Journal of Research in Biology

An International Scientific Research Journal

Histopathology of the gut of the silkworm, *Bombyx mori* Linn. infected with microsporidia

Authors: Shabir A. Bhat¹, Ifat Bashir² and Kamili AS³.

Institution:

1. Temperate Sericulture Research Institute (TSRI) Mirgund, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, G.P.O Srinagar-190001.

2. Basic Seed Station, Mirgund, Sericulture Development Department, Kashmir, 182101.

3. Directorate of Extension Education, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Srinagar, 19001.

Corresponding author: Shabir A. Bhat

ABSTRACT:

Ultrastructure of gut of the silkworm, *Bombyx mori* infected with microsporidia exhibited cytoplasmic vacuolization in the form of large empty spaces, fewer mitochondria, different spore stages (meronts and spronts) as grayish black spheres and mature spores. The meronts and sporonts measured 0.61 and 0.56 nm and 1.23 and 0.89 nm in length and width respectively. The lightly infected gut, did not show any vacuolization but in the heavily infected gut cell, cytoplasm destruction resulted in the formation of empty spaces.

Keywords:

Bombyx mori, Microsporidia, Mitochondria, Cytoplasm, Vacuolization.