

Native Plant Landscaping for Pollinators on NC Solar Farms and Beyond

Solar panel farms (SPFs) offer a solution to pollinator decline. Some SPFs are restoring pollinator habitat by landscaping with diverse native plant seed mixes. Native plants on SPFs have many benefits for the solar industry and surrounding ecosystems. Plants selected should be diverse with ample pollen and nectar resources maximizing benefits for pollinators. Yet, we lack knowledge of native plant performance on SPFs and pollinator attractiveness.

For North Carolina SPFs, I selected 13 possible candidates. Selection criteria: pollinator use, height (minimizing contact with panels), shade tolerance, and availability. Germination was then assessed under simulated shading in a greenhouse experiment. Butterfly milkweed, lanceleaf tickseed, purple coneflower, blue mistflower, Indian blanket, Barbara's buttons, orange coneflower, black-eyed Susan, and Stokes' aster germinated successfully showing promise for landscaping on SPFs. Select plant species (10 of 13) were also evaluated for pollinator attractiveness in shaded pollinator beds. These natives attracted 37 species of pollinators, including the monarch. Stokes' aster, lanceleaf tickseed, and Indian blanket proved most attractive. Indian blanket appealed widely, attracting pollinators from eight genera.

This and other work aids use of native plants in pollinator habitat restoration. Advances in these areas will help landscape managers in providing sustainable, diverse habitat for native pollinators.

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Bombus pensylvanicus visiting Indian blanket (left), *Halictus ligatus* visiting Stokes' aster(right).