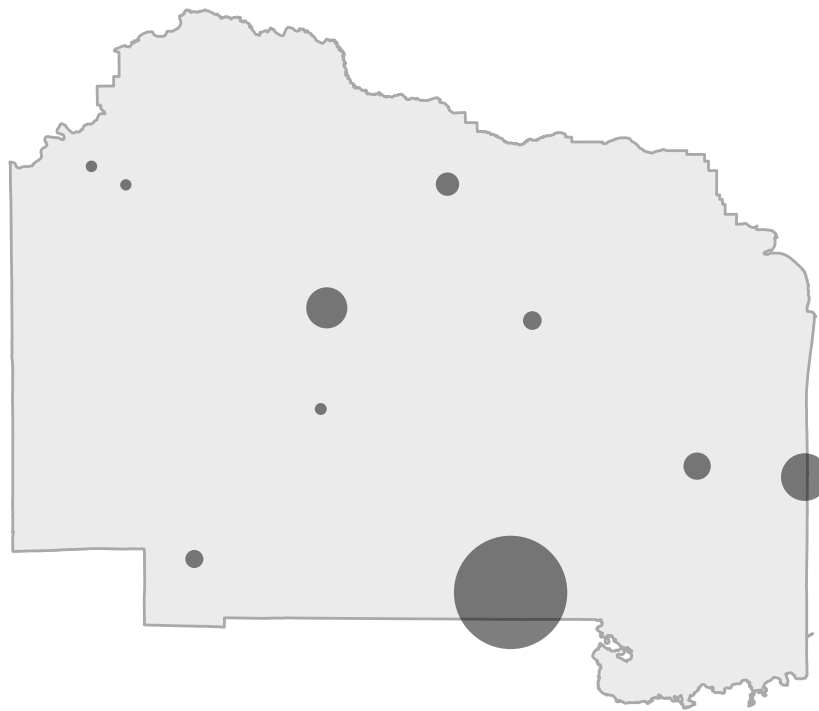


Weekly Mosquito Surveillance and Forecast Report

Florida Department of Health in Alachua County

Contents

Overview	2
Historical perspective	3
Disease details	4
Forecast	5
Model details	6

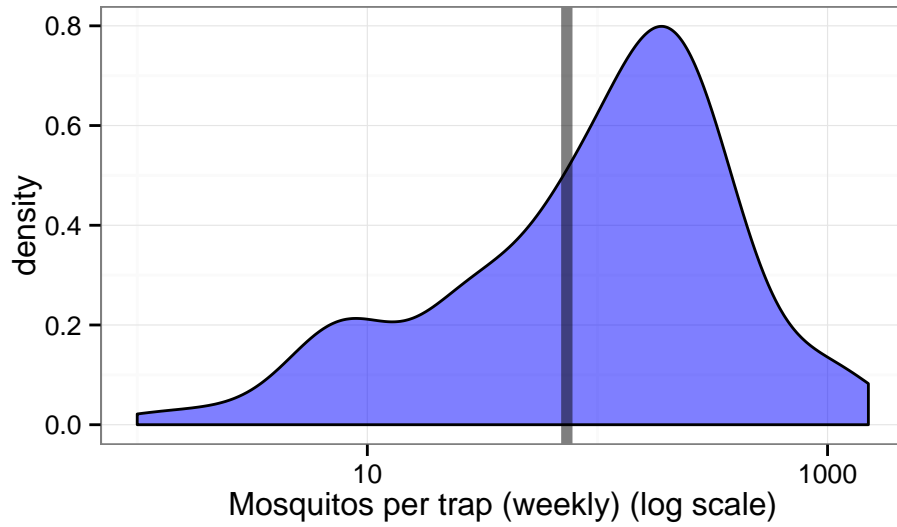


Joe Brew
Ben Brew
Yoni Teitelbaum

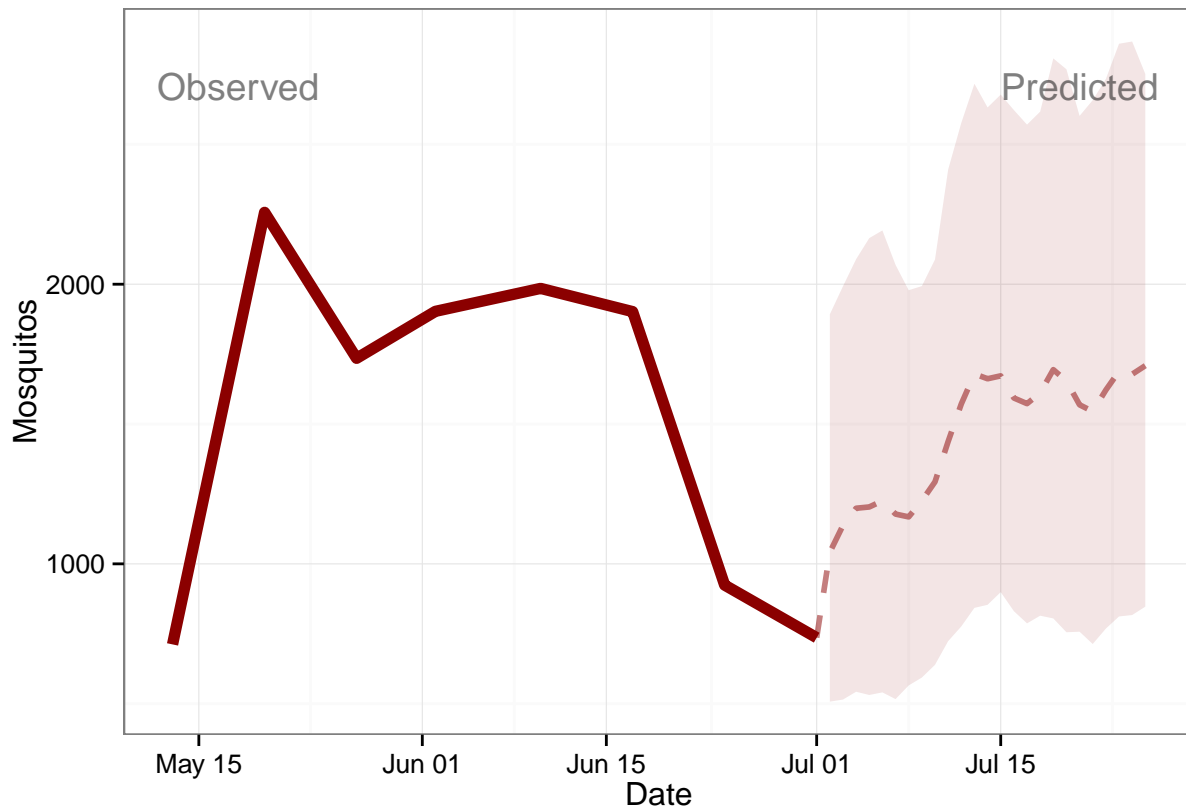


Overview

The most recent trap collection was on July 01, 2015. The 736 mosquitos trapped (approximately 74 per trap) is at the 36 percentile of all historical trappings.

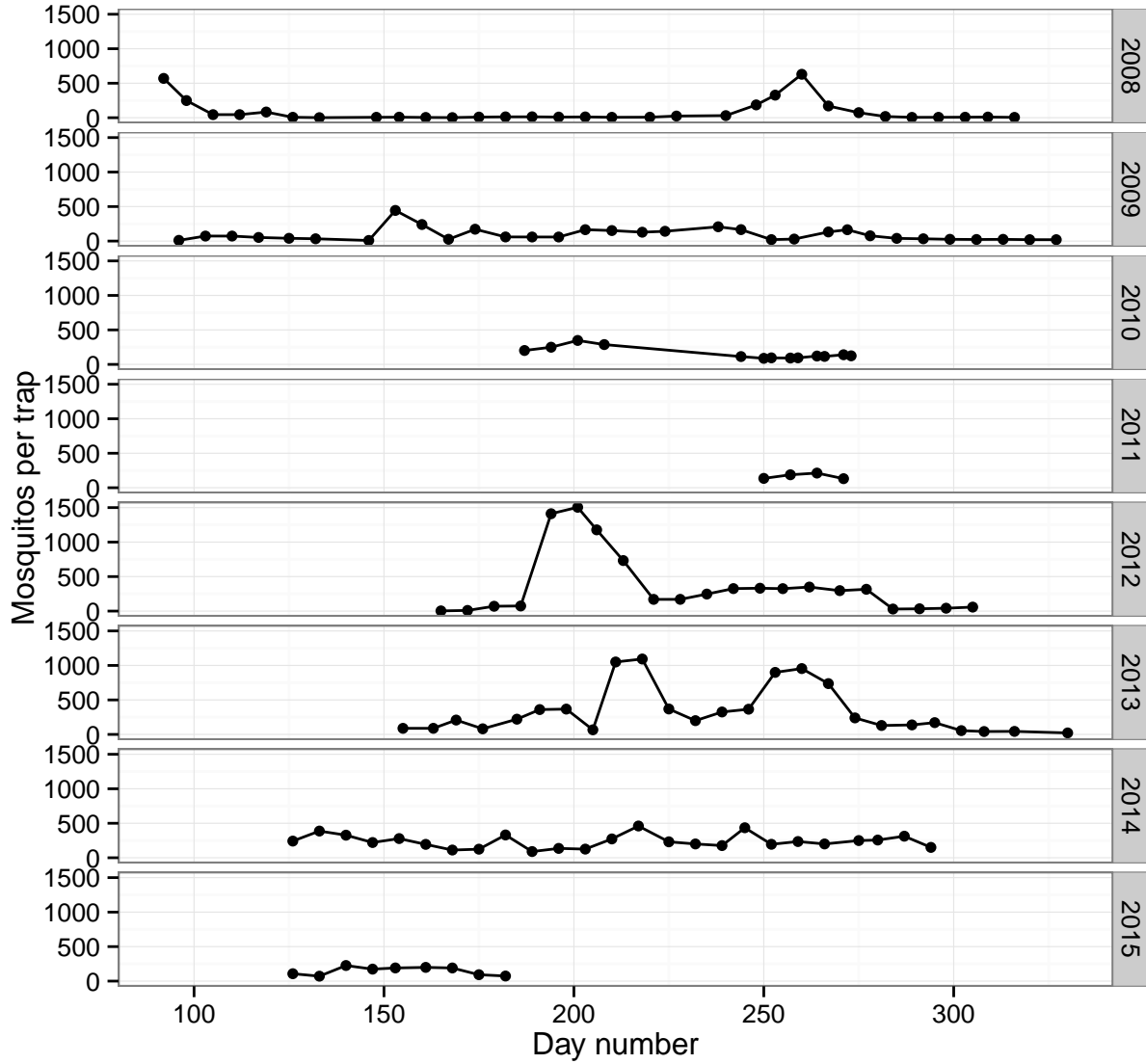


Though numbers have declined over the last few weeks, recent weather conditions suggest a rise in the mosquito population through the middle of July.



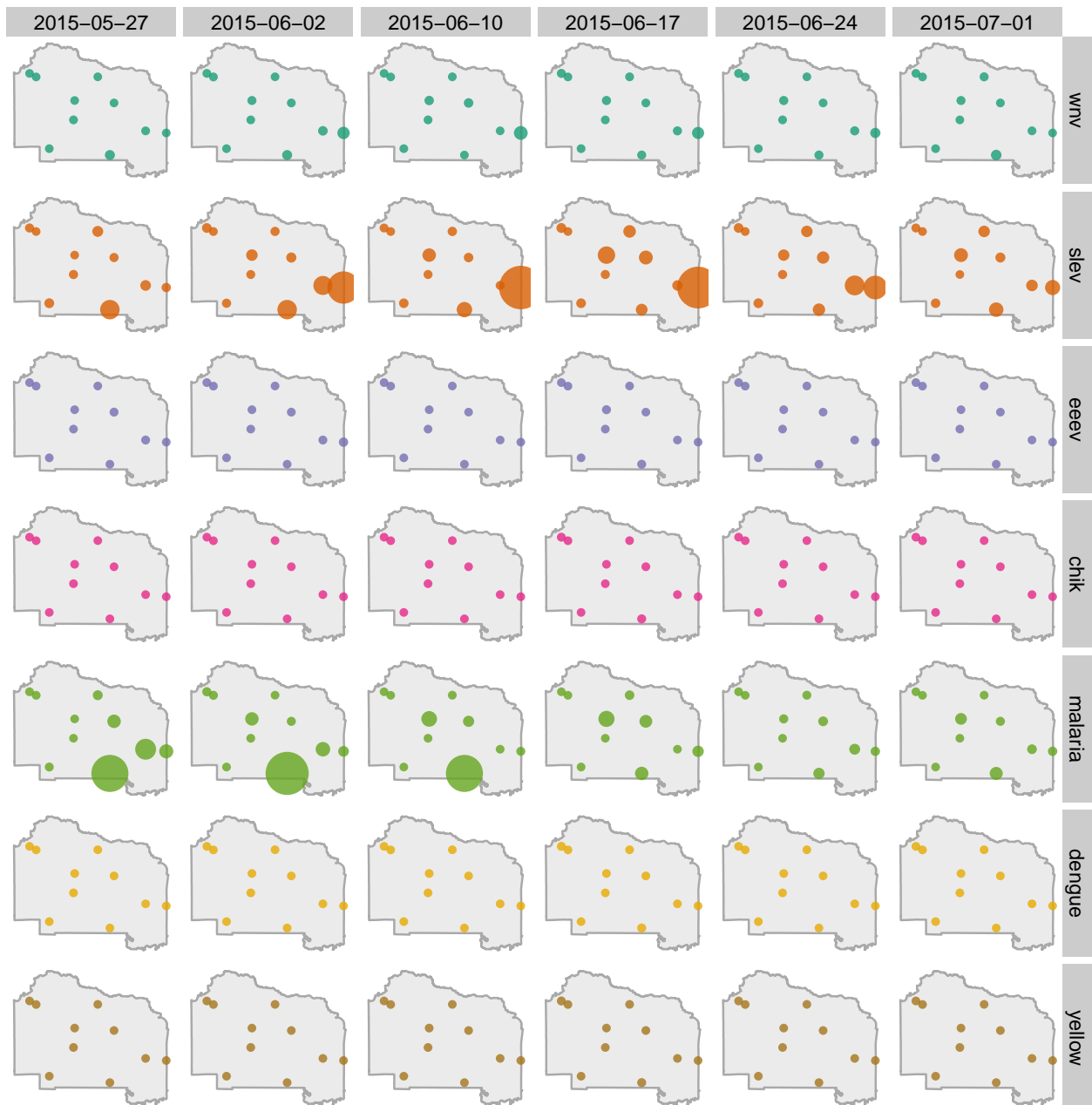
Historical perspective

Numbers so far this summer have been relatively low. However, it's worth noting that peak mosquito population is usually reached later in the summer.



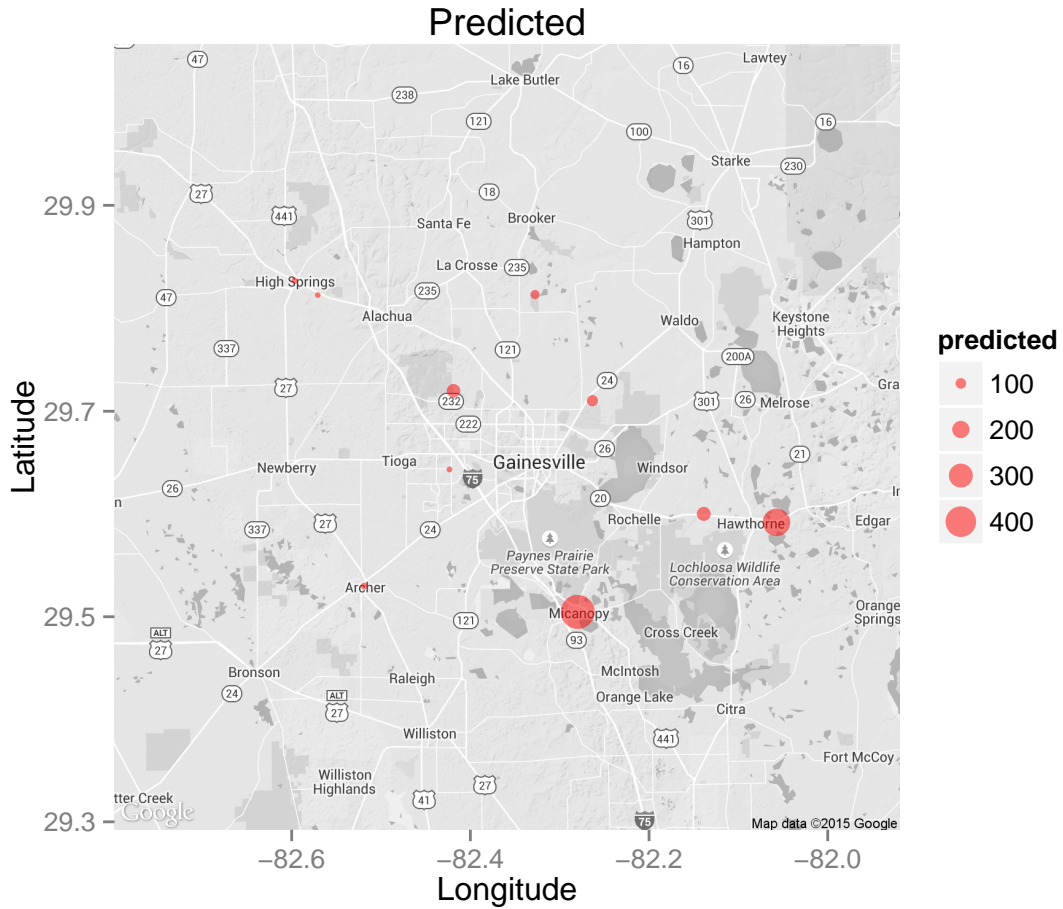
Disease details

Vectors of diseases of concern appear relatively evenly distributed throughout the county.



Forecast

Over the next two weeks, we predict the mosquito population to grow slightly, with the greatest growth occurring in the south of the county (towards Micanopy).



Model details

The forecast model has undergone several improvements since last year. The inputs have been substantially expanded (now taking into account humidity, precipitation, wind speed, temperature and its fluctuations), and the model has been improved (in lieu of linear regression, the predictive model now employs ensemble machine learning methods).

The model is cross-validated and backtesting confirms a decent fit.

