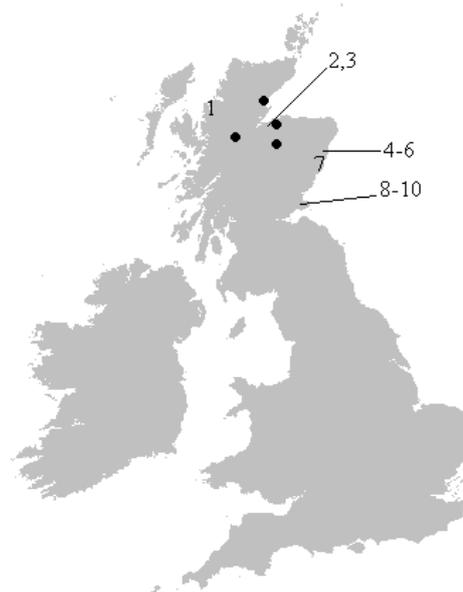


# *Moneses uniflora* (L.) Gray

One-flowered Wintergreen

Key:  
**Dots** refer to the native sites of the species  
**Numbers** refer to the nearby Botanical Collections



## Starting references

### Family

Pyrolaceae

### IUCN category (2001)

Vulnerable

### Habit

Rhizomatous, mycorrhizal, evergreen herb (perennial).

### Habitat

Ericaceous dwarf shrub communities of old pine plantations, on the most humid areas of the forest floor.

### Reasons for decline

Past collection (attractive species), changes in land use and forest management.

### Distribution in wild

Country	Locality & Vice County	Sites (10km <sup>2</sup> occurrences)	Population (plants)
Scotland	Castle Grant, Moray; Easterness, E. Sutherland	12	50-1000s

## Ex situ Collections

### Gardens close to the region of distribution of the species

- 1 Inverewe Garden
- 2 Cawdor Castle Gardens Estate
- 3 Brodie Castle
- 4 Pitmedden Garden
- 5 Cruickshank Botanic Garden
- 6 Duthie Park Winter Garden
- 7 Crathes Castle Garden
- 8 University of Dundee Botanic Garden
- 9 St Andrews Botanic Garden
- 10 Branklyn Garden

### Gardens with specialisation on family Pyrolaceae or genus *Moneses*

None

### Potential to grow the species in ex situ Collections

From RBG Edinburgh, Alpine nursery

- Propagation

Seed - are sown in September, in plastic pot containing 3:1 JI seed compost (sieved or lump-free)/fine grit and a top layer of soil litter collected *in situ* (the species is mycorrhizal) and top-dressed only with fine grit. Bottom water the pot until it's completely damp, then keep in a north-facing cold frame, closed at night and open the day until germination.

When seed germinate, the pot is moved into a cold glasshouse for the seedlings to grow large enough to be pricked out. Seedlings are pricked out the following spring in individual pot, in a standard mix containing 2:1:2 JI II/sieved leaf mould/coarse grit. It might be necessary to add leaf litter to maintain the mycorrhizal association. The pots are placed in the cold glasshouse and get additional light during short, dull days. Later, the plants will be transferred in a cold frame open during day time and closed at night, for hardening-off.

The plants get a monthly supplementary feeding regime of half the recommended amount of *Miracle-Gro*.

- Cultivation

Suitable for planting in a rock garden or heathland garden, in a semi-shaded and damp area.

## Plants For A Future

- Propagation

Seed - the only information we have on this species is that it is difficult from seed and germinates infrequently. We would suggest sowing the seed as soon as it is ripe if this is possible. Sow it into soil collected from around an established plant, only just covering the seed, and put the pot in a shady part of a cold frame. Pot up any young seedlings into individual pots as soon as they are large enough to handle, once again using soil from around an established plant. Plant out into their permanent positions when the plants are large enough. You should not need to use soil from around an established plant to do this since the soil in the pot will contain the necessary micorrhiza.

Division with great care in the spring. Pot up the divisions using some soil from around an established plant, grow on in a lightly shaded part of a greenhouse or frame and do not plant out until the plants are growing away vigorously.

- Cultivation

Prefers a moist sandy woodland soil in a cool position with partial shade[1, 11, 200]. Requires a peaty or leafy acid soil that remains moist in the summer.

This is a very difficult plant to grow. It requires a mycorrhizal relationship in the soil and therefore needs to be grown initially in soil collected from around an established plant[200]. It is also very difficult from seed as well as being intolerant of root disturbance which makes division difficult.

This species is rare decreasing in the wild in Britain. Surviving populations are threatened, usually by commercial forestry.

### ***Conservation information***

#### **Linkages to BAPs**

Cairngorms Lbap

Highland

Local BAP For Argyll And Bute

North East Scotland Biodiversity Partnership

Tayside BAP

#### **Known conservation programmes**

Unknown

#### **Habitat Management**

Protected sites with records for *Moneses uniflora* are listed on <http://www.searchnbn.net>

#### **Conservation programmes**

Unknown

### **Web References**

- Plants For A Future Database: [http://www.ibiblio.org/pfaf/cgi-bin/arr\\_html?Moneses+uniflora](http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Moneses+uniflora)
- NBN Gateway database: <http://www.searchnbn.net>