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Examining the Impacts of Climate Change and Habitat Loss on the Distribution and Abundance of Long-billed Curlews, a Species at Risk in Canada

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Environmental stressors such as climate change and habitat loss have profound impacts on the distribution and abundance of species. These impacts are amplified in birds, especially grassland species. Long-billed Curlews are a vulnerable bird species that breed in native grasslands. However, in British Columbia, large areas of grassland habitat have been lost to agricultural conversion and urban encroachment. A recent survey conducted in British Columbia uncovered a distinct northern breeding range shift of Long-billed Curlews. Historic and present curlew survey data will be combined with land-use and climate data to gain insight into how changes in landscape and climate may be driving this shift. It is unknown if this northern range shift is also happening throughout other regions of their North American range. To explore this, community science data will be used to map curlew abundance and distribution over a ten-year period to identify changes. This research will provide fundamental knowledge on how anthropogenic stressors impact grassland-dependent species. Understanding distribution and abundance patterns provide crucial knowledge for implementing critical habitat protections and developing up-to-date conservation plans.