

Paleontology of the Colter Formation
in Jackson Hole, Wyoming
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Field work this summer was unfortunately short and interrupted by rain but significant progress was made. This summer's activity centered around a small outcrop of early Oligocene rocks first discovered and briefly worked last summer.

The Miocene Colter Formation was worked at two localities this year and about 600 pounds of matrix was processed but has not, as of this date, been sorted for vertebrate fossils. Surface prospecting of these localities turned up no additions to the Colter fauna but sorting of the bulk samples may produce some new forms and will certainly add to some of the genera presently represented by only scrappy material.

The bulk of the season was spent working an early Oligocene outcrop located about two miles up the east fork of Pilgrim creek in the Teton Wilderness Area. This locality has turned out to be one of the most exciting in Jackson Hole due to the recovery of a partial multituberculate tooth there last season. Since multituberculates had been considered to be extinct at the end of the Eocene, this discovery in the Oligocene naturally led to speculation concerning contamination of our samples. Our efforts this year were closely guarded to avoid any contamination and the result was another multituberculate molar as well as other scrappy material. The total collection produced from the ton of matrix which was processed this year included some 100 isolated teeth, partial lizard jaws, gastropod casts, and bone scrap.

The preliminary results indicate that we are dealing with a unique assemblage probably representing two distinct habitats. The more prevalent Paradjidaumo (eomyid rodent), Peratherium (marsupial), and Paleolagus (rabbit) are typical members of the early Oligocene stream border - savanna community. Other animals which are represented by only a few specimens and are probably part of a more distal upland community include the multituberculate, the rodents Griphomys and Namatomys, and a problematical cricetid rodent. This upland community is of interest because it contains some animals not reported after the late Eocene. It is entirely possible that this early Oligocene locality is producing an upland assemblage not preserved elsewhere in Oligocene deposits and representing an assemblage, common in the late Eocene, but retreating to the mountain front location in the face of a changing environment.

The fauna is being produced mainly from a channel deposit which appears to have been a stream of high energy since the gravels are not evenly bedded, disturbed, and unsorted. This type of situation would not be likely to preserve any material which was re-worked from late Eocene deposits elsewhere.

More intensive work at this locality should yield a better picture of this upland community and contribute significantly to the understanding of mammalian life during the Eocene - Oligocene transition.