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EDUCATION

B.Sc. (honours), Geography, University of Toronto, 1995

- Thesis: "Floodplain formation processes on the Grand River, Southern Ontario, Canada."
Supervisor: Dr. Joseph Desloges

Ph.D. Geography, University of Guelph, 2000

- Dissertation: "Secondary airflow and sediment transport in the lee of transverse dunes."
Supervisor: Dr. William G. Nickling

EXPERTISE: *geomorphology, sediment transport, environmental fluid dynamics, sedimentary environments, sand dunes, beaches, dune restoration, wind erosion, coastal erosion, terrestrial laser scanning (TLS), unmanned aerial systems (UAS), Quaternary landscape reconstruction, relative sea-level change, sea-level rise impacts, climate change impacts/adaptation.*

ACADEMIC POSITIONS

2016-present Professor, Schools of Geographical Sciences & Urban Planning (SGSUP) and Earth & Space Exploration (SESE), Arizona State University (ASU), Tempe, AZ, USA

2019-present Associate Director, Graduate Research Programs, SGSUP, ASU

2020-present Director, Ron Greeley Planetary Geology Wind Tunnel, SESE, ASU

2015-2016 Professor, Department of Geography, University of Victoria (UVic), BC, Canada

2014-2015 Chair, Undergraduate Affairs Committee, Department of Geography, UVic

2009-2011 Chair, Graduate Affairs Committee, Department of Geography, UVic

2005-2015 Associate Professor, Department of Geography, UVic

2000-2005 Assistant Professor, Department of Geography, UVic

Adjunct Professorships:

2016-present Professor, Faculty of Graduate Studies and Dept. of Geography, UVic, BC, Canada

2017-2020 Professor, Graduate Faculty and Dept. of Geography, University of Alabama, Tuscaloosa, AL, USA

2010-2014 Professor, Graduate Faculty and Dept. of Geography & Anthropology, Louisiana State University, Baton Rouge, LA, USA

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FUNDING, FELLOWSHIP & AWARD HISTORY

Funding secured since 2016: \$1.94M USD (\$1.02M to ASU), Career funding total: \$4.26M*

- 2019-23 State of California Parks & Recreation Department Off-Highway Vehicle Division, "Oceano Dunes State Vehicular Recreation Area Particulate Matter Reduction Plan" (PI, Agreement#: C18V0016/PC#38076, awarded 5 May 2019 to 1 April 2023, \$851,385 to ASU).
- 2019-21 SeaGrant-USC and California Ocean Protection Council, "Humboldt Coastal Resilience Project: Analyzing beach dune morphodynamics and vegetation controls on coastal resiliency to develop decision support tools and adaptation measures for sea-level rise and coastal resilience along the Eureka Littoral Cell, northern California" (Lead PI with S. Corbally, California Coastal Conservancy and A. Pickart, US Fish & Wildlife Service, awarded 10/2018, \$250,000 USD, \$99,785 to ASU).
- 2019-22 US Coastal Research Program (USCRP), Research Topic 5: Nearshore Sediment Transport and Sediment Budgets. "Investigating linkages between littoral and aeolian sediment transport processes and their implications for longer term foredune barrier morphodynamics, Humboldt Bay, California." Statement of Interest, not invited for full proposal.
- 2018-19 ASU-BGU Projects in Environmental Sciences, Global Drylands Center at ASU, "Detecting dryland coastal dune dynamics and landscape changes for restoration in the Nizzanim Nature Reserve, Israel" (co-PI with S. Maman, Ben Gurion University, Israel, awarded 03/2018, \$45,000 USD, \$25,000 to ASU)
- 2018-21 U.S. Army Research Office, "Assessing capabilities and applications of a novel particle imaging velocimetry (PIV) system for modelling aeolian sand transport and erosion/deposition patterns in complex terrain." (co-PI with M. Schmeckle, ASU, submitted 09/2018, not funded, \$319,945 USD)
- 2018-21 National Science Foundation, Geomorphology & Landuse Dynamics (GLD) Program, "Dune Migration and Environmental Change in Cape Cod National Seashore" (co-PI with P. Gares and P. Hesp, submitted 12/2017, not funded, \$602,472 USD).
- 2017-19 Joshua Tree National Park, Robert Lee Graduate Student Research Grant, "Morphodynamics and sedimentation patterns in the Oasis of Mara bajada complex, Joshua Tree National Park" (co-PI with J. Edmunds, PhD student ASU, awarded 01/2017-04/2019, \$4,000 USD).
- 2016-18 U.S. Fish & Wildlife Service and Bureau of Land Management, "Coastal dune restoration for adaptation to climatic variability and change" (PI, awarded 08/2016 to 10/2018, \$31,250 USD).
- 2016-18 National Science Foundation, GP-IMPACT Program, "Bridge into Geosciences Graduate Studies (BiGGS) project" (co-PI with D. Sailor and T. Nelson, ASU, not funded, 03/2017, \$330,000).

* Amounts assume an averaged exchange rate of \$1 USD = \$1.2 CAD

Curriculum Vitae - Ian J. Walker, B.Sc., Ph.D.

- 2016-18 U.S. Dept. of the Army - Corps of Engineers, Environmental Research & Development Centre (ERDC), "Estimating Coastal Dune Vulnerability to Storm Sequences: A Pilot Study" Proposal #16-0008 funded under topic CHL-15 (General Coastal Engineering, Coastal Geology and Dredging Investigations), Broad Agency Announcement (BAA), Contracting Office Vicksburg, MI. (Co-PI, with D. Sherman, U. Alabama, awarded 09/2016 to 09/2018, \$39,498 USD to U. Alabama).
- 2016-21 National Science & Engineering Research Council (NSERC) of Canada, Discovery Grant. "Assessing impacts of anthropogenic large woody debris and dynamic restoration on beach-dune morphodynamics and resilience in Pacific North America." (PI, awarded 04/2016, declined 08/2016 due to move to ASU, \$175,000 CAD).
- 2015-19 California Coastal Conservancy (CCC) Climate Ready Grant, "Coastal Dune Vulnerability and Adaptation" (Co-PI with A. Pickart, US Fish & Wildlife Service, and P. Hesp, Flinders U., awarded 06/2015, \$250,000 USD).
- 2014-17 U.S. Fish & Wildlife Service, "Effects of invasive plant removal and native plant revegetation on foredune morphology" (PI, awarded 10/2014, \$10,000 USD).
- 2015 Ireland-Canada University Foundation, Dobbin Scholarship, "Implementation of low-cost remote sensing techniques to measure post-storm recovery of beach-dune systems" (Co-applicant with E. Farrell, National University of Ireland – Galway, awarded 09/2014, €3,500).
- 2014-18 Hakai Beach Institute and Tula Foundation, "Coastal Sand Ecosystems Research Program" (PI, awarded 08/2014, \$394,032 CAD).
- 2013-15 Canada Foundation for Innovation (CFI) Institutional Operating Funds (IOF), UVic (PI, awarded 04/2013, \$16,000 CAD).
- 2012-15 CFI Leaders Opportunity Fund (LOF) and British Columbia Knowledge Development Fund (BCKDF), "Coastal erosion and dune dynamics (CEDD) laboratory and field research unit." (PI, awarded 11/2012, \$202,735 CAD).
- 2012 National University of Ireland – Galway (NUIG), Visiting Fellowship, Environment, Development & Sustainability Program, Institute for Business, Social Sciences & Public Policy. "Coastal erosion, restoration, and climate change impacts". (Co-applicant with E. Farrell, NUIG, awarded 08/2012, €2500).
- 2011 M.J. Kirkby Award for Excellence in Reviewing, *Earth Surface Processes & Landforms*, British Geomorphology Research Group (BGS). (Recipient, 05/2011).
- 2011-15 Hakai Beach Institute and Tula Foundation, "Study of past sea levels and coastal landscape change, Calvert Island, BC" (PI, awarded 06/2011, \$544,800 CAD).
- 2011-13 Mathematics of Information Technology & Complex Systems (MITACS), Elevate Industrial Postdoctoral Fellowship, "Holocene sea-level history and environmental change, Calvert Island, BC" (Co-applicant with D. Shugar, awarded 12/2011, \$70,000 CAD).

Curriculum Vitae - Ian J. Walker, B.Sc., Ph.D.

- 2011-12 MITACS, Accelerate BC Research Internship, “Dune restoration at Wickaninnish Dunes, Pacific Rim National Park Reserve.” (Co-applicant with I. Darke, awarded 11/2011, \$15,000 CAD).
- 2010-14 U.S. National Science Foundation (NSF) – Geomorphology and Land Use Dynamics, Collaborative Research Grant, “Blowout dynamics at Cape Cod National Seashore.” (Co-PI with P. Hesp (PI), LSU, and P. Gares, ECU, awarded 10/2010, \$345,725 USD).
- 2011-16 NSERC Discovery Grant. “Morphodynamic and sediment budget impacts of large woody debris and mechanical restoration on coastal dunes in British Columbia.” (PI, awarded 03/2011, \$110,000 CAD).
- 2010-11 MITACS, Accelerate BC Research Internship Grant. Dune restoration at Wickaninnish Dunes, Pacific Rim National Park Reserve. (Co-applicant with I. Darke, awarded 06/2010, \$15,000 CAD).
- 2008-09 MITACS, Accelerate BC Research Internship Program Grant in collaboration with Parks Canada-Pacific Rim National Park Reserve (Co-applicant with H. Beaugrand, awarded 08/2008, \$15,000 CAD).
- 2008 Clayoquot Biosphere Trust “Public outreach on dune restoration in Pacific Rim National Park” (Co-applicant with H. Beaugrand, awarded 05/2008, \$5,820 CAD).
- 2007 J. Ross Mackay Award, Significant contribution by a young Canadian geomorphologist. Canadian Geomorphology Research Group (CGRG) (Recipient, 05/2009, \$500 CAD).
- 2007-08 MITACS, Accelerate BC Research Internship Program Grant in collaboration with Parks Canada-Gulf Islands National Park Reserve (Co-applicant with B. Cumming, awarded 06/2007, \$15,000 CAD).
- 2006-11 NSERC Discovery Grant, “Morphodynamics of dune erosion and rebuilding on macrotidal beaches of British Columbia” (PI, awarded 03/2006, \$111,500 CAD).
- 2006-11 Parks Canada Agency (PCA) Research Grant, Projects GWA-2006-640 and PCH-861, “Coastal erosion monitoring in BC’s coastal parks” (PI, awarded 09/2006, \$25,000 CAD).
- 2006-08 Social Sciences & Humanities Research Council (SSHRC) Strategic Research Clusters, “Climate change vulnerability and adaptation in Canadian coastal communities” (Co-PI with B. Smit (PI), U. Guelph, awarded 04/2006, \$25,000 to U. Guelph).
- 2005-07 Natural Resources Canada (NRCan), Climate Change Impacts & Adaptations Directorate (CCIAD), National Assessment Report on Climate Change Impacts & Adaptations – BC Chapter (Co-PI with R. Sydneysmith, C-CIARN UBC, awarded 09/2005, \$106,000 CAD).
- 2005-06 NSERC Special Opportunities Research Grant, “Field measurement of the interaction between the three-dimensional wind flow field, foredune morphology and aeolian sediment transport across the beach and foredune” (Co-PI with R. Davidson-Arnott (PI), U. Guelph and B. Bauer, UBC-O, awarded Sept. 2005, \$21,196 CAD).
- 2004-06 NSERC Top Up Grant, UVic (Recipient, awarded 03/2004, \$4,500 CAD).

- 2003-09 CFI Institutional Operating Funds (IOF), UVic (Recipient, awarded 04/2003, \$53,445 CAD).
- 2003-07 NRCan, Climate Change Impacts & Adaptations Program (CCIAP), Coastal Zone, Project A580, "Coastal vulnerability to climate change and sea-level rise, Northeast Graham Island, Haida Gwaii (Queen Charlotte Islands), BC" (PI, awarded 09/2003, \$182,300 CAD).
- 2002-05 Parks Canada Agency Ecosystem Science Fund (ESF), Project No. 45186440, "Annual Variations in the Beach and Foredune system, Greenwich Dunes, PEI National Park." (Co-PI with R. Davidson-Arnott (PI), U. Guelph, J. Ollerhead, Mt. Allison U., awarded 03/2002, \$19,200 CAD)
- 2002-06 NSERC Discovery Grant, "Airflow and sediment transport dynamics in coastal dune systems" (PI, awarded 03/2002, \$87,680 CAD)
- 2001 SSHRC, UVic Internal Research Grant (PI, awarded 03/2001, \$3,255 CAD)
- 2001 Canada Foundation for Innovation (CFI) New Opportunity Research Infrastructure Grant and British Columbia Knowledge Development Fund (BCKDF), "Boundary Layer Airflow and Sediment Transport (BLAST) Research Unit" (PI, awarded 09/2001, \$299,949 CAD).

PEER-REVIEWED PUBLICATIONS[†]

Since 2016: 20, Career total: 77, Google Scholar citations: 3749 (1831 since 2016), h-index = 34, i-10 index = 62[‡]

- 1) in press **Walker, IJ**. Aeolian (windblown) sand transport over beaches. Chapter 10. In Jackson, DWJ, and Short, A (eds). *Sandy Beach Morphodynamics*. 55 p. Elsevier. ISBN: pending. Publication date: June 2020.
- 2) in press **Walker, IJ**, Turner, C, Hilgendorf, Z. Comparing UAS and terrestrial laser scanning (TLS) methods for geomorphic change detection. Chapter X in: Frazier, AE and Singh, KK (eds), *Fundamentals of Capturing and Processing Drone Imagery and Data*. Taylor & Francis. Accepted May 2020. Anticipated release Sept. 2020.
- 3) 2019 Grilliot, MJ, **Walker, IJ**, Bauer, BO. The role of large woody debris in beach-dune interaction. *Journal of Geophysical Research: Earth Surface*. (<https://doi.org/10.1029/2019JF005120>).
- 4) 2019 Lausanne, A, Fedje, D, Mackie, Q, **Walker, IJ**. Identifying potential geoarchaeological sites with high prospecting potential using aerial LIDAR imaging and GIS on Quadra Island, Canada. *Journal of Island & Coastal Archaeology*. (<https://doi.org/10.1080/15564894.2019.1659884>).
- 5) 2019 Grilliot, MJ, **Walker, IJ**, Bauer, BO. Aeolian sand transport and deposition patterns within a large woody debris matrix fronting a foredune. *Geomorphology* 338: 1-15. (<https://doi.org/10.1016/j.geomorph.2019.04.010>).

[†] student or post-doc co-authors underlined

[‡] Current to May 2020

- 6) 2019 Smyth, TA, Hesp, PA, **Walker, IJ**, Wasklewicz, T, Gares, P, Smith, AB. Topographic change and numerically modelled near surface wind flow in a bowl blowout. *Earth Surface Processes & Landforms*. (<http://dx.doi.org/10.1002/esp.4625>).
- 7) 2018 Grilliot, MJ, **Walker, IJ**, Bauer, BO. Airflow dynamics over a beach and foredune system with large woody debris. *Geosciences* 8(5): 147; (<http://dx.doi.org/10.3390/geosciences8050147>). Invited for special issue on *Aeolian Processes and Geomorphology* by E. Partelli (ed).
- 8) 2018 Rader, AM, Pickart, A, **Walker, IJ**, Hesp, PA, Bauer, BO. Foredune morphodynamics and sediment budgets at seasonal to decadal scales: Humboldt Bay National Wildlife Refuge, California, USA. *Geomorphology* 318: 69-87 (<https://doi.org/10.1016/j.geomorph.2018.06.003>).
- 9) 2018 Davidson-Arnott, RGD, Hesp, PA, Ollerhead, JO, **Walker, IJ**, Bauer, BO, Delgado-Fernandez, I, Smyth, TAG. Sediment Budget Controls on Foredune Height: a Comparison of Simulation Model Results and Field Data. *Earth Surface Processes & Landforms* 43(9): 1798-1810. (<http://dx.doi.org/10.1002/esp.4354>).
- 10) 2018 Jeong, A, Cheung, SY, **Walker, IJ**, Dorn, R. Urban Geomorphology of an Arid City: Case Study of Phoenix, Arizona. Ch. 10, Section 4: Developing Geomorphological Hazards During the Anthropocene. In Thornbush, M, Allen, C. (eds) *Urban Geomorphology*, pp. 175-199. Elsevier, ISBN: 9780128119518, (<http://dx.doi.org/10.1016/B978-0-12-811951-8.00010-2>).
- 11) 2018 Roszkopf, CM, Di Paola, G, Atkinson, DE, Rodríguez, G, **Walker, IJ**. Recent shoreline evolution and beach erosion along the Central Adriatic coast of Italy: the case of Molise region. *Journal of Coastal Conservation* 22(5): 879-895. (<http://dx.doi.org/10.1007/s11852-017-0550-4>).
- 12) 2017 Eamer, JBR, Shugar, D, **Walker, IJ**, Neudorf, C, Lian, O, Eamer, J, Bryce, J, Biln, L. Late Quaternary landscape evolution in a region of stable postglacial relative sea-levels, British Columbia central coast. *Boreas*: 1-16. (<https://doi.org/10.1111/bor.12297>).
- 13) 2017 Smith, A, Gares, P, Wasklewicz, T, Hesp, PA, **Walker, IJ**. Three years of morphologic changes at a bowl blowout, Cape Cod, USA. *Geomorphology* 295: 452-466. (<https://doi.org/10.1016/j.geomorph.2017.07.012>).
- 14) 2017 **Walker, IJ**, Davidson-Arnott, RGD, Bauer, BO, Hesp, PA, Ollerhead, J, Delgado-Fernandez, I, Smyth, TAG. Scale-dependent perspectives on the geomorphology of beach-dune systems. *Earth Science Reviews*, 171: 220-253. (<http://dx.doi.org/10.1016/j.earscirev.2017.04.011>). Invited.
- 15) 2017 Eamer, JBR, Shugar, DH, **Walker, IJ**, Lian, OB, Neudorf, C, Telka, A. A unique late Pleistocene glacial re-advance during retreat of the Cordilleran Ice Sheet. *Quaternary Research*, 87(3): 468-481. (<http://dx.doi.org/10.1017/qua.2017.16>)
- 16) 2017 Eamer, JBR, Shugar, DH, **Walker, IJ**, Lian, O, Neudorf, CM. Distinguishing depositional setting for sandy deposits in coastal landscapes using grain shape. *Journal of Sedimentary Research* 87: 1-11. (<http://dx.doi.org/10.2110/jsr.2016.92>)

- 17) 2017 Bevington, A, Clague, JJ, Millard, T, **Walker, IJ**, Geertsma, M. The Diverse Landscapes of Haida Gwaii. Chapter 21 in Slamaker, O (ed). Landscapes and Landforms of Western Canada. Springer International, New York. 12p. ISBN: 978-3-319-44593-9 (<http://dx.doi.org/10.1007/978-3-319-44593-3>) Invited.
- 18) 2016 Darke, IB, **Walker, IJ**, Hesp, PA. Beach-dune sediment budgets and dune morphodynamics following coastal dune restoration, Wickaninnish Dunes, Canada. *Earth Surface Processes & Landforms*, 41(10): 1370-1385 (<http://dx.doi.org/10.1002/esp.3910>)
- 19) 2016 Hesp, PA, Smyth, TAG, **Walker, IJ**, Gares, PA, Wasklewicz, T. Flow within a trough blowout at Cape Cod. *Journal of Coastal Research*, SI75: 288-292. (<http://www.jcronline.org/doi/abs/10.2112/SI75-058.1>)
- 20) 2016 Elko, N, Brodie, K, Stockdon, H, Nordstrom, K, Houser, C, McKenna, K, Moore, L, Rosati, J, Ruggiero, P, Thuman, R, **Walker, IJ**. Dune management challenges on developed coasts. *Shore & Beach*, 84(1), Winter 2016: 1-14. Invited
- 21) 2015 Barnard P, Short A, Harley M, Splinter K, Vitousek S, Turner I, Allan J, Banno M, Bryan K, Doria A, Hansen J, Kato S, Kuriyama Y, Randall-Goodwin E, Ruggiero P, **Walker IJ**, Heathfield D. Coastal vulnerability across the Pacific dominated by El Niño/Southern Oscillation. *Nature Geoscience* 8: 801–807. (<http://dx.doi.org/10.1038/NNGEO2539>).
- 22) 2015 Heathfield, D, **Walker, IJ**. Evolution of a foredune and backshore river complex on a high-energy, drift-aligned beach. *Geomorphology* 248: 440-451. (<http://dx.doi.org/10.1016/j.geomorph.2015.08.006>)
- 23) 2015 Neudorf, CM, Lian, OB, **Walker, IJ**, Shugar, DH, Eamer, JB, Griffin, LC. Toward a luminescence chronology for coastal dune and beach deposits on Calvert Island, British Columbia central coast, Canada. *Quaternary Geochronology* 30: 275-281. (<http://dx.doi.org/10.1016/j.quageo.2014.12.004>).
- 24) 2015 Bauer, BO, Hesp, PA, **Walker, IJ**, Davidson-Arnott, RGD. Sediment transport (dis)continuity across a beach-dune profile during an offshore wind event. *Geomorphology* 245: 135-148 (<http://dx.doi.org/10.1016/j.geomorph.2015.05.004>)
- 25) 2015 Abhar, KA, **Walker, IJ**, Hesp, PA, Gares, P. Spatial-Temporal Evolution of Blowout Dunes at Cape Cod National Seashore, Massachusetts, USA. *Geomorphology* 236: 148–162 (DOI: [10.1016/j.geomorph.2015.02.015](https://doi.org/10.1016/j.geomorph.2015.02.015)).
- 26) 2015 Hesp, PA, Smyth, TA, Nielsen, P, **Walker, IJ**, Bauer, BO. Flow deflection over a foredune. *Geomorphology* 230: 64-74 (DOI:[10.1016/j.geomorph.2014.11.005](https://doi.org/10.1016/j.geomorph.2014.11.005)).
- 27) 2014 Shugar, DH, **Walker, IJ**, Lian, OB, Eamer, JBR, Neudorf, C, McLaren, D, Fedje, D. Post-glacial sea-level change along the Pacific coast of North America. *Quaternary Science Reviews* 97: 170-192 (DOI: [10.1016/j.quascirev.2014.05.022](https://doi.org/10.1016/j.quascirev.2014.05.022))
- 28) 2014 McLaren, D, Fedje, D, Hay, M, Mackie, Q, **Walker, IJ**, Shugar, DH, Eamer, JBR, Lian, OB, Neudorf, C. A post-glacial sea level hinge on the central Pacific coast of Canada. *Quaternary Science Reviews* 97: 148–169 (DOI: [10.1016/j.quascirev.2014.05.023](https://doi.org/10.1016/j.quascirev.2014.05.023))
- 29) 2013 **Walker, IJ**, Eamer, JBR, Darke, IB. Assessing significant geomorphic changes and effectiveness of dynamic restoration in a coastal dune ecosystem. *Geomorphology*

- 199: 192-204 ([DOI: 10.1016/j.geomorph.2013.04.023](https://doi.org/10.1016/j.geomorph.2013.04.023)). *Invited for the 2013 Binghamton Geomorphology Symposium on Coastal Restoration.*
- 30) 2013 **Walker, IJ, Sugar, DH.** Secondary flow deflection in the lee of transverse dunes with implications for dune morphodynamics and migration. *Earth Surface Processes & Landforms* 38(14): 1642-1654 ([DOI: 10.1002/esp.3398](https://doi.org/10.1002/esp.3398))
- 31) 2013 Bauer, BO, **Walker, IJ**, Baas, ACW, Jackson, DWT, McKenna Neuman, C, Wiggs, GFS, Hesp, PA. Critical Reflections on the Coherent Flow Structures Paradigm in Aeolian Geomorphology. Ch. 8 in: Venditti, J, Best, JL, Church, M, Hardy, RJ (eds), *Coherent Flow Structures at Earth's Surface*. pp. 111-134. John Wiley & Sons: Chichester. ISBN: 978-1-119-96277-9. *Invited*
- 32) 2013 **Walker, IJ**, Hesp, PA. Fundamentals of Aeolian Sediment Transport: Airflow Over Dunes. Ch. 11.7. In: Lancaster, N, Sherman, DJ, Baas, ACW (eds.), Vol. 11: *Aeolian Geomorphology*. pp 109-133. In: Shroder, JF (ed.) *Treatise on Geomorphology*. Elsevier: Oxford. ([DOI: 10.1016/B978-0-12-374739-6.00300-6](https://doi.org/10.1016/B978-0-12-374739-6.00300-6)). *Invited*. ISBN: 9780123747396.
- 33) 2013 Hesp, PA, **Walker, IJ**. Fundamentals of Aeolian Sediment Transport: Coastal dunes. Ch. 11.17. In: Lancaster, N, Sherman, DJ, Baas, ACW (eds.), Vol. 11: *Aeolian Geomorphology*. pp 328-355. In: Shroder, JF (ed.) *Treatise on Geomorphology*. Elsevier: Oxford. ([DOI: 10.1016/B978-0-12-374739-6.00310-9](https://doi.org/10.1016/B978-0-12-374739-6.00310-9)). *Invited*. ISBN: 9780123747396.
- 34) 2013 Eamer, JBR, **Walker, IJ**. Quantifying spatial and temporal trends in beach-dune volumetric changes using spatial statistics. *Geomorphology* 191: 94-108 ([DOI: 10.1016/j.geomorph.2013.03.005](https://doi.org/10.1016/j.geomorph.2013.03.005))
- 35) 2013 Eamer, JBR, Darke, IB, **Walker, IJ**. Geomorphic and sediment volume responses of a coastal dune complex following invasive vegetation removal. *Earth Surface Processes & Landforms* 38(10): 1148-1159 ([DOI: 10.1002/esp.3403](https://doi.org/10.1002/esp.3403))
- 36) 2013 Chapman, C, **Walker, IJ**, Bauer, BO, Hesp, P, Davidson-Arnott, RGD, Ollerhead, J. Reynolds stress and sand transport over a vegetated foredune. *Earth Surface Processes & Landforms* 38(14): 1735-1747 ([DOI: 10.1002/esp.3428](https://doi.org/10.1002/esp.3428))
- 37) 2013 Darke, IB, Eamer, JBR, Beaugrand, HER, **Walker, IJ**. Monitoring considerations for a dynamic dune restoration project: Pacific Rim National Park Reserve, British Columbia, Canada. *Earth Surface Processes & Landforms* 38(9): 983-993 ([DOI: 10.1002/esp.3380](https://doi.org/10.1002/esp.3380))
- 38) 2013 Hesp, PA, **Walker, IJ**, Chapman, C, Davidson-Arnott, RGD, Bauer, BO. Aeolian dynamics over a foredune, Prince Edward Island, Canada. *Earth Surface Processes & Landforms* 38(13): 1566-1575 ([DOI: 10.1002/esp.3444](https://doi.org/10.1002/esp.3444))
- 39) 2013 Heathfield, DK, **Walker, IJ**, Atkinson, D. Erosive water level regime and climate variability forcing on southwestern Vancouver Island, British Columbia, Canada. *Earth Surface Processes & Landforms* 38(7): 751-762 ([DOI: 10.1002/esp.3350](https://doi.org/10.1002/esp.3350))
- 40) 2013 Ollerhead, J, Davidson-Arnott, RGD, **Walker, IJ**, Mathew, S. Annual to Decadal Morphodynamics of the Beach-Foredune System at Greenwich Dunes, Prince

- Edward Island, Canada. *Earth Surface Processes & Landforms* 38(3): 284-298 ([DOI: 10.1002/esp.3327](https://doi.org/10.1002/esp.3327))
- 41) 2013 [Delgado-Fernandez, I](#), Davidson-Arnott, RGD, Bauer, BO, **Walker, IJ**, Ollerhead, J. Evaluation of the optimal resolution for characterizing the effect of beach surface moisture derived from remote sensing on aeolian transport. *J. Coastal Research* SI65: 1277-1282 (<http://dx.doi.org/10.2112/SI65-216.1>).
- 42) 2012 Davidson-Arnott, RGD, Bauer, BO, **Walker, IJ**, Hesp, PA, Ollerhead, J, [Chapman, C](#). High-frequency sediment transport responses on a vegetated foredune. *Earth Surface Processes & Landforms* 37(11): 1227-1241 ([DOI: 10.1002/esp.3275](https://doi.org/10.1002/esp.3275))
- 43) 2012 [Delgado-Fernandez, I](#), Davidson-Arnott, RGD, Bauer, BO, **Walker, IJ**, Ollerhead, J, [Rhew, H](#). Assessing aeolian beach-surface dynamics using a remote sensing approach. *Earth Surface Processes & Landforms* 37(15): 1651–1660 ([DOI: 10.1002/esp.3301](https://doi.org/10.1002/esp.3301))
- 44) 2012 Hesp, PA, **Walker, IJ**. Three-dimensional aeolian dynamics within a bowl blowout during offshore winds: Greenwich Dunes, Prince Edward Island, Canada. *Aeolian Research* 3(4): 389–399 ([DOI: 10.1016/j.aeolia.2011.09.002](https://doi.org/10.1016/j.aeolia.2011.09.002))
- 45) 2012 [Chapman, C](#), **Walker, IJ**, Hesp, PA, Bauer, BO, Davidson-Arnott, RGD. Turbulent Reynolds stress and quadrant event activity in wind flow over a foredune. *Geomorphology* 151-152: 1-12 ([DOI: 10.1016/j.geomorph.2011.11.015](https://doi.org/10.1016/j.geomorph.2011.11.015))
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- 70) 2005 **Walker, IJ, Roy, AG.** Fluid flow & sediment transport processes in geomorphology: innovations, insights & advances in measurement. Preface to the Special Issue. *Geomorphology* 68(1-2): 1-2. (DOI: [10.1016/j.geomorph.2004.09.029](https://doi.org/10.1016/j.geomorph.2004.09.029))
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- 77) 1997 **Walker, IJ, Desloges, JR, Crawford, G, Smith, D.** Floodplain formation processes and archaeological implications at the Grand Banks site, Lower Grand River, Southern

Ontario . *Geoarchaeology* 12(8): 865-887. (DOI: [10.1002/\(SICI\)1520-6548\(199712\)12:8<865::AID-GEA3>3.0.CO;2-3](https://doi.org/10.1002/(SICI)1520-6548(199712)12:8<865::AID-GEA3>3.0.CO;2-3))

PAPERS IN REVIEW OR REVISION:

- In revision Nelson, L, Cade-Menun, BJ, **Walker, IJ**, Sanborn, P. Soil phosphorus dynamics across a Holocene chronosequence of aeolian sand dunes on Calvert Island, BC, Canada. *Frontiers in Forests and Global Change*, ID#: 538625. In revision, March 2020.
- In revision Mullan, S, **Walker, IJ**, MG, Barrie, JV, Pospelova, V, Hill, PR. Bathymetric change detection with a repeat multibeam sonar survey: volumetric differencing and uncertainty considerations at a seabed dune complex. *Marine Geology*. Submission ID: MARGO_2018_60, revised 8 Apr 2019.
- In review Cheung, SY, **Walker, IJ**, Myint, S, Dorn, R. Assessing land degradation induced by recreational activities in Algodones Dunes, California. *Journal of Arid Environments*. ID: AN-2019-1260, submitted 10 Aug 2019.
- In review Mullan, S, Foreman, MG, Barrie, JV, Pospelova, V, Hill, PR, **Walker, IJ**. Tidally driven sediment transport pathways in the central Salish Sea: Lagrangian particle simulation results. *Continental Shelf Research*. ID: CSR_2017_413, submitted 19 Nov 2017.

OTHER PUBLICATIONS & REPORTS

- 1) 2020 Burr, D, Banfield, D, Chojnacki, M, Day, M, Diniega, S, Fenton, L, Lapôtre, M Neakrase, L, Portyankina, G, Soto, A, Sutton, S, Swann, C, Walker, IJ, Williams, D. White Paper: NASA PLANETARY WIND TUNNEL FACILITIES.
- 2) 2019 Pickart, A, Reynolds, C, Walker, IJ. Humboldt Coastal Resilience Project Phase 3 Beach-Dune Transect Profiles Report. Unpublished progress report for the Humboldt Coastal Resilience Project (HCRP) for project partners, California Coastal Conservancy, and USC-Seagrant sponsors. 76 p.
- 3) 2019 Nickling, WG, Walker, IJ, Martin, R, Gillies, J, McKenna Neuman, C, Withycombe, E, Bush, M, Scheidlinger, C. "Evaluation of: Oceano Dunes State Vehicular Recreation Area Draft Particulate Matter Reduction Plan (Preliminary Concept, 02-01-2019)". Report from the Scientific Advisory Group (SAG) of the Oceano Dunes Dust Mitigation Project to San Luis Obispo Air Pollution Control District (SLOAPCD) and State of California Parks & Recreation Department Off-Highway Vehicle Division. 25 February 2019. 51p.
- 4) 2018 Walker, IJ, Sherman, DG, Springer, H. "Estimating Potential Dune Vulnerability to Storm Sequences: A Pilot Study." Fact Sheet for the US Coastal Research Program (USCRP) DUNE Research & Development. Sponsored by the US Army Corps of Engineers, US Geological Survey and the American Shore and Beach Protection Association (ASBPA). May 2018. 3p.
- 5) 2018 Walker, IJ, Schmeckle, M. "Assessing capabilities and applications of a novel particle imaging velocimetry (PIV) system for modelling aeolian sand transport and erosion/deposition patterns in complex terrain." White paper submitted to U.S. Army Research Office, Earth Materials and Processes Division, Research Triangle Park, NC, 3 April 2018. 5p.

- 6) 2018 Pickart, A, Reynolds, C, Walker, IJ. “Dunes Climate Ready Vulnerability and Adaptation Study Phase 2: Beach-Dune Transect Profiles.” A project report submitted to the California State Coastal Conservancy Climate Ready Program for project “Coastal Dune Vulnerability and Adaptation in the Eureka Littoral Cell”. Produced in collaboration with the US Fish & Wildlife Service, Humboldt Bay National Wildlife Refuge, Arcata, California. 76p.
- 7) 2017 Pickart, A, Reynolds, C, Walker, IJ. “Dunes Climate Ready Vulnerability and Adaptation Study Phase 1: Preliminary Beach-Dune Transect Profiles.” A project report submitted to the California State Coastal Conservancy Climate Ready Program for project “Coastal Dune Vulnerability and Adaptation in the Eureka Littoral Cell”. Produced in collaboration with the US Fish & Wildlife Service, Humboldt Bay National Wildlife Refuge, Arcata, California. 82p.
- 8) 2011 Page, N, Lilley, P, Walker, IJ, Vennesland, RG. “Status report on coastal sand ecosystems in British Columbia.” Prepared for the Coastal Sand Ecosystems Recovery Team of British Columbia. Available online at: <http://www.raincoastappliedecology.ca/wp-content/uploads/2010/09/2011-Coastal-Sand-Ecosystem-Status-Report.pdf>. vii + 83 pp.

CONFERENCE PRESENTATIONS & PUBLIC ADDRESSES[§]

- 1) 2020 Diniega, S, Newman, C, Swann, C, Ewing, R, Avouac, J-P, Banfield, D, Barba, N, Burr, D, Esposito, F, Fenton, L, Giersch, L, Gillies, J, Gough, R, Jackson, B, Lange, C, Merrison, J, Soto, Sullivan, R, **Walker, IJ**. “The importance and feasibility of in situ martian aeolian and meteorological investigations” 51st Lunar and Planetary Science Conference (LPSC), Woodlands, TX, 16–20 March 2020.
- 2) 2020 Gillies, JA, **Walker, IJ**, Nickling, WG. “Design and implementation of foredune restoration at Oceano Dunes State Vehicular Recreation Area.” Invited presentation, State of California Department of Parks and Recreation Off-Highway Motor Vehicle Recreation Commission Annual Meeting, Lake Arrowhead, CA, 24 January 2020.
- 3) 2019 **Walker, IJ**. “Progress on foredune restoration at Oceano Dunes State Vehicular Recreation Area.” Invited presentation, Oceano Dunes Scientific Advisory Group (SAG) meeting with State of California Department of Parks and Recreation (DPR) Off-Highway Vehicle Division and the San Luis Obispo County Air Pollution Control District (SLOAPCD), Pismo Beach, CA, 12-13 December 2018.
- 4) 2019 **Walker, IJ**. Expert witness testimony. San Luis Obispo County Air Pollution Control District (SLO-APCD) Hearing Board – Petition No. 17-01. Petition for a modification of Stipulated Order of Abatement (SOA) 17-01 to California Department of Parks and Recreation Off-Highway Motor Vehicle Division to address violation of existing SOA 17-01 and continued violations of California Health and Safety Code section 41700 and SLOAPCD Rule 402 – Public Nuisance and continued violation of SLOAPCD Rule 1001-Coastal Dunes Dust Control Requirements. 18 Nov. 2019, Arroyo Grande, CA.

[§] student or post-doc co-authors underlined

- 5) 2019 **Walker, IJ.** “Humboldt Coastal Resilience Project” Invited presentation, West Coast Dune Managers Retreat, US Fish & Wildlife Service, Eureka, CA. 18-20 Sept. 2019.
- 6) 2019 **Walker, IJ.** “Oceano Dunes Scientific Advisory Group (SAG) Technical Discussion” Invited presentation, San Luis Obispo County Air Pollution Control District (SLO-APCD) Public workshop. 1 May 2019.
- 7) 2019 Hilgendorf, Z, **Walker, IJ.** “Recovery of foredunes by aeolian rebuilding following the 2015-16 El Niño, Lanphere Dunes, California, USA.” Poster #188-11, Session T4. Eolian Processes and Landscape Evolution (posters). Geological Society of America (GSA) 2019 Annual Meeting, Phoenix, AZ, 22-25 Sept. 2019.
- 8) 2019 Yousefi Lalimi, F, **Walker, IJ.** “Validation of an open-source aeolian sediment transport model using field observations from a beach-dune system in Arcata, California.” Poster #188-17, Session T4. Eolian Processes and Landscape Evolution (posters). Geological Society of America (GSA) 2019 Annual Meeting, Phoenix, AZ, 22-25 Sept. 2019.
- 9) 2018 Biln, LC, Gingerich, TB, Neudorf, CM, Lian, OB, Ward, BC, Clague, JJ, Bryce, JK, **Walker, IJ.** “Optical dating of stabilized parabolic sand dunes, savary island, British Columbia, Canada.” CANQUA/AMQUA 2018 Joint meeting of the Canadian and American Quaternary Associations. 7-11 August, 2018. Session S1 The Quaternary record of aeolian systems in mid- to high-latitudes. Poster presentation.
- 10) 2018 **Walker, IJ.** “Complexities of atmospheric boundary layer responses, beach-dune sediment budget dynamics, and OHV ridership patterns at Oceano Dunes, California.” Invited talk, Oceano Dunes Scientific Advisory Group (SAG) meeting with State of California Department of Parks and Recreation (DPR) Off-Highway Vehicle Division and the San Luis Obispo County Air Pollution Control District (SLOAPCD), Pismo Beach, CA, 16-19 October 2018.
- 11) 2018 **Walker, IJ.** “Coastal dune dynamics and restoration.” Invited talk, Oceano Dunes Scientific Advisory Group (SAG) meeting, State of California Department of Parks and Recreation (DPR) Off-Highway Vehicle Division and San Luis Obispo County Air Pollution Control District (APCD), Pismo Beach, CA, 17-20 July 2018.
- 12) 2018 Yousefi Lalimi, F, **Walker, IJ.** “Modelling responses of a foredune barrier complex to climate change and sea level rise impacts: insights from Humboldt Bay, northern California” Poster presentation, 2018 American Geophysical Union (AGU) Fall Meeting, Washington, DC, 10-14 Dec. 2018.
- 13) 2018 **Walker, IJ,** Pickart, AJ, Rader, A. “Foredune erosion, rebuilding & restoration at Lanphere Dunes, Humboldt Bay National Wildlife Refuge.” Invited public address, hosted by U.S. Fish & Wildlife Service – Humboldt Bay National Wildlife Refuge and Humboldt State University, 23 May 2018.
- 14) 2018 Grilliot, MJ, **Walker, IJ,** Heathfield, DK. “Evaluating the recovery of beach-dune systems from the 2016 El Niño using unmanned aerial systems (UAS) and terrestrial laser scanning (TLS)” Poster presentation CD34B-0124, American Geophysical Union (AGU) Ocean Sciences Meeting, Portland, OR, 14 February 2018.

- 15) 2017 **Walker, IJ**, Grilliot, MJ, Bauer, BO. "Airflow Dynamics and Sand Transport over a Coastal Fore-dune with Large Woody Debris". Poster presentation EP21G-06, Session EP31B: Coastal Geomorphology & Morphodynamics: Observations, Modeling, and Sensing Techniques V - Posters. 2017 American Geophysical Union (AGU) Fall Meeting, New Orleans, LA, 12-16 Dec. 2017.
- 16) 2017 **Walker, IJ**, Sherman, DG, Springer, H, "Estimating Coastal Dune Vulnerability to Storm Sequences: A Pilot Study." Invited presentation for Session 4B: Dune Management Challenges on Developed Coasts. 2017 American Shore and Beach Protection Association (ASBPA) National Coastal Conference, Fort Lauderdale, Florida. 25-27 October 2017.
- 17) 2017 Neudorf, C, Lian, O, Biln, L, Bryce, J, Eamer, J, Smith, N, Shugar, D, **Walker, IJ**, Fedje, D, Lausanne, A, Clague, JJ, "Optical Dating Sediments from Coastal British Columbia: successes, challenges and plans for the future." GSA Annual Meeting, Seattle, WA, 22-25 October 2017.
- 18) 2017 **Walker, IJ**, "Willful winds and shifting sands: challenges & advances in aeolian research" Invited presentation, US Army Research Office Workshop on Dust Emission, Chemistry and Transport. Notre Dame University, Chicago Campus, 26-27 Sept. 2017, Chicago IL.
- 19) 2017 **Walker, IJ**, Grilliot, M, "Coastal sand ecosystems of BC: Holocene history to modern dynamics" Invited presentation, Hakai Research Institute, Calvert Island Research Station, British Columbia, Canada. 28 August 2017.
- 20) 2017 Bauer, BO, **Walker, IJ**, Davidson-Arnott, RGD, Hesp, PA, Delgado-Fernandez, I, Ollerhead, J, "Scale-dependent perspectives on beach-dune dynamics: A decade of field research at Greenwich Dunes, Prince Edward Island". Session ES12: Coastal sediment dynamics and morphological response. Canadian Geophysical Union (CGU) Annual Meeting, Vancouver, BC. 29-31 May 2017.
- 21) 2017 Grilliot, M, **Walker, IJ**, Bauer, BO, "Airflow dynamics and sand transport over a coastal fore-dune with large woody debris". Session ES12: Coastal sediment dynamics and morphological response. Canadian Geophysical Union (CGU) Annual Meeting, Vancouver, BC. 29-31 May 2017.
- 22) 2017 Gares, P, Hesp, PA, **Walker, IJ**, "Development of pothole blowouts and their role in dune field evolution." AAG 2017 Annual Meeting, Boston, MA. 5-9 April, 2017.
- 23) 2017 Bauer, BO, Davidson-Arnott, RGD, **Walker, IJ**, Grilliot, M, "On the use of high-frequency particle counters in aeolian field experiments: challenges, opportunities, and a call to action." AAG 2017 Annual Meeting, Boston, MA. 5-9 April, 2017.
- 24) 2016 **Walker, IJ**, Grilliot, M, Heathfield, D, "Seasonal Beach-dune Morphodynamics and Sediment Budget Responses to Erosive Events Derived Using Terrestrial Laser Scanning (TLS) and Unmanned Aerial Systems (UAS)." Session EP14A: Coastal Geomorphology and Morphodynamics III. 2016 American Geophysical Union (AGU) Fall Meeting, 12-16 Dec. 2016.

- 25) 2016 Rader, AM, **Walker, IJ**, Pickart, A, “Dune Morphology and Sediment Budget Responses to Varying Vegetation Cover and Restoration: Humboldt Bay National Wildlife Refuge, Northern California.” Poster EP11A-0970: Coastal Geomorphology and Morphodynamics I. 2016 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA. 12-16 Dec. 2016.
- 26) 2016 Heathfield, D, **Walker, IJ**, Grilliot, M, “Comparison of Terrestrial Laser Scanning (TLS) and Structure from Motion (SfM) photogrammetry from unmanned aerial systems (UAS) for geomorphic change detection in beach-dune systems.” Poster EP11A-0970: Coastal Geomorphology and Morphodynamics I. 2016 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA. 12-16 Dec. 2016.
- 27) 2016 Grilliot, M, **Walker, IJ**, Bauer, BO, “Airflow Dynamics and Sand Transport over a Coastal Foredune with Large Woody Debris.” Poster EP21A-0861: Aeolian Research at the Interface of Biophysical, Sedimentary, and Atmospheric Processes I. 2016 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA. 12-16 Dec. 2016.
- 28) 2016 **Walker, IJ**, “Quantifying coastal erosion & dune restoration impacts using unmanned aerial systems (UAS) & terrestrial laser scanning (TLS).” Invited presentation, United States Geological Survey (USGS), Santa Cruz, CA, 3 May 2016.
- 29) 2015 **Walker, IJ**, “A tale of two siblings: Impacts of El Niño & La Niña in coastal British Columbia” Invited presentation at the Vancouver Island Chapter, Air & Waste Management Association bi-monthly meeting, 24 Nov. 2015, Victoria, BC.
- 30) 2015 **Walker, IJ**, “Methods & technologies for quantifying beach-dune morphodynamics & sediment budgets” Invited presentation at “Dune Management Challenges on Developed Coasts” a workshop sponsored by the American Shore & Beach Protection Association (ASPBA) and the U.S. Army Corps of Engineers, Environmental Research & Development Centre (ERDC), Hilton Garden Inn, 26-28 Oct. 2015, Kitty Hawk, NC.
- 31) 2015 **Walker, IJ**, Grilliot, M, Eamer, JBR. “Examining interactions between large woody debris, beach-dune morphodynamics and shoreline positions using remotely sensed data.” Paper presented at the 2015 Joint Assembly of the AGU-CGU-GAC-MAC, 3-7 May 2015.
- 32) 2014 **Walker, IJ**, Abhar, K, Hesp, PA, Gares, P. “Spatial-temporal morphodynamics and evolution of coastal blowout dunes.” Paper presented at Geological Society of America 2014 Meeting, 19-22 Oct. 2014, Vancouver, BC.
- 33) 2014 Eamer, JBR, Shugar, DH, **Walker, IJ**, Lian, OB, Neudorf, C, Telka, AM. “A significant late Pleistocene glacial readvance during retreat of the Cordilleran Ice Sheet on the central coast of British Columbia. Poster presented at Geological Society of America 2014 Meeting, 19-22 Oct. 2014, Vancouver, BC.
- 34) 2014 Shugar, DH, McLaren, D, **Walker, IJ**, Lian, OB, Eamer, JBR, Neudorf, CM, Fedje, D. “Post-glacial sea levels in Pacific North America – hinge zones and human occupation.” Poster presented at American Quaternary Association Meeting, 7-10 Aug. 2014, University of Washington, Seattle, WA.

- 35) 2014 **Walker, IJ**, “Assessing geomorphic effectiveness of dynamic restoration on coastal dunes.” Invited public talk, Humboldt Bay National Wildlife Refuge, US National Fish and Wildlife Service, Arcata, California, 23 April 2014.
- 36) 2014 **Walker, IJ**, Davidson-Arnott, RGD, Hesp, PA, Bauer, BO, Ollerhead, J, Delgado-Fernandez, I. “A decade of beach-dune morphodynamics research at Greenwich Dunes, Prince Edward Island, Canada.” Paper presented at GAC-MAC/CGRG Joint Annual Meeting, 21-23 May 2014, University of New Brunswick, Fredericton, NB.
- 37) 2014 **Walker, IJ**, Shugar, DH, Lian, OB, Eamer, JBR, Neudorf, CM, McLaren, D, Fedje, D. “The past 18,000 years of sea-level change in Pacific North America.” Paper presented at Canadian Assn. of Geographers, Western Division Meeting, 7-8 Mar. 2014, Victoria, BC.
- 38) 2013 **Walker, IJ**. “Assessing morphodynamic effectiveness of invasive vegetation removal on coastal dunes” Presentation, CANQUA-CGRG Biannual Meeting, Edmonton, AB, 18-22 Aug. 2013.
- 39) 2013 **Walker, IJ**, Heathfield, DK. “Historic evolution of an extending foredune, backshore river, eroding bluff complex: Wickaninnish Bay, Vancouver Island, BC” Poster, CANQUA-CGRG Biannual Meeting, Edmonton, AB, 18-22 Aug. 2013.
- 40) 2013 Abhar, K, **Walker, IJ**, Hesp, PA, Gares, P. “Historical Spatial-Temporal Morphodynamics of Blowouts in Cape Cod National Seashore, MA, USA” Presentation, CANQUA-CGRG Biannual Meeting, Edmonton, AB, 18-22 Aug. 2013.
- 41) 2013 **Walker, IJ**, “Assessing morphodynamic effectiveness of invasive vegetation removal on coastal dunes” Invited plenary, 44th Binghamton Geomorphology Symposium on Coastal Barriers & Restoration. 18-20 Oct. 2013, NJIT, Newark, NJ.
- 42) 2013 Darke, IB, **Walker, IJ**, Hesp, PA. “Restoration & monitoring of coastal dune dynamics: Pacific Rim National Park Reserve, BC, Canada” Poster, 44th Binghamton Geomorphology Symposium on Coastal Barriers & Restoration. 18-20 Oct. 2013, NJIT, Newark, NJ.
- 43) 2013 Davidson-Arnott, RGD, Bauer, BO, **Walker, IJ**, Chapman, C, Hesp, PA. “Temporal & spatial scale of aeolian flux on a vegetated foredune during a high-energy event” Poster, 44th Binghamton Geomorphology Symposium on Coastal Barriers & Restoration. 18-20 Oct. 2013, NJIT, Newark, NJ.
- 44) 2013 Abhar, K, **Walker, IJ**, Hesp, PA, Gares, P. “Historical spatial-temporal morphodynamics of erosional blowout dunes in Cape Cod National Seashore, MA, USA” Poster, 44th Binghamton Geomorphology Symposium on Coastal Barriers & Restoration. 18-20 Oct. 2013, NJIT, Newark, NJ.
- 45) 2013 **Walker, IJ**, “Coastal Landscapes & Biodiversity in British Columbia”. Invited public presentation, Let’s Talk Science Symposium on Coastal Biodiversity, UVic, Victoria, BC.
- 46) 2012 **Walker, IJ**, Davidson-Arnott, RGD, Hesp, PA, Bauer, BO, Ollerhead, J, Delgado-Fernandez, I “A decade of beach-dune morphodynamics research at Greenwich Dunes, Prince Edward Island, Canada (2002-2012).” Invited presentation, 2012 Geological Society of America Annual Meeting, 4-7 Nov. 2012, Charlotte, NC.

- 47) 2012 **Walker, IJ.** "Climate change, coastal erosion and the restoration of beach-dune systems." Invited presentation, Centre de Recherche et d'Enseignement de Géosciences de l'Environnement (CEREGE), 18 Sept. 2012, Aix en Provence, France.
- 48) 2012 **Walker, IJ.** "Shifting sands & dynamic shorelines: Climate change, coastal erosion, and the restoration of beach-dune systems." Invited presentation as Visiting Fellow at the Environment, Development & Sustainability Program, Institute for Business, Social Science & Public Policy (IBSSPP), 23 Aug. 2012, National University of Ireland, Galway, Ireland.
- 49) 2012 **Walker, IJ, Lian, O, Sugar, D, Eamer, JBR, Mackovic, B, Huesken, D.** "Exploring the prehistory of Calvert Island with grains of sand". Public presentation, Hakai Beach Institute, British Columbia. 30 May 2012.
- 50) 2012 **Walker, IJ.** "Coastal erosion & climate change impacts in British Columbia". Invited public presentation to joint meeting on coastal erosion in local First Nations landscapes, Parks Canada - Gulf Islands National Park Reserve, Hul'qumi'num Treaty Group, and Tseycum Council. 14 May 2012. Ladysmith, BC.
- 51) 2011 **Walker, IJ, Chapman, C, Hesp, PA, Davidson-Arnott, RGD, Bauer, BO, Ollerhead, J.** "Three-dimensional airflow behaviour and sand transport responses over a vegetated foredune, PEI National Park, Canada." Paper presented at the 2011 Meeting of the American Association of Geographers, April 12-16 2011, Seattle, WA.
- 52) 2011 **Walker, IJ, Chapman, C, Hesp, PA, Bauer, BO, Davidson-Arnott, RGD.** "Topographic forcing, quadrant event distributions, and sand transport responses in near-surface flow over coastal foredunes" Invited plenary at Coherent Flow Structures in Geophysical Flows at the Earth's Surface, 2-4 August 2011, SFU, Vancouver, BC.
- 53) 2010 **Walker, IJ, Beaugrand, HER, Darke, IB, Eamer, JBR.** "Coastal Foredune Restoration at Wickaninnish Dunes, Pacific Rim National Park." Invited plenary, UVic Restoration Institute 2010, Coastal Ecosystem Restoration & Management, 26-29 May 2010, Victoria BC.
- 54) 2010 **Walker, IJ, Chapman, C, Hesp, PA, Davidson-Arnott, RGD, Bauer, BO, Namikas, S.** "Turbulent Reynolds stress and quadrant events in wind flow over a vegetated foredune." Poster, International Conference on Aeolian Research (ICAR-VII), Santa Rosa, Argentina, 5-9 July 2010.
- 55) 2010 **Walker, IJ.** "Shifting sands & dynamic shorelines: Climate change, coastal erosion & restoration of beach-dune systems in Tofino-Ucluelet" Invited presentation, Marine & Aquatic Speaker Series, Clayoquot Biosphere Trust, Tofino, 8 December 2010.
- 56) 2009 **Walker, IJ, Davidson-Arnott, RGD, Hesp, PA, Bauer, BO, Ollerhead, J** "Mean Flow and Turbulence Responses in Airflow over Foredues: New Insights from Recent Research. Paper presented at 10th International Coastal Symposium (ICS2009), 13-18 April 2009, Lisboa, Portugal.
- 57) 2009 **Walker, IJ.** "Are we seeing the dunes for the processes? Progress in the measuring and modeling of aeolian dune systems." Invited keynote for J.R. Mackay Award CANQUA-CGRG Biennial Meeting, Simon Fraser University, Burnaby, BC, 3-8 May 2009.

- 58) 2009 **Walker, IJ.** “Reconstructing past sea-levels and landscapes of Haida Gwaii: new evidence from the past 10000 years.” Invited presentation, Gwaii Haanas National Park Reserve & Haida Heritage Site, Haida Heritage Centre, Skidegate, BC, 26 May 2009.
- 59) 2008 **Walker, IJ.** “Climate change impacts and adaptations in British Columbia: Results from a recent national assessment. Invited presentation at Environment Canada – AIRD workshop “Researcher and Practitioner Partnerships for Action on Climate Change: Developing Guidance for Communities” Richmond, BC, 6-7 March 2008.
- 60) 2008 **Walker, IJ.** “Climate change impacts and adaptations in coastal British Columbia.” Invited presentation at Pacific Geosciences Centre Earth Day Symposium on Climate Change, Sidney, BC, 22 April 2008.
- 61) 2008 **Walker, IJ,** Sidneysmith, R. “Climate change impacts and adaptations in British Columbia: Policy relevant implications”. Invited presentation to the BC Government Climate Action Secretariat, Government of British Columbia, Victoria, BC, 1 May 2008.
- 62) 2008 **Walker, IJ.** “Climate change impacts and adaptations in British Columbia: Next steps”. Invited presentation at NRCan Workshop on Regional Climate Change Adaptations Collaborative Initiative, Victoria, BC, 10 June 2008.
- 63) 2008 **Walker, IJ.** “Climate change impacts and adaptations in British Columbia: Policy relevant implications”. Invited presentation at Pacific Forestry Centre Workshop on Climate Change, 17 June 2008, Victoria, BC.
- 64) 2008 **Walker, IJ.** “Climate Change Impacts Monitoring In Pacific Rim NPR”. Invited presentation at Pacific Rim National Park, 1 August 2008, Ucluelet, BC.
- 65) 2008 **Walker, IJ.** “Climate Change Impacts and Adaptations in British Columbia”. Invited presentation at Climate Impacts Group (CIG), 3 Nov. 2008, University of Washington, Seattle, WA.
- 66) 2007 **Walker, IJ,** Wolfe, SA. “6500 years of sea level history and coastal evolution from LIDAR mapping and OSL dating, NE Haida Gwaii (Queen Charlotte Islands), British Columbia.” Paper presented at the Annual Meeting, Western Division of the Canadian Association of Geographers, March 8-10, 2007. University of the Fraser Valley, Abbotsford, BC.
- 67) 2007 **Walker, IJ,** Cumming, B. “Airflow behaviour over a driftwood-laden macrotidal beach-dune system: NE Graham Island, British Columbia, Canada.” Paper presented at the 2007 Meeting of the AAG, April 17-21 2007, San Francisco, CA.
- 68) 2007 Harris, K, **Walker, IJ.** “Estimating beach sand storage capacity of drift log jams using LIDAR: East Beach, Haida Gwaii, British Columbia.” Paper presented at the Annual Meeting, Western Division, CAG, March 8-10, 2007. University of the Fraser Valley, Abbotsford, BC.
- 69) 2007 **Walker, IJ.** “Climate change and sea-level rise research in Haida Gwaii.” Invited public talk sponsored by Gwaii Haanas National Park & Haida Heritage Site, Haida Heritage Centre Museum, 28 May 2007, Skidegate, BC.

- 70) 2007 **Walker, IJ.** "Integrating climate change and coastal geomorphology research for geoinicator monitoring in BC NPRs" Invited presentation to Pacific Rim National Park Reserve workshop on monitoring coastal erosion and climate change. 26 Nov 2007, Ucluelet, BC.
- 71) 2006 **Walker, IJ.** "Climate change impacts monitoring research on the North coast of BC". Invited presentation on research strategies in coastal BC at the Parks Canada - NRCan Workshop on Climate Change Research Initiatives, 12-13 January 2006, Ottawa, ON.
- 72) 2006 **Walker, IJ.** "Climate change signals and impacts on the south coast of BC", Invited presentation to the Esquimalt Lagoon Land Stewardship Initiative (CRD & City of Colwood Planning Dept), 9 Feb 2006.
- 73) 2006 **Walker, IJ,** Wolfe, SA, Huntley, DJ. "Preliminary reconstruction of Holocene sea level and coastal geomorphic changes: NE Haida Gwaii (Queen Charlotte Islands), BC." Paper presented at the Annual Meeting, Western Division of the Canadian Association of Geographers, March 10-11, 2006. Thompson Rivers University, Kamloops, BC.
- 74) 2006 Cumming, B, **Walker, IJ.** "Fetch length and driftwood-induced roughness effects on airflow dynamics over a macro-tidal beach: NE Graham Island, British Columbia, Canada." Paper presented at the Annual Meeting WDCAG, 10-11 March 2006, Thompson Rivers University, Kamloops, BC.
- 75) 2006 **Walker, IJ.** "Past, present & future of NE Graham Island: a story of changing sea-levels and climates", Invited public presentation, Graham Island Planning Commission (GIAPC), Tlell Fire Hall, Tlell BC, 18 May 2006.
- 76) 2006 **Walker, IJ,** Hesp, PA, Namikas, SL, Bauer, BO, Davidson-Arnott, RGD, Ollerhead, J. "Wind Flow and Aeolian Sediment Transport Across a Beach-foredune System During a Fall Storm, Greenwich Dunes, Prince Edward Island, Canada". Paper presented at the 6th International Conference on Aeolian Research (ICAR VI), 24-28 July 2006, Guelph, ON.
- 77) 2006 **Walker, IJ.** "Making Sense of the Science: climate change impacts & adaptations research in coastal BC." UVic Department of Geography Research Colloquium Series, 29 Sep. 2006.
- 78) 2006 **Walker, IJ.** "Integrating climate change & coastal geomorphology research for geoindicators monitoring". Paper presented at the BC Protected Areas Research Forum (BC-PARF), Royal Roads University, 4-6 Dec. 2006, Victoria, BC.
- 79) 2005 **Walker, IJ.** "Climate change & rising sea levels: risks & impacts in Haida Gwaii" Public presentation for CCIAP Project A580, 15 Feb. 2005, Skidegate, BC.
- 80) 2005 **Walker, IJ.** "Climate change & rising sea levels: risks & impacts in Haida Gwaii" Public presentation for CCIAP Project A580, 18 Feb. 2005, Queen Charlotte City, BC.
- 81) 2005 **Walker, IJ.** "Climate change & rising sea levels: risks & impacts of concern for the Haida Nation" Presentation to the Council of the Haida Nation for CCIAP Project A580, Skidegate, Haida Gwaii, 16 Feb. 2005.

- 82) 2005 **Walker, IJ.** "Climate variability & change impacts on the North coast of British Columbia." Paper presented at the Western Division Canadian Association of Geographers (WDCAG05), 12-13 Mar 2005, University of Lethbridge, Lethbridge, AB.
- 83) 2005 Pearce, KI, **Walker, IJ.** "Morphologic and volumetric change of a foredune-trough blowout complex, East Beach, Haida Gwaii (Queen Charlotte Islands), BC." Paper presented at the Western Division Canadian Association of Geographers (WDCAG05), 12-13 Mar. 2005, University of Lethbridge, Lethbridge, AB.
- 84) 2005 **Walker, IJ.** "Modelling dune airflow and sand transport dynamics" Invited plenary, First Brazilian Symposium on Coastal Dune Systems, 24-28 Aug. 2005. Institute of Marine Sciences & Labomar - Federal University of Ceará (UFC), Fortaleza, Brazil.
- 85) 2005 **Walker, IJ.** "Climate Change in Coastal BC." Invited public presentation, UVic Speakers Bureau, Fairfield New Horizons Centre, 27 Oct. 2005, Victoria, BC.
- 86) 2005 **Walker, IJ**, Abeyisirigunawardena, D. "Whither the weather & waters? Climate variability and change signals on the North Coast of BC." Paper presented at the 12th Canadian Coastal Conference, 6-9 Nov. 2005, sponsored by the Canadian Coastal Science and Engineering Association and the Geological Survey of Canada – Atlantic Division, Dartmouth, NS.
- 87) 2005 Wolfe, SA, **Walker, IJ**, Huntley, DJ. "Holocene sea level & coastal geomorphic change, NE Graham Island, BC." Poster presented at the 12th Canadian Coastal Conference, 6-9 Nov., sponsored by the Canadian Coastal Science and Engineering Association and the Geological Survey of Canada – Atlantic Division, Dartmouth, NS.
- 88) 2005 **Walker, IJ.** "Coastal vulnerability to climate change and sea-level rise: NE Graham Island, Queen Charlotte Islands (Haida Gwaii), BC". Annual progress report for CCIAP project A580 at NRCan-CCIAD project leader's meeting: 24-25 Nov. 2005, Richmond, BC.
- 89) 2004 **Walker, IJ.** "Geomorphology and sea-level rise on one of Canada's most 'sensitive' coasts: NE Graham Island, British Columbia." Invited lecture for UVic Centre for Earth & Ocean Research Seminar Series, 14 Jan. 2004.
- 90) 2004 **Walker, IJ.** "Climate variability, change & rising sea levels on Graham Island" Public information lecture for CCIAD A580 Sea-level Rise Impacts Study, 19 Feb. 2004, Masset, Haida Gwaii, BC.
- 91) 2004 **Walker, IJ.** "Climate variability, change & rising sea levels on Graham Island Public information lecture for CCIAD A580 Sea-level Rise Impacts Study, 20 Feb. 2004, Queen Charlotte City, Haida Gwaii, BC.
- 92) 2004 **Walker, IJ**, Barrie, VJ. "Geomorphology and sea-level rise on one of Canada's most 'sensitive' coasts: Northeast Graham Island, British Columbia." Paper presented at the 8th International Coastal Symposium, 14-19 Mar. 2004, UNIVALI-CTTMar, Itajaí, Santa Catarina, Brazil.
- 93) 2004 **Walker, IJ.** "Climate variability and change impacts on one of Canada's most 'sensitive' coasts: northeast Graham Island, British Columbia." Paper presented at the Association of Washington Geographers 2004 Meeting, 23-24 April 2004, University College of the Fraser Valley, Abbotsford, BC.

- 94) 2004 **Walker, IJ**, Abeyvirigunawarabena, D. "Sea level response to climate change on the northern coast of British Columbia." Paper presented at the Association of Washington Geographers 2004 Meeting, 23-24 Apr. 2004, University College of the Fraser Valley, Abbotsford, BC.
- 95) 2004 **Walker, IJ**, Dolan, AH, Barrie, JV. "Assessing impacts and susceptibilities of climate change related risks in remote coastal communities: Haida Gwaii (Queen Charlotte Islands), British Columbia." Paper presented at Coastal Zone Canada 2004 - All Within One Ocean: Co-operation in Sustainable Coastal and Ocean Management, June 27-30 2004, Delta Hotel & Conference Centre, St. John's Newfoundland & Labrador.
- 96) 2004 **Walker, IJ.** "Assessing climate change related risks & impacts in remote coastal communities: Graham Island, Queen Charlotte Islands (Haida Gwaii), BC." Presentation at Canadian Climate Impacts & Adaptations Program (CCIAP) Project Leader's Meeting, 26 Nov. 2004, Casino Nova Scotia, Halifax.
- 97) 2003 **Walker, IJ**, Hesp, PA, Davidson-Arnott, RGD, Ollerhead, J. "Topographic effects on airflow over a vegetated foredune - Greenwich Dunes, PEI National Park, Canada." Paper presented at Coastal Sediments '03, May 18-23, 2003, Clearwater Beach, Florida.
- 98) 2003 **Walker, IJ.** "Advances and limitations of using ultrasonic anemometry in aeolian sediment transport research." Paper presented at 'On the Edge', Joint Meeting of the ACMLA, CAG, CCA and CRSA. 27-31 May 2003, UVic, Victoria, BC.
- 99) 2003 **Walker, IJ.** "Fluid flow and sediment transport processes in Geomorphology: Instrumentation Workshop" Opening plenary for workshop organized at 'On the Edge', Joint Meeting of the ACMLA, CAG, CCA & CRSA. 27-31 May 2003, UVic, Victoria, BC.
- 100) 2003 **Walker, IJ**, Wiggs, GFS, Parsons, D. "Computational fluid dynamics (CFD) modelling of flow structures over idealised transverse aeolian dunes of varying geometry." Paper presented at 'On the Edge', Joint Meeting of the ACMLA, CAG, CCA & CRSA. 27-31 May 2003, UVic, Victoria, BC.
- 101) 2003 **Walker, IJ.** "Climate change & rising sea levels on Graham Island: what are the local impacts and implications?" Public meeting presentation for CCAF Sea-level Rise Impacts Study (CCIAD Project A580) 22 June 2003, Masset, Haida Gwaii, BC.
- 102) 2003 **Walker, IJ.** "Climate change & rising sea levels on Graham Island: what are the local impacts and implications?" Public meeting presentation for CCAF Sea-level Rise Impacts Study (CCIAD Project A580) 23 June 2003, Old Massett, Haida Gwaii, BC.
- 103) 2003 **Walker, IJ.** "Climate change & rising sea levels on Graham Island: what are the local impacts and implications?" Public meeting presentation for CCAF Sea-level Rise Impacts Study (CCIAD Project A580) 25 June 2003, Queen Charlotte City, Haida Gwaii, BC.
- 104) 2003 **Walker, IJ.** "Geomorphology of one of Canada's most 'sensitive' coasts: North East Graham Island, British Columbia." Paper presented at the Canadian Coastal

- Conference 2003. Queen's University. Kingston, Ontario, Canada. 15-17 October 2003.
- 105) 2003 **Walker, IJ.** "Geomorphology of the Coburg Peninsula: A legacy of ice, sand and surf." Invited public lecture to the Esquimalt Lagoon Stewardship Initiative (ELSI) Recreational Uses Sub-Committee, 17 December 2003.
- 106) 2002 **Walker, IJ.** "Recent advances in research on dune-airflow-sediment transport interactions." Paper presented at the CGRG Session GS2, Annual Meeting of the Geological Association of Canada, University of Saskatchewan, Saskatoon, SK, May 27-29, 2002.
- 107) 2002 **Walker, IJ.** "Advances in Research on Dune-Airflow-Sand Transport Dynamics: incorporating lee-side flow and transport processes." Invited plenary, International Conference on Wind Erosion & Aeolian Processes: A joint meeting of the International Conference on Aeolian Research (ICAR-5) and the Global Change & Terrestrial Ecosystem-Soil Erosion Network, 22-25 July 2002, Texas Tech University, Lubbock, TX.
- 108) 2002 Parsons, D, **Walker, IJ**, Wiggs, GFS. "Numerical modelling of flow structures over idealised transverse aeolian dunes of varying geometry." Paper presented at the International Conference on Wind Erosion & Aeolian Processes: A joint meeting of the International Conference on Aeolian Research (ICAR-5) and the Global Change & Terrestrial Ecosystem-Soil Erosion Network, 22-25 July 2002, Texas Tech University, Lubbock, TX.
- 109) 2001 **Walker, IJ.** "Lee-side flow deflection and implications for migration of transverse aeolian dunes." Paper presented at the Annual General Meeting of the Canadian Association of Geographers, McGill University, Montréal, Quebec, June 2-3, 2001.
- 110) 2001 **Walker, IJ.** "Lee-side flow deflection over transverse aeolian dunes." Paper presented at the Annual General Meeting of the Western Division of the Canadian Association of Geographers, University of Calgary, Calgary, Alberta. March 8-9, 2001.
- 111) 2001 **Walker, IJ.** "Mean flow, turbulence & surface shear stress over isolated and closely spaced transverse dunes." Paper presented at the Annual General Meeting, Canadian Assn. of Geographers, Brock University, St. Catharines, ON, May 31 – June 3, 2001.
- 112) 2000 **Walker, IJ.** "A wind tunnel investigation of mean flow, turbulence, and surface shear stress patterns over isolated and closely spaced transverse dunes." Paper presented at the Annual Meeting of the Association of American Geographers, 4-8 April 2000, Pittsburg, PA.

MEDIA INTERVIEWS

- 2016 Erosion hazards in Greater Victoria, CBC Radio Victoria – On the Island with Gregor Cragie. Air date: 18 February 2016, 7:10am.

- 2015 Interviews with multiple media outlets on the Barnard et al. (2015) *Nature Geoscience* paper “Coastal vulnerability across the Pacific dominated by El Niño/Southern Oscillation.” (<http://dx.doi.org/10.1038/NGEO2539>) on 20-23 Sept., including:
- CBC All Points West, CBC Early Edition/Vancouver, CBC Daybreak North Prince George/Rupert, Global BC-Victoria, Global BC-Vancouver/BCOne, CFX Radio, Victoria Times Colonist, Peninsula News Review, The News Group Victoria, Canadian Press (stories in Globe and Mail, Vancouver Sun, Observer, National Papers), Yahoo News, Huffington Post Canada, Western Mariner Magazine, City of Richmond BC engineer (Carli Edwards)
 - see also Storify link compiled by L. Gordon, USGS at: <https://storify.com/lgordon/el-nino-and-la-nina-exacerbate-pacific-coastal-haz>
- Love Nature Channel: Beaches and dunes of Tofino, Undiscovered Vistas. Filming date: 15 July 2015, Airing date: Fall 2015.
- 2013 The Weather Network: Weathering climate change and coastal erosion, for Earth Action Week 2013 series with Ian Jacobs (25-29 March, 2013)
- 2009 CBC “Quirks and Quarks” (Toronto) with Jim Lebens on climate change and sea-level rise impacts in Canada (5 Dec 09)
- 2008 CBC “On the Island” (Victoria) with Gregor Craigie on sand castle construction, 5 August 2008.
- Vancouver Sun (front page) “BC Forecast: drought, forest fires, storms...” Tuesday, 11 March 2008.
- Victoria Times Colonist, Tuesday, 11 March 2008. Climate change impacts in coastal British Columbia.
- CBC National Radio (Ottawa) with Greg Rasmussen on Climate change impacts and adaptations in Canada & British Columbia, Thursday, 6 March 2008.
- 2007 Queen Charlotte Islands Observer, “Major coastal erosion study now completed”, Alex Rinfret, Wednesday, December 19, 2007.
- CBC “Day Break North” (Prince Rupert) with Russel Bowers on climate change and sea-level rise impacts on the North coast of BC, 5 April, 745 am.
- Vancouver Sun “Climate change chaos closer” by Scott Simpson, Sat 31 March 2007.
- CHTV with Hudson Mack re: climate change and water shortages for Greater Victoria Thurs. 5 April.
- A-Channel News re: climate change impacts for southern BC, Thurs. 5 April.
- CBC Radio National News with Greg Rasmussen on climate change impacts for British Columbia, Fri. 6 April, 6pm.
- 2006 CBC “On the Island” (Victoria) with Paul Vasey re: climate change and sea-level rise impacts in southern BC, 21 November 2006.

- CBC "Daybreak North" (Prince Rupert) with James Evans re: climate change and extreme weather impacts on the North coast of BC, 25 May 2006.
- 2005 Queen Charlotte Islands Observer, "Climate change a threat to islanders, says geographer" by Mariah McCooey, Friday, 18 February, 2005
- 2004 Prince Rupert Daily News, "Geomorphologist explores Haida Gwaii" by Hilary Burghardt, Tuesday, 19 June 2004.
- Queen Charlotte Islands Observer, "Erosion threatens highway: professor" by Alex Rinfret, Thursday, 10 June 2004.
- CBC "Day Break North" (Prince Rupert), "What happened during the Christmas Eve Storm in the Queen Charlotte Islands?" with Russel Bowers, 7:55am Wednesday, 14 January, 2004.
- Queen Charlotte Islands Observer article, "Storm Cleanup" by Alex Rinfret - Thursday, 8 January, 2004
- 2003 NSERC Web Features, "Canada's Sahara?" by Cathy Allison, July 2003.
- Times Colonist, "Stories In The Sand: A little dune time yields clues to climate change" by Richard Watts - Saturday, 26 July, 2003.
- 2002 CHBC-TV News, "Causes of mass wasting along the Malahat highway", 8 November 2002.

TEACHING AWARDS & EXPERIENCE

Teaching Awards & Nominations

- 2020. Zebulon Pearce Distinguished Teaching Award (Nomination), College of Liberal Arts and Sciences, Arizona State University.
- 2019. Zebulon Pearce Distinguished Teaching Award (Nomination), College of Liberal Arts and Sciences, Arizona State University.

Courses developed and taught

- **GPH111: Introduction to Physical Geography (n = 65-95)**
 - Introduces students to the study of Physical Geography using an applied, earth-systems approach. Examines processes within, and interrelations between, the atmosphere, biosphere, hydrosphere, and lithosphere that result in patterns of weather and climate, landforms, soils and ecosystems. Content structured around 4 key themes: i) Global Climates & Climatic Change, ii) Global Water Resources, iii) Natural Hazards, and iv) Biogeography. Each lecture includes 'real-world' example modules and/or samples of faculty research related to the topic.
 - I redeveloped this course from previous offerings I taught for 16 years at UVic (GEOG110/120, 103). At ASU, I have taught GPH111 in Spring semesters of 2017, 2018, and 2019.
 - In 2018, I developed and taught a 'hybrid' version of GPH111, which offers traditional in class lectures (Monday, Wednesday) with an online activity, quiz, or test on Fridays.
- **SES494/598: Close range remote sensing (n = 8-12)**
 - This course offers an advanced, lab-, field-, and seminar-based experience for seniors and graduate students interested in exploring close-range remote sensing technologies and methods used for interpreting Earth surface processes. Students will participate in student-led seminars, hands-on labs, a local field trip, synthesize information from peer-reviewed scientific literature, and conduct acquisition and analysis of remotely sensed datasets toward a group project. Students who successfully complete the course will be able to apply knowledge about detecting and analyzing change in Earth surface systems using such leading-edge technologies and methods as terrestrial laser scanning (TLS), unmanned aerial systems (UAS), autonomous camera systems (ACS), and structure from motion (SfM) photogrammetry.
 - The course was developed in Summer 2018 and taught Fall 2018, Spring 2020. It was also offered as a short-course at Ben Gurion University, Israel in June 2020 as part of an ASU-BGU exchange.
- **GPH/SES 494/598: Aeolian Geomorphology (n = 4-5)**
 - This course offers an advanced, seminar- and project-based experience for seniors and graduate students in aeolian (windblown) geomorphology. The course will involve on-campus lectures, student-led seminars, a multi-day field trip, and an independent

research project. Seminars are designed to involve students in reviewing key theories, concepts, and research literature about aeolian processes and landforms of interest. The research project involves student groups in fieldwork &/or data analyses on a specific aeolian process or landforms of interest, which could include: *sediment transport mechanics, sand transport prediction and measurement, wind flow dynamics, coastal or desert dunes, wind erosion and sand drift management, dust emissions, Martian aeolian bedforms, etc.* The field trip provides an opportunity to learn experientially about aeolian processes and landscapes and, as time permits, conduct work relevant to projects.

- I developed this course in Fall 2016 and offered it at ASU in Spring 2017 and Spring 2020.
- **GCU 585/PUP 724: Research Design and Proposal Writing (n = 4-16)**
 - This required graduate seminar assists students in developing and presenting their research proposals. To accomplish this, instruction stresses a research framework and the generation of an original research proposal inclusive of a problem statement, novel research questions, objectives/hypotheses, a literature review, and appropriate and feasible methods of implementation. Specific learning objectives include:
 - effectively communicating research ideas and plans in written, visual, and oral formats;
 - producing assignments and presentations that will help guide and document research development, program of study, and related outcomes, including:
 - a curriculum vitae (CV) that articulates your training, research experience, interests, skills, service contributions, awards/funding and other accolades;
 - an Area of Specialization (AOS) statement that details the expertise, literature, and methods from which you will build your research and degree program;
 - a Research Opportunity Statement (ROS) that identifies a research opportunity (gap) based on a literature review, justifies proposed research, and explains how the research is important from a societal standpoint;
 - a compiled Research Proposal that situates research in existing scholarship (i.e., literature review); b) identifies gaps within this scholarship (i.e., research opportunities or problem statement(s)); c) reviews important methods and approaches that could be used to address those gaps (i.e., research design); and d) presents a program of study or 'workplan'.
 - The format of the final proposal is presented as a mock submission to NSF's Doctoral Dissertation Research Improvement (DDRI) Program for Geographical and Spatial Sciences (GSS).
 - developing and articulating professional critiques about research and technical writing through peer-review processes and a writing workshop;

- learning about funding sources and various proposal formats; and,
- understanding and engaging in professional dialogue and ethical practices in research design and related professional activities.
- I developed this course in Fall 2017 and have offered it at ASU in Spring 2018, 2019, 2020.
- **GEOG376 (UVic): Process Geomorphology** (n = 40-75)
 - Introduces students to the study of earth surface processes and landforms. Expands on principles introduced in GEOG103 and provides a foundation for advanced courses in GEOG & SEOS BSc programs. Fundamental geomorphic concepts are introduced (landscape evolution, frequency-magnitude relations, spatial & temporal scales, systems theory, quantities & dimensions) and general landform environments are examined (aeolian, coastal, fluvial, glacial, hillslopes). Content emphasizes geomorphology as an applied science that examines processes and dynamics of landscape change.
 - I developed and have taught GEOG376 since 2000.
 - Content includes lectures, a local field-trip, and hands-on or spreadsheet-based labs.
 - This course is a requirement for students obtaining accreditation with the Association of Professional Engineers & Geoscientists of British Columbia (APEG-BC).
- **GEOG370 (UVic): Physical Hydrology** (n = 40-75)
 - Introduces students to the study of physical hydrology, or the movement of water via various key processes in the global water cycle (interception, infiltration, throughflow, groundwater flow, overland flow, open channel flow hydraulics). Content emphasizes hydrology as an applied science with relevance for water resources management and provides science fundamentals for upper level hydrology and resource management courses.
 - I developed and taught GEOG370 from 2000-04 when an Environment Canada's Water & Climate Impacts Research Centre (W-CIRC) joined the Department.
 - Content includes lectures, a field-trip to the local water supply reservoir, and hands-on or spreadsheet-based labs.
 - This course is a requirement for students obtaining accreditation with the Association of Professional Engineers & Geoscientists of British Columbia (APEG-BC).
- **GEOG424 (UVic): Field Studies in Coastal Geomorphology** (n = 12-15)
 - An advanced, project-based experience for senior students that involves a combination of on-campus seminars, a multi-day field trip to several different sites on Vancouver Island, and an independent research project. Seminars are designed to engage students directly in reviewing key theories and literature about coastal processes & landforms of interest. The research project involves student groups in fieldwork &/or data analyses on a specific geomorphic process &/or site of interest.
 - I developed the course in 2011 and have taught it 3 times since. It is very popular and usually has a wait list.

- **GEOG500 (UVic): Geographical Research Approaches & Design** (n = 25-32)
 - A full year (2 semester) offering for all incoming graduate students that reviews current research paradigms and approaches in Geography and assists students in developing research proposals. Expose students to various research services and resources, and gain important skills in communication and professional presentations.
 - I developed this course in 2009 as part of a wholesale graduate program and curriculum review that I lead as Chair of the Graduate Affairs Committee (GAC). I taught the course from 2009-11.
 - Content includes lectures, guest lectures from faculty and researchers in different thematic areas in Geography, student-led seminars and conference-style presentations.

- **GEOG537 (UVic): Seminar in Physical Geography** (n = 8-20)
 - Involves MSc and PhD students in a participatory, seminar-style course that critically examines key scholarship in physical geography as an interdisciplinary science. Thematic examples (e.g., geomorphology, hydrology, biogeography, remote sensing & GIS) and others directly relevant to student research interests are explored. Review progression of thought and key concepts in physical geography. Refine abilities in scientific writing and peer-review.
 - I developed this seminar course for MSc and PhD students in 2002 and taught regularly until 2015.

STUDENT AND POST-DOCTORAL FELLOW SUPERVISION

To date, I have helped mentor and supervise 75 students in research-based theses, dissertations, or post-doctoral projects, including:

- 57 graduate students: 35 Masters (14 as supervisor) and 23 PhD (8 as supervisor)
- 13 undergraduate honours students (12 as supervisor)
- 4 post-doctoral researchers

Year	Student Name	Degree	Program	Role
<i>Roles: 1= Direct supervisor/co-supervisor, 2= Member of supervisory committee, 3= External examiner</i>				
1. 2018-present	Colin Marvin	B.Sc.	Honours (ASU SGSUP/Barrett)	1
2. 2018-2019	Rosie Huck	B.Sc.	Honours (ASU SGSUP/Barrett)	1
3. 2014-2015	Kirsten Mathison	B.Sc.	Honours (UVIC GEOG)	1
4. 2013-2014	Lindsay James	B.Sc.	Honours (UVIC GEOG)	1
5. 2008-2009	Derek Heathfield	B.Sc.	Honours (UVIC GEOG)	1
6. 2008-2009	Jordan Eamer	B.Sc.	Honours (UVIC GEOG)	1
7. 2007-2008	Kendra Harris	B.Sc.	Honours (UVIC GEOG)	1
8. 2004-2005	Kevin Tattrie	B.Sc.	Honours (UVIC GEOG)	1
9. 2004-2005	Scott Jackson	B.Sc.	Honours (UVIC GEOG)	1
10. 2004-2005	Jeff Anderson	B.Sc.	Honours (UVIC GEOG)	1
11. 2003-2004	Leanne Blackwood	B.Sc.	Honours (UVIC GEOG)	1
12. 2002-2003	Jodi Axelson	B.Sc.	Honours (UVIC GEOG)	1
13. 2019	Perry Vargas	B.Sc.	Honours (ASU SESE/Barrett)	2
14. 2017-2018	Suetyi (Joey) Cheung	M.A.	ASU SGSUP	1
15. 2003-2005	Teresa Conner	M.A.	UVIC GEOG	1
16. 2019-present	Lara Shinsato	M.Sc.	ASU SGSUP	1
17. 2015-2017	Alana Rader	M.Sc.	UVIC GEOG	1
18. 2014-2018	Alexandra Lausanne	M.Sc.	UVIC GEOG	1
19. 2011-14	Kimia Abhar	M.Sc.	UVIC GEOG	1
20. 2010-13	Derek Heathfield	M.Sc.	UVIC GEOG	1
21. 2010-12	Jordan Eamer	M.Sc.	UVIC GEOG	1
22. 2009-11	Constance Chapman	M.Sc.	UVIC GEOG	1
23. 2008-10	Hawley Beaugrand	M.Sc.	UVIC GEOG	1
24. 2005-07	Becs Cumming	M.Sc.	UVIC GEOG	1
25. 2004-09	Jeffrey Anderson	M.Sc.	UVIC GEOG	1
26. 2003-08	Willem Zantvoort	M.Sc.	UVIC GEOG	1
27. 2002-04	Kim Pearce	M.Sc.	UVIC GEOG	1
28. 2017-present	Hayley Springer	M.Sc.	University of Alabama	2
29. 2016-present	Jordan Bryce	M.Sc.	SFU GEOG	2
30. 2016-2018	Sam Alter	M.Sc.	ASU SESE	2
31. 2015-2018	Leanne Nelson	M.Sc.	UNBC GEOG	2

Curriculum Vitae - Ian J. Walker, B.Sc., Ph.D.

Year	Student Name	Degree	Program	Role
<i>Roles: 1= Direct supervisor/co-supervisor, 2= Member of supervisory committee, 3= External examiner</i>				
32. 2015-2017	Libby Biln	M.Sc.	SFU EASC	2
33. 2014-15	Adam Wicks	M.Sc.	UVIC GEOG	2
34. 2005-14	Miho Matsuda	M.Sc.	UVIC GEOG	2
35. 2004-10	David Laporte	M.Sc.	UVIC GEOG	2
36. 2004-06	Sarah Laxton	M.Sc.	UVIC GEOG	2
37. 2004-06	Katrina Bennett	M.Sc.	UVIC GEOG	2
38. 2003-05	Sandy Allen	M.Sc.	UVIC GEOG	2
39. 2003-05	Laurent deRham	M.Sc.	UVIC GEOG	2
40. 2002-05	Moraia Grau Lopez	M.Sc.	UVIC BIOL	2
41. 2002-04	Martina Szabova	M.Sc.	UVIC GEOG	2
42. 2002-03	Alexis Johnson	M.Sc.	UVIC GEOG	2
43. 2013	Scott Hatcher	M.Sc.	Memorial University	3
44. 2012	Brendan Smoker	M.Sc.	UVIC Engineering	3
45. 2009	Jesse Sinclair	M.Sc.	UVIC BIOL	3
46. 2004	Tom Good	M.Sc.	UVIC SEOS	3
47. 2003	Bart Stockdill	M.Sc.	UVIC Engineering	3
48. 2002	Matthew Skinner	M.Sc.	UVIC SEOS	3
49. 2019-present	Emma Blackwell	Ph.D.	ASU SESE	1
50. 2018-present	Zach Hilgendorf	Ph.D.	ASU SGSUP	1
51. 2018-present	Madeline Kelley	Ph.D.	ASU SGSUP	1
52. 2015-present	Felipe Gomez	Ph.D.	UVIC GEOG	1
53. 2013-2019	Micheal Grilliot	Ph.D.	UVIC GEOG	1
54. 2012-2017	Jordan Eamer	Ph.D.	UVIC GEOG	1
55. 2010-2018	Ian Darke	Ph.D.	UVIC GEOG	1
56. 2010-12	Mandy Green	Ph.D.	LSU GEOG-ANTH, co-super.	1
57. 2019-present	Wren Raming	Ph.D.	ASU SESE	2
58. 2018-present	Heather Moll	Ph.D.	ASU SGSUP	2
59. 2018-present	Peter Tereskiewicz	Ph.D.	University of S. Carolina	2
60. 2017-2019	Ara Jeong	Ph.D.	ASU SGSUP	2
61. 2017-2018	Kate Leary	Ph.D.	ASU SESE	2
62. 2013-2017	Sean Mullan	Ph.D.	UVIC SEOS	2
63. 2013-2016	Majid Soleimaninia	Ph.D.	UVIC Engineering	2
64. 2013-2016	Jesse Hutchinson	Ph.D.	UVIC SEOS	2
65. 2006-11	Sookuk Park	Ph.D.	UVIC GEOG	2
66. 2004-07	Ranjan Dash	Ph.D.	UVIC SEOS	2
67. 2001-03	Sonya Laroque	Ph.D.	UVIC GEOG	2
68. 2019	Aviv Cohen-Zada	Ph.D.	Ben Gurion University, Israel	3
69. 2013	Ali Erati	Ph.D.	UVIC Engineering	3
70. 2010	Wichai Pattanapol	Ph.D.	University of Otago	3

Year	Student Name	Degree	Program	Role
<i>Roles: 1= Direct supervisor/co-supervisor, 2= Member of supervisory committee, 3= External examiner</i>				
71. 2007	Frances Mowling	Ph.D.	University of Tasmania	3
72. 2020-present	Nitzan Swet	Post-Doc	ASU SGSUP	1
73. 2018-present	Fateme Yousefi	Post-Doc	ASU SGSUP	1
74. 2013-2016	Chrissy Neudorf	Post-Doc	SFU/AFV, co-super.	1
75. 2011-2015	Dan Shugar	Post-Doc	UVIC GEOG	1

OTHER TEACHING & CURRICULUM DEVELOPMENT CONTRIBUTIONS:

Pedagogical development

- Project advisor: EDT 593 (Educational Design and Technology, Mary Lou Fulton Teacher's College) "Online Pedagogical Training Workshop for Graduate Students in the School of Geographical Sciences & Urban Planning, Arizona State University" with M.Ed student and SGSUP Academic Advisor, Mr. Steven Maieron. Spring 2020.

Curriculum development

2019-present PhD Geography program revision and STEM designation, SGSUP, ASU

2019-present PhD GIScience program development, SGSUP, ASU

2019-present MA Geography (online) program development, SGSUP, ASU

2009-2010 MA, MSc, PhD Geography programs revision, Dept. of Geography, UVic, Canada

2008-2009 BA, BSc Geography program revision, Dept. of Geography, UVic, Canada

SERVICE & ADMINISTRATIVE ACTIVITIES

SERVICE TO THE DISCIPLINE:

Executive Roles in Professional Societies

- International Society of Aeolian Research (ISAR), an international association created to promote contact among scientists undertaking research in aeolian processes and landforms, to stimulate scientific research in aeolian topics and related fields, and to further the application of the results of such research into practical applications. ISAR coordinates the International Conference on Aeolian Research (ICAR) and supports publication of the peer-reviewed scientific journal 'Aeolian Research' (IF₂₀₁₈=2.864)
 - Executive Committee Member, 2018-present.
 - ISAR Distinguished Career Award Adjudication Committee Member, 2019.
- Canadian Geomorphology Research Group (CGRG), a national association of over 300 professional, academic, student, and government members that forms a membership body within larger geoscience associations including: *Canadian Association of Geographers (CAG)*, *Geological Association of Canada (GAC)*, *Canadian Geophysical Union (CGU)*, and *Canadian Quaternary Association (CANQUA)*. Major initiatives during my term included:
 - President (2013-14), Vice-President (2012-13), Past President (2015-17), Member at Large (2008-11).
 - created a new Earth Surface Processes Section (ESPS) of CGU with CGU President Brian Branfireun and VP Brett Eaton to bring together process geomorphologists (who tend to reside in CGU), quaternary geomorphologists (in CANQUA), and other physical geographers (in CAG or GAC).
 - organized the national AGM at U. New Brunswick with GAC-MAC.
 - increased social media profile of CGRG via a new website, Facebook & Twitter accounts.
 - lead adjudication committee for the JR MacKay Award for junior scholars (as Past President).
- Canadian Association of Geographers (Western Division), Member at Large, (2002-04)

Editorial Boards:

- 2017-present: *Annals of the American Association of Geographers*
- 2014-present: *Earth Surface Processes & Landforms*, Wiley.
- 2004-present: *J. Coastal Research*, Coastal Education & Research Foundation (CERF), USA.
- 2007-09: *Geography Compass*, Wiley & Sons.

Science Advisory Panels:

- 2018-present: Oceano Dunes Science Advisory Group (SAG), Appointed by the State of California Department of Parks & Recreation (DPR) and San Luis Obispo County Air Pollution Control District (SLOAPCD), Oceano Dunes State Vehicular Recreation Area, Pismo Beach, CA.
- 2014-16: Science Advisor, Victoria Capital Regional District (CRD) Parks, Island View Beach Management Plan Team, Victoria, BC.
- 2011: Scientific Advisory Panel, Coherent flow structures in Geophysical flows at the Earth's surface. 3-5 August 2011, Simon Fraser University, Vancouver, British Columbia, Canada.
- 2009-13: Founding Member & Science Advisor, Coastal Sand Ecosystems Recovery Team (CSERT), Parks Canada, BC Ministry of Environment, Province of British Columbia.
- 2009: International Union for Conservation of Nature (IUCN), World Heritage Site Designation Program.
- 2007: Science Advisor, "Shorelines and Islets Monitoring Program Workshop", Gulf Islands National Park Reserve, Sidney BC, 10 May 2007.
- 2007: Science Advisor, "Coastal erosion and Climate Change Monitoring Program Workshop", Pacific Rim National Park Reserve, Ucluelet BC, 26-27 Nov. 2007.
- 2006: Science Advisor & Invited Speaker, Parks Canada - NRCAN Workshop on Climate Change Research Initiatives, 12-13 Jan. 2006, Ottawa, ON.
- 2003-07: Advisory Panel member (coastal), C-CIARN BC Region, UBC, Vancouver, BC.
- 2003-12: Advisory Panel, Esquimalt Lagoon Stewardship Initiative (ELSI) Committee, City of Colwood and Greater Victoria Capital Regional District (CRD), Victoria, BC.
- 2002-07: Advisory Panel, Canadian Climate Change Impacts & Adaptation Research Network (C-CIARN), Landscape Hazards Program, NRCAN – Ottawa, ON.

Manuscript Reviewer:

- over 75 submissions to the following peer-reviewed journals:
 - *Nature Geoscience, Geomorphology, Aeolian Research, Earth Surface Processes & Landforms, Sedimentology, J. Coastal Research, J. Sedimentary Research, J. Arid Environments, Canadian Geographer, J. Wind Engineering & Industrial Aeronautics, J. Marine Science & Engineering, Catena, Geological Society of America, J. Geophysical Research (JGR) – Atmospheres, JGR – Earth Surface.*

Recent manuscript reviews:

- *Geomorphology (IF=3.873), Oct 2019; JGR-Earth Surface (IF=3.34), Mar 2019; Catena (IF=3.636), Nov 2018; Marine Geology (IF=3.141), May 2018; Earth Surface Processes & Landforms, (IF=3.722), Sept and Dec 2018; Journal of Marine Science & Engineering (IF pending), Dec 2018; Journal of Geophysical Research –*

Earth Surface (IF=3.34), Mar 2017; Aeolian research (IF=2.716), July 2017; Nature – Scientific Reports (IF=4.122), Nov 2016

- Expert reviews of new book editions for publishers:
 - Nordstrom, K.F., Jackson, N. “Beach and Dune Restoration, 2nd ed.” Cambridge University Press. Apr 2019.
 - Davidson-Arnott, R.G.D., Bauer, B.O., Houser, C. “An Introduction to Coastal Processes and Geomorphology, 2nd ed.” Cambridge University Press. May 2019.

Research Grant Reviewer:

- over 50 grant applications to international agencies including:
 - NASA EPSCoR, National Science Foundation (NSF), National Geographic Society, Netherlands Organization for Scientific Research (NWO), Australian Academy of Science, American Chemical Society, Natural Sciences & Engineering Research Council (NSERC) of Canada, NSERC CREATE, IdEx Bordeaux (Excellence Initiative, University of Bordeaux)

Recent grant reviews:

- Nevada NASA EPSCoR, Nov 2019; NSF-Hydrological Sciences, Nov 2019; NSF-Geomorphology & Land Use Dynamics, Mar 2019

Conference Organization:

- 2020 Co-organizer, International Conference on Aeolian Research (ICAR) 2020 Meeting, Swakopmund, Namibia, 12-17 July 2020. Member of international organizational committee, Co-convenor for sessions on “Mechanics and processes of aeolian sediment transport”. <http://www.aeolianresearch.com/meetings.html>
- 2019 Co-Convener, GSA 2019 Annual Meeting, Phoenix AZ, 22-25 Sept. 2019. Two special sessions on “Eolian Processes and Landscape Evolution”, IDs: 188-T4 Posters, 237-T4 Oral Presentations.
- 2018 Lead convener, AGU 2018 Fall Meeting, Washington DC, 9-14 Dec. 2018. Three oral and one poster session on, “Coastal Geomorphology and Morphodynamics: Observations and Modeling at the Coastal Margin I-IV” (Session IDs: EP11A, 12A, 13A, 23C).
- 2018 Co-convener, AGU 2018 Fall Meeting, Washington DC, 9-14 Dec. 2018. Two e-lightning and one poster session on, “EP23E: Close-Range Remote Sensing of Nearshore Processes and Coastal Morphology I-III” (Session IDs: EP52D, 54B, 23E).
- 2018 Co-convener, AGU 2018 Ocean Sciences Meeting, Portland, OR, 11-16 Feb. 2018. Three sessions on, “Close-Range Remote Sensing of Nearshore Processes and Coastal Morphology I-III” (Session IDs: CD34B, 41A, 42A).
- 2017 Lead convener, AGU 2017 Fall Meeting, New Orleans, LA, 12-16 Dec. 2017. Four oral sessions and a poster session on, “Coastal Geomorphology & Morphodynamics:

- Observations, Modeling & Sensing Techniques I-V" (Session IDs: EP21G, 22B, 23D, 24A, 31B).
- 2014 Topical Session Organizer & Chair, Geological Society of America 2014 Meeting, 19-22 Oct. 2014, Vancouver, BC. Session T.39 "Aeolian Processes and Landscapes: From Dust to Dunes I & II".
- Topical Session Organizer, Geological Society of America 2014 Meeting, 19-22 Oct. 2014, Vancouver, BC. Session T.178 "Relative Sea-Level Changes since the Last Glacial Maximum".
- Special Session Organizer & Chair, GAC-MAC/CGRG Joint Annual Meeting, 21-23 May 2014, University of New Brunswick, Fredericton, NB. Session SS22 "20 Years of the Canadian Geomorphology Research Group (CGRG): Trends, Advances, and Opportunities in Canadian Geomorphology".
- Session Chair, Canadian Association of Geographers, Western Division (WDCAG) Meeting, 7-8 Mar. 2014, Victoria, BC. "Geographies of the Central Coast of British Columbia".
- 2013 Session Organizer & Chair, CANQUA-CGRG Biannual Meeting, Edmonton, AB, 18-22 Aug. 2013. "Aeolian & coastal geomorphology".
- 2011 Organizing committee, Coherent flow structures in Geophysical flows at the Earth's surface. 3-5 August 2011, Vancouver, British Columbia, Canada.
- Session Chair, 2011 Meeting of the American Association of Geographers, 12-16 Apr. 2011, Seattle, WA. "Session 3445: Tribute to Robin Davidson-Arnott IV: Coastal Systems" Co-sponsored by AAG-Coastal & Marine Specialty Group and Geomorphology Specialty Group.
- 2006 Organizing committee & Special Session organizer (Dune Systems), 6th International Conference on Aeolian Research (ICAR-VI), 24-28 July 2006, Guelph, ON.
- Session Chair, "Dune systems", 6th International Conference on Aeolian Research (ICAR VI), 24-28 July 2006, Guelph, ON.
- 2004 Session Chair, "Quaternary Evolution & Modern Coastal Dynamics", 8th International Coastal Symposium (ICS-04), 14-19 March 2004, UNIVALI-CTTMar, Itajaí, Santa Catarina, Brazil.
- 2003 Organizing committee & Special Sessions Co-ordinator 'On the Edge' Conference - Joint Meeting of the ACMLA, CAG, CCA and CRSA. May 27-31, 2003. UVic, Victoria, BC.
- Workshop organizer, "Fluid Flow & Sediment Transport Processes in Geomorphology Instrumentation workshop", at the 'On the Edge' Conference, Joint Meeting of the ACMLA, CAG, CCA and CRSA. May 27-31, 2003. UVic, Victoria, BC.
- Special sessions organizer, "Fluid Flow & Sediment Transport Processes in Geomorphology (sessions I, II & III)", 'On the Edge' Conference, Joint Meeting of the ACMLA, CAG, CCA and CRSA. May 27-31, 2003. UVic, Victoria, BC.

Session chair, Geomorphology Paper Session, 2003 Annual General Meeting of the Western Division of the Canadian Association of Geographers, March 15, 2003. University of Northern British Columbia, Prince George, BC.

Outreach activities:

- I have developed outreach and interpretive materials on sand dune ecosystems, coastal erosion, landscape evolution, impacts of climate change, and beach-dune ecosystems for US-National Parks Service (Cape Cod National Seashore, Joshua Tree National Park), US-Fish & Wildlife Service (Humboldt Bay National Wildlife Refuge, California), BC Parks (Naikoon Park, Rath Trevor Park, Island View Beach), Clayoquot Biosphere Trust, and Parks Canada (PEI National Park, Pacific Rim NPR, Gwaii Haanas NPR-HHS, Gulf Islands NPR).

Memberships in Professional Societies:

2016-present	Member, American Geophysical Union (AGU)
2015-2017	Member, Canadian Geophysical Union (CGU)
2012-2015, 2019	Member, Geological Society of America (GSA)
1995-2015	Member, Canadian Association of Geographers (CAG)
1998-2016	Member, Association of American Geographers (AAG): Geomorphology Specialty Group (GSG), Coastal & Marine Research Group (COMA)
2016-present	Member, American Shore & Beach Preservation Association (ASBPA)
2004-present	Member, Coastal Zone Canada Association (CZCA)
2004-present	Member, Coastal Education & Research Foundation (CERF), USA
2002-07	Member, C-CIARN Coastal Zone, NRCan, Bedford Institute of Oceanography, Dartmouth, NS
2001-03, 06, 14	Fellow, Geological Association of Canada (GAC)
2002-05	Member at Large, Western Division – CAG Executive

Professional Practice:

- Science Advisory Group Member (2018-2022): Oceano Dunes State Vehicular Recreation Area (ODSVRA) Particulate Matter Reduction Plan (PMRP), Pismo Beach, CA. Appointed by the State of California Department of Parks & Recreation (DPR) and San Luis Obispo County Air Pollution Control District (APCD), Pismo Beach, CA.
 - The ODSVRA Science Advisory Group is legally appointed body of experts that works with DPR and APCD to develop, implement, and monitor outcomes of a PMRP designed to reduce PM_{2.5} dust emissions by 50% of 2013 levels within ODSVRA by 2022. The PMRP is the result of a legal abatement order between APCD (plaintiff) and DPR (defendant) settled by the State Attorney General.

- Development of a remote-offering Advanced Geomorphology course (2010) for the Association of Professional Engineers & Geoscientists of British Columbia (APEGBC).
- Co-founder, Coastal Sand Ecosystems Recovery Team (CSERT-BC) with members from Parks Canada, BC Ministry of Environment, Victoria CRD, and local consultants.
 - The purpose of CSERT-BC is to identify and assess rare CSE in BC and provide inventory of key species at risk in response to new federal and provincial regulations that require enhanced ecosystem protection &/or restoration.
 - Our report provides a fundamental resource for municipalities, parks agencies, and land owners/managers in BC who own/manage CSE and may need to initiate restoration plans.
- Over 25 reports to government agencies (PCA, GSC, NRCan, BCParks, US Fish & Wildlife Service) that share research results &/or monitoring activities; compile state-of-the-science reviews; aid in important management decisions (e.g., infrastructure repair/replacement/removal, habitat restoration, cultural site protection/preservation, tourism management, climate change impacts & adaptations).
- Pro bono consultation service to Pacific Rim National Park and the Department of National Defense UXO (Unexploded Ordnances) Legacy Sites Program
 - DND were called in to assess and mitigate a UXO hazard at a research site (Wickaninnish Dunes) with Parks Canada in 2013 that was used as a bombing test range during WWII. A UXO found by a Parks staff led to closure of the site and halted our research & related dune restoration activities.
 - Our research provided the contractor with geomorphic change detection maps showing areas of significant erosion & deposition to guide their removal campaign. The site was eventually re-opened in 2014.
- Pro bono consultations to several First Nations in BC (*Haida, Heiltsuk, Hul'qumi'num Treaty Group, Tseycum, Tsawout, Wuikinuxv*) to inform decision-making on pre-historic site preservation or protection and erosion issues.
- Contracted services to larger consulting firms and government agencies on coastal erosion, dune dynamics, climate change impacts mitigation with *RPS Energy* (Halifax, NS, 2007), *Archipelago Marine Research Ltd.* (Sidney, BC, 2008), *Raincoast Applied Ecology* (Vancouver, BC, 2010), *Parks Canada Agency* (2004-06, 2008, 2010, 2011).

University & Faculty Committees:

- 2019-22 Member, Student Appeals & Grievances Committee, The College of Liberal Arts and Sciences, ASU.
- 2014-15 Chair, Dean's Research Advisory Committee (RAC), Faculty of Social Sciences, UVic.
- 2014-15 Member, Dean's Undergraduate Curriculum Committee (UCC), Faculty of Social Sciences, UVic.

Curriculum Vitae - Ian J. Walker, B.Sc., Ph.D.

- 2013-15 Member, Program Committee, Human Dimensions of Climate Change (HDCC) Interdisciplinary Minor Program, Faculty of Social Sciences, UVic.
- 2006, 2013-14 Member, Geography Chair Search Committee, Faculty of Social Sciences, UVic.
- 2008-11 Faculty Senator, Faculty of Social Sciences Representative, UVic.
- 2008-12 Member, Committee on Appeals
 - 2010-12 Member, Committee on Agenda & Procedures
 - 2009-11 Member, Committee on Nominations & Committee Governance
- 2002-04, 09-11 NSERC Scholarship Adjudication Committee, Faculty of Graduate Studies, UVic.
- 2008 Member, Program Development Team, Human Dimensions of Climate Change (HDCC) Minor, Faculty of Social Sciences, UVic.
- 2006 Member, Internal Research Grant Review Committee, Office of Research Services

Departmental Committees & Responsibilities:

- 2019-present Associate Director, Research and Graduate Programs, School of Geographical Sciences & Urban Planning, ASU.
- 2019-present Chair, Exploration Fellowship Committee, School of Earth & Space Exploration, ASU.
- 2019-present Faculty Mentor (Drs. Amy Frazier and Robin Martin), School of Geographical Sciences & Urban Planning, ASU.
- 2017-19 Member, Personnel Committee, School of Geographical Sciences & Urban Planning, ASU.
- 2017-19 Member, Graduate Committee, School of Geographical Sciences & Urban Planning, ASU.
- 2016-17 Member, Graduate Program & Policy Committee, School of Geographical Sciences & Urban Planning, ASU.
- 2019 Member, Hiring Committee, Business Operations Specialist staff position, School of Geographical Sciences & Urban Planning, ASU. February 2019.
- 2019 Member, Hiring Committee, Business Operations Manager staff position, School of Geographical Sciences & Urban Planning, ASU. February 2019.
- 2019-present Coordinator, "Coffee with the grads" bi-weekly coffee hour sessions with graduate students and post-docs to discuss program issues, professional development, research skills, faculty-student relations. Developed and delivered in collaboration with Graduate Student Committee, School of Geographical Sciences & Urban Planning, ASU.
- 2018-2019 Coordinator, "Lunch and Learn" brownbag lecture series. Developed and implemented to engage staff and students in faculty research areas in an informal, approachable setting. School of Geographical Sciences & Urban Planning, ASU.

Curriculum Vitae - Ian J. Walker, B.Sc., Ph.D.

- 2014-15 Chair, Undergraduate Affairs Committee (UAC) responsible for curriculum review, revision, undergraduate scholarship adjudication, student counseling, liaising with Society of Geography Students (SOGS), program promotion. Department of Geography, University of Victoria.
- 2014-15 Faculty Advisor, Geography Honours Program (GEOG499A/B) responsible for supervising all Geography honours students (n = 12) through two semesters of project design (with academic supervisors), implementation, writing/revision and final presentations. Department of Geography, University of Victoria.
- 2009-11 Chair, Graduate Affairs Committee (GAC). Responsible for curriculum review, revision, development & instruction of core GEOG500 course, admissions & enrolment management, scholarship adjudication, program promotion. Department of Geography, University of Victoria.
- 2002-05, 08-13 Member, Graduate Affairs Committee, Department of Geography, University of Victoria.
- 2008-10 Team leader, Geography Graduate Curriculum Review Team, Department of Geography, University of Victoria.
- 2008 Member, Geography Undergraduate Curriculum Review Team, Department of Geography, University of Victoria.
- 2004-15 Acting Chair, Department of Geography, UVic (13/2-7/3/2004, 10-22/4/4004, 17-28/5/2010, 8-15/6/2011, 15-22/2/2013, 9-13/9/2013, 7-8/12/2015). Department of Geography, University of Victoria.
- 2001-04, 10-11, 13 Member, Merit Evaluation Committee (MEC), Department of Geography, University of Victoria.
- 2006 Member, NSERC University Faculty Award (UFA) Search Committee, Department of Geography, University of Victoria.
- 2006-08 Member, Coastal Studies Minor Program Development Team, Department of Geography, University of Victoria.