MATERIALS AND METHODS
Floral buds, flowers, seeds and vegetative parts of *Pedicularis pyramidata* Royle. were collected from Ahrabal and Shopian (2260m) in the months of July to September (1978 - 1980) where the plant grows along the lower boundary of Ahrabal Forest and along the borders of rice fields, in mesic environment. During the same period the material of *Pedicularis elephantoides* was collected from Dregtolan, (2900 - 3400m) falling in block F, compartment 5 of Dudhganga Forest which constitutes a part of Yus Forests in Kashmir Himalayas. The area of collection is a triangular compartment occupying the south eastern slope of Kali - ali - Keri overlooking Dregtolan Maidan.

The material was fixed in FAA (Formalin - acetic alcohol) for 24 hours, washed with 50% and stored in 70% ethanol. For smears and squashing purposes, some reproductive material was fixed in Cernoy's Modified Fixative (1:1:1; ethanol + acetic acid + Chloroform) for 24 hours, washed with 50% and stored again in 70% ethanol.

For microtomic serial sections, the conventional methods of dehydration and paraffin infiltration were followed with formalin fixed material using ethanol - xylol series. Sections were
cut in the thickness range of 10 - 20 microns with the help of a rotary microtome. Safranin - fastgreen combination was used for staining the sections.

For the preparation of whole mounts, the material fixed in Cornoy’s Fixative was hydrolysed in IN.HCL for 10 minutes at 60°C after rinsing with water. Subsequently these were stained with feulgen for 10 minutes at room temperature. The material was squashed in 1% acetocarmine and the cover glasses were gently pressed to avoid any damage due to the mechanical pressure. Temporary mounts were made permanent by passing these slides through acetic acid - n-butyl alcohol series and mounted in Euparal for final study.

The modified acetolysis method of Erdtman (1960) was followed for palynological study. Herbarium specimens were studied for general descriptions.

A few electron micrographs were taken by scanning the floral and vegetative parts under 35C Jeol Scanning Electron Microscope at NBRI (National Botanical Research Institute), Lucknow.