NEW TECHNOLOGY
CONQUERING OLD VECTORS?
NEW TECHNOLOGY
CONQUERING OLD VECTORS?

- Book of Abstracts -

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

Palma from 1 to 6 October 2017
© Edited by: Miranda Chueca, Miguel Ángel - Alten, Bulent
© Assistant Editor: Paredes-Esquivel, Claudia -
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

This work is subject to copyright. All rights are reserved, whether the whole or part of the
material is concerned. Nothing from this publication may be translated, reproduced, stored in
a computerised system or published in any form or in any manner, including electronic,
mechanical, reprographic or photographic, without prior written permission from the
publisher.
The individual contributions in this publication and any liabilities arising from them remain
the responsibility of the authors.
The publisher is not responsible for possible damages, which could be a result of content
derived from this publication.
**Culicoides monitoring in the Republic of Macedonia - Dominance of the Culicoides obsoletus sensu lato/Culicoides scoticus species**

Aleksandar Cvetkovic¹, Ljubica Rashikj¹, Laëtitia Gardès², ³, Thomas Balenghien², ³, ⁴, ⁵, Jovana Stefanovska¹
Faculty of Veterinary Medicine, Ss. Cyril and Methodius University in Skopje, Skopje, Republic of Macedonia¹; CIRAD, UMR ASTRE, F-34398 Montpellier, France²; INRA, UMR1309 ASTRE, F-34398 Montpellier, France³; CIRAD, UMR ASTRE, Rabat, Morocco⁴; Agronomic and Veterinary Institute Hassan II, Rabat, Morocco⁵.

acvetkovic@fvm.ukim.edu.mk

*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 circumpictus*, *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.