

Introduction to R

Session 4 – Data manipulation

Statistical Consulting Centre

19 July, 2017

1. `apply()` function

1. Check the one-way frequency tables of pHtype and Calcium.

```
apply(joined.df[, c("pHtype", "Calcium")], 2, table)
```

```
##      pHtype Calcium
## [1,]      31      16
## [2,]      19      18
## [3,]       3      19
```

2. Calculate the means and standard deviations of pH, Chlorophyll and mercury measurements at Day 1, 2, and

```
apply(joined.df[, c("pH", "Chlorophyll", "Day1", "Day2", "Day3")], 2, mean, na.rm=TRUE)
```

```
##      pH Chlorophyll      Day1      Day2      Day3
## 6.5905660 23.1169811 0.5087247 0.5232760 0.5341706
```

```
apply(joined.df[, c("pH", "Chlorophyll", "Day1", "Day2", "Day3")], 2, sd, na.rm=TRUE)
```

```
##      pH Chlorophyll      Day1      Day2      Day3
## 1.2884493 30.8163214 0.3257218 0.3706001 0.3681802
```