

NEWS FROM EUROPE

Wildlife Diseases in Europe 2002

Report from EWDA (Wildlife Disease Association, European Section) to the OIE by the Working Group on Wildlife Diseases

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Introduction

The reporting of wildlife diseases in Europe has become increasingly efficient, and in 2002 we collected information from 24 countries. The individual country reports are increasingly detailed with referencing of incidents and comment on significant incidents. Important events this year included the Phocine Distemper virus outbreak in Common Seals in the North and Baltic seas and the mass mortality of Schreiber's long fingered bat (*Miniopterus schreibersi*), from an, as yet, unknown cause. Wildlife disease may also be important for preservation of game resources and an example of this was a previously undescribed condition affecting the nervous system and skin of Pyrenean chamois, again of unknown cause.

Wild animals that are non-clinical carriers of important disease pathogens e.g. CSF (classical swine fever) or bovine TB may have important implications for the trade of domestic stock. Although the prevalence in the wild population may be low, transmission to farm animals of these diseases may lead to significant economic losses. 'Emerging diseases' diseases in wildlife for example West Nile Fever and Lyme borreliosis are increasingly by statutory authorities across Europe as of growing importance. Surveillance for these wildlife diseases increases our global knowledge and allows comparisons of monitoring and control methods across Europe. The EWDA and this Report both seek to promote that important study, and we thank all contributors and collaborators.

List A diseases

CLASSICAL SWINE FEVER (CSF): a new border disease?

In 2002 this disease was reported from France, Germany, Luxembourg, Slovenia, Slovakia and Romania. Outbreaks were restricted to wild boar (*Sus scrofa*) with occasional associated epizootics seen in domestic pigs. One large focus of disease occurred in forests encompassing the borders of Belgium, France, Germany, Luxembourg and is approaching the border of the Netherlands (still free). Here, despite attempts to control it, the infection is slowly increasing in case numbers and area. E.U. expertise and regulations have advised that the proportion of naturally immunised individuals should be allowed to increase (e.g. with a ban on hunting), and by this means reduce transmission. There are difficulties both at the local authority level and also across the administrative borders of the different countries in the area; the boar of course can move through the forests from one country to another. Culling is not recommended because it increases the spatial dispersion of infected animals and the turnover of the population, it also increases the reproductive rate and the recruitment of susceptible individuals. Vaccination of wild boar through a baiting system is currently in progress in Germany and published work on the scientific trials there, show encouraging results.

A data base for CSF in wild boar is currently being constructed by the institute of epidemiology in Wusterhausen (Germany) in co-operation with veterinary services from Belgium, France, Germany, Luxembourg and the Netherlands. Individual cases of CSF are to be mapped in real time and displayed on the Internet and experts can be informed of the geographical extension of the infection.

FOOT AND MOUTH DISEASE Not mentioned in Europe in 2002

List B diseases

AVIAN TUBERCULOSIS

More than 100 Ring-necked pheasants were infected (gross lesions, histology and isolation) in a Spanish game farm. These birds were originally intended to be released in the wild. Avian tuberculosis was commonly reported from several countries, in 2002, in pheasants, partridge, ducks, swans, gulls and birds of prey. Infections with *Mycobacterium avium* were also reported in several species of deer and in chamois.

BOVINE TUBERCULOSIS

Each year bovine TB appears to be more widespread than previously thought in wild species in Europe. TB was reported in traditional foci in badgers (*Meles meles*) from the UK. In recent years it has also been diagnosed in wild ungulates, e.g. red deer (*Cervus elaphus*) in France, United Kingdom and Spain. In France, following an initial case in 2001, a focus was identified in an isolated forest and here the origin of infection appears to be from resurgent cattle infection. Bovine TB is also commonly found in wild boar in Italy and Spain. In continental Europe, TB infection of wild boar, red and roe deer occur in a small number of foci but in these, the infection is relatively prevalent.

BRUCELLOSIS

Brucellosis was reported in Chamois (*Rupicapra rupicapra*), European brown hare (*Lepus europaeus*) and wild boar in Andorra, Austria, Italy, Czech Republic and the Netherlands. There were also several reports of the isolation of 'marine' *Brucella* from marine mammals in the United Kingdom.

TULAREMIA

Over 400 cases of tularemia were reported in European brown hares and Mountain hares (*Lepus timidus*) in Austria, Czech Republic, Finland, France, Italy and Sweden.

RABIES

A total number of 1,721 cases of rabies in European wildlife were reported in 2002, from Austria, Czech Republic, Latvia, Lithuania, Germany, Norway (Svalbard), Poland and Romania. Rabies was observed in red foxes (*Vulpes vulpes*), arctic fox (*Alopex lagopus*), racoon dogs (*Nyctereutes procyonides*), wolf (*Canis lupus*), lynx (*Lynx lynx*), badger (*Meles meles*), martens (*Martes* sp.), mustelides (*Mustela* sp.), otter (*Lutra lutra*), wild cats (*Felis silvestris*), roe deer (*Capreolus capreolus*), wild boar and red squirrel (*Sciuris vulgaris*). Free: Austria, Belgium, Cyprus, Denmark, Finland, France, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spanish mainland and islands, Sweden, Switzerland, UK

EUROPEAN BAT LYSSAVIRUS (EBL)

In April, a sporadic EBL infection of a sheep appeared in a Danish herd (confirmed by standard FAT, the isolated strain was characterised by MAb to be homologous with previously isolated strains from Danish bats and sheep). In the UK, EBL was isolated from a Daubenton's bat in the North of England, and in a second unrelated incident in November, the tragic death of a Scottish bat worker from EBL may have been acquired following a bite from an infected bat. Bats infected with Lyssavirus were also found in Germany, Poland, Switzerland and the Netherlands.

Wildlife list diseases

PHOCINE DISTEMPER : NEW OUTBREAK IN NORTH SEA

In April 2002, a new epizootic of phocine distemper (PDV) in common seals (*Phoca vitulina*) started on the island Anholt, between Denmark and Sweden - the same island where the PDV epizootic in 1988 started from. The disease in 2002 spread to most parts of Kattegat, Skagerack, into the North Sea to the British isles, and down to the Netherlands and to the "Baie de Somme" in France. It was not observed in the Baltic Sea. Between early May 2002 and the end of the outbreak in autumn 2002, approximately 19,000 common seals died in the epidemic. This mortality, similar to the 1988 outbreak, affected approximately half of the common seal population in Western Europe. Three grey seals (*Halichoerus grypus*) in the United Kingdom died from PDV during the outbreak.

It is believed that the 1988 epizootic started because PDV-carrying Harp Seals (*Phoca groenlandica*) infected common seals after an unusual southerly "migration". Field research since 1988 has been unable to demonstrate the reservoir of the Phocine Distemper Virus, it has been suggested that grey seals may spread the virus to common seals, but this still has yet to be proven.

SARCOPTIC MANGE

Sarcoptic mange is still reported to be a very common disease in European wildlife and was in 2002 reported in red fox, racoon dog, lynx, pine marten (*Martes martes*), roe deer, chamois, moufflon (*Ovis musimon*) and wild boar from several European countries.

WEST NILE VIRUS (WNV)

No evidence of WNV circulation has been detected in wildlife in France, Italy or the UK.

Other wildlife diseases

USUTU VIRUS INFECTION (USUV)

In Austria, during late summer 2001, a series of deaths in several species of bird occurred, and investigations suggested that a WNV-like infection was responsible. Subsequently, a virus was isolated and identified to be similar to Usutu virus (USUV). This is a mosquito-borne virus of the Japanese encephalitis virus group of the genus Flavivirus; USUV had not previously been observed outside Africa nor has it been associated with fatal disease in animals or humans.

DISEASE OF UNKNOWN ORIGIN IN PYRENEAN ISARDS/CHAMOIS (*Rupicapra pyrenaica*)

Since February 2001 Pyrenean isards from various locations in Spain and France, and possibly Andorra, were affected by clinical signs and mortality not previously reported. Affected animals were found in isolation, at low altitude, they had lost natural fear of humans and were easy to catch. In spring they suffer from alopecia and skin hyper-pigmentation. Non specific central nervous system lesions were observed. In some areas, population declines of up to 40/45% between 2000 and 2002 were recorded. A pestivirus, not previously recognised has been identified, but other causes cannot be excluded and investigations are continuing.

MASS MORTALITY OF *MINIOPTERUS SCHREIBERSI*

A massive mortality was observed among several colonies of the Schreiber's long fingered bat (*Miniopterus shreibersi*), in Southern France, Spain and Portugal. This is an insectivorous, cavern-dwelling bat, that lives in very large colonies of up to several thousand individuals. These colonies are regularly monitored by bat conservationists to follow population trends and protect nurseries from human disturbance. In several of these, an unusual adult mortality was observed between May and June. The reproduction rate was exceptionally low and in some localities mortality was observed in juveniles as well. Possible causes of mortality are being investigated, however to date, only infection by an herpes virus has been reported.

MASS MORTALITY OF GULLS IN THE BALTIC SEA

A mass mortality among waterfowl in the Baltic sea have been observed by Swedish scientists during the last three years. Herring gulls (*Larus argentatus*) have experienced the highest mortality with probably several thousand dead birds but other gulls, ducks, geese, swans, waders and passerines have also been affected. The aetiology is unknown but botulism, avian cholera, Newcastle disease and other commonly recognised diseases have, based on laboratory investigations, been excluded.

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Material suitable for publication in News from Europe includes recent wildlife disease outbreaks and new diseases in Europe, short case and meeting reports; job and scholarship announcements. Members for whom English is a second language, will be accommodated as far as possible. The deadline for the next issue is May 2003.

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