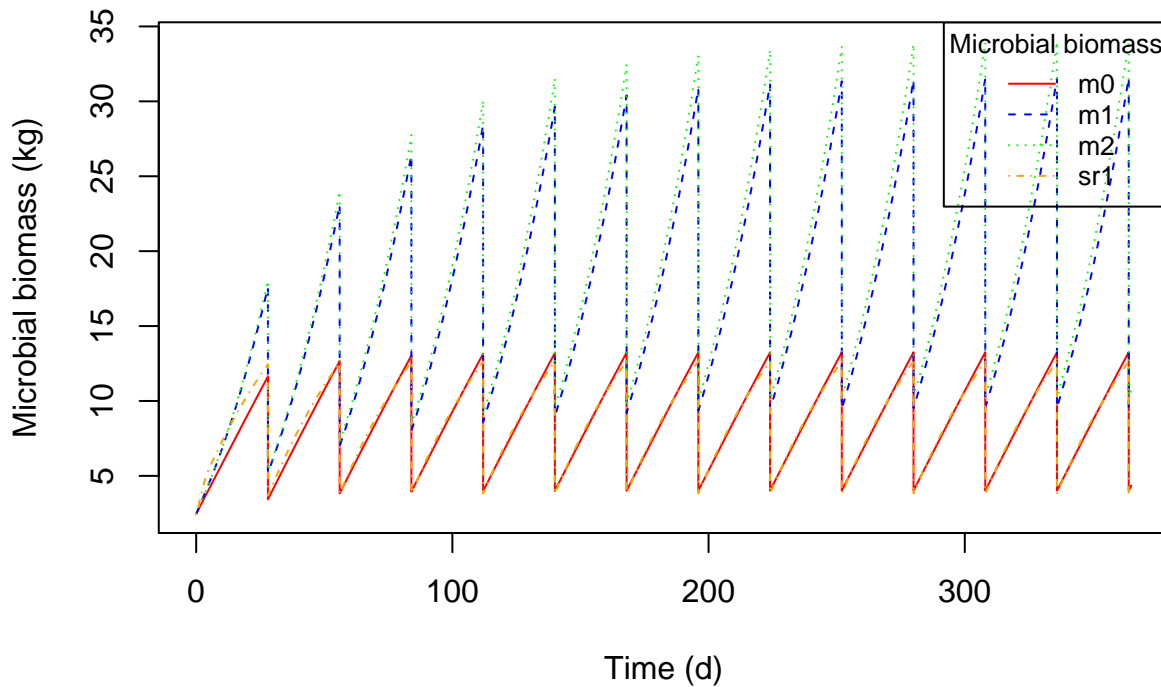


```
library(ABM)
packageVersion('ABM')
```

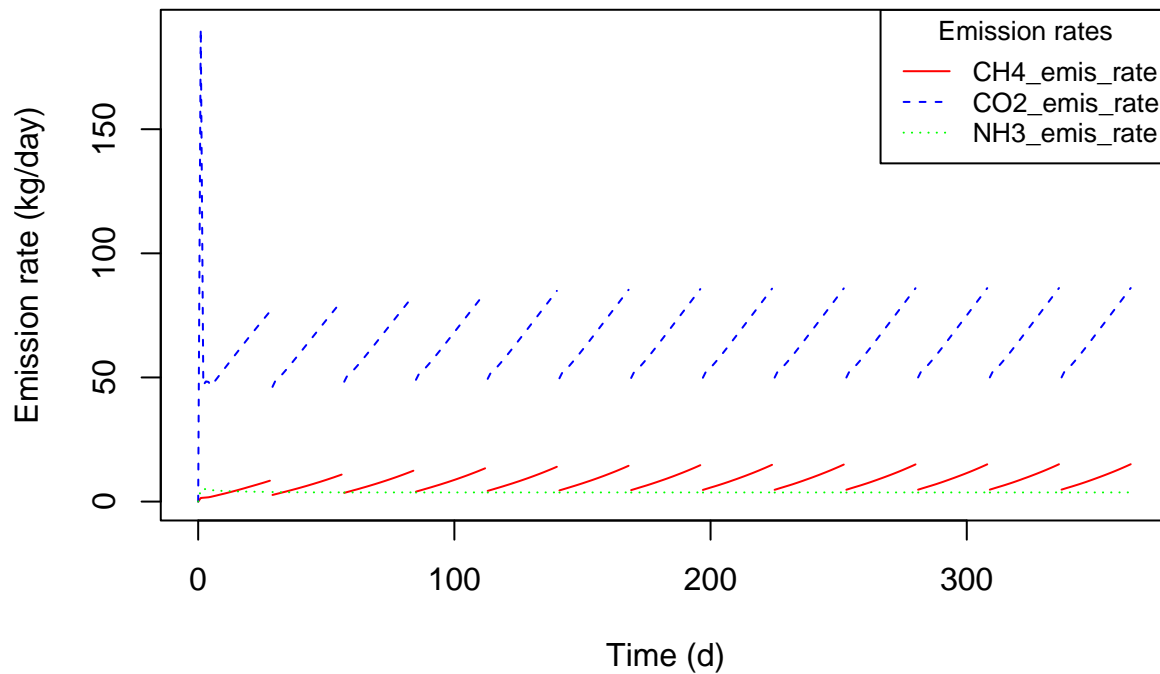
```
## [1] '1.20.1'
```

```
out0 <- abm(days = 365)
```

```
line_colors <- c('red', 'blue', 'green', 'orange')
matplot(out0$time, out0[, nn <- c('m0', 'm1', 'm2', 'sr1')]/1000,
        type = 'l', lty = c(1:length(nn)), col = line_colors, xlab = 'Time (d)', ylab = 'Microbial biomass',
        legend("topright", legend = nn, lty = c(1:length(nn)), col = line_colors, lwd = 1,
        title = "Microbial biomass", cex = 0.8)
```



```
matplot(out0$time, out0[, nn <- c('CH4_emis_rate', 'CO2_emis_rate', 'NH3_emis_rate')]/1000,
        type = 'l', lty = c(1:length(nn)), col = line_colors, xlab = 'Time (d)', ylab = 'Emission rate',
        legend("topright", legend = nn, lty = c(1:length(nn)), col = line_colors, lwd = 1,
        title = "Emission rates", cex = 0.8)
```

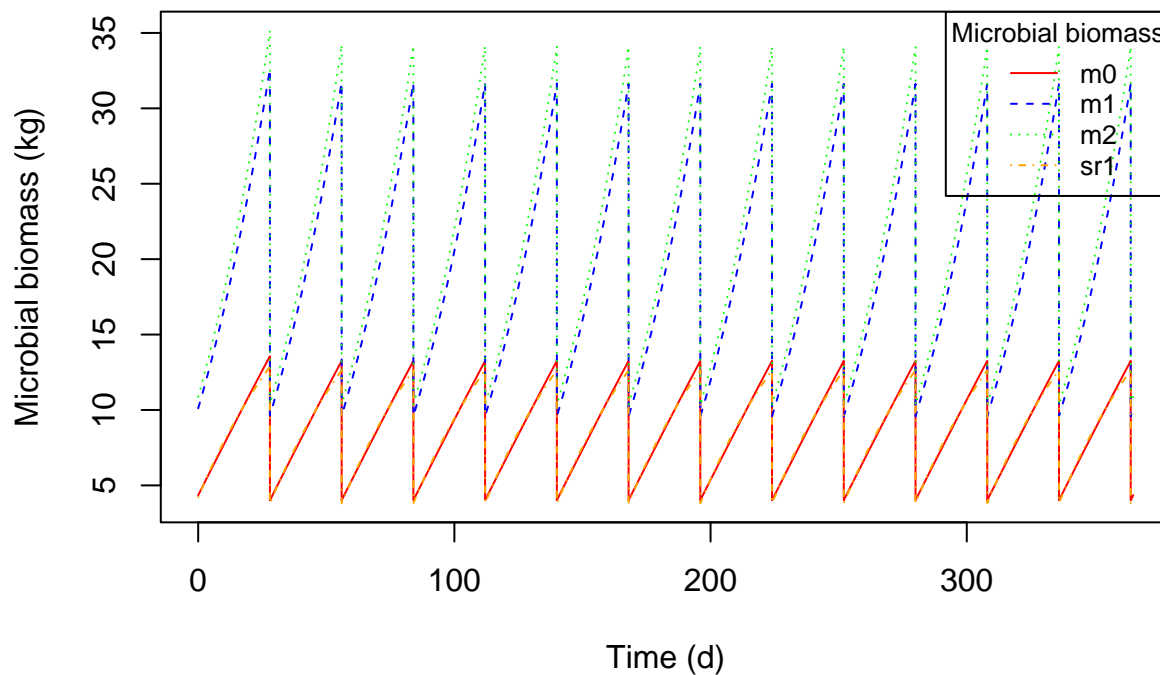


```
out1 <- abm(days = 365, startup = 1)
```

```
##
```

```
## Repeating 1 x 2 x
```

```
matplot(out1$time, out1[, nn <- c('m0','m1','m2','sr1')]/1000,
        type = 'l', lty = c(1:length(nn)), col = line_colors, xlab = 'Time (d)', ylab = 'Microbial biom',
        legend("topright", legend = nn, lty = c(1:length(nn)), col = line_colors, lwd = 1,
        title = "Microbial biomass", cex = 0.8)
```



```
matplot(out1$time, out1[, nn <- c('CH4_emis_rate', 'CO2_emis_rate', 'NH3_emis_rate')]/1000,
        type = 'l', lty = c(1:length(nn)), col = line_colors, xlab = 'Time (d)', ylab = 'Emission rate
```

```

legend("topright", legend = nn, lty = c(1:length(nn)), col = line_colors, lwd = 1,
      title = "Emission rates", cex = 0.8)

```

