The present study was designed to identify the micro-flora and macromolecular in honey stomach of *Apis* species.

Number of isolates was more in spring season. *Bacillus* and *Lactobacillus* sp. were observed in all bee species in all the seasons. *Burkholderia* and *Arthrobacter* sp. were isolated only from the *Apis dorsata* in spring and summer season respectively. Isolate of *Pantoea* sp. was found only in *Apis mellifera* and *Apis cerana* in spring and autumn seasons. Acetic acid bacteria were present in all *Apis* species in spring season. *Staphylococcus* and *Pseudomonas* sp. were isolated from all *Apis* species in spring season. In summer *Staphylococcus* and *Pseudomonas* sp. were reported in *Apis mellifera* and *Apis cerana* respectively. In winter *Staphylococcus* sp. was reported in *Apis dorsata, Apis mellifera and Apis cerana* while *Pseudomonas* sp. was recorded from *Apis cerana* and *Apis florea*.

The results of the biochemical study:

- Concentration of protein, Total carbohydrate, Glucose and glycogen were more in spring season in honey stomach of all *Apis* species.
- Total lipid and PL concentration in honey stomach of *Apis dorsata* was significantly higher as compared to *Apis florea*.
- Free fatty acid and glycolipid concentration in honey stomach of *Apis* species showed no significant variation within species.
- Cholesterol content in honey stomach of three *Apis* spp. was observed significantly more than *Apis florea* in spring, summer and autumn.
- Ratio of PL/TL was significantly high in *Apis dorsata* than *Apis florea* in spring season. Ratio of FFA/TL, GL/TL and CHL/TL showed no significant variation in all *Apis* species.