

Citizen Science for policy: the tiger mosquito in Belgium

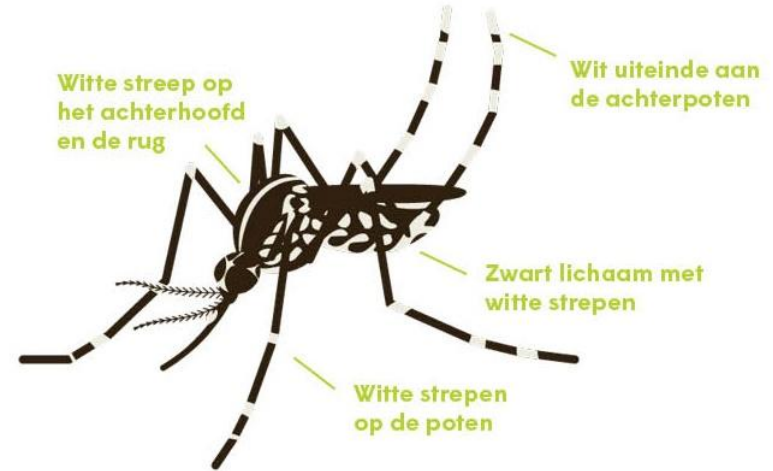
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SCIVIL Netwerkdag 28 September 2026

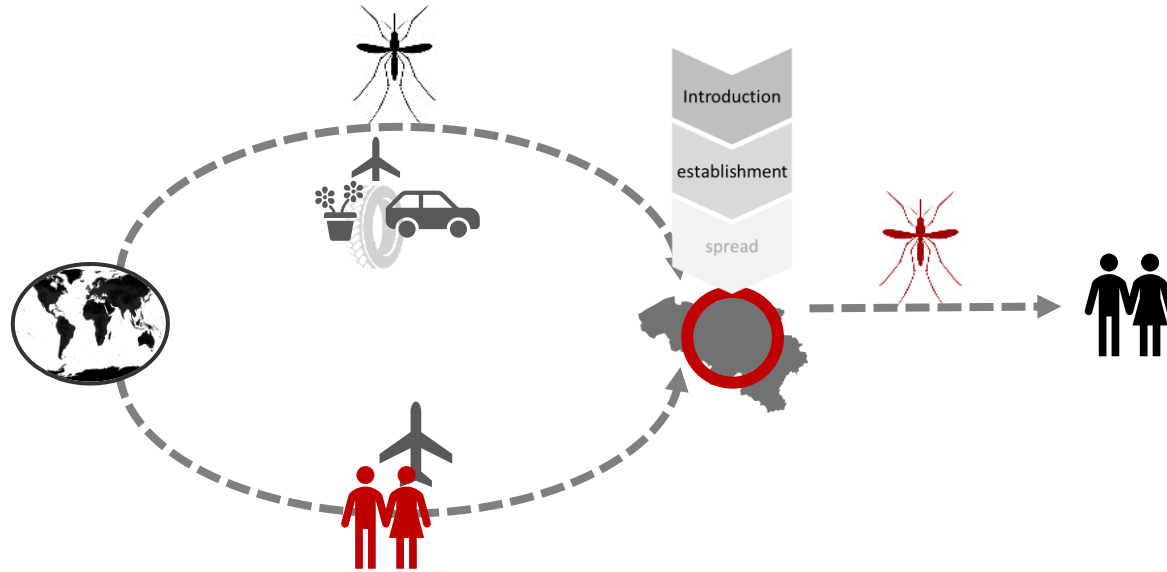


The tiger mosquito | why we don't want them?

- Biting nuisance during the day
- Carrier (vector) of tropical viruses such as dengue, chikungunya and Zika viruses



The tiger mosquito | why we don't want them?



The tiger mosquito | spread in Europe

■ Originates from Southeast Asia

■ Notifications in Europe

■ Albania in late 1970s

■ 1990-2018 mainly around
Mediterranean

■ Spreading northwards



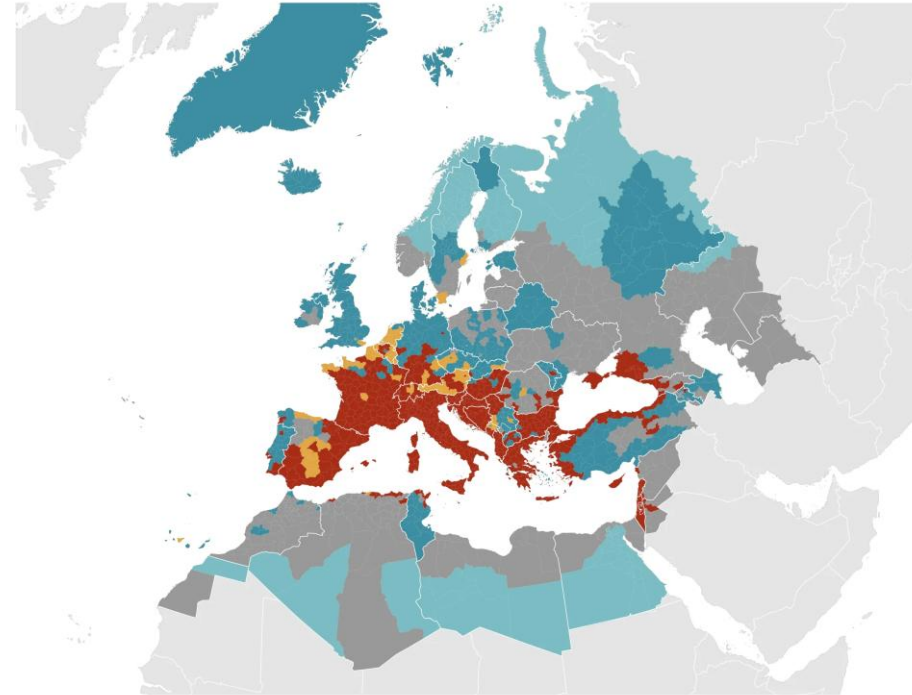
Invasive status



Areas not visible at the current scale



Aedes albopictus - current known distribution: April 2026



Administrative boundaries: ©EuroGeographics ©UN-FAO. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union. Map produced on 01 June 2026. Data presented in this map are collected by the VectorNet project (VectorNetData.org). Maps are validated by experts prior to publication. Please note that the depicted data do not reflect the official views of the countries.

The tiger mosquito | change of introduction pathways

■ First observation in Belgium

- 2000 link to international tyre trade

■ Observations of introduction

- 2000-2018: trade in plants and tyres
- 2018: along motorways
- 2022: **start of citizen science**

Journal of the American Mosquito Control Association, 20(2):201–203, 2004
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SCIENTIFIC NOTE

FIRST RECORD OF *AEDES (STEGOMYIA) ALBOPICTUS* IN BELGIUM

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Source: ITM



Source: ITM



Source: Eritja et al. 2017. Sci Rep 7: 14399

Vector surveillance and control | NEHAP

■ National Environment-Health Action Plan (NEHAP).

- Coordinating the Belgian approach in both environment and health
- Ensuring overall coordination between the different levels of government

■ Members

- **Federal:** FPS Public Health (Environment and Health)
- **Flanders:** Department Omgeving (Environment) and Department Zorg (Health)
- **Wallonia:** Public Service of Wallonia (Environment) and Agence wallonne pour une vie de qualité (Health)
- **Brussels:** Bruxelles Environnement (Environment) and Vivalis (Health)
- **German-speaking Community:** Ministry of the German-speaking Community (Health)



2024010553



Federale Overheidsdienst Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu

Protocolakkoord tussen de Federale Regering, de Vlaamse Gemeenschap, de Duitstalige Gemeenschap, de Gemeenschappelijke Gemeenschapscommissie, de Franse Gemeenschapscommissie, het Vlaams Gewest, het Waalse Gewest, het Brussels Hoofdstedelijk Gewest, inzake de organisatie en financiering van de surveillance van exotische steekmuggen van 2024 tot 2029 in het kader van het nationaal samenwerkingsakkoord leefmilieu-gezondheid en het programma NEHAP III

Overwegende de Europese Richtlijn 2014/24/EU van het Europees Parlement en de Raad van 26 februari 2014 betreffende het plaatsen van overheidsopdrachten en tot intrekking van Richtlijn 2004/18/EG, artikel 12, § 4;

Gelet op de artikels 35, 38, 39, 128, 130, 135, 136, 137 en 138 van de Grondwet;

Gelet op de bijzondere wet van 8 augustus 1980 tot hervorming der instellingen, artikel 5, § 1, I., 8°, gewijzigd bij de bijzondere wet van 6 januari 2014, en artikel 92bis, § 1, § 5 en § 6;



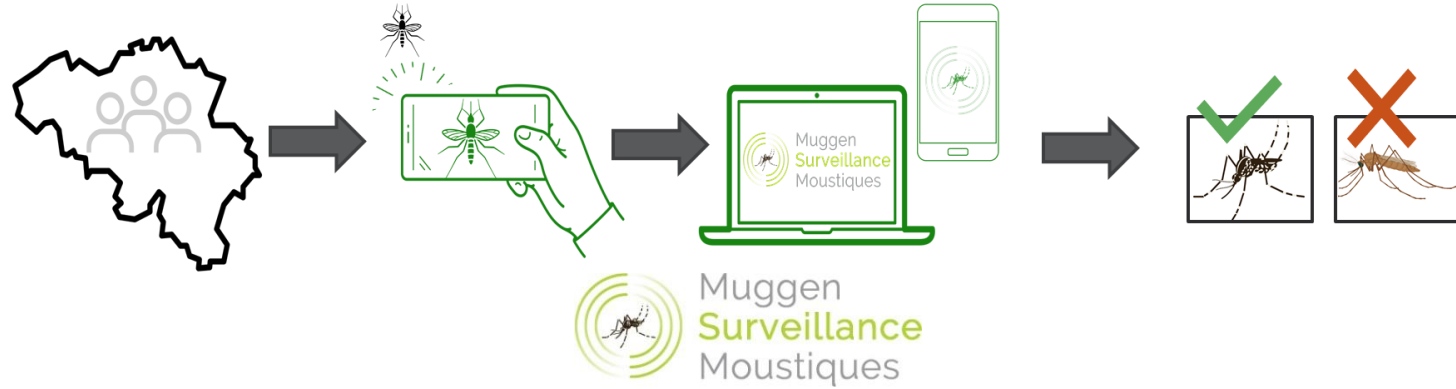
Een burgerplatform voor toezicht op en rapportering over de tijgermug in België

Denk je dat je een tijgermug hebt gezien?

MELD EEN TIJGERMUG

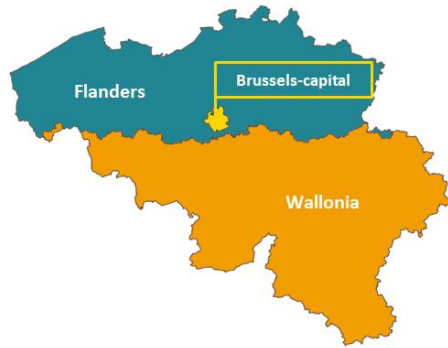


Mosquitosurveillance.be | different steps



- Inspection after notification
- Longitudinal follow-up in selected sites
- Ad hoc inspections

Vector surveillance and control | actors



- **National (via NEHAP)**
 - Exotic mosquito surveillance
- **Regional authorities for health and environment**
 - Prevention and control
- **Municipalities**
 - Communication with citizens

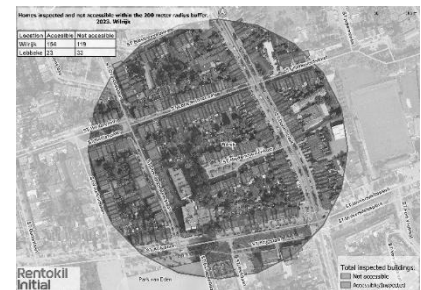


Campagne steekmuggen

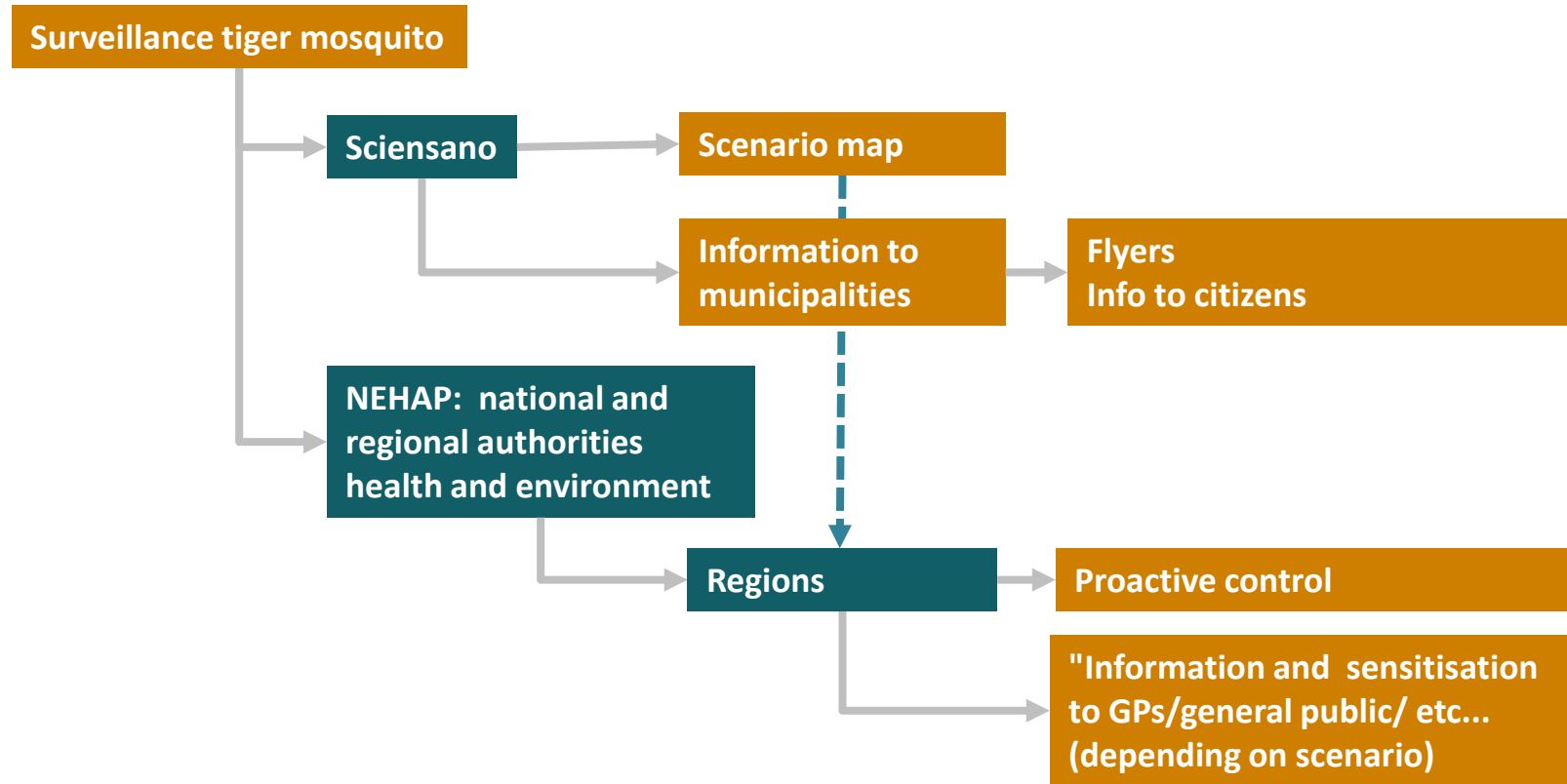
Wees muggen een steek voor!



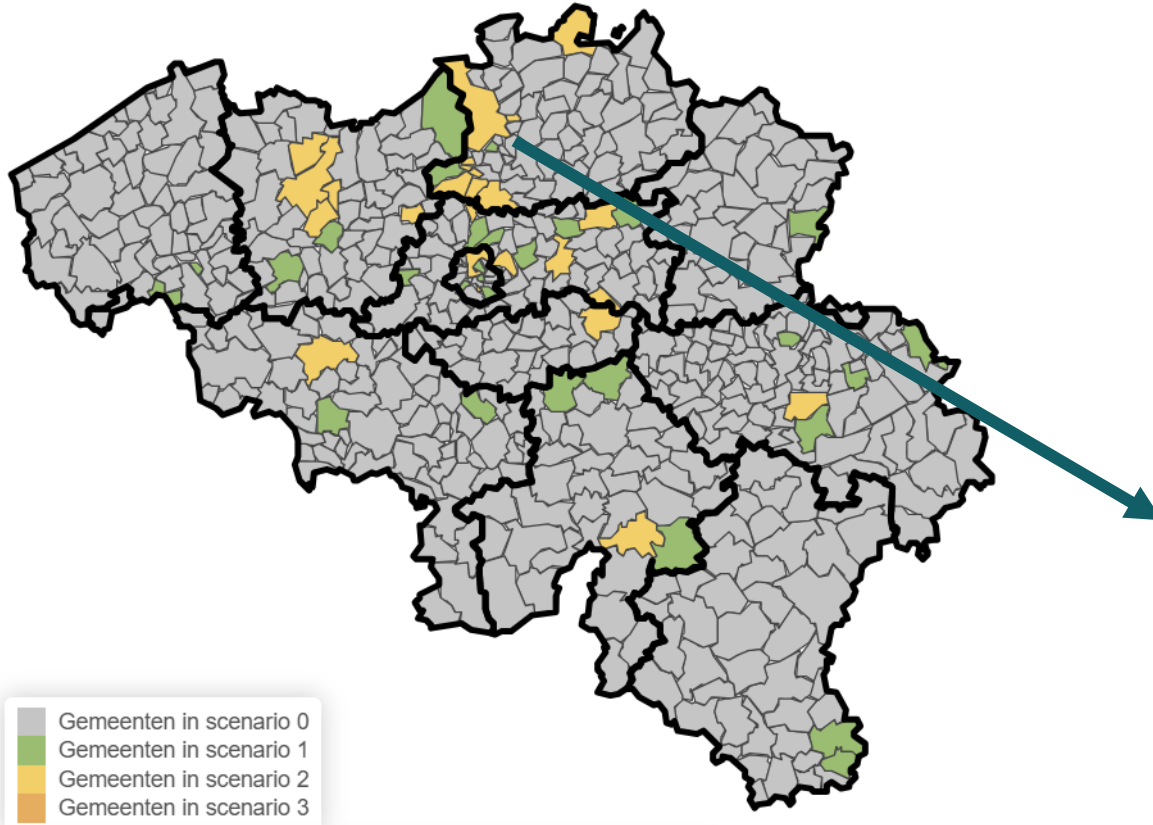
Door-to-door treatments



Vector surveillance and control | information flow



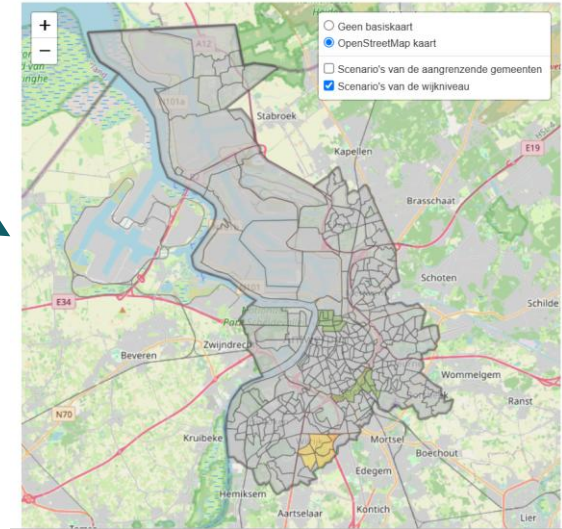
The current situation | scenario map



Scenario Beschrijving

0	Geen melding van de tijgermug maar risico op introductie.
1	Melding van de tijgermug.
2	Vermoedelijke lokale overwintering (populatie die de winter kan overleven) en lokale vestiging van de tijgermug.
3	De tijgermug is wijd verspreid in het gebied.

Antwerpen



Discussion and conclusion

- Tiger mosquito is a growing problem in Belgium
- Ground traffic is the primary import pathway
- Surveillance at national level : muggenssurveillance.be
- Citizen Science & field assessment by entomologist
- Data for action
- Limitations

Acknowledgements



Mugge
Surveillance
Moustiques



Funding



Partners





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