

Introduction

- Pollinators provide a fundamental ecosystem services
- Pollinator diversity and abundance are declining with habitat loss possibly affecting pollinator community composition
- Habitat type can also affect pollinator community composition
- We studied how pollinator community composition changed between coastal dune and scrub habitat and between two time periods (1990's and current day).**



Questions

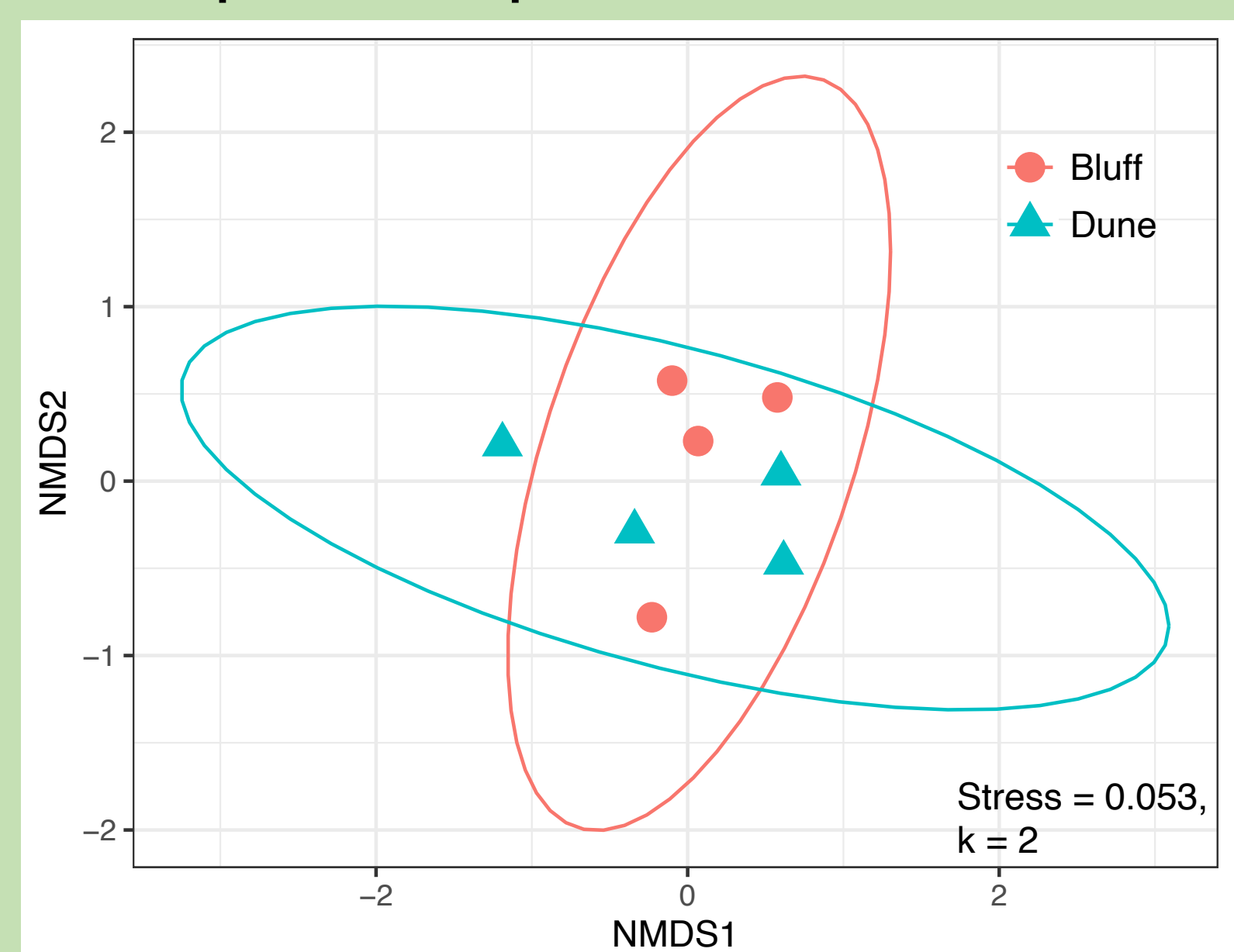
Does pollinator community composition differ between:

- coastal dune and scrub habitats?
- The 1990's and present day?



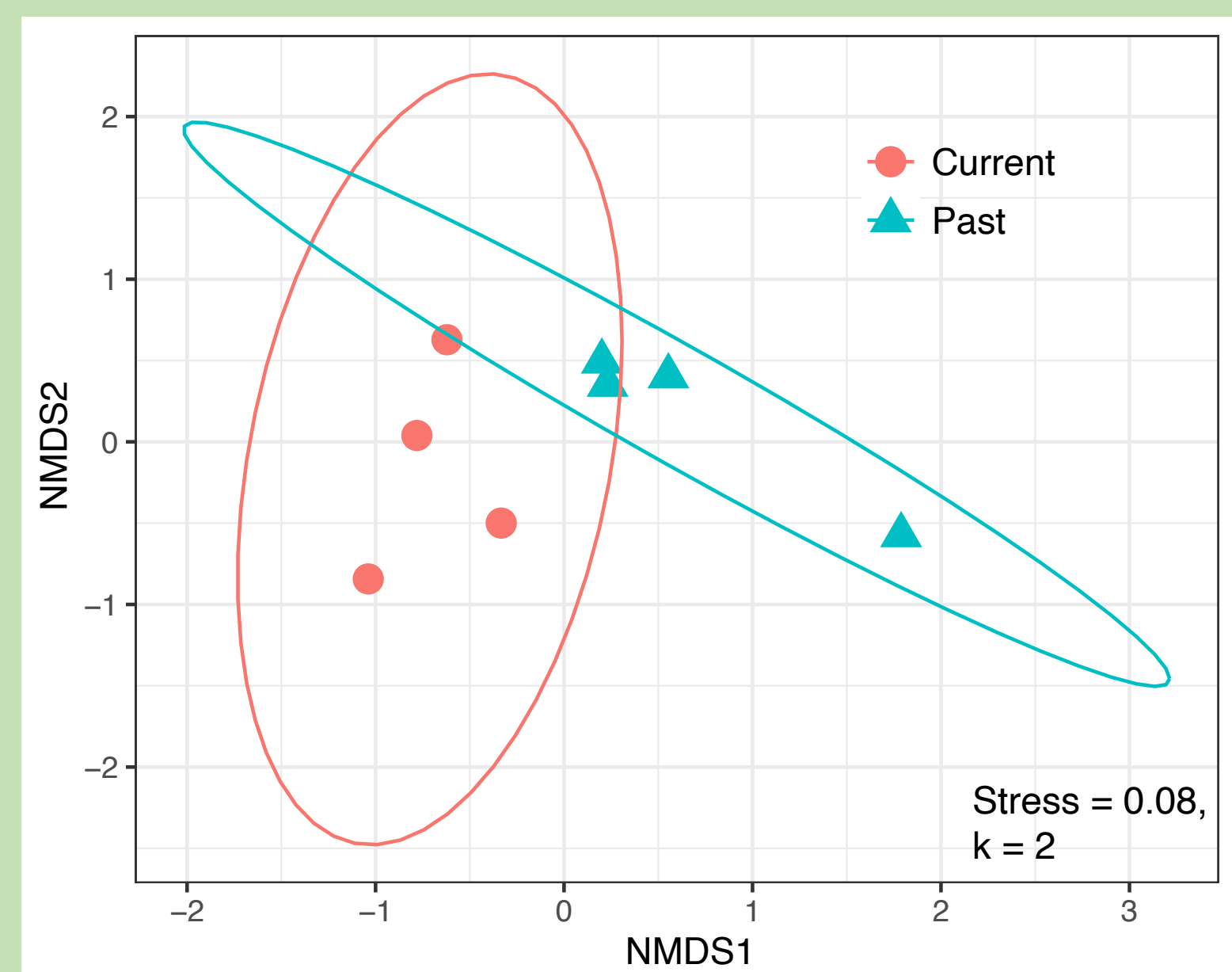
Results

Figure 1. An NMDS of pollinator composition between coastal scrub and coastal dune



PERMANOVA suggest no difference between habitats ($F = 0.92, p = 0.58, r^2 = 0.13$).

Figure 2. An NMDS of pollinator composition between Randall Morgan's data and our current data.



PERMANOVA suggests a difference between time periods ($F = 3.36, p = 0.36, r^2 = 0.02$).

Discussion

- There is **no statistical difference** in pollinator community composition **between coastal scrub and coastal dune habitats** suggesting that these ecosystems share pollinators due to close spatial proximity
- Pollinator community composition was **statistically different between the 1990's and today** possibly due to changes in plant species richness and/or loss of pollinator species over time

Methods

- Surveyed pollinating bees and flies at four sites in Santa Cruz County from June to August 2021
- Ran four transects monthly, two in coastal dune and two in scrub habitats
- Caught pollinators on plants along transects for 30 minutes
- Identified bees/flies to species
- Analyzed data using NMDS and PERMANOVA

