

New additions to the water mite fauna of Belgium (Acari: Hydrachnidia)

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Abstract

New records of water mites are presented from Belgium, mainly from streams in the Ardennes. The following 21 species new for the fauna of Belgium are recorded: *Parathyas dirempta*, *Parathyas pachystoma*, *Hydrodroma torrenticola*, *Lebertia pusilla*, *Lebertia holsatica*, *Lebertia oblonga*, *Lebertia pilosa*, *Sperchon longissimus*, *Sperchon insignis*, *Monatractides madritensis*, *Atractides allgaier*, *Atractides glandulosus*, *Atractides latipes*, *Atractides oblongus*, *Atractides remotus*, *Atractides robustus*, *Hygrobates longiporus*, *Nautarachna crassa*, *Aturus asserculatus*, *Ocybrachypoda celeripes* and *Arrenurus tubulator*. The checklist of Belgium contains now 198 species.

Keywords: Ardennes, checklist, new records

Samenvatting

Nieuwe waarnemingen van watermijten worden weergegeven voor België, voornamelijk van waterlopen in de Ardennen. De volgende 21 soorten worden als nieuw gemeld voor de Belgische fauna: *Parathyas dirempta*, *Parathyas pachystoma*, *Hydrodroma torrenticola*, *Lebertia pusilla*, *Lebertia holsatica*, *Lebertia oblonga*, *Lebertia pilosa*, *Sperchon longissimus*, *Sperchon insignis*, *Monatractides madritensis*, *Atractides allgaier*, *Atractides glandulosus*, *Atractides latipes*, *Atractides oblongus*, *Atractides remotus*, *Atractides robustus*, *Hygrobates longiporus*, *Nautarachna crassa*, *Aturus asserculatus*, *Ocybrachypoda celeripes* en *Arrenurus tubulator*. De Belgische lijst omvat nu 198 soorten.

Résumé

Les 21 espèces suivantes d'acariens, nouvelles pour la faune belge, ont été recensées principalement dans les cours d'eau de l'Ardenne: *Parathyas dirempta*, *Parathyas pachystoma*, *Hydrodroma torrenticola*, *Lebertia pusilla*, *Lebertia holsatica*, *Lebertia oblonga*, *Lebertia pilosa*, *Sperchon longissimus*, *Sperchon insignis*, *Monatractides madritensis*, *Atractides allgaier*, *Atractides glandulosus*, *Atractides latipes*, *Atractides oblongus*, *Atractides remotus*, *Atractides robustus*, *Hygrobates longiporus*, *Nautarachna crassa*, *Aturus asserculatus*, *Ocybrachypoda celeripes* et *Arrenurus tubulator*. La liste des espèces de Belgique s'élève à présent à 198 espèces.

Introduction

A recent checklist of the water mites of Belgium tallied 177 species (SMIT & LOCK, 2016). The authors stated that the water mite fauna of Belgium is poorly known. Several habitats are little studied, e.g. streams in the Ardennes, interstitial and temporary waters, moorland pools and standing waters with a good water quality.

This paper adds 21 species to the water mite fauna of Belgium. Most new species are collected south of Samber-Meuse during several trips while some others are found in Limburg. A few species are collected in temporary habitats.

Systematic part

All material is collected with a dip net and sorted in the field. Number are given as males/females/nymphs or adults/nymphs. Abbreviations used: alt.: altitude; a.s.l.: above sea level. The material has been identified with DI SABATINO *et al.* (2010) and GERECKE *et al.* (2016), the distribution data are taken from these references as well. The material will be lodged in Naturalis Biodiversity Center, Leiden.

Family Hydryphantidae Piersig, 1896

Parathyas dirempta (Koenike, 1912)

New for Belgium.

New record. **Limburg**. 1/0, ditch near Dutch border, Smeetshof, 51° 12.513' N 5° 36.848' E, 26.IV.2018.

Parathyas pachystoma (Koenike, 1914)

New for Belgium.

New records. **Limburg**. 2/0, Carr with many grasses, Stamprooierbroek, 51° 10.603' N 5° 41.465' E, 25.IV.2018; 1/0, carr Stamprooierbroek, 51° 10.580' N 5° 41.825' E, 25.IV.2018; 1/0, Carr Vijverbroek, 51° 09.536' N 5° 49.124' E, 26.IV.2018; 1/0, ditch near border, Smeetshof, 51° 12.513' N 5° 36.848' E, 26.IV.2018.

Family Hydrodromidae Viets, 1936

Hydrodroma torrenticola (Walter, 1908)

New for Belgium.

New record. **Liège**. 15/1, Steinbach, 50° 37.231' N 6° 10.456' E, alt. 415 m a.s.l., 22.VIII.2018.

Family Lebertiidae Thor, 1900

Lebertia (Lebertia) pusilla Koenike, 1911

New for Belgium.

New records. **Luxembourg**. 2/0/0, Ruisseau Rulles Kleng Rouer, N of Habay-la-Neuve, 49° 46.599' N 5° 41.780' E, alt. 405 m a.s.l., 23.VIII.2016; 7/0/0, Le France Ri near Daverdisse, 50° 01.046' N 5° 07.256' E, alt. 294 m a.s.l., 22.VIII.2017; 3/1/0, River Almache near Daverdisse, 50° 01.660' N 5° 06.993' E, alt. 225 m a.s.l., 22.VIII.2017; 1/0/0, Ruisseau du Vivier, between Redu and Transinne, 50° 00.362' N 5° 10.726' E, alt. 392 m a.s.l., 22.VIII.2017. **Namur**. 11/3/0, Ruisseau de Membre, SE of Sugny, 49° 48.175' N 4° 55.456' E, alt. 340 m a.s.l., 21.VIII.2017; 1/2/0, Ruisseau de Membre, S of Vresse-sur-Semois, 49° 50.463' N 4° 54.889' E, alt. 254 m a.s.l., 21.VIII.2017; 1/0/0, Le Ruisseau du Bois, W of Oizy, 49° 53.791' N 5° 00.078' E, alt. 310 m a.s.l., 21.VIII.2016; 3/0/0, Ruisseau de Gesves le Bonc, W of Naomé, 49° 55.519' N 5° 03.659' E, alt. 388 m a.s.l., 21.VIII.2017; 2/2/0, Ruisseau des Rives, 49° 58.237' N 5° 03.299' E, alt. 348 m a.s.l., 21.VIII.2017; 6/1/0, Stream L'Hileau, E of Winenne, 50° 05.416' N 4° 54.239' E, alt. 262 m a.s.l., 23.VIII.2017; 13/0/0, Ruisseau La Wimbe, 50° 04.360' N 5° 01.103' E, alt. 234 m a.s.l., 23.VIII.2017; 10/5/0, Ruisseau de Olenne, N of Felenne, 50° 05.935' N 4° 51.621' E, alt. 149 m a.s.l., 23.VIII.2017; 2/1/0, River

at Pont des 2 eaux, at Petit Fays, 49° 52.861' N 4° 56.659' E, alt. 260 m a.s.l., 24.VIII.2017; 3/0/0, Ruisseau des Wés, SE of Oizy, 49° 52.612' N 5° 01.190' E, alt. 344 m a.s.l., 24.VIII.2017; 6/1/0, Ri de Wel, N of Le Mesnil, 50° 03.118' N 4° 39.434' E, alt. 256 m a.s.l., 25.VIII.2017; 1/0/0, Ruisseau de Nestri, S of Olloy-sur-Viroin, 50° 03.594' N 4° 37.131' E, alt. 163 m a.s.l., 25.VIII.2017; 6/1/0, Ruisseau de Robais, Couvin, 50° 01.109' N 4° 28.768' E, alt. 229 m a.s.l., 25.VIII.2017; 4/4/0, L'Eau Noire, Couvin, 50° 00.304' N 4° 25.599' E, alt. 43 m a.s.l., 25.VIII.2017.

Distribution. Europe except for the northern parts.

***Lebertia (Mixolebertia) holsatica* Viets, 1920**

New for Belgium.

New record. **Luxembourg.** 1/3/0, Springbrook, tributary of Ruisseau de Rettigny, 50° 09.258' N 5° 52.186' E, alt. 387 m a.s.l., 22.VIII.2016.

Distribution. Central and southern Europe, a few records from Scandinavia; not reported from the Iberian peninsula and the Pyrenees.

***Lebertia (Lebertia) oblonga* Koenike, 1911**

New for Belgium.

New record. **Liège.** 2/1/0, Ruisseau de Statte, E of Solwaster, 50° 31.412' N 5° 58.558' E, alt. 375 m a.s.l., 21.VIII.2018.

Distribution. A rare species with scattered records in Europe.

***Lebertia (Pilolebertia) pilosa* Maglio, 1924**

New for Belgium.

New record. **Luxembourg.** 1/0/0, L'Ourthe occidentale, near Sainte-Ode, 50° 04.374' N 5° 31.432' E, alt. 340 m a.s.l., 29.VIII.2003.

Distribution. A rare species with scattered records in Europe.

Family Sperchontidae Thor, 1900

***Sperchon (Sperchon) longissimus* Viets, 1920**

New for Belgium.

New record. **Luxembourg.** 0/1/0, Rheocrene, along road Meix-devant-Virton and Étalle, 49° 36.784' N 5° 30.250' E, alt. 269 m a.s.l., 24.VIII.2016.

Distribution. Europe and Asia Minor.

***Sperchon (Hispidosperchon) insignis* Walter, 1906**

New for Belgium.

New records. **Luxembourg.** 0/2/0, Springbrook Bois de Cléchamps, S of Straimont, crossing Route du Chiny, 49° 46.422' N 5° 21.714' E, alt. 388 m a.s.l., 25.VIII.2016; 0/1/0, Ruisseau de Wanechie, S of Martilly, 49° 47.712' N 5° 21.109' E, alt. 375 m a.s.l., 25.VIII.2016; 0/1/0, Springbrook La Lesse, E of Ochamps, 49° 55.151' N 5° 18.619' E, alt. 460 m a.s.l., 26.VIII.2016; 0/1/0, Upper course of Ruisseau de la Hé ou Ruisseau de la Follerie, E of Malempré, 50° 17.495' N 5° 43.379' E, alt. 425 m a.s.l., 28.VIII.2016.

Distribution. Europe.

Family Torrenticolidae Piersig, 1902

***Monatractides (Monatractides) madritensis* (Viets, 1930)**

New for Belgium.

New records. **Luxembourg.** 1/0/0, Ruisseau Rulles Kleng Rouer, N of Habay-la-Neuve, 49° 46.599' N 5° 41.780' E, alt. 405 m a.s.l., 23.VIII.2016. **Namur.** 1/0/0, Ruisseau de Bellefontaine, Bellefontaine, 49° 54.958' N 4° 58.670' E, alt. 342 m a.s.l., 24.VIII.2017; 1/1/0, Ruisseau de Nestri, S of Olloy-sur-Viroin, 50° 03.594' N 4° 37.131' E, alt. 163 m a.s.l., 25.VIII.2017; 6/1/0, L'Eau Noire, Couvin, 50° 00.304' N 4° 25.599' E, alt. 243 m a.s.l., 25.VIII.2017; 4/1/0, Ruisseau de Robais, Couvin, 50° 01.109' N 4° 28.768' E, alt. 229 m a.s.l., 25.VIII.2017.

Distribution. A species with a Western Palearctic distribution, but absent in northern Europe.

Family Hygrobatidae Koch, 1842

***Atractides (Atractides) allgaier* Gerecke, 2003**

New for Belgium.

New records. **Luxembourg.** 1/0/0, Ruisseau de la Fagne Jean Simon, N of Habaya-la-Neuve, Forêt d'Anlier, 49° 45.313' N 5° 39.749' E, alt. 439 m a.s.l., 23.VIII.2016; 1/1/0, Le France Ri, 50° 01.046' N 5° 07.256' E, alt. 294 m a.s.l., 22.VIII.2017. **Namur.** 0/1/0, Ruisseau de Membre, S of Vresse-sur-Semois, 49° 50.463' N 4° 54.889' E, alt. 254 m a.s.l., 21.VIII.2017; 0/1/0, Ruisseau La Wimbe, 50° 04.360' N 5° 01.103' E, alt. 234 m a.s.l., 23.VIII.2017; 10/4/0, Ruisseau du Chenet, Froidfontaine, 50° 03.157' N 4° 59.443' E, alt. 358 m a.s.l., 23.VIII.2017; 4/0/0, Ruisseau de Olenne, N of Felenne, 50° 05.935' N 4° 51.621' E, alt. 149 m a.s.l., 23.VIII.2017; 1/0/0, La Houille, 50° 02.747' N 4° 50.460' E, alt. 183 m a.s.l., 23.VIII.2017; 2/0/0, Ruisseau de Bellefontaine, Bellefontaine, 49° 54.958' N 4° 58.670' E, alt. 342 m a.s.l., 24.VIII.2017; 4/0/0, River at Pont des 2 eaux at Petit Fays, 49° 52.861' N 4° 56.659' E, alt. 260 m a.s.l., 24.VIII.2017; 8/3/0, Ri de Wel, N of Le Mesnil, 50° 03.118' N 4° 39.434' E, alt. 256 m a.s.l., 25.VIII.2017; 3/1/0, Ruisseau de Nestri, S of Olloy-sur-Viroin, 50° 03.594' N 4° 37.131' E, alt. 163 m a.s.l., 25.VIII.2017; 1/3/0, L'Eau Noire, 50° 00.304' N 4° 25.599' E, alt. 243 m a.s.l., 25.VIII.2017; 0/1/0, Ruisseau de Robais, Couvin, 50° 01.109' N 4° 28.768' E, alt. 229 m a.s.l., 25.VIII.2017. **Liège.** 2/2/0, Frankenbach SE of Holzheim, 50° 20.440' N 6° 18.822' E, alt. 497 m a.s.l., 23.VIII.2018.

Distribution. Central and southeastern Europe, Asia Minor.

***Atractides (Atractides) glandulosus* (Walter, 1918)**

New for Belgium.

New records. **Luxembourg.** 1/0/0, River Almache near Daverdisse, 50° 01.660' N 5° 06.993' E, alt. 225 m a.s.l., 22.VIII.2017. **Namur.** 2/0/0, La Houille, 50° 02.747' N 4° 50.460' E, alt. 183 m a.s.l., 23.VIII.2017.

Distribution. Not clear, positive records only from the Alps, southern Germany and the Pyrenees.

***Atractides (Atractides) latipes* (Szalay, 1935)**

New for Belgium.

New records. **Namur**. 2/3/0, River at Pont des 2 eaux at Petit Fays, 49° 52.861' N 4° 56.659' E, alt. 260 m a.s.l., 24.VIII.2017; 1/3/0, Ruisseau d'Alise at border of Belgium and France, 49° 59.768' N 4° 39.955' E, alt. 181 m a.s.l., 25.VIII.2017; 0/1/0, L'Eau Noire, 50° 00.304' N 4° 25.599' E, alt. 243 m a.s.l., 25.VIII.2017; 2/4/0, Ruisseau de Robais, Couvin, 50° 01.109' N 4° 28.768' E, alt. 229 m a.s.l., 25.VIII.2017.

Distribution. Europe.

***Atractides (Atractides) oblongus* (Walter, 1944)**

New for Belgium.

New records. **Namur**. 1/0/0, Ruisseau de la Vieille Église, E of Louette-St Denis, 49° 58.242' N 5° 00.817' E, alt. 366 m a.s.l., 21.VIII.2017; 1/0/0, River at Pont des 2 eaux at Petit Fays, 49° 52.861' N 4° 56.659' E, alt. 260 m a.s.l., 24.VIII.2017.

Distribution. Europe.

***Atractides (Atarctides) remotus* Szalay, 1953**

New for Belgium.

New records. **Luxembourg**. 0/1/0, Ruisseau de Martin Moulin, E of Dinez, 50° 10.157' N 5° 45.213' E, alt. 372 m a.s.l., 22.VIII.2016; 1/2/0, Ruisseau du Pré Lefèvre, between Tailles and Wibrin, 50° 12.409' N 5° 42.207' E, alt. 518 m a.s.l., 22.VIII.2016; 0/3/0, Ruisseau de la Fagne Jean Simon, N of Habaya-la-Neuve, Forêt d'Anlier, 49° 45.313' N 5° 39.749' E, alt. 439 m a.s.l., 23.VIII.2016; 1/2/0, River Almache near Daverdisse, 50° 01.660' N 5° 06.993' E, alt. 225 m a.s.l., 22.VIII.2017. **Namur**. 2/1/0, Ruisseau des Rives, 49° 58.237' N 5° 03.299' E, alt. 348 m a.s.l., 21.VIII.2017; 3/0/0, Ruisseau de Membre, S of Vresse-sur-Semois, 49° 50.463' N 4° 54.889' E, alt. 254 m a.s.l., 21.VIII.2017; 3/4/0, Ruisseau La Wimbe, 50° 04.360' N 5° 01.103' E, alt. 234 m a.s.l., 23.VIII.2017; 4/0/0, Ruisseau de Olenne, N of Felenne, 50° 05.935' N 4° 51.621' E, alt. 149 m a.s.l., 23.VIII.2017; 0/3/0, Ruisseau du Chenet, Froidfontaine, 50° 03.157' N 4° 59.443' E, alt. 358 m a.s.l., 23.VIII.2017; 2/0/0, La Houille, 50° 02.747' N 4° 50.460' E, alt. 183 m a.s.l., 23.VIII.2017; 2/1/0, Ruisseau des Wés, SE of Oizy, 49° 52.612' N 5° 01.190' E, alt. 344 m a.s.l., 24.VIII.2017; 7/0/0, River at Pont des 2 eaux at Petit Fays, 49° 52.861' N 4° 56.659' E, alt. 260 m a.s.l., 24.VIII.2017; 2/6/0, Ruisseau d'Alise at border of Belgium and France, 49° 59.768' N 4° 39.955' E, alt. 181 m a.s.l., 25.VIII.2017; 0/2/0, Ruisseau de Robais, Couvin, 50° 01.109' N 4° 28.768' E, alt. 229 m a.s.l., 25.VIII.2017. **Liège**. 2/8/0, Le Bâleur at Pont du Baleur, SW of Basse-Bodeux, 50° 20.585' N 5° 48.462' E, alt. 380 m a.s.l., 27.VIII.2016; 2/4/0, Ruisseau de Groumont, W of Lierneux, 50° 17.193' N 5° 46.553' E, alt. 382 m a.s.l., 28.VIII.2016.

Distribution. Central Europe, SE Europe.

***Atractides (Atractides) robustus* (Sokolov, 1940)**

New for Belgium.

New record. **Namur**. 4/0/0, Ruisseau d'Alise at border of Belgium and France, 49° 59.768' N 4° 39.955' E, alt. 181 m a.s.l., 25.VIII.2017.

Distribution. Europe, Asia (Turkey, Iran).

***Hygrobates (Hygrobates) longiporus* Thor, 1898**

New for Belgium.

New record. **Luxembourg**. 3/0/0, Ruisseau La Mellier, Marbehan, 49° 43.477' N 5° 31.603' E, alt. 347 m a.s.l., 23.VIII.2016.

Distribution. Palearctic.

Family Pionidae Thor, 1900

***Nautarachna crassa* (Koenike, 1908)**

New for Belgium.

New record. **Liège**. 0/0/1, Die Weser S of Roetgen, 50° 37.902' N 6° 12.242' E, alt. 464 m a.s.l., 19.VIII.2018; 0/0/1, Sawe Ruisseau, 50° 31.977' N 5° 58.073' E, alt. 328 m a.s.l., 21.VIII.2018; 0/0/1, Ruisseau de Statte, E of Solwaster, 50° 31.412' N 5° 58.558' E, alt. 375 m a.s.l., 21.VIII.2018.

Distribution. Widespread in Europe, but scattered records. Not reported from the Scandinavian countries.

Family Aturidae Thor, 1900

***Aturus asserculatus* Walter, 1906**

New for Belgium.

New records. **Namur**. 1/0/0, Ruisseau de Gesves le Bonc, W of Naomé, 49° 55.519' N 5° 03.659' E, alt. 388 m a.s.l., 21.VIII.2017; 1/0/0, Ruisseau de Membre, S of Vresse-sur-Semois, 49° 50.463' N 4° 54.889' E, alt. 254 m a.s.l., 21.VIII.2017.

Distribution. Known from Central and SE Europe.

***Ocybrachypoda celeripes* (Viets, 1910)**

New for Belgium.

New records. **Luxembourg**. 3/2/0, Fays de la Folie, NE of Odeigne, 50° 15.658' N 5° 41.649' E, alt. 355 m a.s.l., 27.VIII.2016. **Liège**. 1/3/0, Rur NE of Bosfagne, 50° 30.190' N 6° 11.228' E, alt. 522 m a.s.l., 20.VIII.2018; 0/1/0, Frankenbach SE of Holzheim, 50° 20.440' N 6° 18.822' E, alt. 497 m a.s.l., 23.VIII.2018.

Distribution. A rare species, known only from Germany (Viets 1910, Schwoerbel 1962), Ireland (Halbert 1944) and Poland (Kowalik & Biesiadka 1978).

Family Arrenuridae Thor, 1900

***Arrenurus (Megaluracarus) tubulator* (Müller, 1776)**

New for Belgium.

New record. **Liège**. 1/0/0, pond, Olef valley, 50° 26.998' N 6° 22.131' E, alt. 592 m a.s.l., 23.VIII.2018.

Remarks. A species widespread in Europe.

Acknowledgements

I am indebted to Reinhard Gerecke (Tübingen) for the identification of the *Atractides* and some *Lebertia* specimens. Truus van der Pal (Alkmaar) assisted me with the fieldwork.

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