AGS Distinguished Scientist Award. Gesner Medal 2008
Dr. Steve McCutcheon

Steve is a native of Southampton, New Brunswick and has been employed with the New Brunswick Department of Natural Resources (Geological Surveys Branch) since departing UNB with his undergraduate degree in 1971.

For almost 40 years Steve McCutcheon has been one of New Brunswick's most innovative and prolific contributors to regional stratigraphic interpretation and mineral deposit geology. In addition to authoring copious maps and publications, he has had a catalytic effect on the large number of students and professionals, representing many subdisciplines, with whom he has collaborated, helped supervise, or otherwise aided and abetted in miscellaneous studies, all of which have served to advance geoscientific knowledge of our region.

Another measure of Steve's impact on New Brunswick geoscience is his remarkable versatility, as demonstrated by publications dealing with a broad spectrum of geoscience, from stratigraphy, structure, tectonics, and volcanology, to geochemistry, paleontology and environmental geology; in rocks ranging in age from Neoproterozoic to Carboniferous; and in all parts of the province. However, a common theme is economic geology, and his comprehensive knowledge and interests have led to papers on granite-related porphyry, vein and skarn deposits; gold mineralization; and volcanic-associated massive sulphide deposits. The attached publication list has been selected to show a cross-section of these wide-ranging contributions; however, in addition to those listed, he had contributed to or edited, by our count, 23 field trip guidebooks, authored or co-authored 55 maps and at least 32 government-published reports, and submitted almost 50 conference abstracts. The great many field trips he has led during his career have had a powerful influence in expanding and disseminating our knowledge of New Brunswick geology, and in promoting mineral exploration.

The early part of Steve's career was spent as a bedrock project geologist and Assistant Regional Geologist in the Geological Surveys Branch Sussex office. During this time, he investigated the Neoproterozoic rocks of the Caledonian Highlands, refined and synthesized the observations of numerous geologists working in the Annidale-Nerepis Belt, and carried out

some of the early detailed studies on complex plutonic systems such as the Pokiok and St. George batholiths. He was responsible for major revisions of existing maps and delineation of many new units, and became well known for his expertise in the structure and stratigraphy of Cambrian to Silurian rocks throughout south-central New Brunswick. For many years, this work provided guidelines for gold and base metal exploration in these rocks. His comprehensive study of Windsor Group stratigraphy and paleogeography in southern New Brunswick represented a giant leap in our understanding of Windsor depositional environments and earned him a Masters degree at Acadia University in 1981. He introduced several formation names, correlated these with well-established sequences in Nova Scotia, and predicted their subsurface distribution based on his paleogeographic reconstructions. His work provided a solid basis for subsequent exploration for base metals, high calcium limestone, and potash and salt deposits in the Carboniferous of southern New Brunswick.

In 1987, Steve became Regional Geologist in the Geological Surveys Branch Bathurst office, and shortly afterwards completed his Ph.D. thesis at Dalhousie University with a detailed description of the Mount Pleasant caldera complex in southwestern New Brunswick. This stratigraphic, lithogeochemical and mineralogical study established an up-to-date model for the development of the Mount Pleasant volcanic/subvolcanic complex, and the geological setting of associated tin-tungsten-molybdenum-indium-base metal mineralization.

In Bathurst, he found himself immersed in the complexities of Bathurst Mining Camp geology at a time when our knowledge of the stratigraphy and structure of that area grew at a rapid pace. Despite his administrative duties, Steve's love of hands-on geology ensured his active participation in field mapping projects. His contributions to the revised interpretation of Bathurst area geology, and in documenting the geological setting and origin of its base-metal deposits, have been substantial. As testament to this, Steve was co-editor of (and co-authored several papers in) a prestigious Economic Geology Monograph describing the results of the EXTECH II multi-disciplinary research project in the Bathurst Mining Camp. As co-leader of EXTECH-II, he also organized a number of field trips and conferences, and contributed to and edited the accompanying guidebooks.

In addition to his membership in AGS, Steve is a member of the Geological Association of Canada, the Canadian Institute of Mining, Metallurgy and Petroleum (CIMM), the Prospectors and Developers Association (NB Branch), the Society of Economic Geologists, and the Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB). He is also an Adjunct Professor at the University of New Brunswick. Steve's contributions to his profession are exceptional by any standard. A long-time member of GAC, he has served as Councillor, Finance Committee Chairman, co-editor of the Mineral Deposits Division newsletter (*The Gangue*), and is currently co-editor of GAC's flagship journal, *Geoscience Canada*. These years of service were recognized with the GAC's Distinguished Service Award in 2004.

With CIMM, Steve has been President of the Geological Society, associate editor of that organization's technical journal (*Exploration and Mining Geology*), Chairman of the CIMM '93

Field Conference, and a member of the Ad Hoc Committee on Reserve Definitions, leading to internationally accepted standard terminology. His varied and numerous activities with CIMM have been recognized by several awards, including the Dr. W.J. Wright Award (1995) from the New Brunswick Branch of CIMM, presented for significant contributions to New Brunswick's mineral industry; the Julian Boldy Memorial Award (1999) from the national CIMM, in recognition of his involvement in the Field Conference Program and establishing *Exploration and Mining Geology* as the society's journal; and the District Proficiency Medal (2003) from the national CIMM. In 2006, the APEGNB presented Steve with the L.W. Bailey Award, the most prestigious award a professional geoscientist can receive from the Association.

Steve McCutcheon's 40 years of hands-on geology, his multi-disciplinary geoscience knowledge and interests, and his eagerness to share his knowledge in order to promote the advancement of geoscience, are in the best tradition of great Canadian geologists as far back as Abraham Gesner. Steve has built an enviable reputation for dedication, enthusiasm, technical proficiency, and unfailing congeniality in sharing his time and knowledge with everyone, be they prospectors, exploration geologists, mining executives, colleagues, co-workers or summer students. For his outstanding record of achievement, Steve McCutcheon is a most deserving recipient of the 2008 Gesner Medal.