Dissolved oxygen was 13.0 ppm in Station I, 9.7 ppm in II, 10.2 ppm in III, 8.9 ppm in IV and 9.3 ppm in V. Methyl orange alkalinity was 107 ppm in I, 108 in II, 96 in III, 51 in IV and 82 in V. Free carbon dioxide was 9 ppm in I and II, 5 in III, 7 in IV and 1 in V. pH ranged from 7.2 in Station IV to 7.7 in Station V.

Benthic organisms were very similar. Only the number varied. In Station I there were 440 Tubifex and 95 Chironomids while in Station II there were 20 Tubifex and 518 Chironomids. Chironomids and Tubifex were the most prevalent families in all Stations.

In the shore invertebrates again the number rather than the kind was the variable element. Baetidae, Gammaridae and Corixidae were the most abundant families. In Station V, however, Notonectidae replaced Corixidae.

The botanical survey revealed the predominance of Potamogeton alpinus and P. pectinatus in Stations II, III, IV, and V. Myriophyllum was abundant in III, IV and V. Spirogyra and Hippurus vulgaris were predominant in Station I. Chara vulgaris was also prevalent in Station II.

Aquatic insects and zooplankton were the dominant food elements in the fish stomachs analyzed to date.

A Field Study of the Uredinales of the Jackson Hole Area of Wyoming
George B. Cummins
Purdue University
Project Number 107

Collections of rust fungi were made in the general area of Jackson Hole from August 16th to September 6th, inclusive. Enroute to Jackson Hole, one day was spent in the foothills near Pinedale, Wyoming. Collecting in Jackson Hole was done mostly in the following localities: String Lake, Indian Paint Brush Canyon, Phelps Lake, Death Canyon including the switchbacks on the trail to Alaska Basin, Teton Pass, Gros Ventre road and Slide Lake, and Togwotee Pass, especially on and around Breccia Peak. Most of the more interesting records were from the Togwotee Pass area.

One hundred twenty-eight specimens of 48 species were collected. Six of the species were new records for Wyoming. Seventeen host species were found that had not been reported previously as parasitized in Wyoming

A complete list of species collected is on file at the Biological Research Station.

Supported by Purdue Research Foundation and The Society of Sigma Xi.