The LINNEAN SOCIETY of London BOTANICAL Journal of the Linnean Society

Botanical Journal of the Linnean Society, 2016, **182**, 204–206. With 1 figure

Obituary

Gloria Galeano (22.4.1958–23.3.2016)

Gloria Amparo Galeano Garcés was born in the Colombian city of Medellín, the daughter of Gerardo Galeano, an accountant from Amagá, and Lía Garcés, from Heliconia. Gloria was the second of six children. Growing up in Sabaneta within the metropolitan area of Medellín, Gloria attended El Carmelo, a traditional Catholic school. In 1976, at the age of 18, she enrolled in the Medellín branch of the Universidad Nacional de Colombia. She graduated in 1983 with the title of *Ingeniero Agrónomo* and her thesis entitled *Palmas del Departamento de Antioquia* was awarded a special mention. This thesis was published in 1987 as a book, co-authored with her study-mate and life-time companion Rodrigo Bernal.

Over her entire career, Gloria's research covered a wide range of fields, including taxonomy, systematics, conservation, traditional knowledge, ecology and harvest impacts of Colombian plants and, in particular, Neotropical palms. Her proximity to nature as she was growing up inspired Gloria to study plants at university. This affinity combined with her lifelong commitment to contributing sustainable solutions in a country with so many needs drove her to study to become an agronomic engineer in her first degree. Following her graduation, she investigated not only palms, but the entire Colombian flora, while going on to teach botany and ultimately inspiring an entire generation of students.

In 1984, the year after her graduation, she took up a position at Instituto de Ciencias Naturales, part of the National Colombian University in the capital Bogotá, where the Colombian National Herbarium (COL) is housed. Gloria remained there for her entire career, holding the office of Director of the Institute from 2003 to 2006, and when she passed away, she was an associate professor (Fig. 1).

In 1993 Gloria had the opportunity to deepen her education and she started a PhD study at Aarhus University, Denmark, under the supervision of Henrik Balslev. She completed her studies in 1997 with a thesis entitled *Quantitative forest inventories on the Pacific coast of Chocó, Colombia.* This work, the first rigorous ethnobotanical and ecological study in the Chocó area, was later published in two papers in *Biodiversity and Conservation* and *Economic Botany*. Gloria maintained her affiliation with the Colombian National University during her doctoral studies and returned to her post after completing her PhD.

Together Gloria Galeano and Rodrigo Bernal contributed enormously to the understanding of the rich palm flora in Colombia and the Neotropics. The Colombian botanists Armando Dugand and Victor Manuel Patiño provided the first list of the palm species of Colombia (*Cespedesia*, 1977), and the latter provided significant understanding on the importance of palms as potential extractive resources. These works served as Gloria's and Rodrigo's inspiration and baseline to develop their main research area. At the beginning of the 1980s, Colombian palm taxonomy was almost non-existent and this led both researchers to start compiling botanical information for this family. The only botanical treatments at the time were difficult to access and written either in German or Latin. These works were mostly based on incomplete herbarium collections and many of the type specimens had been lost during the Second World War. Gloria and Rodrigo started almost from scratch, collecting palms from the type localities described in those earlier works and from all over the country over the following decades. Their legacy has resulted in the palm collection in COL including > 10 000 specimens and these records are now available online. Gloria and Rodrigo, in collaboration with their many students, revised the palm flora of

Figure 1. Gloria Galeano in the Quito herbarium in 2008.

Colombia. As a result, today the taxonomy of the palms of Colombia is well resolved and many aspects of their natural history, ecology and ethnobotany have been studied and published. All this knowledge allowed the production of the *Plan for the conservation, management and sustainable use of Colombian palms* in 2015.

Gloria's work has been formally recognized on a number of occasions. Her first recognition was for her thesis in 1983 which received a special mention. In 1987 she was given a prize by the Third World Academy of Sciences. In 1991 she received special mention in the national ecological competition *Enrique Perez Arbeláez* for her book *Las palmas de la región de Araracuara*. In 1996 she won the first prize from *Fundación Alejandro Angel Escobar* for the *Field guide to American palms* (co-authored by Henderson & Bernal). In 2006 she gained the *Somos Patrimonio* prize Convenio Andrés Bello for the dictionary to common plant names in Colombia (co-authored by Rodrigo Bernal, Ángela Rodríguez, Helena Sarmiento and Mauricio Gutiérrez). In 2010 she was honoured for Research Merit by the Faculty of Sciences at her university in Bogotá and, finally, in 2011 she received special mention by the *Fundación Alejandro Angel Escobar* for *Palmas de Colombia* (co-authored by Rodrigo Bernal).

Gloria started publishing scientific papers even before she obtained her first degree. In 1982, at an age of 24 years, she described two new species of *Ceroxylon* from Colombia in *Principes*, the journal of the International Palm Society. The following year, she published a paper about new records of palms in Colombia in the journal *Caldasia*. Both papers were co-authored by Rodrigo Bernal. Gloria went on to publish a total of 68 peer-reviewed papers in a variety of international and Colombian journals over her career. Her last paper, published in the journal *Population Ecology,* was a demographic study of the economically important palm *Oenocarpus bataua*, with her student Carolina Isaza as first author. In addition to her many research papers, Gloria published 17 books, mostly on the subject of palms. Among the most important of these is the *Field guide to American palms* (1995), co-authored by Andrew Henderson, from New York Botanical Garden, and Rodrigo Bernal. The book was hailed as a major advance in Neotropical botany, not least by the many ecologists who could now identify the majority of palms in their studies. Perhaps the next most important book that Gloria authored was *Palmas de Colombia* (2010), a wonderfully detailed and easy-to-use guide to all Colombian palms, which has also enhanced and inspired many derived studies since its publication. Gloria also contributed 15 book chapters on various aspects of palm biology in a variety of different contexts and she also published a series of popular works on subjects as diverse as the common names of plants in Colombia, plants with artisanal uses and conservation management guides for palm species in the wild. Gloria was supervising students until shortly before she passed away and a number of works are currently in preparation and will be published over the coming years.

For several periods between 1989 and 2006, Gloria was on the editorial committee of the leading Colombian natural history journal *Caldasia*. She was member of the editorial committee of the Colombian Red List series, 2001–2007, and from 2006 onwards she was a member of the editorial committee for the series *Flora de Colombia*, another of the important publications produced by the Instituto de Ciencias Naturales in Bogotá.

Gloria worked in collaboration with some of the most important environmental institutions in Colombia. *Las palmas de la región de Araracuara* was the first of a successful book series on Amazonian studies produced by Tropenbos-Colombia. The Colombian Red List series was produced in collaboration with the Instituto Alexander von Humboldt, which also supported some of her expeditions to study palm species of conservation importance in the wild. Gloria's last research project provided the information needed to support and generate initiatives for the sustainable use and conservation of selected palms in the Caribbean region and it was supported by Patrimonio Natural, a Colombian organization for protected areas. An important partner of this project was the Fundación Ecosistemas Secos de Colombia, which investigates and promotes the conservation of Colombian dry forests at the same time as improving the quality of life of their inhabitants; the founders of this Foundation, Gina Rodríguez and Sandra Reyes, as well as other members, are former students of Gloria. The *Plan for the conservation, management and sustainable use of Colombian palms* was produced in collaboration with the Ministry of Environment and Sustainable Development. Gloria also participated in a number of international initiatives, the most important of which was the EU-funded FP7 PALMS project, initiated by Gloria's PhD supervisor, Henrik Balslev.

During her time at the National Colombian University in Bogotá, Gloria taught innumerable courses in plant taxonomy, general botany, floristics, ecology, research methods, biodiversity management and other subjects. She also taught courses in La Paz, Bolivia, on the conservation of wild relatives of economically important plants and in Lima, Peru, on the conservation of palms.

Over her career, Gloria supervised six PhD theses, nine master theses and > 20 bachelor theses. She

attracted so many students because of an exotic combination of characters difficult to find in the academic realm. She had an inspiring and productive career, she was incredibly passionate about her work, she always wanted her work to contribute to environmental and societal changes in her country and she was the kindest person to everyone, especially to students.

Gloria was passionate about sharing her work with others and during the 28 years since her first talk (which was at the palm meeting in Cornell University in Ithaca, NY in 1987), she gave 92 oral or poster presentation, an average of more than three each year. Many of these poster and oral presentations were co-authored with her students, who were always involved in Gloria's projects to the highest possible degree. At the height of her career, she made 18 presentations in 2010 and 18 in 2011. Her last presentations proved to be an oral presentation and nine posters at the World Palm Symposium, 2015, in Quindío, Colombia, which she co-organized and hosted with Rodrigo Bernal.

Gloria was active in many international contexts, always providing insight and inspiration. She was a member of the Association for Tropical Biology and the International Palm Society and she served on the IUCN Palm Specialist Group and was a member of the Flora Neotropica committee.

Gloria used to say 'any project in which we would get involved, should be thrilling and make our blood boil'. That was the attitude that inspired her large group of students and the motto for establishing and leading the Group for Neotropical Palm Research. Passion and hard work were the key words and she taught her followers to identify, collect, climb, study, cook, eat and simply enjoy palms. She gave them a passion for palms and the Neotropics and she made them all one big family.

Gloria's final main contribution to palm science was to co-organize the World Palm Symposium, held in Quindío, Colombia 22–27 June, 2015. This was a great opportunity for the entire community of palm researchers to see Gloria at her best, organizing and leading her group of students, presenting talks and posters and making sure everyone got the most possible out of the meeting. Her oral presentation, *The potential of* Bactris guineensis *for conservation of dry forest areas in the Caribbean lowlands of Colombia*, highlighted the profitability of sustainably using this abundant palm compared to extensive cattle in an eroded landscape. The co-authored posters with her students included different topics on the ecology and management of the most important palms in the Caribbean, Andean and Amazon regions of Colombia.

Gloria is survived by the generation of botanists she instructed and inspired, her life-time personal and professional companion Rodrigo Bernal and their daughter Sabina (born 1994) who was the inspiration for the marvelous new Neotropical palm genus *Sabinaria*, published in *Phytotaxa* in 2013.

Ingrid Olivares and Henrik Balslev