ISSN 2372-2517 (Online), ISSN 2372-2479 (Print)

METALEPTEA

THE NEWSLETTER OF THE ORTHOPTERISTS' SOCIETY

President's Message

By DAVID HUNTER
President
davidmhunter100@gmail.com

Dear Society members,

While there has been a levelling off of the effects of COVID-19 in some areas, many of us continue to have limitations on our activities and we are having to learn to adapt, much like the insects we work on that have to adapt when faced with challenges. There has been particular disruption to our work in offices or laboratories, though field work has had less disruption because of COVID-19 being less common in many rural areas. And as I have found, many things can be accomplished with online meetings, not only with work but with catching up with colleagues, friends, and family.

And, of course, COVID-19 has made control of locusts more complex than normal, with an upsurge of *Schistocerca gregaria* from East Africa to the India-Pakistan border region and swarms of *Schistocerca cancellata* in Argentina and neighbouring countries.

We have had some good news in that the journal *Zootaxa* has retained its impact factor. The journal was placed on the list to have its impact factor ended because of over-self-citation; apparently too many papers in the journal cite other *Zootaxa* papers. But it turns out that 45% of taxonomic papers on Orthoptera are published in *Zootaxa*, so it is not surprising there is a "high" 43% rate

of citing other *Zootaxa* papers. Holger Braun sent me a letter supporting the retention of the impact factor for *Zootaxa*, which we circulated to members of our society, and thanks to the many of you who signed the letter, *Zootaxa* has been retained on the list of publications having an impact factor.

The many reports of our activities in this issue of *Metaleptea* demonstrate that in spite of limitations, there is continuing success of our work on Orthoptera and related insects: it is with great pleasure that I present another excellent *Metaleptea*, thanks once again to the tireless efforts of Hojun Song and Derek Woller!

TABLE OF CONTENTS

(Clicking on an article's title will take you to the desired page)

The Orthoptera Collection at MNRJ and the Brazilian Orthopterology

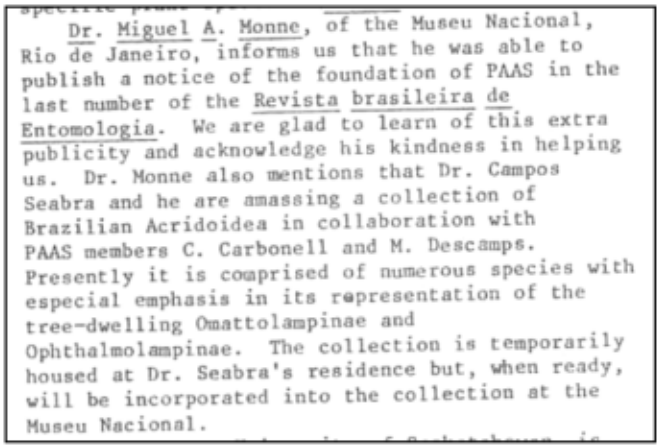
By PEDRO G.B. SOUZA DIAS
Museu Nacional – Universidade Federal do Rio de Janeiro (MNRJ)
pedrogdias@gmail.com

In a recent edition of *Metaleptea* 38(3), I wrote about the tragic fire at the Museu Nacional – Universidade Federal do Rio de Janeiro (MNRJ) and my feelings about recently assuming a position in that institution. Now, I would like to share the history of the Orthoptera Collection of MNRJ, and its importance for the recent development of orthopterology in Brazil. The Collection of the Entomology Department of the Museu Nacional contained Orthoptera specimens collected since the early 20th century, including specimens (and some type specimens) collected by important Brazilian naturalists as Ângelo Moreira da Costa Lima (1887-1964) and Cândido Firmino de Mello-Leitão (1886-1948). However, starting in the second half of the 1970s, the Orthoptera Collection began to be recognized as an important collection within the Entomological Collection of MNRJ. An essential event for Brazilian orthopterology was the arrival of the French orthopterist Marius Descamps (1924-1996) who traveled to Brazil to conduct field expeditions in search for grasshoppers in the 70s.

When Descamps came to Brazil, he looked for researchers at the Museu Nacional, in Rio de Janeiro, who might support his work. There, he met Miguel Angel Monné and Carlos Alberto Campos Seabra (1916-2001). Monné had experience with grasshopper curation, having worked with Carlos Salvador Carbonell (1917-2019) in the Facultad de Humanidades y Ciencias - Universidad de la República, in Uruguay, before moving to Brazil. Seabra, who was trained as a physician but never practiced his profession, was a wealthy insect collector, with great interest in Coleoptera and with a large private collection. From the meetings with Descamps, and perhaps also influenced by his friend Monné, Seabra became interested

Figure 1. Miguel Monné, Carlos A. Campos Seabra, and Marius Descamps working on acridids. Rio de Janeiro, 1976.

Figure 2. Olmiro Roppa, Miguel Monné, and Carlos A. Campos Seabra in an expedition in the state of Minas Gerais. Picture taken next to the São Francisco River, municipality of Pirapora, 1975.



Dr. Miguel A. Monne, of the Museu Nacional, Rio de Janeiro, informs us that he was able to publish a notice of the foundation of PAAS in the last number of the Revista brasileira de Entomologia. We are glad to learn of this extra publicity and acknowledge his kindness in helping us. Dr. Monne also mentions that Dr. Campos Seabra and he are amassing a collection of Brazilian Acridoidea in collaboration with PAAS members C. Carbonell and M. Descamps. Presently it is comprised of numerous species with especial emphasis in its representation of the tree-dwelling Omattolampinae and Ophthalmolampinae. The collection is temporarily housed at Dr. Seabra's residence but, when ready, will be incorporated into the collection at the Museu Nacional.

Figure 3. Excerpt from *Metaleptea* 1 (1) showing the note of Miguel Monné about the Seabra Collection.

in grasshoppers and started to fund several field expeditions, as well as paying for collectors to send insects to him (mainly grasshoppers and beetles) from several regions of Brazil, mainly from the Amazon (Fig. 1). Monné and Seabra were on many expeditions in Northeast and Midwest Brazil, with the support of collectors such as Olmiro Roppa, Bento Silva, and Moacir Alvarenga, among others (Fig. 2). Seabra kept all the material received from collectors and found during expeditions in cabinets, forming a large collection in his house.

In 1976, during an orthopterists meeting in San Martin de Los Andes (Argentina), the Pan American Acridological Society (now The Orthopterists' Society) was created. Later, in **the first volume of *Metaleptea***, Monné published a note saying that he and Seabra, in collaboration with Marius Descamps and Carlos Carbonell, were amassing a collection of Acridoidea, which would be stored in Seabra's house and later sent to MNRJ (Fig. 3). In 1978, Seabra promoted (and funded) the Primeiro Encontro de Acridiologia Neotropical (First Meeting on Neotropical Acridiology) at the Museu Nacional, bringing together great orthopterists, like Carlos Carbonell, H.R. Roberts (1906-1982), Marius Descamps, Ricardo Ronderos (1928-1995), and Stanley K. Gangwere (Figs. 4, 5). Thus, these eminent specialists could work in the Orthoptera Collection (at that time, the Seabra Collection), identifying and describing several new species.

Through the 1980s, Seabra continued funding collectors and expeditions in several areas of Brazil and his collection of Acridoidea grew in volume and importance, receiving several specimens and paratypes from other museums, such as the Muséum national d'Histoire Naturelle (MNHN), Museo de La Plata (MLP), and the Academy of Natural Sciences of Philadelphia (now Academy of Natural Sciences of Drexel University) (ANSP). Between 1981 and 1986, Carbonell worked as a researcher at MNRJ, receiving a scholarship from the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), a Brazilian funding agency. During that period, he actively worked in the collection and taught courses in entomology (I have some colleagues today who had classes with Carbonell and remember him with great enthusiasm). In 1990, the Seabra Collection was finally moved to the Museu Nacional. Monné says that he took three years to move all the entomological boxes to MNRJ during the weekends, which gave him calluses on the tip of the fingers, as a consequence of the millions of pins he had to move from different boxes. In total, more than 1.5 million insects were transferred to MNRJ (Fig. 6).

The period of around 20 years since the arrival of Marius Descamps to Brazil until the 1990s was the most fruitful period of species descriptions of Acridoidea in South America (Song, 2010). The role of Monné and Seabra was essential for this period of Brazilian orthopterology. The Orthoptera Collection, focused on Acridoidea, had specimens from all Brazilian regions, including material from remote and unexplored areas (at that time), like the north part of the Amazon. Carbonell considered the MNRJ collection of Acrididae one of the greatest collections of this group in the world, together with the

Figure 4. Primeiro Encontro de Acridiologia Neotropical (First Meeting on Neotropical Acridiology). Museu Nacional, Rio de Janeiro, 1978. In this photograph are Marius Descamps (in the back, in front of the window), H. R. Roberts (in the center, in profile), Carlos Carbonell (after Roberts, also in profile), and Miguel Monné on the right.

Figure 5. Primeiro Encontro de Acridiologia Neotropical (First Meeting on Neotropical Acridiology). Museu Nacional, Rio de Janeiro, 1978. In this photograph are Albina Secondi de Carbonell, Stanley Gangwere, Ricardo Ronderos, Carlos Carbonell, and H. R. Roberts.

6 ○ Cidade ○ segunda-feira, 1°/10/90 JORNAL DO BRASIL

Seabra guarda em caixas insetos não classificados

Além de besouros e gafanhotos, Carlos Alberto Seabra colecionou borboletas, percevejos, cigarras, abelhas e outras espécies de insetos

O carioca que tem 1 milhão de besouros em casa

Entomólogo está transferindo a coleção para o Museu Nacional

Bruno Casotti

Figure 6. Picture of a Brazilian journal about the transference of the Seabra Collection to MNRJ. Rio de Janeiro, 1990.

collections of ANSP and MNHN (Fig. 7). Until September 2nd, 2018, the MNRJ housed the largest and most important collection of Orthoptera in Brazil. The collection had 28,042 pinned specimens and more than 10,000 in backlog. Although it was a small collection, in comparison with European and North American collections (the MNHN, for example, has around one million Orthoptera specimens), the MNRJ Collection was important because, in addition to the great representativeness of Neotropical Acridoidea, it housed many type specimens.

The collection had 3,129 type specimens, distributed across 215 holotypes, 134 allotypes, and 2,761 paratypes, representing 328 species. A list of the primary types can be seen in Monné (2018). Over the last few years, the MNRJ joined the SIBBr (Sistema de Informação sobre a Biodiversidade Brasileira), an initiative from the Brazilian government to digitize the Brazilian biodiversity collections. At the MNRJ, the project was headed by prof. Cátia A. de Mello-Patiu, and there was funding for equipment and trainees, with the enormous goal of digitizing the large Entomological Collection, with approximately 12 million specimens. Unfortunately, the fire came before finishing the project. But, luckily, the Orthoptera Collection, almost completely lost in the fire, was digitized, which means that the label data for all 28,042 pinned specimens (22,181 Caelifera) and photographs of all labels are preserved. Thus, the Collection survived, although virtually. Moreover, all the primary types were photographed (two photos per specimen, habitus dorsal and lateral). The more than 10,000 backlog specimens, however, were completely lost. A publication including all the type photographs is being prepared.

Since the Orthoptera Collection was built with the support of eminent orthopterists, who had donated several specimens and paratypes from 49 countries, and had others working there (mainly Carlos Carbonell and Marius Descamps), most of the species determination data are reliable, especially in Acrididae, Eumastacidae, and Romaleidae. In fact, the collection was practically an Acridoidea Collection: of the 22,181 caeliferans, 15,020 were Acrididae and 5,848 were Romaleidae. Ten other Caelifera families were also represented, plus seven in Ensifera. The saved data also allow us to have information on Acridoidea diversity in several areas of Brazil, providing, for example, useful information for scientific studies, field expeditions, and for efforts aimed at the reconstruction of the collection.

Now, two years after the fire, the

Figure 7. Carlos Carbonell and Miguel Monné in Rio de Janeiro, 1993.

Orthoptera Collection is currently divided into a wet (ethanol) and a dry collection, with almost five thousand specimens collected in its first year (2018-2019), and with samples covering all Orthoptera families recorded for Brazil. When the COVID-19 crisis is over, expectations are good for the forthcoming years: new expeditions will be conducted to increase the Orthoptera Collection's holdings, a new building for the Entomology Department is being constructed, and new buildings specifically designed to house wet and dry collections of the MNRJ are being planned.

References

Monné, M.A. (2018) An updated list of the type specimens of Caelifera (Orthoptera) in the Museu Nacional, Rio de Janeiro. Zootaxa, 4462(1): 073-099.

Song, H. (2010) Grasshoppers systematic: past, present and future. Journal of Orthoptera Research, 19(1): 57-68.

Collecting Orthoptera in South Africa and Namibia amid COVID-19

By RICARDO MARIÑO-PÉREZ[1] & DANIELA MATENAAR[2]

[1]University of Michigan, Ann Arbor, USA
ricmp@umich.edu; pselliopus@yahoo.com.mx
[2]Hessisches Landesmuseum Darmstadt, Germany
daniela.matenaar@hlmd.de; daniela.matenaar@gmail.com

This expedition was born in March 2019, during the 13th International Congress of Orthopterology at Agadir, Morocco. There, RMP and DM met in person for the first time, and based on years of DM's experience in Western and Eastern Cape areas in South Africa and RMP's previous short prospective trip to Namibia (Erongo Region) plus similar interests in Southern Africa orthopterofauna, we decided to plan a 4-week expedition in 2020.

After months of endless email exchanging, we finally had the dates: we would be travelling southern Africa from February 28th to March 31st. We decided to rent a 4x4 vehicle and make a circuit, starting and ending in Cape Town, all the way to Etosha National Park (approximately 5,000 km). The basic idea was to spend two weeks in South Africa and two weeks in Namibia. We did not book any lodging in advance to freely decide where to spend more or less time depending on the weather conditions.

1. Western Cape, South Africa

We travelled the Western Cape in South Africa from March 1st to 8th. We started at Table Mountain, Cape Town. There, we were able to observe *Thericlesiella meridionalis* camouflaging (Fig. 1). In general, we found adult individuals close to the coast as well as in the mountains and hot areas, such as Cederberg Wilderness Area. During previous field trips in March, DM had mostly only found nymphs in some areas, especially on sites close to the coast. The weather was overall very sunny, similar to the conditions in 2012. It was very hot in the northern reserves (37 °C) and generally dry and hot in the other reserves visited. Concerning water availability, we were able to observe that pools and rivers in Groot Winterhoek Wilderness Area and Cederberg were very dry;

Figure 1. *Thericlesiella meridionalis* habitus at Table Mountain, South Africa.