Soil Database Interface

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```
suppressMessages(library(soilDB))
data(loafercreek)

##
## aggregate major horizon types over 1cm intervals
##

# categorize major horizon types
hz.tab <- rev(sort(table(loafercreek$hzname)))
hz.tab[hz.tab > 5]

##
##   A Bt1 Bt2  Cr Bt3  Oi   R Crt
##  47  45  44  25  22  21  15  13


# add generalized hz name
loafercreek$hz <- rep("other", times = nrow(loafercreek))

# generalize horizons
loafercreek$hz[grep("O", loafercreek@horizons$hzname)] <- "O"
loafercreek$hz[grep("A", loafercreek@horizons$hzname)] <- "A"
loafercreek$hz[grep("Bt", loafercreek@horizons$hzname)] <- "Bt"
loafercreek$hz[grep("Cr", loafercreek@horizons$hzname)] <- "Cr"
loafercreek$hz[grep("R", loafercreek@horizons$hzname)] <- "R"

# convert generalized hz to factor
loafercreek$hz <- factor(loafercreek$hz)
loafercreek.hz.agg <- slab(loafercreek, fm = ~hz)

# wide->long format
loafercreek.hz.agg.long <- melt(loafercreek.hz.agg,
    id.var = c("top", "bottom", "contributing_fraction",
        "all.profiles", "variable"), variable_name = "horizon")
```

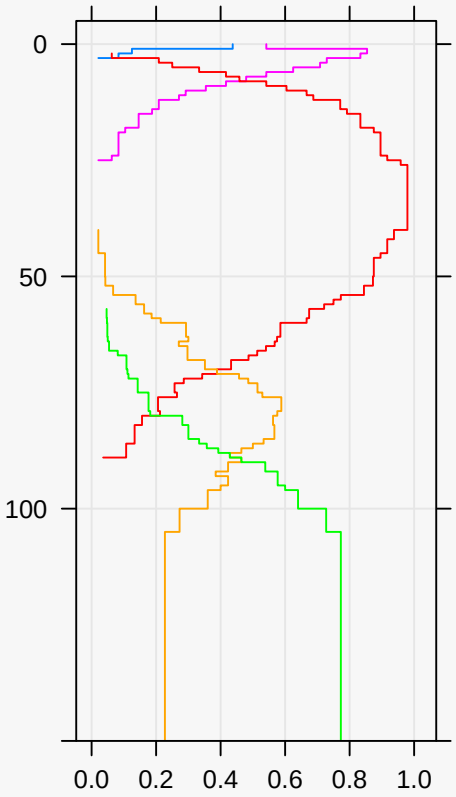

Figure 1: : horizon proportions

```
# plot horizon type proportions
p1 <- xyplot(top ~ value, groups = horizon, data =
loafercreek.hz.agg.long,
    ylim = c(150, -5), type = c("S", "g"), horizontal = TRUE,
    subset = value > 0 & horizon != "other", asp = 2, ylab = "",
    xlab = "")
```