

# WHO WE ARE AND WHAT WE DO

The mandate of the Terrain Sciences and Geoscience Data Management Section, and the disciplines it draws upon, are exceptionally diverse. Its staff concern themselves with a range of geoscience, including till, lake-sediment and lake-water geochemical surveys, and the analyses resulting from them; datamining; surficial geological and ice-flow mapping; geophysical surveys, compilations and interpretation; environmental geology, specifically coastal erosion studies and geological hazard mapping; and the collection, organization and presentation of geoscience data. The section's client base includes town planners, municipalities, environmental consultants, academia, the construction industry and the exploration and prospecting community.



**Senior Geologist:** Stephen Amor (B.Sc., London, Ph.D., Queen's)

Steve joined the Survey in 2009 and became Section Head in 2013. He is responsible for the department's activities and performance, and reviews all material originating from it. With a background mainly in exploration geochemistry, he supervises and participates in the collection, compilation and interpretation of regional and more focused geochemical data, and ensures that quality-assurance protocols are adhered to.



**Laboratory Director:** Chris Finch (B.Sc., Memorial)

Chris has been with the Geochemical Laboratory since 1978. He takes care of the day-to-day administration of the laboratory whilst actively working to meet the analytical requirements of the Geological Survey's geologists. His main focus is in the field of atomic spectrometry, using Inductively Coupled Plasma Emission Spectrometry and Mass Spectrometry.



**Mineral Laboratory Chemist:** Lisa Walsh (B.Sc., Memorial)

Lisa started working in the Geochemical Laboratory in 2011. Prior to joining the team, Lisa worked with the research and development team for Vale in Argentina and Mississauga. This was in preparation for the hydrometallurgical plant in Long Harbour. Lisa has experience with a variety of lab instruments and procedures and has assisted other labs with preparation for ISO accreditation.



**Mineral Laboratory Chemist:** Rosauro Roldan (B.Sc., MLQ University, Philippines, M.Sc. Centro Escolar University, Phils., University of Waikato, New Zealand).

Rosauro joined the Survey in early 2013. Prior to that, he worked with SGS Lakefield Research Ltd, in Ontario as a technologist in its geochemistry facility serving the exploration and mining industry. In addition, he worked in pharmaceutical, agriculture, food, environment and energy before moving to the mining sector.



**Mineral Laboratory Chemist:** Jennifer Kelly (B.Sc., Sir Wilfred Grenfell College)

Jennifer is the most recent member of the Laboratory group, joining in early 2014. She brings experience and knowledge associated with Alberta's fast-paced drilling and environmental sectors. Along with the other chemists in the Laboratory, she prepares rocks, tills, and water samples from start to finish for geochemical analysis.



**Project Geologist:** David Taylor (B.Sc., Memorial)

David first worked with the Survey as a summer student in 1984, and joined the Survey full-time in 1985. In 1990 he started a systematic Island striation mapping project where he recorded over 2700 striation measurements and developed the Newfoundland striation database. Currently he is responsible for coordinating the integration of surficial data with the online Geoscience Atlas.



**Project Geologist:** Jennifer Organ (B.Sc., M.Sc., Memorial)

Jennifer first worked with the Survey as a student in 1999 and joined us full-time in 2008. She has worked in the Red Indian Lake Basin, the Topsails and Springdale areas of central Newfoundland, documenting landscape changes since the last glaciation by mapping the surficial geology and determining the stratigraphy and glacial history. She enjoys her role on the OH&S committee, working with and mentoring summer students, as well as meeting with prospectors and the public to discuss mineral exploration in glaciated terrain and geological hazards.



**Project Geologist:** Melanie Irvine (B.Sc., University of Victoria, M.Sc., Memorial)

Melanie joined us in 2011. She is managing a long-term, province-wide environmental monitoring program. Using a drone, she is surveying cliffs and beaches to examine the vulnerability to ground instability, flooding and erosion, and to better understand the implications of a changing climate on these environments. Melanie enjoys collaborating with her colleagues on multidisciplinary approaches to hazard evaluation; using a diverse array of tools to determine the geoscientific parameters creating environmental hazards.



**Project Geologist:** Heather Campbell (B.Sc., M.Sc., University of New Brunswick)

Heather joined the section in 2015. She is interested in geochemistry and glacial dispersal, and examining weathering processes as they affect element signatures in differing terrains. She enjoys working on multi-disciplinary projects with her colleagues, and using different approaches to understanding the complex Quaternary geology of Newfoundland and Labrador. Heather enjoys promoting geoscience in the community; working with the public to increase knowledge of geoscientific practices and the geological environment.



**Project geologist:** Sarah Hashmi (B.Sc. University of Waterloo, M.Sc., Simon Fraser University)

Sarah began work at the section in May 2017, after working for the Ontario Geological Survey and as a summer student with the Geological Survey of Canada and De Beers Canada, on projects in British Columbia, Nunavut, Ontario, and Quebec. Her research interests include surficial mapping, reconstructing past glacial environments and geochemical and indicator-mineral signatures in till. She is currently completing her PhD on developing surficial exploration techniques for low-sulphide, Ni-Cu-PGE deposits in glaciated terrain.



**Project Geophysicist:** Gerry Kilfoil (B.Sc., University of New Brunswick, M.Sc., Memorial)

Gerry joined the Survey in 1987. His efforts have been mostly concerned with compilation, processing and archival of digital geophysical data, particularly from airborne surveys flown in the Province, as well as ensuring online access to data products through the Geoscience Atlas. Gerry often consults with prospectors and others in the mineral exploration industry, and has enjoyed many interesting discussions regarding geophysical interpretations.



**Project Geologist:** Loretta Crisby (B.Sc., Memorial)

Loretta first worked with the Survey as a summer student in 1983. She joined the Survey full-time in 1985 as a member of the former Labrador (now Regional) Mapping section. In 2008 she transferred into the Geoscience Data Management section, where she was responsible for compiling hard-copy bedrock geology maps into the provincial bedrock geology database. Loretta is currently responsible for the continued maintenance and distribution of bedrock geology geospatial data, along with the creation of a new geochronology data layer for inclusion in the online Geoscience Atlas.



**Project Geologist:** Pauline Honarvar (B.Sc., Carleton University, M.Sc., Memorial)

Pauline first worked for the Geological Survey from 1988 till 1996. After working in her exploration GIS consulting business, she returned to the Survey in 2008. Pauline coordinates the delivery of the Survey's geoscience information on the Geoscience Atlas. She is also responsible for researching, designing and developing standards and QA/QC methods for Geological Survey databases so that the public can have confidence in the accuracy and completeness of the databases provided online.



**Computer Systems Analyst:** Gillian Roberts (B.Sc., Memorial, GIS diploma, Center of Geographic Sciences)

Gillian first started working with the Geological Survey as a student, and joined full-time in 2008. With a background in geographic information systems she is responsible for providing GIS support for the compilation of geophysical, geochemical and geological databases for multi-disciplinary geoscience data-management projects. She is also responsible for updating and maintaining the online Geoscience Atlas, along with assisting in field data collection using UAVs, and post-processing of the data captured.