



# SURVEILLANCE OF INFECTIOUS DISEASES IN WILDLIFE IN SWEDEN

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# NORDIC COUNTRY WILDLIFE DISEASE CENTERS



**Veterinærinstituttet**  
Norwegian Veterinary Institute



**Evira**

Finnish Food Safety Authority



**SVA**

NATIONAL  
VETERINARY  
INSTITUTE



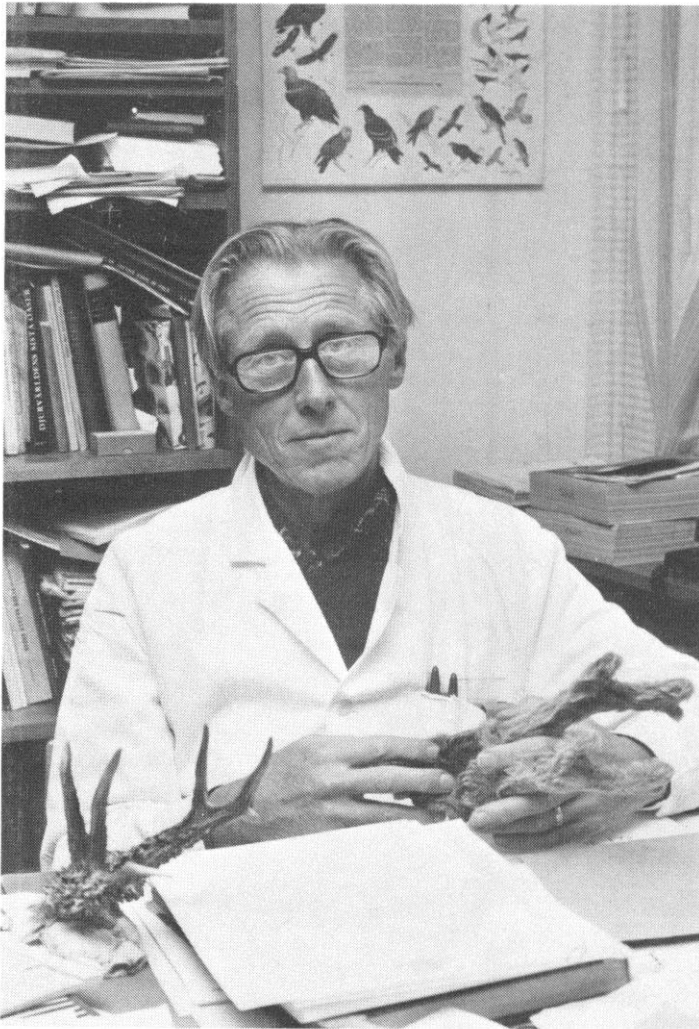
Technical University of Denmark





# SWEDISH WILDLIFE DISEASE SURVEILLANCE

## 70 YEARS 2017!



Professor Karl Borg, from 1947



SVA Wildlife disease section 2016

# Government instruction for SVA , SFS 2009:1394

”... to follow and analyze the development of disease conditions in domesticated animals and wildlife.”





## FINANCED BY

- Annual state hunting fee
  - state funding
  
- Government/
  - Ministry of environment and energy ->
  - Environmental Protection Agency
  - Wildlife surveillance at SVA
  
- PhD projects: external funding





# https://rapporteravilt.sva.se



## Rapportera sjuka/döda vilda djur

**Län**  
Södermanlands län

**Kommun**  
Nyköping

**Fyndplats/ort**  
Öster Malma

Jag anger koordinater manuellt (i WGS84 lat/long decimalt)

**Koordinater**  
[input field]

**Uppgifter om fyndet**

**Djurslagsgrupp**  
Däggdjur

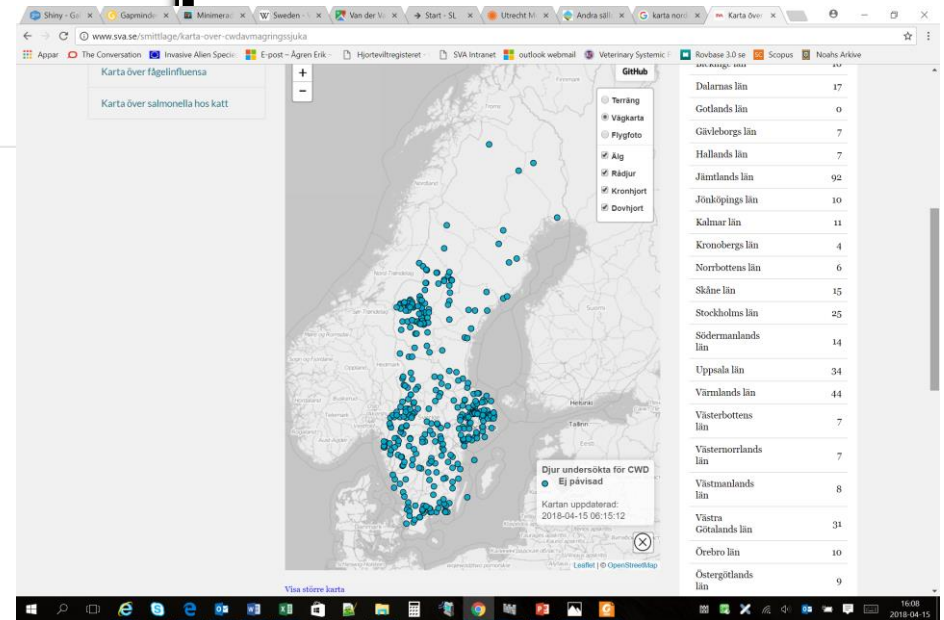
**Djurslag**  
Älg

**Antal**  
1

**Skick**  
Delvis uppäten

**Bild på fyndet**  
[input field] Bläddra...

**Övrig information**  
[input field]

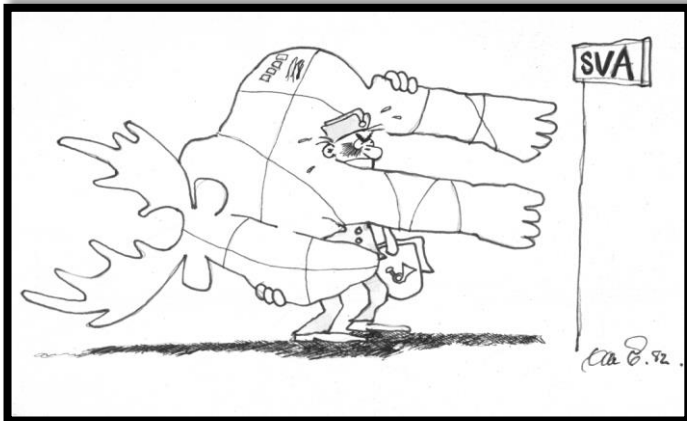






# CITIZEN SCIENCE

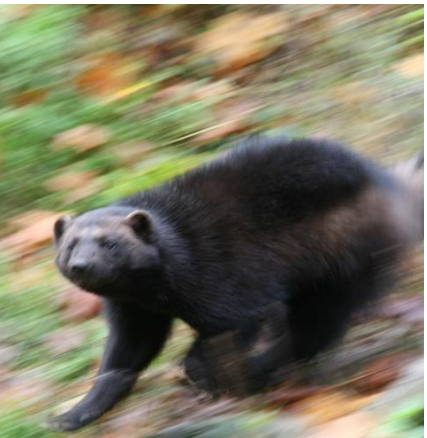
Hunters (& associations) – "Wildlife samplers"  
The public – bird feeding  
Wildlife officials – Municipalities, Counties  
Police (for protected wildlife)











## Large carnivore management

**Brown bear** (*Ursus arctos*)  
**Wolf** (*Lupus canis*)  
**Lynx** (*Lynx lynx*)  
**Wolverine** (*Gulo gulo*)

- § All dead large carnivores must be sent to SVA
- Separate funding from the EPA

Threatened species  
Increasing populations  
Nuisance animals





Myxomatosis



Reportable diseases  
(Board of Agriculture)



Moose (*Alces alces*), anthrax, 2016



OIE list of non-listed  
wildlife diseases



# OIE LISTED, AND NON-LISTED DISEASES

## OIE listed disease

Anthrax

Infection with *Echinococcus multilocularis*

Infection with *Echinococcus granulosus*

Infection with *Trichinella* spp.

Myxomatosis

Tularemia

Rabbit haemorrhagic disease

Newcastle disease

Avian chlamydiosis

## Presence / absence of non OIE-Listed wild diseases/infections

### Non-listed pathogens and other disease-causing agents in wildlife

Agent causing chronic wasting disease (CWD)

Inf. with low path. avian influ. viruses (all subtypes)

Infection with Alcelaphine herpesvirus 1 or Ovine herpesvirus 2

Infection with *Borrelia* spp.

Infection with circoviruses

Infection with European brown hare syndrome virus

Infection with flavivirus (causing tick borne encephalitis)

Infection with *Leptospira interrogans* ssp.

Infection with *Listeria monocytogenes*

Infection with morbillivirus (canids and felids)

Infection with morbillivirus (marine mammals)

Infection with parvoviruses

Infection with *Pasteurella* spp.

Infection with Pox viruses (other than those listed by the OIE)

Infection with *Psoroptes* spp.

Infection with *Salmonella enterica* (all serovars)

Infection with *Sarcoptes scabiei*

Infection with *Toxoplasma gondii*

Infection with *Trichomonas* spp. in birds and reptiles

Infection with *Yersinia enterocolitica*

Infection with *Yersinia pseudotuberculosis*

### Reptiles

Infection with ranaviruses

Infection with *Ophidiomyces ophiodiicola* (causing snake fungal disease)

### Non-Infectious Diseases

Algal toxicosis

Botulism

Chemical poisons

Mycotoxins

Diseases of Unknown Cause

Unusual morbidity or mortality event (cause undetermined)



# Preparedness: Looking beyond our borders...



OIE Working group on Wildlife

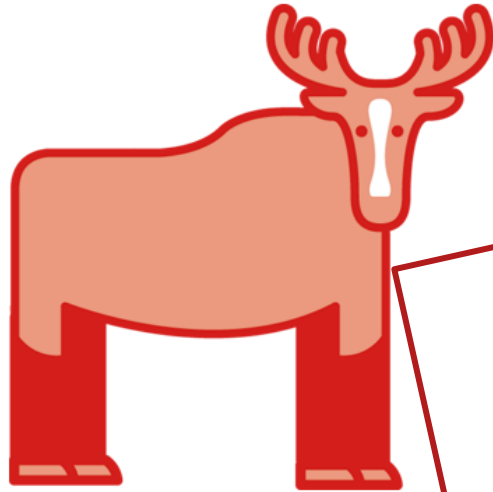
International Wildlife Health Program Working group



EWDA Google group  
EWDA Wildlife Health Network

**rapporteravilt.sva.se**

rapportera in döda och sjuka vilda djur på mobilen



AKTUELLT JUST NU

**CWD**

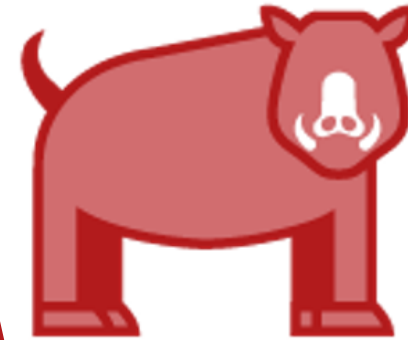
Avmagringssjuka hos hjortdjur är av särskilt intresse att övervaka

Rapportera in avmagrade älgar, hjortar eller rådjur!

**FALLEN  
WILDLIFE  
DEAD  
SICK, PUT DOWN**

**rapporteravilt.sva.se**

rapportera in döda och sjuka vilda djur på mobilen



AKTUELLT JUST NU

**ASF**

Afrikansk svinpest är av särskilt intresse att övervaka

Rapportera in hittade döda vildsvin!







## TARGETED DISEASE SURVEILLANCE

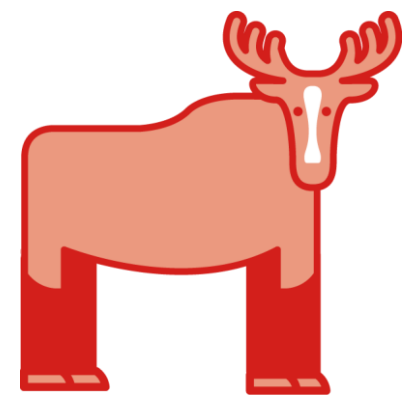
Avian influenza  
2006 H5N1  
2015 H5N8  
2016 – 2018 H5N6



**RESEARCH**

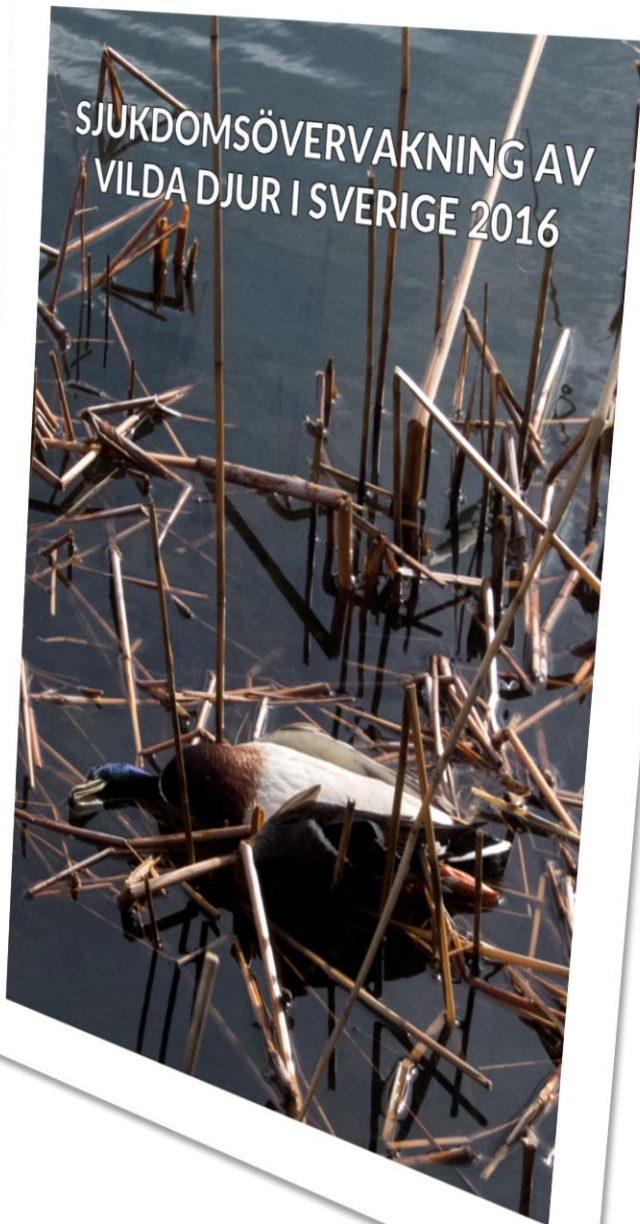
# Acute project funding

**EPA**



**SVA**





## DISSEMINATION

Reports  
Lectures  
Conferences  
Publications  
[WW.SVA.SE](http://WW.SVA.SE)