

#### French organisation for vector control

Conference on vector control, Bologna, 18/11/22

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#### Tiger mosquito arrived in France from Italia in 2004







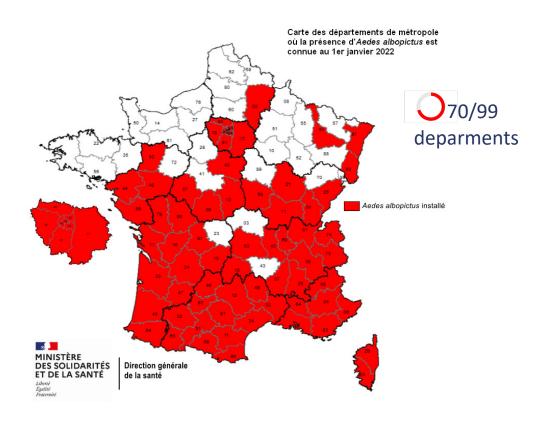
## Tiger mosquito expansion year after year





## Tiger mosquito presence in 2022







# What is the French organisation for vector control?

- 1. Mosquito tiger surveillance
- 2. Vector Control Information System (SI) "SI-LAV"
- 3. The vector control actors and their responsabilities
- 4. Vector control management around arboviroses cases



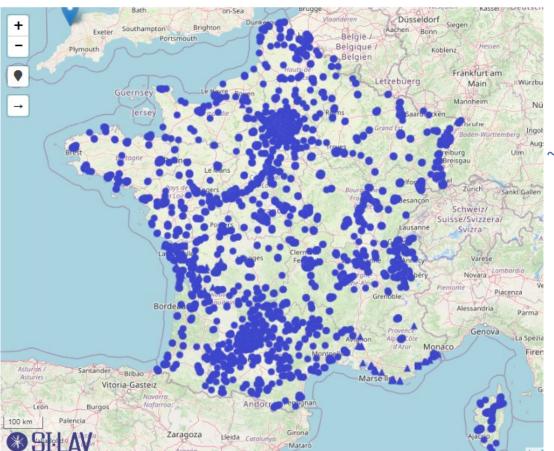
## 1. Mosquito tiger surveillance



GT vecteurs 6 07/07/21

### **Active surveillance with laying traps**







~ 5-6,000 traps

## The Citizen Science Project 'Signalementmoustique'



#### The website objectives



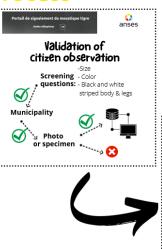




#### The reporting process











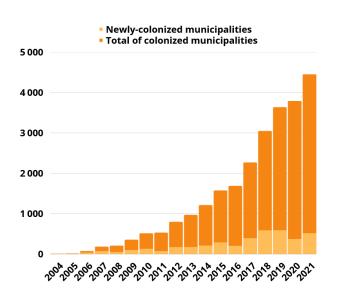


## The Citizen Science Project 'Signalementmoustique'

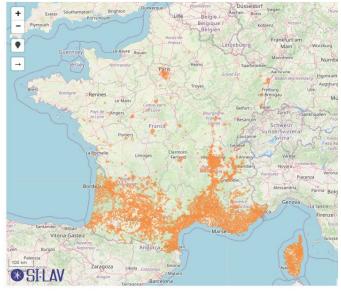


www.signalement-moustique.fr

#### Surveillance data



#### 2022





4,259 municipalities colonized

~ 40% population exposed







GT vecteurs 07/07/20

#### **SI-LAV** objectives



- to follow the implementation of operational activities in vector control



- to facilitate rapid decision-making by vector control services and health authorities in order to reduce the incidence of vector-borne diseases
- to facilitate the exchange of information between the various vector control partners
- to harmonize practices
- to follow social communication activities

### **Vector Control Information System**



- mosquito tiger reports;
- follow-up to reports from individuals

- laying traps location ;
- results of the trap survey;
- results of peridomiciliar entomological surveys;
- results of monitoring at entry points...



- vector control

   interventions around
   contamination, passage
   and stay places of human
   arboviroses cases;
- insecticides (quantities, products...)
- social mobilization actions...

- early symptoms date;
- confirmation date;
- contamination, passage and stay places ...

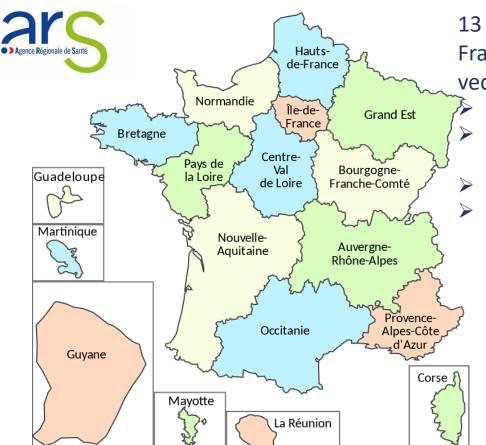


3. The vector control actors and their responsabilities



## Regional Health Agency (= ARS)





13 ARS in mainland France in charge of vector control:

- surveillance
  - vector control actions
- social mobilization
  - implementation of operational activities on vector control in SI-LAV

# Public and private mosquito control operators





2022 : 31 different operators consult and fill in the information system (SI-LAV) (for treatment + surveillance)

## **Municipalities**













- > to inform the population about the preventive measures
- ➤ to set up in urbanized areas a program to identify, treat and control public sites likely to facilitate the development of insect vectors
- to integrate a component relating to vector control within the communal safeguarding plan, in case of vector-borne disease epidemics
- ➤ to prescribe to citizens the necessary actions to combat the unsanitary conditions of insect vector development in urbanized areas
- to nominate a technical referent to coordinate and participate in vector control actions

#### Vector control actors at national level



Vector control regulation



Epidemiological surveillance



- Applications for marketing authorisation (MA) of biocidal products are assessed by Anses (Regulation (EU) n° 528/2012)
- Expert appraisal work on vectors & vector control



# 4. Arbovirus surveillance



#### **Arbovirosus surveillance**

Notification of dengue, chikungunya, Zika is mandatory

The surveillance is enhanced from May to November

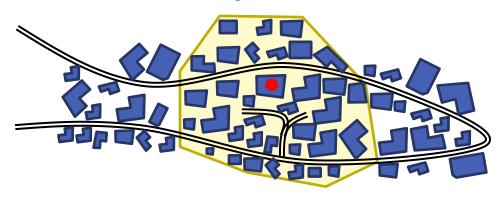


Epidemiological investigations are carried out for each case, whether imported or autochthonous.

The regional Health Agency set up a survey in order to know all the contamination, passage and stay places of human imported cases of arbovirosus

#### **Epidemiological surveys**

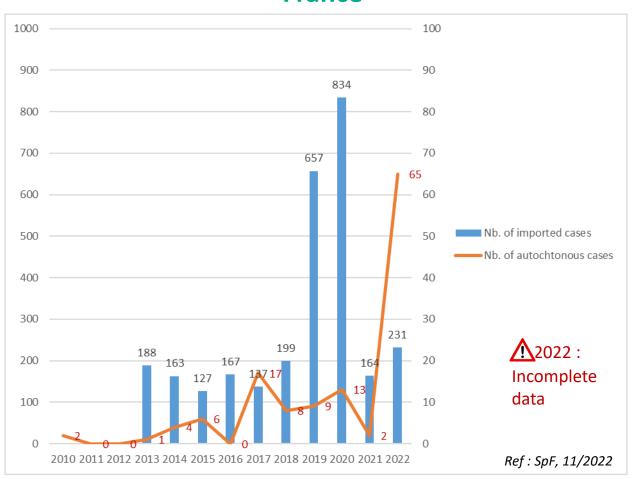
In case of a confirmed case, the Regional Health Agency, in coordination with the regional French Public Health Institute (Sp France), set up an active case search in a perimeter of 150 m around the home of the indigenous case.



These surveys are carried out in parallel with entomological investigations and may include, depending on the case :

- a door-to-door investigation
- an information campaign for health professionals and the population of the areas surveyed
- a survey of health professionals in the areas surveyed
- a retrospective case research

## Epidemiological data for dengue fever in mainland France





5. Vector control management around arboviroses cases



#### **Treatments**

The intervention around the cases includes an entomological prospecting investigation to identify the presence or not of the vector at the places of supposed contamination, stay or passage of the patient during his period of viremia, with the exception of those where the presence of the vector is already proven.



Mosquito control operators look for traces of the presence of tiger mosquitoes that could have bitten the patient and become infected in turn.



If there is mosquito tiger within a radius of 150m around the person's place, vector control treatment will be carried out on this area, in order to kill the mosquitoes present which could then be in the infection phase, before they would be able to contaminate other people.

→ The objective of these treatments is to control the risk of an epidemic by interrupting the circulation chain.

#### **Conclusion**

The French surveillance system appears to be sensitive & efficient

Which sustainability in a context of multiplication of transmission events?

→ Continuous adaption of preparedness and response to arbovirus-related risks.

Promotion of main stakeholder involvement is necessary to:

- (i) increase social mobilization
- (ii) consolidate the network of reporting laboratories
- (iii) raise awareness among patients to seek medical consultation for influenzalike illness without respiratory symptoms
- (iv) drive health professionals to the diagnosis and reporting of arboviral diseases.





<u>Décret n° 2019-258 du 29 mars 2019 relatif à la prévention des maladies vectorielles - Légifrance (legifrance.gouv.fr)</u>

Arrêté du 23 juillet 2019 relatif aux modalités de mise en œuvre des missions de surveillance entomologique, d'intervention autour des détections et de prospection, traitement et travaux autour des lieux fréquentés par les cas humains de maladies transmises par les moustiques vecteurs - Légifrance (legifrance.gouv.fr)

INSTRUCTION N° DGS/VSS1/2019/258 du 12 décembre 2019 relative à la prévention des arboviroses - Légifrance (legifrance.gouv.fr)

Loi n° 64-1246 du 16 décembre 1964 relative à la lutte contre les moustiques



## Thank you for your attention

