prov., Foroka, 86km/46° to Mt. Hagen, 99km/256° to Madang, Cultural landscape, S -5.3330 - O 144.9030, 31/1999: m, 30.04.1996, M. Graul leg., light capture, 210m, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, south of Manokwari, S -1.847908 - O 120.527910, 135/2012: w, 15.02.1994, H. Deumer & M. Schaarschmidt leg., Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Arfak mountains, Minjambo, 1300m, S -1.1340 - O 133.8650, 24/2000: m, 27.05.1998, N. Naidenow leg., Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Manokwari, Tugu Jepeng,

40m, S -0.883330 - O 134.033330, 313/314/2001: 2 w, 17.05.1998, 11-14h, N. Naidenow leg., Lieftinck, 1953, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.08640 - O 136.339750, 315/2001: w, 16.02.1998, M. Hoffmann leg., Lieftinck, 1953, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Manokwari, S -1.143000 - O 134.285000, 400/1995: m, 9.02.1995, Peter Salk leg., Ris, 1911 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.57750 - O 140.514830, 316/2001: m, 27.04.1998, 14-16h, N. Naidenow leg., Lieftinck, 1953, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 25/26/2000: 2 m, 25.-27.04.1998, N. Naidenow leg., Lieftinck, 1942 - Papua New Guinea, Madang Prov., Foroka, 86km/46° to Mt. Hagen, 99km/256° to Madang, Cultural landscape, S -5.3330 - O 144.9030, 31/1999: m, 30.04.1996, M. Graul leg., Light capture, 210m, Lieftinck, 1942 - Papua New Guinea, West Highlands, Begesin Mission Station, 43km/ 237° to Madang, Cultural landscape, S -5.7250 - O 144.8410 10/11/12/1997: 3 m, 6.05.1996, Light capture, Heiko Deumer leg., at 280m, Ris, 1911, Lieftinck, 1942, Bridges, 1994.

Neurothemis stigmatizans (Fabricius, 1775), Indonesia, New Guinea, Irian Jaya, Manokwari, Tugu Jepeng, 40m, S -0.883330 - O 134.033330, 341/342/343/ 322/323/2001: 3 m, 2 w, 17.05.1998, 11-14h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Manokwari / 40m, S -1.561170 - O 134.033330, 329/2001: w, 20.05.1998, 10-15h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Manokwari 10km W, 30m, small stream, S -1.1330 - O 134.2830, 331/2001: w, 24.05.1998, 11-15h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Manokwari 20km W, Maripi, Jl. Inhutani lama, 50m, 18-23h, S -1.1330 - O 134.2830, 28/2000: m, 23.05.1998, M 23/5, N. Naidenow leg., Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 80m, S -1.08640 - O 136.339750, 312/324/325/326/ 327/330/336/337/338/339/340/2001: 5 m, 6 w, 16.02.1998, M. Hoffmann leg., Ris, 1911, Lieftinck, 1953, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, Biak, Hotel Irian, 10m, S -1.191170 - O 136.105670, 321/2001: w, 14.04.1998, 11-13h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, S -1.1430 - O 134.2850, 317/319/344/345/346/ 347/348/349/318/320/328/332/2001: 8 m, 4 m, 14.04.-19.04.1998, 15-17h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, 14-17h, S -1.1430 - O 134.2850, 32/35/40/41/1999, 31/32/33/34/35/36/37/38/39/42/43/2000: 7 m, 8 w, 19.04.1998, N. Naidenow leg., Ris, 1911; Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km W' Biak, Adoki, 10m, S -1.1430 - O 134.2850, 33/1999: m, 10.10.1998, M. Selwanus leg., Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 40km W' Biak, S -1.1430 - O 134.2850, 29/30/44/45/2000: 5 m, 2 w, 24.04.1998, M. Selwanus leg., Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, 40km W' Biak, Sorido, S -1.1430 - O 134.2850, 335/311/334/2001: 1 m, 2 w, 27.04.1998, M. Selwanus leg., Ris, 1911, Lieftinck, 1953, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Manokwari, S -1.1430 - O 134.2850, 401/1995: m, 9.02.1995, Peter Salk leg., Ris, 1911, Ris, 1916 - Indonesia, New Guinea, Irian Jaya, Manokwari, Tugu Jepeng, 40m, 10-13h,

S -0.8830 - O 134.0330, 34/1999: m, 19.05.1998, N. Naidenow leg., Ris, 1911; Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Nabire, 200m, S -3.3670 - O 135.4830, 316/317/1998: 2 m, 18.02.1996, Peter Salk leg., Ris, 1911, Bridges, 1994 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 333/2001: m, 27.04.1998, 14-16h, N. Naidenow leg., Ris, 1911, Lieftinck, 1953, Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 15-17h, S -2.5780 - O 140.5150, 46/47/2000: 2 w, SS 24/4, N. Naidenow leg., homoeochrome, Ris, 1911, Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Timika, S -4.0980 - O 138.9530, 155/156/2000: 2 w, Apr. 1997, Müller coll., Ris, 1911 - Papua New Guinea, East New Britain Provinz, Kokopo, S -2.5730 - O 150.7910, 98/300/301/302/303/299/304/305/306/2001: 5 m, 4 w, 20.02.2000, M. Schaarschmidt & F. P. Roick leg, Ris, 1911, Lieftinck, 1953, Lieftinck, 1942.

Neurothemis ramburi (Brauer, 1866), Indonesia, Irian Jaya, N. G., Manokwari, Warmasi, S -0.861522 - O 134.078796, 307/308/309/310/2001, 130/131/2012: 2 m, 3 w, 9.02.1994, H. Deumer & M. Schaarschmidt leg., Orr, 2003, Ris, 1911, Lieftinck, 1942 - Papua New Guinea, Ramu-'Tal, F. F.', S -4.750 - O 144.6670, 14/1997: w, 29.04.1996, Wolfram Guidetti col., Ris, 1911.

Neurothemis manadensis (Boisduval, 1835), Papua New Guinea, Port Moresby, Hohola, S -9.44380 - O 147.180267, 79/2019: m, 2.03.1997, Wolfram Guidetti col., Michalski, 2012 - Papua New Guinea, Prov. Maprik, East Sepik, S -4.071640 - O 142.771840, 76/2010: m, 27.04.1997, leg. W.E. I. (local Collector), Ris, 1911.

Trithemis festiva (Rambur, 1842), Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, 10-13h, S -1.1340 - O 133.8650, 77/2000: m, 26.05.1998, N. Naidenow leg., Ris, 1912.

Huonia epinephela Förster, 1903, Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 170m, 15-16h, S -2.5780 - O 140.5150, 62/1999: m, 25.04.1998, N. Naidenow leg., Lieftinck, 1935 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.57750 - O 140.514830, 406/430/2001: 2 m, 24.04.1998, 15-17h, N. Naidenow leg., Lieftinck, 1953, Lieftinck, 1935 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 69/68/70/2000: 3 w, 27.04.1998, N. Naidenow leg., Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, S -2.566670 - O 140.50,

411/2001: m, 23.01.2000, N. Berg & A. Michalczyk leg., Lieftinck, 1953, Lieftinck, 1942, Lieftinck, 1935 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, 70m, S -2.566670 - O 140.50, 412/413/414/415/431/2001: 3 m, 2 w, 27.04.1998, 14-16h, N. Naidenow leg., Lieftinck, 1953, Lieftinck, 1942, Lieftinck, 1935.

Huonia hylophila Lieftinck, 1942, Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 170m, 15-17h, S -2.5780 - O 140.5150, 72/1999: w, 24.04.1998, N. Naidenow leg., Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.5780 - O 140.5150,

172/2012: w, 27.04.1998, leg. N. Naidenow, Lieftinck, M. A., 1953, *Nod. ind.* 11,5-8/11,5-8/9,5-9/8,5-8 - Indonesia, New Guinea, Irian Jaya, Sentani, Kabupaten Jayapura, Mt. Cyclop, S -2.566670 - O 140.50, 390/2001: w, 23.01.1998, N. Berg & A. Michalczyk leg., Ris, 1909, Lieftinck, 1953.

Huonia thais Lieftinck, 1953, Indonesia, New Guinea, Irian Jaya, Fak Fak district, Lake Yumur, 80m, S -2.9170 - O 132.2670, 77/1999: m, 5.04.1998, M. Balke leg., Lieftinck, 1953 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 15-17h, S -2.5780 - O 140.5150, 86/2000: w, 24.04.1998, N. Naidenow leg., Michalski, 2012, Lieftinck, 1953.

Huonia thalassophila Förster, 1903, Indonesia, New Guinea, Irian Jaya, Korupun, S -4.4790 - O 139.6660, 470/2001: w, 9.05.1998, 10-14h, N. Naidenow leg., Ris, 1912, Lieftinck, 1935.

Rhyothemis phyllis (Sulzer, 1776), Papua New Guinea, Kumorian, Karkar Island, Bismarck Archipel, S -4.7480 - O 145.9660, 772/2001: 30.09.1980, D.& A. Heidelberger leg., Asahina, 1989 - Indonesia, New Guinea, Irian Jaya, Timika, S -4.0980 - O 138.9530, 153/154/2000: 1 m, 1 w, Apr. 1997, Müller coll., Lieftinck, 1942 - Indonesia, New Guinea, Irian Jaya, Biak Island, Biak, 11-14h, S -1.1830 - O 136.1060, 48/2000: w, 20.04.1998, N. Naidenow leg., Ris, 1913, Lieftinck, 1942.

Pantala flavescens (Fabricius, 1798), Indonesia, New Guinea, Irian Jaya, Arfak mountains, Minjambo, 1300m, S -1.1340 - O 133.8650, 11/2000: m, 28.05.1998, N. Naidenow leg. - Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, S -1.1430 - O 134.2850, 7/2000: w, 5.05.1998, day capture, N. Naidenow leg. - Indonesia, New Guinea, Irian Jaya, 3km E.

Wamena, Wesaput-Pungima, 1500m, S -4.0980 - O 138.9530, 21/1999, 15/2000, 291/292/2001: 1 m, 2 w, 29.04.1998, 14-17h, N. Naidenow leg., Ris, 1913, 2001: w, 28.04.1998, 16-18h, N. Naidenow leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km N' Biak, Nurwar, 10m, 15-17h, S -1.1430 - O 134.2850, 5/6/2000: 2 w, 14.04.1998, N. Naidenow leg. - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km W' Biak, Adoki, 10m, S -1.143330 - O 134.2850, 279/280/2001: 2 m, 17.04.1998, 14-15h, N. Naidenow leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km W' Biak, Adoki, 10m, 14-15h, S -1.1430 - O 134.2850, 2/3/2000: 2 m, 17.04.1998, N. Naidenow leg. - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km W' Biak, Sorido, S -1.1430 - O 134.2850, 13/2000: w, 25.04.1998, M. Selwanus leg. - Indonesia, New Guinea, Irian Jaya, Biak Island, 30km W' Biak, Urfu, 10m, S -1.10 - O 134.30, 283/284/2001: 1 m, 1w, 18.04.1998, 16-17h, N. Naidenow leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 40km W' Biak, Sorido, S -1.1430 - O 134.2850, 12/2000, 286/288/2001: 2 m, 1 w, 25.04.1998, M. Selwanus leg. - Indonesia, New Guinea, Irian Jaya, Biak Island, Biak, Hotel Irian, 10km, S -1.191170 - O 136.105670, 289/290/2001: 2 w, 22.04.1998, 8-9h, N. Naidenow leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, Bosna Braidy, 10m, S -1.150 - O 134.2830, 1/2000: w, 21.04.1998, 13-16h, N. Naidenow leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, Hotel Irian, 10m, 11-13h, S -1.1910 - O 136.1060, 4/2000: m, 15.04.1998, N. Naidenow leg. - Indonesia, New Guinea, Irian

Jaya, Kabupaten Jayawijaya, Suroba, S -4.024550 - O 138.008640, 293/2001: m, 4.02.2000, N. Berg & A. Michalczyk leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Kopurun, S -4.4790 - O 139.6660, 9/10/2000, 294/295/2001: 2 m, 1 w, 12.05.1998, N. Naidenow leg. - Indonesia, New Guinea, Irian Jaya, Manokwari, 40m, 20-22h, S -0.8950 - O 134.050, 18/1999: m, 1.06.1998, N. Naidenow leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Minjambo, Arfak mountains, 1300m, S -1.1340 - O 133.8650, 20/1999: m, 28.05.1998, N. Naidenow leg., day capture, Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Illaga, Km 54, S -3.3090 - O 135.4190, 19/1999: m, 5.04. 1998, M. Balke leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Paniai District, Nabire, 25m, S -3.362790 - O 135.500270, 776/2000, 277/278/285/777/2001: 3 m, 1 w, 20.02.1998, day capture, M. Hoffmann leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Paniai District, Sowa, Camp, Road Nabire-Illaga, Km 62, 300m, S -3.535540 - O 136.704420, 287/2001: m, 26.-27.02.1998, M. Hoffmann leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 170m, 16-18h, S -2.5780 - O 140.5150, 22/1999: m, 25.04.1998, N. Naidenow leg., Ris, 1909 - Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, S -2.5780 - O 140.51500 14/2000, 281/282/2001: 2 m, 1w, 24.04.1998, 15-17h, N. Naidenow leg.

Tramea transmarina Brauer, 1867, Indonesia, New Guinea, Irian Jaya, Holuwon, 1050m, S -4.481830 - O 139.27250, 433/2001: m, 4.05.1998, daily capture, N. Naidenow leg., Lieftinck, 1942.

Zyxomma elgneri Ris, 1913, Indonesia, New Guinea, Irian Jaya, Fak Fak district, Lake Yumur, 80m, S -2.917000 - O 132.267000, 48/49/1999: 2 w, 5.04.1998, M. Balke leg., Ris, 1913.

Zyxomma multinervorum Carpenter, 1897, Indonesia, New Guinea, Irian Jaya, Manokwari, S -0.8950 - O 134.050, 71/2000, 142/2012: 1 m, 1 w, 13.02.1994, 16.05.1998, leg. H. Deumer & M. Schaarschmidt N. Naidenow leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 20km W' Biak, Adoki, 10m, S -1.1430 - O 134.2850, 43/1999, 386/2001: 2 w, 10.10.1998, M. Selwanus leg., Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Biak Island, 40km W' Biak, Sorido, S -1.1430 - O 134.2850, 387/2001: 13.05.1998, M. Selwanus leg., Martin, 1909, Ris, 1913 - Indonesia, New Guinea, Irian Jaya, Nabire, 250m, Road Nabire-Illaga, Km 54, S -3.5160 - O 135.6990, 41/42/1999: 1 m, 1 w, 5.04.1998, M. Balke leg., Ris, 1913, Watson et al., 1991.

Urothemis bisignata Brauer, 1868, Indonesia, New Guinea, Irian Jaya, Sentani, 'Base of Mt. Cyclop', 70m, 14-16h, S -2.5780 - O 140.5150, 60/61/2000: 2 m, 27.04.1998, N. Naidenow leg., Ris, 1913.

DISCUSSION

94 species and 614 specimen of odonata were identified. The Fig. 2 shows *Rhinocypha tincta retrograda* in different colour types.

The graph of Lieftinck (1949) shows the colour graduations from version A to K. He has made a differentiation of two subtypes of *retrograda*. According to Michalski (2012), the subspecies are valid up to this year. But, if I change version F

to K before A to E, then we can see the graduation in one block from version F to E as in Fig. 2. Therefore, it is doubtful, that there are different subspecies. The specimens from New Ireland (639, 644, 645.2001) are not similar to *Nososticta nigrofasciata* (Lieftinck, 1932) or to *N. salomonis* (Selys, 1886). According to Michalski (2012) these specimens belong to *N. africana*.

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