

## Occurrence of Ranavirus in Edible Frogs and Fish Sold for Human Consumption in Kaduna State, Northern Nigeria

**Authors :** Inikpi Ameh, Grace Kia, A. K. B. Sackey, Joy Atawodi, Richard Whittington

**Abstract :** Ranaviruses are belonging to the viral Family Iridoviridae, are a group of globally emerging pathogens recognized as major viral pathogens of cold-blooded vertebrates. They cause systemic infection in fishes, amphibians, and reptiles. Ranaviruses have been associated with numerous disease outbreaks in natural and cultured populations of fish, amphibians, and reptiles. To investigate the presence of the ranavirus in fish and edible frogs sourced from dams and ponds in Zaria, Kaduna State, Nigeria. A total of 425 frogs (*Rana* spp.) and fishes (n=215 and n=200, respectively) were randomly collected based on consent and availability. Liver, kidney, and spleen tissue samples from each animal were pooled and homogenized. The samples were screened for ranavirus using the Indirect Enzyme linked Immunosorbent assay (ELISA). An overall prevalence of 46.1% (196/425) was obtained from the study. Frogs had a prevalence of 51.2% (110/215) while fish had 43% (86/200). This is the first study on ranavirus in fish and edible frogs in Nigeria. This study has established that edible frogs (*Rana* spp) and fishes sold in Zaria, Nigeria were infected with ranavirus which may have great economic importance to the nation's aquaculture. In view of occasional massive economic losses observed in fishery industry due to deaths of unknown origin, this preliminary investigation is useful in directing veterinarians, policy makers and researchers on need to survey for ranavirus and also enlighten the relevant stakeholders on its prevention and control in Nigeria.

**Keywords :** fish, frogs, Nigeria, Ranavirus

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020