

**GRIGORE ANTIPA (1867 – 1944) – 70 YEARS AFTER HIS DEATH. HOMAGE****NEGREA Ștefan**

**Abstract.** Through his economic and biological work expressed in papers and monographs and the scientific institutions he founded, Gregory Antipa remains immortal. He was a contemporary and friend of another famous Romanian naturalist, Emil Racoviță, the founder of a new science, Biospeologia (in Romanian) - Biospeleology (in English), and of the first Institute of Speleology in the world. Grigore Antipa was the initiator of the Romanian hydrobiology and ichthyology and the organizer of the state fisheries. But his fame comes from the organization, on ecological grounds, of the National Museum of Natural History in Bucharest, which bears his name. He equipped the museum with dioramas that were subsequently taken as a model by many museums in the world. There is no pupil in Romania who came on a school trip to Bucharest to see, first, the Antipa Museum. The great naturalist fought like no other to enhance the wealth of his country waters, especially of the Danube with its wonderful Delta and lakes located in the floodplain of the river. He was convinced that this complex ecosystem, partly in its natural state, is an important wetland of the planet, which had to be protected until it would not be too late (see ANTIPA, 1910; NEGREA & NEGREA, 1975; NEGREA, 1990). It could not have been otherwise, as Antipa was a brilliant disciple of the creator of Ecology, Ernst Haeckel, who awarded him *Summa cum Laude*, a distinction that the great Darwinian professor granted only three times in his career.

**Keywords:** Grigore Antipa: man and work, Ernst Haeckel - founder of ecology, The Antipa Museum and the ecological dioramas, Organizer of the State fisheries.

**Rezumat. Grigore Antipa (1867 – 1944) – 70 de ani de la moarte. Evocare.** Prin opera sa biologică și economică, exprimată prin articole și monografii științifice și prin instituții fondate de el, care funcționează și în prezent, Grigore Antipa rămâne nemuritor. El a fost contemporan și bun prieten cu alt celebru naturalist român, Emil Racoviță, fondatorul unei noi științe, Biospeologia (în română) – Biospeleologia (în engleză), și a primului Institut de Speologie din lume. Grigore Antipa a fost inițiatorul Hidrobiologiei și ihtiologiei românești și organizatorul, pe baze științifice, a Pescăriilor Statului. Dar faima lui vine de la organizarea, pe baze ecologice, a Muzeului Național de Istorie Naturală, din București, care îi poartă numele. El și-a dotat Muzeul cu dioramele imaginat de el, luate ulterior drept model de multe muzee din lume. Nu-i elev în România să nu fi mers cu școala în excursie în București să vadă, în primul rând, Muzeul lui Antipa. Marele naturalist a luptat, ca nimeni altul, pentru punerea în valoare a bogăției apelor țării sale, cu precădere ale Dunării, cu mirifica sa Deltă, și cu lacurile din zona inundabilă a fluviului. El era convins că acest ecosistem complex, parțial încă în stare naturală, este o importantă zonă umedă a Planetei, care trebuie protejată până nu va fi prea târziu (vezi ANTIPA, 1910; NEGREA & NEGREA, 1975; NEGREA, 1990). Nici nu se putea altfel, Antipa fiind un strălucit discipol al creatorului Ecologiei, Ernst Haeckel care l-a distins cu *Summa cum Laude*, calificativ acordat de marele profesor darwinist numai de trei ori în cariera sa.

**Cuvinte cheie:** Grigore Antipa: omul și opera, Ernst Haeckel - fondatorul ecologiei, Muzeul Antipa și dioramele ecologice, Organizatorul Pescăriilor Statului.

**GRIGORE ANTIPA'S ORIGIN**

In my book, *In the Footsteps of Grigore Antipa* (1990) (Plate 1), I tried a first genealogy, based on the data collected from different sources (NEGREA, 1990, pp. 10-17).

From this diagram, it results that Antipa comes from Aromanian ancestors on maternal line. Regarding his paternal ancestors, I did not identify any reliable data. The descendants of the families named Antipa, in the north-eastern part of Botoșani city, could not give any information about their ancestors. In the archives of Botoșani city, I found reliable data only on his grandparents. Constantin Antipa, who lived in Săvenilor Street, no. 143, gave me the only oral and unverifiable information, namely that his father, Mihai Antipa, was a cousin of Grigore Antipa, and his grandfather, Ion Antipa, was the brother of the lawyer Vasile Antipa (father of Grigore Antipa). However, he could not show me any official document. From oral information, he knew that they were Romanians, not Armenians, Lipoveni Russians or other nations inhabiting the city.

**GRIGORE ANTIPA'S PARENTS AND BROTHER**

I found little reliable data about Vasile Antipa and Zoița Nicolau (Grigore's parents) in their marriage certificate and his father's death certificate, documents discovered in the State Archives in Botoșani and noted in the genealogical diagram (Plate 2).

From the marriage certificate with Zoița, it results that **Vasile Antipa** was born in 1826 in Curtești locality, his parents being Gheorghe Antipa and Maria, born Sârbu. It is not known when and how he became a lawyer in Botoșani and married Profira Mârzescu. It is known that, at 38 years old (in 1864), he divorced, and at 41 years old, more precisely on the 19<sup>th</sup> of February, 1867 (old calendar), he married Zoița. Towards the end of the same year (1867), Zoița gave birth to a son, Grigore, the hero of the book *In the Footsteps of Grigore Antipa* (NEGREA, 1990). It is not known why the father, Vasile Antipa, died two years after the wedding, on the 18<sup>th</sup> of March, 1869.

Grigore Antipa's mother, **Zoița Nicolau**, was born in 1838 in the village Băiceni, not far from Botoșani. It is not known when both her parents died. She was raised on her grandmother's mansion, Dafina Șendrea from Băiceni, along with her 14 years older brother, Panaite, born in 1824. At her grandmother's request, she got married in 1861, against her will, with Iorgu Leon. She was only 22 years old. The following year, she gave birth to Nicolai (Nicu), the stepbrother of Grigore, who was conceived with her second husband, Vasile Antipa. The two brothers, although stepchildren, were good friends, both in childhood and in the teenage and adulthood years. The unexpected death of their mother, due to typhoid fever, on the 12<sup>th</sup> of October 1873, when she just turned 35, left the two children orphan at an early age (Nicolai was 11, and Grigore 6 years old). It is touching the page of N. LEON's memories (1925) about the loss of their mother. I quote:

*The most terrible misfortune I have ever felt in my life was the death of my mother. Irreparable, irremediable loss. One day, I sneaked into the room where she was lying - because I was not allowed (the doctor forbade it) - and I sat on a couch. She, seeing me, called me to her and, with her soft hand touching me gently on the forehead and cheeks, said: <You ran in all directions, you played, but nowhere is better than near your mother>. Hot tears were streaming down my fondled cheeks and her eyes were wet. A few days later, she spoke due to typhoid delirium: she made plans to go to Paris. I was barely in high school, I was 12 years old and she said: <When Nicu graduates high school I am going to stay with him in Paris to attend the University>. The next day, she was dead. In vain I touched, kissed and asked her to wake up. For me, it was all over.*

### CHILDHOOD IN BOTOȘANI COUNTY (1867 – 1878)

After their mother's death, the lives of the two brothers, Nicolai (Nicu) Leon and Grigore Antipa, was held under the protection of their tutor, uncle Panaite, Zoița's brother, oscillating between holidays and school.

**Nicu Leon** followed Mărgineanu's boarding school in Botoșani, then, the high school, the United Institutes in Iași. At this school, he had famous teachers like Grigore Cobălcescu, Petru Poni and A. D. Xenopol. Finishing high school in private, he passed the baccalaureate in 1882. After high school, Nicolai Leon attended the Faculty of Sciences and Medicine at the University of Iași, Department of Natural Sciences (1882-1889). These studies were continued at the University of Jena brilliantly (1884-1887). Among his famous teachers, I mention Ernst Haeckel, under whose leadership he prepared his PhD thesis on the mouth parts at Hemiptera, thesis presented in 1887 and awarded with the degree *Magna cum Laude*. Returned in the country, he conducted a multiple teaching and scientific activity, dedicating himself to parasitology studies, which helped to cure certain diseases. At the University of Iași, he was elected Dean (1912) and, then, rector, (1918-1922). However, he refused the title of academician of the Romanian Academy, saying that he could not accept this honour as long as celebrities like Eminescu, Creangă and Caragiale were not full members of the Romanian Academy (they had to be made honorary members of the *Academy of the Socialist Republic of Romania*).

**Grigore Antipa** was born in Botoșani on the 25<sup>th</sup> of November, 1867, Old Calendar (the 7<sup>th</sup> of December, New Calendar). His father, Vasile, a lawyer in this city, was married to Zoița Nicolau from Băiceni. On the 19<sup>th</sup> of February, 1867 (Old calendar), immediately after the wedding, he was moved in a beautiful house located in M. Eminescu Boulevard, 56 (formerly Harapului), the house being part of Zoița's dowry. Even today (2014), the house has not become *Grigore Antipa's Memorial House* in spite of all my insistence and that of Victor Dughilă, Professor of Biology in Botoșani (now retired) and a great admirer of the scientist, as it was given to the military commissariat by the mayoralty for many years. It is in this way the authorities who lead the city understand to respect the great people of Romania, of global reputation!

In the fall of 1873, marked by the so-called Bacovian rains, after the death of their mother Zoița, the childhood of the two brothers was suddenly broken. Nicu was sent to *Mărgineanu's Boarding School* to attend middle school, while Grigore remained to Alecu Popovici's mansion as he was too young. He used to take him to Băiceni, where he had to do business with Sachi Pamfil, the administrator of Alecu Popovici's estate, the successor of the deceased grandmother, Dafina. In my book, *In the Footsteps of Grigore Antipa* (pp. 37-44), I render the stories about their journeys on the hills covered by endless forests, about the knell of bells from Agafton Hermitage, about the mysterious lake from Eminescu's Ipotești Forest, about the fishing of carps and other fish in the pond next to Băiceni, etc. One day, asked by Sachi what he wanted to become when he would grow up, Grigore replied: *Well, a lawyer like dad*. He was too young to know what to do with his life. He liked living in the country, he was attracted to the life in the woods, the groves, the pond, the animals in the yard and gardens, birds in flight and chicken nests, beehives, but he could not know that all these creatures, in their natural or anthropized environment, represent the naturalists' study subject.

The chapter *Memorable holidays* (pp. 44-58) evokes the atmosphere of the patriarchal village of Băiceni seen through the eyes of the child Grigore and renders stories heard during my trips for the book *In the footsteps of Grigore Antipa*. I am thinking even now, while writing, that the heroes of my stories went into the realm of shadows long ago, where *there is no pain, no grief, no sighing*. Although I did not know them, I feel them close. I immortalized them in my books (NEGREA, 1979; 1980; 1990; the first one printed in 30,000 copies), a century after the birth of Grigore and half a century after the publication of the *Memories* written by Nicolai (Nicu) LEON (1922-1927). He had not turned six when Moșu Panaite, the brother of the late Zoița, took her son, Grigore, to *Mărgineanu's Boarding School* in Botoșani, where the sons of wealthy people, learnt to read and write. You could make four primary and four secondary

classes in boarding school regime. Endowed with a remarkable memory and a brilliant intelligence, Grigore easily assimilated the taught information and was always ready to answer questions. In the autumn of 1877, when Grigore was a student in the first cycle of the school, the country was involved in the independence war. With genuine patriotism, the teacher required the students to read the poems of Vasile Alecsandri. After the final examination of the first four classes, Grigore went on vacation for the last time at Băiceni.

#### STUDENT AT THE UNITED INSTITUTES FROM IAȘI (1878 – 1885)

In the autumn of 1878, Moșu Panaite sent Grigore Antipa to study at the United Institutes from Iași, considered the best high school in Moldova. For seven years, he learnt from professors known for their erudition, graduating the middle school and high school and living as an inhabitant of this cultural city, the capital of Moldova starting from the time of Vasile Lupu. Among the teachers of Grigore Antipa, I mention Grigore Cobălcescu (1831 - 1892), reputable geologist and palaeontologist, Petru Poni and A. D. Xenopol (Plate 3). Besides the two brothers, Leon and Antipa, they had other students who, in turn, became personalities known abroad, such as Emil Racoviță (1868 - 1947), founder of Biospeleology. However, Antipa was most influenced by Peter Missir (1896 - 1929), through his way of thinking and views. This professor of political economy, newly arrived from Germany, taught lessons in such an interesting way that Grigore, according to his own confession, remained passionate for his entire life of this science, which gave him ideas and arguments for the practical application of the results of his studies of aquatic ecology. In 1885, the student Grigore Antipa passed the baccalaureate, and, in February 1886, he received the graduation certificate of secondary education, with the highest grades at natural sciences and German language – the same subjects required for the enrolment at the University of Jena.

#### STUDENT AT JENA, THE FORTRESS OF EVOLUTIONISM (1886 – 1892)

In the autumn of 1886, Nicu convinced Grigore to go together to Jena, to join him and enrol at the famous University where courses were taught by famous professors, such as Goethe, Schiller, Humboldt, Hegel and Ernst Haeckel, who was also vice-rector. The Scientific Department of the Faculty of Philosophy, Grigore enrolled at, included also the Institute of Zoology, managed by Haeckel. The six years of college, of tense working under the guidance of the great Darwinian biologist, are amply mentioned in the book *In the Footsteps of Grigore Antipa* (NEGREA, 1990, pp. 79-104), in the sub-chapters: *The student Grigore Antipa and the great Haeckel, How to learn the mysteries of research, With Nicu Leon at Weimar, Leipzig and Dresden, Stops in famous biological resorts* (for his PhD thesis), *A doctorate passed at Haeckel* (he obtained *Summa cum Laude*, awarded by Haeckel only three times in his career). It is worth mentioning that the relationship between the famous professor and the Romanian student became so close that after Antipa's return in the country, they corresponded. Thus, on the 4<sup>th</sup> of May, 1917 (old calendar), three months before the battle of Mărășești, deeply affected that his people was fighting against Antipa's people on the Romanian territory, he wrote:

*Dear friend Antipa [...]. I enjoyed finding out that your beautiful city escaped destruction and, thus, your splendid museum escaped destruction [...]. On the 16<sup>th</sup> of February, I was celebrated on the occasion of 83 years from the doctorate. These two communications marked the end of my scientific activity. I no longer have enough power. I welcome my last trip to nirvana (as if he were a Dacian who enjoys going to Zamolxes – a.n.). I have been paralyzed for six years, so there is no chance to be able to travel again. My beloved wife left me two years ago [...]. In the museum where I gathered all the documents related to the evolution, there are exhibited all the beautiful gifts from you [...]. With best wishes [...] your professor, Ernst Haeckel.*

In July 1917, Antipa received the last postcard written in shaky handwriting. I quote from Haeckel's letter: *For several months, my health has been getting worse, I cannot work methodically. My heart and nervous system no longer allow it.* It seems unbelievable, but even octogenarian and paralyzed his desire of working was still alive. Two years later, on the 16<sup>th</sup> of August, 1919, the titan of biological thinking died at 85. He will forever remain immortal through his work and life.

Grigore Antipa would not forget in his entire life the six years of strenuous work in Haeckel's lab under his direct guidance, along with his two assistants, A. Lang and W. Kukenthal. They were years when he diligently learned how to study wildlife in the field and under the microscope, how to perform scientific research culminating in the publication of the results and to prepare works for print (Plate 4).

After completing his PhD thesis, Antipa remained nearly a year in Jena, waiting for a recommendation from the Minister of Culture and Public Instruction, Dimitrie Sturdza, to Anton Dohrn, the director of the Zoological Station in Naples. This recommendation was received by post in January 1892 and on the 14<sup>th</sup> of February he was already present in Dohrn's famous Zoological Station. After six months of work under his authority, he returned in the country fully enlightened about how to study the marine environment. Bearing in mind bold plans, he returned in Bucharest. He was 25 years old, the golden age for a biologist researcher.

Given the reduced space I have for the Romanian period of the research of seawater and fresh waters, for the study of biodiversity and their bioeconomy, I shall just render the chronological presentation of the main events.

### THE BEGINNING OF HIS CAREER 1892 – 1912

It is the period when Grigore Antipa studied the Black Sea, the Danube Delta and its floodplain. For further details, one may study the works: ANTIPA (1912; 1941), BOTNARIUC & BELDESCU (1961), NEGREA & NEGREA (1975), TUDORANCEA & TUDORANCEA (eds., 2006), ZINEVICI & PARPALĂ (2006), BREZEANU & CIOBOIU (2011), BREZEANU et al. (2011).

- October 1892. Grigore Antipa, through the help of the Minister D. Sturdza, got a private audience with King Carol I and he presented a memoir entitled *On the necessity of introducing a rational pisciculture in the Romanian waters*. The king recommended the resort ministers as the 25 years-old young man to be appointed General Director of the State Fisheries, to entrust him the administration of the zoological collections of the Natural History Museum in Bucharest and to facilitate his embarkation on military ships in order to start the biological research of the Black Sea. A few months later, he was appointed General Director of the State Fisheries, a position he held until 1914, and on the 4<sup>th</sup> of November, 1892, he was appointed director of the Department of Zoology, Natural History Museum, a position he held until his death in 1944.
- On the 5<sup>th</sup> of May, 1893 (old calendar), Antipa went on his first expedition to study life in the Black Sea on board of the cruiser battleship Elizabeth. It was carried out in three stages and lasted 118 days. It is considered the first Romanian oceanographic research. As he did not have a team and urgent business required his presence, the collected faunal material remained unused and unpublished. The same thing happened with the collections gathered during the 60-day expedition from 1894 with the brig Mircea on the route Sulina – Constanța – Odessa – Mangalia – Varna and the 1895 expedition aboard the gunboat Grivița in the Romanian waters of the Black Sea (details NEGREA, 1990, pp. 114-132). Over the years, he would publish two papers on the Biosociology and Bioeconomy of the Black Sea (ANTIPA, 1933; 1941).
- Also in 1893, as General Director of the State Fisheries, he began to make trips to the floodplain and the Danube Delta, including inland, to document directly in the field on the state of waters, fisheries and fish trade. Between two trips, although overwhelmed by administrative duties, he found time to process the data collected in the field and publish the results. In 1894, it was published the first work of Hydrobiology with economic implications about *Lake Razim and the current state of fisheries and means of recovery*. This paper shows the need to build networks of canals connecting the lakes with the Danube. This brilliant idea subsequently applied to the Danube Delta, with great practical results. Noting the damage caused by chaotic, ruthless fishing and especially by killing juveniles, Antipa published the works: *Studies on the fisheries in Romania* (1895) and the *Fisheries Law and the results that it has brought. A response to the attacks it was subject to* (1899). It is the law he devised and passed by Parliament in 1896. But his most important work from the end of the century was the synthesis published in 1895 *Studies on the fisheries in Romania*, based on the three years of research during his “numerous trips in every fishery at the mouth of the Danube and surrounding ponds”, including the lakes located on the Romanian coast of the Black Sea. With brilliant insight, he wrote a modern ecologist about “the connections” that exist between creatures, “plankton standing at the basis of all”. For the suppression of this serious situation, Antipa elaborated the law also mentioned in the program called PARID/FIDFR (Fisheries and Improvement of the Danube Floodplain Region) based on the cooperativization of fisheries and on the centralization of fish sale. According to the vision of the young biologist economist, fishermen freed from the intermediaries’ exploitation (tenants, merchants, etc.) and organized in production cooperatives were to fish within legal limits, paying property taxes, based on which the state could execute great works (dams, canals, fisheries, etc.). One can see here the beneficial effect of studying political economy, taught in high school by Petre Missir, who, together with Ernst Haeckel, were in my opinion, role models in life, that positively influenced Grigore Antipa, making him an illustrious biologist worthy to stand in the science - cultural world pantheon with another scientist originating in Moldova, Emil Racoviță, his high school mate from Iași.
- In the years 1907 – 1908, under the protection of the Fisheries Law, Grigore Antipa helped by the engineer Mihai Roco (design) and Ion Vidrașcu (execution), built the first canal in the Danube Delta, called Dunavăț, 27 km long, linking Lake Razim (mistakenly called Razem by the geographers of the time) to the Danube. As a result, fish production in the lake increased from 38,000 to 3,600,000 kg / year. From 1907 until 1914 (when Antipa was dismissed as general inspector of the State Fisheries), the Delta has been enriched by a network of canals, which restored its initial fishery fertility.
- In 1909, there appeared Antipa's monograph entitled *Ichthyologic Fauna of Romania*, the result of 14 years of activity, which can still serve as a model in the field. In 1910, he published another synthesis entitled *The floodplain of the Danube, its current state and means of capitalization*, from which it results his care of patriotic citizen to capitalize this wetland. The hydrotechnical engineers, after 1950, drained a large part of the Delta and the large lakes located within the river floodplain (Crapina – Jijila, Insula Mare a Brăilei / Big Island of Braila, Greaca Lake almost entirely, Potelu, etc.), although NEGREA & NEGREA (1975) in their book, which is based on their PhD theses (A. Negrea, Gastropods, Șt. Negrea, Cladocerans) show that all their conclusions confirm Antipa's findings after five decades (1910) and the floodplain of the Danube must remain in its natural state and no longer be drained. However, the policy makers did not take into account our conclusions (details in NEGREA, 1990, pp. 158-161).

**HIS CREATIVE UPSURGE (1913 – 1937)**

- Grigore Antipa's Museum has been functioning in the current building since 1908. The history of the museum and Antipa's contribution are widely presented in the book *In the Footsteps of Grigore Antipa* (NEGREA, 1990, pp. 162-168 and 174-192), where the author reconstructs its long history of 150 years since it was founded, in 1834, under the name of the *National Museum* until 1990, when the book appeared. Because of the lack of space, I kindly require the reader to consult this guaranteed and mostly original source of information. I just underline that Dumitru Murariu, the present director, has built a new wing of the building and reorganized the visiting area, giving it a unique sense and equipping it with the latest means of viewing and information and, thus, the presence of a guide is no longer absolutely necessary. Currently, Murariu is working with his team of researchers and experts to a Memorial dedicated to the personalities who have been linked in some way to this museum. Of course, there will be represented the directors of this institution of culture that have contributed to its development: Grigore Antipa, Constantin Motaș, Mihai Băicescu and Dumitru Murariu, all reputed academicians and professors.
- In 1899, at 32 years old, Antipa got married to Alina Petrescu, the daughter of the General Zaharia Petrescu. Because of a condition of the digestive system, she was hospitalized several times in a sanatorium in Baden bei Wien, for balneary treatment, and Grigore wrote her almost daily as he had promised.
- Grigore Antipa was a true *homo viator* since the college days at Jena. *I had established a rule – he confessed in 1934 - from which I never wavered: to travel every year at least two months in different countries to make new purchases of collections* (see NEGREA, 1990, pp. 182-192, chapter entitled *New roads through Europe and the crossing of the Atlantic – impossible to summarize*).
- The same Romanian Academy, which rejected his work, *Studies on the Fisheries from Romania*, since Gheorghe Lazar Prize, 11 years later, recognized Grigore Antipa's theoretical and practical value of his entire work, choosing him as a corresponding member three years later, and after another three years, in 1910, electing him as an active member. On the 28<sup>th</sup> of May, 1912 (old calendar), Antipa uttered his speech entitled *Hydrobiological research in Romania and their scientific and economic importance*. The scientific department chose him for years in a row secretary during 1919-1941. It was also Antipa who, as representative of the Academy, managed the inventory of the legacy left by Jacques Menahem Elias, a Romanian banker and philanthropist. Together with Daniel Danielopol, built Elias Hospital in Bucharest, considered the most modern hospital in Europe at the time.
- Throughout his professional life, Antipa had as permanent concern the problems of the Danube, and, thus, in 1922, he published the study suggestively entitled *The Danube and its scientific, economic and political problems* (see NEGREA, 1990, pp. 197-202). Instead, the study *The issues of the evolution of the Romanian people*, published in 1919, reveals another preoccupation that the agronomist Gh. Ionescu Șișești appreciated as: "With this book, Dr. Antipa fulfilled his duty to the nation as an educator" being a true "Treaty of sociology, regarding the Romanian realities".
- Grigore Antipa was also founder of institutions. Besides the Natural History Museum and Elias Foundation in Bucharest, he founded the Institute of Bio-oceanography in Constanta, the Hydrobiological Station in Tulcea and the fish hatcheries from Nucet. He also initiated the founding of the Institute of Agricultural Research (ICAR) and it was also Antipa who was the initiator of the creation of the Geological Institute of Romania. Therefore, it is only about applied science institutes.
- Antipas had an active presence (different communications) at various international scientific conferences since 1927. I mention some of them: The 10<sup>th</sup> International Congress of Zoology (Budapest, 1927); CIESMM office work for the scientific exploitation of the Mediterranean Sea (Madrid, 1929); The 14<sup>th</sup> International Congress of Agriculture (Bucharest, 1930); the 11<sup>th</sup> International Congress of Zoology, Padua, 1930; the 7<sup>th</sup> International Congress of Aquaculture and Fisheries, accompanied by Alina (Paris, 1931); the General Meeting of the Mediterranean Commission (CIESMM), Paris (1933) and Naples (1934); Representative of Romania to the centenary of the National Museum of Natural History (Paris, 1935). About other trips abroad (1936, 1939), there is little and vague information.
- On the 7<sup>th</sup> of December, 1937, Grigore Antipa turned 70 and, in 1938, he was honoured in a solemn session of the Romanian Academy. On this occasion, he received the Jubilee volume *Grigore Antipa hommage a son oeuvre* (727 pages). According to C. MOTAȘ (1961), Antipa represents the *Apotheosis of a daily work of nearly half a century in the service of science, culture and common good*. It could be said that at 70 years old he was able to work tirelessly for 15 to 17 hours every day.
- I mention two works published by the end of his career: *The role of the Academy in combating smear campaigns of the Romanian people and state* (published in the *Memoirs of the Scientific Section of the Academy*, ser. 3 tom. 15, 1940) and *Oceanography, bionomy and general biology of the Sea Black* (314 pages), largely based on unpublished data. His last published work was: *Capitalization of the reed from the Danube Delta* (*An. Acad. Rom. Mem. Secț. Șt.*, ser. 3, tom 18) in 1942, two years before his death.

- On the 9<sup>th</sup> of November, 1940, a powerful earthquake destroyed part of the museum building and damaged its collections. With his spirit of economist, Antipa turned to Emil Prager, to repair the roof as winter approached. On the 23<sup>rd</sup> of January, 1941, another calamity: during the Legionary Rebellion, the museum building was gunned. Antipa suffered his first heart attack. On the 1<sup>st</sup> of April, 1943, when there were 50 years since he was at the helm of the museum, the country was at war and the anniversary moment passed almost unnoticed.
- On the 9<sup>th</sup> of March, 1944, when Grigore Antipa was 76 years and 3 months old, his heart failed and he died alone after midnight. The next day, Alina Antipa, who was sleeping in the next room, finding out about Grigore's death, exclaimed: *Grigore could not have done such a thing, to leave me alone!*. He took the light and went in eternity. Three days later, on the 12<sup>th</sup> of March, 1944, Alina and Grigore were together on the catafalque in the entrance hall of the museum. The urns with the ashes of the two are still together, in a niche, united by death forever, in the same room, the Museum of European fame, his dearest achievement, being their grave.

#### REFERENCES

- ANTIPA GR. 1910. *Regiunea inundabilă a Dunării. Starea ei actuală și mijloacele de punere în valoare*. Institutul de Arte Grafice. București. 318 pp.
- ANTIPA GR. 1912. Cercetări hidrobiologice în România și importanța lor științifică și economică. *Discursuri și recepțiune*. Academia Română. București. **38**: 1-40
- ANTIPA GR. 1933. *La biosociologie et la bioeconomie de la Mer Noire*. Bulletin Sect. Science Acad. Roum. Bucharest. **15**. 195 pp.
- ANTIPA GR. 1941. *Marea Neagră. 1. Oceanografia, bionomia și biologia generală*. Academia Română. Publicația Fondului Vasile Adamachi. București. **10(55)**. 313 pp.
- BREZEANU GH. & CIOBOIU OLIVIA. 2011. Researh forerunners in the field of Aquatic Ecology from Romania. Oltenia. *Oltenia. Studii și comunicări. Științele Naturii*. Craiova. **27(2)**: 218 – 221.
- BREZEANU GH., CIOBOIU OLIVIA, ARDELEAN A. 2011. *Ecologie acvatică*. Vasile Goldiș University Press. Arad. 406 pp.
- BOTNARIUC N. & BELDESCU ȘT. 1961. Monografia complexului de bălți Crapina-Jijila. *Hidrobiologia. Lucrările Comisiei de Hidrologie, Hidrobiologie și Ihtiologie a Academiei R. P. Române*. Edit. Academiei R. P. Române. **2**: 161–242.
- LEON N. 1922, 1925, 1927. *Amintiri. Viața Românească S. A. Iași*. **1, 2, 3**. 235 pp.
- MOTAȘ C. 1961. *Viața și activitatea lui Grigore Antipa*. Biblioteca Academiei R. P. R. Seria de Bibliografii. **13**. Grigore Antipa (1867 – 1944). Edit. Academiei R. P. R. București. 130 pp.
- NEGREA ȘT. 1979. *Prin peșterile lumii*. Edit. Sport-Turism. București. 176 pp.
- NEGREA ȘT. 1980. *Expediționari români la tropice*. Edit. Sport-Turism. București. 208 pp.
- NEGREA ȘT. 1990. *Pe urmele lui Grigore Antipa*. Edit. Sport-Turism. București. 264 pp.
- NEGREA ȘT. & NEGREA ALEXANDRINA. 1975. *Ecologia populațiilor de cladoceri și gasteropode din zona inundabilă a Dunării*. Edit. Academiei Române. București. 232 pp.
- TUDORANCEA C. & TUDORANCEA MARIA (eds.). 2006. *Danube Delta Genesis and Biodiversity*. Backhuys Publisher. Leiden. 444 pp.
- ZINEVICI V. & PARPALĂ LAURA. 2006. The zooplankton structure and productivity Danube Delta lacustrine ecosystems. In: *Danube Delta Genesis and Biodiversity*. (Tudorancea C. & Monica eds.). Backhuys Publisher. Leiden: 173-207.
- \*\*\*. 1968. Volume commémoratif, *édité a loccasion du centenaire "Grigore Antipa" (1867 – 1967)*. Travaux du Museum d'Histoire Naturelle "Grigore Antipa". București. **8**.

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Plate 1. Cover of the book *In the Footsteps of Grigore Antipa* by Ștefan Negrea, his face illustrating optimism and kindness (drawing by Victor Elias after a picture from Al. Marinescu's photo library).

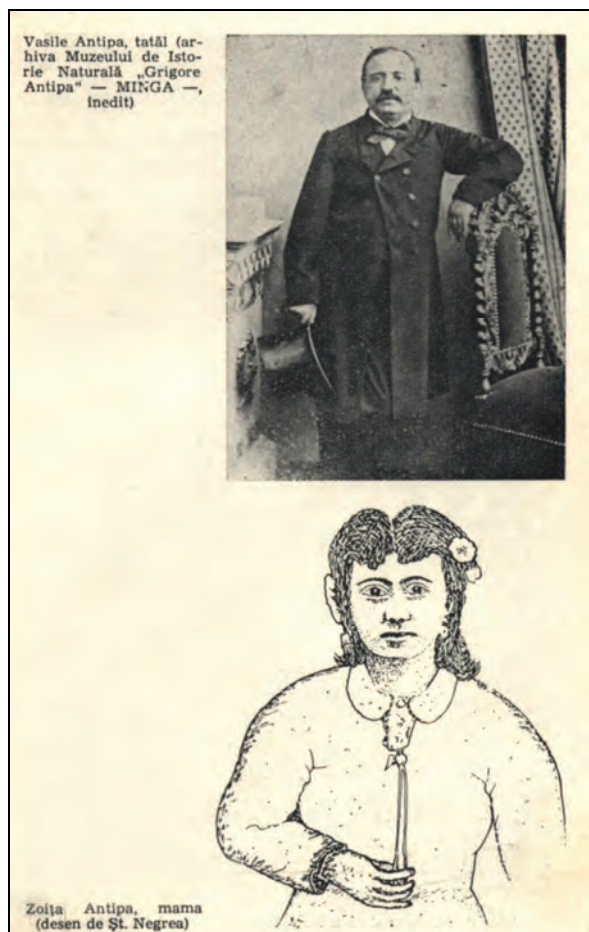


Plate 2. Vasile Antipa, his father (the archives of the Museum of Natral History “Grigore Antipa” – MINGA – inedited). Zoița Antipa, his mother (drawing by Ștefan Negrea).



Plate 3. Grigore Antipa, student at the United Institutes from Iași (MINGA archives, inedited). The old building of “Mihai Eminescu” High School where the “Unites Institutes” functioned in Iasi (photo by Ștefan Negrea).

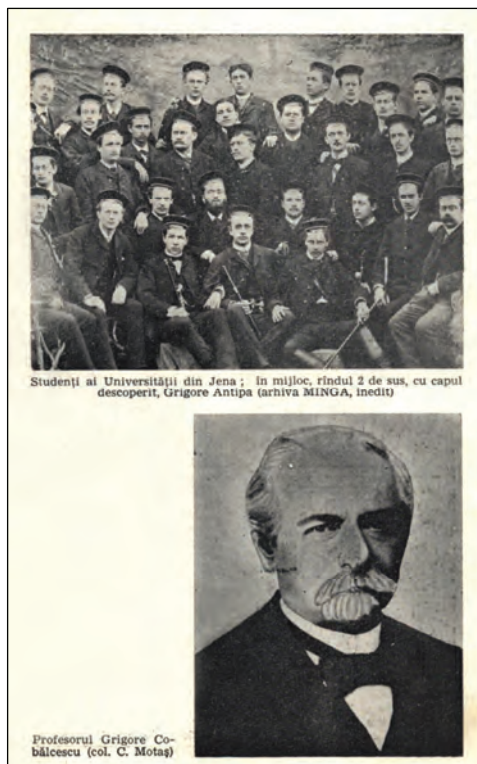


Plate 4. Students of Jena University; in the middle, in the second row from above, with the uncovered head, Grigore Antipa (MINGA archives, inedited). Professor Grigore Cobălcescu (col. C. Motaș).