

Life stages of *Fritillaria meleagris*.

Seeds - ripen and dispersed in June to early July. Germinate within a year and need exposure to low temperatures.

Seedling - a young plant formed by the germinating seed. It has a tubular leaf 0.1 cm to 0.2 cm wide and between 3 and 10 cm long.

Juvenile - non-flowering plants with a single leaf 0.2 cm to 0.5 cm wide and up to 13 cm long.

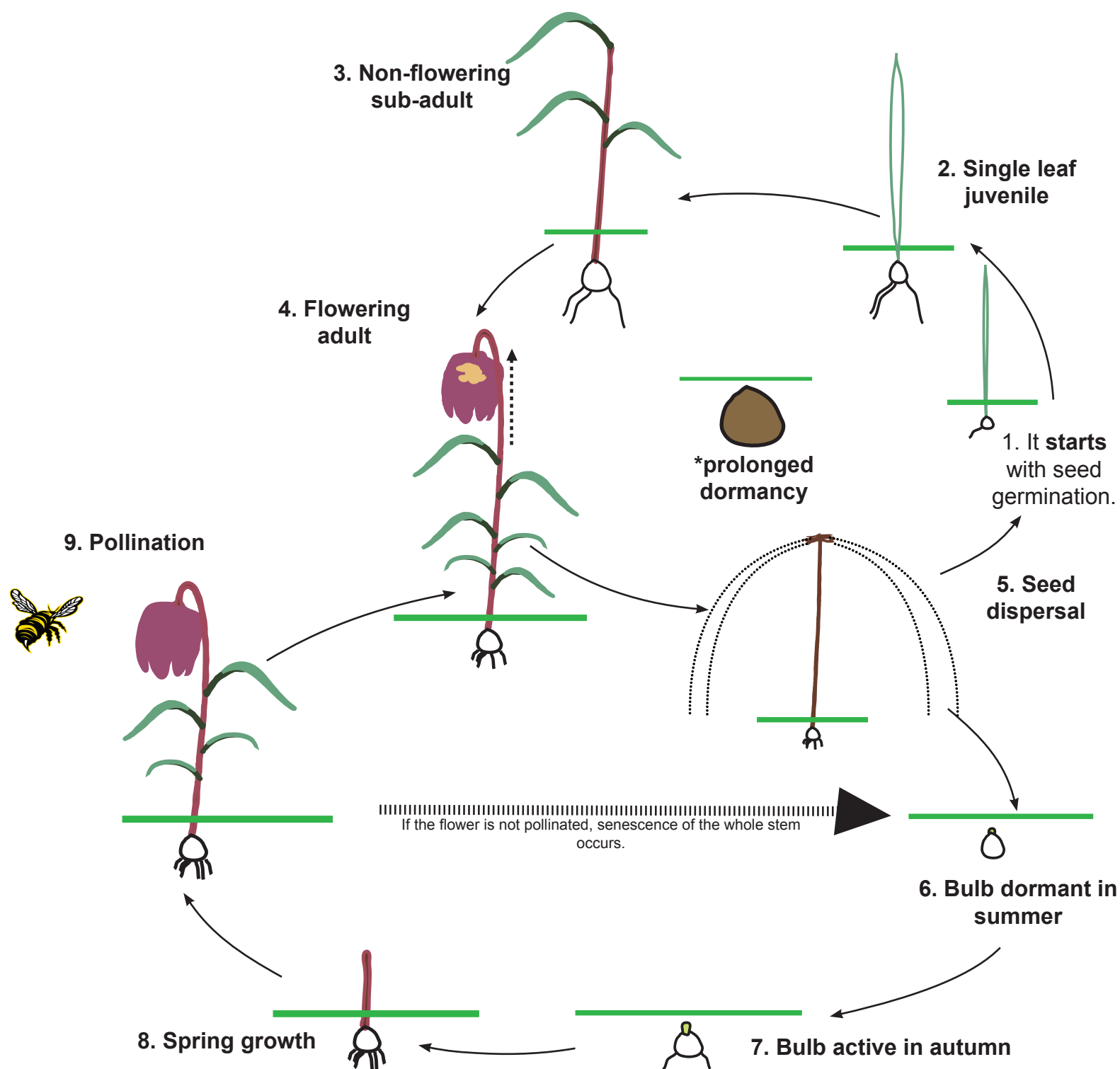
Adult vegetative - non-flowering plants with between 3 and 9 leaves either arranged along the stem, or a two-leaved rosette, or a single large leaf between 1 cm and 2 cm wide and up to 20 cm long.

Flowering - plants with 1 to 2 flowers and between 3 and 9 leaves arranged along the stem.

The growth rate from juvenile to flowering plants largely depends on nutrient availability, typically taking 5 to 7 years.

The sequence of age stages shown on the diagram from single leaved juveniles to many leaved adults, only occurs in 6 % of plants. The majority of plants swing from a flowering to a vegetative state and to prolonged dormancy many times in their life. About 60 % of juveniles stay below ground for a year after their first appearance. One to two years of dormancy is common in adult plants. The mortality rate is very low.

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<https://doi.org/10.1111/1365-2745.13886>



Fritillary Facts

Snakeshead fritillaries (*Fritillaria meleagris*) are nationally rare, but can be very abundant locally. Only a few sites in the UK are considered to hold wild populations, although many other sites have had plants introduced.

Bare patches of earth left by floods create areas where fritillary seedlings can germinate. They rely on the traditional meadow system of an annual hay cut in June/July, as they cannot tolerate grazing during the growing season.

Snakeshead fritillary flowers arrive early in the year (April) and are mainly pollinated by early flying species such as queen bumblebees.

Other names recorded include:

Chequered Lily, Dead Man's Bell, Leper's Bells and Oaksey Lily. Fritillary and '*Fritillaria*' come from a Latin origin '*fritillus*' which means 'dice-box' as the markings are similar to a chequer board. '*Meleagris*' means 'speckled' and is the Greek name for a guinea hen.

An old country belief about snakeshead fritillary was that it followed the path of the Romans, springing up wherever their footsteps had fallen.

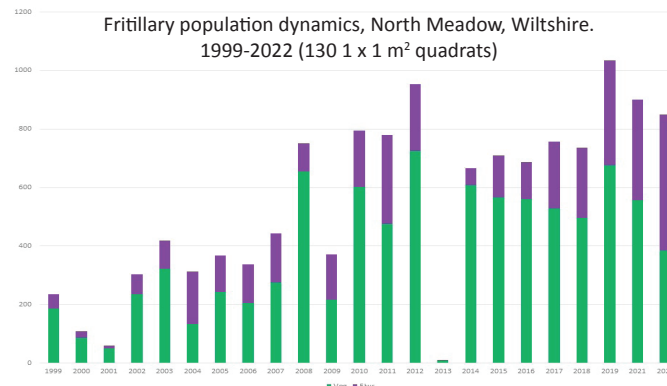
Floodplain Meadows Partnership Research

Research is being carried out on snakeshead fritillary populations at North Meadow (Wiltshire), which makes up 80% of the total UK population, Clattinger Farm (also Wiltshire), and Lugg Meadows (Herefordshire).

At these sites, plants are counted annually at fixed positions by the Floodplain Meadows Partnership and volunteers, who record the numbers of plants and flowers (including the colour) and measure the plant height. Monthly bumblebee surveys are also carried out at these sites to understand the relationship between snakeshead fritillaries and their main pollinators.

The graph below indicates that the population on North Meadow is generally increasing. The decreases seen in 2004, 2009 and 2013 were probably caused by excessive flooding, resulting in dormancy for many plants. The increase in the number of seedlings happens after summer flooding, which often removes the grass canopy, allowing fritillary seedlings sufficient light to survive.

Snakeshead fritillary (*Fritillaria meleagris*)



All photos: Mike Dodd



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