

Diversifying Prairie Reconstructions and Native Pastures to Maximize Wildlife Benefit

Jerod Huebner

Director of Prairie Management

Missouri Prairie Foundation

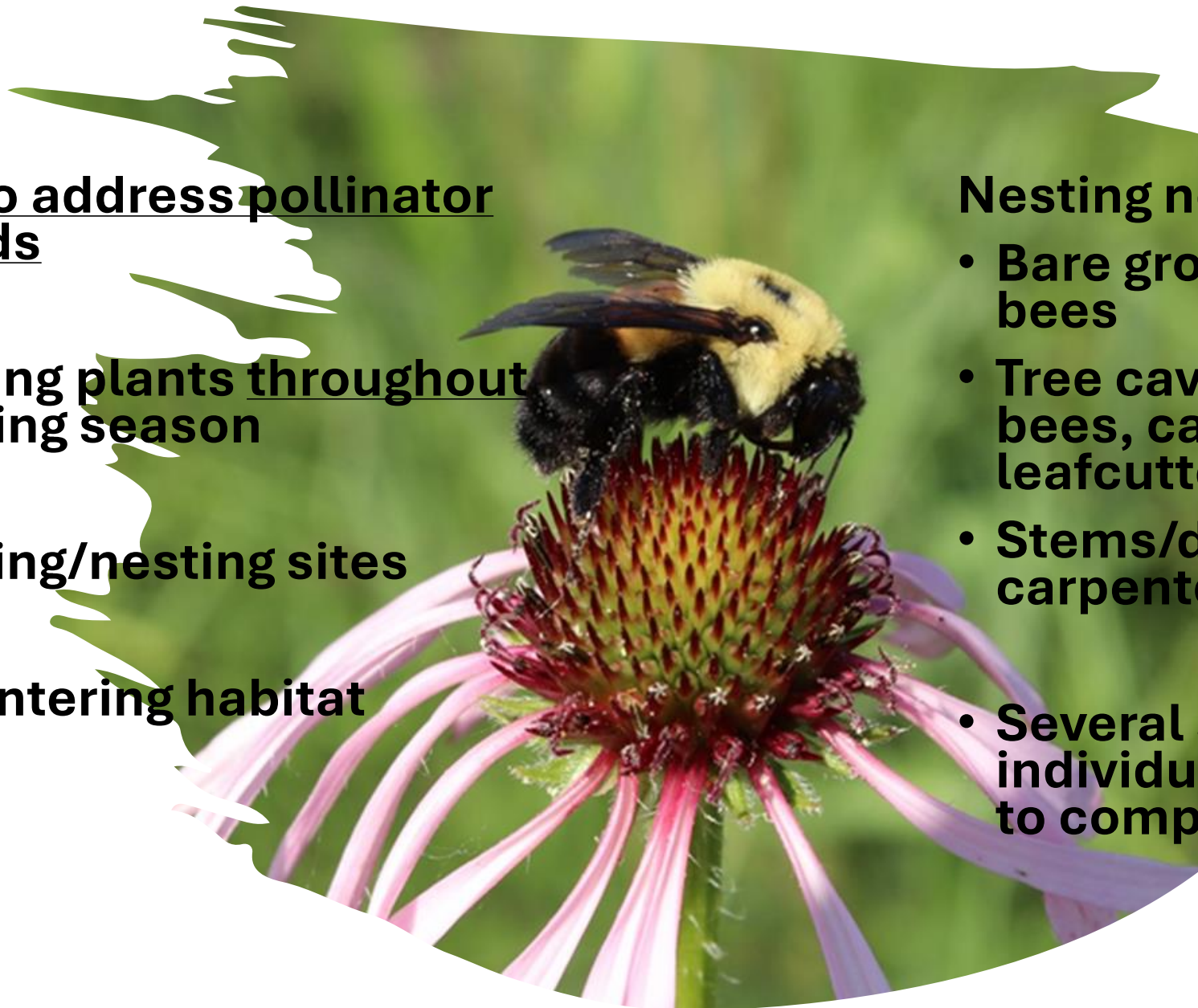
Why?

We need to address pollinator basic needs

- - Flowering plants throughout the growing season
- - Egg laying/nesting sites
- - Overwintering habitat

Nesting needs

- Bare ground = ground nesting bees
- Tree cavities/twigs = mason bees, carpenter bees, leafcutter bees
- Stems/dead vegetation = carpenter bees, sweat bees
- Several species require an individual plant or plant family to complete its life cycle



But why pollinators?

- Nearly 80% of crops require animal pollination – We need them!
- Pollinators make up the main food source for grassland birds especially right after hatching – Wildlife need them!



How do we increase diversity?

- Identify appropriate/necessary species (seasonality) and seed sources
- Identify method of interseeding
- Prep for interseeding
- Plant
- Manage



We are failing with spring ephemerals

- Often expensive
- Hard to find seed
- Spiderwort, puccoon, violets, Indian paintbrush, hyacinth, golden alexanders, wood betony, cream indigo – (photo taken April 28th)
- Wild ryes, June grass, river oats, native fescue



Seeding methods

- Drill in winter or spring
- Broadcast in winter
- December or early January planting is necessary for many native forbs especially early bloomers



Preparation

Haying

- This can be used for multiple seasons or multiple times in a season, prior to interseeding, to set back aggressive native grasses or simply remove that years' growth and prep for seeding

Burning

- Burning is often necessary to remove thatch, especially when broadcasting. Harrowing/dragging after seeding may be necessary if not completed early in the winter

Grazing

- Grazing can be used to keep vegetation growth minimal the year prior to seeding

Ready to plant your reconstruction or native pasture

Management - Herbicide

- Manage winter annuals, when necessary, especially prior to planting
- Native pastures and plateau herbicide
- Grass selective herbicides



Management - Burning

- Late fall/early winter is best for wildflower diversity
- Late summer to early fall burning can be used to suppress aggressive grasses
- More frequent burning simply seems to amplify the results (at least every 2-3 years)



Management - Grazing

- Grazing during plant establishment
 - This often means resting the planted area until late in the growing season or one entire season
 - If it is a diversification of existing native pasture, light grazing during the growing season could benefit seedlings by reducing competition
- Grazing timing
 - Seasonality of grazing is an important consideration, e.g., spring ephemerals



Considerations

- It is important to not exclude unpalatable species in native pastures – this leaves pollinators few resources, e.g., milkweeds, native thistles
- Keeping stocking rates lighter, cattle will favor grasses heavily over most forbs, leaving more pollinator resources

Late Spring through Fall bloomers

- Late Spring
 - Beardtongue, monarda, mountain mint, legumes (partridge pea, prairie clovers), blue indigo
- Summer
 - Legumes (goat's rue, leadplant), liatris, coneflowers, milkweeds, rattlesnake master, white indigo
- Late Summer/Fall
 - Native thistles, sunflowers, goldenrods, asters

Diversity is key

- Diversity drives the system
 - More resilient to invasive species
 - More resilient to changes in weather patterns
 - Provides greater resources to wildlife
 - Provides year-round, whole life cycle habitat

