

V. CONCLUSION AND RECOMMENDATION

5.1. Conclusions

The conclusions drawn from the Molecular Identification of Symbiotic Bacteria in Entomopathogenic Nematodes *Steinernema* spp. Isolates from Kediri Regency are as follows:

1. EPNs obtained from Klanderan Village, Plosoklaten District, Kediri Regency shows that the EPNs species infecting *T. molitor* larvae with symptoms of cuticle color change to blackish brown is suspected to be *S. carpocapsae* based on morphological and morphometric observations.
2. Molecular identification results using the 16S rRNA marker showed that the bacteria associated with *S. carpocapsae* isolate from Kediri Regency is strongly suspected to be *Brucella pseudogrignone* *combinatio nova* *O. pseudogrignone*. This proves that the association between EPNs and bacteria is not monoxenic but polyxenic, forming a pathobiome.

5.2. Recommendations

The use of ISL-B1 bacteria, strongly suspected to be *B. pseudogrignone*, requires strict supervision and further testing to determine its potential pathogenicity in humans. Testing of active compounds is also important to identify compounds that contribute to pathogenicity in insects, and Koch's postulates must be tested to confirm the pathogenicity of bacteria in insects. Testing on plants is also important to determine whether the bacteria have the potential to be phytopathogens. Based on this research, it is hoped that relevant stakeholders will establish regulations to prevent cross-kingdom infection, especially in the agricultural sector.