

LONGINOS NAVAS, S.J.
AN APPROACH TO HIS LIFE AND ENTOMOLOGICAL WORK

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ABSTRACT

During the past fifty years, the great Spanish entomologist Longinos Navás, S.J. (1858-1938), was almost completely forgotten. From 1892 he taught Natural History in the Jesuit High School «Colegio del Salvador» in Zaragoza. During 40 years, he displayed an intensive scientific activity, without leaving his pastoral ministry. He participated in 6 National and 13 International Congresses. He was also consulted by several Museums. He founded 3 Spanish scientific societies in Zaragoza, and belonged to another 25 scientific societies all over the world. In my recent publication (Bastero, 1989) I present a fully documented biography of Fr. Navás, a list of the 620 scientific articles, and also the listing of 3,316 new species and varieties described by him: 340 of these are Ephemeroptera and Plecoptera.

DISCUSSION

During the past fifty years, the great Spanish entomologist Father Longinos Navás, a member of the Society of Jesus, has been almost completely forgotten. His death, which occurred a few months before the end of the Spanish Civil War, has been lately made known to the world. Furthermore, the Second World War constituted a severe gap between Spain and the rest of Europe, so that scientific communications and interchanges became nearly impossible or at least very difficult for the next six years.

My purpose in this communication is only to expose briefly the main features of his personality and life, and also to present some interesting aspects of his scientific work with the Ephemeroptera and Plecoptera. Both of these aspects are dealt with, in a more extensive way, in my recent publication which is also presented in this Congress.

Longinos Navás was born in 1858, in a beautiful little village in the northeast of Spain, whose name is Cabacés, in the province of Tarragona, a hundred and fifty kilometers from Barcelona.

When he was still a teenager, he showed a clear intelligence and also a

special interest for nature observations. At the age of seventeen, he was admitted as a novice in the Society of Jesus in France because of the political situation in Spain. A few years later, he was finally able to continue his ecclesiastical studies in several Jesuit colleges in Spain.

In 1892, two years after his ordination, he received a position in the Jesuit High School «Colegio del Salvador» in Zaragoza, where he lived for more than forty years. He was, from the beginning, a teacher of natural history and agriculture and also the curator of the Natural History Museum. His classical education (Latin and Greek studies) enabled him to prepare the senior pupils for their graduation.

Before the end of the century, he was already a member of the Spanish Society of Natural History, and presented several articles in its bulletin.

The years 1903 and 1904 were perhaps those in which he made the most intensive effort in his life: without leaving his position in Zaragoza, he successfully passed 17 examinations in the University of Madrid to obtain the Master in Natural History with the honor of *summa cum laude*. So, we can consider this moment of his life as being the very starting point of his brilliant career as a scientist.

The following year, Fr. Navás was the only Spaniard who participated at the International Botanical Nomenclature Congress, in Vienna.

Two years before, namely in 1902, he founded the Aragonese Natural History Society in Zaragoza, which years later would become the Iberian Society of Natural History. At that moment, Fr. Navás was frequently in communication with the most important scientists in Europe: Edmund Sélys de Longchamps, Robert Mac Lachlan, Bouvier and Handlirsch are among others his correspondants.

During more than 30 years, he displayed an intensive scientific activity, without leaving his pastoral ministry. He participated in, at least, 6 national and 13 international congresses all over Europe. He was also consulted, as an specialist, by several museums, from Paris, Shanghai, London, São Paulo, New York... in order to determine thousands of specimens sent to him. He founded three Spanish scientific societies in Zaragoza, and belonged to 25 scientific societies or academies in Europe, America, and also Japan. The number of journals in which Fr. Navás has written is about seventy worldwide, and his articles are more than six hundred in which are published the Latin descriptions of more than three thousand new species and varieties of insects.

Unfortunately, the II Spanish Republic and the Civil War, made it unexpectedly difficult to continue his position. The Society of Jesus was dissolved as a religious order dependant on the Pope, and so the Jesuits of the Colegio del Salvador had to leave. Nevertheless, until July 1936, Fr. Navás could continue his works and publications, although in a precarious way.

The last two years of his life, he had to be hidden in the house of a Catholic family in the Province of Gerona. Meanwhile, the official communication of the Medal of Léopold the Third arrived from the Royal Belgium Palace in Brussels to Zaragoza for eminent Fr. Navás' scientific work in classifying the

King's personal collection. Obviously, Fr. Navás didn't know of this important news.

Finally, the last day of the year 1938, Fr. Navás died peacefully, in the Hermanitas de los Pobres, in Gerona, a few days after suffering a cerebral attack.

SCIENTIFIC RESEARCH

Let us say, now, a few words about the scientific research of Fr. Navás.

At the beginning of his scientific work, he mainly paid attention to lichens, and he collected and classified hundreds of forms; fortunately, a part of this collection, which occupies forty boxes, is still conserved in Zaragoza.

Palaeontological research was also a field in which Fr. Navás employed his time: fossil footprints of *Chitrosaurus* in the Moncayo mountains, and some fossils of vertebrates founded in Libros (Province of Teruel) were the principal discoveries.

Undoubtedly, the insects constituted his dominant scientific occupation. In the last years of the 19th century, he studied especially the Orthoptera, and also described more than twenty new species of this group, *Ephippiger pantelti* being the first one published in 1899.

Fr. Navás was for several years in close communication with another great Spanish entomologist: Professor Ignacio Bolívar Urrutia. Bolívar introduced Fr. Navás to the study of one group of insects which at that moment was not very well known: the Neuroptera. We also know that the taxonomic limits of this group of insects were not clearly defined in the first years of the present century. For this reason, the Ephemeroptera and Plecoptera were included frequently into the Neuroptera *sensu lato*.

According to the articles which are actually present in the Colegio del Salvador, Navás described the first species of Ephemeroptera and Plecoptera in 1903, with the names of *Ephemerella hispanica* and *Taeniopteryx dusmeti*, respectively. After that year, and until the Spanish Civil War in 1936, he published continuously numerous descriptions on these two groups. The total number of descriptions, according to the documents at our disposition is as follows: Ephemeroptera, 158 new species; Plecoptera, 182 new species.

At the present time, there are still hundreds of specimens classified by Fr. Navás, in several Museums all over the world. His personal collection of Neuroptera, Ephemeroptera, Plecoptera and other important groups was seriously damaged during the Spanish Civil War and also years after by different reasons. Nevertheless, there exists a part containing 7,300 specimens in the Colegio del Salvador in Zaragoza, and another part of 8,600 in the Zoological Museum of Barcelona. In this part of the Navás collection there are, at least 800 Ephemeroptera, and almost 300 Plecoptera.

CONCLUSIONS

For the last point of my communication, I want to present to you my recent work, already published by the University of Zaragoza and the title is «Longinos Navás, científico jesuita».

I have studied all the documents we have in the Colegio del Salvador relating to Fr. Navás. So, I have been able to write his biography, fully documented, and also four appendices which I hope will be of interest.

The first one contains the listing in chronological order of the 620 scientific articles which actually are found in our library.

The second appendix contains the complete list of the more than 3,300 new species and varieties of all groups of insects studied by Fr. Navás, which are published in the articles of the former appendix. In order to be practical, I have grouped the new species by taxonomical orders. Whithin each order, the species are chronologically given. Furthermore, I offer also the present localization of 400 types contained in this report: it has been made possible owing to the accurate information sent to me from several museums of Europe.

The third appendix contains the listing of the almost 400 new genera, established by Navás. The fourth one is just the listing of National and International Academies and Congresses in which Fr. Navás had an active participation.

REFERENCE

Bastero Monserrat, J. J. (1989): Longinos Navás, Científico Jesuita. Univ. Zaragoza, 229 p.