

# Pest mosquitoes (Culicidae) in Luxembourg and Europe



## ***Culex pipiens* Linnaeus, 1758**

**Detection:** 1997 in Bettembourg.

**Distribution:** all over Luxembourg.

**Nuisance:** bites from nightfall throughout the night.

**Diseases:** Main vector, or carrier, of St. Louis Encephalitis, West Nile virus, Western equine encephalitis, heartworm in dogs, and bird malaria. *Cx. pipiens* can be considered a "bridge" vector as it transmits viruses between birds and mammals.



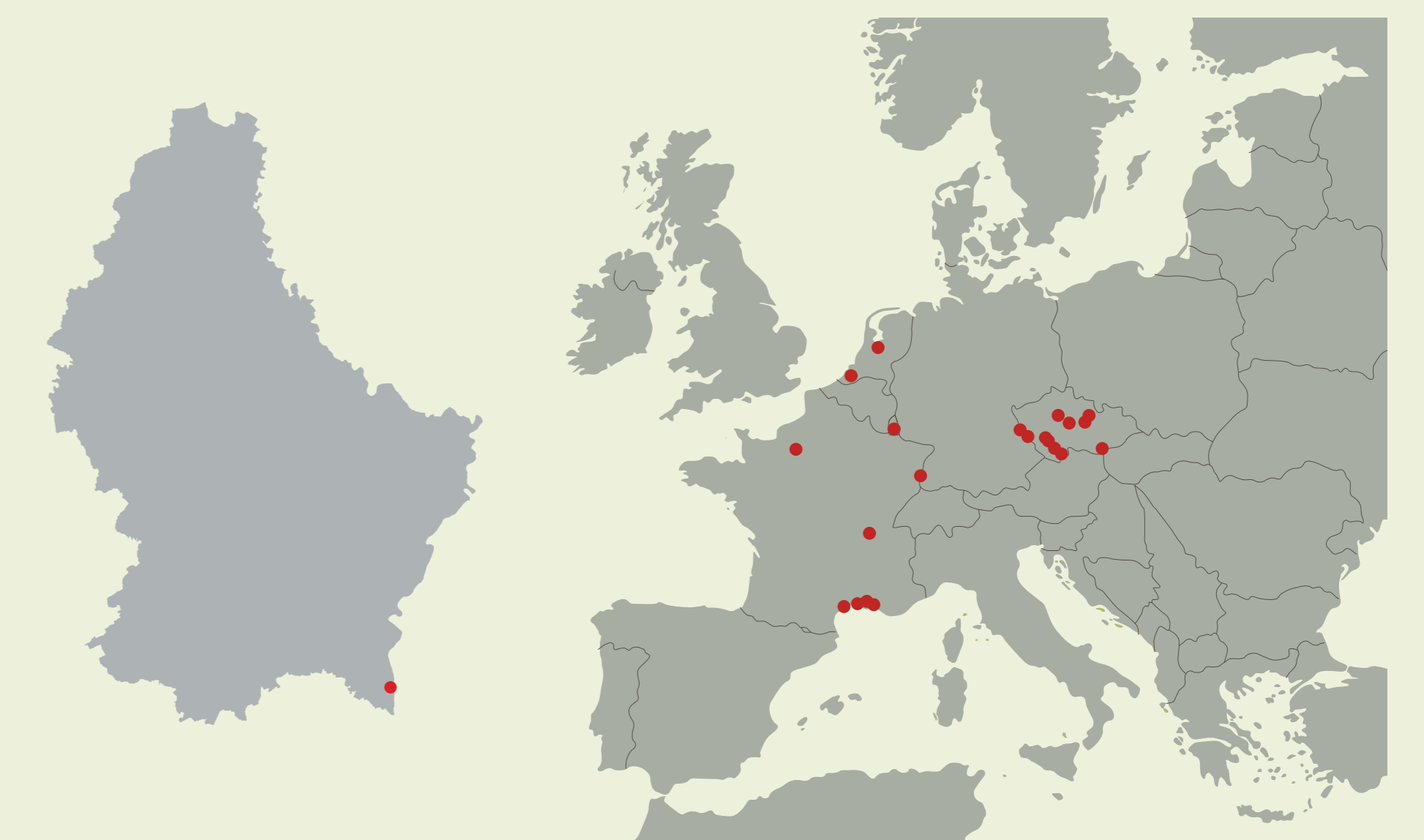
## ***Culex modestus* Ficalbi, 1889**

**Detection:** June 2019 in Remerschen, Moselle area.

**Distribution:** unknown to date in LU.

**Nuisance:** aggressive day and nightfall feeder on blood of vertebrates, especially birds, horses, and humans.

**Diseases:** Feeding on both birds and humans gives it significant potential for transmission of zoonotic infections from birds to humans, especially West Nile virus.



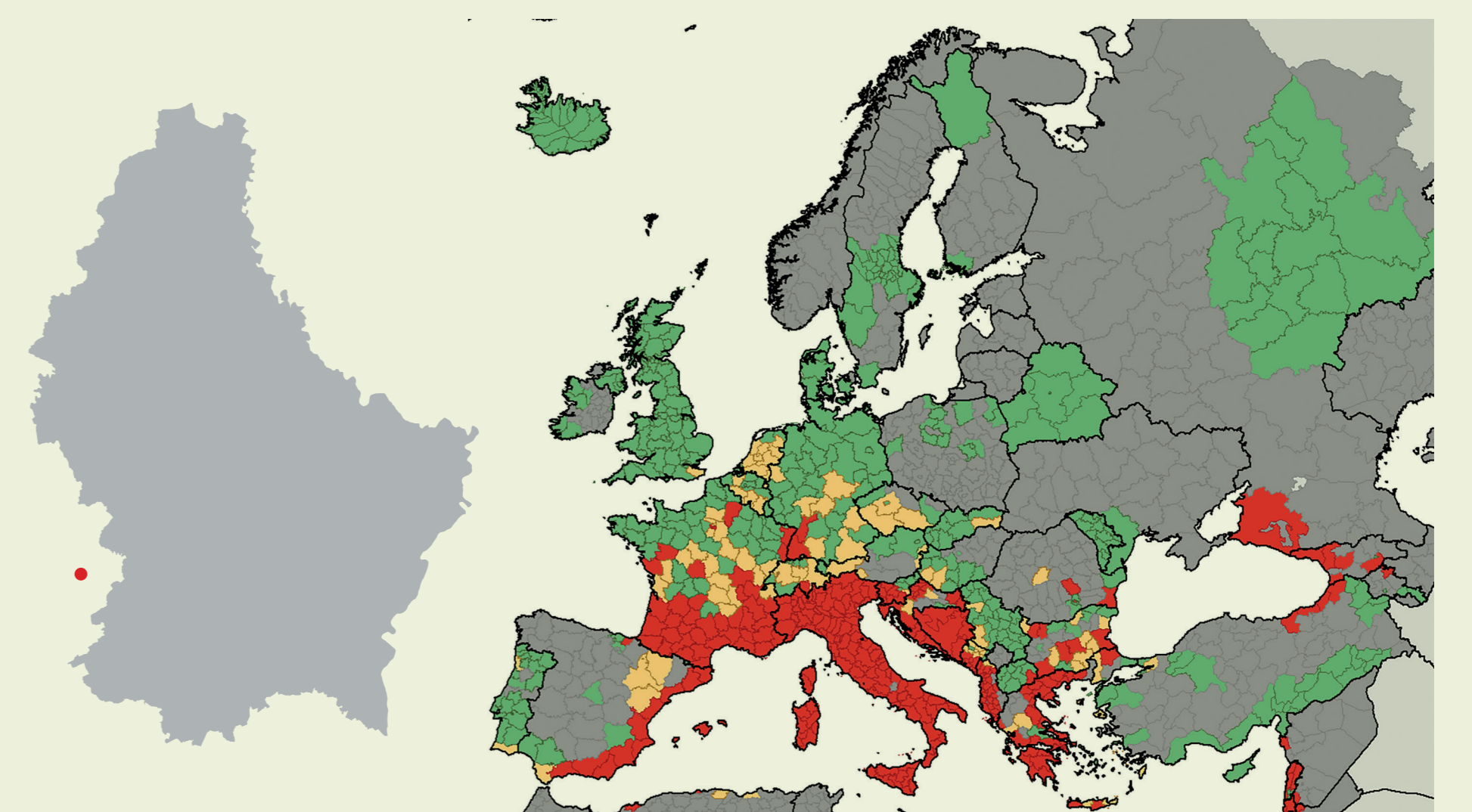
## ***Aedes albopictus* (Skuse, 1894)**

**Nearest detection:** Arlon, Belgium.

**Distribution:** unknown to date, not detected in LU.

**Nuisance:** aggressive biter; significant pest in many communities because closely associated with humans (rather than living in wetlands), and typically flies and feeds in the daytime in addition to at dusk and dawn.

**Diseases:** many viral pathogens as yellow fever, dengue, chikungunya, Zika viruses; several filarial nematodes such as *Dirofilaria immitis*.



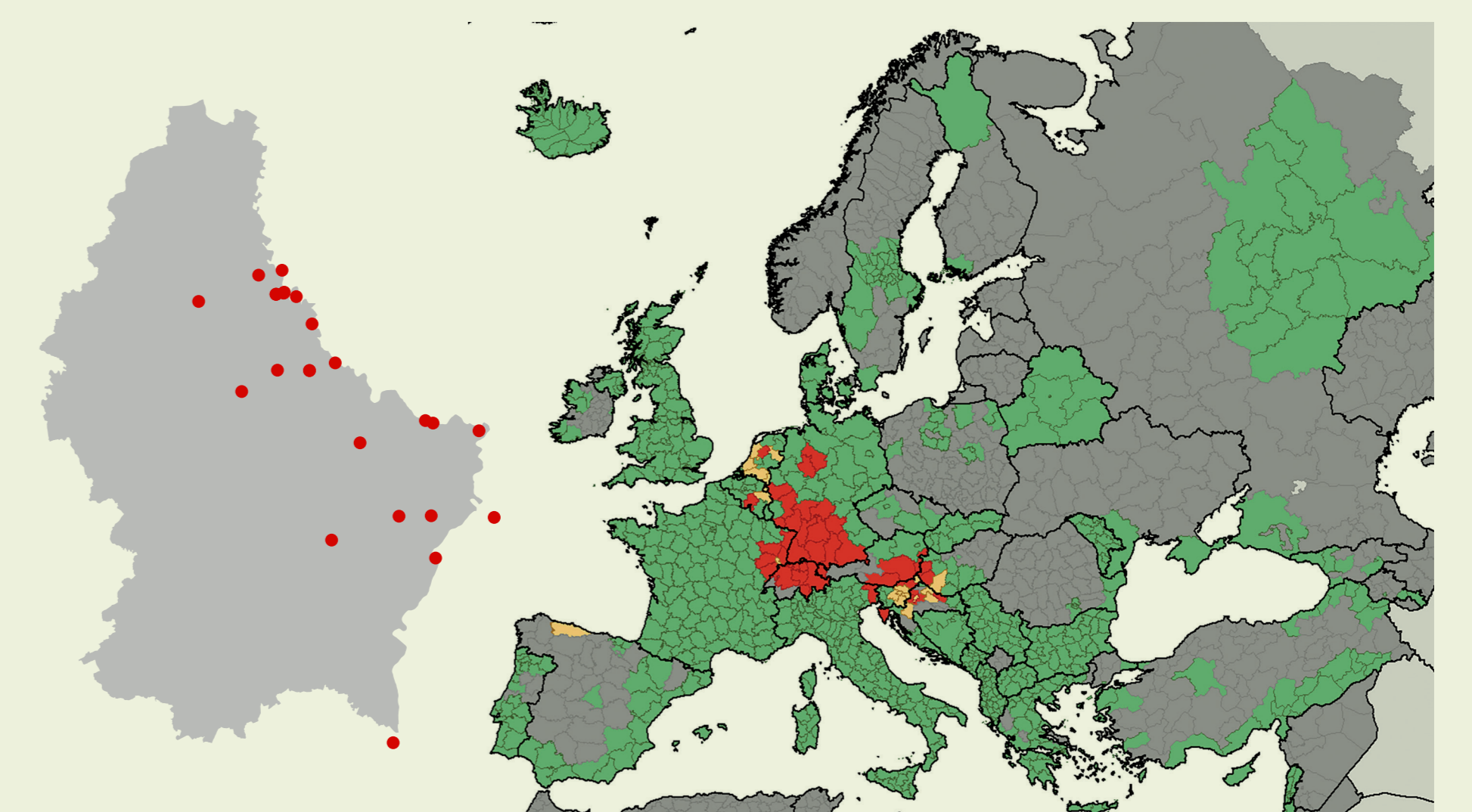
## ***Aedes japonicus* (Theobald, 1901)**

**Detection:** July 2018 in Stolzembourg, Our valley.

**Distribution:** SE of Oesling, Mullerthal and Moselle area. Invasion is going on from the East since at least 2017.

**Nuisance:** females are active during the day, increasing the potential contact this species could have with humans which in turn may result in disease transmission.

**Diseases:** vector competence for the transmission of dengue, chikungunya and West Nile virus.



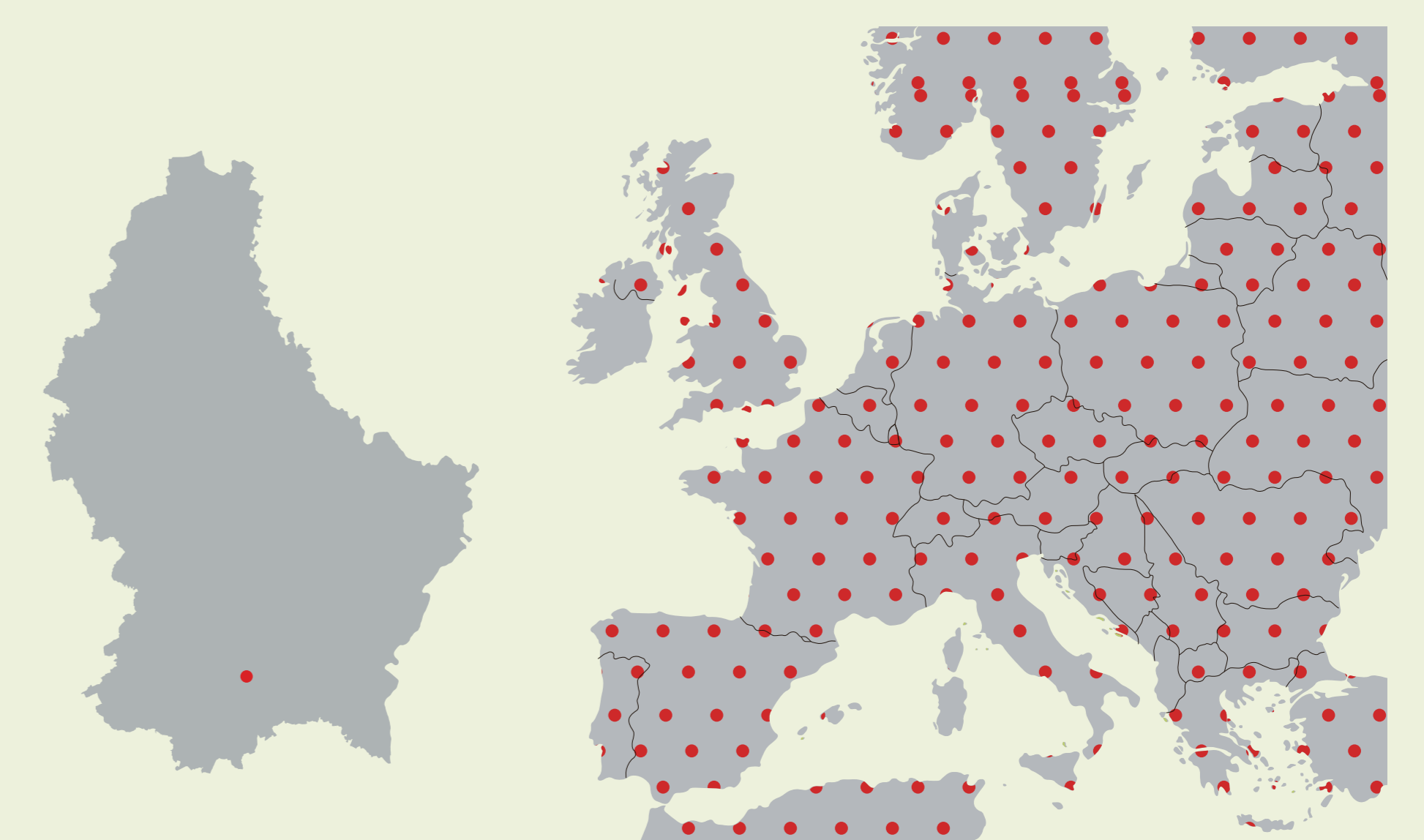
## ***Aedes vexans* (Meigen, 1830)**

**Detection:** 2016 in Kockelscheuer.

**Distribution:** unknown to date in LU.

**Nuisance:** aggressive nightfall human biter.

**Diseases:** vector of dog heartworm (*Dirofilaria immitis*), myxomatosis, Tahyna virus that can cause encephalitis or meningitis.



Citation: Ries, C. & F. Schaffner, 2019. Nuisance mosquitoes (Culicidae) of Luxembourg. Poster for the 12th edition of the Science Festival from 7-10 November 2019. Luxembourg: Musée national d'histoire naturelle (MNHNL), Direction de la santé (MS), Département de l'environnement (MECDD).

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Maps: LU: Paul Braun, mdata.mnhn.lu. Europe: a. DOI: 10.1111/mve.12024 | b. alchetrone.com | c. d. ecdc.europa.eu - red = established, orange = introduced, green = absent | e. DOI: 10.2903/sp.efs.a.2013.EN-412

For more information about mosquitoes in Luxembourg, see <https://mosquitoes.lu>

Layout: Karin Scholtes, Luxembourg National Museum of Natural History (MNHNL).



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