**ISTITUTO ZOOPROFILATTICO SPERIMENTALE
DELLA LOMBARDIA E DELL'EMILIA ROMAGNA
"BRUNO UBERTINI"**
(ENTE SANITARIO DI DIRITTO PUBBLICO)

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To whom it may concern

Stating that:

- The WOAH is the global authority on animal health. Founded in 1924 as the Office International des Epizooties (OIE), in May 2003, it adopted the common name World Organisation for Animal Health. It is an intergovernmental organisation focusing on transparently disseminating information on animal diseases, improving animal health globally, and thus building a safer, healthier and more sustainable world. Together, the WOAH and its 183 Members coordinate the global response to animal health emergencies, the prevention of zoonotic diseases, the promotion of animal health and welfare, and better access to animal health care.
- WOAH has defined the criteria for "listed diseases", i.e. diseases that have been selected for their importance and severity, for which specific measures and indications are given regarding management, diagnosis, and trading rules, reported in the WOAH Terrestrial and Aquatic Animal Health Codes and Manuals. The Codes provide standards for improving animal health and welfare and veterinary public health worldwide, including standards for safe international trade in terrestrial and aquatic animals and their products. The Manuals provide a standardised approach to the diagnosis of the listed diseases. Regarding lagomorphs (rabbits and hares), WOAH has listed two diseases: Rabbit Haemorrhagic Disease and Myxomatosis.
- The WOAH has created a scientific network to ensure that its recommendations and technical outputs are based on the latest science, aligned with best practices, and optimised to support WOAH's missions. The ongoing contribution to the work of WOAH of several Institutions worldwide, selected as Reference Laboratories, and the endorsement of Designed Experts ensure that the standards, guidelines, and recommendations developed by the Specialist Commissions and published by the WOAH are scientifically sound and up-to-date.
- The WOAH has recognised IZSLER as the sole Reference Laboratory for both lagomorph-listed diseases, Rabbit Haemorrhagic Disease since 1994 (https://www.izsler.it/chi-siamo/per-chi-e-con-chi-lavoriamo/centri-di-referenza/internazionali/oie-reference-laboratory-for-rabbit-haemorrhagic-disease/) and Myxomatosis since 2012 (https://www.izsler.it/chi-siamo/per-chi-e-con-chi-lavoriamo/centri-di-referenza/internazionali/oie-reference-laboratory-for-myxomatosis-of-rabbits/), with respectively Patrizia Cavadini and Antonio Lavazza as "Designed Experts".
- At the beginning of September, during the last EWDA conference held in Stralsund (Germany), a couple of colleagues informed us of increased hare mortality in Germany and the Netherlands due to a myxoma virus infection. More recently (October 7th) in ProMed news

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(https://www.fli.de/en/news/short-messages/short-message/new-threat-to-the-brown-hare-iberian-myxoma-virus-variant-detected-in-germany-for-the-first-time/) we read that the Friedrich-Loeffler-Institut has confirmed the identification in dead German brown hares of the variant of the myxoma virus, called Toledo strain, first detected in Iberian hares (*Lepus granatensis*) in Spain and Portugal in 2018. This new strain specifically affects hares and represents a natural recombination of the classical myxoma virus and a yet unidentified poxvirus.

- The impact of the epidemic diffusion of this hare-adapted strain of myxoma virus could be very severe, considering that we have been informed that the hare densities in the Netherlands are indeed very high, reaching up to 300 hares/km^2, and densities of 100 hares/km2 are pretty common.
- The Dutch Wildlife Heath Centre and the Dutch Hunters' Association have consulted us about best management practices for hares infected with myxomatosis in the Netherlands to contain its further spread.

With regard to the measures and practices to contain the spread and impact of the disease, we would just recommend trying to catch and identify affected hares as soon as possible, possibly when symptomatic before they die spontaneously, to promptly remove the carcasses of dead hares, and to confirm the diagnosis with laboratory methods.

In general, the course of the clinical disease for myxomatosis could be pretty long, depending on the virulence of the strain, and death could occur even 2-3 weeks after the apparition of clinical signs, often due to secondary bacterial infections. During such a period, the animals are infectious and can release virions, thus contributing to the diffusion of the infection. Poxviruses show an extraordinarily high resistance to drying. Thus, the myxoma virus could resist in the environment for a pretty long period, especially when released by skin lesions being protected by organic material (e.g. crusts). Note that myxomavirus in wild animals is mainly transmitted by insects (mosquitoes and fleas but also midges and lice), i.e. the virus is passively transmitted by adhering to the mouthparts of biting arthropods such as mosquitoes as they probe through the fibroma for blood meal.

A hare could be categorised as “suspected to be affected by myxomatosis” when it was possible to identify one or several clinical signs (blepharitis, blepharoconjunctivitis, epistaxis and inflammation and oedema around the nasal, oral anal and genital orifices) and in living hares, also symptoms such as running difficulties, disorientation and poor body condition may be seen.

All this considered, applying a strengthened surveillance, combined with an early diagnosis and a prompt and effective removal of symptomatic hares and carcass, could be a good approach.

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