

Biography: Carlos Lado

Diana Wrigley de Basanta¹

¹ 39, Madeley Drive, West Kirby, Wirral, UK.

E-mail: dwbasanta@gmail.com

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Abstract: Dr. Carlos Lado, based in Madrid, Spain, is a research scientist, expeditionist, and myxomycete expert. He has made an important contribution to the knowledge of myxomycete morphology, taxonomy, nomenclature and distribution over many years. A brief synopsis of some of his important work and experience is given here.

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There is very little in the world of the study of myxomycetes (slime molds) that has escaped the notice of investigator Carlos Lado (Fig. 1). He has worked, investigated and collected these beautiful, enigmatic organisms over vast areas of the world for more than 40 years. Having studied at the Universidad Complutense and the Universidad de Alcalá de Henares in Madrid, he became a senior researcher at the Real Jardín Botánico, Consejo Superior de Investigaciones Científicas (CSIC) Spain, where the majority of his research has taken place. Although he has just retired, he remains very involved with the work of the Myxotropic project (<https://www.myxotropic.org>) that he began 20 years ago and with publishing treatise and results to add to his already impressive scientific legacy. To date his more than 150 peer-reviewed scholarly articles, books and book chapters are testimony to his research impact, and they include describing more than 40 species that were previously unknown to science as author or co-author and correcting or updating the names of many more.

Carlos is almost uniquely accomplished in the taxonomy and nomenclature of myxomycetes and is responsible for designing and informing an online nomenclatural information system (<https://eumycetozoa.com>) that has become the chosen reference source of most major scientific institutions, for the names of Eumycetozoa of the world. His academic interests also span investigation into the origins of myxomycete names, historic collections of myxomycetes around the world, and the life and work of historic researchers, as witnessed by the recent publication of papers on the Lister collection at the British Museum (Lado and Wrigley de Basanta, 2018) or the painstaking edition of an unfinished book by Nannenga-Bremekamp (2022).



Figure1. Carlos Lado collecting bark in Madagascar.

However, delving into dusty archives is not all this myxomycetologist does. He is an outstanding, competent and trustworthy expedition leader. Carlos has travelled over four continents in search of myxomycetes, and along with his frequent co-driver Arturo Estrada-Torres, has driven more than 100,000 km by road in this intent, over every type of terrain imaginable, including some of the scariest mountain roads on the planet. Some of these exploits have involved getting stuck in mud, or snow or volcanic dust (Fig. 2), sliding near precipices, or being towed out of water.

Few professional rally drivers have the hard-earned experience he has, but he has coped with them all, often inventing ways out or becoming the on-site mechanic. Once, after a tire blew and we crashed on a deserted arid road high in the Andes, he walked back alone across the desert at dusk, to seek help from a homestead, the only one for many miles, that he had noticed when we passed some time before. He was missing for hours, but after nightfall he returned with some farmers, a tractor and a quad bike to right our upturned vehicle, fashion some emergency repairs and enable us to limp to the nearest village 25 km further on.

Carlos has been awarded, and been principal investigator of, a number of international grants to enable the research projects abroad. The paperwork for these grants, as everyone who has applied for one will know, is extensive and time-consuming, although his have almost always been successful. The regulations required for travel in search of myxos are complex, as each country has its own rules about who can collect, where to collect, the permits needed, currency guidelines and so on, and sometimes it all even changes after arrival. The local researchers and students who work on the team with Carlos have always been very helpful with this. On one occasion, the currency exchange was such, that in local money

Carlos was given a million and a half in huge stacks of bills that left him looking more like a bank robber than a scientist. On another, the team were stopped and held up by armed masked protesters who had blocked the road, totally uninterested in permits and papers, but Carlos managed to talk them down and they eventually allowed the team to continue.



Figure 2. On the Villarica volcano in Chile.

Any field collecting is far from straightforward, but from below sea level to elevations above 5000 m, Carlos and the Myxotropic team has found myxos, albeit sometimes in strange circumstances. Once in the dark by torchlight coming down a mountain, another time beneath a passing cloud of killer bees while he was clinging to an observation mast, many times climbing rock faces and trees, beset by tarantulas, black widows, scorpions, snakes and even searching out these barely visible microorganisms on blades of isolated clumps of plants in the middle of the desert in intense heat (Fig. 3). But he would be the first to encourage anyone to do the same such is his enthusiasm for his work. In fact, his young son once summed it up when he was reputed to say “dad’s away on holiday for work.”

The academic careers of many students have been launched through working with Carlos. He has been thesis advisor and postgraduate scholar sponsor to more than a dozen students, and has involved students on every collecting trip. In addition, his direct involvement in education has been a constant through workshops and conferences such as the Second International Congress on the Systematics and Ecology of Myxomycetes in Madrid, for which Carlos was the chairman.



Figure 3. In the Namib desert.

A list of most of the publications Carlos Lado has authored can be found on the project web page (<https://www.myxotropic.org>), but a few listed here show some of the breadth of his eclectic talent.

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