Vignette for DTH

Asmita Roy

2025-07-03

```
library(DTH)
```

In this vignette we implement the DTH package on the Sparrows data and the Tikus Coral Data. If the distance object is Euclidean, the function will issue a warning "Warning: Euclidean distance found: no correction needed" - this simply means that there is no calliez correction required when centering the distance matrix. This is expected.

Sparrows Data

```
DATA <- read.table("sparrows.csv", sep = ";", dec = ".", header=TRUE);
# Standardized data
DATA[,1:5] <- scale(DATA[,1:5])
ident.sparrows <- DATA$status
##Important step: convert character identifiers to numeric
ident <- as.factor(match(ident.sparrows, unique(ident.sparrows)))
D = vegan::vegdist(DATA[,1:5], method = "euclidean")
DTH(D, ident, ncores = 10)

## Warning in cailliez(D): Euclidean distance found : no correction needed
## [1] 0.036</pre>
```

Tikus Coral Data

```
load("tikus.RData")
ident = factor(match(tikus$x$time, unique(tikus$x$time))) #convert identifiers to numeric factors
abund = tikus$abund
D = vegan::vegdist(abund, method = "bray")
DTH(D, ident, center = "centroid", ncores = 10)
## [1] 0.001
```