Compiled ASP Publications 20-21

Annotation:
** Postgraduate Student*
 # Early Career Researcher

Peer-Reviewed Journal Papers [23]

1. Ashley K.E., **McKay** R., Etourneau J., Jimenez-Espejo F.J., Condron A., Albot A., Crosta X., **Riesselman** C., Seki O., Massé G., **Golledge** N.R., Gasson E., #**Lowry** D.P., Barrand N.E., Johnson K., **Bertler** N., Escutia C., **Dunbar** R., Bendle J.A. (2021) Mid-Holocene Antarctic sea-ice increase driven by marine ice sheet retreat. Climate of the Past. 10.5194/cp-17-1-2021
2. **Bodeker**, G.E., & Kremser, S. (2021). Indicators of Antarctic ozone depletion: 1979 to 2019. Atmospheric Chemistry and Physics, 21(7), 5289-5300.
3. **Bowen**, M.M., **Fernandez**, D., Forcen-Vazquez, A., Gordon, A.L., **Huber**, B., Castagno, P., & Falco, P. (2021). The role of tides in bottom water export from the western Ross Sea. Scientific Reports, 11(1).
4. ***Civel-Mazens**, M., Crosta, X., **Cortese**, G., Michel, E., Mazaud, A., Ther, O., Ikehara, M., & Itaki, T. (2021). Antarctic Polar Front migrations in the Kerguelen Plateau region, Southern Ocean, over the past 360 kyrs. Global and Planetary Change, 202.
5. ***Civel-Mazens**, M., Crosta, X., **Cortese**, G., Michel, E., Mazaud, A., Ther, O., Ikehara, M., & Itaki, T. (2021). Impact of the Agulhas Return Current on the oceanography of the Kerguelen Plateau region, Southern Ocean, over the last 40 kyrs. Quaternary Science Reviews, 251.
6. Crosta, X., Etourneau, J., Orme, L.C., Dalaiden, Q., Campagne, P., Swingedouw, D., Goosse, H., Massé G., Miettinen, A., **McKay**, R.M., **Dunbar**, R.B., Escutia, C., & Ikehara, M. (2021). Multi-decadal trends in Antarctic sea-ice extent driven by ENSO–SAM over the last 2,000 years. Nature Geoscience, 14(3), 156-160.
7. Das I., Padman L., Bell R.E., Fricker H.A., Tinto K.J., **Hulbe** C.L., Siddoway C.S., Dhakal T., Frearson N.P., Mosbeux C., Cordero S.I., Siegfried M.R. (2020) Multidecadal Basal Melt Rates and Structure of the Ross Ice Shelf, Antarctica, Using Airborne Ice Penetrating Radar. Journal of Geophysical Research: Earth Surface. 10.1029/2019JF005241
8. Edwards, T.L., Nowicki, S., Marzeion, B., Hock, R., Goelzer, H., Seroussi, H., Jourdain, N.C., Slater, D.A., Turner, F.E., Smith, C.J., McKenna, C.M., Simon, E., Abe-Ouchi, A., Gregory, J.M., Larour, E., Lipscomb, W.H., Payne, A.J., Shepherd, A., Agosta, C., Alexander, P., Albrecht, T., Anderson, B., Asay-Davis, X., Aschwanden, A., Barthel, A., Bliss, A., Calov, R., Chambers, C., Champollion, N., Choi, Y., Cullather, R., Cuzzone, J., Dumas, C., Felikson, D., Fettweis, X., Fujita, K., Galton-Fenzi, B.K., Gladstone, R., **Golledge**, N.R., Greve, R., Hattermann, T., Hoffman, M.J., Humbert, A., Huss, M., Huybrechts, P., Immerzeel, W., Kleiner, T., Kraaijenbrink, P., Le clec'h, S., Lee, V., Leguy, G.R., Little, C.M., #**Lowry**, D.P., Malles, J.H., Martin, D.F., Maussion, F., Morlighem, M., O'Neill, J.F., Nias, I., Pattyn, F., Pelle, T., Price, S.F., Quiquet, A., Radic V., Reese, R., Rounce, D.R., Rückamp, M., Sakai, A., Shafer, C., Schlegel, N.J., Shannon, S., Smith, R.S., Straneo, F., Sun, S., Tarasov, L., Trusel, L.D., Van, Breedam, J., van de, Wal, R., van den, Broeke, M., Winkelmann, R., Zekollari, H., Zhao, C., Zhang, T., & Zwinger, T. (2021). Projected land ice contributions to twenty-first-century sea level rise. Nature, 593(7857), 74-82.
9. ***Gardiner** N.B. (2020) Marine protected areas in the Southern Ocean: Is the Antarctic Treaty System ready to co-exist with a new United Nations instrument for areas beyond national jurisdiction? Marine Policy. 10.1016/j.marpol.2020.104212
10. Goelzer H., Nowicki S., Payne A., Larour E., Seroussi H., Lipscomb W.H., Gregory J., Abe-Ouchi A., Shepherd A., Simon E., Agosta C., Alexander P., Aschwanden A., Barthel A., Calov R., Chambers C., Choi Y., Cuzzone J., Dumas C., Edwards T., Felikson D., Fettweis X., **Golledge** N.R., Greve R., Humbert A., Huybrechts P., Le Clec'H S., Lee V., Leguy G., Little C., #**Lowry** D.,

Morlighem M., Nias I., Quiquet A., Rückamp M., Schlegel N.J., Slater D.A., Smith R., Straneo F., Tarasov L., Van De Wal R., Van Den Broeke M. (2020) The future sea-level contribution of the Greenland ice sheet: A multi-model ensemble study of ISMIP6. Cryosphere. 10.5194/tc-14-3071-2020

11. **Golledge**, N.R., & #**Lowry**, D.P. (2021). Is the marine ice cliff hypothesis collapsing?. Science, 372(6548), 1266-1267.
12. Griffiths, H.J., Anker, P., Linse, K., Maxwell, J., Post, A.L., **Stevens**, C., Tulaczyk, S., & Smith, J.A. (2021). Breaking All the Rules: The First Recorded Hard Substrate Sessile Benthic Community Far Beneath an Antarctic Ice Shelf. Frontiers in Marine Science, 8.
13. Gutt J., Isla E., Xavier J.C., Adams B.J., Ahn I.Y., Cheng C.H.C., Colesie C., **Cummings** V.J., di Prisco G., Griffiths H., **Hawes** I., Hogg I., McIntyre T., Meiners K.M., Pearce D.A., Peck L., Piepenburg D., Reisinger R.R., Saba G.K., Schloss I.R., Signori C.N., Smith C.R., Vacchi M., Verde C., Wall D.H. (2021) Antarctic ecosystems in transition – life between stresses and opportunities. Biological Reviews. 10.1111/brv.12679
14. Halberstadt, A.R.W., Chorley, H., **Levy**, R.H., **Naish**, T., DeConto, R.M., Gasson, E., & Kowalewski, D.E. (2021). CO2 and tectonic controls on Antarctic climate and ice-sheet evolution in the mid-Miocene. Earth and Planetary Science Letters, 564.
15. **Horgan**, H.J., Van, Haastrecht, L., Alley, R.B., Anandakrishnan, S., Beem, L.H., Christianson, K., Muto, A., & Siegfried, M.R. (2021). Grounding zone subglacial properties from calibrated active-source seismic methods. Cryosphere, 15(4), 1863-1880.
16. Ji Leong W., Joseph **Horgan** H. (2020) DeepBedMap: A deep neural network for resolving the bed topography of Antarctica. Cryosphere. 10.5194/tc-14-3687-2020
17. McGaughran, A., Laver, R., & **Fraser**, C. (2021). Evolutionary Responses to Warming. Trends in Ecology and Evolution, 36(7), 591-600.
18. Murphy, E.J., Johnston, N.M., Hofmann, E.E., Phillips, R.A., Jackson, J.A., Constable, A.J., Henley, S.F., Melbourne-Thomas, J., Trebilco, R., Cavanagh, R.D., Tarling, G.A., Saunders, R.A., Barnes, D.K.A., Costa, D.P., Corney, S.P., **Fraser**, C.I., Höfer, J., Hughes, K.A., Sands, C.J., Thorpe, S.E., Trathan, P.N., & Xavier, J.C. (2021). Global Connectivity of Southern Ocean Ecosystems. Frontiers in Ecology and Evolution, 9.
19. Pérez, L.F., de, Santis, L., **McKay**, R.M., Larter, R.D., Ash, J., Bart, P.J., Böhm, G., Brancatelli, G., Browne, I., Colleoni, F., Dodd, J.P., Geletti, R., Harwood, D.M., Kuhn, G., Laberg, J.S., Leckie, R.M., **Levy**, R.H., Marschalek, J., Mateo, Z., **Naish**, T.R., Sangiorgi, F., Shevenell, A.E., Sorlien, C.C., & van de, Flierdt, T. (2022). Early and middle Miocene ice sheet dynamics in the Ross Sea: Results from integrated core-log-seismic interpretation. Bulletin of the Geological Society of America, 134(1-2), 348-370.
20. Seroussi, H., Nowicki, S., Payne, A.J., Goelzer, H., Lipscomb, W.H., Abe-Ouchi, A., Agosta, C., Albrecht, T., Asay-Davis, X., Barthel, A., Calov, R., Cullather, R., Dumas, C., Galton-Fenzi, B.K., Gladstone, R., **Golledge**, N.R., Gregory, J.M., Greve, R., Hattermann, T., Hoffman, M.J., Humbert, A., Huybrechts, P., Jourdain, N.C., Kleiner, T., Larour, E., Leguy, G.R., #**Lowry**, D.P., Little, C.M., Morlighem, M., Pattyn, F., Pelle, T., Price, S.F., Quiquet, A., Reese, R., Schlegel, N.J., Shepherd, A., Simon, E., Smith, R.S., Straneo, F., Sun, S., Trusel, L.D., Breedam, J.V., Van, De, Wal, R.S.W., Winkelmann, R., Zhao, C., Zhang, T., & Zwinger, T. (2020). ISMIP6 Antarctica: A multi-model ensemble of the Antarctic ice sheet evolution over the 21st century. Cryosphere, 14(9), 3033-3070.
21. **Stevens**, C., **Hulbe**, C., Brewer, M., #**Stewart**, C., **Robinson**, N., **Ohneiser**, C., & #**Jendersie**, S. (2020). Ocean mixing and heat transport processes observed under the Ross Ice Shelf control its basal melting. Proceedings of the National Academy of Sciences of the United States of America, 117(29), 16799-16804.
22. ***Still**, H., & **Hulbe**, C. (2021). Mechanics and dynamics of pinning points on the Shirase Coast, West Antarctica. Cryosphere, 15(6), 2647-2665.
23. Verret, M., Dickinson, W., Lacelle, D., Fisher, D., Norton, K., Chorley, H., **Levy**, R., & **Naish**, T.

(2021). Cryostratigraphy of mid-Miocene permafrost at Friis Hills, McMurdo Dry Valleys of Antarctica. Antarctic Science, 33(2), 174-188.

Reports (for external body) [7]

1. Kennicutt, M.C., Amsler, C., **Cummings, V**., Kawaguchi, S., Peck, V. (2020). Ocean acidification and Antarctic environments. Working paper to the Antarctic Treaty Commission Meeting.
2. **Cummings, V.J.;** D.A. Bowden; **M.H. Pinkerton**; N.J. Halliday; J.E. Hewitt (2021). Ross Sea benthic ecosystems: macro- and mega-faunal community patterns from a multi-environment survey. CCAMLR document WG-EMM- 2021/P04, Hobart, Australia.
3. **O'Driscoll, R.L**. (2020). Voyage Programme TAN2101: Ross Sea Life in a Changing Climate 2021 (ReLiCC) voyage. Report to MBIE, 40 pp.
4. **O'Driscoll, R.L**; Pallentin, A.; **Gutierrez Rodriguez, A**.; Safi, K.; **Law, C**.; Chin, C.; Escobar-Flores, P.; Ladroit, V.; Marriott, P.; Gall, M.; George, S.; Seabrook, S.; Druce, M.; **Cummings, V**. et al. (2021). Ross Sea Life in a Changing Climate (ReLiCC) 2021 Voyage 4 January - 17 February 2021 Voyage Report - TAN2101. NIWA Client Report 2021072WN for MBIE. 213 pp.
5. **O'Driscoll, R.L**; Pallentin, A.; **Gutierrez Rodriguez, A.;** Safi, K.; **Law, C**.; Chin, C.; Escobar-Flores, P.; Ladroit, V.; Marriott, P.; Gall, M.; George, S.; Seabrook, S.; Druce, M.; **Cummings, V.; M.H. Pinkerton** (2021). The 2021 Tangaroa voyage to the Ross Sea: ReLiCC voyage. CCAMLR document WG-EMM-2021/15, Hobart, Australia.
6. **Pinkerton, M.H.; A. Hayward*** (2021). Tracking variability and long-term change in potential sea ice primary productivity using a novel light penetration index. CCAMLR document WG-EMM-2021/P03, Hobart, Australia.
7. **Pinkerton, M.H.** (2021). New Zealand research and monitoring in the Ross Sea region in support of the Ross Sea region Marine Protected Area: 2021 update. CCAMLR document WG-EMM-2021/14, Hobart, Australia.

Science Reports (publicly accessible) [2]

1. **Gardiner**, N., **Gilbert**, N., **Liggett**, D. 2021. Connecting Antarctic Science and Policy Workshop 2021. ASP Report-003. 13 p.
2. **Gilbert**, N., **Liggett**, D., **Gardiner**, N. 2020. Ross Sea Marine Protected Area: Report from an Antarctic Science Platform Stakeholder Workshop. ASP Report-001. 28 p.

Invited /Keynote @ Conferences [6]

1. **Golledge,** N.R. August 2020. “Antarctic Contributions to Sea Level Rise”. Invited Keynote: Scientific Committee on Antarctic Research Conference.
2. **Naish, T** invited presentation on new SCAR Strategic Research Programme – INSTANT at the SCAR 2020 Online Open Sciences Conference. 3rd August, 2020.
3. **Naish T**. 28th October 2020, Invited keynote on “Grand Challenges in Cryospheric Science” at 2020 European Polar Science Week online Conference. http://eo4polar.esa.int/programme.
4. **Renwick,** J.A., Antarctica, Climate Change and our Future. Keynote presentation at the 2021 Antarctic Science conference, Christchurch, 11 February 2021.
5. **Riesselman,** invited panelist, The Micropaleontological Society Microfossil Geochemistry Workshop, The Influence of Taphonomy and Diagenesis session, on-line, 10 November, 2020 (international attendance capped at 500)
6. **Riesselman, C.,** *G. **Duke**, *J. **Frazer**, and *B. **Taylor-Silva**, 2020. Is +2°C too Warm for Antarctica? Diatom Lessons from a 400 ppm World, GSA 2020 annual meeting, 243-12, invited oral.

Conference Proceedings Papers [1]

1. Coffin M, Parr J, Grice K, Pages A, Lisé-Pronovost A, Clennell B, Mortimer N, **McKay R**, McGregor H, **Riesselman** C, Poiner I and Armand L (2020), "Ocean planet: an ANZIC workshop report focused on future research challenges and opportunities for collaborative international scientific ocean drilling.". Thesis at: IODP. Australian and New Zealand IODP Consortium, Australian National University. Doi: 10.25911/5e1c39629af61

Conference / Workshop Presentations [60]

1. #**Bahamondes-Dominguez, A., Rickard, G., Keller, L**. Understanding oceanic and meteorological impacts on marine plankton communities of the Ross Sea through a 1-D model. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
2. Francesca **Baldacchino***, Nicholas **Golledge,** Huw **Horgan**, Stefan **Jendersie**# ,Poul Christoffersen, Peter Bromirski. Investigating the seasonal dynamics of the Ross Ice Shelf, Antarctica using remote sensing data (student presenter). New Zealand Antarctic Science Conference February 2021, Christchurch
3. #**Behrens**, E.; S. **Parker**; M. **Pinkerton**; G. Rickard; C. Collins (2021). Modelling dispersal of Antarctic toothfish eggs and larvae in the Ross and Amundsen Seas - The impact of sea-ice, ocean currents and larval behaviour. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
4. #**Behrens**, E.; S. **Parker**; M. **Pinkerton** (2020). Modelling dispersal of Antarctic toothfish eggs and larvae in the Ross and Amundsen Seas - The impact of sea-ice, ocean currents and larval behaviour. Proceedings of SCAR (Scientific Committee on Antarctic Research) Open Science Conference: 'Antarctic Science - Global Connections'. 31 July-11 August 2020, Hobart, Australia.
5. #**Behrens**, E., **Parker**, S., **Rickard**, S., Collins, C. How sea-ice drift and ocean currents influence the spawning success of Antarctic toothfish. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
6. #Brett, G., D. **Price**, W. **Rack**, P. **Langhorne**. Satellite altimetry detection of ice shelf-influenced fast ice. Presentation at the Antarctica NZ Science Conference “Connecting through Change”, University of Canterbury, 9-13 February 2021.
7. Bury, S.; K. St. John Glew; B. Espinasse; C. Trueman; A. Sabadel; P. Escobar-Flores; J. Brown; M. **Pinkerton** (2021). Southern Ocean isoscapes inform spatiotemporal biogeochemical processes, trophic ecology and animal movements. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
8. Theo **Calkin***, Gavin **Dunbar**, Justin Lawrence, Britney Schmidt, Dave Harwood, Adam Martin, Cathy Ginnane, Jocelyn **Turnbull**, Matthew Meister, Peter Washam, Benjamin Hurwitz, Enrica Quartini, Daniel Dichek, Andrew Mullen, Anthony Spears, Cliff Atkins. Past and present sedimentation at Kamb Ice Stream Grounding Zone, Siple Coast, West Antarctica. (student presenter). New Zealand Antarctic Science Conference February 2021, Christchurch
9. ***Currie**, A., Marshall, A., **Lohrer**, A.M., **Cummings**, V.J., Cary, S.C. Sea-ice dynamics drives benthic microbial community composition and functional potential at two contrasting sites in McMurdo Sound, Antarctica. New Zealand Antarctic Conference, Christchurch, 10-12 February 2021.
10. C. **Fraser**, A. Hogg, M. **Lamare**, F. **Montiel**, A. Morrison, J. Waters. The vulnerability of Antarctic coasts to colonisation by dispersing flora and fauna. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
11. ***Farooq**, U. Sea ice freeboard derived from satellite altimeter in the Western Ross Sea, Antarctica. Presentation at the NZ Geoscience Conference, University of Canterbury, November 2020.
12. Forbes, M., & **Hulbe**, C. (2021). Fast QGIS set-up of ISSM models. New Zealand Antarctic Science Conference February 2021, Christchurch

13. Friedrichs, A.M., McInerney, J., Forrest, A., Goodrich, C., Lavanchy, S.M., **Stevens**, C.L., Yoon, S.T., Yun, S. and Lee, W.S., 2020, February. Turbulence Signature of a Cold-Water Plume from below the Nansen Ice Shelf–an Autonomous Underwater Glider Survey, AGU
14. **Golledge**, N.R. November 2020, "Emergence of critical climate states during the Plio-Pleistocene". Geoscience Society of New Zealand.
15. **Golledge**, N.R. 2021. "Emergence of critical climate states during the Pleistocene". European Geoscience Union, April. PICO presentation.
16. #**Gossart**, A. November 2020. Discovering the climate of Antarctica and Southern Ocean. Meteorological society of NZ annual conference,.
17. #**Gossart**, A. February 2021. Regional climate modelling: using Polar-WRF to investigate surface mass balance of the Antarctic ice sheet. Antarctica New Zealand Conference.
18. **Gutierrez-Rodriguez**, A., Safi, K., Gall, M., ***Cristi**, A., **Pinkerton**, M. Phytoplankton growth and microzooplankton grazing in the Ross Sea region during the late-summer to early-autumn transition. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
19. Huw **Horgan**, Craig **Stewart**#, Craig **Stevens**, Natalie **Robinson**#, Christina **Hulbe**. Basal Melting at the Kamb Ice Stream (Ross Ice Shelf) Grounding Line. (ECR presenter). Forum for Research into Ice Shelf Processes (FRISP) 2020, Online.
20. **Hulbe** et al 2020 C022-0010Terrestrial origin for accreted basal ice in Ross Ice Shelf flow bands, AGU Fall Meeting (cross w P1/NZARI).
21. Elizabeth D. **Keller**, Karin **Kvale**, Abhi Ulayottil Venugopal, Joe **Prebble**, Giuseppe **Cortese**, "A data-model comparison of marine primary productivity during the Last Glacial Maximum" Geosciences NZ annual conference, 23-25 Nov 2020 (oral presentation)
22. **Krapp**, M. November 2020. "Filling the gaps in Antarctica's observational records using Gaussian Process Regression". Geoscience Society of New Zealand.
23. Lawrence, Schmidt, Washam, **Hulbe**, **Horgan**, **Stevens**, **Dunbar**, Meister, Hurwitz, Quartini, Dichek, Spears, Mullen, Bryson. ROV Icefin at Ross Ice Shelf Grounding Zone: 5 km of ice, ocean, seafloor, and crevasse exploration. AGU 2020 (Online)
24. Richard **Levy** - Te tai pari o Aotearoa - Future Sea Level Rise around New Zealand's Dynamic Coastline (Prize: Best Talk). New Zealand Antarctic Science Conference February 2021, Christchurch
25. **Lohrer**, D., Norkko, A., Thrush, S.F., **Cummings**, V.J. Cascading change in Antarctic coastal benthic ecosystems. World Conference on Marine Biodiversity in conjunction with the New Zealand Marine Sciences Society, Auckland (online), 13-16 December 2020.
26. **Lohrer**, D. **Cummings**, V.J., Marriott, P., Budd, R., Thrush, S.F., Norkko, A., Norkko, J., Notman, P., Chiaroni, L., Bremner, D. et al. Climate cascades affect coastal Antarctic seafloor diversity and functioning. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
27. P. **Liu***, W. Pearman, C, **Fraser**. Genetic / genomic resources for biogeographic research in Antarctica. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
28. Marshall, A., Brandt, S., **Dunbar**, G., **Hulbe**, C., Forbes, M., & **Cary**, S. C. (2021). Illuminating ecosystems processes that shape Ross Ice Shelf habitats through the lens of the benthic microbial community. (ECR presenter) New Zealand Antarctic Science Conference February 2021, Christchurch
29. T. **Massue***, M. **Lamare**, J. ***Moffitt**, L. Peck, D. Barnes and Gail Ashton. Warming of the Antarctic Sea Floor: Determining responses to warming of sea floor for Antarctic benthic communities using heated panels: An experimental approach. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021 (Best Student Poster)
30. ***Massue**, T., **Lamare**, M., ***Moffitt**, J., Peck, L., Barnes, D., Ashton, G. Warming of the Antarctic Sea Floor. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021. (Best Poster, People's Choice Award)

31. McInerney, Friedrichs, Yoon, Lee, **Stevens**, Miller, Zappa, Forrest,2021. Observations of Ocean Mixing Beneath and Nearby the Nansen Ice Shelf, AMOS Conference, on line. Feb 2021.
32. A. McGaughran, A. Terauds, P. Convey, C. **Fraser** Genomic data provide evidence for glacial refugia and dispersal of terrestrial invertebrates along the Antarctic Peninsula. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
33. Miller, U., Zappa, C.J., Yoon, S.T., **Stevens**, C., Lee, W.S. and Gordon, A.L., 2020, December. A high-resolution process study of High Salinity Shelf Water formation in the Terra Nova Bay Polynya, Ross Sea, Antarctica, AGU Fall Meeting 2020. AGU.
34. O'Leary, K., #**Lowry**, D., ***Alevropoulos**-**Borrill**, A. Projected Southern Ocean Sea Ice and Sea Surface Temperature Evolution beyond 2100. AGU 2020 (Online)
35. P. **Olmedo**-**Rojas***, G.J. Jeunen, A. McGaughran, A.Terauds, M. **Lamare**, N. Gemmell, C. **Fraser**. Environmental drivers of diversity in Antarctic terrestrial plants and animals: using genomic approaches to discover broad-scale patterns. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
36. F. Perry*, M. **Lamare**, C. **Fraser**. Will temperate (New Zealand) marine intertidal species be able to survive in a warmer Antarctica? Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
37. **Pinkerton**, M., Bury, S., Forman, J., Brown, J. Food-web structure of the Ross Sea: combining stable isotopes and mass-balance modelling to understand ecosystem dynamics. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
38. **Pinkerton**, M., ***Hayward** A. Tracking variability and long-term change in sea-ice primary productivity using a light penetration index. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
39. ***Pletzer**, T., Cullen, N., **Katurji**, M., **Conway**, J. Meltwater Modelling in the McMurdo Dry Valleys. Antarctica NZ conference, Christchurch, New Zealand, 9-11 February 2021
40. ***Pletzer**, T., Cullen, N., **Katurji**, M., **Conway**, J. The Effect of Atmospheric Forcing on Glacial Mass Balance and Meltwater in the Ross Sea Region of Antarctica. Meteorological Society of New Zealand Conference, Christchurch, 23-27 November 2020.
41. ***Pletzer**, T., Cullen, N., **Katurji**, M., **Conway**, J. The Effect of Atmospheric Forcing on Glacial Meltwater in the McMurdo Dry Valleys. New Zealand Antarctic Science Conference, Christchurch, 10-12 February 2021.
42. **Rack**, W., D. #**Price**, C. Haas, P. **Langhorne**, G. **Leonard**. Airborne sea ice thickness measurements in the Western Ross Sea. Presentation at the NZ Geoscience Conference, University of Canterbury, November 2020.
43. **Rack**, W., D. #**Price**, C. Haas, P. **Langhorne**, G. **Leonard**. Sea ice thickness in the Western Ross Sea. Presentation at the Antarctica NZ Science Conference "Connecting through Change", University of Canterbury, 9-13 February 2021.
44. **Riesselman**, C.R., A. Brombacher, O. Esper, A. de Souza, E. Malinverno, J.L. Middleton, A.C. Ravelo, M. Saavedra, R.K. Singh, I. Venancio, J.S. Stoner, X. Zhao, F. Lamy, G. Winckler, C.A. Alvarez Zarikian, and the Exp. 383 Scientists. Magneto-biostratigraphic integration of Neogene sequences from the subantarctic Pacific Ocean. Antarctic Science Conference, February 2021, Christchurch, NZ.
45. N. J. **Robinson***, C. L. **Stevens**, C. L. **Hulbe**, H. J. **Horgan**, C. L. #**Stewart**, P. de Joux, P. Washam and J. Lawrence, Ice Shelf Cavity Estuarine Hydrodynamics at the Kamb Ice Stream Grounding Line, New Zealand Antarctic Science Conference, Haere-roa, University of Canterbury, 9 – 12 February 2021.
46. N. J. **Robinson***, C. L. **Stevens**, C. L. **Hulbe**, H. J. **Horgan**, C. L. #**Stewart**, P. de Joux, P. Washam and J. Lawrence, Ice Shelf Cavity Estuarine Hydrodynamics at the Kamb Ice Stream Grounding Line, AGU Fall Meeting, Online Everywhere, 1 – 17 December 2020.

47. N. J. **Robinson***, C. L. **Stevens**, C. L. #**Stewart**, H. **Horgan**, C. **Hulbe**, P. de Joux, P. Washam and J. Lawrence, Ice Shelf Cavity Estuarine Hydrodynamics at the Kamb Ice Stream Grounding Line, NZ Physical Oceanography Workshop (POW), Online via zoom, 23 – 27 November 2020.
48. **Robinson Stevens** et al Fluid mechanics under pressure POW 2020, NZ Physical Oceanography Workshop (cross P1).
49. Snodgrass, J., **Rack**, W., **McDonald**, A., **Hulbe**, C., #**Price**, D., Ryan, M., Gragg, K., & Forbes, M. (2021). Vertical strain and basal melt rates from phase sensitive radar measurements along the Ross Ice Shelf traverse to Siple Coast. New Zealand Antarctic Science Conference February 2021, Christchurch
50. **Still***, **Hulbe**. The response of the Ross Ice Shelf to mechanical contact with pinning points. (student presenter) AGU 2020 (Online)
51. Craig **Stevens**, Natalie **Robinson**#, Christina **Hulbe**, Huw **Horgan**, Craig **Stewart**#, Peter de Joux, Peter Washam. Ice Shelf Cavity Estuarine Hydrodynamics at the Kamb Ice Stream Grounding Line (ECR presenter). Forum for Research into Ice Shelf Processes (FRISP) 2020, Online.
52. **Stevens**, **Behrens**, **Bowen**, **Fernandez**, **Horgan**, **Hulbe**, #**Jendersie**, #**Malyarenko**, **Riesselman**, **Robinson**, #**Stewart**, ***Truax** 2021. The Other Reason We Should Care About the Oceans: Antarctica and Changing Global Thermohaline Circulation, Antarctica NZ Conference Chch Feb. 2021 (cross with P1).
53. Craig **Stevens**, Christina **Hulbe**, Natalie **Robinson**#, Craig **Stewart**#, and Mike Brewer. Observed Variability in the Ross Ice Shelf Ocean Cavity Circulation: A Two-Year-Long Hydrographic Timeseries. AGU 2020 (Online)
54. Matthew **Tankersley***, Fabio Caratori Tontini, Huw Horgan, Kirsty Tinto. Sediment thickness and basement depths beneath the Ross Ice Shelf from aeromagnetic data. (student presenter) New Zealand Antarctic Science Conference February 2021, Christchurch
55. ***Truax**, O., B. Otto-Bliesner., E. Brady, *C.R **Riesselman**. Integrating proxy and model estimates of Antarctic climate variability over the last millennium. GSNZ, November, 2020, Christchurch, NZ.
56. ***Truax** O., C.R **Riesselman**, G. Wilson, C. **Stevens**. "Evidence of tropical forcing of last millennium Antarctic climate from paleoclimate data assimilation", 2021. NCAR CESM Workshop, online hybrid, June 2021. Boulder, CO USA.
57. ***Truax**, O., R.L. Parker, C.R **Riesselman**, G. Wilson, C. **Stevens**., S. #**Jendersie**, J.I. Lee, K.C. Yoo, B. Otto-Bliesner., E. Brady, R. **Levy**, R. **McKay**. Integrating proxy records and model simulations to reconstruct Holocene Ross Sea climate variability. Antarctic Science Conference. February, 2021, Christchurch, NZ.
58. Jocelyn **Turnbull**, Julia Collins, Erik #**Behrens**, Gordon Brailsford, Beata Bukoas, Sara **Mikaloff-Fletcher**, Latitudinal distribution of atmospheric Δ14CO2 over the Southern Ocean, NOAA Global Monitoring Annual Conference, Boulder, CO, USA/online, June 2021.
59. Washam, Schmidt, Lawrence, Meister, Spears, Nicholls, Davis, **Stevens**, Mullen, Dichek, Quartini, Hurwitz, Bryson, **Horgan**, **Hulbe**, Holland. A synthesis of ice-ocean boundary observations from the underwater vehicle Icefin. AGU 2020 (Online)
60. Arran **Whiteford*** and Huw **Horgan**. Observations of a deep basal channel at the Kamb Ice Stream. (student presenter). New Zealand Antarctic Science Conference February 2021, Christchurch

Student Theses [6]

1. Chorley, H (2021), Antarctic ice sheet and climate evolution during the mid-Miocene., Thesis at: Victoria University of Wellington., March, 2021.
2. Farooq, U. (2021, Sea ice characteristics and volume flux in the western Ross Sea through high-resolution satellite imagery and altimetry, thesis submitted to the University of Canterbury.

3. Leong WJ (2021), "The subglacial landscape and hydrology of Antarctica as seen from space". Thesis at: Victoria University of Wellington., January, 2021.
4. Stutz J (2020), "Rapid Holocene thinning of David Glacier, Antarctica". Thesis at: Victoria University of Wellington.
5. van Hasstrecht L (2020), "Subglacial conditions of the Kamb Ice Stream and its response to environmental change". Thesis at: Victoria University of Wellington.
6. Whitmore R (2020), "Outlet glacier and landscape evolution of Victoria Land, Antarctica.". Thesis at: Victoria University of Wellington., May, 2020.

Talks, Lectures & Webinars [16]

1. **Bowen**, Melissa. Tides and bottom water export from the western Ross Sea. Climate, Atmospheric Sciences, and Physical Oceanography Seminar Series, Scripps Institution of Oceanography, 9 June, 2021.
2. **Bowen**, Melissa. Tides and bottom water export from the western Ross Sea. PIPER Antarctic Sea Ice and Southern Ocean Discussions, 16 June, 2021.
3. **Cummings**, C.; D.A. Bowden; M.H. **Pinkerton**; N.J. Halliday; J.E. Hewitt (2021). Ross Sea benthic ecosystems: macro- and mega-faunal community patterns from a multi-environment survey. Antarctic Working Group, 9 June 2021
4. **Golledge,** N.R. September 2020. "Ice sheets and sea level: past, present, future". Invited talk, Nanyang Technological University (Singapore).
5. **Golledge**, N.R. November 2020. "Emergence of critical climate states during the Plio-Pleistocene". Invited talk, Massachussets Institute of Technology (MIT).
6. **Hulbe**, C. ETH Zurich Glaciology Seminar series: Insights for today from the history of women in glaciology. May 2021
7. **Lohrer,** D. (2020). Climate cascades affect coastal seafloor biodiversity and ecosystem function in Antarctica. Colloquium Lecture (invited webinar talk), Presidency University, Calcutta, India. 18-Sep-2020.
8. **Naish T**. 25th February 2021, SCAR INSTANT update to the SCAR Delegates Meeting on line.
9. **Naish T**. 29th June 2021. Climate and Cryosphere (CLiC) Report at the 42nd Session of the Joint Scientific Commission of the World Climate Research Programme – online.
10. O'Driscoll, R.L; Pallentin, A.; **Gutierrez-Rodriguez**, A.; Safi, K.; **Law**, C.; Chin, C.; Escobar-Flores, P.; Ladroit, V.; Marriott, P.; Gall, M.; George, S.; Seabrook, S.; Druce, M.; **Cummings**, V.; M.H. **Pinkerton** (2021). The 2021 Tangaroa voyage to the Ross Sea: ReLiCC voyage. CCAMLR-EMM paper, Antarctic Working Group, 9 June 2021.
11. **Pinkerton**, M.H.; A. ***Hayward** (2021). Tracking variability and long-term change in potential sea ice primary productivity using a novel light penetration index. Antarctic Working Group, 9 June 2021.
12. **Pinkerton**, M.H. (2021). Climate change and MPA design and monitoring: the Ross Sea region MPA. DOC-WWF workshop: "Tai Torua - Changing Tides: Marine protection in the context of climate change and a sustainable blue economy", 14 June 2021, Wellington.
13. **Pinkerton**, M.H. (2021). New Zealand research and monitoring in the Ross Sea region in support of the Ross Sea region Marine Protected Area: 2021 update. Antarctic Working Group, 9 June 2021.
14. **Robinson**, N. J., Ice-ocean interactions from direct observations beneath sea ice and ice shelf in the Ross Sea, Antarctica, Center for Coastal Physical Oceanography and Institute for Coastal Adaptation and Resilience, Old Dominion University, Norfolk, VA USA, delivered online 23 February 2021.
15. **Stevens**, Craig, Frozen Oceans - from Antarctica to the Moons of the Gas Giants, Univ. Auckland Colloquium, 30 June 2021.
16. ***Truax**, O. Past is prologue – Antarctica in a warming world, Fulbright Alumni Seminar. 17 June 2021, online, Wellington, NZ.