

# AEDES AEGYPTI: ENVIRONMENTAL INSPECTION FOR PROMOTING A SAFE WORK ENVIRONMENT IN AN OIL INDUSTRY IN BAHIA, BRAZIL

Lilian Monteiro Ferrari Viterbo<sup>1,2</sup>, André Santana Costa<sup>2</sup>, Diogo Guedes Vidal<sup>1,3</sup>, Maria Alzira Pimenta Dinis<sup>1</sup>

<sup>1</sup>UFP Energy, Environment and Health Research Unit (FP-ENAS), University Fernando Pessoa, 4249-004 Porto, Portugal;

<sup>2</sup>Universidade Corporativa, 41745-002 Bahia, Brazil;

<sup>3</sup>CNPq Research Group "Dynamics of neuro-musculo-skeletal System", Bahiana School of Medicine and Public Health, 40290-000 Bahia, Brazil

## INTRODUCTION

Several technologies have been developed as alternatives in the control of *Aedes aegypti*, using different mechanisms of action and techniques, such as social measures, selective infestation monitoring, insecticide dispersion, new chemical and biological control agents and molecular procedures for mosquito population control. Risk mapping stands out as a promising strategy designed to assess and identify areas of increased risk for arboviral transmission in certain territories using local spatial statistics. By relating spatial data with data from entomological surveillance (characteristics, presence, infestation rates, evaluation of control methods effectiveness), epidemiological surveillance, laboratory network and sanitation, specific vector control actions are directed to priority areas.

## OBJECTIVES

This study relates to environmental inspections to control *Aedes aegypti*, vector-borne disease (VBD), proliferation in the working environment of an oil industry in Bahia, Brazil, during 2018, by interrupting its life cycle.

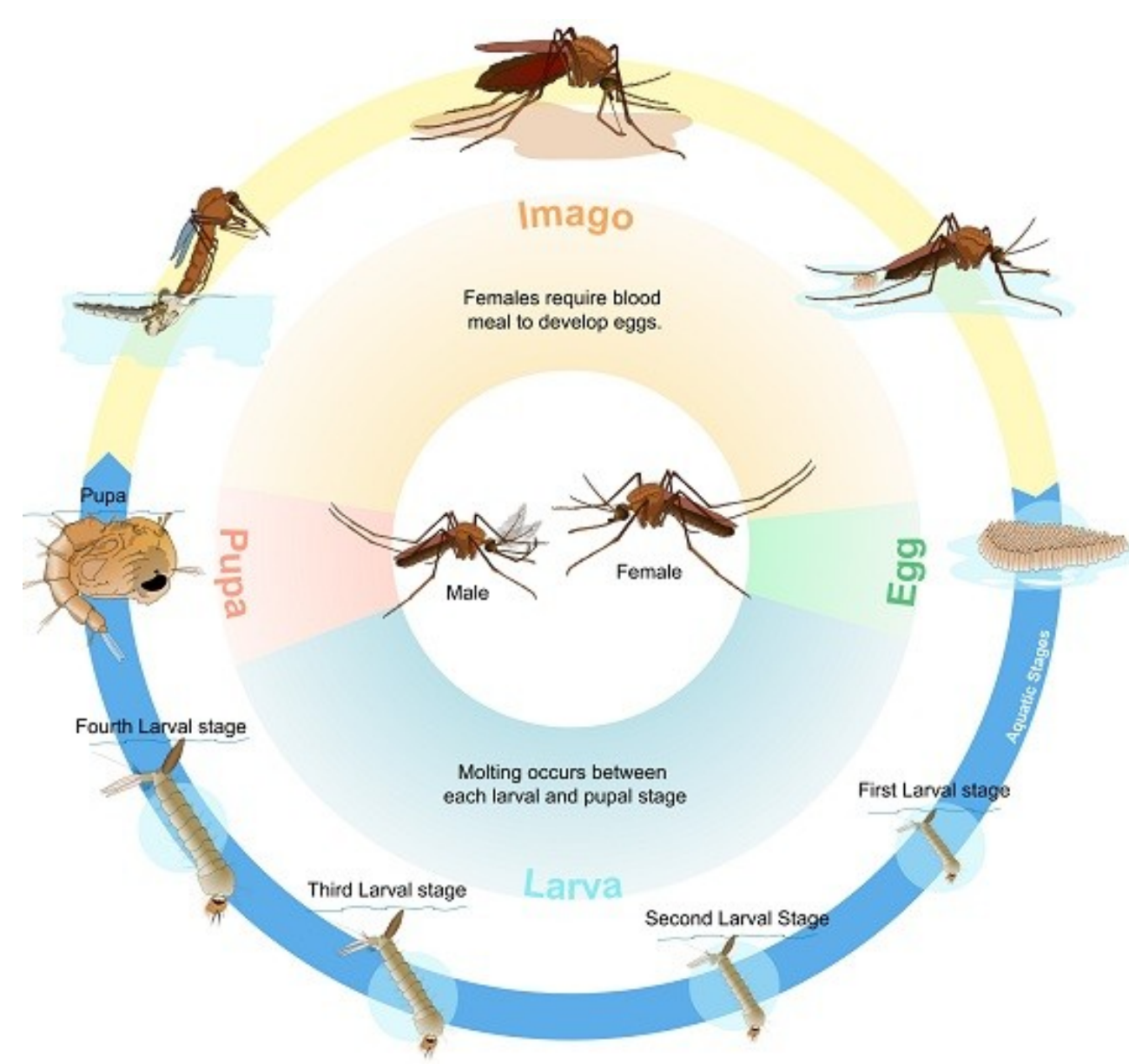


Figure 1 - *Aedes aegypti* life cycle

## METHODS

Inspection technology was used to identify environmental and occupational risk factors on a scale of 0 to 4 indexes. Semi-annual inspections at 66 workplaces were carried out by environmental health specialists (*Mean* = 2 hours).

## RESULTS

Table 1 presents the results of the environmental inspections in the first and second semester, respectively.

Table 1 - Application of the questionnaire for environmental and occupational risk survey.

Index	I Semester	II Semester
0 - Sites with VBD proliferation	33%	24%
1 - Suitable sites for VBD proliferation (high vegetation, accumulation of water or larvae presence)	65%	72%
2 - Disorganized areas and/or presence of disused or unfamiliar to the environment objects	2%	2%
3 - Clean, organized areas without water accumulation, free of disused or unfamiliar to the environment objects and without sites favourable for VBD proliferation	2%	2%
4 - Same as in index 3, but monthly schedule of inspections	0%	0%

Collective actions were carried out to treat the identified risks, namely the elimination of containers with water or larvae presence and worker awareness campaigns. The number of sites with larvae was reduced in 70.5 %.

## CONCLUSIONS

Preliminary results of assessments show that investing in actions to identify environmental risks in the work context has positive effects on the health of workers, with the development of healthy environmental practices, contributing to global well-being.

## KEYWORDS

Environmental inspection, Vector-borne diseases (VBD), work environment, oil industry, *Aedes aegypti*.

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