

Forbs



Nickname: _____
 Species: **bluebead** _____
 Site: _____
 Year: _____
 Observer: _____

Directions: Fill in the date and time in the top rows and circle the appropriate letter in the column below.

y (phenophase is occurring); **n** (phenophase is not occurring); **?** (not certain if the phenophase is occurring).

Do not circle anything if you did not check for the phenophase. In the adjacent blank, write in the appropriate measure of intensity or abundance for this phenophase.

	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
Do you see...	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:
Initial growth	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Leaves	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Flowers or flower buds	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Open flowers	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Fruits	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Ripe fruits	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Recent fruit or seed drop	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Check when data entered online:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								

	Date:	Date:	Date:	Date:	Date:	Date:	Date:	Date:
Do you see...	Time:	Time:	Time:	Time:	Time:	Time:	Time:	Time:
Initial growth	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Leaves	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Flowers or flower buds	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Open flowers	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Fruits	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Ripe fruits	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Recent fruit or seed drop	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____	y n ? _____
Check when data entered online:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								

Bluebead

(*Clintonia borealis*)

Phenophase Definitions



Directions:

As you report on phenophase status (Y, N or ?) on the datasheets, refer to the definitions on this sheet to find out what you should look for, for each phenophase in each species. To report the intensity of the phenophase, choose the best answer to the question below the phenophase, if one is included. Feel free not to report on phenophases or intensity questions that seem too difficult or time-consuming.

Leaves

Initial growth

New growth of the plant is visible after a period of no growth (winter or drought), either from above-ground buds with green tips, or new green or white shoots breaking through the soil surface. Growth is considered "initial" on each bud or shoot until the first leaf has fully unfolded. For seedlings, "initial" growth includes the presence of the one or two small, round or elongated leaves (cotyledons) before the first true leaf has unfolded.

Leaves

One or more live, fully unfolded leaves are visible on the plant. For seedlings, consider only true leaves and do not count the one or two small, round or elongated leaves (cotyledons) that are found on the stem almost immediately after the seedling germinates. Do not include fully dried or dead leaves.

Flowers

Flowers or flower buds

One or more fresh open or unopened flowers or flower buds are visible on the plant. Include flower buds that are still developing, but do not include wilted or dried flowers.

How many flowers and flower buds are present? For species in which individual flowers are clustered in flower heads, spikes or catkins (inflorescences), simply estimate the number of flower heads, spikes or catkins and not the number of individual flowers.

Less than 3; 3 to 10; 11 to 100; 101 to 1,000; More than 1,000;

Open flowers

One or more open, fresh flowers are visible on the plant. Flowers are considered "open" when the reproductive parts (male stamens or female pistils) are visible between or within unfolded or open flower parts (petals, floral tubes or sepals). Do not include wilted or dried flowers.

What percentage of all fresh flowers (buds plus unopened plus open) on the plant are open? For species in which individual flowers are clustered in flower heads, spikes or catkins (inflorescences), estimate the percentage of all individual flowers that are open.

Less than 5%; 5-24%; 25-49%; 50-74%; 75-94%; 95% or more;

Fruits

Fruits

One or more fruits are visible on the plant. For *Clintonia borealis*, the fruit is a berry that changes from green to dark blue.

How many fruits are present?

Less than 3; 3 to 10; 11 to 100; 101 to 1,000; More than 1,000;

Ripe fruits

One or more ripe fruits are visible on the plant. For *Clintonia borealis*, a fruit is considered ripe when it has turned dark blue.

What percentage of all fruits (unripe plus ripe) on the plant are ripe?

Less than 5%; 5-24%; 25-49%; 50-74%; 75-94%; 95% or more;

Recent fruit or seed drop

One or more mature fruits or seeds have dropped or been removed from the plant since your last visit. Do not include obviously immature fruits that have dropped before ripening, such as in a heavy rain or wind, or empty fruits that had long ago dropped all of their seeds but remained on the plant.

How many mature fruits have dropped seeds or have completely dropped or been removed from the plant since your last visit?

Less than 3; 3 to 10; 11 to 100; 101 to 1,000; More than 1,000;