

MONTANA FISH, WILDLIFE & PARKS
INTERIM (#1) PERFORMANCE REPORT

STATE: MONTANA
GRANT TITLE: Yellowstone Corridor Native Fish & Wildlife Survey
AGREEMENT: T - 28 - 2
PERIOD COVERED: January 1, 2007 through December 31, 2007

Objective

1. Describe seasonal movement patterns and habitat use of adult blue sucker, channel catfish, and burbot.
2. Identify and describe blue sucker spawning habitats.
3. Identify potential burbot spawning aggregations
4. Develop stock forecasting methods, stock assessment methods, and investigate how environmental factors affect the spawning, migration, and fishing success of paddlefish.
5. Describe distribution of snapping and soft-shell turtles, as well as movements and habitat use of spiny soft-shell turtles.
6. Determine distribution and nesting success of interior least terns, piping plovers, and bald eagles.

Location

The study will occur in the Yellowstone River Corridor in southeastern Montana, between Billings and the North Dakota border.

Accomplishments

January 1, 2007 through December 31, 2007

Objectives for the third season of the Yellowstone River corridor native species project were successfully achieved. Tracking of telemetered fish and turtles continued in efforts to determine seasonal movements and habitat selection. Large maximum seasonal movements were observed for blue sucker (817 km), shovelnose sturgeon (322 km), burbot (193 km), channel catfish (209 km), and spiny soft-shell turtles (47 km).

High rates of transmitter expulsion occurred for some species (catfish, burbot) but most expelled transmitters (52) were recovered. Recovered transmitters from the past two seasons were re-implanted into channel catfish during two periods with the interval in between corresponding to average transmitter retention duration to maximize information return. Transmitters were implanted further forward in the body cavity to attempt to reduce the likelihood of transintestinal expulsion.

Thirty-six transmitters were implanted last autumn in burbot to monitor winter movements. These transmitters were smaller than previous transmitters to minimize expulsion and equipped

with motion-sensing mortality devices to conclusively determine if and when they were expelled. Aircraft flights to relocate telemetered burbot occurred about every other week this winter. Frequent and large movements have been observed and no transmitter expulsion (i.e., mortality signals) has occurred. Fourteen additional transmitters will be implanted in spring 2008 as soon as ice recedes from the river.

To better determine whether shovelnose sturgeon seasonal movements were related to spawning activities (females do not spawn every year) we recaptured 30 of the 34 telemetered fish and performed gonadal biopsy to assess gender and reproductive stage and collected blood samples to analyze steroids related to reproductive stage. All habitats from the confluence with the Missouri River upstream to the confluence with the Big Horn River were delineated, and a representative random sample of these habitats was characterized in the field. About 30 bald eagle nests were documented and three interior least terns were observed.

Second season objectives in Region 5 (confluence with the Big Horn River upstream to above the confluence with the Clark's Fork of the Yellowstone River) include implanting remaining transmitters (39), relocating telemetered fish and turtles, and quantifying habitat characteristics.

Variations:

None

Project Personnel

<u>Name</u>	<u>Title</u>	<u>Phone</u>	<u>Email</u>
Adam Brooks	Federal Aid Program Mgr.	444-4756	abrooks@mt.gov
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Ken McDonald	Fish Mgmt. Bureau Chief	444-7409	kmcdonald@mt.gov

Expenditure Recap:

Proposed:

	Federal Share		Match		Total
Direct Costs	\$150,000		\$50,000		\$200,000
Indirect Costs	\$24,060		\$5,020		\$29,080
Total	\$174,060		\$58,020		\$232,080

Current Expenditures:

	Federal Share		Match		Total
Direct Costs	\$117,669.43		\$46,128.36		\$163,797.79
Indirect Costs	\$20,700.85				\$20,700.85
Total	\$138,370.28		\$46,128.36		\$184,498.64

Expense Detail:

	Federal	State
Salary & Benefits	\$90,719.97	
Lodging & Travel	\$ 8,045.26	
Materials & Supplies	\$18,151.85	
Contracted Services	\$ 752.35	\$42,198.36**
In-kind contribution*		\$ 3,930.00
Total	\$117,669.43	\$46,128.36

* An in-kind contribution of \$3,930 was received in the form of donated project equipment storage.

** The contracted services funds of \$42,198.36 are from a donation of proceeds from the sale of paddlefish roe by the local Chamber of Commerce, toward payment of contracted services.