Wild Atlantic salmon Salmo salar with swollen and/or bleeding vents (red vent syndrome) have been observed in rivers across England and Wales. Low numbers of salmon with this condition have previously been recorded, but reports have increased in 2006 and 2007. Affected and non-affected salmon were sampled from fish traps and their vent pathology was examined. Third stage larvae of the nematode Anisakis simplex sensu lato were observed in the tissue surrounding the vent in all affected fish. Histology of the vent showed gross lesions with an inflammatory response associated with non-encapsulated nematode worms in the connective tissue and skeletal muscle. The presence of the parasite in the unusual location of the vent areas, with associated haemorrhaging, is possibly a new emerging pathological association with the nematode A. simplex infection in Atlantic salmon. The reason for this unusual tissue tropism by larval A. simplex and the significance on already depleted salmon stocks are currently unknown.

KEY WORDS: Red vent · Salmo salar · Wild salmon · Anisakis simplex