

From Preparedness to Action

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September 19, 2018







Terre Haute, Indiana 2015



South Bend, Indiana 2018



Corn! Indiana State Department of Agriculture 2012

INDIANA
 Primary and Contiguous Counties
 Designated Disaster Areas
 Due to Extreme Drought
 Updated: 07/25/2012





Mile a Minute Weed



Milkweed and Monarchs



Armadillos slink their way into Indiana

@ap

Published 4:13 p.m. ET June 7, 2014 | Updated 7:24 p.m. ET June 7, 2014



(Photo: Silvia Izquierdo/AP)



CONNECT



TWEET



LINKEDIN



COMMENT



EMAIL



MORE

EVANSVILLE, Ind. — Wildlife experts who once scoffed at reports that armadillos had added Indiana to their range say periodic sightings of the armored mammals common in the South are continuing in the state as some of the critters apparently roam ever-farther northward.



IN CCIA

Indiana Climate Change Impacts Assessment

www.IndianaClimate.org



Climate



Health



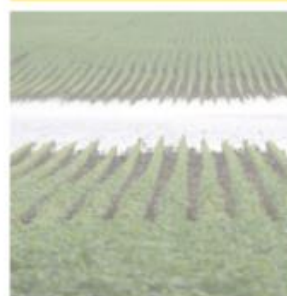
Forest Ecosystems



Urban Green Space



Aquatic Ecosystems



Agriculture



Infrastructure



Tourism &
Recreation



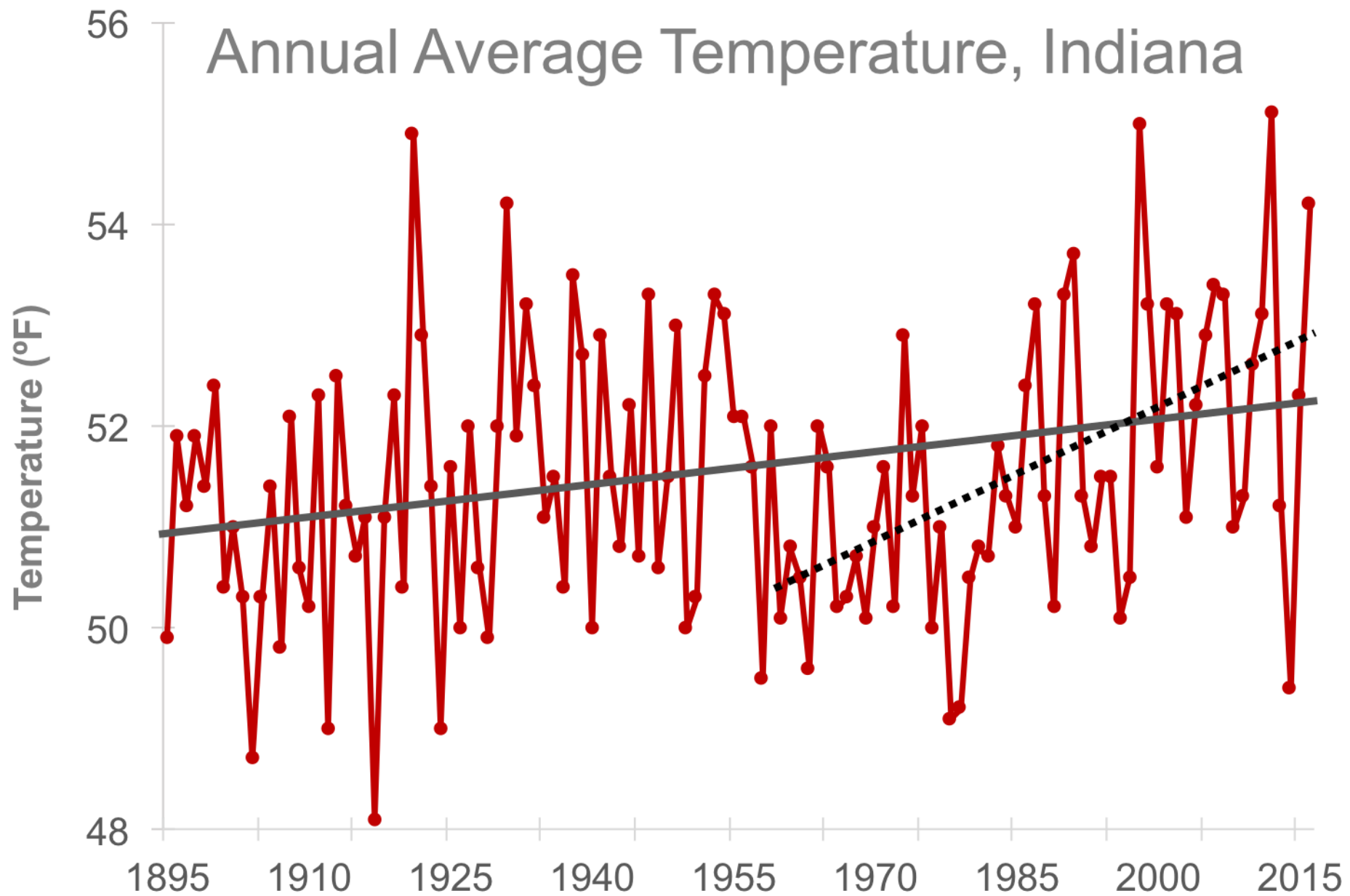
Water

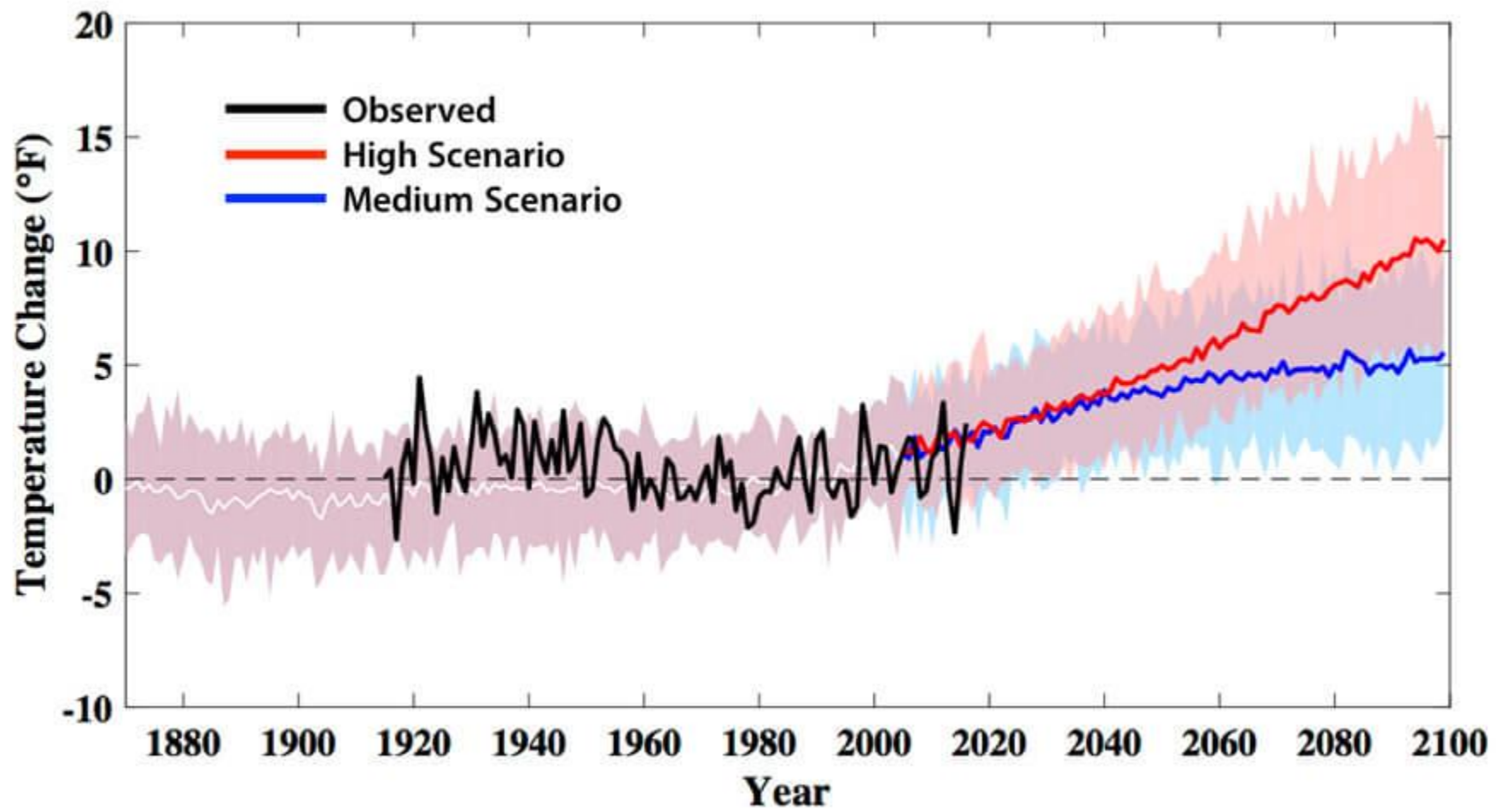


Energy



Assessment
Summary





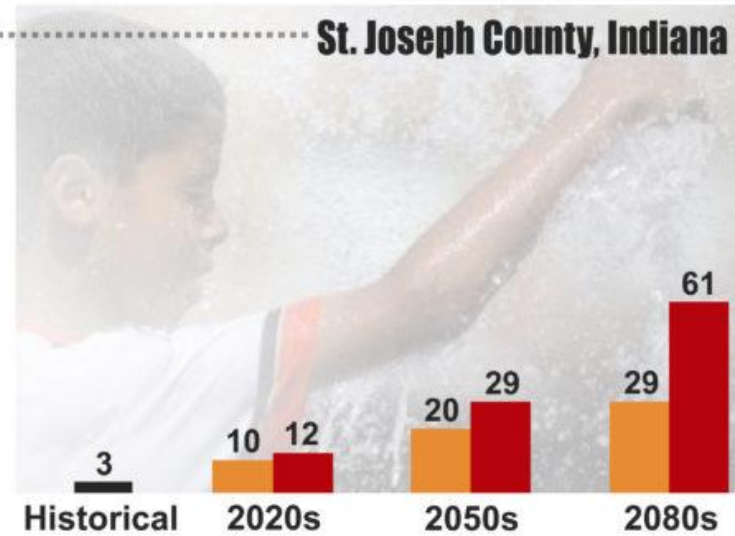
IN CCIA

Extreme Heat

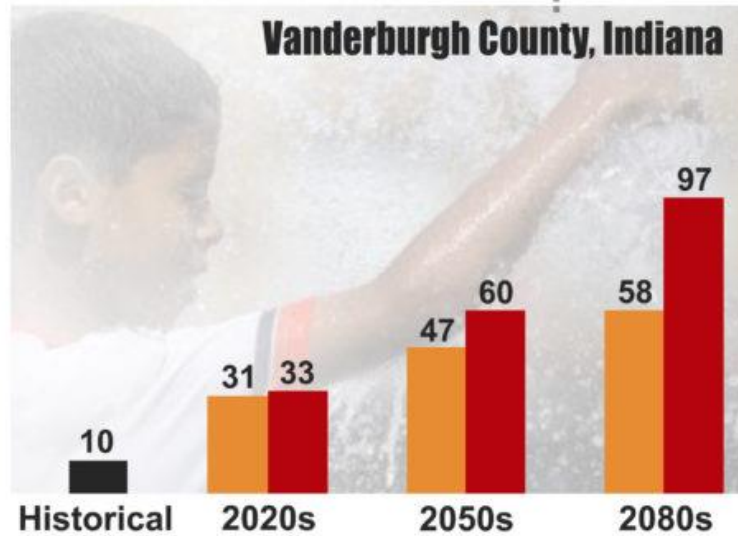
Number of Days With High Temperature
Above 95°F



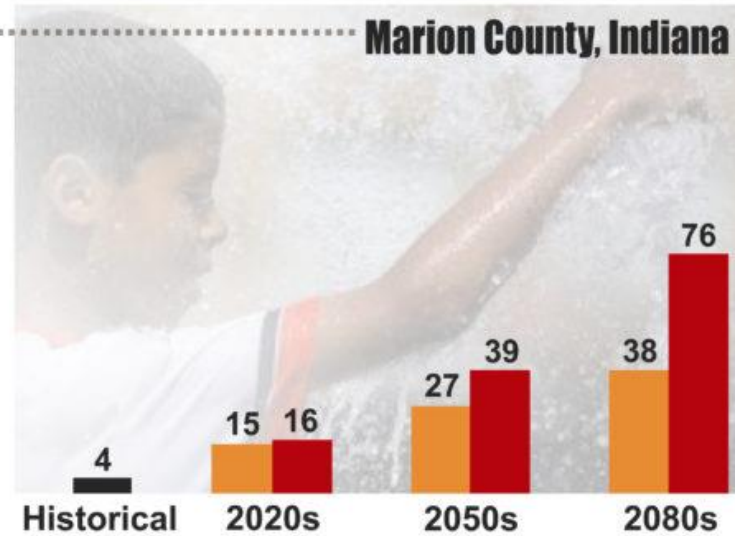
St. Joseph County, Indiana



Vanderburgh County, Indiana



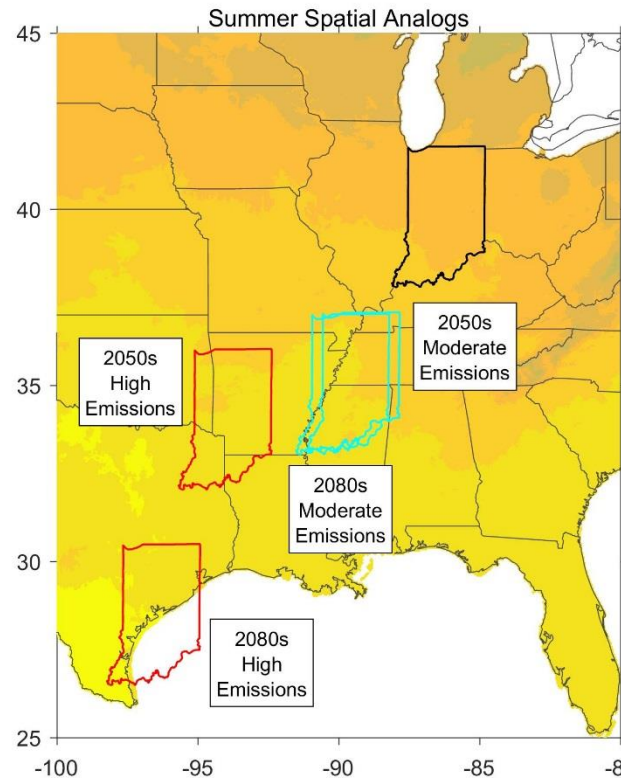
Marion County, Indiana



"Historical" is an average for the period 1915 to 2013. "2020s" represents the average 30-year future period 2011 to 2040. "2050s" represents the average 30-year period 2041 to 2070. "2080s" represents the 30-year period 2071 to 2100.

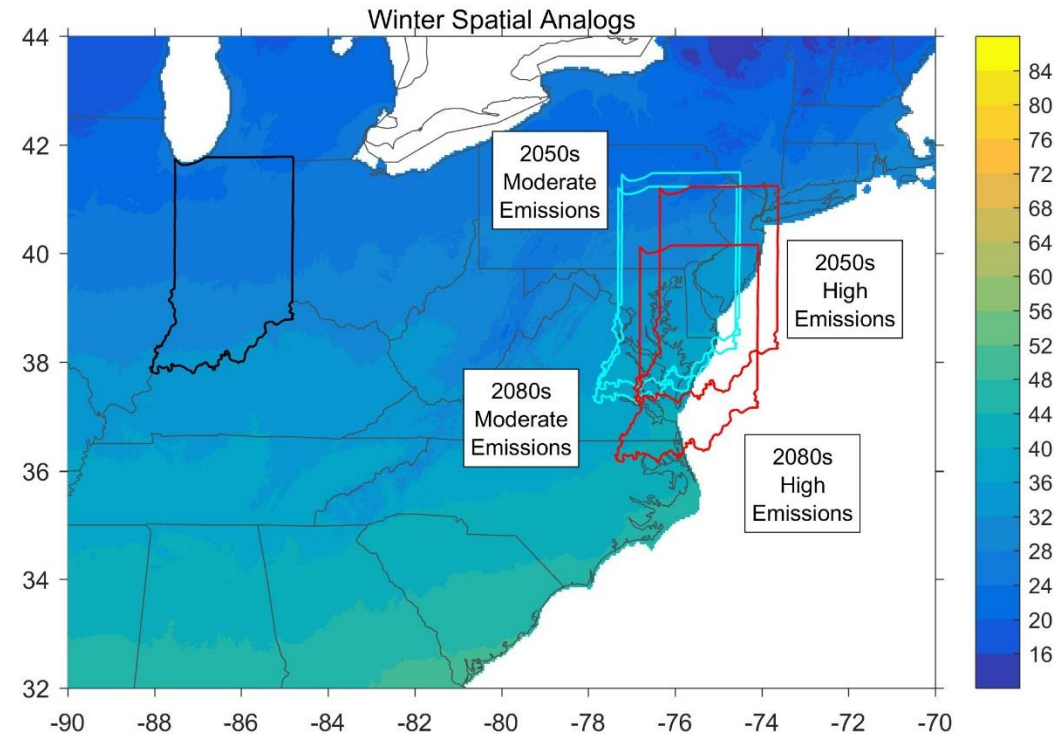
Seasonal Analogs

Based on seasonal average temperature and precipitation



Statewide Average

2050s represents average from 2041 to 2070
2080s represents average from 2071 to 2100



*Base map shows 1981 to 2010 average
seasonal temperature from PRISM archive*



IN CCIA

2050s





Relative to
1971-2000 average



6 to 8%

ANNUAL RAINFALL



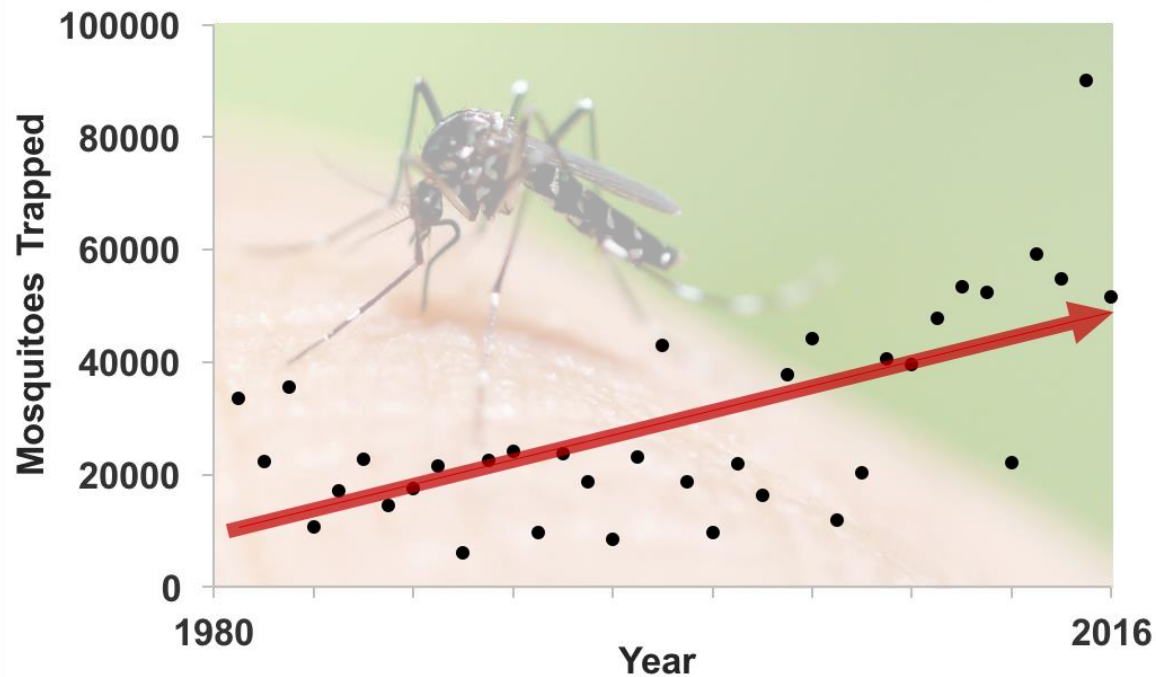
<p>16 to 20%</p>  <p>WINTER</p>	<p>13 to 16%</p>  <p>SPRING</p>
<p>-2 to -3%</p>  <p>SUMMER</p>	<p>-2%</p>  <p>FALL</p>

Statewide Average

2050s represents average from 2041 to 2070

*Future data based on medium
and high emissions scenarios*

More Mosquitoes in Indianapolis



Lonestar Tick
(*Amblyomma americanum*)

- Ehrlichiosis
- Tularemia
- Heartland virus disease
- Bourbon virus disease
- Southern tick-associated rash illness (STARI)



American Dog Tick
(*Dermacentor variabilis*)

- Tularemia
- Rocky Mountain Spotted Fever



Black-legged Deer Tick
(*Ixodes Scapularis*)

- Lyme disease
- Anaplasmosis
- *B. miyamotoi* disease
- Ehrlichiosis
- Babesiosis
- Powassan virus disease



Prepared for Environmental Change Grand Challenge

The overarching goal of the [Prepared for Environmental Change](#) Grand Challenges initiative is to foster Indiana's resilience as our world confronts environmental change, by providing accurate information that will enable policies to minimize adverse impact while creating opportunity.





Environmental Resilience Institute

Defining Resilience

Being resilient means we will be able change in ways that equitably protect welfare and economic vitality of our ecological communities.

Being resilient is not about running way of life or waiting for the worst to growing toward stronger, cleaner, safer and more vibrant communities.

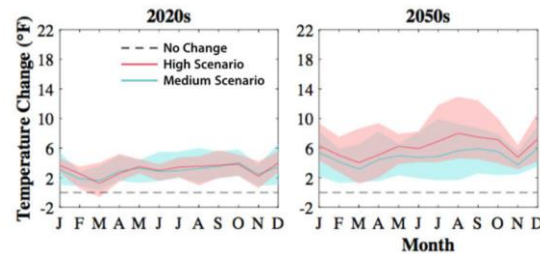




Environmental Resilience Institute

Established to host interdisciplinary researchers in environmental change across IU to provide:

Accurate Predictions



Indiana Climate Change Impacts Assessment

Feasible Solutions



Effective Communication



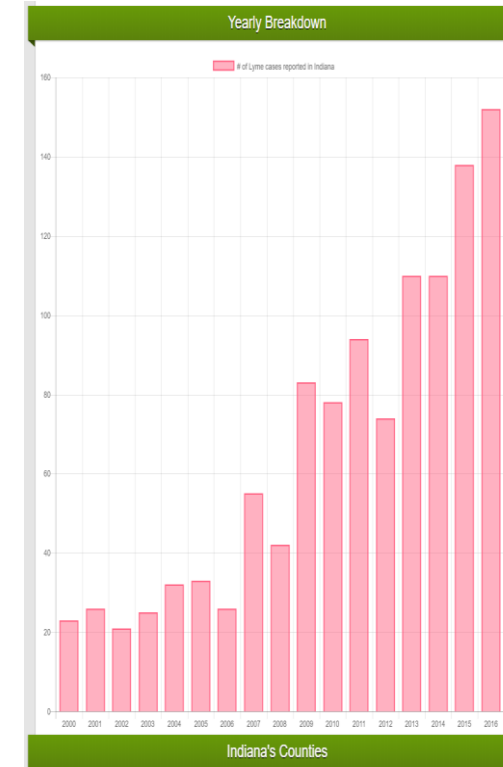
Project Vector Shield

IU bug-borne disease monitoring project finds deer ticks on the rise in Indiana

FOR IMMEDIATE RELEASE | May 24, 2018



BLOOMINGTON, Ind. -- A new environmental monitoring project at Indiana University has found increased numbers of the ticks that carry Lyme disease in Southern Indiana.



Source: tickcheck.com

Greening the Pleasant Run Waterway



IU scientists are working with the local community to pioneer a new model for water re-use in Pleasant Run Creek.

The goal is to provide resiliency in fresh water supply and quality, reduced flooding risk, enhanced carbon sequestration, an improved wildlife corridor, and economic and neighborhood revitalization.




Effective Communication

News





Rebecca Thiele



Rebecca Thiele covers statewide environment and energy issues. Before coming to Bloomington, she worked for WMUK Radio in Kalamazoo, Michigan on the arts and environment beats. Thiele was born in St. Louis and is a proud graduate of the University of Missouri School of Journalism.

Recent Posts by Rebecca Thiele

Sierra Club: Indiana 3rd In The Nation For Coal Retirements

June 19, 2018

According to data compiled by the Sierra Club, the state will retire more than 2,400 megawatts of coal by 2030

[Read more »](#)

Climate Shifts Could Hurt Indiana Corn

June 18, 2018

A new study predicts the U.S. could lose nearly half of its corn by the end of the century due to climate. Indiana is the country's fifth largest corn-producing state.

[Read more »](#)

<https://indianapublicmedia.org/news/author/rthiele/>



Effective Communication



INDIANA ENVIRONMENTAL REPORTER

Your planet. Your state.
Your backyard.

We're dedicated to unearthing stories about the environment in Indiana
and in your backyard. Sign up now for weekly updates.



Tools for Indiana Communities



Tools for Indiana Communities

The Indiana Environmental Resilience Toolkit



- Geographically tailored information
- Search for resources on topics that interest you
- Information, tools and resources that focus on Indiana, the Midwest, and on small and mid-size communities

<https://Eri.iu.edu/ERIT>

<https://grandchallenges.iu.edu/index.html>



ERIT Case Studies

Indiana Dunes Plans for Climate Change Adaptation



Gary, Indiana Installs Green Infrastructure to Revitalize Blighted Areas, Manage Stormwater

Indianapolis, Indiana Converts Streetlamps to LED



Tools for Indiana Communities

Hoosier Resilience Index

What are the specific environmental threats to Hoosier communities?

- Hotter summers
- More flooding
- Changes in precipitation patterns

How resilient are we? Where should we focus?

- Infrastructure
- Planning
- Public education
- Policies



Tools for Indiana Communities

Prepared for Environmental Change Webinar Series



September 20, 12-1PM:

Environmental Changes Expected in Indiana



October 9, 12-1PM:

Planning for More Frequent River Flooding

November 13, 12-1PM:

Identifying Your Communities Vulnerabilities to Environmental Change

[Register here](#)





Solarize Bloomington



Urban Farming In Indianapolis

Indiana Businesses and Sustainability



Cummins Goes Electric



Meadowlake Wind Farm



Aardvark Paper Drinking Straws



Battery Innovation Center, Newberry IN

Questions?

Thank you.

<https://eri.iu.edu>

Hoosier Resilience Hotline: 833-ERI-ATI (374-2848)

eri@iu.edu

jgmccabe@iu.edu

317-902-3610

