



Application of *EoNPV* Against Tea Looper *Ectopis obliqua* in China

Tea Research Institute
Chinese Academy of Agricultural Sciences

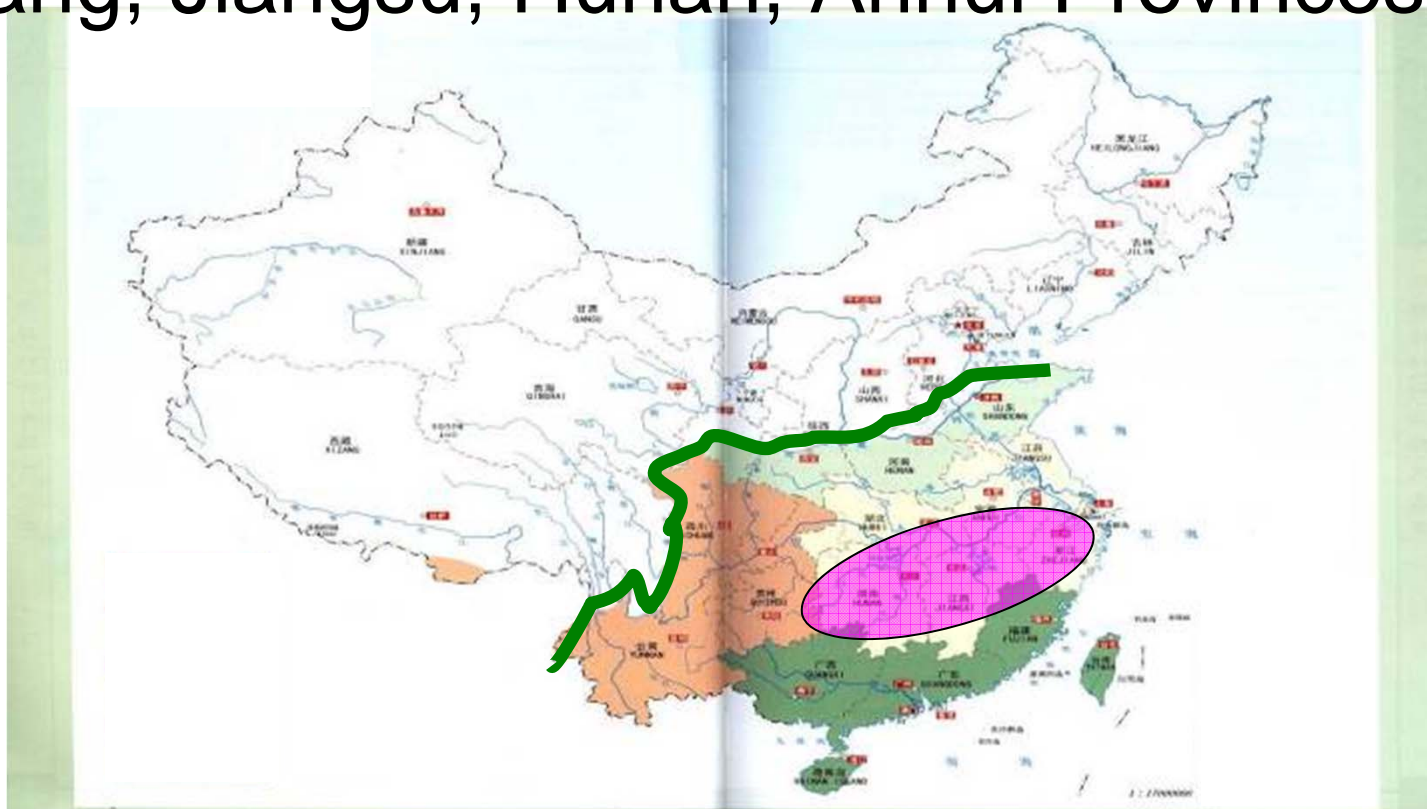
Qiang Xiao

26-10-2010



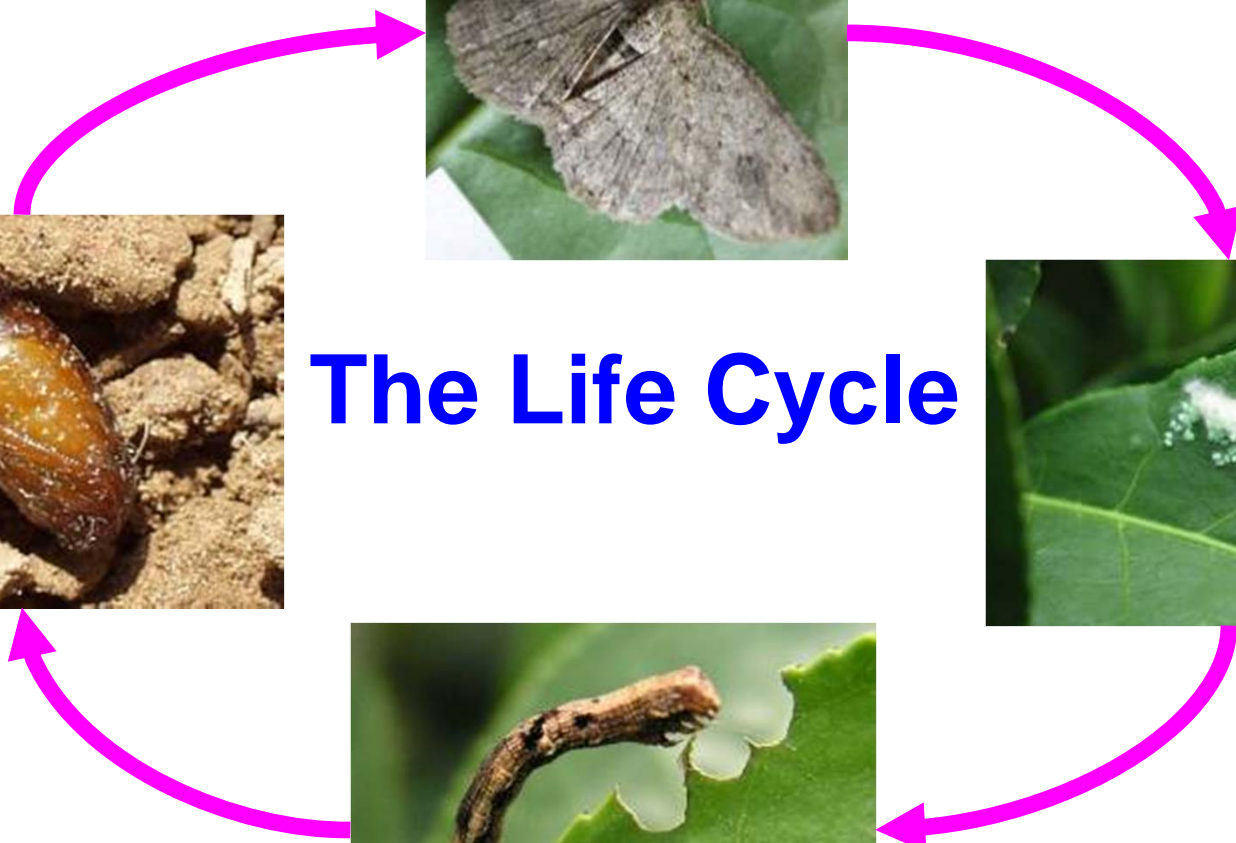
Ectropis obliqua Prout

- One of the major pests of tea bushes in China
- Occurs in most tea plantations
- Zhejiang, Jiangsu, Hunan, Anhui Provinces





The Life Cycle



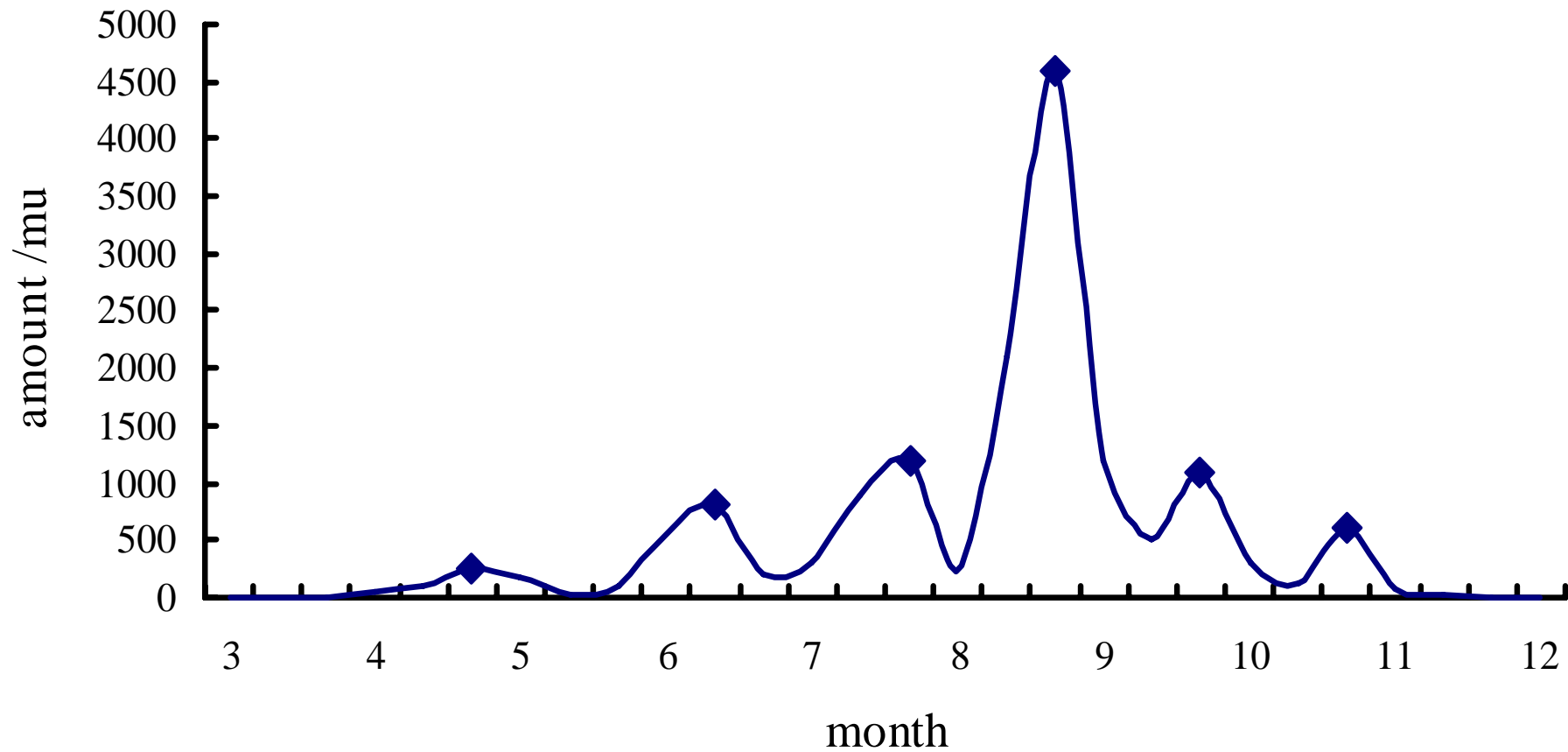


- Feed on tea leaf
- Make tea bushes brown and bare





Anniversary Occurrence of *Ectropis obliqua*





- Main natural enemies —
parasitic wasp & parasitic fungi



- parasitic wasp



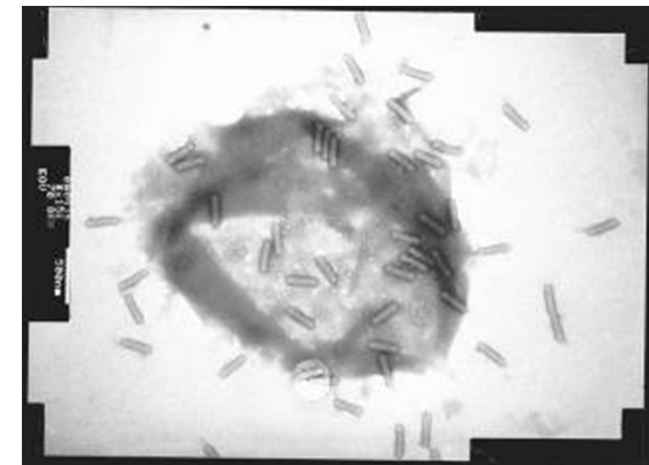
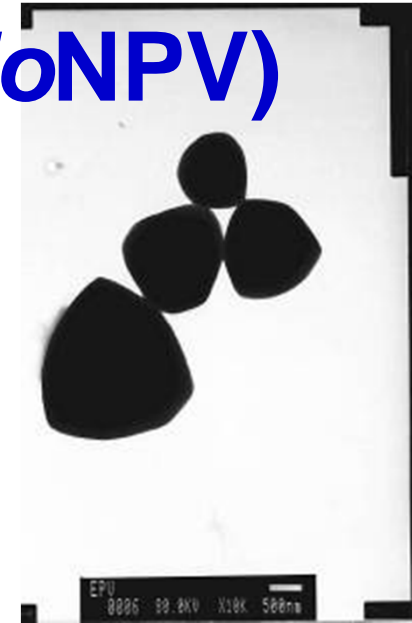
- parasitic fungi



Ectropis obliqua

Nucleopolyhedrovirus (*EoNPV*)

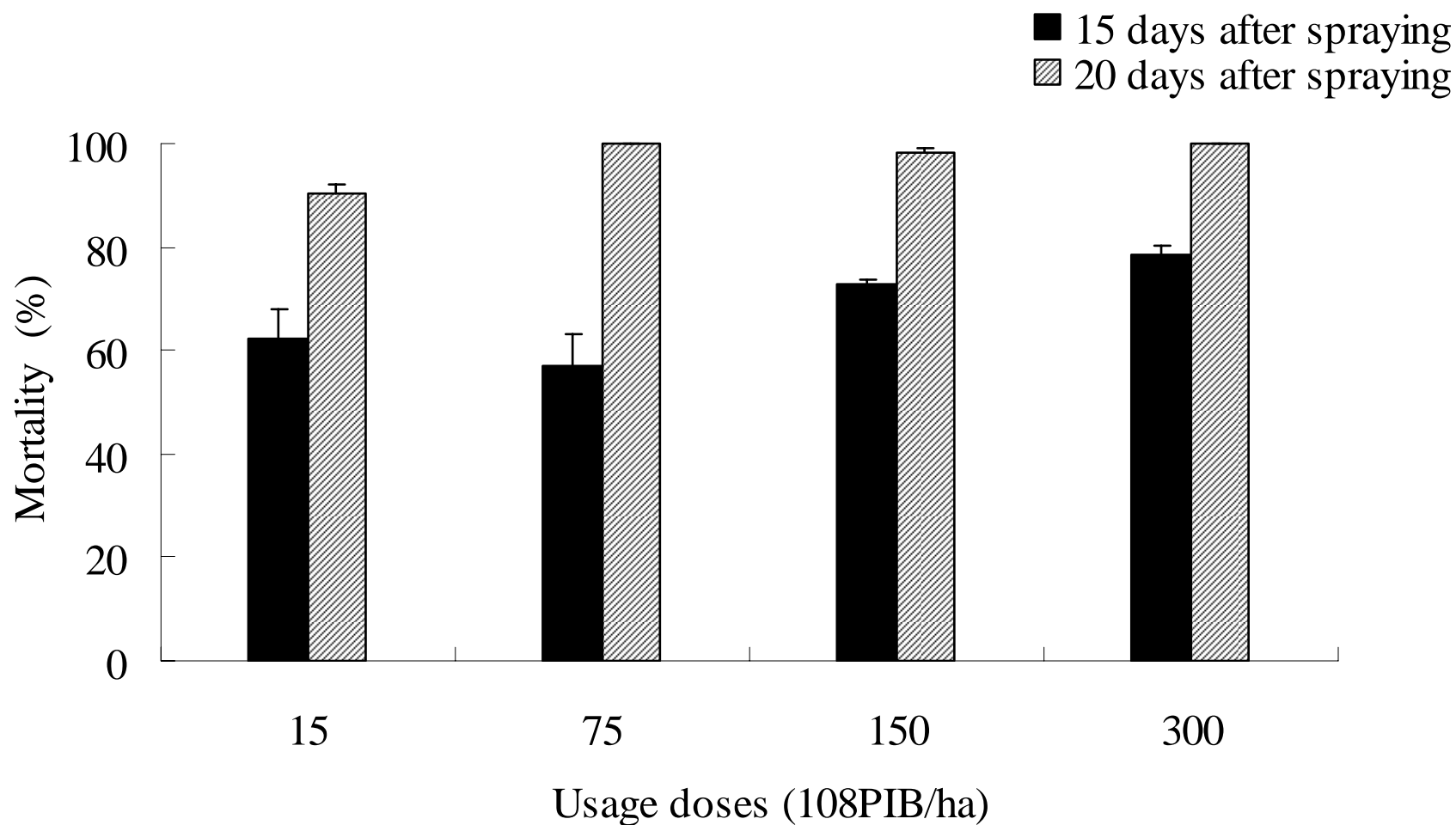
- One of the major natural enemies
- Very effective in the field



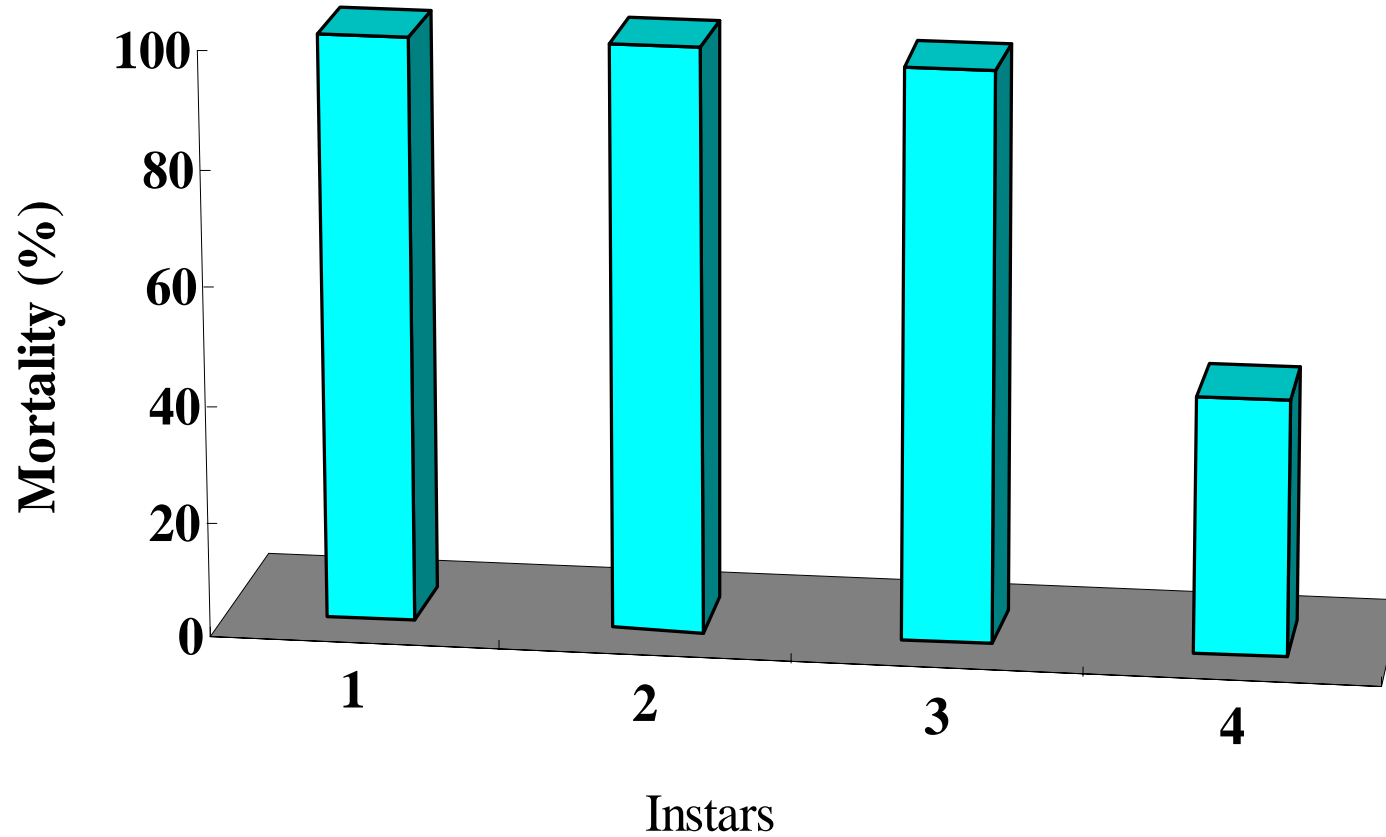


EoNPV

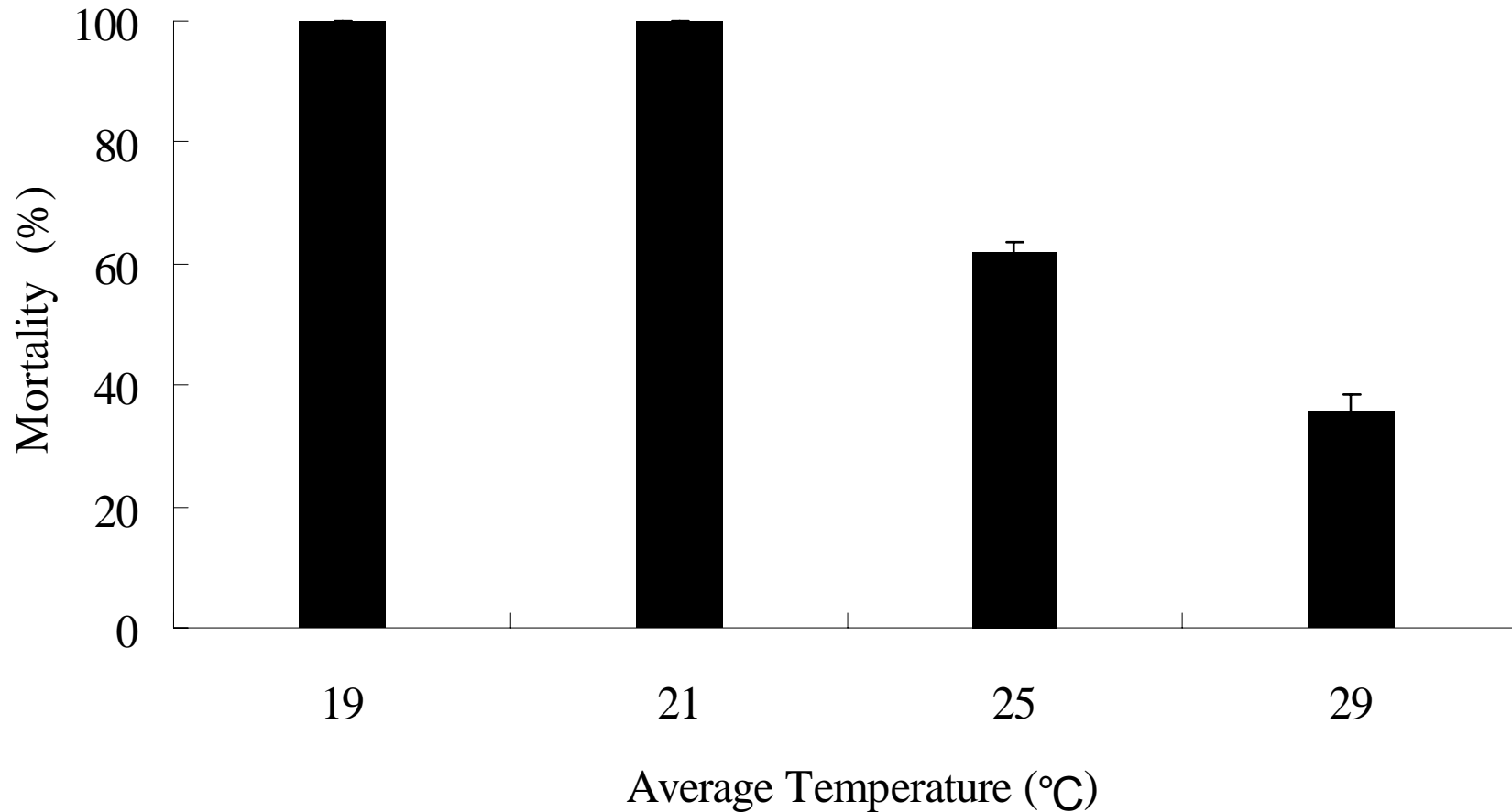
- Found in 1978
- Determined morphological and biological characters
- Analyzed gene sequence
- Researched to use in the field



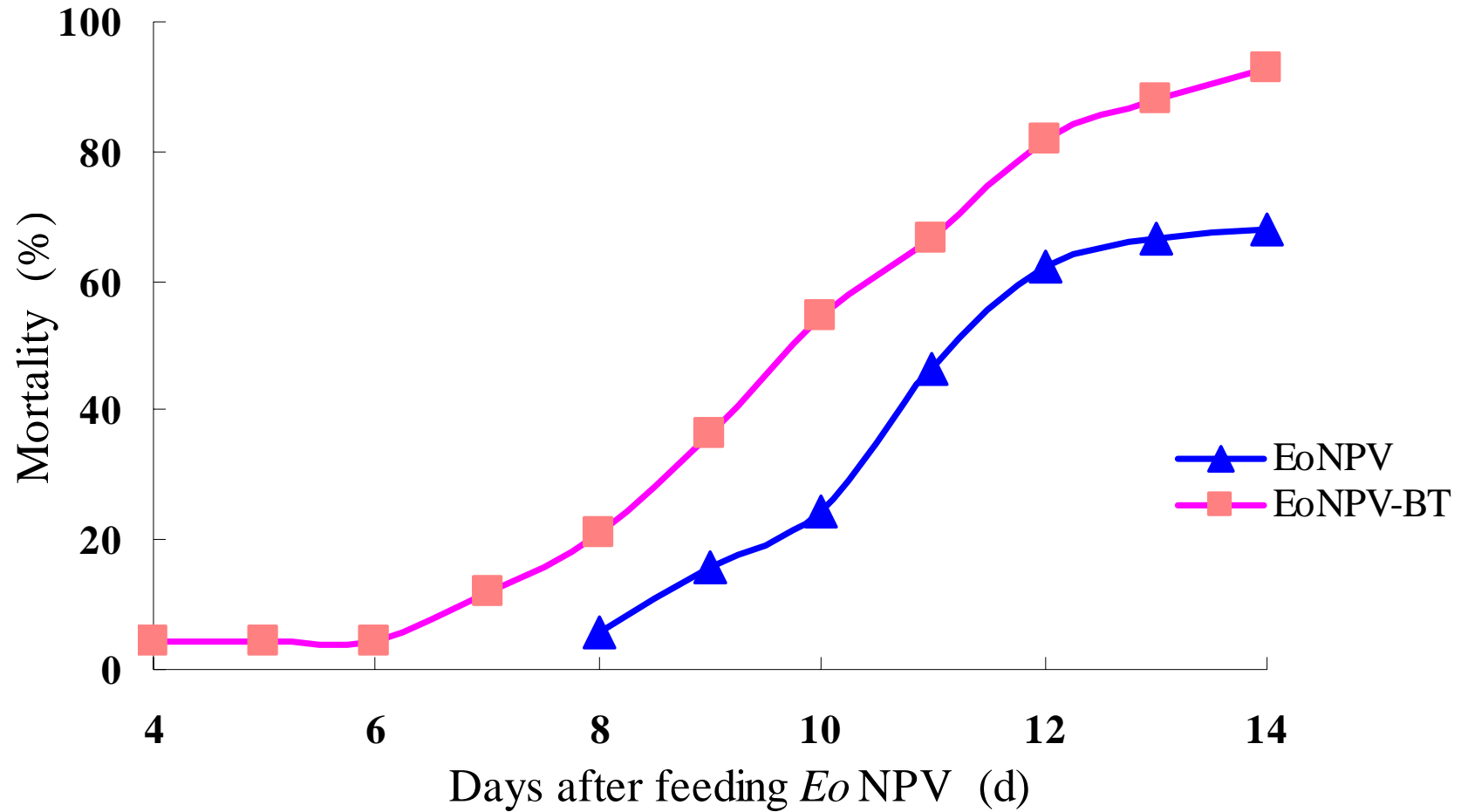
Control effect of *EoNPV* against tea looper at different concentration



Control effect of *EoNPV* against the tea looper larvae of different instars



Control effect of *EoNPV* against tea looper at different temperatures in the field



Mortality of tea looper fed with two types of *Eo*NPV formulation

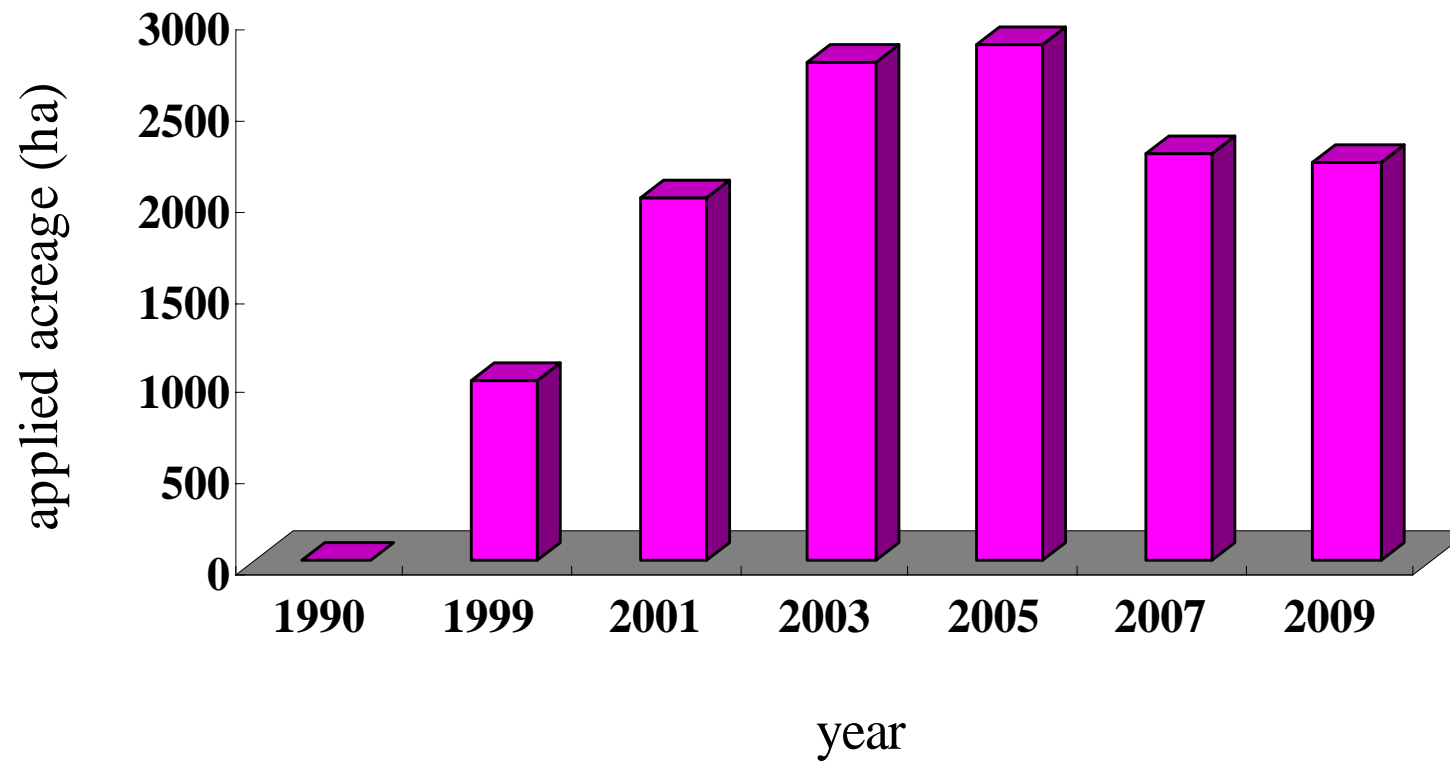


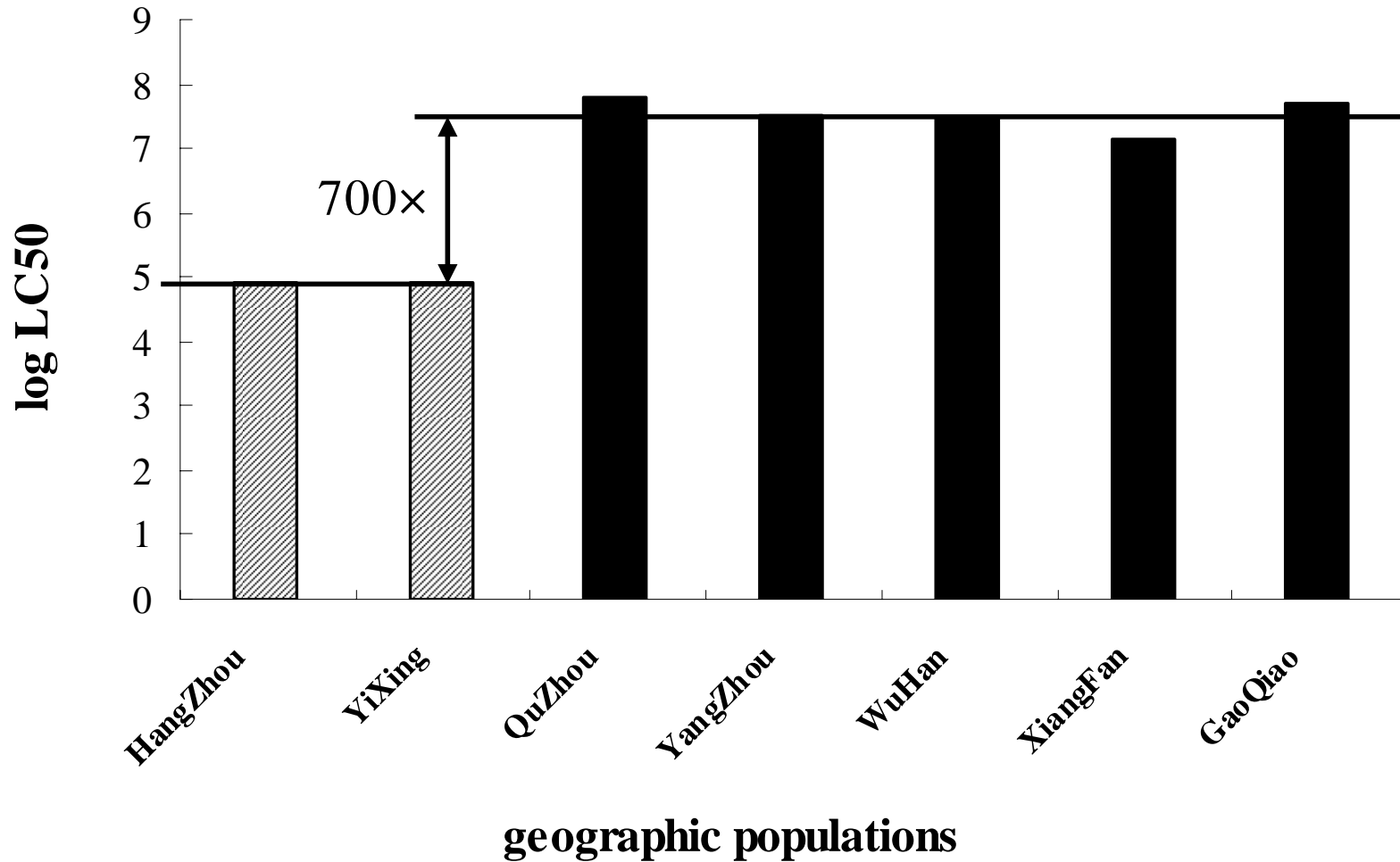
- Established the better way of reproducing virus
- Found the commercial formulation
- Using methods in the field
- Be registered as bio-pesticide agent





Applications of *EoNPV*





Virulence of *EoNPV* in different geographic populations of tea looper



conclusion

- *EoNPV* against tea looper is effective
- *EoNPV* as a microbial biocontrol agent has be registered
- *EoNPV* agent is be using to control tea looper rapidly
- Research should focus on the field application



Thank you for your attention

谢谢!

