

Natal Origin and Movement Patterns of Paddlefish within the Mississippi River Basin

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Migration can be important to the growth and survival of fishes at different life stages and occur in many different environments and aquatic ecosystems. For instance, numerous freshwater fish species in large rivers make long distance migrations. Evidence exists that suggest Paddlefish have the ability to travel long distances, cross multiple state boundaries, and move among multiple rivers within the Mississippi River Basin. However, the relative importance of different river reaches as natal environments for Paddlefish in the Mississippi River Basin is unknown, and knowledge of the frequency of Paddlefish movement among these interconnected rivers is limited. We sought to evaluate inter-river movement patterns of Paddlefish and to determine natal environment of Paddlefish collected in the Upper Mississippi River, Middle Mississippi River, Lower Mississippi River, Missouri River, and Ohio River using lower dentary bone Sr:Ca. We documented that Paddlefish captured in the Mississippi River Basin may move throughout these interconnected large rivers at various life stages. This suggests movement patterns or environmental life history of Paddlefish must be taken into account to properly manage this species. Because of this, interjurisdictional cooperation will likely be needed to ensure the success of Paddlefish within the Mississippi River Basin.