

# Novel tools and techniques in forensic entomology: The need for robust research

During the last two decades, the study of forensic entomology has evolved in leaps and bounds. With the advent of molecular tools and increased access to published research, the focus has shifted from case studies to integrative ecology and applied research. The Royal Entomological Society journal of *Medical and Veterinary Entomology* has realised the need to broaden the scope of publications to embrace this evolution. We have updated the scope of our journal to include novel and relevant research on arthropods of medical, veterinary or forensic importance. We welcome experimental research on arthropod development and behaviour, as well as methodological innovations in laboratory and field research. While forensic case studies are limited in geographical application (and so will not be considered for publication), research on medical and veterinary important species' development, distribution patterns and identification have the potential for forensic application.

Developmental studies (e.g., Donovan et al., 2006; Richards & Villet, 2009) provide crucial information for instances of myiasis, pest control and neglect, while distribution patterns can shed light on the potential spread of mechanical transmission of pathogens (e.g., Hwang & Turner, 2005; Martín-Vega & Baz, 2013). In light of the ever-changing global climate, distribution data and developmental patterns of species of medical and veterinary importance are critical to the forensic framework. Novel identification tools allow for increased accuracy in identification of new, and classification of current, species that may be of medical, veterinary and forensic importance (Grzywacz et al., 2015; Szpila et al., 2012, 2013, 2014).

The application of different scientific and technological disciplines to forensic investigations has become an increasingly prominent area of research within the last decade. Several high-profile academic journals are currently devoted to the publication of original research and case studies in the different fields of forensics, but leading journals from other scientific disciplines can also reinforce the cross-disciplinary strengths by providing additional perspectives. High quality, novel and robust research is pivotal for developing and maintaining the required standards for the validation of scientific forensic evidence prior to its submission and acceptance in court. The references cited in this text demonstrate that papers published in *Medical and Veterinary Entomology* are relevant to medicolegal investigations, but legal and forensic cases related to public health and animal welfare could also benefit from this perspective.

In looking at the year ahead we have recently published a virtual special issue with a compilation of past submissions with a forensic

focus and we will soon be sending out a call for papers for a special issue highlighting insects of forensic significance. *Medical and Veterinary Entomology* looks forward to welcoming a broader range of papers and contributing to the continued development of medical, veterinary and forensic sciences.

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