# Curriculum Vitae – Paul Fox-Hughes

2015-2017 : **Research meteorologist**, Research and Development Branch, Bureau of Meteorology. Activities include: fire predictive services project, evaluating fire behaviour models in use by Australian fire agencies; Australian regional reanalysis, including development of the Tasmanian subdomain (with ACE CRC researchers); Tasmanian Wilderness World Heritage Area future fire danger project, again with ACE CRC.

1999-2015 : **Senior Meteorologist, Severe Weather Section, Tasmania and Antarctica Region Bureau of Meteorology.** Duties include:

- forecasting fire weather and issue of warnings related to dangerous fire weather, together with forecasts and warnings for other severe weather;
- liaison with key clients including fire and emergency service personnel, during severe weather, but also in planning, preparation and recovery;
- participation in the development of regional and national severe weather policy;
- research into improvements in forecast techniques related to severe weather (fire weather, heavy rainfall, severe thunderstorms, damaging winds etc.).

In addition, from time to time, I have managed the operations of the Tasmanian Regional Forecast Centre.

2012-2013: **Research Fellow, Antarctic Climate and Ecosystems Co-operative Research Centre**. As part of the Climate Futures for Tasmania (CFT) team, led research into the fire weather implications of the regional climate modelling undertaken by CFT.

2007-2008: **National Forecaster, UK Met Office**. Operational forecasting, and issue of severe weather warnings for the United Kingdom.

2006-2014: **PhD, University of Tasmania**. Topic: Springtime fire weather in Tasmania.

The thesis examined Tasmanian fire weather, with an emphasis on that during springtime. There has been a rapid increase in the number of severe springtime fire weather events in the east and southeast of the state in recent decades, confirmed in the thesis. I examined the atmospheric dynamics of some of these events, and identified common characteristics which may assist in operationally forecasting similar occurrences. I also used regional climate model data to investigate future fire danger potential in Tasmania.

**Recent publications**

Sharples, J.J., Cary, G.J., Fox-Hughes, P., Mooney, S., Evans, J.P., Fletcher, M.S., Fromm, M., Grierson, P.F., McRae, R. and Baker, P., 2016. Natural hazards in Australia: extreme bushfire. *Climatic Change*, 139(1), pp.1-15.

Fox-Hughes, P., and White, C.J. 2015. "A synoptic climatology of heavy rainfall in Hobart." *36th Hydrology and Water Resources Symposium: The art and science of water*. (p. 1010). Engineers Australia.

Fox-Hughes, P., Harris, R. M. B., Lee, G., Jabour, J., Grose, M. R., Remenyi, T. A., & Bindoff, N. L. 2015. Climate Futures for Tasmania future fire danger: the summary and the technical report. *Antarctic Climate & Ecosystems Cooperative Research Centre, Hobart, viewed at: http://acecrc. org. au/publication/future-fire-danger*.

Fox-Hughes, P., 2015. Characteristics of Some Days Involving Abrupt Increases in Fire Danger. *Journal of Applied Meteorology and Climatology*, *54*(12), pp.2353-2363.

Webb, M. and Fox-Hughes, P., 2015. An analysis of extreme rainfall in northern Tasmania, 12-14 January 2011. Bureau Research Report No. 3, Bureau of Meteorology, Melbourne.

Fox-Hughes, P., Harris, R., Lee, G., Grose, M., and Bindoff, N. 2014, Future fire danger climatology for Tasmania using a dynamically downscaled regional climate model. *International Journal of Wildland Fire*, 23(3), 309-321, doi: 10.1071/WF13126

Grose, M., Fox-Hughes, P., Harris, R.M.B., and Bindoff, N. 2014, Changes to the drivers of fire weather with a warming climate – a case study of southeast Tasmania. *Climatic Change*, 124(1-2), doi:10.1007/s10584-014-1070-y

White, C.J. and Fox-Hughes, P., 2013. Seasonal climate summary southern hemisphere (summer 2012–13): Australia's hottest summer on record and extreme east coast rainfall. *Australian Meteorological and Oceanographic Journal*, 63(3), pp.443-456.

Fox-Hughes, P. 2012, Springtime fire weather in Tasmania, Australia: two case studies. *Wea. Forecasting.* 27, 379–395. doi: 10.1175/WAF-D-11-00020.1

Fox-Hughes, P. 2011. Impact of more frequent observations on the understanding of Tasmanian fire danger. *J. Appl. Meteor. Climatol*., 50, 1617-1626.

Fox-Hughes, P. 2009. A heavy rainfall event in northern Tasmania during 27 to 30 January 2004. *Aust. Met. Oceanogr J.,* 58, 155-166.

Fox-Hughes, P. 2008. A fire danger climatology for Tasmania. *Aust. Met. Mag.,* 57, 109-120.