**Trees and Shrubs**

**Deciduous**

**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.

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**Species:** *Sorbus americana*

**Common Name:** American mountain ash

**Nickname:**

**Site:**

**Year:**

**Observer:**

---

**Do you see...**

<table>
<thead>
<tr>
<th>Date:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Time:</td>
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<table>
<thead>
<tr>
<th>Phenophase</th>
<th>y</th>
<th>n</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leaves</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breaking leaf buds</td>
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<td></td>
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<tr>
<td>Leaves</td>
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<tr>
<td>Increasing leaf size</td>
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<tr>
<td>Colored leaves</td>
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<tr>
<td>Falling leaves</td>
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<tr>
<td>Flowers or flower buds</td>
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<td>Open flowers</td>
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<td>Fruits</td>
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<tr>
<td>Ripe fruits</td>
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<td></td>
<td></td>
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<tr>
<td>Recent fruit or seed drop</td>
<td></td>
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</tr>
</tbody>
</table>

**Check when data entered online:**

- [ ]

**Comments:**

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**Contact:** nco@usanpn.org | More information: www.usanpn.org/how-observe
American Mountain Ash
(Sorbus americana)

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**

**Breaking leaf buds**
One or more breaking leaf buds are visible on the plant. A leaf bud is considered "breaking" once a green leaf tip is visible at the end of the bud, but before the first leaf from the bud has unfolded to expose the leaf stalk (petiole) or leaf base.

How many buds are breaking?
- Less than 3
- 3 to 10
- 11 to 100
- 101 to 1,000
- 1,001 to 10,000
- More than 10,000

**Leaves**
One or more live, unfolded leaves are visible on the plant. A leaf is considered "unfolded" once its entire length has emerged from a breaking bud, stem node or growing stem tip, so that the leaf stalk (petiole) or leaf base is visible at its point of attachment to the stem. Do not include fully dried or dead leaves.

What percentage of the potential canopy space is full with leaves? Ignore dead branches in your estimate of potential canopy space.
- Less than 5%
- 5-24%
- 25-49%
- 50-74%
- 75-94%
- 95% or more

**Increasing leaf size**
A majority of leaves on the plant have not yet reached their full size and are still growing larger. Do not include new leaves that continue to emerge at the ends of elongating stems throughout the growing season.

What percentage of full size are most leaves?
- Less than 25%
- 25-49%
- 50-74%
- 75-94%
- 95% or more

**Colored leaves**
One or more leaves show some of their typical late-season color, or yellow or brown due to drought or other stresses. Do not include small spots of color due to minor leaf damage, or dieback on branches that have broken. Do not include fully dried or dead leaves that remain on the plant.
What percentage of the potential canopy space is full with non-green leaf color? Ignore dead branches in your estimate of potential canopy space.

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

**Falling leaves**
One or more leaves are falling or have recently fallen from the plant.

**Flowers**

**Flowers or flower buds**
One or more fresh open or unopened flowers or flower buds are visible on the plant. Include flower buds or inflorescences that are swelling or expanding, but do not include those that are tightly closed and not actively growing (dormant). Also 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; 1,001 to 10,000; More than 10,000;**

**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 Sorbus americana, the fruit is berry-like and changes from green to yellow-orange to orange-red or bright red.

How many fruits are present?

**Less than 3; 3 to 10; 11 to 100; 101 to 1,000; 1,001 to 10,000; More than 10,000;**

**Ripe fruits**
One or more ripe fruits are visible on the plant. For Sorbus americana, a fruit is considered ripe when it has turned orange-red or bright red.

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; 1,001 to 10,000; More than 10,000;