

## Records of new and rare carabid beetles (Coleoptera: Carabidae) for Belgium collected or identified during the period 2008 - 2018

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## Abstract

We present records of seven new carabid species for Belgium as well as new records of 67 rare carabid species collected or identified in Belgium mainly during the period 2008-2018. Detailed information about these records is discussed in relation to previously available distributional or taxonomic knowledge. These recent records improve the general view of the actual distribution of these rare species in Belgium. So far 411 carabid beetles were recorded in Belgium.

**Keywords:** Coleoptera, Carabidae, faunistics, Belgium, rare species, new species for Belgium

## Samenvatting

We presenteren hier waarnemingen van zeven nieuwe loopkeversoorten voor België alsook voor 67 zeer zeldzame loopkevers verzameld of geïdentificeerd in België hoofdzakelijk tijdens de periode 2008-2018. Voor al deze soorten geven we details over en bespreken we deze waarnemingen. Voor de meeste soorten betekenen deze nieuwe waarnemingen een verduidelijking van hun huidige verspreiding in België. Tot op heden werden 411 soorten loopkevers gevonden in België.

## Résumé

Nous présentons ici des données faunistiques pour 7 espèces de Carabidae nouvelles pour la Belgique et 67 espèces considérées comme très rares, identifiées ou collectées dans le pays principalement durant la période 2008-2018. Des détails sont fournis pour toutes les espèces et les observations sont discutées. Dans la plupart des cas, ces nouvelles données améliorent l'état de nos connaissances sur la répartition de ces Carabidae en Belgique. Jusqu'à présent, 411 espèces de carabes ont été trouvées en Belgique.

## Introduction

The publication of distribution maps of all so far known Belgian carabid beetles (DESENDER *et al.*, 2008a) as well as an updated red list for this coleopteran family for Flanders dates from 2008 (DESENDER *et al.*, 2008b). However, a large amount of new records, often including new or rare species for Belgium, have been added during the last decade. In several cases, carabidologists have searched for rare species in regions or sites so far undersampled or not well studied for Carabidae yet. This extensive sampling of the last ten years revealed some carabid species new for Belgium and several rare species were rediscovered or for some species new records now give a more complete view of their actual distribution. Moreover, some rare species were discovered in ancient collections and identified during the last 10 years. In this paper we list these records and give details on the collection method and ecology of the discussed species if available.

## Material and methods

We focus on species that were recorded in less than 10 UTM 5x5 km squares between 1980-2008 or new species for Belgium (see DESENDER *et al.*, 2008a,b). For all records, we provide collection date, locality, legislator and the name of the collection where the specimens are stored. For some records, additional details on the applied collection method are given. For some species the information on their ecological distribution in Belgium (if available) is extended.

### *New sampling techniques, new records*

During the period 1950-2008, large datasets of carabid beetles primarily originated from pitfall traps. However, pitfall traps mainly sample the epigeic species, and as such provide only limited information on species that are or not epigeic. The emergence of other sampling techniques like light traps in trees or on stakes (Fig 1), autonet (Fig 2-3) and even searching with torches by night on trees (Fig 4; see also FELIX & WIELINK, 2011) revealed some interesting insights into the carabid fauna. For some carabids

these sampling techniques revealed a more complete distribution than before and assumed by pitfall trapping. If this is the case we mention this in the comments. Most specimens are currently stored in private collections or in the Entomological Collection of Royal Belgian Institute of Natural Sciences acronym: RBINS (curators Wouter Dekoninck, Alain Drumont).



Fig. 1. Light trap in tree (picture Wouter Dekoninck)



Fig. 2. Sampling insects with autonet in Hechtel-Eksel, Pijnven in Belgium (picture Luc Crevecoeur)



Fig. 3. Autonet in De Kaaistoep at Tilburg in the Netherlands (picture Ron Felix)



Fig. 4. Searchig for Carabidae on trees at night (picture Paul van Wielink)

The records of the species are presented in the following order: (1) New species for Belgium, (2) Rare species with new distributional records, (3) records of some other rare species with records after 2008 from localities where they were already discovered before (categorie: Confirmed rare species).

We follow taxonomy of MÜLLER-MOTZFELD (2006) (adopted by MUILWIJK *et al.*, 2015), but provide synonyms used in DESENDER *et al.*(2008a,b).

For rare species with new distributional records, maps were made with the software Klasse (version 2.0.60. Pro Unicode, [www.klasse-info.nl](http://www.klasse-info.nl)). We used the three time periods used in DESENDER *et al.* (2008a) and added a new 4<sup>th</sup> time period i.e. new records not published in the maps of DESENDER *et al.*, 2008a. When records were available for more time-periods for a certain UTM 5x5km square, only the presence of the most recent period is presented. In such case the number of old records might not correspond with the number of squares with corresponding symbol, as these records are hidden by more recent records.

#### *Importance of Citizen Science to collect data on the distribution of Carabidae in Belgium*

Of the 34 authors of this project 28 can be considered as citizen scientist which collaborate as volunteer at or via RBINS. Obtaining a good sampling coverage over Belgium was only possible because from all regions in the country, citizen science collaborators collected data of carabids. Most

of these volunteers collected data during the period 2008-2018. Compilation and publication of these records was strongly facilitated and aided within the framework of DITOS (Doing It Together Science, <http://www.togetherscience.eu/>). The DITOs project has increased the collaboration by giving more visibility to the volunteers work, supporting the exchanges through the citizen science day at RBINS and encouraging the outputs of the collaboration with this publication as goal.

## Results

### 1. Species new for Belgium

#### ***1.1 Bembidion latinum* Netolitzky, 1911**

MATERIAL EXAMINED: **Hainaut:** Strée, 1 specimen, 05.VII.2006, leg. det. & coll. Ignace D.; Trazegnies, terril des couturelles, 2 specimens, 13.VII.2006, leg. det. & coll. Ignace D.; idem, 1 male + 1 female, 15.IV.2018, leg. & det. Ignace D. & P. Limbourg, coll. Ignace D.; Courcelles, bassin d'orage, 1 male, 3 females, 22.VII.2016, leg. det. & coll. Ignace D.; Courcelles/Viesville, marais de Viesville, pitfall trap, 2 specimens, 30.V.2010, leg. det. & coll. Limbourg P.; Brugelette, Parc Paradisio, 1 specimen, 23.VI.2009, leg. Boosten G., det. Van Malderen M., coll. Boosten G.; Gouy-lez-Piéton/Godarville, Claire-Fontaine rés., 1 specimen, 12.IV.2017, leg. & det. Ignace D. & P. Limbourg, coll. Limbourg P.; idem, 1 female, 14.IV.2017; idem, 1 male, 27.V.2017; Luttre, Prairie des Sept Sources, 2 specimens, 10.IV.2018, leg. det. & coll. Limbourg P.; Gosselies, Ancienne sablière, 1 specimen, 28.VII.2018, leg. det. & coll. Ignace D.; Morlanwelz, bois de Mariemont, 1 specimen, 28.X.2018, leg. det. & coll. Ignace D.; **Limburg:** Heers, Kasteel Hex, forest edge and field margin, 283 specimens, autonet, 07.VII.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Heers, forest edge, fields, grasslands, 195 specimens, autonet, 11.VI.2017, leg. Crevecoeur L., det. & coll. Stassen E.; idem, 1 specimen, 18.VII.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Genk, Het Wik, mixed coniferous-deciduous forest, light trap, 1 specimen, 09.VII.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Sint-Pieters-Voeren, Altenbroek, 3 specimens, 27.VIII.2018, leg. Van Grimberge A. det. Van Malderen M. coll. Van Grimberge A.; Riemst, garden, 1 specimen, 22.VII.2018, leg. det. & coll. Stassen E.; **Namur,** Fronville, autonet, 1 specimen, 24.IV.2010, leg. Struyve T., det. Renner K. & coll. RBINS; Mettet, bois du Prince, 1 specimen, 04.V.2017, leg. det. & coll. Ignace D.; Bioul, bord de route, 1 specimen, 01.VIII.2017, leg. det. & coll. Ignace D.; Najauge, bord du Viroin, 1 specimen, 29.VII.2018, leg. det. & coll. Ignace D.; **Oost-Vlaanderen:** Doel, Paardenschor, op schor, 1 specimen, 25.IV.2010, leg. Van Grimberge A., det. Van Malderen M., coll. Van Grimberge A.; Ename, Bos t'Ename, autonet, 1 specimen, 24.IV.2012, leg. Struyve T., det. Hannig K (Germany), coll. Renner K. (Germany); idem, Bos t'Ename, several specimens, period 2014-2016, leg. det. & coll. Van Malderen M.; Wichelen, Bergenmeersen, 1 specimen, 9.XI.2013, leg. det. & coll. Van Malderen M.; Lokeren, Molsbroek, Palingberg, 1 specimen, 10.IV.2014, leg. det. & coll. Van Malderen M.; Moerbeke, Heidebos, 12 specimens, 30.VII.2016, leg. det. & coll. Van Malderen M.; Wachtebeke, Provinciaal Domein Puyenbroeck, 1 specimen, light trap, 01.VII.2018, leg. det. & coll. Van Malderen M.; idem, 4 specimens, leg. Van Grimberge A., det. Van Malderen M., coll. Van Grimberge A.; **West-Vlaanderen:** Koksijde, Strand Sint-Idesbald, 1 specimen, 21.X.2014, leg. det. & coll. Van Malderen M.; Dentergem, 1 specimen, 16.VII.2018, leg. det. & coll. Bonamie G.

**COMMENTS:** A recent revision of specimens within the *Bembidion deletum/dalatinum/latinum* group by Luca Toledo (Italy) confirmed that both *Bembidion deletum* Audinet-Serville, 1821 and *B. latinum* are present in Belgium. Later revisions of Belgian *B. deletum* specimens revealed that *B. latinum* is a rather common carabid species for certain regions in the country. It seems plausible that the number of records of this species will steadily increase in the future. MUILWIJK & FELIX (2017) suggest nevertheless that the species has only been collected recently in the Netherlands, and as such probably a previously absent species in the Netherlands.

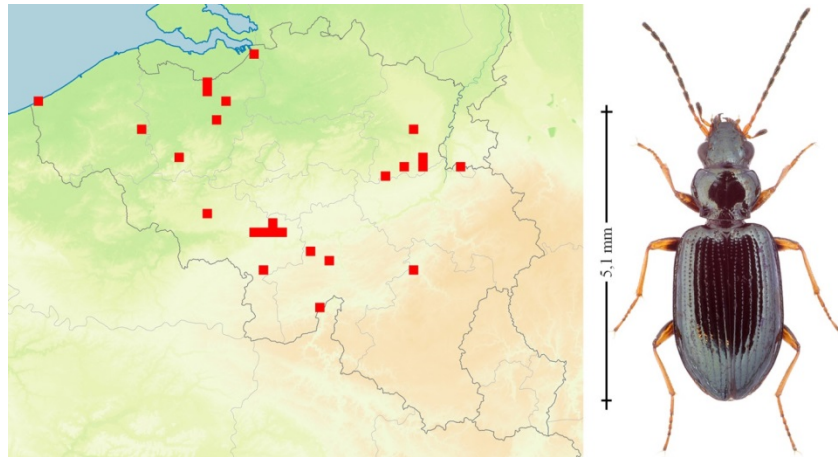


Fig. 5. *Bembidion latinum*  
(Picture David Ignace)

### 1.2 *Chlaenius tibialis* Dejean, 1826

**MATERIAL EXAMINED:** **Limburg:** Dilsen-Stokkem, De Groeskens, erosion gutter along the river Maas near the border with The Netherlands, pitfall traps, 151 specimens during the period 25.III.2004 until 19.VII.2004, leg. det. & coll. Lambeets K. and coll. Stassen E. (LAMBEETS & STRUYVE, 2007); idem, 1 specimen, 25.III.2004, leg. Struyve T., det. Struyve T. & Felix R., coll. Felix R.; Dilsen-Stokkem, Kerkeweerd, Groeskens, Grensmaas, 2 specimens, 16.VI.2012, leg. Struyve T., det. & coll. Van Malderen M; Maasmechelen, Leut – Mzenhoven, Maasvallei natuurgebied Maesbempder Greend, 1 specimen, 16.VI.2012, leg. det. & coll. Raemdonck H.; **Namur:** Onhaye, sablière de Pachi Steiner, 1 specimen, 27.VII.1999, leg. det. & coll. Minet G.

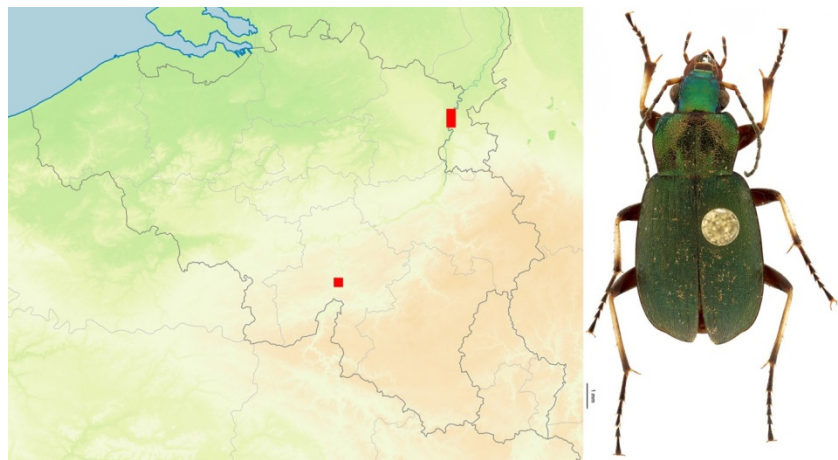


Fig. 6. *Chlaenius tibialis*  
(Picture Florence Trus)

**COMMENTS:** Specimens of the species *Chlaenius tibialis* have been confused for a long time with specimens of *C. nitidulus* and as such all *C. nitidulus* specimens in ancient collections need to be revised. Diagnostic differences between the species largely involve colour differences. As such the distribution map of *C. nitidulus* from DESENDER *et al.* (2008a) needs to be updated. Based on the first re-identifications, *C. tibialis* appears to be restricted to the borders of larger rivers, while *C. nitidulus* is mainly found in the coastal region.



### 1.3 *Dicheirotichus rufithorax* (Sahlberg, 1827)

MATERIAL EXAMINED : **Limburg**: Dilsen-Stokkem/Elerweert, De Groeskens, erosion gutter along the river Maas near the border with The Netherlands, pitfall trap, 8 specimens during the period 05.IV.2005 and 19.VII.2005, leg. det. & coll. Lambeets K. and coll. Stassen E. The specimens were collected on a rather dynamic gravelbank on a sandy/loamy soil with a small layer of gravel that is flooded by the river Maas during winter.

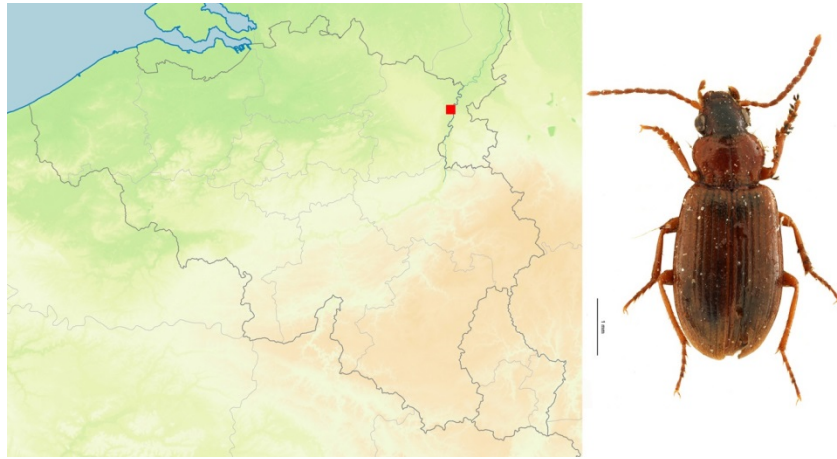


Fig. 7. *Dicheirotichus rufithorax*  
(Picture Florence Trus)

COMMENTS : So far only once recorded along the river Maas. Might be discovered along the same river further upstream and downstream Dilsen in identical habitat. This species might have arrived in Belgium by dispersing more northward from the more southern confluents of the river Rijn in Germany and France from where it was reported in the 80s (SCHOTT, 1982).

### 1.4 *Harpalus picipennis* (Duftschmidt, 1812)

MATERIAL EXAMINED: **Limburg**: Genk, rand van Fordterrein, grassy broom vegetation, 1 male, pitfall trap, 26.VII-18.VIII.2017, leg. D’Huys I., det. & coll. Stassen E.

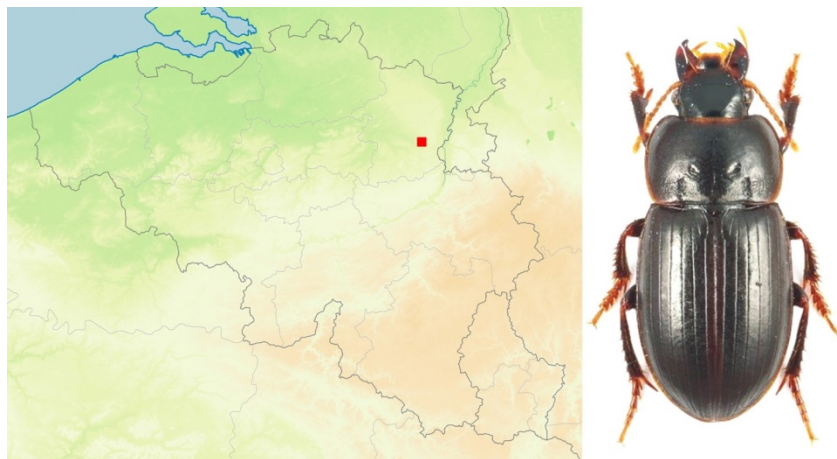


Fig.8. *Harpalus picipennis*  
(Picture Ortwin Bleich)

COMMENTS: A species from dry sandy soils in heathlands. Some records of this species from the south of The Netherlands near the Belgian boarder were recently mentioned by MUILWIJK *et al.*, 2015.

### 1.5 *Ocys tachysoides* (Antoine, 1933)

**MATERIAL EXAMINED:** **Brussel:** Auderghem, Jardin Botanique Jean Massart, in dead wood near the border of pond, sifting and afterwards litter in Berlese funnel, 3 specimens, 19.XII.2018, leg. Dahan L., det. Dahan L. & Dekoninck W., coll. RBINS. + coll. Dahan L.; **Hainaut:** Gosselies, 2 specimens, 21.I.2007, leg. det. & coll. Ignace D.; Gouy-lez-Piéton/Godarville, Rés. Nat. Claire Fontaine, debarking, 1 male, 15.II.2017, leg. Ignace D & Limbourg P., det. & coll. Ignace D.; idem, 17.XII.2017, leg. det. Limbourg P. & coll. Raemdonck H.; Gouy-lez-Piéton, 11 specimens, 21.XII.2016, leg. det. & coll. Ignace D.; Courcelles/Viesville, marais de Viesville, pitfall trap, 1 specimen, 05.III.2010, leg. det. & coll. Limbourg P.; idem, debarking, 1 male, 27.IX.2015, leg. det. & coll. Ignace D.; idem, sifting, 1 specimen, 17.I.2016, leg. det. & coll. Ignace D.; Viesville, marais Les Culées, 15.I.2017, leg. Limbourg P. det. & coll. Raemdonck H.; Trazegnies, teruil des couturelles, sifting, 2 males, 29.V.2016, leg. det. & coll. Ignace D.; **Namur:** Houyet, Pré al Batte, 14.II.2017, leg. det. & coll. Raemdonck H.; Houyet, Pré al Batte, 8+7 specimens, 03.II.2017, leg. det. & coll. Minet G. and Baugnée J.-Y.; idem, 14.II.2017, leg. det. & coll. Raemdonck H.; Pondrôme, Vallon du Ruisseau d'Eclaye, 16.XII.2016, 2 specimens, leg. det. & coll. Raemdonck H. and Minet G.; **Oost-Vlaanderen:** Destelbergen, near Damvallei, 4 specimens under bark, 12.IX.1991, leg. det. & coll. Van Malderen M.; Moerzeke, De Kramp, tidal freshwater marsh along the River Schelde, 1.III.1999, leg. Desender K., det. Hendrickx F., coll. RBINS (MADDISON & ANDERSEN, 2016); Hamme/Kastel, Gespoelde Put, tidal freshwater marsh along the River Schelde, 11.IX.1998, leg. Desender K., det. Hendrickx F., coll. RBINS (MADDISON & ANDERSEN, 2016).

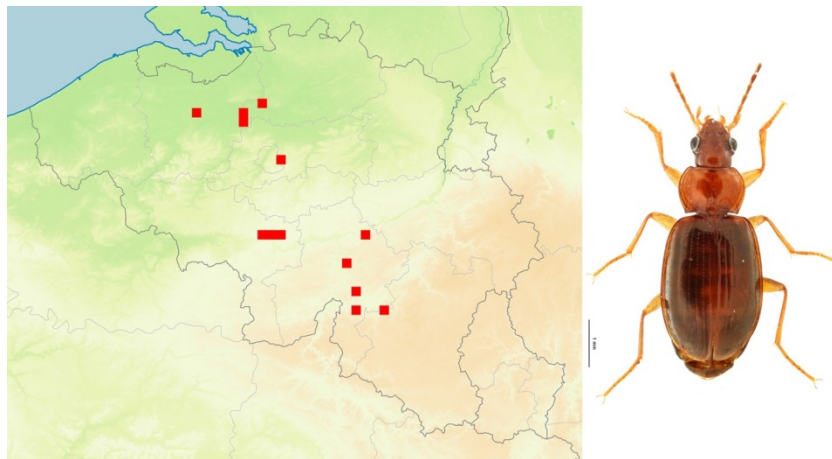


Fig. 9. *Ocys tachysoides*  
(Picture Florence Trus)

**COMMENTS:** MADDISON & ANDERSEN (2016) demonstrated by means of detailed genetic and morphological analyses that the former *O. harpaloides* is in fact a complex of two species i.e. *Ocys harpaloides* (Audinet-Serville, 1821) and *O. tachysoides*. Their analysis is partly based on specimens from Belgium, and revealed that both species are present in Belgium. They suggest *O. tachysoides* to be primarily found in freshwater marshes. It appears likely that many individuals, formerly identified as *O. harpaloides* constitute the species *O. tachysoides*. In the Netherlands, a large number of revised *O. harpaloides* specimens, turned out to be *O. tachysoides* (MUILWIJK & FELIX, 2017).

### 1.6 *Stenolophus marginatum* Dejean, 1829

**MATERIAL EXAMINED:** **Oost-Vlaanderen:** Kalken, garden, light trap, 1 female, night 26-27.V.2018, leg. det. & coll. Van Malderen M. (VAN MALDEREN, 2018).

**COMMENTS:** A new carabid species for the country. A remarkable record of an European carabid with a more southern distribution.



Fig. 10. *Stenolophus marginatum*  
(Picture Michel Van Malderen)

### 1.7 *Tachyura diabrachys* (Kolenati, 1845)

MATERIAL EXAMINED: **Oost-Vlaanderen**: Ename, Bos t'Ename, autocatch, 1 specimen, 24.IV.2012, leg. Struyve T., det. Renner K., coll. RBINS.

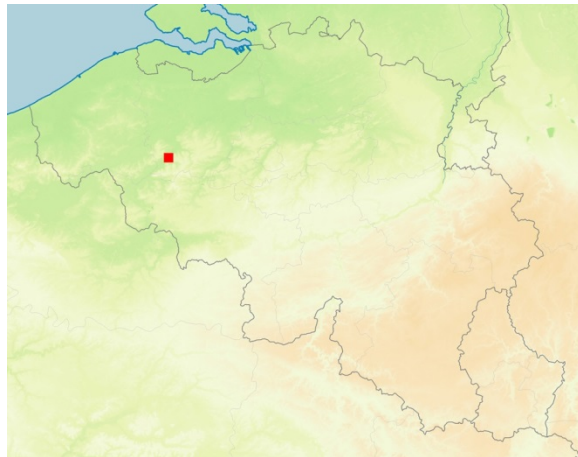


Fig. 11. *Tachyura diabrachys*  
(Picture Ortwin Bleich)

COMMENTS: A new carabid species for the country. A remarkable record of a more central European distributed carabid.

## 2. New distributional records of rare species

### 2.1 *Agonum gracilipes* (Duftschmid, 1812)

MATERIAL EXAMINED: **Limburg**: Hechtel-Eksel, Pijnven, coniferous forest, 1 specimen, light trap, 06.VIII.2009, leg. Crevecoeur L., det. & coll. Stassen E.; idem, open and wet heathland, light trap in *Betula* sp., 1 specimen, 26.VII.2012; Voeren, Veursbos, coniferous forest, luft-eklektor trap in dead beech, 1 specimen, 02.VIII-02.IX.2013, leg. Crevecoeur L., det. & coll. Stassen E.; **Luxembourg**: Habay, Les Coeuvin, pitfall trap, 1 female, 31.V.2018, leg. det. & coll. Renneson J.-L.

COMMENTS: A species from ologotrophic grasslands and heathland and bogs. With the exception of record, all Belgian records of this species later than 2000 are from light traps or eklektor traps. In general, this species is only rarely collected by pitfall traps.



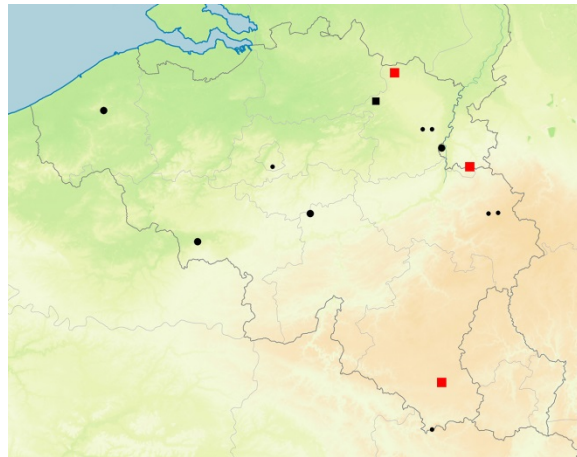


Fig. 12. *Agonum gracilipes*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 6      ● 1950-1980: 4      ■ 1980-2007: 1      ■ 2008-2018: 3

## 2.2 *Agonum scitulum* Dejean, 1828

MATERIAL EXAMINED: **Hainaut**: Viesville, pitfall trap 30.V-06.VI. 2010 leg. det. & coll. Limbourg P.; Gouy-lez-Piéton/Godarville, Claire-Fontaine rés., sifting, 1 specimen, 10.II.2017, leg. Ignace D. & Limbourg P., det. & coll. Limbourg P.; idem, 2 females, 17.XII.2017, leg. det. & coll. Limbourg P.; idem, debarking, 1 female, 28.XII.2017, leg. det. & coll. Ignace D.; Courcelles/Viesville, marais de Viesville, sifting, 4 males + 1 female, 05.I.2017, leg. det. & coll. Ignace D.; idem, 10 specimens, 15.I.2017, sifting, leg. det. & coll. Limbourg P.; Trazegnies, terril des couturelles, debarking, 2 males + 1 female, 29.XII.2016, leg. det. & coll. Ignace D.; Luttre, reed, sifting, 7 specimens, 10.I.2016, leg. det. & coll. Limbourg P.; **Luxembourg**: Tellin, Bois d'Ellinchamps, in fallen tree along the river Lesse, 1 specimen, 28.I.2018, leg. & det. Hendrickx R. & Pottier J.; La Roche-en-Ardenne, banks river Ourthe, 1 specimen, 12.V.2008, leg. det. & coll. Van Malderen M.; **Namur**: Gedinne, 1 specimen, 22.VI.1984, leg. det. & coll. Felix R.

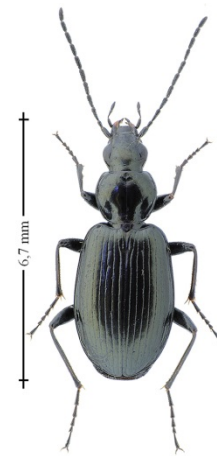
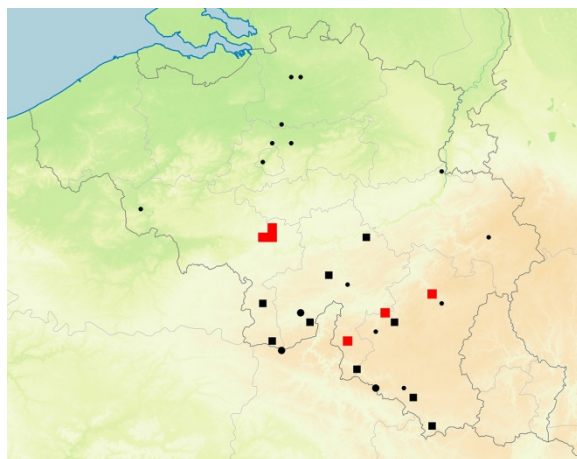


Fig. 13. *Agonum scitulum*  
(Picture David Ignace)

UTM 5x5 km squares  
 ● 1830-1950: 13      ● 1950-1980: 3      ■ 1980-2007: 9      ■ 2008-2018: 6

COMMENTS: Species from humid grasslands. Can also be found along banks of stagnant waters. Probably even more abundant in the south of the country than the current map suggests.

### 2.3 *Amara brunnea* (Gyllenhal, 1810)

MATERIAL EXAMINED: **Liège**: Trooz, 1 specimen, 26.IV.2009, leg. Struyve T., det. & coll. Felix R.; **Limburg**: Houthalen-Helchteren, Mijnterril, area with debris, in heap of stones and herbs, pitfall trap, 1 specimen, 22.VIII.-10.IX.2011, leg. De Lieteberg, det. & coll. Stassen E.; Houthalen-Helchteren, wet mixed beach and coniferous forest, broekbos, pitfall trap, 1 specimen, 22.VIII.-10.IX.2011, leg. De Lieteberg det. & coll. Stassen E.; Lommel, Sahara, dry heathland, grassy edge of quarry, 2 specimens, 20.I.2012, leg. Janssen T., det. coll. Stassen E.; Genk, Winterslag, Mijnterril, at the top, oligotrophic habitat, pitfall trap, 1 specimen, 30.IV-12.V.2016, leg. Crevecoeur L., det. coll. Stassen E.; idem, Mijnterril, humid grassland dominated by herbs, pitfall trap, 2 specimens, 12.V-09.VI.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Zutendaal, De Kuil, wet heathland with *Drosera* sp., pitfall trap, 2 specimens, 01.IX-24.IX.2017, leg. Crevecoeur L., det. & coll. Stassen E.

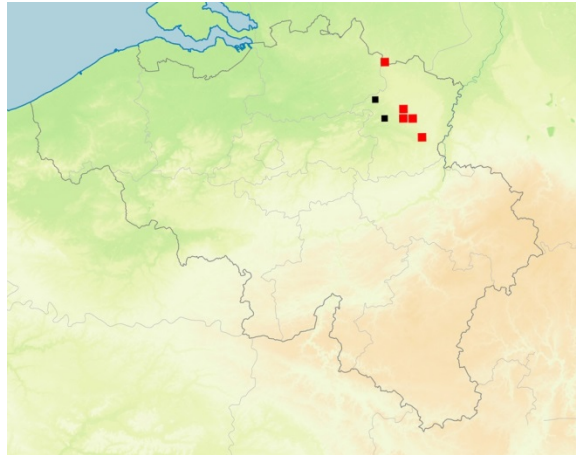


Fig. 14. *Amara brunnea*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 • 1830-1950: 0      • 1950-1980: 0      ■ 1980-2007: 2      ■ 2008-2018: 5

**COMMENTS:** This species was added to the Belgian fauna in 1986, and so far only collected by pitfall traps. It might be more widely distributed in the Province of Limburg. The records originate from heathlands and humid forests.

### 2.4 *Amara fulvipes* (Audinet-Serville, 1821)

MATERIAL EXAMINED: **Limburg**: Maasmechelen, Eisden near Connecterra, pitfall traps in litter form Mechelse Heide, 2 specimens, 21.VI.2017, leg. Bielen S., det. & coll. Stassen E.

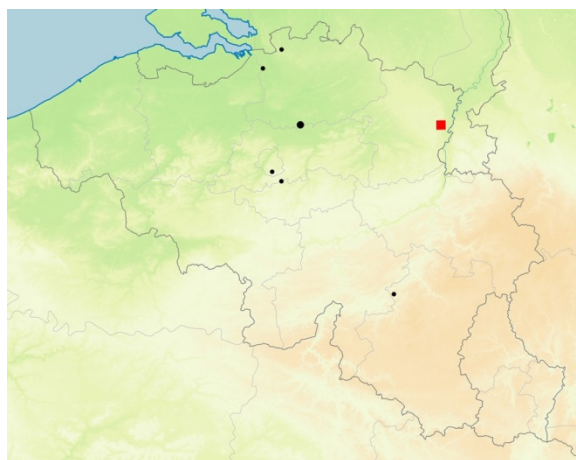


Fig. 15. *Amara fulvipes*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 • 1830-1950: 5      • 1950-1980: 1      ■ 1980-2007: 0      ■ 2008-2018: 1

**COMMENTS:** A species from dry habitats. In Belgium a very rare species of which very little is known about its distribution and ecology.

**2.5 *Amara majuscula* (Chaudoir, 1850)**

**MATERIAL EXAMINED:** **Hainaut:** Luttre, railway station, 1 female, 14.IX.2018, leg. det. & coll. Limbourg P.; **Limburg:** Hechtel-Eksel, Pijnven, light trap, 1 specimen, 28.VI.2012, leg. Evens R., det. & coll. Stassen E.; idem, forest edge - dune, light trap in *Pinus nigra* var. *corsicana*, 1 specimen, leg. Tracing Nature, det. & coll. Stassen E.

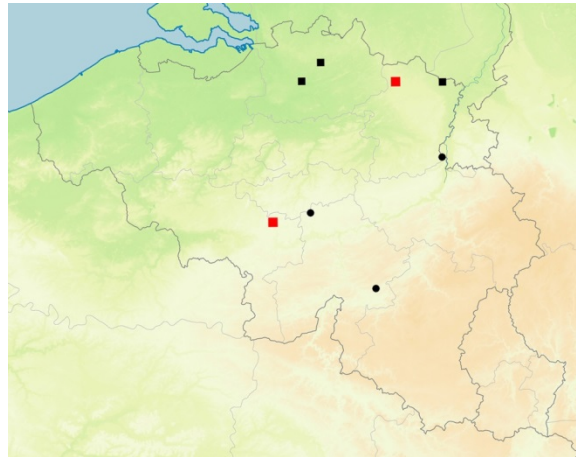


Fig. 16. *Amara majuscula*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 0      ● 1950-1980: 3      ■ 1980-2007: 3      ■ 2008-2018: 2

**COMMENTS:** A species from dry oligotrophic grasslands. Also in open sparsely covered habitats. Can be collected by light traps (MUILWIJK *et al*; 2015).

**2.6 *Amara nitida* Sturm, 1825**

**MATERIAL EXAMINED:** **Limburg:** Riemst, Tiendeberg, pitfall traps 2008, 39 specimens, 12.V-12.X-2008, leg. det. & coll. Stassen E.; idem, grassland, pitfall traps, 3 specimens, 13.V-27.VI.2010, leg. Erens G., det. & coll. Stassen E.; idem, grassland, 55 specimens, pitfall traps, 13.V-16.IX.2012, leg. Erens G., det. & coll. Stassen E.; idem, grassland, pitfall traps, 2 specimens, 02.IV-06.V.2013, leg. Erens G., det. & coll. Stassen E.

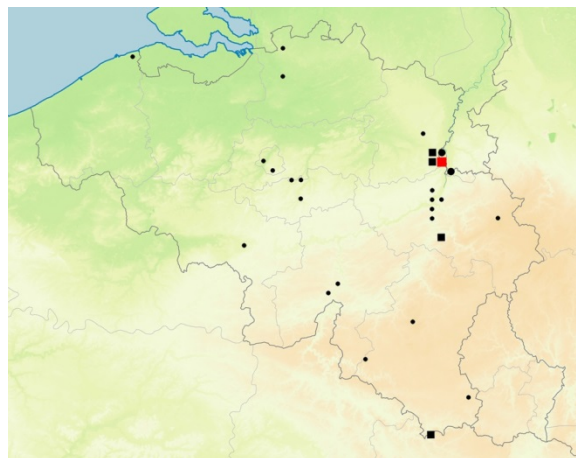


Fig. 17. *Amara nitida*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 23      ● 1950-1980: 3      ■ 1980-2007: 4      ■ 2008-2018: 1



**COMMENTS:** A thermophilic species from open dry heathlands and calcareous grasslands. The species appears to have declined severely since 1950.

### 2.7 *Amara quenseli* (Schönherr, 1806)

**MATERIAL EXAMINED:** **Antwerpen:** Balen, Keiheuvel, pitfall trap, 04-16.IV.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (LAMBRECHTS *et al.*, 2015a); Balen, Keiheuvel, pitfall traps in sites where soil was recently removed, VII-IX.2018, 3 specimens, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (JACOBS *et al.*, 2019); Kalmthout, Grenspark De Zoom - Kalmthoutse Heide, pitfall traps, 2009 april-september, 61 specimens, leg. det. & coll. Jacobs M.; idem, pitfall traps IV-IX.2010, 38 specimens, leg. det. & coll. M. Jacobs; idem, pitfall traps, IV-IX.2011, 26 specimens, leg. det. & coll. M. Jacobs; idem, pitfall traps, IV-IX.2012, 17 specimens, leg. det. & coll. Jacobs M.; idem, pitfall traps, IV-IX.2013, 20 specimens, leg. det. & coll. Jacobs M.; idem, pitfall traps, 1 specimen, IV-IX.2015, leg. det. & coll. Jacobs M.; idem, pitfall traps, 1 specimen, IV-IX.2016, leg. det. & coll. Jacobs M.; **Limburg:** Lommel, Maatheide, pitfall traps, 4 specimens, 15.VI.2010, leg. Project Levend Zand, det. & coll. Stassen E.; Lommel, Dorperheide, pitfall trap, 1 specimen, 01.VI.2012, leg. Project Levend Zand, det. & coll. Stassen E.; Lommel, Riebos, pitfall trap, 1 specimen, 02.VII.2012, leg. Janssen T., det. & coll. Stassen E.; idem, 2 specimens, 16.IX.2012; Lommel, Sahara, dry heathland, grassy edge of a quarry, pitfall trap, 6 specimens, 22.XI.2011, leg. Janssen T., det. & coll. Stassen E.; As, Waterschei, Mijnterril, on slope, pitfall traps, 3 specimens, 12.VII-9.VIII.2014, leg. Zwakhoven F., det. & coll. Stassen E.; idem, pitfall traps, basis of terril, 2 specimens, 24.V-15.VI.2014, leg. Zwakhoven F., det. & coll. Stassen E.; Maasmechelen, Eisden, Mijnterrein, lichen-heathland-young *Betula* vegetation, pitfall trap, 1 specimen, 02.VII.2012, leg. Crevecoeur L., det. & coll. Stassen E.; idem, oligotrophic grassland, pitfall trap, 1 specimen, 26.VIII.-22.IX.2012, leg. Crevecoeur L., det. & coll. Stassen E.

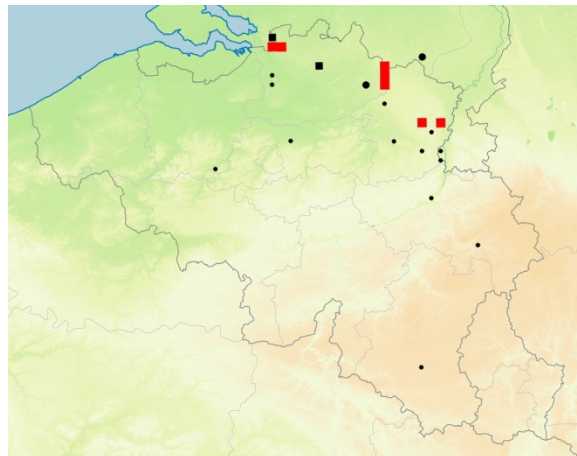


Fig. 18. *Amara quenseli*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 15      ● 1950-1980: 3      ■ 1980-2007: 4      ■ 2008-2018: 7

**COMMENTS:** A species from thermophilic habitats (heathlands, dry grasslands, sandy patches with lichens) that was collected during the last decades with pitfall traps located in the Campine region.

### 2.8 *Amara strenua* Zimmermann, 1832

**MATERIAL EXAMINED:** **Namur:** Houyet, Pelouse d'Harroy, 1 specimen, 13.I.2005, leg. det. & coll. Minet G.; Auffe, Tienne de Botton, 1 male and 1 female, 8.V.2015; leg. det. & coll. Raemdonck H.; **West-Vlaanderen:** Uitkerke, Uitkerkse Polder, pitfall trap, 2 specimens, 22.VIII-10.IX.2013, leg. Van de Meutter F., det. & coll. Jacobs M.; idem, pitfall traps, 1 specimens, 25.IX-22.X.2013, leg. Van de Meutter F., det. & coll. Jacobs M.; Oudenburg, 't Pompje, pitfall traps, 35 specimens, 27.IV.2011-01.VII.2011, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (LAMBRECHTS *et al.*, 2016a; ZWAENEPOEL *et al.*, 2014a); Pittem, reservaat grenzend aan "Ronseval", pitfall trap, 1 specimen, 06-17.VI.2017, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall trap, 3



specimens, 29.V-06.VI-2017, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS (DEKONINCK *et al.*, 2018a).

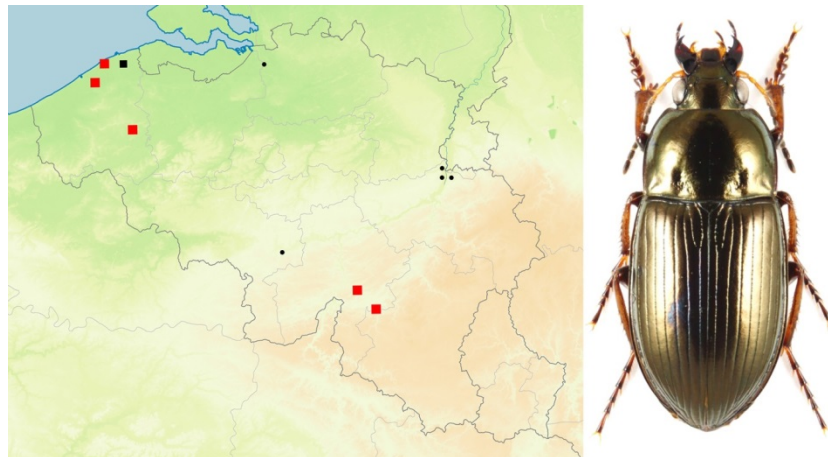


Fig. 19. *Amara strenua*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 6      ● 1950-1980: 0      ■ 1980-2007: 2      ■ 2008-2018: 5

**COMMENTS:** A rare species in Belgium that appears to be restricted to wet, salty grasslands in the northwest and marshes and humid grassland elsewhere.

### 2.9 *Anillus caecus* (Jasquelin Du val, 1851)

**MATERIAL EXAMINED:** **Brussel:** Auderghem, jardin botanique Jean Massart, soil washing, 1 male, 25.I.2018, leg. Dahan L. & Raemdonck H., det. Maquet D., coll. RBINS (MAQUET *et al.*, 2018); idem, soil washing, 1 female, 5.II.2018, leg. Dahan L. & Raemdonck H., det. Maquet D., coll. RBINS (MAQUET *et al.*, 2018); idem, soil washing, 2 specimens, 27.IV.2018, leg. Dahan L., coll. Raemdonck H. & Dahan L. (MAQUET *et al.*, 2018); **Limburg:** Moelingen, valley of the Berwinne, deciduous forest, edge rivulet, subterranean pitfall trap, 1 specimen, 06.X-03.XI.2017, leg. Scholberg P., det. Crevecoeur L., coll. Stassen E.

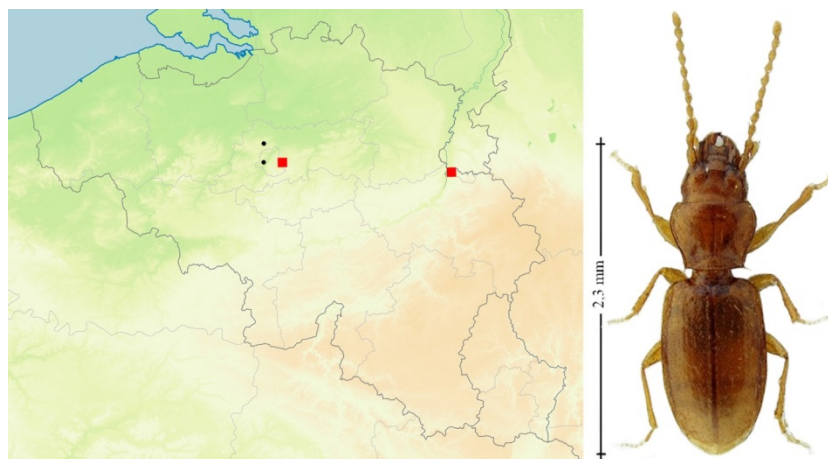


Fig. 20. *Anillus caecus*  
(Picture David Ignace)

UTM 5x5 km squares

● 1830-1950: 2      ● 1950-1980: 0      ■ 1980-2007: 0      ■ 2008-2018: 2

**COMMENTS:** This subterranean species was recently rediscovered at two sites and might be more widely recorded in the near future if searched for using subterranean pitfall traps (cf FELIX *et al.*, 2017) or the “lavage de terre” sampling technique as discussed in MAQUET *et al.* (2018). In the province Limburg in the Netherlands this species was discovered on several localities along the

confluents of the river Maas often in high abundances and also in the province of Zuid Holland in Dirksland (more than 800 specimens) (pers. comm. Muilwijk J.). Might also be discovered along the confluents of the river Scheldt.

### 2.10 *Anisodactylus nemorivagus* (Duftschmid, 1812)

MATERIAL EXAMINED: **Antwerpen:** Brasschaat, Klein Schietveld, pitfall trap, 1 specimen, 09-25.V.2008, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M., (LAMBRECHTS & STIJNEN, 2009); **West-Vlaanderen:** Zedelgem, Vloethemveld, pitfall traps 2009, 43 specimens, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (LAMBRECHTS *et al.*, 2014; ZWAENEPOEL *et al.*, 2014b); Brugge, Sint-Andries, Beisbroek, *Erica cinerea* vegetation, pitfall traps 2015, 3 males, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall traps 2016, 5 specimens, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall traps 2017, 15 specimens, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall traps 2018, 9 specimens, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; Zedelgem, Watermolenvijver, *Erica cinerea* vegetation: pitfall traps 2018, 4 specimens, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS.

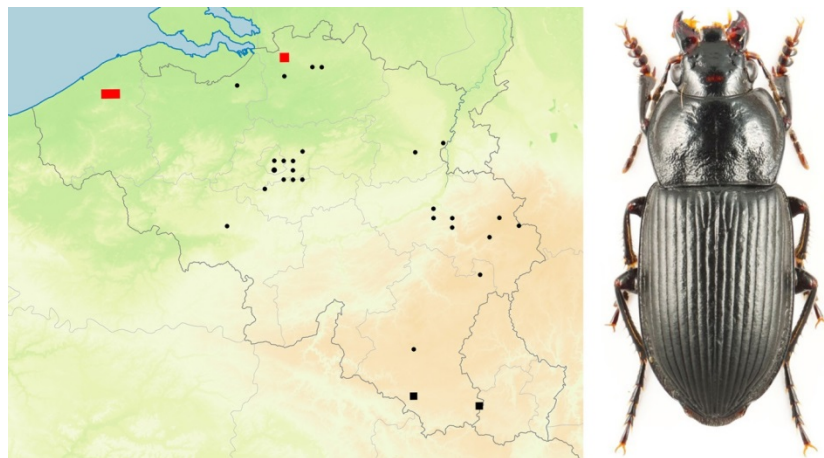


Fig. 21. *Anisodactylus nemorivagus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 27      ● 1950-1980: 0      ■ 1980-2007: 4      ■ 2008-2018: 3

**COMMENTS:** *Anisodactylus nemorivagus* is a sporadically observed species throughout north-west and middle Europe. Old records reveal that it was likely much more common in the past near Brussels and in the Hautes Fagnes and in the east of the country in wet heathland habitats. Near the Belgian border in the Dutch part of Grenspark de Zoom-Kalmthoutse heide, several specimens were recently found on peat in wet heathland (pers. comm. Jacobs M.).

### 2.11 *Anisodactylus poeciloides* (Stephens, 1828)

MATERIAL EXAMINED: **West-Vlaanderen:** Knokke, Het Zwin, pitfall trap, 1 specimen, 19.V-16.VI.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M.; idem, pitfall trap, 1 specimen, 08.IX-06.X.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015; LAMBRECHTS *et al.*, 2016b).

**COMMENTS:** Both records of this species originate from sandy soils and clay as well as sand and sea-clay near the Belgian coast.

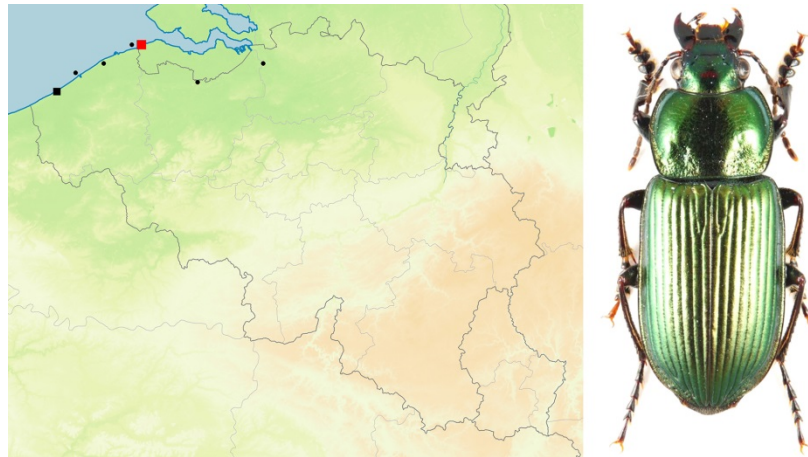


Fig. 22. *Anisodactylus poeciloides*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 6      ● 1950-1980: 0      ■ 1980-2007: 1      ■ 2008-2018: 1

### 2.12 *Anisodactylus signatus* (Panzer, 1796)

MATERIAL EXAMINED: **Antwerpen:** Viersel, Kleine Netevallei, pitfall trap, 2006, 1 specimen, leg. det. & coll. Jacobs M.; **Brussel:** Brussel, Triomflaan, wasteland NMBS, pitfall trap, 1 specimen, 30.IV-13.V.2013, leg. SPEEDY project, det. Van Kerckvoorde M., coll. RBINS; **Luxembourg:** Florenville, Martué, field margin, 19.V.2015 leg. & det. Van Kerckvoorde M., coll. RBINS; **Vlaams-Brabant:** Zemst, Bos van Aa, pitfall trap, 2 specimens, 02.IV.2011, leg. Vandepoel S., det. Stassen E. & coll. RBINS; Egenhoven, Egenhovenbos, 2 specimens, 12.VIII.2012, leg. det. Robben J.

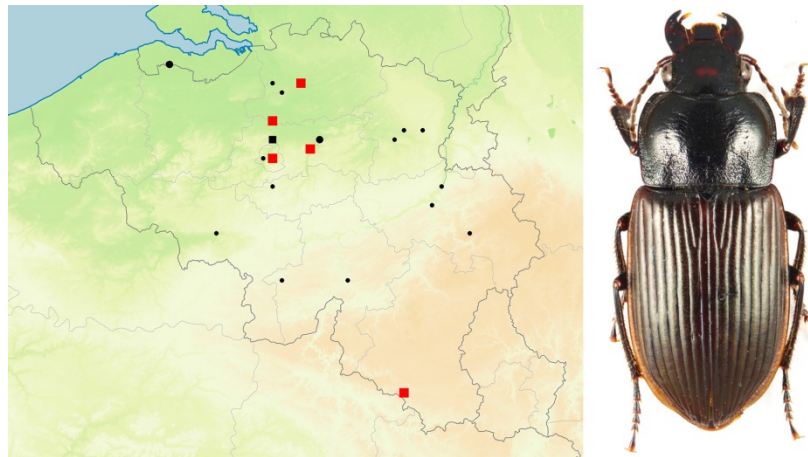


Fig. 23. *Anisodactylus signatus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 13      ● 1950-1980: 2      ■ 1980-2007: 1      ■ 2008-2018: 5

COMMENTS: Species from humid habitats near borders of lakes and ponds.

### 2.13 *Bembidion argenteolum* Ahrens, 1812

MATERIAL EXAMINED: **Limburg:** Rotem (Bichterweert), 18.IV.2010, leg. det. & coll. Delwaide M.

COMMENTS: A species that was formerly present along the Belgian coast, which contrasts with the recent observation from Rotem (Limburg) along the river Maas. In the Netherlands rather common species near larger rivers and dunes. Can be found on open sandy soil near ponds.



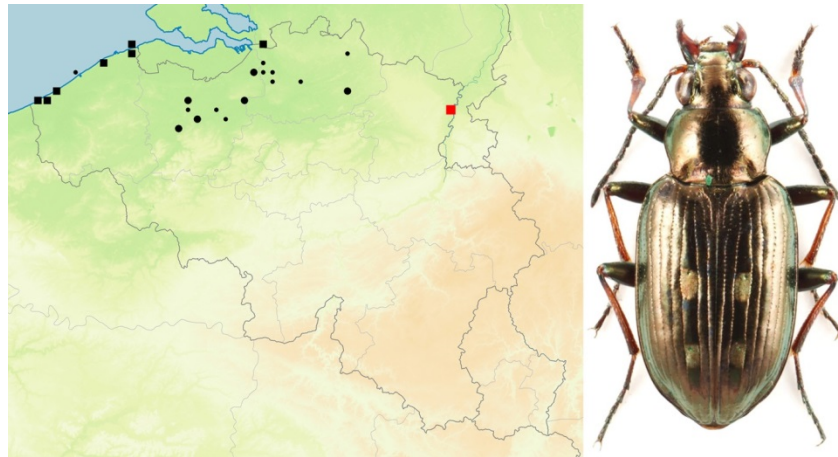


Fig. 24. *Bembidion argenteolum*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 14      ● 1950-1980: 9      ■ 1980-2007: 7      ■ 2008-2018: 1

#### 2.14 *Bembidion humerale* Sturm, 1825

MATERIAL EXAMINED: **Antwerpen:** Kalmthout, Grenspark De Zoom-Kalmthoutse Heide, Stappersven, sifting, 1 specimen, 31.VIII.2013, leg. det. & coll. Van Malderen M.; **Limburg:** Lanaken, heathland, 4 specimens, 15.IX.2008, leg. det. & coll. Delwaide M.

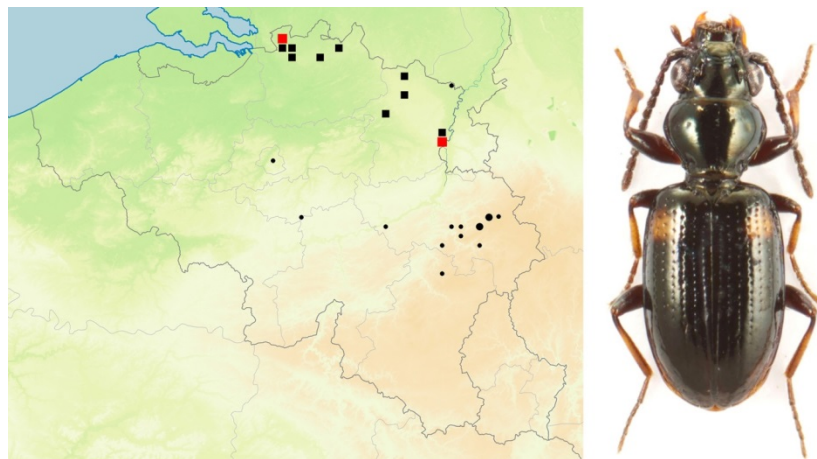


Fig. 25. *Bembidion humerale*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 11      ● 1950-1980: 2      ■ 1980-2007: 9      ■ 2008-2018: 2

COMMENTS: Species from bare peat soil, wet heathland and bogs. In Belgium very rare in wet heathlands and probably still present in Hautes Fagnes.

#### 2.15 *Bembidion litorale* (Olivier, 1790)

MATERIAL EXAMINED: **Limburg:** Rotem (Bichterweert), 18.IV.2010, leg. det. & coll. Delwaide M.; **Oost-Vlaanderen:** Kruikeke, edge clay quarry Argex, on silty soil of dry streamlet, several specimens, 7.V.2015, leg. & det. Van Kerckvoorde M., coll. RBINS; Lochristi, Zandgroeve, Executieoord, open sand near bank of pond, 5 specimens, 03.IV.2009, leg. & det. Van Kerckvoorde M.; idem, 2 males + 7 females, 23.IV.2010, leg. & det. Van Kerckvoorde M.; idem, 11 specimens, 4.V.2012, leg. & det. Van Kerckvoorde M., coll. RBINS ; idem, Zandwinning, 1 specimens, 06.V.2018, leg. det. & coll. Van Malderen M.; idem, 1 specimen, 08.V.2018, leg. det. & coll. Braeckman A.



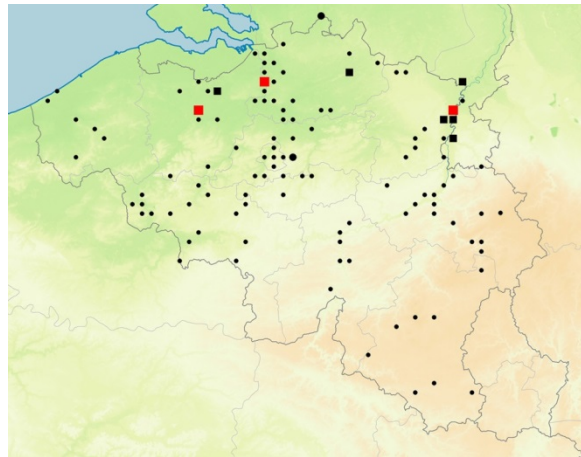


Fig. 26. *Bembidion litorale*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 107      ● 1950-1980: 4      ■ 1980-2007: 6      ■ 2008-2018: 3

**COMMENTS:** One of the most severely declining carabid beetle species of Belgium. While it appeared rather common before 1950, almost no records originate from more recent times.

### 2.16 *Bembidion milleri* Jacquelin du Val, 1851

**MATERIAL EXAMINED:** **Limburg:** Voeren, Gulp brug, bank of rivulet, collected by flooding, 4 specimens, 31.V.2014, leg. Crevecoeur L., det. coll. Stassen E.; **Namur:** Gedinne, 1 specimen, 13.VIII.2001, leg. det. Struyve T. & Felix R., coll. Felix R.; **Oost-Vlaanderen:** Oudenaarde, Volkegem, Leemgroeve, 1 specimen, 18.VII.2016, leg. det. & coll. Van Malderen M.

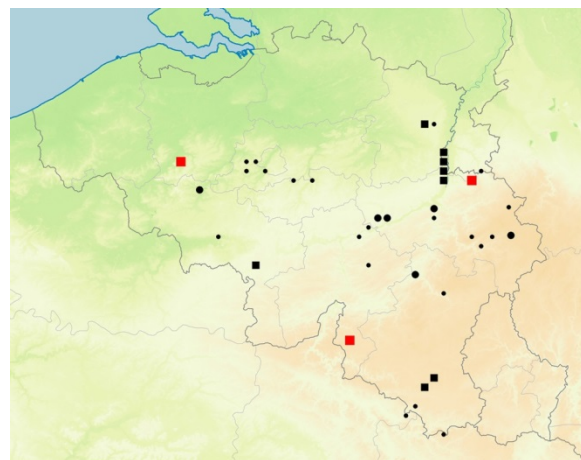


Fig. 27. *Bembidion milleri*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 23      ● 1950-1980: 8      ■ 1980-2007: 8      ■ 2008-2018: 3

**COMMENTS:** Species from soils with bare humid loam. Appears to avoid the more sandy soils in the north of Belgium.

### 2.17 *Bembidion stomoides* Dejean, 1831

**MATERIAL EXAMINED:** **Limburg:** Tongeren, Neerrepn, field margin, pitfall trap, 14.IX-05.X.2019, 1 specimen, leg. Beuckx J.-P., det. & coll. Stassen E.; idem, Hasselbos, forest edge - field, pitfall trap, 23.III-11.IV.2010, 1 specimen, leg. Beuckx J.-P., det. & coll. Stassen E.

**COMMENTS:** Species from banks of rivulets and rivers. Can also be found in wet grasslands near rivulets.

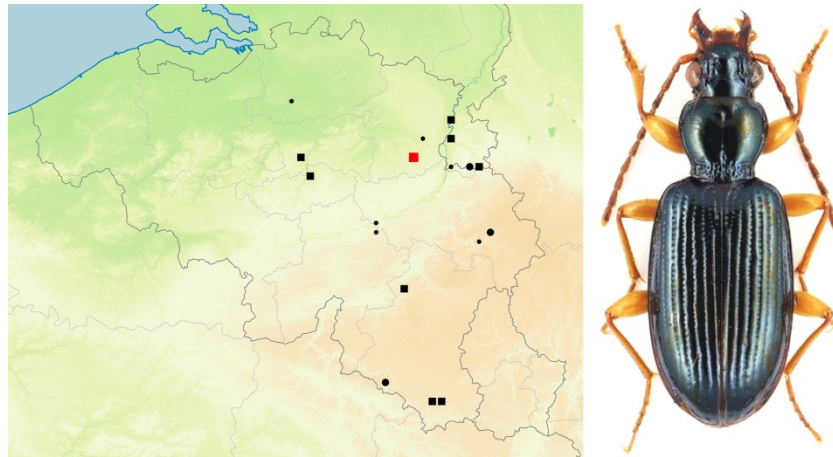


Fig. 28. *Bembidion stomoides*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 6      ● 1950-1980: 6      ■ 1980-2007: 8      ■ 2008-2018: 1

### 2.18 *Bembidion testaceum* (Duftschmid, 1812)

MATERIAL EXAMINED: **Limburg:** Dilsen-Stokkem, Kerkeweerd, Grensmaas, 3 specimens, 16.VI.2012, leg. Struyve T. & Van Malderen M., det. coll. Van Malderen M.; idem, 8.VII.2017, leg. det. & coll. Raemdonck H.; idem, 1 specimen leg. det. & coll. Van Malderen M.; Hechtel-Eksel, Pijnven, open dune-heathland, 1 specimen, light trap op stake, 04.VII.2012, leg. Tracing Nature, det. & coll. Stassen E.; Moelingen, outlet of the rivulet Berwijn, 1 specimen, 14.V.2016, leg. det. & coll. Van Malderen M.; Lanaken, Hochter Bampd, under stone, near forest edge, close to the bank of the river Maas, 1 specimen, 26.XII.2017, leg. det. & coll. Hendrickx R. & Pottier J.

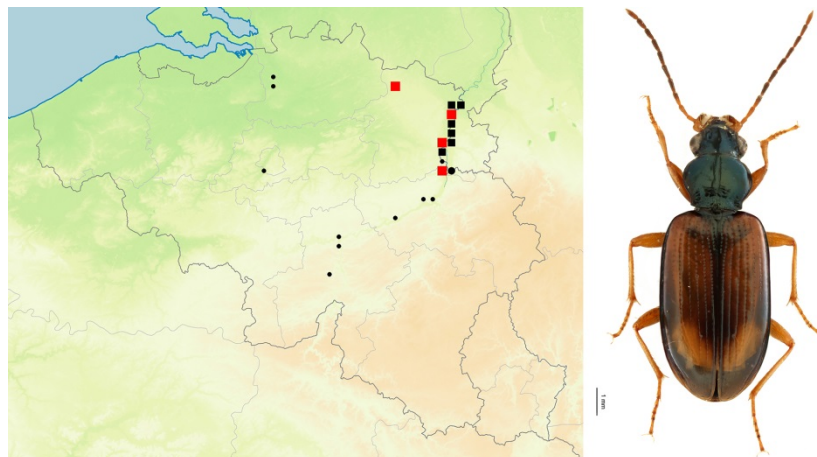


Fig. 29. *Bembidion testaceum*  
(Picture Florence Trus)

UTM 5x5 km squares  
 ● 1830-1950: 13      ● 1950-1980: 7      ■ 1980-2007: 7      ■ 2008-2018: 4

**COMMENTS:** Species from open gravel banks of rivulets and rivers. In Belgium present along the river Maas. In the Netherlands also present along other large rivers.

### 2.19 *Bembidion velox* (Linnaeus, 1761)

MATERIAL EXAMINED: **Limburg:** Neerpelt, Hageven, oever ven, op los zand, 2+2 specimens, 1.IV.2009, leg. & det. Van Kerckvoorde M., coll. RBINS + coll. Van Kerckvoorde. M.; Lommel, Sahara, bank of pond, 2 specimens, 24.IV.2010, leg. det. & coll. Stassen E.; Rotem (Bichterweert), 18.IV.2010, leg. det. & coll. Delwaide M.

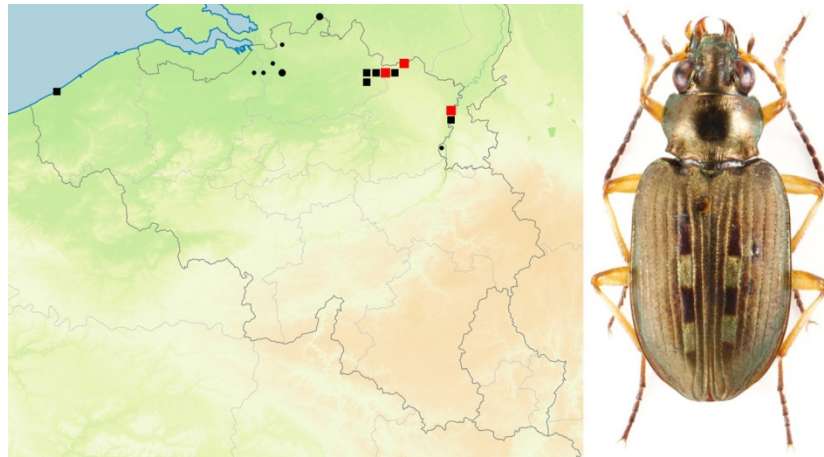


Fig. 30. *Bembidion velox*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 6      ● 1950-1980: 3      ■ 1980-2007: 6      ■ 2008-2018: 3

**COMMENTS:** A species from sandy banks of rivers and ponds. In the Netherlands also found on banks near larger rivers.

### 2.20 *Bradycellus csikii* Laczó, 1912

**MATERIAL EXAMINED:** **Hainaut:** Marchienne au Pont, Terril de Bayemont, 5+7+9 specimens, 8+12+18.XI.2016, leg. & det. Limbourg P. & Ignace D., coll. RBINS + coll. Limbourg P. + coll. Ignace D.; Lodelinsart, "Terril Sacré Français", sifting of mosses, 1 specimen, 14.XII.2016, leg. det. & coll. Limbourg P.; Courcelles, "Terril du petit Courcelles", sifting of mosses, 1 specimen, 05.IV.2015, leg. det. & coll. Limbourg P.; Dourbes, 1 specimen, 21.XI.1991, leg. det. & coll. Limbourg P.; **Limburg:** Hechtel-Eksel, Pijnven, path in forest, light trap in *Pinus sylvestris*, 1+1 specimen, 26.VII.2012+20.VIII.2012, leg. Tracing Nature, det. coll. Stassen E.; idem, forest edge, dune-heathland, light trap in *Pinus sylvestris*, 1+2 specimens, 18.VIII.2012+31.VII.2013, leg. Tracing Nature, det. coll. Stassen E.; idem, open dune-heathland, light trap on stake, 1 specimen, 03.VIII.2012, leg. Tracing Nature, det. coll. Stassen E.

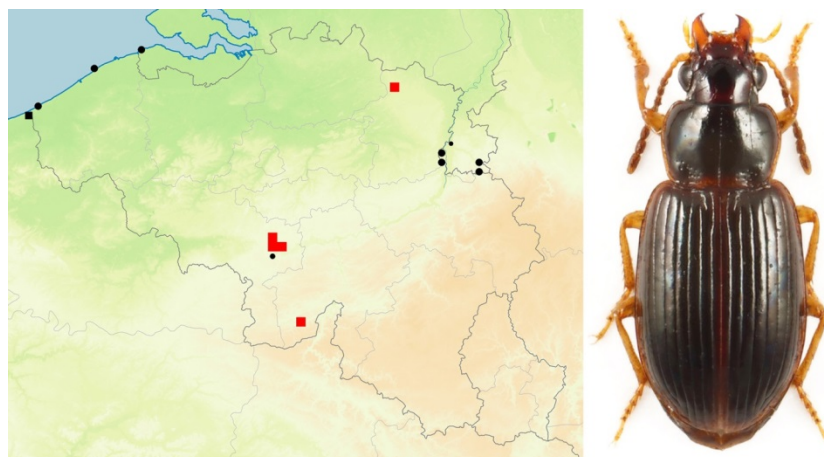


Fig. 31. *Bradycellus csikii*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 2      ● 1950-1980: 6      ■ 1980-2007: 7      ■ 2008-2018: 5

**COMMENTS:** Species from ruderal places, rubble dumps, pavements with brick dust and other stony substrates. May have been confused with *B. harpalinus* and *B. verbasci* in the past.



### 2.21 *Callistus lunatus* (Fabricius, 1775)

MATERIAL EXAMINED: **Namur**: Vierves-sur-Viroin, Mwène à Vaucelle, 1 specimen, 5.V.2008, leg. Kekenbosch R., det. & coll. Muls D.; **Luxembourg**: Torgny, field margin, 1 specimen, 1.VI.2013, leg. & det. Van Kerckvoorde M., coll. RBINS.

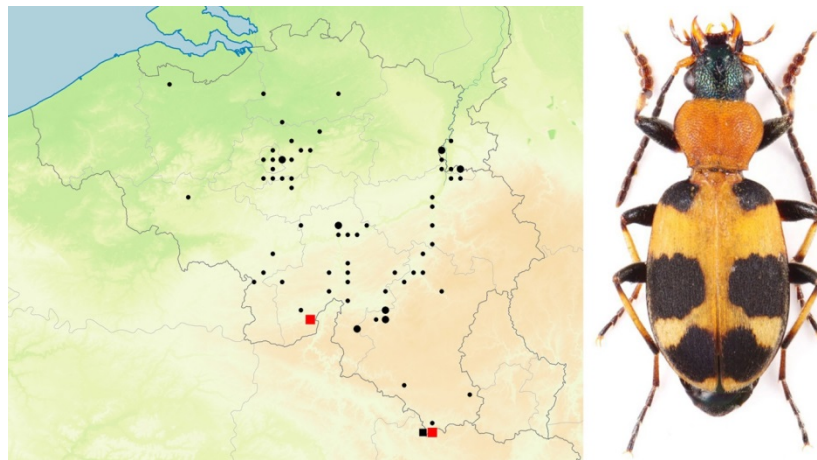


Fig. 32. *Callistus lunatus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
● 1830-1950: 61      ● 1950-1980: 8      ■ 1980-2007: 2      ■ 2008-2018: 2

**COMMENTS:** Species that became very rare last decades. *Callistus lunatus* is a thermophilic species from open mainly calcareous grasslands.

### 2.22 *Calodromius bifasciatus* (Dejean, 1825) in DESENDER *et al.*, 2008a,b as *Dromius bifasciatus* (Dejean, 1825)

MATERIAL EXAMINED: **Antwerpen**: Ekeren, under bark *Platanus* sp., 3 specimens, 13.I.2016, leg. det. & coll. Van Grimberge A.; **Wilrijk**: Fort 6, at night on trunk *Quercus robur*, 1+3 specimens, 01.I.2018, leg. & det. Hendrickx R. & Pottier J. + leg. det. & coll. Hendrickx R.; idem, 2+1 specimen, 05.III.2018 +28.III.2018, leg. det. Hendrickx R. & Pottier J.; **Wilrijk**: Landschap Struisbeekvallei, at night on trunk *Quercus robur*, 2 specimens, 01.I.2018, leg. det. & coll. Hendrickx R.; **Wilrijk**, Klaverblad, under mosses at the base of poplar, 2 specimens, 19.I.2018, leg. det. Hendrickx R. & Pottier J.; **Antwerpen**: Sint-Laurentius, behind bark *Platanus* sp., 2 specimens, 07.I.2018, leg. det. Hendrickx R. & Pottier J.; **Antwerpen**, Nieuw Zuid, behind bark *Platanus* sp., 3 specimens, 07.I.2018, leg. det. Hendrickx R. & Pottier J.; **Antwerpen**, Vogelenzangpark, 1 specimen, death (only elytra), probably behind bark *Platanus* sp., 10.I.2018, leg. det. Hendrickx R. & Pottier J.; **Berchem**, Villegaspark, behind bark *Platanus* sp., 1 specimen, 08.I.2018, leg. det. & coll. Hendrickx R.; **Deurne**, Het Rivierenhof, at night trunk of poplar, 1 specimen, 15.IX.2018, leg. det. & coll. Hendrickx R.; **Westmalle**, Trappisten, 1 specimen, 20.II.2011, leg. Van Nieuwenhuyse B., det. Troukens W. (TROUKENS, 2018); **Brecht**, De Merel, 1 specimen, 18.II.2011, leg. Van Nieuwenhuyse B., det. Troukens W. (TROUKENS, 2018); **Brecht**, Groot Schietveld, 1 specimen, 16.XI.2011, leg. Van Nieuwenhuyse B., det. Troukens W. (TROUKENS, 2018); **Brussel**: Auderghem, Jardin Massart, 3.III.2016, leg. Drumont *et al.*, det. & coll. Raemdonck H.; idem, 11.VIII.2017, 15.XII.2017-11.I.2018, leg. Drumont *et al.*, det. & coll. Raemdonck H. (details see TROUKENS, 2018); **Hainaut**: Courcelles, Marais de Viesville, 6-14.XI.2010, leg. Limbourg P., det. & coll. Raemdonck H.; Courcelles, "Marais/écorçage", 1+1 specimens, 22+24.I.2016, leg. det. & coll. Limbourg P. + coll. Ignace D.; idem, 2 specimens, 15.I.2017, leg. det. & coll. Limbourg P. + coll. Ignace D.; Luttre, beating of vegetation, 1 specimen, 30.I.2012, leg. det. & coll. Limbourg P.; Gouy-lez-Piéton/Godarville, Rés. Nat. Claire Fontaine, 1 specimen, 01.XII.2017, leg. Ignace D. & Limbourg P., coll. Ignace D.; idem, sifting, 1 female, 03.XII.2017, leg. & det. Ignace D. & Limbourg P. & coll. Ignace D.; idem, 17.XII.2017, leg. det. Limbourg P. & coll. Raemdonck H.; Trazegnies, terril des couturelles, 2 specimens, 29.XII.2016, leg. det. & coll. Ignace D.; Trazegnies, marshes, debarking *Thuya* sp., 1 specimen, 16.XII.2018, leg. & det. Ignace D. & Limbourg P., coll. Ignace D.; **Liège**:



Warsage, under bark *Platanus* sp., 2 specimens, 26.II.2017, leg. det. & coll. Delwaide M.; Oupeye, under bark maple, 1 specimen, 20.IX.2013, leg. det. & coll. Delwaide M.; **Limburg**: Lanaken, De Hocht, Kasteelpark, Lindedreef, window trap, 1 specimen, 03.VI.2015-2.VII.2015, leg. Crevecoeur L., det. & coll. Stassen E.; Neerpelt, at night behind bark *Platanus* sp., 2 specimens, 07.I.2018, leg. det. & coll. Hendrickx R.; Neerpelt, Hageven, at night on trunk *Quercus robur*, 3+1 specimens, 30+31.III.2018, leg. det. & coll. Hendrickx R.; **Namur**: Han-sur-Lesse, "Ecorçage", 09.V.2014, 1 specimen, leg. det. & coll. Limbourg P.; **Oost-Vlaanderen**: Ename, Bos 't Ename, Grootbos noord, 1 specimen, 28.XII.2012, leg. det. & coll. Van Malderen M.; Laarne, sifting soil near trunk *Quercus* sp., 10.II.2013, leg. det. & coll. Van Malderen M.; Lokeren, Moertvaartmeersen, 1 specimen, 13.II.2015, leg. det. & coll. Van Grimberge A.; Lokeren, 1 specimen, 24.X.2010, leg. det. & coll. Van Grimberge A.; Erpe, 2016 (TROUKENS, 2018); **Vlaams-Brabant**: Schepdaal, jardin, 02+04.XII.2017, 18.XII.2017, 29.I+27.III.2018, leg. & det. Godding E.; Heverlee, 2015 (TROUKENS, 2018), Averbode, 2017 (TROUKENS, 2018); **West-Vlaanderen**: Zillebeke, De Palingbeek, Oud Kanaal, 1 specimen, 20.I.2018, leg. Verheyde F.

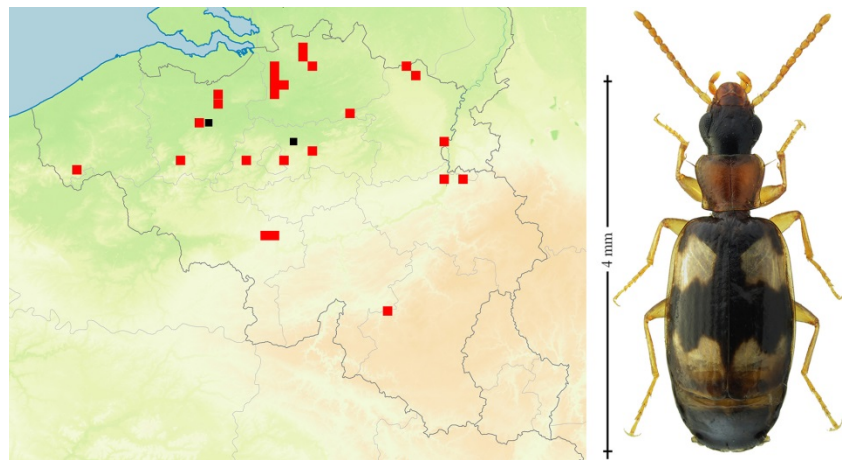


Fig. 33. *Calodromius bifasciatus*  
(Picture David Ignace)

UTM 5x5 km squares

● 1830-1950: 0

● 1950-1980: 0

■ 1980-2007: 4

■ 2008-2018: 25

**COMMENTS:** A species that is probably common in Belgium, mainly in the big cities where it can easily be found when searching under bark of old deciduous trees and at night with torches (FELIX & VAN WIELINK, 2011).

### 2.23 *Cicindela sylvatica* Linnaeus, 1758

**MATERIAL EXAMINED:** **Limburg**: Maasmechelen, ecoduct Kikbeek, 1 specimen, 07.VIII.2009, leg. det. & coll. Lambrechts J. (LAMBRECHTS *et al.*, 2011); Postel, ecoduct Kempengrens, 1 specimen, 27.VII.2016, leg. det. & coll. Lambrechts J. (LAMBRECHTS *et al.*, 2017); Hechtel-Eksel, Pijnven, 25 specimens, VIII.2013, leg. & det. Evens R.; *idem*, 1 specimen, pitfall trap, path in forest, 01-21.V.2013, leg. Tracing Nature, det. & coll. Stassen E.; Hamont, Beverbeekse Heide, 2 specimens, 21.VIII.2013, leg. det. & coll. Scheers K.; Lommel, Balimheide, Balimgronden, 25.VII.2013, leg. det. & coll. Delwaide M.; *idem*, 5 specimens, 20.VIII.2013, leg. det. Hendrickx R.; *idem*, Balimgronden, Kattenbos, 1+14 specimens, 06.VIII.2014 + 14.VIII.2015, leg. & det. Hendrickx R.; *idem*, Balimgronden, 1 specimen, 10.VI.2018, leg. det. Hendrickx R. & Pottier J.; *idem*, Balimgronden, werkgroep Levend Zand, 15.VI.2018, 45 specimens, leg. Peeters L. & Stassen E., det. Stassen E.; Neerpelt, Hageven, pitfall trap, 09.VII.2017, 1 specimen, leg. det. & coll. Hendrickx R.; **Luxembourg**: Arlon, camp militaire de Lagland, nord du champ de tir, 6.VI.2006, 1 specimen on sandy track, leg. det. & coll. Baugnée J.-Y.; *idem*, lieu-dit Derrière les Hazelles, 30.III.2014, leg. det. & coll. Renneson J.-L.; *idem*, lieu-dit Mer de Sable, 16.VII.2018, 1 female, sand hill with heathland, leg. det. & coll. Baugnée J.-Y.

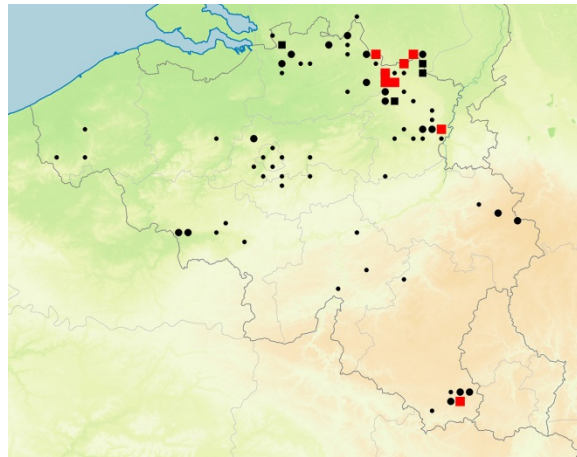


Fig. 34. *Cicindela sylvatica*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 57      ● 1950-1980: 22      ■ 1980-2007: 5      ■ 2008-2018: 8

**COMMENTS:** A species from forests paths, dry heathland and other thermophilic habitats. A very localized and endangered species that is currently restricted to the vast sandy heathlands of the Campine and the Gaume region.

#### 2.24 *Cicindela sylvicola* Dejean, 1822

**MATERIAL EXAMINED:** **Luxembourg:** Libin, «Carrière de l'Arfaye», 1 specimen, 26.VI.2004, leg. det & coll. Minet G.; **Namur:** Gedinne, 1 specimen, 15.VIII.2001, leg. Struyve T., det. Struyve T. & Felix R., coll. Felix R.; Celles, Sablière Jean Marcaux, 2 specimens, 26.IV.2007, leg. det. & coll. Raemdonck H. and Minet G.; Vencimont, «Virée du Hêtre», 2 specimens, 24.IV.2000, leg. det & coll. Minet G.

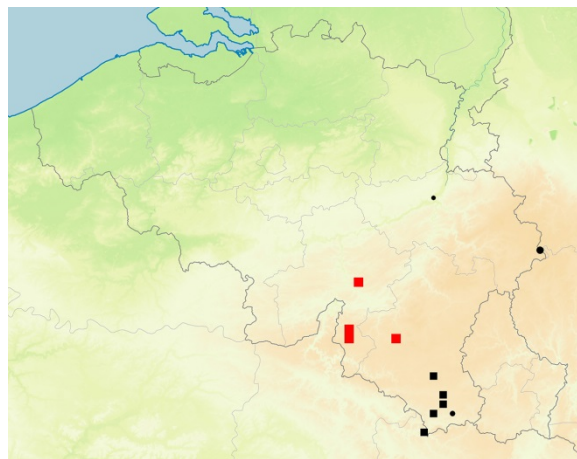


Fig. 35. *Cicindela sylvicola*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 1      ● 1950-1980: 1      ■ 1980-2007: 6      ■ 2008-2018: 4

**COMMENTS:** A species from open, dry habitats often on open slopes in forests.

#### 2.25 *Dromius meridionalis*, Dejean, 1825

**MATERIAL EXAMINED:** **Antwerpen:** Antwerpen, Italiëlei, 3 specimens, 10.XII.2015, under bark *Platanus* sp., leg. Bruers J., det. & coll. Van Malderen M.; Antwerpen, under bark *Platanus* sp., 2+2+1 specimens, 03.II.2008, 18.XII.2011, 30.I.2012, leg. det. & coll. Van Grimberge A.; Antwerpen, 6 specimens, 10.XII.2015, leg. det. & coll. Van Grimberge A.; Antwerpen, Nieuw Zuid, under bark *Platanus* sp., 9 specimens, 07.I.2018, leg. det. & coll. Hendrickx R. & Pottier J.; Antwerpen, Stad, under bark *Platanus* sp., 1 specimen, 07.I.2018, leg. det. & coll. Hendrickx R. & Pottier J.;

Antwerpen, Antwerpen Noord, under bark *Platanus* sp., 3 specimens, 07.I.2018, leg. det. & coll. Hendrickx R. & Pottier J.; Antwerpen, Stad-Stadspark, under bark *Platanus* sp., 1 specimen, 12.I.2018, leg. det. & coll. Pottier J.; **West-Vlaanderen**: Brugge, under bark *Platanus* sp., 1 specimen, 09.XII.2008, leg. det. & coll. Van Grimberge A.

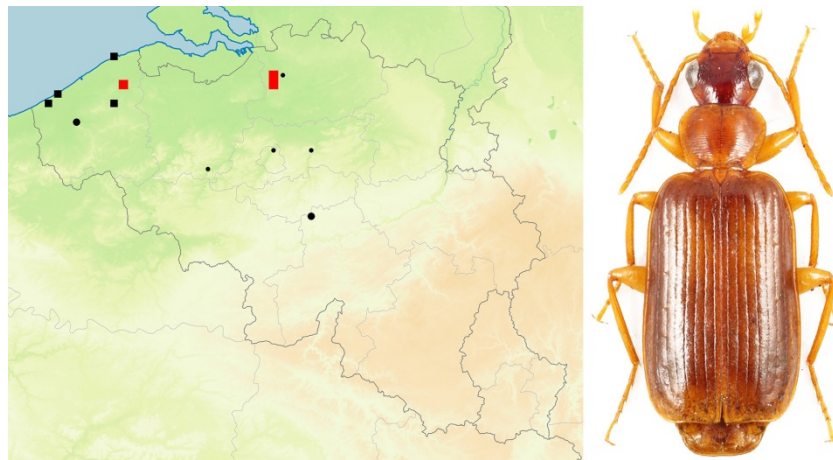


Fig. 36. *Dromius meridionalis*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 6      ● 1950-1980: 2      ■ 1980-2007: 4      ■ 2008-2018: 3

**COMMENTS:** A species that is probably more common in Belgium than often assumed. It can easily be found when searching under bark of old deciduous trees and at night with tourches (FELIX & VAN WIELINK, 2011). Sometimes together with *Calodromius bifasciatus*.

### 2.26 *Dyschirius semistriatus* (Dejean, 1825)

**MATERIAL EXAMINED:** **Liège:** Villers-le-Bouillet, Sablière du Haut Fays, 1 specimen, 04.V-6.VI.2010, pitfall trap, leg. & det. Migon M., coll. RBINS; **West-Vlaanderen:** Brugge, Sint-Andries, Beisbroek, newly created *Erica cinerea* vegetation on excavated (2005) former arable fields, pitfall trap, 1 specimen, 06-20.III.2015, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; Brugge, Sint-Andries, Beisbroek, newly created *Erica cinerea* vegetation on excavated (2009) former arable field, pitfall trap, 1 specimen, 15-29.V.2015, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall trap, 1 specimen, 15.III-01.IV.2016, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall trap sampling 2017, 7 specimens, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS; idem, pitfall trap sampling 2018, 3 specimens, leg. Dekoninck *et al.*, det. Van Kerckvoorde M., coll. RBINS (DEKONINCK *et al.*, 2018b).

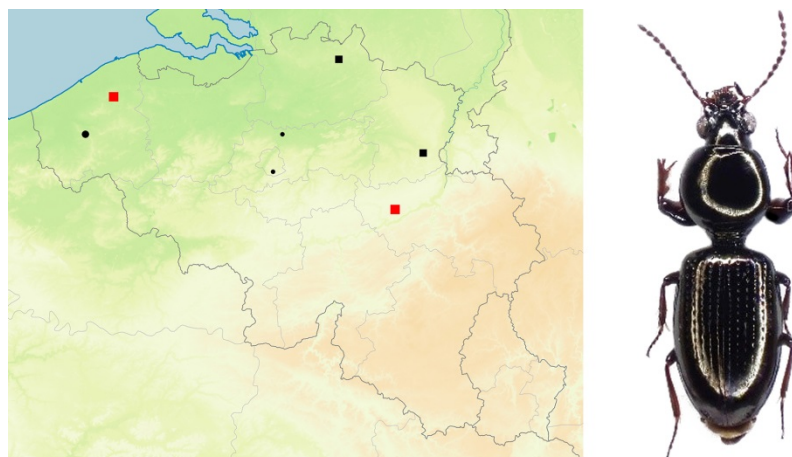


Fig. 37. *Dyschirius semistriatus*  
(Picture Rémy Ancellin)

UTM 5x5 km squares  
 ● 1830-1950: 2      ● 1950-1980: 1      ■ 1980-2007: 2      ■ 2008-2018: 2



**COMMENTS:** A rare species throughout Europe (DEKONINCK *et al.*, 2018b). A species of wet heathland and wet, oligotrophic grasslands. In the Netherlands the species is also recorded from forests (MUILWIJK *et al.*, 2015).

### 2.27 *Elaphrus aureus* Müller, 1821

**MATERIAL EXAMINED:** **Limburg:** Lanaken, Hochter Bampd, riverside Maas, collected by flooding, 4 specimens, 16.IV.2016, leg. det. & coll. Stassen E.; Voeren, Berwijn, right bank, on the riverside of Berwijn, 17 specimens, 14.V.2016, leg. det. & coll. Stassen E.; Moelingen, where river Berwijn floods into river Maas, banks, 14 specimens, 14.V.2016, leg. det. & coll. Van Malderen M.

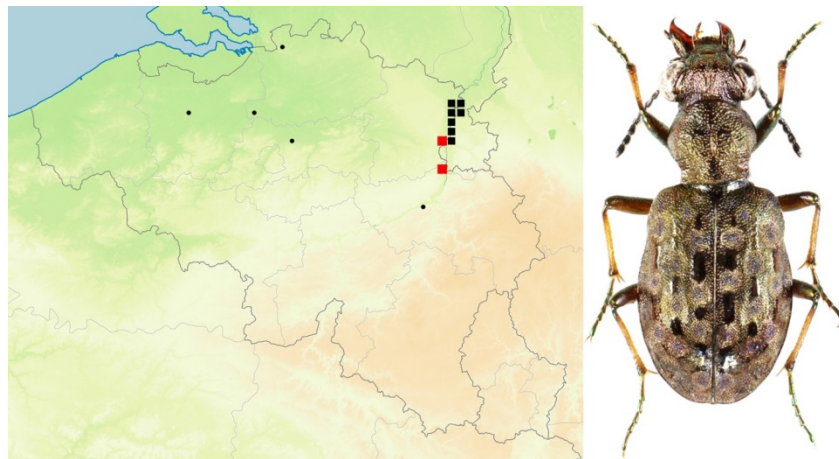


Fig. 38. *Elaphrus aureus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 6      ● 1950-1980: 3      ■ 1980-2007: 7      ■ 2008-2018: 2

**COMMENTS:** Species that is still present along the borders of the river Maas, starting from Moelingen where the river Berwijn flows into the river Maas and up to Maaseik. Species from open gravel banks of rivulets and rivers.

### 2.28 *Harpalus dimidiatus* (Rossi, 1790)

**MATERIAL EXAMINED:** **Liège:** Boirs, Bassenge, Derrière les Massottes, 1 male specimen, 22.V.2012, leg. det. & coll. Stassen E.; **Limburg:** Neerpelt, Hageven, dry heathland, in *Rumex acetosella* with sandy open spots, pitfall trap, 1 specimen, 28.V-22.VI.2016, leg. Hendrickx R., det. & coll. Stassen E.; **Luxembourg:** Torgny, border reserve nature, 1 specimen, 23.IX.2009, leg. det. & coll. Van Kerckvoorde M.; Torgny, Pont Camus, arable field margin, pitfall trap, 2 specimens, 6-20.V.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, 1 specimen, 3.VI.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, 1 specimen, 7.V.2018, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, maize field margin, 1 male, 3.XI.2018, leg. & det. Van Kerckvoorde M., coll. RBINS; Lamorteau, Radru, border of arable field, 1 specimens, 16.V.2010, leg. & det. Van Kerckvoorde M., coll. RBINS.

**COMMENTS:** *Harpalus dimidiatus* was a common species in the xerothermic grasslands along some large rivers in Wallonia like the Meuse, Sambre and Lesse. Recently only in some small isolated populations in the Gaume, Hageven and Boirs. It prefers calcareous grasslands and arable fields on calcareous soils.

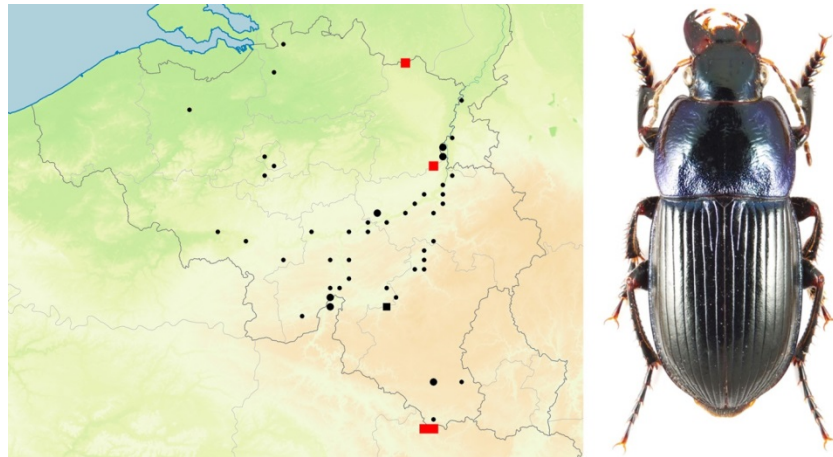


Fig. 39. *Harpalus dimidiatus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 44      ● 1950-1980: 7      ■ 1980-2007: 2      ■ 2008-2018: 4

### 2.29 *Harpalus flavescens* (Piller & Mitterpacher, 1783)

MATERIAL EXAMINED: **Antwerpen:** Kalmthout, Grenspark De Zoom - Kalmthoutse Heide, pitfall traps 2012, 1 specimen, leg. det. & coll. Jacobs M.; idem, pitfall traps 2013, 4 specimens, leg. det. & coll. Jacobs M.; Balen, Keiheuvel, pitfall traps in site where soils was removed recently, VIII.2018, 5 specimens, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (JACOBS *et al.*, 2019); Averbode, parking de Vijvers, pitfall traps 2009, 36 specimens, leg. Berwaerts K., det. & coll. Jacobs M.; **Limburg:** Genk, De Maten, pitfall trap, 01.VIII.2013, 23 specimens, leg. det. & coll. Stassen E.; Genk, Silikaat, North slope with little vegetation, pitfall traps, 2 specimens, 18.IX-06.X.2017, leg. Crevecoeur L., det. & coll. Stassen E.; **Oost-Vlaanderen:** Gent, Terdonk, Gents havengebied, 6 specimens, 25.VIII.2007, leg. Struyve T. det. & coll. Felix R.; idem, 1 specimen, 28.IX.2007, leg. det. & coll. Scheers K.; Doornzele, environment Terdonkkaai, under rosette of *Erodium cicutarium*, 1 specimen, 13.V.2008, leg. det. & coll. Van Malderen M.

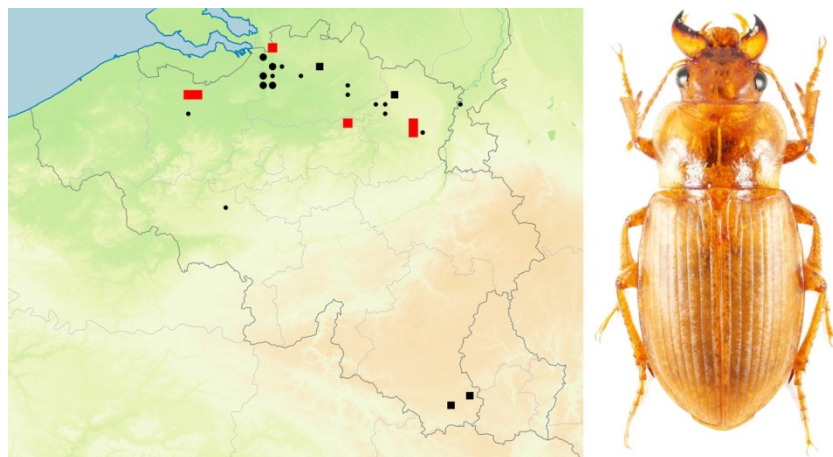


Fig. 40. *Harpalus flavescens*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 14      ● 1950-1980: 6      ■ 1980-2007: 4      ■ 2008-2018: 7

COMMENTS: A species from open dunes and sandy habitats. Has a preference for wandering dunes and sand.

### 2.30 *Harpalus froelichii* Sturm, 1818

MATERIAL EXAMINED: **Antwerpen:** Balen, Keiheuvel, 1 specimen, 31.III.2014, leg. det. & coll. Jacobs M. (LAMBRECHTS *et al.*, 2015a); Balen, Keiheuvel, pitfall traps in recently geplagde site, 1 specimen, 26.VII-10.VIII.2018, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (JACOBS *et al.*,

2019); **Limburg:** Genk, Openluchtmuseum, orchard with large apple trees, light trap, 2 specimens, 10.VII.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Genk, Openluchtmuseum, autonet, 2 specimens, 10.VII.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Hamont-Achel, Beverbeekse Heide, wet heathland, *Molinia caerulea*, top soil layer removed, pitfall trap, 1 specimen, 15.VI-11.VII.2015, leg. Crevecoeur L., det. & coll. Stassen E.; Hechtel-Eksel, Pijnven, coniferous forest, light trap, 4 specimens, 06.VIII.2009, leg. Crevecoeur L., det. & coll. Stassen E.; idem, light trap 57 specimens, 28.VI.2012, leg. Evens R., det. & coll. Stassen E.; idem, Beekvallei, reed belt, light traps, 69+24+1+2+1 specimens, 26.VII.2012, 01.VIII.2012, 20.VIII.2012, 22.VII.2013, 22.VIII.2013, leg. Tracing Nature, det. & coll. Stassen E.; idem, Bosdreef, light traps in *Pinus sylvestris*, 95+4+27+14+98+2 specimens, 26.VII.2012, 13.VIII.2012, 25.VII.2012, 26.VII.2012, 01.VIII.2012, 07.VIII.2012, leg. Tracing Nature, det. & coll. Stassen E.; idem, forest edge, dune, light traps in *Pinus nigra var. corsicana*, 109+23+97+5+65+1+6+13, 28.VI.2012, 25.VII.2012, 26.VII.2012, 29.VII.2012, 01.VIII.2012, 08.VIII.2012, 13.VIII.2012, 18.VIII.2012, leg. Tracing Nature, det. & coll. Stassen E.; idem, forest edge, dune-heathland, light traps in *Pinus sylvestris*, 59+132+13+17+1+2 specimens, 25 and 26.VII.2012, 13 and 18.VIII.2012, 18.VII.2013, 17.VIII.2013, leg. Tracing Nature, det. & coll. Stassen E.; idem, heathland, light traps, 1+16+8+1 specimens, 18 and 22 and 29 and 31.VII.2013, leg. Tracing Nature, det. & coll. Stassen E.; idem, wet meadow, light trap in *Alnus glutinosa*, 1+8+260+1+64+1+1 specimens, 08 and 25 and 26 and 29.VII.2012, 01 and 08.VIII.2012, 29.VII.2014, leg. Tracing Nature, det. & coll. Stassen E.; idem, open dune-heathland, light trap on stake, 1+1+30+15+249+1+1 specimens, 04 and 08 and 22 and 25 and 26.VII.2013, 16 and 20.VIII.2013, leg. Tracing Nature, det. & coll. Stassen E.; idem, open wet heathland, light trap in *Betula* sp., 49+429 specimens, 25 and 26.VII.2012, leg. Tracing Nature, det. & coll. Stassen E.; Lanaken, De Hocht, Kasteelpark, light trap in *Fraxinus excelsior* at the edge of the pond, 1 specimen, 03.VIII.2015, leg. Crevecoeur L., det. coll. Stassen E.; idem, Lindedreef, light trap in death *Tilia* sp., 1 specimen, 03.VIII.2015, leg. Crevecoeur L., det. coll. Stassen E.; idem, small forest on island, light trap, 1 specimen, 19.VII.2016, leg. Crevecoeur L., det. coll. Stassen E.; Pelt, Hobos, Lindedreef, light trap, 19 specimens, 01.VIII.2013, leg. Crevecoeur L., det. coll. Stassen E.; idem, meadow with row of pear trees, light trap in pear tree, 10 specimens, 01.VIII.2013, leg. Crevecoeur L., det. coll. Stassen E.; Lommel: Stevensvennen, on the soil of sand quarry, 1+1 specimens, 23.VIII.2010 + 12.VIII.2012, leg. det. & coll. Delwaide M.; Koersel, Stalse schans, 2 specimens, 12.IV.2014, leg. Van Grimberge A., det. Van Malderen M., coll. Van Grimberge A.; **Oost-Vlaanderen:** Kalken, Heesvelde, light trap, 6+2+1+1 specimens, 28.VII.2008+23.VII.2013+20.VII.2015+31.VIII.2015, leg. det. & coll. Van Malderen M.

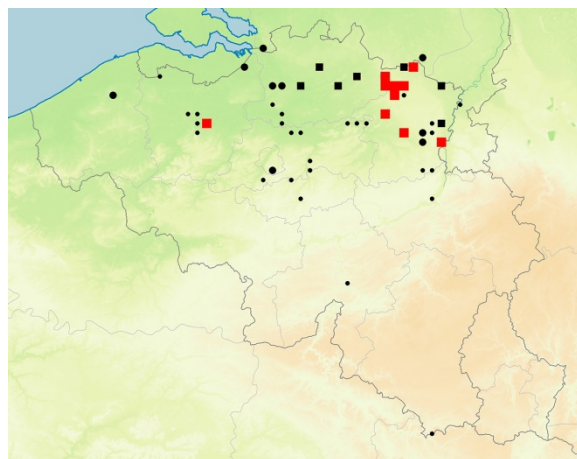


Fig. 41. *Harpalus froelichii*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 31      ● 1950-1980: 9      ■ 1980-2007: 7      ■ 2008-2018: 10

**COMMENTS:** This species was collected in Limburg with light traps in more than 10 different 1x1 km UTM squares, often in very high numbers. This suggests that the species was probably overlooked, but commonly captured with light traps. A species of sandy soils, oligotrophic grasslands, heathland and wandering dunes.



### 2.31 *Harpalus modestus* Dejean, 1829

MATERIAL EXAMINED: **Limburg:** Oudsbergen, Zwarte Berg, Mijnterril, grassland, strip sown with flower mixture, pitfall trap, 1 specimen, 18.III-02.IV.2017, leg. Evens J., det. coll. Stassen E.; **Vlaams-Brabant:** Wezemaal, Duitsveldbaan, verruigde akker, pitfall trap, 1 male, 14.V.2013, leg. project SPEEDY, det. Van Kerckvoorde M., coll. RBINS; Wezemaal, Eekstraat, Klein stukje berm tussen de huizen, pitfall trap, 1 male, 30.IV.2013, leg. project SPEEDY, det. Van Kerckvoorde M., coll. RBINS; Wezemaal, Kerzestraat, roadside direction towards forestedge, 2 males, pitfall trap, 30.IV.2013, leg. project SPEEDY, det. Van Kerckvoorde M., coll. RBINS; idem, 1 male; 14.V.2013, idem, 1 male; 12.VI.2013, Kortenbergh, Voskapellelaan, roadside, pitfall trap, 1 female, 03.V.2013, leg. project SPEEDY, det. Van Kerckvoorde M., coll. RBINS.

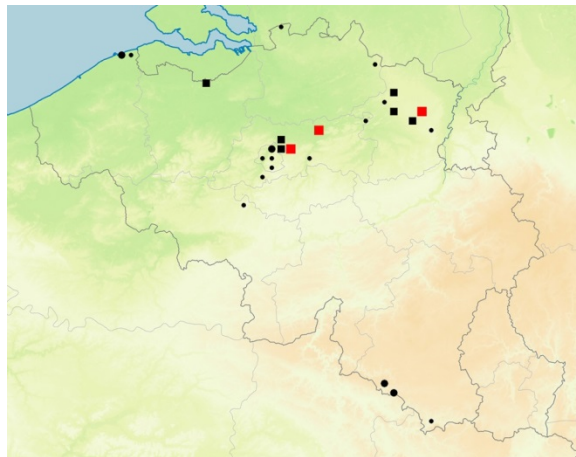


Fig. 42. *Harpalus modestus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 14      ● 1950-1980: 4      ■ 1980-2007: 6      ■ 2008-2018: 3

COMMENTS: A species of heathlands, sandy arable fields, oligotrophic grasslands.

### 2.32 *Harpalus neglectus* Serville, 1821

MATERIAL EXAMINED: **Antwerpen:** Kalmthout, Grenspark De Zoom - Kalmthoutse Heide, 16 specimens, pitfall traps 2009, leg. det. & coll. Jacobs M.; idem, 7 specimens, pitfall traps 2010, leg. det. & coll. Jacobs M., idem, 22 specimens, pitfall traps 2011, leg. det. & coll. Jacobs M., idem, 55 specimens, pitfall traps 2012, leg. det. & coll. Jacobs M., idem, 42 specimens, pitfall traps 2013, leg. det. & coll. Jacobs M., idem, 30 specimens, pitfall traps 2015, leg. det. & coll. Jacobs M., idem, 6 specimens, pitfall traps 2016, leg. det. & coll. Jacobs M.; **Limburg:** Genk, Boxbergheide, dry heathland, pitfall trap, 1 specimen, 24.IV-05.V.2010, leg. Schoofs C., det. & coll. Stassen E.

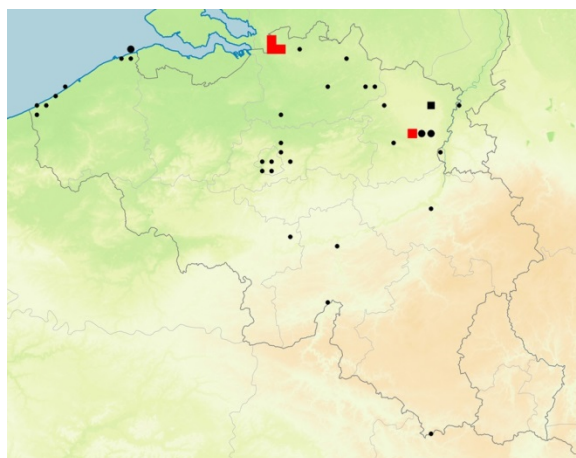


Fig. 43. *Harpalus neglectus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 31      ● 1950-1980: 4      ■ 1980-2007: 4      ■ 2008-2018: 4

COMMENTS: A species from wandering dunes, open dunes, dunes with lichens and open heathlands.

### 2.33 *Harpalus serripes* (Quensel, 1806)

**MATERIAL EXAMINED:** **Limburg:** Oudsbergen, Militair domein Meeuwen, Vochtige heide, pitfall trap, 1 specimen, 10-24.X.2009, leg. Evens J., det. & coll. Stassen E.; **West-Vlaanderen:** Koksijde, Park van Hannecart, 19.V.2018, leg. det. & coll. Raemdonck H.; Middelkerke, Schuddebeurze, 2 specimens, pitfall traps, 7-25.V.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M., (LAMBRECHTS & JACOBS, 2014; LAMBRECHTS *et al.*, 2015b); Oostduinkerke, Plaatsduinen, 2 specimens, pitfall traps, 31.V.2016-12.VII.2016, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M., (COSYNS *et al.*, 2017; LAMBRECHTS *et al.*, 2018); Oostduinkerke, Ter Yde, sifting, 14 specimens, 19.V.2018, leg. det. & coll. Van Malderen M.

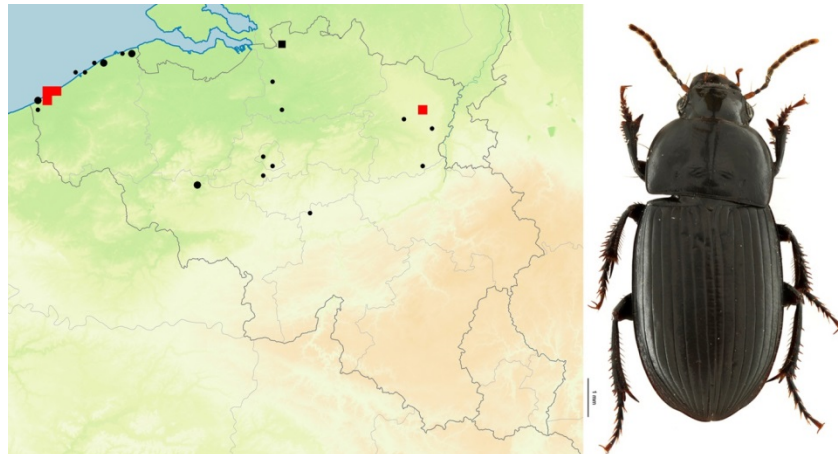


Fig. 44. *Harpalus serripes*  
(Picture Florence Trus)

UTM 5x5 km squares

● 1830-1950: 18      ● 1950-1980: 4      ■ 1980-2007: 4      ■ 2008-2018: 4

COMMENTS: Species from dry dunegrasslands, wandering dunes and large heathland areas.

### 2.34 *Harpalus signaticornis* (Duftschmid, 1812)

**MATERIAL EXAMINED:** **Limburg:** Riemst, Tiendeberg, grassland, 2+3 specimens, pitfall traps, 10-24.VI.2012 and 24.VI-08.VII.2012, leg. Erens G., det. & coll. Stassen E.; Maasmechelen, Eiden Mijnterrein, lichen-heathland-young *Betula* sp., 5+1 specimens, pitfall traps, 28.IV-12.V.2012 and 02-VII.2012, leg. Crevecoeur L., det. & coll. Stassen E.; **Luxembourg:** Torgny, field margin, 1+1 specimen, 17.V.2015 + 24.V.2015, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, Pont Camus, 5 specimens, 17.VI.2017, leg. & det. Van Kerckvoorde M., coll. RBINS.

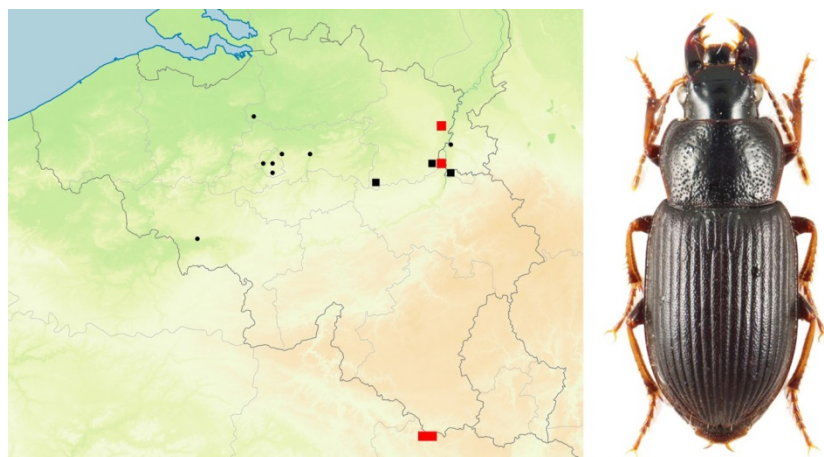


Fig. 45. *Harpalus signaticornis*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 9      ● 1950-1980: 0      ■ 1980-2007: 3      ■ 2008-2018: 4

**COMMENTS:** Species from oligotrophic open grasslands, sandy soils with a variety of herbs, oligotrophic arable field margins. A very rare species for Belgium.

### 2.35 *Lebia cruxminor* (Linnaeus, 1758)

**MATERIAL EXAMINED:** **Hainaut:** Viesville, Petits Sarts rés., 1 specimen, sifting, 07.II.2016, leg. det. & coll. Ignace D.; idem, sifting, 1 specimen, 28.II.2016, leg. det. & coll. Limbourg P.; Viesville, uncultivated land, sifting, 1 specimen, 29.I.2017, leg. det. & coll. Ignace D.; Anderlues, terril, 1 specimen, sifting, 03.II.2017, leg. det. & coll. Ignace D.; Luttre, net sweeping, 1 specimen, 18.VI.2011, leg. det. & coll. Limbourg P.; **Liège:** Theux, le Rocheux, 1 specimen, 13.IV.1995, leg. det. & coll. Migon M.; Trooz, 1 specimen, 26.IV.2009, leg. Struyve T. det. & coll. Felix R.; **Limburg:** Maasmechelen, Mijnterril, 1 specimen, 29.VI.2009, leg., det. & coll. Jacobs M.; Riemst, Tiendeberg, grassland, 1 specimen, pitfall trap, 13-27.V.2010, leg. Erens J., det. & coll. Stassen E.; Voeren, Veursbos, forest edge, 1 specimen, 18.VI.2013, leg. det. & coll. Crevecoeur L.; Genk, Winterslag Mijnterril, basis of the terril, 1 specimen, pitfall trap, 12.V-09.VI.2016, leg. Crevecoeur L., det. & coll. Stassen E.; **Luxembourg:** Attert, Manière de Nothomb, Réserve Naturelle Ardenne et Gaume, 19.IV.2015, leg. det. & coll. Renneson J.-L.; Châtillon, R.N. du Haut des Loges, beating shrubs in bloom, 1 specimen, 03.VII.2008, leg. det. & coll. Delwaide M.; **Namur:** Heer-sur Meuse, Coïaude, 5 specimens, 5.III.2010, leg. det. & coll. Raemdonck H. and Minet G.; Houyet, Mainchamps, 3 specimens, 27.II.2015, leg. det. & coll. Raemdonck H. and Minet G.; Cerfontaine, embankment in front of football field, 1 specimen, 28.XII.2015, leg. det. & coll. Ignace D.

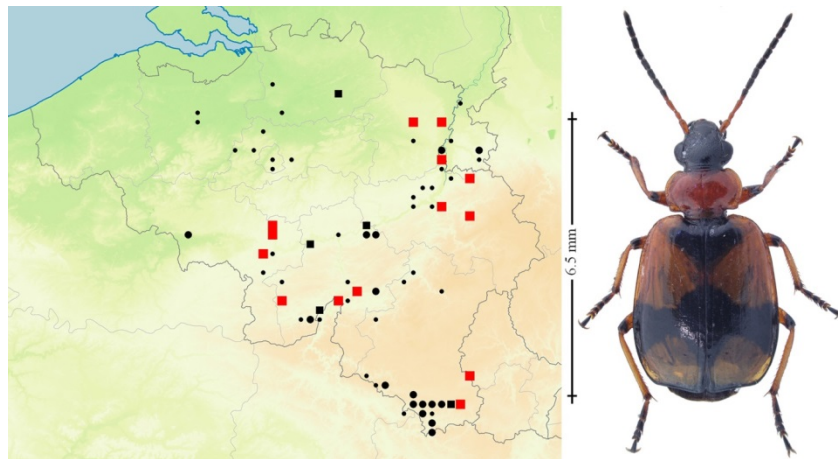


Fig. 46. *Lebia cruxminor*  
(Picture David Ignace)

UTM 5x5 km squares

● 1830-1950: 41      ● 1950-1980: 17      ■ 1980-2007: 6      ■ 2008-2018: 14

**COMMENTS:** Probably disappeared from the northwest and centre of the country. The decrease of this species is probably due to degradation of oligotrophic grasslands in these regions. Still present in the Gaume, Viroin, in the southeast of Limburg and around Liège.

### 2.36 *Nebria livida* (Linnaeus, 1758)

**MATERIAL EXAMINED:** **Limburg:** Lommel, Maatheide, pitfall trap, 5 specimens, 15.VI.2010, leg. Project Levend Zand, det. & coll. Stassen E.; Lommel, Sahara, dry heathland, grassy edge of quarry, pitfall traps 2010, 6 specimens, leg. Janssen T., det. & coll. Crevecoeur L.

**COMMENTS:** A species from bare ground, preferably loam and clay soils and in particular along banks of small rivers and in cracks along rivulets. Also found in similar habitats along the coast although recent records are absent from this region.





Fig.47. *Nebria livida*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 2      ● 1950-1980: 1      ■ 1980-2007: 1      ■ 2008-2018: 2

### 2.37 *Notiophilus aesthuans* (Motschulsky, 1864)

MATERIAL EXAMINED: **Hainaut:** Courcelles, 1 male, 04.VIII.2018, leg. det. & coll. Ignace D.; **Limburg:** Koersel, Zwarte Beek, 1 specimen, 10.IX.2009, leg. Struyve T., det. & coll. Felix R.; As, Waterschei Mijnterril, on slope, pitfall trap, 1 female, 12.VII.2014, leg. Zwakhoven F., det. & coll. Stassen E.; **Luxembourg:** Torgny, field margin, 1 specimen, 01.VI.2013, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, 1 specimen, 24.V.2015, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, 1 specimen, 08.VI.2016, leg. det & coll. Minet G.; Torgny, grain field margin, 1 female, 20.V.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, Pont Camus, forest-lupine field margin, 03.VI.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; **Namur:** Andenne, Sclaigneaux, sifting, 1 specimen, 19.VIII.2007, leg. det. & coll. Ignace D.

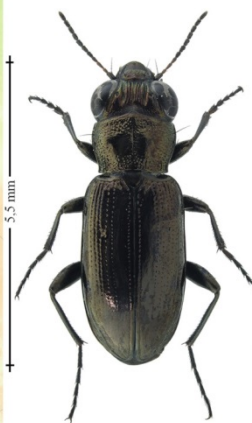
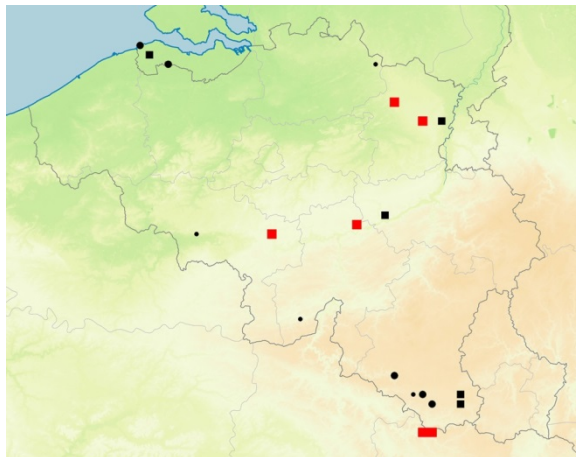


Fig. 48. *Notiophilus aesthuans*  
(Picture David Ignace)

UTM 5x5 km squares  
 ● 1830-1950: 5      ● 1950-1980: 5      ■ 1980-2007: 5      ■ 2008-2018: 6

Comments: A species from open sandy habitats and heathlands.

### 2.38 *Ophonus ardosiacus* (Lutshnik 1922) in DESENDER *et al.*, 2008a,b as *Harpalus ardosiacus*

MATERIAL EXAMINED: **Hainaut:** Gouy-lez-Piéton/Godarville, Claire-Fontaine env., 1 male + 1 female, 12.VIII.2018, leg. det. & coll. Limbourg P.; Courcelles, 2 males, 04.VIII.2018, leg. det. & coll. Limbourg P.; Luttre, 1 male + 1 female, 18.VIII.2018, leg. det. & coll. Ignace D., idem, 1 male + 1 female, 20.VIII.2018, leg. det. & coll. Limbourg P.; **Liège:** Hermalle-sous-Argenteau, friche du Trilopioport, 1 male + 1 female under board of the road, 10.IX.2018, leg. det. & coll. Baugnée J.-Y.;

**Limburg:** Sint-Truiden, field, pitfall trap, 1 specimen, 27.VII.2010, leg. det. & coll. Stassen E.; Heers, Mettekoven, garden, light trap, 1 specimen, 18.VIII.2012, leg. Beuckx J.-P., det. & coll. Stassen E.; Hechtel-Eksel, Pijnven, forest edge, dune-heathland, light trap in *Pinus sylvestris*, 1 specimen, 13.VIII.2012, leg. Tracing Nature, det. & coll. Stassen E.; Hoeselt, Brullenbos, deciduous forest, coppice, light trap, 1 specimen, 20.VIII.2010, leg. Crevecoeur L., det. & coll. Stassen E.; Riemst, garden, light trap, 1 specimen, 17.VII.2018, leg. det. & coll. Stassen E.; Lanaken, De Hocht, Kasteelpark, near old building in *Acer pseudoplatanus*, light trap, 1 specimen, 02.VII.2015, leg. Crevecoeur L., det. & coll. Stassen E.; idem, Lindedreef in death *Tilia* sp., 1 specimen, 03.VIII.2015, leg. Crevecoeur L. det. & coll. Stassen E.; Lanaken, Geulerweg, roadside, pitfall trap, 1 specimen, 23.VI-19.VII.2016, leg. Moens N., det. & coll. Stassen E.; Voeren, Veursbos, forest edge, light trap, 10 specimens, 02.VIII.2013, leg. Crevecoeur L. det. & coll. Stassen E.; **Luxembourg:** Daverdisse, light trap, 1.VIII.2013, leg. det. & coll. Raemdonck H.; Daverdisse, 20-21.VIII.2018, leg. det. & coll. Raemdonck H.; idem, 19-20.VII.2017, leg. & det. Raemdonck H., coll. Pletinck R.; Torgny, border Nature reserve, under stones, 2 specimens, 19.IV.2009, leg. det. Van Kerckvoorde M., coll. RBINS; **Namur:** Heer-sur-Meuse, Vallée de Han, 19.III.2017, leg. det. & coll. Raemdonck H. and coll. Minet G.; idem, 2 specimens, 21.VIII.2017, leg. det. & coll. Minet G.; La Plante, île de la Plante, 2 specimens, 25.VIII.2013, leg. det. & coll. Ignace D.; **Oost-Vlaanderen:** Ename, Bos 'tEname, Volkegembos, pitfall trap, 2 specimens, 13.VI.2015, leg. werkgroep Bos 't Ename, det. & coll. Heijerman T.; **West-Vlaanderen:** Woumen, De Blankaart, 1 specimen, 11.XI.2010, collected after submerging soil, leg. Struyve T., det. & coll. Van Malderen M., Ieper, Palingbeek, pitfall trap, 27.V.2018, leg. Project sinusbeheer UGent, det. & coll. Van Malderen M.

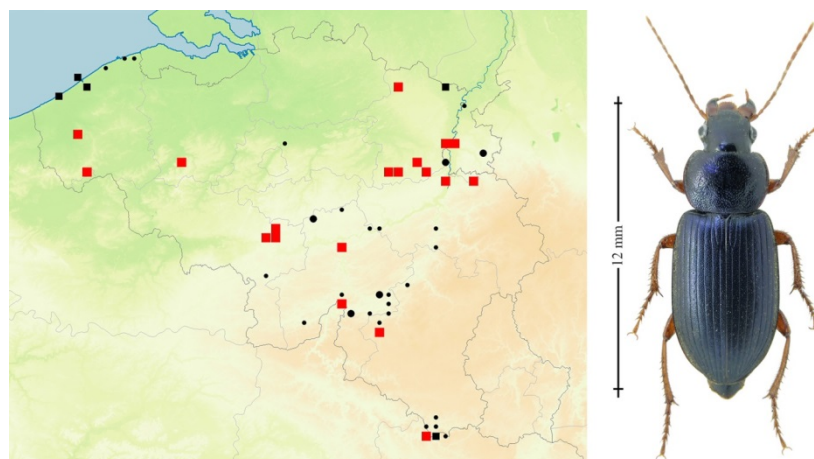


Fig. 49. *Ophonus ardosiacus*  
(Picture David Ignace)

UTM 5x5 km squares  
 ● 1830-1950: 26      ● 1950-1980: 5      ■ 1980-2007: 5      ■ 2008-2018: 19

**COMMENTS:** This is probably not a rare species but has now been more often detected with a more appropriate sampling technique i.e. light traps. Probably this species is also expanding its distribution area in Belgium and surrounding countries.

**2.39 *Ophonus laticollis* Mannerheim, 1825** in DESENDER *et al.*, 2008a,b as *Harpalus nitidulus* (Stephens, 1828)

**MATERIAL EXAMINED:** **Oost-Vlaanderen:** Hillegem, Diepestraat, 3 specimens, pitfall traps, 30.IV-25.VI.2013, leg. project SPEEDY, det. Van Kerckvoorde M., coll. RBINS; **Hainaut:** Luttre, 1 female, 30.VII.2018, leg. det. & coll. Limbourg P.; **Limburg:** Tongerlen, Neerrepn, field margin-forest, pitfall trap, 12.-28.VI.2009, leg. Beuckx J.-P., det. & coll. Stassen E.

**COMMENTS:** This species declined strongly during the last decades and might have disappeared from the Gaume region. On calcareous soils, often thermophilic habitats, but also records from more humid forest edges.

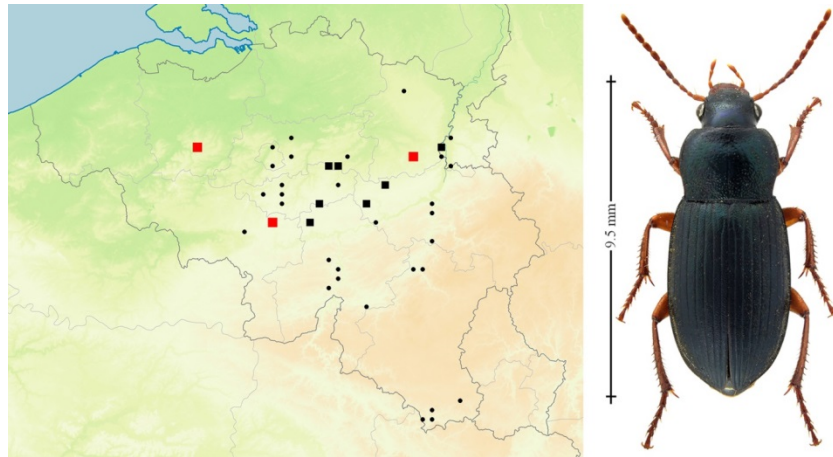


Fig. 50. *Ophonus laticollis*  
(Picture David Ignace)

UTM 5x5 km squares

● 1830-1950: 31      ● 1950-1980: 1      ■ 1980-2007: 8      ■ 2008-2018: 3

**2.40 *Ophonus melleti* (Heer, 1837)** in DESENDER *et al.*, 2008a,b as *Harpalus melleti* (Heer, 1837)

MATERIAL EXAMINED: **Hainaut:** Strée, UV lamp, 1 female, 15.VI.1986, UV lamp, leg. Georges Ph., det. Van Malderen M. & coll. Boosten G.; Ath, garden, UV lamp, 1+1+1+1+4 specimens, 26.VI.1986, 02.VIII.2008, 02.VII.2009, 21.VII.2009, 28.VI.2011, leg. Boosten G., det. Van Malderen M. & coll. Boosten G.; **Liège:** Warnant-Dreye, Au Tilleul, 23.IX.2001, leg. det. & coll. Migon M.; **Limburg:** Voeren, Vrouwenbos, Verger-Pommier, 5.V.2004, leg. det. & coll. Migon M.; Hoeselt, Brullenbos, coppice of deciduous forest, light trap, 1 male + 1 female, 20.VIII.2010, leg. Crevecoeur L., det & coll. Stassen E.; Kortesse, Jongenbos, beechforest-*Pinus sylvestris* forest, 2 light traps (FS7138 and FS7139), 2 males + 1 female, 04.VI.2011, leg. Crevecoeur L., det & coll. Stassen E.; **Luxembourg:** Virton, Rabais, 1 female, 15.V.1969, leg. Boosten G., det. Van Malderen M. & coll. Boosten G.; **Oost-Vlaanderen:** Oudenaarde, Volkegembos, Bos t'Ename, 1 specimen, 09.VIII.2015, leg. werkgroep Bos t'Ename, det. Bonamie G., coll. werkgroep Bos t'Ename.

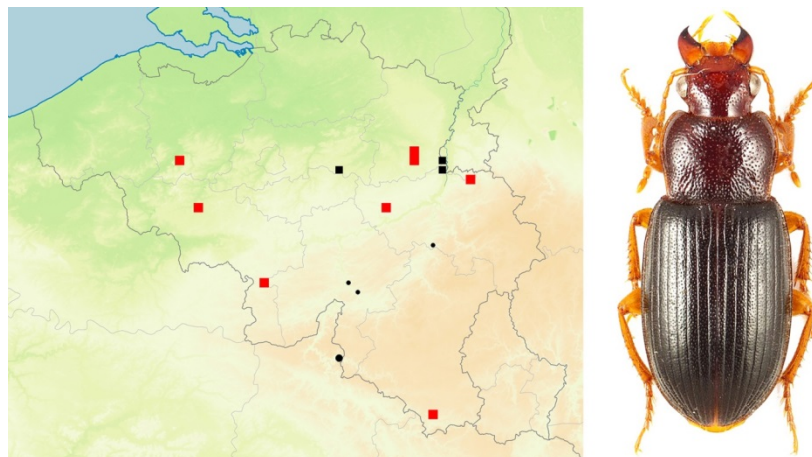


Fig. 51. *Ophonus melleti*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 4      ● 1950-1980: 2      ■ 1980-2007: 3      ■ 2008-2018: 8

**COMMENTS:** This is probably not a rare species but has been more regularly detected with a more appropriate sampling technique the last 10 years i.e. light traps. The species probably expands its distribution in Belgium and surrounding countries. A species known from calcareous soils and grasslands.



**2.41 *Paradromius longiceps* (Dejean, 1826)** in DESENDER *et al.*, 2008a,b as *Dromius longiceps* (Dejean, 1826)

MATERIAL EXAMINED: **Antwerpen:** Antwerpen, St-Annabos, 2 specimens, 25.IV.2015, leg. det. & coll. Raemdonck H.; Antwerpen, Linkeroever, in *Phragmites australis* field at the banks of the river Scheldt, sifting dead stems of *Phragmites australis*, 3 specimens, 25.IV.2015, leg. det. & coll. Van Malderen M.; **Limburg:** Lanaken, De Hocht, Kasteelpark, Lindedreef, light trap in death *Tilia* sp., 1 specimen, 03.VIII.2015, leg. Crevecoeur L. det. & coll. Stassen E.; **Oost-Vlaanderen:** Doel, Paardenschor, 1+1 specimen, 14+24.IV.2009, leg. & det. Van Malderen M. & Van Grimberge A., coll. Van Grimberge A.; Hamme, Het Bulbierbroek, Durmemeersen, 1+1 specimen, 07.III.2010, 02.IV.2010, leg. det. Van Malderen M. & Van Grimberge A., coll. Van Grimberge A.

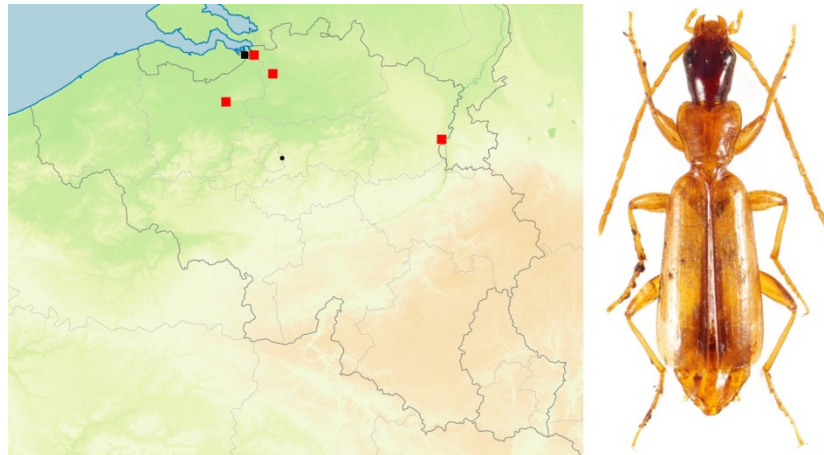


Fig. 52. *Paradromius longiceps*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 1      ● 1950-1980: 0      ■ 1980-2007: 3      ■ 2008-2018: 4

**COMMENTS:** This species is probably also in expansion, and might be found more often in the near future. A species from swamps and banks of lakes and ponds where it lives in reed. Can be detected by sifting of reed.

**2.42 *Perigona nigriceps* (Dejean, 1831)**

MATERIAL EXAMINED: **Antwerpen:** Vorselaar, Lovenhoek, 1 specimen, sifting of compost, 15.V.2010, leg. det. & coll. Van Grimberge A.; idem, 1 specimen, leg. det. & coll. Bonamie G.; idem, 3 specimens, leg. Struyve T, det. & coll. Van Malderen M.; **Brussel:** Auderghem, Jardin botanique Jean Massart, sifting, 1 specimen, 07.IX.2017, leg. Drumont A. & Raemdonck H., det. Troukens W., coll. RBINS; **Hainaut:** Gouy-lez-Piéton/Godarville, Claire-Fontaine rés., light trap, 2 specimens, 18.VII.2017, leg. det. & coll. Ignace D. & Limbourg P.; Courcelles, interception trap, 1 specimen, 01.VII.2017, leg. det. & coll. Ignace D.; **Limburg:** Hechtel-Eksel, Pijnven, coniferous forest, light trap, 1 specimen, 06.VIII.2009, leg. Crevecoeur L., det. & coll. Stassen E.; Hechtel-Eksel, Pijnven, light trap, 2 specimens, 28.VI.2012, leg. Evens R., det. & coll. Stassen E.; idem, forest edge-dune, light trap in *Pinus nigra* var. *corsicana*, 2+4 specimens, 26.VII+18.VIII.2012, leg. Tracing Nature, det. & coll. Stassen E.; idem, open wet heathland, light trap in *Betula* sp., 1 specimen, 25.VII.2012, leg. Tracing Nature, det. & coll. Stassen E.; idem, wet meadow, light trap in *Alnus glutinosa*, 1 specimen, 01.VIII.2012, leg. Tracing Nature, det. & coll. Stassen E.; idem, forest edge-dune, light trap in *Pinus sylvestris*, 7 specimens, 18.VIII.2012, leg. Tracing Nature, det. & coll. Stassen E.; idem, forest edge-dune, light trap in *Pinus nigra* var. *corsicana*, 1 specimen, 31.VII.2013, leg. Tracing Nature, det. & coll. Stassen E.; Sint-Truiden, Gelinden, wet hayland, in litter, sifting, 1 specimen, 27.VII.2013, leg. Crevecoeur L., det. & coll. Stassen E.; Voeren, Veursbos, forest edge, light trap, 2 specimens, 02.VIII.2013, leg. Crevecoeur L., det. & coll. Stassen E.; Lanaken, De Hocht, Kasteelpark, Lindedreef, light trap in death *Tilia* sp., 3 specimens, 03.VIII.2015, leg. Crevecoeur L., det. & coll. Stassen E.; idem, forest on island, light trap, 1 specimen, 19.VII.2016, leg. Crevecoeur L., det. & coll. Stassen E.; Riemst, gardin, light trap, 1 specimen, 17.VII.2018, leg. det. & coll. Stassen E.; **Oost-**

**Vlaanderen:** Merendree, sifting of compost in garden, 1+1 specimens, 23.IX + 25.X.2017, leg. det. & coll. Bonamie G.; **Vlaams-Brabant:** Dilbeek: 2 specimens, UV light trap, VI.2018, leg. det. & coll. Dahan L. & coll. RBINS.; **West-Vlaanderen:** Oostkamp, sifting in heap of mowed grass, 08.XI.2018, leg. & det. Struyve T.

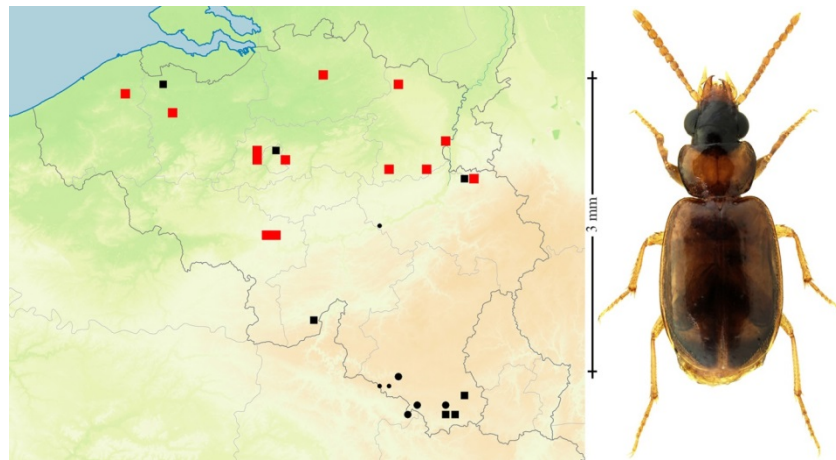


Fig. 53. *Perigona nigriceps*  
(Picture David Ignace)

UTM 5x5 km squares  
 • 1830-1950: 4      ● 1950-1980: 4      ■ 1980-2007: 7      ■ 2008-2018: 12

**COMMENTS:** This is probably not a rare species but has now been more often detected with a more appropriate sampling technique i.e. light traps and sifting in heaps of mowed grassed, and compost. Probably this species is also expanding its distribution area in Belgium and surrounding countries recently.

#### 2.43 *Perileptus areolatus* (Creutzer, 1799)

**MATERIAL EXAMINED:** **Limburg:** Lanaken, De Hocht, Kasteelpark, near old building, light trap in maple, 1 specimen, 2.VII.2015, leg. Crevecoeur L., det. & coll. Stassen E.; **Namur:** Noiseux, Ourthe, riverside, 1 specimen, 02.VI.2012, leg. det. Van Kerckvoorde M., coll. RBINS; Houyet, Lesse, 1 specimen, 24.VII.2017, leg. det. & coll. Van Grimberge A.; Poupehan, Semois, 1 specimen, 27.VII.2018, leg. det. & coll. Van Grimberge A.

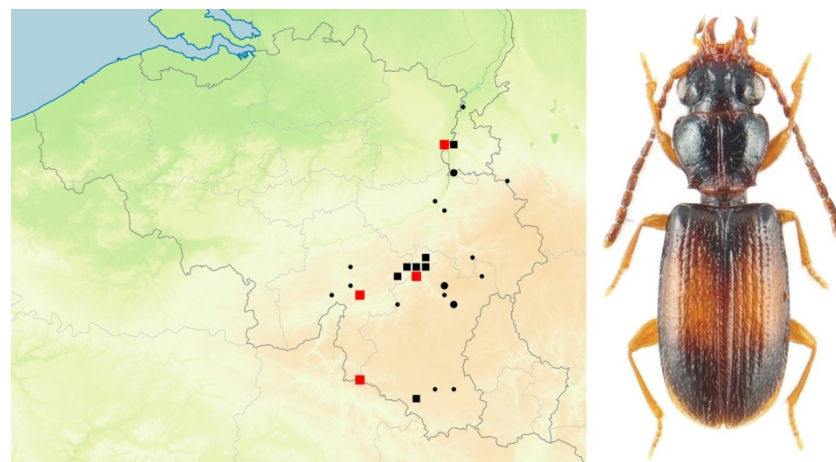


Fig. 54. *Perileptus areolatus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 • 1830-1950: 15      ● 1950-1980: 5      ■ 1980-2007: 8      ■ 2008-2018: 4

**COMMENTS:** Species present along big rivers in Wallonia, where it can be found on bare banks of rivulets and rivers with fine gravel and coarse sand.

**2.44 *Philorhizus sigma* (Rossi, 1790)** in DESENDER *et al.*, 2008a,b as *Dromius sigma* (Rossi, 1790)

MATERIAL EXAMINED: **Oost-Vlaanderen:** Drongen, Keuzemeersen, riverside along the Leie, along towpath, 1 specimen, 30.III.2009, leg. det. & coll. Van Kerckvoorde M.; idem, humid grassland, 1 specimen, 23.III.2010, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, 1 specimen, 23.VII.2012, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, 1 specimen, 29.III.2014, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, edge wet meadow, 1 specimen, 15.IV.2013, leg. & det. Van Kerckvoorde M., coll. RBINS; Berlare, Donkmeer, peat bog, 3 specimens, 24.X.2010, leg. det. & coll. Van Grimberge A.; Overmere, Nieuwdonk, Reservaat Donkmeer, sifting, 3+2+4+1+2+1 specimens, 06+13+25.III.2011, 06.V.2011, 15.VII.2011, 16.X.2011, leg. det. & coll. Van Malderen M.; Wetteren, Oude Schelde, litter near roots trees, 11 specimens, 29.I.2012, leg. det. & coll. Van Malderen M.; Wetteren, Oude Schelde, swamps, 2 specimens, 10.III.2012, leg. det. & coll. Van Malderen M.; Wetteren, Oude Schelde West, Kalkense Meersen (WNBE), 1 specimen, 20.III.2012, leg. det. & coll. Van Malderen M.; Uitbergen, Kalkense Meersen, near boarder of pond in litter, 1+1 specimen, 20-24.II.2012, leg. det. & coll. Van Malderen M.; idem, Heisbroek 1 specimen, 18.II.2014, leg. det. & coll. Van Malderen M.; Kalken, Kalkense Meersen, Kalkense Vaart, 3 specimens, 15.X.2012, leg. det. & coll. Van Malderen M.; Schellebelle, Kalkense Meersen, vaart, 1 specimen, 19.III.2014, leg. det. & coll. Van Malderen M.; Kalken, Molenmeers, 1 specimen, 26.IX.2014, leg. det. & coll. Van Malderen M.; Wichelen, Bergenmeersen, 1 specimen, 10.X.2014, leg. det. & coll. Van Malderen M.; Kalken, Kalkense Meersen, Broekmeers, 2 specimens, 20.IV.2015, leg. det. & coll. Van Malderen M.; Wetteren, Slekkebeken near trunk *Platanus* sp., 1 specimen, 08.XII.2015; leg. det. & coll. Van Malderen M.; Kalken, Kalkense Meersen, Broekmeers, sifting, 6 specimens, 17.III.2016, leg. det. & coll. Van Malderen M.; idem, Oude Schelde west, sifting, 1 specimen, 11.IV.2016, leg. det. & coll. Van Malderen M.; Wetteren, Neerhekkers, sifting, 3 specimens, 02.II.2017, leg. det. & coll. Van Malderen M.; Wetteren, Bastenakkers, sifting, 1 specimen, 15.II.2017, leg. det. & coll. Van Malderen M.; Kalken, Kalkense Meersen, Broekmeers, sifting, 20 specimens, 16.II.2017, leg. det. & coll. Van Malderen M.; idem, Oude Schelde west, sifting, 1+3+2 specimens, 16.II.2017+29.XI.2017+30.I.2018, leg. det. & coll. Van Malderen M.; Schellebelle, Kalkense Meersen, Belham, sifting, 3 specimens, 21.III.2017, leg. det. & coll. Van Malderen M.; idem, Aard, sifting, 1 specimen, 21.III.2017, leg. det. & coll. Van Malderen M.; Wetteren, Slekkebeek, Hoogkaster, sifting, 1 specimen, 16.II.2018, leg. det. & coll. Van Malderen M.; **Vlaams-Brabant:** Averbode, Vierkensbroek, Demerbroeken, 3 specimens, 20.VI.2015, leg. det. & coll. Van Malderen M.; Averbode, Demerbroeken, 2 specimens, 30.VI.2015, leg. det. & coll. Van Grimberge A.

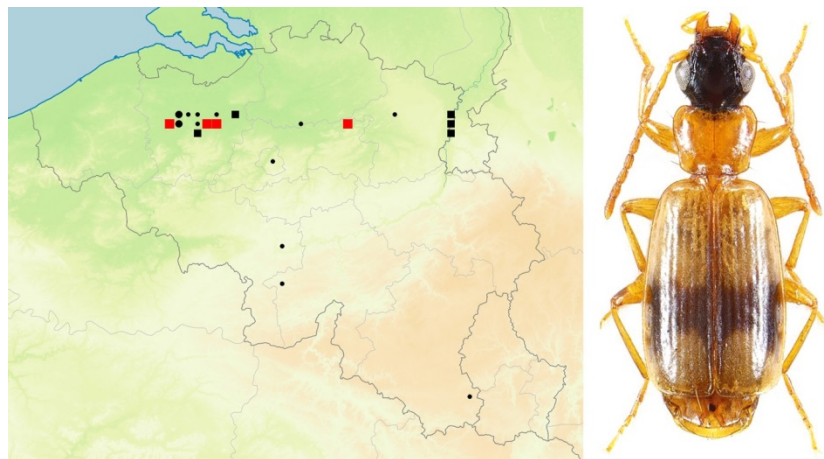


Fig. 55. *Philorhizus sigma*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 • 1830-1950: 11      ● 1950-1980: 1      ■ 1980-2007: 7      ■ 2008-2018: 4

**COMMENTS:** Species to be searched for during sifting of *Phragmites* and other litter in wet grasslands and marshes. Also present in humid, wet, shaded habitats and *Carex* sp. tufts.



**2.45 *Polistichus connexus* (Geoffroy, 1785)**

MATERIAL EXAMINED: **Luxembourg** : Daverdisse, 1 specimen, 13.VIII.2015, leg. det. & coll. Raemdonck H.

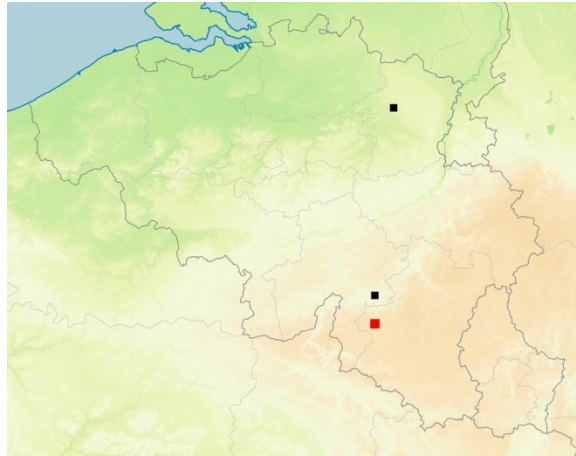


Fig. 56. *Polistichus connexus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 0      ● 1950-1980: 0      ■ 1980-2007: 2      ■ 2008-2018: 1

**COMMENTS:** So far only 3 times recorded in Belgium. The first record of this species goes back to 2001 when one male was recorded on a terril in Heusden-Zolder by Stassen G. Later it was also recorded with a light trap in Lessive, Le Roké, at the edge of a calcareous grasland, 3 specimens, 08.VIII.2003, leg. det. & coll. Minet G. and Paquay M. A species from meadows and swamps.

**2.46 *Porotachys bisulcatus* (Nicolae, 1822)** in DESENDER *et al.*, 2008a,b as *Tachys bisulcatus* (Nicolae, 1822)

MATERIAL EXAMINED : **Limburg**: Tongeren, Hasselbos, deciduous forest, southern forest edge, light trap, 1 specimen, 07.V.2011, leg. Jacobs M., det. & coll. Stassen E.; **Oost-Vlaanderen**: Aalst, Dendermondse Steenweg, roadside near roundabout, pitfall traps, 1 specimen, 14.V.2013, leg. SPEEDY project, det. Van Kerckvoorde M., coll. RBINS; Ename, Bos t'Ename, auto catch, 1 specimen, 24.IV.2012, leg. Struyve T., det. Renner K. & coll. RBINS.

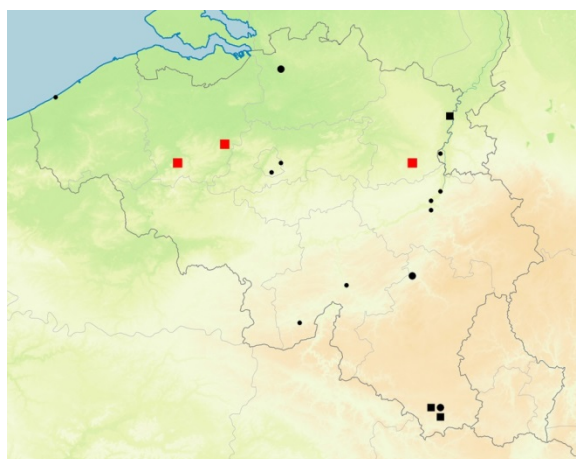


Fig. 57. *Porotachys bisulcatus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 9      ● 1950-1980: 4      ■ 1980-2007: 3      ■ 2008-2018: 3

**COMMENTS:** A species from coniferous forests. Can also be found in and under bark of different tree species, in wood sawdust, wood cuttings. Seems to be attracted to light traps. Distribution in Belgium poorly known so far. In Germany *Porotachys bisulcatus* was found from 60 finding data, but only by catching with autonet (pers. comm. Renner K.)

#### 2.47 *Pterostichus aterrimus* (Herbst, 1784)

**MATERIAL EXAMINED:** **Antwerpen:** Kalmthout, Grenspark De Zoom-Kalmthoutse Heide, 20 specimens, pitfall traps 2010, leg. det. & coll. Jacobs M.; idem, Stappersven, 1+1+1 specimens, sifting, 31.VIII.2013, leg. det. & coll. Van Malderen M. + leg. det. & coll. Raemdonck H + leg. det. & coll. Bonamie G.; **Limburg:** Lommel, Kristallijn/Maatheide, 24 specimens, VI-VII.2010, Projectgroep Levend Zand, leg. det. & coll. Stassen E.; Lommel, Maatheide, grassy heathland, pitfall traps, 18 specimens, 29.VI-15.VII.2010, leg. Janssen T., det. & coll. Stassen E.; Lommel, Blokwaters, wet heathland, dry bog, pitfall trap, 5 specimens, 19.VI.2011, leg. Janssen T. det. & coll. Stassen E.; Maasmechelen, Breedven, bogs-wet heathlands, 1 specimen, 30.III.2011, leg. det. & coll. Crevecoeur L.; Lummen, Grote Dorst, net sweeping, 1 specimen, 28.V.2013, leg. det. & coll. Thys N.; Zelem, Goren, 1 specimen, 28.V.2013, leg. det. & coll. Thys N.; Zonhoven, Slangebeekbron, 1 specimen, 07.VI.2016, leg. det. & coll. Scheers K.; Meeuwen/Helchteren, Militair Domein, 1 specimen, 21.IX.2017, leg. det. & coll. Scheers K.; Wijshagen, 1 specimen, 21.IX.2017, leg. det. & coll. Scheers K.

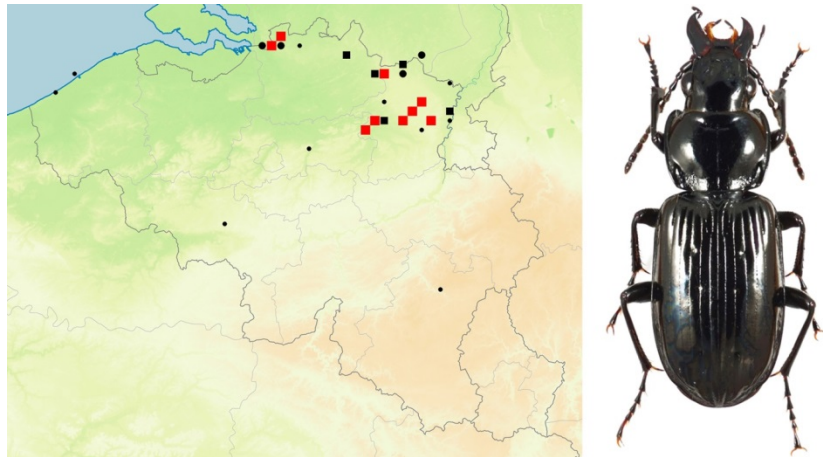


Fig. 58. *Pterostichus aterrimus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares

● 1830-1950: 12   ● 1950-1980: 4   ■ 1980-2007: 5   ■ 2008-2018: 9

**COMMENTS:** Species from wet heathlands in the Campine region. Might be more widely distributed in that region and habitat than so far known.

#### 2.48 *Pterostichus ovoideus* (Sturm 1824) in DESENDER *et al.*, 2008a,b as *Pterostichus interstinctus* Sturm, 1824

**MATERIAL EXAMINED:** **Namur:** Dinant, Awagne, rand forest edge, 1 female, 25.VIII.2014, leg. & det. Van Kerckvoorde M., coll. RBINS.; Agimont, Pré des Rois, 1 specimen, 08.VI.2011; leg. det. & coll. Minet G.; **Luxembourg:** Torgny, Bois de la Côte, forest, 1 specimen, 17.V.2010, leg. & det. Van Kerckvoorde M., coll. RBINS.; Torgny, Bois de Geline, 1 male, 30 IV 2017, leg. & det. Van Kerckvoorde M., coll. RBINS.; Torgny, 1 specimen, 24.V.2017 leg. & det. Van Kerckvoorde M., coll. RBINS.; Torgny, Pont Camus, forest-lupine field margin, 1 specimens, 17.VI.2017, leg. & det. Van Kerckvoorde M., coll. RBINS.; Lamorteau, Radru, field margin, 1 specimen, 14.V.2010, leg. & det. Van Kerckvoorde M., coll. RBINS.

**COMMENTS:** A species from humid forest slopes and calcareous grasslands. A species that became very rare in Belgium since 1950.

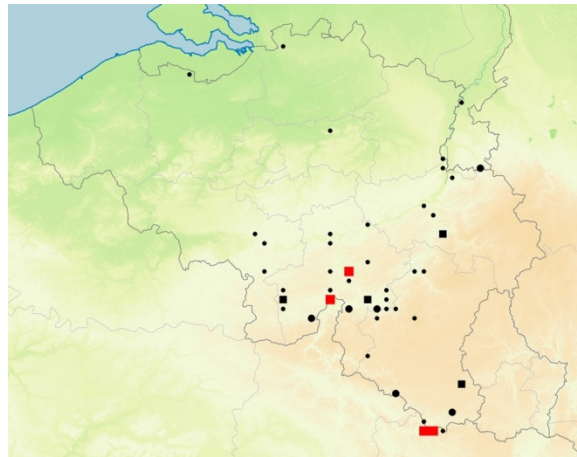


Fig.59. *Pterostichus ovoideus*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 35      ● 1950-1980: 7      ■ 1980-2007: 5      ■ 2008-2018: 4

#### 2.49 *Tachyta nana* (Gyllenhal, 1810)

MATERIAL EXAMINED: **Antwerpen:** Antwerpen, Linkeroever, 2 specimens, 25.IV.2015, leg. Smets K., det. & coll. Van Malderen M.; Brecht, Groot Schietveld, 2 specimens, 19.V.2008, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (LAMBRECHTS & STIJNEN, 2009); Grobbendonk, Militair Domein, 2 specimens, 30.V.2008, leg. det. & coll. Jacobs M.; Malle, NATO vliegveld, 1 specimen, summer 2008, leg. det. & coll. Jacobs M.; Kalmthout, Grenspark De Zoom - Kalmthoutse Heide, 1 specimen, summer 2008, leg. det. & coll. Jacobs M.; Kalmthout, Grenspark De Zoom-Kalmthoutse Heide, Stappersven, 7 specimens, 04.X.2008, under bark, leg. det. & coll. Scheers K.; Kalmthout, Stappersven, 31.VIII.2013, leg. & det. Raemdonck H., coll. KBIN; Tielen, Tielenkamp, under bark, 4 specimens, 09.IV.2018, leg. det. & coll. Scheers K.; Turnhout, Landschap De Liereman, under bark death poplar, 1 specimen, 10.II.2018, leg. det. & coll. Hendrickx R. & Pottier J.; **Hainaut:** Gouy-lez-Piéton/Godarville, Claire-Fontaine rés., 1 specimen, debarking, 16.VII.2017, leg. & det. Ignace D. & Limbourg P. coll. Limbourg P.; Courcelles, terril du petit Courcelles, 2 specimens, 08.VIII.2017, leg. det. & coll. Ignace D.; **Liège:** Sourbrodt, 1+1 specimen, 15.V.2011, leg. Bonamie G., det. & coll. Van Malderen M. + det. & coll. Bonamie G.; Liège, Coteaux de la Citadelle, Filles de la Croix, sloping meadow with orchard, extensively grazed by sheep, in a dead trunk of pear on the ground, 2 specimens, 16.IX.2013, leg. det. & coll. Bagnée J.-Y.; Hombourg, Rés. Nat. Vallée de la Gulp, meadow - forest edge exposed to the southeast, under bark of dead oak on the ground, 20 specimens, 29.III.2018, leg. det. & coll. Bagnée J.-Y.; **Limburg:** Lommel, Vriesput, heathland with young trees, in litter, sifting, 1 specimen, 2.XI.2011, leg. Crevecoeur L., det. & coll. Stassen E.; Koersel, Zwarte Beek, 1 specimen, 13.VII.2013, leg. det. & coll. Raemdonck H.; Hamont-Achel, De Zoren, deciduous forest, under bark lying *Betula* sp., 4 specimens, 28.IX.2014, leg. det. & coll. Crevecoeur L.; Riemst, grain-beet field and border highway, autonet, 2 specimens, 07.VI.2014, leg. Crevecoeur L., det. & coll. Stassen E.; Lanaken, Pietersembos-Asbroek, hayland, 1 specimen, 23.V.2015, leg. det. & coll. Remmers W.; Heers, forest edge-fields-grassland, autonet, 1 specimen, 05.VI.2015, leg. Crevecoeur L., det. & coll. Stassen E.; Diepenbeek, Terherkenbos, deciduous forest, open spot in forest with young trees, light trap, 1 specimen, 11.VI.2015, leg. Crevecoeur L., det. & coll. Stassen E.; Tongeren, Grootmeers, sifting, 1 specimen, 17.III.2016, leg. Querinjean L., det. & coll. Stassen E.; Tongeren, railway verge, sifting, 1 specimen, 18.III.2016, leg. Querinjean L., det. & coll. Stassen E.; Maasmechelen, Mechelese Heide, under bark, 2 specimens, 11.IV.2016, leg. det. & coll. Scheers K.; Tessenderlo, Averbodebos, deciduous forest, death wood-mushrooms, beating, 1 specimen, 18.VIII.2018, leg. det. & coll. Crevecoeur L.; Neerpelt, under bark death poplar, 2+3 specimens, 13.I.2018 + 17.II.2018, leg. & det. Hendrickx R., coll. Hendrickx R. & Pottier J.; Neerpelt, Het Hageven, under bark death poplar, 1 specimen, 03.IV.2018, leg. det. & coll. Hendrickx R.; **Luxembourg:** Sampont, 1 specimen, 15.IX.2012 leg. det. & coll. Van Malderen M.; idem, 4 specimens, leg. det. & coll. Van Grimberge A.; Daverdisse, 1.VIII.2013, leg. det. & coll. Raemdonck H.; Daverdisse, 13.VIII.2014, leg. det. & coll. Raemdonck H.; Hachy, Landbruch, diverticule sud,



under bark *Betula* sp., 2 specimens, 04.III.2011, leg. det. & coll. Baugnée J.-Y.; Etalle, Les Abattis, edge of dead branch, quickly running over the bark and hiding in small cracks, 2 specimens, 11.V.2015, leg. det. & coll. Baugnée J.-Y.; La Roche-en-Ardenne, Deister, restored dry stone walls, recently cleared private terraces, large Douglas fir stump on deforested slope, 1 specimen, 23.V.2018, leg. det. & coll. Baugnée J.-Y.; Hatrival, 23.VIII.2017, leg. det. & coll. Bonamie G.; **Namur**: Lavaux Sainte-Anne, 1 specimen, 01.VI.2013, leg. det. & coll. Van Malderen M.; Chevetogne, Fond de la Roue aval, RND Plaine d'Ychippe, alluvial grassland recently deforested and being restored, 1 specimen, under bark of branches on soil, 10.IX.2012, leg. det. & coll. Baugnée J.-Y.; Couvin, Carrière La Couvinoise, 16 specimens, under the bark of a dead pine trunk on the ground, at the edge of pond in the bottom of the quarry, 28.IV.2016, leg. det. & coll. Baugnée J.-Y.; Houyet, Pré al Batte, alluvial poplar in Lesse valley, upstream of Houyet bridge, dead tree trunks on the ground, 1 corpse, 03.II.2017, leg. det. & coll. Baugnée J.-Y.; **Vlaams-Brabant**: Zemst, Hofstade, 1 specimen, 23.VII.2012, leg. det. & coll. Muls D.; **West-Vlaanderen**: Houthulst, Militair domein Houthulst, under bark, 1 specimen, 23.IV.2018, leg. det. & coll. Scheers K.

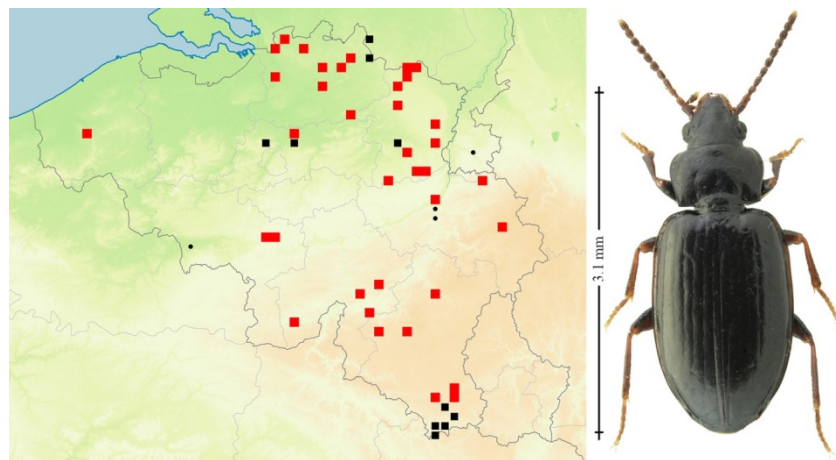


Fig. 60. *Tachyta nana*  
(Picture David Ignace)

UTM 5x5 km squares  
 • 1830-1950: 3      ● 1950-1980: 0      ■ 1980-2007: 9      ■ 2008-2018: 35

**COMMENTS:** At present this is a common species that is still expanding its distribution in Belgium and surrounding countries. A species that can be found under bark and by sifting of litter.

### 2.50 *Zabrus tenebrionides* (Goeze, 1777)

**MATERIAL EXAMINED:** **Limburg**, Sint-Truiden, field, pitfall trap, 1 specimen, 16.VI-02.VII.2010, leg. det. & coll. Stassen E.; Riemst, Tiendeberg, field with alfalfa, pitfall traps, 2 specimens, 01-16.VII.2008, leg. det. & coll. Stassen E.; Lanaken, Geulerweg, verge, pitfall traps, 3 specimens, 19.VII-05.VIII.2016, leg. Moens N., det. & coll. Stassen E.

**COMMENTS:** A species that has declined enormously and probably went extinct in many regions in Belgium due to agricultural intensification. The species that was common in arable fields before 1950. Also records of this species in quarries near the river Maas.

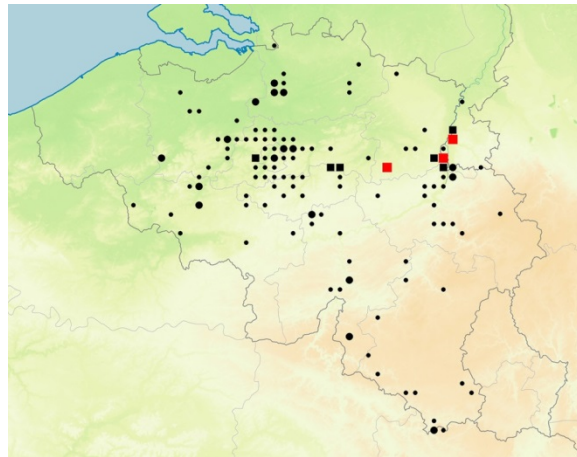


Fig. 61. *Zabrus tenebrioides*  
(Picture Ortwin Bleich)

UTM 5x5 km squares  
 ● 1830-1950: 110      ● 1950-1980: 18      ■ 1980-2007: 8      ■ 2008-2018: 3

### 3. Confirmed very rare species

#### **3.1 *Abax carinatus* (Duftschmid, 1812)**

MATERIAL EXAMINED: **Limburg:** Maaseik, Jagersborg, deciduous forest, 24 specimens, pitfall traps IV-VI.2016, leg. det. & coll. Stassen E.

UTM 5x5 km squares  
 1830-1950: 8      1950-1980: 1      1980-2007: 1      2008-2018: 1

#### **3.2 *Bembidion ephippium* (Marsham, 1802)**

MATERIAL EXAMINED: **West-Vlaanderen:** Knokke, Het Zwin, estuarium, 8 specimens, 26.IX.2015, leg. det. & coll. Van Malderen M., idem, 1 specimen, 24.IV.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015; LAMBRECHTS *et al.*, 2016b).

UTM 5x5 km squares  
 1830-1950: 9      1950-1980: 4      1980-2007: 1      2008-2018: 1

#### **3.3 *Bembidion lunatum* (Duftschmid, 1812)**

MATERIAL EXAMINED: **Oost-Vlaanderen:** Doel, Paardenschor, 1+4 specimens, 09.V.2009 + 32.V.2010, leg. det. & coll. Van Grimberge A.

UTM 5x5 km squares  
 1830-1950: 7      1950-1980: 3      1980-2007: 6      2008-2018: 1

#### **3.4 *Bembidion prasinum* (Duftschmid, 1812)**

MATERIAL EXAMINED: **Namur:** Noiseux, Ourthe, riverside, 1 specimen, 03.VI.2012, leg. & det. Van Kerckvoorde M., coll. RBINS.

UTM 5x5 km squares  
 1830-1950: 11      1950-1980: 2      1980-2007: 5      2008-2018: 1

#### **3.5 *Blethisa multipunctata* (Linnaeus, 1758)**

MATERIAL EXAMINED: **Antwerpen:** Kalmthout, 1 specimen, 19.V.2008, leg. Struyve T., det. & coll. Felix R.; Kalmthout, Grenspark De Zoom-Kalmthoutse Heide, Kambuusduinen, 11 specimens, 18.VI.2008, in *Sphagnum* edge oligotrophic lake, leg. det. & coll. Scheers K.

UTM 5x5 km squares  
 1830-1950: 28      1950-1980: 7      1980-2007: 1      2008-2018: 2

### 3.6 *Brachinus explodens* Duftschmid, 1812

MATERIAL EXAMINED: **Luxembourg:** Torgny, 1 specimen, 20.V.2004, leg. Struyve T., det. Struyve T. & Felix R., coll. Felix R.; idem, grain field, 1 specimen, 30.IV.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, Pont Camus, forest-lupine field margin, 1 male, 20.V.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, grain field margin, 1 male & 2 females + 3 males & 4 females + 1 female, 24.V.2017 + 17.VI.2017 + 1.VII.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; Hargimont, Res. Nat. Prés de la Wamme, clod of land in a meadow, 1 specimen, 3.V.2006, leg. det. & coll. Baugnée J.-Y.; **Namur:** Hour, Happe Tortia, sifting, 1 specimen, 08.X.2005, leg. det. & coll. Minet G.; Auffe, Tienne Boton, sifting, 2 specimens, 14.VI.2004, leg. det. & coll. Minet G.; Feschoux, Sipêche, sifting, 1 specimen, 16.VII.2004, leg. det. & coll. Minet G.; Seilles, Reppe, dry fallow near the Meuse, 1.VIII.2012, 1 specimen, leg. det. & coll. Baugnée J.-Y.

UTM 5x5 km squares			
1830-1950: 42	1950-1980: 11	1980-2007: 8	2008-2018: 6

### 3.7 *Cicindela maritima* Dejean, 1822

MATERIAL EXAMINED: **Limburg:** Lommel, Stevensvennen, on the soil of sand quarry, 1 specimen, 01.V.2008, leg. det. & coll. Delwaide M.; **West-Vlaanderen:** Oostduinkerke, Nieuwe Ydelaan,; idem; 1+1 male, 3.IV.2009, leg. Drumont A., coll. Drumont L. + leg Drumont A. & H., coll. Drumont H.; idem V.2013, leg. Drumont A., det. & coll. Raemdonck H.; Knokke, Zwin, dunes seastrip, 1 specimen, summer 2014, leg. & det. Jacobs M (COSYNS *et al.*, 2015); De Panne, Westhoek, several specimen, summer 2010, leg. & det. Dekoninck W.

UTM 5x5 km squares			
1830-1950: 28	1950-1980: 7	1980-2007: 8	2008-2018: 3

### 3.8 *Cilrenus lateralis* Samouelle, 1819 in DESENDER *et al.*, 2008a,b as *Bembidion laterale* (Samouelle, 1819)

MATERIAL EXAMINED: **Antwerpen:** Zandvliet, on the banks of the river Scheldt, 2 specimens 09.III.2008, leg. det. & coll. Delwaide M.; **West-Vlaanderen:** Lombardsijde, Ijzer Estuarium, long-term pitfall sampling RBINS, several specimens 2008-2014; Knokke, Het Zwin, 1 specimen, 19.V.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015); idem, Schorre, 3 specimens, 22.VI.2010, leg. & det. Van Kerckvoorde M., coll. RBINS.

UTM 5x5 km squares			
1830-1950: 1	1950-1980: 1	1980-2007: 6	2008-2018: 3

### 3.9 *Cymindis vaporarium* (Linnaeus, 1758)

MATERIAL EXAMINED: **Limburg:** Lanaken, heathland, 15.IX.2008, leg. det. & coll. Delwaide M.

UTM 5x5 km squares			
1830-1950: 22	1950-1980: 6	1980-2007: 7	2008-2018: 1

### 3.10 *Drypta dentata* (Rossi, 1790)

MATERIAL EXAMINED: **Luxembourg:** Torgny, field maring, 1 specimen, 31.V.2010, leg. & det. Van Kerckvoorde M., coll. RBINS.

UTM 5x5 km squares			
1830-1950: 1	1950-1980: 0	1980-2007: 2	2008-2018: 1

### 3.11 *Harpalus pumilis* Sturm, 1818 in DESENDER *et al.*, 2008a,b as *Harpalus vernalis* (Duftschmid, 1812)

MATERIAL EXAMINED: **West-Vlaanderen:** Lombardsijde, Ijzer Estuarium, long-term pitfall sampling RBINS, several specimens 2008-2014; Koksijde: Simpelaereduinen, pitfall traps, 3 specimens, 17.V.-14.VI.2016, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2017; LAMBRECHTS *et al.*, 2018); Koksijde, Natuurreservaat Doornpanne, 3 specimens, 24.VI.1984, leg.



Boosten G., det. Van Malderen M. & coll. Boosten G.; Oostduinkerke, Oostvoornduinen, pitfall traps, 1 specimen, 3-17.V.2016, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2017; LAMBRECHTS *et al.*, 2018); Koksijde, Hoge Blekker, pitfall traps, 1 specimen, 18.IV-03.V.2016, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M., (COSYNS *et al.*, 2017; LAMBRECHTS *et al.*, 2018); Oostduinkerke, Ter Yde, 1 specimen, 19.V.2018, leg. det. coll. Van Grimberge A.; **Vlaams-Brabant**: Schaffen, Militair Domein, pitfall traps, 97 specimens, 26.IV-26.X.2008, leg. det. & coll. Jacobs M.

UTM 5x5 km squares			
1830-1950: 21	1950-1980: 2	1980-2007: 8	2008-2018: 3

**3.12 *Ophonus azureus* (Fabricius, 1775)**, in DESENDER *et al.*, 2008a,b as *Harpalus azureus* (Fabricius, 1775)

MATERIAL EXAMINED: **Luxembourg**: Torgny, field margin, 4 specimens, 19.V.2013, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, field margin, lime-clay soil, 2 specimens, 25.V.2015, leg. & det. Van Kerckvoorde M., coll. RBINS; idem, pitfall trap, 3 specimens, 1-6.V.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, field margin-forest, 07.V.2018, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, Rouvroy, grain field margin, 2 specimens, 3.VI.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; Torgny, Pont Camus, edge forest-lupine field, 2 specimens, 17.VI.2017, leg. & det. Van Kerckvoorde M., coll. RBINS; **Namur**: Jemelle, 1 specimen, 20.VII.2000, leg. det. & coll. Minet G.

UTM 5x5 km squares			
1830-1950: 55	1950-1980: 6	1980-2007: 6	2008-2018: 3

**3.13 *Licinus hoffmannseggi* (Panzer, 1797)**

MATERIAL EXAMINED: **Luxembourg**: Daverdisse, 17.V.2012, leg. det. & coll. Raemdonck H.

UTM 5x5 km squares			
1830-1950: 11	1950-1980: 1	1980-2007: 4	2008-2018: 1

**3.14 *Philorhizus crucifer confusus* Sciaky, 1991** in DESENDER *et al.*, 2008a,b as *Dromius notatus* (Stephens 1827)

MATERIAL EXAMINED: **West-Vlaanderen**: Lombardsijde, Ijzer Estuarium, long-term pitfall sampling RBINS, several specimens 2008-2014; Koksijde, surrounding area G. Scotlaan, dunes, sifting, 1+4 specimens, 19.V.2018, leg. det. & coll. Van Grimberge A+ leg. det. & coll. Van Malderen M.; Koksijde, Ter Yde, sifting, 1 specimen, 19.V.2018, leg. det. & coll. Van Malderen.

UTM 5x5 km squares			
1830-1950: 6	1950-1980: 14	1980-2007: 9	2008-2018: 2

**3.15 *Pogonus littoralis* Duftschmid, 1812**

MATERIAL EXAMINED: **West-Vlaanderen**: Knokke, Het Zwin, estuary, 10 specimens 26.IX.2015, sifting, leg. det. & coll. Van Malderen M.; idem, pitfall trap, 1 specimen, 5-19.V.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015; LAMBRECHTS *et al.*, 2016b); idem, pitfall trap, 1 specimen, 25.VIII-08.IX.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015; LAMBRECHTS *et al.*, 2016b); idem, 1 specimen, 24.IV.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015; LAMBRECHTS *et al.*, 2016b); idem, 1 specimen, 19.V.2014, leg. Jacobs M. & Lambrechts J., det. & coll. Jacobs M. (COSYNS *et al.*, 2015; LAMBRECHTS *et al.*, 2016b); Knokke, Het Zwin, beach, 1 specimen, 05.X.2018, leg. Van Grimberge A. det. Van Malderen M. coll. Van Grimberge A.

UTM 5x5 km squares			
1830-1950: 4	1950-1980: 2	1980-2007: 1	2008-2018: 2

### 3.16 *Pogonus luridipennis* Germar, 1823

MATERIAL EXAMINED: **West-Vlaanderen**: Lombardsijde, Ijzer Estuarium, Nieuw schor, airbell trap, 1 female, 16-30.III.2007 (GEERAERT *et al.*, 2013), leg. Baert L., Maelfait J.-P. & Desender K., det. Geeraert L., coll. RBINS.

UTM 5x5 km squares			
1830-1950: 5	1950-1980: 2	1980-2007: 1	2008-2018: 1

### 3.17 *Syntomus obscuroguttatus* (Duftschmid, 1812), in DESENDER *et al.*, 2008a,b as *Metabletus obscuroguttatus* (Duftschmid, 1812)

MATERIAL EXAMINED: **Luxembourg**: Torgny, road verge near Nature Reserve, near rivulet La Chiers, 1 female, 01.VI.2013, leg. & det. Van Kerkvoorde M., coll. RBINS; Torgny, 1 female 12.XII.2013, leg. & det. Limbourg P., coll. RBINS.

UTM 5x5 km squares			
1830-1950: 1	1950-1980: 0	1980-2007: 1	2008-2018: 1

## Discussion

Since 2008, 6 species were added to the Belgian Carabidae checklist, which now holds a total of 411 species. For 67 very rare Belgian carabid species, we provide additional records after the publication of the detailed distribution maps of DESENDER *et al.* (2008a) about ten years ago. For most of these species the records originate from new localities that are not always in the near vicinity of historic localities. The use of less intensively often used sampling techniques for carabids (light traps, visual sampling, sweeping, autonet, soil washing...) allows us to give a more comprehensive view of their distribution in Belgium and asks for a revision of their status in the Red List for Flanders (DESENDER *et al.*, 2008b) in the near future. During the period 1970-2008 the main sampling method by which carabid data were collected in Belgium were pitfall trapping. This paper shows us that the paucity of records of some presumed rare species with pitfall trapping is likely attributed to the sampling method.

We hope this paper will encourage Belgian carabidologists to continue collecting carabid beetles across Belgium, and to complete and regularly update the knowledge on the distribution of Belgian carabids. In this context it remains important to continue adding voucher specimens to collections. This encourages and must enable us to keep on performing morphological double-check of species that sometimes are difficult to identify or can be confused with sibling species.

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