Michael J Burn

Publications

Book Chapters

Burn, M.J., Boger, R., Holmes, J. and Bain, A. (2022): A long-term perspective of climate change in the Caribbean and its impacts on the island of Barbuda. In: S. Perdikaris and R. Boger (Eds.) *Barbuda, Changing Times, Changing Tides.* Critical Climate Studies Book Series, Routledge India. ISBN 9781032326399

Mayle, F.E., **Burn, M.J**., Power, M. and Urrego, D. (2009): Vegetation and Fire at the Last Glacial Maximum in Tropical South America. In: F. Vimeux, F. Sylvestre and M. Khodri (Eds.) *Past Climate variability in South America and Surrounding regions: From the Last Glacial Maximum to the Holocene.* Developments in Palaeoenvironmental Research. Springer, Dordrecht. (https://doi.org/10.1007/978-90-481-2672-9_4)

Peer-reviewed journal articles

Elliott, S., Maezumi, S.Y., Robinson, M., **Burn, M.J.**, Walters, S., Grey, C., de Souza, J.G., Gosling, W.D., Mickleburgh, H.L. and Beier, Z.J.M. (2022): The legacy of 1300 years of land use in Jamaica. *Journal of Island and Coastal Archaeology*. https://doi.org/10.1080/15564894.2022.2078448.

Burn, M.J. (2021): On the interpretation of natural archives of Atlantic tropical cyclone activity. *Geophysical Research Letters*, 48(13), e2021GL092456. https://doi.org/10.1029/2021GL092456.

Heller, C.A., Michelutti, N., **Burn, M.J.,** Palmer, S.E. and Smol, J.P. (2021): The response of diatom assemblages in a Jamaican coastal lagoon to hurricane and drought activity over the past millennium. The Holocene, 31(9), 1359-1365. https://doi.org/10.1177/09596836211019095.

Palmer, S.E., **Burn, M.J.** and Holmes, J. (2020): A multiproxy analysis of extreme wave deposits in a tropical coastal lagoon in Jamaica, West Indies. *Natural Hazards*, 104, 2531-2560. https://doi.org/10.1007/s11069-020-04284-2.

Bain, A., Faucher, A., Kennedy, L.M., LeBlanc, A.R., **Burn, M.J.,** Boger, R. and Perdikaris, S. (2018): Landscape transformation during Ceramic Age and Colonial Occupations of Barbuda, West Indies. *Environmental Archaeology*, 23(1), 36-46 https://doi.org/10.1080/14614103.2017.1345115.

Burn, M.J., Holmes, J.A., Kennedy, L.M., Bain, A., Marshall, J.D. and Perdikaris, S. (2016): A sediment-based reconstruction of Caribbean effective precipitation during the Little Ice Age from Freshwater Pond, Barbuda. *The Holocene*, 26(8) 1237-1247 (https://doi.org/10.1177/0959683616638418)

Burn, M.J. and Palmer, S.E. (2015): Atlantic hurricane activity during the last millennium. *Scientific Reports*, 5, 12838, (https://doi.org/10.1038/srep12838)

Burn, M.J. and Palmer, S.E. (2014): Solar forcing of Caribbean drought events during the last millennium. *Journal of Quaternary Science*, 29(8) 827–836, (https://doi.org/10.1002/jqs.2660)

Whitney, B.S., Mayle, F.E., **Burn, M.J.,** Guillen, R., Chavez, E. and Pennington, R.T. (2014): Sensitivity of seasonally-dry tropical forests, lowland Bolivia, to precipitation and temperature change over glacial-interglacial timescales. *Vegetation History and Archaeobotany*, **23**(1), 1-14. Springer-Verlag, (https://doi.org/10.1007/s00334-013-0395-1)

Whitney, B., Mayle, F., Punyasena, S., Fitzpatrick, K., **Burn, M.J.**, Guillen, R., Chavez, E., Mann, D., Pennington, R. and Metcalfe, S. (2011): A 45 kyr palaeoclimate record from the lowland interior of tropical

South America. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **307**, 1-4, 177-192. Elsevier, Amsterdam. (https://doi.org/10.1016/j.palaeo.2011.05.012)

Burn, M.J., Mayle, F.E. and Killeen, T.J. (2010): Pollen-based differentiation of Amazonian rainforest communities and implications for lowland palaeoecology in tropical South America. *Palaeogeography, Palaeoclimatology, Palaeoecology,* 295, 1-18. Elsevier, Amsterdam. (https://doi.org/10.1016/j.palaeo.2010.05.009)

Burn, M.J. and Mayle, F.E. (2008): Palynological differentiation between genera of the Moraceae family and implications for Amazonian palaeoecology. *Review of Palaeobotany and Palynology* 149, 187-201. Elsevier, Amsterdam. (https://doi.org/10.1016/j.revpalbo.2007.12.003)

Burn, M.J. (2007): Palynological characterisation of Amazonian rainforest communities in the Noel Kempff Mercado National Park, Bolivia. *Quaternary Newsletter* **113**, 59-61. (ISSN 0143-2826.)

Conference/Scientific Papers

Burn, M.J. Campbell, D. Palmer, S. Maezumi, Y. & Buddo, D. (2019) The Caribbean Environments Research Group (CERG). Poster presented at Global Marine Science Summit, University of North Carolina Wilmington, United States. October 10, 2019

Burn, M.J. and Palmer, S.E. (2019) Harmonizing marine and terrestrial palaeoclimate archives to reconstruct hurricane activity in the Caribbean. 20th Congress of the International Union for Quaternary Science, July 2019. **(PR)**

Palmer, S.E. and **Burn, M.J.** (2019) A multiproxy analysis of extreme wave deposits in a tropical coastal lagoon in Jamaica, West Indies. 20th Congress of the International Union for Quaternary Science, July 2019. **(PR)**

Coates, K., Gordon-Smith, D., **Burn, M.J.,** Smol, J., Palmer, S. (2018): Sedimentary records of anthropogenic impacts and climate variability from a tropical, urban estuary: a 150-year palaeoenvironmental reconstruction of Kingston Harbour, Jamaica. UWI Research Days, Jan 2018.

Burn, M.J. and Palmer, S.E. (2017) Harmonizing marine and terrestrial paleoclimate archives to better understand Caribbean climate dynamics. 38th Scientific Conference of the Association of Marine Laboratories of the Caribbean. Merida, Mexico, May 20th-26th. **(PR)**

Metcalfe, S.E., Holmes, J.A., **Burn, M.J.,** Lane, C.S. and Horn, S.P. (2017) Palaeolimnological records of climate change in the Central American – Intra-America Seas region over the last 2000 years. 5th PAGES Open Science Meeting, Zaragoza, Spain, May 9th-13th. **(PR)**

Burn, M.J. (2016) Contextualizing contemporary climate change in the Caribbean using palaeoclimate archives. UWI Geography 50th anniversary conference. Kingston, Jamaica, June 27th-July 1st.

Kennedy, L.M., **Burn, M.J.,** Holmes, J.A., Bain, A., Marshall, J. and Perdikaris, S. (2016) Changing Precipitation Drivers Across the LIA from a Sediment Record from Barbuda, Northeastern Caribbean. *Association of American Geographers Annual Meeting*, San Francisco, California. March 29th-April 02nd.

LeBlanc, A.R., Kennedy, L.M., **Burn, M.J.,** Bain, A., Faucher, A., and Perdikaris, S. (2013) A late-Holocene sedimentary record of vegetation, fire, and environmental history from Barbuda, Lesser Antilles. 98th ESA Annual Meeting, Minneapolis, 4-9 August 2013.

Whitney, B.S., Fitzpatrick, K., Metcalfe, S.E., Loader, N.J., **Burn, M.J.**, Surangi W, Punyasena, W., Mayle, F.E. (2012) The Pleistocene-Holocene transition in continental South America: Summary of multiproxy data from Laguna La Gaiba. Calibrating Environmental Leads and Lags over the last 50 kyr CELL-50K Workshop, Budapest, Hungary, 12-15 November 2012.

Palmer, S.E. and **Burn, M.J.** (2011): A Late-Holocene record of marine washover events from a coastal lagoon in Jamaica, West Indies. British Sedimentological Research Group –Annual General Meeting, London, UK. 18th-21st December. **(PR)**

Kennedy, L., **Burn, M.,** Bain, A., Metcalfe, S., Faucher, A., LeBlanc, A., Berland, A., Perdikaris, S. and Staton, C. (2011): Multidisciplinary perspectives on long-term environmental history in Antigua and Barbuda, Northeastern Caribbean. Developing International Geoarchaeology Conference 2011, Knoxville, Tn, USA, September 20-24.

Palmer, S. and **Burn, M.** (2011): A Late-Holocene record of marine washover events from a coastal lagoon in Jamaica, West Indies. *XVIII INQUA Congress*, Bern, Switzerland, July 20-27. **(PR)**

Burn, M., Bain, A., Kennedy, L., LeBlanc, A., Faucher, A. and Perdikaris, S. (2011): A Late-Holocene record of Human Ecodynamics from Barbuda, Lesser Antilles. *XVIII INQUA Congress*, Bern, Switzerland, July 20-27. **(PR)**

Kennedy, L., **Burn, M**., Bain, A., LeBlanc, A., Faucher, A. and Perdikaris, S. (2011): Long-term Human Ecodynamics of Barbuda/Antigua from Sedimentary and Archaeological Records. *Association of American Geographers Annual Meeting*, Seattle, Washington. April 12th-16th.

Bain, A., **Burn, M.,** Kennedy, L., LeBlanc, A. and Faucher, A. (2011): Recent research in Environmental Archaeology and paleoecology in Antigua and Barbuda. *Society for American Archaeology 76th Annual Meeting*, Sacramento, California. Abstract 202. March 30th - April 3rd.

Burn, M.J., Mayle, F.E. and Killeen, T.J. (2010): Differentiation of pollen spectra from Amazonian rainforest communities and implications for lowland palaeoecology in tropical South America. *Eos Transactions of the American Geophysical Union*, **91** (26), Meet. Am. Suppl., Abstract PP32A-02. Foz do Iguaçu, Brazil, August 8th – 13th. **(PR)**

Burn, M.J. and Mayle, F.E. (2007): Palynological characterisation of Amazonian rainforest communities. *Quaternary International* **167/168**, Supplement p54, XVII INQUA Congress 2007, Cairns, Australia, July 28th – August 3rd. **(PR)**

Technical Reports

Burn, M.J. & Anderson, R (2017): A peat density survey of a mangrove wetland near New Court, Trelawny, Jamaica. Technical Report produced for EnviroPlanners Ltd, Kingston, Jamaica, 1-28.

Le Blanc, A., Berland, A., Bain, A., Kennedy, L. and **Burn, M.** (2011): Field Report: Initial sediment coring in Antigua. Barbuda Historical Ecology Project, January 2011.

Bain, A., Kennedy, L., **Burn, M.J.** and Faucher, A. (2010): Field Report: Archaeobotany, Palaeoclimatology and Archaeoentomology in Barbuda. *Barbuda Historical Ecology Project*, May 2010, 1-18.