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## ISOLATION OF SINDBIS VIRUS FROM A HOODED CROW IN GERMANY

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### Purpose

*Sindbis Virus* (SINDV) is found in Africa, Eurasia and Australia. The transmission cycle involves mosquito species as vector and passeriform and galliform birds as reservoir. Intrigued by the isolation of SINDV from mosquitos in southwest Germany in 2009 we initiated a passive surveillance program in birds.

### Methods

RNA from cruor samples collected from migratory and resident birds in Germany have been analyzed with SINDV-specific qRT-PCR. Vero E6 cells have been inoculated with clarified supernatant from a positive tested sample and observed for cytopathic effect. Virus isolated from cell culture supernatant has been further analyzed by electron microscopy and genomic sequencing.

### Results

One of 685 samples gave a positive result for SINV in qRT-PCR. This positive sample belonged to a hooded crow (*Corvus corone cornix*) which was found injured in Berlin in August 2010. Sediments of the infected Vero E6 cell cultures have been analyzed by electron microscopy and numerous typical alphavirus particles were found. Genomic sequencing of RNA isolated from the cell culture supernatant and subsequent phylogenetic analyses revealed that the sample has a close relationship with SINDV genotype I sequences from northern Europe.

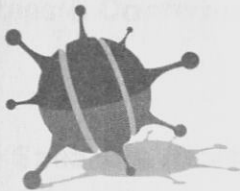
### Conclusions

Isolation of SINV in a crow in the eastern part of Germany closes the gap in Central Europe for the presence of avian infections. It thereby gives clear evidence for a much broader spatial distribution of this virus in Europe. *Nota bene*, the infected animal was found far away from the Rhine valley where the first SINV derived genome sequences were found in mosquitos.

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