

Fire is an important disturbance that can impact biodiversity and ecosystem functions. Although fire impacts have been well studied in plants and some animals, the effects of fire on litter-dwelling arthropods remain poorly documented. I investigated the effect of time-since-burn on litter-dwelling arthropods in a Florida scrub ecosystem. I measured total arthropod richness and diversity as well as arachnid detritivore and predator abundance along a time-since-burn chronosequence. Arthropod richness and diversity and arachnid abundance significantly increased within 8 years post-burn. Arthropod richness and diversity and arachnid abundance did not differ between 8 and 89 years since last burn. These results demonstrate that litter-dwelling arthropods can quickly re-establish their community composition within 8 years after a burn, which may have important consequences for litter decomposition and nutrient cycling rates over successional time.

