

Bird and Herpetofauna Communities along the Salt River in central Arizona

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Thank to

Julie Stromberg, Melanie Banville, Beau Rudd, and CAP LTER

Study Area



Research questions

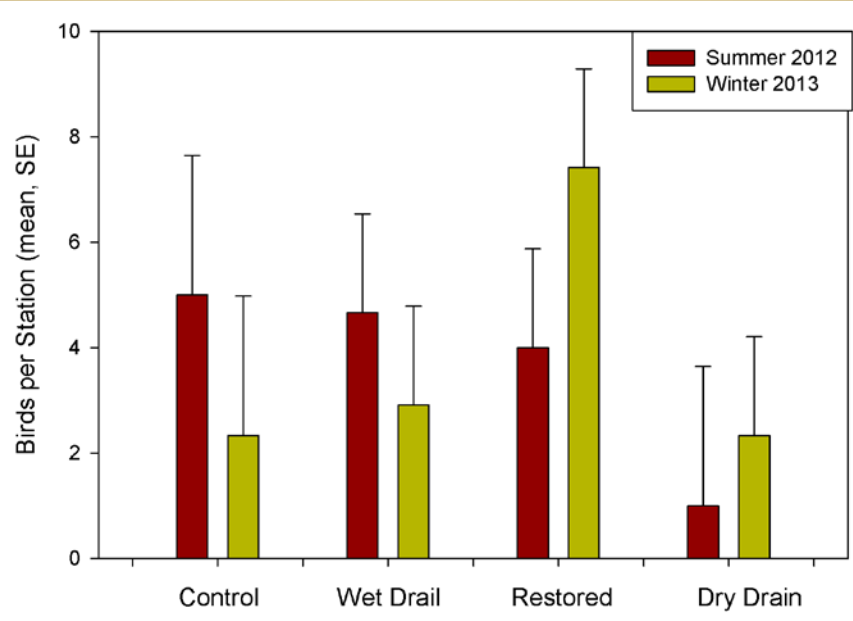
- 1) Is biodiversity of actively restored sites similar to that of control sites?**
- 2) How quickly are ecosystem functions restored, following restoration actions?**
- 3) Are “accidentally restored” sites as diverse than “actively restored” sites?**

Methods



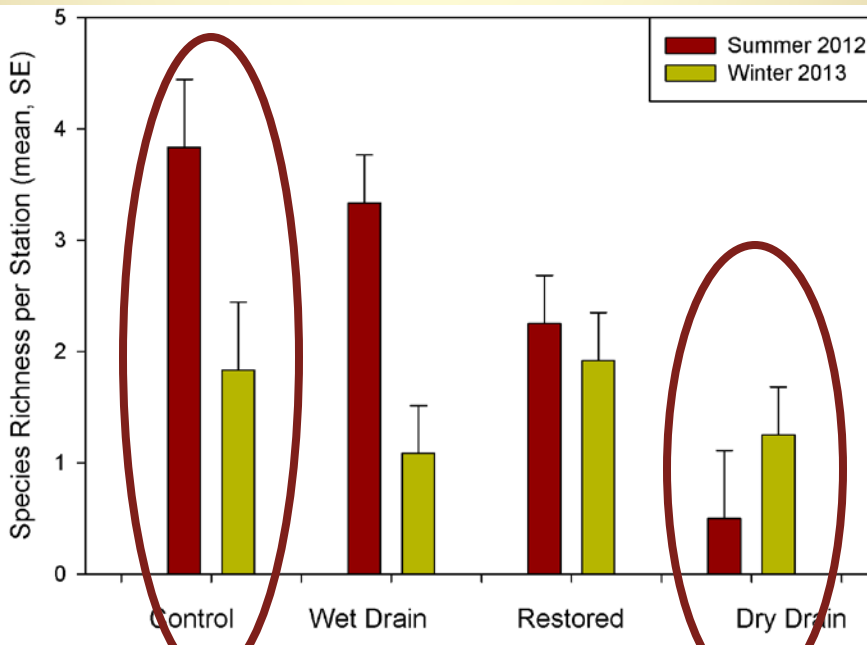
- **Establish 6 transects per site**
- **Birds: Point Count Stations (6 x 25 m radius, 10-minute)**
- **Herpetofauna: Visual Encounter Surveys (6, 10x20 m transects)**
- **Spring 2012 (Herps)**
- **Summer 2012 (Herps & Birds)**
- **Winter 2013 (Birds)**
- **Spring 2013 (Herps)**

Bird Results



Abundance

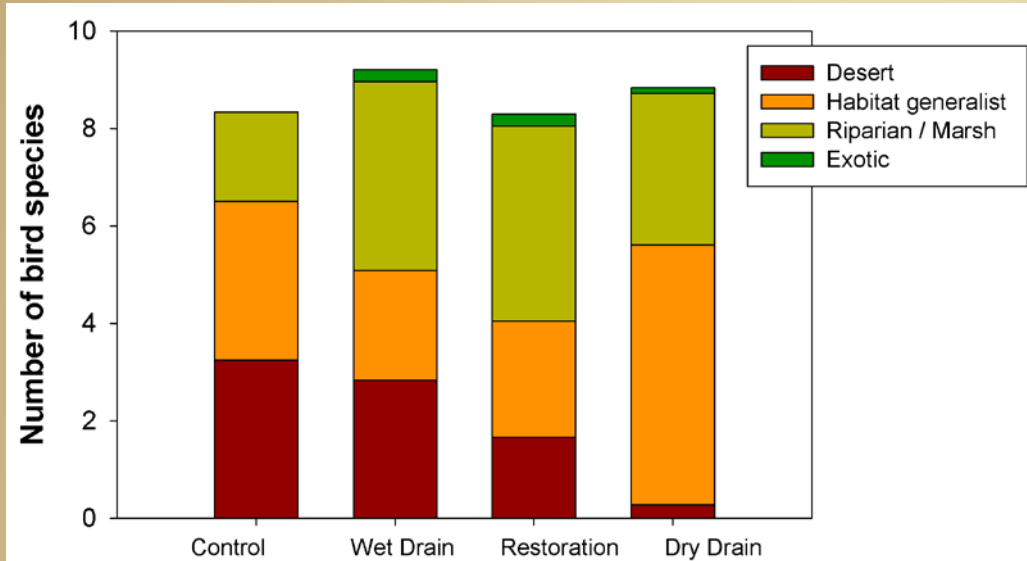
- Similar in winter, summer
 - Similar across site types
- $P > 0.05$



Richness

- More species in summer (Season $P = 0.003$)
- Species differed by site in summer ($P = 0.09$)

Bird & Herp Guilds



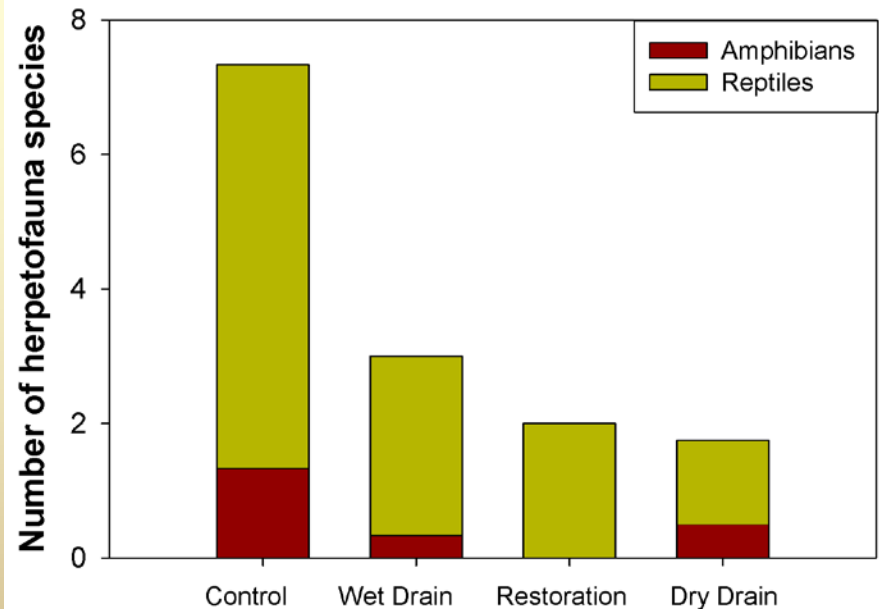
Bird Guilds

- Desert spp in Control, Wet Drain
- Exotic spp in Urban sites

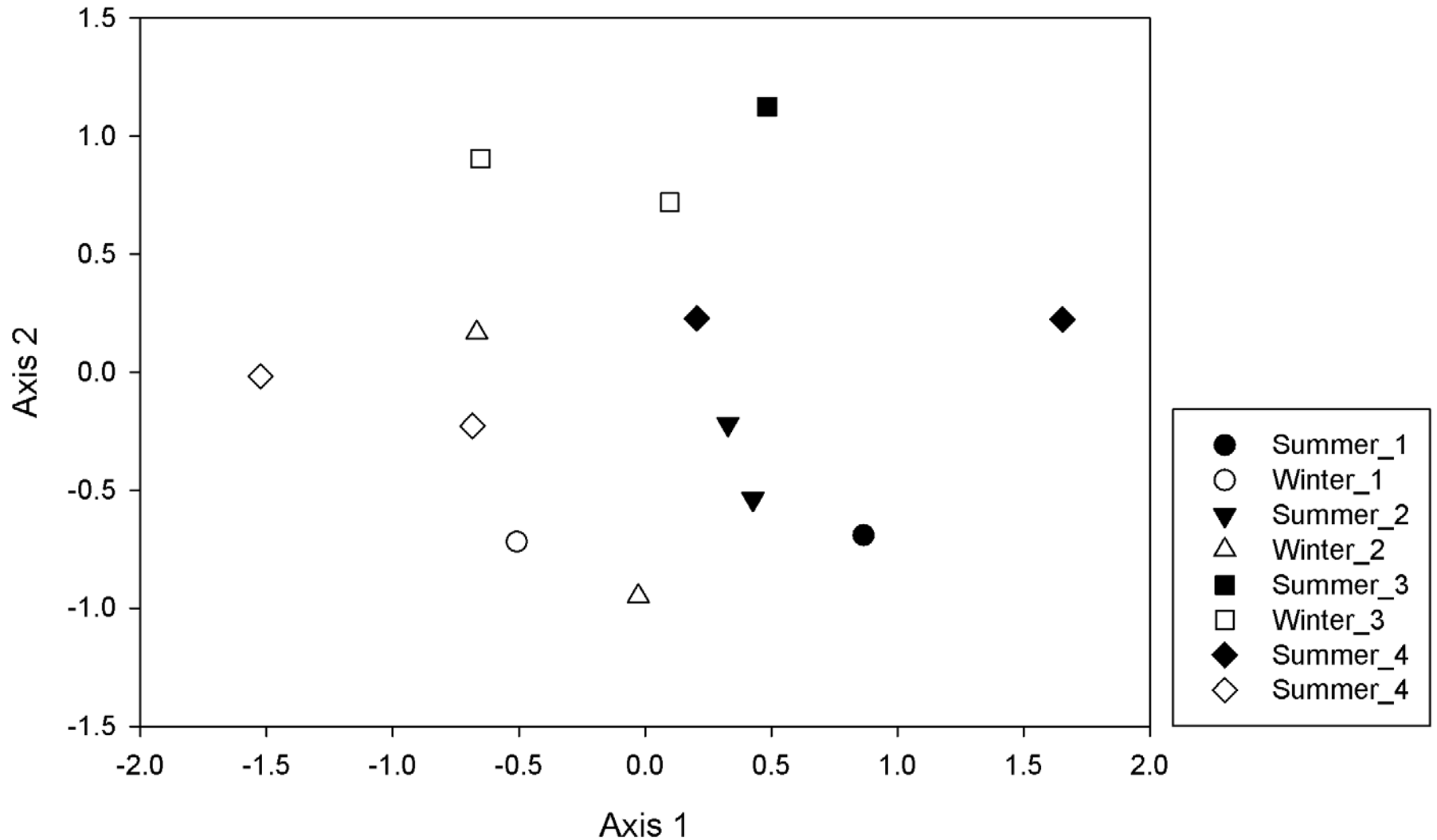


Herpetofauna

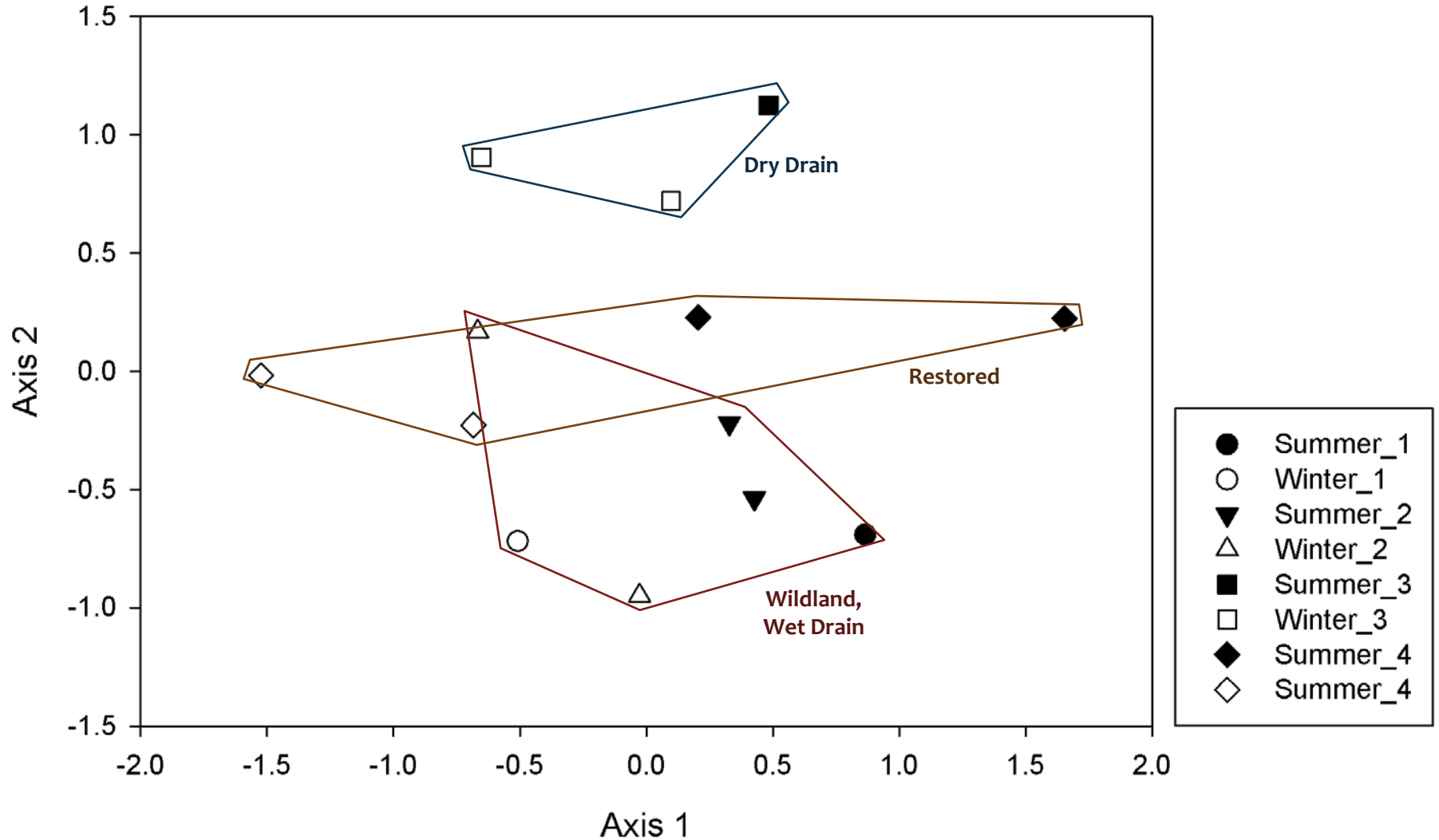
- Greater abundance in Control
- Amphibians greater in Control



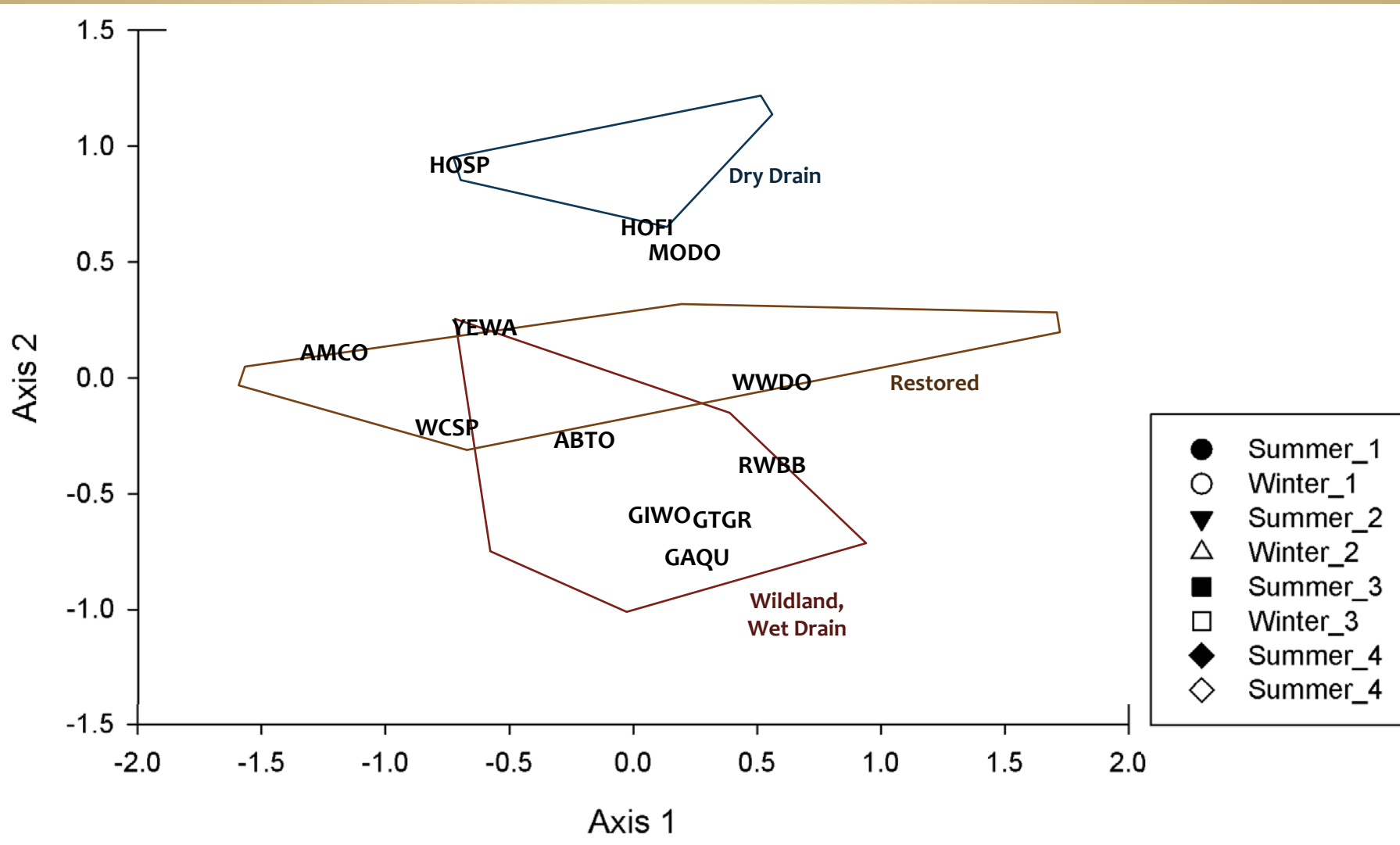
Bird Community



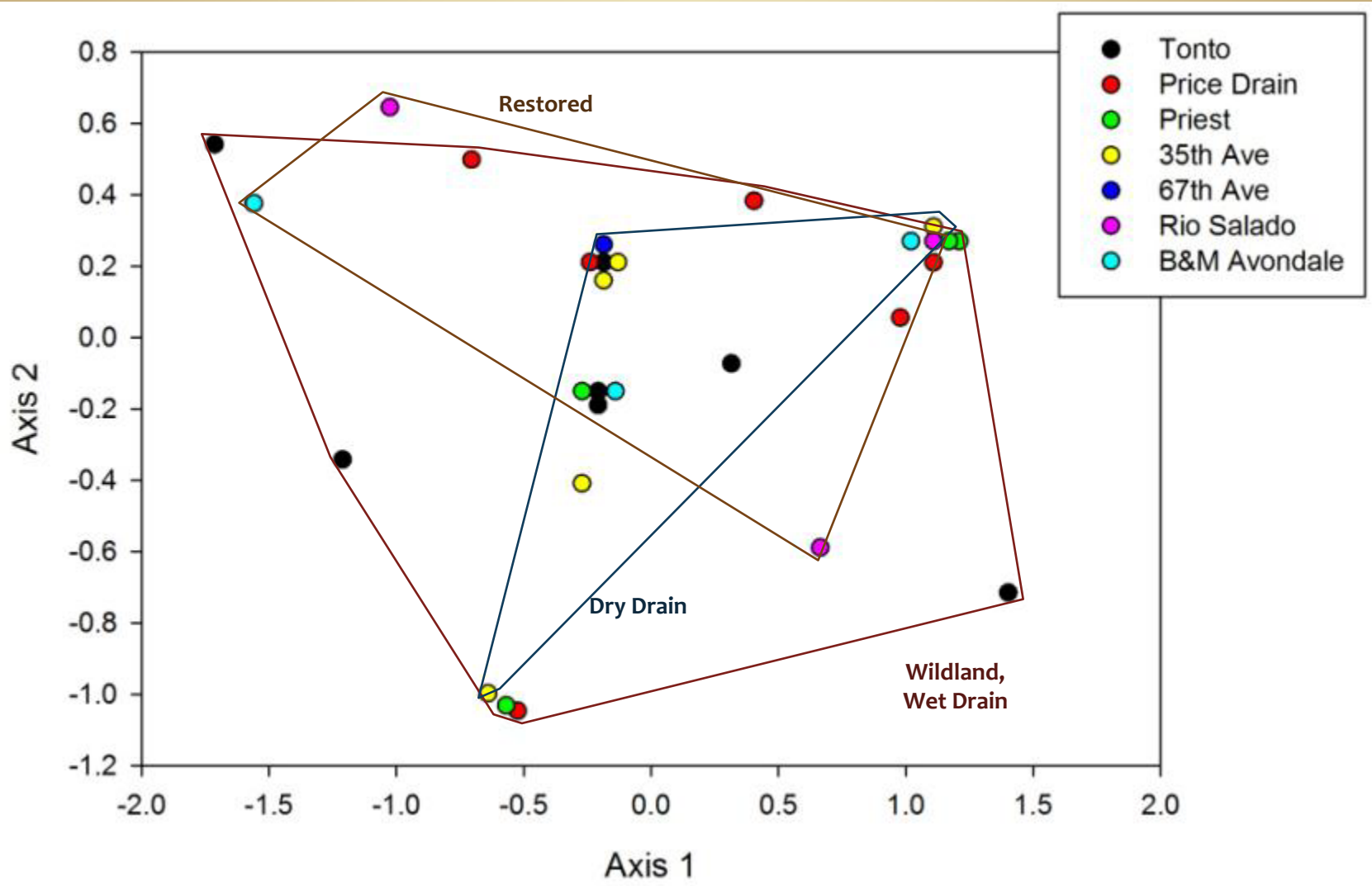
Bird Community



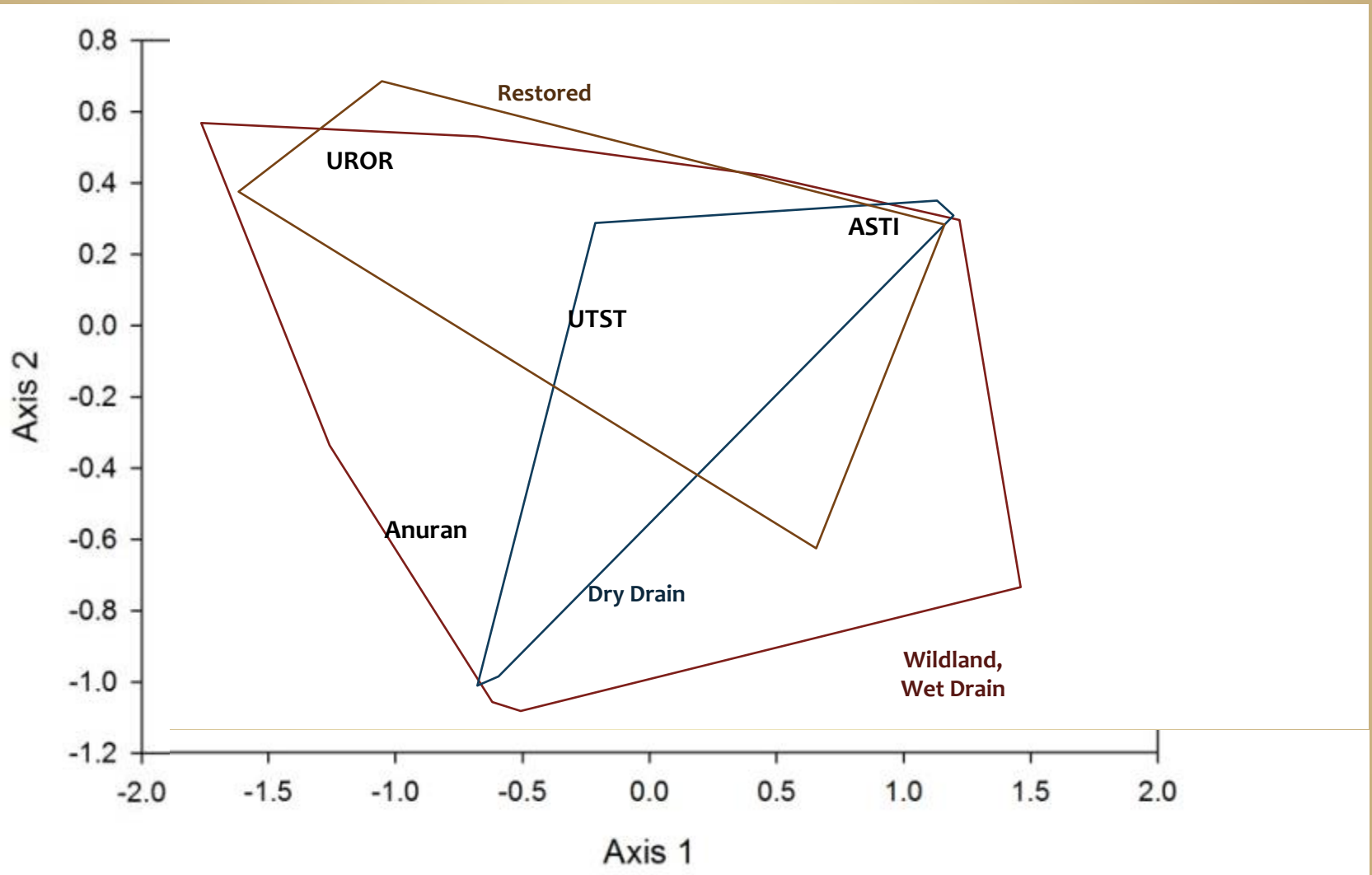
Bird Community



Herp Community




Herp Community



Conclusions

- 1) Nonurban control and urban wet drain sites were similar in many respects.**
- 2) Nonurban control site had greatest richness of reptiles and desert birds.**
- 3) Habitat and instream water likely reason for differences in wildlife communities among sites.**
 - Trees and arboreal species**
 - Mesic riparian and Sonoran Desert species**
 - Water and aquatic, amphibian species**



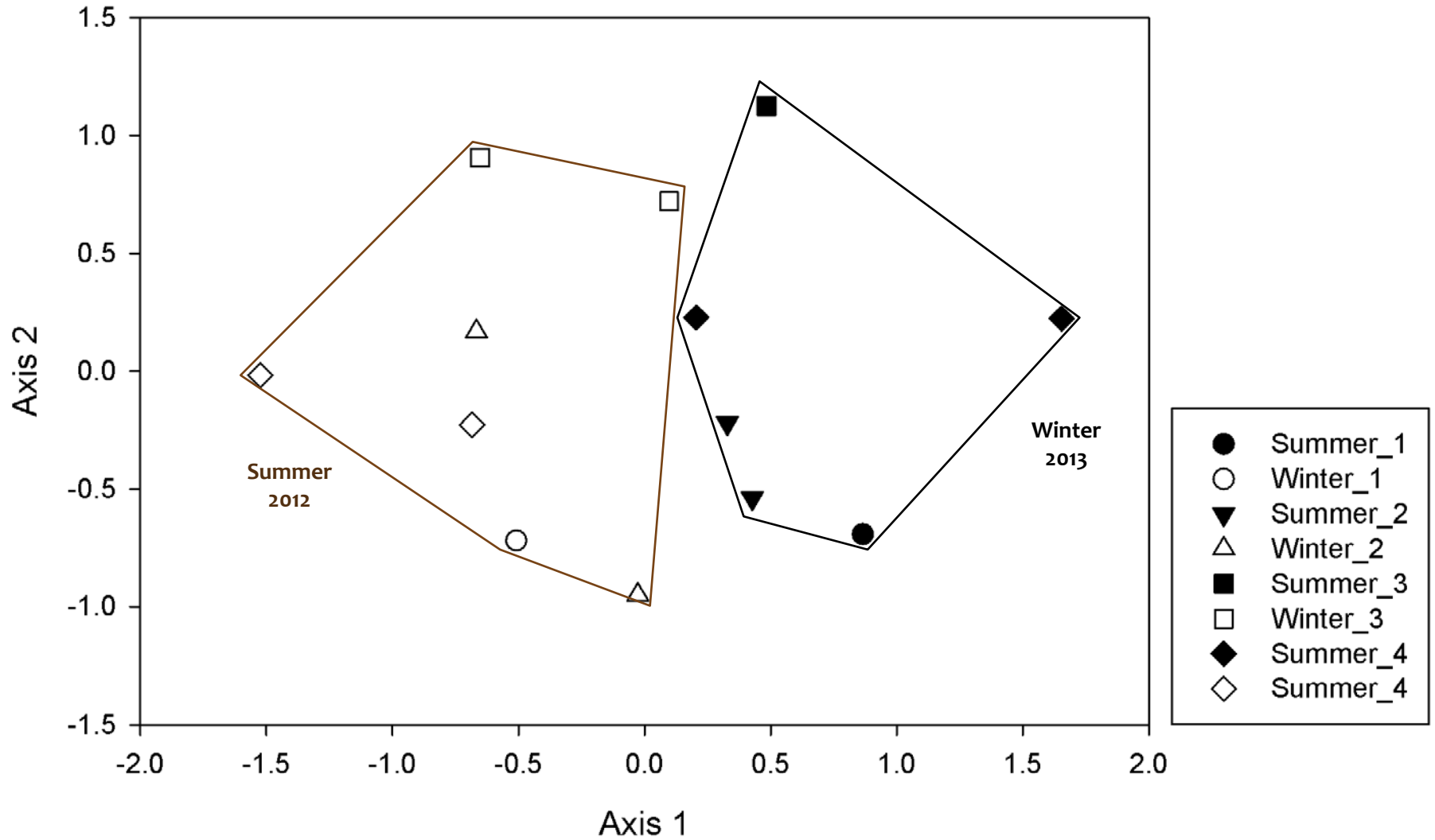
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Salt River Birds



Salt River Herps

