



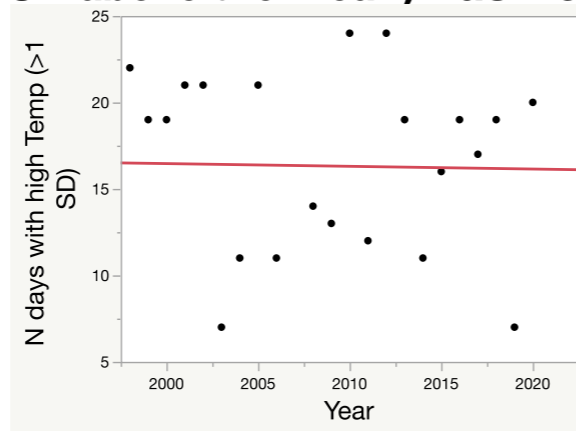
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Results

Insect biomass (ave over 5 days) in relation to weather. May – June, 2000-2020. n=885

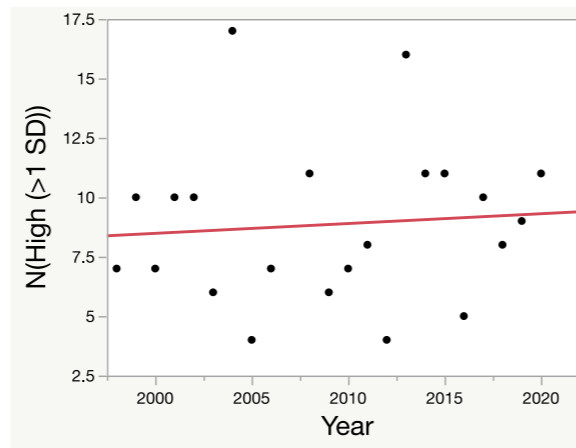
Predictor	slope	r2	P
Air temp	2.64	0.12	<0.001
Rain	0.04	<0.01	0.88
Wind	-12.84	0.03	<0.001

Number of days with high temperature (>1 SD above the mean) has not changed



$r^2 < 0.01$,
n = 20 years,
 $F_{1, 18} < 0.01$,
P = 0.94

Number of days with extreme rain (> 1 SD above the mean) has not changed



$r^2 < 0.01$,
n = 20 years,
 $F_{1, 18} = 0.1015$,
P = 0.75

Acknowledgements

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Introduction

Extreme weather events are increasing due to global climate change (EPA, 2020).

We predicted that these extreme weather events would affect the abundance of insect populations, and possibly lead to an overall decline in biomass.

EPA. 2020. www.epa.gov/climate-indicators/weather-climate.

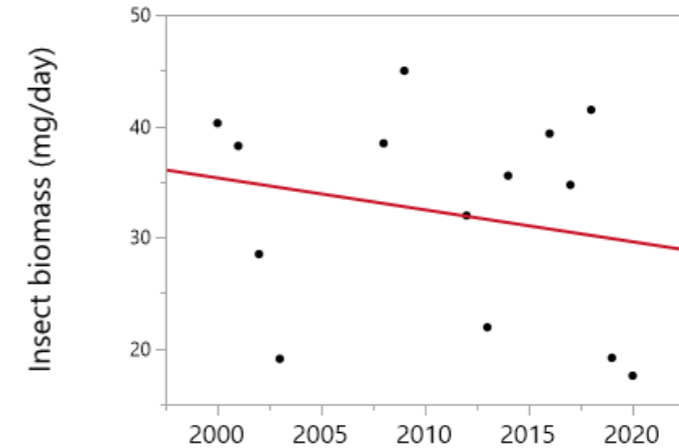
Methods

We examined the biomass of insects in relation to precipitation, air temperature, and wind speed during May and June over the past 20 years at the UWM Field Station, Saukville, WI.



Insect Suction Trap

Insect biomass (5 d. average) has not changed significantly



$r^2 < 0.05$,
n = 14 years,
 $F_{1, 12} = 0.59$,
P = 0.46

Conclusions

Higher wind speeds and cooler air temperatures were both related to lower insect biomass. However, there has been no significant change in the number of extremely hot or rainy days over the past 20 years.

There also has been no change in insect biomass over the past 20 years. These results are contrary to some reports of insect declines based on shorter time scales, but the protected habitat at the Field Station may have maintained stable insect populations.