Movement and Spawning Locations of Shovelnose Sturgeon and Pallid Sturgeon in the Missouri River Above Fort Peck Reservoir

Ryan R. Richards and Christopher S. Guy, U.S. Geological Survey, Montana Cooperative Fishery Research Unit, Montana State University, Bozeman, MT 59717

Susan L. Camp, USDI Bureau of Reclamation, Montana Area Office, P.O. Box 30137, Billings, Montana 59107

William M. Gardner, Montana Department of Fish, Wildlife and Parks, P.O. Box 938, 2358 Airport Road, Lewistown, MT 59457

The lack of recruitment by pallid sturgeon (*Scaphirhynchus albus*) over that last 40 yrs in the Missouri River above Fort Peck Reservoir has caused their abundance to decrease to less than 150 individuals. Interestingly, shovelnose sturgeon (Scaphirhynchus platyrhynchus) exhibit recruitment in the same area and their abundance is higher than most other rivers in the U.S. Understanding the dichotomy between the two species with respect to recruitment is

receiving much attention throughout the Mississippi River basin. The objectives of this study are to identify spawning locations and the effects of varying discharge on spawning locations and spawning movements for pallid sturgeon and shovelnose sturgeon. Two pallid sturgeon and 39 shovelnose sturgeon were radio tagged and tracked from 1 May 2008 to 5 July 2008. Unfortunately, no data is available for pallid sturgeon movement due to small sample size and loss of one of the radio-tagged fish mid-study. Seventy-four percent of the shovelnose sturgeon moved downstream during the spawning period. Of those that moved downstream the average movement was 39 km. One fish moved 123 km downstream and this was the largest movement of any fish tracked. Only 26 percent of the shovelnose sturgeon moved upstream and their average movement was 51.5 km. Shovelnose sturgeon concentrated in two areas during the spawning period; river kilometer 3090 to 3190 and 3235 to 3270. These data will provide a greater understanding of sturgeon (*Scaphirhynchus* spp). spawning movements and spawning locations in the upper Missouri River and will help guide management decisions aimed at recovery of pallid sturgeon.