



Preparing Anatomy Slides

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Preparing an Anatomy Slide – 7 days or more



Not all
anatomy
parts need
the full
process

Complete Preparation	Bleaching/decalcification not required
Legs	Endophallus
Antennae	Mouthparts*
Varroa	Sting mechanism*
Mandibles	Wings
	Trachea
	Sperm
	Hypopharyngeal gland

* Can benefit from immersion in acetic acid



Workplan

- Collect body parts from bees:
 - Wings
 - Legs
 - Antennae
- Whilst bleaching legs and antennae mount wings on slide
- Mount 3x legs from one side
- Mount pair antennae

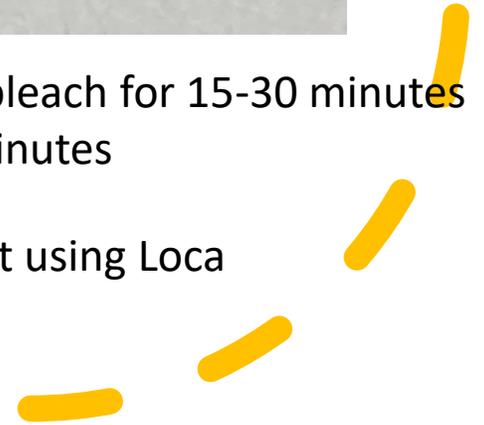


Preparing material



Place legs and antennae in bleach for 15-30 minutes and then acetic acid for 5 minutes

Wings in alcohol then mount using Loca



Mounting material



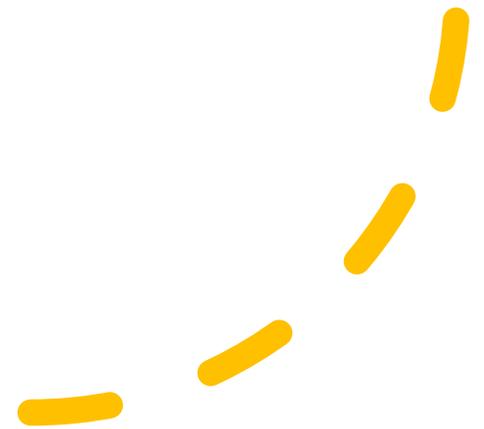
If mounting legs, first flatten between two slides with bulldog clips

Immersion the material in alcohol, 1-2 minutes

Place drop of Loca on slide, position material in Loca and submerge

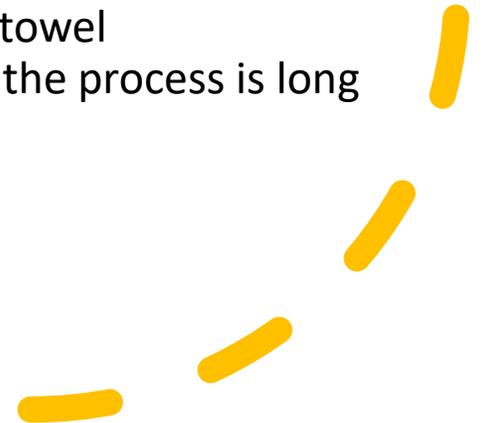
Apply coverslip and expose to UV for 90 seconds

Slides with errors



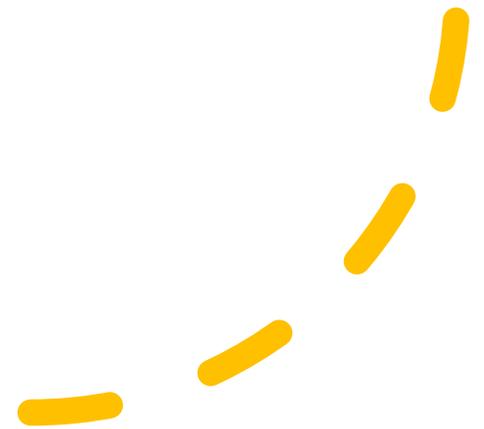
Tips for producing a good slide

- Place a drop of the mountant on the slide and then the specimen and then some more mountant if required
- Play with specimen using a seeker to ensure it is submerged
- Consider adding isopropanol/toluene to help arrange the specimen
- Remove any air bubbles with seeker or fine tipped pipette
- Before placing the coverslip carefully examine the specimen for bubbles within cavities, wing veins and galea on mouthparts are particularly prone to air sacs
- Ease the slide cover on from one side ensuring a meniscus has formed before gently placing over the specimen
- Use a template beneath the slide to ensure the specimen is in the centre of the slide
- Excess mountant around the slide cover can be removed using the appropriate thinner and soaking up with a paper towel
- Make up multiple specimens at the same time as the process is long and frustrating!



What makes a good slide?

- Clear view of subject in centre of slide
- Clean slide
- Absence of air within sample
- Quality of the sample e.g. reasonable length of hypopharyngeal gland showing individual acini
- Sample intact and without blemish/distortion
- Absence of debris
- Absence of air bubbles around the sample
- Slide date > 6 months old
- Appropriate use of stain if required.
- Label to include:
 - Date of preparation
 - Subject
 - Mountant employed



Only 3 books
needed to
get started
with
Microscopy

