

THE CATALOGUE OF THE COLLECTION BOUGHT BY GRIGORE ANTIPA FROM VÁCLAV FRIČ (CZECH REPUBLIC)

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Abstract. Václav Frič (Czech Republic) was one of the numerous sellers of zoological items for museums of natural history from Europe at the end of the 19th century and beginning of the 20th century, rewarded with several European prizes. Some of the pieces had a didactic purpose (gem imitations, Protozoa, models or real ones, models of fossils). The catalogue of 642 real or model specimens contains species of invertebrates, vertebrates, fossils, gem imitations bought by Grigore Antipa from Václav Frič at the beginning of the 20th century for the “Grigore Antipa” National Museum of Natural History from Bucharest, Romania.

Keywords: Václav Frič, collection, catalogue, Grigore Antipa, natural history.

Rezumat. Catalogul colecției cumpărate de Grigore Antipa de la Václav Frič (Republica Cehă). Václav Frič (Republica Cehă) a fost unul din numeroșii comercianți de preparate zoologice pentru muzeele de istorie naturală din Europa de la sfârșitul secolului al XIX-lea și începutul secolului al XX-lea, recompensat cu numeroase premii europene. Unele dintre piese au un caracter didactic (imitații de pietre prețioase, protozoare, modele și reale, modele de fosile). Catalogul conține 642 de exemplare reale sau mulaje, conține specii de nevertebrate, vertebrate, fosile, imitații de pietre prețioase, cumpărate de Grigore Antipa de la Václav Frič la începutul secolului al XX-lea, pentru Muzeul Național de Istorie Naturală „Grigore Antipa” din București, România.

Cuvinte cheie: Václav Frič, colecție, catalog, Grigore Antipa, istorie naturală.

INTRODUCTION

During the past decade, new researches based on the study of old papers, old inventory registers, archives and old labels revealed the evidence of the existence of a much vast patrimony in the collections of “Grigore Antipa” Museum. Part of these collections were donated, like the invertebrate collection of Ion Cantacuzino (PETRESCU & PETRESCU, 2016) or the ornithological collection of Monsignor Gabriel Foucher in 1913 (PETRESCU et al., 2017) and some were acquired from famous natural history dealers, such as a hummingbird collection bought from Wilhelm Schlüter (PETRESCU A., 2008) or various specimens, mostly invertebrates, from Gustav Schneider (PETRESCU & PETRESCU, 2018). These are testimony of the tireless efforts that Grigore Antipa had made to collect the most interesting and precious specimens, therefore contributing to a continuous expansion of the Museum’s cultural heritage. Even from the beginning of his activity in 1893 as the director of the Natural History Museum, his outmost priority became the enrichment of the collections inherited from his predecessor, Gregoriu Ștefănescu.

At the end of the 19th century and beginning of the 20th century, Václav Frič (Czech Republic) was one of the numerous sellers of zoological items for museums of natural history from Europe, and his activity was rewarded with several European prizes. For his prodigious career as a “Naturalienhandlung” (“natural history dealer”) Frič’s activity had been rewarded with several European prizes as it is minutely detailed by REILING & SPUNAROVA (2005). No catalogue of items from Frič could be identified in Bucharest and also, until this date no other mentions of these acquisitions were made in the published chronology of the museum (MARINESCU & IONESCU-KONNERTH, 1985).

MATERIAL AND METHOD

From the Archive of the “Grigore Antipa” Museum we have studied the correspondence of Grigore Antipa with the Czech natural history dealer, Václav Frič. Five letters (no. 168-172), from February 1907 to November 1908, also old labels from collection jars, Grigore Antipa’s inventory, other old museum registers and documents from the National Archives from Bucharest (Ministry of Culture and Public Instruction Fund) have been taken into study.

For each specimen the label had been checked, as well as the old/ present inventory number and the magnification number, in the case of the plaster models. The catalogue presents the specimens in taxonomical order.

Abbreviations: coll. no.: collection number; sp.: specimen

RESULTS AND DISCUSSIONS

The acquisitions were made from “Naturalien Handlung V. Frič in Prague, Wladislawgasse 21 a”, before the opening of the museum in 1908 and before the event from 1914 when the name of the museum was changed from “Museum of Zoology” to “Museum of Natural History”. We presume that the pieces from Frič were bought between 1905 and 1913.

The collection acquired from Frič comprises a total of 908 recorded items, nowadays only 642 of them are preserved in the “Grigore Antipa” Museum. The catalogue of the Frič collection is represented in several categories of the museological collections: models for educational purposes- mineral casts, gem and crystals imitations, also

meteorites, actual and fossil Protozoa (Foraminifera, Amoebozoa, Radiolaria), a collection of gypsum copies or models of amphibians, birds and mammals fossils, a small collection of microscopic foraminifera shells, numerous alcohol-preserved specimens of various taxa, fixed on a glass plate- Poriphera (Calcarea, Hexactinellida and Demospongiae), Vermes (Acantocephala, Plathelmyntes, Nematoda, Nematophora, Annelida and Onychophora), Crustacea (Copepoda, Cladocera, Phylloppoda, Ostracoda, Isopoda, Amphipoda, Decapoda), Arachnida (Aranea and Scorpiones), Millipedes (Chilopoda and Diplopoda), Chaetognatha and Pisces, naturalized mounted animals (birds), skeleton pieces or mounted skeletons from different taxonomic groups. In time, more than three hundred specimens were lost or deteriorated (three termite nests, a holothurian, etc.).

CRISTAL AND MINERAL IMITATIONS

On March 17th 1913, Grigore Antipa bought 240 pieces of crystal and mineral imitations from Václav Frič. Nowadays, most of the models are still present in Museum's collection and the Mineralogy section of the public exhibition, although 45 pieces had been lost in time. The acquisition of crystals, minerals and meteorites models was extracted from a receipt from National Archives, Ministry of Culture and Public Education fund, valued at 550 crowns (in Romanian currency at that time, 596 lei and 15 bani).

Gem imitations are present in the third catalogue from 1873 found in the Archive of the Botanical Museum of Harvard University (REILING & SPUNAROVA, 2005).

The objects include imitations of precious stones (70 pieces) (Fig. 2 A); imitations of processed stones (84 pieces, 20 pieces lost); imitation of Cullinan rough diamond and processed brilliants from Cullinan diamond (9 pieces)-since their acquisition, seven of them are still displayed in the public exhibition; copies of the most famous diamonds (28 pieces); various gemstones with different types of processing executed in crystal glass (according to gemological advice of Prof. Braun) (32 pieces); diamonds with different types of processing (10 pieces); pieces of native gold of Kongsberg crystallized silver ore, a copy of the largest platinum nugget ever found (in 1913); plaster models of iron meteorites found in Bochum, Elbogen and Braunau (Bohemia, Czech Republic).

MODELS OF PROTOZOA (FORAMINIFERA, AMOEBOZOA, RADIOLARIA)

Models of **protozoa** were acquired in 1907 (Fig.1 A), as it presented in a 42 pieces list from a letter received from Frič, on October 16th 1907. Most of these models were displayed in the first hall of Invertebrates from the „Grigore Antipa” Museum, first floor, few of them were present there, in a new presentation, until 2004 (IONESCU & SCHNAPP, 1961) (Fig. 1 B, D).

The most consistent collection is the **Foraminifera** with 23 plaster models and microscopic shells of present and fossil species, acquired in 1907. Seven of the plaster models are enlarged copies of present species, with original labels: *Cyclolina cretacea* d'Orb. (coll. no. 9480/27); *Diplophrys archeri* Bark. (coll. no. 8112); *Lagena vulgaris* Williams (150 x; old coll. no. 32, present coll. no. 9480/32); *Pamphagus mutabilis* Bailey (coll. no. 8118); *Amphistegina quoai* d'Orb. (coll. no. 9480/83); *Cassidulina crassa* d'Orb. (180 x; old coll. no. 81, present coll. no. 9480/71); *Dentritina arbuscula* d'Orb. (old coll. no. 24, present coll. no. 9480/22). On the old label it is mentioned a series, 736-2, which indicates that the pieces belong from the first catalogue of Frič (1862).

Out of the **fossil Foraminifera**, there are eleven plaster models with original labels: *Ehrenbergia serrata* Reuss. (Miocen; old coll. no. 82, present coll. no. 9480/72) (Fig. 2B); *Haplostiche foedissima* Reuss. (Upper Cretacic; coll. no. 9480/2); *Haplophragmium irregulare* Roem. (Cretacic; old coll. no. 4, present coll. no. 9480/4); *Heterostegina* sp. (Pacific Ocean; old coll. no. 99, present coll. no. 9480/84); *Nonionima bulloides* d'Orb. (Neogen; old coll. no.95, present coll. no. 9480/81); *Numulites lucossanum* (coll. no. 8123); *Nummulites* sp. (section; coll. no. 9480/113); *Orthocerina quadrilatera* d'Orb. (old coll. no.39, present coll.no. 9480/37); *Siderolithes calcitrapoides* Lam. (Cretacic, Maastricht; old coll. no. 88, present coll. no. 9480/113); *Vulvulina gramen* d'Orb. (Adriatic Sea, fossil; old coll. no. 78, present coll. no. 9480/68;); *Verneulina spinulosa* Reuss. (Miocene; old coll. no. 6, present coll. no. 9480/6).

A small collection of five **microscopic foraminifera shells** in magnifying boxes is still preserved in the Museum's collection: *Quinqueloculina* d'Orb. (1 sp., coll. no. 8131); *Peneroplis* Fiume (1 sp., coll. no. 8132); *Globigerina* d'Orb. (many species, Arctic Sea, Wallrous Expedition, coll. no. 8133); *Polystomella* Lam. (1 sp., Venice, coll. no. 8136) (Fig. 2 D).

From **Amoebozoa**, ten plaster, enlarged models with four original labels complete the collection: *Amoeba proteus* Leidy (coll. no. 8120); *Amoeba* sp. (development, 4 pieces, coll. no. 8139); *Arcella vulgaris* Ehr. (1000x; old coll. no. 3, coll. no. 8110); *Diffugia piriformis* Pty. (coll. no. 8114); *Euglypha alveolata*, Duj. (coll. no. 8117); *Hyalosphenia cuneata* Stein (coll. no. 8115); *Lecquereusia spiralis* (Ehrbg.) (700x; old coll. no. 5, coll. no. 8119); *Nebela collaris* (Ehr.) (coll. no. 8116); *Pseudodiffugia gracilis* Schlumb. (coll. no. 8113); *Trynema enchelys* Duj. (1200 x; old coll. no. 9, coll. no. 8111).

From Messina, Václav Frič sends six enlarged models of **Radiolaria**: *Actinomma inerme*, Haeck. (coll. no. 8121); *Amphilonche messanensis* Haeck. (coll. no. 8109); *Diploconus fasces* Haeck. (coll. no.8108); *Eliosphaera inermis* Haeck. (coll. no. 8107); *Stylodictya multispina* Haeck. (coll. no. 8106) (Fig. 1 C).

97 of the 100 existing pieces of Foraminifera are also present in the University Museum of Utrecht, The Netherlands (Reiling & Spunarova, 2005). Microscopic collection of foraminifera shells in magnifying boxes are also present in Redpath Museum of McGill University, Montreal, Canada (REILING & SPUNAROVA, 2005).

PORIFERA

This collection is mentioned in the list from October 16th 1907 (Archive of “Grigore Antipa” Museum, no. 170), with only five specimens absent. 28 species from three major classes are present, Calcarea, Hexactinellida and Demospongiae, being the most representative (with 14 families): *Sycon raphanus* Schmidt. (1 sp., Adriatic Sea, coll. no. 8143); *Hyalonema sieboldi* Gray (1 sp., Japan, coll. no. 8156); *Geodia placenta* Schmidt., (1 sp., Adriatic Sea, coll. no. 9481/19); *G. conchilega* Schmidt (1 sp., Adriatic Sea, coll. no. 9481/18); *Geodia* Lam. (1 sp., Japan; coll. no. 8166); *Erylus discophorus* (Schmidt) (1 sp., Adriatic Sea, coll. no. 8161); *Ancorina cerebrum* Schmidt (1 sp., Adriatic Sea, coll. no. 8164); *Tethya aurantium* (Pall.) (1 sp., Adriatic Sea, coll. no. 8160); *Clathria (Clathria) coralloides* (Scop.) (1 sp., Adriatic Sea, coll. no. 8175); *Mycale (Mycale) massa* (Schmidt) (1 sp., Adriatic Sea, coll. no. 9481/27); *M. (Aegogropila) syrinx* (Schmidt) (1 sp., Adriatic Sea, coll. no. 8177); *Suberites domuncula* (Olivi) (1 sp., Adriatic Sea, coll. no. 8172); *Petrosia (Petrosia) ficiformis* (Poiret) (1 sp., Adriatic Sea, coll. no. 8184); *Haliclona (Rhizoniera) grossa* (Schmidt) (1 sp., Adriatic Sea, coll. no. 9481/30); *Spongilla lacustris* (L.) (1 sp., Bohemia, Czech Republic, coll. no. 9481/36); *Ephydatia fluviatilis* (L.) (2 sp., Bohemia, coll. no. 9481/35, 9481/34); *Ephydatia muelleri* (Lieberkühn, 1856) (1 sp., Bohemia, old coll. no. 73, coll. no. 9481/33); *Ulosa stuposa* (Esper) (1 sp., Adriatic Sea, coll. no. 8190); *Dysidea avara* (Schmidt) (1 sp., Adriatic Sea, coll. no. 8192); *Spongia (Spongia) officinalis* L. (1 sp., Adriatic Sea, coll. no. 8194); *Scalarispongia scalaris* (Schmidt) (1 sp., coll. no. 9481/42); *Cacospongia mollior* Schmidt (1 sp., Adriatic Sea, coll. no. 8197); *Sarcotragus spinosulus*, Schmidt (1 sp., Adriatic Sea, coll. no. 9481/60); *S. foetidus* Schmidt (Adriatic Sea, inv.no. 9481/48), *Ircinia variabilis* (Schmidt) (1 sp., Adriatic Sea, coll. no. 8202).

PLATYZOA

The original collection of human and animal parasitic worm species included 77 species from 42 genera, as indicated by the inventory of Grigore Antipa and the letter from October 16th 1907 (no. 170). Nowadays, the 55 specimens from six phyla, spiny-headed worms, flatworms, round worms, horsehair worms, polychets and velvet worms, are preserved in glass jars with their original labels, which specify the name of the species and the firm (V. Frič, Prague).

Phylum Acantocephala reunites in the Museum’s collections only two parasitic species: *Acanthocephalus lucii* Mll. (1 sp., coll. no. 8419) and *A. anguillae* Mll. (1 sp., coll. no. 8420).

Phylum Plathelminthes is represented by 32 specimens of flatworms from Cestoda (the most numerous), Trematoda and Monogenea: *Agamoema ovatum* Dias. (1 sp., coll. no. 9482/29); *Amphilina foliacea* (R.) Wag. (1 sp., coll. no. 8383); *Anthobothrium* sp. (1 sp., coll. no. 8378); *Eubothrium crassum* (Bloch) Nyb. (1 sp., coll. no. 9482/14); *Bathybothrium rectangulum* (Bloch) (1 sp., coll. no. 9482/12); *Caryophyllaeus mutabilis* Rud. (1 sp., coll. no. 8381); *Hymenolepis villosa* (Bloch) (1 sp. from hen intestine, coll. no. 8364); *Ligula intestinalis* L. (2 sp., immature and mature form, coll. no. 9482/17, 9482/18); *Anoplocephala perfoliata* Goeze (1 sp., coll. no. 9482/9); 13 specimens of larval stages of different Teniidae, immature and mature forms – *Coenurus cerebralis* (2 sp.- one from sheep brain, coll. no. 8369, 8370); *Cysticercus fasciolaris* Rud. (1 sp., coll. no. 8373); *Cysticercus tenuicollis* (1 sp., coll. no. 8366); *Diphyllobothrium latum* L. (from fish muscles, 1 sp., coll. no. 8382); *Schistocephalus solidus* Mll. (2 sp., immature and mature form, coll. no. 8375, 9482/15); *Drepanidotaenia lanceolata* (Bloch) (1 sp., coll. no. 9482/10); *Echinococcus granulosus* (Batsch) (2 sp. from dog intestine, coll. no. 8367, 8368); *Taenia saginata* Goeze (1 sp., coll. no. 9482/11); *Taenia microps* (1 sp., coll. no. 8365); *Taenia multiceps* (Leske) (1 sp.- from dog intestine, coll. no., 8360); Monogenea: *Nitzschia sturionis* Abild. (1 sp., coll. no. 8356); *Diplozoon paradoxum* Nord. (1 sp., coll. no. 8355) and *Mazocraes alosae* (Herman) (1 sp., coll. no. 9482/16). Trematods are represented by various fish and mammalian parasites: *Echinostoma revolutum* (Froelich) (1 sp., coll. no. 9482/5); *Dicrocoelium dendriticum* (Rud.) (1 sp., coll. no. 8352); *Bunodera luciopercae* Mll. (1 sp., coll. no. 9482/3); *Opisthorchis felinus* Rivolta (1 spec, coll. no. 9482/2); *Clonorchis sinensis* (Loos) (1 sp., coll. no. 9482/4); *Distomum terreticole* Rud. (1 sp., coll. no. 8353).

A various collection of round worms, **Phylum Nematoda**, comprises 17 specimens from Chromadorea, Secernentea and Enoplea classes: *Ascaris allenata* Molin (1 sp., coll. no. 9482/21); *A. compar* Schrank (1 sp., coll. no. 9482/33); *Heterotyphlum obtusocaudatum* (Zeder) (1 sp., coll. no. 9482/22); *Hysterothylacium aduncum* (Rud.) (1 sp., coll. no. 9482/23); *Cucullanus* sp. (1 sp., coll. no. 9482/37); *Ancylostoma duodenale* Dub. (1 sp., coll. no. 8353); *Gnathostoma hispidum* Fedch. (2 sp. - one from pig stomach, coll. no. 9482/30, 8412); *Dictyocaulus filaria* Rud. (1 sp., coll. no. 8403); *Ascaridia galli* Schrank (1 sp., coll. no. 8406); *A. columbae* Gmel.(1 sp., coll. no. 8407); *Physaloptera clausa* Rud. (1 sp., coll. no. 8413); *Strongylus equinus* Mll. (1 sp., coll. no. 8414); *Bunostomum trigonocephalum* (Rud.) (1 sp., coll. no. 8415); *Setaria equina* Abild. (1 sp. - from horse peritoneum, coll. no., 9482/34); *Trichiuris ovis* (1 sp., coll. no. 9482/27); *Trichocephalus unguicularis* Rud. (1 sp., coll. no. 9482/26).

Other phyla are represented in the collection, like Phylum **Nematomorpha** or the horsehair worms, which complete the vast collection of worms: *Gordius aquaticus* L. (1 sp., coll. no. 8416) and *G. tolanus* Duj. (1 sp., coll. no. 8417), **Annelida**, with one palolo worm, *Palola viridis* Gray (1 sp., coll. no. 8444) and one peripatopsid or velvet worm, **Phylum Onychophora**, *Peripatopsis balfouri* (Sedgwick) (1 sp., coll. no. 8712) (Fig. 2F).

**ARTHROPODA
CRUSTACEA**

Crustacean collection reunites a wide variety of parasitic, marine, terrestrial and freshwater species from four classes: Hexanauplia (Subclass Copepoda), Branchiopoda, Ostracoda and Malacostraca (Amphipoda, Isopoda and Decapoda). In the museum's collection only 51 specimens are still present, while during time more than 100 specimens were lost.

Copepods are represented by three species, ectoparasites to commercial fish species: *Achtheres percarum* Nord. (2 sp., ♂, ♀, North Sea, parasite in perch, coll. no. 9490/32); *Lernaecera branchialis* L. (1 sp., coll. no. 8824) and *Dichelesthium oblongum* Abildg. (1 sp., coll. no. 9490/33).

Class **Branchiopoda** is represented by phyllopods, by Notostraca: *Triops cancriformis* (Bosc) (2 sp.- one development coll. no. 8819, 9490/24); Cladoceran, water fleas, with only three species: *Brachiella thynni* Cuv.; *Daphnia magna* Strauss (1 sp., coll. no. 8821); *Leptodora kindtii* (F.) (1 sp., coll. no. 9490/28) and Spinicaudata, clam shrimps, *Leptestheria dahalacensis* (Rupp.) (1 sp., coll. no. 8820). Other two species from Anostraca complete the freshwater invertebrate collection: *Artemia franciscana* Kell. (1 sp., coll. no. 9490/26); *A. salina* (L.) (1 sp., coll. no. 9490/25). Other specimens from the fish lice group, Branchiura are less representative, with only two species: *Argulus coregoni* Thor. (2 sp.-♂, ♀, coll. no. 9490/35) and *A. foliaceus* (L.) (2 sp.- ♂, ♀, coll. no. 8826).

Ostracods are present with only one specimen, *Cypris pubera* Mill. (1 sp., coll. no. 9490/27).

Isopoda represent the greatest part of Frič's crustacean collection (acquired in 1908, no. 172), exactly 138 species from 28 genera, 13 families and four suborders (Cymothoidea, Oniscidea, Valvifera and Limnoriidea) of marine and mainly terrestrial isopods. 34 specimens are still present in the collection, preserved in alcohol (Fig. 2F).

Subord. Cymothoidea: *Conilera cylindracea* (Montagu) (Napoli, 1 sp., coll. no. 9490/10, Napoli);

Subord. Oniscidea: *Cylisticus albomaculatus* Borutzkii (1 sp., coll. no. 9490/81); *Armadillidium albanicum* Verh. (1 sp., coll. no. 9490/59); *A. maculatum* (Risso) (1 sp., coll. no. 9490/54); *A. granulatum*, Br. (2 sp., coll. no. 8835, 9490/60); *A. pictum* Br. (1 sp., coll. no. 9490/64); *A. gestroi* Tua (1 sp., coll. no. 9490/55); *A. stagnoense* Verh. (1 sp., coll. no. 9490/56); *A. nasatum* Budde-Lund (1 sp., coll. no. 9490/63); *A. vulgare* (Lat.) (1 sp., coll. no. 9490/61); *Armadillo officinalis* Dum. (1 sp., coll. no. 9490/65) (Fig. 2F); *Chaetophiloscia glandulifera* Verh. (1 sp., coll. no. 9490/97); *Philoscia muscorum* (Scop.) (1 sp., coll. no. 9490/92); *P. muscorum* var. *nigrovittata* Verh. (1 sp., coll. no. 9490/94); *Tiroloscia exigua* (Budde-Lund) (1 sp., coll. no. 9490/95); *Halophiloscia couchii* (Kinahan) (1 sp., coll. no. 9490/96); *Oniscus asellus* L. (1 sp., coll. no. 9490/86); *Porcellio longicornis* Stein (1 sp., coll. no. 9490/79); *P. laevis* Lat. (1 sp., coll. no. 9490/76); *P. scaber* var. *marmoratus* Brandt (1 sp., coll. no. 9490/69); *P. flavomarginatus* (Lucas) (1 sp., coll. no. 9490/75); *P. imbutus trinacrius* Verh. (1 sp., coll. no. 8834); *P. monticola* Lereb. (1 sp., coll. no. 9490/72); *Trachelipus arcuatus* (Budde-Lundt) (1 sp., coll. no. 9490/74); *T. mostarensis* (Verh.) (1 sp., coll. no. 9490/73); *T. rathkii* (Brandt) (1 sp., coll. no. 9490/70); *T. ratzeburgii* (Brant) (1 sp., coll. no. 9490/77); *T. trachealis* (Budde-Lund) (1 sp., coll. no. 9490/71); *Porcellium conspersum* (C. Koch) (1 sp., coll. no. 9490/78); *Sphaerobathytropa ribauti* Verh. (1 sp., coll. no. 9490/83); *Ortoniscus flavus* (Budde-Lund) (1 sp., coll. no. 9490/87); *Tylos latreillei* Audouin (1 sp., coll. no. 9490/84); **Subord. Valvifera:** *Idotea balthica* (Pall.) (1 sp., coll. no. 9490/101, Napoli); **Suborder Limnoriidea:** *Limnoria lignorum* (Rathke) (1 sp., coll. no. 9490/105).

Amphipoda is less represented in the collection with only one species of ectoparasitic amphipod on whale: *Cyamus ceti* (L.) (1 sp., coll. no. 9490/302).

Decapoda with only one species is mentioned in Antipa's inventory from 1931, *Potamon fluviatile* (Herbst), missing from present collection.

ARACHNIDA

Aranea

Other great part of collection is represented by spiders from Palearctic and Holarctic regions. In the collection register of Grigore Antipa 122 species are mentioned from 1931, bought in 1907 according to the letter received on June 28th; 98 of them are still present with 118 specimens, from 67 genera and 28 families. For some of them is mentioned also the collecting place: Java, Borneo, St. Catherina (Canada).

Ord. Opiliones: *Lacinius horridus* (Panzer) (1 sp., 9491/102); *Asianellus festivus* (Koch) (4 sp. - 2♂♂, 2♀♀, coll. no. 9491/81, 9491/82, 9491/85); *Philaeus chrysops* (Poda) (2 sp. - ♂, ♀, 9491/80); *Pellenes tripunctatus* (Walck.) (2 sp. - ♂, ♀, coll. no. 9491/83); *Agroeca brunnea* Blackw. (1 sp., 9491/68); *Liocranum rupicola* (Walck) (1 sp., coll. no. 9491/125); *Amaurobius fenestralis* (Ström.) (2 sp. - ♂, ♀, coll. no. 9491/86); *Callobius claustrarius* (Hahn) (1 sp., coll. no. 9491/88); *Coelotes terrestris* (Wider) (1 sp., coll. no. 9491/89); *C. atropus* Welck. (1 sp., coll. no. 9491/45); *Tegenaria domestica* (Clerck) (1 sp., coll. no. 9491/93); *Histopona torpida* Koch (1 sp., coll. no. 9491/46); *Asagena phalerata* Panz. (1 sp., coll. no. 9491/12); *Steatoda bipunctata* L. (2 sp. - ♂, ♀, 9491/96); *S. castanea* (Clerck) L. (1 sp., coll. no. 9491/97); *S. albomaculata* (De Geer) (2 sp., coll. no. 9491/8, 9491/11); *S. grossa* (Koch) (1 sp., coll. no. 9491/9); *Parasteatoda lunata* (Clerck) (1 sp., coll. no. 9491/7); *Phylloneta impressa* Koch (1 sp., coll. no. 9491/5); *Theridium varians* Hahn (2 sp. - ♂, ♀, 9491/6); *Bathyphanthes alticeps* (1 sp., coll. no. 9491/18); *Chubiona pallidula* (Clerck) (1 sp., coll. no. 9491/63); *C. caerulea* Koch (1 sp., coll. no. 9491/66); *C. germanica* Thor. (1 sp., coll. no. 9491/65); *C. holosericea* De Geer (1 sp., coll. no. 9491/64); *Cteniza sauvagesi* Rossi (1 sp., coll. no. 8756); *Cyrtocarenum cunicularium* Oliv. (1 sp., coll. no. 8757); *Diaea dorsata* Fab. (1 sp., coll. no. 9491/77); *Pistius truncatus* (Pall.) (1 sp., coll. no. 9491/79); *Misumena vatia* (Clerck) (3 sp. - ♂, ♀, coll. no. 9491/71, 9491/78); *Thomisus*

omustus Walck (2 sp., coll. no. 9491/72, 9491/73); *Xysticus bifasciatus* Koch (2 sp. - ♂, ♀, coll. no. 9491/76); *X. cristatus* Clerck (2 sp. - ♂, ♀, coll. no. 9491/75); *Dysdera erythrina* Walck. (1 sp., coll. no. 9491/2); *Scotophaeus quadripunctatus* L. (1 sp., coll. no. 8739); *S. scutulatus* Koch (1 sp., coll. no. 9491/61); *Haplodrassus signifer* Koch (1 sp., coll. no. 9491/62); *Zelotes subterraneus* (Koch) (1 sp., coll. no. 9491/98); *Z. petrensis* (Koch) (1 sp., coll. no. 9491/99); *Gnaphosa bicolor* Hahn (1 sp., coll. no. 9491/59); *G. lugubris* Hahn (1 sp., coll. no. 9491/60); *G. lucifuga* (Walck) (2 sp., coll. no. 8740, 9491/58); *Larinioides ixobolus* Thor. (1 sp., coll. no. 9491/107); *Araneus circe* Audouin (2 sp. - ♂, ♀, coll. no. 8750); *Araniella cucurbitina* (Clerck) (2 sp. - ♂, ♀, coll. no. 9491/101); *Nephila* sp. (1 sp., Borneo, coll. no. 9491/39); *Singa hamata* (Clerck) (2 sp. - ♂, ♀, 9491/24); *Zygiella atrica* Koch (3 sp. - ♂, ♀, 9491/22, 9491/95); *Z. montana* Koch (1 sp., coll. no. 9491/21); *Z. x-notata* (Clerck) (2 sp. - ♂, ♀, coll. no. 9491/23); *Mangora acalypha* (Walck) (1 sp., coll. no. 9491/20); *Gonatium rubens* Blackw. (1 sp., coll. no. 9491/19); *Harpactea rubicunda* Koch (1 sp., coll. no. 9491/1); *Titanoeca quadriguttata* (Hahn) (1 sp., coll. no. 9491/10); *Tenuiphantes mengei* (Kulczyński) (1 sp., coll. no. 9491/17); *Neriere emphana* Walck. (2 sp. - ♂, ♀, coll. no. 9491/16); *Neriere montana* Clerk (2 sp. - ♂, ♀, coll. no. 9491/13); *Megalephyphantes nebulosus* (Sund.) (2 sp. - ♂, ♀, coll. no. 9491/15); *Pityohyphantes costatus* (Hentz) (1 sp., coll. no. 9491/14); *Neriere montana* (Clerck) (1 sp., coll. no. 9491/124); *Trochosa ruricola* (De Geer) (2 sp. - ♂, ♀, coll. no. 8745); *T. terricola* Thor. (1 sp., coll. no. 8768); *T. robusta* (Simon) (2 sp. - ♂, ♀, coll. no. 9491/52); *Pardosa amentata* (Clerck) (1 sp., coll. no. 9491/53); *P. monticola* (Clerck) (2 sp. - ♂, ♀, coll. no. 9491/56); *P. morosa* (Koch) (1 sp., coll. no. 9491/55); *Lycosa tarantula* L. (2 sp., coll. no. 8741, 8742); *Alopecosa fabrilis* (Clerck) (1 sp., coll. no. 9491/54); *A. cuneata* (Clerck) (3 sp. - ♂, ♀, coll. no. 9491/48, 9491/57); *A. farinosa* (Herman) (2 sp. - ♂, ♀, 9491/47); *A. schmidtii* (Hahn) (1 sp., coll. no. 9491/50); *A. inquilina* (Clerck) (2 sp. - ♂, ♀, coll. no. 8744); *Micromata virescens* (Clerck) (1 sp., coll. no. 9491/69); *Nemesia caementaria* (Lat.) ((1 sp., coll. no. 8758); *Pisaura mirabilis* (Clerck) (2 sp. - ♂, ♀, coll. no. 8759); *Pachygnatha clerki* Sund. (2 sp. - ♂, ♀, 9491/42); *Actinopus* sp. (1 sp., St. Catherina, coll. no. 8760); *Philodromus dispar* Walck. (1 sp., coll. no. 9491/74); *Pholcus opilionides* Sch. (1 sp., coll. no. 9491/38); *Eratigena agrestis* (Walck) (1 sp., coll. no. 9491/43); *Cicurina cicur* (Fab) (1 sp., coll. no. 9491/44); *Tetragnatha pinicola* Koch (1 sp., coll. no. 9491/126); *Tetragnatha extensa* (L.) (1 sp., coll. no. 9491/41); *Uroctea durandi* (Lat.) (1 sp., coll. no. 9491/4).

Scorpiones

Ten species from eight genera, nine of them still remained in the collections. The material was collected from Europe (Italy), Turkmenistan, SE Asia (Indonesia, Java, Celebes, Borneo), from Africa and America (Mexico and Venezuela) and sent to Grigore Antipa on October 15th 1907 (letter no. 170/ October 16th 1907).

Butheolus melanurus (1 sp., Turkmenistan, coll. no. 9491/141); *Euscorpium flavicaudis* De Geer (1 sp., Italy, coll. no. 9491/159); *Heterometrus cyaneus* Koch (1 sp., Java, coll. no. 8725); *H. longimanus* (Herbst) (1 sp., Borneo, coll. no. 9491/148); *H. phipsoni* (Pocock) (1 sp., East Indies, Indonesia, coll. no. 9491/149); *Opistacanthus lecontei* (1 sp., Africa, coll. no. 8722); *Pandinus imperator* Koch (1 sp., Africa, coll. no. 8723); *Theliphonus caudatus* L. (1 sp., Celebes, coll. no. 8731); *Tityus trinitatis* Pocock (1 sp., Venezuela, coll. no. 8718).

MILLIPEDES

Chilopoda

In a letter from February 11th 1908 (no. 171), Frič announced Grigore Antipa that he had sent the chilopod collection. 224 species and specimens from 49 genera are mentioned in the register of Grigore Antipa as being bought from Frič, 26 of them are present in our collection (Fig. 2 E). Most of them were collected or described from Central and Eastern Europe (Balkan Peninsula), including Romania (Transylvania and Banat).

Bothriogaster signata Kessler (1 sp., coll. no. 8795); *Cryptops hortensis* (Donovan) (1 sp., coll. no. 9492/53); *C. anomalans* Newport (1 sp., coll. no. 9489/91); *Geophilus carpophagus* Leach (1 sp., coll. no. 9492/41); *G. longicornis* Leach (1 sp., coll. no. 9489/87); *Clinopodes flavidus* Koch (1 sp., coll. no. 9489/85); *Pleurogeophilus mediterraneus* (Mein) (1 sp., coll. no. 9489/83); *Eurypleuromeris conspersa* (Koch) (1 sp., coll. no. 8777); *Henia* (*Henia*) *illyrica* (Mein.) (1 sp., coll. no. 8796); *Himantarium gabrielis* L. (1 sp., coll. no. 8793); *Lithobius macilentus* Koch (1 sp., coll. no. 9489/96); *L. calcaratus* Koch (1 sp., coll. no. 9489/93); *L. dentatus* Koch (1 sp., coll. no. 9489/98); *L. erythrocephalus* Koch (1 sp., coll. no. 9492/39); *Lithobius forficatus* L. (1 juv., coll. no. 8803); *L. melanops* Newp. (1 sp., coll. no. 9489/94); *Lithobius mutabilis* Koch (1 sp., coll. no. 9492/38); *L. muticus* Koch (1 sp., coll. no. 9492/40); *L. nodulipes* Latz (1 sp., coll. no. 9489/97); *Lithobius* (*Lithobius*) *parietum* Verh. (1 sp., coll. no. 9489/99); *L. tricuspis* Mein (1 sp., coll. no. 9489/95); *L. validus* Mein. (1 sp., coll. no. 8802) (Fig. 2 E); *Pachymerium ferrugineum* Koch (1 sp., coll. no. 9492/47); *Schendyla nemorensis* Koch (1 sp., coll. no. 9489/84); *Scolopendra morsitans* L. (1 sp., coll. no. 8798); *Scutigera coleoptrata* L. (1 sp., coll. no. 8806).

Diplopoda

In the letters from Frič (from February 11th and November 26th 1908), the collection of Diplopoda is very vast, 190 species which were sent to Grigore Antipa with different occasions, prior to the date of the letter or afterwards. In the collections of the Museum, 93 species from 43 genera (10 families), a total of 102 specimens are still present.

Superord. Juliformia, Ord. Julida: *Allajulus groedensis* Att. (1 sp., coll. no. 9489/54); *A. molybdinus* Koch (1 sp., coll. no. 9489/49); *Brachyiulus projectus* Verh. (1 sp., coll. no. 9489/74); *B. rosenauensis* Verh. (1 sp., coll. no. 9492/16); *B. silvaticus* Verh. (1 sp., coll. no. 9492/11); *B. silvaticus discolor* Verh. (1 sp., coll. no. 9489/69); *B.*

unilineatus Koch (1 sp., coll. no. 9489/72); *Choneiulus palmatus* (Nem.) (1 sp., coll. no. 9489/81); *Cylindroiulus horvathi* (Verh.) (1 sp., coll. no. 9492/18); *C. dicentrus* Latz. (1 sp., coll. no. 9492/22); *C. latzeli* (Berleze) (1 sp., coll. no. 9489/52); *C. luscus salicis* (Verh.) (1 sp., coll. no. 9489/50); *C. luridus* (Koch) (1 sp., coll. no. 9492/19); *C. punctatus* Leach (1 sp., coll. no. 9492/20); *C. nitidus* Verh. (1 sp., coll. no. 9489/51); *Enantiulus dentigerum* (Verh) (1 sp., coll. no. 9489/80); *E.nanus* Latz. (1 sp., coll. no. 9492/44); *Hypsoiulus alpivagus* (Verh) (1 sp., coll. no. 9492/4); *Hungaroiulus curvicornis* (Verh.) (1 sp., coll. no. 9489/56, 9489/66); *Julus* sp. (1 sp., Ceylon, coll. no. 9489/55); *J. barbatus* Verh. (1 sp., coll. no. 9489/63); *J. ciliatus* Verh. (1 sp., coll. no. 9489/59); *J. ciliatus liptauensis* Verh. (1 sp., coll. no. 9492/5); *J. ligulifer* Latz. (1 sp., coll. no. 9492/1); *Kryphioulus occultus* (Koch) (1 sp., coll. no. 9492/21); *Leptoiulus deubeli* (Verh.) (1 sp., coll. no. 9492/9); *L. vagabundus baconyensis* (Verh.) (1 sp., coll. no. 9489/58); *L. alemannicus* (Verh.) (2 sp., 9489/60, 9489/62); *L. saltuvagus* Verh. (1 sp., coll. no. 9489/64); *L. silvivagus* Verh. (1 sp., coll. no. 9489/25); *L. trilineatus* Verh. (2 sp., coll. no. 9489/57, 9489/61); *Megaphyllum bosniense* Verh. (1 sp., coll. no. 9492/14); *M. projectum projectum* Verh. (2 sp., coll. no. 9492/13, 9492/15); *Mesoiulus bosniensis* (Verh) (1 sp., coll. no. 9492/25); *Microbrachyiulus littoralis* (Verh.) (1 sp., coll. no. 9492/24); *Ophioulus germanicus* (Verh.) (1 sp., coll. no. 9492/8); *Pachybrachyiulus podabrus krohnii* Verh. (1 sp., coll. no. 9489/71); *Phylacodon fallax* (Mein.) (1 sp., coll. no. 9492/7); *Pachyiulus oenologus* (Berl.) (1 sp., coll. no. 9489/76); *P. fuscipes* Koch (2 sp., coll. no. 9489/77, 9489/78); *P. unicolor* Koch (1 sp., coll. no. 9489/75); *Schizophyllum mediterraneum* Latz. (1 sp., coll. no. 9489/83); *Styrioiulus pelidnus* (Latz) (1 sp., coll. no. 9492/43); *Stenophyllum hermannimuelleri* Verh. (1 sp., coll. no. 9489/79); *Typhloiulus strictus* Latz. (1 sp., coll. no. 9492/23).

Superord. Merocheta, Ord. Polydesmida: *Acanthotarsius edentulus* (Koch) (1 sp., coll. no. 9492/30); *Brachydesmus carniolensis* Verh. (1 sp., coll. no. , 9489/20); *B. dolinensis* Attems (1 sp., coll. no. 9492/34); *B. chyzeri* Daday (1 sp., coll. no. 9489/19); *B. dentatus* Verh. (1 sp., coll. no. 9489/73); *B. styricus* Verh. (1 sp., coll. no. 9489/22); *B. subterraneus* Hell. (1 sp., coll. no. 9489/17); *Basicentrus tridentinus* Latz. (1 sp., coll. no. 9489/28); *Eubrachydesmus superus* Latz. (1 sp., coll. no. 9489/16); *Polydesmus barberri* Latz. (1 sp., coll. no. 9489/24); *P.bolivari* Verh. (1 sp., coll. no. 9489/27); *P. collaris* Koch (1 sp., coll. no. 9492/32); *P. complanatus* L. (1 sp., coll. no. 8780); *P. denticulatus* Koch (1 sp., coll. no. 9489/32); *P. falcifer* Latz. (1 sp., coll. no. 9489/23); *P. fissilobus albanensis* Verh. (1 sp., coll. no. 9489/26); *P. germanicus* Verh. (1 sp., coll. no. 9489/30); *P.hamatus* Verh. (1 sp., coll. no. 9489/29); *P. herzegowinensis* Verh. (1 sp., coll. no. 9489/21); *P. illyricus* Verh. (1 sp., coll. no. 9489/31); *P. montanus* Daday (1 sp., coll. no. 9492/31); *Stylobrachydesmus dadayi* (Verh) (1 sp., coll. no. 9489/18); *Strongylosoma hispanicum* Verh. (1 sp., coll. no. 9489/36); *S. italicum* Latz. (1 sp., coll. no. 9489/34); *S. pallipes* Oliv. (2 sp., coll. no. 9489/33, 9489/34).

Superord. Nematomorpha, Ord. Chordeumatida: *Triakontazona pusillum* (Verh.) (1 sp., coll. no. 9489/41); *Craspedosoma simile* Verh. (1 sp., coll. no. 9489/40); *Microchordeuma gallicum* (Latz.) (1 sp., coll. no. 9489/38); *Melogona voigtii* (Verh) (1 sp., coll. no. 9489/37); *Orobainosoma flavescens* (Latz.) (1 sp., coll. no. 9489/39).

Ord. Callipodida: *Acanthopetalum albicolle* Verh.(1 sp., coll. no. 9489/43); *A. carinatum* (Brandt) (1 sp., coll. no. 9489/44); *Callipodella fasciata* (Latz) (1 sp., coll. no. 9489/45); *Dischizopetalum illyricum* (Latz.) (1 sp., coll. no. 9492/46); *Heterocraspedum scabratum* (Koch) (1 sp., coll. no. 9489/46).

Superord. Oniscomorpha, Ord. Glomerida: *Trachysphaera acutula* (Latz.) (1 sp., coll. no. 9489/10); *T. costata* (Waga) (1 sp., coll. no. 9489/13); *T. cultrifera* Verh. (1 sp., coll. no. 9489/11); *T. schmidtii* Hell. (1 sp., coll. no. 9489/14); *T. pyrenaica* Rilbaut (1 sp., coll. no. 9489/12); *Euglomeris connexa* (Koch) (1 sp., coll. no. 9489/6); *Glomeris formosa formosa* Latz. (1 sp., coll. no. 9489/5); *G. hexasticha* Brandt (1 sp., coll. no. 9489/7); *G. hexasticha* var. *theresia* Verh. (1 sp., coll. no. 9489/9); *G. marginata* var. *perploxa* Lat. (1 sp., coll. no. 9489/3); *G. pustulata* (Fab.) (1 sp., coll. no. 9489/2); *G. trisulcata* Roth (1 sp., coll. no. 9489/4); *Typhloglomeris coeca* Verh. (1 sp., coll. no. 9489/15).

Infraclass Helminthomorpha, Ord. Polyzoïida: *Polyzonium germanicum illyricum* Verh. (1 sp., coll. no. 9489/101); *P. transsylvanicum* Verh. (1 sp., coll. no. 9492/54).

Superord. Oniscomorpha, Ord. Sphaerotheriida: *Sphaerotherium* sp. (1 sp., coll. no. 9489/1).

Other phyla, such as Chaetognatha, Pisces and Aves are poorly represented.

CHAETOGNATHA

It is present with only two species of *Sagitta* and *Flaccisagitta*: *Sagitta* sp. (1 sp., coll. no. 8500), *Flaccisagitta hexaptera* d'Orbigny (1 sp., coll. no. 8499).

PISCES

Fishes are represented by four species, mentioned in the list from 1907, two of them are present, *Ameiurus cattus* L. (1 sp., coll. no. 6324); *Leptocephalus conger* L., (1 sp., coll. no. 6534), preserved in alcohol in Fish Collection.

AVES

Birds are present in the collection by one naturalized mounted species, *Collocalia aesculenta* L. (Salangana) and her nest (1 sp., coll. no. 4420), a skeleton of kiwi bird, *Apteryx australis* Shaw (coll. no. AC 703), a skeleton of a hummingbird (coll. no. AC 183), all of them bought on October 16th 1907; a fossil skeleton of *Odontopteryx toliapica* Owen (1 sp., coll. no. 11008/5).

Different entire skeletons or pieces from **different groups** of animals were bought in October 1907: four pieces could be found in the collection of comparative anatomy, two of them being displayed for a long time in the museum, a skeleton in alcohol of *Beluga leucas* (coll. no. AC 586) and a baculum of *Megaptera novaeangliae* (coll. no.

AC 268) (in the Museum's public exhibition, for more than 100 years); a skeleton of *Draco volans* (coll. no. AC 192); three models of **fossil AMPHIBIA** (Caudata and Anura): *Audrias scheuchzeri*; *Branchiosaurus salamandroides* Fritsch (1 sp., coll. no. 1108/4) and *Palaeobatrachus dolfussi* Tschudi and seven of **fossil MAMMALS**: *Canis familiaris intermedius* (coll. no. 9971), *Hipparion elegans* Gromova (coll. no. 9644), posterior leg of *Hipparion* sp. (coll. no. 11010/13), *Anoplotherium commune*, Cuv. (coll. no. 11010/6), *Lophiodon parisiense* Gervais (coll. no. 11010/3), *Palaeotherium crassus* (coll.no. 9632), *P. medium* (coll. no. 9633).

Other pieces had been lost, like gyps copies of different skeletal parts of fossil mammals or galvano - plastic copies of fossils - present in the catalogue of Frič from 1889, in Museum für Naturkunde der Humboldt Universität, Berlin (REILING & SPUNAROVA, 2005).

CONCLUSIONS

Although there is no published catalogue of pieces acquired from Václav Frič, in the memoir from October 2nd 1907 for the Ministry of Culture and Public Instruction, Grigore Antipa mentions the acquisition of a collection from V. Frič from Prague valued at 2500 marks, along with other specimens that would serve in enriching a museum of European size.

The collections bought from Frič reunite numerous species, mostly from a wide collection of arachnids and millipedes. The catalogue of numerous specimens, 642 that are still present in the "Grigore Antipa" National Museum of Natural History collections of invertebrates, vertebrates, compared anatomy, mineralogy, geology and paleontology, stands as the true evidence of the tireless efforts of Dr. Grigore Antipa to organize a modern museum, a pillar for future generations of specialists, one which could survive centuries of history.

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Figure 2. A, Showcase with imitation of precious stones (cca. 1990); B, Magnified model of fossil Foraminifera (*Ehrenbergia serrata*); C, Label for enlarged model of radiolarian, *Diploconus fascies*; D, Magnifying box containing microscopic Foraminifera, *Polystomella* sp.; E, Chilopod, *Lithobius validus*; F, Peripatopsid velvet worm (*Peripatopsis balfouri*) with original label from Frič; G, Trinidad thick-tailed scorpion (*Tityus trinitatis*) (original photos).