particular, beginning in the limnological literature but flowing into the sea. Spanish readers can better observe how the steady stream of careful observation filled him with the aforementioned insights. They can see that he took and encouraged multiple perspectives from the very mechanistic view of the naturalist making detailed observations on form and function to the Gaian. Margalef's deep, broad and balanced influence on the education of Spanish-speaking aquatic scientists is certainly an underlying reason for their growing prominence in the international literature.

Ramon Margalef had early interests in limnology and botany, but could not immediately follow those early inclinations. He was recruited into the Republican army during the Spanish civil war, and had the misfortune to fight for the losing side. After Franco's victory, he was forced to serve a further two years. Upon discharge in 1943, he worked for a time as a messenger in Barcelona's Botanical Institute and as an insurance clerk. He soon took advantage of a grant from the Spanish Research Council, however, to attend the University of Barcelona, where he obtained a degree in natural sciences in 1949. He quickly (1951) obtained a Ph.D. at the University of Madrid.

Margalef turned down many opportunities in science administration. He chose to focus largely on microscopic observations of planktonic organisms as window upon nature. Certainly early in his career he had no ready source of grant funds, and he chose a research approach that did not demand large resources. He placed high priority on research and seeing it through to publication, and he lived his daily life accordingly. Although he enjoyed and was good at teaching, he relegated most of his teaching to early morning and evening so that he could spend his "prime" time doing research. He did not stop researching and publishing until his body failed.

Major international recognition began with the Prince Albert Medal of the Institute Océanographique de Paris in 1972. It became steady after the Huntsman Award for Excellence in Marine Research in 1980, with a major award roughly biennially thereafter. In 1985, Margalef was elected to the U.S. National Academy of Sciences. In 1989, SIL bestowed the Naumann-Thienemann award. ASLO recognized Margalef for Lifetime Achievement in 2000.

In science as in life, perspective is everything. Margalef was a master at making the reader or listener consider multiple perspectives by leading them down an obvious path before taking a dramatic turn. In discussions he provoked thought by deflecting comments at unexpected, multiple angles. Margalef both anticipated and accepted death in his acceptance speech for the ASLO Lifetime Achievement award (ASLO Bulletin, 2000, 9: 13). In Margalef (1997), he bemoaned the focus of ethicists on details of birth and death while all but ignoring inequity during the bulk of life. He called himself an "active pessimist" who nevertheless continued to champion the idea of responsible and informed stewardship. For example, he argued for using no more than one-third of river water because "wasted water in rivers is vital to ecosystems." His approach to environmental policy is both atypical and hard to fault, e.g.: "People talk about dumping our wastes in the ocean depths, because the ocean supposedly has an immense digestive capacity. But I believe there are dangers, since this would alter many of the ocean's mechanisms of which we are ignorant or still little aware... [our ignorance] is itself a bigger danger. On issues like this, the ecologist is often asked to give approval or offer arguments in favor. Or else the ecologist goes for an equally untenable stance, one of simple protest. Protest, itself, has to present constructive solutions."

Complementing the time and energy spent on his work, Margalef enjoyed a rich personal life. He is survived by four children. His wife, María Mir, whom he met in college, survived him by only a week after buttressing him through a distinguished career and a prolonged battle with liver cancer. He leaves an empty space in many hearts, but still keeps our thoughts turbulently roiling with the inspiration seeded by his work.

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ROBERT W. PENNAK, 1912-2004

*[**Editor's Note**: In true Pennak fashion, this obituary was written by Dr. Pennak himself just before his death]*

Dr. Pennak, a retired Professor of Biology at the University of Colorado, was born in Milwaukee, Wisconsin, on 13 June 1912. In 1935 he married Alberta V. Pope of Janesville, Wisconsin. The couple lived in Boulder from 1938 to 1987.

In 1938, upon finishing his Ph.D. degree at the University of Wisconsin, he joined the Biology faculty at the University of Colorado. Although he officially retired in 1974, he was permitted to keep his office and laboratory on the campus, and essentially every day until his recent illness, he kept busy with his research, field work, extensive correspondence, consultation contracts, and editorial work. During his many years with the University he served as Biology Department chairman for six years, as acting Graduate Dean for six months, and as Secretary of the Graduate Faculty for four years. He also served on innumerable University committees.

Dr. Pennak was known world-wide for his teaching and biological research on lakes and streams. He organized and taught the world's first university course in stream biology. He published about 150 articles in U.S. and foreign professional

journals. His two books, "Fresh-water Invertebrates of the United States" and "Collegiate Dictionary of Zoology," are widely used as text-references. The former has been generally acclaimed as a classic and has gone through more than 30 printings. He was active in 13 professional national and international societies and served as president of five of them. His name is to be found in many American and foreign biographical directories. At various times he served as editorial consultant or on the editorial board of 17 different professional journals. In 1950, at the age of 38, he gave the University of Colorado Annual Research Lecture, and in 1972 he was designated an Outstanding Educator of America. For seven years he was a member and Chairman of the National Science Foundation Graduate Fellowship Committee in Biology in Washington, D.C. Professor Pennak presented more than 90 research papers at learned societies, and more than 70 campuses invited him to give guest seminars for biology groups. He directed the work of 30 M.A. students and 17 Ph.D. students.

During his retirement years, Professor Pennak's services were widely in demand as a stream and lake consultant, including assignments for more than 30 corporations, public agencies, land developers, fisheries agencies, mining operations, conservation agencies, and foreign governments.

Survivors include his wife, Alberta; a son, Richard Pennak, of California; and a daughter, Cathy Pennak, of Denver. Also surviving are two grandchildren and 2 great-grandchildren living in Denver. Cremation promptly followed Dr. Pennak's death. It was his wish that there be no memorial service.

FROM THE EDITOR'S IN-BOX

BIOGEOSCIENCES.ORG LAUNCHES

*Contributed by **Sarah Leibson**, The Geological Society of America, P.O. Box 9140, Boulder, CO 80301-9140; web@biogeosciences.org*

An innovative new Web site, www.biogeosciences.org, bridging the earth and life sciences went online June 8th, providing a single resource for all things related to biogeoscience. Biogeosciences.org is a natural home for biogeoscience discussions, resources, and promotion. The non-commercial Web site, supported by a grant from the Biogeosciences Program of the National Science Foundation, draws from several partnered professional societies (American Geophysical Union, American Society of Limnology and Oceanography, European Geosciences Union, Ecological Society of America, Geochemical Society, Geological Society of America, Mineralogical Society of America, and the Soil Science Society of America)and elsewhere to present an outstanding collection of biogeoscience resources for all levels of education and interest. The dynamic Web site is expected to grow and change reflecting the trends in biogeoscience and usage needs. Basic biogeoscience links, background information, and program resources are available along with more detailed information on jobs, funding, and research opportunities. The new Web site has comprehensive lists of degree and research programs, applicable journals and other publications, and a complete database of relevant conferences and meetings featuring special sections and associated symposia. A discussion forum allows for the rapid dissemination of ideas and opinions and addresses some of the most important issues facing biogeoscience today. Another interactive feature is an image gallery where pictures are exchanged freely for educational purposes. The growing collection of biogeoscientists is highlighted by interviews and information on what types of research biogeoscientists are presently working. Interviews with various program managers elicit the particulars of the funding process and provide insight into research funding decisions and important statistics.

Interested parties should contact Sarah Leibson, Biogeosciences.org Web Coordinator at web@biogeosciences.org, (303) 357-1095. Content related suggestions or comments are warmly encouraged.