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Avian bornavirus in free-ranging waterfowl in North America and Europe (25274)

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The first avian bornavirus (ABV) was identified in 2008 by researchers investigating the cause of proventricular dilation disease in psittacine birds ^{3,4}. A distinctly separate genotype (ABV-CG) was discovered in 2009 in association with neurological disease in free-ranging Canada geese (*Branta canadensis*) and trumpeter swans (*Cygnus buccinator*) in Ontario, Canada ¹. Since then this genotype, now identified as ABBV-1, has been identified from a variety of wild avian species ⁵, predominantly waterfowl, in North America at prevalences ranging from 10 to 50%, and in 2014 an additional genotype was identified in mallard ducks (*Anas platyrhynchos*) ². In order to determine whether avian bornavirus was present in European waterfowl, the brains of 333 hunter killed geese in Denmark were examined by real time RT-PCR for the presence of avian bornavirus; seven birds (2.1%) were positive. Sequences were 98.18-99.83 % identical to each other, and 97.38-98.06 % identical to a reference sequence of ABBV-1 from North America. This is the first finding of ABV in wild waterfowl in Europe, and extends the range of waterfowl species in which the virus has been identified to include the pink-footed goose (*Anser brachyrhynchus*), greylag goose (*Anser anser*), and barnacle goose (*Branta leucopsis*). Given the migration paths of these species, avian bornavirus is likely to have a much wider geographic range than has previously been suspected.

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