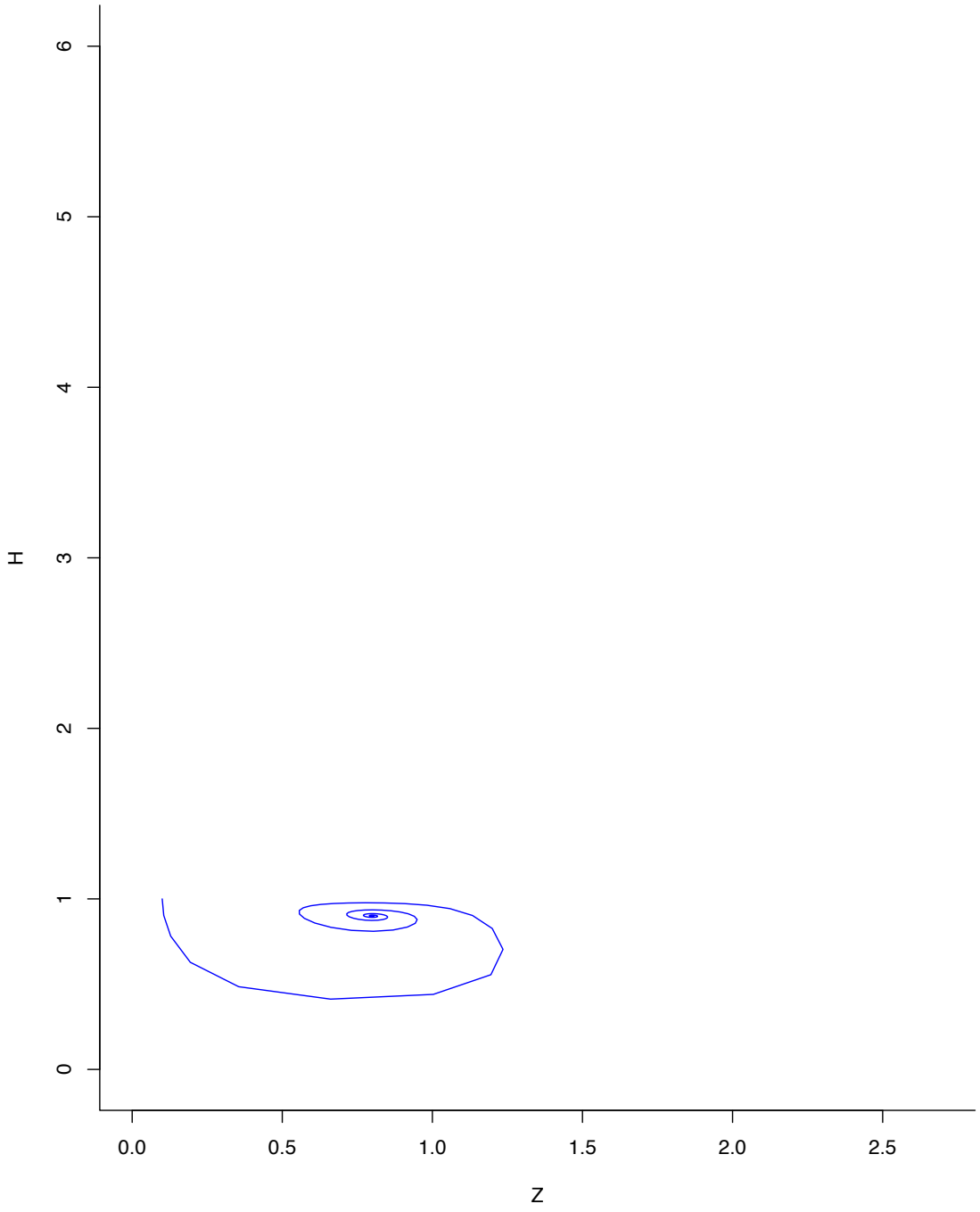
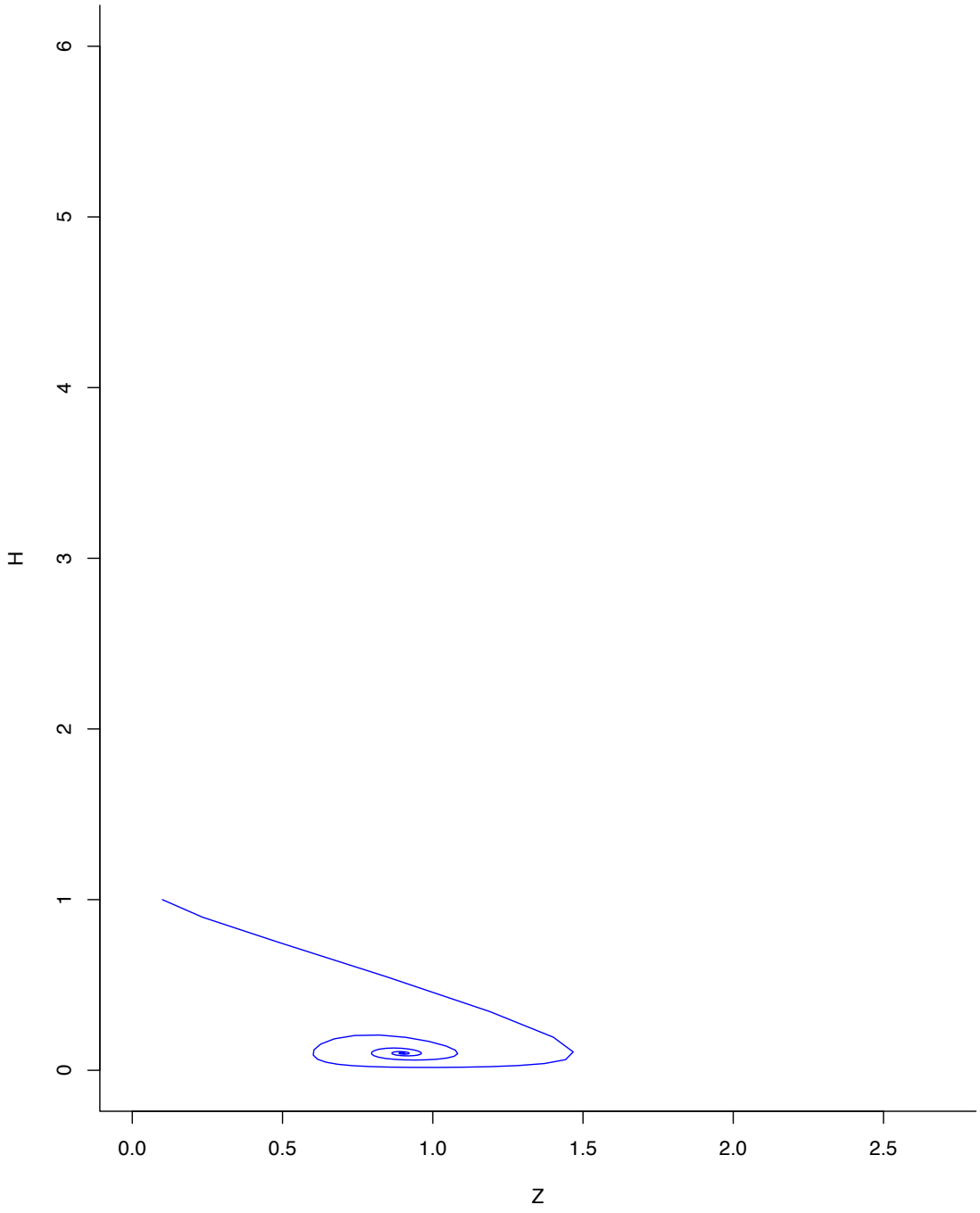
```
library(deSolve)

pred <- function(t, y, p) {
  H <- y[1]
  Z <- y[2]
  with(as.list(p), {
    dH.dt <- (r * H)*(1-(H/K)) - b*H*Z
    dZ.dt <- (c * H * Z) - m*Z
    return(list(c(dH.dt, dZ.dt)))
  })
}

t<- 1:100
y0 <- c('H'=1, 'Z'= .1)
p <- c('r' = 1, 'b'= 1, 'c'= 1, 'm'= .1, 'K'=1)

sim <- ode(y = y0, times = t, func = pred, parms = p, method = 'lsoda')

sim <- as.data.frame(sim)

plot(H ~ Z, type = 'l', col= 'blue', bty = 'l', data= sim, ylim = c(0, 6), xlim = c(0,2.7))
```


H
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5
Z


H
Z
0
1
2
3
4
5
6
0.0
0.5
1.0
1.5
2.0
2.5