

Appendix VII

Summary of impacts of diseases on wildlife

Disease name	Causative agent						Region	Comments	OIE notifiable disease
African animal trypanosomosis	Protozoan trypanosomes						Endemic in most of Africa. Occurs where the tsetse fly vector exists.	Primarily affects domestic mammals. Most wild mammals are trypanotolerant. Mainly spread by the tsetse fly.	Ⓝ
Amphibian chytridiomycosis	The fungus <i>Batrachochytrium dendrobatidis</i>						All continents except Antarctica.	Affects most species of amphibian and is a major cause of amphibian mortality and morbidity.	Ⓝ
Anthrax	The bacterium <i>Bacillus anthracis</i>						Worldwide. Endemic in southern Europe, parts of Africa, Australia, Asia and North and South America.	Spores may remain dormant and viable for decades. An acute infectious disease, can affect almost all species of mammals, including humans.	Ⓝ
Avian botulism	The bacterium <i>Clostridium botulinum</i>						Worldwide.	Affects birds and some mammals. Caused by ingestion of a toxin produced by <i>C. botulinum</i> .	—
Avian cholera	The bacterium <i>Pasteurella multocida</i>						Mainly North America. Also occurs in South America, Africa, Asia, Europe and Oceania.	Most commonly affects ducks, geese, swans, shore birds, coots, gulls and crows.	—
Avian influenza	<i>Influenzavirus A</i> subtypes						Since 1997, highly pathogenic AI (subtype H5N1) has been reported in S.E. Asia, Europe, Africa and the Middle East.	H5N1 is the cause of unprecedented AI-related mortality. Has both direct and indirect conservation consequences.	Ⓝ
Avian tuberculosis	The bacterium <i>Mycobacterium avium</i>						Worldwide.	Most commonly reported in wild waterbirds, gregarious birds, raptors and scavengers. Clinical manifestation in mammals is rare.	—
Bovine tuberculosis	The bacterium <i>Mycobacterium bovis</i>						Worldwide. Widespread in Africa, parts of Asia and some Middle Eastern countries.	Cattle are considered the true hosts of <i>M. bovis</i> ; responsible for elevated mortality and morbidity in wild mammals in some protected areas.	Ⓝ

Disease name	Causative agent						Region	Comments	OIE notifiable disease
Brucellosis	Bacteria of the genus <i>Brucella</i>						Worldwide. High risk areas include: the Mediterranean Basin, South and Central America, Eastern Europe, Asia, Africa .	Particularly affects cattle, swine, goats, sheep but also wild bison, elk, deer, other ruminants. Infection can cause reproductive losses.	
Campylobacteriosis	Bacteria in the genus <i>Campylobacter</i>						Worldwide.	Infection in wild birds and mammals often inapparent.	—
Coral diseases	Various						Reported in marine ecosystems worldwide.	Responsible for considerable ecological damage, affecting numerous species of coral (primarily the soft corals or true stony corals).	—
Crayfish plague	Oomycete <i>Aphanomyces astaci</i>						Widespread in Europe and North America.	All species of freshwater crayfish are considered susceptible to infection, European species have declined due to novel infection.	
Duck virus enteritis	Herpesvirus						Reported in North America, Asia and several countries in Europe.	Can cause high seasonal mortality in ducks, geese and swans	—
Epizootic ulcerative syndrome (EUS)	Oomycetes <i>Aphanomyces Invadans/ piscidida</i>						Worldwide distribution. Affects 25 countries in four continents: southern Africa, Asia, Australia and North America.	Affects wild and farmed, fresh- and brackish-water fish.	
<i>Escherichia coli</i> poisoning	Strains of the bacterium <i>Escherichia coli</i>						Worldwide.	Direct release of raw sewage is a frequent source. Often inapparent in wild animals. Certain strains (O157) can cause severe disease in humans.	—
Harmful algal blooms	Toxic species of algae						Worldwide.	Occur in both saltwater and freshwater environments, particularly where there are high nutrient levels, causing high levels of mortality.	—
Lead poisoning	Toxic lead						Occurs globally and in any wetland where lead is deposited.	Particularly affects waterbirds, birds of prey, and mammals.	—

Disease name	Causative agent						Region	Comments	OIE notifiable disease
Leptospirosis	Bacteria from the genus <i>Leptospira</i>						Worldwide. Most common in temperate or tropical climates with high rainfall.	Causes infections in many terrestrial and marine mammals. Commonly affects domestic animals and humans.	
Oyster diseases	Various						Worldwide.	Can affect wild populations of oysters and also commercial setups. Oysters grown in contaminated areas can cause human disease.	
Peste des petits ruminants (PPR)	Peste des petits ruminants virus						Considered endemic across North Africa, China and parts of the Far East.	Predominantly affects sheep and goats causing very high mortality, less severe in wildlife.	
Ranavirus infection	Ranaviruses						Reported in the Americas, Asia, Pacific and Europe.	Significant effects on amphibians (including salamanders, toads and frogs).	
Rift Valley fever	Rift Valley fever <i>Phlebovirus</i>						Endemic in tropical regions of Eastern and Southern Africa. Cases also reported in Saudi Arabia and Yemen.	A vector-borne disease, commonly transmitted by mosquitoes. Affects most terrestrial mammals; predominantly sheep, cattle and wild ruminants.	
Salmonellosis	Types of <i>Salmonella</i> bacteria						Worldwide.	Affects many domestic and wild animals including birds, reptiles, amphibians, fish and invertebrates.	<i>S. abortus ovis</i> only
Schistosomiasis	Schistosomes (trematode worms)						Most commonly found in Asia, Africa and South America in areas where the water contains freshwater snails.	Affects many species of wild animals and wildfowl, however, humans and livestock are the most at risk of clinical disease.	—
Tick-borne diseases	Variety of pathogens						As a collective TBDs occur worldwide. Usually in foci with suitable conditions for ticks and with susceptible animal hosts.	Ticks often found in grassy, wooded habitat. TBDs can affect most mammals and birds; primarily livestock, humans and companion animals.	Some TBDs are OIE listed
Trematode Infection of fish	Trematodes (flatworms / flukes)						Worldwide.	Trematodes can parasitise many vertebrate species. Commonly fish, frogs, livestock, domestic animals, humans and some invertebrates.	—

Disease name	Causative agent						Region	Comments	OIE notifiable disease
West Nile virus disease	West Nile <i>Flavivirus</i>						Reported in Africa, Europe, the Middle East, west and central Asia, Oceania and most recently, North America.	Spread by insect vectors (primarily mosquito). Affects numerous bird species and some terrestrial mammals (including humans).	

KEY

Taxa symbols	
	Invertebrates Animals without backbones – all animals except fish, amphibians, reptiles, birds and mammals. Includes corals, molluscs, insects, crustacea <i>etc.</i>
	Fish A group of taxa, including hagfish, lampreys, sharks and rays, ray-finned fish, bony fish, coelacanth and lungfish.
	Amphibians and reptiles (together known as herpetofauna) Animals from the classes Amphibia (such as frogs, salamanders and caecilians) and Reptilia (such as crocodiles, lizards and turtles).
	Birds Animals from the class Aves.
	Mammals Animals from the class Mammalia.

Impact colours			
	Severe impact		Mild impact
	Moderate impact		No impact