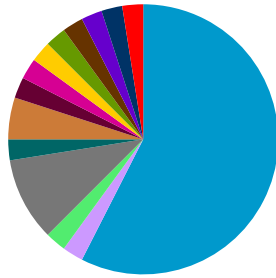
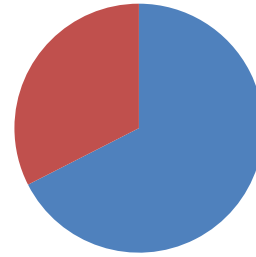


A. *Mary Rose* stem post



- *Meniscus glaucopsis*
- Bacteroidetes strain XB45 from anoxic bulk soil
- *Sphingobacteria bacterium JAM-BA0302*
- *Prolixibacter bellariivorans*
- *Acidobacterium capsulatum*
- *Thiobacillus prosperus*
- *Klebsiella* sp.
- *Acidiphilium* sp.
- *Dehalobacter* sp. MS
- *Dehalobacterium formicoaceticum*
- *Clostridium* sp. TG60-1
- *Anaerotruncus colihominis*
- *Christensenella minuta*
- *Alkalibaculum bacchi*

B. Acidophile enrichment culture SM18



- *Alicyclobacillus* sp.
- *Acidiphilium* sp.

Figure S1: Microbial diversity analysis of **A.** *Mary Rose* stem post wood sample containing a historic source of iron. **B.** Fe and S cycling acidophilic enrichment co-culture SM18, pH 3.0, initiated from the stem post material (see Figure 2) containing growth substrates elemental sulfur, $K_2S_4O_6$ and $Fe(II)SO_4$.

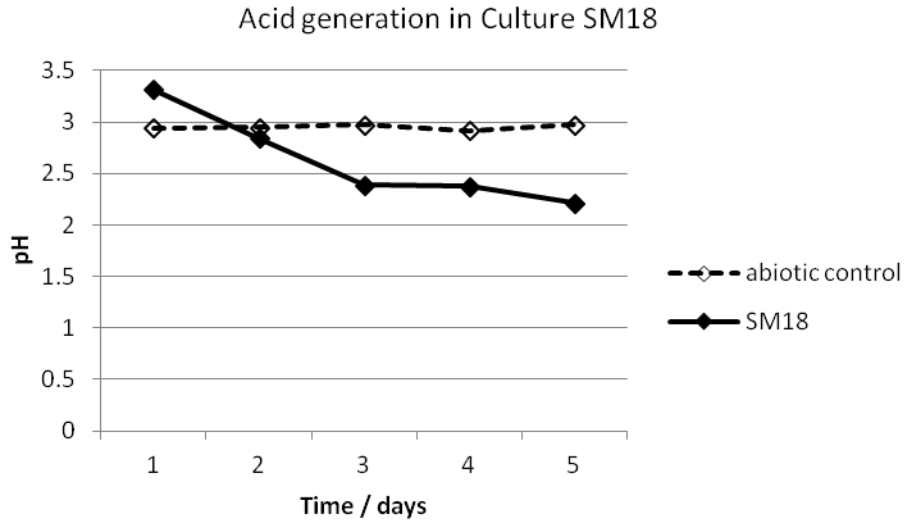


Figure S2: Decrease of pH in enrichment co-culture SM18 containing *Alicyclobacillus* MRT18 and *Acidiphilium* sp. Media contained $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ 0.4 g/L, $(\text{NH}_4)_2\text{SO}_4$ 0.2 g/L, K_2HPO_4 0.1 g/L, S_8 (5g/L) 5 mM $\text{K}_2\text{S}_4\text{O}_6$, 3.5 mM $\text{Fe}_{(\text{II})}\text{SO}_4$, 1% NaCl, pH 3.0).