Gluepot reserve student internship

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January 16th of 2022 – February 6th of 2022

Establishing looper caterpillars to pupate. SOP

Materials:

- 10 litre plastic container
- Small take away container
- Mesh 1 metre by 1 metre squared
- 2 metres rope
- Shovel
- Pruning clippers
- scissors
- Approximately 3 buckets of local soil
- Mallee leaf litter
- Browse (mallee) preferably with young
- Watering can
- Water
- Looper caterpillars

Set up process

- 1. Prepare equipment from list of materials
- 2. Find appropriate area where approximately 3 buckets of soil can be sourced from.
- 3. Using the shovel either placing soil directly in 10 litre plastic container or using buckets filling 10 litre container where you are planning to keep loopers. Be careful when lifting soil in tub as it may be heavy.
- 4. Ensure soil base is a minimum depth of 15 cm.
- 5. Wet down soil to soften and shape creating a more compact base
- 6. Once soil appears ready cover in mallee leaf litter



- 7. Using scissors create at least 4 holes in the lid of the takeaway container
- 8. Fill this with water and place in tub



9. With pruning clippers source local mallee browse ideally with loopers, ensure there are enough fresh tips on the browse to sustain the caterpillars for a day (minimum 4 sticks)



- 10. Shake the browse of any other invertebrates to prevent contamination or predation of the loopers
- 11. Once browse is clear an amount of loopers on browse determined place the browse sticks in plastic takeaway container filled with water and ensure they are submerged.
- 12. Repeat until you have placed all browse and loopers in container



- 13. Cover container with mesh
- 14. Secure mesh using rope, tying in a bow for ease of servicing invertebrates



Suspected instar stages of looper caterpillar found at gluepot

Early instar stage; yellow to green in colouration



Middle instar stage; red in colouration with black dots forming on the side



Final instar stage before pupating; slightly red and almost fully black in colouration



Daily tasks

- Feed fresh browse to loopers, place old browse on ground to allow loopers to climb onto new browse. This can then be removed the following day.
- Change water in browse holder
- Check for any dead loopers
- Record numbers and visualise behaviour/ colour changes (see above pictures)
- Continue daily process until last caterpillar has returned to ground to pupate

When loopers are all pupating

- Remove browse
- Mist daily
- Monitor for activity, check for moths