The Shared Wildlife Health Information System (SWHIS)

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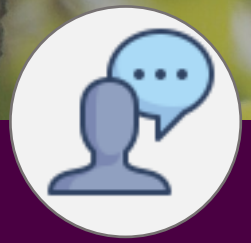
University of Pennsylvania
Wildlife Futures Program

Managing Wildlife Health Data



Mental Notes

Paper-Based Notes
e.g., Field notes

Personal Files
e.g., Email attachments

Local Databases
e.g., Excel or Survey123

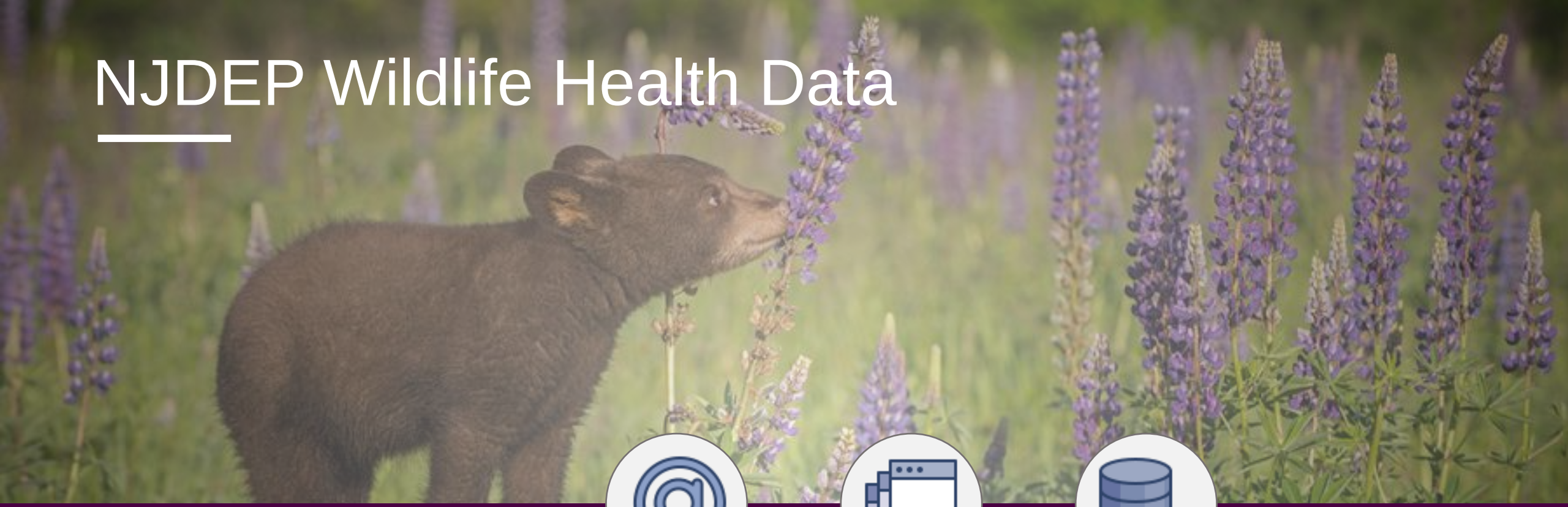
Relational Databases
e.g., Access

Online Databases

Limitations

- Difficult to utilize/visualize data
- No data standardization
- Limited ability to integrate/share data with other systems e.g., WHISPers
- Focus on select species/diseases
- Limited system sustainability/maintenance

NJDEP Wildlife Health Data



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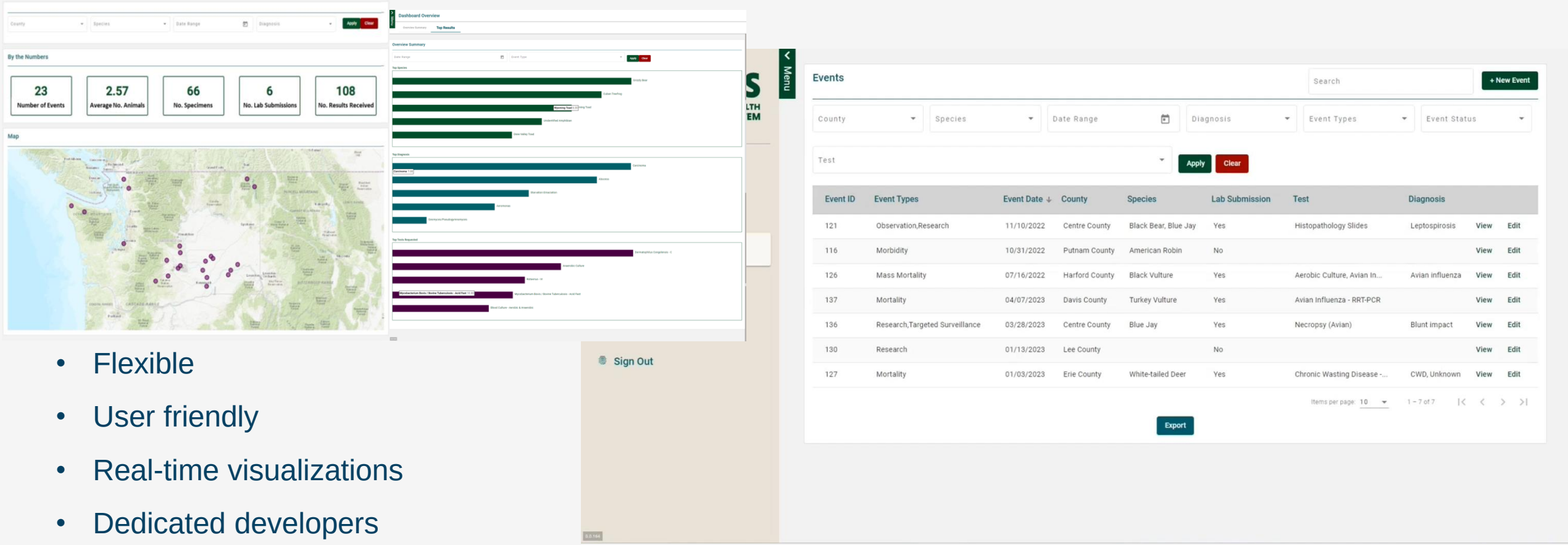


- Flexible
- User friendly
- Real-time visualizations
- Dedicated developers
- Adaptive to feedback

Feedback Process

Wildlife Conservation Society

Wild Health Net

PARC Partners in Amphibian and Reptile Conservation

APHIS

TSA turtle survival alliance

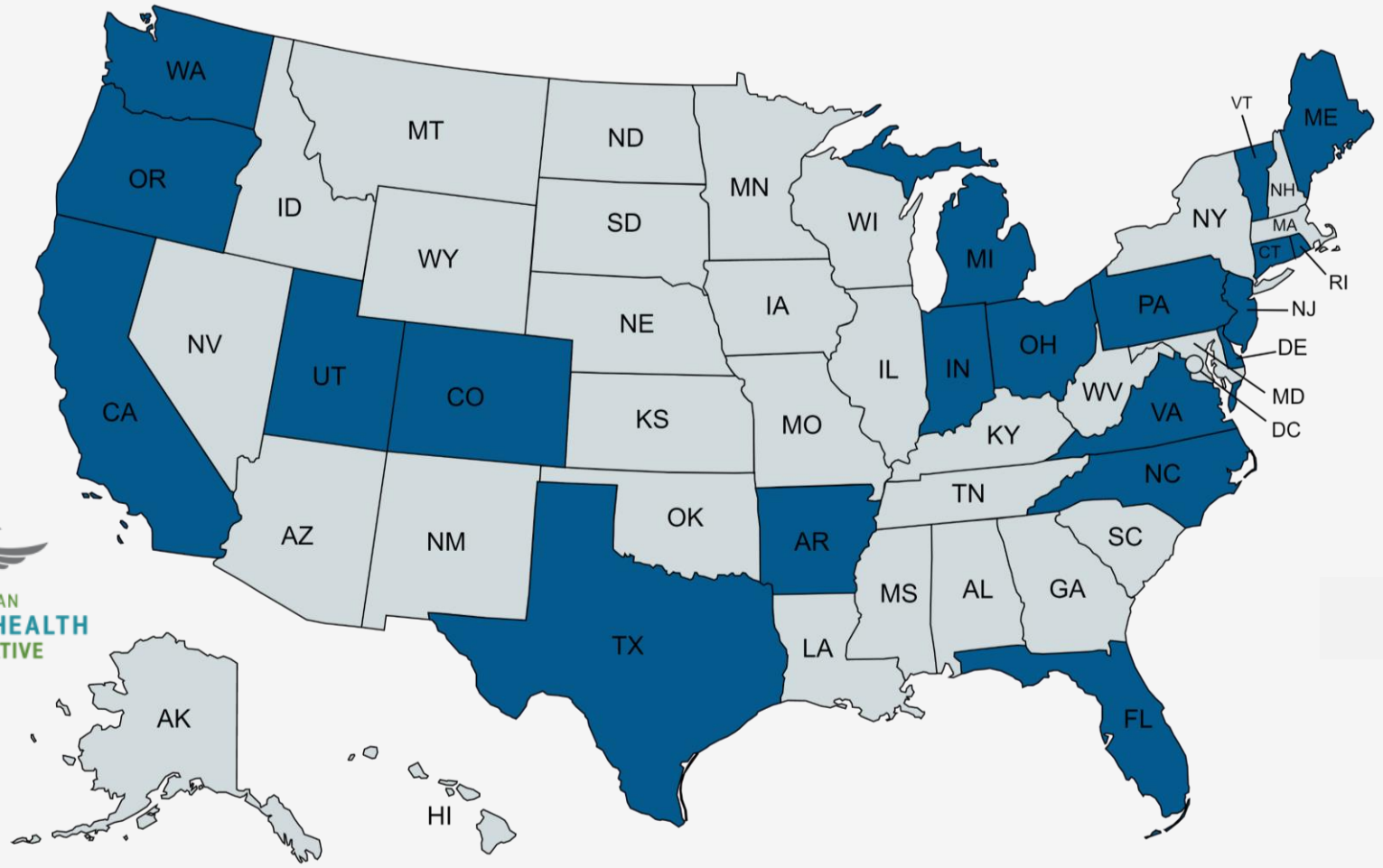
Atlantic Marine Bird Cooperative

U.S. Fish & Wildlife Service

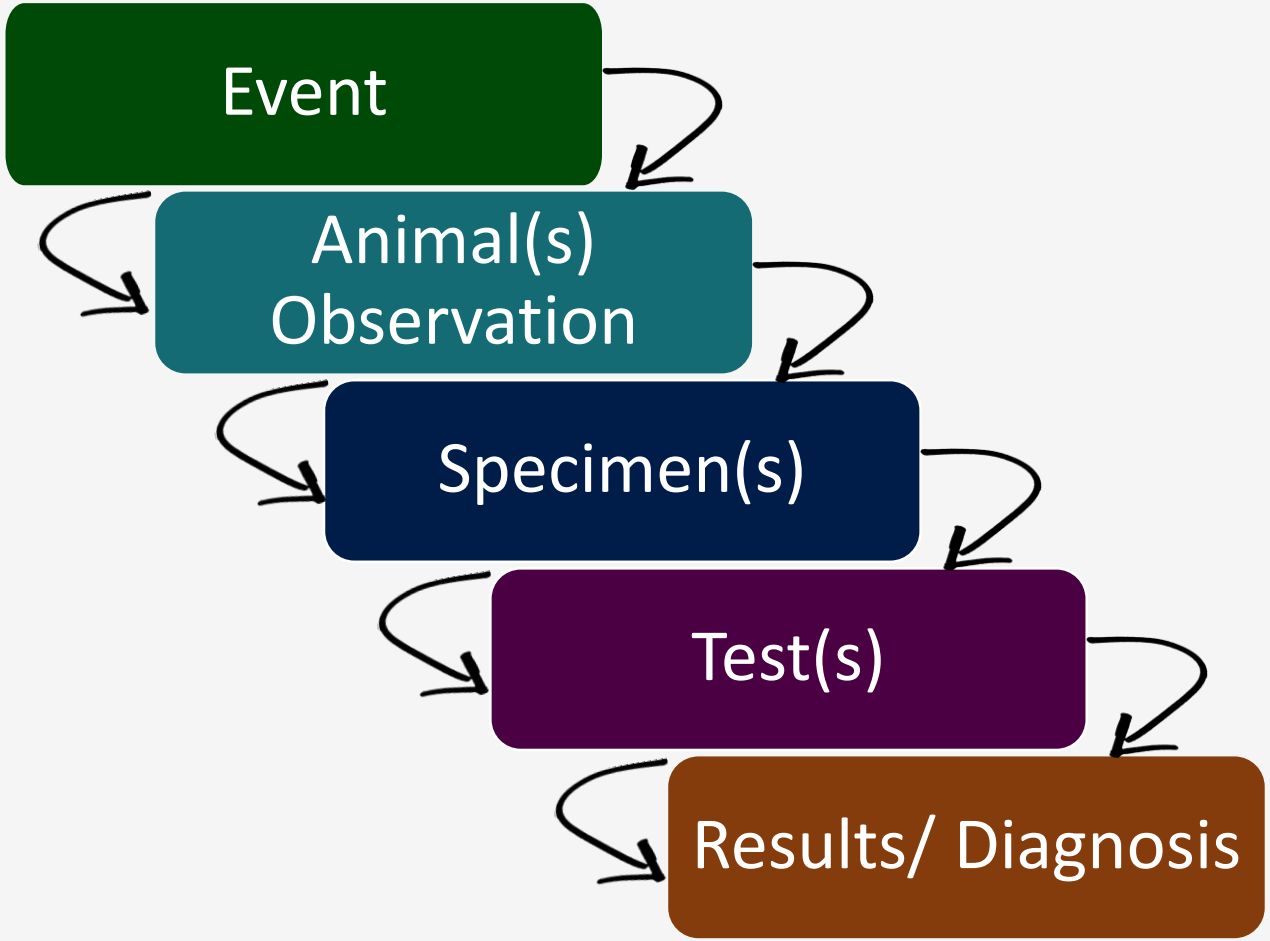
National Loon Center

Canadian Wildlife Health Cooperative

WHISPers Wildlife Health Information Sharing Partnership Event Reporting System



SWHIS Structure & Security

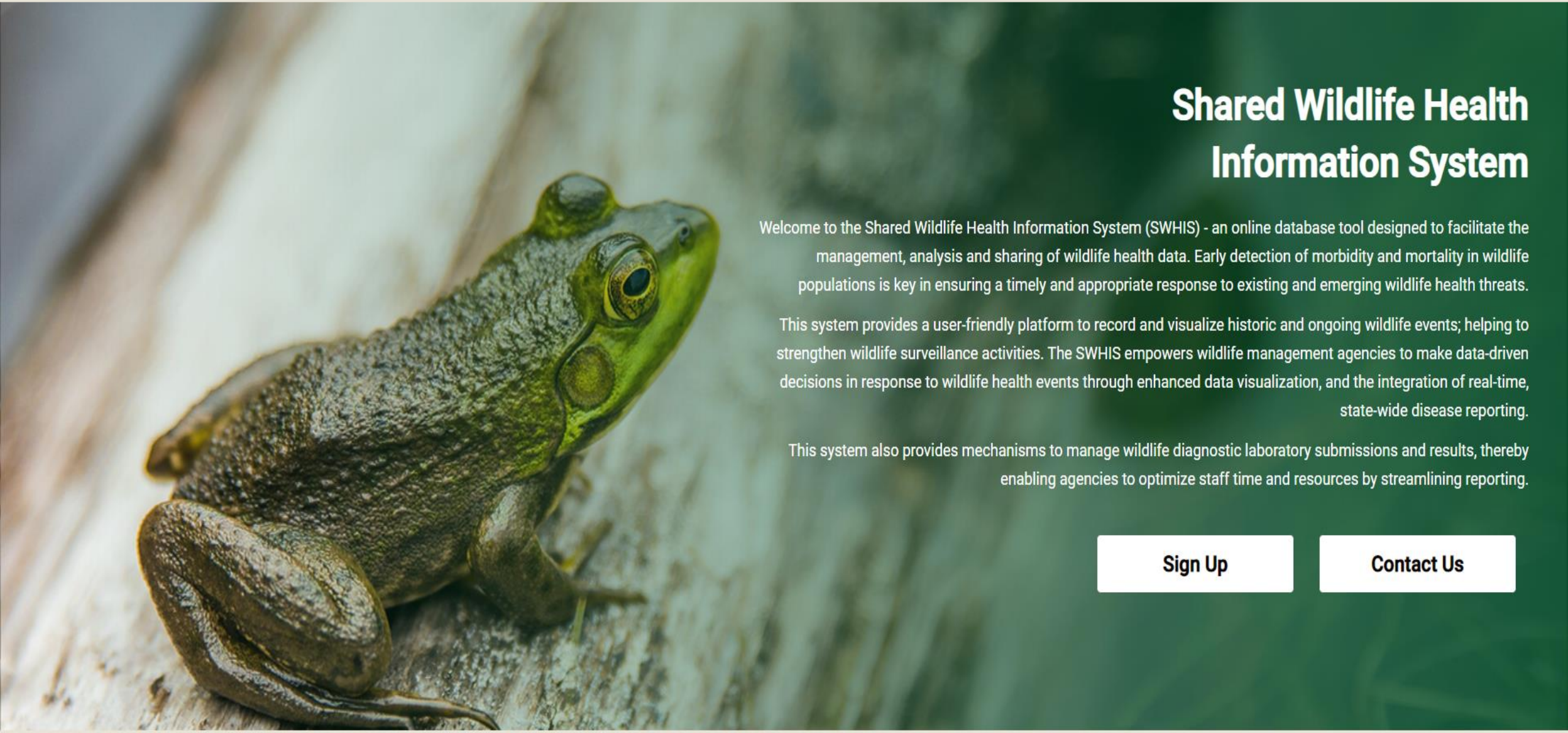


- Hierarchical structure
- Agency-based system ensures you only see your data
- Data Use Agreement (DUA) ensures you maintain ownership
- The Timmons Group host the application using Amazon Web Services (AWS) and providing maintenance/support

TIMMONS GROUP

SWHIS
SHARED WILDLIFE HEALTH INFORMATION SYSTEM

Sign In



Shared Wildlife Health Information System

Welcome to the Shared Wildlife Health Information System (SWHIS) - an online database tool designed to facilitate the management, analysis and sharing of wildlife health data. Early detection of morbidity and mortality in wildlife populations is key in ensuring a timely and appropriate response to existing and emerging wildlife health threats.

This system provides a user-friendly platform to record and visualize historic and ongoing wildlife events; helping to strengthen wildlife surveillance activities. The SWHIS empowers wildlife management agencies to make data-driven decisions in response to wildlife health events through enhanced data visualization, and the integration of real-time, state-wide disease reporting.

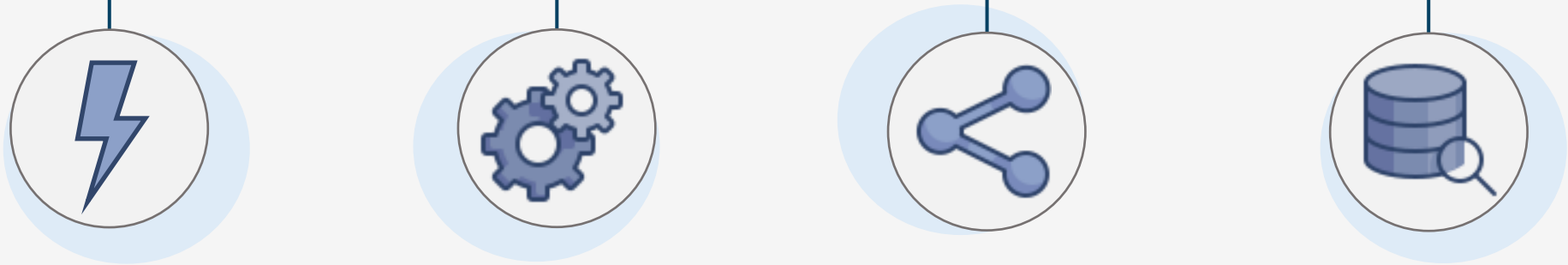
This system also provides mechanisms to manage wildlife diagnostic laboratory submissions and results, thereby enabling agencies to optimize staff time and resources by streamlining reporting.

Sign Up

Contact Us

SWHIS Development Goals

BUILD CAPACITY WITHIN STATE AGENCIES TO COLLECT AND UTILIZE WILDLIFE HEALTH DATA



- **Develop proactive management tools**
- **Enhance workflow from the field to the lab**
- **Support the integration of other data systems**
- **Facilitate the collection of different data sources**

SWHIS
SHARED WILDLIFE HEALTH INFORMATION SYSTEM

Hello, Sabrina Greening
Wildlife Futures Program
University of Pennsylvania

- Dashboard
- Events
- Lab Submissions
- User Management
- Document Repository
- Sign Out

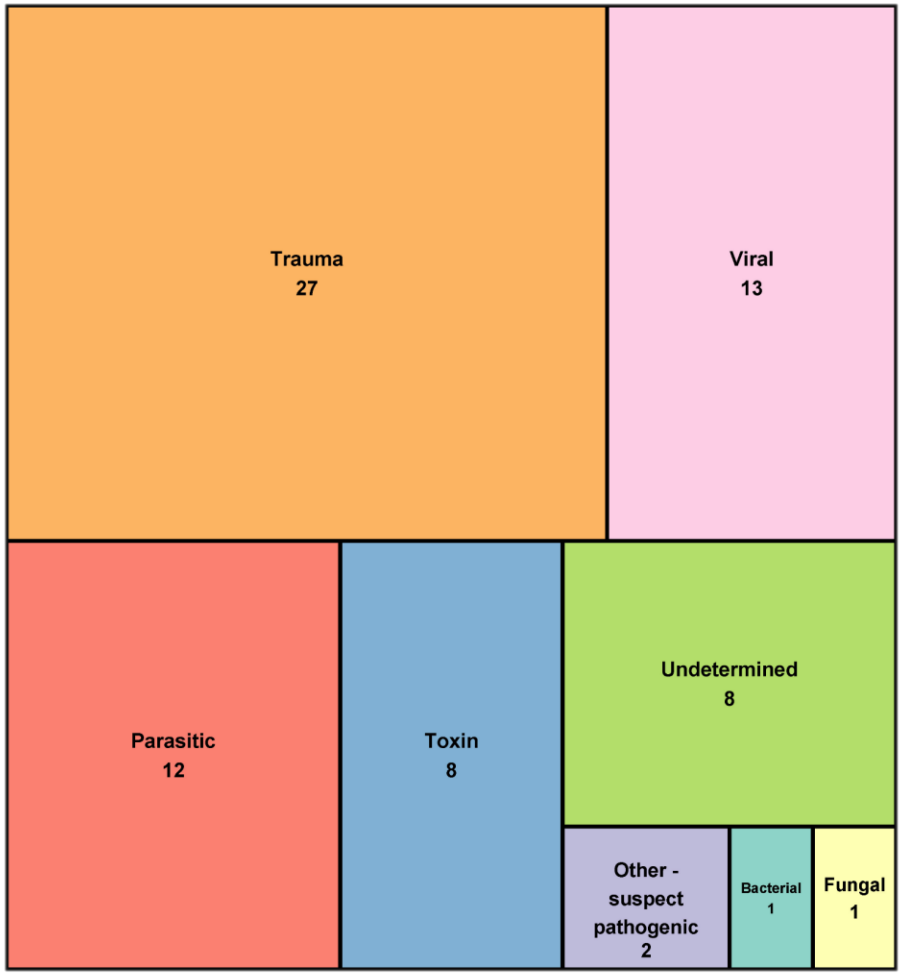
Menu

Dashboard Overview

Overview Summary | Spatial Trends | Top Results

Filters

Spatial Layer | Species | 1/1/22 - 12/31/22 | Diagnosis | Event Types | Apply | Clear



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Dashboard Overview

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Map View

Add Spatial Layer

County

Choropleth

Filters

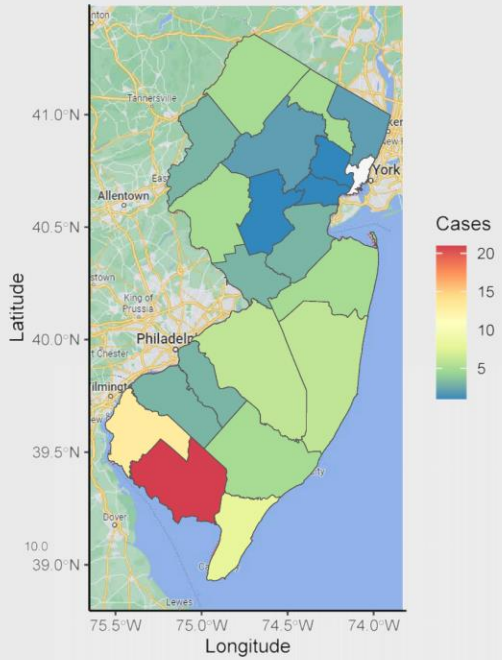
Apply Clear

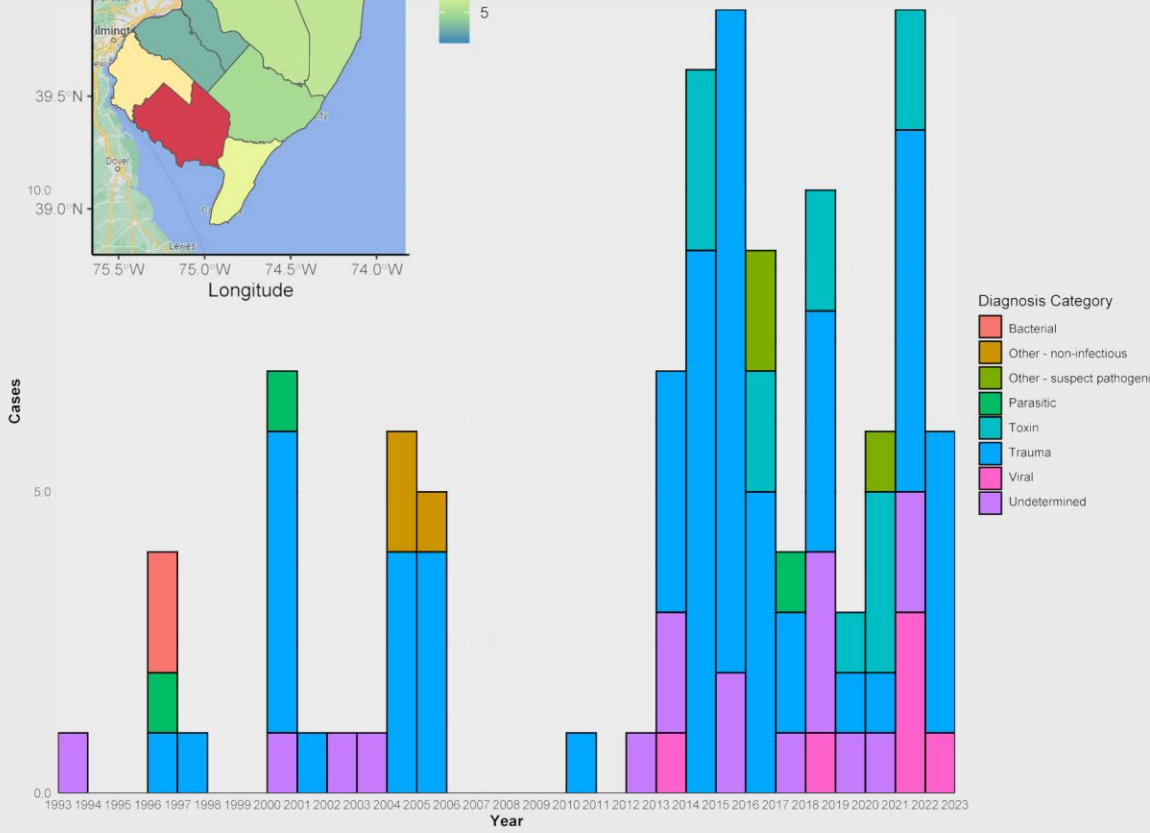
Bald Eagle

Date

Diagnosis

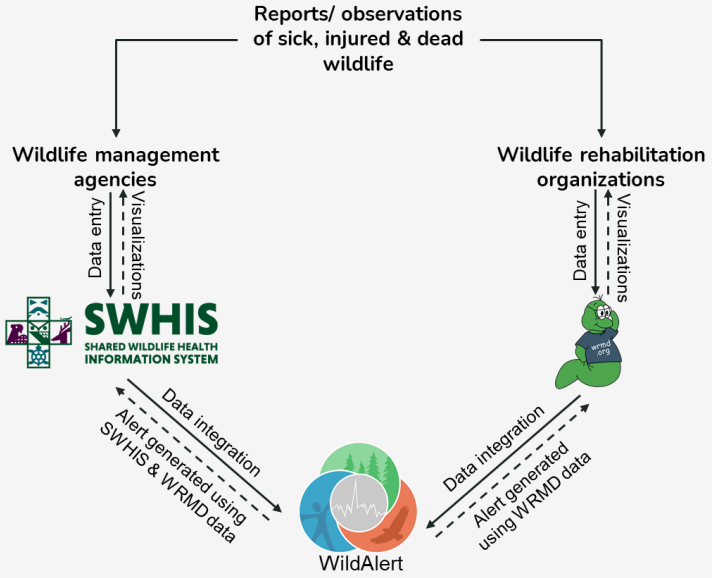
Event Types





Event Alerting System

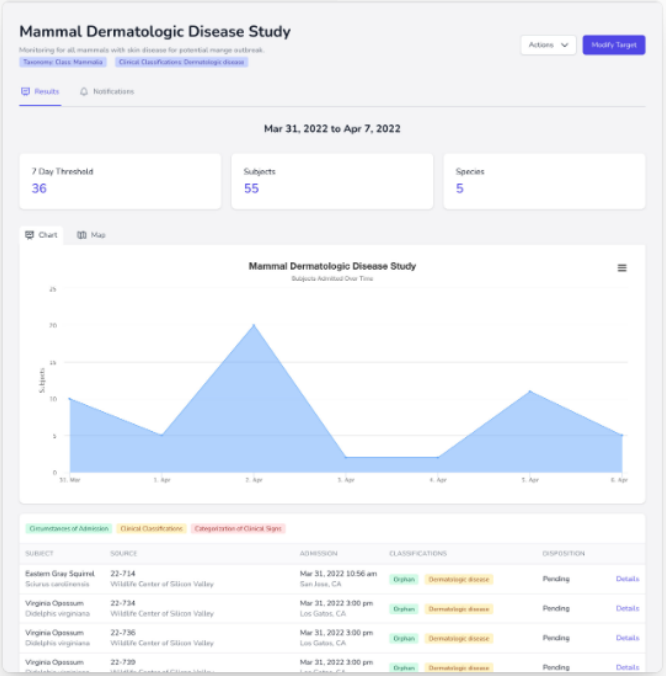
Develop proactive management tools



WHAT'S NEW Wired Magazine Article ›

WildAlert

Welcome to the Wildlife Morbidity and Mortality Event Alert System. The system contains integrated data entered in near real-time from a network of wildlife rehabilitation organizations in California. Use the dashboard to set up queries, visualize, and receive notifications on wildlife morbidity and mortality events.



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UCDAVIS VETERINARY MEDICINE EpiCenter for Disease Dynamics

EpiEcos

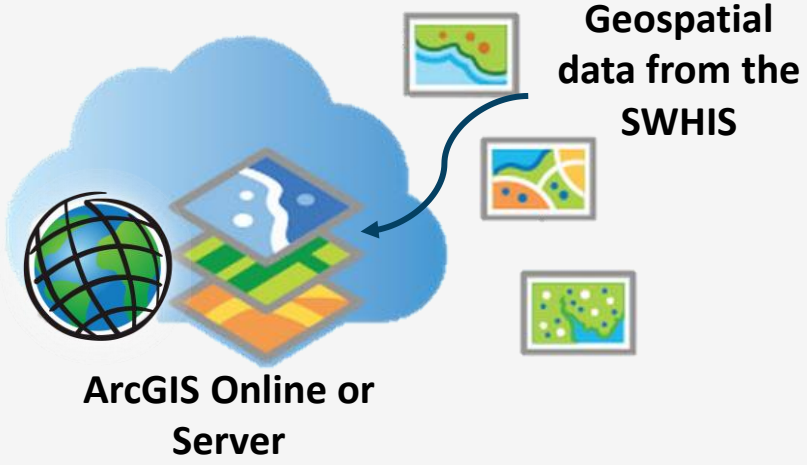
The Wild Neighbors Database Project

SWHIS

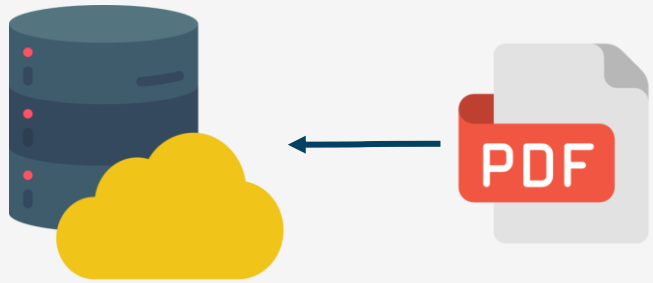
SWHIS Development Goals

Support the integration of other data systems

Web Feature Service (WFS)



Integration with Laboratory Information Management Systems (LIMS)



Data Sharing

WHISPers Wildlife Health Information Sharing Partnership Event Reporting System

CORNELL WILDLIFE HEALTH LAB

ABOUT NEWS RESOURCES RESEARCH NY WILDLIFE HEALTH PROGRAM CONTACT US

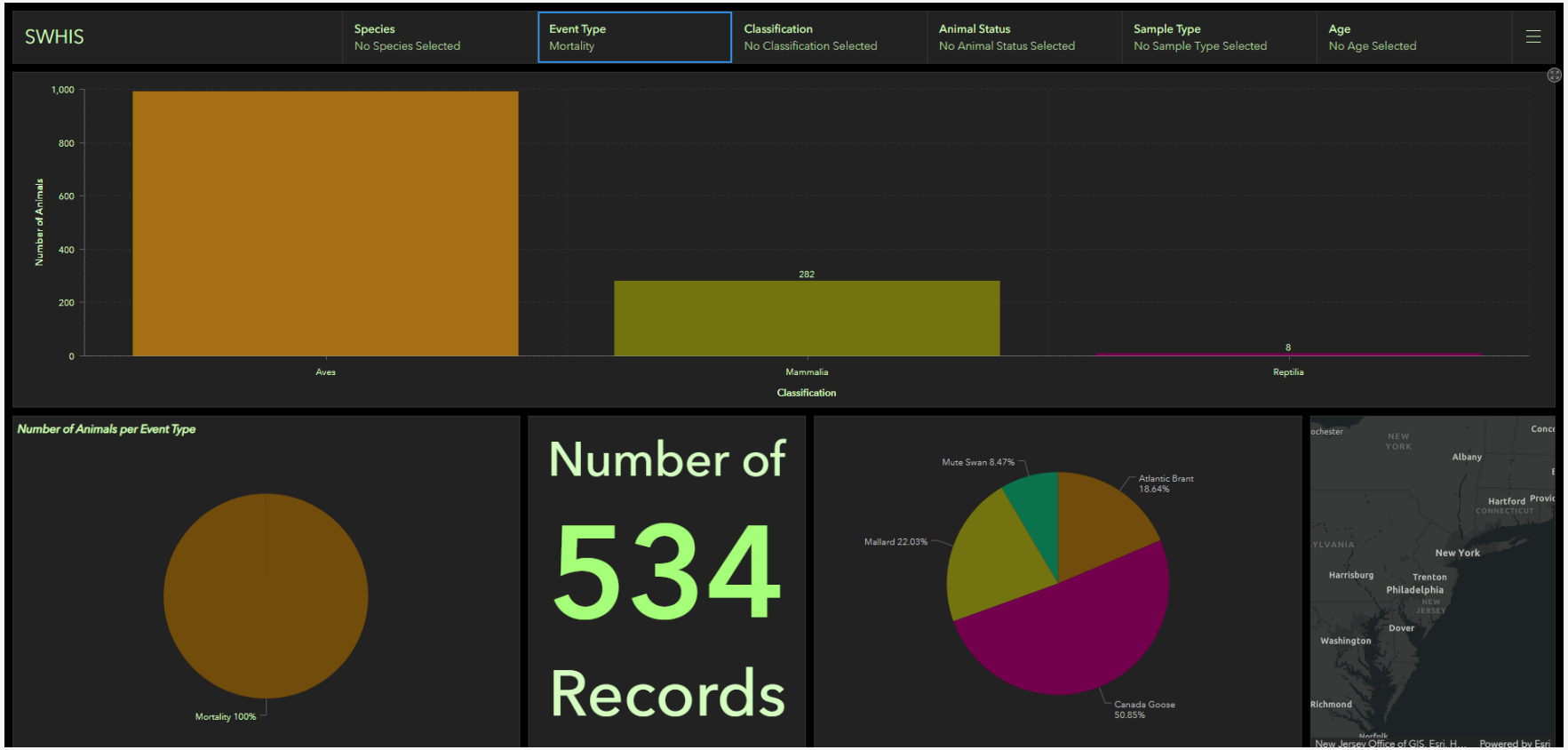
Surveillance Optimization Project for Chronic Wasting Disease (SOP4CWD)

Web Feature Service (WFS)

Dynamic updates from SWHIS integrated into NJDEP Fish and Wildlife GIS Enterprise System

Web Feature Service (WFS)

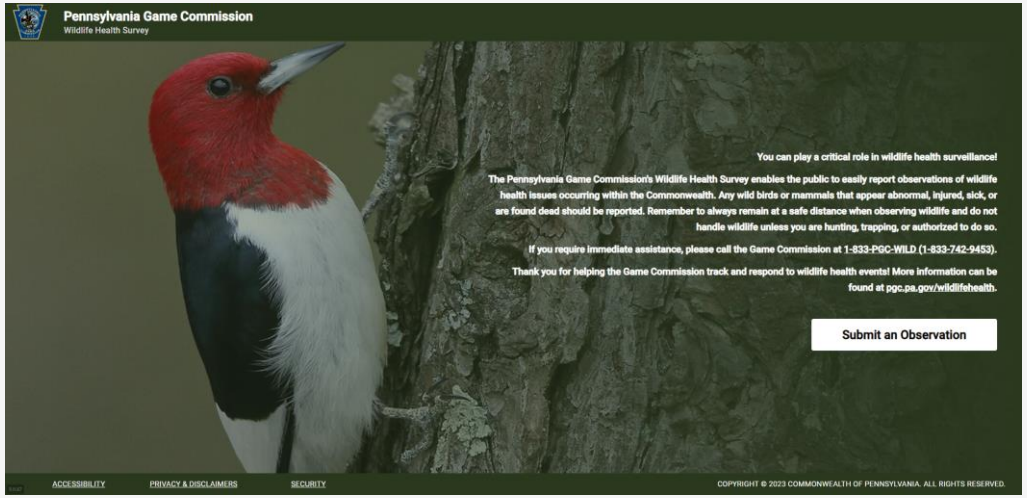
Ability to create custom mapping/analysis products on ad hoc basis to guide response to emerging wildlife health crises



SWHIS Development Goals

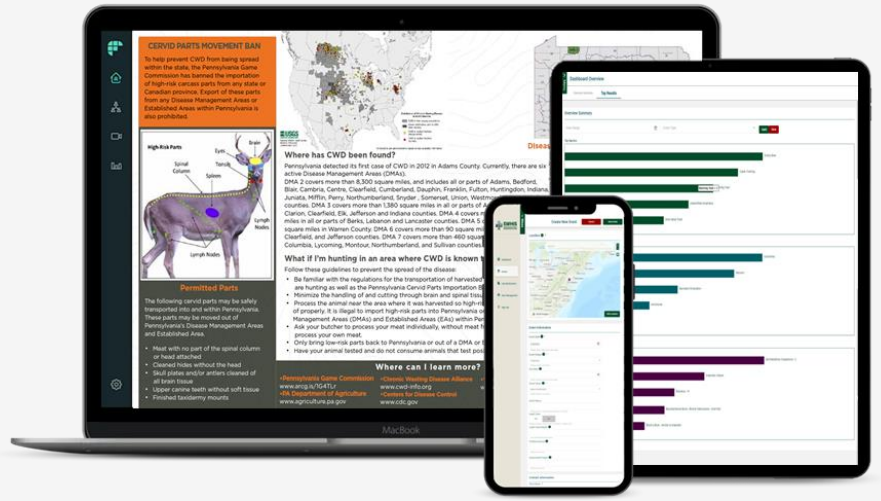
Facilitate the collection of different data sources

Public reporting tool



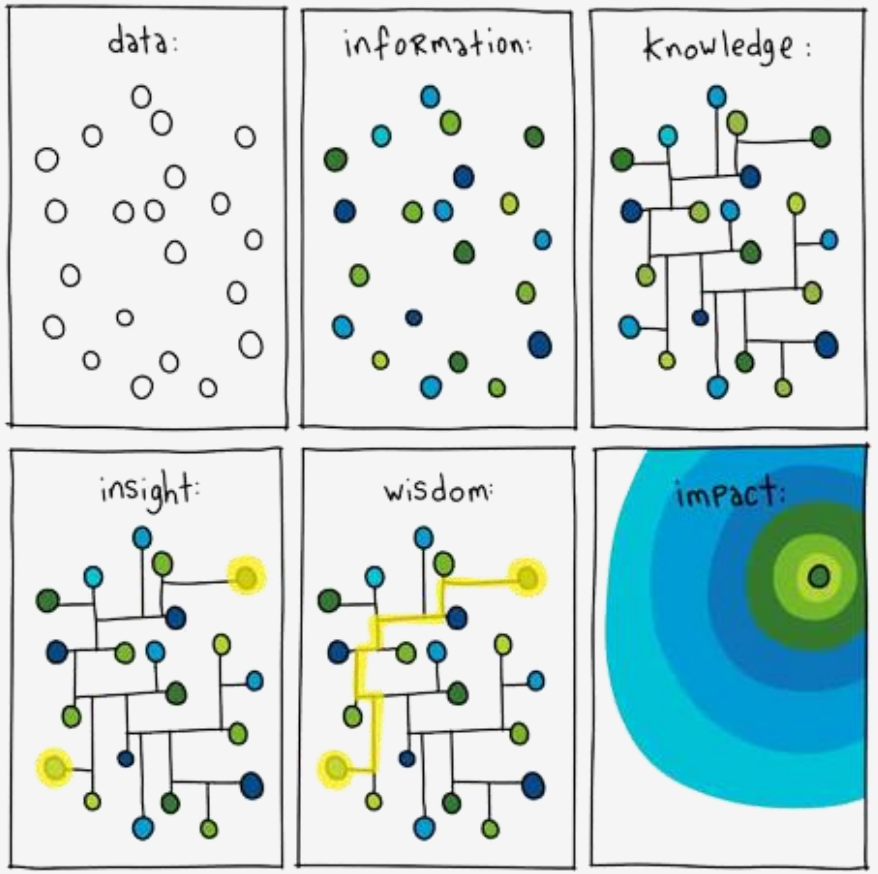
Enhance workflow from the field to the lab

Field mobile app



Final Thoughts…

- SWHIS is one of many database systems
- More thought is needed around the type of data that is useful and why
- Data to promote proactive wildlife management approaches
- Importance of building a network of stakeholders to support healthy wildlife



Thank you!

https://sharedwildlifehealth.org/

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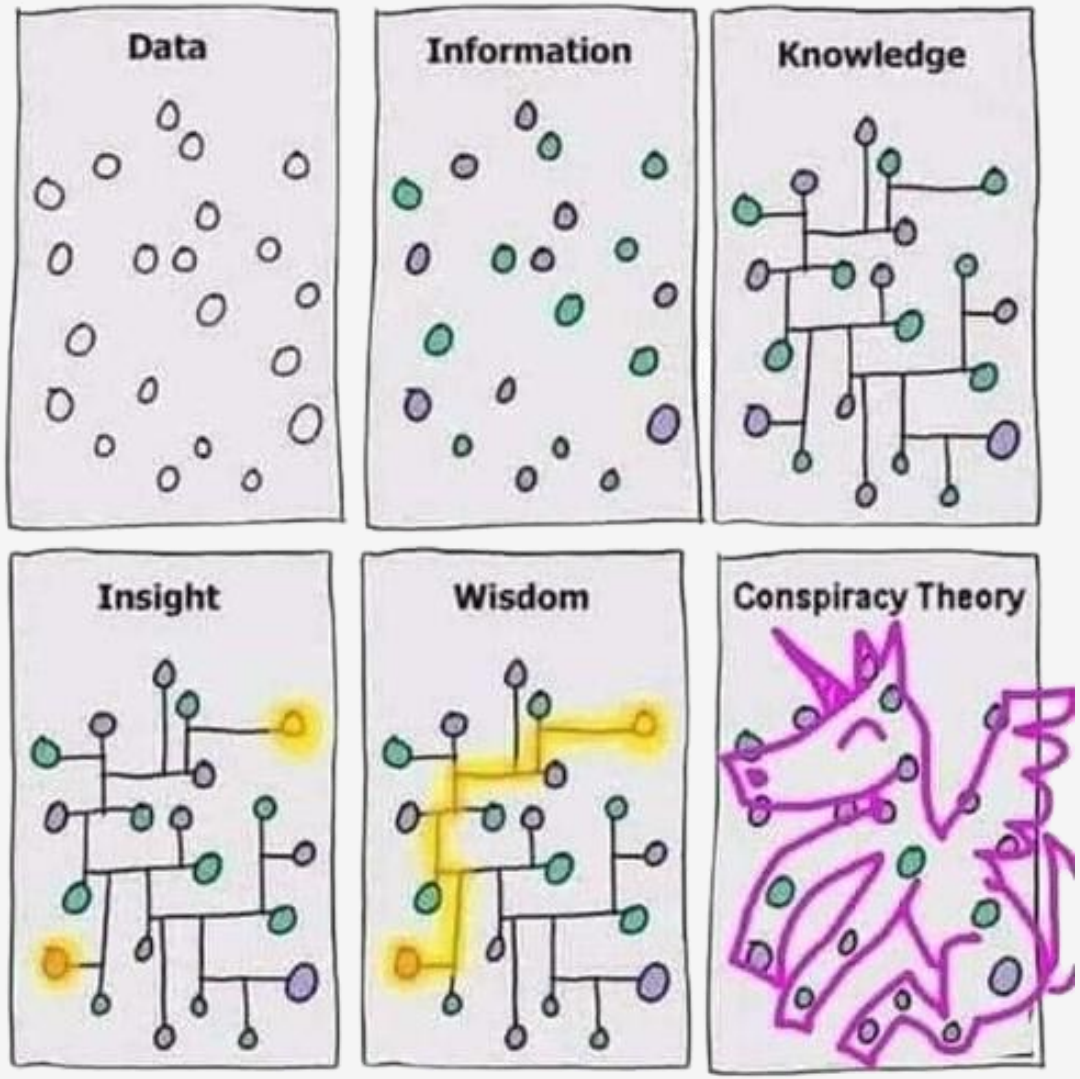

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