



### **Luis M. Lubián Chaichío (Cádiz, 1951-2017)**

On 6 October 2017 we sadly learnt that Dr. Luis M. Lubián Chaichío had passed away, after facing a terrible disease. He was born in Cádiz (Spain) on 10 August 1951. After graduating in Biology from the University of Seville (1975), he became a member of the Institute of Fisheries Research of Cádiz, belonging to the Spanish National Research Council (CSIC). Some years later, the Institute changed its name to the current Institute of Marine Sciences of Andalusia (ICMAN). Luis was director of this institute between 1991 and 1998.

From the very beginning of his scientific career, Luis focused his interest on phytoplankton, and in particular on taxonomy and pigment composition of the species found in the Cádiz Bay. As a result of this research, in the early 1980s a new species belonging to the Eustigmatophyceae (a recent microalgal class created by Hibberd and Leedale around ten years earlier) was described by Luis: *Nannochloropsis gaditana* Lubián 1982. After its isolation this species became

widely used in aquaculture, and it has recently become a delicacy for human consumption. At that time Luis started a Marine Microalgal Strain Collection at the ICMAN, which is still maintained and currently has around 160 microalgal species.

Throughout the following years, Luis focused his research on aquaculture, as ancient salt industries around Cádiz Bay had languished and decayed decades earlier and these spaces were then beginning to be used for fish production. Luis was a pioneer in the design of trophic chains in aquaculture in southern Spain, from phytoplankton to fishes and shrimps through rotifers and crustaceans. All current aquaculture industries around Cádiz Bay recognize the invaluable and selfless help provided by Luis when these companies decided to start production.

Another point of interest in his research was cryopreservation of algal strains, a topic which he developed in collaboration with Dr. Pedro Cañavate. They stated that not only cryoprotectant was important in

those processes, but also the speed of freezing and warming.

The ecotoxicology of microalgae was another of his fields of interest, in which he designed some pioneering bioassays for complete sediments involving benthic diatoms and novel bioassays involving calcium-alginate immobilized microalgae.

During his last years of research, he focused on flow-cytometry analysis of oceanic phytoplankton, pointing out the importance of micro- and nanoplankton in the trophic structure of the oceans. In this field of study, Luis participated in the Malaspina expedition (2010 and 2011) and in several Antarctic oceanographic expeditions as the scientist in charge of phytoplankton analysis.

Luis always supported young researchers, giving them (giving us) the opportunity to learn and work

with him. He left numerous followers who are currently working in phycology and are indebted to him as a mentor and scientific guide.

But we are not only orphans of his knowledge. Luis Lubián was a highly appreciated person because of his optimistic vision of life in general, his excellent mood and his good humour: it was impossible to be sad or bored when he was by your side. He enjoyed life and marine science and made all people who knew him wiser, happier and better persons.

The whole marine science community will miss him and his legacy will not be forgotten.

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