



Beetle Assessment Report 2025

For The

Town of Redwood Meadows

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Ebbs Forestry Services Ltd (EFS)

Redwood Meadows Spruce Beetle Update Oct. 21, 2025

Introduction

In April 2025, Gord Tate, CAO of Redwood Meadows contacted Ebbs Forestry Services Ltd. (EFS) to identify a beetle infestation on the Townsite. Mr. Tate also discussed the activities with Paddy Big-Plume, Golf Course Manager and she agreed to take part in the assessment and mitigation program.

After forest beetle assessments and review it was determined that several species of spruce beetles were found in the treed municipal lands. They were identified as; spruce beetle (*Dendroctonus rufipennis*), Ips beetle (*Ips sp.*), spruce sawyer beetle (*Monochamus scutellatus*), and ant beetle (*Cremastocheilus sp.*).

The extent and severity of the infestation is a likely and predictable outcome of the overmature condition of the Redwood spruce forest, the previous and heavy infestations of spruce budworm, ongoing infestations of Ips, spruce and sawyer beetles, and the drought conditions from 2020 to 2024. This combination of conditions adds considerable stress to these overmature spruce and aids in attracting more beetles.

Mitigation Activities to Date

Several mitigation activities were discussed with the provincial entomologists and Redwood Meadows CAO Gord Tate.

Effective management in Alberta involves several practices:

1. **Aerial Surveys:** Regular overflights of mature spruce stands to detect and monitor infestations.
2. **Pheromone Trapping:** Use of Lindgren® funnel traps baited with pheromones during summer to predict population trends.
3. **Ground Surveys:** On-the-ground inspections to assess current-year infestations.
4. **Trap Logging:** Felling healthy, beetle-susceptible trees (trap logs) before beetles emerge, reducing infestation spread.
5. **Sanitation Logging:** Removing and processing infested trees promptly to eliminate beetle habitats.

Options chosen were a combination of #2 and a modified #4. A small area of 0.5 hectares was identified as being heavily infected and as a good area for a demonstration of mitigation activities. (Option 2) Subsequently, in early April EFS hired Callen Jacobs, Tsuu T'ina First Nation member and Certified Level 3 sawman to fell approximately 60 infected spruce trees. Keith then hired Top-Notch Tree Service to mulch those trees on site.

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The second mitigation (Modified Option 4) was to hang 40 Lindgren traps on the north-west and south-east borders of Redwood with attached pheromone attractants. As a catalyst to the push-pull options an additional 1300 repellents were distributed in a 20-metre grid throughout all the Municipal lands. Further to this the repellents were offered free of charge to the residents of Redwood. This distributed another 500+/- repellent pods through the private residences within Redwood Meadows. These activities aligned with the prescriptions and activities approved by Mr. Tate.

Outcomes

The Lindgren traps were assessed in late August and early September with the following delineations:

- the highest number of beetles trapped were ant beetles
- the second most prevalent were Ips beetles
- the third were spruce beetles

In addition, several sawyer (sp.) beetles were in the traps along with unidentified moths.

The mulch was assessed twice over the summer to see if there were any hatches coming out of the mulch with none noted. Madison and Keith also noted very few spruce budworms or adult moths. This can possibly be attributed to the heavy, consistent and frequent early rain events.

The Lindgren traps have now been taken down and Keith and Madison are in the process of removing the pods before October month-end.

Recommendations

Firstly, that the infected trees identified on Municipal lands be removed or thinned by applied FireSmart standards. An Expression of Interest (EOI) was submitted to the Forest Resource Improvement Association of Alberta (FRIAA) in September to begin this process. It is anticipated that this application will be approved, and that FireSmart operational activities be applied in the winter of 2025/2026. Two operational strategies were considered and included in the Application:

- hand-crew vegetation management to FireSmart standards; this strategy includes pile burning with appropriate snow and weather conditions
- mechanical / hand-crew vegetation management applied to FireSmart standards, this strategy eliminates the need for pile burning as the material is mulched

Secondly, that the Lindgren traps be re-set and pheromone baited in early June 2026, in the same configuration as this year's layout. This will be combined with the re-set of

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the remaining repellent pheromones with additional ordered to replace this year's layout.

Thirdly, that forest management strategies be enacted throughout Redwood Meadows. These may include, applying the 7 FireSmart protocols, reducing the spruce component and replace it with deciduous trees and Siberian Larch, ongoing vegetation treatments as needed on the overmature spruce, the homeowners act appropriately on the trees on their private lots.

Fourthly, that homeowners may extend the health and vitality of the trees on their lots through fertilization and watering. Note the trees already infected may have their life somewhat extended but they cannot be cured of bark beetles, unlike spruce budworm which can be sprayed.

***Note** that Redwood Meadows Administration should send out a request to all those homeowners that put up repellent bubble-packs beside their homes to remove them with hand and eye protection on, put them in a baggie and return them to the Administration office. EFS will then dispose of them to ensure we meet the required environmental disposal protocols.

Photos from the Lindgren Traps



Spruce Beetle and thorax shields



Ips Beetle, w/ distinctive antenna

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Ant Beetle



Ant Beetle observed live

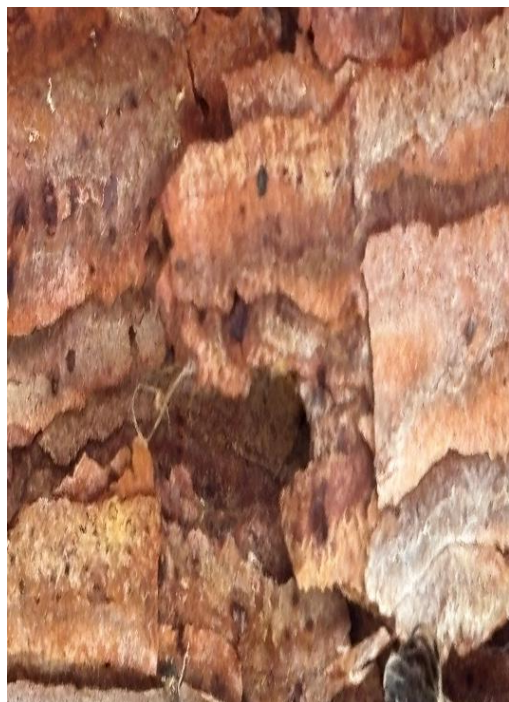


Ips Beetle

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Spruce Beetle Entrance hole, 5 mm

Ips Beetle Entrance hole 1mm

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