

POLLINATOR HABITAT EVALUATION FORM



Evaluating habitat annually can help identify conditions and facilitate selection of management activities. **BEFORE YOU BEGIN:**

STEP 1—Monitoring Record

1. **Photocopy or print a copy** of this form in advance (www.xerces.org/habitat-assessment-guides); **AND**
2. **Record all of the species** initially seeded into the site on your Pollinator Habitat Installation Plan **BEFORE** first monitoring (i.e., during or immediately after planting).
3. Gather all Monitoring Forms from previous year.

STEP 2—Site Details

SITE NAME: _____

STEP 3—Desirable Species Persistence

Recording all the species initially seeded into the site and their abundance over time can help determine whether they are persisting, or are in danger of either disappearing or taking over the meadow. Use this information to determine when a management action, such as interseeding (seeding into existing stands of vegetation), is necessary.

NATIVE FORBS

Use the Pollinator Habitat Monitoring Forms to determine whether each native forb species is present year after year and estimate average abundance (use the record from the middle of the species' bloom period) in order to indicate if a species has low or high abundance and requires action:

1. **Low Abundance Species Management**—Highlight species that are expected to be Abundant or Common, but were found to be Rare or Not Present at least two years in a row or Rare species that were Not present for multiple years. Only wildflower species not present for more than three consecutive years should be considered to have disappeared (some may lie dormant for a brief period, then suddenly return). **NOTE:** in exceptionally diverse plantings (common in some regions like the Midwest), many species will be Rare for the lifetime of planting; **OR** some annual species that are early successional are expected to disappear over time and do not need to be re-seeded if other high value perennial species are present and abundant;
2. **High Abundance Management**—Mark species that are Abundant for multiple years in a row. If the abundance of a native species increases consistently over time and maintains high numbers, it may limit the presence of other species. Consider management actions to reduce its population (e.g., disking, hand-weeding, or spot-spraying herbicide);
3. **Bloom Time**—Note the average bloom time of each species in your planting;

#	SPECIES (COMMON OR SCIENTIFIC NAME)	BLOOM TIME	YEAR 1:	YEAR 2:	YEAR 3:	YEAR 4:	YEAR 5:	
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				
		Early <input type="checkbox"/>	Mid <input type="checkbox"/>	Late <input type="checkbox"/>				

GAPS IN BLOOM	YEAR 1:	YEAR 2:	YEAR 3:	YEAR 4:	YEAR 5:
1. Record sampling dates with a TOTAL Bloom Score of ≤2 in the appropriate column by year (this information can be found in Step 5 of the Pollinator Habitat Monitoring Forms).					
2. Compare these dates with the average predicted Bloom Times to identify gaps in bloom greater than two weeks—potentially caused by low abundance or a lack of species diversity during certain times of year—that should trigger management actions.					

STEP 3—Desirable Species Persistence *continued*

NATIVE GRASSES						
<p>Native Grass Management—using the Pollinator Habitat Monitoring Forms, determine whether each native grass species is present year after year, then estimate average abundance throughout the year in order to determine if a species requires management, and circle any species that have reached a threshold amount. Track these species to ensure that their populations remain under the levels you deem acceptable.</p>						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5

STEP 4—Unwanted Species Persistence

Keeping track of the levels of weedy species present will help to decide when management is necessary. We recommend setting a threshold level that weed populations should not exceed. When weeds get to those levels, it should trigger a management action.

Weeds, Non-natives, Invasive Species, etc.

Weed Management—using the Pollinator Habitat Monitoring Forms, determine which weedy species are present year after year and which species are Highly Problematic in order to determine if a species requires management. Circle any species that have reached a threshold amount or require immediate action. Track these species to ensure that their populations remain under the levels you deem acceptable. Many weed species are easy to control when their populations are low, but can quickly take over a site, necessitating re-starting when their numbers get too high.

TREES/SHRUBS						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5

FORBS						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5

GRASSES						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5

Supplemental POLLINATOR HABITAT EVALUATION FORM

STEP 1—Photocopy or print copies of this form in advance (www.xerces.org/habitat-assessment-guides)

STEP 2—Continue Pollinator Habitat Evaluation Form

Attach this and all additional *Supplemental* Pollinator Habitat Evaluation Form sheets to the original Pollinator Habitat Evaluation Form.

STEP 3—Desirable Species Persistence *continued*

Recording all the species initially seeded into the site and their abundance over time can help determine whether they are persisting, or are in danger of either disappearing or taking over the meadow. Use this information to determine when a management action, such as interseeding (seeding into existing stands of vegetation), is necessary.

NATIVE FORBS

Use the Pollinator Habitat Monitoring Forms to determine whether each native forb species is present year after year and estimate average abundance (use the record from the middle of the species' bloom period) in order to indicate if a species has low or high abundance and requires action:

- Low Abundance Species Management**—Highlight species that are expected to be Abundant or Common, but were found to be Rare or Not Present at least two years in a row or Rare species that were Not present for multiple years. Only wildflower species not present for more than three consecutive years should be considered to have disappeared (some may lie dormant for a brief period, then suddenly return). **NOTE:** in exceptionally diverse plantings (common in some regions like the Midwest), many species will be Rare for the lifetime of planting; OR some annual species that are early successional are expected to disappear over time and do not need to be re-seeded if other high value perennial species are present and abundant;
- High Abundance Management**—Mark species that are Abundant for multiple years in a row. If the abundance of a native species increases consistently over time and maintains high numbers, it may limit the presence of other species. Consider management actions to reduce its population (e.g., disking, hand-weeding, or spot-spraying herbicide);
- Bloom Time**—Note the average bloom time of each species in your planting;

#	SPECIES (COMMON OR SCIENTIFIC NAME)	BLOOM TIME	YEAR 1:	YEAR 2:	YEAR 3:	YEAR 4:	YEAR 5:
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
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		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					

GAPS IN BLOOM	YEAR 1:	YEAR 2:	YEAR 3:	YEAR 4:	YEAR 5:
1. Record sampling dates with a TOTAL Bloom Score of ≤2 in the appropriate column by year (this information can be found in Step 5 of the Pollinator Habitat Monitoring Forms).					
2. Compare these dates with the average predicted Bloom Times to identify gaps in bloom greater than two weeks—potentially caused by low abundance or a lack of species diversity during certain times of year—that should trigger management actions.					

Example

POLLINATOR HABITAT EVALUATION FORM



Evaluating habitat annually can help identify conditions and facilitate selection of management activities. **BEFORE YOU BEGIN:**

STEP 1—Monitoring Record

1. **Photocopy or print a copy** of this form in advance (www.xerces.org/habitat-assessment-guides); **AND**
2. **Record all of the species** initially seeded into the site on your Pollinator Habitat Installation Plan **BEFORE** first monitoring (i.e., during or immediately after planting).
3. Gather all Monitoring Forms from previous year.

STEP 2—Site Details

SITE NAME: Oregon Meadow

STEP 3—Desirable Species Persistence

Recording all the species initially seeded into the site and their abundance over time can help determine whether they are persisting, or are in danger of either disappearing or taking over the meadow. Use this information to determine when a management action, such as interseeding (seeding into existing stands of vegetation), is necessary.

NATIVE FORBS

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1. **Low Abundance Species Management**—**Highlight** species that are expected to be Abundant or Common, but were found to be Rare or Not Present at least two years in a row or Rare species that were Not present for multiple years. Only wildflower species not present for more than three consecutive years should be considered to have disappeared (some may lie dormant for a brief period, then suddenly return). **NOTE:** in exceptionally diverse plantings (common in some regions like the Midwest), many species will be Rare for the lifetime of planting; **OR** some annual species that are early successional are expected to disappear over time and do not need to be re-seeded if other high value perennial species are present and abundant;
2. **High Abundance Management**—**Mark** species that are Abundant for multiple years in a row. If the abundance of a native species increases consistently over time and maintains high numbers, it may limit the presence of other species. Consider management actions to reduce its population (e.g., disking, hand-weeding, or spot-spraying herbicide);
3. **Bloom Time**—Note the average bloom time of each species in your planting;

#	SPECIES (COMMON OR SCIENTIFIC NAME)	BLOOM TIME	YEAR 1: 2013	YEAR 2: 2014	YEAR 3: 2015	YEAR 4: 2016	YEAR 5:
1.	California poppy (<i>Eschscholzia californica</i>)	Early <input checked="" type="checkbox"/> Mid <input checked="" type="checkbox"/> Late <input checked="" type="checkbox"/>	*A	C	C	C	
2.	Globe gilia (<i>Gilia capitata</i>)	Early <input checked="" type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>	C	N	R	N	
3.	Clarkia (<i>Clarkia</i> spp.)	Early <input type="checkbox"/> Mid <input checked="" type="checkbox"/> Late <input type="checkbox"/>	A	C	C	A	
4.	western yarrow (<i>Achillea millefolium</i>)	Early <input type="checkbox"/> Mid <input checked="" type="checkbox"/> Late <input checked="" type="checkbox"/>	C	C	C	C	
5.	Bigleaf lupine (<i>Lupinus polyphyllus</i>)	Early <input type="checkbox"/> Mid <input checked="" type="checkbox"/> Late <input type="checkbox"/>	C	C	R	R	
6.	Oregon sunshine (<i>Eriophyllum lanatum</i>)	Early <input type="checkbox"/> Mid <input checked="" type="checkbox"/> Late <input type="checkbox"/>	C	C	C	C	
7.	Douglas aster (<i>Symphotrichum subspicatum</i>)	Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input checked="" type="checkbox"/>	C	C	C	R	
8.	western goldentop (<i>Euthamia occidentalis</i>)	Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input checked="" type="checkbox"/>	*A	*A	*A	A-C	
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					
		Early <input type="checkbox"/> Mid <input type="checkbox"/> Late <input type="checkbox"/>					

GAPS IN BLOOM	YEAR 1:	YEAR 2:	YEAR 3:	YEAR 4:	YEAR 5:
1. Record sampling dates with a TOTAL Bloom Score of ≤2 in the appropriate column by year (this information can be found in Step 5 of the Pollinator Habitat Monitoring Forms).			3/20/15	3/28/16	
2. Compare these dates with the average predicted Bloom Times to identify gaps in bloom greater than two weeks—potentially caused by low abundance or a lack of species diversity during certain times of year—that should trigger management actions.				5/28/16	

STEP 3—Desirable Species Persistence *continued*

NATIVE GRASSES						
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#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
1	Roemer's fescue (<i>Festuca roemerii</i>)	R	C	C	R	

STEP 4—Unwanted Species Persistence

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TREES/SHRUBS						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
1	Himalayan blackberry (<i>Rubus armeniacus</i>)	R	R	N	R	

FORBS						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
1	Bindweed (<i>Convolvulus arvensis</i>)	R	R	C	(A)	
2	English plantain (<i>Plantago lanceolata</i>)	N	R	N	N	
3	Dock/sorrel (<i>Rumex spp.</i>)	R	R	R	N	

GRASSES						
#	SPECIES (COMMON OR SCIENTIFIC NAME)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
1	Giant foxtail (<i>Setaria faberi</i>)	R	(C)	(C)	R	
2	wild oat (<i>Avena fatua</i>)	R	(C)	(C)	R	