

Article

# Lost Collections: Preserving Historical Biodiversity Memory—The Case of Peiroleri’s Manuscript Catalogue

Fulvio Giachino

Museo Regionale di Scienze Naturali di Torino, 10123 Turin, Italy; fulvio.giachino@regione.piemonte.it

**Abstract:** The purpose of this study is to highlight the importance of historical research on entomological collections in museums and to suggest some techniques to investigate them. Through documentary research and analysis, it is possible to obtain data on poorly known entomologists and collections; this may be extremely important for the study of past and present-day biodiversity. The finding and study of Peiroleri’s catalogue proves that, through meticulous historical research, it is possible to locate type specimens even if the original collection is supposedly or virtually lost.

**Keywords:** entomology; Coleoptera; Carabidae; history of entomology; museology; biodiversity; museum collections; historical research

## 1. Introduction

Natural history museums are crucial to scientific research because they are the places where natural sciences and biodiversity memory is preserved. Through collections and documents kept in these institutions, researchers are able to access former data that exhibit an alteration of biodiversity, due to anthropic pressure [1].

In the current age, biodiversity loss caused by human activities has reached alarming proportions. This is mainly due to habitat degradation, habitat destruction and global warming. Insects are among the groups most impacted by these factors [2]. Consequently, it is fundamental to understand how the presence, distribution and biomass of these invertebrates have changed over time, and that it is essential to have related records [1].

For insects, useful data can be extrapolated from historical entomological collections (this term is used here to characterize entomological collections dating back to before 1950). These collections, however, have often been subject to rearrangements and alterations and, based upon my personal experience as a museum entomologist, identifying particular specimens may be challenging (e.g., the type specimens or specimens collected by a certain individual are not labeled adequately). In some cases, several collections have been merged and their original labels often replaced by new ones, resulting in a loss of data; these aspects can make the work of specialists and historians challenging.

This study on Peiroleri’s collection highlights the importance of historical-documentary research in natural history museums, and how it may enable the discovery or reconstruction of collections lacking information.

Subsequent to requests of experts, the type material of three species, *Platynus erythrocephalus* Bassi, 1834, *P. peirolerii* Bassi, 1834, and *P. depressus* Dejean, 1831 (Coleoptera Carabidae), type specimens ascribable to Giuseppe Peiroleri [3] and Count Dejean collections [4], have been located in the historical collections of the Museo Regionale di Scienze Naturali di Torino [Regional Turin Natural Science Museum, MRSN] and Museo Zoologico dell’Università di Torino [University of Turin Zoological Museum, MZUT], using data obtained by historical-documentary research and study concerning Peiroleri’s collection.

This proves that meticulous documentary and collection investigation can provide data and means to associate specimens with authors and collections.



**Citation:** Giachino, F. Lost Collections: Preserving Historical Biodiversity Memory—The Case of Peiroleri’s Manuscript Catalogue. *Diversity* **2023**, *15*, 654. <https://doi.org/10.3390/d15050654>

Academic Editors: Massimo Meregalli, Luc Legal, Michael Wink and Pier Mauro Giachino

Received: 29 December 2022

Revised: 29 March 2023

Accepted: 27 April 2023

Published: 11 May 2023



**Copyright:** © 2023 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 2. Materials and Methods

This research is based upon two manuscript catalogues: Peiroleri's catalogue and the "Catalogo Coleotteri 1877" ["Beetles catalogue 1877"]. These volumes were found by the author during his investigations on historical documents and manuscripts from MZUT. They have been deposited in MRSN since 1994, as a loan free to use, for preservation and study. The University of Turin's (UT) historical zoological and entomological collections were deposited at the same time. The manuscripts were analyzed and their contents were compared with the specimens found in de Brême's collection. Following this, de Brême's collection, the General Historical MZUT collection, and Spinola's coleopterological collection were analyzed to locate the Peiroleri-related specimens.

## 3. Results

### 3.1. Peiroleri's Catalogue: Attribution and Analysis

This catalogue consists of a single unsigned handwritten volume, in French, with 772 pages (book size: 18.5 × 24.5 × 5.5 cm); on page one we can read "Coleoptera" in the header (Figure 1). To identify the author, the manuscript has been studied, highlighting its characteristics and peculiarities.

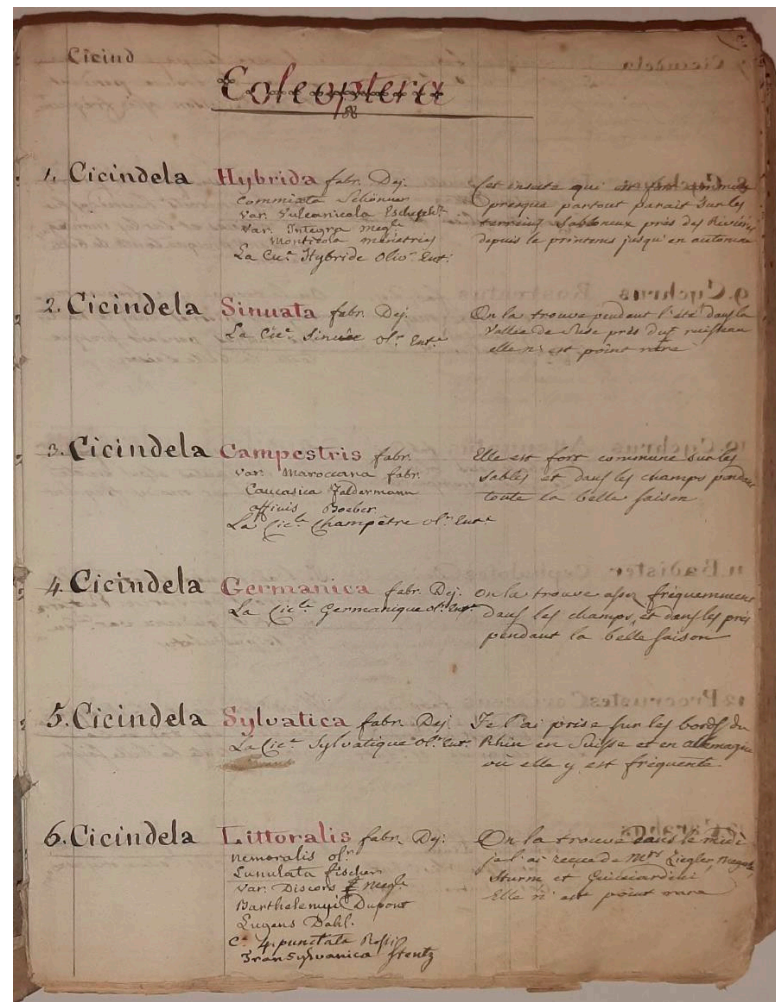


Figure 1. First page of Peiroleri's catalogue.

The manuscript contains a list of 5383 Coleoptera specimens and species belonging to various families, numbered from 1 to 5383. The first part of the text follows an order consistent with the systematic classification used in the first half of the 19th century; the central and final parts seem to be just records of gradual additions.

Specimens are classified according to the following scheme (Figure 2; Table 1):

- Catalogue's numerical ID
- Taxa (Genera in black ink, capitalized; specific epithets in red ink)
- Note

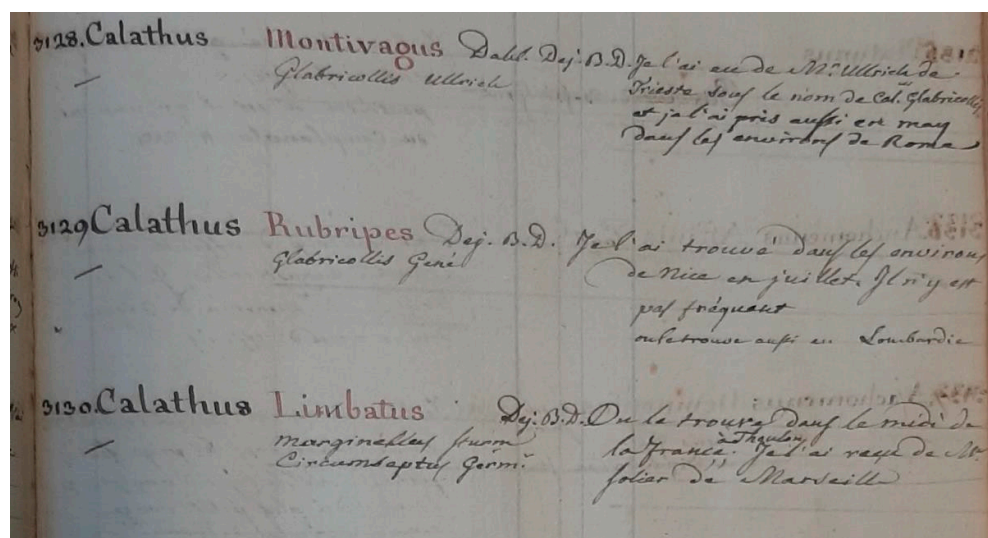


Figure 2. Detail of Peiroleri's catalogue.

Table 1. Manuscript scheme. Numbers of specimens not specified.

Catalogue's Numerical ID	Genus <sup>1</sup>	Species <sup>2</sup>	Notes
--------------------------	--------------------	----------------------	-------

<sup>1</sup> Written in black ink. <sup>2</sup> Written in red ink.

The note field is arguably the most interesting part of the manuscript because it contains field data (such as season and collection site) and, for those specimens not collected by the author, the name of the person who gave the specimen to him.

From these notes we can learn that the catalogue's author was in touch with many renowned 19th century naturalists and entomologists, such as Ulrich (e.g., mentioned in No. 22 of the catalogue), Sturm (e.g., mentioned in No. 27 of the catalogue), Latreille (e.g., mentioned in No. 120 of the catalogue), Dejean (e.g., mentioned in No. 23 of the catalogue), Gené (e.g., mentioned in No. 2931 of the catalogue), Spinola (e.g., mentioned in No. 167 of the catalogue), Lassere (e.g., mentioned in No. 31 of the catalogue) and Bassi (e.g., mentioned in No. 175 of the catalogue).

The inside back cover contains a short list of addresses belonging to Schuermann, De Cristoforis, Durazzo, Orsini, Perty, Captain d'Augsपुरger, Prevost, Faldermann, Assandri, Chaudoir, Count D'Oskay, Reich and Lanz (Figure 3).

The mentioning of Gené as the provider of some specimens allows us to date the manuscript back to before 1847 (the year Gené died), confirming the first hypothesis about the age of the catalogue. The specimens' collection sites of the author's catalogue are mostly in Piedmont or nearby regions, including Liguria, Provence, Lombardy and Switzerland. The manuscript's last pages, which are blank and lack the penciled grid found on the other pages, reveal further information if held against the light: the filigree on the paper contains the name of the papermill that produced the blank volume, i.e., "Fabrica di Pinerolo F. L." ("Factory of Pinerolo", Pinerolo being a small city in Piedmont). The papermill logo is also visible, depicting a dove flying over what appears to be a wolf with a lamb on its shoulders (?). These details, together with the above mentioned collection sites, allow for a wide safety margin to pinpoint the likely homeland of the unknown entomologist: Piedmont.

Every note and every species recorded in the catalogue were analyzed, and some were found reporting "mihi" ("by me") as author; one among these, *Rynchites praeustus*, mihi et



Dej. an. n. sp. (catalogue No. 1107, p. 159; Figure 4), gave us the key to attribute a most likely authorship to the manuscript. Searching the species in question in “*Catalogue des Coléoptères de la collection de M. Le Comte Dejean, Troisième Edition*” (1837; Dejean), it has been possible to find it at page 260 as *Rhynchites praestus*, Peyroleri (Figure 5) (Peyroleri being one of the possible spellings of this entomologist from Piedmont). Thanks to this cross reference, we have been able to attribute the catalogue most likely to Giuseppe Peiroleri.

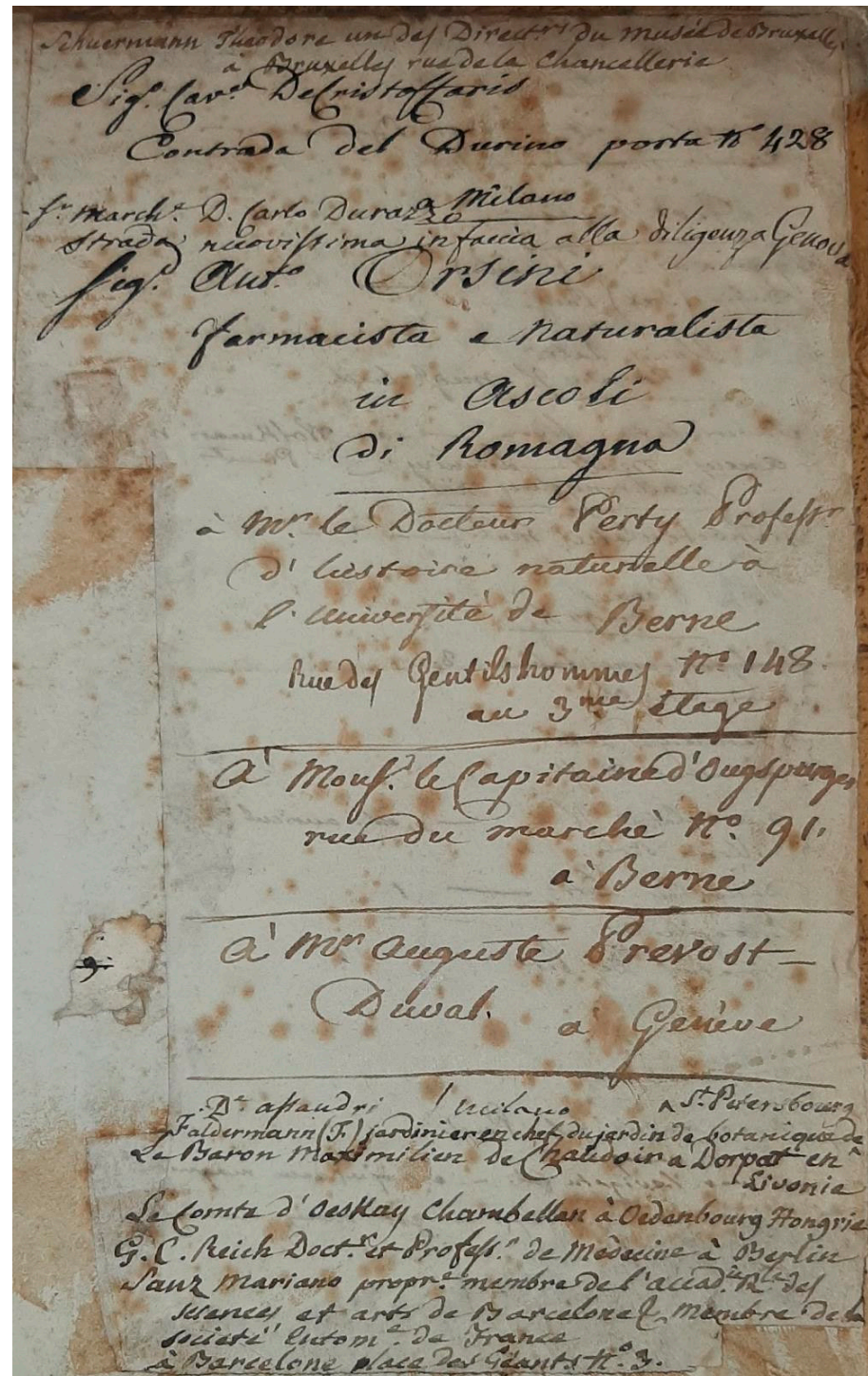


Figure 3. Inside back cover of Peiroleri's catalogue.



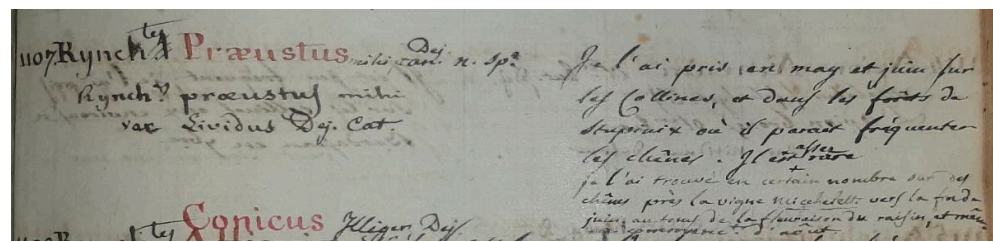


Figure 4. *Rynchites praeustus*, mihi et Dej. an. n. sp. in Peiroleri's catalogue.

<b>RHYNCHITES. Herbst.</b>	
<b>Bicolor. Fabr.</b>	<b>Amer. bor.</b>
<b>Hungaricus. Fabr.</b>	<b>Hungaria.</b>
<b>Ceruleocephalus. Fabr.</b>	<b>Gallia merid.</b>
<b>Præustus. Peyroleri.</b>	<b>Dalmatia.</b>
<b>Var. Lividus. Dej. Catal.</b>	<b>id.</b>
<b>Brasiliensis. Dej.</b>	<b>Brasilia.</b>
<b>Testaceus. Dej.</b>	<b>Dalmatia.</b>
<b>Oxyacanthæ. Dufour.</b>	<b>Hispania.</b>
<b>Æquatus. Fabr.</b>	<b>P.</b>

Figure 5. *Rynchites praeustus* Peyroleri in Dejean's catalogue.

There is little information about this entomologist, but we can find an interesting bibliographic reference to him in "Descrizione e cronaca d'Usseglio fondata sopra documenti autentici" ["Description and chronicles of Usseglio base upon authentic documents"] (1862; Cibrario L. p. 15):

"Il Barone Peyroleri mastro auditore nella Camera dei Conti, [ . . . ] assai si diletta d'insetti e ne aveva formato ampia raccolta [ . . . ]"

["Baron Peyroleri master auditor at Board of Auditors, [ . . . ] dabbled very much in insects and built a large collection of them"]

Peiroleri never published anything about entomology and his manuscript catalogue is the only autograph document, which attests to his activity as an amateur entomologist.

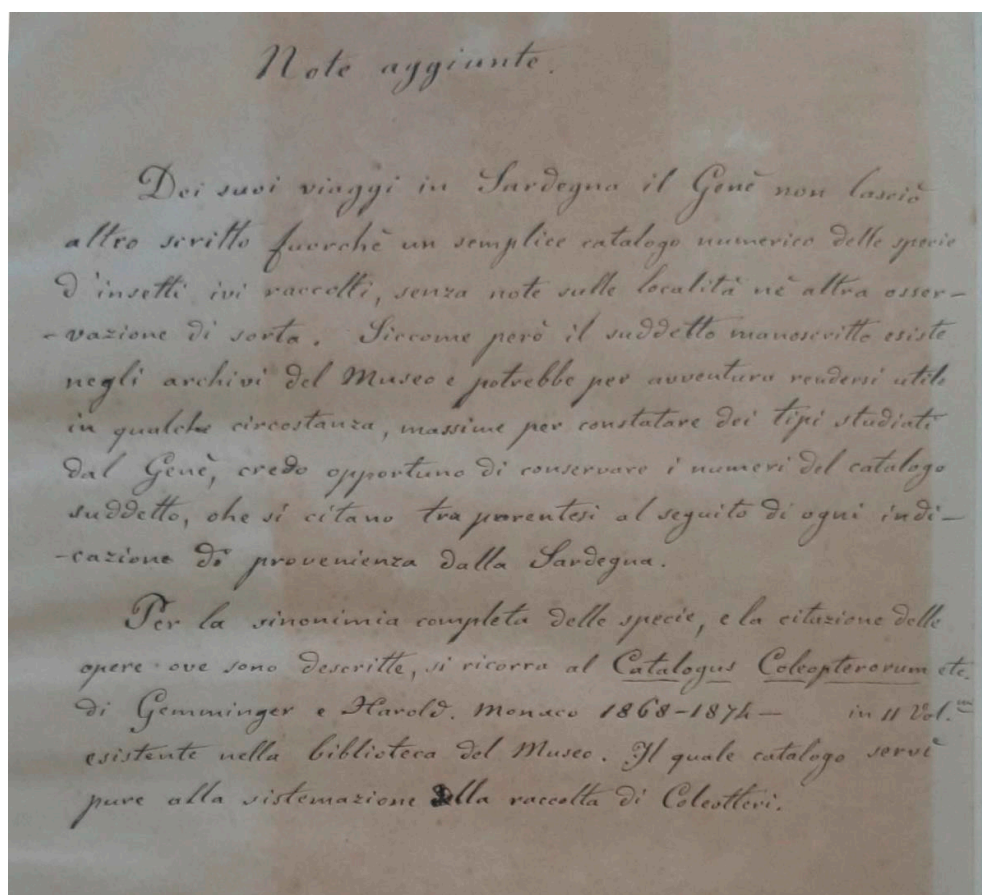
Other evidence of Peiroleri's activities as an entomologist can be found in "Mémoire sur la station de quelques coléoptères dans les différentes régions du Piémont" ["Memoire on the stations of some beetles in different areas of Piedmont"] (1847, Ghiliani; in "Annales de la Société entomologique de France", s. 2, t. V, p.83–142) [5], in "Elenco delle specie di coleotteri trovate in Piemonte" ["List of beetle species found in Piedmont"] (1887, Ghiliani e Camerano) [6] and in "Catalogo dei Coleotteri del Piemonte" ["Catalogue of Piedmont beetles"] (1889, Baudi) [7] (Peiroleri-related information and data found in these three works are reported in Appendices A–C).

### 3.2. "Catalogo Coleotteri 1877": Attribution and Analysis

The attribution to Peiroleri was first strengthened, then definitely confirmed, by data found in the manuscript "Catalogo Coleotteri 1877" (book size: 22 × 33.5 × 4 cm), also coming from UT and discovered at the same time as Peiroleri's catalogue. Species listed in "Catalogo Coleotteri 1877" are numbered from 1 to 4658; specimen number is specified only from record #921 onwards.

Between the manuscript's first page and the cover, we find two handwritten pages by Vittore Ghiliani (Figures 6 and 7; Appendices D and E; fully transcribed, translated and

adapted from Italian by the author), who, at the time, was the curator of the entomological collections belonging to MZUT.



**Figure 6.** “Added notes” by Ghiliani in “Catalogo Coleotteri 1877”.

In one of these pages we can read:

*“Dopo la morte del Bonelli la raccolta di Coleotteri del Museo Zoologico torinese, assai ricca per quei tempi, venne quasi intieramente distrutta dagli Antreni e dalla muffa. Essa cominciò a risorgere col materiale risultante dai viaggi del Gené fatti in Sardegna: e pochi anni dopo acquistò nuova importanza dall’aggiunta della raccolta di Coleotteri europei donata a questo R. Museo dagli eredi del Barone Peiroleri; se non che quest’ultima raccolta stata preparata col metodo antico, cioè colle gambe degli insetti orizzontalmente distese, venne per tal motivo, ad eccezione di pochi individui rari, quasi del tutto rilegata nei magazzini di doppi e sostituita da individui meglio preparati, di cui infra.*

*Nell’anno 1850 il Marchese Ferdinando Arborio di Brème (defunto Duca di Sartirana) faceva dono a questo Museo della numerosissima e stupenda sua raccolta mondiale in coleotteri: ed è quella che in massima parte servì alla formazione della raccolta attuale, cui meritamente spetterebbe il nome di raccolta De Brème, ed alla quale si riferisce il presente catalogo. Notando che alla composizione di quella raccolta, fatta in Parigi, contribuirono l’intiera sezione degli Eteromeri non che le seguenti famiglie della famosa raccolta Dejean, cioè Malacodermi, Xilofagi (del catalogo Dejean), Clitre, Coccinelle ed alcuni Carabici estratti parimenti da quella collezione.”*

*[“Following Bonelli’s death, beetle collection of the Turin Zoological Museum, really rich for its times, was almost completely destroyed by carpet beetles and moulds. It began to rise again thanks to the specimens resulting from Gené’s voyages to Sardinia: and a few years later it gained more prominence thanks to the European beetles collection donated*

to this Royal Museum by baron Peiroleri's heirs; although the specimens in this collection were mounted in the ancient way, that is to say with legs horizontally stretched, and was for this reason that, except for some rare specimens, they were almost entirely confined in the duplicates' storage and replaced by better mounted specimens, about which below.

In the year 1850 Marquis Ferdinando Arborio di Brème (the late Duke of Sartirana) donated to this Museum his large and splendid world beetle collection: and it is that which for the most part formed the present collection, which deservedly should be named De Brème's collection, and which this catalogue refers to. It must be highlighted that the composition of this collection, made in Paris, had the contribution of the entire Eteromera section and also the following Families of the renowned Dejean collection, that is to say Malacoderma, Xylophaga (according to Dejean's catalogue), Clytra, ladybugs and some ground beetles also taken from that collection." ]

Following Peiroleri's death in 1844, as mentioned above, his heirs donated his entomological collection to MZUT, and thus those specimens ended up in the UT's coleopterological collection. Another reference to Peiroleri's collection can be found in "Torino" (1880, Bersezio et al.), part I, p. 385:

"[ ... ] la collezione degli insetti (del Museo Zoologico di Torino) [ ... ] deve il suo maggior pregio a ciò che in parte è costituita dalle antiche collezioni del conte Déjan comprate dal marchese di Brème e donate generosamente al Museo; in parte è costituita ancora dalle collezioni del barone Peiroleri, entomologo segnalato piemontese che fece pur esso il dono delle sue collezioni al Museo."

"[ ... ] [MZUT's] insect collection [ ... ] owes its prestige partly to what is formed by count Dejean's ancient collections bought by marquis de Brème and generously donated to the Museum; partly to what is formed by baron Peiroleri's collections, a renowned Piedmont entomologist who donated his collections to the Museum too."

Lessona mentions Peiroleri and his collection in connection to the MZUT in his memorial about Ghiliani (in "Annali della Reale Accademia d'agricoltura di Torino", Vol. 22, 1879, p. 75):

"[ ... ] poi vennero gli splendidi doni del Peiroleri, che spese una lunga vita in studi e collezioni di entomologia che si volsero tutti in prò del museo [ ... ]".

"[ ... ] then came the wonderful gifts from Peiroleri, who spent a long life in entomological studies and collections which all turned in favour of the museum [ ... ]"

One can find additional references to Peiroleri's collection in "Elenco delle collezioni entomologiche conservate nelle strutture pubbliche italiane" ["List of entomological collections in Italian public bodies"] (1996, Poggi and Conci, p.83) [8], which reports what is found in "Figure dell'entomologia piemontese (Riassunto)" ["Piedmontese entomology personalities (Summary)"] (1983, Passerin d'Entrèves, in "Atti XIII Congresso nazionale italiano di Entomologia" p. 31–34), namely the merging of the collection at issue with de Brème's one [9].

In after-Bonelli MZUT's coleopterological collection, presently preserved at MRSN under the name "de Brème collection", as we can learn from Ghiliani's writings and the other information available to us, the following have converged:

- Gené's collection of Sardinian specimens;
- de Brème's collection;
- specimens from Dejean's collection (originally in de Brème's collection);
- specimens from Peiroleri's collection;

Re-examining Peiroleri's catalogue in the light of this information, it is possibile to attribute some notes on it to Ghiliani, written in a different handwriting; in some cases these are corrections to species identifications or author, in other cases we can read the note "passato alla raccolta De Brème" ["relocated to De Brème's collection"] (Figure 8).



Dopo la morte del Bonelli la raccolta di Coleotteri del Museo Zoologico torinese, assai ricca per quei tempi, venne quasi intieramente distrutta dagli Antreni e dalla muffa. Essa cominciò a risorgere col materiale risultante dai viaggi del Genè fatti in Sardegna; e pochi anni dopo acquistò nuova importanza dall'aggiunta della raccolta di Coleotteri europei donata a questo R. Museo dagli eredi del Barone Pivoleri; se non che quest'ultima raccolta stata preparata col metodo antico, cioè colle gambe degli insetti orizzontalmente distese, venne per tal motivo, ad eccezione di pochi individui rari, quasi del tutto relegata nei magazzini di doppj e sostituita da individui meglio preparati, di cui infra.

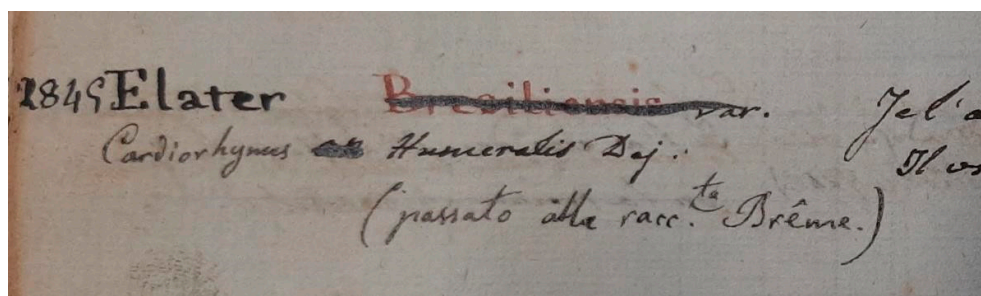
Nell'anno 1850 il Marchese Ferdinando Arboivio di Brème (defunto Duca di Sartirana) faceva dono a questo Museo della numerosissima e stupenda sua raccolta mondiale in Coleotteri: ed è quella che in massima parte servì alla formazione della raccolta attuale, cui meritamente spetterebbe il nome di raccolta De Brème, ed alla quale si riferisce il presente catalogo. Notando che alla composizione di quella raccolta, fatta in Parigi, contribuirono l'intera sezione degli Eteromeri non che le seguenti famiglie della famosa raccolta Dejean, cioè Malacodermi, Xilofagi (del catalogo Dejean) Clitri, Coccinelle ed alcuni Carabii estratti parimente da quella rinomata collezione.

Nella prima colonna a sinistra di questo nuovo Catalogo si registra il numero d'ordine delle specie esistenti nell'attuale raccolta, e nella penultima colonna a destra si cita il numero registrato nei Cataloghi antichi delle specie già possedute dal Museo prima che venisse la raccolta di Brème; benchè, come già si disse, la maggior parte di quelle specie fossero quasi inscrivibili, o per lo più distrutte, e sieno state rimpiazzate con individui spettanti alla suddetta raccolta di Brème; ad eccezione però delle specie di Sardegna, riunite come fu già detto dal Genè, non che le specie volgari del Piemonte.

Vitt. Ghiliani  
Assistente al R. Museo Zoolog.

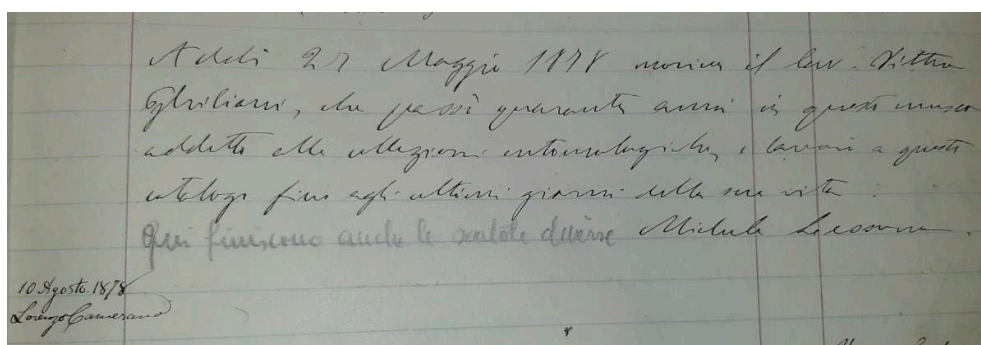
Torino 9. Agosto 1877.

Figure 7. Note by Ghiliani in "Catalogo Coleotteri 1877".



**Figure 8.** Note “(relocated to de Brême’s collection)” by Ghiliani in “Catalogo Coleotteri 1877”.

Following Ghiliani’s death, presumably it was Lorenzo Camerano whose responsibility it became to take care of the “Catalogo Coleotteri 1877”; after Michele Lessona’s note on it (dated 27 May 1878), one can indeed find Camerano’s signature (Figure 9; Appendix F, fully transcribed, translated and adapted from Italian by the author). Records from No. 883 to No. 920 have, most likely, been compiled by Camerano, while from record No. 921 onwards we can find a different handwriting, currently unidentified; after this record, the number of specimens becomes specified in the catalogue.



**Figure 9.** Lessona’s note bout Ghiliani’s death, followed by Camerano’s signature.

### 3.3. “Catalogo Coleotteri 1877” and de Brême’s Collection

Following documentation analysis, a comparison was made between the records in this catalogue and the specimens actually included in “Collezione de Brême”; with the exception of some discrepancies probably caused by lost specimens or classification errors, what is found in the first 86 boxes of the collection matches what has been recorded in “Catalogo Coleotteri 1877”. Then the specimens transferred by Ghiliani from Peiroleri’s collection to De Brême’s collection were checked according to his notes. In the first 86 boxes, it was possible to find some of the supposedly relocated species referenced, as well as relocated Peiroleri-related specimens and species not mentioned by Ghiliani. Specimens have been identified, with a variable safety margin, by cross-referencing data from Peiroleri’s catalogue, “Catalogo Coleotteri 1877” and labels in De Brême’s collection; when species, collection sites, and/or origin matched, then it is likely that the specimens come from Peiroleri’s collection (the term “origin” is here used to indicate the individual or the collection from which the specimens come from). Results are given in Tables 2–5.

**Table 2.** Peiroleri’s specimens found in the first 86 boxes of de Brême’s collection, which have been relocated to this collection by Ghiliani according to his notes in Peiroleri’s catalogue. “Spec. No.” indicates the total number of that species’ specimens in de Brême’s collection and not only those potentially Peiroleri-related (further research will be needed to identify with a degree of certainty which one are from Peiroleri’s collection and which ones are not).

Genus.	Species	Author	Origin	Spec. No.	Collect. Site	No. Cat. 1877	De Brême’s Box	Peiroleri’s ID No.
<i>Acupalpus</i>	<i>rufulus</i> <sup>1</sup>	Dejean	n.d.	3	Piedmont; Gaul; Sardinia	2456	Pentameres Carabiques 124–126	84
<i>Anthaxia</i>	<i>discicollis</i>	Frivaldski, Gory	n.d.	1	Romelia	4243	Sternoxes Buprestidae 42–44	4213
<i>Anthaxia</i>	<i>signaticollis</i>	Dejean	n.d.	6	Southern Russia	4242	Sternoxes Buprestidae 42–44	4214
<i>Anthaxia</i>	<i>cupressi</i>	Stentz	n.d.	1	Dalmatia	4229	Sternoxes Buprestidae 42–44	5001
<i>Athous</i>	<i>rhombeus</i>	Olivier	n.d.	3	Sabaudia	4610	Pentameres Sternoxes (Bupr.) 76–78	3198
<i>Buprestis</i>	<i>cupressi</i> <sup>2</sup>	Dejean	n.d.	2	Dalmatia	4144	Sternoxes Buprestidae 34–36	4262
<i>Capnodis</i>	<i>porosa</i> <sup>3</sup>	Klug	n.d.	4	Mount Lebanon; Smyrne	4068	Sternoxes Buprestidae 26–28	4313
<i>Chrysobothris</i>	<i>calcarata</i> <sup>4</sup>	Chevrolat	n.d.	5	Mexico	4197	Sternoxes Buprestidae 38–40	4235
<i>Dicerca</i>	<i>berolinensis</i> <sup>5</sup>	Stentz	n.d.	2	Dalmatia	4082	Sternoxes Buprestidae 26–28	5000
<i>Eucnemis</i>	<i>rugulosus</i>	Dejean	Dono Villa	1	Lombardy	4421	Pentameres Sternoxes (Bupr.) 56–58	3437
<i>Gyrinus</i> (?)	<i>non det.</i> <sup>6</sup>	n.d.	n.d.	1	Chile	n.d.	Pentameres Hydrocantares 10–11	3421
<i>Hydroporus</i>	<i>fenestratus</i>	Escher, Aubé	n.d.	1	Sicily	2811	Pentameres Hydrocantares 7–8	3036
<i>Nemathodes</i>	<i>elaterinus</i>	Villa	Dono Marietti	3	Lombardy; Sardinia	4409	Pentameres Sternoxes (Bupr.) 56–58	4284
<i>Notaphus</i>	<i>venustulus</i>	Ziegler	Coll. Dejean	3	Austria	2526	Pentameres Carabiques 128–130	3678
<i>Notaphus</i>	<i>obliquus</i> <sup>7</sup>	Sturm	Coll. Dejean	3	Germany	2520	Pentameres Carabiques 128–130	3681
<i>Orectochilus</i>	<i>villosus</i> <sup>8</sup>	Fabricius	n.d.	3	Southern Gaul	2900	Pentameres Hydrocantares 10–11	3423
<i>Peryphus</i>	<i>distinctus</i> <sup>9</sup>	Dejean	n.d.	2	Switzerland	2571	Carabiques 132–134	3705
<i>Peryphus</i>	<i>distinctus</i>	Dejean	n.d.	2	Hungary	2571	Carabiques 132–134	5223
<i>Phyllocerus</i>	<i>flavipennis</i> <sup>10</sup>	Latreille	n.d.	3	Sicily; Dalmatia	4435	Pentameres Sternoxes (Bupr.) 56–58	5046
<i>Trechus</i>	<i>rotundatus</i>	Dejean	n.d.	2	Piedmont	2491	Pentameres Carabiques 128–130	78
<i>Trechus</i>	<i>longhii</i>	De Cristofori	n.d.	1	Piedmont	2487	Pentameres Carabiques 128–130	3535

<sup>1</sup> In Peiroleri’s catalogue it shows as *Trechus apterus* Bonelli n. sp., but it bears a note by Ghiliani that reads “*Acupalpus rufulus* Dej. (see Breme’s collection)”. <sup>2</sup> In “Catalogo Coleotteri 1877” it shows the synonym *Ancylocheira* Ersch.; these specimens probably come from Peiroleri but were identified anew by Ghiliani when he relocated them to de Brême’s collection. <sup>3</sup> The collection site shown in Peiroleri’s catalogue is “Romelia”: this geographical indication is inaccurate and might, or might not, include the collection sites indicated in the “Catalogo Coleotteri 1877” and on the label (Smyrne). <sup>4</sup> The “Catalogo Coleotteri 1877” shows the synonyms “Fulgorata Lap.” and “zig-zag D.”, while in Peiroleri’s catalogue this species can be found as *Actenodes zigzag* Dej., where the synonym “calcarata Chevrolat” is also indicated. By cross-referencing the collection site (Mexico), synonyms sensu Peiroleri and sensu



Ghiliani, we obtain as a result that it is quite possible that *Chrysobotris calcarata* from de Brême's collection is *Actenodes zigzag* from Peiroleri's collection.<sup>5</sup> In the "Catalogo Coleotteri 1877" "var. *istriensis*" is also indicated; in Peiroleri's catalogue it is indicated as *Dicerca istriensis* Sturm, Stentz, *berolinensis* varietates".<sup>6</sup> In Peiroleri's catalogue it is shown as unidentified *Dineutes*, but its synonymy with genus *Gyrinus* is also reported. The "Catalogo Coleotteri 1877" reports this species numerical ID from Peiroleri's catalogue, and the collection site matches too.<sup>7</sup> In Peiroleri's catalogue it is reported as coming from Sturm; it is possible that one of the specimens in De Brême's collection comes from Peiroleri's collection.<sup>8</sup> The "Catalogo Coleotteri 1877" shows the synonym "pubescens Solier" and Peiroleri's catalogue shows it as *Orectochilus pubescens* Solier.<sup>9</sup> This specimen is probably the one indicated by Peiroleri as undetermined *Peryphus* No. 3705; at this record in Peiroleri catalogue's, we can find a note by Ghiliani which identifies it as *Peryphus distinctus* Dej. Peiroleri's collection site (Jura Mountains) is compatible with the collection site indicated in "Catalogo Coleotteri 1877" and on the specimens' label (Switzerland).<sup>10</sup> In the "Catalogo Coleotteri 1877" there is the note "1 specimen traded with Mr. Dohrn".

**Table 3.** Peiroleri's specimens found in the first 86 boxes of De Brême's collection, which have not been relocated to this collection by Ghiliani, according to his notes in Peiroleri's catalogue. "Spec. No." indicates the total number of that species' specimens in De Brême's collection and not only those potentially Peiroleri-related (further research will be needed to identify with a degree of certainty which ones are from Peiroleri's collection and which ones are not).

Genus	Species	Author	Origin	Spec. No.	Collection Site	No. Cat. Col. 1877
<i>Carabus</i>	<i>creutzeri</i> <sup>1</sup>	Germar (as in Peiroleri collection)	Peiroleri collection	1	Tyrol	512
<i>Carabus</i>	<i>purpureus</i> <sup>2</sup>	Sturm	Peiroleri collection	1	Hungary	522
<i>Carabus</i>	<i>violaceus</i> <sup>3</sup>	Duftschmidt	Peiroleri collection; Received from Mr. Stenz	1	Bohemia	529
<i>Carabus</i>	<i>tamsii</i> <sup>4</sup>	Ménétriés	Peiroleri collection	2	Romelia	547
<i>Carabus</i>	<i>non det.</i> <sup>5</sup>	n.d.	Peiroleri collection (Lantosca)	1	Piedmont Maritime Alps	713
<i>Carabus</i>	<i>lapponicus</i> <sup>6</sup>	Faldermann In litteris	Peiroleri collection	2	Lapland	773
<i>Carabus</i>	<i>arvensis</i> <sup>7</sup>	Dejean cat.I. cd. p.6	n.d.	1	Germany	609
<i>Carabus</i>	<i>scheidleri</i> <sup>8</sup>	Dejean	n.d.	1	Croatia	673
<i>Cicindela</i>	<i>lapponica</i> <sup>9</sup>	Ziegler	Peiroleri collection	1	Lapland?	179
<i>Molops</i>	<i>Spinicollis</i> ? <sup>10</sup>	Dejean	Donation from Peiroleri	1	Piedmont Alps	2015
<i>Omasus</i>	<i>nemorialis</i> <sup>11</sup>	Illiger	Donation from Peiroleri	4	Piedmont	1814
<i>Procrustes</i>	<i>cerisyi</i> <sup>12</sup>	Dejean	Peiroleri collection	2	Morea	471
<i>Pterostichus</i>	<i>Rufipes</i> ? <sup>13</sup>	Dejean	Peiroleri catalog N°. 3257	2	Jura (Switzerland)	1909
<i>Scarites</i>	<i>terricola</i>	Bonelli	Peiroleri collection	1		n.d.

<sup>1</sup> In the "Catalogo Coleotteri 1877" "var. *Kircheri*?" is also indicated; the attribution to Peiroleri is uncertain because the origin and the collection site in Peiroleri's catalogue do not match with those in the "Catalogo Coleotteri 1877", even if in the latter it is stated that it comes from Peiroleri's collection. <sup>2</sup> In the "Catalogo Coleotteri 1877" "var. *crenatus*" is also indicated; it is possible that it corresponds to *Carabus purpureus* No. 14 and/or *Carabus crenatus* No. 4028 in Peiroleri's catalogue. <sup>3</sup> In the "Catalogo Coleotteri 1877" "var. *andidatus*" and "var. *carbonatus* Ziegl. in litt." are also indicated. The attribution to Peiroleri is uncertain because the variety, the origin and the collection site in Peiroleri's catalogue do not match with those in the "Catalogo Coleotteri 1877", even if in the latter it is stated that it comes from Peiroleri's collection. <sup>4</sup> In the "Catalogo Coleotteri 1877" the following can be read: "It differs very little from *graecus* and since *morio* is from Asia in the catalogues, it might be that this determination is erroneous.; *Carabus morio* Mannerh." <sup>5</sup> In the "Catalogo Coleotteri 1877" "nov. sp.?" is also indicated. Not found in Peiroleri's catalogue. <sup>6</sup> In the "Catalogo Coleotteri 1877" the following is also written: "This name is missing from catalogues. Species similar to *violaceus*." <sup>7</sup> In the "Catalogo Coleotteri 1877" it also shows "var. *Schriekeli* as in Peiroleri's collection". The attribution to Peiroleri is uncertain because the collection site in Peiroleri's catalogue does not match with those in the "Catalogo Coleotteri 1877", even if in the latter it is stated that it comes from Peiroleri's collection. <sup>8</sup> In the "Catalogo Coleotteri 1877" it also shows "var. *Illigeri* (as in Peiroleri's collection)". The attribution to Peiroleri is uncertain because such a variety is missing in Peiroleri's catalogue. <sup>9</sup> In the "Catalogo Coleotteri 1877"

the following is also written: “Inedit.; Not found in catalogues”. In the “Catalogo Coleotteri 1877” the collection site is uncertain, while in Peiroleri’s catalogue it is not.<sup>10</sup> Not found in Peiroleri’s catalogue.<sup>11</sup> In the “Catalogo Coleotteri 1877” it also shows “var. *melanarius?*”.<sup>12</sup> In the “Catalogo Coleotteri 1877” it also shows “var. *foudrasi?*”. Not found in Peiroleri’s catalogue.<sup>13</sup> In the “Catalogo Coleotteri 1877” the numerical ID of Peiroleri’s catalogue’s is indicated too.

**Table 4.** Specimens supposedly authored by Peiroleri (according to the “Catalogo Coleotteri 1877” or labels in de Brême’s collection) found in the first 86 boxes of the de Brême’s collection, and that have not been relocated to this collection by Ghiliani according to his notes in Peiroleri’s catalogue. As seen before, Peiroleri never published any entomological descriptions or memoires. This attribution is to be considered “in litteris” or, as seen with species described by Bassi, homages to Peiroleri as the one who found the species. There are no data about their origin in de Brême’s collection labels or in the “Catalogo Coleotteri 1877”: this may point to the fact that all these specimens come from Peiroleri’s collection, and that the mere indication of the author had been considered sufficient at the time. “Spec. No.” indicates the total number of that species’ specimens in de Brême’s collection and not only those potentially Peiroleri-related (further research will be needed to identify with a degree of certainty which ones are from Peiroleri’s collection and which ones are not).

Genus	Species	Author	Origin	Spec. No.	Collection Site	No. Cat. Col. 1877	De Brême’s Box	Peiroleri’s ID No.
<i>Anchomenus</i>	<i>angusticollis</i> <sup>1</sup>	Peiroleri	n.d.	5	Piedmont	1633	Pentameres Carabiques 86–86 bis	136
<i>Pterostichus</i>	<i>impressicollis</i> <sup>2</sup>	Peiroleri	n.d.	4	Piedmont	1900	Carabidae 98 bis-100	3264
<i>Pterostichus</i>	<i>sexpunctatus</i> <sup>3</sup>	Peiroleri	n.d.	4	Monviso	n.d.	Carabidae 98 bis-100	5095
<i>Pterostichus</i>	<i>impressus</i> <sup>4</sup>	Peiroleri	n.d.	4	Piedmont	1932	Carabidae 98 bis-100	3276
<i>Pterostichus</i>	<i>bicolor</i> <sup>5</sup>	Peiroleri	n.d.	4	Piedmont	1937	Carabidae 98 bis-100	3279
<i>Pterostichus</i>	<i>sculpturatus</i> <sup>6</sup>	Peiroleri	n.d.	4	Piedmont	1945	Carabidae 100 bis-102	3283

<sup>1</sup> One specimen displays a label with “Peiroleri” written on it; in the “Catalogo Coleotteri 1877” is also reported as “(affinis)”. In Peiroleri’s catalogue the species’ authors are Fabricius and Dejean, so it is possible that the “Catalogo Coleotteri 1877”’s editor mistakenly swapped origin with authors. <sup>2</sup> In Peiroleri’s catalogue the reported author is “Solier, mihi” and the collection site is “High Alps”. <sup>3</sup> In the “Catalogo Coleotteri 1877” the following is also reported: “inedit.; *Flavofemoratus?* var. *Spinolae* or var. *minor?*”. *P. flavofemoratus* can also be found as *P. flavofemoratus* Bonelli in Peiroleri’s catalogue (No. 201) but with “Biella” and “Sempione” as collection sites. <sup>4</sup> In Peiroleri’s catalogue, “mihi, n. sp.” is reported as author and “Monviso” and “Valdieri” as collection sites. <sup>5</sup> In Peiroleri’s catalogue, “mihi” is reported as author and “Apenines and nearby mountains” as collection sites. <sup>6</sup> In Peiroleri’s catalogue “mihi, n. sp.” is reported as author and “High Alps” as collection site.

**Table 5.** Specimens from Peiroleri’s collection, which have supposedly been relocated in de Brême’s collection according to Ghiliani’s notes in Peiroleri’s catalogue but were not found in the first 86 boxes of de Brême’s collection.

Genus	Species	Peiroleri’s ID No.
<i>Agrypnus</i>	<i>ornaticollis</i>	2141
<i>Ampedus</i>	<i>sinuatus</i>	2165
<i>Cardiophorus</i>	<i>albipes</i>	2161
<i>Cardiophorus</i>	<i>ornatus</i>	2869
<i>Cercus</i>	<i>bipustulatus</i>	4285
<i>Cercus</i>	<i>ochraceus</i>	4286
<i>Dyneutes</i>	<i>pyrinus</i>	2954
<i>Elater</i>	<i>rubricollis</i>	2164
<i>Elater</i>	<i>brasiliensis</i>	2845
<i>Elater</i>	<i>memnosius</i>	2131
<i>Eurythyrea</i>	<i>scutellaris</i>	282
<i>Hydroporus</i>	<i>lineatus</i>	264

Table 5. Cont.

Genus	Species	Peiroleri's ID No.
<i>Ludius</i>	<i>depressus</i>	4066
<i>Ludius</i>	<i>guttatus</i>	3761
<i>Ludius</i>	<i>impressus</i>	2144
<i>Ludius</i>	<i>metallicus</i>	4067
<i>Necrophorus</i>	<i>4-maculatus</i>	5216
<i>Sphaenoptera</i>	<i>ornacanthae</i>	3191
<i>Steatoderus</i>	<i>italicus</i>	2129
<i>Stenogaster</i>	<i>atomarius</i>	3435
<i>Xylaecus</i>	<i>alni</i>	3200

Regarding the specimens of Dejean's collection found in the first 86 boxes of De Brême's collection's, they can be easily identified thanks to the labels at the bottom of the box or by a "Coll. Dejean" round label on the specimen's pin (Figure 10). Clearly, some of Dejean's specimens from the original core of de Brême's collection have been merged with specimens belonging to the same species but with a different origin. It is likely that whoever merged Dejean's specimens with the other collections in the first 86 boxes thought them to be too important to be mistaken or lost in the midst of specimens with a different origin (unlike what happened with Peiroleri's specimens).



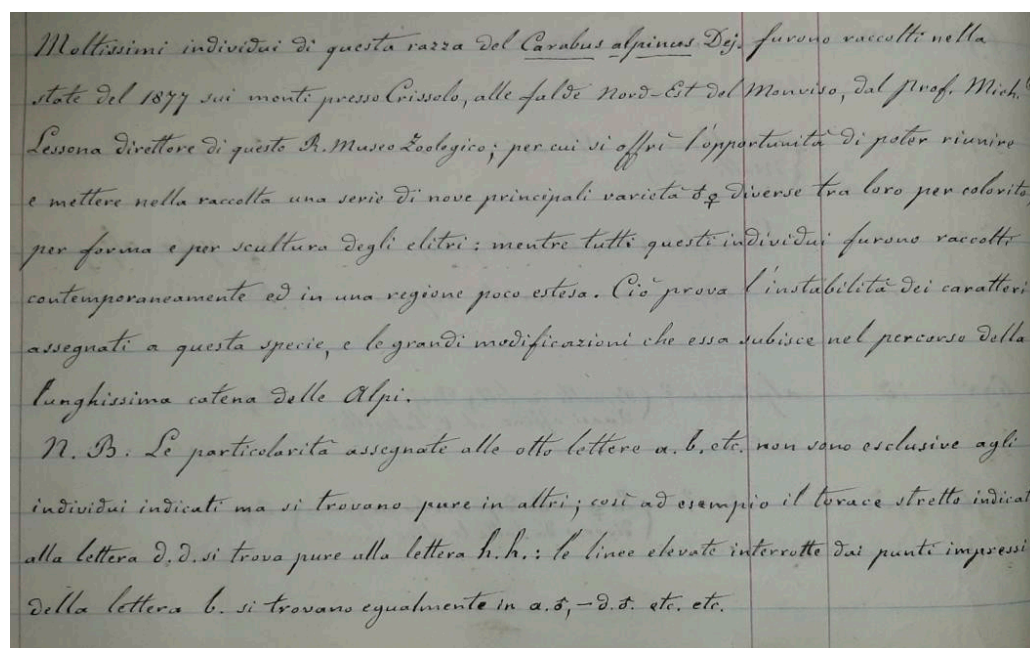
Figure 10. "Dejean collection" label on a specimen's pin from de Brême's collection.

According to "Catalogo Coleotteri 1877"'s data analysis and to information found on the specimens' labels, the following can also be found in the first 86 boxes of de Brême's collection:

- specimens collected by Lessona (see Ghiliani's note, Figure 11; partially transcribed, translated and adapted from Italian in Appendix G)
- specimens from Truqui's collection
- specimens collected by De Filippi during his voyage on the vessel Magenta (1865–1868)
- specimens collected by Ghiliani, many of them during his voyage to Spain and Sardinia
- specimens coming from the explorations carried out during the second voyage of the Astrolabe (1837–1840)
- specimens coming from Duca degli Abruzzi's Ruwenzori expedition (1906)
- several specimens coming from trades with, or donations by, 19th century naturalists (at the moment, it is not possible to establish with certainty which specimens have been added by MZUT collection curators and which were originally in De Brême's, Gené's or Peiroleri's collections).

It is clear that the collection currently known as "de Brême" is thus a composite collection formed by Gené, Peiroleri, De Brême and Dejean's specimens as well as collections and several later additions made by UT collection curators. Some specimens, e.g., the ones from Duca degli Abruzzi's expedition, date more than 50 years after de Brême's death, proving again the many alterations in structure and composition made to the original collection's core.





**Figure 11.** Ghiliani's note about some specimens collected by Lessena.

### 3.4. Peiroleri's and Dejean's *Platynus* spp. Specimens

Peiroleri's and Dejean's associated *P. erythrocephalus*, *P. peirolerii* and *P. depressus* specimens, after having been looked for in the records of Peiroleri's catalogue and "Catalogo Coleotteri 1877", have been sought out in de Brême's collection, in the "Collezione generale storica MZUT" ["General Historical MZUT collection"] (that is because the historical period is compatible with Peiroleri's collections) and in the "Collezione coleopterologica Spinola" ["Spinola's coleopterological collection"] (that is because, as we know from Peiroleri's notes in his catalogue, the two of them were correspondents).

Each specimen of *P. erythrocephalus*, *P. peirolerii* and *P. depressus* that was found has been labeled with a progressive number from 1 to 28 (for easier identification; see Figures 12–20) and is reported with data from their labels.

#### 3.4.1. Spinola's Coleopterological Collection

Every *P. erythrocephalus*, *P. peirolerii* and *P. depressus* specimen found in this collection (box No. 304) can be attributed to Peiroleri because the original labels display the writing "D. Peiroleri" made by Spinola himself. With it, Spinola used to specify the origin of the specimen (in this case, Peiroleri).

Specimens found:

- *Platynus erythrocephalus* Bassi (D. Peiroleri. Piedmont): 2 specimens (No. 1, 2; Figure 12)
- *Platynus peirolerii* Bassi (D. Peiroleri. Alps): 3 specimens (No. 3, 4, 5; Figure 13)
- *Platynus depressus* Bonelli (D. Peiroleri. Mount Tenda): 1 specimen (No. 6; Figure 14)

In Spinola's coleopterological collection, the *P. depressus* specimen (No. 6) credits Bonelli as author, while according to the bibliography, the species's author is Dejean (known fact at the time). It is likely that Spinola mistakenly reported the genus's author instead of the species' author.



Figure 12. Specimens No. 1 and 2: *P. erythrocephalus* from Spinola's collection.



Figure 13. Specimens No. 3, 4 and 5: *P. peirolerii* from Spinola's collection.



**Figure 14.** Specimens No. 6: *P. depressus* from Spinola's collection.

A complete list of Peiroleri-associated specimens in Spinola's coleopterological collection can be found in Table 6.

**Table 6.** Peiroleri-related specimens found in Spinola's coleopterological collection. As seen before, Peiroleri never published any entomological descriptions or memoirs, so his mentionings as author are to be considered "in litteris" or, as seen with species described by Bassi, homages to Peiroleri as the one who found the species. Where more than one origin is specified, "Spec. No." indicates the total number of that species' specimens in Spinola's coleopterological collection and not only those potentially Peiroleri-related (further research will be needed to identify with a degree of certainty which ones are from Peiroleri's collection and which ones are not).

Genus	Species	Author	Collection Site	Origin	Spec. No.	Box
<i>Agabus</i>	<i>guttatus</i>	Paykull	Piedmont	Peiroleri	2	331
<i>Agrilus</i>	<i>6-guttatus</i>	"Histoire naturelle et iconographie des Insectes Coléoptères" Gory 1841 (?)	Piedmont	Peiroleri	3	393
<i>Amara</i>	<i>montana</i>	Peiroleri not Dejean	Piedmont	Peiroleri	1	12
<i>Anchomenus</i>	<i>angusticollis</i>	Dejean	Alps	Peiroleri	3	304
<i>Anthaxia</i>	<i>caudens</i>	Fabricius	Piedmont	Peiroleri	2	397
<i>Anthypna</i>	<i>abdominalis</i>	n.d.	Piedmont	Peiroleri	1	68
<i>Asida</i>	<i>jurinei</i>	Solier	Piedmont	Peiroleri	2	111
<i>Athous</i>	<i>parallelus</i>	Dejean presso (?) La Ferté	Alps	Peiroleri	2	386
<i>Athous</i>	<i>subfuscus</i>	Gyllenhaal	Piedmont; Galicia	Peiroleri; De Sacher	5	386
<i>Athous</i>	<i>lateralis</i>	Dahlbom	Styrie; Piedmont	Peiroleri	4	386
<i>Bembidium</i>	<i>alpinum</i>	Dejean	Alps	De Cristoforis; Peiroleri	2	326
<i>Blaps</i>	<i>sibirica</i>	Stentz	Styrie; Piedmont	Stentz.; Peiroleri	2	126



Table 6. Cont.

Genus	Species	Author	Collection Site	Origin	Spec. No.	Box
<i>Bolboceras</i>	<i>mobilicornis major</i>	Fabricius	Piedmont	Peiroleri	3	90
<i>Bolboceras</i>	<i>mobilicornis</i>	n.d.	Piedmont	Peiroleri	3	90
<i>Bruchus</i>	<i>imbricornis</i>	Panzer	Piedmont	Peiroleri	3	489
<i>Carabus</i>	<i>intermedius</i>	Peiroleri or Dejean	Piedmont Alps	Peiroleri	1	243
<i>Carabus</i>	<i>depressus</i>	Bonelli	Piedmont	Peiroleri	1	247
<i>Carabus</i>	<i>peiroleri</i>	De Cristoforis et Jan	Piedmont	Peiroleri	2	247
<i>Carabus</i>	<i>spencei</i>	De Cristoforis	Alps	Peiroleri	2	247
<i>Carabus</i>	<i>bonellii rufis</i>	n.d.	Alps	Peiroleri	2	247
<i>Carabus</i>	<i>bonellii</i>	n.d.	Alps	Peiroleri	2	247
<i>Carabus</i>	<i>alyssidotus</i>	Illiger	Alps	Peiroleri	2	250
<i>Chryptocephalus</i>	<i>sex-punctatus</i>	Fabricius	Piedmont	Peiroleri	2	636
<i>Chryptocephalus</i>	<i>connexus</i>	Illiger	Piedmont	Peiroleri	3	638
<i>Chrysomela</i>	<i>violacea</i>	Fabricius	Alps	Peiroleri	3	574
<i>Chrysomela</i>	<i>fastuosa</i>	n.d.	Cozie Alps	Peiroleri	2	574
<i>Chrysomela</i>	<i>lucida</i>	Fabricius	Piedmont	Peiroleri	3	575
<i>Cistela</i>	<i>fulvipes</i>	Fabricius	Piedmont	Peiroleri	2	481
<i>Corymbites</i>	<i>pectinicornis</i>	n.d.	Piedmont	Peiroleri	3	43
<i>Cratonychus</i>	<i>tenebrosus</i>	Erichson	Piedmont	Peiroleri	1	382
<i>Cryptohypnus</i>	<i>4-pustulatus</i>	Fabricius	Piedmont	Peiroleri	2	384
<i>Cryptohypnus</i>	<i>minutissimus</i>	Germar	Piedmont	Peiroleri	4	384
<i>Cryptohypnus</i>	<i>bimaculatus</i>	n.d.	Piedmont	Peiroleri	2	384
<i>Cymindis</i>	<i>coadunata</i>	Dejean	Piedmont	Peiroleri	2	295
<i>Dermestes</i>	<i>holosericeus</i>	Bonelli	Piedmont	Peiroleri	2	447
<i>Dermestes</i>	<i>roseiventris</i>	n.d.	Piedmont	Peiroleri	3	448
<i>Diacanthus</i>	<i>aeneus</i>	n.d.	Alps	Peiroleri	1	44
<i>Disopus</i>	<i>nigriventris</i>	Marietti	Borgo di Santa Rosa (Taleggio) (?) <sup>3</sup>	Peiroleri	2	640
<i>Elmis</i>	<i>sub-violaceus</i>	Nees von Esenbeck	Northern Italy	Peiroleri	6	450
<i>Feronia</i>	<i>picimana</i>	Dejean	Piedmont	Peiroleri	2	308
<i>Feronia</i>	<i>maura</i>	n.d.	Piedmont	Peiroleri	2	308
<i>Feronia</i>	<i>Sex-punctata</i>	Peiroleri not Dejean	Alps	Peiroleri	3	308
<i>Feronia</i>	<i>spinolae</i>	Peiroleri not Dejean	Piedmont	Peiroleri	2	308
<i>Feronia</i>	<i>impressicollis</i>	Peiroleri	Cozie Alps	Peiroleri	1	309
<i>Feronia</i>	<i>impressicollis</i>	n.d.	Cozie Alps	Peiroleri	2	309
<i>Feronia</i>	<i>impressa</i>	Peiroleri	Alps	Peiroleri	3	309
<i>Feronia</i>	<i>bicolor</i>	Peiroleri	Alps	n.d.	2	309
<i>Feronia</i>	<i>yoanii</i>	Dejean	Alps	Peiroleri	3	310
<i>Feronia</i>	<i>bilineipunctata</i>	Bonelli	Piedmont	Peiroleri	4	310
<i>Feronia</i>	<i>aurata</i>	Peiroleri	Alps	Peiroleri	3	310
<i>Feronia</i>	<i>yoanii</i>	Dejean	Cozie Alps	Peiroleri	2	310
<i>Feronia</i>	<i>cuprea</i>	n.d.	Alps	Peiroleri	1	310
<i>Feronia</i>	<i>nitida</i>	Peiroleri	Alps	Peiroleri	2	311

Table 6. Cont.

Genus	Species	Author	Collection Site	Origin	Spec. No.	Box
<i>Feronia</i>	<i>melanaria</i>	n.d.	Alps	Peiroleri	2	312
<i>Gastrophysa</i>	<i>raphani</i>	Fabricius	Piedmont	Peiroleri	3	578
<i>Gonioctena</i>	<i>affinis</i>	n.d.	Piedmont	Peiroleri	2	578
<i>Harpalus</i>	<i>montanus</i>	Peiroleri in litteris	Piedmont	Peiroleri	3	319
<i>Hydaticus</i>	<i>grammicus</i>	Sturm	Piedmont	Peiroleri	3	24
<i>Laccophilus</i>	<i>interruptus</i>	Putzeys	Piedmont	Peiroleri	1	334
<i>Limonius</i>	<i>sub-aeneus</i>	n.d.	Piedmont	Peiroleri	2	388
<i>Lina</i>	<i>collaris</i>	Fabricius	Piedmont	Peiroleri	1	575
<i>Nebria</i>	<i>picea</i>	Bonelli et Dejean	Alps; Grande Chartreuse de Grenoble (Saint-Pierre-de-Chartreuse, Grenoble?)	Solier; Peiroleri	4	328
<i>Nebria</i>	<i>gyllenhalli</i>	n.d.	Alps	Peiroleri	2	328
<i>Nebria</i>	<i>castanea</i>	Bonelli	Piedmont	Peiroleri	2	328
<i>Nebria</i>	<i>angusticollis</i>	Dejean	Piedmont	Peiroleri	4	328
<i>Nebria</i>	<i>nigricornis</i>	Peiroleri	Alps	Peiroleri	1	329
<i>Nitidula</i>	<i>bipustulata</i>	Fabricius	Piedmont	Peiroleri	2	442
<i>Omosita</i>	<i>discoidea</i>	Erichson	Northern Italy	Peiroleri	1	442
<i>Ophonus</i>	<i>columbinus</i>	Dejean	Piedmont	Peiroleri	1	317
<i>Ophonus</i>	<i>meridionalis</i>	Dejean	Piedmont	Peiroleri	4	317
<i>Oreina</i>	<i>luctuosa</i>	Olivier or Dejean	Alps	Peiroleri	1	577
<i>Oreina</i>	<i>senecionis major</i>	n.d.	Piedmont	Peiroleri	3	577
<i>Otiorhynchus</i>	<i>pinastri</i>	Schönherr	Germany	Sturm; Peiroleri	4	520
<i>Otiorhynchus</i>	<i>auricomus</i>	Schönherr	Germany	Sturm; Peiroleri	2	522
<i>Otiorhynchus</i>	<i>clavipes</i>	Peiroleri or Schönherr	Piedmont	Peiroleri	2	518
<i>Otiorhynchus</i>	<i>griseopunctatus</i>	n.d.	Piedmont	Peiroleri	4	519
<i>Otiorhynchus</i>	<i>n. sp.</i>	Jekel in litteris	Piedmont	Peiroleri	2	521
<i>Otiorhynchus</i>	<i>lepidopterus</i>	Fabricius	Piedmont	Peiroleri	4	521
<i>Otiorhynchus</i>	<i>aurifer</i>	Peiroleri not Schönherr	Piedmont	Peiroleri	1	521
<i>Otiorhynchus</i>	<i>helvetius</i>	n.d.	Cozie Alps	Peiroleri	2	521
<i>Otiorhynchus</i>	<i>funicularis</i>	Schönherr	Piedmont	Peiroleri	2	521
<i>Otiorhynchus</i>	<i>non det.</i>	Jekel in litteris	Alps	Peiroleri	3	521
<i>Otiorhynchus</i>	<i>aerifer</i>	Schupp	Alps; Germany	Peiroleri; Jekel	3	522
<i>Oxypoda</i>	<i>melanaria</i> <sup>1</sup>	Peiroleri not Dejean	Finland	Collezione Dejean; Mannheim	1	346
<i>Oxyporus</i>	<i>maxillosus</i>	n.d.	Piedmont	Peiroleri	2	366
<i>Pachyta</i>	<i>4-maculata</i>	Fabricius	Alps; Kazan	Peiroleri; Eversmann	1	213
<i>Pachyta</i>	<i>clathrata</i>	Fabricius	Graie Alps	Peiroleri	1	213
<i>Peltis</i>	<i>oblonga</i>	Fabricius	Piedmont	Peiroleri	1	51
<i>Phaleria</i>	<i>limbata</i>	Dhl.	Piedmont	Peiroleri	2	468
<i>Platynus</i>	<i>complanatus</i>	Bonelli	Piedmont	Peiroleri	3	304

Table 6. Cont.

Genus	Species	Author	Collection Site	Origin	Spec. No.	Box
<i>Platynus</i>	<i>complanatus</i>	n.d.	Piedmont	Peiroleri	3	304
<i>Platynus</i>	<i>erythrocephalus</i>	Bassi	Alps	Peiroleri	2	304
<i>Platynus</i>	<i>peirolerii</i>	Bassi	Alps	Peiroleri	3	304
<i>Platynus</i>	<i>depressus</i>	Bonelli	Tenda Alps	Peiroleri	1	304
<i>Rhagium</i>	<i>maculatum</i>	Gyllenhaal	Alps	Peiroleri	3	238
<i>Rhynchites</i>	<i>praeustus</i> <sup>2</sup>	Peiroleri in litteris	Piedmont	Peiroleri	3	491
<i>Staphylinus</i>	<i>fossor</i>	Gravenhorst et Erichson	Alps	Peiroleri	3	357
<i>Stenopterus</i>	<i>flavicornis</i>	Dejean	Piedmont	Peiroleri	3	240
<i>Stenura</i>	<i>7-punctata</i>	Fabricius	Piedmont	Peiroleri	1	213
<i>Thylacites</i>	<i>fritillum minor</i>	n.d.	Piedmont	Peiroleri	4	500
<i>Timarca</i>	<i>metallica minor</i>	n.d.	Piedmont	Peiroleri	2	572
<i>Toxotus</i>	<i>meridianus</i>	n.d.	Alps	Peiroleri	1	238

<sup>1</sup> Peiroleri described species originally from Dejean's collection, providing further proof of contact between the two. <sup>2</sup> This is the species through which Peiroleri's authorship could be attributed to the catalogue. There are no specimens of it in the first 86 boxes of De Brême's collection and those in Spinola's coleopterological collection might be the only ones preserved in the MRSN and MZUT collections. <sup>3</sup> In Spinola's coleopterological collection, this collection site is shortened as "S.a Rosa". According to "Catalogo dei coleopteri della Lombardia" (1844, Villa A., Villa G. B.), *Disopus nigriventris* Marietti is a species from Lombardy, so it is possible that the abbreviation stands for "Borgo Santa Rosa" in the present day municipality of Taleggio (BG); Marietti, who described the species, was from Lombardy too. There are no other specimens from this collection site in Spinola's Coleopterological Collection.

### 3.4.2. De Brême's Collection

*P. erythrocephalus*, *P. peirolerii* and *P. depressus* specimens in de Brême's collection can be found in the box "Carabiques 86–86 bis".

Specimens found:

- *Platynus erythrocephalus* Bassi (Piedmont): 4 specimens (No. 7, 8, 9, 10; Figure 15)
- *Platynus peirolerii* Bassi (Piedmont): 4 specimens (No. 11, 12, 13, 14; Figure 16)
- *Platynus depressus* Lassere (Switzerland): 3 specimens (No. 15, 16, 17; Figure 17)



Figure 15. Specimens No. 7, 8, 9 e 10: *P. erythrocephalus* from de Brême's collection.



Figure 16. Specimens No. 11, 12, 13 and 14: *P. peirolerii* from de Brême’s collection.



Figure 17. Specimens No. 15, 16 and 17: *P. depressus* from de Brême’s collection.

All three species can be found both in Peiroleri’s catalogue (Figures 18–20) and “Catalogo Coleotteri 1877” (Figure 21).

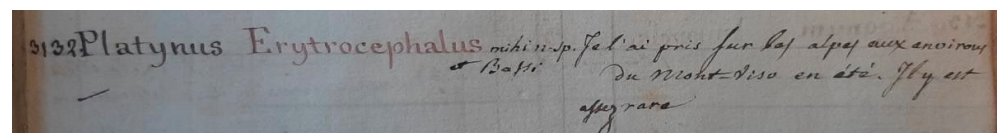


Figure 18. *P. erythrocephalus* in Peiroleri’s catalogue.

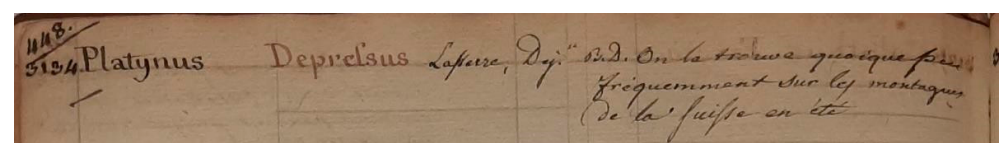


Figure 19. *P. depressus* in Peiroleri’s catalogue.



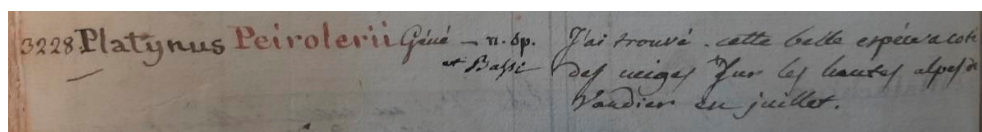


Figure 20. *P. peirolerii* in Peiroleri's catalogue.

1623	<i>Platynus erythrocephalus</i> Bassi	4	Piedmonte
1624	" <i>complanatus</i> Donelli	3	"
1625	" <i>depressus</i> Lasserre	1	Helvétie
	" "	2	Piedmonte
1626	" <i>scaberculatus</i> Fels	5	Autriche
1627	" <i>peirolerii</i> Bassi	4	Piedmonte

Figure 21. *P. erythrocephalus*, *P. depressus* and *P. peirolerii* in the "Catalogo Coleotteri 1877".

*P. peirolerii* and *P. erythrocephalus* specimens in de Brême's collection do not seem mounted "in the ancient way, with legs horizontally stretched" as Peiroleri's specimens should be (as pointed out by Ghiliani in his notes); this detail suggests that these specimens are not from Peiroleri's collection. Furthermore, *P. peirolerii* and *P. erythrocephalus* records in Peiroleri's catalogue do not show Ghiliani's note about their relocation to De Brême's collection. Likewise, *P. depressus* is not among the supposedly relocated species, but specimen No. 15 has its legs spread in such a way that it may be compatible with Peiroleri's collection specimens. This male specimen had its genitalia extracted and mounted on a label, which shows the writing "Casale"; this specimen was dissected by Achille Casale in 1978 during his studies on the genus *Platynus* (Achille Casale, personal communication, 2022).

### 3.4.3. General Historical MZUT Collection

*P. erythrocephalus*, *P. peirolerii*, and *P. depressus* specimens in the General Historical MZUT collection can be found in box No. 73.

Specimens found:

- *Platynus erythrocephalus* Bassi (Piedmont): 5 specimens (No. 18, 19, 20, 21, 22; Figure 22)
- *Platynus peirolerii* Bassi: 4 specimens (No. 23, 24, 25, 26; Figure 23)
- *Platynus depressus* Lasserre: 2 specimens (No. 27, 28; Figure 24)

Some *P. peirolerii*, *P. erythrocephalus*, and *P. depressus* specimens found in the General Historical MZUT collection appear to be mounted in a way compatible with what is written by Ghiliani about Peiroleri's specimens, particularly specimens No. 20 and 22 (*P. erythrocephalus*), specimen No. 23 (*P. peirolerii*), and specimen No. 28 (*P. depressus*). As written above, these species are recorded in Peiroleri's catalogue, a detail that makes it possible for these specimens to originate from Peiroleri's collection. It is therefore possible that the General Historical MZUT collection contains some duplicate, storage and/or less beautiful specimens that were merged from Peiroleri's collection (those specimens that were not selected by Ghiliani to be merged with de Brême's collection). This hypothesis is strengthened by the fact that we can find many other specimens with legs in a horizontal position, belonging to various genera and species, in the same box as the *Platynus* one and in other Coleoptera boxes from the same collection. Moreover, the presence of specimens of the same species in both the General Historical MZUT collection and in De Brême's collection strengthens the hypothesis that at least some specimens of the former may come from UT duplicate and storage specimens (and thus, might be originally from Peiroleri's collection). Because of this, we might need to reconsider what is currently known as the General Historical MZUT collection. The presence of Peiroleri-compatible specimens and De Brême-duplicate species in this collection might suggest that its Coleoptera core was built starting from duplicate and storage specimens; though further investigations will be necessary to confirm or refute this, one can speculate that specimens from other Orders were then added to this core, or that Coleoptera duplicates were merged in the General Historical MZUT collection, resulting in its present-day structure and composition.



**Figure 22.** Specimens No. 18, 19, 20, 21, and 22: *P. erythrocephalus* from the General Historical MZUT collection.



**Figure 23.** Specimens No. 23, 24, 25, and 26: *P. peirolerii* from the General Historical MZUT collection.



**Figure 24.** Specimens No. 27 and 28: *P. depressus* from the General Historical MZUT collection.

### 3.5. Type Specimen Identification

In order to completely clarify the situation of *P. erythrocephalus*, *P. peirolerii* and *P. depressus* potential type specimens, one needs to compare data found in the original species description with those found in Peiroleri's

catalogue. Bassi, in “*Annales de la Société Entomologique de France*” [3] (p. 469), describes *P. erythrocephalus* as *P. erythrocephalus* Peiroleri, adding: “J’ai reçu cette espèce de M. Peiroleri, de Turin, sous le nom que je lui ai conservé. Il la prend constamment au mont Viso, en Piémont, près des sources du Pô.” [“I received this species from Mr. Peiroleri from Turin, under whose name I preserved for him. I collect it frequently in Monviso, in Piedmont, near the Po’s source.”]. Peiroleri’s catalogue records this species as *Platynus erythrocephalus* mihi et Bassi n. sp.; in his notes we can read: “Je l’ai pris sur les alpes aux environs du Mont-Viso en été. Il y est assez rare” (“I collected it in the Alps near Monviso in summer. It is quite rare”) (Figure 21). There are thus no discrepancies between Bassi’s description and what is written by Peiroleri, he who first collected the species but did not describe it.

In “*Annales de la Société Entomologique de France*” [3] (p. 470), Bassi also describes *P. peirolerii* as *P. peirolerii* Gené and writes “Je tien cette espèce aussi de M. Peiroleri, auquel elle avait été dédiée par M. Gené. Il m’assure qu’elle affecte les mêmes localités que la précédente [*P. erythrocephalus* in Monviso], et qu’il a constamment observé les mêmes caractères dans plusieurs individus, dont la couleur ne dépend nullement de l’âge.” [“I received this species too from Mr. Peiroleri, to whom it was dedicated by Mr. Gené. He confirms to me that it can be found in the same collection site as the former [*P. erythrocephalus* in Monviso] and that he always observed the same characters in many individuals, in which colours are not at all age-related.”]. Peiroleri records this species as *Platynus peirolerii* Gené et Bassi n. sp.; in his catalogue he wrote “J’ai trouvé cette belle espèce a coté des neiges sur les hautes alpes de Vaudier en juillet” [“I found this beautiful species at the edge of a snowfield in Valdieri high Alps in June”] (Figure 23). Bassi’s reported collection site and Peiroleri’s collection site do not match; it is likely that Bassi made a mistake in its description or that Peiroleri mistakenly communicated the wrong collection site to Bassi. *P. erythrocephalus* and *P. peirolerii* specimens in Spinola’s coleopterological collection (No. 1, 2 and No. 3, 4, 5), according to their origin and to the collection site reported on their labels (both Monviso and Valdieri are located in Piedmont), are specimens from Peiroleri’s collection and thus might be part of the type series for this taxon (some of which must have donated to Bassi and Gené).

Specimen No. 17 (*P. depressus*) in de Brème’s collection comes from Dejean’s collection, as pointed out on its label. In “*Catalogo Coleotteri 1877*” and on the specimen’s label, the species’ author is Lassere, even if this species, according to the bibliography, was described by Dejean. In Peiroleri’s catalogue, this species appears as *P. depressus* Lassere and Dejean and in Peiroleri’s notes we can read that “On la trouve quoique peu fréquemment sur les montagnes de la Suisse en été” [“It can be infrequently found in the Swiss mountains in summer”]. The author discrepancy can be explained by analyzing *P. depressus* Dejean’s description in “*Species général des coléoptères de la collection de M. le Comte Dejean*” [4] (p. 718): “Il se trouve en Suisse, et il m’a été donné per M. Lasserre, sous le nom que je lui ai conservé.” [“It can be found in Switzerland and it has been given to me by Mr. Lasserre, under whose name I preserved it for him”]. Specimen No. 17, considering its collection site and its origin, is most likely a cotypus specimen or at least a specimen from Dejean’s type specimen series for this taxon.

#### 4. Discussion

This paper highlights the importance of historical and documentary research and of the study of collections preserved in natural history museums, not only from a purely entomological perspective. The case of Peiroleri’s collection is an example of how reputedly (partially or completely) lost collections might have (partially or completely) survived inside other collections. The collection in question has been merged with de Brème’s collection, as pointed out by Ghiliani, but Peiroleri-related specimens can be identified thanks to documentary information and research.

In addition, the discovery of potentially Peiroleri-related specimens in the General Historical MZUT collection allows us to speculate about the fact that the coleopterological section of this collection might have been built starting from storage specimens and duplicate specimens, and that some of them might come from Peiroleri’s collection.

In regards to Peiroleri’s specimens found in Spinola’s coleopterological collection, they most likely come from trades between Peiroleri and Spinola while the former was still alive. These specimens, generally speaking, might work as “proxies” for those species that cannot be found in de Brème’s collection or, possibly, in the General Historical MZUT collection. This technique might be applied to other collections (not limited to entomological ones), searching and identifying same-species, same-collection site, and same-origin specimens outside of the original collections (e.g., in the original collector correspondents’ collections, like in the case of Peiroleri and Spinola).

Historical biodiversity memory is a fundamental asset for the study and comprehension of present-day biodiversity. If we lack knowledge about past taxa existence and distributions, we cannot determine how and which taxa are being, have been or might be impacted by human activities. It is therefore imperative that museums’ historical collections are thoroughly investigated, studied, preserved and, if possible, “rebuilt” in their purity.

**Funding:** This research received no external funding.

**Institutional Review Board Statement:** Not applicable.

**Data Availability Statement:** Peiroleri’s catalogue and “*Catalogo Coleotteri 1877*” are deposited in the MRSN’s Entomology section.

**Acknowledgments:** The author would like to express his gratitude to Matteo Ruzzon, staff member in the MRSN entomological section, for the invaluable help given by building the data-base used for this research.

**Conflicts of Interest:** The authors declare no conflict of interest.

#### Appendix A. Peiroleri-Related Species in “Mémoire Sur la Station de Quelques Coleopteres dans les Différentes Régions du Piémont” (Ghiliani 1847)

The following list shows all Peiroleri-related data found in “*Mémoire sur la station de quelques coléoptères dans les différentes régions du Piémont*”: mentions, species dedicated to Peiroleri, species supposedly described by him, information about his collecting activities and/or his entomological observations. As said before, Peiroleri never published any entomological descriptions or memoirs. These attributions are to be considered “in litteris” or, as seen with species described by Bassi, homages to Peiroleri as the one who found the species. Translated and adapted from French by the author. Reference pages in parentheses.

1. *Dermestes roseiventris*, Peiroleri. (*D. catta?* Panz.) Seen in great numbers on small corpses; sometimes it can be found together with *D. holosericeus*, Bonelli, and *D. bicolor*, Fabr., but it is always rare; speaking of *D. ater*, Oliv., which can be found both on carrions and some umbellifer flowers, it is common in winter, hidden under the moss at the foot of trees. (p. 92–93)
2. *Ditonus calydonius*, Fabr. Baron Peiroleri was the one who found this insect in May 1812, on the hills of Turin. This species’ presence in such a place is an extraordinary fact for our entomology, and one must disregard what Ponza says in his *Coleoptera salutientia*, in which he confuses this species with *Cephalotes vulgaris*, Bonelli, since he admits he has never found the male, while saying it is a common species. (p. 102)
3. *Rhynchites coeruleocephalus*, Fabr. Really rare, as well as *R. proeustus* Peiroleri, which he has collected in the surroundings of Turin. (p. 115)
4. *Pterostichus bicolor*, Peiroleri. This insect is constantly the same all along the line of the Maritime Alps and of the Genoese Apennine, I cannot admit it is a variety of *P. Jurinei*, Panz., like one usually thinks, especially since the latter has been seldom found in the Northern Alps; moreover, our *P. bicolor*, which has excessively multiplied towards the upper parts of this region, can still be found at 1900 metres of elevation and seems to represent here *P. externepunctatus*, Sturm., of the Northern Alps. (p. 116)
5. *Platynus Peirolerii*, Gené. (Bassi.) It stays under the stones in open areas throughout the entire Maritime Alpine chain, where this insect is not rare. (p. 117)
6. *Pterostichus impressicollis*, Peiroleri. It is a mistake that in Dejean’s catalogue this species is found together with *P. parumpunctatus*, Dej. as a variety of the latter; if one has to destroy this species, it is to *P. vagepunctatus* Bonelli that we must relate it, although the latter always lives in a higher zone, while our *P. impressicollis* never goes higher than 1400 metres and often descends in the narrows that block the entrance of valleys where they meet the plain, places typically cold for their elevation. (p. 122)
7. *Pterostichus impressus*, Peiroleri. This insect lives a solitary life under great stones in the same places where one can find *Platynus erythrocephalus*, and in the same way it is not rare in certain woods of this region and of the subsequent one; it is found between Moncenisio and Tenda pass. (p. 123)
8. *Pterostichus vagepunctatus*, Bonelli. This insect, that can be likened to *P. impressicollis*, Peiroleri, emits like the latter a strong rose odor, which completely overwhelms the ones normally emitted by other carabids; it is found in abundance under the stones along the creeks that flow down from the meadows on the top of this area near Monviso; it reaches up to 2500 metres of elevation in the subsequent region. (p. 126)
9. *Dasytes ruficollis*, Bonelli, inéd. Rare in our mountains as well as *D. niger*, Fabr., to which it resembles; it is remarkable for its red thorax; this species had already been found in Bonelli’s time and since then by Baron Peiroleri. Would it be *Dasytes thoracicus*, Dej., which is unknown to me? I am inclined to believe so, because the latter is indicated as belonging to southern France and that I saw our *D. ruficollis* on the island of Sardinia; however, the examples are common, as an insect inhabiting southern Europe, it is also found in some Alpine recesses, which receive the reverberated heat of the nearby rocks; the order of Lepidoptera gives us many examples, and among Neuroptera I can mention *Myrmeleon libelluloides* which is found not far from Turin at the entrance to the Susa valley, although this species is essentially southern. (p. 135)
10. *Tragosoma depsarium*, Fabr. Really rare on coniferous trunks; found by Baron Peiroleri. (p. 137)
11. *Acmaeodera feisthameli*, Gory. This superb species has been found not far from Domodossola, by Baron Peiroleri (p. 139)
12. *Cychrus angustatus*, Dej. This insect found in Monviso, was seen in Sempione by Baron Peiroleri, in Mount Legnone in Lombardy by Messrs Villa, from Milano; lastly, if this species is the same as the one described by Mr. Hope, as belonging to Carinthia, it is very curious to see this insect appear in some preferred localities at such great distances on such an extended line of the same mountain range. (p. 140)
13. *Oreina melanocephala*, Meg. (*O. Peirolerii*, Bassi.). Mr. Zumstein, well known for his geological observations and his ascents of Monte Rosa, found this beautiful species first while searching for beetles for the late Bonelli; in the information he had the complacency to give me about the localities where this insect can be found sheltered under the stones, M. Zumstein assured me that since then he had not found, in the same place, individuals others than those of an ash-greenish colour. This circumstance appears to support the strong variations to which this species may be subject to; I saw an individual found on a top of the same point, in the Pennine Alpine range, which, on a red brick background, showed a large black line on the elytral suture. (p. 142)

#### Appendix B. Peiroleri-Related Species in “Elenco Delle Specie di Coleotteri del Piemonte” (1887, Ghiliani and Camerano)

The following list shows all Peiroleri-related data found in “*Elenco delle specie di coleotteri del Piemonte*”: mentions, species dedicated to Peiroleri, species supposedly described by him, information about his collecting activities and/or his entomological observations. As said before, Peiroleri never published any entomological descriptions or memoirs. These attributions are to be considered “in litteris” or, as seen with species described



by Bassi, homages to Peiroleri as the one who found the species. “*Elenco delle specie di coleotteri del Piemonte*” is a posthumous work curated by Camerano and based upon unpublished handwritten notes by Ghilliani; the former did not edit in any way what the latter wrote (1887, Ghilliani and Camerano, p. 4). Translated and adapted from Italian by the author. Reference pages (standalone book version) in parentheses.

1. *Cicindela sinuata* Fabr. Really common during July and August along the creeks, in the vallies near Bra; seldom it has also been observed near Carmagnola and Moncalieri, according to Baron Peiroleri; I found it in the debris carried by Po's flood in June. (p. 5)
2. *Cicindela flexuosa* Fabr. This species, really common in the Tortona area, has been seen by Baron Peiroleri. (p. 5)
3. *Zuphium olens* Fabr. Collected in Casale during summer, while flying in the evening along the Po, by Baron Peiroleri. (p. 6)
4. *Ditomus calydonius* Fabr. This insect from southern Europe, where it does not go far from the Mediterranean shoreline, was collected in 1812 by Baron Peiroleri on the Turin hill during the month of May: it is also mentioned by Ponza, *Coleoptera Salutientia*, as frequent in that area on the sands of the Po, but be it that this place was explored many times by baron Peiroleri who said to me that he never saw it, be it because Ponza says he only encountered females, one can suspect that he was wrong in his identification, and I never saw it in river sands in those villages where it is abundant. (p. 9)
5. *Leistus nitidus* Dufts. Caught by baron Peiroleri near the Savoia borders: in the same way, I found it in Maritime Alps at the beginning of June and in the Monviso towards the end of the month (rare). (p. 13)
6. *Badister cephalotes* Dej. Extremely hard to observe, this species is to be found in the area surrounding Turin, according to Baron Peiroleri; I have never observed it. (p. 16)
7. *Platynus peirolerii* Bassi. Described by cav. Bassi together with *P. erythrocephalus*. I warn that in the beautiful plate accompanying the description there is an error in proportions, that is that *P. Peirolerii* is depicted much bigger than the other, exactly the opposite of reality; I found it in Monviso and it is really common in Maritime Alps. (p. 18)
8. *Agonum triste* Dej. Seen in the Saluzzo province by Baron Peiroleri. (p. 19)
9. *Platysma maura* Dufts. It lives in our Alps, where, however, it is not abundant; so I will tell about *Pterostichus parnassius* Bon., that is because the lack of carina under the last abdominal segment should make it evidently close to *Platysma maura*, but I doubt it is to be considered a variety of it as depicted in Dejean's catalogue and I am determined to study both of them better. Regarding *bilineipunctata* Bon. variety, it is not possible to know the truth anymore, having found, under this name, in baron Peiroleri's collection and in our ancient collection, sometimes *P. parnassius* varieties and sometimes *Pterostichus yvanii* Dej. ones. (p. 21)
10. *Pterostichus impressicollis* Peiroleri. From lower heights till the end of the tree line, where it appears to change to the following [*P. vagepunctata*] (p. 22)
11. *Pterostichus peirolerii* Heer. Really common in the Ligurian Appennine, mount of Bobbio, etc. (p. 22)
12. *Pterostichus flavofemorata* Bonelli (var. 6a, *punctata* Peiroleri, inedita, full-black legged variety). It dwells especially the mountain range from Gran San Bernardo to Sempione. (p. 22)
13. *Pterostichus impressa* Peiroleri. I have often found this big and beautiful species under the stones, in larch and pine trees woods, from Fenestrelle to the South of Monviso; uncommon, it lives in isolation and prefers dry soil. (p. 23)
14. *Pterostichus bicolor* Peiroleri. Common in the Ligurian Appennine and Maritime Alps; this species, in my opinion, must not be considered just a variety of *yurinei* Panz., since it has constant characters that make it stand apart. (p. 23)
15. *Pterostichus multipunctata* Dej. It looks like it is abundant only in the surroundings of Monte Rosa; it is seldom found in the Gran San Bernardo mountain range. A specimen can found in baron Peiroleri's collection, under the name *sculpturalis* mihi, which in my opinion might perhaps be considered as a variety of *multipunctata*. (p. 23)
16. *Harpalus ditomoides* Dej. Found by baron Peiroleri along the Po, flying, in Turin, in mid-July. (p. 27)
17. *Hydroporus silphoides* Peiroleri, Ponza (*obscurus* Hon.). Borgomanero. (p. 35)
18. *Lomechusa strumosa* Fabr. Found in the Alps by baron Peiroleri (and by me), also in Savoia. (p. 42)
19. *Acmaeodera feisthameli* Gory. Collected by baron Peiroleri in Domodossola valley, and believed by him to be *A. 18 guttata* Herbst. but clearly, based upon Mr. Gory's work in his supplement on Buprestidae, this species is different and was named *A. feisthameli* by the above mentioned author; we have to add to his description: black thorax, cerulean elytra, and black colour not prevailing. (p. 59)
20. *Agrilus auripennis* Solier, Gory. It can be found, unidentified, in baron Peiroleri's collection, found by the same during May in Stupinigi's woods, then by me in Mandria (*Agrilus coryli* Dall'Anders). (p. 62–63)
21. *Spercheus emarginatus* Fabr. Found since the time of Bonelli and by baron Peiroleri near Casale. Found in Carmagnola by Dr. Rubinetti. (p. 81)
22. *Rhisotrogus lutescens* Lut., Sturm., *insubricus* Villa (*vicinus* Dej.). Discovered by baron Peiroleri near Casale (surroundings of Morano and Dogliani); at the beginning of September; it flies during the evening in the meadows. (p. 90)
23. *Omaloplia brunnipes* Bon., *Spec. Faun. subalp.*, pag. 156. *nuda* Ziegl. This species is found quite frequently during May in the woods near Susa; two ancient specimens from our Museum were identified for sure by Bonelli himself, they do not look different from *nuda* Ziegl., *hungarica* Mag. (in litteris Burmeister). Since the characteristics given by Mr. Burmeister to his *brunnipes* after Mr. Mulsant's description, differ very little from our species, and that the essential one of the 10 articles of the antennae is not lacking in the two specimens from our collection. Also the individuals identified as *nuda* Ziegl. in baron Peiroleri's collection, marquis De Breme's collection e from Sardinia (Gené) are identical to ours from Piedmont but they just have 9 antennal articles. Due to the fact that Bonelli does not mention the numbers of articles of the antennae, it is quite

- logical to identify his *brunnipes* as our specimens from Piedmont but with just 9 articles. If then the *nuda* of Ziegl. has 10 articles, ours would be *graminicola* var. Fabr. (p. 91)
24. *Athous rufus* Fabr. Found by baron Peiroleri in Vallese, this insect most likely could be likewise found, diligently searching, in this side of the Sempione mountain. (p. 94)
  25. *Cardiophorus albipes* Meg. Found by Peiroleri and me in the mountains of Viù; by me in the Maritime Alps (p. 96)
  26. *Cryptohypnus minutissimus* Peiroleri. This tiny insect looks like it lives interchangeably on different shrubs; I saw it really abundant in June on ligustrum leaves in a barren place. (p. 97)
  27. *Dyctyopterus affinis* Payk. Found by baron Peiroleri in the Alpes of Viù, in Ivrea by me. (p. 100)
  28. *Anobium morio* Villa. Really rare (maybe a variety of *pertinax* Fabr., named *ruficornis* by baron Peiroleri) (p. 110)
  29. *Necrophilus subterraneus* Illig. A specimen of this extremely rare species was collected by baron Peiroleri at the Vallese border, and by me in the Sempione mountain. (p. 113)
  30. *Otiorhynchus clavipes* Schön. (Peiroleri, ined.). Really common in Maritime Alps, it can be found in Monviso and Monte Rosa too. (p. 137)
  31. *Tragosoma depsarium* Fabr. Extremely rare. Found by baron Peiroleri in the Gran San Bernardo forest, on the trunks of pine trees and larches. (p. 155)
  32. *Agapanthia asphodeli* Latr. According to baron Peiroleri this species should exist on the Superga hill, where it is indeed possible to find a plant of this genus, *Asphodelus ramosus*. This insect must be extremely rare since I never saw it in our country. (p. 162)
  33. *Pachyta lamed* Fabr. In Formazza a really big female. This insect, extremely rare in our Alps, was collected near Saint-Didier in the Aosta Valley by baron Peiroleri, and by me on the top San Martino Valley, not far from the 13 lakes. (p. 163)
  34. *Lema flavipes* Meg. This species was rarely seen by baron Peiroleri during springtime in the surroundings (by me in Tortona). (p. 167)
  35. *Plectroscelis sahlbergi* Gyll. This species was seen in the Alps by baron Peiroleri (by me during the Po's flood in springtime. (p. 173)
  36. *Oreina peiroleri* Bassi (*Annales de la Société Entomologique de France*, vol. 3, p. 465); (id., id, 1856, p. 545). Extremely rare near Monte Rosa. It was found for the first time in July by Mr. Zumstein then by me in Monviso and in Formazza. This species manifests a variety with a black suture of the elytra. (p. 176)
  37. *Lina lapponica* Fabr. This insect, extremely rare in our area, was collected by baron Peiroleri in Monviso and by me in a mountain near San Bernardo. (p. 176)
  38. *Homalopus loreyi* Dej. (I wrote in my Memoire: *Ann. Soc. Entom.*, that *major* Villa is maybe the male). Years ago in a patch of oaks, I found this insect on our hill, where it has to be extremely rare; it was observed by baron Peiroleri in Aix in Savoy. (I found a specimen in Mandria on 30th of April on a hazel tree, Mr. Baudi found many specimens on the same day and Truqui found it on oak near Ivrea). (p. 180)
  39. *Cryptocephalus stragula* Rossi. This beautiful species was collected in May by baron Peiroleri on the Superga hill, then by me in early June at Eremo. (p. 181)

#### Appendix C. Peiroleri-Related Species in “*Catalogo dei Coleotteri del Piemonte*” (Baudi, 1889)

The following list shows all Peiroleri-related data in “*Catalogo dei coleotteri del Piemonte*” (1889, Baudi): mentions, species dedicated to Peiroleri, supposedly described by him, information about his collecting activities and/or his entomological observations. As said before, Peiroleri never published any entomological descriptions or memoirs. These attributions are to be considered “in litteris” or, as seen with species described by Bassi, homages to Peiroleri as the one who found the species. Mentions by Baudi about “Cat. Ghil.” and Peiroleri are references to the pages of “*Elenco delle specie di coleotteri del Piemonte*” (Ghiliani and Camerano) as published in *Annali della Reale Accademia d'agricoltura di Torino* vol. XXIX (1886). Baudi's work is a sort of an update and a follow up to the work of Ghiliani and Camerano; the latter, in his introduction to “*Elenco delle specie di coleotteri del Piemonte*” wished that Baudi would have taken up Ghiliani's legacy and complete a catalogue of beetles from Piedmont. Translated and adapted from Italian by the author. Reference pages in parentheses.

1. *Cicindela flexuosa* Fabr. Mentioned by Ghiliani as found by baron Peiroleri in the Tortona area, I do not think it lives in Piedmont; it is a species that does not go far from sea beaches: it is likely that there was an error in identification or collection site. (p. 6)
2. *Plectes depressus* Bon. (id. Cat. Ghil. p. 204) var. *peirolerii* Villa = *intermedius* Heer Northern Alps, Vigizzo Valley in Ossola. (p. 7)
3. *Pterostichus* Bon. (*Feronia* sectio Cat. Ghil., p. 213) *impressus* Fairm. (id. Peiroleri, pag. 215) (p. 25)
4. *Pterostichus* Bon. (*Feronia* sectio Cat. Ghil., p. 213) *bicolor* Heer (id., Peiroleri l. c.). (p. 25)
5. *Pterostichus* Bon. (*Feronia* sectio Cat. Ghil., p. 213) *planiusculus* Chaud. (*peirolerii* Heer, p. 214). It can be found, other than in the Ligurian Appennine, in the Alps, Colle Assietta, etc., uncommon. (p. 25)
6. *Pterostichus* Bon. (*Feronia* sectio Cat. Ghil., p. 213) *vagepunctatus* var. *impressicollis* Fairm. (id. Peiroleri, l. c.). Variety of higher regions. (p. 26)
7. *Platynus peirolerii* Bassi (id., l. c.) (p. 29)
8. *Hydroporus obscurus* St. (*silphoides* Peiroleri, Ponza, p. 227) (p. 35)
9. *Dermestes* Lin. (id. Cat. Ghil. p. 309) *murinus* Lin. var. *roseiventris* Cast. (*roseiventris* Peiroleri p. 310) It can be found sometimes in great numbers on mole corpses hung on trees (p. 101)
10. *Cryptohypnus* Esch. (id. cat. Ghil., p. 239) *minutissimus* Germ. (id. Peiroleri, l. c.) common, also often on hawthorn flowers (p. 120)
11. *Otiorhynchus* Germ. (id. Cat. Ghil. p. 237) *griseopunctatus* Bohm (id. Dej. p. 329) var. *clavipes* Bohm. (id. Schön. et *Peirolerii* Chev. l. c.) (p. 153)

12. *Oreina* Chev. (*Oreina* id. Cat. Ghil. p. 367) *melanocephala* Duft., (*Peirolerii* Bassi p. 368) (p. 202)
13. *Crepidodera* Chev. (id. Cat. Ghil. p. 362) *Peirolerii* Kutsch. (id. Dej. l. c.), also in Maritime Alps. (p. 206)

#### Appendix D. "Added Notes" by Ghiliani, Attached to "Catalogo Coleotteri 1877"

##### Transcription

###### Note aggiunte

Dei suoi viaggi in Sardegna il Gené non lasciò altro scritto fuorché un semplice catalogo numerico delle specie d'insetti ivi raccolti, senza note sulle località né altra osservazione di sorte. Siccome però il suddetto manoscritto esiste negli archivi del Museo e potrebbe per avventura rendersi utile in qualche circostanza, massime per constatare dei tipi studiati dal Gené, credo opportuno di conservare i numeri del catalogo suddetto, che si citano tra parentesi al seguito di ogni indicazione di provenienza dalla Sardegna.

Per la sinonimia completa delle specie, e la citazione delle opere ove sono descritte, si ricorra al *Catalogus Coleopterorum* etc. di Gemminger e Harold, Monaco 1868–1874 in II Volumi esistente nella biblioteca del Museo. Il quale catalogo servì pure alla sistemazione della raccolta di Coleotteri.

##### Translation

###### Added notes

Gené left no writings about his voyages to Sardinia except for a purely numerical catalogue of the species he collected there, without any notes about collection sites or any other kind of observation. Given that this catalogue still exists in the Museum's archives and that it might, eventually, be useful in some circumstances, like to ascertain specimen types studied by Gené, I believe it is appropriate to preserve the numbers of this catalogue, which are reported in brackets after every mention of a Sardinian place.

About complete species synonyms, and citations of the works in which they are described, one must refer to *Catalogus Coleopterorum* etc. by Gemminger and Harold, Munich 1868–1874, in two volumes, which can be found in the Museum's library. This catalogue was also used to sort out the coleopterological collection.

#### Appendix E. Ghiliani's Note Attached to "Catalogo Coleotteri 1877"

##### Transcription

Dopo la morte del Bonelli la raccolta di Coleotteri del Museo Zoologico torinese, assai ricca per quei tempi, venne quasi interamente distrutta dagli Antreni e dalla muffa. Essa cominciò a risorgere col materiale risultante dai viaggi del Gené fatti in Sardegna: e pochi anni dopo acquistò nuova importanza dall'aggiunta della raccolta di Coleotteri europei donata a questo R. Museo dagli eredi del Barone Peiroleri; se non che quest'ultima raccolta stata preparata col metodo antico, cioè colle gambe degli insetti orizzontalmente distese, venne per tal motivo, ad eccezione di pochi individui rari, quasi del tutto rilegata nei magazzini di doppi e sostituita da individui meglio preparati, di cui infra.

Nell'anno 1850 il Marchese Ferdinando Arborio di Brème (defunto Duca di Sartirana) faceva dono a questo Museo della numerosissima e stupenda sua raccolta mondiale in coleotteri: ed è quella che in massima parte servì alla formazione della raccolta attuale, cui meritamente spetterebbe il nome di raccolta De Brème, ed alla quale di riferisce il presente catalogo. Notando che alla composizione di quella raccolta, fatta in Parigi, contribuirono l'intera sezione degli Eteromeri non che le seguenti famiglie della famosa raccolta Dejean, cioè Malacodermi, Xilofagi (del catalogo Dejean), Clitre, Coccinelle ed alcuni Carabici estratti parimenti da quella collezione. Nella prima colonna a sinistra di questo nuovo Catalogo si registra il numero d'ordine delle specie esistenti nell'attuale raccolta, e nella penultima colonna a destra si cita il numero registrato nei Cataloghi antichi delle specie già possedute dal Museo prima che venisse la raccolta di Brème; benché, come già si disse, la maggior parte di quelle specie fossero quasi inservibili, o per lo più distrutte, e siano state rimpiazzate con individui spettanti alla suddetta raccolta di Brème; ad eccezione però delle specie di Sardegna, riunite come fu già detto dal Gené, non che le specie volgari del Piemonte.

Vittore Ghiliani  
Assistente al R. Museo Zoologico  
Torino 9 agosto 1877

##### Translation

Following Bonelli's death, the beetle collection of the Turin Zoological Museum, really rich for its times, was almost completely destroyed by carpet beetles and moulds.

It began to rise again thanks to the specimens resulting from Gené's voyages to Sardinia: and a few years later it gained more prominence thanks to the European beetles collection donated to this Royal Museum by Baron Peiroleri's heirs; although the specimens in this collection were mounted in the ancient way, that is to say with legs horizontally stretched, and it was for this reason that, except for some rare specimens, they were almost entirely confined in the duplicates' storage and replaced by better mounted specimens, about which below.

In the year 1850 Marquis Ferdinando Arborio di Brème (the late Duke of Sartirana) donated to this Museum his vast and splendid world beetle collection: and it is that which for the most part formed the present collection, which deservedly should be named De Brème's collection, and which this catalogue refers to. It must be highlighted that the composition of this collection, made in Paris, had the contribution of the entire Eteromera section and also the following Families from the renowned Dejean collection, that is to say Malacoderma, Xylophaga (according to Dejean's catalogue), Clytra, ladybugs and some ground beetles also taken from that collection.

In the first left column of this new catalogue the order number of the species existing in the present-day collection is recorded, and in the column next to the last one on the right there is the number recorded in the

ancient Museum catalogue for the species already in possession of the Museum at the time when De Brême's collection arrived, even if, as we said, most of those species were close to unusable, and have been replaced by specimens from De Brême's collection; except for the species from Sardinia, gathered, as we said, by Gené, as well as common species from Piedmont.

Vittore Ghiliani  
Assistant to R. Zoological Museum17  
Turin 9 August 1877

#### Appendix F. Lessona's Note about Ghiliani's Death

##### Transcription

Addì 27 maggio 1878 moriva il Cav. Vittore Ghiliani, che passò quaranta anni in questo museo addetto alle collezioni entomologiche, e lavorò a questo catalogo fino agli ultimi giorni della sua vita.

Michele Lessona

##### Translation

On the 27 May 1878 Cav. Vittore Ghiliani died, he who spent forty years in this museum curating the entomological collections, and worked on this catalogue till the last days of his life.

Michele Lessona

#### Appendix G. Ghiliani's Note about Lessona Specimens

##### Partial transcription

Moltissimi individui di questa razza del *Carabus alpinus* Dej, furono raccolti nella state del 1877 sui monti presso Crissolo, alle falde Nord-Est del Monviso, dal Prof. Michele Lessona direttore di questo R. Museo Zoologico [ . . . ]

##### Translation

Plenty of the specimens of this *Carabus alpinus* Dej. race were collected during the summer of 1877 in the mountains near Crissolo, on the Monviso North-East slopes, by Professor Michele Lessona, director of this R. Zoological Museum [ . . . ]

## References

1. Meineke, E.K.; Davies, T.J.; Daru, B.H.; Davis, C.C. Biological collections for understanding biodiversity in the Anthropocene. *Phil. Trans. R. Soc. B* **2018**, *374*, 20170386. [[CrossRef](#)] [[PubMed](#)]
2. Harvey, J.A.; Tougeron, K.; Gols, R.; Heinen, R.; Abarca, M.; Abram, P.K.; Basset, Y.; Berg, M.; Boggs, C.; Brodeur, J.; et al. Scientists' Warning on Climate Change and Insects. *Ecol. Monogr.* **2022**, *93*, e1553. [[CrossRef](#)]
3. Bassi, M.C. Description de quelques nouvelles espèces de Coléoptères de l'Italie, par M. C. Bassi (de Milan). *Ann. Soc. Entomol. Fr.* **1834**, *3*, 463–472.
4. Dejean, P.F.M.A. *Species Général des Coléoptères de la Collection de M. le Comte Dejean*; Mequignon-Marvis: Paris, France, 1831; Volume 5, pp. 717–718.
5. Ghiliani, V. Mémoire sur la station de quelques coléoptères dans les différentes régions du Piémont. *Ann. Soc. Entomol. Fr.* **1847**, *5*, 83–142.
6. Ghiliani, V.; Camerano, L. Elenco delle specie di coleotteri trovate in Piemonte. *Ann. R. Acc. Agricol. Torino* **1887**, *30*, 1–188.
7. Baudi di Selve, F. *Catalogo dei Coleotteri del Piemonte*; Tip. Lit. Camilla E. Bertolero: Turin, Italy, 1889; pp. 1–226.
8. Poggi, R.; Conci, C. Elenco delle collezioni entomologiche conservate nelle strutture pubbliche italiane. *Mem. Soc. Entomol. Ital.* **1996**, *75*, 3–157.
9. Passerin d'Entrèves, P. Figure dell'entomologia piemontese (Riassunto). *Atti XIII Congr. Naz. Ital. Entomologia* **1983**, 31–34.

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.