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Development of microsatellite markers for *Ornithodoros phacochoerus* (Acari: Argasidae) in the context of the international NifNaf project

Florian Taraveau, Thomas Pollet, Carlos Quembo, H el ene Jourdan-Pineau

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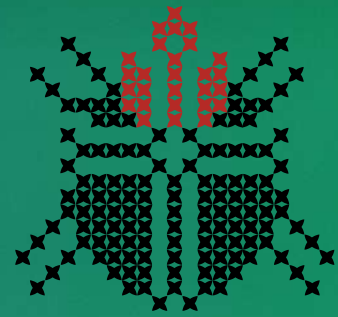
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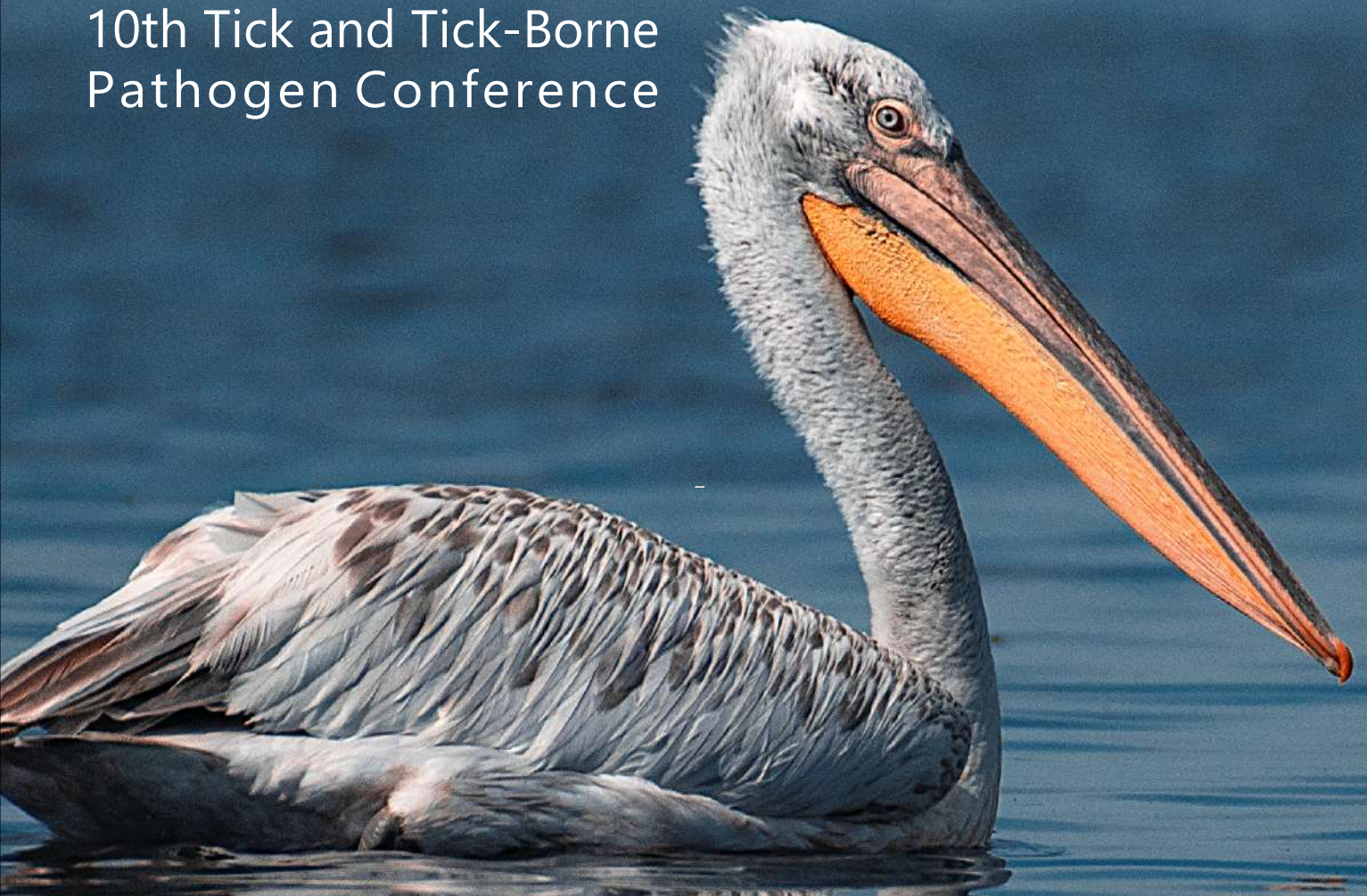


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TTP.10

10th Tick and Tick-Borne
Pathogen Conference



29 August-2 September 2022
Murighiol, Danube Delta, Romania



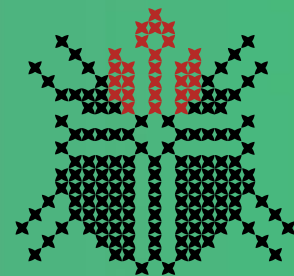
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Gold



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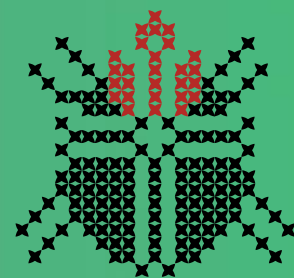


Partner



TTP.10

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POSTERS (P01-P55)



P46 Development of microsatellite markers for *Ornithodoros phacochoerus* (Acari: Argasidae) in the context of the international NifNaf project

Taraveau F¹, Pollet T², Quembo CJ³, Jourdan-Pineau H¹

¹CIRAD, UMR 117 ASTRE, Montpellier, France

²CIRAD, INRAE, UMR 117 ASTRE, Montpellier, France

³Agricultural Research Institute of Mozambique, Chimoio, Mozambique

African swine fever (ASF) is a hemorrhagic fever with high mortality in domestic pigs, and for which no vaccine nor treatment are available. Afrotropical soft ticks from the genus *Ornithodoros* are vectors of the ASF virus in the sylvatic cycle of the disease in which they transmit the virus to wild suids (warthogs and bushpigs). Contrary to domestic pigs, wild suids do not present any clinical sign when infected. Understanding how ASF virus circulates between wild suids and domestic pigs, and how soft ticks are involved, is of primary importance to predict future ASF outbreaks in Southern African countries. This is the main objective of the international NifNaf project founded by the United States Department of Agriculture (USDA). In this poster, we will present how the NifNaf project stimulates research on the role of soft ticks in the transmission of African swine fever between the sylvatic and the domestic cycles. We will briefly present the research objectives of this project in South Africa, Mozambique and Madagascar as well as the international collaborators. Then, we will focus on one objective of the project: investigating the genetic structuration of *Ornithodoros* populations in Mozambique to characterize soft tick migration. During years 2020 and 2021, around 75 warthog burrows were sampled for *Ornithodoros* ticks in the Coutada 9 reserve in Macossa district, Mozambique. A total of 20 burrows were selected for population genetics analysis and the DNA of 30 ticks was extracted for each site selected. After species identification as *Ornithodoros phacochoerus*, microsatellite markers development started using the only available genomes, from *Ornithodoros moubata* and *Ornithodoros porcinus*. In this poster, we will present the tick samplings performed in Mozambique, the development of microsatellite markers in CIRAD, France, and the objectives of the population genetics study that will use them.