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**A Species Survey of Lepidopteran Species at Firebase Libby**

**Abstract**

Texas is known to host over 1600 species of Lepidoptera, which is one-tenth of their diversity in North America. With arthropod numbers declining 45% over the last forty years, it is important to protect suitable habitats for the lepidopterans (butterflies and moths), even though the speed of their decline is not as fast as that of the other arthropods. This project was designed to identify and catalog each species of Lepidoptera encountered at Firebase Libby, in Callahan County, TX. Since August of 2021, we have captured 59 species of Lepidoptera. Of these, 48 specimens were positively identified at the species level. Several other species are believed to exist on the property. These might be identified in future projects. Research into the species present at Firebase Libby can contribute towards future studies of species-specific topics, such as species distribution, population density, food species and plant hosts, and more. This is especially significant since Texas is home to over half of the continent’s butterfly species.