

# Biological Control of Weeds Recovery Sheet

(Please refer to the back of this sheet for instructions)



Manaaki Whenua  
Landcare Research

**Site name:**  
**Organisation:**  
**Observer(s):**

**Date:**  
**Time of day:**

## **Current weather conditions**

- 1) Sunny / Partly / Overcast / Rain
- 2) Strong wind / Light wind / Calm
- 3) Temperature (°C) < 10 / 10-15 / 15 -20/ 20 -25 / >25



**Twig Miner Cocoon**

## **Insect information**

- 4) Overall damage to stems: None / Occasional / Patchy / Heavy / Severe
- 5) Cocoons seen: yes / no
- 6) Time spent searching (mins):

## **Weed Information**

- 7) Broom type at the release point: Isolated Bushes / Clumps / Block
- 8) Infestation: Major (as far as eye can see) / Moderate (>100m<sup>2</sup>) / Minor (<100m<sup>2</sup>)
- 9) Percentage cover at densest accessible point:
- 10) Photos taken: Yes / No
- 11) Photo file name:

## **Comments**

- 11) Have any of the following happened to the site recently?  
Mowing / Spraying / Grazing / Flood / Drought / Fire / Other?
- 12) Please use the back of this sheet to record any further observations or comments about the site.

## **INSTRUCTIONS FOR FILLING OUT THIS SHEET**

**(Please note that it is important to complete these questions in order)**

**Where choices are given mark the correct answer by bolding or highlighting it or by deleting the other options.**

- **Site Name** – please be consistent in the use of site names to prevent confusion.
- **Organisation** – the name of your organisation.
- **Observer(s)** – the names of people who helped with this recovery not onlookers.

### **Current Weather Conditions**

1-3) Choose the words that best describe the weather conditions.

### **Insect information**

- 4) Look for mined twigs and dieback due to larval feeding from August to September. This damage is most noticeable before new growth begins to form. When a large proportion of green material has been affected then bushes grow and flower less, and whole branches and even entire bushes may die (bushes may look as if they have been sprayed). Abundant old empty or new white pupal cases, in conjunction with damage, will confirm twig miner is responsible. Record the amount of twig miner damage overall at the site: occasional (damage present but not common), patchy (damage is variable throughout the site, some plants may have no damage, and others may have heavy damage but this would be rare), heavy (the majority of plants are damaged and at least some plants are beginning to show signs of severe damage or stress), and severe (severe damage is obvious and widespread).
- 5) Lift up branches and look underneath them at the base of the branch where it meets the main stem. Cocoons, as seen in the photo, should be visible. Record if you see cocoons.
- 6) Record how long you spent actively searching. Ideally spend about 15 minutes assessing damage levels at the site and another 15 minutes looking for cocoons.



**Twig Miner  
Damage**

### **Weed Information**

- 7) Record the type of broom growing at the release point.
- 8) Estimate and record the approximate size of the infestation using the categories provided.
- 9) Estimate the percentage cover of broom at the densest accessible point over an area of 5 x 5m, or if the site doesn't lend itself to a square use an equivalent sized shape.
- 10) Please indicate if you have taken photos.
- 11) If you have taken photos please record the file name for the photo, and attach hard copies to this form if you can.

### **Comments**

- 12) Please indicate if any of these important events have happened to the site.
- 13) Tell us any other important information we should know about the site (e.g. whether you have been harvesting for release at new sites). Use the top of this page if you need extra space.