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BIOGRAPHY

Maria Guiomar Nates-Parra: Biographical sketch and summary of contributions to the melittological knowledge of Colombia

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Abstract. A brief account of some aspects of the academic career of Maria Guiomar Nates-Parra, a Colombian bee biologist who pioneered melittological research in her country, is presented here as a small tribute on the occasion of her 65th birthday. A summary of her contributions to science and education is provided.

This year, on the 19th of February, we celebrated the 65th birthday of Maria Guiomar Nates-Parra (Fig. 1), a biology professor at the Universidad Nacional de Colombia (Bogotá) who pioneered research and conservation of native bees in Colombia. Guiomar has dedicated nearly four decades of her life not only to research, but also to the training and mentoring of numerous undergraduate students and to educating the public about the importance and conservation of native bees. While Guiomar needs no introduction to most bee researchers in Latin America, a brief account of some aspects of her career is presented here to commemorate the occasion of her birthday and in recognition of her accomplishments to science and education.

Guiomar was born on 19 February 1948 in Ubaté, Cundinamarca, a picturesque Andean town located 95 km north of Bogotá. Guiomar spent most of her childhood in Ubaté with her parents Servando Nates Cortés and Luisa Parra, her two sisters, Pilar and Narda, and her brother, Cesar Francisco. The family moved to Bogotá where she went to high school (1960–1965, Liceo Femenino de Cundinamarca) and college (1966–1969), obtaining a bachelor's degree in biology and chemistry at the Universi-

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dad Pedagógica Nacional. Guiomar first shared her enthusiasm and passion for teaching at the Instituto Nacional de Educación Media Diversificada (INEM) Francisco de Paula Santander at Ciudad Kennedy, a recently established high school where she taught earth sciences. In 1972, Guiomar was awarded a fellowship from the Organization of the American States and moved to Ribeirão Preto, Brazil, to undertake graduate studies at the Universidade de São Paulo. She studied honey bee genetics under the mentorship of the renowned Brazilian melittologist Warwick E. Kerr and graduated with a Master's degree two years later (Nates-Parra, 1974).

In 1975, Guiomar began her appointment at the Universidad Nacional de Colombia as an Assistant Professor of Genetics. A year later, she created the Bee Research Laboratory (Laboratorio de Investigaciones en Abejas, LABUN), initially to continue her studies on honey bees, and, curiously, with some of her former high school students from five years earlier who were by that time in college themselves. The lack of knowledge on Colombian native bees rapidly switched Guiomar's interests and efforts. With students, she began a series of expeditions in the Department of Cundinamarca, primarily to collect and study the nesting behavior of stingless bees. These earlier steps in the discovery of Colombian native bee diversity were facilitated by Adolfo Molina Pardo, another recently appointed assistant professor at the Universidad Nacional de Colombia based in Medellín. Adolfo was trained in bee systematics by Wallace E. LaBerge at the University of Illinois and had recently returned to Colombia after earning his M.A. and Ph.D. degrees working on *Andrena* Fabricius. Guiomar also began to communicate with bee scientists located in other countries, particularly Brazil. Some of the earlier works on the biology of stingless and bumble bees conducted in Guiomar's lab were assisted by the late Shōichi F. Sakagami (1927–1996), João M.F. Camargo (1941–2009), and Jesús S. Moure (1912–2010).

Without appropriate support, insect pins had to be done by hand and earlier collections of Guiomar's lab were kept in T-shirt boxes or shoeboxes in a corner of her office. However, shortly after, and with the support of the university and funds obtained through federal grants, Guiomar was able to acquire a modest laboratory space and to start a bee collection that today represents the best regional collection of the country, numbering at about 25,000 specimens. The lab also contains the most complete library on bees that can be found in Colombia. Likewise, the biological information published about stingless and bumble bees during these earlier years of Guiomar's lab remain the most complete for these groups in the region. The bee specimens collected during that period also began to reveal the uniqueness of the Colombian melittological fauna. Several new species were soon discovered and described by Camargo and Moure (*e.g.*, Camargo, 1984; Camargo & Moure, 1994), and increasingly by other authors in subsequent years (*e.g.*, Engel & Klein, 1997; Dressler & Ospina-Torres, 1997; Ospina-Torres & Sandino-Franco, 1997; Parra-H *et al.*, 2006; Engel & Gonzalez, 2009; Gonzalez & Griswold, 2012), including an orchid bee named after Guiomar, *Euglossa* (*Glossura*) *natesi* Parra-H *et al.* (2006).

In October of 1993, Guiomar began editing and publishing *Tacayá*, a small bulletin that she printed in her lab and distributed among colleagues. *Tacayá* is the common name of a stingless bee of the genus *Scaptotrigona* Moure that is used by local people in the Central Andes of Colombia. *Tacayá* not only served as a venue to communicate new records, notes, events, &c., among local specialists, but also as a first step to expose undergraduate students to scientific writing. She often involved students in all stages of the editing and publishing process, including the designing of the logo. For many students, this was the first opportunity, and often the only one in their lives, to



Figure 1. Professor M. Guiomar Nates-Parra in 2006 showing a collection of orchid bees in her lab (Photograph courtesy of M.L. Bueno).

write about their research interests. *Tacayá* has gone online since 1995 and has now become the bulletin of the IUSI-Bolivarian section (International Union for the Study of Social Insects).

In 2002, Guiomar embarked herself in another major project when she organized the first Colombian meeting on native bees (Encuentro Colombiano de Abejas Silvestres), which has then taken place every other year since that time. During each meeting short courses on a variety of subjects are also offered, including pollination biology, stingless beekeeping (meliponiculture), and bee identification, which have attracted the attention of scholars, students, and the public from many regions across Colombia. The meeting has served as the first step for Colombia to join global initiatives in the conservation of native pollinators, and has provided an alternative for researchers and students from nearby countries who cannot easily travel to larger meetings in Brazil or the United States.

Guiomar has been the recipient of several prestigious national awards for mentoring undergraduate students and her research activities. Guiomar's contributions to the melittological knowledge of Colombia are diverse (Appendix *vide infra*); they include publications on genetics, taxonomy, behavior, ethnobiology, palynology, conservation, and pollination biology, primarily on corbiculate bees (Apidae: Apinae). Guiomar has trained over 30 undergraduate students, many of whom have gone on to successful careers in entomology. Guiomar's contributions to the diverse, yet still little known, bee fauna of Colombia are significant; however, her contributions and devotion to mentoring and transforming the life of her students are immeasurable.

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APPENDIX

Publications of M. Guiomar Nates-Parra

(Complete as of 26 February 2013)

Note that this list does not include conference abstracts or technical reports.

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