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How to obtain *Culicoides* abundance data at a national scale with one collection season in Morocco

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For vector-borne diseases, producing abundance maps is a necessary step for risk mapping, which is an important tool to help focusing surveillance actions. Such as mapping requires sampling vector insects at a national/regional scale, which is quite difficult due to important heterogeneity in spatial distribution and in temporal dynamics. In Morocco, *Culicoides* biting midges were responsible for African horse sickness (AHS) outbreaks in the 1960s and the most recently in the late 1980s. They are also involved in the enzootic transmission of bluetongue (BT) virus since 2004. We aimed to produce first abundance maps for most abundant *Culicoides* species, and then risk maps for BTV and AHSV, across Morocco. In 2016, we compared species diversity in ruminant farms and in horse holding to determine if abundance maps derived from sampling in ruminant farms could be used to generate risk maps for both AHS and BT viruses. In 2017, we carried out a cross-sectional survey at the national scale. We used a stratified sampling strategy using eco-agronomic zones, with which we hypothesized homogeneity of *Culicoides* diversity and dynamics. We used historical collection time series to determine periods of abundance peak according to climatic zonation. This strategy allowed us to plan a national sampling of *Culicoides* abundance. In 2016, we found the same species in cattle and horse holdings. In addition, *Culicoides paolae* – reported in the literature as associated with Barbary fig trees, and *Culicoides scoticus* were recorded for the first time in Morocco. These records were confirmed by molecular assay. In 2017, collection campaign was conducted twice a year (from late April to June and from September to October): 144 farms were trapped during this period. At each visit, *Culicoides* populations were sampled for 48 consecutive hours using a light trap. A total we obtained 262 samples. Samples were currently under identification process. The next step will be to determine ecological drivers of abundance and distribution to provide accurate *Culicoides* mapping across Morocco.