

# Philippe Dautzenberg (1849–1935) and his time, towards the reconstruction of an ancient science network

ABRAHAM S. H. BREURE

Royal Belgian Institute of Natural Sciences, Vautierstraat 29, B-1000 Brussels, Belgium;  
Naturalis Biodiversity Center, P.O. Box 9517, NL-2300 RA Leiden, The Netherlands;  
ashbreure@gmail.com

Philippe Dautzenberg amassed a large collection of shells during his life-time, and was in contact with amateurs, professionals and dealers. He was a well-known (amateur) malacologist during his time. His collection and archives are now in the Royal Belgian Institute of Natural Sciences in Brussels, and an attempt was made to reconstruct his network. To that purpose data was extracted from his reprints distribution list, his own reprint collection, a collection of 'autographs', eponyms given by Dautzenberg and those named after Dautzenberg by other authors, and the provenance of type material in the Dautzenberg collection. Between 1880 and 1935 his contacts with amateurs diminished, but those with professionals remained stable. The main sources of type material in his collection came from both amateurs and dealers.

Key words: biohistory, network reconstruction, archives, correspondence, eponyms, amateurs, professionals.

This paper is dedicated to my colleague Robert G. Moolenbeek, who also has a keen interest in the history of malacology.

## INTRODUCTION

Shells have inspired people over millennia, both in science and in art (Breure & De Heer 2015, De Heer & Breure 2015, Coan & Kabat 2015). While shell collec-

tions were started during the 17th century mainly as aesthetical arrangements in so-called 'cabinets of curiosity' (see also Bergvelt et al., 2005), it soon thereafter became that collections were arranged in a more scientific manner during the course of the 18th century. Around the beginning of the 19th century the first institutional collections were established, but throughout this century amateur collectors and their collections remained an important source for scientific studies of shells (Dance, 1966; Breure & Tardy, 2016). Philippe Dautzenberg was one of these amateurs who brought together a collection which enjoyed worldwide fame at the start of the 20th century (Duchamps, 1986). Biographies of his life were published shortly after his death (Lamy, 1935; Pelseneer 1936), as well as more recently (Leloup, 1967; Duchamps, 1986; Vanwalleghem, 1986). After his death his collection and archive was presented to the Belgian King Leopold I, and is now housed in the Royal Belgian Institute of Natural Sciences (RBINS) in Brussels. One of the conditions of Dautzenberg was to keep his legacy apart from other collections and archives; this gives a unique opportunity to reconstruct his network of scientific contacts.

On the occasion of the 150th birthday of Philippe Dautzenberg, Duchamps (1999) gave an overview of the most important contacts. In total he discussed 131 persons, divided into clergymen (10), military (7), family members (8), scientists (74), and miscellaneous (32). While this gives a good impression of the background of the persons with whom Dautzenberg was in contact, a further study of his archives raised inter-

My dear Mrs. D. 3  
 I wish to thank you for three shells but interesting for three biological papers and also notice of the death of Dr. Hidalgo. He did a wonderful work in his museum in the Philippines, altho' I do not agree with him in all of his do-terminations. I am doing a little nowadays among the shells. Am glad to learn that you are still at the very interesting work. I am in my 48th year of prospect at the law.  
 Very respectfully  
 F.L. Button  
 Oakland Nov 7 '24 (over)

Bulinus  
 perturbatus  
 Preston  
 Huancabamba  
 Cerro del Gasco  
 E. Férou TYPE  
 Preston 30.XII.09 1/0/0

3

Name	Location	Grid
Bonnier Prof. in Museum		
Bouysson (Henry de)	Ch. du Vernet, near Brét, Vernet (Alicia)	+++++
Bofill y Tschirring	Cortes 297. 2º Barcelona	+++++
Buchet (G.)	Romeraustin	
Benoist de Villard	Argentina no. 1000 (Indre)	
Bonnet	10, rue de Valenciennes, Paris	+++++
Bourgeois (Ch.)	28, rue de Valenciennes, Paris	+++
Bourne	10, rue de Valenciennes, Paris	+++++
Bolton	10, rue de Valenciennes, Paris	+++
Böttger (Edm.)	10, rue de Valenciennes, Paris	
Bredon	10, rue de Valenciennes, Paris	
Bush (Cath. J.)	Assistant, Academy of Natural Sciences, Philadelphia	
Bushman (Edm.)	10, rue de Valenciennes, Paris	
Byrne (Loftis)	10, rue de Valenciennes, Paris	
Bordaz (Gustave)	10, rue de Valenciennes, Paris	
Briart (Paul)	10, rue de Valenciennes, Paris	
Bénaud (Ch.)	10, rue de Valenciennes, Paris	
Bibliothèque Nat.	10, rue de Valenciennes, Paris	+++++
Briard d'Amant	10, rue de Valenciennes, Paris	
Bouvier	10, rue de Valenciennes, Paris	
Bede	10, rue de Valenciennes, Paris	
Basden (H.)	10, rue de Valenciennes, Paris	

Figs 1-3. Sources studied from the Dautzenberg archives. 1, Example of autograph (post card from F.L. Button, 7.xi.1924); 2, Example of label (in Dautzenberg's hand); note the date received (30.xii.09) on the bottom line; 3, Page from notebook with reprints distribution list.

est in a broader perspective of his science network, especially in the role of amateur and professional malacologists. During the 19th and early 20th century, the malacological universe was still largely dominated by amateurs, i.e. persons who were not associated to any museum or university, and who devoted private means to further malacological science by collecting, studying and, in some cases, publishing. Dautzenberg was one of those amateurs and — while he obtained his objects of study mainly by requests to collectors abroad, by exchanges and purchases — he devoted

most of his time to the study of shells and the writing of publications. His bibliography (Lamy, 1935: chronological; Duchamps, 1986: thematical) lists 195 titles, covering the period 1881-1933, and all major groups of molluscs except cephalopods; he worked both on Recent and fossil species. During 70 years of having an active interest in malacology, he was able to amass a collection of over 300.000 lots, which is now for the greater part in the RBINS collection.

The central question in this study was: what was the contribution of amateurs and professionals in the

science network of Dautzenberg? To answer this question the following hypotheses were formulated: (1) During the period ca. 1880-1935 his contacts with professionals became more dominant; (2) Amateurs remained the principal sources for his collection (exclusive of material bought from dealers). In this paper I will analyze the network of Dautzenberg on the basis of documentation in his archives, the sources of type material in his collection, and will give an overview of his eponyms from literature.

## METHODS

The following sources, present in the Dautzenberg archives, have been used: A) Dautzenberg reprint administration and collection (Fig. 3); B) the collection of 'autographs' (examples of handwritten letters from contacts) (Fig. 1); C) type material from his shell collection (Fig. 2). Moreover, eponyms (D) have been listed from literature.

The distribution of reprints from his own papers was noted by Dautzenberg in two notebooks. The first one covers approximately the period 1881-1900, and has been written by Dautzenberg himself. The second notebook – covering presumably the period ca. 1900-1935 – contains both the handwriting from Dautzenberg himself and possibly a third person (a secretary?), and seems to have started with transferring the data from the first notebook (omitting the persons deceased meanwhile), with additions over time in Dautzenberg's hand. This provided the basis for classifying the contacts into three periods in which Dautzenberg made first contact: (1) 1881-1899 (all names contained in the first notebook), during which period Dautzenberg published 63 papers; (2) 1900-1914 (additional names listed in the second notebook, regularly receiving reprints before 1914 as judged from the abbreviated titles), 91 papers published; (3) 1915-1935 (additional persons who regularly received reprints from 1915 onwards), 41 papers published. Institutional addresses, publishing houses and honoured recipients (e.g., King Leopold I of Belgium, who is the only one to have received nearly all reprints) have been excluded from the analysis. Both notebooks also contain address data for each person. A general address book is also present in the archives, which allowed me to double-check data that were too concise in the notebooks for data analysis. This general address book contained some names not included in the notebooks, but the analysis has been restricted to the reprint notebooks. The following data have been extracted: (a) the city and country of residence (places are classified according to current countries; for France a distinction has been made be-

tween Paris (P) and other places (o)); (b) the status of the person, i.e. amateur or professional (decided upon their publications which had to list for the latter a museum, institution or university as affiliation), or dealer; (c) the period in which the first contact was established; (d) the total number of different reprints sent by Dautzenberg; (e) whether reprints from the correspondent as (co-)author have been received, i.e. are present in the Dautzenberg reprint collection.

Another source in the Dautzenberg archives is his collection of 464 autographs, which has been described by Breure (2015). Overlap between the autograph collection and reprint notebooks were excluded, as well as persons of whom no reprints are present in Dautzenberg's personal reprint collection. This resulted in 98 additional persons from the network of Dautzenberg, who sent him reprints but were not included on his reprint lists. The following data were extracted for these persons: (a) the country of residence, where for France a distinction has been made between Paris (P) and other places (o); (b) the status of the person, i.e. amateur, professional, or dealer (see above); (c) the year of the autograph.

To analyze the sources of material from the Dautzenberg collection we had to limit ourselves to type material, as only data on type material is present in the RBINS database DaRWIN; to check all information contained on labels in the rest of the Dautzenberg collection was beyond the scope of this project. Type material which is present – and currently recognized as such – may be distinguished as follows: (1) type material of taxa described by Dautzenberg himself; (2) type material of taxa – as manuscript name or published – by third persons and acquired by Dautzenberg during his lifetime; (3) type material of taxa described by later authors on the basis of the Dautzenberg collection. The provenance of these types was classified according to the last supplier, viz. as dealer, expedition, amateur or professional. The latter two were categorized to (a) country of residence, (b) the period of acquisition, and (c) distinguished as belonging to either (i) his 'active contacts', or (ii) third persons. The period of acquisition was determined by one of the following: (a) the date noted by Dautzenberg on the label (and transcribed in the comments field of the DaRWIN database), (b) the date of collection as given on the label (*ibidem*), (c) the year of publication of the taxon, or (d) data derived from the Dautzenberg archives.

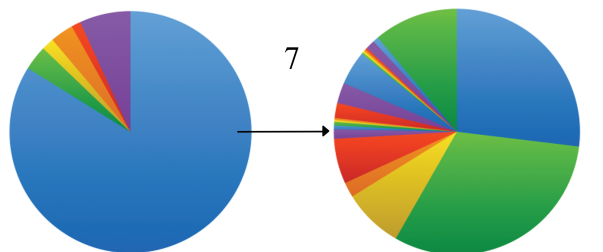
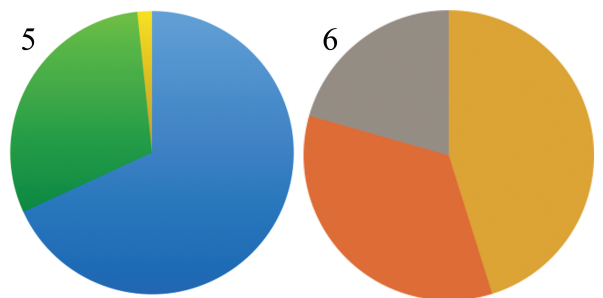
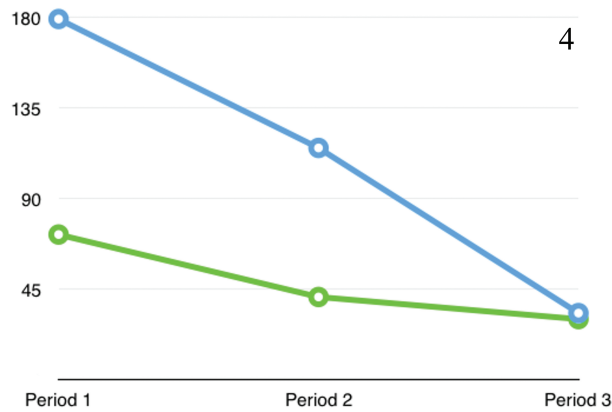
Eponyms created by Dautzenberg were extracted from a draft list of new taxa introduced by him (unpublished data RBINS). Only those eponyms have been selected which have a link to the persons from Dautzenberg's contact network. Eponyms made by various authors to honour Dautzenberg have been extracted using the Zoological Record database.

## EPONYMS

The following taxa have been named after Philippe Dautzenberg:

- Achatinella mustelina dautzenbergi* Welch, 1938: 140, pl. 13 figs 12-14 (Mollusca, Gastropoda, Achatinellidae).
- Acirsa (Hemiacirsa) dautzenbergi* Peyrot, 1938: 137 (Mollusca, Gastropoda, Epitoniidae).
- Alvania (Arsenia) dautzenbergi* Glibert, 1949: 105, pl. 6 fig. 9 (Mollusca, Gastropoda, Rissoidae).
- Amphidromus dautzenbergi* Fulton, 1899: 303, fig. 3 (Mollusca, Gastropoda, Camaenidae).
- Anadenus dautzenbergi* Collinge, 1900: 134, pl. 6 figs 1-8 (Mollusca, Gastropoda, Anadenidae).
- Ancistrum dautzenbergi* Chatton & Lwoff, 1926: 346 (Ciliophora, Oligohymenophorea, Ancistridae).
- Arca dautzenbergi* Lamy, 1907: 232, pl. 3 figs 9-11 (Mollusca, Bivalvia, Arcidae).
- Auricularia (Pythiopsis) dautzenbergi* de Morgan, 1916: 27, figs 16-17 (Echinodermata, Holothuroidea, Synaptidae).
- Aspatharia (Spathopsis) dautzenbergi* Haas, 1936: 93, pl. 8 figs 2a-b (Mollusca, Bivalvia, Mutelidae).
- Biemna dautzenbergi* Topsent, 1890: 32 (Porifera, Demospongiae, Biemnidae).
- Bithynia dautzenbergiana* Wattebled, 1886: 64, pl. 3 fig. 6 (Mollusca, Gastropoda, Bithyniidae).
- Buliminus (Subzebrinus) dautzenbergi* Ancey, 1906: 262 (Mollusca, Gastropoda, Enidae).
- Caecum dautzenbergi* Bédé, 1948: 46, fig. 2 (Mollusca, Gastropoda, Caecidae).
- Calliostoma dautzenbergi* Finlay, 1930: 39 [= *Calliostoma caroli* Dautzenberg, 1927; new name for *Calliostoma hedleyi* Dautzenberg, 1925 not Pritchard & Gatliff, 1902] (Mollusca, Gastropoda, Calliostomatidae).
- Cassidaria dautzenbergi* Locard, 1886: 150, 558 (Mollusca, Gastropoda, Cassidae).
- Ceras dautzenbergi* Dupuis & Putzeys, 1901: xxxviii, fig. 10 (Mollusca, Gastropoda, Subulinidae).
- Cerithiopsis (Cerithiopsis) dautzenbergi* Glibert, 1949: 150, pl. 10 fig. 2 (Mollusca, Gastropoda, Cerithiopsidae).
- Cerithium dautzenbergi* Vignal, 1902: 303, pl. 8 figs 11-12 (Mollusca, Gastropoda, Cerithiidae).
- Cingula (Onoba) dautzenbergi* Glibert, 1949: 101, pl. 5 fig. 21 (Mollusca, Gastropoda, Rissoidae).
- Circulopsis dautzenbergi* Glibert, 1949: 71, pl. 5 fig. 2 (Mollusca, Gastropoda, Cyclostrmatidae).
- Clausilia dautzenbergi* Morlet, 1893: 320 (Mollusca, Gastropoda, Clausiliidae).
- Clelandella dautzenbergi* Gofas, 2005: 136 (Mollusca, Gastropoda, Trochidae).
- Cleopatra dautzenbergi* Pilsbry & Bequaert, 1927: 294, fig. 54 (Mollusca, Gastropoda, Paludomidae).
- Cochliolepis dautzenbergi* Adams & Knudsen, 1969: 59 (Mollusca, Gastropoda, Tornidae).
- Cochlostyla dautzenbergi* Hidalgo, 1901 [1890-1901]: 288 (Mollusca, Gastropoda, Cyclophoridae).
- Columbella dautzenbergi* Hervier, 1899: 377, pl. 14 fig. 7 (Mollusca, Gastropoda, Columbellidae).
- Colus (Anomalosiphon) dautzenbergii* Dall, 1918: 218 [new name for *Siphon verkruzeni* Dautzenberg & Fischer, 1912 not Kobelt, 1876] (Mollusca, Gastropoda, Buccinidae).
- Conus dautzenbergi* Fenaux, 1942: 2, fig. 2 (Mollusca, Gastropoda, Conidae).
- Corbicula dautzenbergi* Prashad, 1929: 46, pl. 6 figs 30-31 (Mollusca, Bivalvia, Cyrenidae).
- Corbula (Cuneocorbula) dautzenbergi* Lamy, 1941: 235 [new name for *Corbula lirata* E.A. Smith, 1871 not *Corbula lyrata* Sowerby, 1837] (Mollusca, Bivalvia, Corbulidae).
- Curvella dautzenbergi* Pilsbry, 1919: 165, pl. 20 figs 1-1a (Mollusca, Gastropoda, Subulinidae).
- Cyclophorus (Theobaldius) dautzenbergi* Fulton, 1907: 155, pl. 10 fig. 8 (Mollusca, Gastropoda, Cyclophoridae).
- Cyclostrema dautzenbergianum* Ancey, 1898: 149, pl. 9 fig. j (Mollusca, Gastropoda, Skeneidae).
- Cyclotus dautzenbergi* de Morgan, 1885: 398, pl. 8 fig. 1 (Mollusca, Gastropoda, Cyclophoridae).
- Cylindrella dautzenbergiana* Crosse, 1890: 212, pl. 4 figs 6-6a (Mollusca, Gastropoda, Urocoptidae).
- Cypraea dautzenbergi* Hidalgo 1907 [1906-1907]: 362, 571 [new name for *Cypraea fuscomaculata* Pease, 1868 not Pease, 1865] (Mollusca, Gastropoda, Cypraeidae).
- Cythara dautzenbergi* Knudsen, 1952: 170, pl. 1 fig. 4 (Mollusca, Gastropoda, Mangeliidae).
- Dautzenbergia* Chevreux, 1900: 73. Type species *Amphithopsis grandimana* Chevreux, 1887 (Crustacea, Amphipoda, Pontogeneiidae).
- Dautzenbergiella* Lindholm, 1924: 62. Type species *Clausilia duella* Mabilie, 1887 (Mollusca, Gastropoda, Clausiliidae).
- Diplodonta dautzenbergi* Thiele & Jaeckel, 1931: 218, pl. 3 fig. 86 (Mollusca, Bivalvia, Ungulinidae).
- Donovania dautzenbergi* Pallary, 1926: 71 (Mollusca, Gastropoda, Buccinidae).
- Dosinia (Asa) dautzenbergi* Fischer-Piette & Delmas, 1967: 26, pl. 5 figs 11-15 (Mollusca, Bivalvia, Veneridae).
- Drillia (Clathrodrillia) dautzenbergi* Tippett, 1995: 129 [new name for *Drillia gibbosa* var. *minor* Dautzenberg, 1900 not *Drillia minor* Seguenza, 1880] (Mollusca, Gastropoda, Drilliidae).
- Eucardium (Rudicardium) tuberculatum* var. *dautzenbergi* Coen, 1915: 300, pl. 7 figs 1-2 (Mollusca, Bivalvia, Cardiidae).
- Eulima (Vitrolina) dautzenbergi* Pallary, 1900: 338, pl. 7 fig. 1 (Mollusca, Gastropoda, Eulimidae).
- Glycymeris dautzenbergi* Prashad, 1932: 65, pl. 2 figs 15-18 (Mollusca, Bivalvia, Glycymeridae).
- Gulella dautzenbergi* Connolly, 1928: 534, pl. 18 fig. 3 (Mollusca, Gastropoda, Streptaxidae).
- Helicarion (?) dautzenbergianum* Ancey, 1902: 64 (Mollusca, Gastropoda, Helicarionidae).
- Hyalinia dautzenbergi* Wagner, 1907: 110 (Mollusca, Gastropoda, Marginellidae).

- Hydrobioides dautzenbergi* Walker, 1927: 223, pl. 14 figs 10-10a (Mollusca, Gastropoda, Bithyniidae).
- Hysteroconcha* (?*Lamelliconcha*) *dautzenbergi* Prashad, 1932: 217, pl. 6 figs 11-12 (Mollusca, Bivalvia, Veneridae).
- Idalia dautzenbergi* Vayssière, 1919: 79, pl. 4 figs 15-17 (Mollusca, Gastropoda, Goniadorididae).
- Lepidopleurus meneghini dautzenbergi* Ancey, 1898: 55 (Mollusca, Polyplacophora, Leptochitonidae).
- Limiscalia dautzenbergi* Jousseau, 1912: 226, pl. 5 figs 6-7 (Mollusca, Gastropoda, Epitoniidae).
- Limnea* (*Gulnaria*) *limosa peregra* var. *dautzenbergiana* Piaget, 1912: 339, figs 6-7 (Mollusca, Gastropoda, Lymnaeidae) [infrasub-specific name].
- Limopsis dautzenbergi* Prashad, 1932: 60, pl. 2 figs 13-14 (Mollusca, Bivalvia, Limopsidae).
- Liotia dautzenbergi* Bavay, 1917: 112, pl. 3 figs 6-8 (Mollusca, Gastropoda, Pickworthiidae).
- Macromphalina dautzenbergi* Adam & Knudsen, 1969: 54, fig. 31 (Mollusca, Gastropoda, Vanikoridae).
- Mangelia* (*Clathurella*) *dautzenbergi* Peyrot, 1938: 289, pl. 5 figs 50, 55 (Mollusca, Gastropoda, Mangeliidae).
- Marginella dautzenbergi* Cossmann, 1896: 231, pl. 7 figs 13-15 (Mollusca, Gastropoda, ?Marginellidae).
- Marginella dautzenbergi* Tomlin & Shackelford, 1912: 319, pl. 4 figs 1-2 (Mollusca, Bivalvia, Marginellidae) [Replaced by *M. thomensis* Tomlin, 1919: 65].
- Martelia dautzenbergi* Dupuis, 1924: 20 (Mollusca, Gastropoda, Paludomidae).
- Melania dautzenbergiana* Morlet, 1884: 399, pl. 8 figs 1a-c (Mollusca, Gastropoda, Thiaridae).
- Melanoides tuberculata dautzenbergi* Pilsbry & Bequaert, 1927: 257 [new name for *Melanoides victoriae* Dautzenberg, 1908 not Dohrn, 1865] (Mollusca, Gastropoda, Thiaridae).
- Mitra dautzenbergi* Peyrot, 1938: 241, pl. 4 fig. 65 (Mollusca, Gastropoda, Mitridae).
- Myonera dautzenbergi* Prashad, 1932: 334, pl. 7 fig. 51 (Mollusca, Bivalvia, Cuspidaridae).
- Nassa dautzenbergi* Harmer, 1914: 78, pl. 5 figs 5-6 (Mollusca, Gastropoda, Nassariidae).
- Nassa* (*Alectryon*) *dautzenbergi* Mari, 1928: 154, pl. 6 fig. 2 (Mollusca, Gastropoda, Nassariidae) [not *Nassa dautzenbergi* Harmer, 1914].
- Nucula dautzenbergi* Prashad, 1932: 17, pl. 1 figs 13-16 (Mollusca, Bivalvia, Nuculidae).
- Odontostomus* (*Macrodontes*) *dautzenbergianus* Pilsbry, 1899: 472 (Mollusca, Gastropoda, Odontostomidae).
- Opisthophorus dautzenbergi* Sykes, 1902: 23 (Mollusca, Gastropoda, Cyclophoridae).
- Oscilla dautzenbergi* de Morgan, 1915: 235, fig. 19 (Mollusca, Gastropoda, Pyramidellidae).
- Pectunculus dautzenbergi* de Gregorio, 1892: 109 (Mollusca, Bivalvia, Veneridae).
- Pediculariella dautzenbergi* Schilder, 1931b: 167, pl. 6 fig. 3 (Mollusca, Gastropoda, Pediculariidae).
- Phacoides dautzenbergi* Lamy, 1920: 177, figs. (Mollusca, Bivalvia, Lucinidae).
- Pholadomya dautzenbergi* Cuvillier, 1930: 86 (Mollusca, Bivalvia, Pholadomyidae).
- Phyllidia dautzenbergi* Vayssière, 1912: 85, pl. 1 figs 14-15 (Mollusca, Gastropoda, Phyllidiidae).
- Physa* (*Pyrgophysa*) *dautzenbergi* Germain, 1905: 486 (Mollusca, Gastropoda, Physidae).
- Planaxis* (*Dalliella*) *dautzenbergi* Glibert, 1949: 133, pl. 8 fig. 6 (Mollusca, Gastropoda, Rissoinidae).
- Plectopylis dautzenbergi* Gude, 1901: 198, pl. 6 figs 1a-c (Mollusca, Gastropoda, Plectopylidae).
- Pleurobranchus dautzenbergi* Boog Watson, 1897: 239, pl. 19 fig. 8 (Mollusca, Gastropoda, Pleurobranchidae).
- Polia dautzenbergi* Bavay, 1895: 160 (Mollusca, Gastropoda, Buccinidae).
- Primovoula dautzenbergi* Schilder, 1931a: 366, figs 1-4 (Mollusca, Gastropoda, Ovulidae).
- Propeamussium* (*Parvamussium*) *dautzenbergi* Dijkstra, 1990: 2, figs 5-8 (Mollusca, Bivalvia, Pectinidae).
- Pseudopalania dautzenbergiana* Yen, 1948: 75, pl. 1 fig. 1 (Mollusca, Gastropoda, Cyclophoridae).
- Purpura* (*Polytropicalicus*) *dautzenbergi* Peyrot, 1938: 198 (Mollusca, Gastropoda, Muricidae).
- Pyrgulina dautzenbergi* Melvill, 1910: 199 (Mollusca, Gastropoda, Pyramidellidae).
- Pyrgulina* (*Parthenina*) *dautzenbergi* Peyrot, 1938: 57, pl. 3 fig. 17 (Mollusca, Gastropoda, Pyramidellidae).
- Pyrgulina miodautzenbergi* Gougerot, 1978: 22 [new name for *Pyrgulina dautzenbergi* Peyrot, 1938 not Melvill, 1910]
- Pythia dautzenbergi* Dupuis, 1931: 1, fig. (Mollusca, Gastropoda, Ellobiidae).
- Seguenzia dautzenbergi* Schepman, 1909: 179, pl. 12 fig. 5 (Mollusca, Gastropoda, Seguenziidae).
- Sinusigera dautzenbergi* Vayssière, 1930: 24, pl. 1 figs 14-15 (Mollusca, Gastropoda, Cypraeidae).
- Soletellina dautzenbergi* G.B. Sowerby III, 1909: 314 (Mollusca, Bivalvia, Psammobiidae).
- Streptostele* (*Streptostele*) *dautzenbergi* Pilsbry, 1919: 187, pl. 21 fig. 7 (Mollusca, Gastropoda, Streptaxidae).
- Sunetta dautzenbergi* Cossmann, 1924: 132, pl. 7 figs 23-26 (Mollusca, Bivalvia, Veneridae).
- Tellina dautzenbergi* Nobre, 1894: 92 (Mollusca, Bivalvia, Tellinidae).
- Terebellum dautzenbergi* Cuvellier, 1933: 46, pl. 6 figs 3-4 (Mollusca, Gastropoda, Seraphsidae).
- Trachiopsis torresiana* var. *dautzenbergi* Schepman, 1919: 164, pl. 5 fig. 1 (Mollusca, Gastropoda, Camaenidae).
- Triton dautzenbergi* (sic) Von Ihering, 1897: 293, fig. 16 (Mollusca, Gastropoda, Ranellidae).
- Trochomorpha dautzenbergi* Sykes, 1904: 87, pl. 9 figs 13-14 (Mollusca, Gastropoda, Trochomorphidae).
- Turbonilla* (*Pyrgolampros*) *dautzenbergi* Glibert, 1949: 192, pl. 11 fig. 6 (Mollusca, Gastropoda, Scalidae).
- Unio dautzenbergi* Morlet, 1889: 163 (Mollusca, Bivalvia, Unionidae).



**Figs 4-7.** Analyses of ‘active contacts’. 4, Number of amateurs (blue) and professionals (green) first contacts divided over three periods (1881-1899, 1900-1914, 1915-1935); 5, Background of active contacts (amateurs - blue, professionals - green, and dealers - yellow); 6, Categories of active contacts (‘exchangers’ - dark yellow, ‘receivers’ - orange, ‘senders’ - grey); 7, Geographic origin of active contacts. The pie charts read from the top clockwise, geographical units follow rows.

*Vexillum (Costellaria) dautzenbergi* Poppe, Guillot de Suduiraut & Tagaro, 2006: 107, pl. 3 figs 2-4 (Mollusca, Gastropoda, Costellariidae).  
*Volutopsis norvegica* var. *dautzenbergi* Schlesch, 1929: 194, pl. 11 figs 7-8 (Mollusca, Gastropoda, Buccinidae).  
*Wexfordia dautzenbergi* Harmer, 1921: 704, pl. 54 fig. 21 (Mollusca, Gastropoda, Naticidae).  
*Yoldiella dautzenbergi* La Perna, 2008: 152 (Mollusca, Bivalvia, Yoldiidae).

Contact	Country	Status	Life time	Duchamps, 1999
Bavay, A.R.J.B.	France (P)	Amateur	1840-1923	Scientist
Bureau, L.	France (o)	Professional	1847-1936	
Caziot, A.	France (o)	Amateur	1844-1931	Military
Chevreur, E.L.	Algeria	Amateur	1846-1931	Scientist
Collinge, W.E.	U.K.	Professional	1867-1947	
Connolly, M.W.K.	U.K.	Professional	1842-1947	
Cort, H. de	Belgium	Amateur	1864-1914	Family
Cossmann, A.E.M.	France (P)	Amateur	1850-1924	Scientist
Dall, W.H.	U.S.A.	Professional	1845-1927	Scientist
Demange, V.	Vietnam	Amateur	1870-1940	
Durand, G.	France (P)	Amateur		
Durouchoux, P.	France (P)	Amateur	1847-1928	Family
Fischer, P.M.H.	France (P)	Professional	1855-1916	Scientist
Fournier, G.	Belgium	Amateur		
Fulton, H.C.	U.K.	Dealer	1861-1942	Misc.
Gregorio, A. de	Italy	Amateur	1855-1930	Scientist
Hidalgo, J.G.	Spain	Professional	1839-1923	Scientist
Ihering, H. von	Brazil	Professional	1850-1930	
Lamothe, L.J.B. de	France (o)	Amateur	1849-1936	Military
Martel, H.	France (o)	Amateur	1846-1927	Military
Monterosato, T.M.A.	Italy	Amateur	1841-1927	Scientist
Morgan, J.J.M. de	France (o)	Amateur	1857-1924	
Nerville, F.G. de	France (P)	Amateur	1858-1931	
Norman, A.M.	U.K.	Amateur	1831-1918	
Pas, C. de	France (o)	Amateur		
Pelseener, J.P.L.	Belgium	Professional	1863-1945	Scientist
Pilsbry, H.A.	U.S.A.	Professional	1862-1957	
Ponsonby, J.H.	U.K.	Amateur	1848-1916	
Prashad, B.	India	Professional	1894-1969	
Prete, R. del	Italy	Amateur		
Putzeys, S.	Belgium	Professional		
Richard, J.	Monaco	Amateur	1863-1945	
Sacco, F.	Italy	Professional	1864-1948	
Smith, E.A.	U.K.	Professional	1847-1916	Scientist
Sowerby, G.B. III	U.K.	Dealer	1843-1921	Scientist
Sykes, E.R.	U.K.	Amateur	1867-1954	
Vignal, L.	France (P)	Amateur	1849-1941	
Vincent, E.G.	Belgium	Amateur	1860-1928	

**Table 1.** Group of ‘high intensity’ contacts to whom Dautzenberg sent the larger number of reprints (see text for further details). Persons dealt with by Duchamps (1999) are indicated with his grouping.

RESULTS

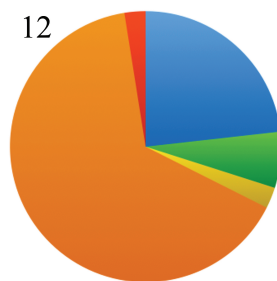
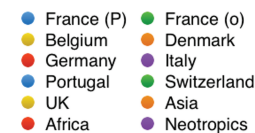
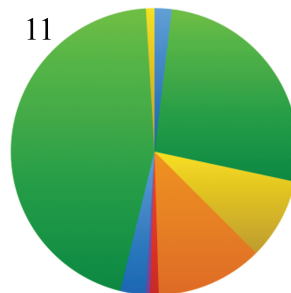
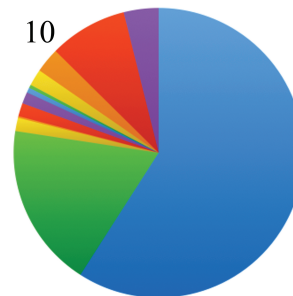
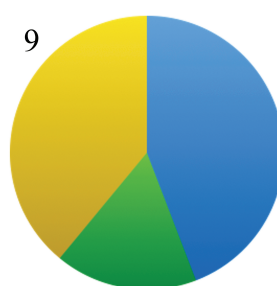
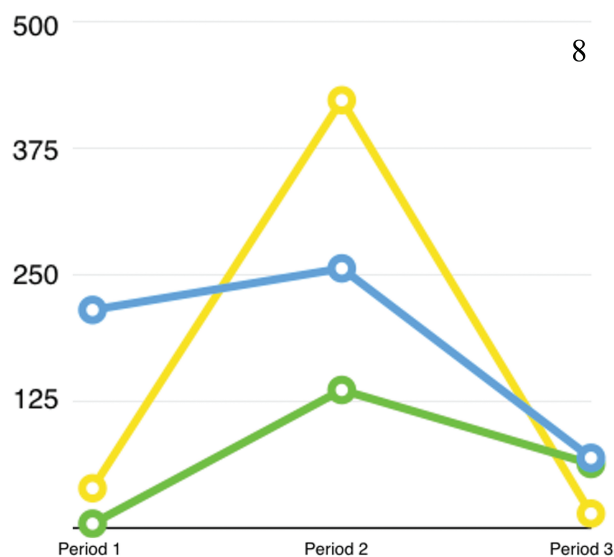
Reprints. – The total number of persons to whom Dautzenberg either sent, received from or exchanged reprints is 476. This group is indicated herein as ‘active contacts’; 68% of this group were amateur, 30% professionals, while the remaining 2% were dealers

(Figs 4-5). For this group several warnings may be sounded. First, the distinction between 'amateur' and 'professional' in those days may have not been so strict as currently understood. Secondly, the allocation of the correspondents in the autograph collection to countries is based on the place mentioned in the letter, unless it was clear otherwise it was sent during traveling. In some cases this was very evident, while in some others it had to be deduced from other contextual sources.

In the two notebooks in total 494 persons are listed, of which 116 have not been recipients of Dautzenberg reprints. These 116 persons—except eight professionals and four dealers—were all amateurs, and this group was dominant during the early years (1881–1899). It seems as if Dautzenberg has become more selective over the years to whom he sent his reprints, although there has also been a group of people who only sent him reprints of own publications without receiving any from Dautzenberg; see also below sub B. The remaining 378 persons have been treated as 'reprint receivers', although part of these returned the favour by sending own reprints, and might be more properly classified as 'exchangers'. Overall, the composition of this group is 45% 'exchangers', 34% 'receivers', and 21% 'senders' (Fig. 6).

As a proxy for the intensity of the contact the number of different reprints has been taken. The 38 persons (10%) with the highest number (varying from 94-132, average 110) has been analyzed in more detail, as these persons were presumably the most interesting for Dautzenberg (Table 1). Not surprisingly most of them are contemporaries, but with some marked exceptions. The composition of this group consist of 92% 'exchangers', and the balance between amateurs (61%), professionals (34%), and dealers (5%) was slightly different from the total group of 'active contacts' (see above). The category 'exchangers' as a whole comprises 215 persons. For this group the number of reprints sent by Dautzenberg varied from 1-132 (average 45). This group consisted of amateurs (56%), dealers (2%), and professionals (42%).

Analysing the geographical origin of the total group of 'active contacts' it becomes clear that the majority (84%) is from Europe, 7% from the U.S.A., the remaining 9% from other countries. Within Europe, 58% of his active contacts were French (27% Paris based, 31% from other parts of France), 11 % from the United Kingdom, 8% from Belgium, 6% from Germany, and the remaining 17% from various European countries (Fig. 7). The range in geographic origin of the 'high intensity' group was comparable to the 'active contacts' group as a whole, with an underrepresentation of the French and relative overrepresentation of persons from the U.K. and Belgium.



**Figs 8-12.** Analyses of sources of (type) material. **8,** Number of lots originating from amateurs (blue), professionals (green), and dealers (yellow), divided over three periods (1881-1899, 1900-1914, 1915-1935). **9,** Categories of material suppliers (amateurs - blue, professionals - green, and dealers - yellow). **10,** Geographic origin of lots received from amateurs. **11,** Geographic origin of lots received from professionals. **12,** Geographic origin of lots received from dealers. The pie charts read from the top clockwise, geographical units follow rows.

Autographs. – The group of people of whom handwritten correspondence has been kept, partially overlaps the group of persons to whom Dautzenberg has sent reprints of his papers. Several persons from the ‘autograph group’ appeared to have sent reprints of their papers to Dautzenberg without being added by him to his distribution list; these persons are part of the ‘senders’ group mentioned above. Further details on this group can be found in Breure (2015).

Provenance of type material. – The DaRWIn database currently has 1476 entries for type lots in the Dautzenberg collection. Of these, 133 entries contained too few data on the provenance or the period, or were added after Dautzenberg’s life; thus 1343 entries remained for data analysis. Of these 118 lots were collected during oceanographical expeditions, 478 lots were obtained from dealers (Preston, G eret, Sowerby & Fulton, Webb, and Schneider provided the majority of this material). Of the remaining 747 lots, 206 have been received from professional malacologists, and 541 from amateurs. Analyzing the professionals to countries, 90 lots were received from Japan (Hirase), 55 from Austria (Wagner and Oberwimmer), 25 from Germany (mainly Haas and Rensch), 19 from Belgium (mainly Putzeys, Dupuis, and Bequaert), the rest from various countries; except a few lots, all material was received from ‘active contacts’ (see also Figs 8-12). The 541 lots from amateurs originated mainly from France (319 from contacts in Paris, 99 from other parts of France), from Algeria (43 lots, mainly Pallary), and from Ecuador (15 lots from the Cousin collection); see Fig. 10. It is here assumed that the Cousin collection was bought directly from his heirs, but it cannot be excluded that it arrived in Dautzenberg’s possession via G eret (see also Breure 2011: fig. 2C). Excluding the material from oceanographic expeditions, the majority of the material (84 %) came to the Dautzenberg collection from European sources.

When analyzed according to period, it appears that the majority of the material was acquired between 1900 and 1914, with a substantial contribution from material obtained from dealers. Amateurs as source of material were relatively stable throughout the years, being prominent especially in the period 1880-1899 (Figs 8-9).

Eponyms. – The list presented above contain 105 eponyms named after Dautzenberg, who—among the ca. 1900 new names introduced by him—has given 308 eponyms to colleagues. In total 143 (30%) of the ‘active contacts’ either named at least one eponym after Dautzenberg (25), were given at least one eponym by Dautzenberg (93), or both was the case (25). The group of ‘high intensity’ contacts were given

81 eponyms by Dautzenberg (26% of total); 17 of these persons named at least one taxon to honour Dautzenberg (45% of the group). The total group of ‘exchangers’ received 230 eponyms given by Dautzenberg to 84 persons in his network; 44 persons (20% of the group) named at least one taxon after Dautzenberg.

## DISCUSSION

Dautzenberg lived in Paris and— with France being one of the European countries that housed an active malacological community around 1900—it cannot be a surprise that many contacts of Dautzenberg were France based. Of the persons regarded as ‘active contacts’ Europeans total up to 84% (France 58%, the U.K. 9%, Belgium 7% and Germany 5%; all other European countries together 14%), U.S.A. 7%, Asia and Africa each 3%, Oceania 2% and Central and South America 1% (Fig. 6). Within the ‘high intensity’ group the composition is different (France 35%, Belgium 14%, U.K. 22%), but the division European-non European countries is similar. The absence of Germans among this group is striking. It should be reminded that other persons, although not included in the ‘active contacts’ group, might still have been instrumental for Dautzenberg, as it is known that he used his contacts in circles of— among others—clergymen, government officials, and military to stimulate persons to act as collectors for him in return for small material gifts (Duchamps, pers. commun., 13.vii.2015).

Related to the suppliers of (type) material, amateurs rank highest in absolute number of lots. The contribution of dealers, especially in the beginning of the 20th century, is also substantial; however, one should keep in mind that partly this material originated from amateur collections (parts of the Ancey collection purchased from G eret exemplify this). Although Preston was an important supplier to Dautzenberg, it is remarkable that he does not occur in his reprints distribution administration. Professionals as source of material played a modest role, with the exception of Hirase supplying material from Japan.

Eponyms have been applied since the beginning of binominal nomenclature as a way to recognize esteemed colleagues or to reward an ardent collector of material. Another discipline using eponyms is medicine, and recently Fargen and Hoh (2014) have explored the arguments for and against the continued use of eponyms within medical education and practice. In biological taxonomy no such explicit debate has taken place. Nowadays eponyms are sometimes considered as antiquated, as more emphasis is being laid on having the name reflecting characteristics of the newly described organism. However, the results presented above suggest that a listing of eponyms



used by and for an author could at least act as a proxy of his contact network in cases where archival data is less extensive or absent.

Related to the hypotheses posed in the introduction, it is clear that amateurs have played a major role throughout the life of Dautzenberg, both in correspondence and as source of material. It is also clear that Dautzenberg, a wealthy man, may not be regarded as a standard amateur. The amount of specimens he amassed by buying series from shell dealers exemplifies this. In this respect this study may be misleading, but on the other hand the relative completeness of the collection and the archives of Dautzenberg provide an unique insight in the world of a malacologist at the end of the 19th and beginning of the 20th century.

These results of this study may also lead to a broader avenue for research. In natural history museums the historical collections (i.e. from the 19th and early 20th century) are the core, and often contains type material from authors who described taxa during this period. This type material is crucial as it is often an important or sole source for revisionary work. Although for a number of authors is known where these types may be expected, exchange of material seems to have happened more often than currently thought. Also, many type specimens currently considered lost are probably hidden in the collections of museums, which may be recovered once the label handwriting can be authorized. It should be noted that the majority of historical material has minimal labelling and knowledge of collaborations and relationships between scientist and collectors can give more clues to e.g., collection localities or provenance. Science networks can be composed of either ideas (correspondence, meetings), material (one-way or exchanges), or both. This would require studying the archives of natural history museums, and possibly also personal archives that might be available in public archives. Information obtained from collections will be needed to make the picture as complete as possible. Where archives often are incomplete or lost, and label information is often minimal or might be missing, the tracing of eponyms from literature may help to partially reconstruct the contact network of authors.

All this suggests that further research into the ancient networks of malacologists during the 19th and early 20th century might be advantageous. Unraveling the networks that have existed could shed more light on the cooperation between people, and the shifting balances between amateurs and professionals, both in the exchange of ideas or shells. Finally, it is interesting to note that where this study suggests a shift from amateurs to professionals in (molluscan- $\alpha$ -) taxonomy about a century ago, nowadays a tendency may be observed where—for policy and budgetary

reasons—volunteering amateurs are supposed to play a greater role in this field. *L'histoire se répète*, but always in a bit different way.

#### ACKNOWLEDGEMENTS

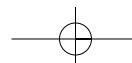
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#### REFERENCES

- ADAM, W. & KNUDSEN, J., 1969. Quelques genres de mollusques prosobranches marins inconnus ou peu connus de l'Afrique Occidentale. – Bulletin de l'Institut Royal des Sciences Naturelles de Belgique 44 (27): 1-69.
- ANCEY, C.F., 1898. Notes Malacologiques. A. Observations sur les mollusques terrestres et fluviatiles recueillis dans l'Indo-Chine et particulièrement au Laos par M. Henri Counillon, accompagnées de remarques sur d'autres mollusques de cette région. B. Descriptions d'espèces nouvelles du centre de l'Afrique. C. Notes sur quelques coupes génériques ou sous-génériques de Mollusques. D. Description d'un mollusque Méditerranéen nouveau. – Bulletin du Musée d'Histoire Naturelle de Marseille 1: 125-141.
- ANCEY, C.F., 1902. Contributions towards the knowledge of the Mollusca of Madagascar. – The Nautilus 16: 64-68.
- BAVAY, A., 1895. Description d'une coquille nouvelle. – Le Naturaliste 17: 160.
- BAVAY, A., 1917. Quelques coquilles des sables littoraux de divers pays. – Journal de Conchyliologie 63: 91-114.
- BÉDÉ, P., 1948. Note sur une faunule quaternaire provenant de sondages à El Aouina et El Ariana. – Bulletin de la Société des Sciences Naturelles de Tunisie 1: 37-53.
- BERGVELT, E., MEIJERS, D.J. & REIJNDERS, M. (EDS.), 2005. Kabinetten, galerijen en musea. Het verzamelen en presenteren van naturalia en kunst van 1500 tot heden: 1-478. Zwolle.
- BOOG WATSON, R., 1897. On the marine Mollusca of Madeira; with descriptions of thirty-five new species, and an index-list of all the known sea-dwelling species of that Island. – Journal of the Linnean Society 26: 233-329.



- BRANDT, R.A.M., 1974. The non-marine aquatic Mollusca of Thailand. – Archiv für Molluskenkunde 105: 1-423.
- BREURE, A.S.H., 2011. Annotated type catalogue of the Orthali-coidea (Mollusca, Gastropoda) in the Royal Belgian Institute of Sciences, Brussels, with description of two new species. – ZooKeys 101: 1-50.
- BREURE, A.S.H., 2015. The malacological handwritings in the autograph collection of the Ph. Dautzenberg archives, Brussels. – Folia conchyliologica 33: 1-111.
- BREURE, A.S.H. & HEER, S.R. DE, 2015. From a 'domestic commodity' to a 'secret of trade': snails and shells of land molluscs in early (mainly 16th and 17th century) visual arts. – Basteria 79: 81-97.
- BREURE, A.S.H. & TARDY, E., 2016. From the shadows of the past: Moricand senior and junior, two 19th century naturalists from Geneva, their newly described taxa, and molluscan types. – Revue Suisse de Zoologie 123: 113-138.
- CHATTON, E. & LWOFF, A., 1926. Diagnoses de ciliés thigmotriches nouveaux. – Bulletin de la Société zoologique de France 51: 345-352.
- CHEVREUX, E., 1900. Amphipodes provenant des campagnes de l'Hirondelle (1885-1888). – Résultats des campagnes scientifiques accomplies sur son yacht par Albert I<sup>er</sup> Prince Souverain de Monaco 16: i-iv, 1-195.
- COAN, E.V. & KABAT, A., 2015. 2400 years of malacology. Available at [http://www.malacological.org/2004\\_malacology.html](http://www.malacological.org/2004_malacology.html) (accessed 7 July 2015).
- COEN, G.S., 1915. Sulle varietà viventi del *Cardium tuberculatum* L. – Annali del Museo Civico di Storia Naturale di Genova, Serie 3a (6), 46: 299-304.
- COLLINGE, W.E., 1900. Description of a new species of *Anadenus* from China. – Journal of Malacology 7: 133-135.
- CONNOLLY, M., 1928. The non-marine mollusca of Sierra Leone. – Annals and Magazine of Natural History (10) 1: 529-551.
- COSSMANN, M., 1896. Mollusques éocéniques de la Loire-Inférieure. – Bulletin de la Société des sciences naturelles de l'Ouest de France 6: 179-246.
- COSSMANN, M., 1924. Faune pliocénique de Karikal (Inde Française) (Fin: Pélécy-podes) (1). – Journal de Conchyliologie 68: 85-150.
- CROSSE, H., 1890. Faune malacologique terrestre et fluviatile de l'île de Cuba. – Journal de Conchyliologie 38: 173-335.
- CUVILLIER, J., 1930. Révision du nummulitique Égyptien. – Mémoires de l'Institut d'Égypte 16: 1-372.
- CUVILLIER, J., 1933. Nouvelle contribution à la paléontologie du nummulitique Égyptien. – Mémoires de l'Institut d'Égypte 22: i-viii, 1-76.
- DALL, W.H., 1918. Notes on *Chrysodomus* and other mollusks from the North Pacific Ocean. – Proceedings United States National Museum 54: 207-234.
- DANCE, S.P., 1966. Shell collecting. An illustrated history: 1-344. Berkeley / Los Angeles.
- DIJKSTRA, H.H., 1990. Three new pectinean species collected during the Siboga Expedition (1899-1900), with additional information and corrections on the previous report (Mollusca: Propeamussiidae, Pectinidae). – Beaufortia 40: 1-14.
- DUCHANPS, R., 1986. Philippe Dautzenberg. – Apex 1 (2): 47-66.
- DUCHANPS, R., 1999. Philippe Dautzenberg et son temps. – Apex (hors série): 1-45.
- DUPUIS, P., 1924. Notes malacologiques concernant la faune de l'Afrique continentale et insulaire. – Annales de la Société royale zoologique et malacologique de Belgique 55: 20-28.
- DUPUIS, P., 1931. Description de mollusques nouveaux recueillis au cours du voyage de S. A. R. le Prince Leopold de Belgique aux Indes Orientales Néerlandaises (2<sup>e</sup> note). – Bulletin du Musée royal d'Histoire naturelle de Belgique 7(12): 1-6.
- DUPUIS, P. & PUTZEYS, S., 1901. Diagnoses de quelques espèces de coquilles nouvelles et d'un genre nouveau provenant de l'État indépendant du Congo, suivies de quelques observations relatives à des espèces déjà connues. – Annales de la Société royale malacologique de Belgique 36: xxxiv-xlii.
- FARGEN, K.M. & HOH, B.L., 2014. The debate over eponyms. – Clinical Anatomy 27: 1137-1140.
- FENAUX, A., 1942. Nouvelles espèces du genre *Conus*. – Bulletin de l'Institut Océanographique, Monaco 814: 1-4.
- FINLAY, H.J., 1930. Invalid molluscan names, no. 1. – Transactions and Proceedings of the New Zealand Institute 61: 37-48.
- FISCHER-PIETTE, E. & DELMAS, D., 1967. Révision des mollusques Lamellibranches du genre *Dosinia* Scopoli. – Mémoires du Museum Nationale d'Histoire Naturelle Paris (n.s.) A Zoologie 47: 1-91.
- FULTON, H.C., 1899. Descriptions of supposed new species of *Streptaxis* and *Amphidromus*. – Proceedings of the Malacological Society of London 3: 302-303.
- FULTON, H.C., 1907. Description of new species of *Trochomorpha*, *Cochlostyla*, *Amphidromus*, *Bulimulus*, *Drymaeus*, *Placostylus*, *Stenogyra*, *Leptopoma*, *Cyclophorus*, *Cyclotus*, and *Alycaeus*. – Annals and Magazine of Natural History (7) 19: 149-157.
- GREGORIO, A. DE, 1892. Sul genere *Pectunculus* e precipuamente sulle specie viventi mediterraneo e fossili nel terziario superiore. – Il Naturalista siciliano 11: 89-96, 106-114.
- GERMAIN, L., 1905. Contributions à la faune malacologique de l'Afrique équatoriale. – Bulletin du Muséum d'histoire naturelle Paris 11: 483-489.
- GLIBERT, M., 1949. Gastropodes du Miocene moyen du Bassin de la Loire. – Mémoires Institut Royal des Sciences Naturelles de Belgique (2e série) 30: 1-240.
- GOFAS, S., 2005. Geographical differentiation in *Clelandella* (Gastropoda: Trochidae) in the northeastern Atlantic. – Journal of Molluscan Studies 71: 133-144.
- GOUGEROT, L., 1978. Le sous-genre *Parthenina* (genre *Chrysallida*, famille Pyramidellidae) dans les Faluns Helvétiques de Touraine. – Bulletin d'Information des Géologues du Bassin de Paris 15 (4): 17-24.
- GUDE, G.K., 1901. Sur une collection de *Plectopylis* du Tonkin, avec la description de six espèces nouvelles. – Journal de Conchyliologie 49: 197-212.
- HAAS, F., 1936. Binnen-Mollusken aus Inner-Afrika, hauptsächlich gesammelt von Dr. F. Haas während der Schomburgk-Expedition in den Jahren 1931/32. – Abhandlungen der



- Senckenbergischen Naturforschenden Gesellschaft 431: 1-156.
- HARMER, F.W., 1914. The Pliocene Mollusca of Great Britain, being supplementary to S.V. Wood's Monograph of the Crag Mollusca, 1 (1): 1-200. London.
- HARMER, F.W., 1921. The Pliocene Mollusca of Great Britain, being supplementary to S.V. Wood's Monograph of the Crag Mollusca, 2 (2): 653-705. London.
- HEER, S.R. DE & BREURE, A.S.H., 2015. Op slakkenjacht: oude afbeeldingen van landslakken in de kunsthistorie en letterkunde [with summary]. – *Spirula* 402: 6-9.
- HERVIER, J., 1899. Le genre *Columbella* dans l'Archipel de la Nouvelle-Calédonie. – *Journal de Conchyliologie* 47: 305-391.
- HIDALGO, J.G., 1890-1901. Estudios preliminares sobre la fauna malacológica de las Islas Filipinas. – *Memorias de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid* 14: 1-632.
- HIDALGO, J.G., 1906-1907. Monografía de las especies vivientes del género *Cypraea*. – *Memorias de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid* 25: i-xv, 1-588.
- HERING, H. VON, 1897. Os Moluscos dos terrenos Terciarios da Patagonia. *Revista do Museu Paulista (São Paulo)* 2: 217-382.
- JOUSSEAUME, F., 1912. Faune malacologique de la Mer Rouge. – *Mémoires de la Société zoologique de France* 11: 180-246.
- KNUDSEN, J., 1952. Marine prosobranchs of tropical West Africa collected by the Atlantide Expedition, 1945-46. – *Videnskabelige Meddelelser fra Dansk naturhistorisk Forening i København* 114: 129-185.
- LAMY, E., 1907. Révision des *Arca* vivants du Muséum d'Histoire naturelle de Paris (Suite). – *Journal de Conchyliologie* 55: 199-307.
- LAMY, E., 1920. Revision des Lucinacea vivants du Muséum d'Histoire naturelle de Paris. – *Journal de Conchyliologie* 65: 71-122, 169-222.
- LAMY, E., 1935. Nécrologie. Philippe Dautzenberg (1849-1935). – *Journal de Conchyliologie* 79: 183-203.
- LAMY, E., 1941. Revision des Corbulidae vivants du Museum national d'Histoire naturelle de Paris. – *Journal de Conchyliologie* 84: 211-254.
- LA PERNA, R., 2008. Revision of the prosobranch species described by Dautzenberg & Fischer (1897) with description of a new species and taxonomic comments of *Bathyspinula* (Bivalvia, Nuculanoidea). – *Veliger* 50: 149-162.
- LELOUP, E., 1967. Dautzenberg (Philippe). – *Biographie Nationale (Bruxelles)* 34: 198-202.
- LE RENARD, J. & BOUCHET, P., 2003. New species and genera of the family Pickworthiidae (Mollusca, Caenogastropoda). – *Zoosystema* 25: 569-591.
- LINDHOLM, W.A., 1924. A revised systematic list of the genera of the Clausiliidae, recent and fossil, with their subdivisions, synonymy and types. – *Proceedings of the Malacological Society of London* 16: 53-80.
- LOCARD, A., 1886. *Prodrome de malacologie française*. Catalogue general des Mollusques vivants de France (Mollusques marins): i-x, 1-779. Lyon / Paris.
- MARI, J.G., 1928. Contribution al estudio del género *Nassa* Lamarck. – *Butlleti de la Institucio Catalana d'Historia Natural* (2) 8: 133-142.
- MELVILL, J.C., 1910. A revision of the species of the family Pyramidellidae occurring in the Persian Gulf, Gulf of Oman and North Arabian Sea, as exemplified mostly in the collections made by Mr. F.W. Townsend (1893-1900), with descriptions of new species. – *Proceedings of the Malacological Society of London* 9: 171-207.
- MORGAN, J. DE, 1885. Mollusques terrestres et fluviatiles du royaume de Perak et des pays voisins (Presqu'île Malaise). – *Bulletin de la Société zoologique de France* 10: 353-428.
- MORGAN, J. DE, 1915. Observations sur la stratigraphie et la paléontologie du Falunien de la Touraine. – *Bulletin de la Société géologique de France (4me série)* 15: 217-241.
- MORGAN, J. DE, 1916. Observations sur les Auriculidés du Falunien de la Touraine. – *Bulletin de la Société géologique de France (4me série)* 16: 21-49.
- MORLET, L., 1884. Description d'espèces nouvelles de coquilles recueillies par M. Pavie au Cambodge. – *Journal de Conchyliologie* 32: 386-403.
- MORLET, L., 1889. Catalogue des coquilles recueillies par M. Pavie dans le Cambodge et le Royaume de Siam et description d'espèces nouvelles. – *Journal de Conchyliologie* 37: 121-200.
- MORLET, L., 1893. Descriptions d'espèces nouvelles, provenant de l'Indo-Chine. – *Journal de Conchyliologie* 40: 315-329.
- NOBRE, A.P., 1894. Sur la faune malacologique des îles de St. Thomé et de Madère. – *Annaes de Sciences naturales Porto* 1: 91-94, 141-144.
- PALLARY, P., 1900. Coquilles marines du littoral du Departement d'Oran. – *Journal de Conchyliologie* 48: 211-422.
- PALLARY, P., 1926. Explication des planches de J.C. Savigny. – *Mémoires de l'Institut d'Égypte* 11: i-viii, 1-138.
- PELSENEER, P., 1936. Philippe Dautzenberg. – *Annales de la Société Royale Zoologique de Belgique* 66: 87-91.
- PEYROT, A., 1938. Les mollusques testaces univalves des depots helvétiques du Bassin Ligerien. *Catalogue critique, descriptif et illustre*. – *Actes de la Société Linnéenne de Bordeaux* 89, Supplément: 5-361.
- PILSBRY, H.A., 1898. New species of *Odontostomus* from Brazil and Argentina. – *Proceedings of the Academy of Natural Sciences of Philadelphia* 50: 471-474.
- PILSBRY, H.A., 1919. A review of the land mollusks of the Belgian Congo chiefly based on the collections of the American Museum Congo Expedition, 1909-1915. – *Bulletin of the American Museum of Natural History* 40: 1-370.
- PILSBRY, H.A. & BEQUART, J., 1927. The aquatic mollusks of the Belgian Congo, with a geographical and ecological account of Congo malacology. – *Bulletin of the American Museum of Natural History* 53: 69-602.
- POPPE, G.T., GUILLOT DE SUDUIRAUR, E. & TAGARO, S.P., 2006. New Costellariidae from the Philippines. – *Visaya* 1: 104-113.

- PRASHAD, B., 1929. Revision of the Asiatic species of the genus *Corbicula*. II. The Indo-Chinese species of the genus *Corbicula*. – Memoirs of the Indian Museum 9: 29-48.
- PRASHAD, B., 1932. Pelecypoda of the Siboga Expedition (exclusive of the Pectinidae). – Siboga-Expeditie Monographie 53 (c): 1-353.
- SCHEPMAN, M.M., 1909. The Prosobranchia of the Siboga expedition. Part II. Taenioglossa and Ptenoglossa. – Siboga-Expeditie Monographie 49 (1b): 109-231.
- SCHEPMAN, M.M., 1919. On a collection of land- and freshwater Mollusca and a few marine Mollusca chiefly collected by Dr. H.A. Lorentz from New Guinea, the Aru Islands, Timor and Borneo. – Nova Guinea (Zoologie) 13: 155-196.
- SCHILDER, F.A., 1931a. Trois Amphiperatidae nouveaux. – Bulletin de la Société zoologique de France 56: 364-367.
- SCHILDER, F.A., 1931b. Revision of the subfamily Pediculariinae. – Journal of Conchology 19: 165-169.
- SCHLESCH, H., 1929. Kleine Mitteilungen IV. – Archiv für Molluskenkunde 61: 194-196.
- SOWERBY, G.B. III, 1909. Diagnosis of *Soletellina dautzenbergi*, sp.n., from New Caledonia. – The Annals and Magazine of Natural History (8th serie) 3: 314.
- SYKES, E.R., 1902. Descriptions of six new land shells from the Malay peninsula. – The Journal of Malacology 9: 22-23.
- SYKES, E.R., 1904. On some non-marine shells from the Austro- and Indo-Malayan regions. – The Journal of Malacology 11: 87-92.
- TIPPETT, D.L., 1995. Taxonomic notes on the western Atlantic Turridae (Gastropoda: Conoidea). – The Nautilus 109: 127-138.
- TOMLIN, J.R. LE B., 1919. A systematic list of the fossil Marginellidae. – Proceedings of the Malacological Society of London 13: 41-65.
- TOMLIN, J.R. LE B. & SHACKLEFORD, L.J., 1912. Descriptions of two new species of *Marginella* from San Thomé Island. – Journal of Conchology 13: 319-320.
- TOPSENT, E., 1890. Notice préliminaire sur les spongiaires recueillis durant les campagnes de l'Hirondelle. – Bulletin de la Société zoologique de France 15: 26-32, 65-71.
- VANWALLEGHEM, R., 1986. Philippe Dautzenberg (1849-1935), Belgische conchylioloog met internationale faam. – Strandvlo 6 (2): 31-47.
- VAYSSIÈRE, A., 1912. Recherches zoologiques et anatomiques sur les Opisthobranchs de la Mer Rouge et du Golfe d'Aden. Deuxième Partie: Opisthobranches (suite et fin) Marséniades, Onchidiides. – Annales du Faculté des Sciences de l'Université de Marseilles 20: 5-517.
- VAYSSIÈRE, A., 1919. Recherches zoologiques et anatomiques sur les mollusques opisthobranches du Golfe de Marseille, 2e supplément. – Annales du Musée d'Histoire Naturelle de Marseille 17: 53-92.
- VAYSSIÈRE, A., 1930. Étude zoologique et anatomique sur quelques Gastéropodes Prosobranches provenant des Campagnes scientifiques du Prince Albert I<sup>er</sup> de Monaco. Résultats des Campagnes scientifiques accomplies sur son yacht par Albert I<sup>er</sup> Prince Souverain de Monaco 80: 1-26 [+ iii].
- VIGNAL, L., 1902. Descriptions de Cerithidés nouveaux. – Journal de Conchyliologie 49: 303-305.
- WARÉN, A. & BOUCHET, P., 1988. A new species of Vanikoridae from the western Mediterranean, with remarks on the north-east Atlantic species of the family. – Bollettino Malacologico 24: 73-100.
- WAGNER, A., 1907. Zur Kenntnis der Molluskenfauna Oesterreichs und Ungarns, sowie der angrenzenden Balkanländer. – Nachrichtenblatt der Deutschen Malakozologischen Gesellschaft 39: 101-115.
- WALKER, B., 1927. The molluscan hosts of *Clonorchis sinensis* (Cobbold) in Japan, China and southeastern Asia, and other species of molluscs closely related to them. – American Journal of Hygiene (Monographs) 8: 208-250.
- WATTEBLED, G., 1886. Description de mollusques inédits de l'Annam. Recolte du capitaine Dorr aux environs de Hue. – Journal de Conchyliologie 26: 54-71.
- WELCH, D'A.A., 1938. Distribution and variation of *Achatellina mustelina* Mighels in the Waianae Mountains, Oahu. – Bulletin Bishop Museum Honolulu 152: 3-164.
- YEN, T.C., 1948. Notes on the land and freshwater mollusks of Chekiang Province China. – Proceedings of the California Academy of Sciences 26 (4): 69-98.