Oxymonads in the gut of *Reticulitermes flavipes*.

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Oxymonads are a poorly-studied group of anaerobic or microaerophilic protists, which are interesting by the total absence of mitochondrial organelle. Majority of oxymonads live in the guts of lower termites or cockroaches, but their role in this ecosystem is nearly unknown so far.

We have investigated endobionts diversity of the eastern subterranean termite, *Reticulitermes flavipes*, using metagenomics and electron microscopy. For metagenomics analysis, we prepared amplicon libraries of variable regions of the genes for prokaryotic and eukaryotic SSU ribosomal RNAs from the DNA isolated from the termite hindgut and these were subsequently sequenced on Illumina MiSeq platform. Reads were clustered on 95 % sequence identity. Depending on the amplified region and the set of oxymonad-specific primers we found 2-3 OTUs belonging to the genus *Pyrsonympha* and 3–10 OTUs belonging to the genus *Dinenympha*. No other oxymonad sequence has been recovered. We also mapped the composition of parabasalids and bacterial communities in this environment using universal eukaryotic and universal prokaryotic primers.