NDOW 1997

OBJECTIVE

To monitor continuous water temperatures during summer and fall seasons in the West Fork and East fork of the Jarbidge River.

PROGRESS

Three thermographs were placed on the Forest portion of the West Fork Jarbidge River.

PROCEDURES

Three thermographs were anchored in the West Fork Jarbidge River on July 1, 1997. The thermographs were pulled from the water on October 14, 1997. In all cases, the recorders were anchored under rocks/woody debris so as to shield the unit from passerbys and the direct sunlight.

FINDINGS

The Ryan thermograph installed above the confluence of Jack Creek failed to record due presumably to the battery being weak. An Optic Stowaway thermograph located above Pine Creek Campground was not found at season's end and in fact it may be lost. Continuous temperature data from another Optic Stowaway thermograph located in the river at the Wilderness Boundary was recovered.
elevation 2,117'

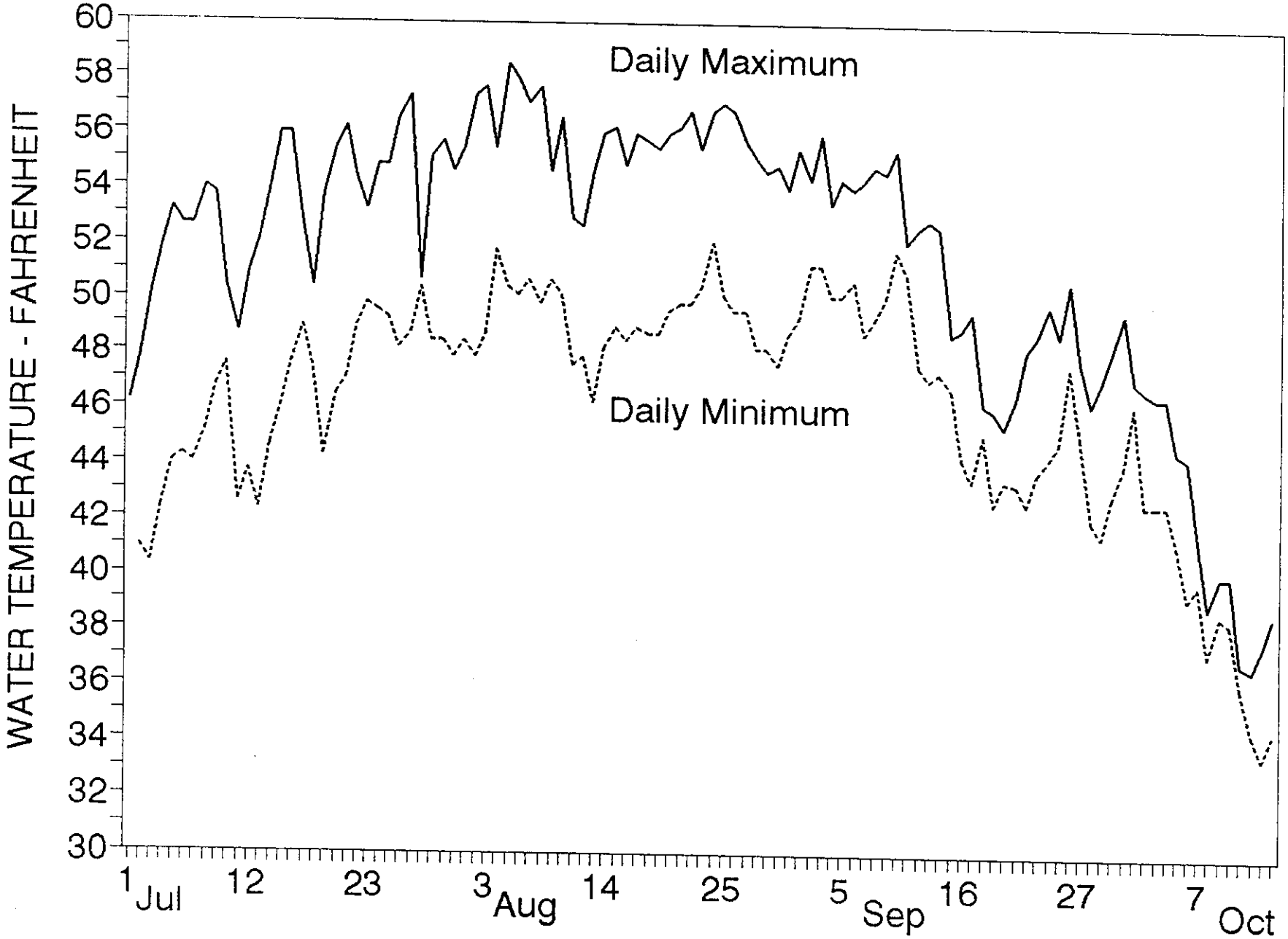
The maximum recorded stream temperature was 58°F and it came on August 5 during the warmest seven day period (August 2 - 8). The mean maximum and minimum readings during the aforementioned period were 57°F and 50°F, respectively. The highest minimum temperature recorded was 52°F and it was the daily low on August 3, 24, and September 10. Maximum temperatures reached 50°F on July 3, two days after the recorder was placed in the river and it wasn't until September 15 that the maximum temperatures fell and stayed below 50°F. Maximum temperatures fell below 40°F on October 7. The daily maximum stream temperature remained at or above 50°F with one August 11 exception, from July 3 through September 15. August was the warmest month wherein, the maximum temperature was at or above 55°F on 21 days and the mean maximum temperature was 55.7°F.

The river at the Wilderness Boundary is thought to be about 0.5 mile downstream of the bull trout focal area. The focal area may contain resident bull trout and possibly migrant (fluvial) bull trout. Analysis of electrofishing studies in the Jarbidge River system revealed that coincident with finding more than one bull trout within a 100 ft. sample area, were a stream temperature < 51°F and a streamflow of more than 1 cfs. By using this criteria then one could consider the river at the Wilderness Boundary to be only marginal year-round bull trout rearing habitat. Maximum recorded temperatures were within what is generally considered

tolerable (< 59°F) by rearing adults.

RECOMMENDATION

Thermographs should be placed in stream areas known to provide optimum bull trout rearing habitat in both the East Fork and West Fork of the Jarbidge River as well as in other areas without data.

W. F. JARBIDGE R. @ WILDERNESS BDY

JULY 1 TO OCTOBER 14, 1997