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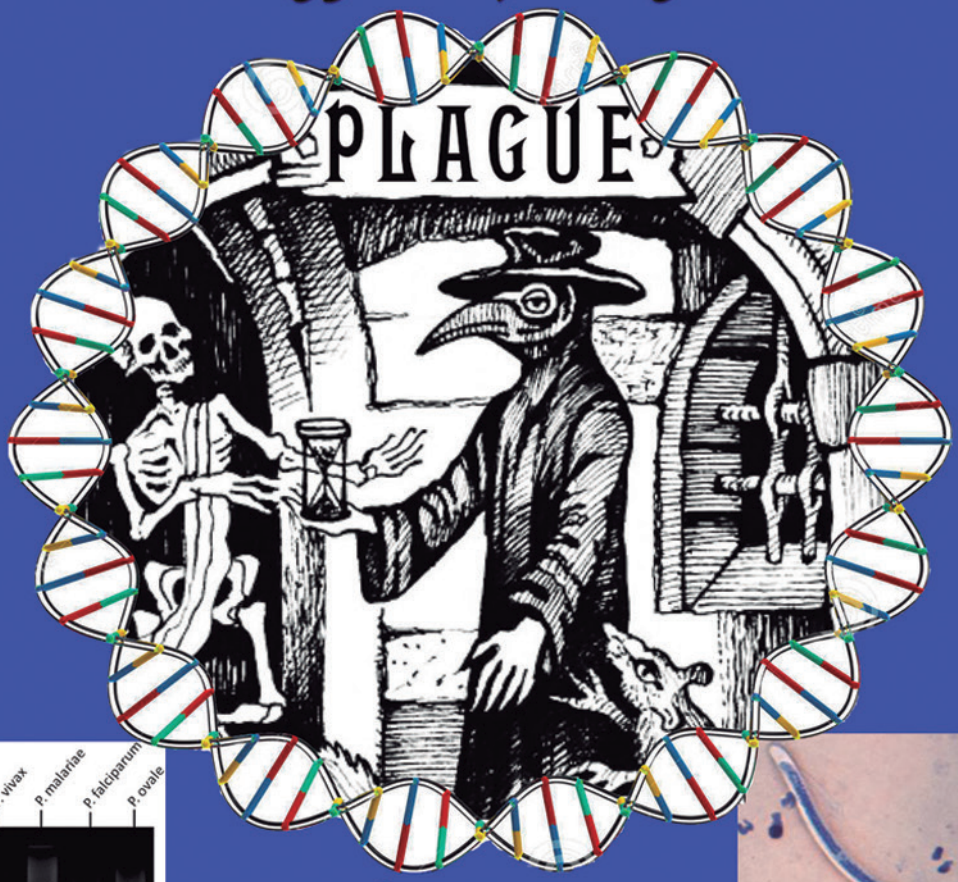
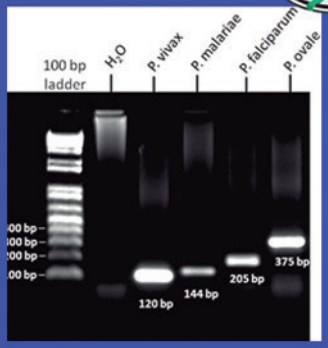
7th International SOVE Congress

New Technology Conquering Old Vectors?





October 1-7, 2017
Palma of Mallorca
Spain

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SOVE 2017

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- Book of Abstracts -

The 7th International Congress of the Society for Vector Ecology (SOVE)

Palma from 1 to 6 October 2017

Universitat de les Illes Balears

© **Edited by:** Miranda Chueca, Miguel Ángel - Alten, Bulent
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Barceló Seguí, Carlos - Borrás Borrás, David
© **Cover Design:** Van Dyke, William
© **Editorial:** Miguel Ángel Miranda Chueca
Cra. Valldemossa, km 7,5, Palma de Mallorca,
07112, Illes Balears

First published, 2017

ISBN: 978-84-697-6086-4

Culicoides monitoring in the Republic of Macedonia - Dominance of the *Culicoides obsoletus sensu lato/Culicoides scoticus* species

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Culicoides spp. are small biting midges responsible for the transmission of several arboviruses of veterinary importance, including the bluetongue virus, the Schmallenberg virus and the African horse sickness virus. Although there were two major bluetongue outbreaks in Macedonia (in 2001 and 2014), the *Culicoides* involved in the transmission were never investigated. Hence, this study aimed to determine the *Culicoides* species diversity and abundance in Macedonia. Collections were performed in 2016 on seven cattle dairy farms using OVI-light/suction traps. From May to October, the sampling was twice per month for two consecutive nights. In November and December, there was only one sampling per month and for one night only. The collected *Culicoides* were morphologically identified according to the wing patterns of the females and the genital morphology of the males. A subset of randomly selected females belonging to *Culicoides obsoletus/Culicoides scoticus* were identified to species level by PCR. Overall, 138 collections were performed and a total of 109,866 *Culicoides* were identified. The identified *Culicoides* belonged to at least 9 species: *C. obsoletus s.l./C. scoticus*, Culicoides imicola, Culicoides pulicaris, *Culicoides punctatus*, *Culicoides newsteadi*, *Culicoides circumscriptus*, *Culicoides flavipulicaris*, species of the Odibilis and Nubeculosus groups. *C. obsoletus s.l./C. scoticus* were the most abundant species (61.3%), with peak activity in June. The PCR showed a dominance of *C. obsoletus s.l.* (82.6%) may include cryptic species, over *C. scoticus* (14.7%). These results can be used as a baseline for future research and can help in identifying risk areas for *Culicoides* borne viruses in Macedonia.