



In Memoriam, Andrés Barbosa Alcón, researcher at the National Museum of Natural Sciences, CSIC (1964-2023)

Our dear colleague Andrés Barbosa Alcón sadly left us on 30 January 2023, when he still had much to live and was engaged in interesting research projects. He was a world-renowned polar evolutionary ecologist who dedicated his life to the study and conservation of birds.

He was born and raised in Madrid, where he took a degree in biology at the Complutense University of Madrid. After he graduated, his interest in ornithology led him to do his doctoral thesis at the National Museum of Natural Sciences under the direction of Eulalia Moreno. His thesis, entitled “An ecomorphological study of adaptive modifications of waders (birds: *Charadrii*) related to foraging”, explored the adaptations of waders to their environment. At the end of the same year, 1994, he travelled for the first time to Antarctica, together with Juan Moreno, and came into contact with the birds to which he dedicated a large part of his life: penguins. After returning from that first trip to Antarctica, he won a Marie Curie European grant and went to the Pierre et Marie Curie University in Paris for a post-

doctoral stay under the supervision of Professor Anders Møller. To further his study of the barn swallow and the costs of sexual ornaments for flight, he moved to Badajoz to work with Professor Florentino de Lope of the University of Extremadura. After various contracts and scholarships in Badajoz and Madrid, he obtained a research position at the Experimental Station of Arid Zones of CSIC, located in Almería. There he was in charge of organizing the Saharan Fauna Rescue Park, where several species of endangered gazelles are reproduced for reintroduction into their natural environment in North Africa, and he initiated studies on the birds that inhabit the semi-desert areas of the province of Almería. He also had the opportunity to lead project on pygoscelid penguin colonies in the South Shetlands and the Antarctic Peninsula.

Years later Barbosa moved permanently to the Department of Evolutionary Ecology of the National Museum of Natural Sciences in Madrid, where he continued this line of ecology and behaviour of Antarctic penguins until his death. He was a tireless traveller,

and the Antarctic campaigns kept him away from home for many Christmases. He also travelled to the Arctic to study the snow bunting on the Norwegian island of Svalbard, and to various places in Chile and Argentina. His work, consisting of more than 180 scientific publications, covers aspects of bird biology such as ecomorphology, ecophysiology, behaviour, reproductive biology and conservation. However, his most fruitful line of research was on Antarctic penguins. He led several research projects on the effect of climate change on these birds, as well as on many aspects of their biology that are being affected by climatic fluctuations, tourism, fishing and disease. He set up long-term studies to monitor the effects of climate on Antarctic penguin populations. He visited Antarctica for the last time in 2021, and it is now his collaborators who continue his legacy.

In addition to carrying out research, Barbosa was an excellent manager and scientific advisor at a national and international level. He was deputy director of Research of the Experimental Station of Arid Zones (2002-2008) and the National Museum of Natural Sciences (2012-2015) and head of the Department of Evolutionary Ecology of the National Museum of Natural Sciences (2010-2012). In addition, between 2018 and 2021 he held the position of polar research coordinator of the Spanish State Research Agency (AEI). He was also a member of the executive committees of the Spanish Society of Evolutionary Biology (SESBE) and the Spanish Ornithological Society (SEO/BIRDLIFE). At the international level, he was a member of the Scientific Committee for Antarctic Research (SCAR) and was a representative of the International Union for Biological Sciences (IUBS) on that committee, the

Spanish delegate in the Arctic Bird Migration Initiative of the Arctic Council, and a member of the leadership group of the Antarctic Peninsula working group of the Southern Ocean Observing System, among other responsibilities.

Another of his hallmarks was his determination to make the knowledge he produced available to society. He devoted time to writing informative articles, giving lectures at schools and universities and participating in documentaries and reports on his work, and was very active on Twitter. In addition, he supervised numerous doctoral and master's theses over the years and was always a source of inspiration for younger scientists. In recent years, many of these activities were associated with the CSIC's interdisciplinary thematic platform, POLARCSIC, in whose creation he played a key role. Last but not least, he was a wonderful and committed collaborator who was enthusiastically involved in many projects, and this helped him to have partners all over the world. However, he also knew how to find time for other activities that completed him as a person. He liked to devote his free time to painting and music. He played the saxophone masterfully in the Big Band Toni and delighted us with his music at several events. An unconditional fan of Atlético de Madrid, he wore his team's scarf to the most remote places on the planet.

We greatly miss this brilliant scientist, a great colleague and an affable human being.

Asunción de los Ríos and Santiago Merino
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