

International Journal of Biometeorology

Additional new insights into Biometeorology

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This is the second Special Issue published in International Journal of Biometeorology that is devoted to presenting research conducted by members of the Students and New Professionals group (SNP) of the International Society of Biometeorology (ISB).

The first SNP Special Issue was published in 2014 [Gosling, 2014], following a meeting three years earlier at the 19th International Congress of Biometeorology (ICB) in Auckland, New Zealand, at which several members of the SNP identified potential articles to include in a Special Issue. That issue included 17 articles and to date it has attracted over 300 citations (according to Google Scholar). The first Special Issue was a springboard for a number of research activities initiated by the SNP, including the development of an online interactive glossary of biometeorological terms that stemmed from the first glossary for Biometeorology that appeared in the issue [Gosling *et al.*, 2014], and the organisation of a workshop on the Spatial Synoptic Classification (SSC) in Vindeln, Sweden, following on from the review presented by Hondula *et al.* [2014] that identified novel opportunities for the application of the SSC to new regions of the globe.

On the back of the successful first Special Issue, submissions to a second Special Issue were solicited at the 20th ICB in 2014, in Cleveland, U.S. The issue includes 11 articles that cover many of the topics central to the field of Biometeorology, including animals, air pollution, climate and health, and tourism. Furthermore, the articles mirror the SNP's efforts to enhance the equality and diversity of its membership, with lead authors representing institutions from Australia, Czech Republic, Germany, Nigeria, Poland, and the U.S., and over a third of the lead authors are women.

The first article in the issue is a Short Communication in which Lees *et al.* [2017] explore the validity of using infrared thermography technology to measure the core body temperature of Black Angus steers. The second article also covers animal biometeorology – Sinkalu and Ayo [2016] describe an experiment in which they investigate the ability of co-administration of retinol, ascorbic acid and α -tocopherol to prevent heat stress in pullets. The Special Issue includes one article on air pollution, by Lokys *et al.* [2017], in which the authors assess the suitability of the Common Air Quality Index (CAQI), the Multi Pollutant Index (MPI) and the Universal Thermal Climate Index (UTCI) to describe associations between air quality, thermal stress and morbidity in western Germany.

There then follows a series of five articles on climate and health, which is the most popular topic covered by the Special Issue – unsurprising when considering that over the past 60 years the three most common words included in the title of articles published in International Journal of Biometeorology have been “effect(s)”, “temperature” and “climate” respectively [Sheridan and Allen, 2017]. The first two climate and health articles in the Special Issue are focussed principally on the effects of heat: Walikewitz *et al.* [2015] compare indoor and outdoor estimates of UTCI and air

temperature in the summer in Berlin (Germany) and discuss the implications for thermal stress; and Hardin and Vanos [2017] assess associations between different land surface types and changes in radiation absorbed by humans. Both heat and cold effects are considered by Allen and Sheridan [2015], in their assessment of relationships between extreme temperature events and all-cause mortality across 50 locations in the U.S. The last two articles on climate and health employ synoptic-scale weather classification schemes: Zhao et al. [2017] investigate associations between cold season weather types and human influenza across 79 U.S. cities; and Urban and Kyselý [2015] investigate the relationship between summer season cardiovascular mortality and weather types in Prague, Czech Republic.

The last three articles are on the topic of climate and tourism. Two of these explore public perceptions of the thermal environment: Lam et al. [2016] compare perceptions of thermal conditions between locals and visitors to the Royal Botanic Garden in Melbourne, Australia; and Lindner-Cendrowska and Błażejczyk [2016] explore seasonal variability of weather perceptions among people spending time outdoors for tourism and recreation in Warsaw, Poland. The final article in the Special Issue assesses the applicability of synoptic-scale weather classification to predict visitor attendance at zoological parks in Atlanta and Indianapolis, U.S. [Perkins, 2016].

The SNP continues to be a thriving section of the ISB, with almost 70 active members [Vanos, 2017]. The articles included in this Special Issue are testament to the SNP's broad research specialisms and its members' devotion to high quality research. The ISB is committed to supporting the continuing professional development of its SNP members, not least because the SNP represents the future of the ISB. The two former Chairs of the SNP, Dr Simon Gosling and Dr Jennifer Vanos, are now ISB Councillors for Europe and the U.S. respectively, for instance. The Society, through its journal, *International Journal of Biometeorology*, which is now in its 60th year [Sheridan and Allen, 2017], is building further on the foundations of support for, and recognition of, the SNP, at the 21st ICB in Durham, UK, which is the third consecutive congress from which a SNP Special Issue is planned.

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