



SOP: Mosquito collections from experimental huts

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2			

Version Control¹

Version	Date	Updated by	Description of update(s)

Related documents

- I2I Best Practice SOP Library, 30 October 2020 (<https://innovationtoimpact.org/>)
- 'Experimental hut preparation and running' I2I-SOP-009
(<https://innovationtoimpact.org/>)

1. Purpose

The purpose of this SOP is to provide instructions on how to collect mosquitoes in experimental huts. Verandah-trap experimental huts provide a means of evaluating, under controlled field conditions, the efficacy of novel indoor intervention or combinations of intervention against free-flying, wild populations of malaria vectors.

2. Materials and equipment

Equipment

- Mouth aspirators
- Storing bags (one bag per hut, per compartment)
- Haemolysis tubes for mosquito collection
- Torches

¹ Historical versions of SOPs can be found on the I2I website (<https://innovationtoimpact.org/>)

- Watches
- Cotton wool
- Sleeping mattress
- Bed sheets

Personnel

- Sleeper volunteers
- 1 sleeper supervisor
- 1 evaluation supervisor

3. Procedure

3.1. At 7.45pm, arrival of sleeper volunteers at the experimental station.

3.2. Sleeper supervisor to check that each storing bag contains sufficient haemolysis tubes and cotton wool.

3.3. At 8.00pm, sleepers enter their respective huts.

3.4. For each sleeper:

3.4.1. Raise the separating curtain.

3.4.2. Dispose the storing bags in their specific areas.

3.4.3. Install the mattress and bed sheet.

3.4.4. Have the torch close to hand.

3.4.5. Set up the watch alarm for 5.30am.

3.5. For the sleeper supervisor:

3.5.1. Ensure that all of the sleepers gained entry to their hut.

3.5.2. Open the window traps.

3.5.3. Check that all of the curtains are raised.

3.6. At 5.00am, closure of the window traps by the sleeper supervisor, which signals the beginning of mosquito capture.

3.7. For each sleeper:

3.7.1. Switch on the torch.

3.7.2. Collect mosquitoes from the inside of the net first. Put each mosquito into a separate collection tube. Start at the floor so that you do not walk on mosquitoes lying on the ground. Check for live mosquitoes on different parts of the net. Make sure that you have collected all of the mosquitoes. Leave the "net bag" inside the net while moving out of the net to avoid mixing of mosquitoes.

3.7.3. Move out of the net by the curtain side.

3.7.4. Set down the curtain gently.

3.7.5. Collect mosquitoes from inside the hut. Always start at the floor. Check at least three times at least around the hut and then move to the verandah. Leave the "hut bag" in the hut.

3.7.6. Move to the verandah by making a small passage beside the curtain. Avoid opening the curtain completely so that you don't allow free-flying mosquitoes to fly back into the hut.

3.7.7. Collect mosquitoes from the verandah. Always start at the floor. Check at least three times.

3.8. For the sleeper supervisor, ensure that all of the sleepers are up at the required capture starting time.

3.9. For the evaluation supervisor, ensure that everything is done properly and that there are no complaints from the sleepers or sleep supervisor. Collect all the bags and take them to the lab as quickly as possible (within two hours of the finish of collections).

4. Glossary of terms

I2I Innovation to Impact

SOP Standard operating procedure



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