

Zoonotic cryptosporidium

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1 Zoonotic - all data

```
> fit <- manova(cbind(Species, Gene, Pi, Theta) ~ Zoonotic, data = Pi_data)
> summary(fit, test = "Pillai")
```

	Df	Pillai	approx F	num Df	den Df	Pr(>F)
Zoonotic	1	0.1905	1.4709	4	25	0.2409
Residuals	28					

```
> summary.aov(fit)
```

Response Species :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.025	0.0254	0.0124	0.912
Residuals	28	57.175	2.0419		

Response Gene :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.0397	0.03968	0.0916	0.7644
Residuals	28	12.1270	0.43311		

Response Pi :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.003463	0.0034625	0.9074	0.349
Residuals	28	0.106849	0.0038160		

Response Theta :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.000224	0.00022399	0.0819	0.7769
Residuals	28	0.076598	0.00273564		

2 Gene - all data

```
> fit <- manova(cbind(Species, Pi, Theta) ~ Gene, data = Pi_data)
> summary(fit, test = "Pillai")
```

	Df	Pillai	approx F	num Df	den Df	Pr(>F)
Gene	3	0.33647	1.0948	9	78	0.3765
Residuals	26					

```
> summary.aov(fit)
```

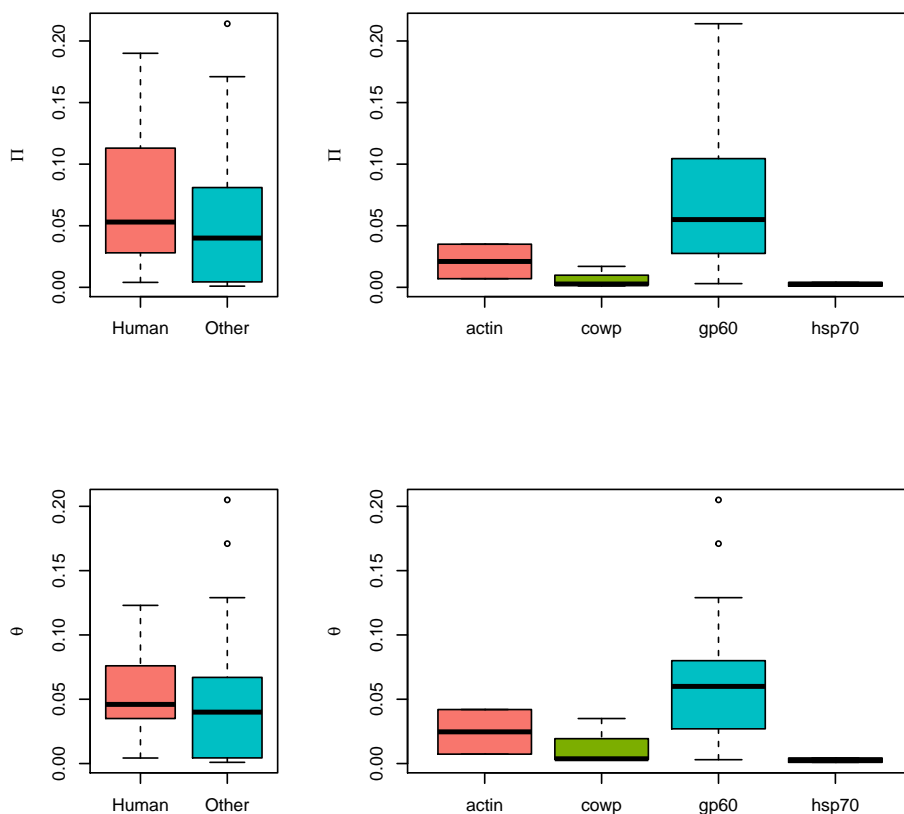


Figure 1: All data

```

Response Species :
      Df Sum Sq Mean Sq F value Pr(>F)
Gene      3  5.722   1.9072   0.9633  0.4249
Residuals 26 51.478   1.9799

Response Pi :
      Df Sum Sq Mean Sq F value Pr(>F)
Gene      3 0.023637 0.0078789   2.3635 0.09427 .
Residuals 26 0.086674 0.0033336

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Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Response Theta :
      Df Sum Sq Mean Sq F value Pr(>F)
Gene      3 0.013931 0.0046436   1.9197 0.1512
Residuals 26 0.062891 0.0024189

```

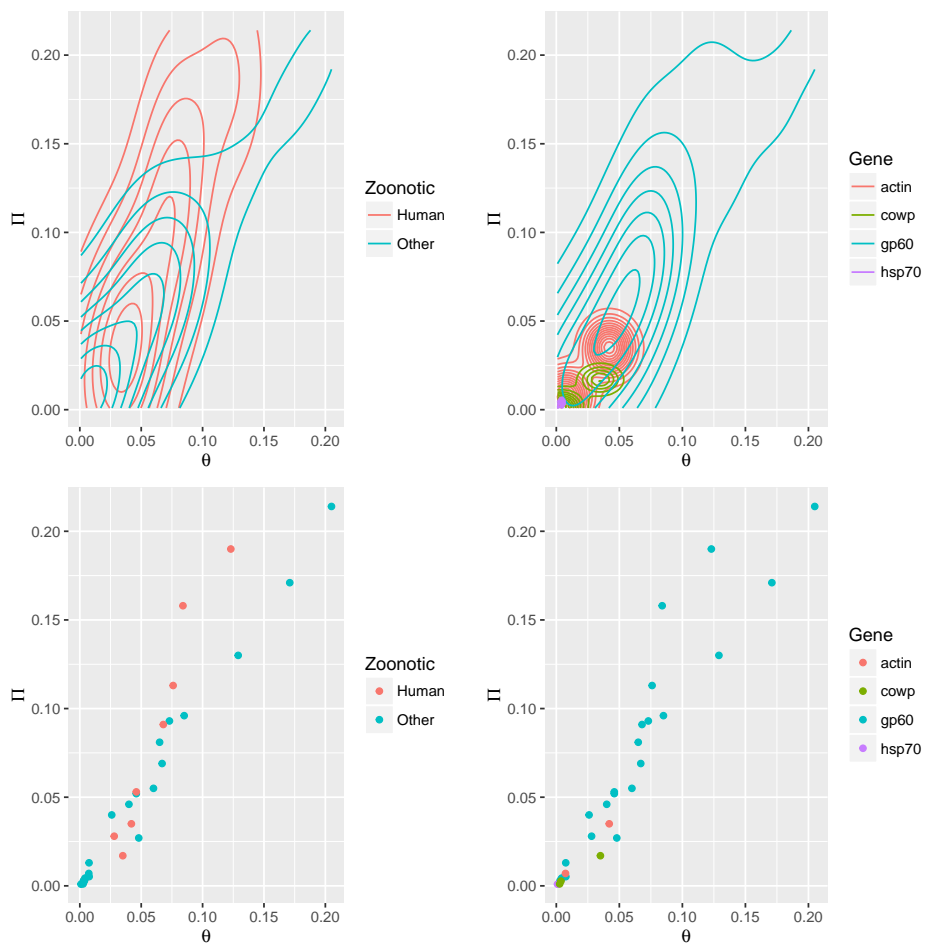


Figure 2: All data diversity density

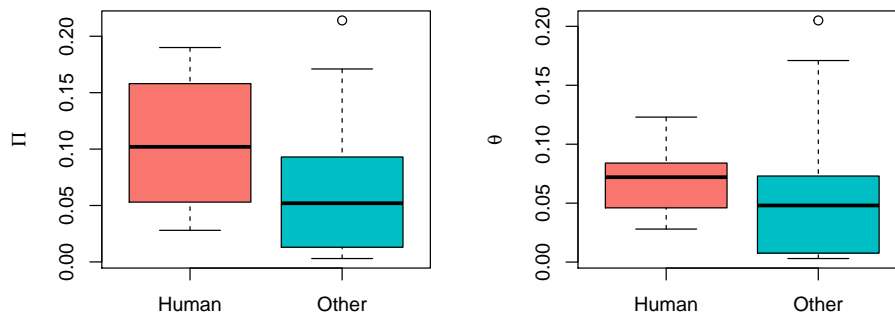


Figure 3: gp60 diversity

3 Zoonotic - gp60 data

```
> fit <- manova(cbind(Species,Pi,Theta) ~ Zoonotic, data = newdata)
> summary(fit, test="Pillai")
```

	Df	Pillai	approx F	num Df	den Df	Pr(>F)
Zoonotic	1	0.44224	5.0216	3	19	0.009911 **
Residuals	21					

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```
> summary.aov(fit)
```

Response Species :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.096	0.09591	0.0392	0.845
Residuals	21	51.382	2.44678		

Response Pi :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.007304	0.0073038	1.9459	0.1776
Residuals	21	0.078821	0.0037534		

Response Theta :

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Zoonotic	1	0.000406	0.00040604	0.1393	0.7127
Residuals	21	0.061203	0.00291443		

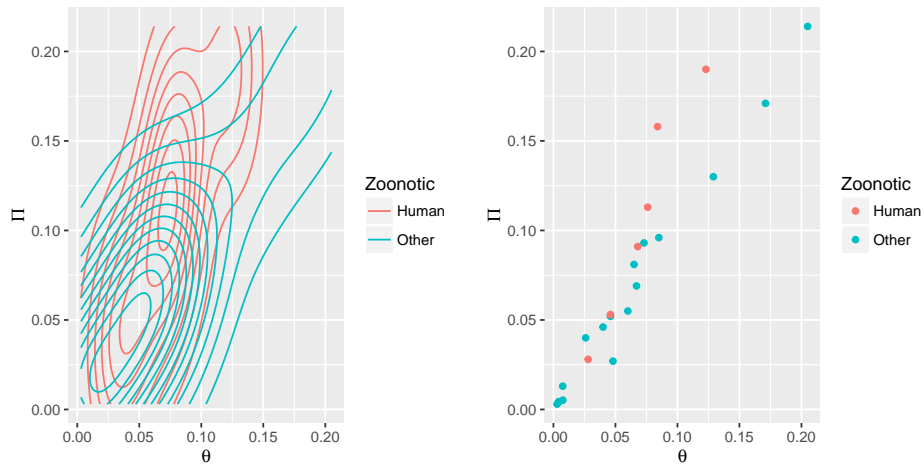


Figure 4: gp60 diversity density