Tree scale: 1  $\vdash$ 

## **Categorical annotation**

- Depth correlation p<0.05 (empty=decresing, filled=increasing)</p>
- Depth group t-test p(fdr)<0.05 (empty=decresing, filled=increasing)
- ★ SpongEMP (fille=enriched, empty =not enriched, absent=not checked)
- positive correlation with barettin (filles= significant, empty=not significant and/or negative, absent=nto enough data)

## **Ecotypes**

Connections indicate ecotypes (sequence similarity > 97% and opposing depth response)

