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An egg is always an adventure: anthropogenic impacts on *Culex pipiens* population dynamics

Boerlijst, S.P.

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Curriculum vitae and publications

Curriculum vitae and publications

Curriculum vitae

Sam Philip Boerlijst was born on the fourteenth of July, 1995 in De Haan, Belgium. After completing his havo and thereafter vwo at the KSH of Hoofddorp in 2012, he started studying Biology at the University of Leiden. During his bachelors, he performed a scientific internship at the CML of Leiden University into the spatiotemporal distribution of eDNA for the invertebrate species *Pomacea diffusa* (Gastropoda: Ampullariidae) and *Neocaridina davidi* (Decapoda: Atyidae) under supervision of dr. Krijn Trimbos (CML). After successfully completing his BSc, he then started his MSc. Biodiversity & Sustainability in 2017. During his masters, he performed two scientific internships. The first internship concerned the development of eDNA-based molecular detection methods for Culicids in the Dutch Caribbean at Naturalis Biodiversity Centre under supervision of dr. Maarten Schrama. (CML/Naturalis) His second internship at the CML of Leiden University focused on development of a genotyping protocol complementing dietary analyses of the African lion (Carnivora: Felidae) under supervision of dr. Krijn Trimbos (CML). The successful completion of his courses and internships led to a Cum Laude (with distinction) MSc. degree in 2019.

In 2020, Sam started his PhD research into the effects of anthropogenic impacts on the population dynamics of the brown house mosquito at Leiden University, supervised by prof. dr. ir Peter van Bodegom (CML), dr. Maarten Schrama (CML) and dr. Eline Boelee (Deltares), resulting in this thesis. Sam's research was conducted as part of the One Health Predicting Arboviruses Climate Tipping points (OHPACT) project (<https://www.onehealthpact.org/>).

Sam presented his work at the NEV Nationale Entomologendag in Wageningen (the Netherlands, 2021), the 22nd European Society of Vector Ecology Conference in Sofia (Bulgaria 2022) and the Urban Spaces and Mosquitoes on a Changing Planet Conference in Barcelona (Spain, 2023). In addition, Sam's work was featured in news outlets including de Volkskrant, DeltaFact, Hortus Leiden, Leidsch Dagblad, Mare, NRC, het Parool and radio show Sleutelstad.

During his PhD research, Sam developed several open-source software and hardware projects to further ecological research, including weatherstations, thermoregulators and a Python library for automated tagging and selection of research papers. In addition, he published several manuscripts, gave public lectures and workshops and supervised a total of 12 students during their internships. Sam lectured in various courses (BSc. and MSc. level) on the topics of environmental biology, ecological field research, systems ecology and vector ecology. He also co-

founded the foundation *Save That Ass*, to support and facilitate nature education, with which he published the satirical identification guide “A Pocket Guide to Animal Asses of East Africa“, for charity. With this publication, he won CML its Stans Award 2020 for public outreach.

In May 2024, he started his position as medior researcher and advisor aquatic ecology at Deltares to investigate anthropogenic impacts on water quality and water & health.

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