

# PASQUEFLOWER (*PULSATILLA VULGARIS*)

## LOCAL SPECIES ACTION PLAN FOR CAMBRIDGESHIRE

Last Reviewed: March 1999

### BACKGROUND

Pasqueflower (*Pulsatilla vulgaris*) was identified as a priority species for action by the Cambridgeshire Biodiversity Action Plan (1997). This plan sets out the specific actions required to sustain and conserve this species in Cambridgeshire.

### 1 CURRENT STATUS

- 1.1 The Pasqueflower is nationally scarce. It occurs on calcareous soils, usually on steep slopes (south- or west-facing), on the escarpment of chalk or Jurassic limestone, in old quarries or on ancient earthworks. Unfavourable conservation status in Europe. 0-24% of world population in UK. 25-49% decline in numbers/range in GB in last 25 years. Occurs annually in 16-100 10 km squares in GB.
- 1.2 It is a long-lived perennial with an extensive rootstock that reproduces mostly vegetatively. Flowering occurs generally from March until the end of June. Although some colonies produce large amounts of viable seed, establishment from seed in the wild is a rare event. Colonisation of new sites has not occurred due to the pasqueflower requiring specific conditions for germination and establishment and also to the inability of the plant to spread from site to site by vegetative means.
- 1.3 The largest colony occurs on the banks of Barnsley Warren in the Cotswolds whilst the smallest colony is its most northerly site where one plant occurs on Magnesian limestone in West Yorkshire.
- 1.4 Within Cambridgeshire pasqueflower occurs at the following sites:
  - Barnack Hills and Holes NNR
  - Devil's Dyke SSSI
- 1.5 Former sites within Cambridgeshire include:
  - Southorpe Paddocks SSSI
  - Southorpe Roughs SSSI
  - Furze Hills SSSI
  - Newmarket Heath SSSI
  - Fleam Dyke SSSI

Both populations that occur in Cambridgeshire are within Sites of Special Scientific Interest. Barnack Hills and Holes is a candidate Special Area of Conservation (cSAC). Part of the Devil's Dyke is also a cSAC and Pasqueflower occurs in this area and outside it.

## **2 CURRENT FACTORS CAUSING LOSS OR DECLINE**

The populations that occur within Cambridgeshire are currently at roughly steady numbers however the following are factors which may have caused the loss on other sites.

- 2.1** Under-grazing or lack of grazing - results in reversion to rank grassland and eventually to closed scrub and woodland.
- 2.2** Overgrazing by rabbits
- 2.3** Small isolated populations
- 2.4** Habitat destruction eg. quarrying Swaddiwell Field.
- 2.5** Establishment from seed is rare.
- 2.6** Lack of mowing leading to scrub encroachment.
- 2.7** Unknown factors such as disease.

## **3 CURRENT ACTION**

- 3.1** Current action within Cambridgeshire consists of ensuring that those sites where pasqueflower occurs are managed sympathetically through grazing or mowing to provide conditions to maintain (and enhance where possible) the current population levels.

*Action -English Nature and Wildlife Trust, Cambs Greenbelt project, Linear sites Project and owners/occupiers of existing site.*

- 3.2** Seed has been collected from the plants at Barnack by site staff and has germinated producing plants that could be used for reintroduction onto other suitable sites. Further seed will be collected for growing on to use in reintroduction programme.

*Action -English Nature*

- 3.3** Monitoring the number of plants that occur at Barnack Hills and Holes National Nature Reserve has occurred annually since 1977 and is ongoing.

*Action -English Nature*

- 3.4** Deposit seeds at Kew Garden seed bank.

*Action - English Nature*

## **4 OBJECTIVES AND LONG TERM TARGETS**

- 4.1** Safeguard, monitor, maintain (and where necessary enhance) current populations within Cambridgeshire.

*Action - English Nature and Wildlife Trust, Cambs Greenbelt project, Linear sites Project and owners/occupiers of existing sites.*

- 4.2** Reintroduce to 2 former sites by 2005 in Cambridgeshire (possibly Southorpe Roughts and Paddock SSSIs).

*Action - English Nature and Wildlife Trust*

**4.3** Monitor and maintain populations at any new or rediscovered sites within Cambridgeshire.

*Action - depends on the site.*

## **5 PROPOSED ACTION WITH TARGETS**

### **5.1 Policy and Legislation**

**5.1.1** Barnack Hills and Holes NNR and the Devil's Dyke SSSI are candidate Special Areas of Conservation. Continue the designation process.

*Action- English Nature and DETR*

### **5.2 Safeguard and Management**

**5.2.1** Provide suitable management at all sites where pasqueflower occurs in Cambridgeshire.

*Action - English Nature and Wildlife Trust, Cambs Greenbelt project, Linear sites Project and owners/occupiers of existing sites.*

### **5.3 Species Management and Protection**

**5.3.1** Continue to collect seed from Barnack Hills and Holes and keep stocks in cultivation.

*Action -English Nature and volunteers.*

### **5.4 Advisory.**

**5.4.1** Ensure that landowners and managers at existing sites are aware of the presence and importance of conserving this species and its appropriate methods of habitat management

*Action - English Nature and Wildlife Trust, Cambs Greenbelt project, Linear sites Project and owners/occupiers of existing sites.*

**5.4.2** Ensure that all relevant parties are consulted before reintroductions of this species into former sites occur.

*Action- English Nature and Wildlife Trust*

## **5.5 Future Research and Monitoring**

**5.5.1** Continue to monitor populations of pasqueflower at Barnack Hills and Holes NNR annually.

*Action - English Nature*

**5.5.2** Monitor sites of reintroduction at least annually for first five years after planting.

*Action - English Nature and Wildlife Trust*

**5.5.3** Research is needed on seed viability and why recruitment from seed is rare at current sites.

*Action-?*

**5.5.4** Encourage research on the ecology and conservation of this species.

*Action - English Nature and ?*

**5.5.5** Provide information collected to the Cambridgeshire Biological Records Centre, when set up.

*Action-English Nature, Wildlife Trust and recorders.*

## **5.6 Communications and Publicity**

**5.6.1** Contact the media as appropriate when introducing pasqueflower to former sites and during main flowering season.

*Action - English Nature and Wildlife Trust*

**5.6.2** Make information available to landowners where appropriate.

*Action - English Nature and , Wildlife Trust, Cambs Greenbelt project and Linear sites Project.*