ARGOS

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High Country Woody Weeds

Woody weeds in the High Country

Woody weeds can be a significant limitation to farm activities, with gorse, broom and sweet brier regarded as the most problematic woody weeds in South Island agricultural and pastoral land including high country farms. Woody weeds can also impact significantly on biodiversity conservation values, with several species present in the high country (hawthorn, crack willow, wilding pines and blackberry) regarded as serious conservation weeds.

While the importance of woody weeds in limiting both economic production and biodiversity conservation values in the high country is widely recognised, there is less information on the ecology of these species and especially their distribution in the high country. The purpose of this report was to start developing a database on the woody weeds present on the eight ARGOS high country properties as a basis for better understanding the ecology of woody weeds in the South Island high country. Resource limitations prevented a full quantitative study of the weeds present on each property; rather, notes were made on the main woody weeds present based on discussions with the farmer and field observations during the initial environmental assessment of the property.

This research note describes our efforts to begin developing a database on the woody weeds present on the eight ARGOS high country properties as a basis for better understanding the ecology of main woody weeds in the South Island high country.

Method

Eight exotic woody weeds were identified during the preliminary surveys of ARGOS high country properties: sweet brier, broom, buddleia, Darwin's barberry, gorse, hawthorn, lupin, wilding conifers. The most commonly recorded woody weed species was sweet brier, which is present on all properties. Wilding conifers are present on 6/7 properties (see photo 1 for an example), and gorse and broom are also widely present across the properties.

Photo. Wilding conifer spread from old woodlot (immediately behind hut), Glenmore Station.

These results are consistent with the findings of other studies on key woody weeds of South Island agricultural and pastoral properties. Although not discussed here, matagouri is also considered a woody weed to varying extents on most of these properties, especially with regard to its rapid response to fertiliser addition in oversown tussock grassland.

On at least one property there has been a marked increase in sweet brier distribution since the 1990s, coincident with a decrease in grazing pressure from rabbits (see photo 2 for an example). Cattle may also hasten the spread of sweet brier on some properties, which creates a conundrum for farmers as cattle are also important for farm management.

Photo 3. Sweet brier in valley bottom shrubland.

Findings

All farmers involved in the ARGOS study undertake some degree of weed control. Broom and gorse are actively controlled on most properties, while wilding conifers are also regularly removed by farmers as they undertake day-to-day farming operations. On one property, several days each year are spent exclusively on wilding conifer control. Sweet brier is controlled to some degree, mainly by spraying. While broom, gorse and wilding conifers are actively controlled as part of farm management, sweet brier is less actively controlled, even though it appears to potentially present a greater problem.

Conclusions

The results presented here are only preliminary and as further survey of the eight ARGOS high country study properties occurs, a more comprehensive assessment of woody weeds and their distribution will be developed.

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