

Curriculum Vitae
JAMES H. MACDONALD, Jr., Ph.D.
Professor of Geology
Interim Associate Dean of Honors College
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Florida Gulf Coast University
10501 FGCU Blvd South
Fort Myers, FL 33965

EDUCATION

Ph.D. University at Albany, State University of New York

Petrology, Geochemistry, & Tectonics, 2006

B.S. New Paltz, State University of New York

Environmental Geology, 1998

EMPLOYMENT

Interim Associate Dean of Honors College, Florida Gulf Coast University, Current

Professor of Geology, Florida Gulf Coast University, 2018 – Current

Provost Faculty Fellow, Florida Gulf Coast University, 2021 – 2022

Associate Professor of Geology, Florida Gulf Coast University, 2012 – 2018

Earth and Space Science Coordinator, Florida Gulf Coast University, 2010 – 2013

Assistant Professor of Geology, Florida Gulf Coast University, 2007 – 2012

Instructor of Earth and Environmental Sciences, Wright State University, 2006-2007

LEADERSHIP EXPERIENCE

Interim Associate Dean of Honors College (Current): Attends and present at Honors College staff meetings. Member of the Honors College Executive Board. Attend weekly meetings with Dean of the Honors College. Assist the Dean with student and faculty issues. Connect Honors students with state, regional, and national honors college conferences. Oversee the review of the Honors contracts within courses. Assists with the Honors Thesis. Review the effectiveness of the Honors College within the state of Florida performance based funding metrics. Assist with short and long term planning. Attend and give presentations at open houses for admitted and interested high school students. Assist with Honors curriculum. Review Honors College students' probation and appeals.

Provost Faculty Fellow (2021-2022): Attends Academic Affairs Leadership Team meetings – which deals with faculty and university issues at the Provost Office-level. Monthly meetings with the Provost and Associate Provost. Developed, solicited, and awarded a competitive internal research fund (Take Flight Research Award) to help faculty begin or reinvigorate scholarship. Managed a budget of ~\$100K. Led a team of 9 faculty and administrators to develop an Out-of-Unit Faculty Handbook to help define the expectations and professional development of out-of-unit faculty.

Florida Gulf Coast University Board of Trustee Member (2019-2021): The Faculty Senate President is one of 13 members of the University Board of Trustees, based on Florida Statute. The Board of Trustees is the governing body of the university. It holds the university president responsible for the university's operation and management, performance, fiscal accountability, and compliance with federal and state

laws and regulations, including those of the Florida Board of Governors. The Board of Trustees oversees and approves the financial plans of the university's >\$270-million-dollar budget. I also interacted on a regular basis with the Chancellor of the Florida State University System.

Faculty Senate President (2019-2021): Attended Academic Affairs Leadership Teams meetings. Attended Council of Deans meetings – which dealt with faculty issues at the Dean and Provost-level. Held bi-weekly meetings of the Faculty Senate. Monthly meetings with the President of the University and the Provost. Oversaw the 12 Faculty Senate Teams which dealt with issues as diverse as curriculum, the library, research, and graduate as well as student affairs. Oversaw the Professional Development Fund – a competitive fund for faculty research and travel. Managed a budget of ~\$200K and one staff member. Was involved in many of Florida Gulf Coast University's responses to the COVID-19 pandemic.

TEACHING EXPERIENCE OVER THE LAST 15 YEARS

GLY 1000C, Physical Geology

Introductory combined lecture/lab geology course for science and engineering majors.

GLY 2030C, Environmental Geology

Introductory combined lecture/lab environmental geology course for science and Eng. majors.

GLY 3202C, Mineralogy & Petrology

Advanced geology course.

GLY 3820C, Introduction to Hydrology

Advanced geology course

GLY 3420C, Tectonics and Marine Geology

Advanced geology course.

GLY 4400C, Structural Geology

Advanced geology course.

ISC 4930, Geologic Carbon Dioxide Sequestration

Upper division current topics course

EVR 4905, Advanced Electron Microscopy

Upper division current topics course

EVR 4905, Epidote Geochemistry

Upper division current topics course

THESIS COMMITTEE MEMBER AT FGCU

Brian Hoyer; Holocene History of the Coastal Geomorphology of Everglades National Park: The roles of reef development, tidal pond formation, and sea-level rise: M.S. in Environmental Science (2008)

Christian Ercolani; Reconstructing the prehistoric record of intense hurricane landfalls from Southwest Florida back-barrier sediments: M.S. in Environmental Science (2014)

SENIOR RESEARCH MENTOR AT FGCU

Evan Lentz, Environmental Geology, carbonate XRF geochemistry, (2022)
Zoie Kassis, Environmental Geology, carbonate XRF geochemistry, (2022)
Richard Molina, Environmental Geology, carbonate XRF geochemistry, (2022)
Sophia Morejon, Environmental Geology, carbonate XRF geochemistry, (2022)
Annalisa Incorvaia, Environmental Geology, mineral geochemistry research (2021)
Michelle Mays, Environmental Geology, mineral geochemistry research (2021)
Max Castillo, Marine Science, Raman spectrometry of serpentine (2021)
Katie Arnett, Environmental Studies, mineral geochemistry research (2019)
Molly Norris, Environmental Studies, mineral geochemistry research (2019)
Jessie Alexander, Environmental Studies, campus water table (2018)
Kevin Wise, Marine Science, mineral geochemistry research (2017-2018)
Bridgett Miller, Marine Science, wetland soil quality (2017)
Madison Easterbrook, Marine Science, mineral geochemistry research (2017)
Glenn Thompson, Marine Science, mineral geochemistry research (2015-2017)
Kristy Zalud, Marine Science, mineral geochemistry research (2017)
Co-mentor with Dr. Kara Lefever: Stephen Ozzello, Environmental Studies, wetland ecology (2016-2017)
Co-mentor with Dr. Win Everham: Deidra Goodwin, Environmental Studies, groundwater hydrology (2015-2016)
Alex Maruszczak, Marine Science, mineral geochemistry research (2015-2016)
Shanna Stingu, Marine Science, rock geochemistry research (2014-2015)
Scott Milliken, Marine Science, mineral geochemistry research (2013-2014)
Michael Saenz, Environmental Studies, FGCU Food Forest soil quality (2012-2013)
Bryn Foster, Environmental Studies, wetland soil quality (2011-2012)
Ashley Girt, Marine Science, USGS Fort Myers Florida Water Science Center (2011-2012)

HONORS CONTRACTS AT FGCU

GLY 3202C taught as an Honors Embedded Course to 2 students (Spring 2021)
GLY 3820C taught as an Honors Embedded Course to 5 students (Spring 2020)
Trinity Allen, remote operation of EPMA for silicate mineral geochemical analysis (Fall 2019)
Jacob Layton, remote operation of EPMA for silicate mineral geochemical analysis (Fall 2019)
Lauren Alvaro, San Andreas Fault Observatory at Depth research paper (Spring 2019)
James Javaruski, X-Ray Identification of Minerals from Physical Geology Course (Fall 2017)
Lexi Siegle, Mineral Classification and Determination via a Powered X-ray Diffractometer (Fall 2016)
Shanna Stingu, Student Teaching assistant in Physical Geology Lab (Spring 2013 & Fall 2014)

Sonya Padfield, Ecology of a mid-ocean ridge hydrothermal vent system (Spring 2013)

DEPARTMENT SERVICE

Search committee member for Earth and Space Science Instructor I (Fall 08 -- Spring 09)

Search committee member for Assistant/Associate Professor of Physics (Fall 09 -- Spring 10)

College of Arts and Science Undergraduate Curriculum Committee, Marine and Ecological Sciences representative (Fall 09 – Spring 11)

Chair, search committee for Assistant Professor of Paleoclimatology (Fall 10 – Spring 11)

Earth and Space Science Program Coordinator (Fall 10 – Fall 12)

Marine and Ecological Sciences Department Leadership Team (Fall 10 – Fall 12)

Faculty mentor to an Environmental Science Instructor I (Past)

Faculty mentor to Assistant Professor (Past)

Search committee member for Environmental Studies Instructor I (Fall 14 – Spring 15)

Faculty mentor to a Faculty member under a probationary period (2016 – 2017)

Faculty mentor to Instructor I of Geology (Past)

Faculty mentor to Instructor I of Environmental Studies (Past)

Search committee member for Hydrogeology Assistant Professor (Fall 19 – Spring 20)

Ethics Committee (2021 – 2022)

COLLEGE SERVICE

Chair of the College of Arts and Science Undergraduate Curriculum Committee (Fall 09 – Spring 11)

Search committee member for College of Arts and Sciences Academic Advisor I (Spring 09)

Search committee member for College of Arts and Sciences Academic Advisor I (Summer 10 – Fall 10)

Search committee member for College of Arts and Sciences Academic Advisor I (Summer 11)

Search committee member for Anthropology Instructor I (Fall 11 – Spring 12)

College of Arts and Science reorganization group (Fall 12)

Earth and Space Science coordinator for the FGCU STEM competitions (Spring 13 – Spring 15)

Co-Chair College of Arts and Science Peer Review and Support Committee (Fall 13 – Spring 15)

Member of the College of Arts and Science out-of-unit faculty promotion committee (Spring 16)

Search committee for the Assistant Dean of Competitive Fellowships (2022 – 2023)

UNIVERSITY SERVICE

University Undergraduate Curriculum Team member (Fall 09 – Spring 11)

Search committee member for Associate Professor of Educational Technology (Summer 10)

Added new course GLY 2030C, Environmental Geology

Added new course GLY 3420C, Tectonics and Marine Geology

Added new course GLY 4930, Special Topics in Geology
Added new course PHY 4930, Special Topics in Physics
Added new course AST 4930, Special Topics in Astronomy
Added Earth and Space Science Minor at FGCU
Revised course GLY 1010C, Physical Geology
Co-added new course GLY 2100C, Historical Geology
Added new course GLY 3202C, Mineralogy & Petrology
Added new course GLY 3820C, Introduction to Hydrology
Added new course GLY 4400C, Structural Geology
Added new course GLY 4892, Senior Capstone: Env Geology
Added Geology Minor at FGCU
Added Environmental Geology B.S. degree at FGCU
Interview Panel member for Coordinator of Graduate Studies (Summer 14 – Spring 15)
Interview Panel member for Graduate Studies Admissions Officer (Spring 15)
Labor and Management Committee (2018 – 2019)
Professional Development Enhancement Award Team (2018 – 2019)
Permanent Chairs Feasibility Taskforce (2019 – 2020)
Florida Gulf Coast University Faculty Senator (2015 – 2021)
Commencement Committee (2019 – 2021)
Council of Deans (2019 – 2021)
Senate Teams Council of Chairs (2019 –2023)
FGCU Faculty Senate President (2019 –2021)
FGCU Board of Trustee Member (2019 –2021)
FGCU COVID-19 Emergency Advisory Council Academic Team (2020 – 2021)
FGCU Values and Action Team (2020)
Academic Affairs Leadership Team (2021-2022)
Micro-credentialing and Digital Badging Steering Committee (2020 – 2021)
FGCU Civility Task Force (2021)
FGCU Take Flight Research Fund Team (2021-2022)
FGCU Honorary Bachelor’s degree committee (Current)
University Ombuds search committee (2022)
Faculty Senate Legislative Group (Current)

PROFESSIONAL SERVICE

Co-Chair Structural Geology and Tectonics I Session: Geological Society of America 104th Annual Cordilleran Section Meeting (Spring 08)

Florida State University System Common Prerequisite committee (Fall 08 – Spring 10)

USGS Florida Water Science Center, Fort Myers office, FGCU liaison (2011 – 2014)

Geological Society of America Campus Representative for Florida Gulf Coast University (2007 – 2020)

Vice President, Everglades Geological Society (2014 – 2016)

Director, Everglades Geological Society (2016 – 2017)

Co-Chair, Engaging Students through Course-Based Undergraduate Research Experiences (CURE) across the Geoscience Curriculum: Theme Session and Poster Session, Geological Society of America 129th Annual Meeting (Fall 2017)

US Department of Labor O*Net Online Geoscientists definition contributor (2018)

Co-Chair, Recent Advances in Cordilleran Tectonic Evolution—1: Paleozoic to Mesozoic: Theme Session and Poster Session, Geological Society of America Cordilleran Section Meeting (Spring 2019)

Co-Chair, Recent Advances in Cordilleran Tectonic Evolution—2: Cenozoic: Theme Session and Poster Session, Geological Society of America Cordilleran Section Meeting (Spring 2019)

Co-Chair, Geoscience Curriculum in the Twenty-First Century: Adapting Programs to Meet Students' Evolving Needs: Theme Session, Geological Society of America Annual Meeting (Fall 2019)

Co-Chair, Undergraduate and Graduate Geoscience Student Showcase: Theme Session, Geological Society of America Joint North-Central & Southeastern Section Meeting (Spring 2022)

Co-Chair, Undergraduate and Graduate Geoscience Student Showcase Lightning Talks: Theme Session, Geological Society of America Joint Northeastern & Southeastern Section Meeting (Spring 2023)

Advisory Council of Faculty Senates, State University System, Florida (Current)

National Association of Geoscience Teachers liaison to the Council on Undergraduate Research (current)

National Association of Geoscience Teachers liaison to the Geological Society of America Geoscience Education Division (2019 – current)

Council on Undergraduate Research Councilor, Geosciences Division (2021 – 2023)

Council on Undergraduate Research Councilor, Geosciences Division DEI subcommittee (2021 – 2023)

PROFESSIONAL REVIEWS

External Promotion and Tenure Review for Wichita State University (2020)

External Promotion Review for Pacific Lutheran University (2021)

Grant reviewer for the National Science Foundation Division of Earth Science, Tectonics Program

Multiple grant reviewer for the National Science Foundation Division of Earth Science, Geoscience Education and Diversity Program

Multiple panel reviewer for the National Science Foundation Division of Undergraduate Education

Grant review for the National Research Foundation, Department of Science and Technology, Republic of South Africa (2011)

Multiple reviews for the Geological Society of America

Multiple reviews for Geochimica et Cosmochimica Acta

Reviewer for the Journal of Geology

Reviewer of the Geoscience Concept Inventory version 2.1.1

Nine textbook reviews for Cambridge University Press, Cengage Learning, Jones & Bartlett Learning, Norton & Company publishing, Prentice Hall Publishing, and Waveland Press

EXTERNAL GRANTS AWARDED AS INVESTIGATOR

NSF Transforming Undergraduate Education in STEM, Type 2: Collaborative: Expanding the Use of Online Remote Electron Microscopy in the Classroom to Transform Undergraduate Geoscience Education: Primary Investigator, 2013 – 2018, Ryan, J, Co-PI, Hickey-Vargas, R., Co-PI, MacDonald, J., Co-PI, Beck, M., \$625,344 total awarded.

NSF Improving Undergraduate STEM Education: Pathways into Geoscience (IUSE: GEOPATHS -EXTRA): GP-EXTRA: Establishing high-impact curriculum to attract and retain students in a new environmental geology program, pilot project, 2019-2022, MacDonald, lead-PI, Abercrombie, Barbosa, Muller, Rotz, and Savarese, Co-PIs, \$162,981

EXTERNAL CONTRACT GRANTS AWARDED AS INVESTIGATOR

South Florida Water Management District contract 4600004018-WO03R1, 2021–2022, Geochemical Analysis of a Continuous Core, Lake Okeechobee Watershed Restoration Project, Aquifer Storage and Recovery Wells: Phase 1: Analysis of L63N Core and Refinement of Methodology, \$50,254.55

South Florida Water Management District contract 4600004018-WO05, 2023–2024, Geochemical Analysis of a Continuous Core Lake Okeechobee Watershed Restoration Project Aquifer Storage and Recovery Wells Phase 2: Analysis of Cores C38S, C59, and L63S with pXRF, \$142,586.98

EXTERNAL GRANTS AS SENIOR PERSONAL

NSF MRI: Acquisition of a Scanning Electron Microscope for Geoscience, Forensic Chemistry and Science Education Research at Florida International University, 2017 – 2019, Hickey-Vargas, R., lead-PI, \$309,890, MacDonald, senior personal.

NSF MRI: Acquisition of a Single Crystal X-Ray Diffractometer to Enhance Undergraduate Research and Education in South Florida, 2019 – 2022, McManus, G., lead-PI, \$165,000, MacDonald, senior personal.

INTERNAL GRANTS AWARDED

FGCU Scholarship-Research Venture Capital Fund award, lead PI, 2019, \$14,662.50

FGCU Scholarship-Research Venture Capital Fund award, Co-PI, 2019, \$15,285

FGCU Office of Undergraduate Research mini-grant, 2013, \$500.00

FGCU Professional Development Grant, Spring 2019, \$1200

FGCU Professional Development Grant, Fall 2016, \$1095

FGCU Professional Development Grant, Fall 2015, \$1500

FGCU Professional Development Grant, Fall 2014, \$1479.88

FGCU Professional Development Grant, Fall 2013, \$1372.41

FGCU Professional Development Grant, Fall 2012, \$1452.70

FGCU Professional Development Grant, Fall 2011, \$1626.30

FGCU Professional Development Grant, Spring 2011, \$976.25

FGCU Professional Development Grant, Fall 2009, \$1547.55

FGCU Professional Development Grant, Spring 2008, \$825.45

FGCU Office of Research and Sponsored Programs Internal Grant Program, 2010, \$5000.00

FGCU Office of Research and Sponsored Programs Internal Grant Program, 2009, \$4685.00

FGCU Whitaker Center for STEM Education Faculty Research and Development Grant, Spring 2008, \$500

AWARDS/HONORS

Phi Kappa Phi Honors Society

FGCU Faculty Team Service Excellence Award (2020)

FGCU Faculty/Staff MVP Recognition for positive impact on a Student Athlete (2020)

FGCU University Marshal (2019 – 2021)

AAAS and NSF invited symposium: Envisioning the Future of Undergraduate STEM Education: Research and Practice, invited to present science education research. <http://www.enfusestem.org/>

Wright State University Department of Intercollegiate Athletics Scholar-Athletes: Recognized for assisting a Student-Athlete achieve academic excellence

Winthrop D. Means teaching award, Earth & Atmos. Sci., SUNY Albany

INVITED TALKS

South Florida Water Management District ASR Science Plan Peer Review Panel: Title of Talk: Geochemical Analysis of a Continuous Core: Analysis of L63N Core and Refinement of Methodology. Summer 2022

Florida International University: Title of talk: The Manastash inlier, Cascades, Washington: record of a Late Jurassic ridge subduction. Fall 2015

University of Florida: Title of talk: Late Jurassic tectonic development of the central Cascades, Washington. Spring 2014

Everglades Geological Society: Title of talk: Tectonic Development of the Florida Basement. Spring 2013

Florida Gulf Coast University, Whitaker Center for STEM Education: Title of talk: Tectonics, Geochemistry, Their Interconnection and Importance: ROCKS -- They Know More Than You Think They Do! Fall 2007

Wright State University: Title of talk: Tectonic evolution of the Ingalls ophiolite complex, central Cascades, Washington. Spring 2007

PROFESSIONAL MEMBERSHIPS

Geological Society of America; Geochemical Society;

American Geophysical Union; National Association of Geoscience Teachers

PUBLICATIONS

Peer Reviewed Papers & Book Chapters

- Burton, R. D., Siegel, D. J., Muller, J. E., II, Regner, M., Sheng, Y., McManus, G. J., **MacDonald**, J. H., Jr., and Mirjafari, A., 2019, From gene delivery agents to ionic liquids: The impacts of cation structure and anion identity on liquefaction: *Journal of Molecular Liquids*, v. 295, doi: 10.1016/j.molliq.2019.111758.
- Harper, G. D., Miller, R. B., **MacDonald**, J. H., Jr., Miller, J. S., and Mlinarevic, A. N., 2003, Evolution of a polygenetic ophiolite: the Jurassic Ingalls Ophiolite, Washington Cascades: *in* Swanson, T. W., ed., *Western Cordillera and adjacent areas: Boulder, Colorado, Geological Society of America Field Guide 4*, p. 251-265, doi:10.1130/0-8137-0004-3.251.
- MacDonald**, J.H., Jr., Harper, G.D., and Zhu, B., 2006, Petrology, geochemistry, and provenance of the Galice Formation, Klamath Mountains, Oregon–California, *in* Snoke, A.W., and Barnes, C.G., eds., *Geological studies in the Klamath Mountains province, California and Oregon: Boulder, Colorado, Geological Society of America Special Paper 410*, p. 77-101, doi:10.1130/2006.2410(04).
- MacDonald**, J.H., Jr., Harper, G.D., Miller, R.B., Miller, J.S., Mlinarevic, A.N., and Schultz, C.E., 2008, The Ingalls ophiolite complex, central Cascades, Washington: Geochemistry, tectonic setting, and regional correlations, *in* Wright, J.E., and Shervais, J.W., eds., *Ophiolites, Arcs, and Batholiths: A Tribute to Cliff Hopson: Geological Society of America Special Paper 438*, p. 133–159, doi:10.1130/2008.2438(04).
- MacDonald**, J.H., Jr., Harper, G.D., Miller, R.B., Miller, J.S., Mlinarevic, A.N., and Miller, B.V., 2008, Geochemistry and geology of the Iron Mountain unit, Ingalls ophiolite complex, Washington: Evidence for the polygenetic nature of the Ingalls complex, *in* Wright, J.E., and Shervais, J.W., eds., *Ophiolites, Arcs, and Batholiths: A Tribute to Cliff Hopson: Geological Society of America Special Paper 438*, p. 161–173, doi:10.1130/2008.2438(05).
- MacDonald**, J.H., Jr., and Dragovich, J. D., 2015, Sedimentary geochemistry of the Peshastin Formation and Darrington Phyllite, Cascade Mountains, Washington State: Provenance, tectonic setting, and regional implications, *in* Anderson, T.H., Didenko, A.N., Johnson, C.L., Khanchuk, A.I., and MacDonald, J.H., Jr., eds., *Late Jurassic Margin of Laurasia—A Record of Faulting Accommodating Plate Rotation: Geological Society of America Special Paper 513*, p. 441–460, doi:10.1130/2015.2513(12).
- Metzger, E.P., Miller, R.B., Harper, G.D., and **MacDonald**, J.H., Jr., 2016, Geochemistry of mafic rocks in the Crystalline core of the north Cascades and possible correlatives: Tectonic implications: *in*, Cheney, E.S., ed., *The Geology of Washington and Beyond: from Laurentia to Cascadia: University of Washington Press*, p. 156-180.
- MacDonald**, J.H., Jr., and Schoonmaker, A., 2017, Evidence of a Late Jurassic ridge subduction event: Geochemistry and age of the Quartz Mountain stock, Manastash inlier, central Cascades, Washington: *Journal of Geology*, v. 125, p. 423–438, doi.org/10.1086/692099.
- MacDonald**, J.H., Jr., Dragovich, J., Pecha, M., *Thompson, G.T., *Stingu, S.C., *Maruszczak, A.D., *Zalud, K.M., and *Milliken, S.H., 2017, Mesozoic terranes of the central Cascades: Geology of the Hicks Butte complex, Easton Metamorphic Suite, Peshastin Formation and Ingalls ophiolite complex, *in* Haugerud, R.A., and Kelsey, H.M., eds., *From the Puget Lowland to East of the Cascade Range: Selected Geologic Excursions in the Pacific Northwest: Geological Society of America Field Guide 49*, p. 79–100, doi:10.1130/2017.0049(05).

Edited Books

MacDonald, J. H., Jr., 2008, editor, GLY 1000C: Physical and Historical Geology Manual: Plymouth, Michigan, Hayden-McNeil Publishing, 108 p., ISBN 978-0-7380-2885-9

Anderson, T.H., Didenko, A.N., Johnson, C.L., Khanchuk, A.I., and **MacDonald**, J.H., Jr., eds., 2015, Late Jurassic Margin of Laurasia—A Record of Faulting Accommodating Plate Rotation: Boulder, Colorado, Geological Society of America Special Paper 513, 606 p., ISBN 978-0-8137-2513-0

Peer Reviewed Geologic Maps

Dragovich, J.D., Littke, H.A., Anderson, M.L., Hartog, R., Wessel, G.R., DuFrane, S.A., Walsh, T.J., **MacDonald**, J.H., Jr., Mangano, J.F., and Cakir, R., 2009, Geologic map of the Snoqualmie 7.5-minute quadrangle, King County, Washington: Washington Division of Geology and Earth Resources Geologic Map GM-75, scale 1:24,000, 2 sheets.

Dragovich, J.D., Littke, H.A., Anderson, M.L., Wessel, G.R., Koger, C.J., Saltonstall, J.H., **MacDonald**, J.H., Jr., Mahan, S.A., DuFrane, S.A., and Hartog, R., 2010, Geologic Map of the Carnation 7.5-minute Quadrangle, King County, Washington: Washington Division of Geology and Earth Resources Geologic Map OFR-2010-1, scale 1:24,000, 1 sheet with 21 p. text.

Dragovich, J.D., Anderson, M.L., Mahan, S.A., **MacDonald**, Jr., J.H., McCabe, C.P., Cakir, R., Stoker, B.A., Villeneuve, N.M., Smith, D.T., and Bethel, J.P., 2012, Geologic map of the Lake Joy 7.5-minute quadrangle, King County, Washington: Washington Division of Geology and Earth Resources, Map Series 2012-01, 2 sheets, 79 p.

Dragovich, J.D., Littke, H.A., Mahan, S.A., Anderson, M.L., **MacDonald**, J.H., Jr., Cakir, R., Stoker, B.A., Koger, C.J., Bethel, J.P., DuFrane, S.A., Smith, D.T., and Villeneuve, N.M., 2013, Geologic map of the Sultan 7.5-minute quadrangle, King and Snohomish County, Washington: Washington Division of Geology and Earth Resources Geologic Map 2013-01, scale 1:24,000, 1 sheet, 49 p.

Dragovich, J.D., Frattali, C.L., Anderson, M.L., Mahan, S.A., **MacDonald**, J.H., Jr., Stoker, B.A., Smith, D.T., Koger, C.J., Cakir, R., DuFrane, S.A., and Sauer, K.B. 2014, Geologic map of the Lake Chaplain 7.5-minute quadrangle, Snohomish County, Washington: Washington Division of Geology and Earth Resources Geologic Map 2014-01, scale 1:24,000, 1 sheet, 51 p.

Dragovich, J.D., Mahan, S.A., Anderson, M.L., **MacDonald**, J.H., Jr., Schliter, J.F., Frattali, C.L., Koger, C.J., Smith, D.T., Stoker, B.A., DuFrane, S.A., Eddy, M., Cakir, R., and Sauer, K.B., 2015, Geologic Map of the Lake Roesiger 7.5-minute Quadrangle, Snohomish County, Washington: Washington Division of Geology and Earth Resources Geologic Map 2015-01, scale 1:24,000, 1 sheet, 47 p.

Peer Reviewed Teaching Material Contributions

MacDonald, J. H., Jr, and, Holbik, S., 2015. Feldspar mineral chemistry using the FCAEM remotely operable electron probe micro-analyzer: Science Education Resource Center (SERC), On the Cutting Edge, Teaching Mineralogy Topical Resources. <https://serc.carleton.edu/113287>

MacDonald, J. H., Jr, and, Rotz, R. R., 2021. Field saturated hydraulic conductivity: Science Education Resource Center (SERC), On the Cutting Edge, Teaching Hydrogeology. <https://serc.carleton.edu/241036>

MacDonald, J.H., Jr., Barbosa, A., and, McManus, G.J., 2022. Single crystal X-ray diffractometer study of carbonate minerals and its relationship to their unit cells: Science Education Resource Center (SERC), On the Cutting Edge, Teach the Earth. <https://serc.carleton.edu/249764>

Edited Field Guide

MacDonald, J.H., Jr., Davis, P.B., Dragovich, J.D., *Mayes, B.M., *Incorvaia, A., *Thompson, G.T., *Stingu, S.C., and *Maruszczak, A.D., 2022, Field Geology of the Hicks Butte complex and Easton Metamorphic Suite: a record of Jurassic and Cenozoic tectonism in the central Cascades, Washington: Northwest Geology, v. 51, p. 139–156.

Reviewed Open File Reports

Dragovich, J. D., Littke, H. A., **MacDonald**, J. H., Jr., DuFrane, S. A., Anderson, M. L., Wessel, G. R., and Hartog, R., 2009, Geochemistry, geochronology, and sand point count data for the Snoqualmie 7.5-minute quadrangle, King County, Washington: Washington Division of Geology and Earth Resources Open File Report 2009-4, 3 digital appendices, 35 p.

Dragovich, J.D., Anderson, M.L., **MacDonald**, J.H., Jr., Hartog, R., Mahan, S.A., DuFrane, S.A., Littke, H.A., Wessel, G.R., Saltonstall, J.H., and Koger, C.J., 2010, Supplement to the geologic map of the Carnation 7.5-minute quadrangle, King County, Washington—Geochronologic, geochemical, point count, geophysical, earthquake, fault, and neotectonic data: Washington Division of Geology and Earth Resources Open File Report 2010-2, 8 digital appendices, 42 p.

Dragovich, J.D., Mahan, S.A., Anderson, M.L., **MacDonald**, J.H., Jr., Wessel, G.R., DuFrane, S.A., Cakir, R., Bowman, J.D., and Littke, H.A., 2011, Supplement to the Geologic Map of the Monroe 7.5-minute Quadrangle, King and Snohomish Counties, Washington— Geochronologic, Geochemical, Point Count, Geophysical, Earthquake, and Fault, and Neotectonic Data: Washington Division of Geology and Earth Resources Open File Report 2011-2, 61 p., 2 plates, 2 digital appendices.

Dragovich, J.D., Anderson, M.L., Mahan, S.A., Koger, C.J., Saltonstall, J.H., **MacDonald**, J.H., Jr., Wessel, G.R., Stoker, B.A., Bethel, J.P., Labadie, J.E., Cakir, R., Bowman, J.D., and DuFrane, S.A., 2011, Geologic Map of the Monroe 7.5-minute Quadrangle, King and Snohomish Counties, Washington: Washington Division of Geology and Earth Resources Geologic Map OFR-2011-1, scale 1:24,000, 1 sheet with 24 p. text.

Dragovich, J.D., Mavor, S.P., Anderson, M.L., Mahan, S.A., **MacDonald**, J.H., Jr., Tepper, J.H., Smith, D.T., Stoker, B.A., Koger, C.J., Cakir, R., DuFrane, S.A., Scott, S.P., and Justman, B.J., 2016, Geologic map of the Granite Falls 7.5-minute quadrangle, Snohomish County, Washington: Washington Division of Geology and Earth Resources Map Series 2016-03, scale 1:24,000, 1 sheet, 63 p.

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* = Mentored Undergraduate student; # = Invited Scholarly Presentation