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## Fish Distribution Survey Report

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FY 2002 (Revised February 04)

Fish and Wildlife Branch

Division of Resource Management and Science

Redwood National and State Parks

### Introduction

The purpose of this report is to document the results from the distribution survey of threatened and non-listed salmonid species, within the Redwood Creek Watershed during the FY 2002 field season. (See Appendix A for the results of California Department of Fish and Game distribution surveys in Humboldt and Del Norte Counties.)

Redwood Creek and its tributaries historically had very sizeable runs of King salmon (*Oncorhynchus tshawytscha*), Coho salmon (*O. kisutch*), and Steelhead trout (*O. mykiss*). These runs, in recent decades, have become severely depressed. The reduced numbers can be attributed to a combination of over fishing, the changing conditions of the ocean and habitat loss.

### Study Area

Redwood Creek drains a narrow 720-km<sup>2</sup> 108-km long watershed. The mouth of Redwood Creek is located west of the town of Orick, California at the Pacific Ocean. The basin is steep-sided and narrow with a total basin relief of 1,616m. The climate is Mediterranean, with an estimated average precipitation of 203 cm a year. Mainstem stream flow is lowest between August and October. Vegetation in the basin consists of coastal redwood and Douglas-fir forests, their associated flora, and ridge top prairies. Commercial timber harvest is one of the major land use practices in the basin. By 1978, 66% of the basin drainage, comprising 81% of the original conifer forests, had been logged (Best 1984). Logging no longer occurs in the lower one-third of the watershed, site of Redwood National Park and Prairie Creek Redwood State Park. The National park was established in 1968 and its boundaries later expanded in 1978 to protect park resources (See Figure 1).

The sample sites in the FY 02 season were as follows:

#### Larry Damm Creek

- Location 1 started at the first Bailey Bridge on the Lower B500. Fish were sampled from a 225 ft' long reach of pools and riffles.
- Location 2a started on the upstream side of the first culvert located after the Bailey Bridge. Fish were sampled from a 200 ft' long reach of pools and runs.
- Location 2b started on the downstream side of the first culvert located after the Bailey Bridge. Fish were sampled from a 200 ft' long reach of pools and riffles.
- Location 3 started directly upstream of the Lower B550 Bridge. Fish were sampled from a 66 ft' long reach of riffles.

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- Location 4 started directly above the Lower B500 culvert. Fish were sampled from a 117 ft' long reach of riffles and pools.
- Location 5 started upstream of Location 4 by about 50ft'. Fish were sampled from a 114 ft' long reach of riffles.

#### North Fork Lost Man

- Location 1 started above the B550 Bridge, below large rehab site. Fish were sampled from a 66 ft' long reach of riffles and pools.
- Location 2 started above the Geneva Road culverts. Fish were sampled from a 138 ft' long reach of pools and riffles.

#### Emerald Creek (Harry Weir Creek)

- Location 1 started at the first pool that was shockable, because the creek's channel was dry for about 150 ft' at its confluence with mainstem Redwood Creek. Fish were sampled from a 243 ft' long reach of pools and riffles.
- Location 2 started above the Dolason Trail Bridge. Fish were sampled from a 223 ft' long reach of pools and riffles.

### Methods

A 12-volt DC battery backpack electroshocker was used to evaluate the presence and distribution of different fish species in each tributary and identify potential barriers to anadromous migration. Fork lengths of fish were measured to nearest millimeter. Specific conductivity was measured with a YSI model no. 33 salinity-conductivity-temperature meter (Yellow Springs Instrument Co., Yellow Springs, Ohio). Water Temperature (°C) was measured in the stream with a hand held thermometer.

The sample areas in each tributary were arbitrarily selected by sampling the first pool or riffle available to anadromous salmonids and electroshock upstream until a migrational barrier was reached or until the onsite biologist determine that a adequate sample size had been captured. Another criteria used in selecting the sample areas was the ability of a four-person crew with a backpack electroshocker to effectively sample the pool or riffle. Captured fish were anesthetized with MS-222 (tricaine methanesulfonate), identified to species, and fork length measured to the nearest 1.0 mm.

### Results

The Fish and Wildlife Staff, during the period of July 22<sup>nd</sup> to September 20<sup>th</sup> of 2002, surveyed three tributaries of Redwood Creek (See Figure 2). The three tributaries sampled were Larry Damm Creek, North Fork Lost Man Creek and Emerald Creek (See Figure 2 and 3). During the survey period, four salmonid species were captured; chinook and coho salmon, and steelhead and coastal cutthroat trout (*O. clarki*) (See Table 1). Four other fish species and three amphibian species were captured. A list of all non-salmonid fish and amphibian species captured will be presented in Table 2.

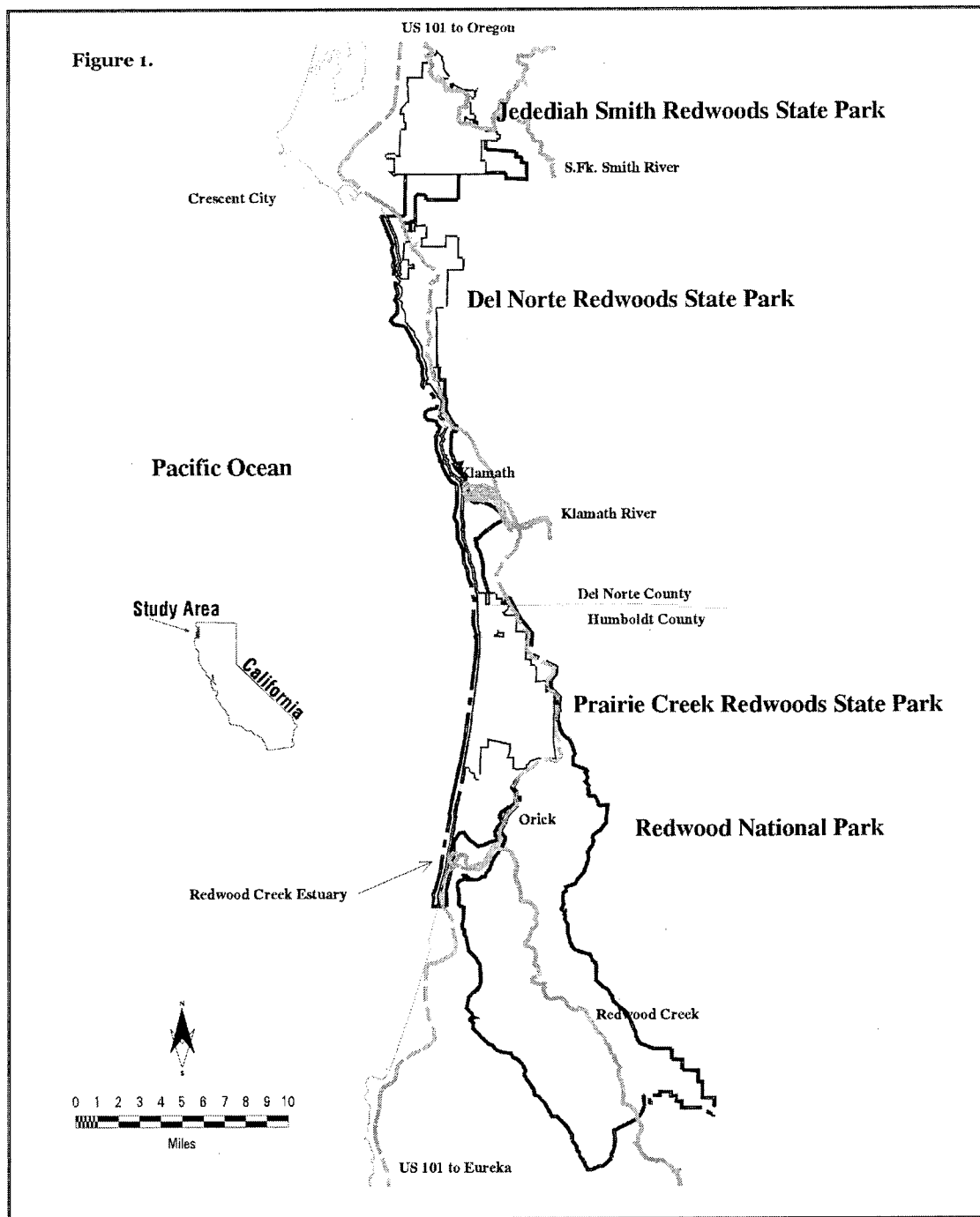


**Figure 1.** Redwood National & State Parks, Humboldt County and Del Norte County, California.

### Larry Damm Creek

Larry Damm Creek was surveyed July 22<sup>nd</sup>, 23<sup>rd</sup> and August 19<sup>th</sup> in the 2002 season at five different locations. The survey crew captured and measured thirty-eight steelhead trout, forty-three cutthroat trout and thirty-two coho salmon juveniles. The crew also captured and measured three three spined sticklebacks (*Gasterosteus aculeatus*), two larvae and one adult tailed frogs (*Ascaphus truei*), twenty one pacific giant salamander larvae (*Dicamptodon ensatus*) and one lamprey ammocete (*Lampetra tridentalis*). (See Tables 1 and 2).

### North Fork Lost Man

North Fork Lost Man Creek was surveyed August 19<sup>th</sup> at two locations. The survey crew captured and measured nine steelhead trout, twenty-two cutthroat and nine coho salmon. The non-salmonid species captured and measured were two pacific giant salamander larvae, one adult red legged frog, and one tailed frog larvae. (See Tables 1 and 2).

### Emerald (Harry Weir) Creek

Emerald Creek was surveyed August 20<sup>th</sup> two locations. The survey crew captured and measured seven king salmon and seventy-three steelhead trout. The non-salmonid species captured were one sculpin and seven pacific giant larvae. (See Tables 1 and 2).

Table 1.

This table summarizes the location, date of surveys, species and numbers captured of threatened and non-listed salmonid species sampled during the FY 2002 Distribution and status survey.

| Creek Name      | Date of Surveys | Species   | Numbers Captured | Mean Fork Length (mm) | Std.dev. (mm) | Range of Lengths (Minimum-Maximum) (mm) |
|-----------------|-----------------|-----------|------------------|-----------------------|---------------|-----------------------------------------|
| Larry Damm      | 07/22/02        | Steelhead | 38               | 52                    | 8             | 33 to 71                                |
|                 | 07/23/02        | Cutthroat | 43               | 89                    | 27            | 55 to 180                               |
|                 | 08/19/02        | Coho      | 32               | 52                    | 10            | 40 to 82                                |
| N.Fork Lost Man | 08/19/02        | Steelhead | 9                | 63                    | 8             | 44 to 71                                |
|                 |                 | Cutthroat | 22               | 94                    | 36            | 57 to 193                               |
|                 |                 | Coho      | 9                | 52                    | 7             | 43 to 63                                |
| Emerald         | 08/20/02        | King      | 7                | 55                    | 6             | 44 to 61                                |
|                 |                 | Steelhead | 73               | 60                    | 23            | 32 to 138                               |

Table 2.

This table lists the non-salmonid fish and amphibian species captured in Redwood National and States Parks during Fish Distribution Survey in FY 2002.

| Creek Name      | Species                         | Numbers Captured |
|-----------------|---------------------------------|------------------|
| Larry Damm      | Stickleback                     | 3                |
|                 | Lamprey Ammocetes               | 1                |
|                 | Tailed Frog Larvae              | 2                |
|                 | Tailed Frog Adult               | 1                |
|                 | Pacific Giant Salamander Larvae | 21               |
| N.Fork Lost Man | Tailed Frog Larvae              | 1                |
|                 | Red Legged Frog Adult           | 1                |
|                 | Pacific Giant Salamander Larvae | 2                |
| Emerald         | Sculpin                         | 1                |
|                 | Pacific Giant Salamander Larvae | 7                |



Adult Tailed Frog

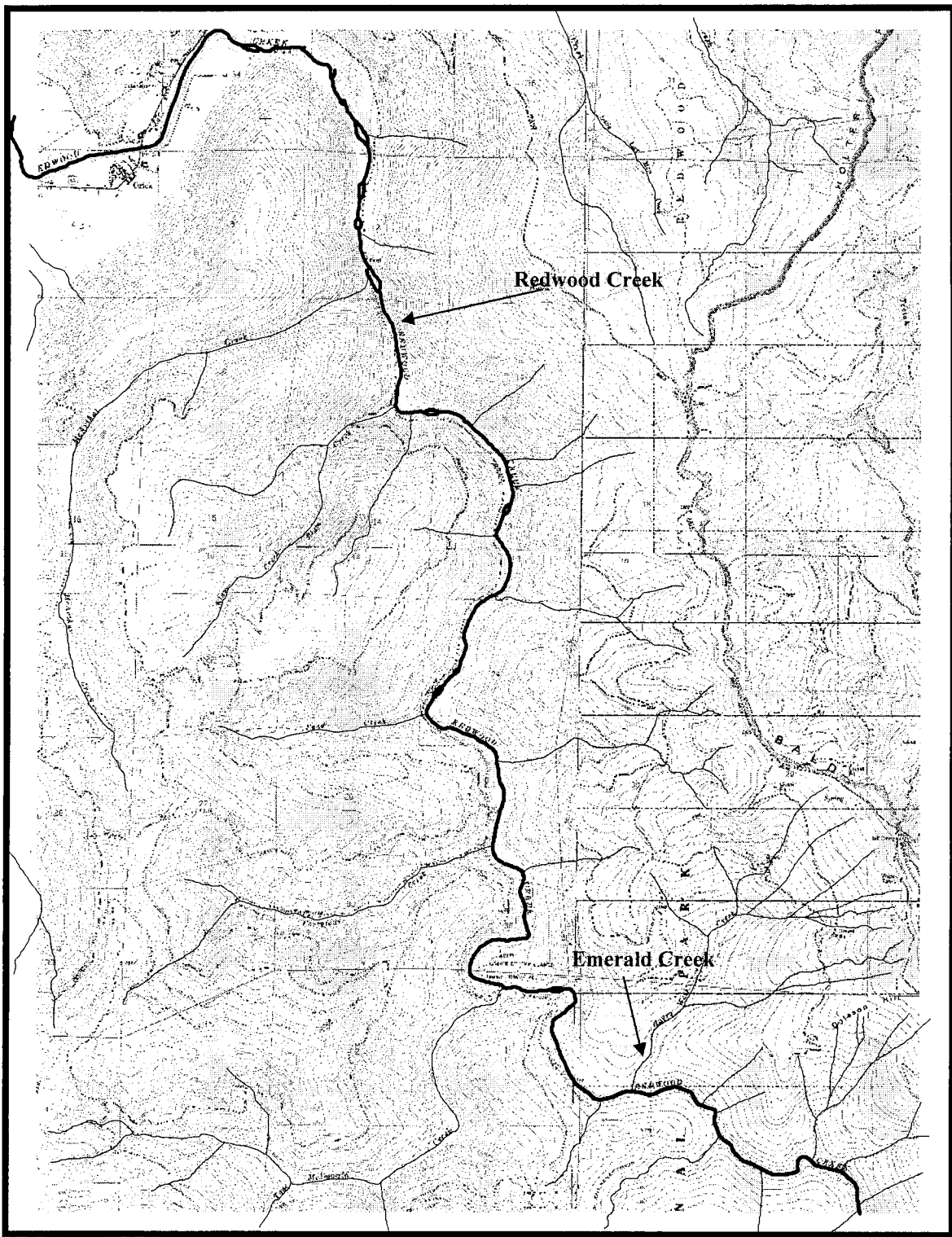


Figure 2. Location of Emerald Creek in Redwood National & State Parks, Humboldt County, California.

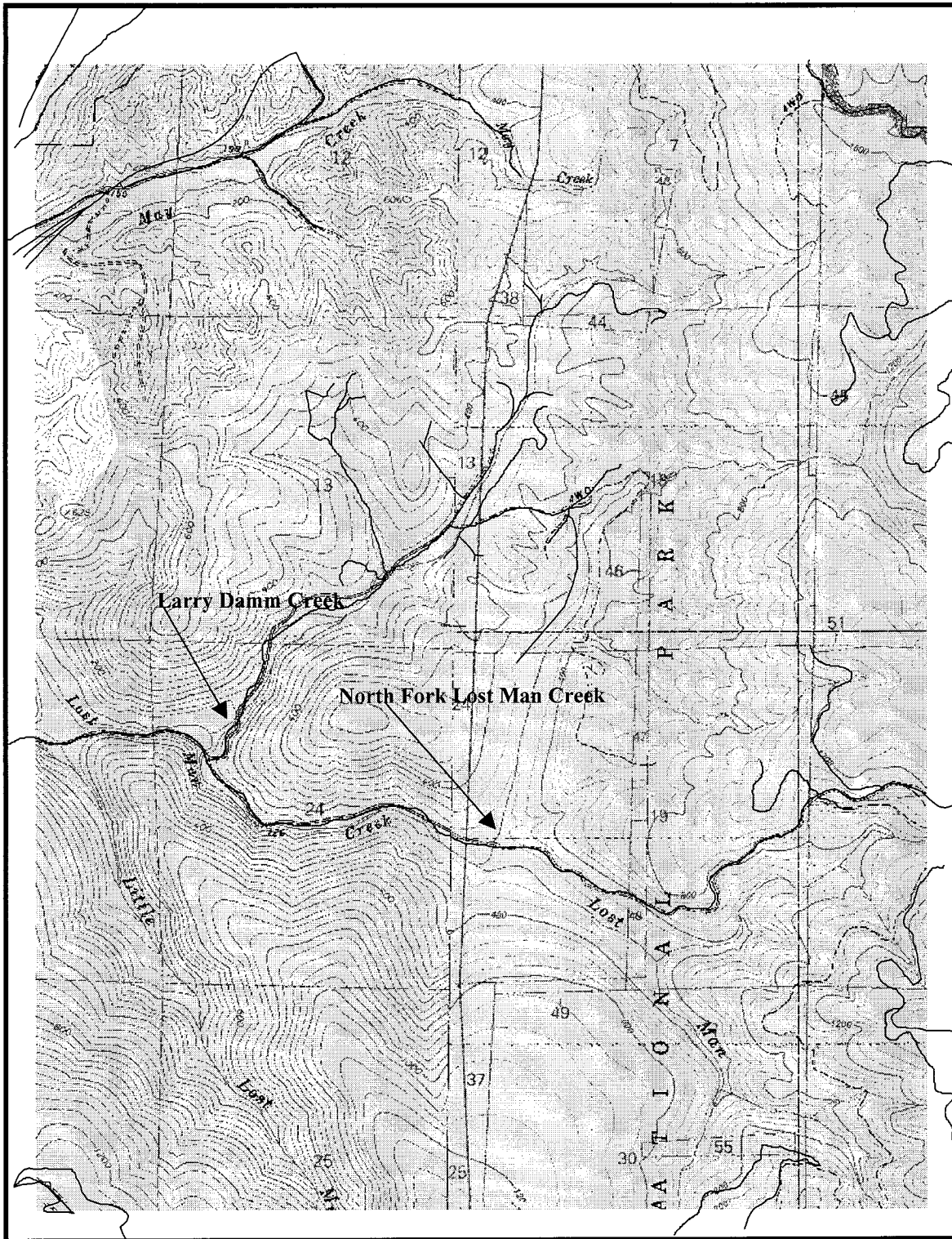


Figure 3. North Fork Lost Man Creek and Larry Damm Creek in Redwood National and State Parks, Humboldt County.

## **Discussion**

Every tributary surveyed in FY 2002 had at least two species of salmonid fish present (See Table 1). All species detected were known to occur in watersheds or subwatersheds sampled (See Appendix 2). It is recommended that more extensive surveys occur in the following years to determine the actual distribution, range and status of listed and non-listed fish before any final statement concerning the presence or absence status of threatened and non-listed salmonid species be made with confidence.

## **References**

Best, D. W. 1984. Land use of the Redwood Creek Basin. Technical Report No. 9. Redwood National Park, Arcata, California. 30.

Anderson, D. G. 1999. Draft Redwood National and State Parks Tributary Juvenile Fish Distribution Spreadsheet.

## Appendix A

APPENDIX A :

DO NOT REVIEW  
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OUR DATA & A  
SUMMARY OF A  
SUMMARY !

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2001/2002 Coho Presence Results Field Season

Appendix A. The results of California Department of Fish and Game distribution surveys in Humboldt and Del Norte Counties.

North to South by Watershed

| <b>Stream</b>                   | <b>Basin</b> | <b>Present</b> | <b>To be sampled by/proposed date of sampling</b>                           |
|---------------------------------|--------------|----------------|-----------------------------------------------------------------------------|
| Smith River                     | Smith River  | Y              | Coho found in tribs; Smith River Alliance confirms coho presence            |
| Sultan Creek                    | Smith River  | Y              | DFG NCCCSI - coho found                                                     |
| Peacock Creek                   | Smith River  | Y              | Redwood Sciences Lab- Nakamoto, HSU; NCCCSI coho observed                   |
| Rowdy Creek                     | Smith River  | Y              | Rowdy Creek Hatchery counts - coho confirmed                                |
| South Fork Rowdy Creek          | Smith River  | Y              | Simpson - Brian Michaels - coho confirmed                                   |
| Dominie Creek                   | Smith River  | Y              | Simpson - Brian Michaels - coho confirmed                                   |
| Savoy Creek                     | Smith River  | Y              | Simpson - Brian Michaels - coho confirmed                                   |
| Copper Creek                    | Smith River  | Y              | NCCCSI - coho present                                                       |
| Morrison Creek                  | Smith River  | Y              | DFG NCCCSI coho present                                                     |
| Little Mill Creek (Jaqua Creek) | Smith River  | Y              | DFG NCCCSI coho present ; HSU Coop efish                                    |
| Mill Creek                      | Smith River  | Y              | DFG Contract Larson/Albro coho present                                      |
| East Fork Mill Creek            | Smith River  | Y              | Chris Howard and Zachary Larson (DSM)                                       |
| Bummer Lake Creek               | Smith River  | Y              | DFG NCCCSI coho present                                                     |
| West Branch Mill Creek          | Smith River  | Y              | DFG Contract Larson/Albro coho present                                      |
| South Fork Smith River          | Smith River  | Y              | Coho by implication                                                         |
| Craigs Creek                    | Smith River  | Y              | DFG NCCCSI coho present                                                     |
| Coon Creek                      | Smith River  | N              | DFG NCCCSI - no coho                                                        |
| Hurdygurdy Creek                | Smith River  | Y              | DFG NCCCSI coho present                                                     |
| Jones Creek                     | Smith River  | Y              | DFG NCCCSI coho present                                                     |
| Muzzleloader Creek              | Smith River  | -              | DFG did not survey stream, nor could sampling be documented                 |
| Buck Creek                      | Smith River  |                | DFG NCCCSI - still need to do r2                                            |
| Quartz Creek                    | Smith River  | Y              | DFG NCCCSI - coho present                                                   |
| Eightmile Creek                 | Smith River  |                | DFG NCCCSI - still need to do R2                                            |
| Williams Creek                  | Smith River  | -              | DFG did not survey stream, nor could sampling be documented                 |
| Prescott Fork                   | Smith River  | -              | DFG did not survey stream, nor could sampling be documented                 |
| Myrtle Creek                    | Smith River  | N              | DFG NCCCSI                                                                  |
| Hardscrabble Creek              | Smith River  | N              | DFG NCCCSI - no coho                                                        |
| North Fork Smith River          | Smith River  |                |                                                                             |
| Stony Creek                     | Smith River  | N              | Siskiyou Research Group (W. Scott Bowman) - no coho observed                |
| Peridotite Creek                | Smith River  | N              | Siskiyou Research Group (W. Scott Bowman) - no coho observed                |
| Still Creek                     | Smith River  | N              | DFG NCCCSI - no coho                                                        |
| Diamond Creek                   | Smith River  | N              | Siskiyou Research Group (W. Scott Bowman) - no coho observed (fire in area) |
| North Fork Diamond Creek        | Smith River  |                | Siskiyou Research Group (W. Scott Bowman)                                   |

|                         |               |   |                                                                                                    |
|-------------------------|---------------|---|----------------------------------------------------------------------------------------------------|
| Middle Fork Smith River | Smith River   | Y | Coho by implication                                                                                |
| Little Jones Creek      | Smith River   |   | Redwood Sciences Lab- Nakamoto                                                                     |
| Eighteenmile Creek      | Smith River   | N | DFG NCCCSI                                                                                         |
| Patrick Creek           | Smith River   | Y | DFG NCCCSI coho present                                                                            |
| Twelvemile Creek        | Smith River   | N | DFG NCCCSI                                                                                         |
| Elevenmile Creek        | Smith River   | N | DFG NCCCSI                                                                                         |
| Shelly Creek            | Smith River   | Y | DFG NCCCSI coho present                                                                            |
| Tenmile Creek           | Smith River   | N | DFG NCCCSI                                                                                         |
| West Fork Patrick Creek | Smith River   | N | DFG NCCCSI                                                                                         |
| Monkey Creek            | Smith River   | N | DFG NCCCSI                                                                                         |
| Siskiyou Fork           | Smith River   | N | DFG NCCCSI                                                                                         |
| Packsaddle Creek        | Smith River   | N | DFG NCCCSI                                                                                         |
| Griffin Creek           | Smith River   | Y | DFG NCCCSI coho present; Ross Taylor - efish for culvert project - no coho observed August 22,2002 |
| Knopti Creek            | Smith River   | N | DFG NCCCSI                                                                                         |
| Yonkers Creek           | Coastal       | N | NCCCSI - no coho                                                                                   |
| Jordan Creek            | Coastal       | N | DFG NCCCSI - no coho                                                                               |
| Elk Creek               | Coastal       | Y | DFG NCCCSI coho present                                                                            |
| Wilson Creek            | Coastal       | Y | Simpson - Brian Michaels - coho confirmed; DFG Eureka coho present                                 |
| Klamath River estuary   | Klamath River | Y | Consistent CDFG sampling history-Wallace; USFWS DSM - coho confirmed @Big Bar                      |
| Redwood Creek           | Redwood Creek | Y | RNSP, CDFG - SRAMP - DFG implicated                                                                |
| Prairie Creek           | Redwood Creek | Y | HSU Coop research unit / implicated                                                                |
| Little Lost Man Creek   | Redwood Creek | Y | HSU Coop research unit; DFG NCCCSI coho confirmed                                                  |
| Lost Man Creek          | Redwood Creek | Y | HSU Coop research unit - coho confirmed-Forest Science Project                                     |
| Streelaw Creek          | Redwood Creek |   | HSU Coop research unit                                                                             |
| May Creek               | Redwood Creek | Y | DFG NCCCSI coho present, Forest Science Project, HSU                                               |
| Godwood Creek           | Redwood Creek | Y | DFG NCCCSI coho present                                                                            |
| Boyes Creek             | Redwood Creek |   | HSU Coop research unit                                                                             |
| Brown Creek             | Redwood Creek | Y | DFG NCCCSI coho present                                                                            |
| Tom McDonald Creek      | Redwood Creek | Y | RNSP Baker Holden EFISH / Forest Science found coho                                                |
| Bridge Creek            | Redwood Creek | Y | RNSP Baker Holden EFISH / Forest Science found coho                                                |
| Coyote Creek            | Redwood Creek | N | Forest Science - no coho observed / RNSP Baker Holden- ; EFISH HSU Coop Research Unit              |
| Panther Creek           | Redwood Creek |   | HSU Coop research unit                                                                             |
| Lacks Creek             | Redwood Creek | N | Two reaches done by Redwood Sciences / HSU - no coho                                               |

## Appendix B

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## REDWOOD NATIONAL AND STATE PARKS TRIBUTARY JUVENILE FISH DISTRIBUTION

| Creek              | Date                | Species                                                                                                                                    | Adult Juvenile                          | Type of Observation | Notes                                                                                                                                               | Reference                                             |
|--------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| REDWOOD CREEK UNIT |                     |                                                                                                                                            |                                         |                     |                                                                                                                                                     |                                                       |
| Prairie Creek      |                     |                                                                                                                                            |                                         |                     |                                                                                                                                                     |                                                       |
| Prairie            | 10/3-6/81           | SHD<br>CUT<br>COHO<br>SCULPIN<br>3 SPINE STICKLEBACK<br>AMMOCOETE<br>PGS                                                                   | juv                                     | Electrofishing      | Thesis site                                                                                                                                         | Brown 1988<br>Anderson 1988                           |
|                    | July-August 1984    | SHD<br>CUT<br>CUT/SHD HYBRID                                                                                                               | juv<br>juv<br>juv                       | Electrofishing      | Cutthroat electrophoresis                                                                                                                           | Neillands 1990                                        |
|                    | 09/6-7/94           | SHD<br>COHO<br>3 SPINE STICKLEBACK<br>SCULPIN<br>PGS                                                                                       | JUV<br>JUV<br>--<br>--<br>LARVAE<br>JUV | Electrofishing      | Thesis site revisited                                                                                                                               | RNP/USFS-RSL revisit of 1981 thesis sites field notes |
|                    | 03/13 to 7/10/1996  | COHO<br>CHINOOK<br>CUTTHROAT<br>STEELHEAD<br>SCULPIN<br>LAMPREY<br>SALAMANDERS                                                             | O+ AND 1+<br>O+<br>SMOLT<br>O+,PARR     | Rotary Screw Trap   | Trap located 500 ft above confluence of Streeflow Creek. Rotary screw trap with 5 ft diameter cone. 26,333 KS YOY 25,492 COHO YOY 2,117 coho smolts | Roelofs and Klatte 1996                               |
|                    | 02/20 to 06/19/1997 | COHO<br>CHINOOK<br>STEELHEAD<br>CUTTHROAT<br>PRICKLY SCULPIN<br>COASTRANGE SCULPIN<br>SEA LAMPREY<br>BROOK LAMPREY<br>SALAMANDERS<br>FROGS | O+, SMOLT<br>YOY<br>O+,SMOLT            | Rotary Screw Trap   | Trap located initially 50 m downstream of Streeflow and moved on march 25 to 50 m above Streeflow Cree.                                             | Klatte and Roelofs 1997                               |

| Creek   | Date                                            | Species                                                                 | Adult<br>Juvenile                             | Type of<br>Observation | Notes                                                                                                                              | Reference                                                                            |
|---------|-------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Brown   | 1980s                                           | CUT<br>COHO<br>AMMOCETES                                                | juv<br>juv<br>juv                             | Electrofishing?        |                                                                                                                                    | Brown 1988 (referencing CDFG stream surveys and Chuck Warren personal communication) |
|         | 09/19-20/95                                     | CUT<br>PGS<br>TAILED FROG                                               | juv<br>larvae/adult<br>larvae/adult           | Electrofishing         | Barrier study, above barrier                                                                                                       | USFS/RNP Barrier study 1995 notes                                                    |
|         | 09/21/95                                        | SHD<br>CUT<br>PGS<br>TAILED FROG<br>RED LEGGED FROG                     | juv<br>juv<br>larvae<br>larvae/adult<br>adult | Electrofishing         | Barrier study, below barrier                                                                                                       | USFS/RNP Barrier study 1995 notes                                                    |
|         | North Fork Brown<br>04/02/1997 to<br>06/04/1997 | COHO<br>TROUT<br>STEELHEAD<br>CUTTHROAT<br>SCULPIN<br>SUCKER            | 0+ & 1+<br>0+ & 1+                            | Pipe Trap              | 101 Bypass Monitoring -<br>HSU<br>4,579 0+ coho, 37 1+<br>coho, 63 cut, 139 sculpin 4<br>sucker. Location: where<br>the forks meet | Klatte and Roelofs 1997                                                              |
| Boyes   | South Fork Brown<br>04/05/1997 to<br>06/04/1997 | COHO<br>TROUT<br>CUTTHROAT<br>TAILED FROG                               | 0+ & 1+<br>0+ & 1+                            | Pipe Trap              | 101 Bypass Monitoring-<br>HSU<br>460 0+ coho, 4 1+ coho,<br>22 cut, 1 tailed frog.<br>Location: where the forks<br>meet            | Klatte and Roelofs 1997                                                              |
|         |                                                 | CUT<br>SHD<br>3 SPINE STICKLEBACK                                       | juv<br>juv<br>all                             | Electrofishing         |                                                                                                                                    | Brown 1988 referencing CDFG stream surveys                                           |
|         | July-August 1984                                | SHD<br>CUT<br>CUT/SHD HYBRID                                            | juv<br>juv<br>juv                             | Electrofishing         | Cutthroat electrophoresis                                                                                                          | Neillands 1990                                                                       |
| Godwood | 03/15/1997 to<br>06/03/1997                     | CHINOOK<br>COHO<br>TROUT<br>STEELHEAD<br>CUTTHROAT<br>SCULPIN<br>SUCKER | 0+<br>0+ & 1+<br>0+ & 1+                      | Pipe Trap              | 101 Monitoring - HSU<br>30 0+ KS, 416 0+ coho, 84<br>1+ coho, 44 cut, 21<br>sculpin, 4 sucker                                      | Klatte and Roelofs 1997                                                              |
|         | 10/09/80                                        | SHD<br>CUT                                                              | juv                                           | Electrofishing         | Thesis survey                                                                                                                      | Brown 1988                                                                           |

| Creek           | Date                        | Species                                                                 | Adult<br>Juvenile                        | Type of<br>Observation | Notes                                                                         | Reference                                                              |
|-----------------|-----------------------------|-------------------------------------------------------------------------|------------------------------------------|------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------|
|                 | July-August 1984            | SHD<br>CUT<br>CUT/SHD HYBRID                                            | juv<br>juv<br>juv                        | Electrofishing         | Cutthroat electrophoresis                                                     | Neillands 1990                                                         |
|                 |                             |                                                                         |                                          | Electrofishing         | Bypass                                                                        |                                                                        |
|                 | 3/15/97 to 6/3/1997         | CHINOOK<br>COHO<br>STEELHEAD<br>CUTTHROAT<br>SCULPIN                    | 0+<br>0+ & 1+<br>0+ & 1+                 | Pipe trap              | 101 bypass monitoring-<br>HSU, 6,519 KS and<br>13,852 0+ coho, 176 1+<br>coho | Klatie and Roelofs 1997                                                |
|                 |                             |                                                                         |                                          |                        |                                                                               |                                                                        |
|                 |                             |                                                                         |                                          |                        |                                                                               |                                                                        |
| May             | 1980's                      | CUT<br>COHO<br>SCULPIN<br>AMMOCOETE<br>3 SPINE STICKLEBACK              | juv<br>juv<br>all<br>juv<br>all          | Electrofishing         | Chuck Warren's<br>information/thesis project                                  | Brown 1988<br>(ref. CDFG surveys, C. Warren<br>personal communication) |
|                 | July-August 1984            | CUT<br>CUT/SHD HYBRID                                                   | juv<br>juv                               | Electrofishing         | Cutthroat electrophoresis                                                     | Neillands 1990                                                         |
|                 | 11/03/94                    | CUT<br>COHO                                                             | juv<br>juv                               | Electrofishing         | CUT sample collection for<br>electrophoresis                                  | Tommy Williams OSU<br>Memo in cutthroat files                          |
|                 | 09/23-24/96                 | SHD<br>CUT<br>COHO<br>PGS<br>AMMOCOETE                                  | juv<br>juv<br>juv<br>larvae/adult<br>juv | Electrofishing         | below barrier                                                                 | USFS/RNP Barrier study notes                                           |
|                 | 09/25/96                    | SHD<br>CUT<br>PGS                                                       | juv<br>juv<br>larvae                     | Electrofishing         | above barrier                                                                 | USFS/RNP Barrier study notes                                           |
| Streelow (Wold) | 04/01/1997 to<br>06/04/1997 | CHINOOK<br>COHO<br>STEELHEAD<br>TROUT<br>CUTTHROAT<br>SCULPIN<br>SUCKER | 0+<br>0+ & 1+<br>juv<br>0+ & 1+          | Pipe trap              | 101 Monitoring - HSU<br>3 KS, 1938 0+ COHO, 167<br>1+ COHO, 78 CUT            | Klatie and Roelofs 1997                                                |
|                 | 09/28-30/81                 | SHD<br>CUT<br>COHO<br>SCULPIN<br>AMMOCOETE<br>3 SPINE STICKLEBACK       | juv<br>juv<br>juv<br>all<br>juv<br>all   | Electrofishing         | Thesis survey                                                                 | Brown 1988                                                             |

| Creek           | Date                   | Species                                                                                                             | Adult<br>Juvenile                                  | Type of<br>Observation            | Notes                                                                  | Reference                                                                                 |
|-----------------|------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Little Lost Man | July-August 1984       | SHD<br>CUT<br>CUT/SHD HYBRID                                                                                        | juv<br>juv<br>juv                                  | Electrofishing                    | Cutthroat electrophoresis                                              | Neillands 1990                                                                            |
|                 | 08/22/94               | SHD<br>COHO<br>CUT<br>SCULPIN<br>3 SPINE STOCKLEBACK<br>PGS<br>FROG (not identified)                                | juv<br>juv<br>juv<br>juv<br>---<br>larvae<br>adult | Electrofishing                    | Thesis sites revisited                                                 | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes                                  |
|                 | 10/12/80<br>9/24-27/81 | SHD<br>COHO                                                                                                         | juv                                                | Electrofishing                    | Thesis site                                                            | Brown 1988                                                                                |
|                 | July-August 1984       | SHD                                                                                                                 | juv                                                | Electrofishing                    | Cutthroat electrophoresis                                              | Neillands 1990                                                                            |
|                 | 9/28/94                | SHD<br>CUT<br>COHO<br>PGS<br>TAILED FROG                                                                            | juv<br>juv<br>juv<br>juv<br>larvae                 | Electrofishing                    | Thesis site revisit                                                    | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes                                  |
|                 | 9/26-27/95             | SHD<br>PGS<br>TAILED FROG                                                                                           | juv<br>larvae/adult<br>larvae?                     | Electrofishing                    | Barrier project, below<br>barrier                                      | USFS/RNP Barrier study 1995 notes                                                         |
|                 | 10/2-3/95              | PGS<br>TAILED FROG                                                                                                  | larvae<br>larvae                                   | Electrofishing                    | Barrier project, above<br>barrier                                      | USFS/RNP Barrier study 1995 notes                                                         |
|                 | 02/20 to 06/09/1995    | COHO SMOLTS<br>SHD SMOLTS<br>CUTTHROAT SMOLTS<br>YOY LIVE<br>PACIFIC GIANT SAL.<br>TAILED FROG LARVAE<br>AMMOECETES |                                                    | Smolt trapping<br>(pipe trap)     | Carrying Capacity for<br>Coho salmon project.                          | -David J. Manning, et al. 1996-<br>HSU Fisheries Graduate Student<br>- Trapping data file |
|                 | 08/24 to 09/16/1995    | COHO<br>SHD YOY, 1+, 2<br>CUT 1+, 2+                                                                                |                                                    | Electrofishing<br>(Hankin Reeves) | Carrying capacity of coho<br>salmon project                            | David J. Manning, et al. 1996-<br>HSU Fisheries Graduate Student                          |
|                 | 04/04/1997 to 2/1997   | CHINOOK<br>COHO<br>TROUT<br>STEELHEAD<br>CUTTHROAT<br>SCULPIN                                                       | 0+<br>0+ & 1+<br>0+ & 1+<br>juv                    | Pipe Trap                         | 101 monitoring - HSU<br>129 0+ KS, 602 0+ coho,<br>128 1+ coho, 10 cut | Klatte and Roelofs 1997                                                                   |

| Creek                             | Date             | Species                                                                                                                                                                   | Adult<br>Juvenile                                     | Type of<br>Observation | Notes                          | Reference                                                                       |
|-----------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------|--------------------------------|---------------------------------------------------------------------------------|
| Lost Man Tributaries<br>Larry Dam | July-August 1984 | SHD<br>CUT<br>CUT/SHD HYBRID                                                                                                                                              | juv<br>juv<br>juv                                     | Electrofishing         | Cutthroat electrophoresis      | Neillands 1990                                                                  |
|                                   | July-August 1984 | SHD<br>CUT<br>CUT/SHD HYBRID                                                                                                                                              | juv<br>juv<br>juv                                     | Electrofishing         | Cutthroat electrophoresis      | Neillands 1990                                                                  |
| Wigeon                            | 10/11-12/80      | SHD<br>COHO<br>AMMOCOETE                                                                                                                                                  | juv<br>juv<br>juv                                     | Electrofishing         |                                | Brown 1988 (referencing CDFG stream surveys and Hofstra personal communication) |
| Lost Man                          | July-August 1984 | SHD                                                                                                                                                                       | juv                                                   | Electrofishing         | Cutthroat electrophoresis      | Neillands 1990                                                                  |
|                                   | 10/17-18/95      | SHD<br>COHO<br>CUT<br>AMMOCOETE<br>PGS<br>TAILED FROG                                                                                                                     | juv<br>juv<br>juv<br>larvae<br>adult/larvae<br>larvae | Electrofishing         | Barrier project, below barrier | USFS/RNP Barrier study 1995 notes                                               |
|                                   | 10/26, 30/95     | SHD<br>CUT<br>AMMOCOETE<br>PGS<br>TAILED FROG                                                                                                                             | juv<br>juv<br>larvae<br>larvae<br>larvae              | Electrofishing         | Barrier project, above barrier | USFS/RNP Barrier study 1995 notes                                               |
|                                   | 10/84            | CUT                                                                                                                                                                       | juv                                                   | Electrofishing         |                                | Brown 1988                                                                      |
| <b>Redwood Creek</b>              |                  |                                                                                                                                                                           |                                                       |                        |                                |                                                                                 |
| Redwood Creek<br>and Tributaries  |                  | KS<br>COHO<br>SHD<br>CUT<br>EASTERN BROOK<br>CHUM<br>PRICKLY SCULPIN<br>RIFFLE SCULPIN<br>COASTRANGE SCULPIN<br>PACIFIC LAMPREY<br>HUMBOLDT SUCKER<br>3 SPINE STICKLEBACK |                                                       |                        |                                | Fish Species of Redwood National Park                                           |

| Creek                    | Date                    | Species                                                                                                                                                                                                            | Adult<br>Juvenile             | Type of<br>Observation | Notes                                                                 | Reference                                             |
|--------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------|-----------------------------------------------------------------------|-------------------------------------------------------|
| Redwood Creek<br>Estuary | July-August 1984        | SHD<br>CUT<br>CUT/RAINBOW HYBRID                                                                                                                                                                                   | juv<br>juv<br>juv             | Seining                | Cutthroat electrophoresis                                             | Neillands 1990                                        |
|                          |                         | KS<br>COHO<br>SD<br>CUT<br>STAGHORN SCULPIN<br>PRICKLY SCULPIN<br>3 SPINE STICKLEBACK<br>STARRY FLOUNDER<br>PACIFIC HERRING<br>SURE SMELT<br>NIGHT SMELT<br>SHINER SURPERCH<br>SADDLEBACK GUNNEL<br>TIDEWATER GOBY | ALL                           | Seining, trapping      |                                                                       | Fish Species of Redwood National Park<br>(1992 table) |
| Strawberry               | Historical<br>mid 1900s | CUTTHROAT                                                                                                                                                                                                          | ALL                           | Hook and Line          | Antedotal stories from<br>Sherry Romanini and Earl                    | Draft Strawberry Creek 1994                           |
|                          | 05/1985                 | LAMPREY                                                                                                                                                                                                            |                               | Observation            | lamprey observed "in creek<br>near South Operations<br>Center"        | Draft Strawberry Creek 1994                           |
|                          | 08/1989                 | TROUT (CUT/SHD?)                                                                                                                                                                                                   | juv                           | Electrofishing         | 20 ft downstream of the<br>access road culvert near<br>SOC. 60mm FRKL | Draft Strawberry Creek 1994                           |
| Hayes                    | 8/19/80                 | none                                                                                                                                                                                                               | ---                           | Electrofishing         | Thesis survey                                                         | Brown 1988                                            |
|                          | 09/12/96                | SHD<br>CUT<br>PGS<br>YELLOW LEGGED FROG                                                                                                                                                                            | juv<br>juv<br>larvae<br>adult | Electrofishing         | above barrier (dry channel<br>between water and REDW<br>Cr)           | USFS/RNP Barrier study notes                          |
| McArthur                 | 08/04/80                | SHD<br>CUT<br>SCULPIN                                                                                                                                                                                              | juv                           | Electrofishing         | thesis survey, at mouth                                               | Brown 1988                                            |
|                          | July-August 1984        | SHD<br>CUT<br>SHD/CUT HYBRID                                                                                                                                                                                       | juv<br>juv<br>juv             | Electrofishing         | Cutthroat electrophoresis                                             | Neillands 1990                                        |

| Creek        | Date             | Species                                                                   | Adult<br>Juvenile                                     | Type of<br>Observation     | Notes                                              | Reference                         |
|--------------|------------------|---------------------------------------------------------------------------|-------------------------------------------------------|----------------------------|----------------------------------------------------|-----------------------------------|
|              | 11/1/95          | PGS                                                                       | larvae                                                | Electrofishing             | Barrier study, above barrier at horse trail bridge | USFS/RNP Barrier study 1995 notes |
|              | 11/6-7/95        | SHD<br>CUT<br>COHO<br>SCULPIN<br>PGS<br>TAILED FROG<br>YELLOW LEGGED FROG | juv<br>juv<br>juv<br>---<br>larvae<br>larvae<br>adult | Electrofishing             | Barrier study, below barrier near mouth            | USFS/RNP Barrier study 1995 notes |
| Elam         | 08/04/80         | SHD<br>SCULPIN                                                            | juv<br>---                                            | Electrofishing             | Thesis survey                                      | Brown 1988                        |
|              | July-August 1984 | SHD<br>CUT<br>CUT/RAINBOW HYBRID                                          | juv<br>juv<br>juv                                     | Electrofishing             | Cutthroat electrophoresis                          | Neillands 1990                    |
| Gans South   | 09/21/80         | NONE                                                                      |                                                       | Electrofishing             | Thesis survey (stream reach near mouth of creek)   | Brown 1988                        |
| Chris        | 09/21/80         | NONE                                                                      |                                                       | Electrofishing             | Thesis survey (stream reach near mouth of creek)   | Brown 1988                        |
| Oscar Larson | 09/21/80         | NONE                                                                      |                                                       | Electrofishing             | Thesis survey (stream reach near mouth of creek)   | Brown 1988                        |
| Cloquet      | 09/21/80         | NONE                                                                      |                                                       | Electrofishing             | Thesis survey (stream reach near mouth of creek)   | Brown 1988                        |
| Bond         | 08/08/80         | SHD                                                                       | juv                                                   | Electrofishing Observation | Thesis survey                                      | Brown 1988                        |
|              | July-August 1984 | SHD<br>CUT<br>CUT/RAINBOW HYBRID                                          | juv<br>juv<br>juv                                     | Electrofishing             | Cutthroat electrophoresis                          | Neillands 1990                    |
| Miller       | 08/09/80         | SHD                                                                       | juv                                                   | Electrofishing             | Thesis survey                                      | Brown 1988                        |
|              | 08/09/80         | SHD<br>SCULPIN                                                            | juv<br>---                                            | Electrofishing             | Thesis survey                                      | Brown 1988                        |
| Forty Four   | July-August 1984 | CUT                                                                       | juv                                                   | Electrofishing             | Cutthroat electrophoresis                          | Neillands 1990                    |
|              | 10/04/95         | CUT<br>SHD<br>PGS                                                         | juv<br>juv<br>larvae                                  | Electrofishing             | barrier study, above barrier at mouth              | USFS/RNP Barrier study 1995 notes |

| Creek                   | Date                      | Species                                             | Adult<br>Juvenile                        | Type of<br>Observation | Notes                                          | Reference                                             |
|-------------------------|---------------------------|-----------------------------------------------------|------------------------------------------|------------------------|------------------------------------------------|-------------------------------------------------------|
| Cole                    | 08/09/80                  | NONE                                                |                                          | Electrofishing         | Thesis survey (stream reach at mouth of creek) | Brown 1988                                            |
| Tom McDonald            | 08/06/80<br>9/11-13/81    | SHD<br>COHO<br>SCULPIN<br>AMMOCOETE                 | juv<br>juv<br>--<br>juv                  | Electrofishing         | Thesis survey                                  | Brown 1988                                            |
|                         | July-August 1984          | SHD<br>CUT<br>CUT/SHD HYBRID                        | juv<br>juv<br>juv                        | Electrofishing         | Cutthroat electrophoresis                      | Neillands 1990                                        |
|                         | 06/24/1992                | SHD<br>COHO<br>SCULPIN<br>COASTRANGE sculpin<br>PGS | juv                                      | Electrofishing         | lower creek below first jam                    | Field Notebook                                        |
|                         | 8/24/94                   | SHD<br>CUT<br>COHO<br>SCULPIN<br>AMMOCOETE<br>PGS   | juv<br>juv<br>juv<br>--<br>juv<br>larvae | Electrofishing         | Thesis sites revisited                         | RNP/USFS-RSL revisit of 1981 thesis sites field notes |
| Emerald<br>(Harry Weir) | 09/6, 20/80<br>9/21-23/81 | SHD<br>COHO<br>SCULPIN<br>PGS                       | juv<br>juv<br>juv<br>larvae              | Electrofishing         | Thesis survey                                  | Brown 1988                                            |
|                         | 8/30/94                   | SHD<br>COHO<br>SCULPIN<br>PGS                       | juv<br>juv<br>--<br>larvae               | Electrofishing         | Thesis sites revisited                         | RNP/USFS-RSL revisit of 1981 thesis sites field notes |
| Bridge Creek            | 08/83                     | SHD<br>SCULPIN<br>AMMOCOETE (Pacific Lamprey)       | juv<br>--<br>juv                         | Electrofishing         | Work done by Hofstra                           | Brown 1988 (Hofstra personal communication)           |
|                         | 6-17-92                   | SHD<br>COHO                                         | juv                                      | Electrofishing         | above and below jam                            | Field Notebook<br>Anderson, Smith                     |
|                         | 6-17-92                   | KS<br>SCULPIN<br>COHO<br>SHD                        | juv                                      |                        | below jam                                      |                                                       |
|                         | 6-15-93                   | COHO<br>SHD                                         | juv                                      | Electrofishing         | below jam                                      | Field Note book<br>Anderson, McClelland               |

| Creek    | Date                | Species                                                 | Adult<br>Juvenile                      | Type of<br>Observation | Notes                                                         | Reference                    |
|----------|---------------------|---------------------------------------------------------|----------------------------------------|------------------------|---------------------------------------------------------------|------------------------------|
|          | 6-24-93             | COHO<br>SHD<br>KS                                       | juv                                    | Electrofishing         | above jam                                                     | Field Notebook               |
|          | 09/09/96            | SHD<br>PGS<br>YELLOW LEGGED FROG<br>BUFO - WESTERN TOAD | juv<br>larvae<br>adult                 | Electrofishing         | above barrier (upstream of<br>Bridge Creek Log Jam<br>(BCLJ)) | USFS/RNP Barrier study notes |
|          | 09/9-10/96          | SHD<br>PGS<br>TAILED FROG<br>BUFO - WESTERN TOAD        | juv<br>larvae<br>larvae<br>adult       | Electrofishing         | below barrier (upstream of<br>BCLJ)                           | USFS/RNP Barrier study notes |
| Dolason  | 08/30/80            | SHD                                                     | juv                                    | Electrofishing         | Thesis survey                                                 | Brown 1988                   |
| G        | 08/29/80            | NONE                                                    |                                        | Electrofishing         | Thesis survey (stream<br>reach near mouth of creek)           | Brown 1988                   |
| Airstrip | 08/29/80            | NONE                                                    |                                        | Electrofishing         | Thesis survey (stream<br>reach near mouth of creek)           | Brown 1988                   |
| Slide    | 08/29/80            | SHD                                                     | juv                                    | Electrofishing         | Thesis survey                                                 | Brown 1988                   |
| Childs   | 08/29/80            | NONE                                                    |                                        | Electrofishing         | Thesis survey                                                 | Brown 1988                   |
| Maneze   | 08/28/80            | NONE                                                    |                                        | Electrofishing         | Thesis survey                                                 | Brown 1988                   |
| Copper   | 09/20/80            | SHD                                                     | juv                                    | Electrofishing         | Thesis survey                                                 | Brown 1988                   |
| Elf      | 08/28/80            | NONE                                                    |                                        | Electrofishing         | Thesis survey (stream<br>reach near mouth of creek)           | Brown 1988                   |
| Lyon     | 08/28/80            | NONE                                                    |                                        | Electrofishing         | Thesis survey (stream<br>reach near mouth of creek)           | Brown 1988                   |
| Devils   | 08/23/80            | SHD                                                     | juv                                    | Electrofishing         | Thesis survey                                                 | Brown 1988                   |
|          | 08/20-21/1996       | SHD<br>PGS<br>TAILED FROG<br>YELLOW LEGGED FROG         | juv<br>larvae<br>larvae/adult<br>adult | Electrofishing         | above mouth barrier                                           | USFS/RNP Barrier study notes |
| Coyote   | 09/03/80<br>8/13/81 | SHD<br>COHO                                             | juv<br>juv                             | Electrofishing         | Thesis survey                                                 | Brown 1988                   |

| Creek         | Date                        | Species                          | Adult<br>Juvenile           | Type of<br>Observation        | Notes                                        | Reference                                                |
|---------------|-----------------------------|----------------------------------|-----------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|
|               | 1990's                      | Eastern Brook Trout              |                             | Observation<br>Fishing        | Stocked spring pond in<br>Coyote Creek basin |                                                          |
|               | 08/27-28/1996               | SHD<br>PGS<br>YELLOW LEGGED FROG | juv<br>larvae<br>adult      | Electrofishing                | above barrier                                | USFS/RNP Barrier study notes                             |
|               | 09/3-4/1996                 | SHD<br>PGS<br>YELLOW LEGGED FROG | juv<br>larvae<br>adult      | Electrofishing                | below barrier                                | USFS/RNP Barrier study notes                             |
| Joplin        | 08/27/80                    | NONE                             |                             | Electrofishing                | Thesis survey                                | Brown 1988                                               |
| Panther       | 08/26/80<br>08/14, 29-30/81 | SHD                              | juv                         | Electrofishing                | Thesis survey                                | Brown 1988                                               |
|               | 09/1/94                     | SHD<br>PGS                       | juv<br>larvae               | Electrofishing                | Thesis sites revisited                       | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Garrett       | 09/04/80                    | SHD                              | juv                         | Electrofishing                | Thesis survey                                | Brown 1988                                               |
| Lacks         | 9/18-19/80<br>9/2-4/81      | SHD<br>AMMOCOETE                 | juv<br>juv                  | Electrofishing                | Thesis survey                                | Brown 1988                                               |
|               | 09/22/96                    | SHD<br>CUT<br>PGS<br>AMMOCOETE   | juv<br>juv<br>larvae<br>juv | Electrofishing                | Thesis site revisited                        | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Stover        | 08/21/80                    | NONE                             |                             | Electrofishing                | Thesis survey                                | Brown 1988                                               |
| Karen         | 08/21/80                    | SHD<br>COHO                      | juv                         | Electrofishing                | Thesis survey                                | Brown 1988                                               |
| Lee           | 08/21/80                    | NONE                             |                             | Electrofishing                | Thesis survey (reach near<br>mouth of creek) | Brown 1988                                               |
| Roaring Gulch | 08/21/80                    | SHD                              | juv                         | Electrofishing                | Thesis survey                                | Brown 1988                                               |
| Garcia        | 08/15/80                    | SHD                              | juv                         | Electrofishing                | Thesis survey                                | Brown 1988                                               |
| Cashmere      | 8/12,15/80                  | SHD                              | juv                         | Electrofishing<br>Observation | Thesis survey                                | Brown 1988                                               |
| Weepy         |                             |                                  |                             |                               |                                              |                                                          |

| Creek                | Date                   | Species                          | Adult<br>Juvenile      | Type of<br>Observation        | Notes                              | Reference                                                |
|----------------------|------------------------|----------------------------------|------------------------|-------------------------------|------------------------------------|----------------------------------------------------------|
| Beaver               | 08/12/80               | SHD                              | juv                    | Electrofishing<br>Observation | Thesis survey                      | Brown 1988                                               |
| Pilchuck             | 08/16/80               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Mill                 | 08/05/80<br>09/9-10/81 | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
|                      | 10/03/94               | SHD<br>PGS                       | juv<br>larvae          | Electrofishing                | revisit of 1981 thesis sites       | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Molasses             | 08/16/80               | SHD                              | juv                    | Electrofishing<br>Observation | Thesis survey                      | Brown 1988                                               |
| Tossup               | 08/05/80<br>9/4-6/81   | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
|                      | 10/04/94               | SHD<br>PGS<br>YELLOW LEGGED FROG | juv<br>larvae<br>adult | Electrofishing                | revisit of 1981 sites              | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Wiregrass            | 08/05/80               | SHD                              | juv                    | Electrofishing<br>Observation | Thesis survey                      | Brown 1988                                               |
| Minor                | 08/13-14/80            | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Loin                 | 08/15/81               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Santa Fe             | 08/15/81               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Sweathouse           | 09/24/80               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Captain              | 09/24/80               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Lupton               | 08/22/80               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Fern Prairie         | 08/22/80               | NONE                             |                        | Electrofishing                | Thesis survey, reach near<br>mouth | Brown 1988                                               |
| Christmas<br>Prairie | 09/10/80               | NONE                             |                        | Electrofishing                | Thesis survey                      | Brown 1988                                               |
| Windy                | 09/10/80               | SHD                              | juv                    | Electrofishing                | Thesis survey                      | Brown 1988                                               |

| Creek          | Date                  | Species                                | Adult<br>Juvenile       | Type of<br>Observation        | Notes                  | Reference                                                |
|----------------|-----------------------|----------------------------------------|-------------------------|-------------------------------|------------------------|----------------------------------------------------------|
| Jena           | 09/10/80              | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Noisy          | 09/09/80              | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Squirrel Tail  | 09/09/80              | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Emmy Lou       | 09/09/80              | SHD                                    | juv                     | Electrofishing<br>Observation | Thesis survey          | Brown 1988                                               |
| Cutoff Meander | 09/11/80              | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Cool Springs   | 09/11/80              | NONE                                   | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Six Rivers     | 09/11/80              | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Gunrack        | 09/12/80              | SHD<br>CUT                             | juv<br>juv              | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Ayres          | 09/12/80              | NONE                                   |                         | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Simion         | 09/12/80              | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
| High Prairie   | 08/19/81              | SHD<br>CUT                             | juv<br>juv              | Electrofishing                | Thesis survey          | Brown 1988                                               |
| Minon          | 8/26/81<br>9/15-16/81 | SHD<br>AMMOCOETES (Pacific<br>Lamprey) | juv<br>larvae           | Electrofishing                | Thesis survey          | Brown 1988                                               |
|                | 09/13/94              | SHD<br>PGS                             | juv<br>larvae           | Electrofishing                | Thesis sites revisited | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Lake Prairie   | 8/21, 24-26/81        | SHD                                    | juv                     | Electrofishing                | Thesis survey          | Brown 1988                                               |
|                | 09/20/94              | SHD<br>PGS<br>TAILED FROG              | juv<br>larvae<br>larvae | Electrofishing                | Thesis sites revisited | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Upper Redwood  | Summer 1981           | SHD                                    | juv<br>(YOY&1+)         | Electrofishing                | Thesis site            | Anderson 1988                                            |

| Creek                                                         | Date     | Species                                                                                                                                                                                           | Adult<br>Juvenile             | Type of<br>Observation        | Notes                                      | Reference                                                |
|---------------------------------------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|--------------------------------------------|----------------------------------------------------------|
| site                                                          | 09/14/96 | SHD<br>AMMOCOETE<br>LAMPREY<br>PGS                                                                                                                                                                | juv<br>juv<br>adult<br>larvae | Electrofishing                | Thesis sites revisited                     | RNP/USFS-RSL revisit of 1981 thesis<br>sites field notes |
| Upper Panther/<br>Bradford                                    | 08/20/81 | SHD                                                                                                                                                                                               | juv                           | Electrofishing                | Thesis survey                              | Brown 1988                                               |
| Pardee                                                        | 09/30/80 | SHD                                                                                                                                                                                               | juv                           | Electrofishing<br>Observation | Thesis survey                              | Brown 1988                                               |
| Debris Torrent                                                | 09/30/80 | NONE                                                                                                                                                                                              |                               | Electrofishing                | Thesis survey (stream<br>reach near mouth) | Brown 1988                                               |
| Last Gasp                                                     | 09/26/80 | NONE                                                                                                                                                                                              |                               | Electrofishing                | Thesis survey (stream<br>reach near mouth) | Brown 1988                                               |
| Marquette                                                     | 09/26/80 | NONE                                                                                                                                                                                              |                               | Electrofishing                | Thesis survey (stream<br>reach near mouth) | Brown 1988                                               |
| Timbo                                                         | 09/26/80 | NONE                                                                                                                                                                                              |                               | Electrofishing                | Thesis survey (stream<br>reach near mouth) | Brown 1988                                               |
| Powerline                                                     | 09/26/80 | NONE                                                                                                                                                                                              |                               | Electrofishing                | Thesis survey (stream<br>reach near mouth) | Brown 1988                                               |
| Snowcamp<br>Smokehouse<br>Twin Lakes                          | 09/25/80 | SHD                                                                                                                                                                                               | juv                           | Electrofishing                | Thesis survey                              | Brown 1988                                               |
| <b>SMITH RIVER UNIT</b> (tributaries of Smith - East to West) |          |                                                                                                                                                                                                   |                               |                               |                                            |                                                          |
| Smith River &<br>Estuary                                      |          | KS<br>COHO<br>SHD<br>CUT<br>AMERICAN SHAD<br>GREEN STURGEON<br>PRICKLY SCULPIN<br>STAGHORN SCULPIN<br>PACIFIC LAMPREY<br>3 SPINE STICKLEBACK<br>REDDTAIL SURPERCH<br>SHINER SURPERCH<br>SURFSMELT | ALL                           |                               |                                            | Fish Species of Redwood National Park<br>(1992 table)    |

| Creek                                      | Date  | Species                                                                                                                                                                                                                | Adult<br>Juvenile                                  | Type of<br>Observation                         | Notes                                                                                                                                            | Reference                                                       |
|--------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
|                                            |       | PACIFIC HERRING<br>STARRY FLOUNDER<br>ROCKFISH (JUVENILES)                                                                                                                                                             |                                                    |                                                |                                                                                                                                                  |                                                                 |
| Sheep Pen                                  | 10/75 | NO FISH                                                                                                                                                                                                                |                                                    | Observation                                    | creek cascades for 100 yds<br>preventing anadromous<br>fish use.                                                                                 | CDFG Eureka files<br>(Cara's notes of files)                    |
|                                            | 07/63 | NO FISH                                                                                                                                                                                                                |                                                    | Observation                                    | mouth to 250 yds up, steep<br>impassable section 25 yds<br>above the mouth, no<br>salmon/SHD access, rest<br>is so steep prob. no native<br>fish | CDFG Eureka files<br>(Cara's notes of files)                    |
| Cedar                                      | 06/87 | SHD<br>RT/SH or CTC (CUT)                                                                                                                                                                                              | juv<br>juv                                         | Electrofishing                                 | Upstream of Howland Hill<br>Road 3 SHD 4.7-9.0 cm, 8<br>YOY RT/SH or CTC                                                                         | CDFG Eureka files<br>(Cara's notes of files)                    |
|                                            | 08/77 | SALMONIDS (residents?)                                                                                                                                                                                                 |                                                    | Observation                                    | salmonids 1-7", believed to<br>be residents, manage as<br>anadromous                                                                             | CDFG Eureka files<br>(Cara's notes of files)                    |
|                                            | 06/63 | SALMONIDS                                                                                                                                                                                                              |                                                    | Observation                                    | few salmonids                                                                                                                                    | CDFG Eureka files<br>(Cara's notes of files)                    |
| Mill Creek<br>(Smith River)<br>West Branch | 1996  | CUT (COASTAL)<br>CUT (RESIDENT)<br>KS (FALL RUN)<br>SHD (WINTER RUN)<br>SHD (SUMMER RUN)<br>COHO<br>PACIFIC LAMPREY<br>3 SPINE STICKLEBACK<br>SCULPIN (PRICKLY)<br>SCULPIN (ADDL. SP)<br>KLAMATH SMALL<br>SCALE SUCKER | adult<br>adult<br>adult<br>adult (only 1)<br>adult | carcass surveys<br>downstream<br>migrant traps | on Miller Rellim property                                                                                                                        | Chris Howard - Miller Rellim Co.<br>telephone conversation 1996 |
|                                            | 08/92 | SHD<br>COHO<br>CUT                                                                                                                                                                                                     | juv & 1+<br>juv (YOY)                              | Electrofishing                                 | 2800' from confluence of E<br>and W branches, West<br>branch 25 SHD (24 YOY<br>& 11+), coho (1 YOY),<br>Cut (1)                                  | CDFG Eureka files<br>(Cara's notes of files)                    |
|                                            | 08/92 | SHD<br>COHO                                                                                                                                                                                                            | juv (YOY)<br>juv (YOY)                             | Electrofishing                                 | 23,800' above confluence<br>SHD (9YOY), Coho (9<br>YOY)                                                                                          | CDFG Eureka files<br>(Cara's notes of files)                    |

| Creek                                   | Date      | Species                                          | Adult<br>Juvenile         | Type of<br>Observation | Notes                                                                                                     | Reference                                                                                                   |
|-----------------------------------------|-----------|--------------------------------------------------|---------------------------|------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Mill Creek<br>(Jed Smith State<br>Park) | 08/92     | SHD<br>CUT                                       | juv                       | Electrofishing         | 35,100' above confluence,<br>SHD (4 YOY & 3 1+),<br>Cuts (2)                                              | CDFG Eureka files<br>(Cara's notes of files)                                                                |
|                                         | 1980-1993 | KS<br>COHO                                       | adults                    | carcass survey         | west branch study 1.7<br>miles                                                                            | Jim Waldvogel, Cooperative<br>extension/Sea Grant Marine Advisory<br>Programs/ Univ of CA/ OSU              |
|                                         | 1984-1988 | CHUM                                             | adults                    | carcass                |                                                                                                           | Jim Waldvogel                                                                                               |
|                                         | 10-1-91   | TROUT (CUT?)<br>CUT<br>PGS                       | juv                       | Electrofishing         | tributary to Mill in state<br>park Hobb-Wall Creek                                                        | Field Notebook (Cushing Creek bypass<br>- fish biological<br>Anderson, Meyer, Moore                         |
| Rock<br>South Tributary                 | 10-1-91   | CUT<br>SHD<br>COHO<br>PGS<br>Coast Range Sculpin | juv                       | Electrofishing         | Mill Creek (upstream of<br>Hobb-wall creek)                                                               | Field Notebook (Cushing Creek bypass-<br>fish biological<br>Anderson, Meyer, Moore                          |
|                                         | 8-23-91   | CUT<br>TROUT (cut or SHD?)<br>PGS                | juv                       | Electrofishing         | Mill Creek tributary,<br>Hamilton Creek along<br>Hamilton Rd. within Miller<br>Redwood Co. land           | Mark Moore - CalTrans, Cushing Creek<br>Biologic file: 2624300, 1-DN-101-<br>20.3/22.3 Cushing Creek Bypass |
|                                         | 08/95     | SHD<br>RAINBOW TROUT<br>CUT<br>KS<br>COHO        | juv<br>juv YOY<br>juv YOY | Snorkel                | off S. Fork Road, up road 1<br>mile then dove<br>downstream<br>juv SHD, RT, cuts, 3 KS<br>YOY, 1 coho YOY | CDFG Eureka files<br>(Cara's notes of files)                                                                |
| Rock Creek,<br>North Side               | 07/83     | SHD<br>KS<br>CUT                                 | juv<br>juv                | Snorkel                | mouth to 3 miles upstream,<br>0, 1+ SHD, KS juv, 30<br>CUTS                                               | CDFG Eureka files<br>(Cara's notes of files)                                                                |
|                                         | 08/74     | RESIDENT TROUT                                   |                           |                        | resident trout only, barriers                                                                             | CDFG Eureka files<br>(Cara's notes of files)                                                                |
|                                         | 08/72     | SALMONIDS                                        | juv                       |                        | 1 fish 3-4" above cascade,<br>3 fry below N. Bank Rd.,<br>barriers                                        | CDFG Eureka files<br>(Cara's notes of files)                                                                |

| Creek   | Date       | Species                                                          | Adult<br>Juvenile                 | Type of<br>Observation | Notes                                                                                                     | Reference                                                                                   |
|---------|------------|------------------------------------------------------------------|-----------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Clarks  | 06/65      | SALMONIDS (?)                                                    | juv                               | Observation            | mouth to 1 mile up, 2 "fish" 1.5 - 2" long, barriers, small stream                                        | CDFG Eureka files<br>(Carla's notes of files)                                               |
|         | 06/58      | SHD                                                              | juv                               | Observation            | 200 yds from N. BANK Road to Smith River, numerous small SHD 1"-2", few 4"                                | CDFG Eureka files<br>(Carla's notes of files)                                               |
|         | 09/08/1998 | CUTTTHROAT<br>STEELHEAD<br>COHO<br>SCULPIN<br>PACIFIC GIANT SAL. | juv<br>juv<br>0+<br>juv<br>larvae | Electrofishing         | Location: above and below box culvert/bridge on Walker Road                                               | RNSP Fisheries Investigation: Clarks Creek, Del Norte County. memo of September 1998 visit. |
|         | 09/08/1998 | CUTTTHROAT<br>STEELHEAD<br>COHO                                  | Juv<br>juv<br>juv                 | Electrofishing         | Location: above Highway 199 culvert                                                                       | RNSP Fisheries Investigation: Clarks Creek, Del Norte County. memo of September 1998 visit. |
|         | 08/95      | CUTS<br>SHD<br>KS<br>COHO                                        | juv<br>juv<br>juv<br>juv          | Diving                 | HWY 199 culvert then downstream, cuts, juv SHD, 2 KS YOY, 6 coho YOY                                      | CDFG Eureka files<br>(Carla's notes of files)                                               |
|         | 10/88      | KS                                                               | adults                            | Carcass survey         | Mouth to 1 mile upstream, 17 redds, 4 KS carcasses, 1 live KS, 5 skeletons                                | CDFG Eureka files<br>(Carla's notes of files)                                               |
|         | 08/75      | SHD                                                              | juv                               | Observation            | Log jam 100 yds downstream of 199 bridge, juv SHD 1.5-2", 50-100 per 100' stream, juv trout above barrier | CDFG Eureka files<br>(Carla's notes of files)                                               |
|         |            |                                                                  |                                   |                        |                                                                                                           |                                                                                             |
| Peacock | 08/95      | SHD<br>COHO                                                      | juv<br>juv                        | Diving                 | mouth up 1/4 mile, SHD juv, 2 coho YOY                                                                    | CDFG Eureka files<br>(Carla's notes of files)                                               |
|         | 02/89      | SHD<br>CUT                                                       | juv                               | Electrofishing         | 250' near mouth 13 SHD 30-93mmFL, 200' upstream of HWY 197 culvert - 12 SD, 2 cuts, 32-114 mm FL          | CDFG Eureka files<br>(Carla's notes of files)                                               |

COASTAL RNSP UNIT (south to north)

| Creek                 | Date       | Species                                                                                                                                                              | Adult<br>Juvenile   | Type of<br>Observation         | Notes                                                                           | Reference                                             |
|-----------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------|
| Freshwater<br>Lagoon  |            | CUT<br>RAINBOW (HATCHERY)<br>LARGEMOUTH BASS<br>PRICKLY SCULPIN<br>JAPANESE POND SMELT<br>3 SPINE STICKLEBACK<br>(TIDEWATER GOBY)<br>GOLDEN SHINER<br>BLACK BULLHEAD |                     |                                |                                                                                 | Fish Species of Redwood National Park<br>(1992 Table) |
|                       | 12/30/93   | BROWN BULLHEAD                                                                                                                                                       | adult               | Observation                    | Found dead by Ronlakey<br>and Gillman                                           | Note in fish species of RNP file                      |
| Espa Lagoon           | 08/18/1989 | Northwestern Salamander                                                                                                                                              | larvae              | Electrofishing                 | upstream of culvert at<br>outlet of Lagoon                                      | Field Notes - 1998 Book 1                             |
|                       | 08/19/1998 | 3 SPINE STICKLEBACK<br>Northwestern Salamander<br>COASTAL CUTTHROAT                                                                                                  | Larvae<br>142 mm TL | Minnow Traps (24 hr<br>period) | in channel upstream of<br>culvert at outlet of Lagoon                           | Field Notes - 1998 Book 1                             |
| Major                 | 5/64       | NONE                                                                                                                                                                 |                     | Observation and<br>seining     | Mouth to 0.5 miles up, no<br>fish of any type seen                              | CDFG Eureka files<br>(Cara's notes of files)          |
| Squashan              | 3/94       | CUT (RESIDENT)                                                                                                                                                       |                     | Observation                    | mouth to 3rd tributary.<br>barrier at lower beach area                          | CDFG Eureka files<br>(Cara's notes of files)          |
|                       | 5/64       | CUT<br>SALMONIDS                                                                                                                                                     | both                | Observation                    | mouth to 1 mile up, 6" cuts<br>and fry, barriers but<br>suitable for anadromous | CDFG Eureka files<br>(Cara's notes of files)          |
| Home<br>(Fern Canyon) | 1996       | CUT                                                                                                                                                                  |                     | Electrofishing                 | Sampling by CDFG and<br>CalTrout for genetic<br>electrophoresis                 | Was told, no hard paper data yet                      |
|                       | 05/64      | CUT<br>SALMONIDS                                                                                                                                                     | both                | Seined<br>Observation          | cuts 2-7"<br>salmonids 2-8"<br>Mouth to 1.75 miles<br>upstream                  | CDFG Eureka files<br>(Cara's notes of files)          |
|                       | 12/61      | None noted                                                                                                                                                           |                     | Observation<br>(habitat)       | almost complete lack of<br>pools, not much fishery<br>potential                 | CDFG Eureka files<br>(Cara's notes of files)          |
| Boat                  | 11/77      | CUT                                                                                                                                                                  |                     | ?                              | Mouth to 0.5 miles up,<br>few <i>O. clarki</i>                                  | CDFG Eureka files<br>(Cara's notes of files)          |

| Creek                | Date                    | Species                                                              | Adult<br>Juvenile | Type of<br>Observation | Notes                                                                                                                         | Reference                                             |
|----------------------|-------------------------|----------------------------------------------------------------------|-------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|                      | 06/65                   | SALMONIDS                                                            | juv               | Observation            | Mouth to 120 yds up,<br>One 4" salmonid observed,<br>indefinite channel to ocean,<br>not suitable for<br>anadromous salmonids | CDFG Eureka files<br>(Carra's notes of files)         |
| Butler               |                         |                                                                      |                   |                        |                                                                                                                               |                                                       |
| Ossagon              | 6/65                    | SALMONIDS                                                            |                   | Observation            | 10' falls 400 yds up & log<br>jam at tidal zone<br>1-3.5" salmonids, no<br>resident trout above falls                         | CDFG Eureka files<br>(Carra's notes of files)         |
| Johnson              |                         |                                                                      |                   |                        |                                                                                                                               |                                                       |
| Lagoon               |                         |                                                                      |                   |                        |                                                                                                                               |                                                       |
| Lagoon Creek<br>Pond | Late 80's or early 90's | CUT<br>RAINBOW (Hatchery)<br>3 SPINE STICKLEBACK<br>STAGHORN SCULPIN | juv<br>--<br>--   | Fyke net trap          | Trapping in lagoon and<br>stream that feeds into it                                                                           | Fish Species of Redwood National Park<br>(1992 table) |
| Wilson               | 03/94                   | SHD (REDDS)<br>PACIFIC LAMPREY                                       | adults            | Observation            | 1.6 mile section upstream<br>52 SHD reads and 5 live<br>SHD, 7 pacific lamprey                                                | CDFG Eureka files<br>(Carra's notes of files)         |
|                      | 10/93                   | SHD<br>COHO<br>LAMPREY                                               | juv<br>juv<br>JUV | Electrofishing         | 4 miles from mouth<br>127 SHD 56-156 mm FL<br>9 coho 82-100mm FL<br>lamprey ammocetes                                         | CDFG Eureka files<br>(Carra's notes of files)         |
|                      | 3/92                    | SALMONID REDDS                                                       | adults            | Observation            | 3.5 miles to barrier = 1.3<br>mile reach, 12 reddts no<br>live or carcasses                                                   | CDFG Eureka files<br>(Carra's notes of files)         |
|                      | 02/90                   | SHD                                                                  | adults            | Observation            | 30 SHD reddts, 7 life SHD                                                                                                     | CDFG Eureka files<br>(Carra's notes of files)         |
|                      | 10/88                   | SALMONIDS                                                            | adults?           | Observation            | 1 mile up to 5 miles up=4<br>mile reach, 5 reddts, 1 large<br>presumed KS, 2med, 2<br>small, no live or carcasses             | CDFG Eureka files<br>(Carra's notes of files)         |

| Creek              | Date    | Species                                                        | Adult<br>Juvenile                    | Type of<br>Observation        | Notes                                                                                                   | Reference                                             |
|--------------------|---------|----------------------------------------------------------------|--------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|                    | 01/87   | SHD<br>SALMON                                                  | adults                               | Observation                   | 2 miles up to 5 miles up,<br>32 redds, 2 adult SHD<br>carcasses, 1 salmon<br>mandible                   | CDFG Eureka files<br>(Cara's notes of files)          |
|                    | 04/87   | KS<br>COHO<br>SHD                                              | juv YOY<br>juv YOY& 1+<br>juv YOY&1+ | Downstream<br>migrant trap    | 1.1 miles up, 26 days over<br>7 weeks, 54 KS 4.2 to 7.6<br>cm, coho 3 YOY, 2 1+;<br>SHD 127 YOY, 146 1+ | CDFG Eureka files<br>(Cara's notes of files)          |
|                    | 06/87   | KS<br>COHO<br>SHD                                              | juv<br>juv<br>juv                    | Snorkel and<br>Electrofishing | 3.7 miles up and 5.3 miles<br>up, 4 coho, 2 KS, and "lots<br>of SHD"                                    | CDFG Eureka files<br>(Cara's notes of files)          |
|                    | 09/45   | COHO<br>CUT<br>SHD<br>3 SPINE STICKLEBACK                      | juv<br>adult<br>juv<br>juv           | Seine                         | @ 101 Bridge<br>coho 29 young, cut 1 adult,<br>3 spine 44 young, SHD 12<br>young                        | CDFG Eureka files<br>(Cara's notes of files)          |
| Damnation          |         |                                                                |                                      |                               |                                                                                                         |                                                       |
| Nickel Creek       | 9/15/91 | CUT<br>TROUT (CUT OR SHD?)<br>PGS<br>Redlegged frog<br>Sculpin | juv                                  | Electrofishing                | above campground, below<br>East Side tributary below<br>campground, at mouth                            | Field Notebook<br>Anderson, Meyer, Moore              |
|                    | 6/84    | RAINBOW/SHD                                                    | both                                 | Electrofishing                | mouth to 650' up<br>54 rainbow/SHD 42-<br>206mm, barrier? near<br>mouth                                 | CDFG Eureka files<br>(Cara's notes of files)          |
| Cushing            | 02/89   | NONE                                                           |                                      | Electrofishing                | lower 1500', no fish seen,<br>little cover, low gradient,<br>poor quality sedimented<br>gravel          | CDFG Eureka files<br>(Cara's notes of files)          |
|                    | 02/84   | NONE                                                           |                                      | Electrofishing                | 500' section below road<br>no fish seen                                                                 | CDFG Eureka files<br>(Cara's notes of files)          |
| KLAMATH RIVER UNIT |         |                                                                |                                      |                               |                                                                                                         |                                                       |
| Klamath            |         | KS<br>COHO<br>SHD<br>CUT<br>PINK SALMON                        | ALL                                  |                               |                                                                                                         | Fish Species of Redwood National Park<br>(1992 Table) |

| Creek         | Date     | Species                                                                                                                                                                             | Adult<br>Juvenile           | Type of<br>Observation | Notes                                                                                                                                                                                    | Reference                                             |
|---------------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
|               |          | AMERICAN SHAD<br>GREEN STURGEON<br>WHITE STURGEON<br>PRICKLY SCULPIN<br>COASTRANGE SCULPIN<br>PACIFIC LAMPREY<br>SUCKERS<br>3 SPINE STICKLEBACK<br>PERCH<br>PEAMOUTH<br>BROWN TROUT |                             |                        |                                                                                                                                                                                          |                                                       |
| Richardson    | 07/14/88 | SHD/CUT<br>CUT<br>COHO<br>PRICKLY SCULPIN<br>3 SPINE STICKLEBACK<br>PACIFIC GIANT SAL.                                                                                              | juv<br>juv<br>juv<br>larvae | Electrofishing         | Shocked above Coastal<br>Drive culvert to above<br>where Alder Camp Rd.<br>Coho were YOY, larger<br>trout had markings of<br>cutthroat trout, SHD/CUT<br>used for smaller fish<br>(YOY). | Field notebook and 10/24/88 memo.                     |
| Marshall Pond | 1980s    | CUT<br>SHD<br>3 SPINE STICKLEBACK<br>GREEN SUNFISH<br>BROWN BULLHEAD<br>Klamath Smallmouth Sucker<br>GOLDEN SHINER                                                                  |                             | Fyke net trapping      | In Marshall Pond                                                                                                                                                                         | Fish Species of Redwood National Park<br>(1992 table) |
|               | 01/04/93 | BLACK CRAPPIE                                                                                                                                                                       | adult                       | Observation            | Found dead by Lakey and<br>Gillman                                                                                                                                                       | Preserved specimen                                    |

## FISH SPECIES

SHD Steelhead Trout (*Oncorhynchus mykiss*)  
CUT Coastal Cutthroat Trout (*O. clarki*)  
KS Chinook Salmon (King) (*O. tshawytscha*)  
COHO Coho Salmon (Silver) (*O. kisutch*)

CHUM Chum Salmon (*O. keta*)  
BROOK Eastern Brook Trout (*Salvelinus fontinalis*)

#### OTHER SPECIES

PGS Pacific Giant Salamander (*Dicamptodon tenebrosus*)  
Tailed frog (*Ascaphus truei*)

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## FIELD NOTES

Little Lost Man - Pipe trap data 02/20/95 to 06/09/95 , David Manning