

Final Overcompensation Stats

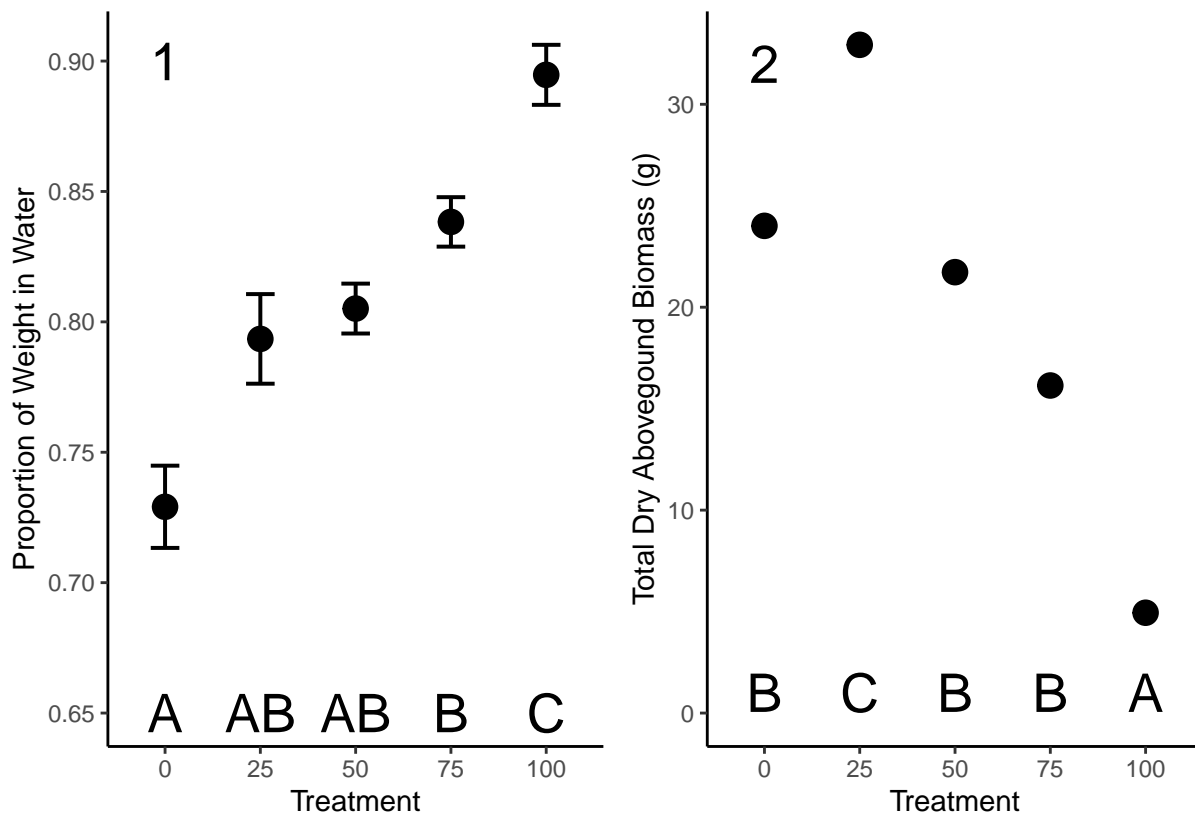
Team Rabbit

2022-4-7

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Final plots



Stats for Total Biomass

```
##           Model df      AIC      BIC    logLik    Test      L.Ratio p-value
## rand.lm       1   7 75.26703 82.23716 -30.63352
## norand.lm     2   6 73.26703 79.24143 -30.63352 1 vs 2 2.842171e-14      1
```

```
## Analysis of Deviance Table (Type III tests)
```

```
##
```

```
## Response: total_above_dry
```

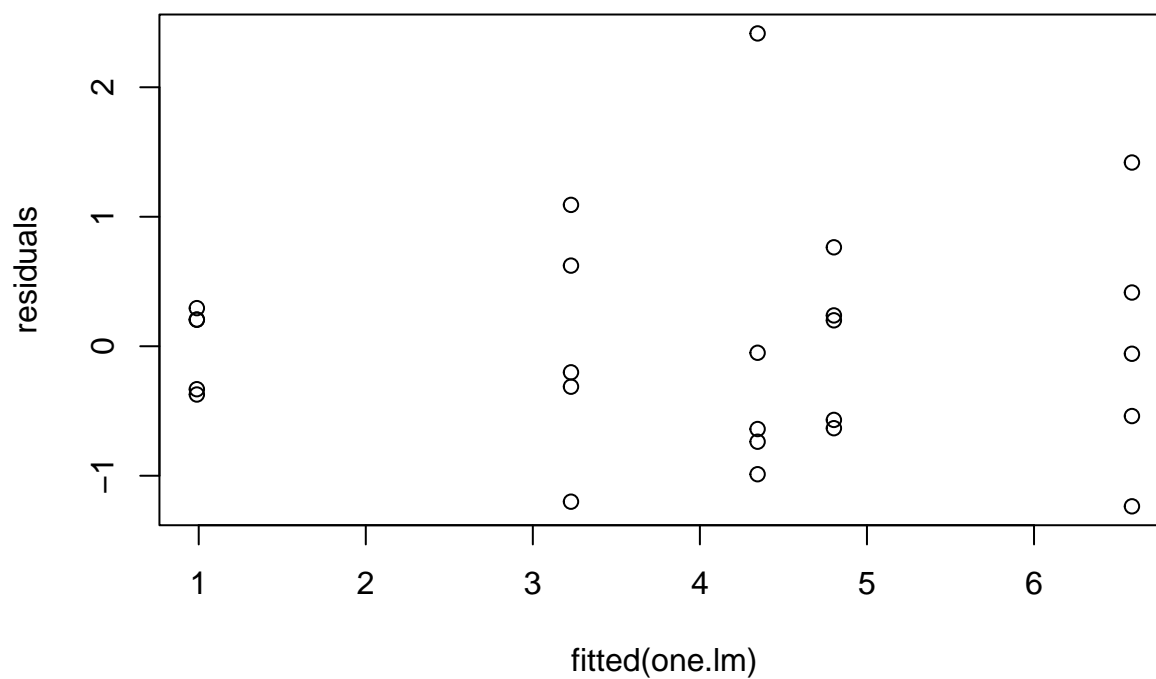
```
##           Df  Chisq Pr(>Chisq)
```

```
## (Intercept) 1 137.61 < 2.2e-16 ***
```

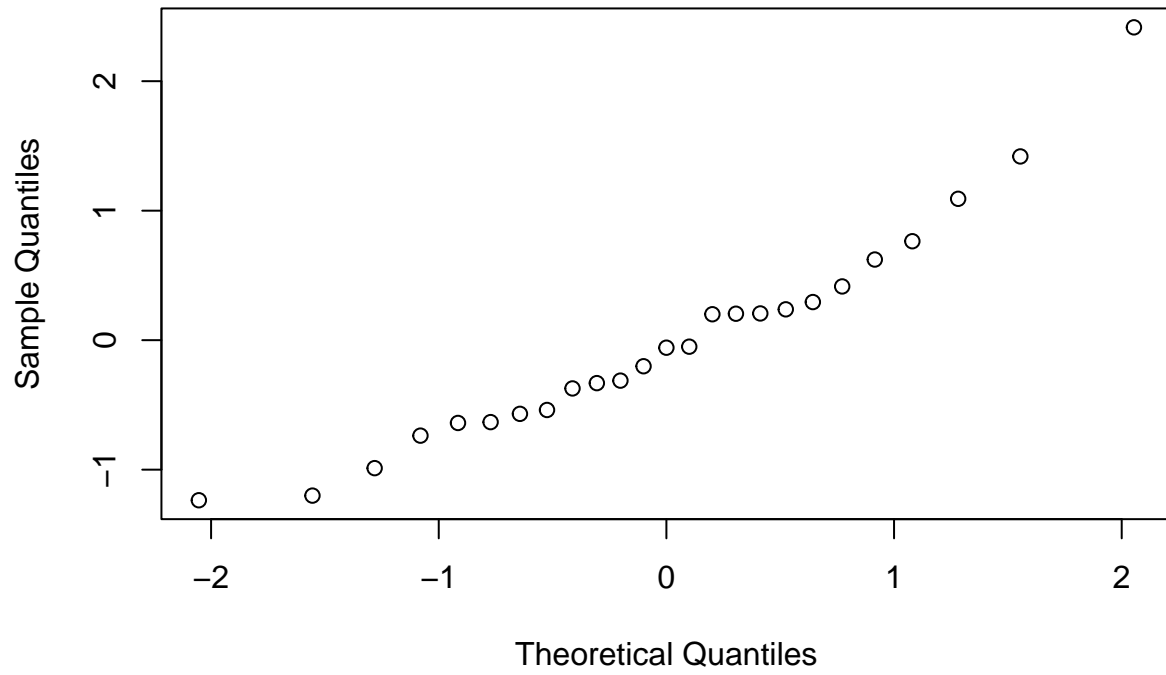
```
## trt          4 102.12 < 2.2e-16 ***
```

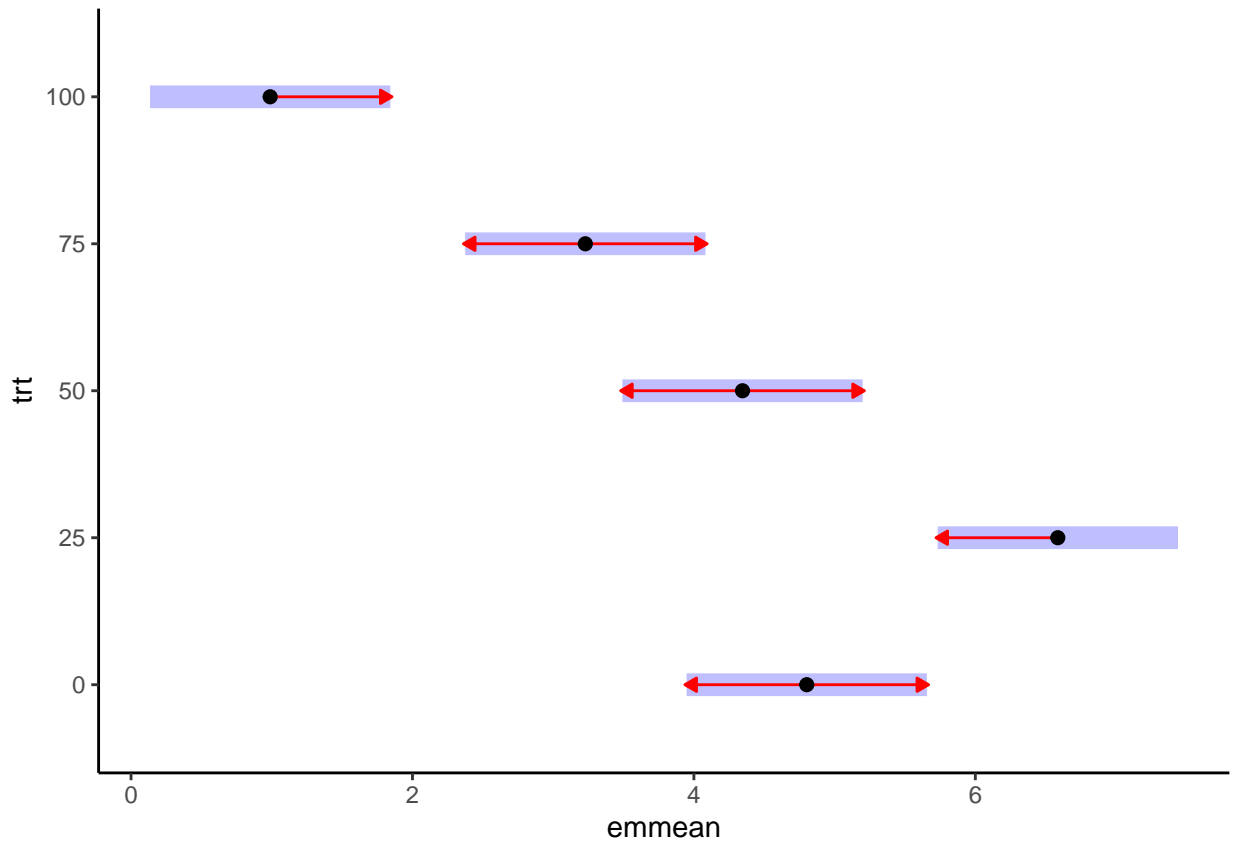
```
## ---
```

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



Normal Q-Q Plot





```
## contrast estimate SE df t.ratio p.value
## 0 - 25 -1.784 0.579 20 -3.082 0.0588
## 0 - 50 0.457 0.579 20 0.789 1.0000
## 0 - 75 1.574 0.579 20 2.718 0.1324
## 0 - 100 3.813 0.579 20 6.587 <.0001
## 25 - 50 2.241 0.579 20 3.871 0.0095
## 25 - 75 3.358 0.579 20 5.800 0.0001
## 25 - 100 5.597 0.579 20 9.669 <.0001
## 50 - 75 1.117 0.579 20 1.929 0.6798
## 50 - 100 3.357 0.579 20 5.798 0.0001
## 75 - 100 2.240 0.579 20 3.869 0.0096
##
## P value adjustment: bonferroni method for 10 tests
```

```
## trt emmean SE df lower.CL upper.CL .group
## 100 0.989 0.409 20 0.135 1.84 a
## 75 3.228 0.409 20 2.374 4.08 b
## 50 4.345 0.409 20 3.491 5.20 b
## 0 4.802 0.409 20 3.948 5.66 b
## 25 6.586 0.409 20 5.732 7.44 c
##
```

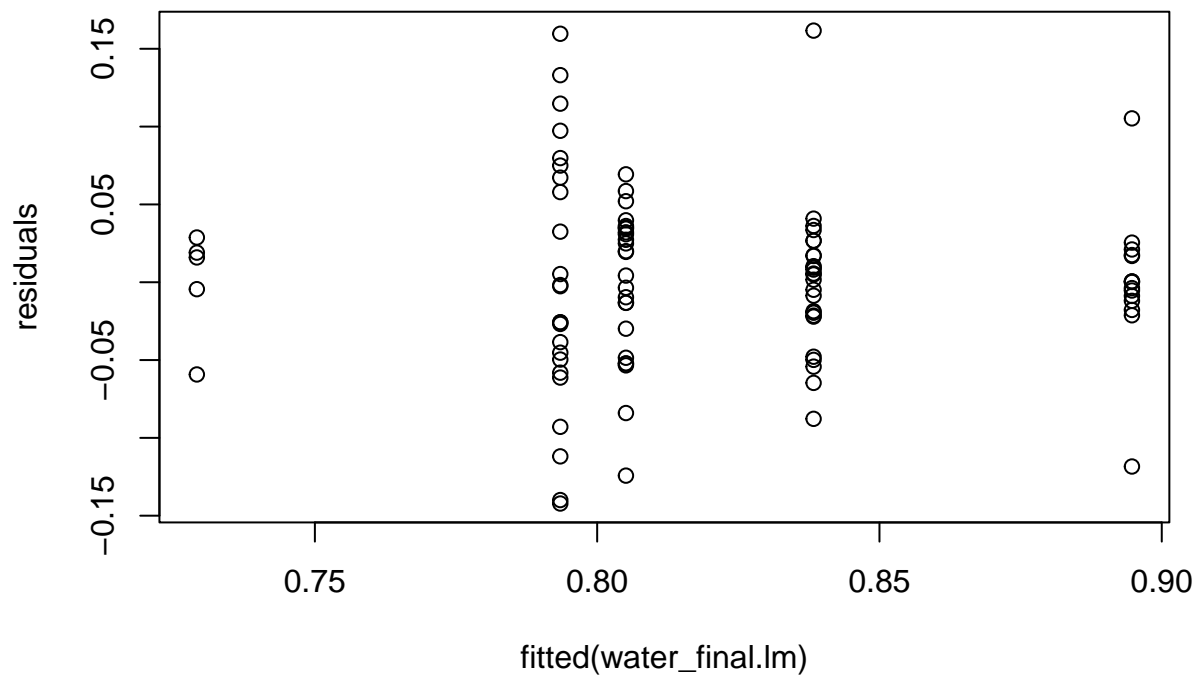
```
## Confidence level used: 0.95
## P value adjustment: tukey method for comparing a family of 5 estimates
## significance level used: alpha = 0.05
## NOTE: Compact letter displays can be misleading
```

```
##         because they show NON-findings rather than findings.
##         Consider using 'pairs()', 'pwpp()', or 'pwpm()' instead.
```

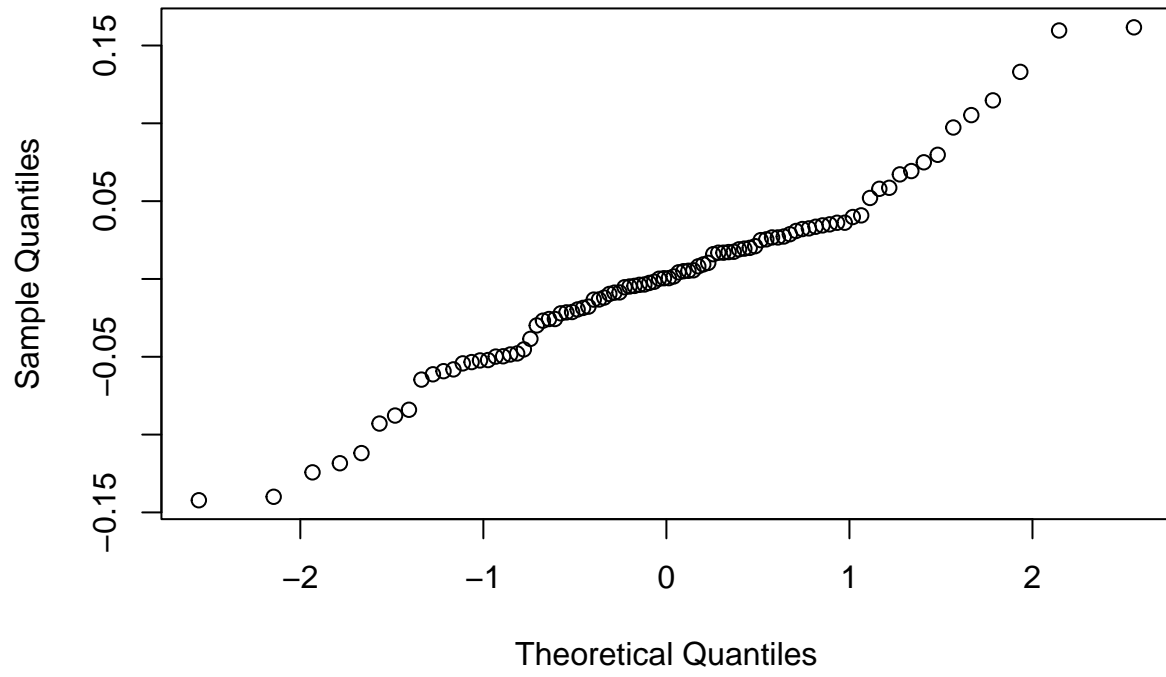
Stats for Water Ratio

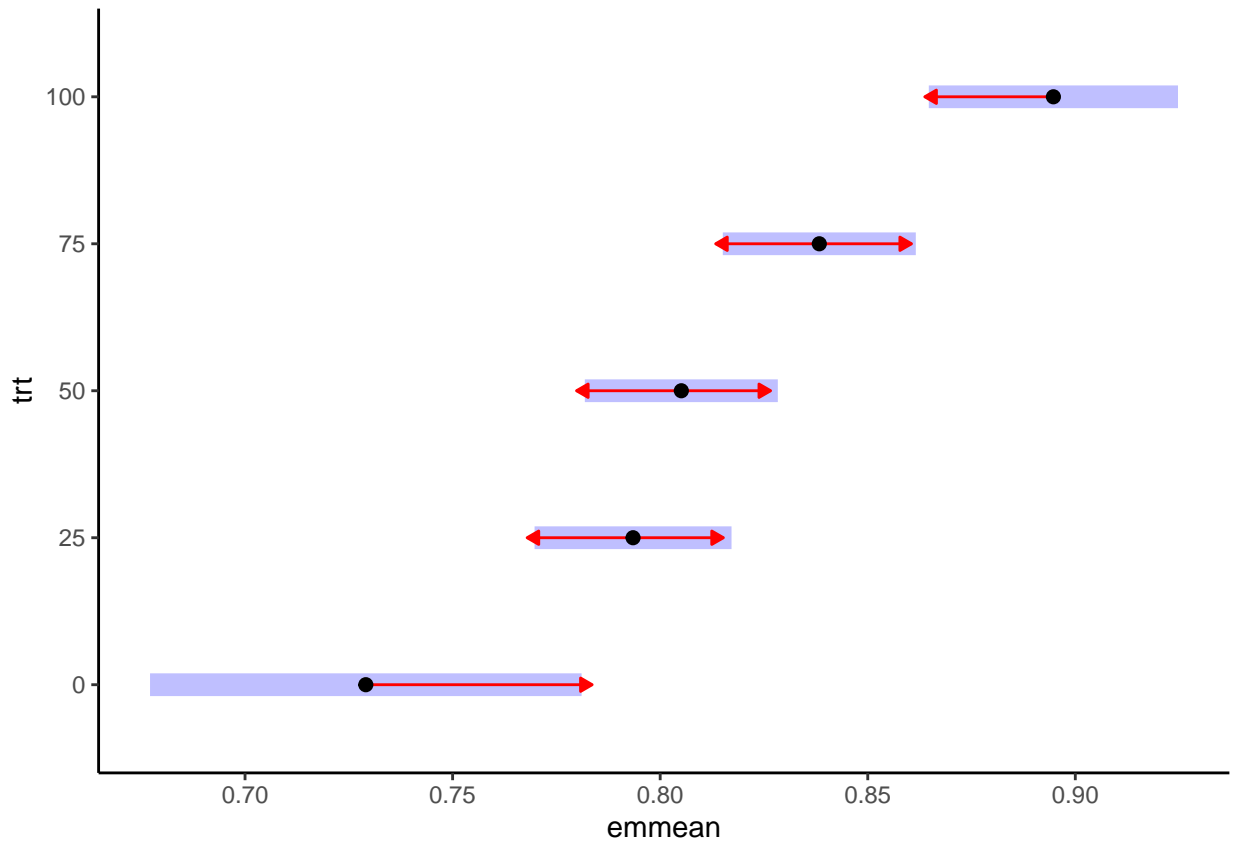
```
##           Model df      AIC      BIC   logLik   Test     L.Ratio
## water_rand.lm      1  7 -224.7968 -207.3763 119.3984
## water_norand.lm    2  6 -226.7968 -211.8649 119.3984 1 vs 2 9.970165e-09
##           p-value
## water_rand.lm
## water_norand.lm 0.9999

## Anova Table (Type III tests)
##
## Response: water_ratio
##           Sum Sq Df F value    Pr(>F)
## (Intercept) 2.65787  1 776.709 < 2.2e-16 ***
## trt          0.15578  4  11.381 1.668e-07 ***
## Residuals    0.30455 89
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```



Normal Q-Q Plot





```
## contrast estimate      SE df t.ratio p.value
## 0 - 25      -0.0644 0.0288 89  -2.239  0.2768
## 0 - 50      -0.0760 0.0287 89  -2.652  0.0947
## 0 - 75      -0.1092 0.0287 89  -3.812  0.0025
## 0 - 100     -0.1656 0.0302 89  -5.483  <.0001
## 25 - 50     -0.0116 0.0167 89   -0.696  1.0000
## 25 - 75     -0.0449 0.0167 89   -2.684  0.0868
## 25 - 100    -0.1013 0.0193 89   -5.259  <.0001
## 50 - 75     -0.0332 0.0165 89   -2.009  0.4761
## 50 - 100    -0.0896 0.0191 89   -4.691  0.0001
## 75 - 100    -0.0564 0.0191 89   -2.952  0.0404
##
## P value adjustment: bonferroni method for 10 tests
```

```
## trt emmean      SE df lower.CL upper.CL .group
## 0    0.729 0.0262 89    0.677    0.781    a
## 25   0.793 0.0119 89    0.770    0.817   ab
## 50   0.805 0.0117 89    0.782    0.828   ab
## 75   0.838 0.0117 89    0.815    0.862    b
## 100  0.895 0.0151 89    0.865    0.925    c
##
```

```
## Confidence level used: 0.95
## P value adjustment: tukey method for comparing a family of 5 estimates
## significance level used: alpha = 0.05
## NOTE: Compact letter displays can be misleading
```

```
##      because they show NON-findings rather than findings.  
##      Consider using 'pairs()', 'pwpp()', or 'pwpm()' instead.
```