

Report under The Conservation of Habitats and  
Species Regulations 2017 (as amended),  
Regulation 9A

**2019-2024**

Conservation status assessment for the species:

**S1614 - Creeping marshwort**

***(Apium repens)***

**England**



**For further information please contact:**

Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX.  
<https://www.gov.uk/government/organisations/natural-england>

JNCC, Quay House, 2 East Station Road, Fletton Quays, Peterborough, PE2 8YY.  
<https://jncc.gov.uk>

This report was produced by JNCC in collaboration with Natural England.

**This document should be cited as:**

Natural England and JNCC. (2026). Conservation status assessment for the species: S1614 Creeping marshwort (*Apium repens*).

This resource is published by Natural England under the [Open Government Licence v3.0](#) for public sector information. You are encouraged to use and reuse information subject to certain conditions. Note that some images, maps or tables may not be copyright Natural England; please check sources for conditions of re-use. © Natural England 2026.

The views and recommendations presented in this resource do not necessarily reflect the views and policies of JNCC.

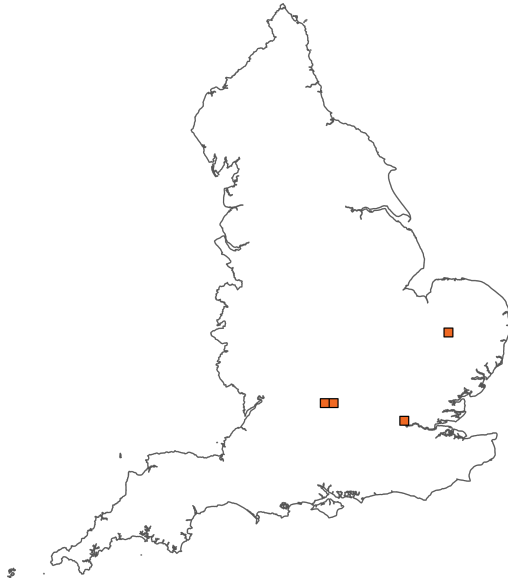
### **Important note - Please read**

- The information in this document represents the England Report under The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A, for the period 2019-2024.
- It is based on supporting information provided by Natural England, which is documented separately.
- The Habitats Regulations reporting 2019-2024 Approach Document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- Maps showing the distribution and range of the species are included.
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the assessments. Further underpinning explanatory notes are available in the related country reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was not relevant to this species (section 12 National Site Network coverage for Annex II species).

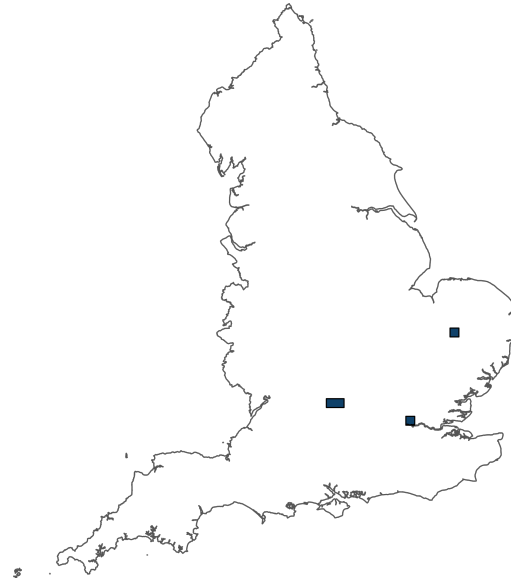
Further details on the approach to the Habitats Regulations Reporting 2019-2024 are available on the [JNCC website](#).

## Assessment Summary: Creeping marshwort

### Distribution Map



### Range Map



**Figure 1:** England distribution and range map for S1614 - Creeping marshwort (*Apium repens*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority. The 10km grid square distribution map is based on available species records within the current reporting period.

**Table 1:** Table summarising the conservation status for S1614 - Creeping marshwort (*Apium repens*). Overall conservation status for species is based on assessments of range, population, habitat for the species, and future prospects.

### Overall Conservation Status (see section 11)

Unknown (XX)

### Breakdown of Overall Conservation Status

Range (see section 5)

Favourable (FV)

Population (see section 6)

Favourable (FV)

Habitat for the species (see section 7)

Unknown (XX)

Future prospects (see section 10)

Unknown (XX)

## List of Sections

National Level .....	5
1. General information .....	5
2. Maps .....	5
3. Information related to Annex V Species .....	5
Biogeographical Level .....	7
4. Biogeographical and marine regions .....	7
5. Range .....	7
6. Population .....	9
7. Habitat for the species .....	11
8. Main pressures .....	12
9. Conservation measures .....	13
10. Future prospects .....	14
11. Conclusions .....	15
12. UK National Site Network (pSCIs, SCIs, SACs) coverage for Annex II species .....	16
13. Complementary information .....	17
14. References .....	18
Biogeographical and marine regions .....	18
Main pressures .....	19
15. Explanatory Notes .....	20

## National Level

### 1. General information

1.1 Country	England
1.2 Species code	S1614
1.3 Species scientific name	<i>Apium repens</i>
1.4 Alternative species scientific name	Helosciadium repens
1.5 Common name	Creeping marshwort
Annex(es)	II, IV

### 2. Maps

2.1 Sensitive species	No
2.2 Year or period	2010-2024
2.3 Distribution map	Yes
2.4 Distribution map; Method used	Complete survey or a statistically robust estimate

#### 2.5 Additional information

The time period 2010-2024 has been used to provide a more representative current distribution for all plant species in this reporting round. This is because the national dataset of botanical records (BSBI) could show a dip in records post 2019 for many species, which is an artefact of the relaxation in recording effort post production of the Plant Atlas 2020. For this species annual monitoring has been consistent and rigorous over time and there is good confidence in the current known distribution, despite the possibility of the species being overlooked or misidentified as other more common and widespread members of the same genus.

### 3. Information related to Annex V Species

3.1 Is the species taken in the wild / exploited?

3.2 What measures have been taken?

a) Regulations regarding access to property

---

b) Temporary or local prohibition on the taking of specimens in the wild and exploitation

---

c) Regulation of the periods and/or methods of taking specimens

---

d) Application of hunting and fishing rules which take account of the conservation of such populations

---

e) Establishment of a system of licences for taking specimens or of quotas

---

f) Regulation of the purchase, sale, offering for sale, keeping for sale, or transport for sale of specimens

---

g) Breeding in captivity of animal species as well as artificial propagation of plant species

---

Other measures

---

Other measures description

---

### 3.3: Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

---

**Table 2:** Quantity taken from the wild during the reporting period (see 3.3a for units). For species with defined hunting seasons, Season 1 refers to 2018/2019 (autumn 2018 to spring 2019), and Season 6 to 2023/2024. For species without hunting seasons, data are reported by calendar year: Year 1 is 2019, and Year 6 is 2024.

	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
<b>b) Minimum</b>	-	-	-	-	-	-
<b>c) Maximum</b>	-	-	-	-	-	-
<b>d) Unknown</b>	-	-	-	-	-	-

---

**3.4: Hunting bag or quantity taken in the wild; Method used**

**3.5: Additional information**

No additional information

## Biogeographical Level

### 4. Biogeographical and marine regions

**4.1 Biogeographical or marine region where the species occurs** ATL

**4.2 Sources of information**

See section 14 References

### 5. Range

**5.1 Surface area (km<sup>2</sup>)** 397.67

**5.2 Short-term trend; Period** 2013-2024

**5.3 Short-term trend; Direction** Increasing

**5.4 Short-term trend; Magnitude**

a) Estimated minimum

b) Estimated maximum

c) Pre-defined range

d) Unknown

e) Type of estimate

f) Rate of decrease

**5.5 Short-term trend; Method used** Complete survey or a statistically robust estimate

**5.6 Long-term trend; Period** 2000-2024

**5.7 Long-term trend; Direction** Increasing

---

**5.8 Long-term trend;  
Magnitude**

**a) Minimum**

**b) Maximum**

**c) Rate of decrease**

**5.9 Long-term trend; Method used** Complete survey or a statistically robust estimate used

**5.10 Favourable Reference Range (FRR)**

**a) Area (km<sup>2</sup>)** 400

**b) Pre-defined increment**

**c) Unknown** No

**d) Method used** Reference-based approach

**e) Quality of information** high

**5.11 Change and reason for change in surface area of range**

**a) Change** Yes

**b) Genuine change** Yes

**c) Improved knowledge or more accurate data** No

**d) Different method** No

**e) No information** No

**f) Other reason** No

**g) Main reason** Genuine change

**5.12 Additional information**

The reappearance of the population in Essex and a new population discovered in West Suffolk in 2020 means that the current range is 397.67km<sup>2</sup>. This is just shy of the FRV of 400km<sup>2</sup> which was set in 2019 at a value of 400km<sup>2</sup>, the rationale being that this was no lower when the Habitats Directive came into force. It was already posited in 2019 that an FRV of 400km<sup>2</sup> was likely to be too low for the long term viability of the species, bearing in mind that the prior range for the date class 1930-1969 is calculated at 610

km<sup>2</sup>. The transient nature of the habitat (seasonal inundation resulting in bare mud) reliant on active, dynamic floodplain hydrology, or management that mimics these processes means that populations are precarious unless they are able to form dynamic metapopulations at a landscape scale and the constraints of the modern landscape in lowland England rarely allow this to occur. However, recovery of range is clearly possible given the gain of an additional previously unknown catchment since the last reporting period, and therefore the recommendation is to increase the FRV for the next reporting round to include a further catchment represented by an increase in the FRV from 400 to 500km<sup>2</sup>.

## 6. Population

**6.1 Year or period** 2010-2024

### 6.2 Population size (in reporting unit)

**a) Unit** number of map 1x1 km grid cells

**b) Minimum**

**c) Maximum**

**d) Best single value** 7

**6.3 Type of estimate** Best estimate

**6.4 Quality of extrapolation to reporting unit** high

### 6.5 Additional population size (using population unit other than reporting unit)

**a) Unit** number of localities

**b) Minimum**

**c) Maximum**

**d) Best single value** 8

**e) Type of estimate** Best estimate

**6.6 Population size; Method used** Complete survey or a statistically robust estimate

**6.7 Short-term trend; Period** 2013-2024

<b>6.8 Short-term trend; Direction</b>	Increasing
<b>6.9 Short-term trend; Magnitude</b>	
<b>a) Estimated minimum</b>	
<b>b) Estimated maximum</b>	
<b>c) Pre-defined range</b>	Increasing 26 - 50%
<b>d) Unknown</b>	No
<b>e) Type of estimate</b>	Best estimate
<b>f) Rate of decrease</b>	
<b>6.10 Short-term trend; Method used</b>	Based mainly on extrapolation from a limited amount of data
<b>6.11 Long-term trend; Period</b>	2000-2024
<b>6.12 Long-term trend; Direction</b>	Increasing
<b>6.13 Long-term trend; Magnitude</b>	
<b>a) Minimum</b>	
<b>b) Maximum</b>	
<b>c) Confidence interval</b>	
<b>d) Rate of decrease</b>	
<b>6.14 Long-term trend; Method used</b>	Complete survey or a statistically robust estimate
<b>6.15 Favourable Reference Population (FRP)</b>	
<b>ai) Population size</b>	8
<b>aii) Unit</b>	number of localities
<b>b) Pre-defined increment</b>	
<b>c) Unknown</b>	No
<b>d) Method used</b>	Expert opinion
<b>e) Quality of information</b>	high

## 6.16 Change and reason for change in population size

a) Change Yes

---

b) Genuine change Yes

---

c) Improved knowledge or more accurate data

---

d) Different method

---

e) No information

---

f) Other reason

---

g) Main reason

## 6.17 Additional information

The number of occupied monads is currently 7, at 8 localities, exceeding the last reporting round on both unit measures of population. The increases are five to seven occupied monads since last reporting round, and from four localities in the third reporting round to 8 localities in this reporting round.

**6.18 Age structure, mortality and reproduction deviation** Yes, but not strongly deviating from normal

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat (for long-term survival)

a) Is area of occupied habitat sufficient? Unknown

---

b) Is quality of occupied habitat sufficient? Unknown

---

c) If No or Unknown, is there a sufficiently large area of unoccupied habitat of suitable quality? Unknown

### 7.2 Sufficiency of area and quality of occupied habitat; Method used

<b>a) Sufficiency of area of occupied habitat; Method used</b>	Based mainly on extrapolation from a limited amount of data
<b>b) Sufficiency of quality of occupied habitat; Method used</b>	Based mainly on extrapolation from a limited amount of data
<b>7.3 Short-term trend; Period</b>	2013-2024
<b>7.4 Short-term trend; Direction</b>	Increasing
<b>7.5 Short-term trend; Method used</b>	Based mainly on extrapolation from a limited amount of data
<b>7.6 Long-term trend; Period</b>	2000-2024
<b>7.7 Long-term trend; Direction</b>	Increasing
<b>7.8 Long-term trend; Method used</b>	Based mainly on extrapolation from a limited amount of data

### 7.9 Additional information

Intensive management and conservation effort has maintained the species in previously known catchments but habitat extent is restricted, and there is a lack of connectivity which hinders dynamism required for flourishing metapopulations. The habitat at the new location in West Suffolk is also restricted in extent and without intensive management will decline in quality. However there is potential in Oxfordshire and West Suffolk catchments for targeted management to improve habitat quality, connectivity and extent.

## 8. Main pressures

### 8.1 Characterisation of pressures

**Table 3:** Pressures affecting the species, including timing and importance/impact ranking. Pressures are defined as factors acting currently and/or during the reporting period (2019–2024). Rankings are: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Pressure	Timing	Ranking
PA05: Abandonment of management/use of grasslands and other agricultural and agroforestry systems (e.g. cessation of grazing, mowing or traditional farming)	Ongoing and likely to be in the future	Medium (M)

PF14: Modification of flooding regimes, flood protection for built-up areas	Ongoing and likely to be in the future	High (H)
PI01: Invasive alien species of Union concern	Ongoing and likely to be in the future	Medium (M)
PL05: Modification of hydrological flow (mixed or unknown drivers)	Ongoing and likely to be in the future	High (H)

## 8.2 Sources of information

See section 14 References

## 8.3 Additional information

No additional information

## 9. Conservation measures

### 9.1: Status of measures

#### a) Are measures needed?

Yes

#### b) Indicate the status of measures

Measures identified and taken

### 9.2 Main purpose of the measures taken

Restore the habitat of the species (related to 'Habitat for the species')

### 9.3 Location of the measures taken

Both inside and outside National Site Network

### 9.4 Response to measures

Medium-term results (within the next two reporting periods, 2025–2036)

### 9.5 List of main conservation measures

**Table 4:** Key conservation measures addressing current pressures and/or anticipated threats during the next two reporting periods (2025–2036). Measures are ranked by importance/impact: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Conservation measure	Ranking
MI02: Management, control or eradication of established invasive alien species of Union concern	Medium (M)

MK03: Restoration of habitats impacted by multi-purpose hydrological changes	High (H)
MS02: Reintroduce species from the directives	High (H)
MS03: Restoration of habitat of species from the directives	High (H)

## 9.6 Additional information

Wider reaching measures relating to the hydrology of the catchments, flooding events periodicity, timing and water quality will also impact the recovery of the species.

## 10. Future prospects

### 10.1a Future trends of parameters

<b>ai) Range</b>	Overall stable
<b>bi) Population</b>	Overall stable
<b>ci) Habitat for the species</b>	Overall stable

### 10.1b Future prospects of parameters

<b>aii) Range</b>	Poor
<b>bii) Population</b>	Good
<b>cii) Habitat for the species</b>	Poor

### 10.2 Additional information

Future prospects are difficult to predict as the species relies on intensive conservation effort, much of which has been carried out by volunteers, which although has been successful in maintaining and slightly increasing the remaining targeted populations, needs to be sustained. Increases in range to near to the FRV were achieved by a combination of conservation effort at a previously known population and the unexpected discovery at a hitherto unrecorded population in a new catchment. The fact that recovery is possible and the species has appeared in a new catchment serves as great encouragement that the species can be secured in the long term, including by re-establishing the population at Skipwith near York which would expand the current range as well as population. Reliance on conservation efforts will continue, plus wider landscape scale floodplain restoration and allowing natural processes of seasonal

inundation (with accompanying reduction in pollution) and appropriate management and grazing practices.

## 11. Conclusions

<b>11.1 Range</b>	Favourable (FV)
<b>11.2 Population</b>	Favourable (FV)
<b>11.3 Habitat for the species</b>	Unknown (XX)
<b>11.4 Future prospects</b>	Unknown (XX)
<b>11.5 Overall assessment of Conservation Status</b>	Unknown (XX)
<b>11.6 Overall trend in Conservation Status</b>	Improving

### 11.7 Change and reason for change in conservation status

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

### 11.7 Change and reason for change in conservation status trend

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

### 11.8 Additional information

The appearance of a new population unexpectedly in a new locality and catchment, and the reappearance of a previously known population in a second catchment has contributed to a change in the current conservation status of the species. However uncertainties around habitat for the species and future prospects mean the new status overall is unknown. However, future improvements in range and population are unlikely to be as significant as those seen in this reporting period, without considerable conservation effort to establish new localities and maintain the existing in optimum condition. It is dependent on small and constrained areas of suitable habitat. Added to this, the fact that the habitat for the species is dependent on perturbation to expose bare damp mud and therefore highly vulnerable to succession in to closed swards, means that without continued conservation interventions until such time as larger scale naturally

dynamic floodplains can be restored in the catchments, the species has an uncertain future.

## 12. UK National Site Network (pSCIs, SCIs, SACs) coverage for Annex II species

### 12.1 Population size inside the pSCIs, SCIs and SACs network

a) Unit	number of localities
b) Minimum	
c) Maximum	
d) Best single value	4
12.2 Type of estimate	Best estimate
12.3 Population size inside the network; Method used	Complete survey or a statistically robust estimate
12.4 Short-term trend of population size within the network; Direction	Stable
12.5 Short-term trend of population size within the network; Method used	Complete survey or a statistically robust estimate
12.6 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Direction	Stable
12.7 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Method used	Based mainly on expert opinion with very limited data

### 12.8 Additional information

Recorded from four monads in the single SAC site, Port Meadow, which was the key location in the 2019 round. Neither the rediscovered and newly discovered populations are within SAC sites. The number of plants fluctuates greatly from year to year, as does the area occupied. Overall the population in the SAC is considered stable, although threats exist here, including the cessation of grazing which could rapidly cause

significant problems for the species, as could the impacts of hydrological change, some of which are climate change related, compounded by land management changes in the catchment.

## **13. Complementary information**

### **13.1 Justification of percentage thresholds for trends**

No justification information

### **13.2 Trans-boundary assessment**

No trans-boundary assessment information

### **13.2 Other relevant information**

No other relevant information

## 14. References

### Biogeographical and marine regions

#### 4.2 Sources of information

BSBI Distribution database (Accessed January 2025)

Jones, J., 2025 'Report of conservation action for rare Breckland plants 2024 - 2025' A Report to Natural England, by Jo Jones, Brecks Conservation Officer, Plantlife, March 2025

JNCC, 2019a European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) Fourth Report by the United Kingdom under Article 17 on the implementation of the Directive from January 2013 to December 2018 Supporting documentation for the conservation status assessment for the species: S1614 - Creeping marshwort (*Apium repens*) ENGLAND. <https://jncc.gov.uk/jncc-assets/Art17/S1614-EN-Habitats-Directive-Art17-2019.pdf>

JNCC, 2019b European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) Fourth Report by the United Kingdom under Article 17 on the implementation of the Directive from January 2013 to December 2018 Supporting documentation for the conservation status assessment for the species: S1614 - Creeping marshwort (*Apium repens*) UNITED KINGDOM. <https://jncc.gov.uk/jncc-assets/Art17/S1614-UK-Habitats-Directive-Art17-2019.pdf>

Rumsey, Dr. F., 2020 'Helosciadium repens Update 2020', unpublished report for Natural England.

Stroh, P.A., Humphrey, T.A., Burkmar, R.J., Pescott, O.L., Roy, D.B., & Walker, K.J., 2023 *Helosciadium repens* in BSBI Online Plant Atlas 2020, <https://plantatlas2020.org/atlas/2cd4p9h.vek1xx> (Accessed January 2025)

Webb, J.A., 2024 Creeping Marshwort *Helosciadium* (formerly *Apium*) repens six sites in Oxfordshire, 2024, report for Ashmolean Natural history Society of Oxfordshire Oxfordshire Flora Group and Natural England.

Woodward, I. & Webster, M., 2021 'A natural regeneration approach to wildflower meadow creation results in the appearance of *Helosciadium repens* (Creeping Marshwort) in West Suffolk.' BSBI News 146:3-6

## Main pressures

### 8.2 Sources of information

No sources of information

## 15. Explanatory Notes

Field label	Note
2.1: Sensitive species	No evidence of any collection threat for this species or threat from other indirect effects (e.g. compaction of trampling) so not considered sensitive
2.4: Distribution map; Method used	Annual surveys of the Oxfordshire populations are conducted by the Oxfordshire Flora Group (formerly by the Ashmolean Natural History Society). The population at the former site in Walthamstow, Essex was rediscovered during this reporting period and a new population was found in Thetford, West Suffolk. Data is therefore considered good and complete.
2.3: Distribution map	Data from BSBI Distribution database (Accessed January 2025)
5.3: Short-term trend; Direction	Species is extant in Oxfordshire, has reappeared in Essex after site management including cattle poaching and a new hectad was discovered in West Suffolk almost certainly from buried seed in the seedbank exposed by digger work to scrape off the topsoil, followed by inundation from the River Little Ouse, during creation of a new but unsown wildflower meadow. Occupied hectads have therefore increased from one to three.
5.10: Favourable Reference Range (FRR)	The FRV for range was increased from 300 to 400 in 2019 because this greater area is now believed to be required to support a viable population. This FRV value is no lower than the range estimate from when the Habitats Directive came into force in the UK (JNCC, 2019a,b). The species has always had a restricted range in the UK, occurring only in England, historically one location in the north east, and south central England. Expert opinion in the 2019 judged that an additional catchment would provide greater viability in the long term, which fortuitously has occurred during this reporting round, from a long buried seed bank in West Suffolk at a previously unrecorded location. In addition, its reappearance in a previously known catchment means that the species is now known from three catchments. However

---

only one of these catchments holds multiple populations, that could be construed as a dynamic metapopulations, and the risk of chance events impacting the species is still present.

The FRV for range is still low given the extent of occurrence for the date class 1930-1969 is calculated at 610 km<sup>2</sup>, and consideration needs to be given as to whether 400km<sup>2</sup> is really sufficient for long-term viability. The FRV increasing to 400km<sup>2</sup> was justified, as since 1994 the trend in range had been increasing at a gradual rate, in part due to intensive conservation care and recently by the discovery of new hectad. Conservation for this species has a long history, with the classic Oxfordshire site first designated in 1955 (under the 1949 Act). This has ensured the maintenance of this site for the species, whilst introductions and conservation management at other sites in Oxfordshire have led to an increase in recent years. It is likely that without active conservation work the range for this species would not have increased since 1994, and the species would not have reappeared at the Essex site. The new and unexpected appearance adjacent to the River Little Ouse in West Suffolk at a previously unknown location but thought to be due to exposure of long buried seed provides hope that similar actions in other floodplains such as projects to re-meander and re-naturalise rivers could also stimulate long buried seed. Given that the FRV has nearly been reached in this reporting round, further gains are clearly possible and desirable to secure long term viability, therefore it is recommended that the FRV is increased by another increment to 500km<sup>2</sup> in further reporting rounds to represent another catchment in the distribution of the species.

---

5.11: Change and reason for change in surface area of range

Geniune increase from 200km<sup>2</sup> in 2019 report, to 397.67km<sup>2</sup> in this reporting round, due to reappearance in the second catchment and the serendipitous appearance in a third, not previously recorded catchment.

6.2: Population size	<p>In the third reporting round (2013) number of localities was used as the unit of measure with the FRP set at 6 localities (JNCC, 2019a). At that time there were records from four localities: three within 3 km of each other near Oxford (main site - Port Meadow, Binsey Green (restored) and North Hinksey (introduced), and at one locality at Walthamstow. In 2019 the number of localities was just two. Number of localities was used as a proxy for population size, since the populations at each site undergo large fluctuations, making the number of individuals (in any case very difficult to assess due to the creeping growth form) a poor measure. However in the fourth reporting round (2019), the main unit of measure was changed to the number of occupied 1km squares (monads) at which time there were five, with the number of localities used as the additional population measure, but confusingly the FRP was retained as 6 localities and there were only two in 2019. In reality both units of measure as useful in assessing population size. There were 7 occupied monads in the third reporting round in England and 5 in the fourth and this has now increased again to 7 occupied monads. The number of localities in this the fifth reporting round has increased to 8 localities for this reporting period.</p>
6.5: Additional population size	<p>Number of localities in the third reporting round was four, declining to just two in the fourth reporting round at Port Meadow and North Hinksey (both in Oxfordshire), following its apparent disappearance from Binsey (due to lack of management) and Walthamstow (Essex). In this reporting round the number of localities has increased to eight, with six in Oxfordshire, one in Essex and one in West Suffolk.</p>
5.3: Short-term trend; Direction	<p>Clear increase from five to seven occupied monads since last reporting round, and from four localities in the third reporting round to 8 localities in this reporting round.</p>
5.7: Long-term trend; Direction	<p>In 1994 the species was only known from one location (Port Meadow) and the overall, the trend is increasing despite a dip in the fourth reporting round.</p>

---

6.16: Change and reason for change in population size

The number of localities has increased from one only (the remaining extant site at Port Meadow, Oxon known since 1994); by virtue of introduction to North Hinksey in 1996; it appeared in Binsey Green in 1999, followed by three more reintroduction sites in Oxford (all extant but not all are thriving or completely self sustaining yet); has reappeared at Walthamstow (Essex) in 2020 and a new population was discovered in West Suffolk in 2020.

---

7.1: Sufficiency of area and quality of occupied habitat

The main site, Port Meadow in Oxford, is an extensive neutral grassland on the Thames flood-plain with a history of continuous grazing and periodic surface flooding for thousands of years reflected in the plants associations. It is assumed the plant has been here for a very long time so the area of habitat is assumed to be sufficient. Recent concerns about reduction in habitat quality due to changes in grazing regimes, and seasonality and duration of flood events, coupled with water quality, are of greater concern than the relatively limited extent of habitat. Reintroduction sites in Oxfordshire are also valley floodplain meadow and fen judged to be similar to the Port Meadow location. The habitat at Walthamstow Marshes (Essex) is restricted to a moderately open area created by ditch management on the edge of pasture which had been ungrazed for many years and become tall herb vegetation which led to the disappearance of the species. Grazing was restored and the plant reappeared on open poached areas as result. The habitat at the new monad and location in Thetford, West Suffolk, initially was exposed buried soil after the surface vegetation (mainly vigorous grasses) and soil was scraped off to create a wildflower meadow and was left bare to promote natural regeneration. This exposed area will undergo rapid transformation as colonisation proceeds and whether the site remains suitable will depend on the nature of periodic surface flooding from the adjacent River Little Ouse and appropriate grazing and/or cutting management (Jones, 2025).

---

6.18: Age structure, mortality and reproduction

Oxfordshire reintroduction sites are still periodically augmented with new propagules, particularly following years when there is poor recruitment, sometimes attributable to prolonged surface flooding, and sites receive intensive management to ensure suitable habitat conditions.

---

2.2: Year or Period

The time period 2010-2024 was extended to account for a potential dip in records post 2019 which is an artefact of the relaxation in recording effort post production of the Plant Atlas 2020 (Stroh et al, 2023). The data for this species are considered good and complete for the entire period due to consistent recording effort by Oxfordshire Flora Group (formerly by the Ashmolean Natural History Society) in the main stronghold, that is not to say that this species bears similarity to other more common and widespread species of the same genus and may have been overlooked in other situations.