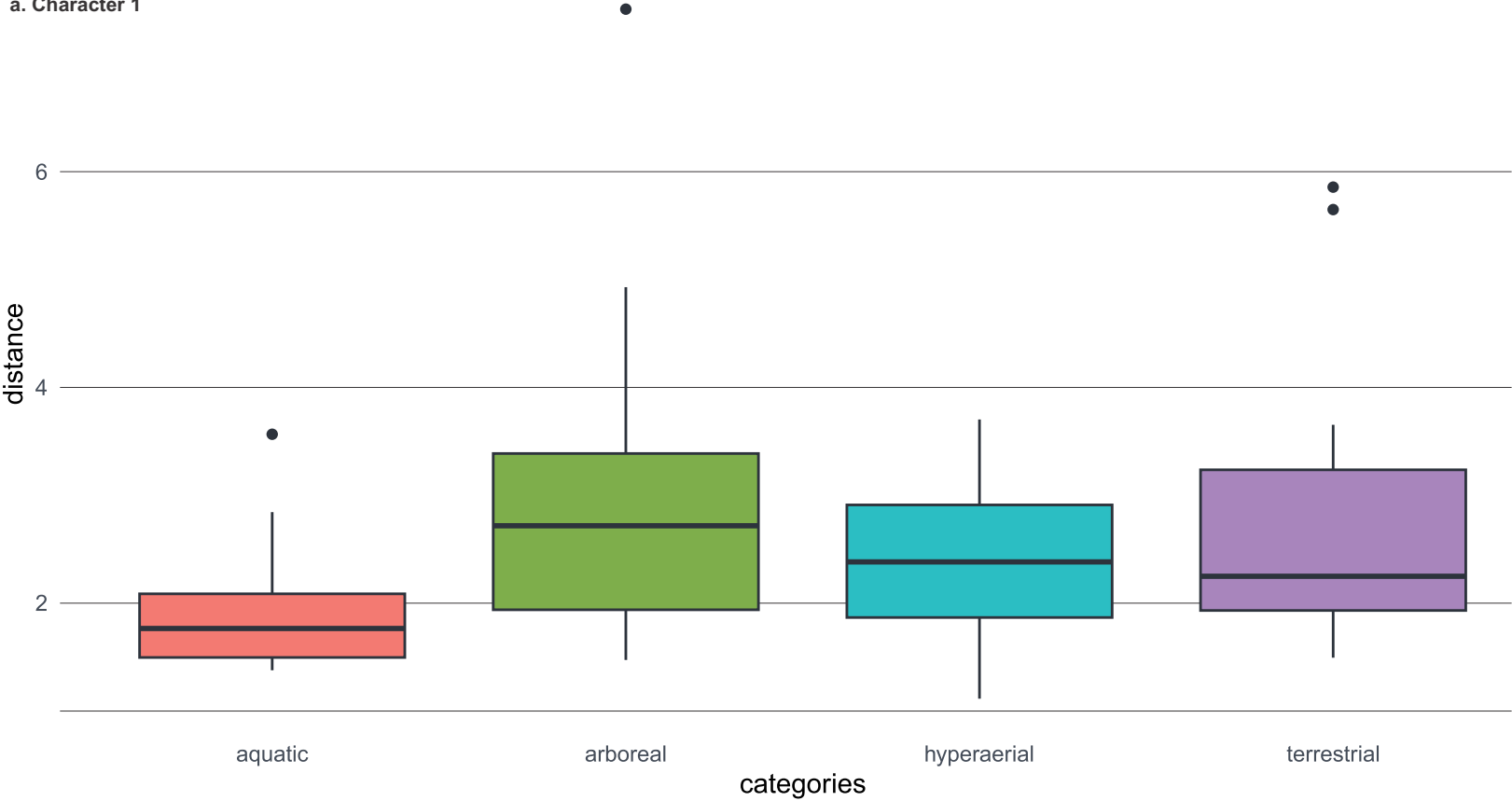


Supplementary Data 7. Boxplots

a. Character 1

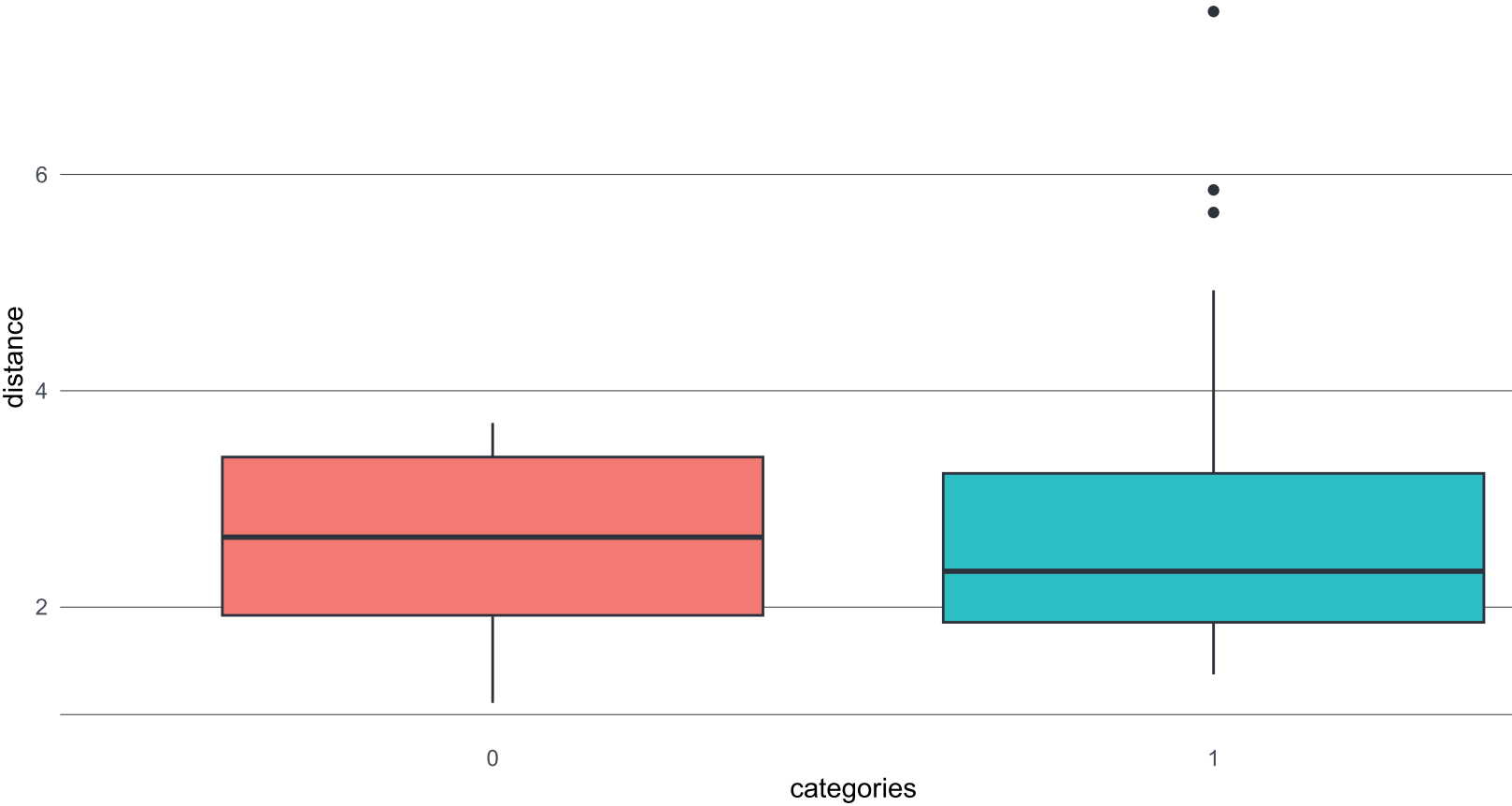


Primary lifestyle

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, -1] ~ data[, 1], permutations = 10000)					
	Df	SumOfSqs	R2	F	Pr(>F)
data[, 1]	3	-18046	-0.53212	-6.7147	0.8143
Residual	58	51959	1.53212		
Total	61	33913	1.00000		

b. Character 2

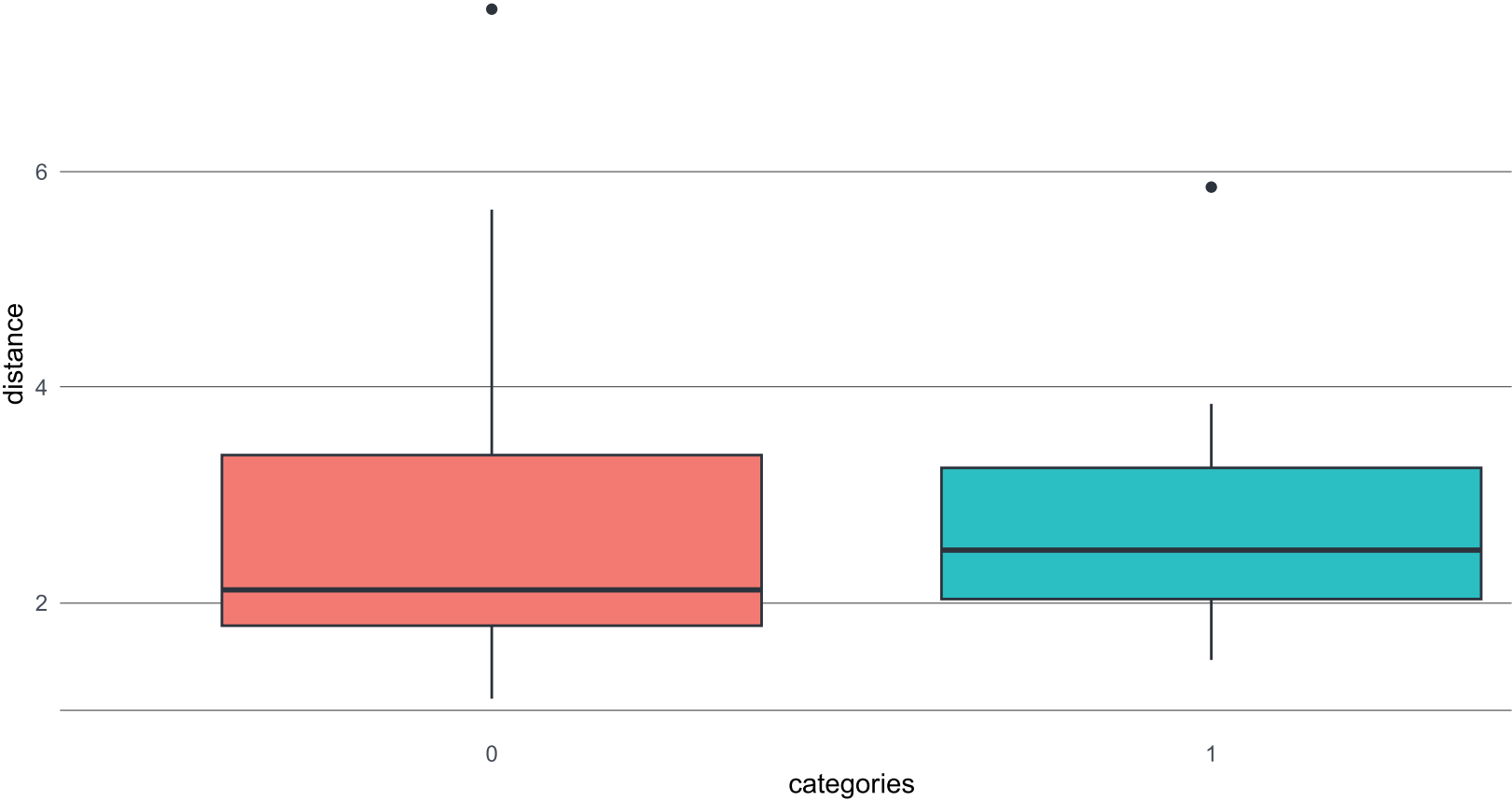


Terrestrial, walking

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

```
adonis2(formula = data[, 14:18] ~ data$Ch2, permutations = 10000)
      Df SumOfSqs  R2    F Pr(>F)
data$Ch2 1   7444 0.21949 16.873 0.402
Residual 60  26469 0.78051
Total    61  33913 1.00000
```

c. Character 3



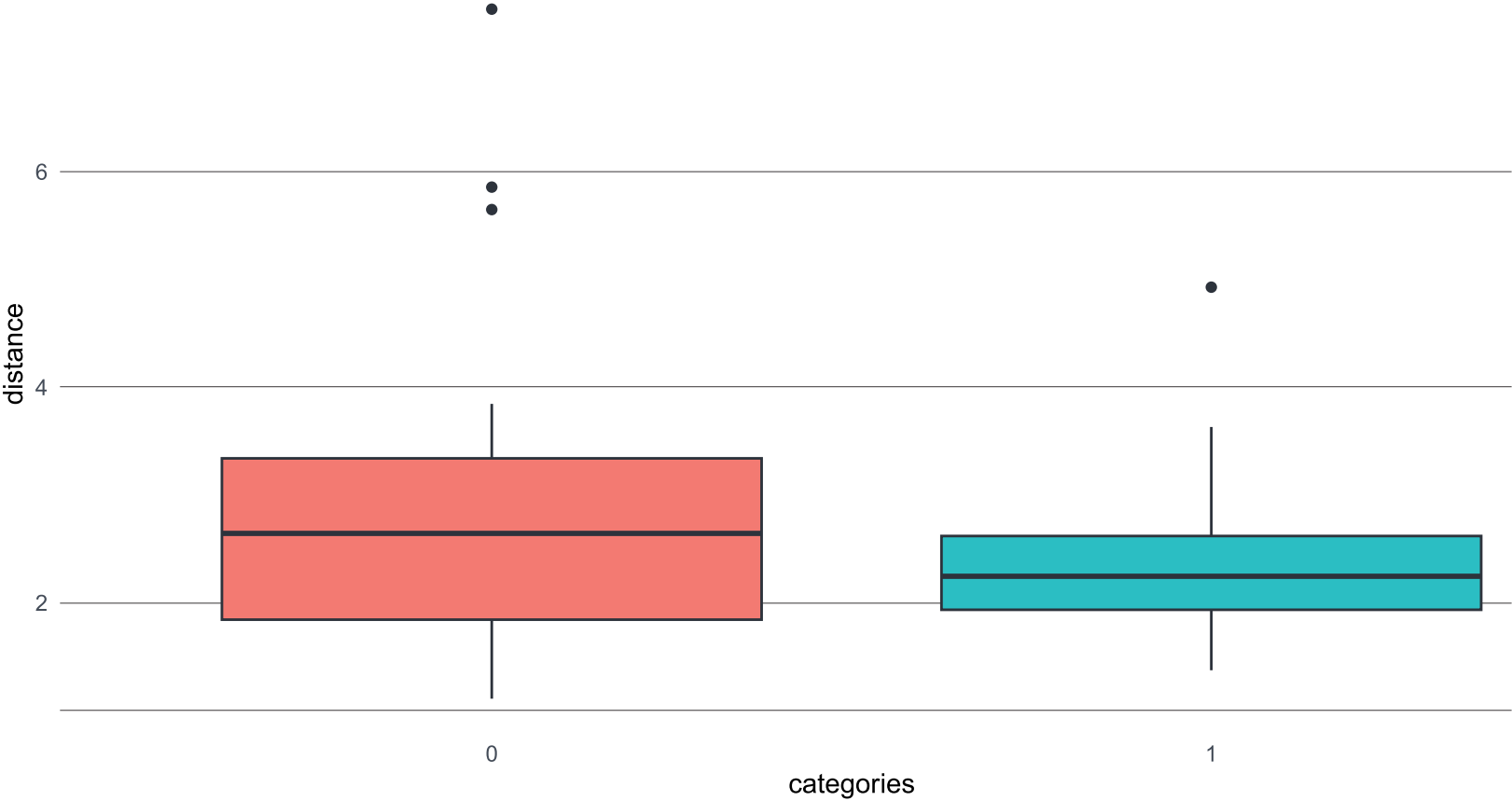
Terrestrial, running

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch3, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch3	1	-30618	-0.90283	-28.468	0.9497
Residual	60	64531	1.90283		
Total	61	33913	1.00000		

d. Character 4



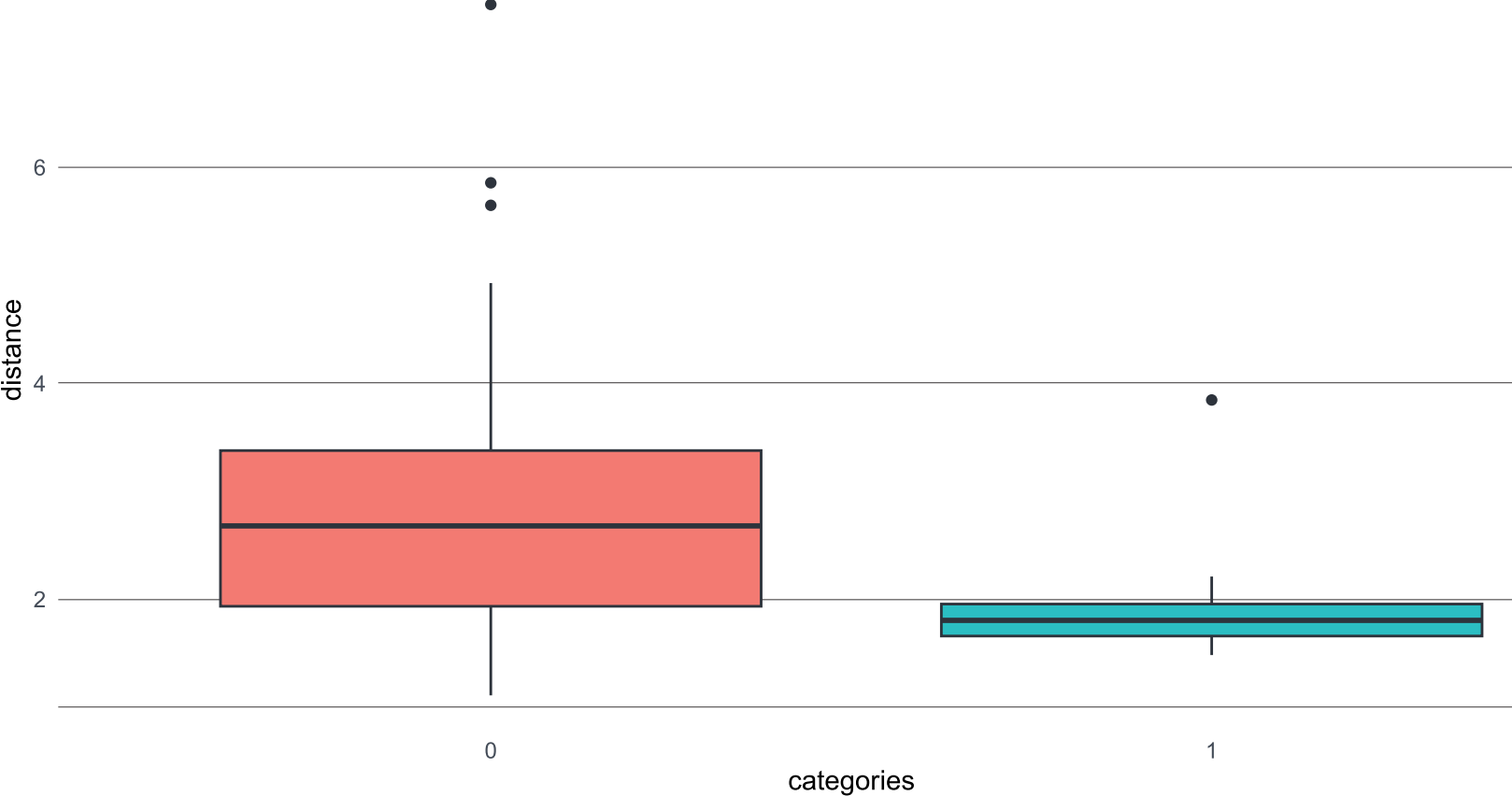
Terrestrial, hopping

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch4, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch4	1	-14105	-0.41592	-17.625	0.8252
Residual	60	48019	1.41592		
Total	61	33913	1.00000		

e. Character 5

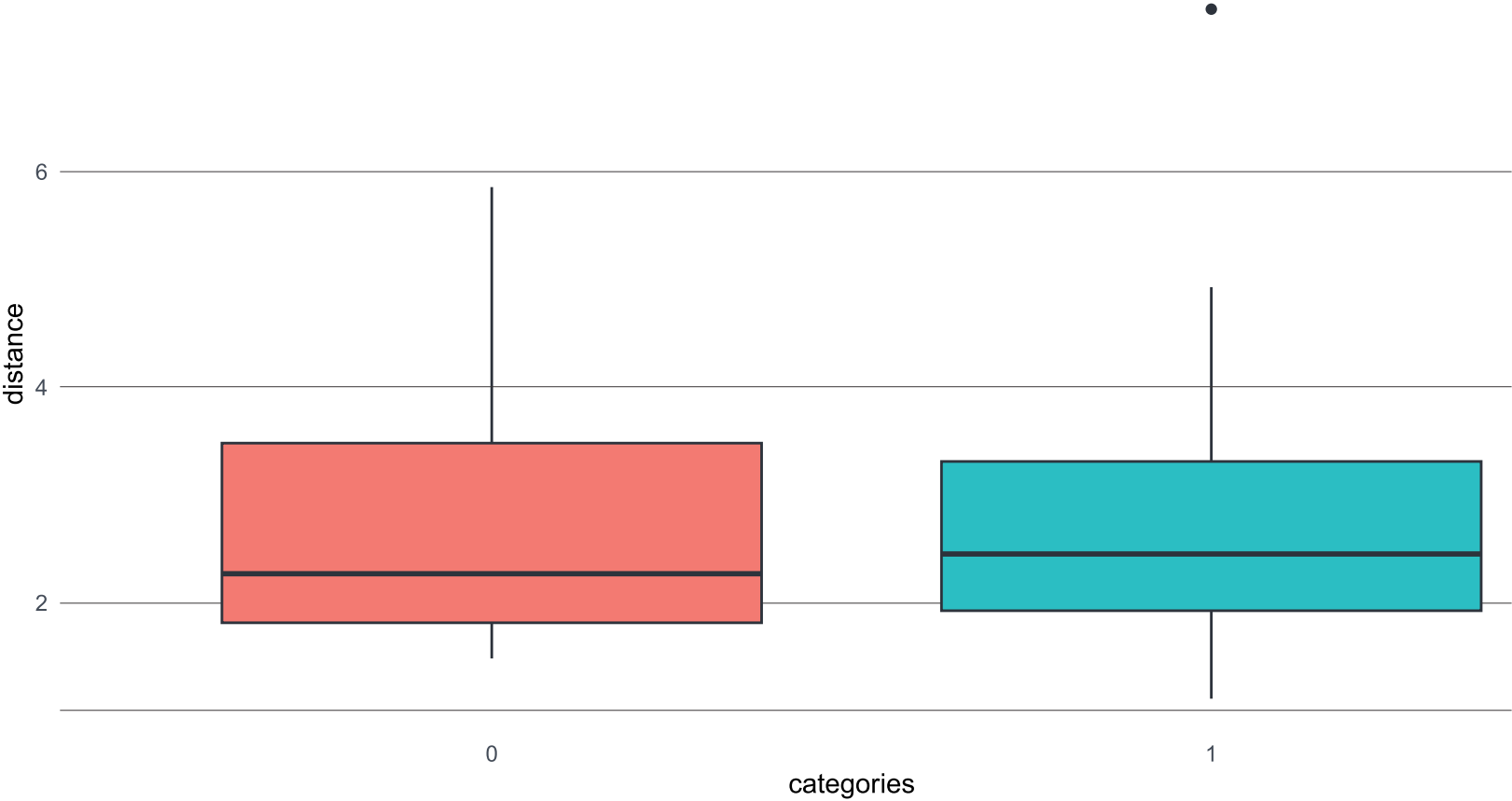


Terrestrial, wading

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch5, permutations = 10000)
Df SumOfSqs R2 F Pr(>F)
data\$Ch5 1 25738 0.75894 188.91 0.05549 .
Residual 60 8175 0.24106
Total 61 33913 1.00000

f. Character 6



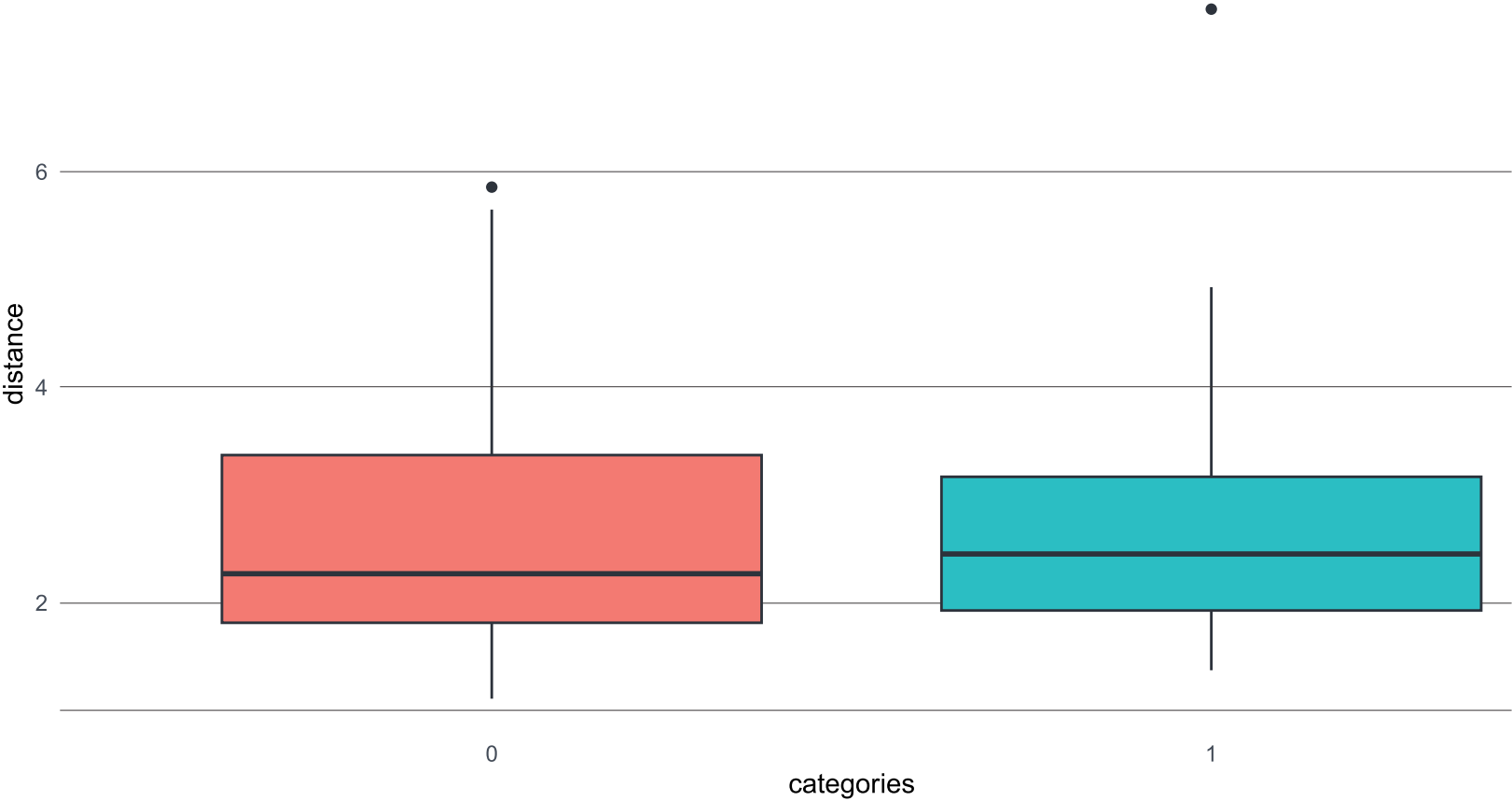
Arboreal, perching

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch6, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch6	1	14389	0.42427	44.216	0.1715
Residual	60	19525	0.57573		
Total	61	33913	1.00000		

g. Character 7

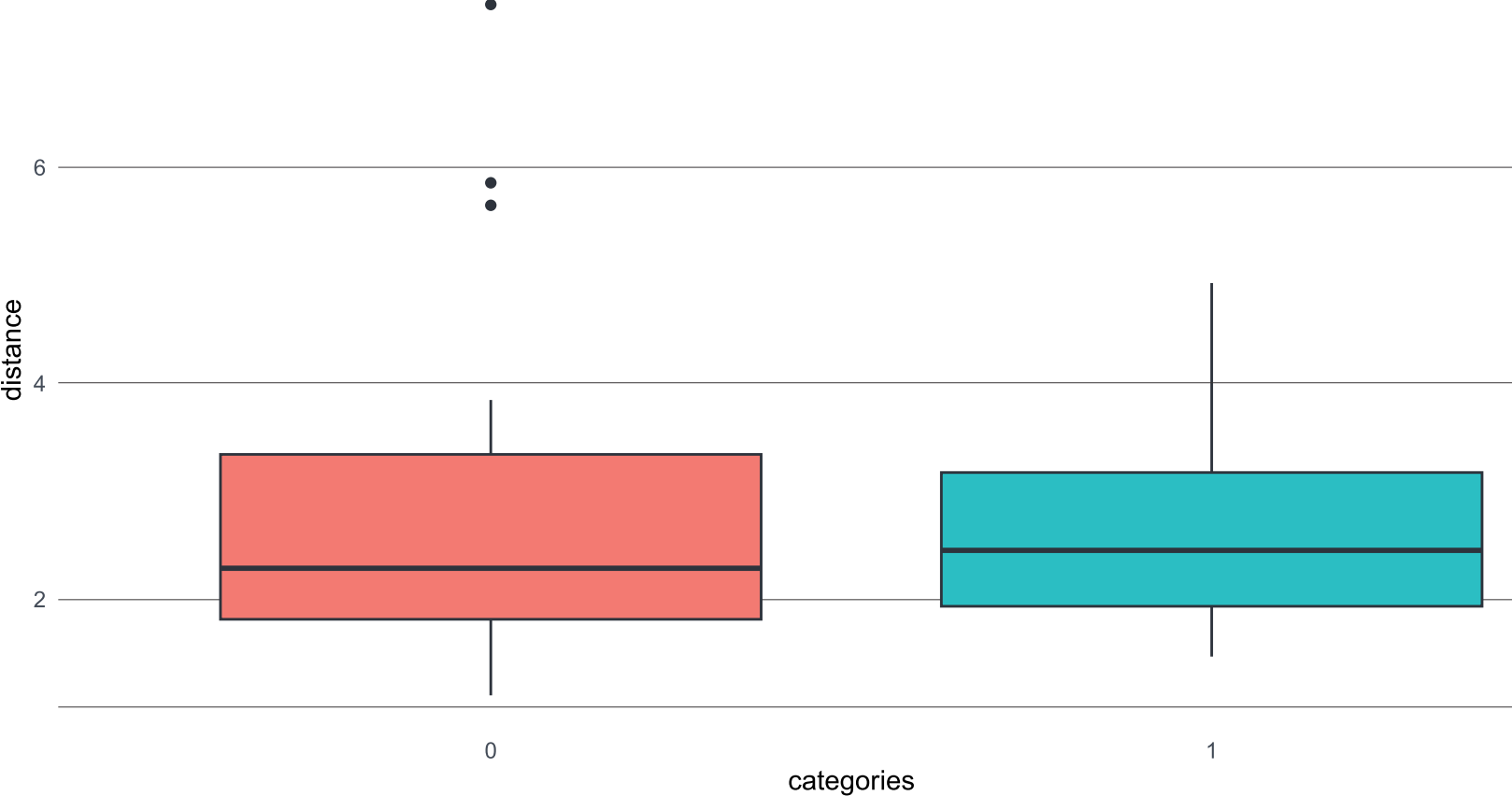


Arboreal, walking

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

```
adonis2(formula = data[, 14:18] ~ data$Ch7, permutations = 10000)
      Df SumOfSqs  R2    F Pr(>F)
data$Ch7  1   28182 0.83101 295.04 0.05979 .
Residual 60   5731 0.16899
Total   61  33913 1.00000
```

h. Character 8

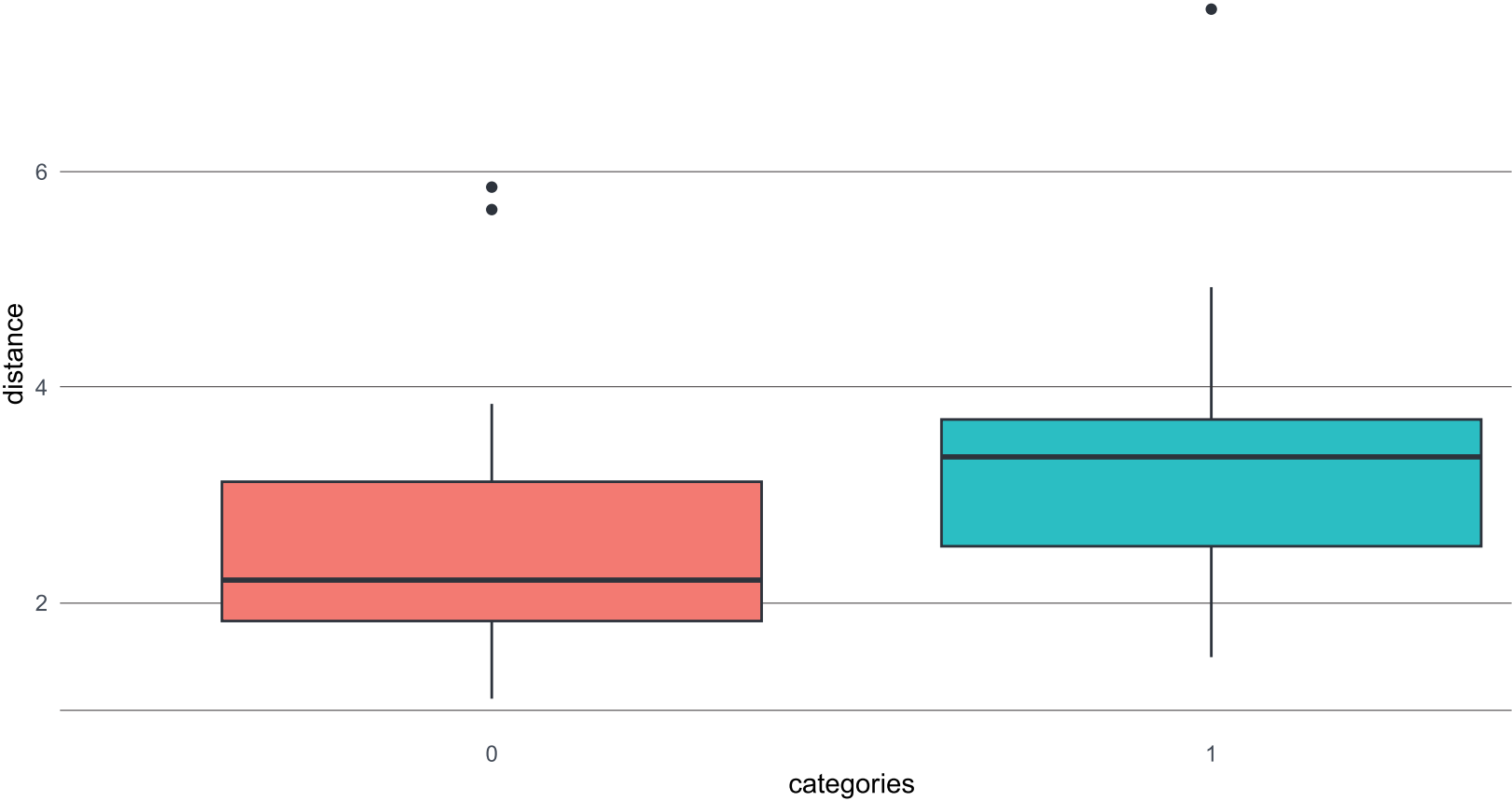


Arboreal, hopping

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch8, permutations = 10000)
Df SumOfSqs R2 F Pr(>F)
data\$Ch8 1 25754 0.75942 189.4 0.1289
Residual 60 8159 0.24058
Total 61 33913 1.00000

i. Character 9



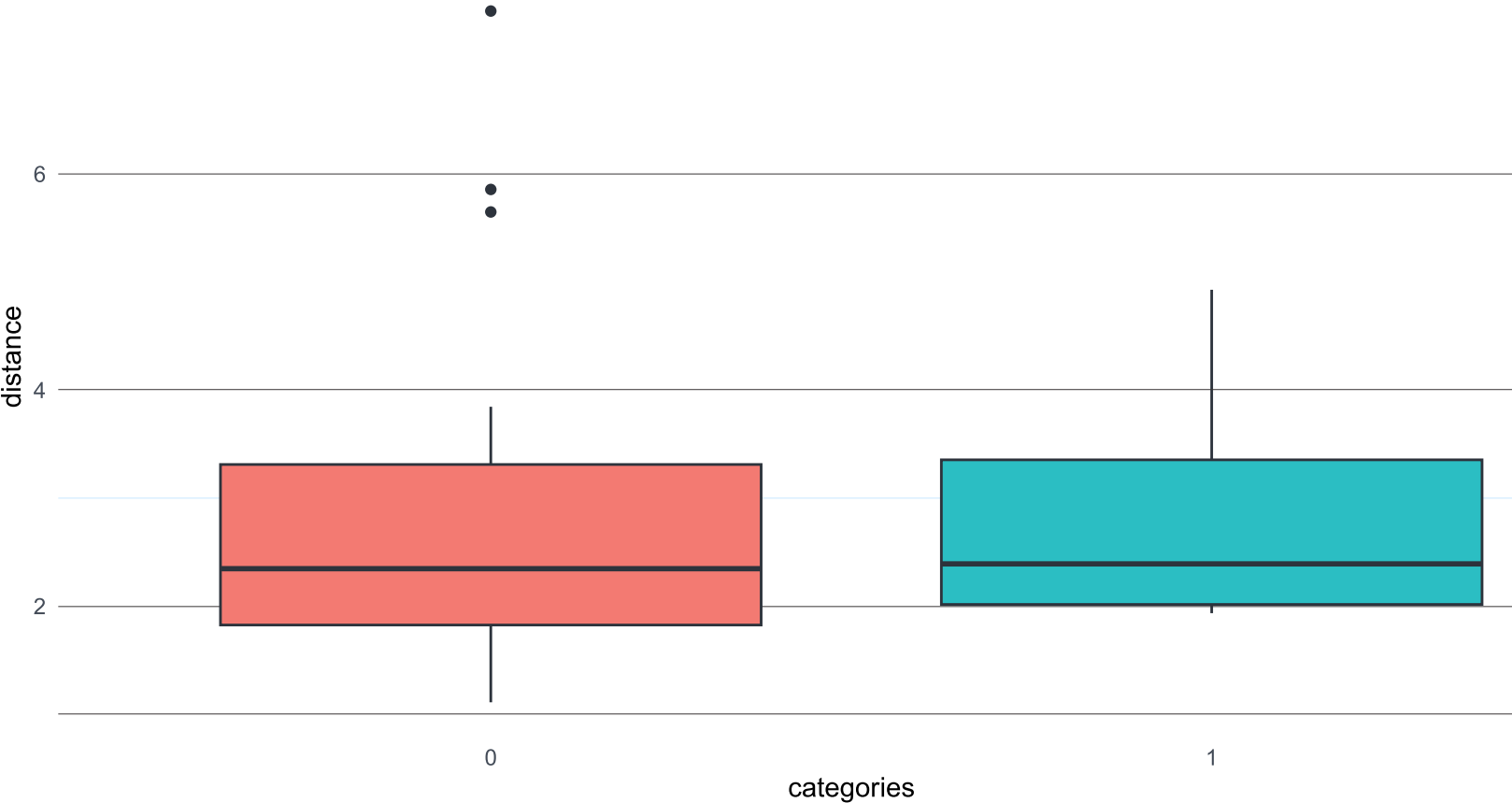
Arboreal, climbing

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch9, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch9	1	19140	0.56439	77.737	0.06049
Residual	60	14773	0.43561		
Total	61	33913	1.00000		

j. Character 10



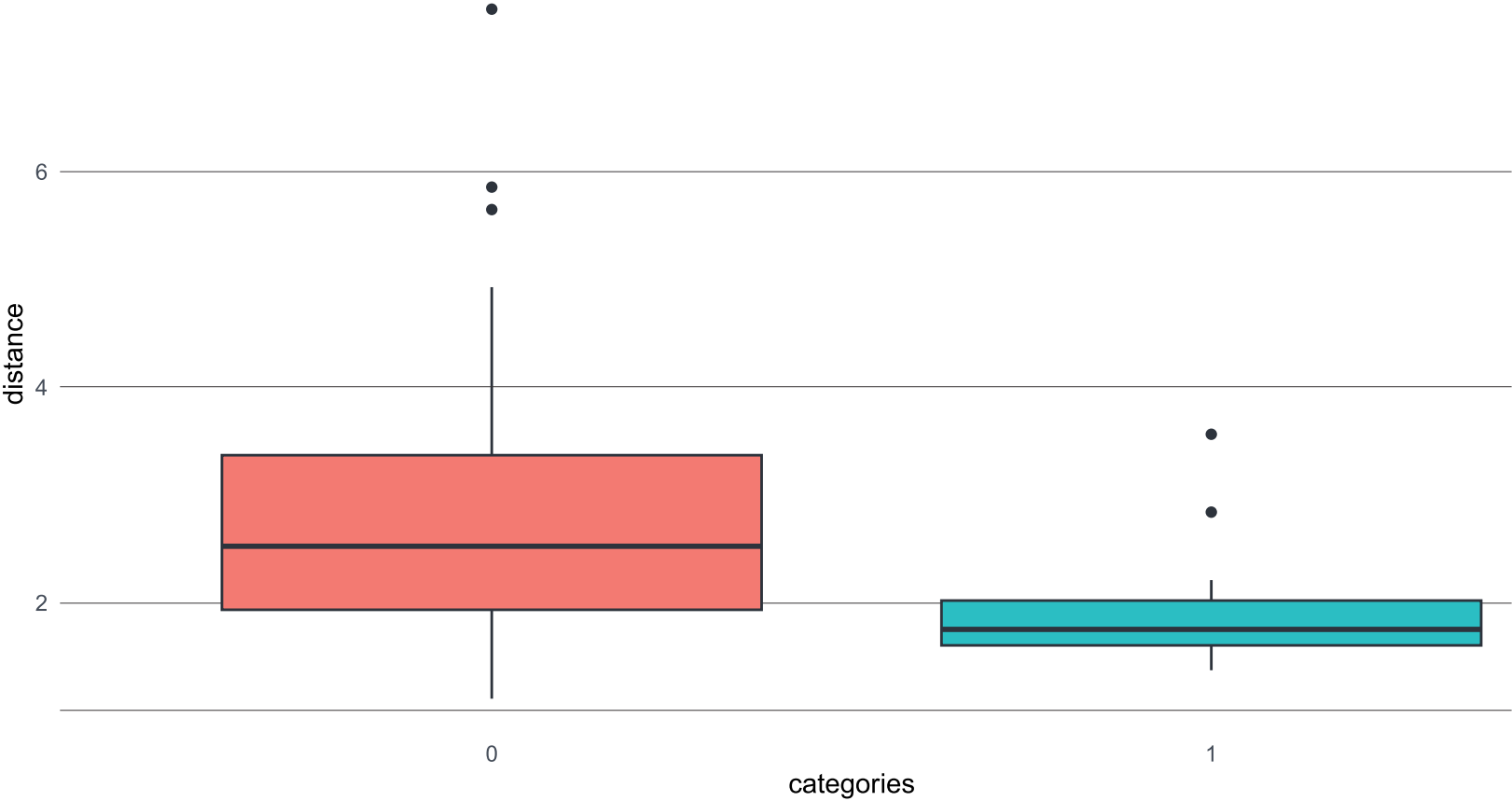
Arboreal, hanging (upside down)

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

```
adonis2(formula = data[, 14:18] ~ data$Ch10, permutations = 10000)
```

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch10	1	2335	0.06886	4.4371	0.326
Residual	60	31578	0.93114		
Total	61	33913	1.00000		

k. Character 11



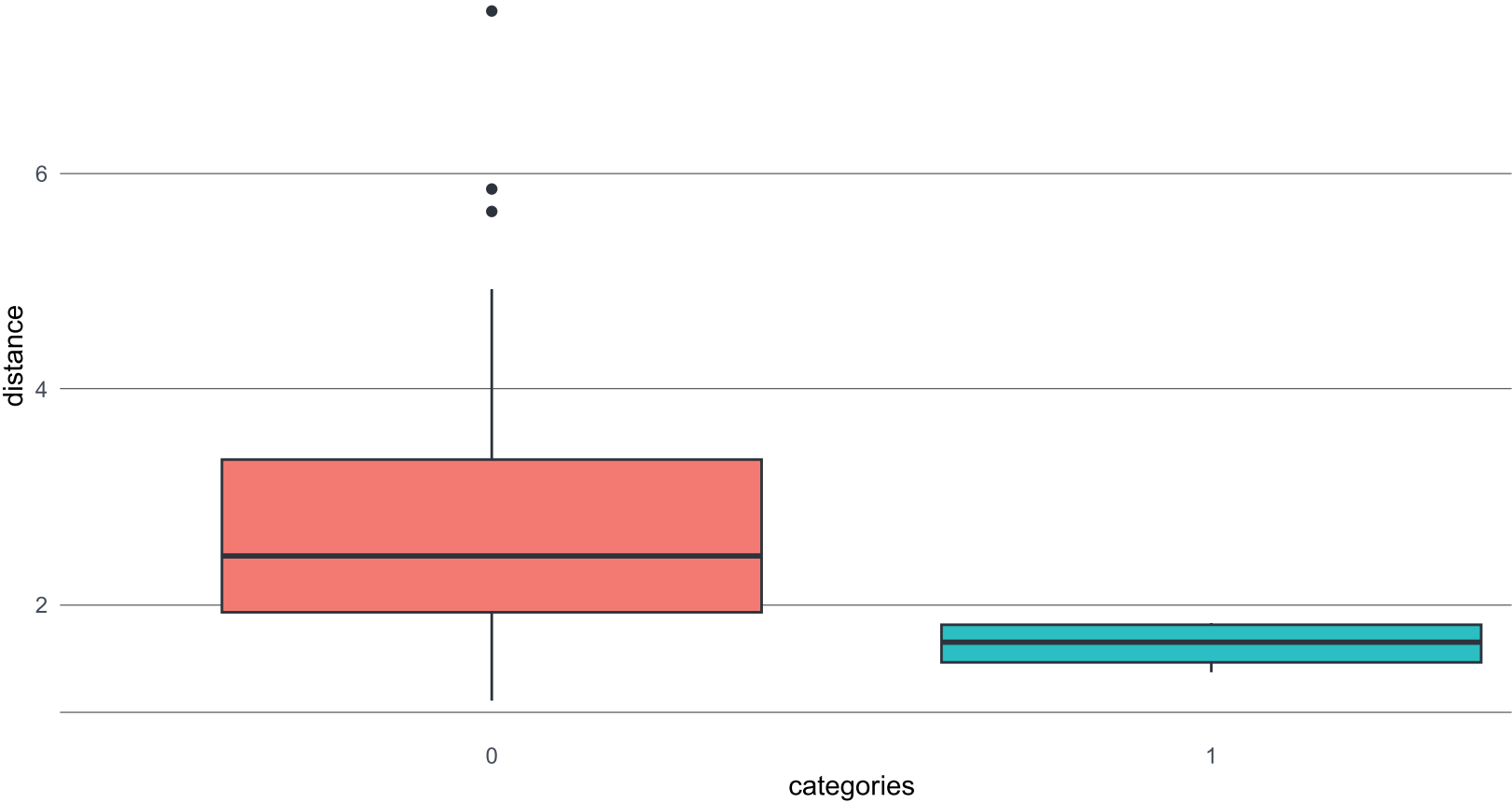
Aquatic, surface swimming

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch11, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch11	1	-2299	-0.06778	-3.8088	0.5382
Residual	60	36212	1.06778		
Total	61	33913	1.00000		

I. Character 12



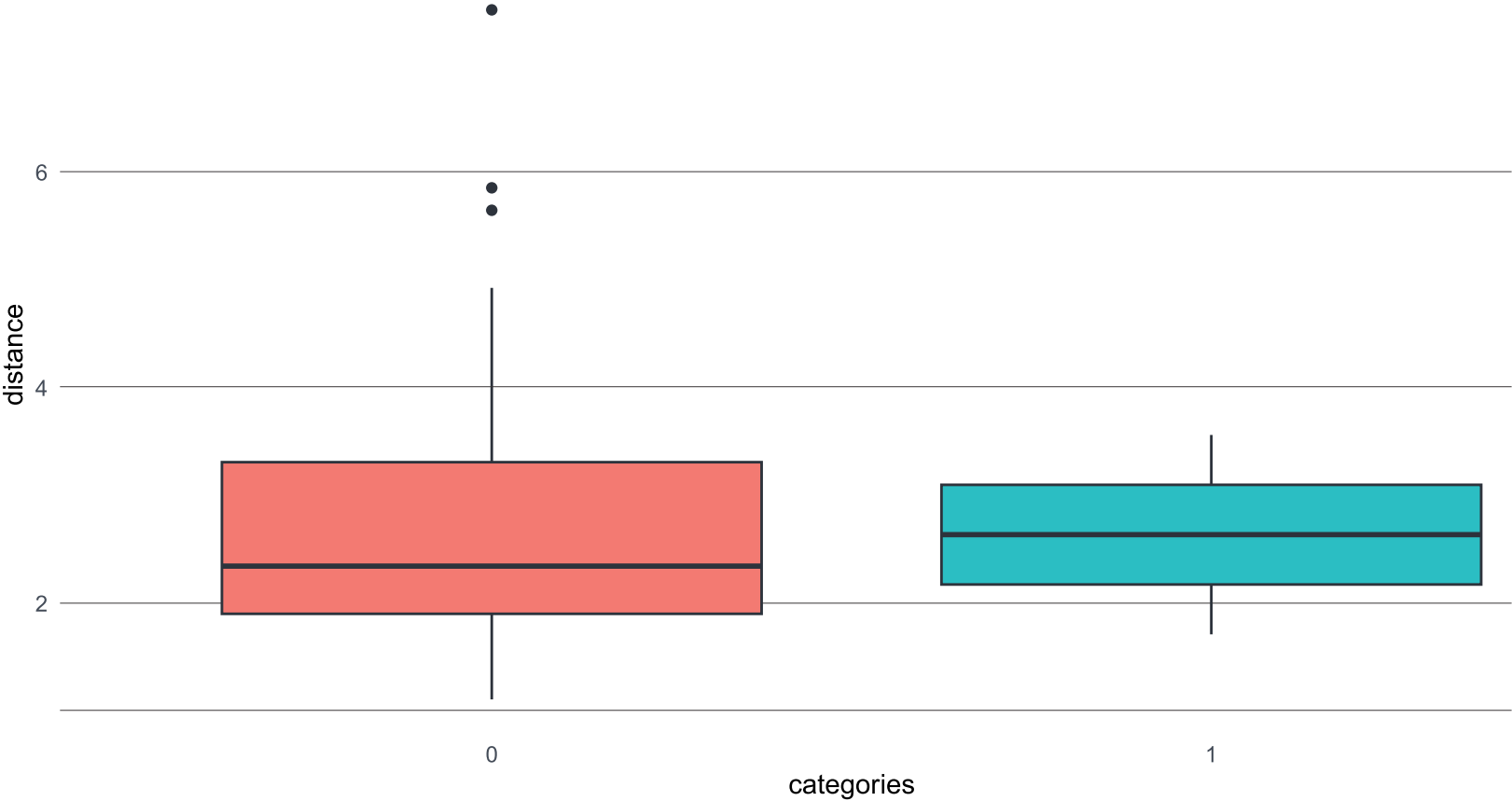
Aquatic, foot-propelled diving

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch12, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch12	1	-1382	-0.04076	-2.3496	0.51
Residual	60	35295	1.04076		
Total	61	33913	1.00000		

m. Character 13

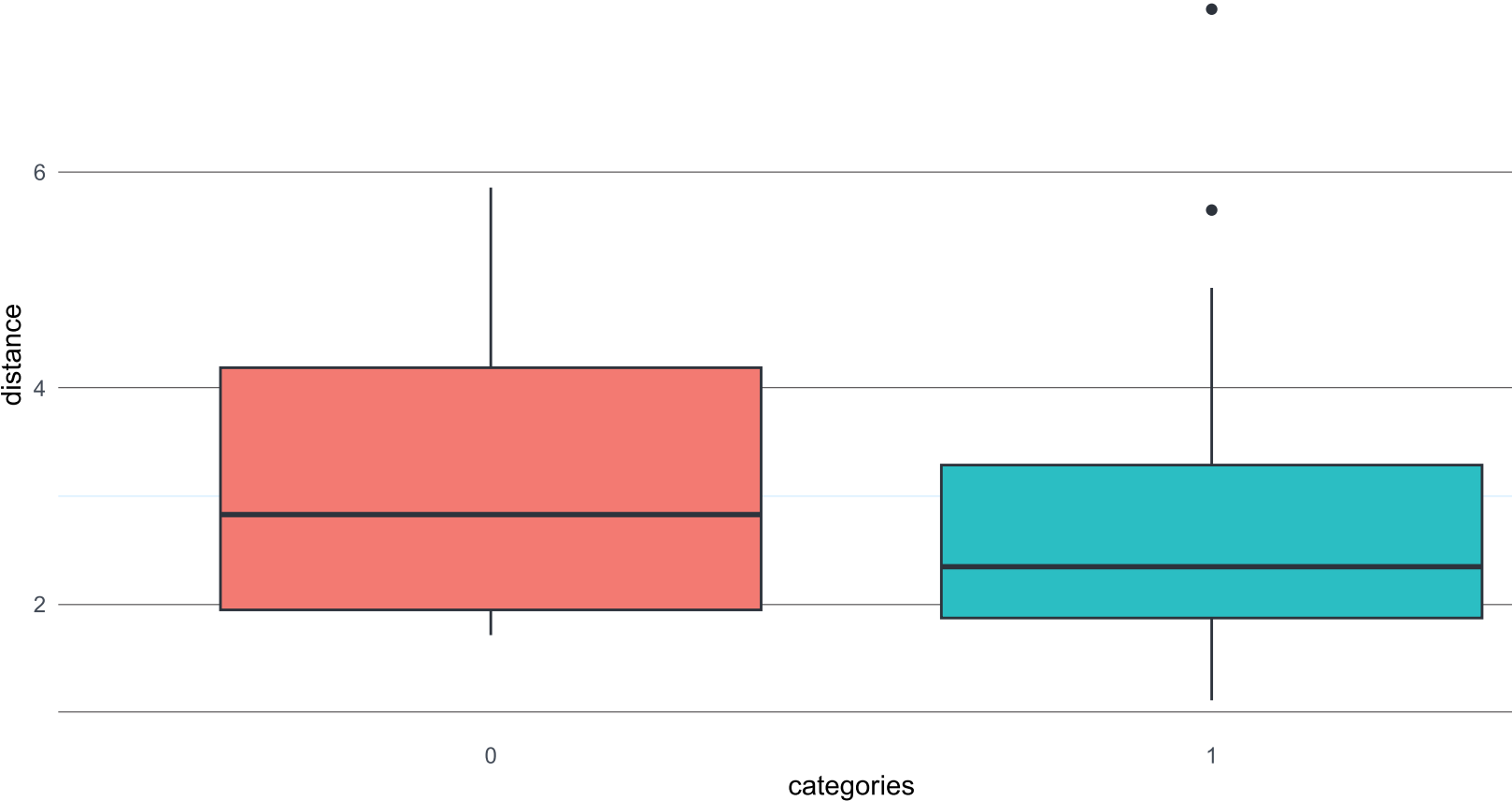


Aquatic, wing-propelled diving

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

```
adonis2(formula = data[, 14:18] ~ data$Ch13, permutations = 10000)
  Df SumOfSqs  R2    F Pr(>F)
data$Ch13  1   1010 0.02979 1.8426 0.1847
Residual 60  32903 0.97021
Total   61  33913 1.00000
```

n. Character 14



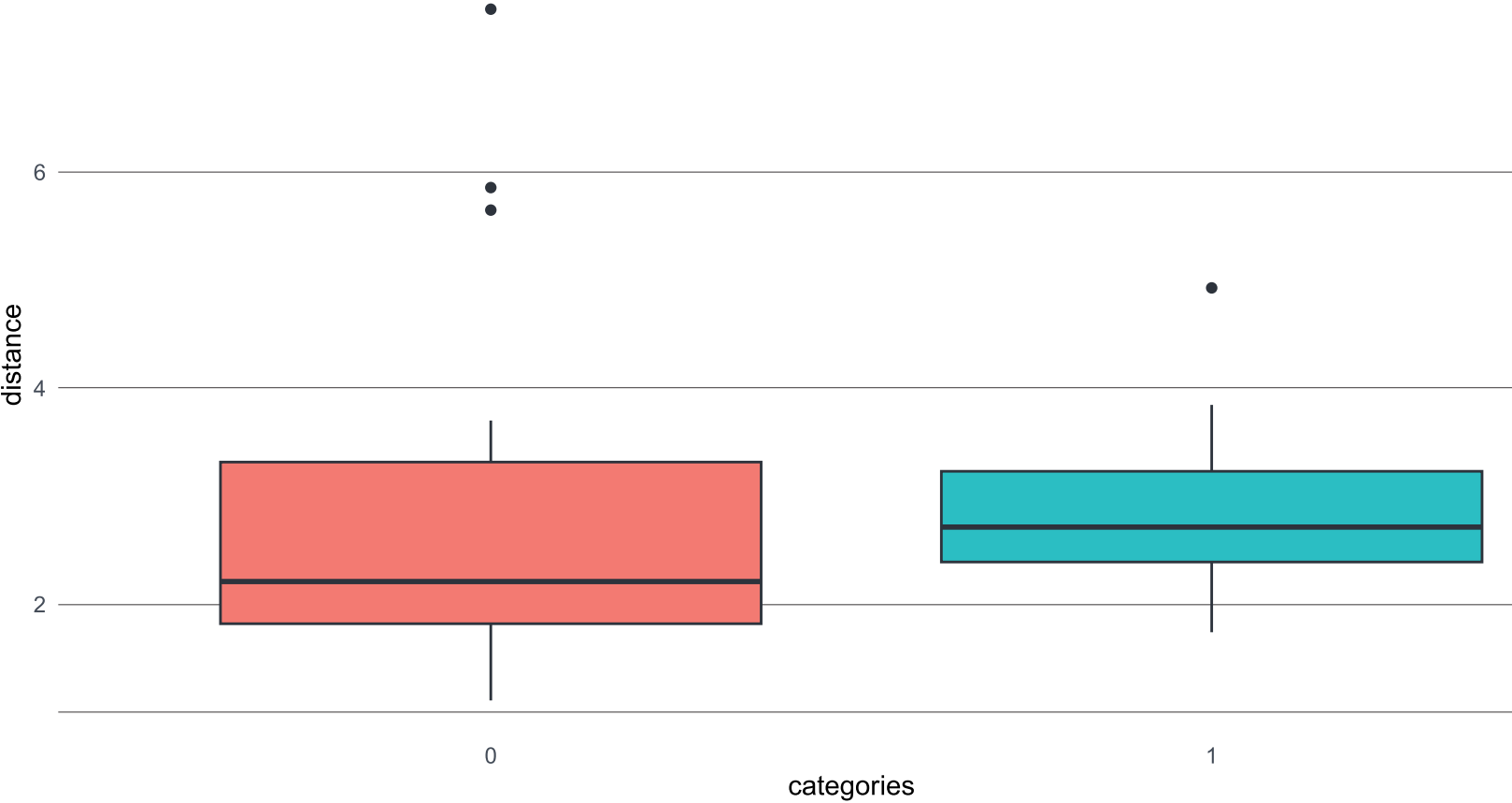
Aerial, flying

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 14:18] ~ data\$Ch14, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch14	1	16288	0.48027	55.445	0.0214 *
Residual	60	17626	0.51973		
Total	61	33913	1.00000		

o. Character 15



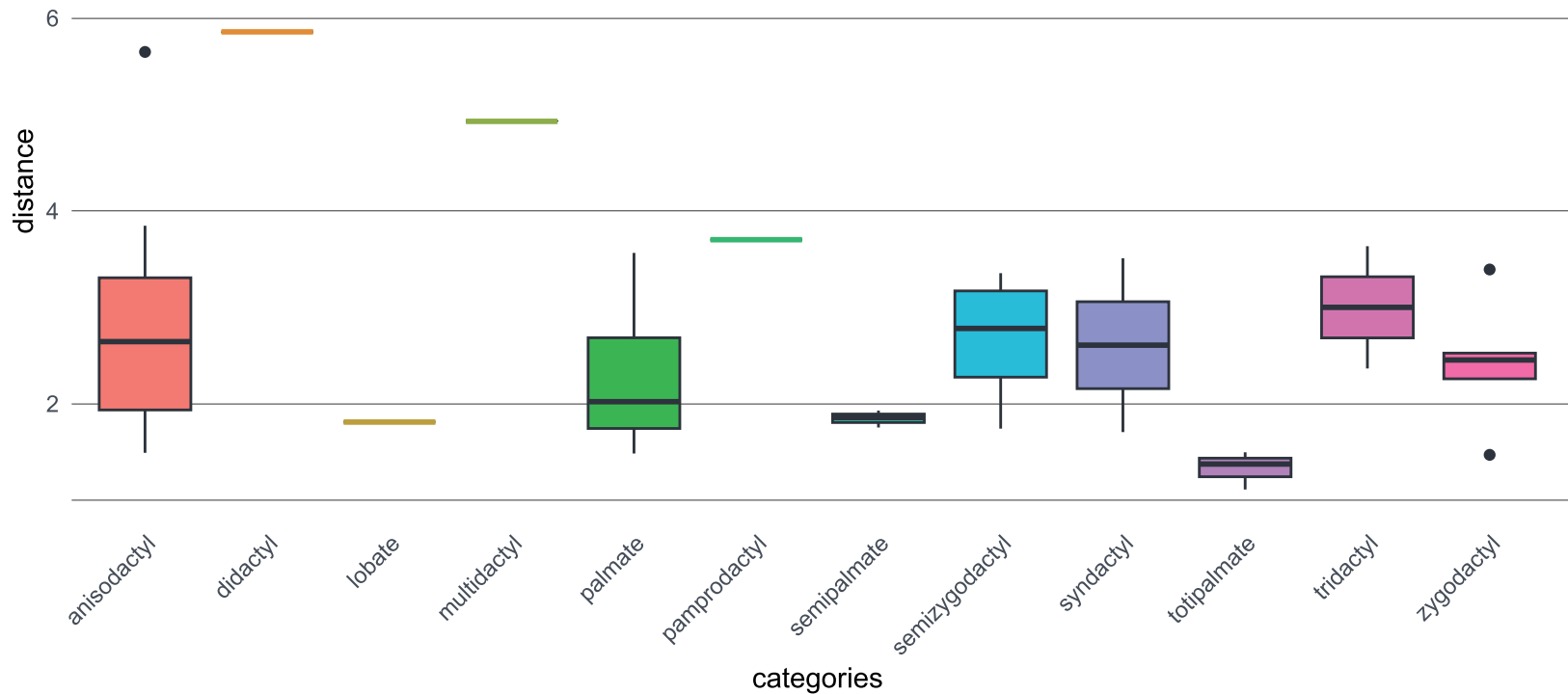
Grasping food/items

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, 15:19] ~ data\$Ch15, permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data\$Ch15	1	-6097	-0.17978	-9.1429	0.7855
Residual	60	40010	1.17978		
Total	61	33913	1.00000		

p. Character 16



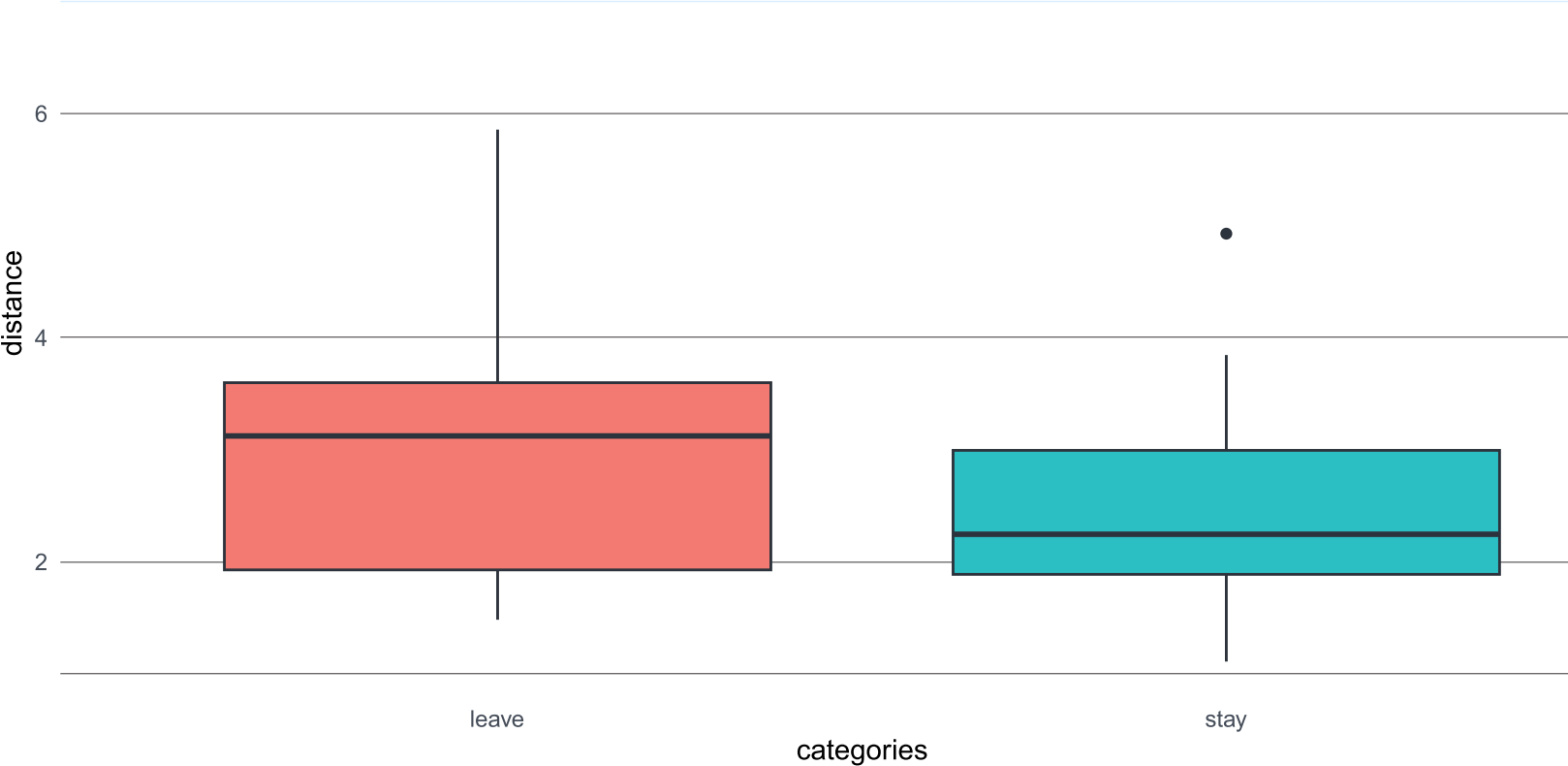
Foot type

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

adonis2(formula = data[, -1] ~ data[, 1], permutations = 10000)

	Df	SumOfSqs	R2	F	Pr(>F)
data[, 1]	12	3692	0.10888	0.4989	0.6813
Residual	49	30221	0.89112		
Total	61	33913	1.00000		

q. Character 17



Nest attendace

Permutation test for adonis under reduced model
Terms added sequentially (first to last)
Permutation: free
Number of permutations: 10000

```
adonis2(formula = data[, -1] ~ data[, 1], permutations = 10000)
      Df SumOfSqs  R2    F Pr(>F)
data[, 1] 1  10047 0.29625 25.258 0.3206
Residual 60  23866 0.70375
Total   61  33913 1.00000
```