

Table 1: Multivariate S-map Model Statistics, with nonlinearity, correlation of predictions with observations, and mean absolute error.

| Species | Nonlinearity | $\rho$      | MAE | String   |
|---------|--------------|-------------|-----|--|
| 1       | 3            | <b>0.89</b> | 0.4 | this is a long string. this is a long string. this is a long string. this is a long string.this is a long string. this is a long string.this is a long string. this is a long string.this is a long string. this is a long string. |
| 2       | 4            | <b>0.99</b> | 0.5 | this is a long string. this is a long string. this is a long string. this is a long string.this is a long string. this is a long string.this is a long string. this is a long string.this is a long string. this is a long string. |
| 3       | 5            | <b>0.32</b> | 0.6 | this is a long string. this is a long string. this is a long string. this is a long string.this is a long string. this is a long string.this is a long string. this is a long string.this is a long string. this is a long string. |

We now have a trove of new data: data describing interactions between species, interactions that vary with the state of ecosystem. In general, the multivariate models perform well (i.e. achieve good predictive power).

```
library(knitr)
library(tidyverse)
require(kableExtra)

x<-data.frame(spp=c(1,2,3),theta=c(3,4,5),rho=c(.89,.99,.32),mae=c(.4,.5,.6),
              lngstr=rep("this is a long string. this is a long string. this is a long string. this is a long string.",
                        3))

knitr::kable(x,format = "latex",col.names=c("Species","Nonlinearity", "$\\rho$","MAE","String"),
             caption="Multivariate S-map Model Statistics, with nonlinearity,
                    correlation of predictions with observations, and mean absolute error.",
             escape=F) %>%
  kable_styling(full_width = F) %>%
  column_spec(3,bold=T)%>%
  column_spec(5, width = "30em")
```