THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

STREAM SURVEY

Date: July 21, 1977

NAME: BEARPEN CREEK **COUNTY:** Sonoma

STREAM SECTION: Entire **FROM:** Mouth **TO:** Headwaters **LENGTH:** 3.8 miles

TRIBUTARY TO: Big Austin Creek **TWP:** 9 N **R:** 11 W **SEC:** 31

OTHER NAMES: Unknown **RIVER SYSTEM:** Russian

SOURCES OF DATA: Personal observation

EXTENT OF OBSERVATION - Bearpen Creek was surveyed on foot from the mouth to the headwaters on July 21, 1977 by Valli Boccone and Bill Rowser, Seasonal Aids.

LOCATION – Bearpen Creek lies in western Sonoma County. It enters Big Austin Creek approximately 4 miles north of the town of Cazadero.

RELATION TO OTHER WATERS – Bearpen Creek is an important tributary to Big Austin Creek. It provides spawning and nursery habitat for steelhead and possibly silver salmon. The creek provides year round flows to Big Austin Creek.

GENERAL DESCRIPTION -

Watershed – Bearpen Creek is located in a steep mountainous terrain of loose, serpentine rock. A summer camp and one summer home are located along the creek. Dominant tree species observed were oak, bay, and redwood. Other tree species included Douglas fir, madrone, willow, California laurel, and red alder. Other vegetation observed were poison oak, horn fern, wild grape, annual grasses and sedges.

Immediate Drainage Basin – The drainage basin is approximately 3.4 square miles. Bearpen Creek runs through V-shaped canyons. The creek flows in a southeasterly direction. There is abundant streamside vegetation except from the mouth to 0.4 mile upstream, where it is scarce. The streamside vegetation included all the vegetation listed above along with Carex, Equisetum, and mosses.

Altitude – Mouth—350' MSL, headwaters—1000' MSL.

Gradient – From the mouth to a point 0.4 mile upstream, the gradient was slight (1.0 feet) 100 feet). From that point to the upper fish limit the gradient was moderate (3.8 feet) 100 feet). Unnamed tributaries had steep gradients (10 - 20 feet/100 feet).

Width – Average width 3 feet, range <1 foot to 6 feet.

Depth – Average depth 4 inches, range several inches to 6 feet.

Flow – Flows were intermittent throughout the area with the exception of one dry 0.6-mile section starting 0.1 mile upstream from the mouth. Unnamed tributaries S-1 and S-4 were flowing less than 0.1 cfs. All other tributaries were dry. [APPROX. 50% of the stream length above the dry section had surface flow as high as 0.3 cfs]

Velocity – Velocity was sluggish to moderate.

Bottom – The bottom type included 5% bedrock, 25% boulder, 45% rubble, 20% gravel and 5% sand, mud and detritus.

Spawning Areas – Approximately 30% of the area surveyed is good spawning area. Gravel appeared loose and clean.

Pools – Pools were created by undercut banks, boulders, logs, bedrock and a one-foot high gravel dam located 0.4 mile downstream from unnamed tributary S-3. The average pool size was 3' x 5' x 2'. The ratio of pools to riffles was 5 to 1 where water was observed.

Shelter – Shelter was provided by boulders, logs, and undercut banks. Canopy averaged 80%.

Barriers – The gradient in the area of the headwaters created the only barrier to fish. One flashboard dam, not in use, is located 0.4 mile downstream from unnamed tributary S-1.

Food – Water striders, water beetles, caddisfly larva, and other unidentified aquatic insects were abundant.

Temperatures –
Main stem below tributary S-1: air temp. 78°F., water temp. 71°F., time 1100 hours. Main stem above tributary S-2: air temp. 80°F., water temp. 61°F., time 1400 hours. Main stem below tributary S-4: air temp. 81°F., water temp. 60°F., time 1550 hours. Tributary S-1: air temp. 78°F., water temp. 60°F., time 1400 hours.
Tributary S-4: air temp. 81°F., water temp. 60°F., time 1500 hours.

Aquatic Plants – Equisetum, algae, and Carex.

Winter Conditions – This area is subject to heavy runoff. Rainfall averages 50 inches per year. The high water marks in some areas were approximately 6 feet above the streambed with a channel width of approximately 40 feet.

Pollution – None observed.

Springs – Five springs were observed from the headwater to approximately 1.4 miles downstream.

FISHES PRESENT AND SUCCESS – California roach—1" to 3" in length; 50 per 100 feet in 0.5 mile section starting from 0.7 mile upstream from the mouth. Threespined stickleback— 1" to 2" in length, 35 per 100 feet in 0.5 mile starting from 0.7 mile upstream from the mouth. Salmonids (steelhead and rainbow trout) - 2" to 3" in length, 30 per 100 feet, and 6" to 8" in length, 20 per 100 feet in 3.1 miles from 0.7 mile upstream from the mouth to the headwaters. All fish observed appeared to be in good condition.

OTHER VERTEBRATES – Deer, jack rabbits, Stellar jays, other unidentified songbirds, frogs, polywogs, newts (Taricha sp.), western fence lizards, and domestic dogs and cats.

FISHING INTENSITY – Unknown, but probably light.

OTHER RECREATIONAL USES – Swimming, boating, camping, and picnicking.

ACCESSIBILITY – A private dirt road parallels Bearpen Creek from the mouth to 0.7 mile upstream. This road is located 4 miles north of the town of Cazadero on Kings Ridge Road.

OWNERSHIP – Private.

POSTED OR OPEN – Posted.

IMPROVEMENTS – No improvement needed at this time. Some log debris may need to be cleared in the future but at present it is not causing serious barriers.

PAST STOCKING – Unknown.

GENERAL ESTIMATE – Bearpen Creek provides spawning and nursery habitat for steelhead and possibly silver salmon. The very dry conditions prevailing throughout the Austin Creek drainage area for the last two years have had a depressing effect on fish abundance and distribution. Bearpen Creek is supporting a fair number of salmonids and water temperatures have remained low.

RECOMMENDED MANAGEMENT – Bearpen Creek should be managed as steelhead and silver salmon nursery and spawning habitat.

SKETCH MAP AND PHOTOS – Attached. [sic]

REFERENCES AND MAPS – USGS maps, 7 1/2 minute series. Fort Ross Quad., 1944, and Cazadero Quad., 1945.

Alan Baracco
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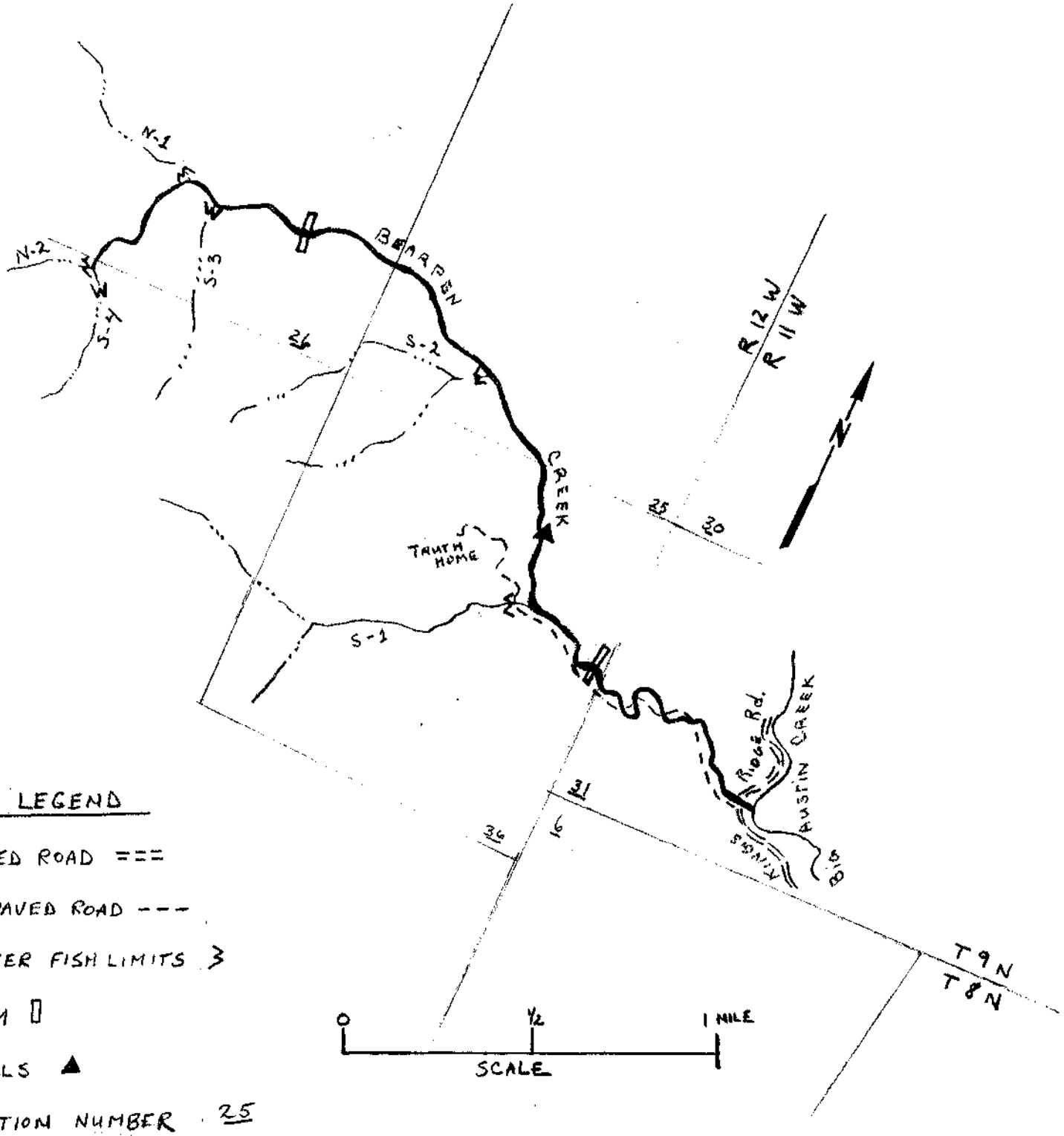
Region 3

BEARPEN CREEK

T 9 N, R 11 W, Sec. 31



LEGEND

PAVED ROAD ===

UNPAVED ROAD - - -

UPPER FISH LIMITS }

DAM ▯

FALLS ▲

SECTION NUMBER 25

UNNAMED TRIBUTARY S-1