

12-4-2009

## Ex. 280-US-403

Roger Smith  
*Oregon Department of Fish and Wildlife*

William Tinniswood  
*Oregon Department of Fish and Wildlife*

Follow this and additional works at: <https://digitalcommons.law.uidaho.edu/all>

---

### Recommended Citation

Smith, Roger and Tinniswood, William, "Ex. 280-US-403" (2009). *Hedden-Nicely Collection, All*. 441.  
<https://digitalcommons.law.uidaho.edu/all/441>

This Expert Report is brought to you for free and open access by the Hedden-Nicely at Digital Commons @ UIdaho Law. It has been accepted for inclusion in Hedden-Nicely Collection, All by an authorized administrator of Digital Commons @ UIdaho Law. For more information, please contact [annablaine@uidaho.edu](mailto:annablaine@uidaho.edu).

## **Fish Inventory**

### **Klamath River Redband Trout Project**

Due to Forbes Jonasson's absence after 9 April radio tracking of redband trout in the Klamath River was reduced to once or twice a week as workloads allow.

A total of 51 redband trout were radio tagged in the Klamath River from 27 September 2003 to 4 March 2004. Survival of radio tagged redband trout during the winter of 2003 and 2004 was low. Currently, of the 30 redband trout tagged in the fall of 2003 eleven were mortalities, nine are still alive and ten tags life span were exhausted or the tag disappeared. One radio tagged redband trout was reported caught and released in the Frain Ranch section of the Klamath River during the fall of 2003. Of the remaining 21 redband trout tagged in February and March 2004 three mortalities have been documented. No redband trout made long spawning migrations to the bypass reach or Spencer Creek. In general most redband trout tagged in the peaking reach (13 of 26) stayed in the general area tagged with slight downstream or upstream movements. If a spawning migration did occur it appeared to occur in a downstream direction as ten redband trout made migrations downstream of which six of these traveled into California. One of the six redband trout in California was found in Shovel Creek whereas three redband trout have been found in Copco Reservoir. Two redband trout made migrations upstream to near the J.C. Boyle Powerhouse but did not appear to attempt to pass. Of the two redband trout tagged in the Bypass Reach (RM. 221.5) both made a downstream migration into an area that was found to have redds in the year 2003. On several occasions tagged redband trout were located right next to shore during peaking flows of 1500 cfs. It is unknown if this was spawning, foraging, or bioenergetic behavior.

### **Wood River Redband Trout Project**

One redband trout (489 mm) was radio tagged on 2 April. The redband trout was captured in Agency Lake. A female kelt (605 mm FL) was captured just above the Wood River wetland bridge on 2 April. The female kelt was placed in anesthesia for surgery but immediately rolled on its side. Upon inspection of the redband trout a heavy infestation of copepods were observed on the gills. Digital pictures were taken and the redband trout was released alive. Craig Banner (ODFW pathologist) inspected pictures and described the copepod infestation as heavy. The external surface of redband trout looked excellent for a kelt. This finding might break the theory that a high infection of copepods only infects redband trout under warm water temperatures. However, the redband trout with high infection of copepods had spotting pattern more typical of

coastal rainbow trout or hatchery fish from Fort Klamath hatchery. This suggests the fish could be an escaped hatchery rainbow trout from the Crooked Creek hatchery.

One radio tagged redband trout (151.014) was captured and harvested on 11 April at Eagle Ridge on Upper Klamath Lake by an angler. The radio tag was still functional. The last verified location of 151.014 was on 27 October at tag location of prior Wood River mouth. It is unusual that this male redband trout was not located on two telemetry flights of the entire Wood River and Sevenmile valleys during the spawning season.

### **Spencer Creek Juvenile Redband Trout Project**

The Spencer Creek downstream weir trap was constructed on 21 April by Corvallis Research and District Staffs. Juvenile redband trout have been located in Topsy Reservoir and near JC Boyle Dam.

## **Spawning Surveys**

### **Fort Creek (headwaters to Rivers of Light Bridge crossing)**

Redband trout redd surveys were completed on 4, 16 and 26 of April. A total of 25 new redds and 2 live redband trout were observed on 4 April. A total of 4 new redds and no redband trout were observed on 16 April. No redband trout or redds were observed on 26 April. Trout fry were abundant on 26 April.

A total of 208 redds, 51 live redband trout and 4 mortalities were observed throughout the spawning survey period from 4 December to 26 April. Nine surveys were conducted. The 2003-2004 redd count in Fort Creek is the highest since surveys began in 1995-1996. The 2003-2004 redd count was 174% of an average of 119 redds. Compared to previous spawning surveys the 2003-2004 survey had a much higher redd count in early December (Table 1). A total of 51 redds were enumerated on 4 December. In 2001-2002 surveys 12 redds were enumerated on 6 December. Many factors could be responsible for high redd count in 2003, more brown trout spawners, earlier run timing of redband trout, or more redband trout spawners are possible answers.

Table 1. Redband trout redd survey on Fort Creek (Reservation Springs to Rivers of Light Bridge) in the years 2003 and 2004

| <b>Date</b>   | <b>Below Dam<br/>Number of<br/>Redds</b> | <b>Above Dam<br/>Number of<br/>Redds</b> |
|---------------|--|--|
| 12/04/03      | 26                                       | 25                                       |
| 12/19/03      | 5  | 17                                       |
| 01/07/04      | 6  | 21                                       |
| 01/21/04      | 8  | 18                                       |
| 02/04/04      | 7  | 17                                       |
| 02/23/04      | 11                                       | 18                                       |
| 04/05/04      | 10                                       | 15                                       |
| 04/16/04      | 0  | 4  |
| 04/26/04      | 0  | 0  |
| <b>Totals</b> | 73                                       | 135                                      |

### **Jim Root irrigation ditch/Spawning Channel (Tributary to Crooked Creek)**

A total of 187 redds, 68 live redband trout and four redband trout mortalities were observed from 8 surveys conducted from 7 November to 25 March. Spawning duration appears to be from October through March. However, no surveys were conducted in April. Spawning in October is assumed due to the high redd count in early November. In comparison, five redds and few actively spawning redband trout were observed on the Wood River on 3 November. Peak spawning occurred in early December when 34 redds were enumerated. The end of redband trout spawning in Jim Root irrigation/spawning channel is unknown. Only two redds were observed on the last survey in March so it is assumed that this was close to the end of spawning. Twelve redband trout were observed spawning in the middle of May in the Wood River above Dixon Bridge. It is hypothesized that redband trout in Agency Creek and Jim Root Ditch spawn earlier than Wood River but do not spawn as late in the year.

### **Agency Creek (Tributary to Crooked Creek)**

A total of 186 redds, 158 live redband trout, and 10 redband trout mortalities were observed from 8 surveys conducted from 7 November to 25 March. Spawning duration and timing is similar to Jim Root Irrigation/Spawning Channel. This is understandable as the water diverted from Agency Creek flows down Mr. Roots project. The peak redd count occurred in December. Redds were not marked with rocks until the third survey which could decrease overall redd count.

### **Spring Creek (tributary to Williamson River)**

Redband trout redd surveys were completed from the gabion upstream to staff gauge on 4, 16 and 26 of April. A total of 22 redds were enumerated on 4 April. A total of 20 new redds were observed on 16 April and 14 new redds were observed on 26 April from the gabion upstream to staff gauge on 4 and 23 January.

### **Sycan River**

District staff did not complete spawning surveys due to high flows.

### **Spring Creek (Tributary to Sprague River at RM 73.2)**

A redband trout redd survey was completed on 4 April. One redd was documented. Adult fish of unknown species were observed in the pool above beaver dam.

### **Ish Tish Creek (Tributary to South Fork Sprague River)**

Bill Tinniswood observed two redds and salmonid juveniles at RM 0.2 on 25 April. Ish Tish Creek is a type A stream with several cascades that might pose possible migration delays for fish species. The mouth of Ish Tish Creek is heavily braided. One small spring was evident at approximately RM 0.5. Flow was approximately 5 cfs. Four largemouth bass were observed at RM 1.0. Three of these bass were captured by hook and line. These bass must be from a reservoir upstream due to the fact Ish Tish Creek would not support bass for an extended period of time.

### **Spencer Creek**

A spawning survey was conducted from the 100.00 road to the 101.00 road. The survey was divided into three sections with District staff walking the upper two thirds while Scott Snedaker (BLM) walked the lower third. A total of 113 redds were enumerated on 27 April. The number of trout observed spawning using redd counts as the index have declined. In 2003 a total of 135 redds were enumerated. Redd counts are 82 % of an average of 137 redds. Only four years (1988,1994,2003 and 2004) of data was calculated for an average. Redd counts from all years are highly variable due to weather, flow and changing observers ability to recognize a redd.

### **Wood River**

District staff and Wood River Guide, Chris Engle floated the Wood River on 26 April. A total of 15 redband trout and 20 brown trout were observed from Kimball Park to Annie Creek. No adult redband trout were observed in the Melhase irrigation ditch downstream to the small dam which diverts water back into the Wood River. No fish were observed in the small diversion ditch from this dam to the Wood River. Fish ladders and screens appear to be allowing un-obstructed fish passage. Redband trout fry were observed in the Wood River.

A total of five redband trout spawning surveys were completed from 3 November 2003 to 26 April 2004. Peak count occurred in December. The overall run size was quantified by taking monthly averages from previous years surveys (Table 2). Sample size from redband trout surveys are low. Live redband trout counts are highly variable from month to month. The data suggests that live redband trout counts were good in 2003-2004. The overall increasing trend in redband trout abundance follows the Fort Creek data.

Table 2. Monthly ten-year percent of average of live redband trout counts on the Wood River from Kimball Park to Annie Creek.

| Month    | Percent Average |
|----------|-----------------|
| November | 102%            |
| December | 159%            |
| January  | 122%            |
| February | No count        |
| March    | 151%            |
| April    | 49%             |

### Deming Creek Irrigation Ditch

Seven adfluvial redband trout ranging from 420 mm to 475 mm were observed in the Deming Creek irrigation ditch on 9 April. Survey took place from the mouth to the first major road crossing with a culvert. A blown out culvert and road crossing exists just downstream.

### Lake Of The Woods Net Sampling

Two gill nets were placed in Lake of the Woods on 22 April and sampled on 23 April. Yellow perch dominated the catch. Yellow perch were mature and gravid. Catch is summarized in Table 3. One gill net set was inefficient due to net being blown into shore by wind.

Table 3. Fish species caught by two gill nets in Lake of the Woods on 23 April 2004.

| Species               | Number | Mean FL | Std    | Minimum FL | Maximum FL |
|-----------------------|--------|---------|--------|------------|------------|
| <b>Brown trout</b>    | 7      | 325     | 115.59 | 180        | 520        |
| <b>Brown bullhead</b> | 3      | 214     | 40.61  | 162        | 261        |
| <b>Perch</b>          | 24     | 173     | 39.20  | 142        | 299        |
| <b>Tui chub</b>       | 2      | 264     | 1.50   | 262        | 265        |

## **Angling**

### **Sprague River**

Three anglers were contacted as they finished angling. The three angled for approximately four hours from RM 6 to RM 10 on 24 April. A total of six redband trout were landed ranging from 150 mm to 400mm. CPUE was 0.5 fish per hour.

### **SF Sprague River**

One angler was contacted after angling at RM 11.5 from 1600 to 2000. Two fish were landed, a 300 mm redband trout female kelt and a 450 mm brown trout. CPUE was 0.5 fish per hour.

### **Sycan River**

Three anglers fished the Sycan River at RM 16 on 24 April for approximately one hour. No fish were captured.

### **Link River**

One angler contacted fished from 1800 to 2000 on 27 April. No fish were hooked or landed.

## **Meetings/ Public Outreach**

District personnel presented an update on Klamath River and Spencer Creek redband trout projects at Klamath Country Flycasters on 20 April.

District personnel met with ODOT and State Parks concerning new bridge construction on Spring Creek this year.

District staff posted signs on all trout waters that had a late opener as well as at all boat ramps on Klamath and Agency Lake.

Staff attended stakeholder meeting on Chiloquin dam as well as on-site technical expertise on screening and new pump location.

Staff attended a meeting with The Klamath Tribes (TKT) (Case and Gentry) as well as USFWS. Excellent project proposed by the TKT which should benefit both trout and suckers at KaumKan Springs.

Staff attended purchasing training in Bend.

Staff met with Fish Division Staff to discuss research needs as well as general discussion on native fish issues.