

Penn Vet Making a Difference



Delivering Animal Health Diagnostics and Conducting Disease Surveillance in Pennsylvania and the Northeast

- The Pennsylvania Animal Diagnostic Laboratory System (PADLS) was established in 1991 in order to provide rapid and accurate diagnostic assistance to veterinarians involved with food-fiber animals, equine, aquaculture and wildlife
- PADLS exists for the purpose of protecting animals and humans from health threats by providing accurate diagnoses to assist Pennsylvania's agricultural community in controlling diseases to minimize economic loss
- Three locations at New Bolton Center, Penn State University, and the Pennsylvania Veterinary Laboratory in Harrisburg providing comprehensive veterinary pathology, microbiology, molecular diagnostics, and toxicology services



Delivering Animal Health Diagnostics and Conducting Disease Surveillance in Pennsylvania and the Northeast



Launched in 2019



Novel partnership
PGC and PennVet



Based at New Bolton
Center in Kennett
Square, PA



Integrates
comprehensive
disease surveillance



Designed to combat
the numerous
wildlife diseases



Regional and National Data Collection and Testing Capacity

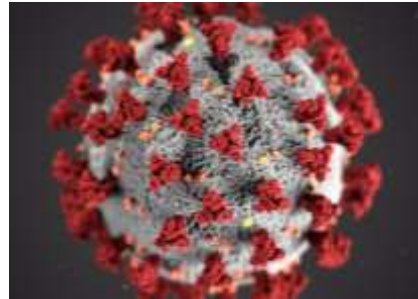
- Accredited by the American Association of Veterinary Laboratory Diagnosticians (AAVLD)
- Part of a Tier 1 USDA National Animal Health Laboratory Network (NAHLN) system
- Contributing antimicrobial resistance pilot data and conducting case investigations for both USDA and the FDA's Veterinary Laboratory Investigation and Response Network (Vet-LIRN)



Molecular Diagnostics

Available Tests with Others in Progress:

- **SARS- CoV-2** PCR panel for animal testing
 - Mink and bats
 - Other carnivores and cervids (deer and elk)
- **CDV** PCR and genotyping
- **Influenza A** qRT-PCR test
- **RHDV** testing – validated, not actively testing until when/if USDA confirms RHDV2 in Pennsylvania rabbits



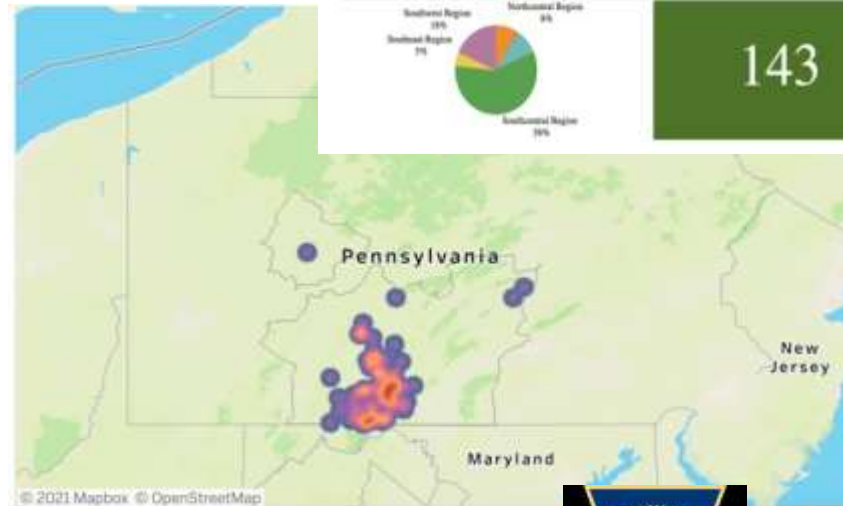
Finding Solutions by Fostering Collaborations and Partnerships



Collecting and Disseminating Information and Data

- Clear and prompt reporting of chronic wasting disease (CWD) data for deer
- Visualization of data over years
- Ability to get location information
- Updated weekly
- Keeps public up to date on the status of CWD in Pennsylvania

Sample Distribution by Source	Hunter Harvested Samples Tested	Hunter Harvested CWD+ Samples
	8,819	147
Sample Distribution by Gender	Road Kill Samples Tested	Road Kill CWD+ Samples
	2,531	14
Sample Distribution by Region	Other Samples Tested	Other CWD+ Samples
	143	6



CWD Applied Research

- Utilizing dogs to detect the scent associated with the presence of CWD prion proteins in the feces of white-tailed deer – Cindy Otto and Brenna Babiy
- Identification of novel protein biomarkers as a novel method to detect CWD in muscle tissue and salivary glands – Anna Kashina



Additional Wildlife Futures Program Activities

- Pennsylvania Department of Conservation and Natural Resources (DCNR) funding for a multi-year anticoagulant rodenticides study
- Summer 2022 songbird mortality event response
- Established the WFP biorepository program
- Evaluations of wildlife exposures to contaminants
 - Lead, PCBs, PFAS, cadmium



Training the Next Generation of Wildlife Health Professionals

- Vet student Maria Pansulla and undergraduate Cheryl Chang – CWD RT-QuIC and PCR validation
- First postdoctoral researcher Sabrina Greening funded to work on the Shared Wildlife Health Information Network
- Master's student (Environmental Studies) Haley Zeliff's SARS-CoV-2 in bat guano work
- VMD/MPH student Jaclyn Camus working on CWD surveillance
- Vet student Brianna Blunck reviewing PCB exposure cases
- Vet students Miranda Starr, Claire Whitting, Stephanie Sila, and Lindsay Dwyer assisted with CWD trimming
- Vet students Leah Marks, Jill Wallace, Casey Merola, Josie Thal, and Jake Ryave assisting with Wildlife Futures disease fact sheets
- Hosted Safe Capture chemical immobilization course in March 2022



Thank you!
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