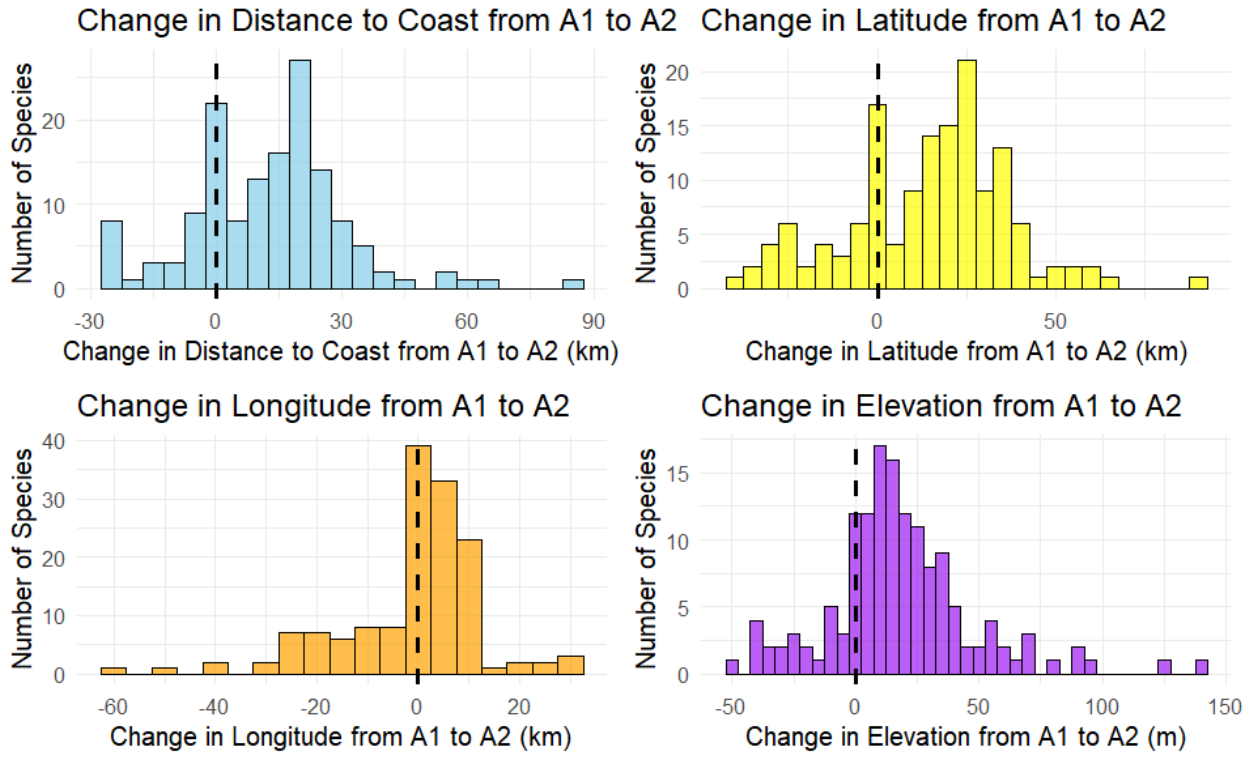
Brief Summary of Methods

Species distributions from the 1983 *Maine Breeding Bird Atlas* were compared with 2019 observational data. Shifts were studied in four geographic variables: latitude, longitude, distance to coast, and elevation. Although final analysis is still ongoing, there is a general northerly trend as well as a general rise in elevation clear in visual representations of the data.

In order to break up the species occurrences by geography within Maine, a grid of 714 rectangles (or "quads") was drawn over the state, and species observations were recorded and classified as "definite", "probable", or "nonexistent" within each cell for each dataset. Only species that were at least probable in at least 40 quads in both datasets were included in analysis (n=145). Since there was significantly less data in the 1983 atlas especially for Northern counties, the data was adjusted for bias.

Basic Geographic Shift HIstograms for All 145 Species Studied



A1 = 1983 data
A2 = 2019 data
Shift value = [center of species distribution in A1] - [center of species distribution in A2]
North and West are represented as positive, while East and South are represented as negative.
Binwidth = 5