Towards an Online Key for Morphological Identification of Palaearctic Culicoides Species

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To date, the task of identifying Culicoides accurately to the level of species lies largely in the hands of specialists. The development of an identification key based on morphological criteria would be useful for the standardisation of entomological surveillance systems and the training of surveillance agents. The aim was thus to provide a valid and useful morphological key to identify Palaearctic Culicoides species. This key, with numerous illustrations and online access, will be accessible by researchers with different languages and updated by adding new species, new characters, new photographs or new drawings. Two levels of identification will be available: for non-specialists, the key will be based only on microscopic observation of wing patterns to identify at least the group of species or some species; for specialists, it will be based on observations and measures of microscopic characters to identify individuals at the species level. For each species an identity card will be added including, when available, information on taxonomy (characters, measurements), biology and ecology (breeding site, host preference), distribution (maps), vector status (virus isolation and oral susceptibility), etc. To date, a database with wing photographs of 74 Culicoides species has already been developed, as well as an Excel table with the list of characters. A meeting is planned in Strasbourg the third week of March 2009 between taxonomists to validate and complete characterisation, including morphological variation.

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