

photos provided by Pauline Drobney



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TOWARD IMPROVING POLLINATOR HABITAT:  
RECONSTRUCTING PRAIRIES WITH HIGH FORB  
DENSITY

webinar presented by Pauline Drobney and Diane L. Larson

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**Abstract:** Successful prairie reconstruction has come to mean much more than establishment of native prairie plant species. The plants must support diverse communities of herbivores and pollinators, which further support higher trophic levels. To optimize reconstructions for pollinators, goals include enhancing flowering plant cover and richness and increasing bloom availability early and late in the growing season. Resistance to invasive exotic species must also be a goal, as in any reconstruction, but it is unclear how increasing forb richness and dominance may affect susceptibility to invasion. We compared planted forb richness and cover, cover of planted grasses, and persistence of exotic species 10-years post-planting of reconstructions with 58 species (pls; extra-high richness), 34 species (high), 20 species (medium) and 10 species (low) planted at the same time in the same fields, and using the same methods and overall seeding rate at Neal Smith National Wildlife Refuge in Iowa, USA. The more forb species we planted, the greater was the forb richness and cover. Warm-season grass cover was lower in the extra-high plots but cool-season grass cover did not vary among treatments. The extra-high plots also had a higher mean Coefficient of Conservatism which corresponded to less cover of exotic forbs. The primary challenge faced on our extra-high plots is the invasion by exotic cool-season grasses, which were increasing at a higher rate in these plots than in plots with the more traditional grass-dominated seed mixes. Our results are encouraging in that we increased cover of pollinator-friendly habitat, but invasive grasses are a concern as they may reduce forb cover and opportunities for ground-nesting bees in the long term.



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Diane Larson is a Research Wildlife Biologist with U.S. Geological Survey, Northern Prairie Wildlife Research Center. She received her PhD in ecology from the University of Illinois at Chicago and her BA and MA from the University of Colorado, Boulder. Diane's research focus is plant-and-animal interactions and ecological restoration; she is especially interested in the intersection of these two processes.



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Pauline Drobney is a Zone Biologist with the Midwest Region of the U.S. Fish and Wildlife Service. She received her MS in Biology as well as BS degrees in Biology and in Art from the University of Northern Iowa, Cedar Falls. Pauline's career of several decades has been dedicated to learning, practicing, researching and teaching tallgrass prairie and savanna management and ecological restoration.

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