APEIR NEWSLETTER

ASIA PARTNERSHIP ON EMERGING INFECTIOUS DISEASE RESEARCH

April 2017

SUCCESS STORIES FROM CHINA: EMERGING INFECTIOUS DISEASE IN WILD BIRDS AND WILDLIFE TRADE

APEIR CORDS MEETING UPDATE SHORT REPORT FROM ACCRA AND LYON

UPCOMING MEETING: STRENGTHENING ANTIMICROBIAL RESISTANCE AND FOOD SYSTEM RESEARCH

*Picture from market survey and sampling for AIV surveillance in China

APEIR

Asia Partnership on Emerging Infectious Disease Research

CONGRATULATIONS

to

Prof. Amin Soebandrio

For his appointment as

CORDS Executive Board Chairman

Shall this Opportunity Bring a Better Future for Our Global Collaboration

Surveillance of EIDS in Wild Birds and Wildlife Trade to Increase Awareness for Zoonosis Prevention and Wildlife Conservation in China

Fumin Lei, Song Gang, and the Wild Life Trade (WLT) China Team

RESEARCH SUCCESS STORY

PERIOD

September 2013 to August 2016

RESEARCH TEAM

- Institute of Microbiology, Chinese Academy of Sciences
- Executive Office of Endangered Species Scientific Commission
- College of Life Science, Shaanxi Normal University, Xi'an, PR China
- Guangxi University
- Southwest Forestry University, Yunnan Province
- Taishan Medical University
- Beijing Wildlife Rescue and Rehabilitation Center, Beijing, China

LOCATION

- Qinghai Lake areas, NW China
- Sanmenxia Reservoir Area, Central China,
- Guangxi and Yunnan Provinces, SW China

SAMPLE

17403 samples in total, including:

- 15356 birds
- 2047 environmental samples
- Tested avian influenza virus for 17403 samples.

RESULT

- 18% positive with Avian Influenza (3174/17403 samples), identified 31 subtypes.
- H5N6 has replaced H5N1 as one of the dominant Avian Influenza Virus subtypes in southern China especially in ducks.
- H5N6 viruses constitute at least 34 distinct genotypes derived from various evolutionary pathways.
- A highly pathogenic Avian Influenza A (H5N1) Virus in Migratory Birds from *Sanmenxia* Reservoir Area, Central China in 2015.

STORY FROM THE FIELD

Approximately 100 migratory birds, including whooper swans and pochards, were found dead in the *Sanmenxia Reservoir*, central China during January 2015. One of the team members, Dr. Yuhai Bi went to the field and collected the samples to identify the related pathogen. The causative agent behind this outbreak was identified as H5N1 highly pathogenic avian influenza virus (HPAIV). Sanmenxia Clade 2.3.2.1c-like H5N1 viruses possess the closest genetic identity to A/Alberta/01/2014 (H5N1), which recently caused a fatal respiratory infection in Canada with signs of meningoencephalitis, a highly unusual symptom with influenza infections in humans.

Figure 1 Dead birds from *Sanmenxia* and sampling work of the team members

Due to the geographical location of *Sanmenxia*, these novel H5N1 viruses also have the potential to be imported to other regions through the migration of wild birds, similar to the H5N1 outbreak amongst migratory birds in Qinghai Lake during 2005. Therefore, further investigation and monitoring is required to prevent this novel reassortant virus from becoming a new threat to public health.

Surveillance of EIDS in Wild Birds and Wildlife Trade to Increase Awareness for Zoonosis Prevention and Wildlife Conservation in China (Cont..)

Fumin Lei, Song Gang, and the Wild Life Trade (WLT) China Team

RESERCH SUCCESS STORY

RESEARCH TEAM

- Guangxi University,
- Southwest Forestry University
- Shaanxi Normal University

LOCATION conducted in two cities and two counties along the Sino-Vietnam border in 2015

Figure 1. The boarder market

RECOMMENDATION

There is a large gap between trade species and farming species. Based on this survey, it is suggested that the government of China should encourage the wildlife farming to meet the market needs in this area.

Figure 4. Sampling for virological tests in the poultry market

METHOD

Trade information such as species and quantity was collected based on site survey, while the illegal trade information was collected from internet or from the local forest management bureaus. In total, 41 species including 12 mammal species, 10 species of amphibious and reptiles, 19 bird species were recorded as trade wildlife species. On the contrary to that, only 8 species were farming or captive-breeding based on the questionnaire information from 21 wildlife farming householders or companies.

Figure 2. The Blue-winged Minla (*Minla cyanouropetera*) captured for sale

Figure 3. The Alligator Snapper (Chelydra serpentina) in boarder market

APEIR- CORDS Network Meetings

In March 2017, APEIR Coordinator, Wiku Adisasmito, and APEIR Steering Committee Chairman, Amin Soebandrio, attended two different CORDS (Connecting Organizations for Regional Disease Surveillance) Meeting. The first was one was in Accra, Ghana and the other one was in Lyon, France.

WANIDS Capacity Meeting

On March 1-3, 2017, APEIR attended a CORDS Meeting in Accra, Ghana. The meeting title is "Workshop on the Integrated Regional Platform for Collection and Sharing of Health Information and to Build the Capacity of the West African Network for Infectious Disease Surveillance (WANIDS). The meeting discussed the operationalization of the new CORDS network, "West African Network for Infectious Disease Surveillance (WANIDS). APEIR's presence contributed to the discussion of the organization development and future planning.

Figure 1. CORDS Network 2018 Conference

Figure 2. CORDS Network 2018 Conference

CORDS Network 2018 Conference

A planning workshop was held on March 20-21, 2017 for the CORDS' Network preparation in the upcoming Prince Mahidol Award Conference (PMAC) 2018. CORDS Network plan to showcase the inter network projects. in the conference. The conference will take place in Bangkok in January 2018 under the theme "Making the World Safe from the Threats of Emerging Infectious Diseases". CORDS is scheduled for a pre-conference workshop and each network will contribute for the workshop sessions.

Figure 3. CORDS Network Group Picture

New CORDS Executive Board Director from APEIR

After the planning workshop, on March 22- 23, 2017, the board meeting was held to discuss strategic plans and other relevant reports related to the CORDS updates and activities. Towards the end of the session, Julius Lutwama, chairman of CORDS Executive Board, handed-over the chairmanship to Amin Soebandrio, who is currently the APEIR Steering Committee Chairman. The Board has also agreed to appoint Vietnam's Dr. Vung as the Chairman Elect of the Board.

Figure 4. Julius Lutwama and Amin Soebandrio

UPCOMING MEETING

STRENGTHENING ANTIMICROBIAL RESISTANCE AND FOOD SYSTEM RESEARCH IN ANTICIPATING THE FUTURE HEALTH THREAT IN SOUTH EAST ASIA

JAKARTA, MAY 2017

To raise awareness in the issue of Antimicrobial Resistance (AMR), food safety, and chain, APEIR would like to have a discussion among relevant key stakeholders and development partners with objectives as below:

1. Building awareness and understanding the AMR and food system in South East Asia (SEA) for responding to the future health threat.

2. Identifying the need, key trends, and interest of AMR and food system for relevant stakeholders and development partners.

3. Providing a platform for collaboration among the SEA stakeholders and development partners in amr and food system.

For further information:
apeir.secretariat@gmail.com

HAPPY EASTER 2017

MAY YOUR EASTER BASKET BE FULL OF HAPPINESS AND PEACE

APEIR SECRETARIAT

Indonesia One Health University (INDOHUN)
G Building, 3rd Floor Room G316
Faculty of Public Health
Universitas Indonesia
Depok, West Java
Indonesia- 16424
E: apeir.secretariat@gmail.com
W: www.apeir.net