**artShift2011data.xlsx**

Description: Raw arthropod data from first maladaptation experiment

Fields:

Block: spatial replicate (5 total)

Treatment: morph of *Timema* transplanted

Order: arthropod order

Suborder: arthropod suborder

Family: arthropod family

Species: morphospecies as identified by TEF. Different morphospecies IDs are only identified as such *within* an experimental bush (unique block-caged-morph combination). Identical morphospecies names between bushes may actually be different species, and different morphospecies names between bushes may actually be the same morphospecies.

Count: number of individuals of given morphospecies and length (see below) found on bush

Stage: developmental stage (A = adult, J = juvenile). “?” indicate uncertainty along with an educated guess.

Length: body length in millimetres

Notes: *Timema* phenotypes and other notes on arthropods

**herbivory2011.xlsx**

Description: Raw herbivory data from first maladaptation experiment

Fields:

Set: Data were collected three times. Only data from set = 1 were included in analysis.

Block: spatial replicate (5 total)

Tmnt: treatment. CEO = *Ceanothus*, GRN = green, STR = striped.

noLvs: number of leaves scored for herbivory

noUnDam: number of leaves showing no herbivory

noDam: number of leaves showing herbivory from any type of herbivory

noHoles: number of leaves showing herbivory from sap-feeding herbivores

noChew: number of leaves showing herbivory from chewing herbivores

pDam: proportion leaves damaged

pHol: proportion leaves damaged by sap-feeding herbivores

pChew: proportion leaves damaged by chewing herbivores

**2011expBushSizes.xlsx**

Description: dimensions of bushes in 2011 maladaptation experiment

Fields:

Block: spatial block (5 total)

Treatment: morph of *Timema* transplanted

L: length in metres

W: width in metres

H: height in metres

Volume: rectangular solid volume in cubic metres

**bexData2012.xlsx**

Description: Raw arthropod data from bird exclusion experiment

Fields:

Block: spatial replicate (4 total)

Caged: bird exclusion treatment (N = no bird exclusion, C = birds excluded with cage)

Morph: maladaptation treatment (S = striped *Timema*, G = green *Timema*)

Species: arthropod morphospecies (see notes for artShift2011data.xlsx above)

Count: number of individuals of given morphospecies and length (see below) found on bush

Length: body length in millimetres

Phenotype: *Timema* only. S = striped, G = green

Sex: *Timema* only. M = male, F = female.

**bexHerbivory2012.xlsx**

Description: long format data for leaves damaged in bird exclusion experiment

Fields:

Block: spatial block (4 total)

Morph: maladaptation treatment (G = green, S = striped)

Caged: bird exclusion treatment (N = no bird exclusion, C = birds excluded with cage)

Leaf: leaf ID number, between 1 and ~100, renumbered for each bush

noHoles: number of holes found per leaf

chewed: binary response chewed Y/N (0 = no, 1 = yes)

**2011obsTimemaData.xlsx**

Description: raw data for *Timema* metapopulation observations

Fields:

PlantID: unique plant ID

Host: host-plant species (A = *Adenostoma fasciculatum*, C = *Ceanothus spinosus*)

X: x-coordinate (metres)

Y: y-coordinate (metres)

Logsize: natural logarithm of patch area

Green: number of green *Timema* in sample

Grey: number of grey *Timema* in sample

Red: number of red *Timema* in sample

Striped: number of striped *Timema* in sample

Total: total number of *Timema* in sample

Occupied: binary (0 = not occupied by *Timema*, 1 = occupied with at least 1 individual)

Logtotal: natural logarithm of total *Timema* abundance

Greenpro: proportion of all *Timema* of green morph

**Contact Tim Farkas at timothy.farkas at sheffield.ac.uk for more information.**