Collections of insects were made before and after flood and fire disturbances in the Big Thicket National Preserve, Texas in 2017–2019. Comparisons of samples suggest that different insect groups vary in their responses to disturbance. Antlions decreased in number substantially after flooding, but grasshoppers and select beetle families did not. After a prescribed burn, the wasp genus Pluto increased significantly, but grasshoppers and mantises did not. Possible explanations for observed results are discussed.