

Accompanying Materials II

Questionnaire to investigate the effect of stressors on bees: Land use change in the tropics and its impacts on bee diet, fitness, and behaviour

Participant number: _____ Date: ____/____/____

[The identity of participants and their address will not be asked. However, a participant number code will be assigned to each interview. There will be a separate key for this code, to keep record of the number of interviews.]

I have read the Participant information sheet to the participant. S/he has understood their rights, has had an opportunity to ask questions, and has verbally consented to take part in this study.

Georgina Hollands
Researcher in charge of study

Questions related to apiary management

1. How long have you been beekeeping?
2. When was the apiary established?
3. Are you aware of any pesticides being used in the area?
 - a. If so which pesticides?
 - b. Do you have any ideas on the regularity of use?
4. Have your hives experienced:
 - a. any mites
 - b. viruses
 - c. pathogen infection?
5. How regularly do you visit the beehives?
6. How often do you take honey from the hives?
7. Are there any management techniques that you consider important for us to know or be aware off?
8. Do you know of any feral honey bees in the area?
9. Have you seen a reduction of other bee species in the area?
10. What flowers/trees do you think the honey bees are feeding from?

Questions related honey bee health

11. Can you keep a record of honey produced/taken from the hives between visits / since our last visit how much honey have you collected (grams)?
12. Is there any other information you consider important?

Background questions on beekeeping

13. What made you start beekeeping?
14. How integral to you consider beekeeping to your livelihood?
15. What do you believe are the major challenges in beekeeping in Belize?
16. How important do you think the forest is in terms of bee health?
17. What do you believe are the most prominent stressors on bees?