

**PREVENTION OF OUTBREAKS OF WHITE STURGEON IRIDOVIRUS
(WSIV) AND WHITE STURGEON HERPESVIRUS-2 (WSHV-2) IN
ENDEMICALLY-INFECTED WHITE STURGEON FARMS**

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A prospective cohort study was implemented in a large Northern California white sturgeon culturing facility. Water distributed to the tanks was recirculated and white sturgeon iridovirus (WSIV) and white sturgeon herpesvirus-2 (WSHV-2) were believed to be endemic in this part of the study farm. The objective of the study was to evaluate environmental and management practices as possible risk factors for white sturgeon iridovirus (WSIV) and white sturgeon herpesvirus-2 (WSHV-2) related mortality.

White sturgeon were followed for 11-13 weeks during grow-out. During the follow-up WSIV was found in 80% and WSHV-2 in 91% of the study tanks, however, cumulative mortality was very variable (0.2% to 46.9%). Analysis of covariance revealed that the most important risk factors for mortality, during the follow-up, were the “parent fish”, the source (farm) of the fish and the stocking density. Furthermore, observations in this and other sturgeon farms suggested that fish that have survived a previous viral infection, might be immune when re-exposed to the same viruses.

The finding that presence of the viruses did not always correlate with a high-mortality outbreak, indicates that we might be able to prevent such outbreaks in endemically-infected farms by decreasing exposure to other necessary risk factors. Based on the results of our study and on-farm observations, some practical management suggestions will be made, which might be helpful in decreasing virus-related mortality in white sturgeon farms.