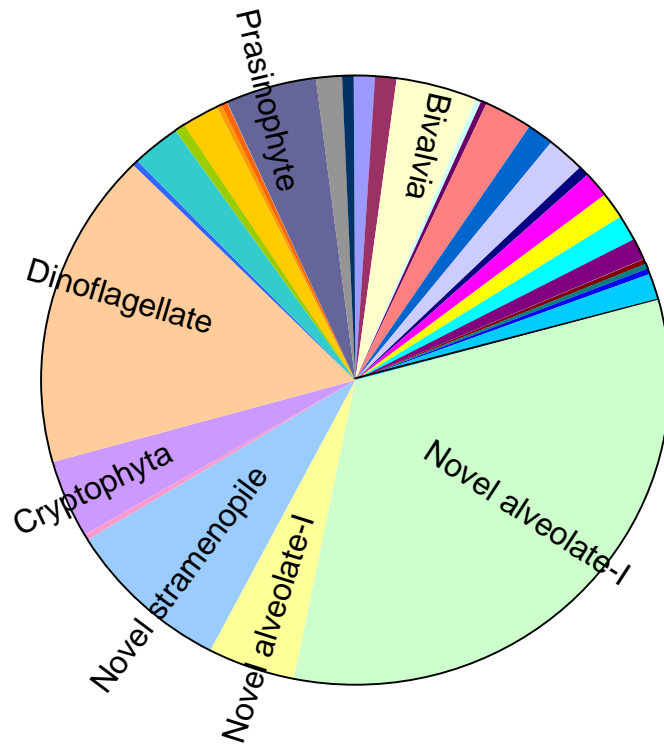
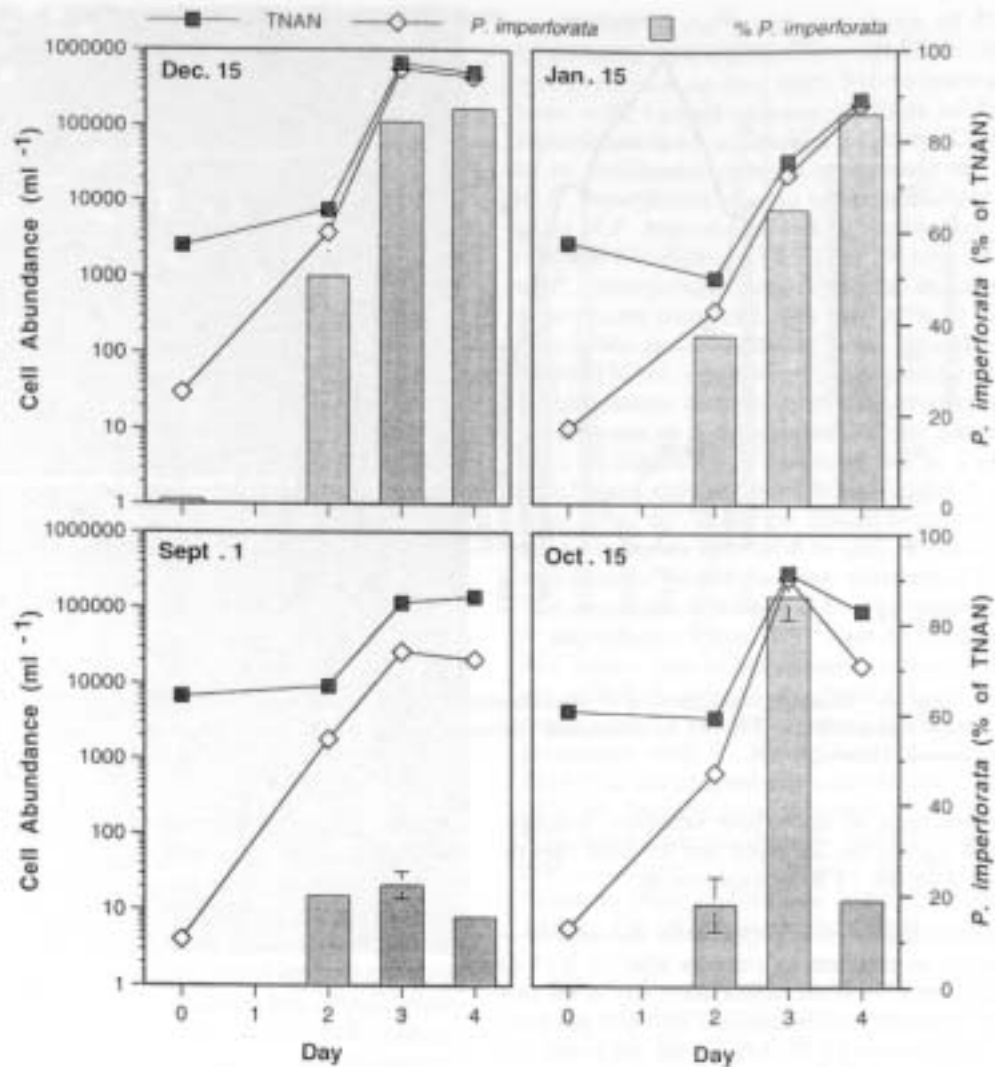


Dynamic of eukaryotic and prokaryotic populations during unamended short-term incubations

Laure Guillou, Ramon Massana, Carlos Pedros-Alio



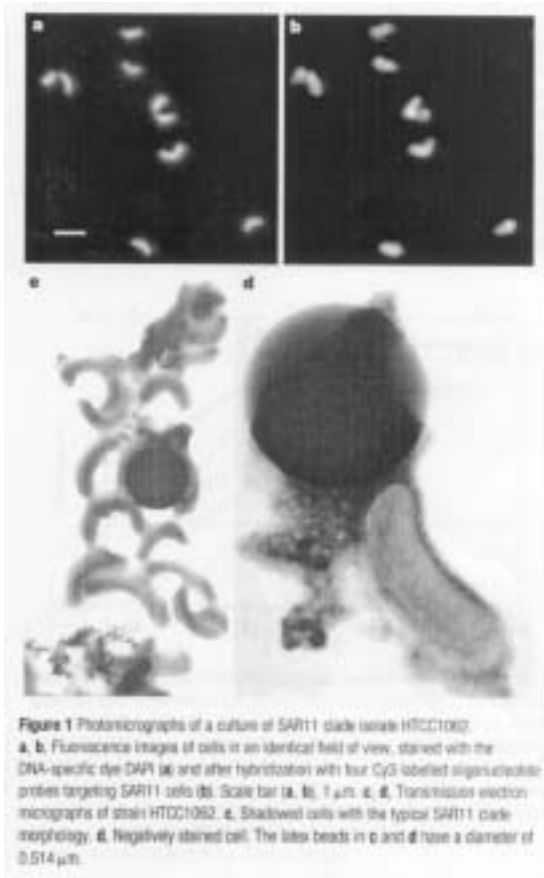
Total libraries from Blanes



Yeast extract at 0.005%

Fig. 5. Examples of changes in the abundance of *P. imperforata* and TNAN represented by enrichment cultures started on 15 December 1995 and on 15 January, 1 September, and 15 October 1996. Error bars represent the standard error of the mean.

Lim et al. (1999). The ecology of *Paraphysomonas imperforata* based on studies employing oligonucleotide probe identification in coastal water samples and enrichment cultures. Limnol. Oceanogr. 44:37-51.



Rappé et al. (2002). Cultivation of the ubiquitous SAR11 marine bacterioplankton clade. *Nature* 418:630-633.

→ In dilute media based upon sterile coast sea water and serial dilution...

Fishless farm pond, Northern Germany

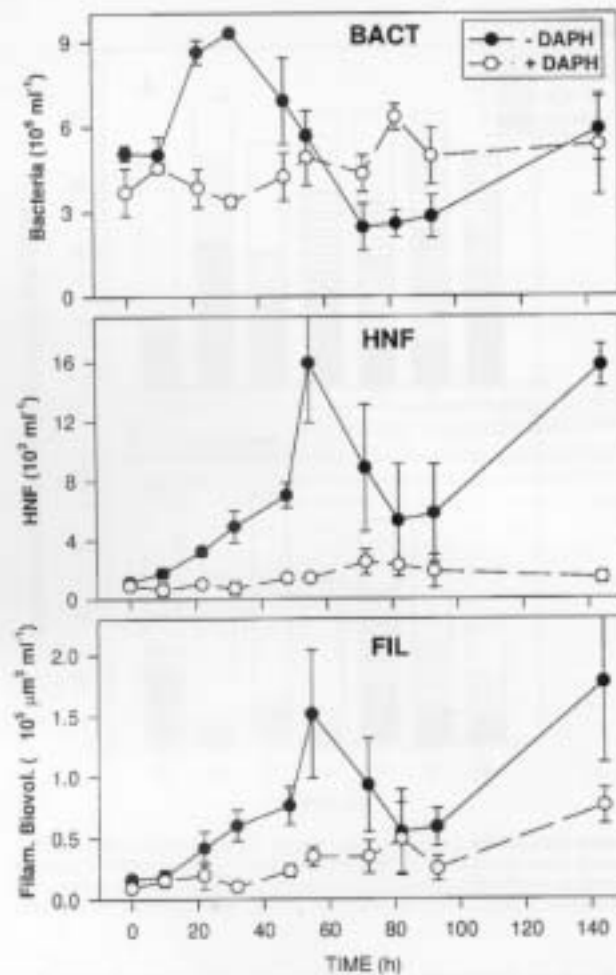
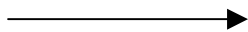
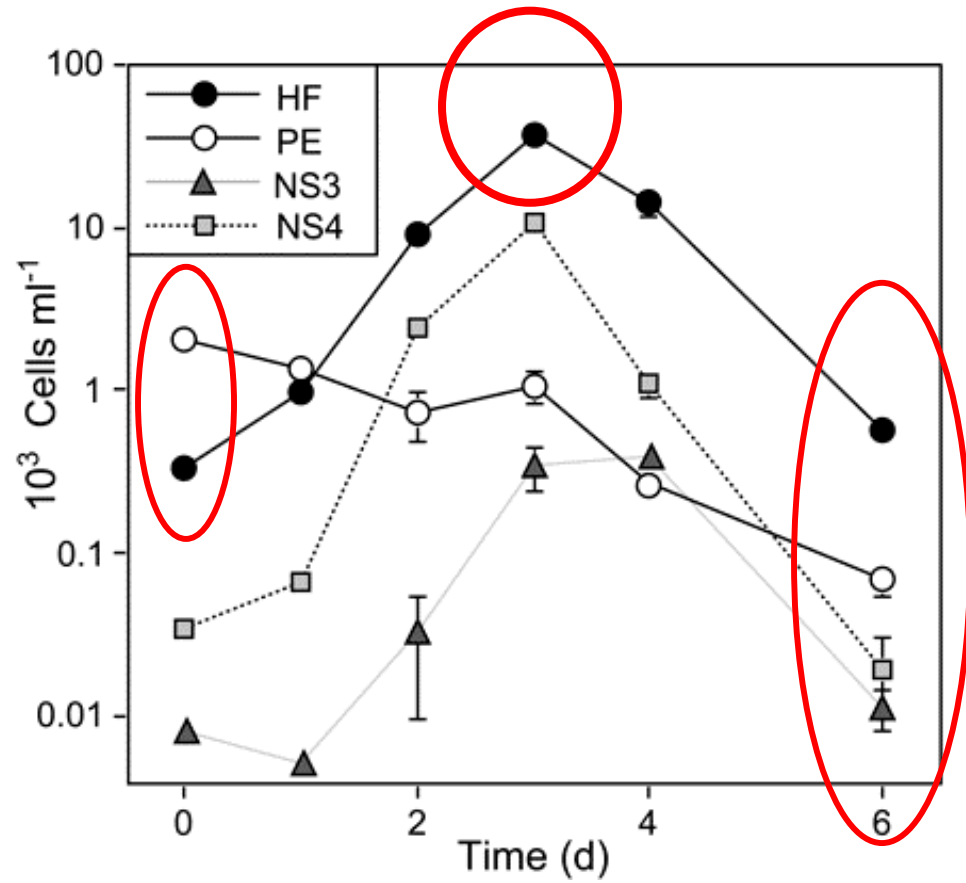


FIG. 1. Development of total bacterioplankton (BACT) and HNF and biovolume of filaments (FIL) in the treatments with (open symbols) and without (closed symbols) metazooplankton. Values are means for three replicate treatments, and vertical bars show SDs.

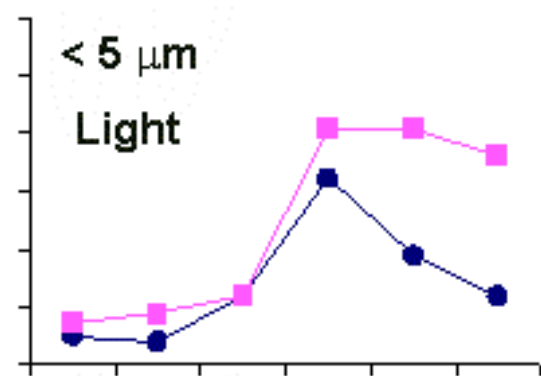
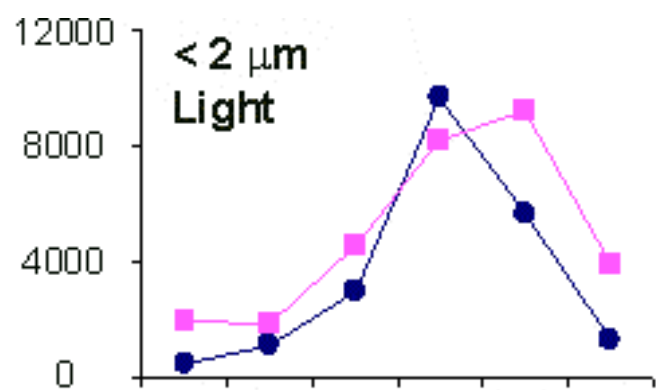
Jürgens et al. (1999). Morphological and compositional changes in a planktonic bacterial community in response to enhanced protozoan grazing. *AEM* 65:1241-1250.

SEPTEMBER 2001
Blanès

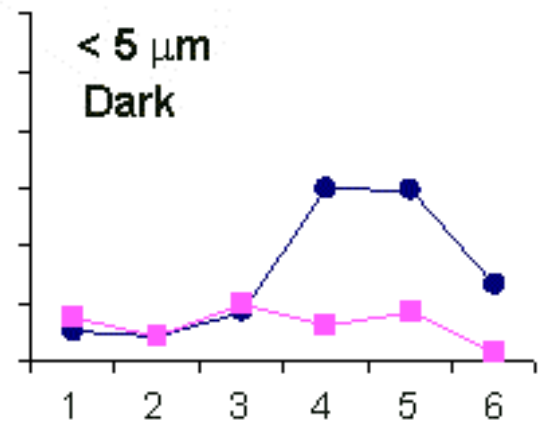
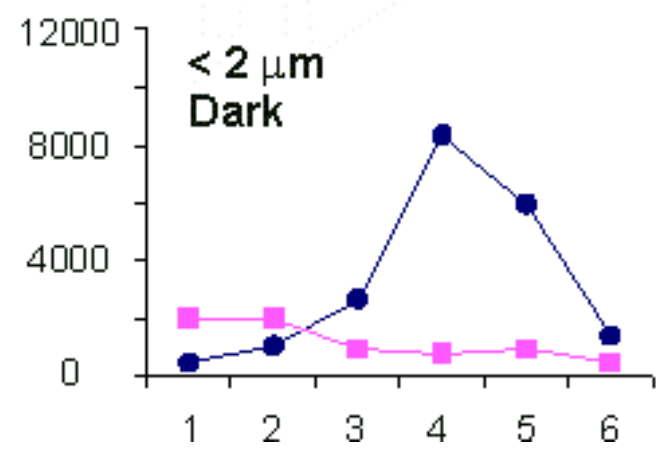
- Filtration through a 2 μm filter
- Incubation in dark

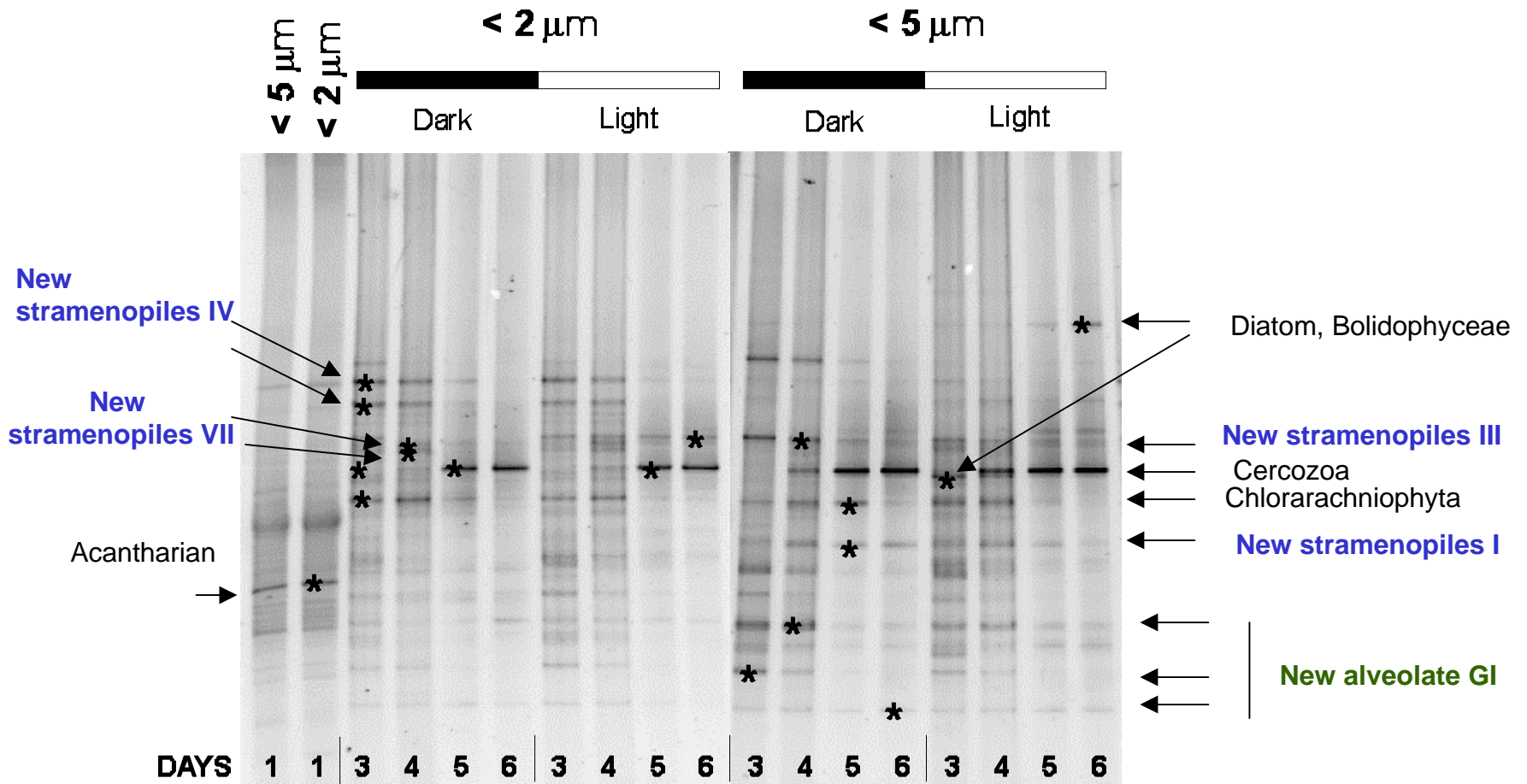


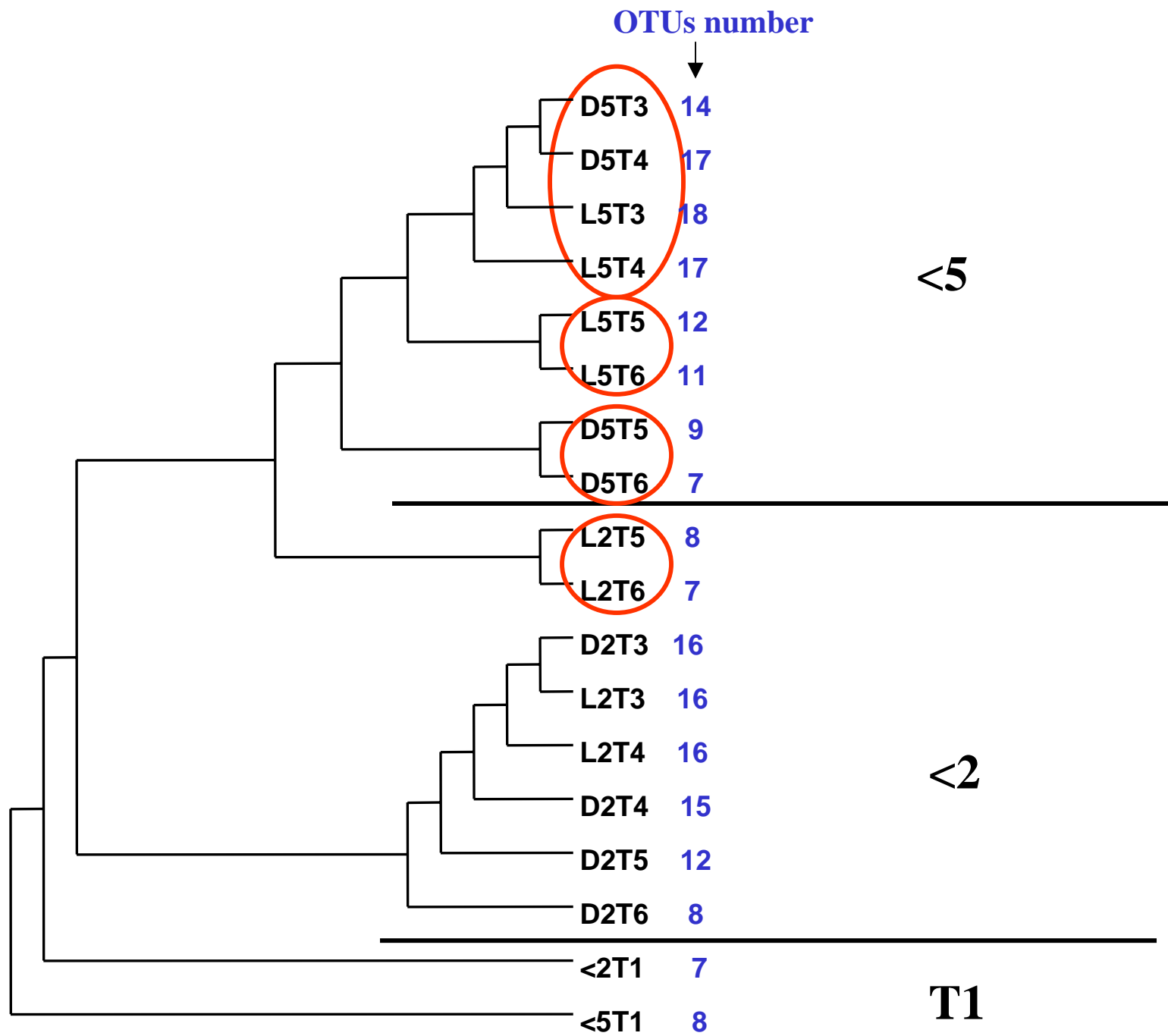
Enrichment in new stramenopile lineages

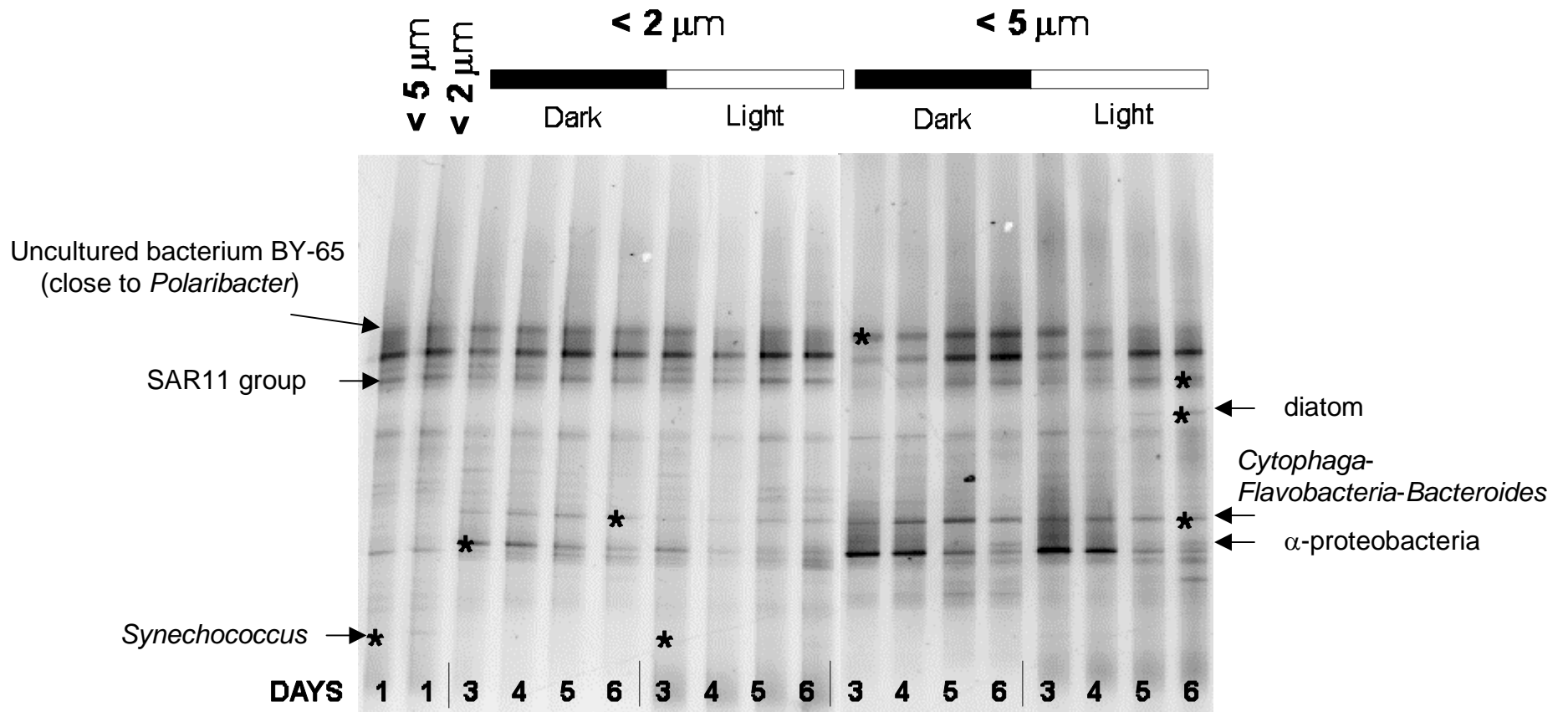


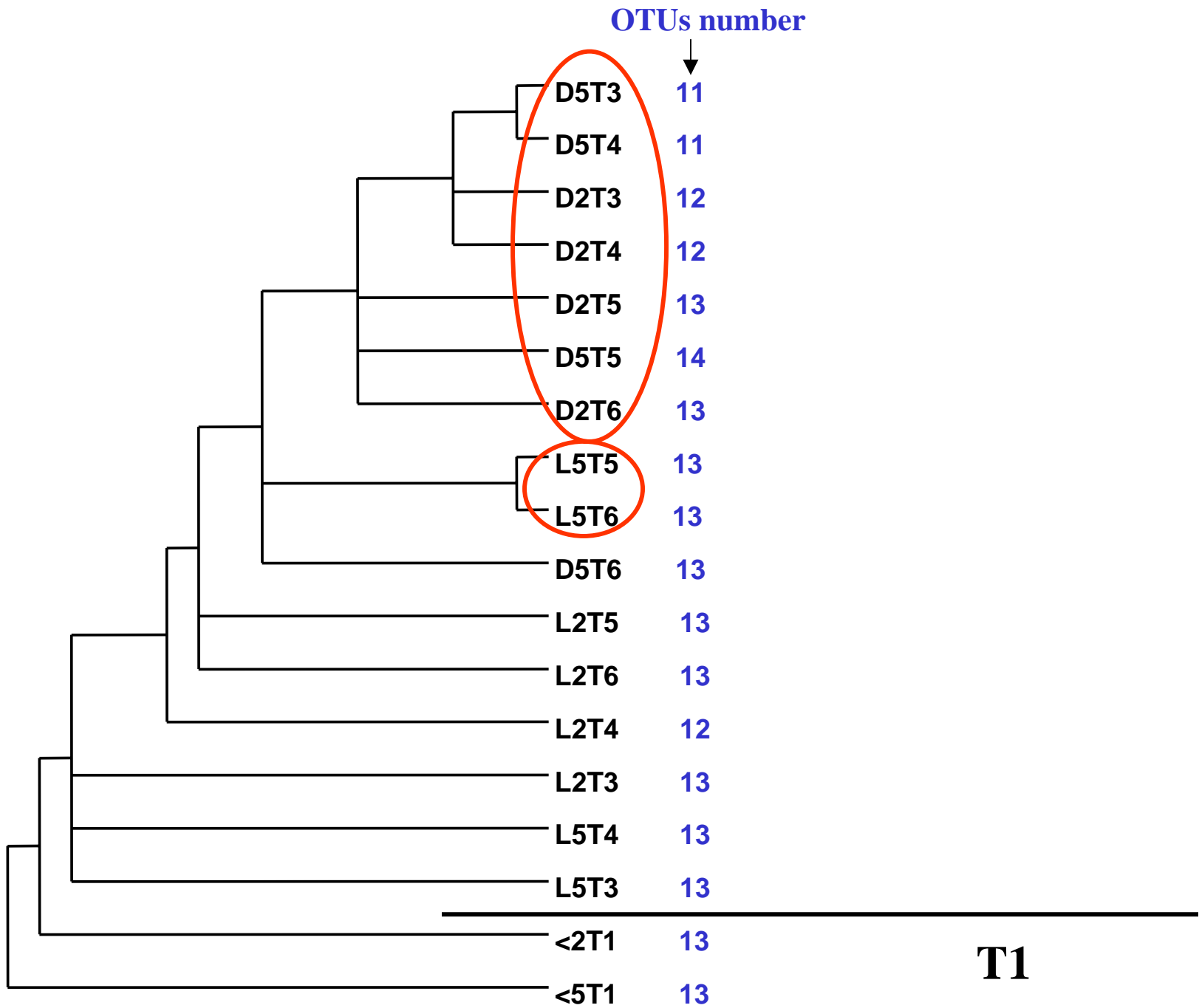
● HNF
■ PNF



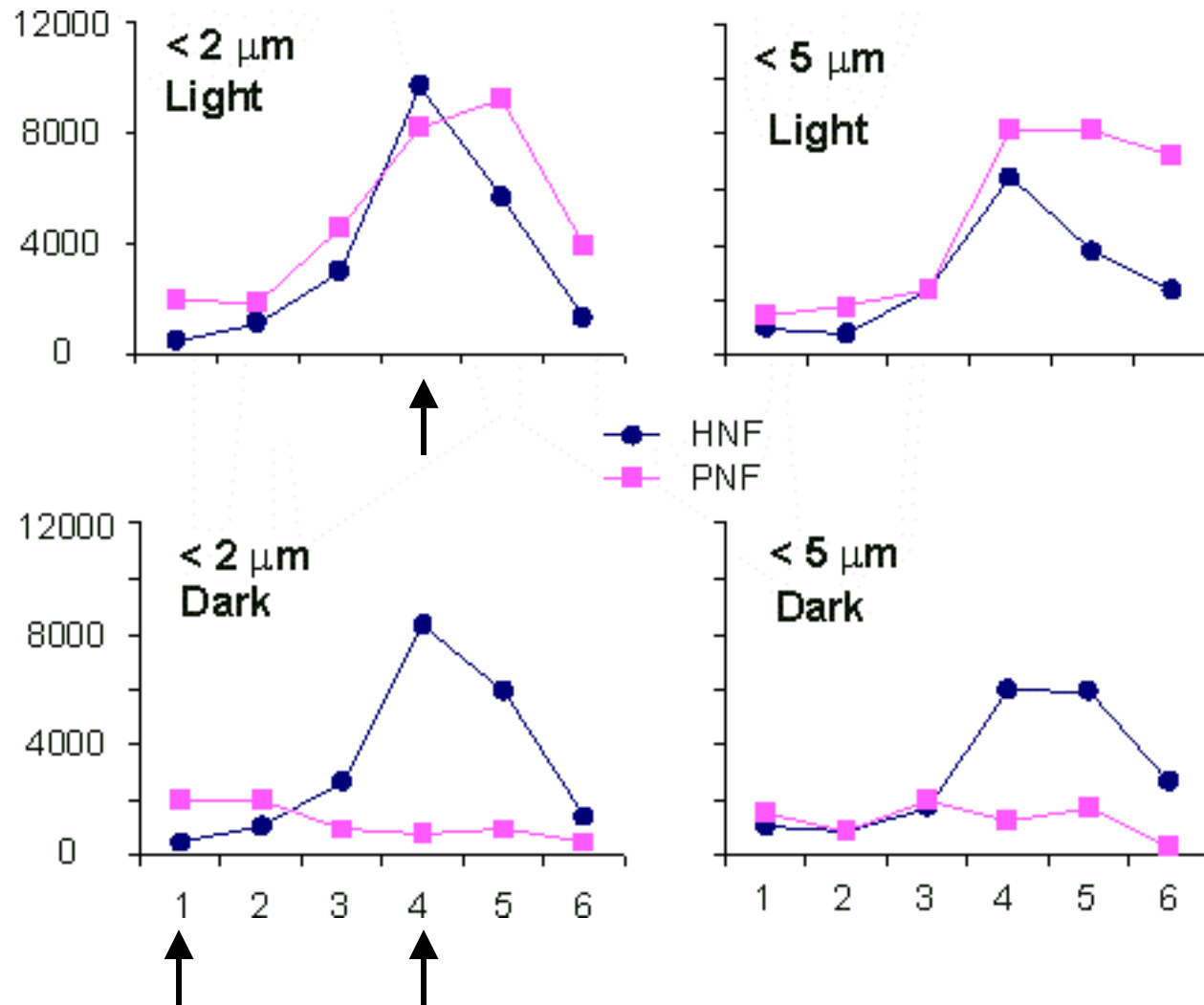




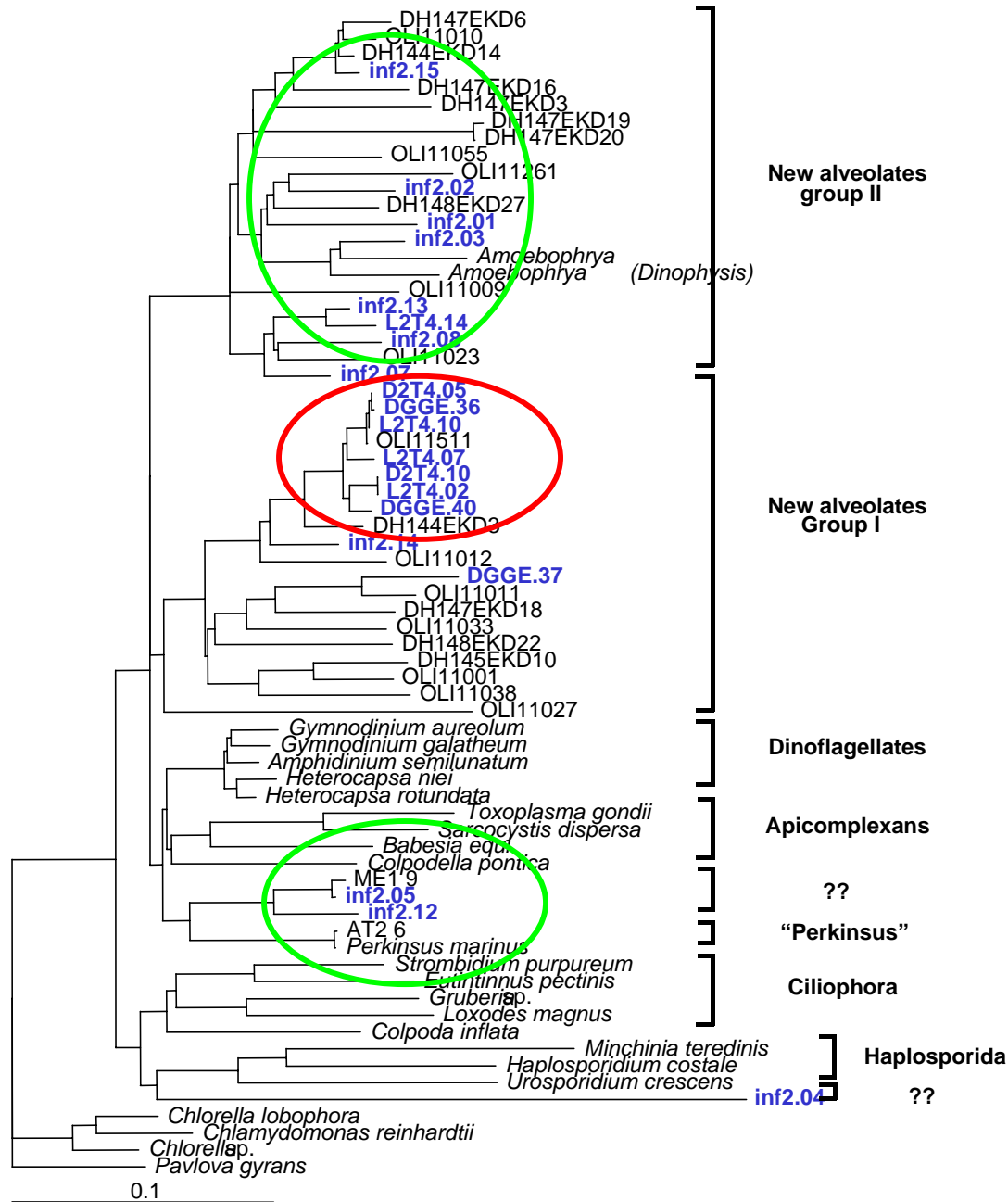




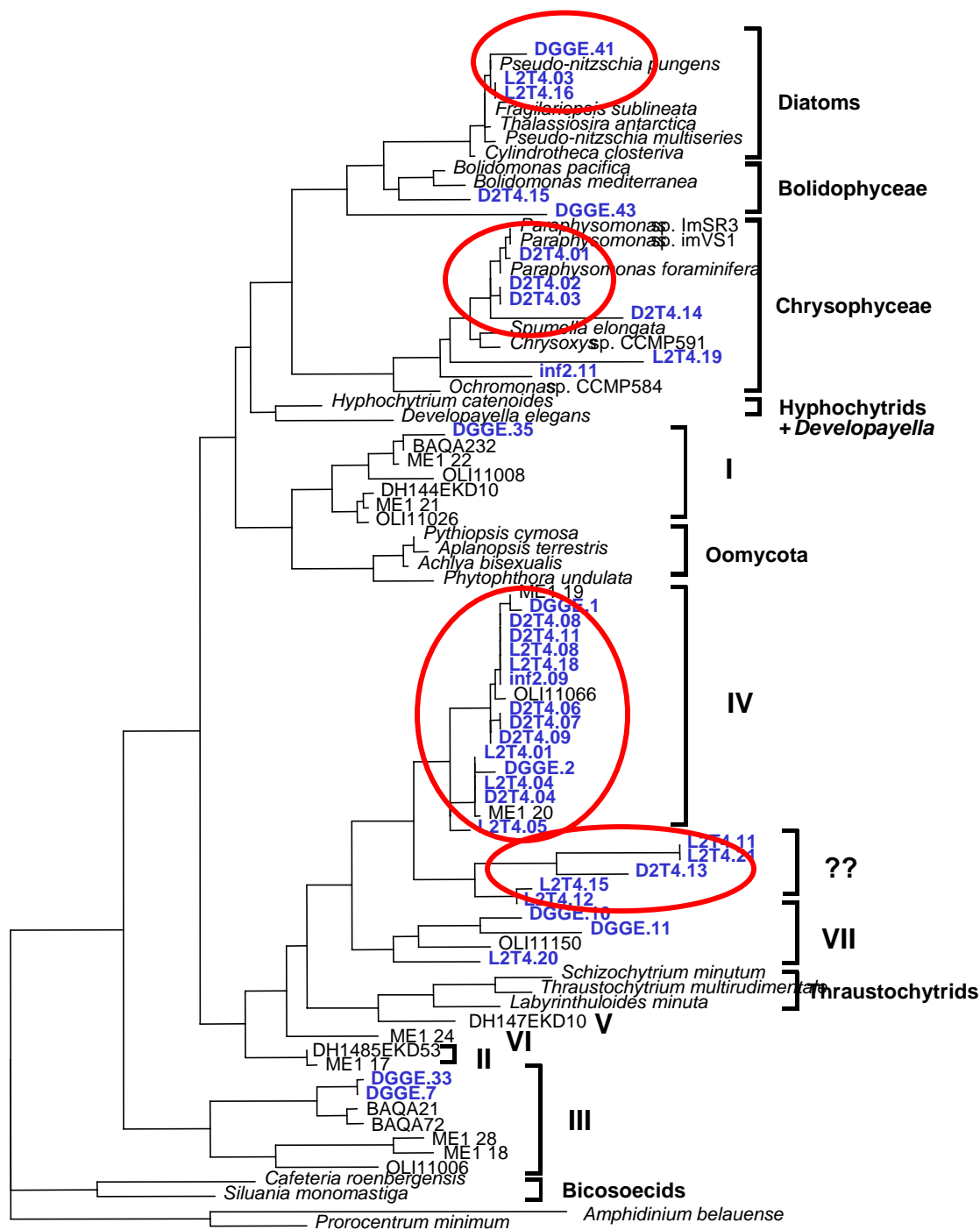
Clone libraries



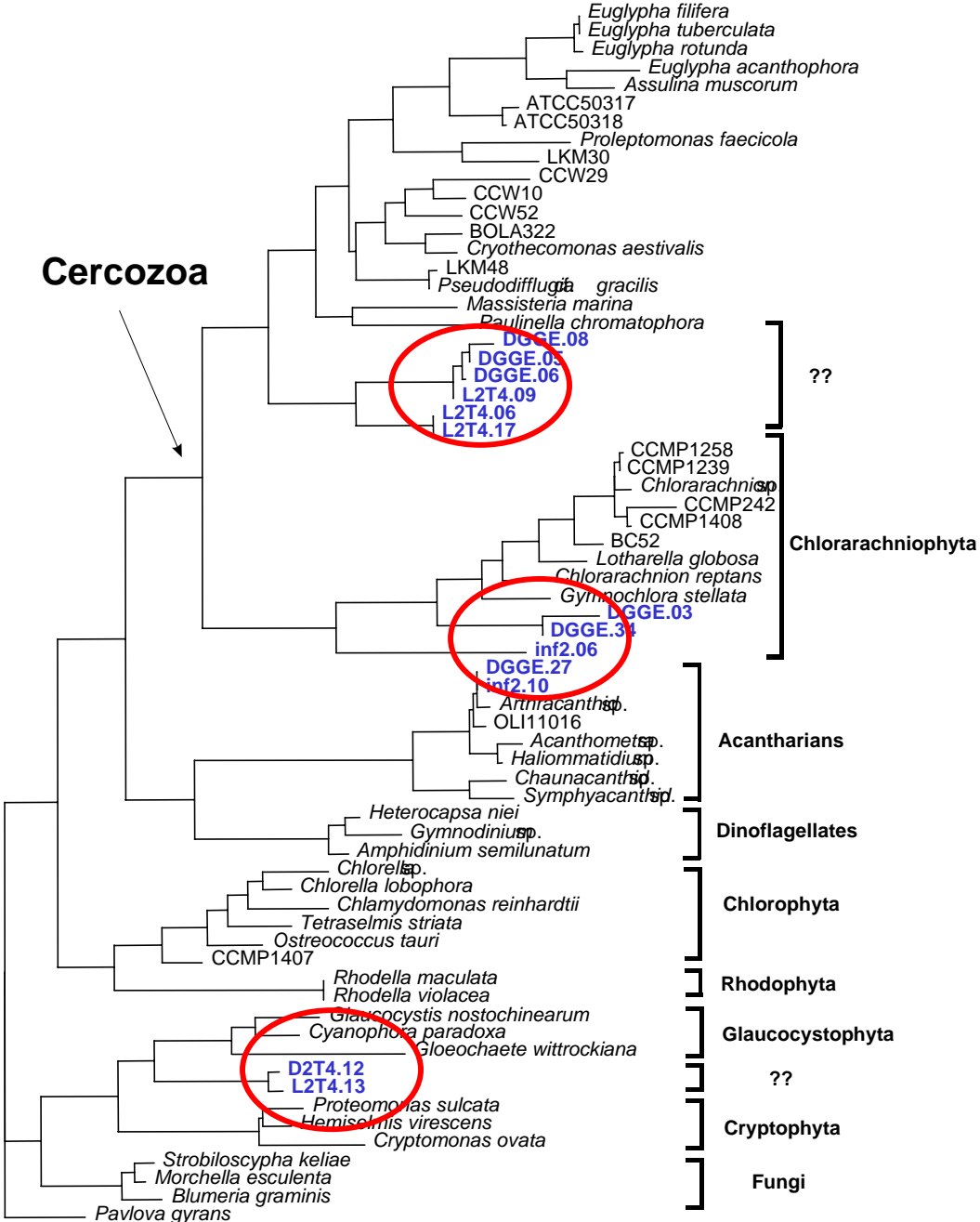
ALVEOLATES



STRAMENOPILES



OTHERS EUKARYOTES



Dynamic of eukaryotic and prokaryotic populations during unamended short-term incubations

- Diversity of eukaryotes varied drastically along the experiment
- * highest diversity (number of OTUs) = highest number of cells
- * At day = 4

We enriched in - **new stramenopile lineage group IV**

- **new alveolate lineage group I**

- Paraphysomonas

- Diatoms

- Chlorarachniophyta

- new lineage??

- cercozoa

We lost the - **new alveolate lineage group II**

- new alveolate lineage??

FISH



- Diversity of bacteria remained relatively constant over the experiment
- = **weak impact of grazers upon the diversity of bacterial communities**