

# Background on bee pests, sampling techniques and specimen preservation

Ayuka T. Fombong

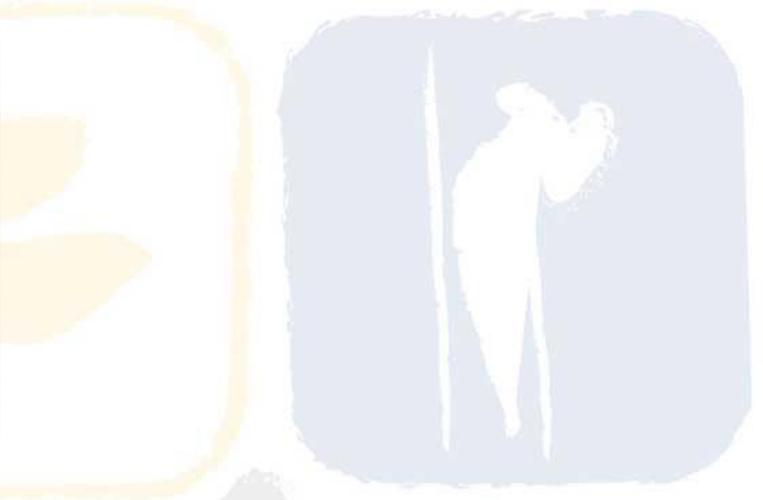


- Background to bee pests of Africa
- Materials and Equipment
- Sampling
- Specimen Preservation and Storage





# Bee pests - Introduction

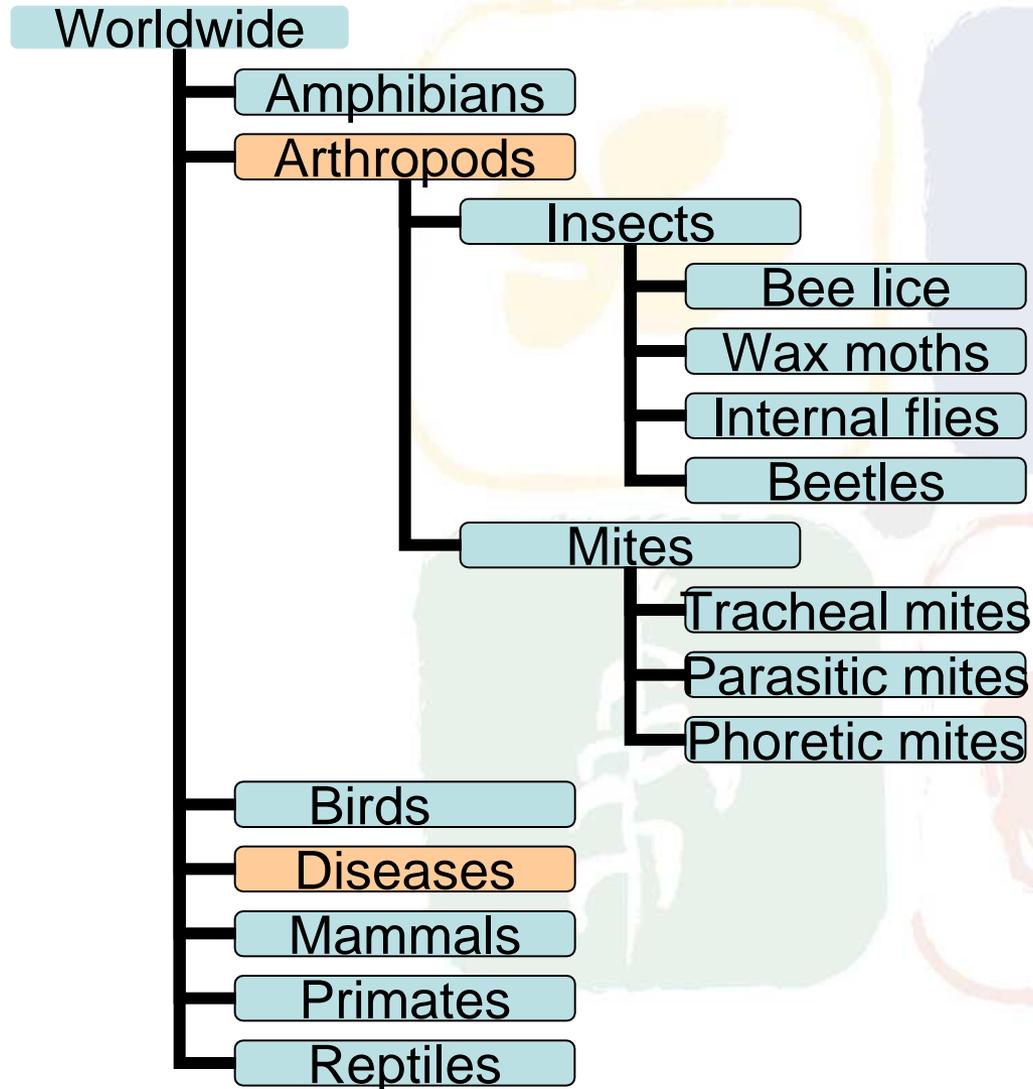




# Bee pests – Introduction 2



# Bee pests - Introduction



# Bee pests – Varroa mite



- *Varroa destructor* (Parasitiformes: Varroidae) (Oval in shape, with 8 legs – 4 pairs)
- Native to Asia (*Apis cerana*)
- Present on all continents
- Cause deformity on immature bees
- Transmits various bee viruses
- Implicated in CCD



# Bee pests – Large hive beetles



*O. haroldi*



*O. fuliginous*



- *Oplostomus* species (Coleoptera: Scarabaeidae: Cetoninae)
- (Oblong in shape, with 6 legs – 3 pairs, 1.3 -1.8 cm long, 1.0 -1.2 cm wide)
- Native to Africa
- Restricted to Africa
- Damage brood, pollen and honey by adults



# Bee pests – small hive beetle



- *Aethina tumida* Coleoptera: Nitiduliidae)
- (Oblong in shape, brown – black colorations, 6 legs, 2 – 4 mm long)
- Native to Africa
- Invasive in the US and Australia
- Damage brood, pollen and honey by adults and larvae



# Bee pests – Greater Wax moth



- *Galleria mellonella* (Lepidoptera: Pyralidae)
- (reddish brown coloration, yellow head, 15 mm long)
- Found on all continents (especially in very warm areas)
- comb structure, web spinning and fecal matter
- Damaging stage is larva



# Bee pests – Lesser Wax moth



- *Achroia grisella* (Lepidoptera: Pyralidae)
- (silver brown coloration, yellow head, 10 – 13 mm long)
- Found on all continents (especially in very warm areas)
- comb structure, web spinning and fecal matter
- Damaging stage is larva



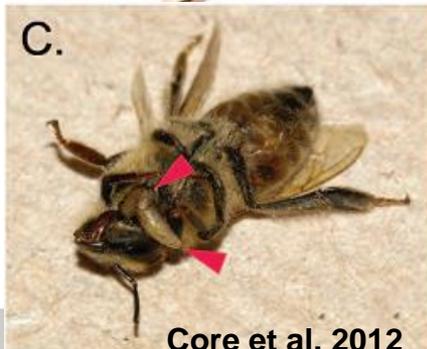
## Bee pests – Bee louse



- *Braula species* (Diptera: Braulidae)
- reddish-brown coloration, reduced eyes & antennae head, < 1.5 mm long, hairy
- Found attached to adult bees
- Found on all continents (especially in very warm areas)
- Damaging stage is larva
- Feeds on wax and pollen



# Bee pests – Phorid fly



- *Apocephalus borealis* (Diptera: Phoridae)
- hump back, 0.5 – 0.6 mm long, endoparasitoid
- Found in the tropics continents (especially in very warm areas)
- Damaging stage is larva



## Bee pests – *Pseudoscorpion*



- *Ellingsenius* species  
(Pseudoscorpionida)
- reddish-brown coloration, reduced eyes & antennae head, < 0.6 mm long, striped light & dark brown abdomen
- Found at the bottom of hives
- Found in the tropics Africa, Asia, South America
- **Not considered a pest**



# Bee pests – Hornets



- *Vespa species* (Hymenoptera: Vespidae )
- reddish-brown/yellow body coloration, 50 mm long
- Adults Prey on honey bees
- Found in temperate Asia and middle East

<http://www.youtube.com/watch?v=EZ1eAM8CChc>



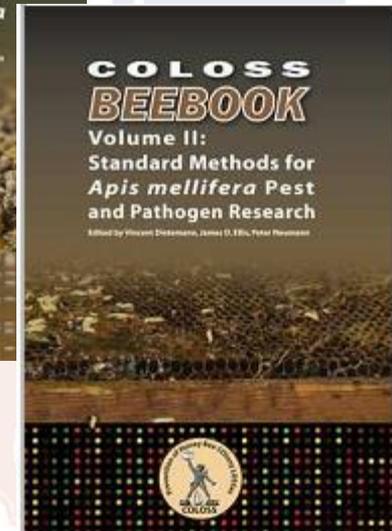
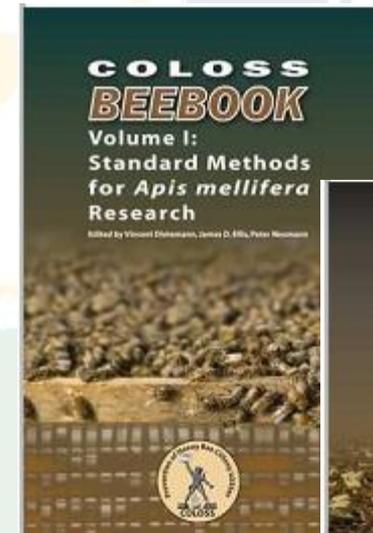
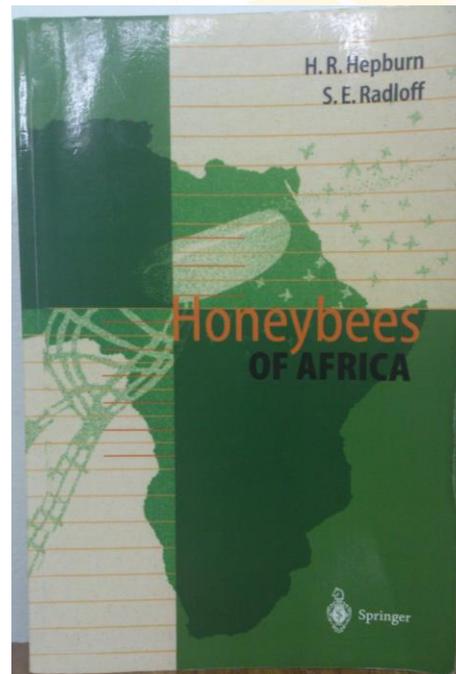
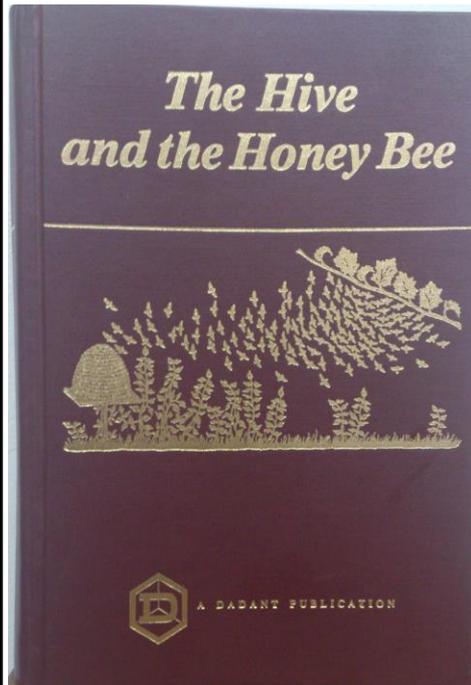
# Bee pests – Ants



- *Various species* (Hymenoptera: Formicidae)
- Seasonal in their occurrence
- Adults prey on honey bees and hive products
- Found in tropics



# Important Information Sources



[www.coloss.org](http://www.coloss.org)



African Insect Science for Food and Health

**icipe**



THANK YOU FOR  
YOUR ATTENTION

