

OIE Virtual Sub-regional Meeting:
“Wildlife Health and Network for OIE Members in Southeast Asia”

Wildlife disease surveillance: twinning project

Assoc.Prof.Dr. Anuwat Wiratsudakul, DVM, MVPH, PhD

Thailand-NWHC/MoZWE

Faculty of Veterinary Science, Mahidol University

INSTITUTIONAL BACKGROUND

Thailand National Wildlife Health Center (**Thailand-NWHC**) and
The Monitoring and Surveillance Center for Zoonotic Diseases in
Wildlife and Exotic Animals (**MoZWE**)

The **Thailand-NWHC/MoZWE** acts as *a coordinating office for
wildlife health to facilitate the activities of wildlife health
surveillance, monitoring, education, and research.*



**FAO Reference Centre for
Zoonotic and Wildlife Diseases**

Thailand-NWHC/MoZWE

Thailand-NWHC



Monitoring, surveillance,
research and prevention



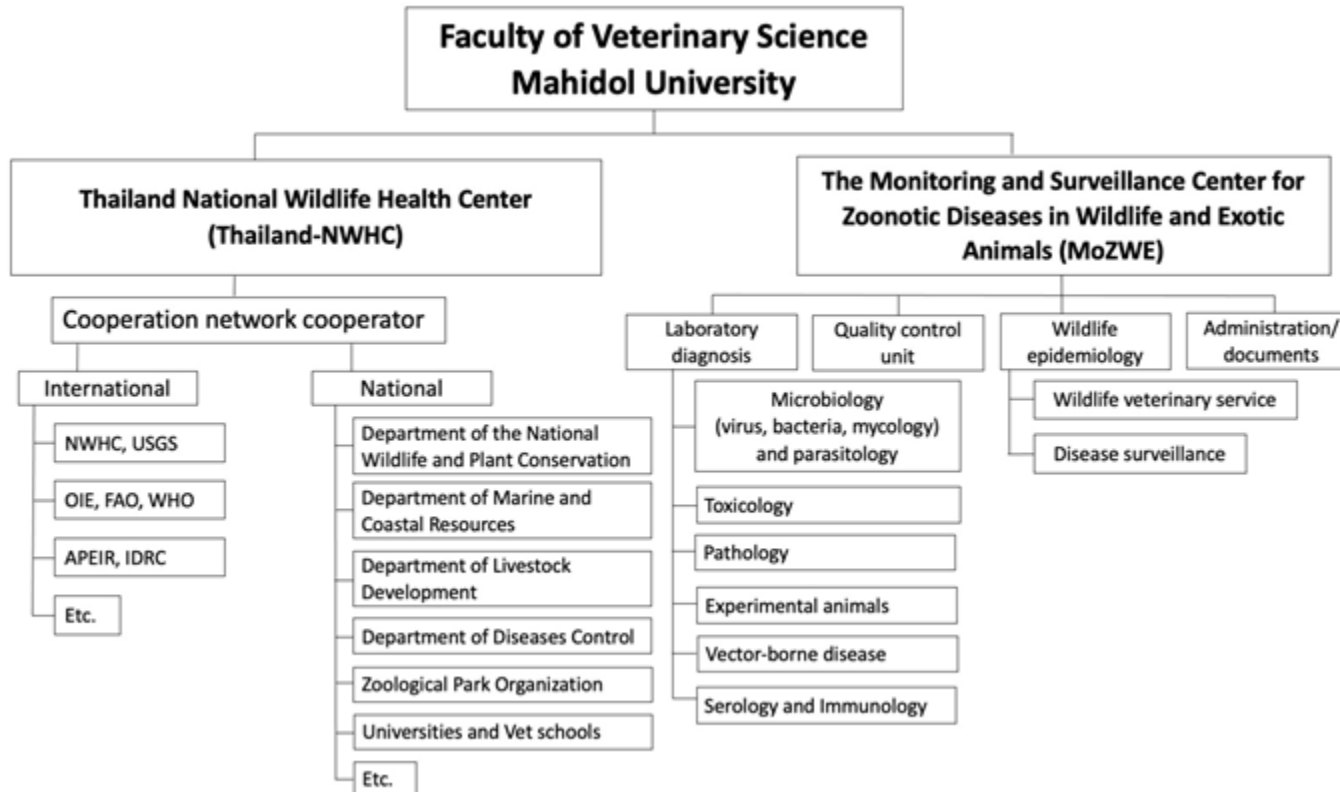
MoZWE



FAO Reference Centre for Zoonotic and Wildlife Diseases



Thailand-NWHC/MoZWE



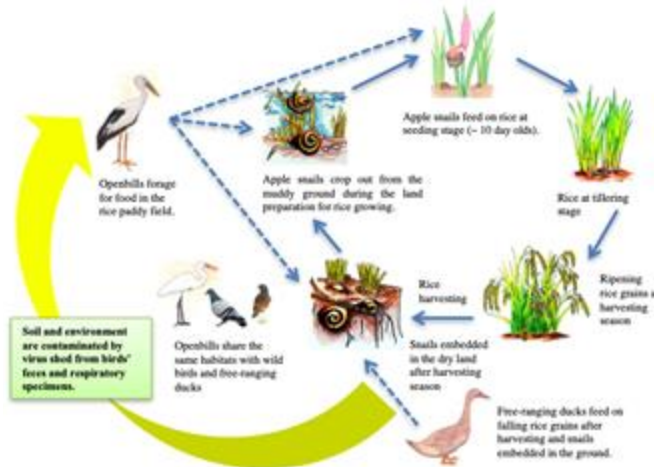
ONE HEALTH COLLABORATION AND NETWORK



ACTIVITIES ON ZONOTIC DISEASES



Avian influenza (Human-animal interface)



Middle East Respiratory Syndrome (MERS)

ACTIVITIES ON DISEASE SURVEILLANCE



Zika virus



Zoonotic diseases on wildlife trade



Rabies, leptospirosis and Nipah



**Rabies, leptospirosis, and
scrub typhus**

ACTIVITIES ON DISEASE SURVEILLANCE



SARS-CoV-2 surveillance

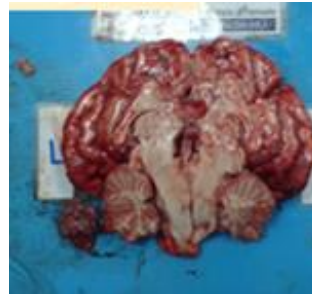
ACTIVITIES ON DISEASE SURVEILLANCE

Collaboration with Department of Livestock Development (DLD)

Disease investigation and surveillance on pet living with COVID-19 patients



ACTIVITIES ON DISEASE INVESTIGATION





ACTIVITIES ON WILDLIFE CONSERVATION





TRAINING ACTIVITIES

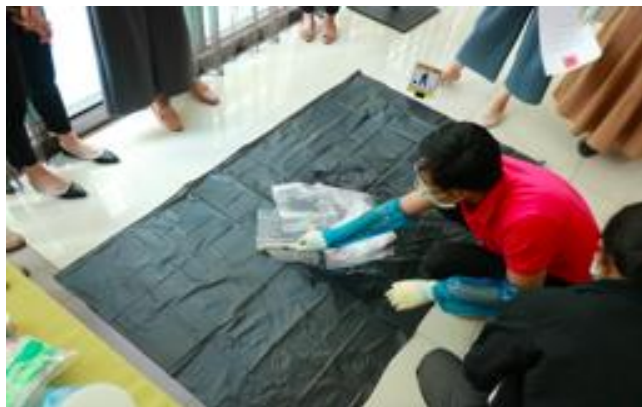


TRAINING ACTIVITIES

Biosafety and field sample collection training

(Preparedness plan for SARS-CoV-2 outbreak in animals, Thailand)

Participants: officers from Ministry of Public Health and Department of Livestock Development (DLD)



LABORATORY CAPACITY

Antigen detection

- Viral Isolation
- Real time RT-PCR
- Genome sequencing (outsource)

Antibody detection

- Neutralization assay; plaque reduction neutralization test (PRNT)

Experimental infection in lab animals

- Syrian hamster and K18 mice



MUVS BSL3 and ABSL3 lab facilities

OIE LABORATORY
(OR COLLABORATING CENTRE)
TWINNING PROJECT

OIE LABORATORY (OR COLLABORATING CENTRE) TWINNING PROJECT

OIE Laboratory
(or Collaborating Centre)
Twinning Project



- US-NWHC (National Wildlife Health Center)
- CWHC

The ultimate goal of the Thailand-NWHC/MoZWE

OIE Collaborating Centre for Wildlife
Health and Zoonotic Diseases in the
Asia-Pacific region

NEEDS ASSESSMENT (OCT 21-25, 2019)



The USGS NWHC and CWHC visit Thailand-NWHC to do the need assessment the OIE Twinning project during 20-25 October 2019.

NEEDS ASSESSMENT (OCT 21-25, 2019)



Signing MOU between USGS-NWHC and Faculty of veterinary Science, Mahidol University

NEEDS ASSESSMENT FROM THAI PARTNERS (OCT 21-25, 219)



Department of Disease Control



Ministry of Higher Education, Science, Research and Innovation



Department of Marine and Coastal Resources

NEEDS ASSESSMENT FROM THAI PARTNERS (OCT 21-25, 2019)



Department of National Parks, Wildlife and Plant Conservation



Department of Livestock Development

VISITING THAI PARTNERS (OCT 8-9, 2020)



Zoological Park Organization



Department of Marine and Coastal Resources

VISITING THAI PARTNERS (OCT 8-9, 2020)



Department of National Parks, Wildlife and
Plant Conservation



Department of Livestock Development

ACTIVITY OUTLINE

OIE LABORATORY (OR COLLABORATING CENTRE) TWINNING PROJECT

- One Health survey
- Health Information Management Workshop (Competency I-IV)
- Train the Trainers Workshop on General Surveillance for Wildlife Diseases and Outbreak Investigation
- General Surveillance for Wildlife Diseases and Outbreak Investigation Workshop

12 November 2020

Objective: To introduce the establishment of the Health Information Management and database platform for Thailand Wildlife Health Center (Thailand-NWHC) by speakers of Canadian Wildlife Health Cooperative and US National Wildlife Health Center

Duration: 1 day

Participants: 44 participants from Mahidol University staff and Thai partners of Thailand-NWHC

Status: completed activity



FUTURE ACTIVITY

January 2022

Activity: One Health survey

For the survey project, professionals involved in wildlife disease surveillance will be interviewed to gather more detailed information on perceived impediments and challenges to the implementation of wildlife disease surveillance as a component of One Health surveillance. This interview will gather more detailed, and potentially location specific, information surrounding the challenges and solutions identified in the survey. This will assist in resolving challenges to the implementation of the general wildlife disease surveillance system.

Venue: Partner institutes, Thailand (on-site)

Duration: 1 months

Participants: Partners of Thailand-NWHC

Status: Planned

FUTURE ACTIVITY

March 2022

Activity: Train the Trainers Workshop on General Surveillance for Wildlife Diseases and Outbreak Investigation

Objectives:

- 1) To train a cadre of scientists associated with the Thailand-NWHC in the theory and practice of general wildlife disease surveillance and wildlife disease outbreak investigation
- 2) To develop a curriculum and teaching materials for all partners involved in the general wildlife disease surveillance network
- 3) To establish a governance structure and policies and procedures for the general wildlife disease surveillance network

Output: Increase of the number of trainers who can transfer knowledge and experience to their teams, and sustainable wildlife health workforces for Thailand

Venue: Mahidol University, Thailand (on-site)

Duration: 5 days

Participants: Thai partners of Thailand-NWHC

Status: Planned

FUTURE ACTIVITY

March 2022

Activity: Health Information Management Workshop (Competency II-V)

Objectives:

- 1) To demonstrate the information collection, protection, supporting technology and do the data quality and assessment
- 2) To demonstrate the data application
- 3) To plan a health information management system of Thailand-NWHC

Output: Initiation of Health Information Management System of Thailand-NWHC under the collaboration of Thai-partners

Venue: Mahidol University, Thailand (on-site)

Duration: 2-3 days

Participants: Mahidol university staff and Thai partners of Thailand-NWHC

Status: Planned

FUTURE ACTIVITY

May/June 2022

Activity: General Surveillance for Wildlife Diseases and Outbreak Investigation Workshop

Objectives: 1) To enhance the expertise of all partners in general wildlife disease surveillance and outbreak investigation
2) To strengthen the wildlife health network

Output: The trained wildlife health workforces who have the skills and implement for surveillance and outbreak investigation, and strengthening their wildlife health network

Venue: Mahidol University, Thailand (on-site)

Duration: 5-10 days

Participants: Thai partners of Thailand-NWHC

Status: Planned

Thank you