Density-based Clustering

→ finds clusters based on feature locations

Spatial Outlier Detection

→ finds outliers based on feature locations

Density-based Clustering

→ finds clusters based on feature locations

DBSCAN

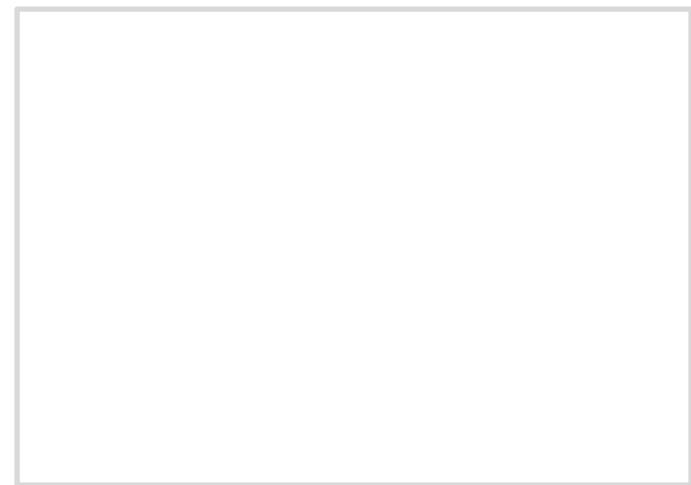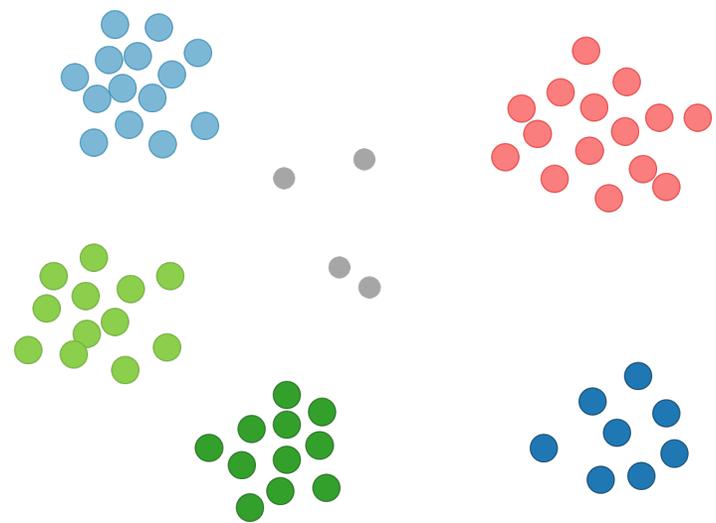- Uses fixed search distance
- Clusters of similar densities
- Fast

HDBSCAN

- Uses range of search distances to find clusters of varying densities
- Data driven, requires least user input

OPTICS

- Uses neighbor distances to create reachability plot
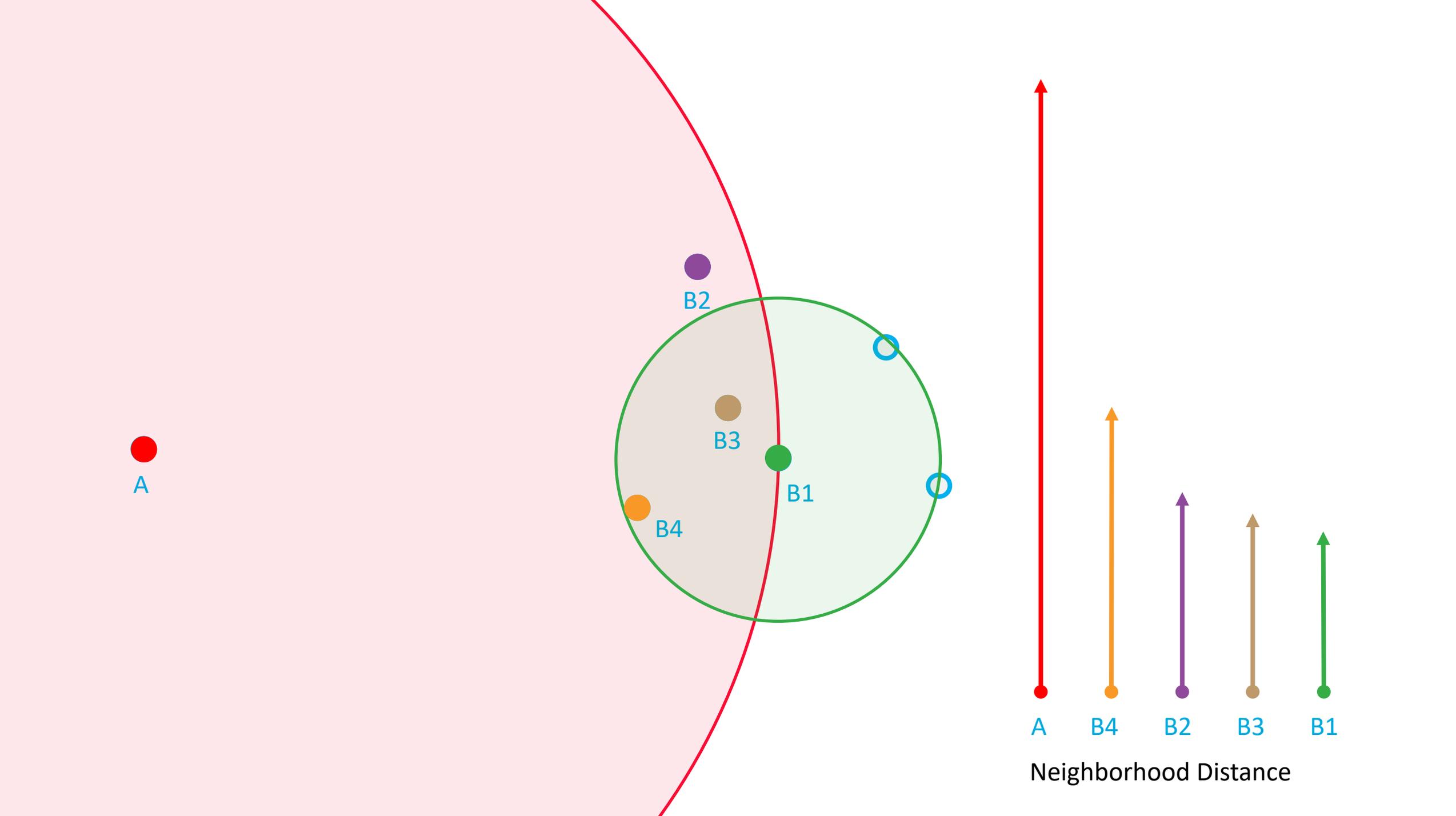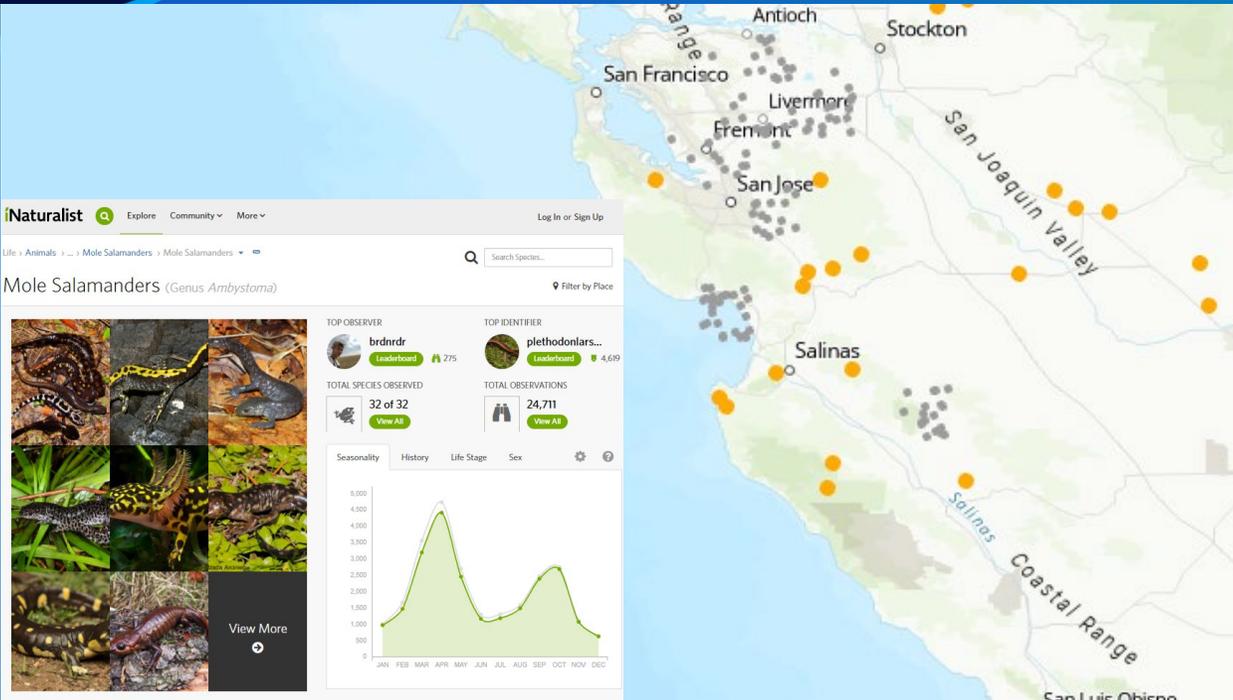- Most flexibility for fine tuning
- Can be computationally intensive

demo

Spatial Outlier Detection

Spatial Outlier Detection

- Identify spatially anomalous points
- Focus on "which are outliers" rather than "how many clusters"
- Exclude outliers for robust analysis

B2

B3

A

B1

B4

A   B4   B2   B3   B1

Neighborhood Distance

California Tiger Salamander Conservation