

## STATUS OF WILD PALLID STURGEON IN MONTANA<sup>AFS</sup>

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Two pure pallid sturgeon populations exist in Montana waters of the Missouri River; one upstream of the Fort Peck Dam (RPMA #1), and one between the Fort Peck Dam and the headwaters of Lake Sakakawea, including the lower Yellowstone River (RPMA #2). These populations are comprised of large, old-aged individuals, as there has been no natural recruitment during the past 20 years. Attempts are made each year to collect broodfish from RPMAs #1 and #2, and a variety of assessments are conducted during the remainder of the field season in each area to monitor stocked hatchery-reared pallid sturgeon. Broodfish collection is becoming increasingly difficult in both areas as wild pallid sturgeon abundances dwindle. Krentz (1995) estimated that 50 wild pallid sturgeon remained in RPMA #1 during 1995. I employed a modified Schnabel procedure to estimate that 178 wild pallid sturgeon remained in RPMA #2 during 2001. Upper and lower 95-percent confidence limits were 351 and 96, respectively. I used simple linear regression to quantify the relationship between wild pallid sturgeon abundance and time during 1991-2001. Assuming no natural recruitment, wild pallid sturgeon in RPMA #2 would be extirpated during 2017. Stocking hatchery-reared pallid sturgeon has been and continues to be the focus of recovery efforts in RPMA #2. The stocking plan goal for RPMA #2 is to have 1600 adult pallid sturgeon 15 years after ten years of stocking. This goal is unlikely to be achieved, as 5000-7000 hatchery-reared pallid sturgeon must be stocked each year during the next 13 years to reach the goal, and the most ever stocked was 3061 during 2002. An iridovirus and inability to capture broodfish has hindered the progress of the stocking plan, but current stocking strategies do not allow for stocking rates necessary to achieve the stocking plan goal. Furthermore, researchers cannot accurately estimate survival, growth, and condition of hatchery-reared pallid sturgeon due to extremely low recapture rates. Habitat rehabilitation must begin immediately if wild pallid sturgeon are to persist. The stocking plan can successfully augment the existing wild population only if the basic ecology of hatchery-reared pallid sturgeon is understood, survival of stocked individuals is quantified, and the stocking plan is modified accordingly.