

Steelhead/rainbow trout resources of the middle Eel River

The following discussion of *O. mykiss* resources is specific to the section of the Eel River located between the South Fork Eel River confluence and the town of Dos Rios. The lower and upper reaches of the mainstem are discussed in separate sections of this report.

Eel River-Middle Reach

The middle Eel River was examined from the South Fork Eel River confluence to the Middle Fork Eel River confluence in 1973 as part of a study of water temperature conditions in the Eel River system (Kubicek 1977). During this study, few salmonids were observed between the Middle Fork and the North Fork, and only in areas of cool spring or subsurface upwelling and near cooler tributaries; salmonids were only observed in early summer between the North Fork and Eel Rock. Several fingerling and a few yearling salmonids up to five inches in length were observed in section of stream between the South Fork confluence and Eel Rock in the early and middle summer (Kubicek pers. comm.).

The 1997 Eel River Action Plan noted that the middle reach of the mainstem Eel River, from Fort Seward to Cape Horn Dam, generally exhibited warm water temperatures and low flows during the summer which discouraged large numbers of salmonids from using the area (DFG 1997).

Poison Oak Creek

Poison Oak Creek is tributary to the Eel River and consists of about 2.2 stream miles. It flows northwesterly, entering the Eel River at about stream mile 42.4.

Staff from DFG conducted stream inventories of Poison Oak Creek in 1993 and 1998. Electrofishing was conducted in 1993 and YOY and juvenile *O. mykiss* were collected (CCC 1993). No sampling was conducted in 1998 (DFG 1998a). During both surveys the stream channel was dry at the mouth. The 1998 stream inventory report recommended treating sources of fine sediment, including those related to the road system, and planting riparian vegetation.

Poison Oak Creek is included in a 1997 assessment of fish passage problems in relation to the Northern Pacific Railroad. *Oncorhynchus mykiss* were observed both upstream and downstream of the railroad crossing in 1997. Both the railroad crossing and the county road crossing immediately downstream were retaining large amounts of sediment and clean-up was recommended (HCRC 1997).

Newman Creek

Newman Creek is tributary to the Eel River and consists of about 2.9 miles of intermittent stream. It flows southwesterly, entering the Eel River at about stream mile 42.6.

Staff from DFG surveyed Newman Creek from its mouth to 0.5 miles upstream in 1938 and observed YOY steelhead. The

survey report noted damage caused by logging and cattle grazing in the watershed, including log jams, erosion, and elimination of riparian vegetation (DFG 1938a).

Fish rescue work was conducted on multiple Eel River tributaries in 1939 and 1940. A total of 1,312 steelhead were rescued from Newman Creek in 1939 and 1,770 steelhead were rescued in 1940 (DFG 1940a, DFG 1941).

Staff from DFG surveyed Newman Creek in 1981. No fish observations are noted in the survey report, although it states, “Newman Creek provides good quality spawning and rearing habitat for anadromous salmonids” (DFG 1981a).

The Pacific Lumber Company performed sampling in Newman Creek from 1998-2002 as part of a habitat conservation plan for the company’s property. Steelhead were observed in the creek every year during that time period with numbers ranging from 23-106 fish collected per year (PLC 2003).

Pipe Line Creek

Pipe Line Creek is tributary to the Eel River and consists of about 2.6 miles of intermittent stream. It flows north, entering the Eel River at about stream mile 43.3.

Pipe Line Creek is included in a 1997 assessment of fish passage problems in relation to the Northern Pacific Railroad. The stream was described as “fish bearing” and *O. mykiss* were observed upstream of the railroad crossing in 1997. The culvert at the crossing was “95% plugged with bedload” and clean-out was recommended (HCRC 1997).

Staff from DFG conducted a stream inventory of Pipe Line Creek in 1998. Biological sampling was not conducted, however the report noted the presence of “unidentified fish” in the stream (DFG 1998b). The inventory report noted few pools that offered high quality habitat, and recommended controlling sediment input into the creek.

Kapple Creek

Kapple Creek is tributary to the Eel River and consists of about 1.2 stream miles. It flows south, entering the Eel River at about stream mile 45.

Staff from DFG conducted a stream inventory of Kapple Creek in 1992. Two YOY steelhead were collected during electrofishing, both within 0.2 miles of the creek mouth. A sediment problem was observed in the creek, beginning about 0.5 miles upstream from the mouth and continuing further upstream (CCC 1992a).

Thompson Creek

Thompson Creek is tributary to the Eel River and consists of about two stream miles. It flows south, entering the Eel River at about stream mile 45.5.

Staff from DFG conducted a stream inventory of Thompson Creek in 1992. Young-of-year and juvenile steelhead were collected during electrofishing at three sites. Young-of-year and age 2+ steelhead were described as “numerous” at two locations in the stream (CCC 1992b). The inventory report noted that spawning gravels were limited to few reaches and recommended increasing canopy.

Thompson Creek tributary (South Fork Thompson Creek)

An unnamed tributary to Thompson Creek, known as South Fork Thompson Creek, consists of 2.1 stream miles. It flows west, entering Thompson Creek about 0.8 miles upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of South Fork Thompson Creek in 1992. Juvenile and YOY steelhead were collected at two of the three sites electrofished (CCC 1992c). The report noted that spawning gravels were limited to few reaches and the stream’s high gradient limited fish passage. Treatment of fine sediment sources was recommended.

Bell Creek

Bell Creek is tributary to the Eel River and consists of about 1.8 stream miles. It flows northeasterly, entering the Eel River at about stream mile 46.3.

Staff from DFG surveyed Bell Creek in 1938 and noted that YOY steelhead were “common” at the South Fork – McCann Road crossing. The fish ranged from 1.5 to 2.75 inches in length (DFG 1938b).

Bell Creek is included in a 1997 assessment of fish passage problems in relation to the Northern Pacific Railroad. The railroad culvert was not deemed a barrier to fish passage during the 1997 inspection; however, a culvert upstream of the railroad crossing was judged only to allow fish passage during high flows. “Good” habitat conditions were present upstream of this barrier (HCRCDC 1997).

Staff from DFG conducted a stream inventory of Bell Creek in 1998. The lower 1,000 feet of the stream were surveyed and no fish observations were noted. The culvert upstream of the railroad crossing was cited as a barrier to adult and juvenile salmonids (DFG 1998c).

Sonoma Creek

Sonoma Creek is tributary to the Eel River and consists of about 1.1 stream miles. It flows north, entering the Eel River at about stream mile 49.1.

Sonoma Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. During this study “Fingerling salmonids were abundant in Sonoma Creek during all sampling periods” (Kubicek 1977).

Staff from DFG conducted a stream inventory of Sonoma Creek in 1998. One site was electrofished and 42 juvenile *O. mykiss* were found. Young-of-year *O. mykiss* also were observed from the streambanks during the survey (CCC 1998). The inventory report notes that water temperature may limit the fishery and recommends treating sources of fine sediment.

Sequoia Creek

Sequoia Creek is tributary to Sonoma Creek and consists of about one stream mile. It flows east, entering Sonoma Creek about one mile upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of Sequoia Creek in 1998. Electrofishing was not conducted during the survey, however surveyors noted YOY salmonids in the stream. The species of salmonid was not identified. (DFG 1998d). The inventory report recommended treating sources of fine sediment, including those related to the road system.

Coleman Creek

Coleman Creek is tributary to the Eel River and consists of about 2.3 stream miles. It flows southwesterly, entering the Eel River at about stream mile 54.2.

Fish sampling was performed throughout the Eel River watershed in 1989 and 1990 as part of a four-year study conducted by researchers at UC Davis. During this sampling, *O. mykiss* were observed in Coleman Creek (Brown 1991).

Staff from DFG conducted a stream inventory of Coleman Creek in 1999. Electrofishing was not conducted during the survey, but juvenile salmonids were observed from the streambanks. (DFG 1999). The inventory report notes that water temperature may limit the fishery and recommends increasing canopy, along with treating sources of fine sediment.

Brock Creek

Brock Creek is tributary to the Eel River and consists of about 2.3 stream miles. It flows north, entering the Eel River at about stream mile 58.

Brock Creek is included in a 1997 assessment of fish passage problems in relation to the Northern Pacific Railroad. The railroad crossing bridge was not deemed to be a barrier to fish passage during the 1997 inspection; however, a log debris barrier located 1,000 feet further upstream was judged to block fish passage. "Fair" habitat was observed upstream of this barrier (HCRCD 1997).

Staff from DFG conducted a stream inventory of Brock Creek in 2000. Juvenile and YOY *O. mykiss* were found at two electrofishing sites in the stream. A 12-foot waterfall located about 2.4 miles upstream from the creek mouth was listed as the probable end of andromy (DFG 2000). The inventory report noted few pools that offered high quality habitat, and recommended controlling sediment input into the creek. Canopy cover also was found to be below desirable levels, and re-vegetation was recommended.

Dobbyn Creek

Dobbyn Creek is tributary to the Eel River and consists of about four stream miles. It is formed by the confluence of North and South Dobbyn Creeks and flows west, entering the Eel River at about stream mile 62.9.

Stocking records indicate that Dobbyn Creek was stocked with *O. mykiss* regularly from 1932 through 1939 (DFG 1936, DFG 1939a). An undated DFG stream survey report, likely from the 1930s, describes steelhead planting in the creek as “heavy and successful.” The report also noted that natural propagation of the fish “should be excellent” (DFG ca. 1934). Fish rescue work was conducted on multiple Eel River tributaries in 1940. A total of 1,500 steelhead were rescued from Dobbyn Creek that year (DFG 1941).

Dobbyn Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. “A few salmonids” were observed about 1.5 miles upstream from the mouth of the creek and three year classes of salmonids (up to eight inches in length) were observed near the confluence of North and South Dobbyn Creeks (Kubicek 1977).

Staff from DFG conducted a stream inventory of Dobbyn Creek in 1995. One site was electrofished during the survey and 13 juvenile *O. mykiss* were collected (DFG 1995a). The inventory report notes that water temperature may limit the fishery and recommends increasing canopy, along with treating sources of fine sediment and excluding cattle from the creek to avoid trampling and effects from defecation.

Conley Creek

Conley Creek is tributary to Dobbyn Creek and consists of about 3.8 stream miles. It flows south, entering Dobbyn Creek about 1.5 miles upstream from the Eel River.

Stocking records indicate that Conley Creek was stocked with *O. mykiss* in 1934, 1935, 1938, and 1939 (DFG 1935, DFG 1939b). Staff from DFG surveyed Conley Creek in 1938 and observed YOY steelhead that had been planted in the creek near the Alderpoint Road bridge (DFG 1938c).

Staff from DFG conducted a stream inventory of Conley Creek in 1995. Juvenile and YOY salmonids were observed from the streambanks during the survey, but the species was not identified. About 1.7 miles upstream from the mouth, the creek was noted to be “running out of both water and fish habitat” (DFG 1995b). The inventory report notes that water temperature may limit the fishery and recommends increasing canopy.

North Dobbyn Creek

North Dobbyn Creek is tributary to Dobbyn Creek and consists of about 6.2 stream miles. It flows southwesterly, entering Dobbyn Creek about four miles upstream from the Eel River confluence.

Stocking records indicate that North Dobbyn Creek was stocked with *O. mykiss* regularly from 1932 to 1939 (DFG 1933a, DFG 1939c). Staff from DFG surveyed North Dobbyn Creek in 1938 and found YOY steelhead to be “common.” The survey reports note “good” pools and shelter, “abundant” fish foods, and “good” spawning areas in the creek (DFG 1938d, DFG 1950).

Staff from DFG conducted a stream inventory of North Dobbyn Creek in 1995. One site was electrofished during the survey and four YOY and juvenile steelhead were found about 0.6 miles upstream from the mouth (DFG 1995c). The inventory report recommended increasing canopy, treating sources of fine sediment, and excluding cattle from the creek to avoid trampling and effects from defecation.

Hoover Creek

Hoover Creek is tributary to North Dobbyn Creek and consists of about 2.5 stream miles. It flows south, entering North Dobbyn Creek about 1.7 miles upstream from the Dobbyn Creek confluence.

A 1983 DFG status report of California Wild and Scenic Rivers lists the number of stream miles accessible to anadromous species in tributaries of the Eel River. In this report Hoover Creek is listed as containing 2.4 miles of stream accessible to steelhead (DFG 1983). The report notes that this number represents the stream miles “open to fish passage” and “is not a measure of habitat availability or habitat quality” (DFG 1983, p. H-45). The distribution estimates were made by examining DFG fisheries files and USGS maps.

South Dobbyn Creek

South Dobbyn Creek is tributary to Dobbyn Creek and consists of about 11.6 stream miles. It flows northwesterly, entering Dobbyn Creek about four miles upstream from the Eel River.

Staff from DFG surveyed South Dobbyn Creek in August 1938 and observed steelhead ranging from 1.5 to 7.0 inches in length. The survey report notes “very extensive” natural propagation, “good” pools and shelter, and “good” spawning areas in the creek (DFG 1938e). The creek was also surveyed in July 1938 and the survey report described the creek as “A beautiful looking stream” (DFG 1938f).

South Dobbyn Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. During this study “a few salmonids up to 6 inches in length” were observed in South Dobbyn Creek, about 2.5 miles upstream from the Dobbyn Creek confluence (Kubicek 1977).

Staff from DFG conducted a stream inventory of South Dobbyn Creek in 1995. Two sites were electrofished and YOY and juvenile steelhead were found at both sites. A total of 75 steelhead were found at one site and 63 steelhead were collected at the second site. These sites were located 6.9 and 8.7 miles upstream from the Dobbyn Creek confluence, respectively (PCFWWRA 1995a). The inventory report notes that water temperature may limit the fishery and recommends increasing canopy, along with treating sources of fine sediment and excluding cattle from the creek to avoid trampling and effects from defecation

Mud Creek

Mud Creek is tributary to South Dobbyn Creek and consists of about 4.3 stream miles. It flows south, entering South Dobbyn Creek about 6.2 miles upstream from the Dobbyn Creek confluence.

Stocking records indicate that Mud Creek was stocked with 20,000 steelhead in 1938 and 1939 (DFG 1939d). Staff from DFG surveyed Mud Creek in 1938 and observed YOY steelhead, “good” spawning areas, and “excellent” pools and shelter. A survey report noted that the creek had recently been planted and some pools were “teeming with young fish” (DFG 1938g).

Staff from DFG conducted a stream inventory of Mud Creek in 1995. Fifteen YOY and juvenile steelhead were found at one electrofishing site. A 20-foot waterfall located about 1.4 miles upstream from the creek mouth is described as a fish passage barrier (DFG 1995d). The inventory report noted that the stream’s high gradient makes fish passage difficult and recommended treating sources of fine sediment.

Bluford Creek

Bluford Creek is tributary to Mud Creek and consists of about 4.3 stream miles. It flows south, entering Mud Creek about 1.2 miles upstream from the South Dobbyn Creek confluence.

Staff from DFG surveyed Bluford Creek in 1938. “Young steelhead” were abundant upstream of the Zenia Bluffs Road culvert. Spawning areas were described as “good” (DFG 1938h).

Stocking records indicate that Bluford Creek was stocked with *O. mykiss* several times. The creek was stocked with rainbow trout fingerlings in 1930, 1954, and from 1965-67 (DFG 1939e, DFG 1967). It was stocked with steelhead from 1930-33 and 1938-29 (DFG 1939e).

A 1982 letter from DFG staff indicates that a small hydroelectric project was proposed on Bluford Creek. The letter includes recommendations for maintaining instream flows and stream conditions (DFG 1982).

Hembrey Creek

Hembrey Creek is tributary to South Dobbyn Creek and consists of about three stream miles. It flows west, entering South Dobbyn Creek about 7.2 miles upstream from the Dobbyn Creek confluence.

A 1983 DFG status report of California Wild and Scenic Rivers lists the number of stream miles accessible to anadromous species in tributaries of the Eel River. In this report the Hembrey Creek is listed as containing 0.2 miles of stream accessible to steelhead (DFG 1983). The report notes that this number represents the stream miles “open to fish passage” and “is not a measure of habitat availability or habitat quality” (DFG 1983, p. H-45). The distribution estimates were made by examining DFG fisheries files and USGS maps.

Yew Wood Creek

Yew Wood Creek is tributary to Hembrey Creek and consists of about 2.9 stream miles. It flows west, entering Hembrey Creek about one mile upstream from the South Dobbyn Creek confluence.

Stocking records indicate that Yew Wood Creek was stocked with steelhead and rainbow trout in 1930 and in 1938 (DFG 1930a, DFG 1938i). Staff from DFG surveyed Yew Wood Creek in 1938 and observed “abundant” YOY steelhead, as well as a few fish ranging from five to six inches in length. “Good” spawning areas and “good” pools and shelter were observed in the creek (DFG 1938j).

Steelhead Creek

Steelhead Creek is tributary to the Eel River and consists of about 4.8 stream miles. It flows northeasterly, entering the Eel River at about stream mile 69.3.

Stocking records indicate that Steelhead Creek was stocked with 500 rainbow trout in 1933 (DFG 1933b). Staff from DFG surveyed the creek in 1938 and noted “good” spawning areas and “good” pools and shelter. Steelhead ranging from 1.5 to 4.0 inches in length were noted to be “abundant” and fish up to six inches were “common.” The survey report notes that the Fort Seward Hatchery operated on this creek and the section of stream between the mouth and the hatchery was “overstocked with young steelhead” (DFG 1938k).

Staff from DFG conducted a stream inventory of Steelhead Creek in 1996. Young-of-year and juvenile *O. mykiss* were observed in the creek during the survey. An adult steelhead carcass also was observed. The end of anadromy was noted at a set of multiple waterfalls located about 2.8 miles upstream from the mouth (CCC 1996a). The inventory report notes that water temperature may limit the fishery and recommends increasing canopy cover.

Steelhead Creek is included in a 1997 assessment of fish passage problems in relation to the Northern Pacific Railroad. The creek was noted to have a “heavily aggraded stream channel in the lower reaches,” but “abundant YOY and yearling” *O. mykiss* were present throughout the creek (HCRC 1997).

Powers Creek

Powers Creek is tributary to Steelhead Creek and consists of about 2.4 stream miles. It flows north, entering Steelhead Creek about 0.3 miles upstream from the Eel River confluence.

Staff from DFG surveyed Powers Creek in 1938 and observed “young steelhead” near the mouth of the creek, downstream of a barrier consisting of steep cascades (DFG 1938l). Surveyors received a report of *O. mykiss* presence further upstream in the creek and these fish were assumed to be “native” resident trout (DFG 1938m).

Staff from DFG conducted a stream inventory of Powers Creek in 1996. *Oncorhynchus mykiss* was observed from the streambanks during the survey, including one six-inch fish. A set of bedrock falls located less than 0.2 miles from the mouth of the creek was described as the upstream end of anadromy, and fish were observed downstream of this location (PCFWWRA 1996a).

Steelhead Creek tributary 1

An unnamed tributary to Steelhead Creek consists of about 0.75 miles of intermittent stream. It flows north, entering Steelhead Creek about 1.5 miles upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of this unnamed tributary to Steelhead Creek in 1996. Young-of-year *O. mykiss* were observed in the creek. The presence of fish habitat and access for anadromous fish ended about 327 feet upstream from the mouth (PCFWWRA 1996b). The report noted that the steep gradient of the stream limits fish passage.

Steelhead Creek tributary 2

An unnamed tributary to Steelhead Creek consists of about 1.6 stream miles. It flows east, entering Steelhead Creek about 1.7 miles upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of this unnamed tributary to Steelhead Creek in 1996. Juvenile and YOY *O. mykiss* were observed from the streambanks during the survey. A series of waterfalls located about 0.4 miles upstream from the mouth marked the upstream limit to anadromous fish (CCC 1996b).

Mill Creek

Mill Creek is tributary to the Eel River and consists of about 2.5 stream miles. It flows east, entering the Eel River at about stream mile 74.2.

Mill Creek is included in a 1997 assessment of fish passage problems in relation to the Northern Pacific Railroad. Steelhead were observed in the creek in 1997 and habitat was deemed “fair” upstream of the railroad crossing. Log debris barriers were seen to create passage problems (HCRCD 1997).

Jewett Creek

Jewett Creek is tributary to the Eel River and consists of about 5.3 stream miles. It flows northeasterly, entering the Eel River at about stream mile 75.8

Stocking records indicate that Jewett Creek was stocked with 5,000 steelhead in 1938 (DFG 1938n).

Fish sampling was performed throughout the Eel River watershed in 1989 and 1990 as part of a four-year study conducted by researchers at UC Davis. During this sampling, *O. mykiss* was observed in Jewett Creek (Brown 1991).

Frenchman Creek

Frenchman Creek is tributary to Jewett Creek and consists of about 3.8 stream miles. It flows east, entering Jewett Creek about three miles upstream from the Eel River confluence.

Stocking records indicate that Frenchman Creek was stocked with 15,000 steelhead in 1938 (DFG 1938o). Staff from DFG surveyed the creek in 1938 and noted “good” spawning areas and “good” pools and shelter. The report also noted the presence of garbage in the stream bed and an impassable culvert at a road crossing in the creek (DFG 1938p).

Pipe Creek

Pipe Creek is tributary to the Eel River and consists of about 6.2 stream miles. It flows north, entering the Eel River at about stream mile 78.5.

Staff from DFG conducted a stream inventory of Pipe Creek in 1996. The lower 0.2 miles of the stream were surveyed and *O. mykiss* were observed from the streambanks. The survey ended where the stream was completely blocked by large boulders, preventing fish passage (PCFWWRA 1996c). The inventory report recommended increasing canopy and treating sources of fine sediment in the creek.

Kekawaka Creek

Kekawaka Creek is tributary to the Eel River and consists of about 13 stream miles. It flows northwesterly, entering the Eel River at about stream mile 81.6.

Stocking records indicate that 8,000 rainbow trout were planted in Kekawaka Creek in 1930 (DFG 1930b). Staff from DFG observed steelhead in Kekawaka Creek during a 1940 stream survey. Spawning grounds and natural propagation of the fish were characterized as “good” in the lower and middle sections of the creek (DFG 1940b).

Staff from DFG conducted a stream inventory of Kekawaka Creek in 1996. Two sites were electrofished in the lower 0.6 miles of the stream and YOY *O. mykiss* were found at both locations. A series of waterfalls located about one mile upstream from the mouth was deemed to be a total passage barrier (CCC 1996c). The inventory report recommended treating sources of fine sediment and increasing canopy cover in the creek.

Chamise Creek

Chamise Creek is tributary to the Eel River and consists of about 12 stream miles. It flows northeasterly, entering the Eel River at about stream mile 83.3.

A 1983 DFG status report of California Wild and Scenic Rivers lists the number of stream miles accessible to anadromous species in tributaries of the Eel River. In this report the Chamise Creek is listed as containing nine miles of stream accessible to steelhead (DFG 1983). The report notes that this number represents the stream miles “open to fish passage” and “is not a measure of habitat availability or habitat quality” (DFG 1983, p. H-45). The distribution estimates were made by examining DFG fisheries files and USGS maps.

North Fork Eel River

The North Fork Eel River is tributary to the Eel River and consists of about 35.5 stream miles. It flows southwesterly, entering the Eel River at about stream mile 96.4. Steelhead resources of the North Fork and its tributaries are described in another section of this report.

Bell Springs Creek

Bell Springs Creek is tributary to the Eel River and consists of about 5.5 stream miles. It flows southwesterly, entering the Eel River at about stream mile 99.7.

Bell Springs Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. During this survey, “several fingerlings” were observed in the creek (Kubicek 1977). Staff from BLM surveyed Bell Springs Creek in 1975 and observed rainbow trout ranging from one to nine inches in length. The report noted that “...this stream provides valuable habitat for spawning steelhead” (BLM 1975a).

Staff from DFG conducted a stream inventory of Bell Springs Creek in 1996. Juvenile and YOY *O. mykiss* were found at one electrofishing site, located about 0.4 miles upstream from the mouth. The upstream limit of anadromy was noted at a series of waterfalls about 3.4 miles upstream from the mouth (DFG 1996). The inventory report notes that water temperature may limit the fishery and recommends increasing canopy, along with treating sources of fine sediment.

Rock Creek

Rock Creek is tributary to Bell Springs Creek and consists of about two stream miles. It flows north, entering Bell Springs Creek about three miles upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of Rock Creek in 1996. Electrofishing was not conducted, but YOY salmonids were observed during the survey. According to the report, anadromous salmonids only have access to the lower 532 feet of the stream due to a 13-foot vertical drop (CCC 1996d). The report noted that spawning gravels were limited to few reaches within the creek and recommended increasing canopy cover.

Blue Rock Creek

Blue Rock Creek is tributary to the Eel River and consists of about 7.7 stream miles. It flows northeasterly, entering the Eel River at about stream mile 101.8.

Blue Rock Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. During this study more than 100 salmonids, ranging from fingerlings to “two-year olds” up to eight inches in length, were observed in Blue Rock Creek (Kubicek 1977).

Fish sampling was performed throughout the Eel River watershed in 1989 and 1990 as part of a four-year study conducted by researchers at UC Davis. During this sampling, *O. mykiss* was observed in Blue Rock Creek (Brown 1991).

Shell Rock Creek

Shell Rock Creek is tributary to the Eel River and consists of about 5.5 stream miles. It flows northeasterly, entering the Eel River at about stream mile 106.6.

Shell Rock Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. While the mouth of the creek was dry during this study, two salmonids were observed in a shaded pool further upstream and approximately 50 salmonids were observed along the edge of the river in an area of cool water upwelling (Kubicek 1977).

Staff from BLM surveyed a section of Shell Rock Creek in 1975. Rainbow trout were observed during the survey (BLM 1975b). Staff from DFG observed juvenile steelhead in Shell Rock Creek during the summer of 1981 (Jones 1981).

Woodman Creek

Woodman Creek is tributary to the Eel River and consists of about 6.9 stream miles. It flows northeasterly, entering the Eel River at about stream mile 113.8.

Woodman Creek was surveyed in 1981 by staff from DFG and *O. mykiss* were observed throughout the stream. A large rock barrier at the mouth of the creek was noted as a passage barrier. According to a local landowner, anadromous fish, including summer steelhead, used this creek prior to the formation of the barrier during the winter of 1964. "Good instream habitat" was observed during the survey and "good" spawning habitat was noted in the upper sections of the creek. Barrier removal was recommended to make this habitat available (DFG 1981b).

A 1985 memo documents rock barrier removal work that was completed in Woodman Creek that year. According to the memo, barriers were removed at five sites and the work was intended to allow access for steelhead and salmon to about 12.5 miles of spawning habitat in the watershed (Anonymous 1985).

Staff from DFG conducted stream inventories of Woodman Creek in 1995 and 1998. In 1995, *O. mykiss* were observed throughout the creek from the mouth to the confluence with White Rock Creek (DFG 1995e). In 1998, one site was electrofished about 3.5 miles upstream from the mouth and YOY and juvenile *O. mykiss* were found (DFG 1998e). The inventory report recommended increasing canopy and treating sources of fine sediment in the creek.

White Rock Creek

White Rock Creek is tributary to Woodman Creek and consists of about five stream miles. It flows east, entering Woodman Creek about 2.8 miles upstream from the Eel River confluence.

Staff from BLM surveyed White Rock Creek in 1975 and observed resident rainbow trout. The report stated that the creek had "...ample quantities of spawning gravel, sufficient food and escape cover, combined with a recent history of steelhead spawning in the drainage" (BLM 1975c). The lower section of White Rock Creek, from Woodman Creek upstream to the Iron Creek confluence, was surveyed separately by BLM staff in 1975 and referred to as "North Fork Woodman Creek." Rainbow trout were observed in this section as well. Good habitat was noted to be present but was expected to be degraded by heavy siltation caused by eroding streambanks (BLM 1975d).

Staff from DFG conducted a stream inventory of the lower 0.5 miles of White Rock Creek in 1998. Juvenile salmonids were observed during the survey, including one six-inch steelhead (DFG 1998f). The inventory report notes that water temperature may limit the fishery and recommends treating sources of fine sediment.

Woodman Creek tributary 1

An unnamed tributary to Woodman Creek consists of about 0.6 stream miles. It flows north, entering Woodman Creek about 3.3 miles upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of this unnamed tributary to Woodman Creek in 1998. Electrofishing was not conducted, but YOY of an undetermined species were observed in the creek. An 18-foot waterfall located about 0.3 miles upstream from the mouth was noted to be a fish passage barrier (DFG 1998g).

Woodman Creek tributary 2

An unnamed tributary to Woodman Creek consists of about 1.2 stream miles. It flows north, entering Woodman Creek about 3.8 miles upstream from the Eel River.

Staff from DFG conducted a stream inventory of this unnamed tributary to Woodman Creek in 1998. Electrofishing was not conducted during the survey, but *O. mykiss* was observed and included YOY and some six and ten-inch individuals. A road crossing located about 0.5 miles upstream from the mouth of this creek was deemed impassable to fish (Jeziarski 1998). The inventory report notes that water temperature may limit the fishery and recommends treating sources of fine sediment, along with evaluating fish passage at road crossings.

Stoney Creek

Stoney Creek is tributary to the Eel River and consists of about 1.7 stream miles. It flows northeasterly, entering the Eel River at about stream mile 115.7.

A 1983 DFG status report of California Wild and Scenic Rivers lists the number of stream miles accessible to anadromous species in tributaries of the Eel River. In this report Stoney Creek is listed as containing 2.5 miles of stream accessible to steelhead (DFG 1983). The report notes that this number represents the stream miles “open to fish passage” and “is not a measure of habitat availability or habitat quality” (DFG 1983, p. H-45). The distribution estimates were made by examining DFG fisheries files and USGS maps.

Burger Creek

Burger Creek is tributary to the Eel River and consists of about 7.2 stream miles. It flows northeasterly, entering the Eel River at about stream mile 118.

Staff from DFG surveyed Burger Creek in 1938 and observed several five to seven-inch steelhead. The creek was “heavily fished” although the quality of fishing was described as “poor” and said to have declined from years past (DFG 1938q).

Burger Creek was examined in 1973 as part of a study of water temperature conditions in the Eel River system. During this study “a few salmonids” were observed in Burger Creek (Kubicek 1977).

Burger Creek was sampled as part of a study of salmon and steelhead populations in Mendocino County. A summary table indicates that sampling was performed in the creek in 1984 and steelhead were collected (DFG 1988).

Staff from DFG conducted a stream inventory of Burger Creek in 1995. Steelhead fry and juveniles up to 14 inches in length were observed during the survey (PCFWWRA 1995b). The inventory report noted that the stream's high gradient may make fish passage difficult. It recommended treating sources of fine sediment and increasing canopy in the creek.

Bear Pen Canyon Creek

Bear Pen Canyon Creek is tributary to Burger Creek and consists of about 2.9 stream miles. It flows east, entering Burger Creek about four miles upstream from the Eel River confluence.

Staff from DFG conducted a stream inventory of Bear Pen Creek in 1995. During the survey *O. mykiss* fry and juveniles were observed throughout the creek (DFG 1995f). The inventory report noted that a high gradient in the lower section of the stream may make fish passage difficult. It recommended treating sources of fine sediment, including those related to the road system.

References

- Anonymous, 1985. Final Report: Woodman Creek C-859.
- [BLM] Bureau of Land Management. 1975a. Bell Springs Creek Physical and Biological Stream Survey Report, August 14.
Report by H. Hunt
- [BLM] Bureau of Land Management. 1975b. Shell Rock Creek Physical and Biological Stream Survey Report, September 5.
Report by H. Hunt
- [BLM] Bureau of Land Management. 1975c. White Rock Creek Physical and Biological Stream Survey Report, August 27.
Report by H. Hunt
- [BLM] Bureau of Land Management. 1975d. Physical and Biological Stream Survey Report North Fork Woodman Creek,
September 18. Report by H. Hunt
- Brown, L.R. and P.B. Moyle, University of California, Davis. 1991. Eel River Survey: Final Report.
- [CCC] California Conservation Corps. 1992a. Stream Inventory Report, Kapple Creek. Report by Judah Sanders, Jason Cleckler,
Erick Elliot, and Brian Humphrey
- [CCC] California Conservation Corps. 1992b. Stream Inventory Report, Thompson Creek. Report by Judah Sanders, Jason
Cleckler, Aaron Nadig, Chris Coyle, and Craig Mesman
- [CCC] California Conservation Corps. 1992c. Stream Inventory Report, South Fork Thompson Creek. Report by Russ Irvin,
Judah Sanders, Tony Sartori, John Crittenden, and Erick Elliot
- [CCC] California Conservation Corps. 1993. Stream Inventory Report, Poison Oak Creek. Report by Chris Coyle and Craig
Mesman
- [CCC] California Conservation Corps. 1996a. Stream Inventory Report, Steelhead Creek. Report by Frank Humphrey and Greg
Mullins
- [CCC] California Conservation Corps. 1996b. Stream Inventory Report, Unnamed Tributary to Steelhead Creek. Report by Frank
Humphrey and Dale Melton
- [CCC] California Conservation Corps. 1996c. Stream Inventory Report, Kekawaka Creek. Report by Frank Humphrey, Dave
Smith, and Ruth Goodfield
- [CCC] California Conservation Corps. 1996d. Stream Inventory Report, Rock Creek. Report by Frank Humphrey and Greg
Mullins
- [CCC] California Conservation Corps. 1998. Stream Inventory Report, Sonoma Creek. Report by Ruth Goodfield, Curtis Ihle,
and Stewart McMorrow
- [DFG] Department of Fish and Game. 1930a. Fish Stocking Record, Yew Wood Creek.
- [DFG] Department of Fish and Game. 1930b. Fish Stocking Record, Kekawaka Creek.
- [DFG] Department of Fish and Game. 1933a. Little Dobbyn Creek.
- [DFG] Department of Fish and Game. 1933b. Fort Seward Creek, Humboldt County.
- [DFG] Department of Fish and Game. 1935. Conley Creek -- Humboldt County.
- [DFG] Department of Fish and Game. 1936. Dobbys Creek -- Humboldt County.
- [DFG] Department of Fish and Game. 1938a. Newman Creek Stream Survey, August 3. Report by Elden H. Vestal and Leo
Shapovalov
- [DFG] Department of Fish and Game. 1938b. Unnamed Tributary to Eel River Stream Survey, August 18. Report by Leo
Shapovalov and Elden H. Vestal
- [DFG] Department of Fish and Game. 1938c. Conley Creek Stream Survey, August 12. Report by Elden H. Vestal and Leo
Shapovalov

- [DFG] Department of Fish and Game. 1938d. North Dobbyn Creek Stream Survey, August 12. Report by Leo Shapovalov and Elden H. Vestal
- [DFG] Department of Fish and Game. 1938e. South Dobbyn Creek Stream Survey, August 12. Report by Elden H. Vestal and Leo Shapovalov
- [DFG] Department of Fish and Game. 1938f. South Dobbyn Creek Stream Survey, June 13. Report by Leo Shapovalov
- [DFG] Department of Fish and Game. 1938g. Mud Creek Stream Survey, August 10. Report by Elden H. Vestal and Leo Shapovalov
- [DFG] Department of Fish and Game. 1938h. Beuford Creek Stream Survey, August 10. Report by Leo Shapovalov and Elden H. Vestal
- [DFG] Department of Fish and Game. 1938i. Fish Stocking Record, Yew Wood Creek.
- [DFG] Department of Fish and Game. 1938j. Yew Wood Creek Stream Survey, August 19. Report by Leo Shapovalov and Elden H. Vestal
- [DFG] Department of Fish and Game. 1938k. Steelhead Creek Stream Survey, August 12. Report by Elden H. Vestal
- [DFG] Department of Fish and Game. 1938l. Powers Creek Stream Survey, August 12. Report by Elden H. Vestal and Leo Shapovalov
- [DFG] Department of Fish and Game. 1938m. Powers Creek Stream Survey, July 11. Report by Leo Shapovalov
- [DFG] Department of Fish and Game. 1938n. Fish Stocking Record, Jewett Creek.
- [DFG] Department of Fish and Game. 1938o. Fish Stocking Record, Frenchman's Creek.
- [DFG] Department of Fish and Game. 1938p. Frenchman's Creek Stream Survey, August 12. Report by Leo Shapovalov and Elden H. Vestal
- [DFG] Department of Fish and Game. 1938q. Burger Creek Stream Survey, July 10. Report by Leo Shapovalov and Elden H. Vestal
- [DFG] Department of Fish and Game. 1939a. Dobbyns Creek -- Humboldt County.
- [DFG] Department of Fish and Game. 1939b. Fish Stocking Record, Conley Creek.
- [DFG] Department of Fish and Game. 1939c. Fish Stocking Record, North Dobbyn Creek.
- [DFG] Department of Fish and Game. 1939d. Fish Stocking Record, Mud Creek.
- [DFG] Department of Fish and Game. 1939e. Fish Stocking Record, Beauford Creek.
- [DFG] Department of Fish and Game. 1940a. Fish Rescue Work in the North Coast District in 1939. Report by Leo Shapovalov
- [DFG] Department of Fish and Game. 1940b. Field Notes-Stream Survey, Kekawaka Creek, July 22.
- [DFG] Department of Fish and Game. 1941. Fish Rescue Work in the North Coast District in 1940. Report by Leo Shapovalov
- [DFG] Department of Fish and Game. 1950. Stream--N. Dobbyn Creek, Humboldt County. Report by Garth I. Murphy
- [DFG] Department of Fish and Game. 1967. Bluford Creek Stocking Record.
- [DFG] Department of Fish and Game. 1981a. Newman Creek Stream Survey, June 23. Report by Valen Castellano and Kathleen Gregory
- [DFG] Department of Fish and Game. 1981b. Woodman Creek Stream Survey, May 4 & June 19. Report by Weldon E. Jones and Nancy Swirhun
- [DFG] Department of Fish and Game. 1982. Recommendations Regarding the Proposed Small Hydroelectric Project on Bluford Creek. Report by A.E. Naylor
- [DFG] Department of Fish and Game. 1983. Appendix H: Utilization of Eel River Tributary Streams by Anadromous Salmonids. Report by Terry Mills
- [DFG] Department of Fish and Game. 1988. Juvenile Salmon and Steelhead Standing Crop, Mendocino County. Report by Weldon E. Jones

- [DFG] Department of Fish and Game. 1995a. Stream Inventory Report, Dobbyn Creek. Report by Dylan Brown, Ray Bevitori, and Ruth Goodfield
- [DFG] Department of Fish and Game. 1995b. Stream Inventory Report, Conley Creek. Report by Dale Melton and Paul Ouradnik
- [DFG] Department of Fish and Game. 1995c. Stream Inventory Report, North Dobbyn Creek. Report by Dylan Brown, Ray Bevitori, and Ruth Goodfield
- [DFG] Department of Fish and Game. 1995d. Stream Inventory Report, Mud Creek. Report by Dylan Brown, Ray Bevitori, and Ruth Goodfield
- [DFG] Department of Fish and Game. 1995e. Stream Inventory Report, Woodman Creek. Report by Dylan Brown and Ray Bevitori
- [DFG] Department of Fish and Game. 1995f. Stream Inventory Report, Bear Pen Creek. Report by Dylan Brown and Ray Bevitori
- [DFG] Department of Fish and Game. 1996. Stream Inventory Report, Bell Springs Creek, Eel River, 1996. Report by Greg Mullins, Frank Humphrey, Ruth Goodfield, and Dale Melton
- [DFG] Department of Fish and Game. 1997. Draft Eel River Salmonid and Steelhead Restoration Action Plan.
- [DFG] Department of Fish and Game. 1998a. Stream Inventory Report, Poison Oak Creek. Report by Stewart McMorrow and Caroline , Jezierski
- [DFG] Department of Fish and Game. 1998b. Stream Inventory Report, Pipe Line Creek. Report by Stewart McMorrow and Curtis Ihle
- [DFG] Department of Fish and Game. 1998c. Stream Inventory Report, Bell Creek. Report by Ruth Goodfield, Curtis Ihle, and Stewart McMorrow
- [DFG] Department of Fish and Game. 1998d. Stream Inventory Report, Sequoia Creek, Eel River, 1998. Report by Scott T. Downie, John Wooster, and Caroline Jezierski
- [DFG] Department of Fish and Game. 1998e. Stream Inventory Report, Woodman Creek, Eel River. Report by Scott T. Downie, Caroline Jezierski, Kathleen Turner, Stewart McMorrow, John Wooster, and Gary Flosi
- [DFG] Department of Fish and Game. 1998f. Stream Inventory Report, Whiterock Creek, Mainstem Eel River. Report by Scott T. Downie, John Wooster, and Stewart McMorrow
- [DFG] Department of Fish and Game. 1998g. Stream Inventory Report, Unnamed Tributary to Woodman Creek. Report by John Wooster and Stewart McMorrow
- [DFG] Department of Fish and Game. 1999. Stream Inventory Report, Coleman Creek. Report by Michelle Anderson and Greg Larson
- [DFG] Department of Fish and Game. 2000. Stream Inventory Report, Brock Creek. Report by Gordon Johnson, Chris Glenney, Glenn S. Yoshioka, Ben Beaver, and Kirsten Williams
- [DFG] Department of Fish and Game. ca. 1934. Dobbyn Creek Stream Survey. Report by E. J. Johnson and A.E. Burghduff
- [HCRC and NPR] Humboldt County Resource Conservation District. 1997. Eel Basin Railway Fish Passage Assessment, Final Report.
- Jezierski, C. and K. Turner, 1998. Stream Inventory Report, Unnamed Tributary to Woodman Creek, July 14.
- Jones, W. 1981. Personal observation by CDFG.
- Kubicek, P.F., Humboldt State University. 1977. Summer Water Temperature Conditions in the Eel River System, with Reference to Trout and Salmon.
- [PCFWWRA] Pacific Coast Fisheries, Wildlife, and Wetlands Restoration Association. 1995a. Stream Inventory Report, South Dobbyn Creek. Report by Ray Bevitori, Dylan Brown, and Ruth Goodfield

- [PCFWWRA] Pacific Coast Fisheries, Wildlife, and Wetlands Restoration Association. 1995b. Stream Inventory Report, Burger Creek. Report by Ray Bevitori and Dylan Brown
- [PCFWWRA] Pacific Coast Fisheries, Wildlife, and Wetlands Restoration Association. 1996a. Stream Inventory Report, Powers Creek. Report by Frank Humphrey and Dave Smith
- [PCFWWRA] Pacific Coast Fisheries, Wildlife, and Wetlands Restoration Association. 1996b. Stream Inventory Report, Unnamed Tributary to Steelhead Creek. Report by Frank Humphrey and Dale Melton
- [PCFWWRA] Pacific Coast Fisheries, Wildlife, and Wetlands Restoration Association. 1996c. Stream Inventory Report, Pipe Creek. Report by Frank Humphrey and Dave Smith
- [PLC] The Pacific Lumber Company. 2003. 2002 Aquatic & Amphibian/Reptile Annual Monitoring Report.

Personal communications

Kubicek, Paul. Pacific Gas & Electric. Email message to G. Becker, June 2009.