

# How to collect life table and parasitism rate of parasitoids

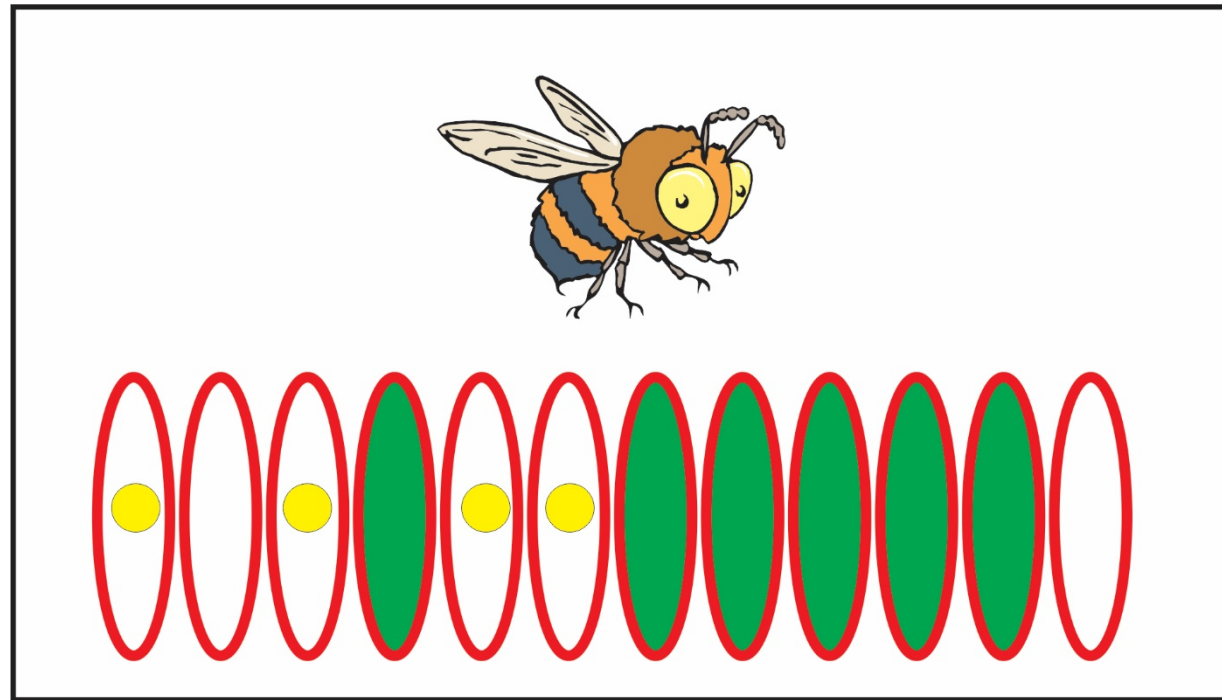
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# Parasitoids

Age-specific fecundity is 4, while the predation rate is 6.

Age  $x$



Mummified host



Normal host



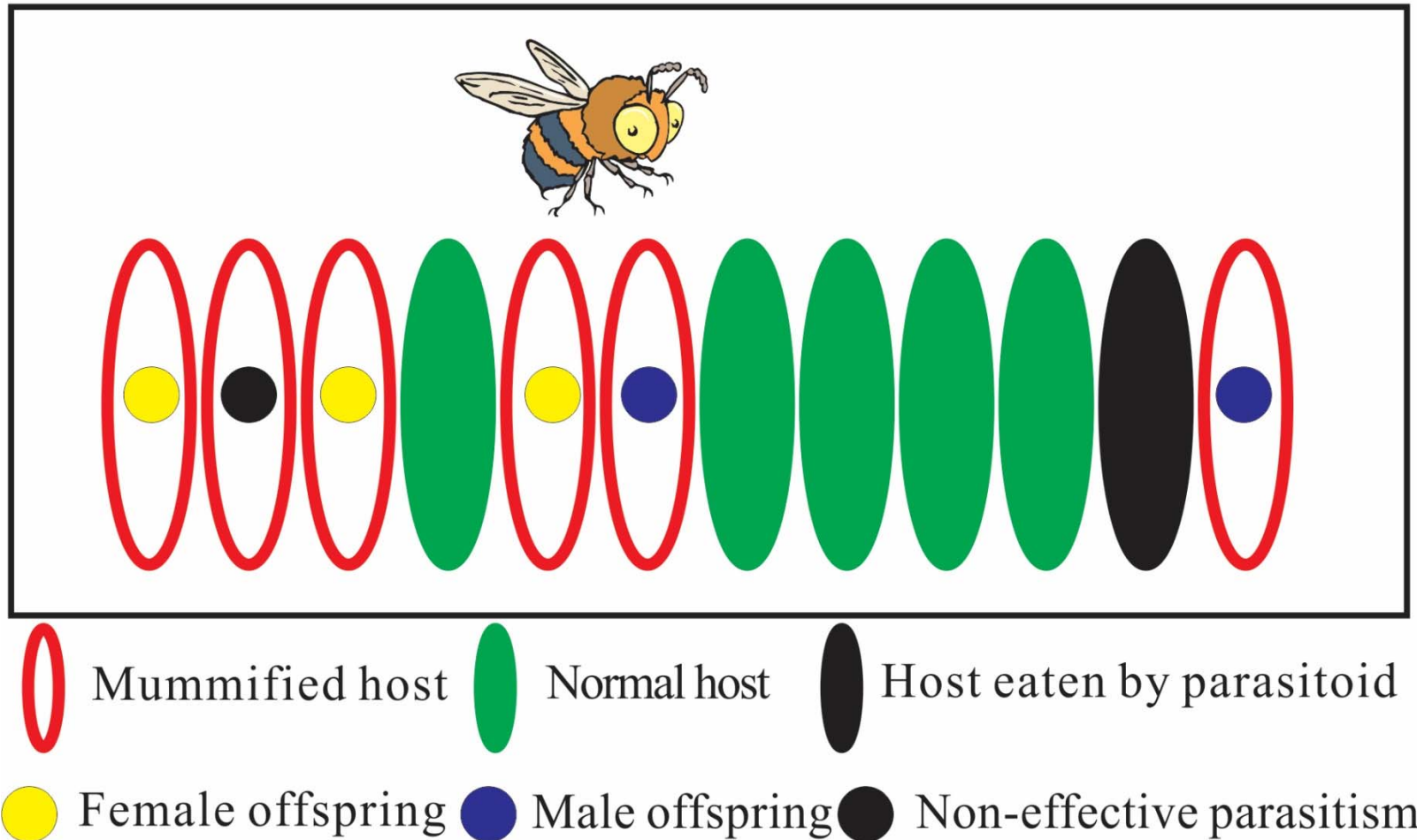
Emerged offspring of parasitoid

# Good topics and questions

**Fecundity**, parasitism rate  
(**effective** + **non-effective**),  
and **feeding** rate of parasitoid

# Total kill

Total kill = Effective parasitism + non-effective parasitism + feeding for nutrition



# How to collect life table of a parasitoid

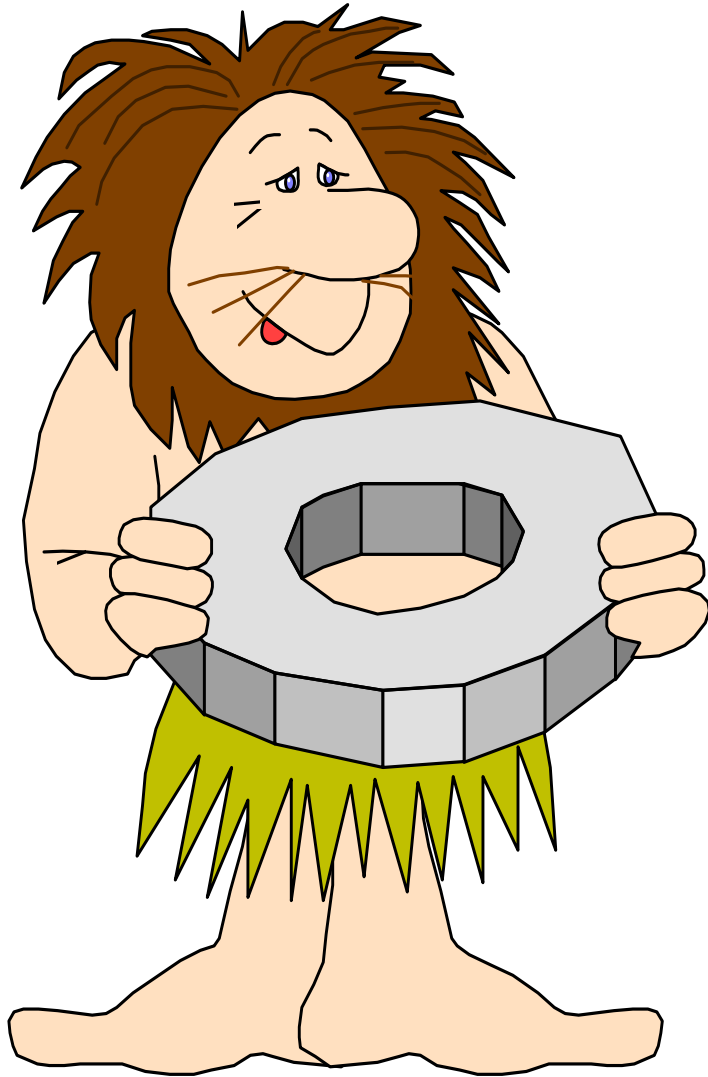
- If you cannot observe the egg and larval stages, just group the life history into egg-larva, pupa, and adult stages (three stages). If the parasitoid completes all preadult stages inside the host, then group the life history into two stages, i.e., preadult and adult.
- Collect newly emerged parasitoid adults.
- Keep 2 or 3 pairs of adults in a container with sufficient number of host insects. Prepare 10 containers.
- After 24 hours, transfer parasitoid adults to new containers.
- If there are eggs laid inside the body of host (you cannot see them), they are at age zero.

# How to collect life table of a parasitoid

- Once the parasitoid completes its egg-larva stage or preadult stage, you can record the duration for each parasitoid.
- To maximize the genetic diversity, use 10 parasitoids from each container. If you group the life history into Egg-larva, pupa and adult stage, record the pupal duration for each parasitoid.
- Once the adults emerge (this is parent generation), pair them and keep each pair in a container with sufficient number of hosts.

# How to collect life table of a parasitoid

- Every day, transfer the adults to a new container. Keep the container with hosts until you record the number of emerged adults (it is the age-specific fecundity of parent generation). If some hosts are parasitized but no parasitoid emerge from them, you have to record the number of dead hosts. It is the age-specific ineffective parasitism rate.
- The summation of daily age-specific fecundity and ineffective parasitism rate is the daily parasitism rate. You can use CONSUME to analyze them.
- The developmental time and the age-specific fecundity can be analyzed using TWOSEX.



Teşekkür ederim!

سپاسگزارم

謝謝!

ขอบคุณครับ

Děkuji

Danke!

¡Muchas gracias!

Thank you!

ご清聴ありがとうございます  
います!