

Scotch and Illyrian Thistle Update, Nov 2000

Introduction

Since 1992 CSIRO have made 198 releases of the seed-feeding weevil *Larinus latus* as a biocontrol agent against Scotch and Illyrian thistle. In the early stages of the release process *Larinus* proved to be difficult to establish until we decided to stop releasing in cages and move to free-releases. Since then the rate of establishment has increased from 10% to 90%. *Larinus* has also been observed to spread 10's of kilometres from release sites. While this hasn't resulted in high attack rates where the weevils have spread it is very encouraging for the future and has led to a decision being taken to reduce the release effort. However we would like to collect some additional information on the establishment and spread of this weevil. To do this we need your help. The information we require is simple to gather and should take no more than a few minutes of your time.

The presence/absence of the seed-feeding weevil may be determined from mid-November through to December. Simply visit the release site and look for the adults feeding or laying eggs on flowering plants. (refer to your release kit for a photo of the insect and a more detailed description of how to find them).

Question 1

Were you able to find the seed-feeding weevil at your release site? Yes/ No.

If yes, please answer question 2.

Question 2

We'd like to get some idea of how far the agents have spread from the release site. You can do this for us very simply. Walk away from the release site in a northerly direction (counting your paces) until you find no more adults/feeding damage. Record the distance (in metres to the nearest 10 or 100) in the appropriate box below. Then repeat the process for the remaining points of the compass. If you are finding them further afield I'd certainly like to know.

North

South

East

West

Record distance in metres (to the nearest 10 or 100)

Name: _____ Phone number: _____
Property Name: _____ Fax number: _____
Postal Address: _____

What about results! Our monitoring indicates that at selected field sites seed-feeder attack has reached a level high enough to reduce seed production by up to 30%. Of course this isn't happening on every plant at every site but it is an encouraging start.

Where is the project going from here? We have recently received a renewal of funding which will see the redistribution of thistle agents continue until June 2002.

So you've had releases of the stem borer and the seed feeder for a year or two now and you'd like to know when you're going to get the next agent. To date we have made releases of the petiole moth *Eublemma amoena* at 15 sites and releases of the crown weevil *Trichosirocalus* sp. nov at 3 sites. At this stage we will be relying on insects from our rearing cultures for releases of *Eublemma* rather than field collection for redistribution as there is no obvious stage of the moths life cycle that lends itself to field collection. Because of this releases will be restricted to approximately 10/year. Releases of the crown weevil will be both from field collection and rearing cultures. For 2000/2001 releases will be restricted to approximately 5/year as the 3 field sites have been slower to build to collectable levels than hoped.

Will you be able to release the new agents at the same site as the stem borer and seed feeder? The crown weevil and the crown moth will initially require release sites separate from each other, as they feed in similar parts of the plant. It is OK to release them at sites where the stem borer and/or the seed feeder are established. The main requirement will be a high density of *Onopordum* rosettes within the fenced area for the release of these species.

Anthony Swirepik, CSIRO Entomology, GPO Box 1700, Canberra ACT 2601
Phone: (02) 6246 4252 Fax: (02) 6246 4177 Email: anthony.swirepik@ento.csiro.au

