



### *In Memoriam* Salvador Rivas-Martínez (July 16, 1935, Madrid – August 27, 2020, Madrid)

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While his body is still warm, I prepare myself with intense emotion for the task of writing an obituary for my friend and mentor, Salvador Rivas-Martínez.

He was one of the most outstanding botanists of his time and the personification of a line of naturalists that is today practically extinct; those who saw their obligation as being to accumulate a vast store of knowledge to justify their position as teachers and mentors. He was the third in a family dynasty of professors of botany at the Complutense University of Madrid, after his father, Don Salvador Rivas Goday, and his grandfather, Don Marcelo Rivas Mateos, who worked in the 1930s. His father, a prestigious professor of botany at the Faculty of Pharmacy, was an important early influence on him, taking him on excursions to botanize around Spain in the summers of his childhood. It was in this period in the 1940s and 50s when Salvador acquired a thorough knowledge of Iberian flora, which was to become the cornerstone on which he would build his prodigious knowledge of the diversity of the plant world.

I first met him in 1973, when I was a biology student barely 20 years old and was assigned to Rivas's group in the subject of botany. He did not show up to the first classes because he was on a mountaineering expedition to the Himalayas, but arrived one week later. He made a powerful impression when he walked into the

classroom, and raised a chorus of murmurs: a thin, very dark man, daringly dressed in the fashion of the day, he made a grand entrance flanked by several of his collaborators. As soon as the class began, the audience was immediately captivated by his electrifying force. Within just a few weeks, many of us became fascinated by his playful and yet intense, rigorous and highly documented style of teaching. There and then I made up my mind to be a botanist, and that Salvador would be my advisor.

I never regretted my decision, which was shared by many others who later pioneered botany and geobotany in Spain and in other countries, particularly Portugal and Italy. Salvador was always on hand to offer his constant and unwavering support and information. He had many disciples, in the truest sense of the word, whom he trained from the beginning in countless field sessions in which the multitude of questions that arose were passionately analysed and discussed. He conveyed rationality in the interpretation of nature; he showed us it was organized by patterns and guidelines into communities and ecosystems under environmental determinism, thus illuminating the darkness of a disorderly and chaotic randomness. His disciples' training did not end with their doctoral thesis, but continued indefinitely, and he never failed to respond to a request for an opinion or interpretation. In this way he wove a network of relationships with his disciples and friends through which information circulated fluidly, and which led to the emergence of entities such as the Spanish Association of Phytosociology and its annual congress, the Phytosociology Conference, and an excursion, the *Itinera Geobotanica*, which eventually gave rise to a highly successful periodical.

He had a passionate and intense interest in plants, vegetation, and landscape. His insatiable curiosity meant he wanted to know everything about everyone. His holistic mindset led him to study all kinds of plant communities, from the modest ruderal associations around Madrid to the majestic forests of the southern Andes. A tireless traveller, he journeyed around practically the entire globe to study its plant heritage and conditions; nothing could be farther from conventional tourism. Like a spreading oil stain, he gradually expanded the scope of knowledge to cover Spain, Europe, the Mediterranean, South America, North America, East Asia and other territories.

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His most important and innovative scientific contributions are:

1. The dynamic concept of vegetation, with theoretical compilations of vegetation series, of which he edited a map of Spain that is today a major reference point for the distribution of the country's terrestrial ecosystems.
2. Bioclimatology in relation to vegetation units, resulting in numerous cartographic documents on various countries and continents, which have achieved great international projection.
3. Biogeography, which was developed in parallel with bioclimatology.
4. The conservationist approach to biodiversity and ecosystem function, which he embraced from the start of his career, and was one of the great lessons for his disciples and students.

Each of these aspects was extensively explored in his work, as substantiated by his copious bibliographic output, and the information available on various regions in the world today is largely thanks to his own personal efforts.

Although his field of activity was based on vegetation dominated by vascular plants, he always maintained a holistic vision of botany and promoted cryptogamic specialities such as bryology, mycology, lichenology and phycology, as well as other fields that were further from his primary interest, such as taxonomy and systematics.

He founded several periodicals, including the scientific magazine *Lazaroa* (currently *Mediterranean Botany*) in 1979, of which he was for many years the editor in chief together with the editorial secretary, Eva Barreno, in the early years. Others were *Itinera Geobotanica*, *Global Geobotany* and the *International Journal of Geobotanical Research* in partnership with Ángel Penas. They served to channel a large volume of publications and documents, which today constitute a vast and solid scientific heritage.

The bibliometric analysis of his work is a testament to his tireless activity that has had a far-reaching international impact. He has over 400 publications of all kinds to his name, which have received almost 20,000 citations, one with over 2000 and another two with more than 1000. Particularly worth noting among the honours and awards he has received is his appointment as an Academician of the Royal Academies of Pharmacy and of Physical, Mathematical and Natural Sciences, and his honorary degrees from five universities: Basque Country, Granada, León, Técnica de Lisboa (Portugal) and Ancona (Italy), in addition to many other distinctions that would be too long to list.

Those of us who were lucky enough to have a close relationship with him consider ourselves fortunate to be the beneficiaries of his enormous wealth of knowledge and his scientific and personal generosity. His sense of friendship was unshakeable and he always held a special place in his heart for those who had accompanied him on his journey.

Requiescat In Pace – Rest in Peace