

# Presentation of the 2004 Provincial Geologists Medal

Made by **The Honourable David Simailak**, Minister of Economic Development & Transportation, Nunavut

## *Citation*

Geologists are said to "translate the Earth's language into our own", with "trained senses" and "disciplined thinking". So wrote Hans Cloos in 1953, and this description beautifully captures the scientific mien of Dr. Ian Knight of the Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador.

Ian Knight has devoted the past 30 years of his life to mapping and deciphering the geological history of western Newfoundland.

Although this has included a definitive memoir on the Carboniferous rocks of the Bay St. George Sub-basin, most of Ian's prodigious output of maps, reports and papers has been concerned with the Cambro-Ordovician sedimentary platform of the Newfoundland Appalachians. Through his exquisite descriptions of the geology of this vast area, he, along with his collaborators, has elegantly portrayed the geological evolution of the ancient continental margin of Laurentia.

Ian has been described as a "classic" field geologist – one who brings extensive knowledge of carbonate and clastic sedimentology, sequence stratigraphy, metamorphic and structure geology, and paleontology and diagenesis to

each exposure he encounters. However, being well apprised of the intricacies and surprises in outcrop, he is reluctant to "arm wave", which makes his subscription to a particular model all the more valuable.

Ian's maps and reports are legendary for their detail, objectivity and accuracy. He reads the rocks like a book with a sharp eye for the smallest detail. His encyclopedic knowledge of western Newfoundland, from individual outcrops to depositional cycles, has made him an invaluable source of information for the petroleum industry. Recognizing his work as exceptional and indispensable to exploration, the Canadian Society of Petroleum Geologists presented Ian with the R.J.W. Douglas Medal for 2000, the Society's award-of-excellence for outstanding contributions to the understanding of sedimentary geology in Canada.

The mineral industry, too, has benefited from Ian Knight's talent and diligence. His elucidation of the geological events that control zinc mineralization in the area was a great aid to mineral discovery. Furthermore, his understanding of the science and art of marble has made him a key contributor to the fledgling dimension-stone industry in the province.

Despite the breadth of his achievements, Ian Knight is an extremely modest man. His co-workers value him as an open and generous person who is unstinting in sharing his scientific expertise. For his tireless energy over three decades, his superior talent for geological observation, and his personal and scientific integrity, Ian Knight is truly deserving of the 2004 Provincial Geologists Medal.

## **NOTES ON PROFESSIONAL HISTORY**

Ian Knight is a project geologist of 30 years with the Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador, Canada. He received his B.Sc. from Bristol University in Britain and his Ph.D. from Memorial University of Newfoundland with Dr. Noel P. James. Whilst at Bristol University, his interest in sedimentary rocks was stimulated by field studies as a geological assistant in central east Greenland during the summers of 1968 and 1969 with the Scott Polar Research Institute, Cambridge University. The primary focus of the expedition was the examination of the Devonian Basin, a project led by Dr. Peter Friend. Knight, however, also studied the cyclic peritidal carbonate rocks of the Limestone-dolomite Series of the Eleonore Bay Group for his B.Sc. honours dissertation at Bristol.

This was followed by M.Sc. and Ph. D. studies at Memorial University on Proterozoic sedimentary and volcanic sequences of the Seal Lake and Ramah groups of Labrador and Carboniferous rocks of western Newfoundland. This work included studies for the Geological Survey of Canada, British-Newfoundland Exploration Company and the Government of Newfoundland and Labrador.

Knight joined the Geological Survey of Newfoundland and Labrador in 1974 and has since mapped, studied and published on the Carboniferous Bay St. George Subbasin and the Cambrian - Ordovician siliciclastic-carbonate platformal sequence in western Newfoundland.

This work includes ongoing mapping, stratigraphic, sedimentological and biostratigraphic studies with Doug Boyce of the Geological Survey and Drs. David Rohr and Elizabeth Measures of Sul Ross University, Texas. In the past, it included collaboration with Dr. Noel James of Queens University, Dr. Sheila Stenzel, and Dr. Tom Lane of Teck Exploration Ltd. on several aspects of Ordovician carbonates in western Newfoundland and with Drs. Nancy Chow (University of Manitoba) and Noel James on the stratigraphy of Cambrian rocks in western Newfoundland. In the mid-1980s, Knight contributed to stratigraphic and sedimentological studies of late Proterozoic sedimentary basins of the Avalon Zone of eastern Newfoundland with co-researcher Sean O'Brien of the Geological Survey of Newfoundland and Labrador and Dr. Tomasz Dec.

Since 1991, Knight has also been actively cooperating with several oil-and-gas exploration companies exploring for hydrocarbons in Cambro-Ordovician rocks of western Newfoundland. This included periods during 1991 and 1992 at Memorial University of Newfoundland's Centre for Earth Resources Research studying dolomite-reservoir potential in Ordovician strata and producing a comprehensive exploration guide for hydrocarbon exploration in western Newfoundland with Dr. Peter Cawood. Two years were spent with the Petroleum Resource Development Branch of the provincial government promoting hydrocarbon exploration in western Newfoundland and assisting interested exploration companies (1994/1995), and one year as an independent consultant to oil companies during 1996 and 1997. The latter studies realized three full-length, unpublished geological reports.

Most recently, Knight has collaborated with several archeological groups studying and identifying the source of stone tools used by prehistoric indigenous peoples and Norse settlers. This includes studies at Memorial University of

Newfoundland, University of Calgary and the Anthropology Division of the Buffalo Museum of Science, Buffalo, New York.

In 2000, the Greenland Geological Survey (GEUS) under the leadership of Dr. S. Stouge, invited Knight to be part of a multidisciplinary team to study the Lower Paleozoic siliciclastic and carbonate-shelf sequence of central East Greenland. In 2001, Knight was awarded the Douglas Medal for 2000 by the Canadian Society of Petroleum Geology for his contributions to understanding of the stratigraphy, sedimentology and structure of Lower Paleozoic shelf rocks of the Humber tectonostratigraphic zone of the Newfoundland Appalachians.

Knight has published on the Proterozoic Ramah Group, the Ordovician St. George and Table Head groups, and Carboniferous sediments and basin evolution in western Newfoundland. He has also produced numerous government maps, reports and articles on the mapping, stratigraphy, sedimentology, structure and economic potential of the Lower Paleozoic platformal rocks of western Newfoundland. He has contributed to articles on the evolution of the Lower Paleozoic continental margin including an article in SEPM special publication no. 44 and articles in the DNAG volume on the Canadian Appalachians.

He was a field trip leader at the 1988 Geological Association of Canada annual meeting and 1988 International Ordovician Symposium conferences in Newfoundland and co-leader of a field-based short course run in western Newfoundland by the Centre for Earth Resources Research, St John's, in 1991. Since then he has run several field courses in western Newfoundland for geologists of Canadian exploration companies. He was co-leader of a Friends of the Grenville-GAC trip to southern Labrador in 1997. In 1995, Knight was invited to speak to a CSPG meeting of Canadian Explorationists in Calgary on the regional setting and potential of hydrocarbon resources in western Newfoundland.



## *2004 Provincial Geologists Medallist*

*Ian Knight  
Geological Survey  
Department of Natural Resources  
Govt. of Newfoundland & Labrador*

