

ISOLATION OF PIKE FRY RHABDOVIRUS FROM ROACH (*Rutilus rutilus*)

By: O.L.M. HAENEN AND A. DAVIDSE

Pike fry rhabdovirus (PFR) has been isolated from pike fry *Esox lucius* L. (de Kinkelin *et al.*, 1973); tench *Tinca tinca* L. and bream *Blicca bjoerkna* L. (Ahne *et al.*, 1982), and from brown trout *Salmo trutta* (Adair and McLoughlin, 1986).

In February 1989, a batch of 150 sub-adult roach (*Rutilus rutilus*), 12 cm long and originating from a fishfarm, were submitted to our laboratory to be examined virologically for purpose of health certification. The fish had no clinical signs of disease; we isolated PFR from nearly all of them.

Livers, spleens and kidneys collected from 15 fish were pooled to 10 pools and ground with sterile sand. Culture medium was added to make a 10^{-1} suspension, and samples were inoculated into cultures of Rainbow Trout Gonad (RTG-2) cells. After 5 days, a cytopathogenic effect (CPE) was observed in five out of ten inoculated cell cultures. After 10 days, CPE was observed in six out of ten cultures. Cultures were frozen, thawed and passages in both fresh RTG-2 cells and Fat Head Minnow (FHM) cells. After 3 to 6 days, CPE was seen in nine out of ten inoculated cell cultures of each kind. Electronmicroscopy revealed the presence of rhabdovirus particles of approximately 130 x 80 nm.

The virus was identified by a serum-neutralization assay. Antisera against viral haemorrhagic septicaemia (VHS) virus, infectious haematopoietic necrosis (IHN) virus, spring viraemia of carp (SVC) virus, and infectious pancreatic necrosis (IPN) virus did not neutralize the virus. Two reference sera containing antibodies directed against PFR, obtained from Dr. P. De Kinkelin (rabbit anti-PFR) and Dr. B.J. Hill (rabbit anti-PFR, no. 164/3) did, however, neutralize the virus with titers (50% neutralization) of 1280 and 640 respectively. We also

neutralized a reference PFR obtained from Dr. B.J. Hill after it had been passaged 15 times, with titers of 1280 and 640 respectively.

As a follow-up to this report, we are experimentally infecting the fry of various freshwater fish species to determine whether our PFR isolate is infective and pathogenic in these species.

Acknowledgments:

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References:

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Author's address:

Central Veterinary Institute, P.O. Box 65
8200 AB Lelystad, The Netherlands.