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Original: English
November 2014

REPORT OF THE MEETING OF THE OIE WORKING GROUP ON WILDLIFE

Taipei, Chinese Taipei, 4–7 November 2014

1. Opening

The meeting of the OIE Working Group on Wildlife (the Working Group) was held from 4 to 7 November 2014 at the Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ) Headquarters in Taipei, Chinese Taipei. The meeting was chaired by Dr William Karesh. Dr Elisabeth Erlacher-Vindel, Deputy Head of the OIE Scientific and Technical Department, welcomed the members on behalf of Dr Bernard Vallat, Director General of the OIE and expressed her gratitude for the excellent organisation of the meeting and the hospitality of the BAPHIQ.

Dr Su-San Chang, Director General of BAPHIQ, welcomed the members of the Working Group and the OIE staff for this meeting. She also introduced the three expert observers from BAPHIQ who attended the first 2 days of the meeting: Dr Wen-Jane Tu (Chief Secretary), Dr Cheng-Ta Tsai (Section Chief Animal Health Inspection Division) and Dr Jen-Chieh Chang (Assistant Researcher Animal Health Research Institute).

2. Adoption of agenda and designation of rapporteur

Prof. Ted Leighton was appointed as rapporteur for the meeting. The agenda and the list of participants are provided in [Appendices I](#) and [II](#), respectively.

3. Feedback from the meetings of the Scientific Commission – priority setting for the Working Group

3.1. Feedback from the meeting of the Scientific Commission (February 2014)

On behalf of the Scientific Commission for Animal Diseases (Scientific Commission), Dr Sergio Duffy acknowledged and thanked the Working Group for its contribution to the work of the Scientific Commission and the valuable input of its representatives in reviewing the chapters of the *Terrestrial Animal Health Code (Terrestrial Code)* on brucellosis, tuberculosis and African swine fever. The Scientific Commission appreciated the information provided by the Working Group regarding wildlife surveillance costs and requested that the Working Group discuss and provide further guidance on the main points to take into account in planning and conducting disease surveillance in wildlife. Such guidelines on disease surveillance in wildlife would help many Member Countries in establishing and improving their surveillance systems in wildlife. The Scientific Commission also requested that the Working Group discuss further the Trans-frontier Conservation Area (TFCA) issue, particularly its potential impact on disease free status policies of the OIE.

3.2. Feedback from the meeting of the Scientific Commission (September 2014)

a) Definition of metapopulation

The Scientific Commission asked the Working Group to advise on the best definition of the word, “metapopulation”, as it refers to the surveillance and management of wild or feral pig populations.

The Working Group compared the proposed and other available definitions, which were convergent. As a consequence, the Working Group advised the Scientific Commission that the proposed definition, as follows, was appropriate and sufficient:

“A metapopulation is a group of spatially separated populations of the same species that interact at some level and may consist of several distinct subpopulations within an area of suitable habitat, parts of which may be currently unoccupied.”

b) Tuberculosis diagnostic test method in New World camelids

The Working Group was asked if there were validated diagnostic tests for tuberculosis in New World camelids. The Working Group noted that tuberculin skin tests are unreliable in all camelids. A recent scientific review supported this finding but mentioned that improved methods are under development and testing. The Working Group supported the Scientific Commission’s recommendation that New World camelid tuberculosis testing be included in the *Terrestrial Code* as “under study”. The Working Group offered to assist in gathering more information, if requested.

c) Zoonoses transmissible from non-human primates

The Scientific Commission presented a question from the Biological Standards Commission on the current *Terrestrial Code* Chapter 6.11.4. and the *Terrestrial Manual* Chapter 2.9.12., related to non-human primates, the varying level of detail among diseases and how information is categorised and divided between the *Terrestrial Code* and *Manual* chapters. The Working Group noted these observations as well as recognising that the state of knowledge on several of the pathogens and tests has increased since previous chapter updates were conducted.

The Working Group will consult appropriate experts on non-human primate zoonoses and review the material currently in the two chapters to make recommendations to the Biological Standards Commission to be considered for the *Terrestrial Manual* Chapter. At this point in time, a review of the *Terrestrial Code* chapter was not requested by the Scientific Commission.

4. Information on past *ad hoc* Group meetings

- *Ad hoc* Group on Brucellosis (meeting from 2 to 4 December 2013): Dr John Fisher represented the Working Group at the meeting. The Group was informed that the new *Terrestrial Code* Chapter on Infection with *Brucella abortus*, *B. melitensis* and *B. suis* was approved in May 2014. Three former chapters were merged into one chapter following the pathogen-specific approach of the *Terrestrial Code*. The new chapter was restructured according to the different animal species in order to make it more comprehensive and easily applicable for countries.
- *Ad hoc* Group on Tuberculosis (meeting from 11 to 14 March 2014): Drs Sergio Duffy and Roy Bengis reported on this second meeting of the *ad hoc* Group. A draft of a new chapter on Infection with *Mycobacterium tuberculosis* complex was proposed by the *ad hoc* Group on tuberculosis, and was reviewed and endorsed by the Scientific Commission. The structure of the chapter follows the same approach used for the chapter on brucellosis. The draft chapter was submitted to the Terrestrial Animal Health Standards Commission (Code Commission) for further processing. Two former chapters have been merged into a single chapter.

- *Ad hoc* Group on African Swine Fever (meeting from 23 to 25 April 2014): Dr Marc Artois reported on this meeting. The *ad hoc* Group attempted to follow the framework of the *Terrestrial Code* Chapter devoted to the classical swine fever for the sake of consistency. A reviewed chapter on African swine fever, together with the rationale for changes, was provided to the Code Commission for further processing.
- *Ad hoc* Group on Middle East Respiratory Syndrome (MERS) coronavirus infection in animals (meeting from 15 to 17 July 2014): Dr Karesh represented the Working Group at the meeting and made a presentation on current knowledge of the virus in bats and camels.

The Working Group was very appreciative to the OIE for involving its members in relevant *ad hoc* Groups and remains available for further meetings of *ad hoc* Groups if requested by the OIE.

5. Disease reporting

5.1. Feedback on the use of the list of wildlife diseases (non-OIE listed diseases) through the new *WAHIS-Wild* interface

A written report on this topic from the World Animal Health Information and Analysis Department (WAHIAD) was received by the Working Group. Included in the report were several requests for advice and comment by the Working Group. The Working Group agreed to annually review the taxonomy of the pathogens on the wildlife list to ensure these are up to date, and did so for the current list. The Working Group offered to assist the WAHIAD on an on-going basis to determine the correct taxonomy of pathogen hosts as host species are added to *WAHIS-Wild*, and it agreed with the WAHIAD that it would be useful to include taxonomic Order of host species in the taxonomic hierarchy used in *WAHIS-Wild* interface. The Working Group encouraged the WAHIAD to continue to work on further development in collection of information on diagnostic tests used to confirm diagnoses in order to have this information available in the future in *WAHIS-Wild* Interface. The Working Group agreed to provide Internet links and announcements of relevant wildlife health conferences and events for publications on the *WAHIS-Wild* interface, and encouraged the WAHIAD to subscribe to some email lists that regularly provide such information.

5.2. Review the specific list of wildlife diseases to see if any revisions to the list are needed

The Group confirmed its commitment to reviewing, every 3 years, the pathogens included on the list of wild animal pathogens that are not on the OIE List but for which voluntary annual reporting by Member Countries through *WAHIS-Wild*, including 2014, should be recommended. The Working Group reviewed the current list and made the following recommendations:

- That *Clostridium piliforme*, the agent of Tyzzer's Disease, be deleted
- That all Ranaviruses in reptiles be added
- That the chytrid fungus *Batrachochytrium salamandrivorans* in amphibians be added.

6. Rabies

6.1. World Rabies Day

The Working Group agreed to make itself available to the OIE to contribute wildlife-related material to the World Rabies Day activities the OIE will plan in 2015.

In addition, the Working Group was informed that the OIE Collaborating Centre for the Training of Official Veterinarians (VetAgro Sup, Lyon, France) had a plan for updating and extending the web-portal on rabies information exchanges established for the 2013 Rabies Day. <http://www.ensv.fr/rabies/>.

6.2. Scientific paper on rabies and its impact on biodiversity

As previously decided, a draft scientific article on this topic was prepared at the request of the OIE. After a comprehensive literature review, a list of susceptible host species was compiled, and rabies outbreaks notified to the OIE are being collected. The paper is still being compiled and completion is anticipated prior to the World Rabies Day in 2015.

6.3. The rabies situation in Chinese Taipei

Dr Su-San Chang, Director General of BAPHIQ, gave a detailed presentation on the current rabies situation in ferret badgers (*Melogale moschata*) in Chinese Taipei that was further discussed by the members of the Working Group.

7. Emerging and noteworthy wildlife disease occurrences: reports from members of the Working Group on Wildlife

Information provided by members of the Working Group

■ AFRICA

Anthrax: Sporadic cases of anthrax in wildlife were reported from South Africa, Zimbabwe, Namibia, Botswana and Kenya. In South Africa's Kruger National Park, mortalities were reported in African buffalo (*Syncerus caffer*), impala (*Aepyceros melampus*), greater kudu (*Tragelaphus strepsiceros*), nyala (*Tragelaphus angasi*), Burchells zebra (*Equus burchelli*), waterbuck (*Kobus ellipsiprymnus*), and Chacma baboon (*Papio ursinus*).

Bovine brucellosis: In South Africa, several outbreaks of bovine brucellosis were detected in farmed African buffalo (*Syncerus caffer*).

Bovine tuberculosis: In South Africa's Kruger National Park and Hluhluwe/Imfolosi Park, sporadic cases of bovine tuberculosis continue to be reported in African buffalo, greater kudu, warthog (*Phacochoerus aethiopicus*), banded mongoose (*Mungos mungo*) and lions (*Panthera leo*). Bovine tuberculosis was also reported in a giraffe (*Giraffa camelopardalis*) and in an impala on private wildlife ranches in Mpumalanga Province.

Ebola virus infection: Additional human cases and deaths continue to be reported in all three affected West African countries (Guinea, Liberia and Sierra Leone). Of growing international concern is the possibility of imported Ebola Virus Disease (EVD) cases, given that the outbreak shows no signs of abating soon, and persistent widespread transmission continues in all three countries. As at 22 October 2014, a cumulative total of 10 135 EVD cases (laboratory-confirmed, probable and suspected), including 4 920 deaths, with a case fatality rate of 49%, had been reported to the World Health Organization for the current EVD outbreak in West Africa.

Congo (Dem. Rep. of [DRC]): The recent outbreak in DRC is unrelated to the current outbreak in West Africa. This is the seventh confirmed EVD outbreak in DRC, close to where the virus was first identified in 1976 in Yambuku near the Ebola River. As of 21 October 2014, a cumulative total of 67 EVD cases (38 confirmed, 28 probable and one suspected), including eight healthcare workers, had been reported. In addition, 49 deaths (case fatality rate: 73%), including the eight healthcare workers, were also reported. The index case reportedly butchered a non-human primate before contracting the disease.

Marburg virus infection: In Uganda (Mpigi district), eight suspected cases and one confirmed case were reported. *Rousettus aegypti* fruit bats are natural hosts of Marburg virus. The virus is spread to people from eating fruit bats and through direct contact with the blood or bodily fluids of an infected person.

Poaching: Probably one of the most serious problems facing wildlife in Africa today is rampant poaching, which is spiraling out of control. By far the most serious poaching events are syndicated "profit poaching" of elephants (*Loxodonta Africana*) for ivory and of rhinoceros (*Ceratotherium simum* and *Diceros bicornis*) for horns. South Africa, which is home to the world's largest rhino populations (black and white), lost in excess of 1000 rhinos to poachers in 2013 and more than 650 have been poached to date in 2014.

It is estimated that approximately 30,000 elephants were poached in East and West African countries during 2013, and the poachers are now turning their attention to the southern elephant populations. During September and October 2013, in excess of 300 elephants were poisoned using cyanide on salt licks and water holes in Zimbabwe's Hwange National Park. The Mozambique elephant populations have also been hard hit by poachers armed with military assault rifles.

Rabies: Rabies is endemic in many African countries where domestic and feral dogs are the most important vectors. During 2014, South Africa also reported sporadic cases of rabies in bat-eared fox (*Otocyon megalotis*), black-backed jackal (*Canis mesomelas*), aardwolf (*Proteles cristata*), Cape fox (*Vulpes chama*), large grey mongoose (*Herpestes ichneumon*), slender mongoose (*Galarella sanguinea*), small grey mongoose (*Galarella pulverulenta*), yellow mongoose (*Cynictus pennicilata*), and common duiker (*Sylvicapra grimmia*).

At least 297 cases of dog rabies were reported in South Africa during 2013/2014, with seven laboratory-confirmed fatal human cases recorded for the year.

Unusual diseases detected in intensively farmed African buffalo: Sporadic cases of clinical malignant catarrhal fever (both wildebeest and sheep associated), corridor disease (*Theileria parva* infection) and heartwater (*Ehrlichia ruminantium*), were detected in the offspring of intensively farmed buffalo in South Africa. Generally, free-ranging buffalo in multi-species systems appear resistant to these pathogens, but some of the offspring from intensively farmed buffalo develop clinical, often fatal, disease when placed in a multi-species environment, or are exposed suddenly to significant tick activity.

■ ASIA

Australian bat lyssavirus: cases continue to be reported.

Dengue fever: This Flavivirus infection has a monkey–mosquito (sylvatic) cycle and a human–mosquito (urban) cycle. The disease is apparently moving northwards with expansion of the range of the mosquito vector (*Aedes aegyptae*). In Japan, the incidence of infection has been rising and expanding northwards since 1999; the urban cycle appears to be the main cycle, but no surveillance of monkeys has yet been done.

Hantavirus: A novel bat hantavirus was described in Vietnam.

Rabies: Confirmed cases still are occurring in ferret badgers in certain locations both east and west of the central mountains in Chinese Taipei. Mass vaccination of domestic dogs is continuing.

Severe fever with thrombocytopenic syndrome (SFTSV): This syndrome was recently diagnosed for the first time in Japan. Wild deer were shown to be sero-positive, and virus was isolated from them. This is a new *Bunyavirus* that has emerged in South-East Asia. In 2009, China (People's Rep. of) reported a 30% case fatality rate in infected humans.

■ EUROPE

African swine fever: African swine fever (ASF) was introduced into Georgia in 2007, and since then has been spreading to many different parts of western Russia, affecting wild boar and domestic pigs. In January 2014, ASF was discovered in Lithuania in wild boar. ASF was also found in four wild boar in Poland between February and May 2014. Further cases of ASF have been observed in this area during the autumn. In June 2014, Latvia notified three cases in one backyard pig herd and in 13 wild boars found dead. All these cases were adjacent to the border with Belarus. In September 2014, ASF was found in a wild boar in Estonia, 6 kilometers from the Latvian border and four additional cases have been detected since then.

Bovine tuberculosis: The infection continues to cause concern in European wildlife, the number of affected countries has increased, and now includes countries from Central Europe.

Echinococcus multilocularis: During the last few years, several thousand faecal samples from red foxes (*Vulpes vulpes*) were collected in Sweden in order to determine the distribution of this parasite. In 2014, the worm was detected in a new area in southern Sweden, and its presence has now been demonstrated in five different areas.

Fallow deer mortality in Södermanland: In 2013 and 2014, an increased mortality in adult male fallow deer (*Dama dama*) was observed in areas south of Stockholm, primarily during the month of July. Diseased and dead deer had pneumonia and *Pasteurella multocida* was consistently cultured. It is not known how and why deer become infected and whether this infection originated from domestic animals or other wildlife species.

Influenza in harbour seals: During 2014, increased mortality in harbour seals (*Phoca vitulina*) was observed in German, Danish and Swedish waters around the North Sea and Wadden Sea. It has been estimated that up to 2000 seals have died. Influenza A virus of the type H10N7 has been isolated from seals from all three countries, and it is estimated that around 40 per cent of the population were infected. This subtype has not been reported in seals to date, nor has influenza A-associated mortality been reported in seals in Europe.

Leishmaniosis: *Leishmania infantum* has been detected in brown hare, a newly recognised host.

Leprosy: Red squirrel (*Sciurus vulgaris*) populations are in decline in the UK. Since 2006, several cases of a novel presentation of dermatitis have been detected in red squirrel from various locations in Scotland. Sequencing of the amplicons from the affected squirrels revealed homology with *Mycobacterium lepromatosis*. Although murine leprosy was already described in rodents and cats, it is the first time that a leprosy is described in squirrel.

Malignant catarrhal fever: During 2014, sporadic cases of malignant catarrhal fever (MCF) were detected in wild moose (*Alces alces*) in Sweden. These cases were caused by the sheep-associated strain of the virus. It has not been determined how this virus is transmitted to these wild cervids from the domestic livestock reservoir.

Mycoplasma ovipneumoniae: Since 2006, severe outbreaks of pneumonia with mortality rates of 25–30% occurred in muskox (*Ovibos moschatus*) on the high mountain plateau of Dovre in Norway. Laboratory analysis has demonstrated that *Mycoplasma ovipneumoniae* is the main bacteria involved in this epizootic, and that introductions of the *M. ovipneumoniae* infection in muskox most probably came from infected co-grazing sheep. Salt licks shared by the two species were a possible route of transmitting infection.

Myxomatosis: A major outbreak of myxomatosis in rabbits (*Oryctolagus cuniculi*) occurred in southern Sweden in 2014, with high mortality reported.

Oedema disease: Oedema disease in wild boar was detected in the Ardeche region of France in 2013 and recurred in 2014. While the outbreak has now been well defined, the source is still not known. A strain of *Escherichia coli* producing shiga toxin is causing the disease in farmed pigs, but the disease was never previously reported in free-living wild boars.

Rabbit haemorrhagic disease: the virulent strain of Rabbit haemorrhagic disease causing mass mortality in Spain and Portugal has now occurred in France.

Rabies: Fox rabies appears to be under control in Greece following oral vaccination.

Salamander chytrid fungus: This newly-discovered chytrid fungus (*Batrachochytrium salamandrivorans*) appears to be a long-endemic commensal of Asian salamanders, but is highly virulent for Western Palearctic salamanders. It appears to have been recently introduced to Western Europe via the amphibian pet trade, where it is causing mass die-offs and rapid extirpations of wild salamander populations. There are no reports of the infection in the Americas; this continent, with the world's greatest diversity of salamander species, is at particular risk should the fungus be imported.

Trichomoniosis in small birds: Trichomoniosis continues to be a major mortality factor for passerine birds and especially greenfinch (*Chloris chloris*); in the summer of 2014, the number of reports of sick and dead greenfinches increased significantly compared with previous years. Several cases were also observed in hawfinches (*Coccothraustes coccothraustes*).

■ NORTH AMERICA

White-nose syndrome: Bats affected with white-nose syndrome (infection with the fungus *Pseudogymnoascus destructans*) were discovered 170 kilometres further west in Canada in 2014 than in 2013.

***Erysipelothrix rhusiopathiae*:** The zoonotic bacterium *Erysipelothrix rhusiopathiae* has recently been recognised as a cause of systemic infection (septicaemia) in Muskoxen (*Ovibos moschatus*) and more recently in Moose (*Alces alces*) and Caribou (*Rangifer tarandus*) in northern and western Canada.

Listeriosis: Starting in 2012 and continuing into 2014, wild rabbits (*Sylvilagus*) and hares (*Lepus*) have been observed in western Canada with severe uterine infections caused by the zoonotic bacterium *Listeria monocytogenes*. This bacterium has been reported to infect wild hares in Europe but has not been reported previously in North America.

***Actinobacillus pleuropneumoniae* serotype 14:** The European wild boar (*Sus scrofa*) is a newly-established wild ungulate in Canada, now widely distributed and increasing from animals imported into Canada for farming and subsequently either released or escaped. A recent serological survey of a small sample of hunter-killed wild boar found 20 of 20 to be seropositive to *A. pleuropneumoniae*, and seven of these 20 were seropositive specifically to serotype 14, a serotype not previously reported in North America. *Actinobacillus pleuropneumoniae* is an important pathogen of domestic pigs.

West Nile virus infection: A highly unusual West Nile virus (WNV) mortality event occurred among eared grebes (*Podiceps nigricollis*) and bald eagles (*Haliaeetus leucocephalus*) at Great Salt Lake in Utah from November 2013 to February 2014. Grebe mortality was estimated at 15,000 – 20,000 among approximately 2,000,000 birds at the lake, and 76 dead or dying bald eagles were found. It is believed that prolonged warm weather in the autumn allowed extended mosquito transmission of WNV to the grebes arriving there to stage for migration, and that grebe-to-grebe transmission occurred thereafter. Transmission of WNV to bald eagles apparently occurred via ingestion of the carcasses of infected grebes.

Hoof disease in Roosevelt's elk (*Cervus elaphus roosevelti*): This disease was first recognised in 2008 in southwestern Washington. Since then, the prevalence of the disease has increased as has its geographical distribution, particularly to the south, extending into northwestern Oregon. The appearance of the disease is very similar to digital dermatitis in cattle and contagious ovine digital dermatitis in sheep, and *Treponema* organisms have been detected in the lesions of affected elk.

Chronic wasting disease (CWD): CWD was detected for the first time in wild white-tailed deer (*Odocoileus virginianus*) in northeastern Iowa in 2014, and it is believed to be an extension of the endemic focus in southwestern Wisconsin. Among captive deer, 284 CWD-positive animals were recently found among 356 (79.6%) deer depopulated at a facility in northern Iowa in which CWD was first found in 2012. In Pennsylvania, epidemiological investigations of CWD continue among captive deer herds that had been certified as low risk for CWD after more than 5 years of monitoring for the disease by testing all animals older than 12 months that die on site. Recently, CWD was detected in Ohio for the first time in a captive deer. The facility had been under quarantine since April 2014 and was subject to intensive monitoring and sampling protocols because of a known connection to a captive deer operation in Pennsylvania that tested positive for CWD earlier this year. Since 2012, CWD has been detected in several herds after they had achieved certified-free status.

8. Trans-Frontier Conservation Areas in relation to OIE Standards for disease free zones

The concept of trans-frontier conservation areas (TFCAs), also known as peace parks, involves the opening of transboundary landscapes to allow for protection of habitats and dispersal of wildlife. The TFCA vision and initiative explores the possibility that changing land-use practices from subsistence farming on marginal land to community participation in nature-based ecotourism may have sustainable economic and ecological benefits for all. It should be noted that historically, parks and wildlife protected areas were often selected for areas poorly or marginally suitable for livestock production or having wildlife diseases detrimental to humans or livestock.

Certain TFCAs, especially those situated in arid savannahs, desert landscapes and high altitude grasslands, generally do not have species that pose any major animal health threats. These TFCAs do not generate concern regarding the status or control of foot and mouth disease (FMD) and some other significant OIE listed diseases. The major TFCAs of concern are those located in the tropical and subtropical savannahs of sub-Saharan Africa, because they are home to one or more key species that maintain or amplify certain OIE listed disease agents; these include African buffalo, wild suids, wildebeest, spiral-horned antelope species and various zebra species. The establishment of TFCAs does not affect country status for diseases that cannot be contained by fencing or other physical barriers, such as those diseases that are vectored by insects, birds or small mammals.

The Working Group focused on two questions:

- 1) How can disease-free status be defined for countries that share TFCAs, taking into consideration the provisions of the OIE *Terrestrial Code*?

The Working Group recommended:

- a) A collaborative approach between the involved countries and local communities for disease reduction and control,
- b) Utilisation of zoning by physical and/or immune barriers between the TFCA and the free area, combined with appropriate surveillance to demonstrate effective control.

- 2) How do TFCAs affect those countries seeking disease-free status?

The TFCAs do not affect status, it is the presence of endemically infected species that are or are not within the TFCA or are able to cross the TFCA from an affected country to a free country or free zone.

Thus, TFCAs must be evaluated individually and wildlife health experts should be part of the team that assesses risk and disease status. The PVS¹ tool includes evaluation of wildlife expertise as a component of the capacity of national veterinary services and TCFAs demonstrate well the need for this capacity.

9. Wildlife disease surveillance programmes: specific aspects

The Working Group was requested by the Scientific Commission to provide guidance on wildlife surveillance for sharing with OIE Member Countries. The Working Group reviewed the information compiled on cost of wildlife surveillance activities and discussed additional topic areas that might be useful. It was noted that two OIE publications are now available on this topic:

- 1) Guide to Terrestrial Animal Health Surveillance (OIE 2014), and
- 2) Training Manual from the 2nd cycle of Workshops for OIE National Focal Points for Wildlife

A subset of Working Group members will utilise the above-mentioned information to develop a short overview or introduction to wildlife surveillance for review by the Scientific Commission that will include references to the other documents and a budget planning template.

¹ PVS: Performance of Veterinary Services

10. Avian influenza: wild bird surveillance – update from OFFLU²

The OFFLU Steering Committee has approved the creation of a Technical Activity group on influenza in wildlife/wild birds. This new OFFLU activity will be coordinated by Dr William Karesh. A list of eighteen technical experts was proposed, including Prof. Frederick Leighton, member of the Working Group. Technical activities of the new group should begin early in 2015.

The Terms of Reference for the group are:

- To provide a platform for discussion, coordination, and data sharing between key wildlife experts involved in influenza surveillance and research;
- Regular review of the OFFLU Research Priorities on Avian Influenza: Wild Birds;
- To review existing findings from 10 years of extensive wild bird surveillance and highlight the main outputs;
- To explore and answer specific technical questions including:
 - What evidence is there that wild birds act as a bridging species between poultry and the wild bird reservoir? Are there biosecurity implications for the poultry sector?
 - What is the relevance of influenza infections in other wildlife species?
 - What are the benefits of wild bird influenza surveillance? How can the benefits be optimised?
- To decide whether there is a need to develop/coordinate a low-cost targeted wild bird surveillance strategy at the global level, accounting for existing surveillance programmes;
- To provide OFFLU with technical expertise on influenzas in wild animals.

11. Collaborative Partnership on Sustainable Wildlife Management: update on the factsheets and other activities

The Collaborative Partnership on Sustainable Wildlife Management (CPW), of which the OIE is a member, was created in late 2012 and comprises 14 international organisations, with a Secretariat hosted by FAO³. It is noted that the CPW work plan has some overlap with the Terms of Reference of the Working Group. It is therefore important that the Working Group assist the OIE and provide comments on CPW documents.

In 2014, the Working Group made comments on some fact sheets from CPW, and on the *CPW Source Book on Bushmeat*. This draft, prepared primarily by the Center for International Forestry Research (CIFOR), is currently being revised in the light of recent Ebola events.

Another fact sheet – Sustainable Wildlife Management – is under production by CPW, and the OIE has asked the Working Group for support in the production in this fact sheet.

Two further CPW initiatives involve a) a project proposal on “Criteria and Indicators for Sustainable Wildlife Management: a key step towards a global certification system” to be submitted for Global Environment Facility funding which was on the CPW agenda for discussion in a recent meeting in South Korea, and b) creation of a sustainable wildlife management terminology glossary, an initiative led by the International Union of Forest Research Organizations. The OIE has noted the need to take into account terminology used in existing international standards. The Working Group has received a concept note for comment.

The CPW tends to meet as short side events during other conferences on forests, biodiversity etc. and the Working Group is willing to attend or assist the OIE in these meetings. However, it was pointed out that notifications about these meetings need to be sent out to the Working Group as early as possible so it will be possible for Working Group members to assist.

2 OIE-FAO global network of expertise on animal influenza

3 The Food and Agriculture Organization of the United Nations

12. Updating of Chapter 7.5. of the *Terrestrial Animal Health Code* to include special considerations for humane slaughter of reptiles

The Working Group was requested to review *Terrestrial Code* Chapter 7.5 on Slaughter of animals in light of the rising official and public concern regarding the humane treatment and euthanasia of pythons and crocodilians. The Working Group discussed the variety of current practices and noted the reptilian adaptation for prolonged brain activity under hypoxic conditions was a special consideration. After initial review, the Working Group decided that additional considerations for reptiles would be beneficial and will review the *Terrestrial Code* chapter in more detail to develop suggestions for revisions or additional sections.

13. OIE Collaborating Centres for Wildlife

- a) **Collaborating Centre for Training in Integrated Livestock and Wildlife Health and Management (South Africa)**: The annual report from 2013, sent to the OIE, was reviewed.
- b) **Collaborating Centre for Research, Diagnosis and Surveillance of Wildlife Pathogens (Canada/USA)**: The annual report from 2013, sent to the OIE, was reviewed and the activities in 2014 were presented to the Working Group by Prof. Leighton of the Canadian Wildlife Health Cooperative.

The Working Group noted that both Collaborating Centres were very active in meeting the needs of OIE Member Countries and in supporting OIE programmes.

14. Training of Wildlife Focal Points

14.1. Third Cycle of Workshops

The third cycle of training workshops for OIE National Focal Points on Wildlife was completed in July 2014. Five workshops were held, in Botswana, Chad, Canada, Russia and Japan, and training material was developed in English, French and Spanish. The programme covered background information on the OIE and the duties of Focal Points on Wildlife, hands-on training on *WAHIS-Wild* and a section on risk assessment and multi-criteria decision analysis developed by the OIE Collaborating Centre for Research, Diagnosis and Surveillance of Wildlife Pathogens (Canada/USA).

The new workshop format, offering a specific introductory section for new Focal Points, work in small groups and plenary presentations and discussions, proved to be very effective.

Networking among the Focal Points in each region and feedback on proposed new projects has become a very important positive aspect of these training workshops.

14.2. Printing of Training Manuals

The Training Manual developed for the second cycle has been prepared for final production in English, and the French and Spanish versions will be finalised as soon as possible. The Training Manual for the Third cycle will be ready for publication on the OIE website in 2015.

The training of OIE National Focal Points for Wildlife initially proposed for 2015 could not be yet confirmed due to current lack of budget for these activities. Several other options for training will be considered, such as electronic presentation modes, on-line training for *WAHIS-Wild* or regular teleconferences with Focal Points to maintain regional networks.

The Collaborating Centres are willing to help in the development of new training material and appropriate modes of presentation, networking and personal interaction in the future.

15. Past and upcoming Conferences (feedback from members and the OIE Headquarters)

Dr Torsten Mörner reported on the International Council for Game and Wildlife Conservation (CIC) joint international meeting on early detection and prevention of African swine fever and other animal health issues at the wildlife–livestock–human interface, which was held from 30 June to 1 July 2014 in Paris, France. He mentioned the poor attendance by hunter groups and participants from southern Europe. The Working Group also suggested further development of the OIE’s relationship with CIC and with other hunter organisations such as the Federation of Associations for Hunting and Conservation of the European Union (FACE). Finally the Working Group mentioned its interest in assisting the OIE to develop and implement a strategy to engage effectively with hunter groups.

The Working Group was informed that Prof. Marc Artois received the Distinguished Service Award of the Wildlife Disease Association (WDA) during the meeting of the European Section of the WDA held in August 2014 in Glasgow, United Kingdom.

Prof. Artois reported on the Workshop on Health and Biodiversity held in Lyon, France in October 2015. He informed the Group that 300 participants attended the workshop and that Proceedings will be published soon.

The Working Group was informed of some relevant upcoming meetings for 2015.

16. Use of veterinary medicinal products containing the substance diclofenac

The Working Group discussed the status of diclofenac and its recent approval for veterinary use in Spain. The Working Group has concerns for the vulture populations of the EU and elsewhere because of their potential exposure to diclofenac while scavenging carcasses of domestic animals that have been treated with it, particularly in view of the severe population impacts diclofenac toxicosis has had on *Gyps* vultures in the Indian subcontinent and elsewhere. Recognising these concerns, and at the request of the OIE Director General, the group developed the following statement:

In view of the documented evidence and global experience with diclofenac as a cause of significant mortality to wildlife resulting in alarming population declines, particularly among scavenging birds, when the drug is used to treat domestic animals, the OIE Working Group on Wildlife is dismayed that diclofenac continues to be approved for use in animals the carcasses of which may become accessible to scavenging birds. In addition, equivalent but less toxic Non-steroidal anti-inflammatory drugs are available for treatment of domestic animals. Therefore, the Working Group recommends the prohibition of all use of diclofenac in livestock.

The Working Group also noted an article published in the OIE *Bulletin* (Woodford M.H., Bowden C.G.R. & Shah N. (2008). – Diclofenac in Asia and Africa. Repeating the same mistake? *In* OIE Bulletin, 2008 (2), pp. 11–14 and 69), describing the adverse effects of diclofenac use in livestock on scavenging wild birds and the ecological and economic value of scavenging birds.

17. Definition of “Bushmeat”

The Scientific and Technical Department requested that the Working Group advise the OIE on the appropriate definition and use of the word “bushmeat.” The Group discussed this point at some length. The term “bushmeat” is not used consistently in the scientific or lay literature but rather is given different meanings in different contexts. There is no universally understood or agreed definition of the term which is an imprecise term. The OIE is not obligated to use this term at all. As an alternative, the OIE could officially use the term “meat from wild animals” in any situation when such a term is required. The OIE has already defined “meat” and “wild animal” in its official publications, so the term “meat from wild animals” is unambiguous when used by the OIE. The Working Group encourages the OIE to use “meat from wild animals” rather than “bushmeat”.

18. Work programme and priority setting for 2014/2015

The Working Group discussed potential activities for the coming year pending Scientific Commission review. These included:

- The Working Group would provide the Scientific Commission with a concise guidance document on wildlife disease surveillance. This document would make reference to information in the wildlife Focal Point training manual (cycle 2) and the recently published OIE Guidelines on Animal Disease Control. It would also include a budget planning template.
- The Working Group would review current knowledge on diagnostic tests for *Mycobacterium bovis* infection in New World camelids and provide this information to the Scientific Commission if requested.
- The Working Group would review the current *Terrestrial Code* Chapter 7.5. *Slaughter of animals* and recommend any revisions required to include reptiles appropriately.
- The training manual for the second cycle is in final editing and the workbook from the Third cycle would be ready for publication within a few months.
- The Working Group would communicate with the Scientific Commission regularly to ensure the Group responds to new and on-going Scientific Commission’s priorities and needs.
- Supporting OFFLU in its efforts to gather information on surveillance for avian influenza viruses in wildlife. OFFLU has approved a technical activity group on influenza in wildlife/wild birds.
- The Working Group would work with the OIE to help determine if a second global conference on wildlife health would be of value and to plan such a conference should the OIE decide to organise such an event (see notes in Agenda item 19 below).
- The Working Group would assist the OIE to participate in World Wildlife Day events (March 2015). <http://www.un.org/en/events/wildlifeday/>.

19. Other business

19.1. Surveillance for foot and mouth disease

The Working Group was requested by the chair of the Code Commission to review the current statement in the *Terrestrial Code* that defines foot and mouth disease virus (FMDV) infection with regard to the status of a country or zone. This definition of FMDV infection defines the species in which surveillance is needed (epidemiologically relevant species). Among the susceptible species is a wide range of wild ungulates. To improve efficacy and efficiency of surveillance, a more risk-based approach to the current list of species may be useful.

The Working Group recognised that relatively few species are epidemiologically relevant; relevant species include domestic cattle, wild African buffalo (maintenance host of South African Territories [SAT] strains of FMDV), and suids (as amplification hosts). However, the Working Group was reluctant to overly restrict the list of epidemiologically significant species.

The Working Group recommended reducing the list of species from the taxonomic category of “Ruminantia” by replacing this specification with the subfamily *Bovinae* in this section of the *Terrestrial Code*.

19.2. Congratulations to the OIE Publications Department

The Working Group made a special note of appreciation for the OIE Publications Department for the completion of the *Guide to Terrestrial Animal Health Surveillance*. This comprehensive document includes valuable information on surveillance of both domestic and wild animals.

This year, the Department also published Volume 33 of the OIE Scientific and Technical Review on the theme of One Health. Members of the Working Group widely contributed to this edition by writing and editing certain articles, and ensuring the coordination of this Review.

19.3. Global Conference on Wildlife Health

Following discussions on a future OIE Conference on wildlife health, the Working Group concluded that the growing interest in wildlife among Member Countries and numerous stakeholders, as well as the growing challenges in wildlife health would suggest the value of the OIE hosting such conference if time and funding allows. Members of the Working Group are available to assist with further development of the concept.

19.4. International Wildlife Day

The Working Group discussed the global celebration: International Wildlife Day, March 3, 2015, and will develop some ideas for possible OIE participation or communication.

20. Date of next meeting

The Working Group noted the proposed week for its next meeting: 29 September–2 October 2015.

21. Adoption of report

The report was adopted by the Working Group.

.../Appendices

**MEETING OF THE OIE WORKING GROUP ON WILDLIFE
Taipei, Chinese Taipei, 4–7 November 2014**

Agenda

- 1. Opening**
 - 2. Adoption of agenda and designation of rapporteur**
 - 3. Feedback from the meetings of the Scientific Commission – priority setting for the Working Group**
 - 3.1 Feedback from the meeting of the Scientific Commission (February 2014)
 - 3.2 Feedback from the meeting of the Scientific Commission (September 2014)
 - a) *Definition of metapopulation*
 - b) *Tuberculosis diagnostic test method in New World camelids*
 - c) *Zoonoses transmissible from non-human primates*
 - 4. Information on past *ad hoc* Group meetings**
 - 5. Disease reporting**
 - 5.1 Feedback on the use of the list of wildlife diseases (non-OIE listed diseases) through the new *WAHIS-Wild* interface
 - 5.2 Review the specific list of wildlife diseases to see if any revisions to the list are needed
 - 6. Rabies**
 - 6.1 World Rabies Day
 - 6.2 Scientific paper on rabies and its impact on biodiversity
 - 6.3 The rabies situation in Chinese Taipei
 - 7. Emerging and noteworthy wildlife disease occurrences: reports from members of the Working Group on Wildlife**
 - 8. Trans-Frontier Conservation Areas in relation to OIE Standards for diseases free zones**
 - 9. Wildlife disease surveillance programmes: specific aspects**
 - 10. Avian influenza: wild bird surveillance – update from OFFLU**
 - 11. Collaborative Partnership on Sustainable Wildlife Management: update on the factsheets and other activities**
 - 12. Updating of the Chapter 7.5. of the *Terrestrial Animal Health Code* to include special considerations for humane slaughter of reptiles**
 - 13. OIE Collaborating Centres for Wildlife**
 - 14. Training of Wildlife Focal Points**
 - 14.1 Third Cycle of Workshops
 - 14.2 Printing of Training Manuals
 - 15. Past and upcoming Conferences (feedback from members and the OIE Headquarters)**
 - 16. Use of veterinary medicinal products containing the substance diclofenac**
 - 17. Definition of “Bushmeat”**
 - 18. Work programme and priority setting for 2014/2015**
 - 19. Other business**
 - 19.1 Surveillance for foot and mouth disease
 - 19.2 Congratulations to the OIE Publications Department
 - 19.3 Global Conference on Wildlife Health
 - 19.4 International Wildlife Day
 - 20. Date of next meeting**
 - 21. Adoption of report**
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**MEETING OF THE OIE WORKING GROUP ON WILDLIFE
Taipei, Chinese Taipei, 4–7 November 2014**

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