REPORT OF THE MEETING OF THE
OIE WORKING GROUP ON WILDLIFE DISEASES

The third meeting of the Group was held on 13-15 June 1995 at the headquarters of the OIE. It was opened by Dr J. Blancou, Director General of the OIE, who welcomed the participants (listed in Appendix I). Drs P. Chardonnet and T. Mörner sent their apologies. Dr M.H. Woodford was elected chairman of the meeting, and Drs M. Artois and R. Bengis were elected as rapporteurs. The agenda (Appendix II) was approved. The main objective of the Working Group on Wildlife Diseases at this meeting was to review the results achieved and progress made in the preceding year for the collection and reporting of wildlife diseases of concern to the Member Countries.


   LIST A

Rinderpest in Cape buffalo and other wild animals

An outbreak of rinderpest in Tsavo West National Park (Kenya) has been reported. It appears that mainly buffalo (*Syncerus caffer*) have been affected, and that the disease has spread to most buffalo herds in Tsavo West. Large numbers of buffalo are reported to have died, as well as some eland (*Taurotragus oryx*) and possibly Coke's hartebeest (*Alcelaphus buselaphus*). The source of infection is unknown, but is thought to possibly be via illegal cattle movements. Prior to this outbreak, the nearest known endemic focus of rinderpest was thought to be in Karamoja, Uganda, some 700 kilometres away.

Concurrent deaths in Impala (*Aepyceros melampus*) were attributed to anthrax, but no cause has been found for the contemporaneous high mortality in Zebra (*Equus burchelli*) in the same area.

In mid-1994, there have also been reports of mortality, associated with keratitis, in lesser kudu (*Tragelaphus imberbis*) on the Tiva River in and adjacent to Tsavo East National Park, Kenya. Rinderpest has subsequently been confirmed to be responsible for this outbreak, by immunohistochemical staining of fixed tissue, at the Hanover Veterinary School. Lesser kudu, again afflicted with keratitis, have been reported in northern Tanzania at the same time as those in Kenya, but rinderpest has not yet been confirmed in Tanzania.
Rinderpest in Iraq

Rinderpest was reported in early 1995 to be affecting wild pigs (Sus scrofa), in the marshes of southern Iraq.

Peste des petits ruminants in Pakistan

There have been recent reports of clinical peste des petits ruminants (PPR) affecting domestic goats in northern Pakistan. PPR virus has been identified as the causative agent. If this dangerous caprine pathogen reaches the upper Himalayan pastures, the outlook for the wild ibex (Capra ibex), the markhor (Capra falconeri), Marco Polo's sheep (Ovis poli) and the blue sheep (Pseudois nayaur), could be grim.

Classical swine fever

At least one focus of classical swine fever (hog cholera) is still active at the border of France and Germany in natural populations of wild boars, but is not yet expanding.

Newcastle disease

A major pandemic of Newcastle disease occurred in domestic poultry throughout Southern Africa in 1994-1995. The velogenic strain involved was predominantly pneumotropic in domestic fowls, but neurotropic in ostriches and exotic bird collections. Deaths in ostriches caused by this disease were reported from South Africa and Zimbabwe.

Pathogenic avian influenza in ratites

In 1993, avian influenza subtypes H5N2 and H7N1 were isolated from emus (Dromaius novaehollandiae) and rheas (Rhea americana) in Texas and North Carolina, United States of America (USA). These isolates were pathogenic to chickens and turkeys. Follow-up antibody testing was done and serological evidence of infection was found in ratites in 13 states. Subsequent isolations from ratites were H4N6 and H10N4 viruses. Findings are reported in the Proceedings of the United States Animal Health Association, 1994.

Bovine tuberculosis

- Bovine tuberculosis in Cape buffalo in Africa

Of 40 buffalo sampled in the southern region of the Kruger National Park (KNP) in South Africa, 67.5% were macroscopically or histologically positive for mycobacteriosis.

In the Natal central complex game reserves in South Africa, 73 buffalo from 10 herds were sampled. Three herds in the south-western area of the Umfolosi Game Reserve were found to be infected with bovine tuberculosis, one of which had a prevalence rate of 50%.

- Bovine tuberculosis found in other wild ungulates

Bovine tuberculosis (TB) was confirmed in a wild mule deer (Odocoileus hemionus) in Big Horn County, Montana (USA). The deer was collected during the fall/winter of 1993-1994 as part of a disease survey around a TB-infected game ranch near Hardin, Montana. The survey was conducted after it was determined that the game ranch contained TB-infected elk in 1993. Efforts were being made to eliminate the disease on the farm by test and removal procedures. Additional surveillance in the area disclosed an infected coyote (Canis latrans).

In November 1994, a white-tailed deer (Odocoileus virginianus) that was infected with Mycobacterium bovis was killed by a hunter in Alpena County, Michigan (USA). The source of the infection was not determined and surveillance is underway in both wild and domestic animals.
According to information provided by the cattle diseases staff of Veterinary Services, APHIS, USDA, 29 \( M. \) bovis-infected captive cervid herds have been identified in 15 states from January 1991-January 1995 in the USA. Most of the herds were depopulated by their owners, but four were released from quarantine after testing and six are under quarantine.

Lesions suggestive of tuberculosis were found during the examination of 345 wild boar in Liguria, Italy. Lesion prevalence was 15.5%; typing of the \textit{Mycobacteria} is in progress.

**Conjunctivitis in house finches associated with \textit{Mycoplasma gallisepticum} infection in the eastern USA**

The house finch (\textit{Carpodacus mexicanus}) was introduced into the Eastern United States from the Western USA and has increased dramatically in number and geographic range.

The first reports of a previously unrecognised syndrome in house finches were received in the suburban Washington, D.C., area during February 1994. People reported several house finches with lesions ranging from slightly swollen eyelids with a clear ocular discharge to severe swelling with loss of sight. Since that time, reports of affected birds have been received from all coastal states from New Hampshire to Georgia, as well as from Pennsylvania and West Virginia. \textit{Mycoplasma gallisepticum} (MG), a bacterium long associated with infectious sinusitis in domestic turkeys and chronic respiratory disease in chickens, was cultured from several affected birds. This organism previously had not been associated with disease in free-flying passerine birds.

Since October 1994, information has been assembled, updated, and disseminated regarding house finch conjunctivitis. A field study to investigate the occurrence of MG in house finches was conducted in Maryland and Georgia from November 1994 through March 1995. Gross lesions of conjunctivitis were present in Maryland and Georgia birds. MG was confirmed by culture or polymerase chain reaction (PCR) in birds from Maryland and Georgia. MG was recovered from some birds without lesions.

Seronegative/clinically normal house finches were experimentally inoculated by eye-drop or spray droplets. The inoculum was a finch-derived MG strain that previously had produced severe air sac lesions when experimentally inoculated in chickens and turkeys. Lesions were produced in all finches inoculated by eye-drop and half of the birds in the spray group. MG was recovered from birds in both inoculated groups 34 days post-inoculation. Controls did not develop lesions and remained negative for MG by culture, PCR, and serological testing throughout the study.

**Viral haemorrhagic disease in wild rabbits**

Viral haemorrhagic disease of rabbits entered the United Kingdom in 1992, and has been confined primarily to the southern parts of the country in domestic rabbits. This year, a few cases in wild rabbits (\textit{Oryctolagus cuniculus}) were associated with foci in domestic populations.

**Rabies strain relocations via canid shipments**

There have been three recent instances where non-endemic strains of rabies virus have been transported with relocated wildlife in the USA. In December 1993, an unvaccinated foxhound in Alabama was confirmed to be infected with the coyote/urban dog strain of rabies virus, which in the USA had been restricted to Texas. During 1994, 5 non-vaccinated foxhounds were diagnosed as rabid in Florida. Again the virus was identified as the Texas coyote/urban dog strain. The seriousness of finding the coyote/urban dog rabies virus strain in Florida and Alabama is great: circumstantial evidence strongly suggests that the virus was moved by relocating of coyotes (\textit{Canis latrans}) for hunting purposes.

On 4 January 1995, four grey foxes (\textit{Urocyon cinereoargenteus}) were shipped from an animal dealer in Texas to a private petting zoo in Montana. Shortly after arrival, one of the foxes died and was diagnosed as rabid. The other three foxes were killed, and one of them was also rabies positive. The virus was identified as a strain only known to occur among grey foxes in a few counties in west-central Texas. Subsequent investigation of this case disclosed that the animal dealer had also shipped grey foxes to four other states and two European countries. Follow-up revealed that a rabid grey fox had been exported to the Netherlands.
Avian tuberculosis and possible algal toxicosis in lesser flamingoes in Kenya

An outbreak of disease in lesser flamingoes (Phoeniconaias minor) resulted in more than 30,000 deaths in six months. The disease appeared to spread along the Rift Valley lakes and was concentrated on the shores of Lake Bogoria in central Kenya. Coincidental was an unseasonal bloom of algae in the lakes. Greater flamingoes (Phoenicopterus ruber), which adopt a slightly different feeding technique, were unaffected. Histopathology revealed lesions compatible with avian tuberculosis. It is thought possible that the algal toxicity overwhelmed the birds which were already debilitated by tuberculosis.

Distribution of Aujeszky's disease and swine brucellosis in wild swine in the USA

Records were obtained from 16,268 wild swine (Sus scrofa) that had been tested for swine brucellosis. Positive animals were identified in 58 counties in 9 states, and the overall prevalence of infection was 9% (1,465 of 16,268). Wild swine that were seropositive for Aujeszky's disease were reported from 10 states. Positive animals were found in 98 counties, and the overall prevalence rate was 27.7% (4,293 of 15,494). Recent studies revealed that Aujeszky's disease virus is shed from the genital organs of wild swine and may be transmitted by sexual contact.

Brucellosis in Europe

Brucella abortus biovar 1 was isolated from two adult male chamois (Rupicapra rupicapra) in 1994 and 1995. Animals had blindness (uveitis), arthritis and orchitis. Concurrent infections have been diagnosed in cattle and humans. A serological survey of 123 wild ungulates during the 1994 hunting season revealed two red deer hinds (Cervus elaphus) with suspicious titres. No chamois were seropositive.

The seroprevalence for Brucella has increased in wild boar in Belgium and France and has been attributed to an increase in Brucella suis infection.

Currently, 40% of reindeer (Rangifer tarandus) are seropositive to brucellosis in Siberia and 2% of the animals have clinical signs related to Brucella suis infection. Brucella abortus is a more common infection of domestic reindeer in forested areas in Siberia where there is contact with cattle.

Avian cholera in the USA

Avian cholera was confirmed from 25 sites in 1994 and the first quarter of 1995. The largest die-off occurred during 1994 on the Chesapeake Bay in Maryland and Virginia and along the northern coast of North Carolina. Mortality exceeded 35,000 birds including over 23 species, primarily oldsquaw (Clangula hyemalis) (70%), bufflehead (Bucephala albeola) and scoters (Melanitta spp).

Waterfowl on the Great Salt Lake in Utah began dying of avian cholera in November 1994 just as an avian botulism outbreak was ending. This first reported epizootic of avian cholera on the Great Salt Lake resulted in the loss of an estimated 5,000-10,000 northern shovelers (Anas spp) and 4,000 eared grebes (Podiceps spp). Other instances of large mortality caused by avian cholera occurred in the western USA, particularly in California.

Duck virus enteritis

Six duck virus enteritis (duck plague) outbreaks occurred in 1994 in the USA. The most significant outbreak occurred in central New York on the Finger Lakes. Approximately 1400 black ducks (Anas rubripes), mallards (Anas platyrhynchos) and a few geese (Branta canadensis) died in the only known duck plague outbreak in wild migratory waterfowl since an outbreak in 1973 in South Dakota. Duck plague also occurred in small numbers of domestic and captive reared waterfowl in Virginia, Pennsylvania, Texas and California in 1994. To date in 1995, two duck plague outbreaks have been confirmed: one in Maryland and one in California.
NON-LISTED DISEASES

Encephalitis/myocarditis in African elephants in South Africa

The first documented outbreak of Encephalitis/myocarditis (EMC) in free ranging African elephant (Loxodonta africana) was diagnosed in the Kruger National Park (KNP) last year. Of a total of 68 fatal cases which were recorded, 83% of the victims were adult bulls. Many elephants survive this disease, as is evidenced by seropositive clinically normal animals in many herds. Antibody prevalences ranging from 13 to 53% were found in three different regions of the KNP. Studies of rodents in the KNP have been conducted for unrelated purposes since 1984, from which a serum bank was available. Analysis of the rodent trapping data and the stored serum demonstrated that:

a) A rodent population explosion occurred in 1993/94, indicated by a trapping success rate that increased from an average of 7% prior to 1993, to a dramatic 54% in 1993 and 56% in 1994.

b) All rodent sera collected prior to 1990 were negative for EMC antibodies. In 1993, 8.3% of rodent sera contained EMC antibodies, while in 1994 seropositivity had increased to 25.2%. Mastomys natalensis (multi-mammate mouse) appeared to be the major species involved, making up 95% of the seropositive rodents.

There was a striking temporal correlation between the occurrence of the rodent population explosion, the surge in prevalence of antibody to EMC in rodents, and the occurrence of the outbreak of disease in elephants. Subsequently, there has been a dramatic population decline amongst the rodents, and this has been paralleled by an equally dramatic decrease in the incidence of clinical disease in elephants.

A killed adjuvanted vaccine against EMC was developed at Onderstepoort Institute for Exotic Diseases, and tested in mice, domestic pigs and elephants. The vaccine was found to elicit high titres of neutralising antibodies, which resulted in a solid protection to challenge with virulent EMC virus.

Canine distemper in lions

An epidemic of canine distemper was reported in lions (Panthera leo) in the Serengeti and Masai Mara National Parks in Tanzania and Kenya respectively. These two national parks are linked, and this is the first confirmed report of canine distemper in free ranging lions. The report indicates that between 20 and 30% of the 3,000 lions present in this ecosystem have been affected. Symptoms include myoclonus, chorea, ataxia and seizures. Some lions also exhibited ocular and nasal discharge. In some cases, entire prides have died. It is speculated that the Masai's domestic dogs which share the ecosystem were the probable source of infection.

Parafilaria in buffalo in South Africa

An ulcerative dermatitis syndrome in buffalo, which was recently researched in the Eastern Transvaal has been found to be caused by a new (yet unnamed) species of Parafilaria. Prevalence rates of between 26 and 56% were encountered in certain buffalo herds. The lesions are highly seasonal (November to February) and occur mainly on the withers, neck and thorax. The lesions begin as focal point haemorrhages seen on the surface of the skin, and expand with time, due to a local hypersensitivity reaction with vasculitis and thrombosis. Lesions are compounded by the attention of oxpeckers (Buphagus spp), to form large ulcerated lesions of up to 30 centimetres in diameter. The lesions heal in the autumn leaving characteristic hairless scars. This parasite is transmitted by flies of the genus Musca.
Ulcerative dermatitis in hippopotami

In the KNP, button shaped skin ulcerations (2-5 centimetres in diameter) with raised edges were found over the flank areas of hippopotami (*Hippopotamus amphibius*). These lesions were found to be caused by a filarial parasite of the genus *Stephanofilaria*, which is related to the parasite that causes the ulcerative skin lesions on the thorax of black rhinos. This parasite appears to be a previously undescribed new species.

Infectious "capped elbow" in lions

Recently, young lions in several prides in the greater KNP complex, in Umfolosi game reserve (Natal) and at Kapama (private game reserve) in South Africa were seen to have large fluid-filled swellings over the elbow joints. These swellings are a result of inflammation of the synovial structures in or around the elbow joint. The fact that several lions in each pride were simultaneously affected indicated a possible infectious agent being involved, and an unidentified species of *Mycoplasma* has subsequently been isolated from fluid aspirated from these swellings. The long term significance of this syndrome is unknown.

Infectious polyarthritis in farmed crocodiles

A debilitating polyarthritis in farmed crocodiles (*Crocodylus niloticus*) has been reported from Zimbabwe. Once again an unidentified *Mycoplasma*, which did not react with the standard conjugates, was isolated from synovial aspirates.

Ebola virus in chimpanzees in Côte d'Ivoire

A Swiss ethologist became infected with Ebola virus in November 1994, after carrying out an autopsy on a chimpanzee (*Pan troglodytes*) in Côte d'Ivoire, West Africa. The researcher had been investigating a spate of deaths among local chimpanzees. She exhibited classic symptoms of Ebola infection, according to a member of the staff of the Institut Pasteur in Paris, where the virus was identified. The patient has survived and has recovered from the infection. The Pasteur Institute's conclusions are being reviewed by the US CDC (Centres for Disease Control and Prevention) in Atlanta. While the Institut Pasteur and the CDC officials are confident that the virus found in the Côte d'Ivoire is a strain of Ebola, they are unsure of its relationship with the viral types which have caused the recent outbreaks in Sudan and Zaire. As chimpanzees seem to be very susceptible to this Ebola strain, they are unlikely to be the wild reservoir of the virus.

Viral blindness in kangaroos in Australia

An infection causing blindness in several kangaroo species (*Macropus* spp) has been apparent for at least eighteen months from western New South Wales (around Broken Hill) down across the Murray River to Bendigo and Ballarat in Victoria, across through South Australia and even on Kangaroo Island, off the coast of South Australia.

Reports vary but it seems that between 5 and 30% of a mob of kangaroos can be affected by the disease, which causes complete blindness. Infected animals are easily identified by their tentative, high-stepping gait, but eye lesions are not obvious from a distance. On examination, there is massive chorioretinitis with complete destruction of the retina. In severe cases there are inflammatory lesions down the optic nerve leading to wallerian degeneration and encephalitis. There is no conjunctivitis or hypopyon apparent.

The species affected include red kangaroos (*M. rufus*) and western wallaroos (euros) (*M. robustus*). Older animals seem to be most commonly affected and death is usually due to trauma (road accidents), emaciation or drowning. It is thought that the disease is insect-borne by either sandflies or mosquitoes, since it appears to be most common in late summer when insects are more numerous. Three laboratories have isolated arboviruses from the retinas of blind kangaroos but all three viruses are different. It is as yet unclear which virus is the causal organism and work continues.
Unexplained ostrich mortality in Australia

The Australian Ostrich Association has announced that an unexplained disease condition has killed thousands of farmed ostrich (Struthio camelus) chicks in New South Wales, Victoria and Queensland. The causal agent has yet to be identified but does not appear to be a virus. Current opinion points towards an aberrant feeding or management practice. At first it was feared that the indigenous emu (Dromaius novachollandiae) might be at risk but this is now seen to be unlikely.

Hantavirus in the USA

The known range of hantaviruses that cause the hantavirus pulmonary syndrome (HPS) in human beings has expanded in the USA. As of 15 March 1995, there were 195 human cases of infection with a mortality rate of 52%. The majority of the cases occurred west of the Mississippi River, where the deer mouse, Peromyscus maniculatus, is the primary reservoir, and the virus involved is called Sin Nombre virus. Cases have been found outside the range of P. maniculatus in eastern Texas, Louisiana, Florida, and Rhode Island. In Florida, another hantavirus, Black Creek Canal Virus, has been isolated from the cotton rat, Sigmodon hispidus. The Louisiana case is believed to be caused by a third hantavirus. At present, human cases are sporadic and the attack rate is far below that which occurred during the initial outbreak in the Southwest.

Spongiform encephalopathy in deer and elk in the USA

Between March 1981 and October, 1994, 33 cases of chronic wasting disease were diagnosed in 28 mule deer (Odocoileus hemionus), 4 elk (Cervus elaphus), and 1 white-tailed deer (O. virginianus). This disease is closely related to scrapie in sheep and bovine spongiform encephalopathy in cattle. In contrast to previous reports of this disease in captive animals, the aforementioned cervids were free-ranging. All cases originated in a cluster in north-central Colorado; surveillance in other areas is ongoing and no cases have yet been found.

Undiagnosed disease of cane rats in West Africa

The cane rat (Thryonomys spp.) is a wild rodent bred in various countries in Africa for food. However, in certain areas in West Africa, it has become unacceptable as a food item, due to a disease which is characterised by desquamation of the skin. The animal loses all its fur, becomes paralysed and succumbs after several days. The rate of mortality is very high, between 80 and 90%. This species has become very rare, and has even disappeared, according to the inhabitants of these areas.

Sarcoptic mange in Europe

Sarcoptic mange is still prevalent in red foxes (Vulpes vulpes) in France but the incidence is not known. The United Kingdom experienced an unusually large number of cases this year. An outbreak was mentioned in the Cantabrian mountains in NW Spain, in isolated populations of chamois (Rupicapra rupicapra). Sarcoptic mange is still endemic in Scandinavia involving foxes (Vulpes and Alopex), lynx (Felis lynx), raccoon dogs (Nyctereutes procyonoides), and pine and stone martens (Martes martes, M. foina).

2. Translocation/International movement of wildlife: veterinary implications and recommendations

2.1. Implications

Numerous disease risk problems are associated with translocation of and/or trade in wildlife. The most obvious is the direct introduction of a new wildlife or domestic animal disease. This event has occurred on many occasions, and as a result, serious diseases such as bovine tuberculosis, African horse sickness, rabies and echinococcosis have become established in previously uninfected areas. A second problem can occur when a wildlife species is introduced which facilitates the transmission of an existing problem disease. A good example of this has been the introduction of the brush-tailed possum (Trichosurus vulpecula) into New Zealand and its subsequent development as a bovine tuberculosis sylvatic reservoir. A third type of risk occurs when the translocation and subsequent multiplication of a wild species creates an artificially high stocking density which facilitates transmission of endemic diseases. Further problems may arise if immunologically naive species or
individuals are introduced into endemic disease areas or into environments which are seriously polluted or otherwise ecologically unsuitable.
The relocation of wildlife never consists of the movements of a single species. Living animals are "biological packages" consisting of the host animal and its passenger organisms which may include viruses, bacteria, fungi, protozoa, helminths and arthropods. Such "passenger" organisms are often non-pathogenic for the host being introduced because the host and organism have adapted to each other over time. Unfortunately, introduction of an exotic wildlife species containing disease agents, which are also themselves exotic, can pose an acute problem for indigenous wildlife species. Extermination of native wild birds in Hawaii due to the introduction of avian malaria is a good example of this scenario.

To prevent disease problems associated with wildlife in transport and trade, a thorough and cautious evaluation must be made prior to the proposed introduction. Inherent to wildlife introduction is the fact that these animals are difficult or impossible to retrieve once they are released or have escaped into new areas. Therefore, release or escape of infected or diseased wild animals must be considered potentially irreversible.

2.2. Recommendations

In order that a meaningful disease risk assessment be completed prior to the movement the OIE Working Group on Wildlife diseases, the following questions and aspects should, where possible, be addressed:

a) Documentation on important diseases (zoonotic, domestic stock or wildlife) have been documented in the particular species under consideration. This inventory may be obtained from wildlife disease experts and study groups, as well as literature searches.

b) A full inventory of the diseases documented in the country of origin is a prerequisite for deciding on a disease screening panel of tests. This information should be available from the Chief Veterinary Officer of that country, or from the OIE Central Bureau.

c) A retrospective epidemiological assessment of wild or captive animals in the source population, including the analysis of long term surveillance data, if available, should be carried out.

d) Where large consignments of animals are involved, and limited data is available for that species, a suitable sample (with regard to different ages and sexes) should, where possible, be sacrificed for necropsy and laboratory analysis.

e) Selection of appropriate laboratory tests to screen the animals for the desired pathogens should be made. Where possible, isolation or demonstration of the antigen is preferred to the detection of antibody because it may be difficult to interpret the meaning of the presence of antibody or decide on "cut off" points indicative of significant titres.

f) Prophylactic treatment with broad spectrum anthelmintics and acaricides should be routinely employed, even in the absence of visible ectoparasites or demonstrable endoparasites. Antibiotics should also be administered when indicated (i.e. leptospirosis/ornithosis).

g) Appropriate vaccines should be administered where indicated by the animal health status of the importing country.

h) Quarantine periods, where applicable, should be determined by the specific disease risks. The use of sentinel animals at destination quarantine stations should be considered.
2.3. Other important considerations

General conditions of translocation

a) The presence of antibodies to specific diseases should not necessarily preclude the movement of the animals concerned. In certain viral diseases, the presence of the aetiological agent in the host is short lived (e.g. bluetongue), and a quarantine period with a possible retest to detect a stable or declining titre may be all that is necessary.

b) With regard to certain arthropod-borne diseases, the absence of a suitable (patent) vector in the country of destination may also be grounds to waive certain requirements.

c) The regulatory agency responsible for animal health should not submit to political pressure for urgent wildlife translocation projects, and should justify its decisions by stressing the potential irreversibility of a wildlife disease introduction.

d) Post-release monitoring of the health status of translocated wildlife, as well as of existing endemic wildlife and domestic stock in the release area, should be undertaken for a realistic period of time. Any unexpected mortality or clinical disease should be immediately investigated by the animal health authorities, and the area should also be placed under temporary quarantine.

Selection of diagnostic tests

Diagnostic tests developed for domestic species may not perform adequately in certain wildlife species. For example, the use of the intradermal skin test for bovine tuberculosis invariably results in false positive readings in African pachyderms such as elephants, rhinoceros and hippopotami. Similarly certain blood-based tests, such as the currently available gamma interferon assay for tuberculosis, are not suitable for use in non bovid/non cervid wildlife species. ELISA tests for tuberculosis in wildlife notoriously lack specificity and sensitivity, but appear to be useful for identifying "anergic" animals.

When necessary, OIE Reference Laboratories should be consulted with regard to appropriate diagnostic samples, test techniques and interpretation of results.

Selection of species for testing

In situations where the susceptibility of a certain species to a specific pathogen is in doubt, information should be sought from experts or Member Countries who have experience of both the host and pathogen in question, rather than resorting to a broad panel of tests, many of which may be inappropriate for the species to be screened.

For example, the testing of Perissodactyls (including rhinoceros species) for foot and mouth disease is both inappropriate and a waste of resources.

Interpretation of tests

Many free-living wild animals will often show low to moderate titres to arthropod-borne viral diseases due to frequent and persistent exposure to antigens, and possibly, without virus replication taking place in that host. Such results should be interpreted with caution and with an understanding of the epidemiology of the specific disease.

3. Formation of OIE policy on wildlife health management

Recommendation

The Working Group recognised that there is increasing interest in human intervention programmes directed toward wildlife. These activities are extremely diverse and include artificial propagation, vaccination, medication, hormonal or immuno-sterilisation, rehabilitation, rescue, selective harvesting, experimental studies or surveys, culling, and in some instances, depopulation. Most of these activities have both animal
health and general ecological consequences, and frequently, public opinion regarding animal welfare and animal rights becomes a force in the decision-making process.

Each specific programme should be evaluated on its own merits. The OIE Working Group on Wildlife strongly recommends that the OIE adopt a position that wildlife management programmes and techniques are to be evaluated with the priority being the health and welfare of animal populations over the well-being of individual animals.

4. Improving wildlife disease reporting and surveillance

4.1 Recommendation on reporting

In view of the limited response obtained to both the initial (1993) circular requesting information on wildlife diseases in Member Countries, and the subsequent Report of the Working Group on Wildlife Diseases (1993-1994), and a disappointing amount of information received by the various wildlife disease regional working group coordinators, the OIE Working Group on Wildlife Diseases recommends that Chief Veterinary Officers of Member Countries identify and appoint an officer to be responsible for reporting noteworthy wildlife disease incidents in their respective countries, using standard OIE protocol and via the traditional channels described in the International Animal Health Code. It would be appreciated if this preliminary information could accompany the OIE annual country report where applicable in a separate section such as that for fish diseases, so that it would be available to the Working Group on Wildlife Diseases for their annual review of international wildlife disease trends.

4.2 Recommendation on surveillance

In view of the increasing number of contractual visiting biological sciences researchers, working with wildlife areas in developing countries, the OIE Working Group on Wildlife Diseases recommends that Chief Veterinary Officers of Member Countries communicate with the National Parks and Wildlife Departments in their respective countries in order that:

a) They may request these visiting research workers to form part of a surveillance effort for detecting diseases in wildlife.

b) These visiting research workers are informed of the correct channels for reporting suspect wildlife disease incidents, the correct arrangements for sampling for diagnostic purposes and the preferred destination for processing of diagnostic specimens, if collected. In this regard, the Working Group fully supports recommendation No. 2 of the 11th Conference of the OIE Regional Commission for the Americas (Mexico, March 1992) (Appendix III).

.../Appendices
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ON WILDLIFE DISEASES

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**Agenda**


   Dr Bengis  Africa
   Dr Nettles  Americas
   Dr Berezin  Russia, CIS countries
   Dr Mörner  Northern and Central Europe
   Dr Artois  Southern Europe, Mediterranean and Middle East
   Dr Woodford  Rest of the world

2. Translocation/International movement of wildlife: veterinary implications and recommendations

3. Formation of OIE policy on wildlife health management

4. Improving wildlife disease reporting and surveillance

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CONSIDERING THAT

As a result of the research and development activities on exotic or enzootic animal diseases conducted by research, educational and other institutions, animal health information is produced that sometimes leads to misinformation and confusion at the national and international levels.

This information frequently does not meet scientific criteria, is not scientifically sound and cannot therefore be validated by the Veterinary Services of the country of origin.

Research into disease control and prevention activities, when carried out by non-authorised institutions, constitutes an animal health risk frequently associated with the unauthorised transport of laboratory samples which do not meet the requirements of the country of origin or the country where the laboratory studies will be carried out.

THE 11TH CONFERENCE OF THE OIE REGIONAL COMMISSION FOR THE AMERICAS

RECOMMENDS THAT

1. The Member Countries of the region agree to recognise as valid only that information issued by them through the OIE and other recognised reference agencies.

2. In case of suspicion of a new disease in a country, confirmation of its presence should be corroborated by the OIE and other recognised reference agencies at the written request of the interested country or countries. Any measure on the part of third countries will remain pending until such time as the confirmation is officially communicated by the OIE and other recognised reference agencies.

3. The Member Countries of the region should advise all research laboratories, teaching institutions and other centres in their respective countries to abstain from receiving or sending samples when such samples do not meet technical and administrative requirements and when the official Veterinary Services of the country or countries involved in such exchanges of samples have not given their official consent.

(Adopted by the 11th Conference of the OIE Regional Commission for the Americas on 20 March 1992 and endorsed by the International Committee of the OIE on 20 May 1992)