The Reaction of Vegetation to Cultivation after Remaining Undisturbed for 15 Years

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This study was an observation of a 16m2 area that has remained undisturbed for 15 years. 13 Texas native plant seeds were dispersed into the area and after 15 years none of the species remained. After surveying the area, only two species were found, Panicum coloratum l., a perennial, introduced, warm-season plant, and Symphyotrichum subulatum var. parviflorum, an annual, native, cool-season plant. It was found that Panicum coloratum l. took up 8.9% of the surface area and made up 93.68% of the population. 8m2 were cultivated leaving half to remain undisturbed. Once cleared it was found that dormant seeds that were within the ground from past seasons began to grow. After 8 weeks of surveying, 6 new species appeared within the cultivated areas. That is a total of 8 different genera and the cultivated plots contained all 8 genera. However new species began to encroach into the area that had remained undisturbed. It was viewed that the plants that began to grow were annual, cool-season forbs that are native to Texas. Croton capitatus var. lindheimeri became the dominant plant in the area 5 weeks after cultivation, making up 36.38% of the population by 8 weeks. Forbs were in more abundance after cultivation than grasses, making up 65.54% of the total plant population. Biodiversity can not be maintained in a grassland without wildlife, natural weather events, livestock, or human interaction and once one of the above events occurs, plant variation has a chance to increase in the area.

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