

Biography: Diana Wrigley de Basanta

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Abstract: Diana Wrigley de Basanta is an expert on corticolous myxomycetes. Over more than 40 years she has combined her teaching activities with myxomycete research. She participated actively as a research scientist in projects and expeditions to the Neotropics and Paleotropics. She has made an important contribution to the knowledge of culturing methods, taxonomy, and distribution. The more than 70 papers or book chapters she has published, and the 23 new species that were described are evidence of her work and expertise on this group of microorganisms. A brief biography and a synopsis of some of her work and experience, as well as a compendium of her papers published on myxomycetes, is provided herein.

Keywords: myxomycetes, taxonomy, Neotropics, culturing methods, new species.

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In 1944, when all of Europe was still immersed in the devastating Second World War, Diana Wrigley Barry was born in West Kirby, a town on the Wirral Peninsula, in Merseyside, England. With an Irish mother and an English father, she was one of the couple's eight children. The origin of her family, the harsh economic conditions that governed her birth, and the constant presence of the sea forged her character, her rebellious spirit, and her love for education, nature and trips.

Diana graduated in Biology from the University of London, and obtained her Master in Biology degree from the University of Liverpool. Since 1968 she was hired at the American School of Madrid (Spain), as a Biology teacher (Fig. 1), an employment situation she held, with the position of chair, until her retirement in 2004. Her gifted pedagogical skills, remembered by many of her students, led her to participate in educational programs and activities such as the WWF Institute for Science Teachers Yverdon-les-Bains (Switzerland), and Instructor or Teacher training workshops for the course in environmental awareness (WWF) in Spain, France, UK and Switzerland. Currently, she is a Member of the Royal Society of Biology (MRSB).

Diana's interest in myxomycetes arose in 1982 when she met specialist Bruce Ing, professor at Chester University College, who guided her first steps in the taxonomy and culture of these microorganisms.



Figure 1. Diana Wrigley de Basanta during one of her collecting trips.

In 1984, taking advantage of the proximity of her workplace to the evergreen oak forests that surround Madrid (Spain), she focused on the study of corticolous myxomycetes. That same year, she contacted Carlos Lado, and in a pleasant meeting held in the historic café Gijón, in the capital of Spain, famous for its literary gatherings, she showed him one of her discoveries, *Macbrideola synsporos*, then unknown for Spain. From that year on, her relationship with that researcher intensified and transformed into a large and fruitful collaboration that endures to this day.

In 1996, encouraged by her collaboration with Carlos Lado, she acted as Secretary of the Second International Congress on the Systematics and Ecology of Myxomycetes, held at the Royal Botanical Garden of Madrid (Spain) in April of that year. The event was a scientific success and the participants, of 22 nationalities, have good memories of her diligent management, her organizational skills, as well as the collaboration she achieved, on the part of the students of various nationalities of the American School of Madrid, who assisted many of the participants in their native languages.

The systematic culture of corticolous species, which Diana carried out, bore fruit and her environmentalist interest led her to publish a pioneering work on the effect of pollution on the development of corticolous species of myxomycetes (Wrigley de Basanta 2000, 2003). Over the years she became an expert in growing myxomycetes in the laboratory. Her mastery on the moist chamber technique and her ability to grow species in defined media (Fig. 2) led her to discover more than 20 species previously unknown to science (Table 1). Her extensive experience is now reflected in the publication of several scientific articles on the techniques and methods of culturing these microorganisms (Haskins and Wrigley de Basanta 2008; Wrigley de Basanta and Estrada Torres 2017).



Figure 2. Diana checking myxomycete cultures in the laboratory.

The beginning of the 20th century gave her the opportunity to develop another of her most beloved facets, actively participating in the preparation and/or development of scientific expeditions. From 2000 to 2017 she was a member of more than 20 research expeditions with grants from the Fulbright Commission, the National Science Foundation, and the Spanish government. Collaborating with researchers such as Arturo Estrada-Torres, Steve Stephenson, Carlos Lado or Fred Spiegel, she participated in explorations (Figs. 3-4) in search of myxomycetes in Mexico (2000-2008), Cuba (2002), Argentina (2006-2011), Chile (2006-2008), Madagascar (2009), Peru (2013-2017) and Namibia (2015).



Figures 3-4. Collecting bark for cultures in Mexico and Peru, respectively.

Her participation in the development of the Myxotropic project (www.myxotropic.org) represented another of her most important milestones. Since 2003, the start date of the project, Diana has been part of the working team, assuming the co-organization and execution of the majority of scientific expeditions that took place in Mexico and South America (Fig. 5). Together with other team members, she traveled more than 80 000 km in search of myxomycetes. These explorations, some of which took place in harsh environmental and working conditions, were carried out by Diana with complete mastery, even when some unexpected and unfortunate accident occurred, as she told us in Wrigley de Basanta (2023).



Figure 5. On the expedition to Sierra Blanca in Peru.

Diana, taking advantage of her experience in the culturing of species, was in charge, within the Myxotropic project, of taking samples of substrates for subsequent culture in the laboratory. New species of the genera *Cribraria*, *Dianema*, *Didymium*, *Licea*, *Macbrideola*, *Perichaena* and *Physarum* were some of the discoveries (see Table 1). The detailed descriptions of these species are accompanied, in many cases, by observations about the life cycles of their “myxo-mysteries,” as she likes to call them (Wrigley de Basanta et al. 2008, 2009, 2011, 2012, 2015, 2018).

She has published more than 70 research articles and book chapters in prestigious specialized scientific journals and editorials (see selected publications below) which, together with the almost 4000 samples of corticolous myxomycetes species preserved in her collection, are evidence of the activity developed and the quality and scientific rigor that she has applied to each and every one of her works, and which constitute an outstanding scientific legacy.

Table 1. New species described by Diana Wrigley de Basanta (from www.eumycetozoa.com, on 9 January 2024).

Species	Country
<i>Cribraria spinispora</i> Lado & D. Wrigley	Peru
<i>Dianema succulenticola</i> Lado, Estrada & D. Wrigley	Chile
<i>Didymium azurellae</i> D. Wrigley, Lado & Estrada	Argentina
<i>Didymium chilense</i> Estrada, Lado & D. Wrigley	Chile
<i>Didymium infundibuliforme</i> D. Wrigley, Lado & Estrada	Argentina
<i>Didymium operculatum</i> D. Wrigley, Lado & Estrada	Chile
<i>Didymium peruvianum</i> Lado, D. Wrigley & S.L. Stephenson	Peru
<i>Didymium tehuacanense</i> Estrada, D. Wrigley & Lado	Mexico
<i>Didymium umbilicatum</i> D. Wrigley, Lado & Estrada	Mexico
<i>Didymium wildpretii</i> Mosquera, Estrada, Beltrán-Tej., D. Wrigley & Lado	Mexico
<i>Didymium xerophilum</i> Lado, Estrada & D. Wrigley	Peru
<i>Licea ampulliformis</i> D. Wrigley & Lado	Mexico
<i>Licea aurea</i> D. Wrigley, Lado & Estrada	Peru
<i>Licea eremophila</i> D. Wrigley, Lado & Estrada	Argentina
<i>Licea metallica</i> D. Wrigley, T. W. Ko Ko, W. C. Rosing & S.L. Stephenson	Laos
<i>Licea verrucispora</i> D. Wrigley & Lado	India
<i>Macbrideola andina</i> D. Wrigley, Lado & Estrada	Argentina
<i>Perichaena calongei</i> Lado, D. Wrigley & Estrada	Argentina
<i>Perichaena madagascariensis</i> D. Wrigley, Lado, Estrada & S.L. Stephenson	Madagascar
<i>Perichaena megaspora</i> A. Ronikier, Lado & D. Wrigley	Argentina
<i>Perichaena nigra</i> D. Wrigley, Lado & Estrada	Argentina
<i>Perichaena stipitata</i> Lado, Estrada & D. Wrigley	Mexico
<i>Physarum atacamense</i> D. Wrigley, Lado & Estrada	Chile

Diana is a keen reader and, driven by her interest in the Natural History and the life and work of researchers, she has recently co-authored papers on the type material of the Listers collection at the British Museum (Lado and Wrigley de Basanta 2018) and the collection of David W. Mitchell, another specialist in the moist chamber culturing of myxomycetes, recently deposited in the Kew Gardens Fungarium (Lado and Wrigley de Basanta *in press*).

Now, enjoying her retirement, Diana has returned to West Kirby, the city where she was born, but she continues to work on her favorite group, the genus *Licea* (Fig. 6) (Wrigley de Basanta and Lado 2005; Wrigley de Basanta et al. 2010, 2019, 2023) and also continues to advise and participate in projects and publications. All of us who have had the pleasure of accompanying on her scientific career wish Diana a long life and many more myxo-adventures.



Figure 6. Checking collections of the genus *Licea* in Kew Gardens.

Selected publications of Diana Wrigley de Basanta

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