

**A Brief Report to the State  
on the activities  
of Montana State Fish, Wildlife and Parks  
Collecting Permit No. SC.-18-98**

Permit No. SC.-18-98

Permitee: John W. Craighead  
2725 Highwood  
Missoula, MT  
59803

Associated with: Craighead Wildlife-Wildlands Institute  
5200 Upper Miller Creek Rd.  
Missoula, MT 59803

Marked animals: 325

Location: Lolo Creek Drainage

Mortalities: 2

Recaptures: 0

**Narrative Report:**

During the Summer and Fall of 1998, 325 Western Pearl Mussels (*Margaritifera falcata*) were captured and marked under Permit No. SC.-18-98 in the Lolo Creek drainage of Western Montana. Marking activities occurred on July 30, July 31, Aug. 8 and Oct. 22. About 50% of the anticipated number of animals were marked during the 1998 season. No animals were marked in the second population identified in the permit application.

Efficient processing times, with a two man field crew, approach 30 animals an hour. Captured animals were processed by taking measurement of the long and short axis and umbo height. Umbo corrosion on the right valve was measured and weight was taken by means of a portable electronic scale. An estimated age was assigned each animal based upon annular growth rings. Permanent identification marks were incised on the right valve, using a battery operated Dremel ® tool with a fine carbide or diamond tip. Identification marks were placed on the anterior end of the right valve. This placement was selected so that the marks would not be visible to casual observers.

Two mortalities occurred during processing. In both cases the mortalities occurred while the animals were still in the stream substrate having been stepped on by the investigator. In one case both left and right valves were crushed. In the second, the fully extended foot of the animal was severed by the animals own shell when it was stepped on from above.

A brief visit to the study site ~~after~~ four months after marking, indicate the potential for a high level of recapture success.