

**2005 Summary Report
of Work Conducted by the
Missouri River FWMAO on
Missouri-Yellowstone River's
Pallid Sturgeon**



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Study Area

Sampling for pallid sturgeons was primarily conducted on the first 20 miles of the Yellowstone River upstream from its confluence with the Missouri River, and the Missouri River from the confluence with the Yellowstone River downstream to the headwaters of Lake Sakakawea near Williston, North Dakota (Figure 1). The primary purpose for collecting pallid sturgeon for 2005 was for propagation and monitoring purposes.

Introduction & Methods

This year began the first year of implementation of the Pallid Sturgeon Population Assessment and Associated Fish Community Monitoring for the Missouri River in the upper reaches of the Missouri River. This program was developed with two sampling seasons based primarily on water temperatures. The primary objective of the split season is to focus efforts that were conducive to capturing sturgeon using gears that were temperature limited and utilize other gears toward the fish community during the summer and fall months.

The sampling conducted under this program has been incrementally implemented and the reach of the Missouri River from the confluence of the Yellowstone River downstream to Lake Sakakawea (Segment 4) was added to the total effort during 2005. Although funding was not received until mid spring, sampling efforts were initialized in May during the Sturgeon Season (Fall 2004 through Spring 2005). However, insufficient time and lack of sampling equipment prevented deployment of the full complement of gears for this initial effort as only trammel nets were used.

The fish community season sampling began on July 1 and continued until late October. By this time, the water temperatures had reached about 9° C. Six gear types were deployed during the fish community season: bag seine, mini-fyke nets, trammel nets, angling, large mesh trammel nets, and the otter trawl.

Under this program, sampling is conducted at the bend level with bends randomly and nonrandomly selected. A total of 12 bends were randomly selected and sampled within segment 4.

During the fish community season, in addition to targeting sturgeon, the monitoring program has also selected nine native fish species to monitor to gain a greater understanding of the influences of flows and habitat usage. These species included the shovelnose sturgeon, blue sucker, sauger, bigmouth buffalo, sturgeon chub, sicklefin chub, speckled chub, plains minnow, and the sand shiner.

In addition to the monitoring efforts, three main activities specific to pallid sturgeon were conducted. The first is the continuation of the telemetry work on the post spawn adult pallids. This year's emphasis was shifted from intensive ground tracking to remote logging station maintenance. The active ground tracking component of this work has shifted and is being conducted by U.S.G.S. and Montana Fish, Wildlife and Parks staff stationed at Ft. Peck, Montana.

Another activity this office participated with was the annual broodstock collection. This work is usually conducted twice each year with the spring sampling aimed at collecting adult pallids for spawning that year. The emphasis during the fall collection is to obtain broodstock for spawning the following spring.

One of the tasks this office is responsible for is the maintenance of the pallid sturgeon databases. These include the capture information as well stocking information relative to recovery efforts throughout the range. A summary report of the previous stocking efforts was compiled in the report "Pallid Sturgeon Spawning and Stocking Summary Report (1992-2004)", 2005. This report will provide a continuation of those efforts for 2004 to present.

Results

A total of 33 pallid sturgeon were sampled during the Pallid Sturgeon Population Assessment and Associated Fish Community Monitoring for the Missouri River (included in Table 1). A table of the species collected is included in Table 3. Further analysis will be conducted on this data and presented in a separate report. During the sampling effort, over 25,000 fish were sampled using the standardized sampling. Although it is too early to make any quantitative assumptions on the results, the monitoring efforts are effectively setting a baseline for future evaluations of population trends, habitat restoration efforts, and community profiles. This in turn should provide resource agencies with information to improve management decisions.

Remote logging stations were again deployed to track pallid sturgeon and paddlefish that have been implanted with radio and sonic transmitters. Maintenance usually involved downloading data from the logger and cleaning debris from the station.

Two separate broodstock attempts were made during 2005. The spring collection primarily emphasizes adults that are ready to spawn that spring. Collections take place during April in order to take advantage of flow conditions that are conducive to sampling. This year, adults were transported to Garrison Dam NFH and Miles City SFH for later spawning.

The fall collection has been successful in collecting broodstock that are destined for Gavins Point NFH in Yankton, South Dakota. Due to the concerns that collection and handling immediately prior to spawning could impact successful propagation, this effort has allowed fish to be collected, transported, and acclimated with a sufficient time interval to reduce the effects of these stressors prior to spawning.

Crews from Montana Department of Fish, Wildlife and Parks, North Dakota Game and Fish Department, U.S. Geological Survey, and the U.S. Fish and Wildlife Service collaborated on efforts to collect broodstock for propagation purposes. Broodstock sturgeon not suitable for spawning were released or returned to the confluence region.

Data management has been an integral part of the recovery program for the pallid sturgeon. Due to the need to continually provide results of activities such as stocking and recapture information, pallid sturgeon stocking data was made available on the web in 2005. This website allows biologists to access stocking information of particular pallids, such as year stocked, stocking location, and morphology information collected at the time of stocking, to evaluate growth and movement patterns.

Discussion

Activities for 2006 include the reporting and analysis of the data collected during the pallid sturgeon monitoring efforts. This report is expected to be completed by June 1st for submission to the U.S. Army Corp of Engineers.

In addition, a report summarizing the analysis completed on the pallid sturgeon telemetry project is expected to be completed this year.

Field work associated with pallid sturgeon will be fairly similar to last year with the primary effort directed toward the broodstock collection, assistance with tagging efforts at Garrison Dam NFH, and pallid population monitoring.

Future Recommendations

- ☞ Continue intensive monitoring efforts on the juvenile pallid sturgeon to improve survival rates and efficiencies.
- ☞ Continue with a consistent stocking effort to improve contribution to future generations.
- ☞ Increase involvement in habitat restoration and protection efforts to ensure losses and threats do not increase.

PIT tag #	Date of Capture	Location of capture: River & Rivemile (RM)	Sex	Fork Length	Weight	Years Previously Sampled
1F4A363031 ^A	04/28/2005	Yellowstone River - 6.0	M	1420	16329	'98, '99, '01, '03, '04, '05
115553761A ^B	04/29/2005	Yellowstone River - 6.5	M	1503	19050	
115666455A	06/08/2005	Missouri River - 1575.4		355	150	
115554553A	06/21/2005	Missouri River - 1539.0		602	730	
4422785269	07/12/2005	Yellowstone River - 1.2		405	205	
115558271A	07/12/2005	Yellowstone River - 1.2		380	160	
115554596A	07/12/2005	Yellowstone River - 1.4	Unk.	1540	26500	
115555446A	07/14/2005	Missouri River - 1552.0	Unk.	1130	11500	
	07/19/2005	Missouri River - 1575.8		190	24	
442157600C	07/19/2005	Missouri River - 1575.0		388	200	
	07/19/2005	Missouri River - 1575.8		210	31	
435D660837	07/20/2005	Missouri River - 1578.1		282	85	
44430E1716	07/20/2005	Missouri River - 1574.2		398	215	
115709656A	07/20/2005	Missouri River - 1574.2		377	180	
4421370F4B	07/20/2005	Missouri River - 1574.2		370	160	
44260C040A	07/20/2005	Missouri River - 1574.8		385	195	
	08/10/2005	Missouri River - 1561.2		210	28	
	08/10/2005	Missouri River - 1538.8		182	18	
115724726A	08/10/2005	Missouri River - 1561.4		320	95	
411D214E2E	08/10/2005	Missouri River - 1537.7		644	700	
4424120F7C	08/10/2005	Missouri River - 1561.4		388	180	
44213F4C72	08/11/2005	Missouri River - 1581.3		377	185	
44436E2975 ^A	08/11/2005	Missouri River - 1581.3	Unk.	1372	16000	2004
435F155646	08/15/2005	Missouri River - 1548.7		328	210	
410868391B	08/17/2005	Missouri River - 1549.2		546	520	
430E452777 ^A	09/13/2005	Missouri River - 1564.6	M	1450	17500	2004
435E234A10	09/13/2005	Missouri River - 1564.6		336	120	

PIT tag #	Date of Capture	Location of capture: River & Rivemile (RM)	Sex	Fork Length	Weight	Years Previously Sampled
435E640C59	09/13/2005	Missouri River - 1563.7		452	295	
43113D7A21	09/13/2005	Missouri River - 1564.6		291	105	
435D2D2F7C	09/14/2005	Missouri River - 1577.5		295	70	
44260F4634	09/14/2005	Missouri River - 1577.5		393	175	
220E5F6E26	09/14/2005	Missouri River - 1579.5	Unk.	1535		
220E5F6E26 ^A	10/24/2005	Missouri River - 1577.5	Unk.	1550	24500	'02, '03, '04, '05
7F7D372A6B ^A	10/24/2005	Missouri River - 1576.0	M	1390	17000	1994, 2003

^A indicates recapture

^B indicates that this fish was used for spawning during 2005

Table 1. Pallid sturgeon captured during 2005 from Recovery Priority Area #2 during broodstock collection and annual monitoring.

	RPA #1	RPA #2	RPA #3	RPA #4	RPA #5	RPA #6
Target*	5,600	9,000	600	6,500	-	-
2004 Year Class						
fry		130,000				
sm fingerling		10,850		25,565		
lg.fingerling		5,716		5,063		
juvenile/yearling	706	1,043	868	8,510	6,826	4,755
TOTAL Equivalent	706	6,645	868	17,432	6,826	4,755
2005 Year Class						
fry	33,300					
sm fingerling	1,372	2,291				
lg fingerling	1,108	10,762				
juvenile/yearling	4,400 [#]	10,800 [#]	600 [#]	3,770 [#]		
TOTAL Equivalent	5,305	16,753	600	3,770		

* Target stocking rate set by Pallid Sturgeon Stocking Plan, 2006.

[#] Estimated number being held to be released in 2006.

Table 2. Number of pallids stocked from the 2004 and 2005 year class and their equivalents based upon survival rates estimated according to the "Rangewide Pallid Sturgeon Stocking Plan (Draft), 2006".

SPECIES	# sampled
Banded killifish	2
Bigmouth buffalo	18
Burbot	14
Brassy minnow	4
Blue sucker	4
Common carp	48
Common shiner	530
Channel catfish	829
Emerald shiner	12128
Flathead chub	1056
Fathead minnow	1
Freshwater drum	67
Goldeye	269
Green sunfish	8
Hybognathus species	5825
Longnose dace	28
Northern pike	6
Paddlefish	2
Pallid sturgeon	33
River carpsucker	2508
Sicklefin chub	331
Sturgeon chub	187
Sauger	184
Shorthead redhorse	6
Smallmouth buffalo	33
Shovelnose sturgeon	275
Sand shiner	1
Stonecat	11
Walleye	7
Western silvery minnow	1
White bass	25
White crappie	820
White sucker	2

Table 3. List of species and number sampled for all gears and all seasons during the pallid sturgeon population assessment within Segment 4 of the Missouri River during 2005.

April 1, 2006

Pallid Sturgeon Spawning and Stocking Summary Update Section

Elastomer Combination	Hatchery & # Stocked	Year Class / Stocked Year	RPA & #
Double Red	Gavins Point NFH - 289	1997 / 1998	1 - 138 2 - 151
Double Orange	Gavins Point NFH - 293	1997 / 1998	1 - 138 2 - 155
Double Blue	Gavins Point NFH - 294	1997 / 1998	1 - 138 2 - 156
Double Green	Gavins Point NFH - 300	1997 / 1998	1 - 138 2 - 162
Double Yellow	Gavins Point NFH - 293	1997 / 1998	1 - 138 2 - 155
Double Red	Gavins Point NFH - 80	1997 / 2000	3 - 80
Double Orange	Gavins Point NFH - 80	1997 / 2000	3 - 80
Double Blue	Gavins Point NFH - 79	1997 / 2000	3 - 79
Double Green	Gavins Point NFH - 76	1997 / 2000	3 - 76
Double Yellow	Gavins Point NFH - 101	1997 / 2000	3 - 101
Double Red	Gavins Point NFH - 80	1999 / 2002	3 - 80
Right Green; Left Blue	Bozeman FTC - 553	2001 / 2002	1 - 553
Right Pink; Left Blue	Bozeman FTC - 546	2001 / 2002	1 - 546
Right Black; Left Blue	Bozeman FTC - 176	2001 / 2002	1 - 176
Right Brown; Left Blue	Bozeman FTC - 494	2001 / 2002	1 - 494
Right Purple; Left Blue	Bozeman FTC - 289	2001 / 2002	1 - 289
Left Blue	Bozeman FTC - 189	2001 / 2004	1 - 189
Right Green; Left Orange	Miles City SFH - 366	2001 / 2002	2 - 366

Elastomer Combination	Hatchery & # Stocked	Year Class / Stocked Year	RPA & #
Right Green; Left Yellow	Miles City SFH - 368	2001 / 2002	2 - 368
Right Green; Left Blue	Miles City SFH - 247	2001 / 2002	2 - 247
Right Green; Left Red	Miles City SFH - 298	2001 / 2002	2 - 298
Right Green	Garrison Dam NFH - 8,125	2001 / 2002	2 - 1,626 3 - 558 4 - 5,941
Right Green	Neosho NFH - 956	2001 / 2002	4 - 956
Right Red; Left Yellow	Miles City SFH - 2,035	2002 / 2003	2 - 2,035
Right Red; Left Yellow	Gavins Point NFH - 3,966 Neosho - 2,259	2002 / 2003	2 - 1,951 3 - 481 4 - 3,793
Right Pink	Garrison Dam NFH - 5,314	2003 / 2003	4 - 5,314
Horizontal Yellow	Miles City - 2,468	2003 / 2004	2 - 2,468
Horizontal Yellow	Garrison - 2,417	2003 / 2004	4 - 2,417
Right Yellow	Gavins - 566	2003 / 2004	3 - 566
Horizontal Yellow	Neosho - 2,276	2003 / 2004	4 - 2,276
Horizontal Red	Garrison - 6,634	2004 / 2004	4 - 6,634
Left Red	Garrison - 31,390	2004 / 2004	2 - 16,777 4 - 14,824
Right Red	Garrison - 9,170	2004 / 2004	4 - 9,170
Horizontal Red	Neosho - 3,611	2004 / 2005	4 - 3,611
Right Horizontal Red	Garrison - 2,715	2004 / 2005	4 - 2,715
Left Horizontal Red	Garrison - 2,533	2004 / 2005	4 - 2,533
Right Green	Bozeman - 185 Miles City - 511	2004 / 2005	1 - 696

Elastomer Combination	Hatchery & # Stocked	Year Class / Stocked Year	RPA & #
Right Red; Left Pink	Miles City - 271	2004 / 2005	2 - 271
Right Red; Left Horizontal Pink	Bozeman - 63	2004 / 2005	1 - 63
Right Yellow; Left Red	Bozeman - 337	2005 / 2005	1 - 215 2 - 122
Right Yellow; Left Pink	Bozeman - 702	2005 / 2005	1 - 319 2 - 383
Right Yellow; Left Orange	Bozeman - 432	2005 / 2005	1 - 206 2 - 226
Right Yellow; Left Green	Bozeman - 368	2005 / 2005	1 - 368
Right Yellow; Left Yellow	Bozeman - 456	2005 / 2005	2 - 456
Right Yellow; Left Blue	Bozeman - 232	2005 / 2005	2 - 232
Right Yellow; Left Purple	Bozeman - 229	2005 / 2005	2 - 229
Right Yellow; Left Horizontal Pink	Garrison - 2,399	2005 / 2005	2 - 2,399
Right Yellow; Left Horizontal Orange	Garrison - 2,387	2005 / 2005	2 - 2,387
Right Yellow; Left Horizontal Blue	Garrison - 1,330	2005 / 2005	2 - 1,330
Right Yellow; Left Horizontal Yellow	Garrison - 2,120	2005 / 2005	2 - 2,120
Right Yellow; Left Horizontal Red	Garrison - 882	2005 / 2005	2 - 882

Table 4. Stocked pallid sturgeon information with elastomer tag combinations that were utilized for marking purposes as part of the population augmentation efforts.

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
1992	Blind Pony SFH	7F7D380727 7F7D353F2C	7F7D434651 7F7F065570 7F7F065244				2,412	4,444		6,856
1997	Blind Pony SFH	7751, 7752, 7753					2,012	1,663		3,675
1997	Gavins Point NFH	1F4B246E04	1F4A4A1439	138	151	80				369
		1F4B246E04	7F7D291A07	138	155	80	28			401
		1F4B246E04	7F7F06583D	138	156	79				373
		1F4A301354	1F4A4A1439	138	163	76				377
		1F4A301354	7F7D291A07	138	155	101	7			401
1998	Natchitoches NFH								35	35
1998	Gavins Point NFH	7F7F056171	1F47760123	0	100	49				149
		7F7F056171	1F4A363031	0	100	49				149

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
1999	Gavins Point NFH	7F7B021573	7F7D441774	0	160	66	202			428
		7F7B021573	7F7F06583D	0	159	50	130			339
		7F7B021573	113719262A	0	160	65	200			425
2001	Miles City SFH	220E345E09	1F4A111C6A		368					368
		220E345E09	1F4A27214F		366					366
		7F7F06672B	7F7D3C5708		247					247
		7F7F06672B	115631222A		298					298
2001	Bozeman FTC	411D262C1F	1F4A4B5973	494	71					565
		411D262C1F	411D0E2C5F	289						289
		411D262C1F	41476A0462	553						553
		411D262C1F	411D0B4E09	176						176
		411D262C1F	17509415139	546	84					630
		411D262C1F		189						189

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2002	Garrison Dam NFH	116224546A	1F477B3A65				1,323			1,323
		116224546A	116167123A				1,419			1,419
		116224546A	220F107A6F				1,601			1,601
		116224546A	7F7D461025				1,105			1,105
2002	Gavins Point NFH	116224546A	1F477B3A65		653	120	383			1,156
		116224546A	116167123A		645	121				766
		116224546A	220F107A6F		0	120	529			649
		116224546A	7F7D461025		653	120	262			1,035
		116224546A	1F4A27214F		0	120	360			480
2002	Miles City SFH	116224546A	220F107A6F		2,035					2,035
2002	Neosho NFH	116224546A	1F477B3A65				793			793
		116224546A	220F107A6F				738			738
		116224546A	7F7D461025				728			728

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2003	Garrison Dam NFH	44426F185B	7F7D291A07				1,912			1,912
		44426F185B	1F521B1E56				1,468			1,468
		44426F185B	41475D3C5D				1,207			1,207
		44426F185B	1F4A363031				110			110
		7F7F054855	115669540A				365			365
		7F7F054855	115675486A				400			400
		7F7F054855	132313521A				104			104
		132256586A	1F47760123				490			490
		132256586A	132114552A				471			471
		132256586A	132157621A				1,204			1,204
2003	Miles City SFH	7F7F054855	115669540A		1,182					362
		7F7F054855	115675486A		705					705
		132256586A	132114552A		474					474
		132256586A	132157621A		107					107

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2003	Gavins Point NFH	44426F185B	7F7D291A07			33				33
		44426F185B	1F521B1E56			60				60
		44426F185B	41475D3C5D			131	51			182
		7F7F054855	115669540A			59				59
		7F7F054855	115675486A			30				30
		132256586A	1F47760123			92				92
		132256586A	132114552A			55				55
		132256586A	132157621A			55				55
2003	Bozeman FTC	7F7F054855	115669540A	838						838
		7F7F054855	115675486A	1,003						1,003
		132256586A	1F47760123	16						16
		132256586A	132157621A	459						459
		44426F185B	1F4A363031	540						540
		44426F185B	41475D3C5D	16						16

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2003	Bozeman (cont.)	No info (26)		26						
		Retagged (152)		152						
2003	Neosho NFH	44426F185B					883			883
		7F7F054855					482			482
		132256586A					911			911
2004	Garrison Dam NFH	7F7F066452	7F7F065834		116	15	150			281
		7F7F066452	114473737A			6	17			23
		454B380D60	1F4A3E1445				121			121
		454B380D60	7F7F065834		288	15	273			576
		454B380D60	7F7D376F73		82	20	159			261
		132211792A	132235554A			61				61
		132211792A	1F4A312640			58				58
		132211792A	1F4A3E1445			394				394
		114476216A	431565767B		38	26	35			99

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2004	Garrison (cont.)	114476216A	1F4A27214F			5	17			22
		114476216A	7F7D487531		459	22	3,527			4,008
		114476216A	220F107A6F			24	28			52
		114476216A	1F477B3A65		310	26	46			382
		114476216A	430E452777		4,867	20	9,026			13,913
		114476216A	1F4A4B5973		450	25	884			1,359
		114476216A	116167123A			23				23
		114476216A	7F7E55466D		3,745	16	4,985			8,746
		114476216A	1F4A312640		1,805	9	8,380			10,194
		115551683A	115552116A			26	119			145
		115551683A	7F7D3C555D		106	18	309			433
		1F5330401E	MIX 2			5	591			596
		1F5330401E	MIX 1			13				13
		454910202B	220F0F7677		1,252		2,017			3,269
		454910202B	115679374A		1,489	24	1,063			2,576

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2004	Garrison (cont.)	454910202B	1F47606357		1,770	17	3,117			4,904
		115555495A	431565767B				373			373
		MIX	MIX				290			290
	1 day	7F7F066452	1F4A3E1445		5,000					
	1 day	454B380D60	1F4A3E1445		15,000					
			7F7F065834							
			7F7D376F73							
	2 day	454910202B	220F0F7677		25,000					
			115679374A							
			1F47606357							
	5 day	454910202B	220F0F7677		25,000					
			115679374A							
			1F47606357							

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
	9 day	454910202B	220F0F7677		25,000					
			115679374A							
			1F47606357							
	12 day	114476216A	430E452777		10,000					
	17 day	114476216A	430E452777		8,333					
	12 day	114476216A	1F4A312640		10,000					
	17 day	114476216A	1F4A312640		8,333					
	12 day	114476216A	7F7E55466D		10,000					
	17 day	114476216A	7F7E55466D		8,333					
2004	Neosho NFH	114476216A	1F4A312640				390			390
		114476216A	1F4A4B5973				487			487
		114476216A	220F107A6F				488			488
		115555495A	431565767B				422			422

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2004	Neosho (cont.)	454910202B	115679374A				790			790
		454910202B	1F47606357				353			353
		454B380D60	7F7F065834				417			417
		7F7F066452	7F7F065834				264			264
2004	Bozeman FTC	132211792A	1F4A312640	17	12					29
		132211792A	132235554A	50	25					75
		132211792A	1F4A3E1445	118	138					256
2004	Natchitoches NFH Booker-Fowler SFH	131711311A	011612346					6,826	4,755	
		131711311A	131709760A							
		131723552A	011612346							
		131723552A	131872586A							
		131723552A	131709760A							
		131726531A	011612346							
		131726531A	131872586A							
		131726531A	131709760A							

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2004	Miles City SFH Fry (25,000)	Counted in the families used from Garrison.								
		454B380D60	7F7D376F73	9	16					25
		454B380D60	7F7F065834	189	313					502
		454910202B	1F47606357	125	208					333
		454910202B	220F0F7677	13	23					36
		115551683A	115552116A	125	208					333
		115551683A	7F7D3C555D	60	100					160
2005	Garrison Dam NFH	4443240458	444334021A		1,011					1,011
		4443240458	115633183A		1,014					1,014
		115676635A	7F7B031F17		786					786
		115676635A	1F50072169		305					305
		115676635A	7F7D2D723D		559					559
		115557165A	7F7B031F17		1,074					1,074

Pallid Sturgeon Augmentation in the Recovery Areas by Family (01/01/2005)

Year Class	Hatchery	Female Pit tag	Male Pit tag	RPA Number stocked						Total stocked
				#1	#2	#3	#4	#5	#6	
2005	Garrison (cont.)	115557165A	1F50072169		848					848
		115557165A	7F7D2D723D		888					888
		7F7B026102	115553761A		2,629					2,629
2005	Miles City SFH	4443240458	444334021A		200					200
		44635F477B	7F7B031F17	632	946					1,578
		7F7B026102	115553761A	740	1,145					1,885
	fry	4443240458	444334021A	22,200						
	fry	4443240458	115553761A	11,100						
2005	Bozeman FTC	132213574A	1F482F3F2B	261	257					518
		132213574A	7F7B023253	847	1,391					2,238
	TOTALS			42,473	191,845	3,237	70,325	12,933	4,790	

Stocking Location	RPA	River mile	1994	1997	1998	2000	2002	2003	2004	2005
Atchafalya River	6				35				4755	
RPA #6 Subtotal									3611	
Mississippi River	5								6826	
Mississippi River	5	54.0	687							
Mississippi River	5	109.0	931	400						
Mississippi River	5	125.0	947	398						
Mississippi River	5	889.0	952	401						
Mississippi River	5	925.0	927	464						
RPA #5 Subtotal									12585	
Missouri River	4	28.5	832	400						
Missouri River	4	68.5	603	398						
Missouri River	4	97.5	977	400						
Missouri - Boonville	4	195.1					2695	4621	13650	
Missouri - Miami	4	262.5								3611
Missouri River	4	299.0		24						

Stocking Location	RPA	River mile	1994	1997	1998	2000	2002	2003	2004	2005	
Missouri River	4	339.5		389							
Missouri - Kansas City	4	342.0								2349	
Missouri - Leavenworth	4	397.0							13803		
Platte River	4	5.0		401							
Missouri - Bellevue	4	601.4					2513	4936	7867		
Missouri - Boyer Chute	4	637.4							51		
Missouri - Sioux City	4	732.6								2550	
Missouri - Ponca State Park	4	753					215				
Missouri - Mulberry Bend	4	775					1761	4998			
Missouri - St. Helena	4	799					280				
RPA #4 Subtotal			61815								
Missouri - Running Water	3	844								868	
Missouri - Standing Bear Bridge	3	845						300	271		
Missouri - Verdel	3	855				514	558				
Missouri - Sunshine Bottom	3	866.2					181	301	244		
RPA #3 Subtotal			2369								

Stocking Location	RPA	River mile	1994	1997	1998	2000	2002	2003	2004	2005
Missouri - Yellowstone Confluence	2	1581.3			40					
Missouri - Nohly	2	1590			279					
Missouri - Brockton	2	1649.5								600
Missouri - Culbertson	2	1621				124	587	1033	4360	3269
Milk River	2	11.5							821	
Missouri River - Milk	2	1761.5							3482	1701
Missouri - Wolf Point	2	1701.5				124	694	1026	4434	3483
Yellowstone - Fairview	2	9				216	630	887		
Yellowstone - Big Sky Bend	2	17			255					
Yellowstone - Sidney Boat Ramp	2	31			255	215	698		3341	1206
Yellowstone - Intake	2	70					451	1040	2596	3605
RPA #2 Subtotal					27799					
Missouri - Fred Robinson Bridge	1	1920.6			275		894		796	796
Missouri - Judith Landing	1	1983.1					372		569	
Missouri - Judith Landing	1	1983.3			230					828
Missouri - Coal Bank	1	2029.5					374		620	851

Stocking Location	RPA	River mile	1994	1997	1998	2000	2002	2003	2004	2005	
Missouri - Loma	1	2052							672	711	
Missouri - Mouth of Marias River	1	2052.8			230		418				
Marias River	1	60							614	33300	
RPA #1 Subtotal			6032								
TOTALS			6856	3675	1599	1193	13321	19142	69772	59728	