December 7, 2014, by Haley Catton

Description of Data files used for the manuscript:

Catton et al. (2015). Nontarget herbivory by a weed biocontrol insect is limited to spillover, reducing the chance of population-level impacts. Ecological Applications. In Press.

File #1. "Catton et al. Fig 1 data June 8 2013.csv"

This data file was used to generate Figure 1 in Catton et al. (2015). It contains the results for the presence or absence of *M. crucifer* herbivory scars on *Cynoglossum officinale* and *Hackelia micrantha* plants target common or target rare sites (where applicable) in years 0, 1, and 2 following a point release of 300 *M. crucifer* on each site on 4 June 2009. Column descriptions are as follows:

site = name of release site. TC= target common, TR= target rare.

fquad = name of quadrat in which plant was located.

fplant = name of plant within each quadrat.

funiquequad = unique quadrat number, concatenated from site and quadrat.

funiqueplant = unique quadrat number, concatenated from site, quadrat, and plant.

spp= plant species dissected. Coff= *Cynoglossum officinale*, Hmic= *Hackelia micrantha*

spp_category = species category. Coff= *C. officinale* on target common sites, Hmic_TC= *H. micrantha* on target common sites, Hmic_TR= *H. micrantha* on target rare sites.

year= year plant was assessed for scars. Y2009=2009, Y2010=2010, Y2011=2011.

uniqueplantyear= unique identifier for each plant in each year, creating by concatenating uniqueplant ID and year.

sitetype= 1=target common, 0=target rare.

date= the date plant was visually inspected for *M. crucifer* scars (M-DD-YY).

ros or bolt = is plant in vegetative rosette site (R) or reproductive bolting stage (B).

scars present = Are there visual indications of *M. crucifer* scarring on this plant? 1=yes, 0=no.

scars mild or severe = Are *M. crucifer* scars mild (0-9 scars) or severe (10 or more scars)? 0= no scars, 1=mild scarring, 2=severe scarring.

dissected = was plant harvested and dissected in this year. Y=yes, N=no.

presence of eggs or larvae in dissection = if plant was dissected, were any *M. crucifer* eggs or larvae found? Y=yes, N=no.

number of eggs or larvae in dissection = if plant was dissected, the number of *M. crucifer* eggs or larvae found.

File #2. "Catton et al. Fig 2 data June 10 2013.csv"

This data file was used to generate Figure 2 in Catton et al. (2015). It contains the results of dissection for *M. crucifer* eggs and larvae in *Cynoglossum officinale* and *Hackelia micrantha* plants on *M. crucifer* release sites where both plant plant species were present. Column descriptions are as follows:

Spp= plant species dissected. Coff= *Cynoglossum officinale*, Hmic= *Hackelia micrantha*

Release Site = code for site identifier. Concatenated code that includes years since release, target common or target rare (TC or TR, if applicable), and site number.

Year of Release = year *M. crucifer* were released onsite. Year numbers have a "Y" in front to facilitate software reading the code as a factor.

Outlier = 1 *C. officinale* plant was removed from some other analyses because of its high number of eggs and larvae. It was included in analysis, for Fig. 2, but is not displayed in Fig. 2B. Y= yes, an outlier. N= no, not an outlier.

Years Since Release = number of years since *M. crucifer* release

Collection Date = the date plant was harvested, M-DD-YY.

Dissection Date = the date plant was dissected, M-DD-YY.

RCD = root crown diameter in mm.

Ros or Bolt = is plant in vegetative rosette site (R) or reproductive bolting stage (B).

Num Eggs = number of *M. crucifer* eggs in plant.

Num 1st Instar = number of *M. crucifer* 1st instar larvae in plant.

Num 2nd Instar = number of *M. crucifer* 2nd instar larvae in plant.

Num 3rd Instar = number of *M. crucifer* 3rd instar larvae in plant.

Total Eggs and Larvae = total number of *M. crucifer* eggs and larvae in plant.

Eggs or Larvae Present = Did plant have any *M. crucifer* eggs or larvae? present= yes, absent=no.

Pair Number = pair identification number for plants from sites with paired sampling procedure.

Distance between paired plants = distance (m) between paired plants for plants from sites with paired sampling procedure.

Part of Plant Dissected = the part of plant dissected in search of *M. crucifer* eggs and larvae (see Methods in text).

File #3. "Catton et al. Fig 3 data June 17 2013.csv"

This data file was used to generate Figure 3 in Catton et al. (2015). It contains the results of dissection for *M. crucifer* eggs and larvae in *Hackelia micrantha* plants relative to the level of *C. officinale* herbivory on each site, expressed as the back-transformed mean ln(number of eggs per *C. officinale* plant +1) on *M. crucifer* release sites where both plant plant species were present. Column descriptions are as follows:

Spp= plant species dissected. Coff= *Cynoglossum officinale*, Hmic= *Hackelia micrantha*

Release Site = code for site identifier. Concatenated code that includes years since release, target common or target rare (TC or TR, if applicable), and site number.

Year of Release = year *M. crucifer* were released onsite. Year numbers have a "Y" in front to facilitate software reading the code as a factor.

Years Since Release = number of years since *M. crucifer* release

Collection Date = the date plant was harvested, M-DD-YY.

Dissection Date = the date plant was dissected, M-DD-YY.

RCD = root crown diameter in mm.

Ros or Bolt = is plant in vegetative rosette site (R) or reproductive bolting stage (B).

Num Eggs = number of *M. crucifer* eggs in plant.

Num 1st Instar = number of *M. crucifer* 1st instar larvae in plant.

Num 2nd Instar = number of *M. crucifer* 2nd instar larvae in plant.

Num 3rd Instar = number of *M. crucifer* 3rd instar larvae in plant.

Total Eggs and Larvae = total number of *M. crucifer* eggs and larvae in plant.

Eggs or Larvae Present = Did plant have any *M. crucifer* eggs or larvae? present= yes, absent=no.

Pair Number = pair identification number for plants from sites with paired sampling procedure.

Distance between paired plants = distance (m) between paired plants for plants from sites with paired sampling procedure.

Part of Plant Dissected = the part of plant dissected in search of *M. crucifer* eggs and larvae (see Methods in text).

Backtransformed mean ln+1 eggs and larvae per Coff plant per site = the per-site level of per plant *C. officinale* eggs and larvae (see caption of Fig. 3).

File #4. "Catton et al. Fig 4 data June 4 2014.csv"

This data file was used to generate Figure 4 in Catton et al. (2015). It contains the results of dissection for *M. crucifer* eggs and larvae in *Cynoglossum officinale* and *Hackelia micrantha* plants on release sites in years where *M. crucifer* was known to be present. Column descriptions are as follows:

Spp= plant species dissected. Coff= *Cynoglossum officinale*, Hmic= *Hackelia micrantha*

Release Site = code for site identifier. Concatenated code that includes years since release, target common or target rare (TC or TR, if applicable), and site number.

Year of Release = year *M. crucifer* were released onsite. Year numbers have a "Y" in front to facilitate software reading the code as a factor.

Preferentially Sampled? = 6 *H. micrantha* were sampled specifically because they appeared to have *M. crucifer* damage (i.e., "preferentially sampled"). These plants are not included in other analyses in this paper, but are acceptable for analysis in Fig. 4. Y= yes, preferentially sampled. N= no, not preferentially sampled.

Outlier = 1 *C. officinale* plant was removed from some other analyses because of its high number of eggs and larvae. This plant was included in analysis for Fig. 4. Y= yes, an outlier. N= no, not an outlier.

Years Since Release = number of years since *M. crucifer* release

Collection Date = the date plant was harvested, M-DD-YY.

Dissection Date = the date plant was dissected, M-DD-YY.

RCD = root crown diameter in mm.

Ros or Bolt = is plant in vegetative rosette site (R) or reproductive bolting stage (B).

Mocr scars present = Are there visual indications of *M. crucifer* scarring on this plant? present= scars present, absent= scars absent.

Scars mild or severe = Are *M. crucifer* scars mild (0-9 scars) or severe (10 or more scars)? 0= no scars, 1=mild scarring, 2=severe scarring.

Num Eggs = number of *M. crucifer* eggs in plant.

Num 1st Instar = number of *M. crucifer* 1st instar larvae in plant.

Num 2nd Instar = number of *M. crucifer* 2nd instar larvae in plant.

Num 3rd Instar = number of *M. crucifer* 3rd instar larvae in plant.

Total Eggs and Larvae = total number of *M. crucifer* eggs and larvae in plant.

Eggs or Larvae Present = Did plant have any *M. crucifer* eggs or larvae? present= yes, absent=no.

Part of Plant Dissected = the part of plant dissected in search of *M. crucifer* eggs and larvae (see Methods in text).

File #5. "Experimental Release Site dissections after 2 years Dec 7 2014.csv"

This data file was used to test for *M. crucifer* population establishment on experimental target common and target rare release sites after 2 years. It displays *Cynoglossum officinale* and *Hackelia micrantha* plants sampled and dissected in search of *M. crucifer* eggs and larvae. Plants were kept refrigerated between harvest and dissection, and whole plants were dissected. Column descriptions are as follows:

spp= plant species dissected. Coff= *Cynoglossum officinale*, Hmic= *Hackelia micrantha*

sitetype= 1=target common, 0=target rare.

site = name of release site. TC= target common, TR= target rare.

fquad = name of quadrat in which plant was located. Note, some plants were outside of our quadrats.

fplant = name of plant within each quadrat. Plants outside of our quadrats did not have typical numbers as names.

distance = distance from release point (m)

Collection Date = the date plant was harvested, M-DD-YY.

Dissection Date = the date plant was dissected, M-DD-YY.

RCD = root crown diameter in mm.

Ros or Bolt = is plant in vegetative rosette site (R) or reproductive bolting stage (B).

Num Eggs = number of *M. crucifer* eggs in plant.

Num 1st Instar = number of *M. crucifer* 1st instar larvae in plant.

Num 2nd Instar = number of *M. crucifer* 2nd instar larvae in plant.

Num 3rd Instar = number of *M. crucifer* 3rd instar larvae in plant.

Total Eggs and Larvae = total number of *M. crucifer* eggs and larvae in plant.

Eggs or Larvae Present = Did plant have any *M. crucifer* eggs or larvae? present= yes, absent=no.