

In Memoriam Ramon Margalef

Ramon Margalef died on 23 May 2004. His original and at times provocative thinking and publications have influenced countless ecologists, limnologists and oceanographers around the world.

Ramon Margalef was born in Barcelona in 1919. He began to observe nature at an early age, but circumstances forced him to study accounting. At the age of 17, he was drafted into the Republican army and participated in the Spanish Civil War of 1936–1939. After a second military service on the side of General Franco, which had won the war, Margalef found a job with an insurance company. A small fellowship helped him obtain an academic degree in Natural Sciences from the University of Barcelona in 1949. He received his doctorate in 1951 and became a scientist at the Fisheries Research Institute (Instituto de Investigaciones Pesqueras, IIP), founded by the Council of Scientific Research (CSIC). He married Maria Mir, another naturalist, a short time later; they had 4 children. Maria was an extraordinary support of her husband, both from human and intellectual points of view. She died on 30 May 2004, just one week after him.

Margalef was director of IIP (reorganised as the Institut de Ciències del Mar in 1987) from 1965 until 1967, when he was awarded the chair of Ecology at the University of Barcelona. He retired in 1986 but continued his activities until the last moment.

His field activities, which involved the quantitative study of a large number of phytoplankton samples, were complemented by experiments with highly original microcosms. Long before the recent focus on physical-biological interactions, Margalef proposed a characterization of phytoplankton succession in relationship to physical forcing. His classification of major phytoplankton life forms as a function of external energy and nutrient availability has proven to be one of the most useful conceptual models in phytoplankton ecology. An important aspect of Margalef's ecological ideas was his view of man as an integral part of natural ecosystems. He was critical of 'shovel and broom' policies that fixed attention on isolated environmental problems without regard to their ecological context, and he championed the need to interpret socio-economic relationships within a general ecological framework.

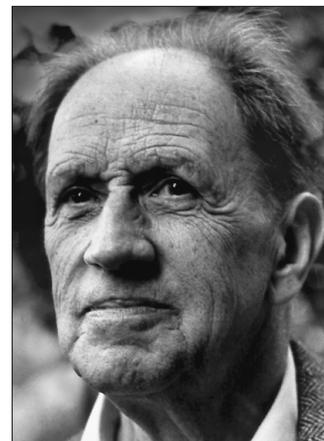
The published work of Margalef comprises some 400 articles and about a dozen books. In 1957, in his inaugural conference for the Royal Academy of Sciences and Arts of Barcelona, on '*La teoría de la información*

en ecología' (Information theory in ecology), he proposed the adoption of methods derived from information theory to the quantification of community diversity. The relationships between diversity and ecosystem structure and function were a recurring topic throughout Margalef's scientific career. Other contributions of Margalef to theoretical ecology include 'Perspectives in ecological theory' (1968), '*La biosfera, entre la termodinámica y el juego*' (1980), and '*Our Biosphere*' (1997; written as recipient of the International Ecology Institute Prize in marine ecology). He was an enthusiastic teacher and often lectured for the general public. He supervised nearly 40 PhD theses and wrote 2 monumental textbooks, one on ecology and the other on limnology, in which he presented well documented and very personal revisions of these fields.

Margalef was a delightful person. His fine sense of humour and his ironic remarks could be more educative than many discourses. He always retained the curiosity of a child and was generous in sharing ideas and inspiration with anyone that would listen to him. He was also a person of great humility, who maintained a healthy scepticism toward all honours and awards he received.

Margalef combined brilliant intellectual capacity with patient personal work and deep affection for nature. He could integrate the details of the real world with ideas and concepts from the most diverse fields of knowledge, build a coherent synthesis, and transmit his enthusiasm to students and colleagues. His scientific legacy and his personal example will continue to inspire us.

Marta Estrada*
Institut de Ciències del MAR, CMIMA (CSIC)
Passeig Marítim de la Barceloneta, 37–49
08003 Barcelona, Catalunya
Spain



Prof. Ramon Margalef,
1919–2004

*Email: marta@icm.csic.es