



ANNUAL REPORT

Oregon Department of Fish and Wildlife

John Day Fish District

Northeast Region

2007

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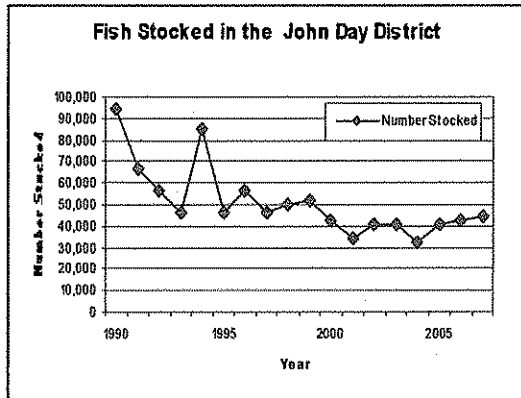


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FISH DISTRIBUTION



Trout stocking was discontinued on the South and Middle Forks of the John Day in 1995 due to the negligible contribution it was making to the fishery and conflicts with rearing Steelhead. Stocking levels were also reduced due to landowners denying traditional public fishing access to their ponds. A total of 33,618 rainbow, 2000 Triploid Rainbow and 8,925 brook trout were stocked in various waters within the district during 2007 (See Appendix Table 1).

Changes to the district's 2007 stocking schedule were:

- Stocking triploid rainbow in Olive Lake. We have not stocked this lake since 1994 because the Lake Creek outlet passes hatchery fish into the Granite Creek system. With the availability of Triploid (sterile) trout we can resume stocking without compromising downstream *O. Mykiss* populations.
- Stocking largemouth bass in Cavender Pond. Fifty one oversize bass from Davis Lake were released in May to begin devouring the thousands of pumpkinseed sunfish that have overrun this pond.
- Increased the number of fish stocked in Brandon's Pond. This pond, located at the John Day Screen Shop, has received more fishing pressure so 31 additional rainbow were stocked.

Stewart Lake, one of the Aldrich ponds, received a dam inspection from the Oregon Water Resources Department. The results obligate us to remove all vegetation from the dam face, construct a new log boom above the spillway and remove vegetation from an emergency spillway. These repairs were not made due to the temporary loss of Jeff Neal to the Umatilla Fish District.

Cavender and Long Creek ponds were electroshocked in March. Cavender pond contained a few trout and 3 largemouth bass. Long Creek pond contained 17 large goldfish and one 12" trout. Additional largemouth were planted in Cavender and the goldfish were removed from Long Creek pond.

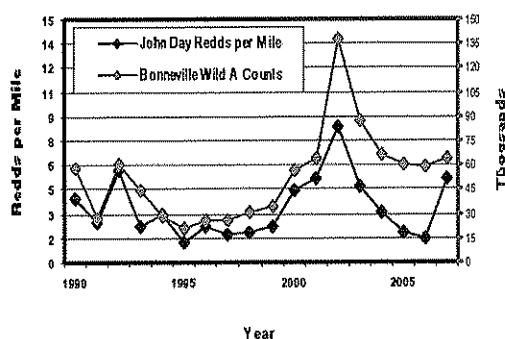
Two ponds on the PW Schneider wildlife area were sampled with hook and line. 12 to 13 inch trout were found in both ponds indicating good survival since being stocked with fingerlings in 2005. More fishermen are needed to exploit the potential of these new fisheries.

Oregon State Parks Dept. purchased property containing a pond near Mt. Vernon. Jeff and Tim were asked to begin stocking the pond with rainbow after we determined it was suitable to sustain them. 100 fish were to be diverted from 7th Street Pond but this was not done due to the loss of Jeff Neal to the Umatilla Fish District.

FISH INVENTORY

Steelhead

John Day Steelhead Counts



Annual index steelhead spawning surveys were completed on June 7 totaling 100.7 miles of stream. 528 redds were counted for a density of 5.2 redds per mile. Redd densities were higher than the ten-year average (Figure 1 and Table 2). A portion of the Canyon Creek survey was not done due to the loss of Jeff Neal to the Umatilla Fish District. EMAP crews conducted random steelhead redd counts on 61.9 stream miles and found 181 redds for a density of 2.92 redds per mile, which was the highest density observed since inception of the project.

Index surveyors observed 39 live adult steelhead and 1 was fin clipped (2.6%). The EMAP crew observed 43 adult steelhead and 15 were fin clipped (35%). The smolt monitoring project observed 11 adult steelhead and 1 was fin clipped (9%).

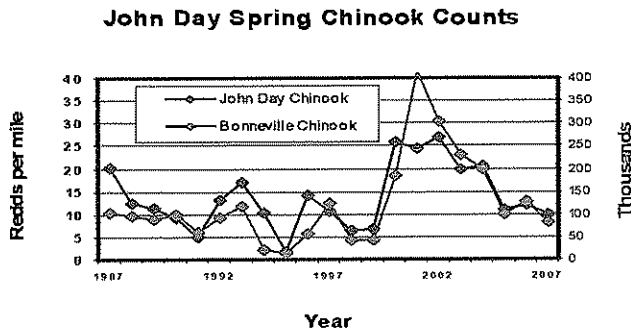
This year the John Day Juvenile Monitoring Project PIT tagged and released 4,562 wild *O. Mykiss* juveniles from the John Day River. Those that smolted were detected at John Day Dam an average of 16 days later, at Bonneville Dam an average of 19 days later and in the Columbia River Estuary an average of 22 days later.

One hundred thirteen steelhead that were PIT tagged during the 2005 migration year were detected as adults returning over Bonneville Dam in 2007. This makes the smolt to adult survival estimate 1.61% for the 2005 migratory year. Sixty seven of these steelhead (59%), however, got lost and were detected going over McNary Dam.

No Steelhead creel data was received in 2007. High, muddy water shortened the upriver steelhead fishery to 1 1/2 weeks. We are dependent on voluntary and State Police reports for our data. Table 2 shows a summary of past steelhead creel collected in the district.

Jim Driscoll, a landowner on Dick Creek, allowed us to check his portion of stream for the presence of *O. Mykiss*. From the mouth up one mile was checked and no fish were found of any species. This was the first time Dick Creek has been checked for fish presence.

Spring Chinook



Spring chinook adults returning over Bonneville this year totaled 80,829. This was a 36% reduction from last year's count of 126,158. The estimated escapement of John Day spring chinook was 2,559 adults, an 18% reduction from last year's estimate of 3,132.

Spawning ground surveys were performed on 55.0 miles of index streams, with a count of 537 Chinook redds for a basin wide average of 9.8 redds per mile.

The highest proportion of spawning occurred in the North Fork with 44.7% of the redds. The proportion of fish spawning in the Mainstem was 41.8%, the Middle Fork was 10.0% and the Granite Creek system was 3.5%. (See Figure 2, Appendix Figures 3-6 and Appendix Table 3)

This year there was a significant die off of adult spring Chinook in the Middle Fork John Day River. ODFW counted 118 dead adult salmon on 22 miles of surveys conducted between July 6th and 12th, 2007. Approximately 50 live adult salmon were also observed on these and similar surveys by ODFW and tribal biologists. There appeared to be two concentrations of salmon that died, one near the mouth of Big Boulder Creek (41) and one near the mouth of Vinegar Creek (62). Numerous resident rainbow and mountain whitefish mortalities were also observed.

Adult Spring Chinook migrate into the John Day River every year in May seeking pools to rest during the summer months and finally spawning in September. It is common for a few individuals to succumb to quickly rising water temperatures but this year's heat wave seems to have taken an unusually heavy toll.

Most of the fish are estimated to have died during the first week of July when air temperatures in John Day peaked at 107 degrees and water temperatures climbed 8 degrees between July 2 and July 5. Up to 84 degree stream temperatures were measured which exceeds the published lethal temperatures for Chinook salmon. Flows in the Middle Fork John Day were also about 1/3 of average during this period, further exacerbating temperature conditions for salmon. No observations, reports or evidence was found suggesting these fish died from pollutants, disease or fishing.

ODFW also conducted mortality surveys on the North Fork John Day River from Dale up to the North Fork Wilderness boundary. Here they found only 12 dead salmon and 70 still alive. The mortalities were limited to the reach between Ryder Creek and Horse Canyon. No dead salmon were observed in surveys closer to the headwaters of the North Fork or

its tributaries. While no systematic survey was conducted on the Upper Mainstem John Day, a few dead fish were observed above Prairie City by tribal biologists. Chinook surveys in the Grande Ronde and Umatilla Rivers recorded some mortality during the same time period but not nearly to the extent seen in the Middle Fork of the John Day.

The Middle Fork experienced a 52% decline in chinook redds from last year's count while the Mainstem and North Fork experienced slight increases.

The John Day Juvenile Monitoring Project PIT tagged juvenile spring Chinook from October 2006 to June 2007. A total of 4,056 juvenile spring Chinook were captured and PIT tagged. Based on recapture rates, 40,615 ($\pm 95\%$ CL's 6,285 and 9,112) Chinook smolts migrated past Spray this year. Peak migration of spring Chinook past all rotary screw traps was in May. Mean travel time for spring Chinook from all release sites to John Day Dam was 25 days, to Bonneville Dam was 26 days and to the Columbia River Estuary was 28 days.

There were 84 detections of returning adult spring Chinook salmon at Bonneville Dam between April 10 and June 13, 2007. The majority (58%) came over in May. The smolt to adult survival estimate (SAR) for our 2002 brood year was 2.08%. (84 returning adults of 4,036 PIT tagged during the 2004 migration).

Last year's SAR estimate was also 2.08%. (128 returning adults of 6,147 PIT tagged during the 2003 migration).

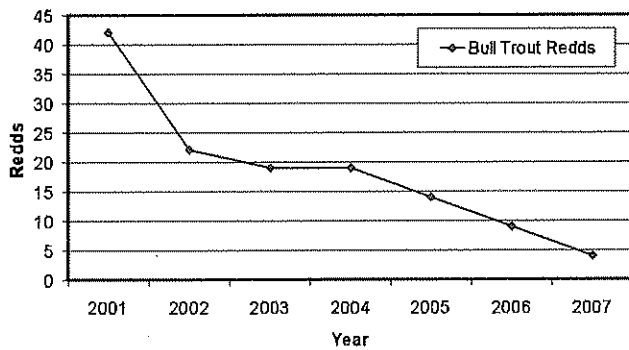
Additional spring Chinook and *O. Mykiss* life history data from the John Day Basin can be found in annual reports of *Escapement and Productivity of Spring Chinook Salmon and Summer Steelhead in the John Day River Basin* (BPA). Annual reports written by this project are posted on the Bonneville Power Administration website.

Fall Chinook

Fall Chinook spawning survey were conducted between October 31 and Nov. 8 from RM 43 to Tumwater Falls at RM 10. One occupied redd was found at the mouth of Hay Canyon (RM 30) and two occupied redds were found under the powerlines at RM 25.

Bull Trout

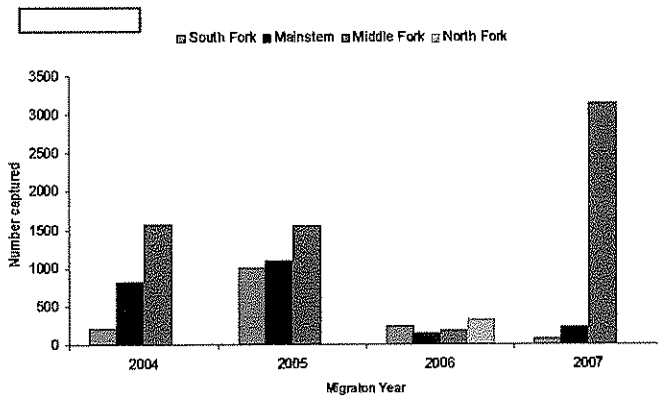
Figure 3 John Day Bull Trout Redd Counts



Index spawning ground surveys were conducted on 4.1 miles of stream in mid-October. Call Creek was not surveyed this year due to the loss of Jeff Neal to the Umatilla Fish District. Only 4 Bull Trout redds were found for an average of 1.0 redds/mile (see Figure 7 and Appendix Table 4). This compares to 1.6 redds per mile counted last year. Redd counts in these streams have severely decreased during the last 5 years.

One bull trout (136 mm) was captured in the Middle Fork rotary screw trap at Ritter on May 21 and another (280 mm) while seining at Spray on March 30.

Pacific Lamprey



Juvenile lamprey counts at rotary screw traps appear to be dropping but differing trap efficiencies are not taken into account. This year 3,654 juvenile pacific lamprey were captured at all three rotary screw trap sites with 1000 captured in one day in mid-March on the Middle Fork. Two adult pacific lampreys were captured alive at our South Fork Trap on May 15

and 16 and one adult lamprey was also captured at our Middle Fork trap on June 1. See appendix for additional lamprey information.

Presence/Absence Surveys

Chinook juveniles and one jack Chinook were discovered for the first time in BridgeCreek near Mitchell (23 miles from mouth) by NOAA research crews. One Chinook juvenile was caught for the first time in BridgeCreek near Austin Junction (4 miles from mouth) by ODOT fish salvage crews.

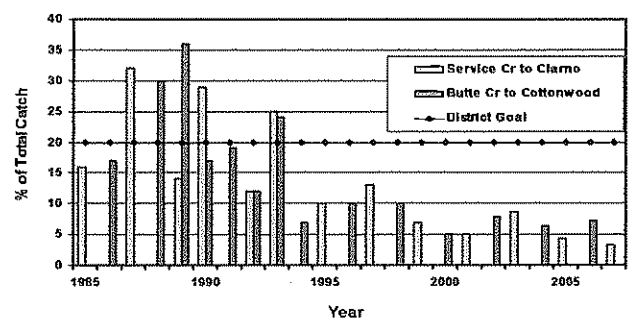
Lake Surveys

Olive Lake was planted with 2000 triploid rainbow legal in late May. Gillnet and zooplankton samples were taken in November. Two large immature trout as well as 7

other trout without gonads were caught in the gill nets but were too small to positively identify as triploids. The district requested only fin-clipped triploid fingerlings be planted in Olive Lake to aid with growth/survival analysis, but all have been delivered unmarked. The sample contained good numbers of Kokanee. No brook trout have been caught here since 2000. Stocking of brook trout was discontinued in 1987 because of downstream bull trout concerns.

Smallmouth Bass

Figure 4 John Day Smallmouth Bass over 12 inches



Smallmouth bass length data was taken during a float trip from Twickenham to Clarno on May 28-31. The sudden drop in stream flow and fully scheduled calendars resulted in a four day sample trip instead of five and reduced the trip length to below Twickenham. A total of 789 bass were caught with 3.3% of those over 12 inches. This is down from 2005 when 4.3% were over 12 inches. A slot limit

protecting bass between 12 and 16 inches was initiated here in 2000. The District goal is 20% over 12 inches (see Figure 8 and Appendix Table 5).

Smallmouth and pike minnow diet sampling in the North Fork, scheduled for June of this year, was cancelled due to the temporary loss of Jeff Neal to the Umatilla Fish District. Sampling is expected to resume in 2008.

Channel Catfish

No channel catfish were caught this year from Twickenham to Clarno during our smallmouth survey. This is probably due to lower than normal water temperatures rather than any down-turn in channel cat populations.

MANAGEMENT ISSUES AND PROPOSALS

We wrote substantial portions of the Limiting Factors and Recovery Strategies and Goals sections of the Draft Recovery Plan for Mid-Columbia Steelhead. We also reviewed several drafts of the viability analysis section of the Recovery Plan being written by Rich Carmichael.

NOAA fisheries and BioMark inc. installed a PIT tag detection array on September 24 on the John Day River at McDonald Ferry (RM 20). The first day of operation detected one of the 113 tagged adult steelhead that had previously been detected at Bonneville Dam. As of early February 2008, 67 of the steelhead detected at Bonneville had also been

detected going over McNary Dam and only 20 John Day origin fish had been detected at the McDonald Ferry array. No attempt was made to measure the device's detection efficiency but this low return number strongly suggests our steelhead are having trouble finding the mouth of the John Day and are straying up the Columbia. This could have serious negative effects on John Day River steelhead recovery efforts.

An updated version of the Canyon Meadows Emergency Plan was written and sent to the ODFW engineers. No hard copies of the document were ever received for us to distribute to the local agencies. The dam was checked on March 4th and found to be unblocked and draining satisfactorily.

Jeff participated in writing a Piscicide Treatment checklist for helping biologists plan rotenone projects. Jeff also assisted the High Desert Region with the first phase of a rotenone treatment project on McDermitt Creek.

Suggestions were given to the Malheur National Forest on how best to survey for steelhead and bull trout redds within their various grazing allotments. Suggestions were given on which streams would most likely have redds and what dates those redds would be created.

Tim and Jeff attended two meetings to discuss the All H's Analyzer model (Columbia River Biological Opinion and effect of various recovery actions) with personnel from NOAA, Mobrand and Associates, ODFW Mid-Columbia District, and Dave Ward (NPCC).

Tim prepared a list of strategies and measures for resident fish species as requested by Fish Division. This list will be used to prioritize funding for BPA funding.

The 2006 summer steelhead, spring chinook and bull trout redd count data was summarized and sent to the Salem ODFW office, the John Day outpost of the Oregon State Police, NOAA fisheries, U.S. Fish and Wildlife Service, Malheur and Umatilla National Forests and the Warm Springs and Umatilla tribes. These data were also sent to all basin Watershed Councils including the North Fork, Mid-John Day and Bridge Creek and all of the basin Soil and Water Conservation Districts including the Grant, Wheeler, Sherman, Morrow and Gilliam districts. The 2006 district Annual report was later written and sent to the same agency offices.

HABITAT PROTECTION

Advice was given to Mainstem landowner Alan Jacobs on thinning cottonwood trees from his river banks. Cottonwood has grown so thick that the fallen trees and branches are preventing him from cutting hay on his field edges. A State Forestry representative was asked to come along and explain which logging regulations would have to be followed. Mr. Jacobs was told no one would pay him to remove the cottonwood trees since they were worth less than the removal costs. Mr. Jacobs would have to submit a riparian

protection plan, pay to cut and deck the trees, and then hope someone would buy them. He decided not to pursue a logging operation.

Tim and Jeff participated in planning the Bridge Creek timber sale on the P.W. Schneider Wildlife Area and help write and review several drafts of the Biological Assessment. Ideas for armoring stream crossings with rock and placing temporary culverts were discussed.

Tim and three screens crew members conducted a fish salvage on Big Boulder Creek in February. 133 *O. Mykiss* juveniles were rescued from an irrigation ditch that had been de-watered for maintenance.

Several recommendations and comments were given on Division of State Lands fill/removal permit applications for the John Day River.

Tim and several research personnel responded to a reported fire retardant drop into Granite Boulder Creek. Approximately 224 feet of the creek took a direct hit, and another 84 feet took an indirect hit. We surveyed the entire length of the creek from the upstream most evidence of retardant down to the mouth of the stream and found no dead fish. Apparently, the water temperatures and flow were enough to prevent a fish kill.

Tim reviewed and rewrote several sections of the Murderers Creek Coordinated Resource Management Plan. He also took a tour of the CRMP area with Fred Hall (retired USFS), Bob Alverts (retired BLM), Rene Mabe (USFS Range/Fish/Wildlife), and PW Schneider WMA personnel.

In late January Tim, along with Tom Stahl (fish passage staff) provided input to a proposed fish passage project on Pinehollow Canyon. TransCanada Pipeline wanted to improve fish passage over their exposed pipeline. We suggested construction of at least one and possibly two rock weirs below the pipeline. The company has since hired a consultant to further develop the proposal.

Tim assisted OSP, USFS enforcement personnel, and DSL with an investigation into illegal mining activity on Granite Creek. There had been extensive high banking and stream degradation associated with "recreational" mining on approximately 200 feet of Granite Creek during and after the authorized inwater work period. Two miners were on site, but claimed to not be the primary offenders. Subsequent investigation revealed they were only partially responsible for the damage. A follow up meeting with the agencies developed a process for dealing with this type of activity in the future. One recommendation that DSL and USFS will pursue is to remove this stream reach from mineral entry.

Tim made suggestions to Oregon State Parks and Recreation regarding a proposed bank stabilization project at Clyde Holliday Park.

Tim and Jeff attended a tour hosted by Morrow County to look at their proposed expansion of the county owned ATV park. They had submitted a funding proposal to Oregon State Parks and Recreation to acquire additional acreage to the south and east of the existing park. Heppner wildlife district had several concerns regarding impacts to big game (primarily displacement and harassment of elk), but the county has done a good job of addressing water quality and fish issues by providing bridges at all stream crossings, fencing out historically overgrazed sections of stream and developing off stream water sources.

HABITAT IMPROVEMENT

The BPA habitat improvement project constructed 13.1 miles of riparian fence, three water developments, removed 3.9 miles of old fence and planted 4000 riparian trees. They also installed juniper riprap at 3 sites.

Jeff worked with BPA Habitat Project personnel to develop a list of streams that met criteria for a mitigation proposal submitted to the District by David Evans and Associates (DEA), on behalf of the City of St. Helens. The city is required to mitigate for warm water discharge into the Columbia River by funding and implementing an off site mitigation project that would result in cooler water. We gave them a list of four different sites that would benefit from riparian recovery, which were subsequently field surveyed. One site appeared to be highly desirable and DEA has started negotiations with the landowner. A final decision about how and when to proceed had not been made at the time of this report.

The project now has 255.04 miles of fence protecting 167.9 miles of stream and 3872 acres of habitat. They also renewed expired riparian leases on Fox Creek/ Johns Property (12.5 Miles) and the Upper Mainstem of the John Day River/ Jacobs (2.0 miles).

Tim and Jeff provided input to the Habitat Improvement Project on which landowners to renew riparian leases with. Canyon, Long and Fox creeks were given the highest priority.

Tim was the lead writer for a response to the Independent Scientific Review Panel regarding their review of the John Day Habitat Improvement Project. Their review was critical of the project's lack of monitoring and evaluating the success of riparian fencing at improving habitat conditions for steelhead and salmon.

A field tour of a proposed Middle Fork channel restoration project was attended by Jeff. Oregon Trout, the Malheur National Forest and a private landowner are planning to move the river back into a 4,300 foot channel that was replaced by a bulldozed, straight channel, seventy years ago. We completely support this project and have been pushing for its completion for over 15 years.

Tim attended a meeting in Ukiah, as part of a requirement to get public input on signing of a lease for fencing of private property on Cable Creek. No public showed up for the meeting.

Oregon Water Trust (OWT) was successful in developing a perpetual lease for water rights on the Austin Ranch with Pat and Hedy Voigt, new owners. The lease will convert their out of stream use to instream rights after July 20 of each year. OWT negotiated the July 20 date with the Voigts with input from District staff, with the goal of providing water at a critical time of year for juvenile steelhead and Chinook rearing, as well as adult Chinook preparing to spawn. The water rights total approximately 8 cfs.

ODOT completed construction of three bridges on Bridge Creek that replaced fish blocking culverts. A salmon exclusion weir was installed by ODFW Screens program to allow completion of this construction in one year. No adult Chinook have been seen in this stream but a juvenile was discovered for the first time since fish passage was made available 4 years ago.

Tim volunteered to serve on a statewide beaver working group. The working group was the result of discussions about the benefits/risks of using beaver for watershed restoration work and the scarcity of beaver harvest data.

Advice was given to the North Fork Watershed Council on locations for placing juniper riprap in Fox Creek.

Advice was given to Oregon Department of Transportation engineers on constructing bio-engineered riprap along 400 feet of the Mainstem. Fish rocks, sedge clump transplanting, instream work window timing and root wad revetments were all discussed. Final designs will be reviewed next year.

We worked throughout the year to develop an instream and riparian improvement plan on a 1.5 mile stretch of private land on Big Boulder Creek. The Bureau of Reclamation (BOR) has completed a final design for the stream which includes putting it back into an historic meandering channel with large wood placed in several areas. Construction is planned during the summer of 2008.

Tim and Jeff provided comments on 30 proposed Oregon Watershed Enhancement Board 2007 projects relating to how they would impact, improve or monitor fish habitat in the John Day Basin. A priority ranking of all proposals was also submitted.

We assisted the Bureau of Reclamation and the Nature Conservancy with the planning, fund acquisition and successful execution of a habitat improvement project on the Dunstan preserve on the Middle Fork. The project involved rock rip-rap removal, and large wood placement, and pool excavation.

Tim and Jeff assisted Grant District wildlife and PW Schneider personnel for two days with cutting junipers at two locations on the WMA. Approximately 9-10 acres were cut each day.

INFORMATION, EDUCATION AND INTERAGENCY COORDINATION

We received and responded to hundreds of E-mails from various State and Federal Agencies, Tribes and private parties asking for information and data pertaining to fish resources of the John Day.

Tim gave a presentation about the John Day River steelhead fishery and incidence of stray hatchery fish to about 50 biologists at the annual Lower Snake River Compensation coordination meeting in Boise.

The Bureau of Land Management is in the process of writing a new management plan for all lands within the John Day River Basin. Jeff has been charged with assimilating ODFW's input and presenting it at quarterly meetings. A draft of the new plan will be available in early 2008.

Tim continues to serve as the ODFW representative on the John Day River BLM Wild and Scenic River Core Team. He attended one meeting and provided rowing service and a boat for the first ever two day Core Team float trip from Lower Burnt Ranch to Clarno. Oregon State Parks and Recreation personnel (3), BLM (3), Warm Springs Tribe, Sonoran Institute (Core Team moderator) and DSL representatives (2) were also on the trip.

Tim and Jeff attended the Cooperative Enforcement Program meeting with the State Police in John Day to set fish and wildlife enforcement priorities for the year.

Tim met with two representatives of the Wild Salmon Center to discuss priority areas and methods for watershed recovery in the lower John Day River basin, focusing primarily on streams in Wasco, Sherman, and Gilliam counties.

Tim participated in a field tour of Bridge Creek with NOAA, BLM, OSU and National Park Service personnel to discuss the benefits/risks of promoting beaver dam construction. Consensus of the group was that beavers would benefit the watershed, but getting the beavers to stay would be difficult.

Tim was interviewed for a video production promoting the benefits of the water lease signed with the Austin Ranch.

Jeff spent a day in early January with Marv Ritter checking steelhead anglers and showing him popular fishing locations.

Tim spent two days showing an independent film maker salmon spawning and rearing habitat on the North Fork and Middle Fork. She is on contract with Oregon Public Broadcasting to develop a full length film about the life of wild spring Chinook salmon.

Tim and Jeff attended a coordination meeting with the Umatilla National Forest.

Tim and Jeff attended the annual meeting of the American Fisheries Society in Eugene.

Tim and Jeff assisted the Malheur National Forest with prioritizing which streams needed fish barrier culverts replaced. Camp Creek/Middle Fork was chosen as the Forest's highest priority.

Tim led a tour showing spawning spring Chinook salmon to Prairie City elementary and high school students during their annual salmon day on the Middle Fork.

Tim and Jeff attended the 2005 Regional Training and Awards Conference.

Tim assisted with a fishing derby at McHaley pond with the Warm Springs Tribe during Free Fishing Weekend. We had the largest turnout ever with 56 kids and 29 adults.

Tim and Jeff attended the annual ODFW/OSU float trip on the Deschutes River. We discussed several graduate student research projects and gave ideas for future research.

Personnel from the Research section and the Warm Springs Tribe assisted us with spring chinook and steelhead redd counts.

Tim, Jeff, and Jim Ruzycski toured the John Day Dam with USACE biologist Miro Zyndol to look at the smolt bypass system, fish screening, and adult fish ladders.

Tim worked one day at the Portland Sportsman's Show in February.

MISCELLANEOUS

Tim, Jeff, and the research seasonal replaced the bottom coating on both district drift boats.

Tim attended a meeting in Salem to discuss the Angler Use Survey recently completed by a consulting firm.

Tim and Jeff attended boat inspection training to prevent the spread of invasive species (New Zealand mud snails, quagga and zebra mussels).

Tim and Jeff attended the bi-annual statewide fish biologist meeting at the Big K ranch at Elkton.

Tim and Jeff investigated a previously unknown angler access agreement that ODFW had with ODOT on the south side of the North Fork John Day River. ODOT was proposing to dispose of the property by selling it to the landowner on the north side of the river. The parcel had no evidence of prior use and would require anglers to walk through adjoining private land and an existing sprinkler irrigated pasture. We had no objections to disposal of the property.

Tim was on the interview board for selecting the Umatilla District fish biologist position. We selected Bill Duke from a list of high quality candidates.

Jeff converted one of the new driftboats into an electroshocking unit using equipment salvaged from our previous boat.

Tim assisted OSP with an inspection of Prairie Springs Hatchery.

Ryan Torland was hired as the district wildlife biologist in January 2007.

Tim and Jeff responded to 8 deer complaints and assisted with 13 days of deer and upland bird census.

Weekly angling reports were written and forwarded to the Salem office.

Water Storage Summaries forms were filled out and submitted to OWRD for our water rights on Canyon Meadows and Bull Prairie Reservoirs.

Jeff interviewed for the Grande Ronde district fish biologist position. Tim Bailey was selected.

Tim and Jeff attended a one-day computer training class about Microsoft ExCel.

Jeff taught the Screen Shop crew about juvenile fish identification in bypass screen traps.

Tim prepared bid packages for painting and remodeling the office and for replacing all the single pane windows with double pane windows. He also coordinated with engineering personnel and the safety officer to develop a plan for dealing with the lead based paint in the attic storage area.

Table 1.

Fish Stocking Summary, 2007

John Day District

Water Body	Date	Number	Species	Hatchery	Length
Lower Aldrich Pond	5-Jun	378	Rb	Oak Springs	3 in.
Upper Aldrich Pond	5-Jun	378	Rb	Oak Springs	3 in.
Anson Wright Ponds	25-Apr	702	Rb	Irrigon	9 in.
	15-May	1000	Rb	Irrigon	9 in.
Brandon's Pond	10-Apr	86	Rb	Irrigon	9 in.
	18-May	500	Rb	Oak Springs	3 in.
Bull Prairie Res.	18-May	4993	Rb	Oak Springs	3 in.
	18-Sep	5950	Bt	Wizard Falls	3 in.
Cavender Pond	7-May	1500	Rb	Irrigon	12 in.
	17-May	51	LB	Davis Lake	16 in.
Jump-Off Joe		Not stocked	this year		
Long Cr. Pond	10-Apr	650	Rb	Irrigon	9 in.
	7-May	780	Rb	Irrigon	12 in.
Lost Lake	22-May	2001	Rb	Oak Springs	4 in.
Magone Lake	18-May	5046	Rb	Oak Springs	3 in.
	18-Sep	2975	Bt	Wizard Falls	3 in.
McHaley Pond	7-May	1000	Rb	Irrigon	12 in.
Morrow Co. Pond 1	10-Apr	351	Rb	Irrigon	9 in.
	7-May	500	Rb	Irrigon	12 in.
Morrow Co. Pond 2	10-Apr	351	Rb	Irrigon	9 in.
	7-May	1000	Rb	Irrigon	12 in.
Olive Lake	5-Jun	2000	Triploid Rb	Irrigon	4 in.
PWS Pond Sfk.		Not stocked	this year		
Rowe Cr. Res.	9-May	2000	Rb	Irrigon	9 in.
	12-Jun	750	Rb	Irrigon	9 in.
Seventh St. Pond	10-Apr	889	Rb	Irrigon	9 in.
	7-May	1000	Rb	Irrigon	12 in.
	4-Jun	1001	Rb	Irrigon	12 in.
Trout Farm Pond	19-May	1000	Rb	Irrigon	12 in.
	4-Jun	1001	Rb	Irrigon	12 in.
Twin Ponds (East)	7-Jun	400	Rb	Irrigon	9 in.
Twin Ponds (West)	7-Jun	800	Rb	Irrigon	9 in.
Umatilla Forest Ponds S.	15-May	1510	Rb	Oak Springs	4 in.
Totals:		21,858	Rainbow Legals		
		2,000	Triploid Rainbow Legals		
		11,760	Rainbow Fingerlings		
		8,925	Brook Trout Fingerlings		

**Table 2. Steelhead Spawning Summary, 1959-2007
John Day Fish District.**

Year	Number of Streams Surveyed	Miles Surveyed	Live Steelhead	Redds	Redds Per Mile
1959	6	14.5	30	108	7.4
1960	10	22.0	60	194	8.8
1961	8	24.5	56	166	6.8
1962	10	26.5	56	184	6.9
1963	11	30.5	47	216	7.1
1964	13	43.5	51	266	6.1
1965	19	45.0	88	344	7.6
1966	23	69.0	141	1103	16.0
1967	25	78.0	61	905	11.6
1968	23	74.5	19	358	4.8
1969	27	91.5	76	806	8.8
1970	21	65.0	58	530	8.2
1971	8	22.5	18	181	8.0
1972	16	53.5	41	409	7.6
1973	25	76.4	22	402	5.3
1974	14	38.0	4	167	4.4
1975	14	34.0	21	302	8.9
1976	21	59.8	8	308	5.2
1977	30	75.5	69	535	7.1
1978	35	102.7	21	438	4.3
1979	29	78.7	4	81	1.0
1980	34	90.1	11	305	3.4
1981	33	86.1	12	319	3.7
1982	32	71.8	34	301	4.2
1983	31	89.3	39	438	4.9
1984	29	76.7	33	299	3.9
1985	39	120.3	88	1016	8.4
1986	43	120.6	129	1323	11.0
1987	61	154.3	82	1757	11.4
1988	46	128.0	111	1551	12.1
1989	35	106.5	42	340	3.2
1990	39	114.3	37	451	3.9
1991	29	91.9	8	225	2.4
1992	35	107.3	70	608	5.7
1993	24	68.0	14	166	2.4
1994	38	114.6	6	352	3.1
1995	34	104.1	8	135	1.3
1996	35	100.8	9	225	2.2
1997	33	96.5	15	165	1.7
1998	27	70.6	4	134	1.9
1999	28	79.6	20	169	2.1
2000	30	89.7	8	366	4.1
2001	29	85.7	75	433	5.1
2002	35	105.2	189	876	8.3
2003	34	101.1	26w 2h	467	4.7
2004	35	93.9	12w 1h 4?	295	3.1
2005	30	88.1	15w 1h 1?	160	1.8
2006	30	93.3	22w 4h 10?	144	1.5
2007	34	100.7	38w 1h 11?	528	5.2
5 yr AVE	33	95.4	27	319	3.3
10 yr AVE	31	90.8	44	357	3.8

**Table 3. Summary of Chinook Salmon spawning density
John Day District, 1959-2007.**

Redds per mile

Year	Bull		Granite		Mainstem	Middle Fork	North Fork
	Run	Clear	e	Granite System			
1959	*	4.3	6.0	5.3	0.3	0.0	*
1960	*	16.3	10.0	12.5	0.7	3.2	*
1961	*	3.3	5.3	4.5	3.0	1.1	*
1962	2.0	49.7	44.2	44.3	12.2	2.8	*
1963	7.0	29.2	26.4	28.4	0.8	0.4	*
1964	10.0	49.7	34.8	38.3	1.3	3.6	7.8
1965	7.5	16.7	24.4	18.5	5.8	3.7	8.1
1966	0.3	43.5	31.0	28.4	9.3	6.5	10.3
1967	6.0	38.5	19.4	23.1	7.4	1.7	5.5
1968	6.4	60.5	50.2	44.3	0.7	0.4	8.8
1969	15.6	13.7	16.8	15.9	9.3	4.8	20.5
1970	26.4	18.7	33.6	26.9	8.3	7.6	16.8
1971	11.6	18.8	31.2	22.6	7.0	4.1	11.8
1972	24.4	39.5	43.5	38.2	3.9	5.1	10.5
1973	7.2	27.0	36.0	27.0	8.9	4.3	19.4
1974	7.6	6.0	25.5	15.9	2.5	8.1	7.2
1975	18.8	11.5	24.7	19.1	7.1	8.9	11.7
1976	9.2	7.0	20.2	13.5	4.6	6.6	6.2
1977	11.6	12.8	23.1	17.3	4.9	5.8	16.4
1978	12.4	6.3	19.8	13.8	4.5	10.7	5.9
1979	6.4	7.0	15.6	10.8	5.2	11.8	11.1
1980	1.2	7.0	8.5	6.5	1.2	5.8	4.3
1981	2.8	11.3	10.6	9.2	3.9	2.6	7.7
1982	5.2	10.8	12.0	10.2	3.8	6.2	5.5
1983	0.8	1.0	7.3	3.8	10.2	5.1	4.2
1984	3.2	2.0	5.8	4.0	5.6	6.7	3.5
1985	6.4	8.2	15.1	11.0	8.9	4.0	6.1
1986	2.4	11.5	20.2	13.6	12.2	6.3	14.3
1987	5.6	14.0	12.9	11.8	19.0	28.3	20.8
1988	1.2	11.0	12.5	9.7	6.3	20.1	13.6
1989	6.0	16.7	12.2	12.4	12.7	9.4	10.9
1990	2.4	2.7	11.1	6.5	9.5	3.9	14.3
1991	1.6	5.2	5.5	4.6	4.7	2.9	6.4
1992	0.0	11.7	16.5	11.5	10.9	9.0	18.8
1993	17.6	25.6	19.8	21.3	10.4	12.9	21.1
1994	0.0	4.0	14.5	8.0	13.0	7.8	11.2
1995	0.0	2.8	2.2	1.9	2.2	1.3	1.5
1996	3.6	9.5	14.7	10.7	17.5	11.3	16.2
1997	7.2	7.2	10.0	8.5	9.6	13.6	10.9
1998	0.4	2.8	8.4	5.1	8.3	6.6	6.0
1999	3.2	3.8	11.6	7.3	4.5	8.8	6.7
2000	4.8	20.0	28.0	20.1	25.9	29.7	26.5
2001	15.2	20.0	18.9	18.5	29.5	16.6	33.7
2002	12.5	13.5	20.7	16.6	36.9	25.8	28.5
2003	0.4	7.3	9.3	6.75	28.4	15.3	26.8
2004	2.7	10.0	7.2	6.75	20.2	14.7	33.4
2005	1.3	5.0	3.8	3.5	12.4	8.0	15.1
2006	3.0	7.3	5.3	5.3	21.7	12.8	8.9
2007	0.7	2.7	1.8	1.8	19.0	6.1	10.9
5 yr AVE	1.6	6.5	5.5	4.8	20.3	11.4	19.0
10 yr AVE	4.4	9.2	11.5	9.2	20.7	14.4	19.7

* No survey these years

Figure 3

**Mainstem John Day
Spring Chinook Redd Counts**

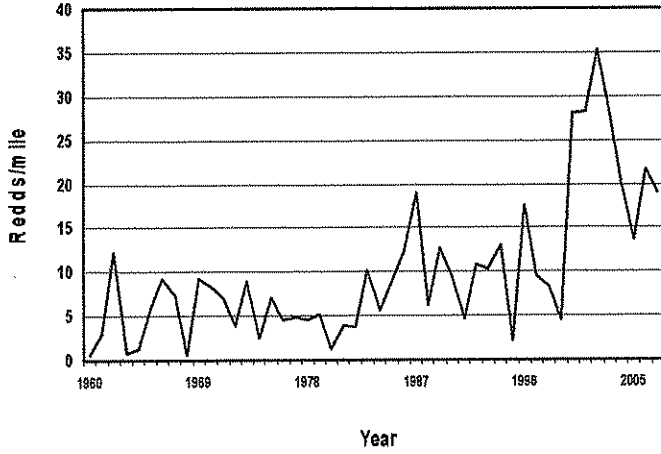


Figure 4

**Middle Fork John Day
Spring Chinook Redd Counts**

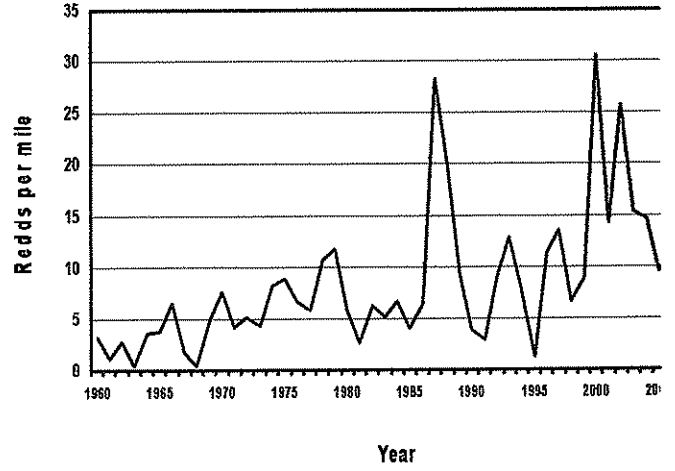


Figure 5

**North Fork John Day
Spring Chinook Redd Counts**

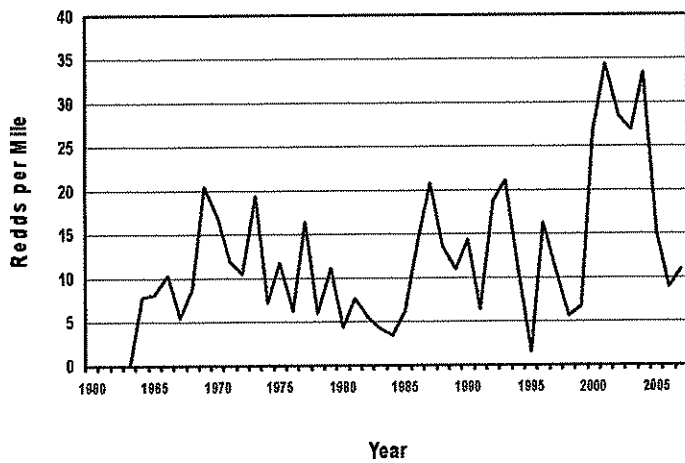
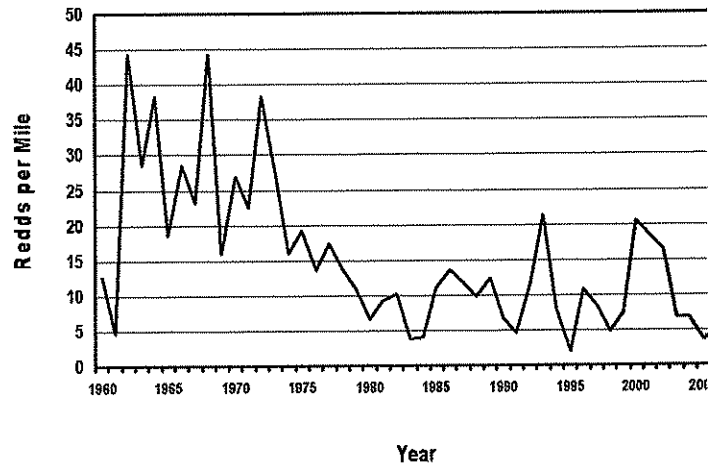


Figure 6

**Granite Creek System
Spring Chinook Redd Counts**



**Table 4. 2007 Bull Trout Redd Counts
John Day District**

Stream	Date	Miles	Start Temp	Redds Counted				Fish Observed				Surveyor Name's
				Occ.	Unocc.	Total	Redds/Mi.	< 6"	6" to 12"	12" to 18"	Rb	
Baldy	18-Oct	1.3	1deg	0	0	0	0.0	0	0			Unterwegne
Upper Big	11-Oct	1.3	-	0	0	0	0.0	0	0		31	Neal
Call Nfk.		1.7	-	-	No	Survey	this	year				
Reynolds	17-Oct	1.5	43 deg	0	4	4	2.7	0	0			Neal
TOTALS		4.1				4	1.0	0	0	0	31	

**Table 5. Smallmouth Bass Length Summary.
1985-2007 John Day Fish District**

Area	Year	Sample size	% greater than 12 in.
Service Creek - Clarno	1985	98	16.0
Butte Creek - Cottonwood Bridge	1986	312	17.0
Service Creek - Clarno	1987	241	32.0
Butte Creek - Cottonwood Bridge	1988	572	30.0
Service Creek - Clarno	1989	394	14.0
Thirtymile - Cottonwood Bridge	1989	269	36.0
Service Creek - Clarno	1990	311	29.0
Butte Creek - Cottonwood Bridge	1990	412	17.0
Butte Creek - Cottonwood Bridge	1991	775	19.0
Service Creek - Clarno	1992	500	12.0
Butte Creek - Cottonwood Bridge	1992	1638	12.0
Service Creek - Clarno	1993	727	25.0
Butte Creek - Cottonwood Bridge	1993	682	24.0
Butte Creek - Cottonwood Bridge	1994	667	7.0
Service Creek - Clarno	1995	443	10.0
Butte Creek - Cottonwood Bridge	1996	429	10.0
Service Creek - Clarno	1997	159	13.0
Butte Creek - Cottonwood Bridge	1998	847	10.0
Service Creek - Clarno	1999	882	7.0
Butte Creek - Cottonwood Bridge	2000	914	5.0
Service Creek - Clarno	2001	663	5.0
Butte Creek - Cottonwood Bridge	2002	588	7.8
Service Creek - Clarno	2003	634	8.7
Butte Creek - Cottonwood Bridge	2004	1057	6.3
Service Creek - Clarno	2005	753	4.3
Butte Creek - Cottonwood Bridge	2006	878	7.3
Service Creek - Clarno	2007	789	3.3
5 year Average		822	6.0
10 year Average		801	6.5

DRAFT for addition to the Weekly Report
Summary of Adult and Juvenile Pacific Lamprey (*Lampetra tridentata*)
Detections at Rotary Screw Traps in the John Day Basin, 2004 – 2007 Migrations

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INTRODUCTION

Relatively little lamprey abundance data has been collected to adequately address the status of pacific lamprey in the Columbia Basin (Kostow, 2002). Kostow, 2002 noted that rotary screw traps could be a useful tool in the evaluation of juvenile lamprey abundance. We have operated screw traps in the John Day basin since the fall of 2003. However, we have only reported the number of adult and juvenile lamprey incidentally captured in our research project annual reports to the Bonneville Power Administration (Schultz et al 2006 and 2007; Wilson et al 2007 and 2007). In addition, no lampreys have been measured for fork length or weight and we are unable to estimate abundance because we did not estimate juvenile lamprey trap efficiencies at our trap sites. The following is a summary of adult and juvenile lamprey migration timing and juvenile lamprey relative abundance data collected from our 2004 - 2007 trapping activities in the John Day River basin.

The reader should be aware that between the fall of 2003 and the spring of 2006 the Mainstem trap was located downstream of the confluence with the South Fork at rkm 326 and was relocated upstream of the confluence with the South fork Trap at rkm 352 during the fall of 2006. In addition, during 2006, the North Fork trap was located downstream of the confluence with the Middle Fork at rkm 26.

RESULTS AND DISCUSSION

One adult pacific lamprey carcass has been recovered in our Mainstem Seining operation and 14 live adult pacific lamprey have been captured at rotary screw traps in the Mainstem (rkm 326), Middle Fork (rkm 24), and South Fork (rkm 10, Table 1). All observations have been made between mid May and July. Smolt traps function by capturing fish that move in a downstream direction suggesting that these adult lampreys may be kelts returning to the ocean. Staff from the Oregon Department of Fish and Wildlife has observed downstream movement of adult lamprey (Kostow, 2002). Alternatively, since lampreys are relatively poor swimmers, these fish were captured while moving upstream because the trap was located in the thalweg of river where fast water overcame the lamprey.

Total juvenile lamprey counts from our trap sites have ranged between 869 in 2006 and 3,654 in 2007. Juvenile counts from our Middle Fork trap have been consistently larger than both the Mainstem and South Fork traps in every migration since 2004. However, during 2006, the North Fork trap captured more juvenile lamprey than the other three traps (Figure 1). Our counts are not a completely reliable source of relative abundance as our Mainstem trap was inoperable for large periods of time during April of 2005 and 2006 because of high flow events. Kostow, 2002 noted that juvenile lamprey sometimes move in large pulses. We have also observed large pulses of juvenile lamprey (1,000 in one day in 2007) moving past our Middle Fork Trap.

Juvenile lampreys are observed during the fall, winter and spring at all rotary screw trap sites (Figures 2 – 5). The majority of lamprey appear to move between March and May (Figures 2 – 5). However, significant movements were recorded at the Mainstem trap in January of 2004 and at the South Fork trap in December of 2005. Flow appears to be important to juvenile lamprey movement as peak movements past the Mainstem and Middle Fork trap sites appear to follow significant increases in runoff (Figures 2 – 7).

Table 1. Trap site, date, and number of live adult pacific lamprey captured at three rotary screw traps in the John Day basin.

Trap Site (rkm)	Date	Number Observed
South Fork (rkm 10)	5/25/2005	1
	5/15/2007	1
	5/16/2007	1
Mainstem (rkm 326)	6/3/2004	1
	5/13/2005	1
	5/27/2005	1
	6/1/2005	2
	7/1/2005	1
Middle Fork (rkm 24)	5/27/2005	1
	6/14/2005	1
	6/15/2005	1
	6/8/2006	1
	6/1/2007	1
Mainstem Seining Kimberly to Spray (rkm 274 – 296)	5/17/2004	1 carcass

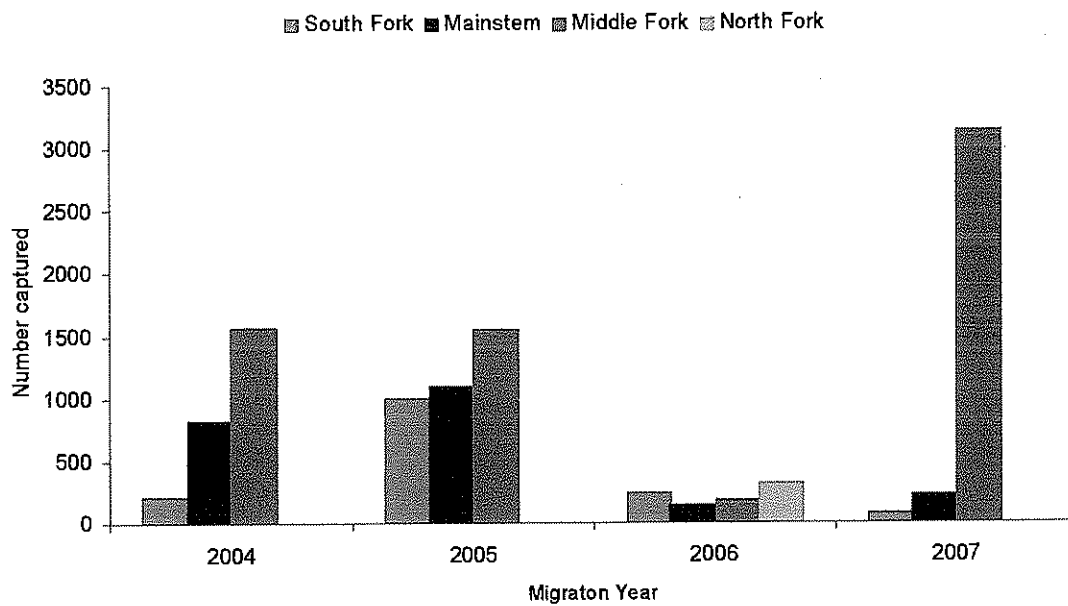


Figure 1. Number of juvenile Pacific Lamprey captured at rotary screw traps in the John Day basin 2004 – 2007 (Schultz et al 2006 and 2007, Wilson et al 2007 and 2007. Note that not all traps were operated during the fall in every migration year, however, all traps were operated during the spring and that the majority of downstream movement occurs in the spring (Figures 2 – 5). Our traps experienced long periods of high water during 2006 which decreased trap efficiencies of all fish captured.

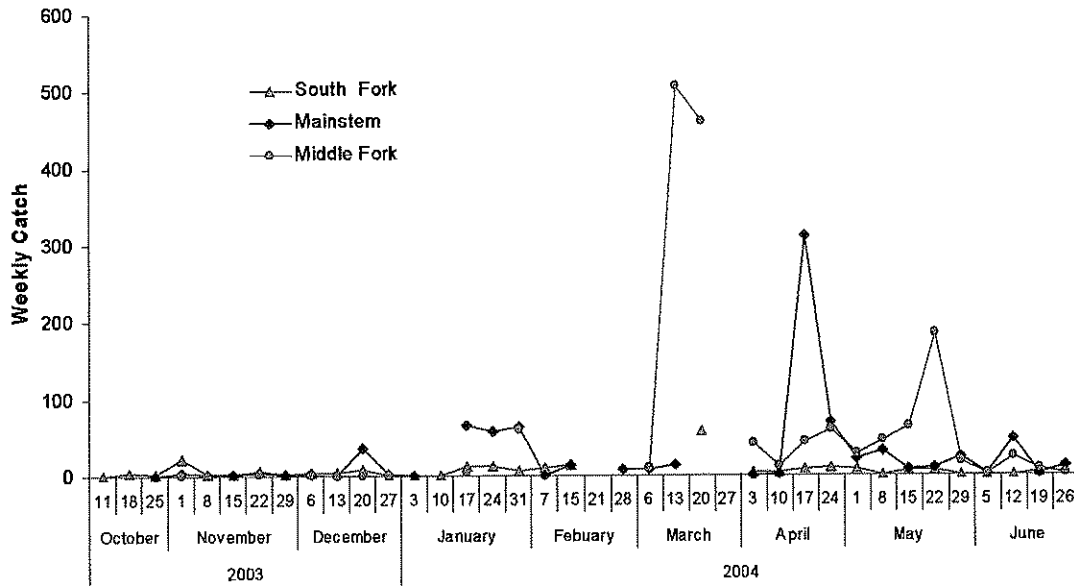


Figure 2. Weekly number of juvenile pacific lamprey captured at three rotary screw traps operated in the John Day River basin during the 2004 migration.

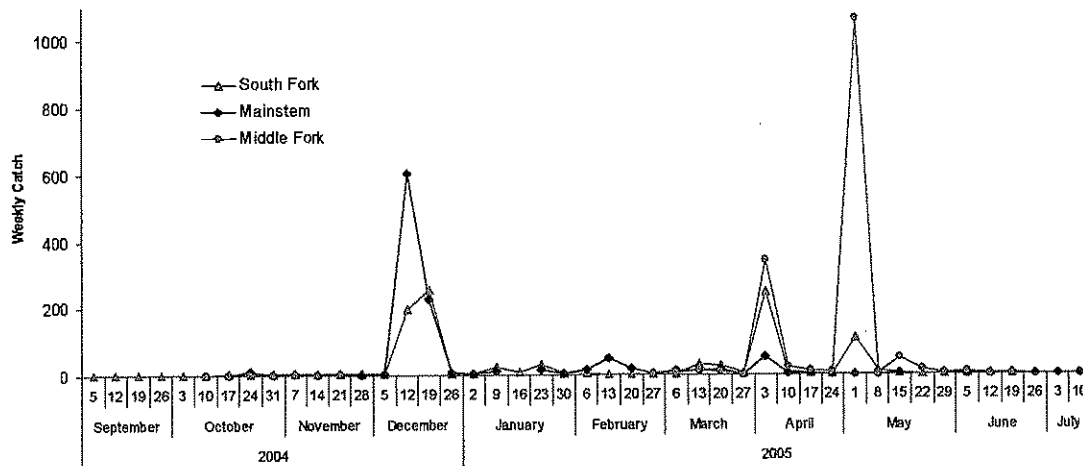


Figure 3. Weekly number of juvenile pacific lamprey captured at three rotary screw traps operated in the John Day River basin during the 2005 migration.

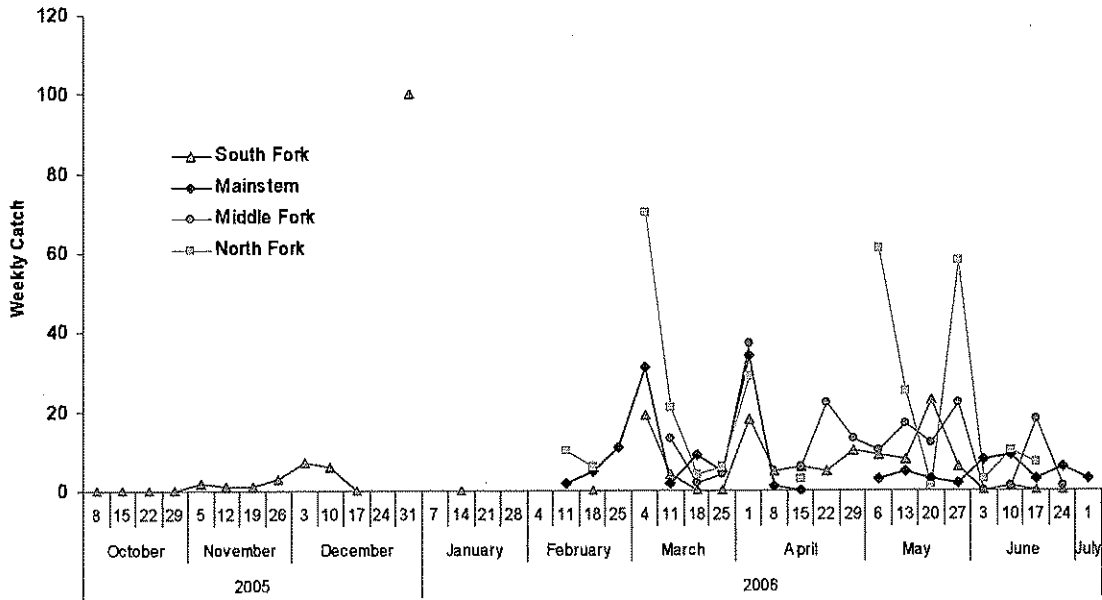


Figure 4. Weekly number of juvenile Pacific lamprey captured at four rotary screw traps operated in the John Day River basin during the 2006 migration.

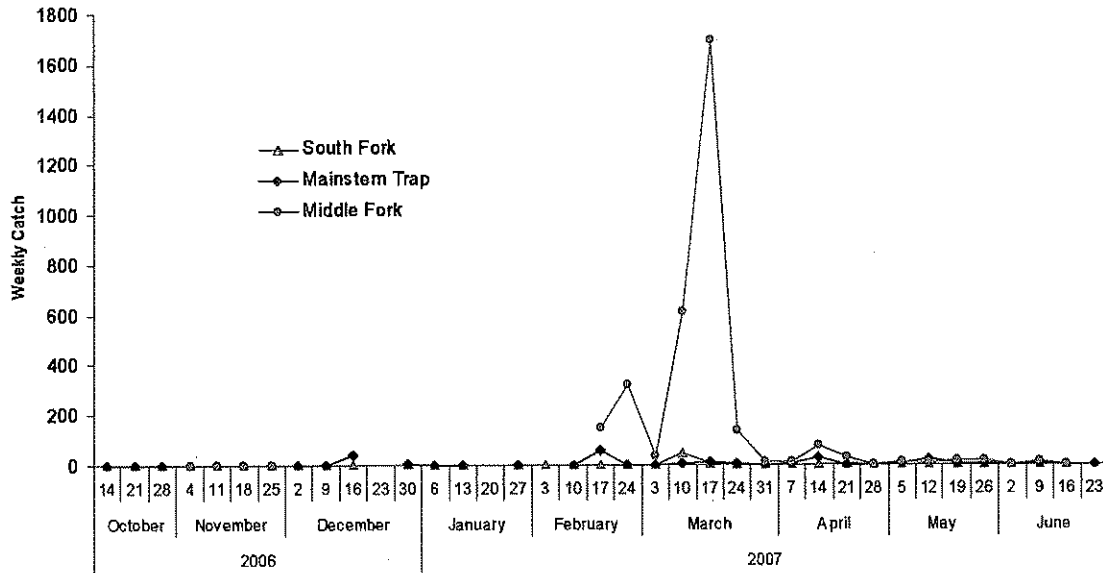


Figure 5. Weekly number of juvenile Pacific lamprey captured at three rotary screw traps operated in the John Day River basin during the 2007 migration.

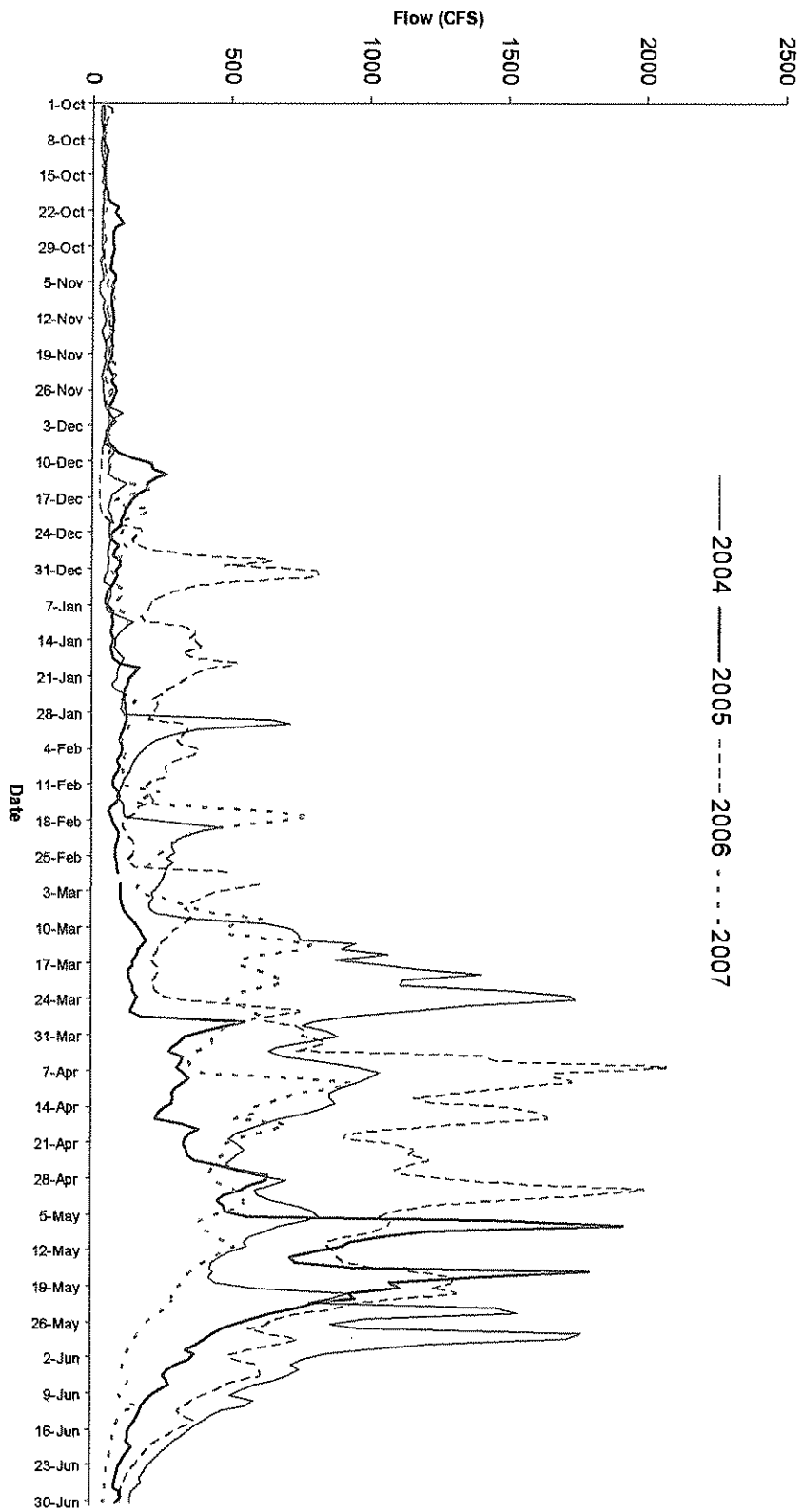


Figure 6. Flow Middle fork at Ritter 2004 - 2007

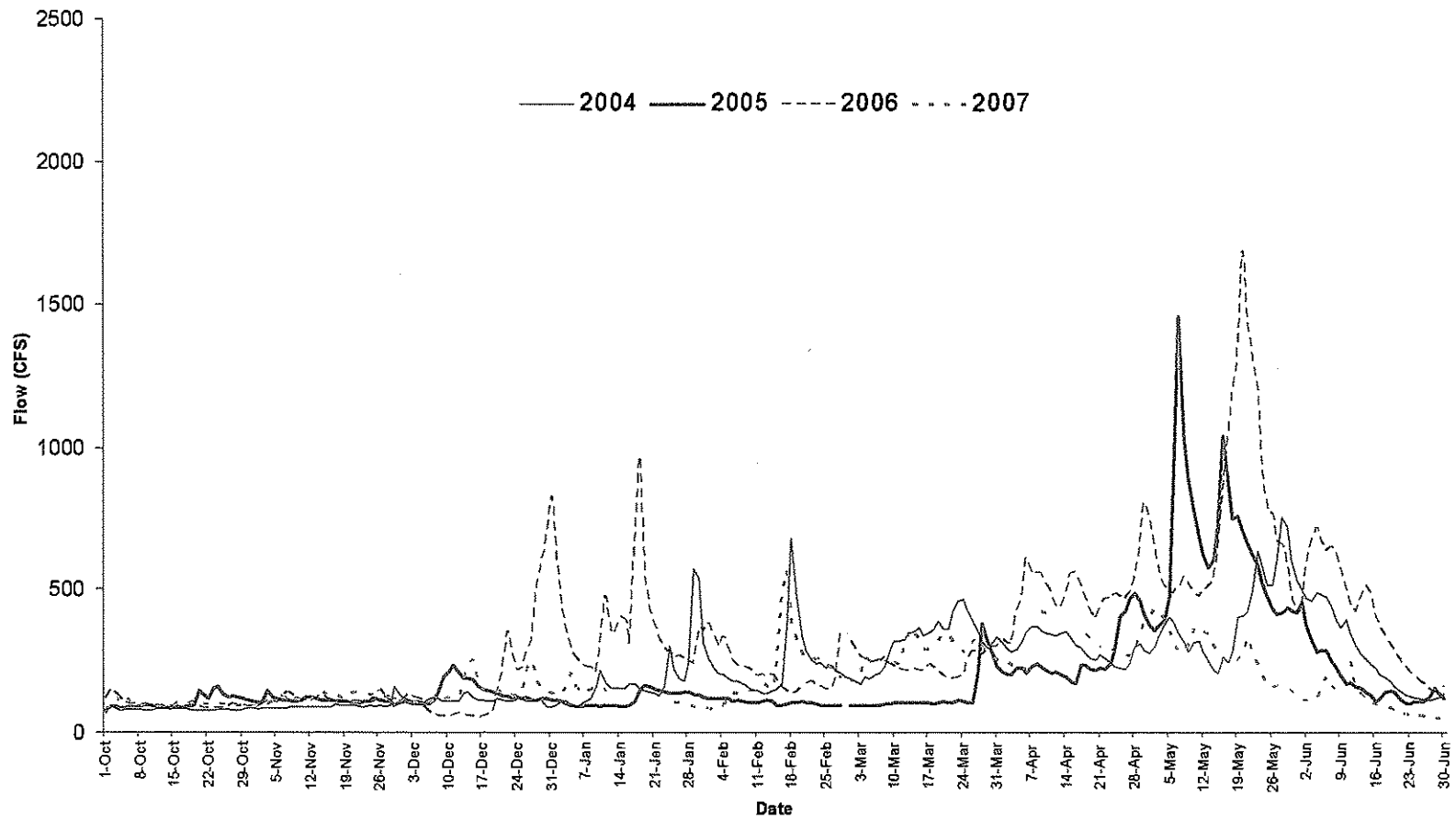


Figure 7. October to June flow (CFS) of the Mainstem John Day near John Day, OR 2004 - 2007

CONCLUSIONS

For the first time, we report juvenile pacific lamprey migration timing data for the John Day Basin, one of the important producers of lamprey in the Columbia Basin (Kostow, 2002). While we were unable to estimate abundance, our trap data do demonstrate the presence of lamprey populations in the South Fork and upper Mainstem, and a strong population in the Middle Fork.

Juvenile lamprey abundance estimates, mean fork length and weight data could be collected at Mainstem, South Fork, and Middle Fork trap sites with additional effort by trap crews. However, additional staff may be needed to process the large number of lamprey captured during the spring.

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