



## The monitoring of *Aedes albopictus* in Emilia-Romagna (Italy)

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### INTRODUCTION

Starting in the 2008 the Public Health Department of Emilia-Romagna promoted the Regional plan for the Asian Tiger mosquito control and the prevention of Chikungunya and Dengue fever, including a monitoring network.

Monitoring by means of ovitraps is an indirect surveillance method that can provide quantitative information about the adult population size.

Since the first detection of the Asian Tiger Mosquito in Emilia-Romagna in 1994 the system of entomological surveillance has been improved, and the outbreak of Chikungunya fever occurred on August 2007 made a significant stimulus to this development.

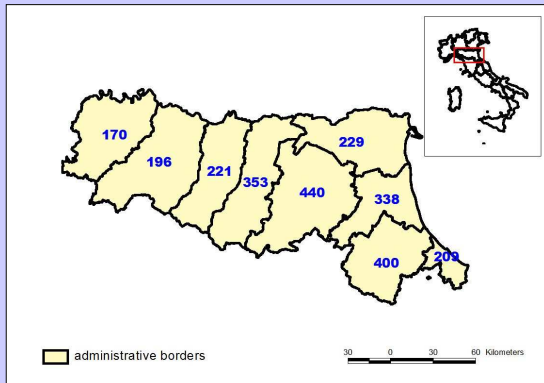


Figure 1. Ovitrap distribution in the nine Emilia-Romagna Region provinces (2009)

### RESULTS AND DISCUSSION

The evolution of the surveillance system occurred in the Emilia-Romagna has allowed the development of a uniform methodology for the control of the Asian Tiger Mosquito.

The implemented monitoring system has proved to be an efficient tool in order to obtain a quantitative estimate of the vector population size.

In 2009 the enhancement of a homogeneous line of work has provided data comparable from different areas of the Region.

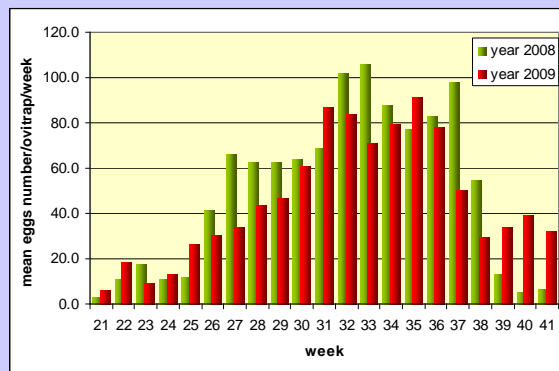


Figure 2. Mean eggs trend comparison between 2008 and 2009 monitoring season



### MATERIALS AND METHODS

In the 2007 monitoring plan (before the outbreak of Chikungunya fever) about 1,600 ovitraps were placed in the Emilia-Romagna Region.

After the epidemic, the monitoring was extended, with the aim of collecting homogeneous data that could provide quantitative information over large areas such as all the provinces and the major urban centres.

Besides the entomological surveillance system, health surveillance was strengthened. Before the 2007 outbreak, every suspected case had to be reported to Health Authority and a case was defined suspected if the person had the clinical symptoms and had travelled, in the previous 15 days, abroad in a country where Chikungunya or Dengue were endemic. In 2008 the system of mandatory reporting of suspected cases, during the seasonal activity of the vector, was based on the only presence of clinical symptoms without taking into account previous travels.

Since 2008 the monitoring has been conducted with a standardized methodology and well-defined protocol. In 2008 and 2009, 2,741 and 2,606 ovitraps, were placed respectively.

In 2010 we plan to move from a weekly check to a 14 days check, placing about 2,900 ovitraps.



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The *Aedes albopictus* control program has been supported over the years by a widespread communications campaign with the aim of increasing public awareness and encouraging citizens and local community participation.

### ACKNOWLEDGMENTS

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