



AGS DISTINGUISHED SCIENTIST AWARD. GESNER MEDAL - 2000

David Piper

Dr. David Piper has an outstanding record of accomplishments in several fields. His expertise as a sedimentologist, especially regarding deep-sea deposits, is unrivalled. He is the acknowledged expert on the continental slope geology of eastern Canada, about which little was known prior to his research, and one of the world's foremost experts on turbidity current deposition. He has shown that the continental slope was molded by processes emanating from the nearby glacial ice of the Quaternary; that earthquakes or release of gas from hydrates can trigger large underwater slides; and that utilizing concepts developed in modelling can facilitate predictive mapping of large areas, without always carrying out detailed and expensive surveys. Consequently, his work has been invaluable to companies exploring for oil and natural gas on the eastern Canadian margin.

David Piper's research is not restricted to surficial deposits. He has made major contributions to deciphering the complex geological evolution of the Cobequid Highlands. With others, he has shown that the Cobequid and Antigonish Highlands were part of the same rift basin within a volcanic arc in the late Proterozoic, proving that they formed one terrane. Some of his work has determined the Carboniferous age of the granitic plutons in the western Cobequid Highlands and shown that these are contemporaneous with the Fountain Lake volcanic rocks and that the emplacement is related to local and regional tectonics.

David Piper's creative and productive research is confirmed by his impressive publication record. He has published over 100 papers in refereed scientific journals, and for the majority he is the sole or senior author. He has co-authored more than 20 chapters for books, special publications or ODP proceedings.

Although a committed research scientist, Dr. Piper has made numerous selfless contributions to his science. Firstly he was a Professor and Chairman of the then Department of Geology, Dalhousie University and secondly he was Head of the Environmental Marine Geology Subdivision of the Atlantic Geoscience Centre. He was editor of the Canadian Journal of Earth Sciences for almost six years, a critical phase during which he enhanced the reputation of the

journal and got it back on schedule. He is now one of three editors of *Marine Geology*, the most prestigious journal in its field. He was Chairman of the local organizing committee for Wolfville '92 (Geological and Mineralogical Associations of Canada). He is an adjunct professor of two university departments and is invariably supervising several students.