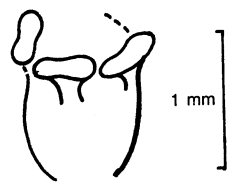
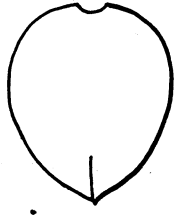


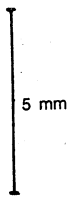
*E. peplus*  
CYATHIUM



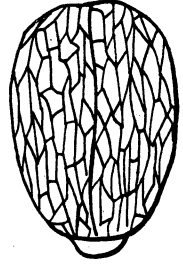
*E. helioscopia*



*E. glauca*



SEEDS

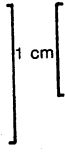


*E. lathyris*



*E. peplus*

GLANDS



*E. helioscopia*

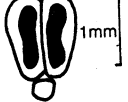
LEAVES



*E. maculata*



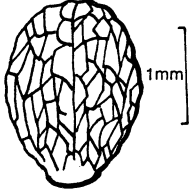
*E. peplus*



*E. exigua*



SEEDS



*E. helioscopia*

## HOW TO IDENTIFY SPURGES WILD IN CANTERBURY

COLIN J. WEBB

Many people are familiar with *Euphorbia peplus*, milkweed, and our native coastal *Euphorbia glauca*, but the other thirteen wild New Zealand spurges, all naturalised species, are less well known and six of these occur in Canterbury. The seven spurges which have not been collected here are all of local occurrence in the North Island.

The genus *Euphorbia* is a very interesting one with some 2000 species and a worldwide distribution. The species vary in habit from slender prostrate annuals to shrubs, and some African species are leafless, spiny and cactus-like - examples of these latter are grown in the glasshouses in the Christchurch Botanic Gardens. However, the species are united in having a very reduced inflorescence which looks like a single flower. This is called a cyathium, and consists of an outer cup-shaped structure, usually topped by 4 or 5 petal-like glands, and surrounding several much reduced male flowers and a single central female flower (fig.). The fruit is a 3-celled capsule with a single seed in each cell. All species also have milky sap and this may cause dermatitis.

The arrangement of the leaves, the shape of the petal-like glands, and the form of the seeds are all important in identification. Here I provide a key to and notes on all the spurges found wild in Canterbury, and illustrate critical features.

## KEY TO SPURGES WILD IN CANTERBURY

1. Stem leaves opposite (evident from leaf scars) ..... 2  
     Stem leaves and leaf scars alternate ..... 3
  
2. Plant procumbent; leaves 3-12 mm long, in  
     2 rows ..... *E. maculata*  
     Plant erect; leaves 30-150 mm long, in  
     4 rows ..... *E. lathyris*
  
3. Leaves serrate toward apex; glands without  
     horns ..... *E. helioscopia*  
     Leaves entire; glands with short or  
     long horns ..... 4
  
4. Annual herbs; seeds rough or shallowly  
     to deeply pitted ..... 5  
     Rhizomatous perennial herbs; seeds smooth ..... 6
  
5. Stem leaves ovate, petiolate; seeds with  
     few, deep pits ..... *E. peplus*  
     Stem leaves linear, apetiolate; seeds rough ..... *E. exigua*
  
6. Plant hairy ..... *E. characias*  
     Plant glabrous ..... 7
  
7. Terminal umbel with 7-12 main rays;  
     leaves mostly 10-20 mm long ..... *E. cyparissias*  
     Terminal umbel with usually 5 main rays; leaves  
     mostly 30-80 mm long ..... *E. glauca*

NOTES1. *E. characias*

Wulfen spurge

A hairy, stout, shrubby perennial, up to about 1 m tall. Leaves linear or oblanceolate, about 40-100 mm long. Glands yellowish, with short, slender or broad horns. Seeds smooth.

Wulfen spurge is native to the Mediterranean and Portugal and is found in scattered localities in the North Island. In the South Island it has been collected only from Christchurch. The species is widely cultivated, usually as *E. wulfenii*, and survives as a garden discard as well as seeding and establishing in cemeteries and waste places.

2. *E. cyparissias*

cypress spurge

A glabrous, rhizomatous, herbaceous perennial, up to about 0.5 m tall. Leaves linear, mostly 10-20 mm long. Glands with short slender awns. Seeds smooth.

Cypress spurge is native to Europe. In New Zealand it is found in Hawke's Bay, Wellington Province, and Marlborough. In Canterbury it has been collected only once, from Culverden. It is a weed of pastures and stony ground.

3. *E. exigua*

dwarf spurge

A glabrous annual, up to about 35 cm high. Leaves linear, 5-25 mm long. Glands with long slender horns. Seeds covered in small bumps, 4-angled (fig.).

Dwarf spurge is native to Europe, and from the Mediterranean to Iran. In New Zealand it is a weed of arable land in Marlborough and Canterbury.

4. *E. glauca*

A glabrous, rhizomatous, herbaceous perennial, up to about 1 m tall, but often much less. Leaves oblanceolate to obovate or elliptic, mostly 30-80 mm long. Glands deep purple, with slender or broad horns. Seeds smooth.

A native species found in coastal sites throughout the three main islands of New Zealand and on the Chatham Islands. It is much less common than formerly and there are no recent records for Canterbury.

5. *E. helioscopia*

sun spurge

A glabrous or sparsely hairy annual, up to 0.5 m tall. Often confused with *E. peplus*, but distinguished by the petiolate leaves serrate toward the apex (fig.), the glands lacking horns (fig.), and the rough seeds lacking deep pits (fig.).

Sun spurge is a native of Europe and central Asia found throughout the North Island, in the South Island from Nelson and Marlborough to Otago Peninsula, and on the Chatham Islands. It is a weed of gardens, waste places, riverbeds, and crops, locally common in mid-Canterbury and about Christchurch, also inland South Canterbury.

6. *E. lathyris*

caper spurge

An erect, glabrous annual or biennial up to about 1 m tall, easily distinguished from all other spurges in New Zealand by the opposite leaves arranged in 4 rows. Glands with blunt horns. Seeds covered in small bumps (fig.).

Caper spurge is native to the Mediterranean. In New Zealand it is found throughout the North Island and in the South Island from Nelson and

Marlborough to Otago. A weed of gardens, waste places and cultivated land, it is locally common in lowland mid and South Canterbury.

7. *E. maculata* spotted spurge

A moderately to densely hairy, procumbent annual. Distinguished from other Canterbury spurges by the habit, and the small (3-12 mm) opposite leaves arranged in 2 rows, often with a purple spot about the midvein. Glands with small white to purple appendages. Seeds with faint ridges, 4-angled.

Spotted spurge is native to North America and is found in gardens and waste places in the northern half of the North Island, Nelson City and Christchurch. In Christchurch it has only been collected from the Botanic Gardens and the City Council Nursery, Linwood.

8. *E. pepylus* milkweed

A glabrous erect annual, up to 40 cm tall but usually much less. Leaves ovate, petiolate, 3-20 mm long (fig.). Glands with long slender horns (fig.). Seeds quite distinctive, with 2 long pits on one face, and several smaller circular pits on the other (fig.).

Milkweed is native to Europe, the Mediterranean and Siberia. It occurs throughout New Zealand in waste places, gardens, riverbeds and coastal sites and is common in lowland Canterbury. Surely everyone has this one in their garden?