

The cockroach origin of the termite gut microbiota: patterns in bacterial community structure reflect major evolutionary events

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FIG S4 – Phylogenetic trees of selected bacterial lineages in the gut microbiota that contribute strongly to the separation of cockroaches, lower termites, and higher termites. The lineages are the same as in Figure 3 but were sorted according to their rank in the ordination analyses (Table S3). Ultrametric trees are based on maximum likelihood analysis of all phylotypes from each sample that fell into the respective genus-level bin and were rooted with *Methanobrevibacter cuticularis* as outgroup. The abundance of each phylotype relative to the total number of reads in the tree is indicated by the area of the circles around the terminal nodes. Node labels show host number and abbreviated genus, species, and (sub)family names and the number of reads in the sample that were grouped into the respective OTU. Colors indicate the major host groups; OTUs from *Cryptocercus punctulatus* and the three non-dictyopteran insects (others) have

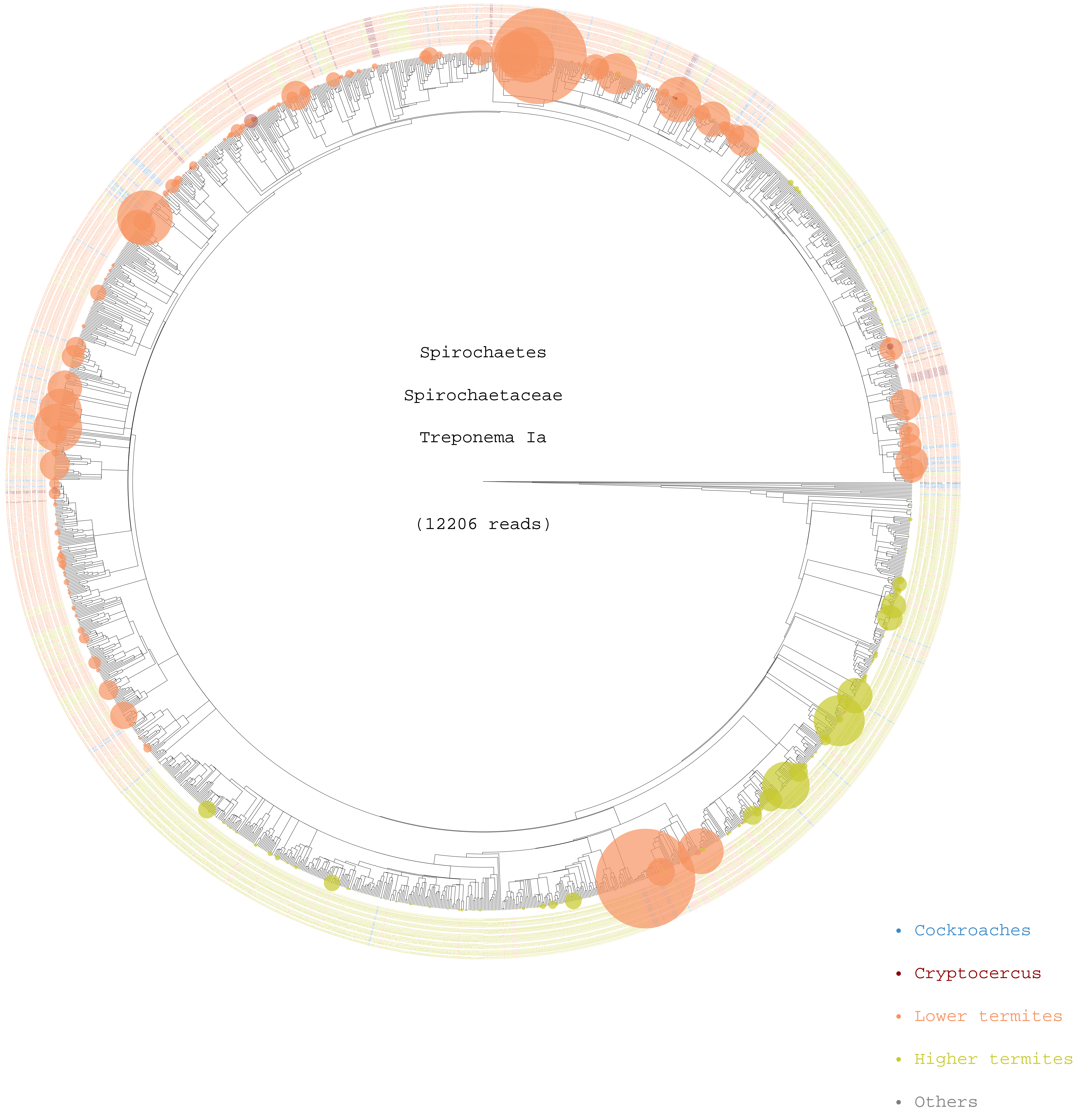
their own label. For detailed information, the image should be viewed at higher magnification.

Trees are shown for the following genus-level taxa (use bookmarks in PDF file for navigation):

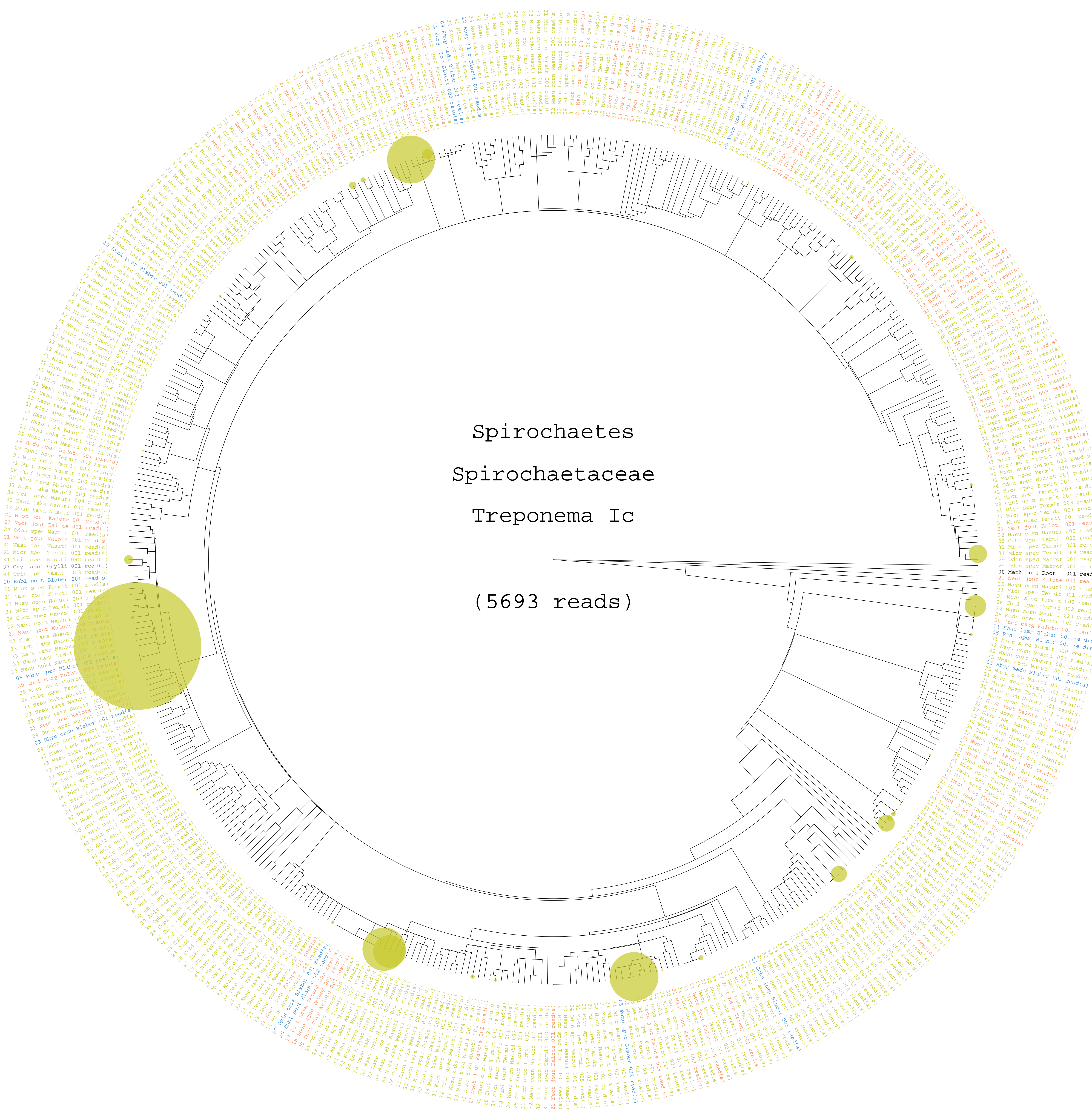
- A** *Spirochaetes / Spirochaetaceae / Treponema Ia*
- B** *Spirochaetes / Spirochaetaceae / Treponema Ic*
- C** *Bacteroidetes / Rikenellaceae / Alistipes 2*
- D** *Bacteroidetes / Cluster V / Cluster V*
- E** *Elusimicrobia / Endomicrobia / Endomicrobium*
- F** *Firmicutes / Lachnospiraceae / Uncultured 65*
- G** *Spirochaetes / Spirochaetaceae / Treponema II*
- H** *Bacteroidetes / Rikenellaceae / Alistipes 1*
- I** *Bacteroidetes / Porphyromonadaceae / Parabacteroides*
- J** *Bacteroidetes / Porphyromonadaceae / Dysgonomonas*
- K** *Firmicutes / Lachnospiraceae / Cand. Arthromitus*

- L** *Proteobacteria / Desulfovibrionaceae / Desulfovibrio 3*
- M** *Firmicutes / Ruminococcaceae / Insect cluster 1*
- N** *Bacteroidetes / Porphyromonadaceae / Paludibacter*
- O** TG3 / Termite cluster / Termite Cluster I
- P** *Proteobacteria / Rhodocyclaceae 3 / Termite cluster*
- Q** *Proteobacteria / Desulfovibrionaceae / Desulfovibrio TC I*
- R** *Fibrobacteres / Termite cluster / Termite cluster I*
- S** *Firmicutes / Ruminococcaceae / Gut Cluster 1*

A



B



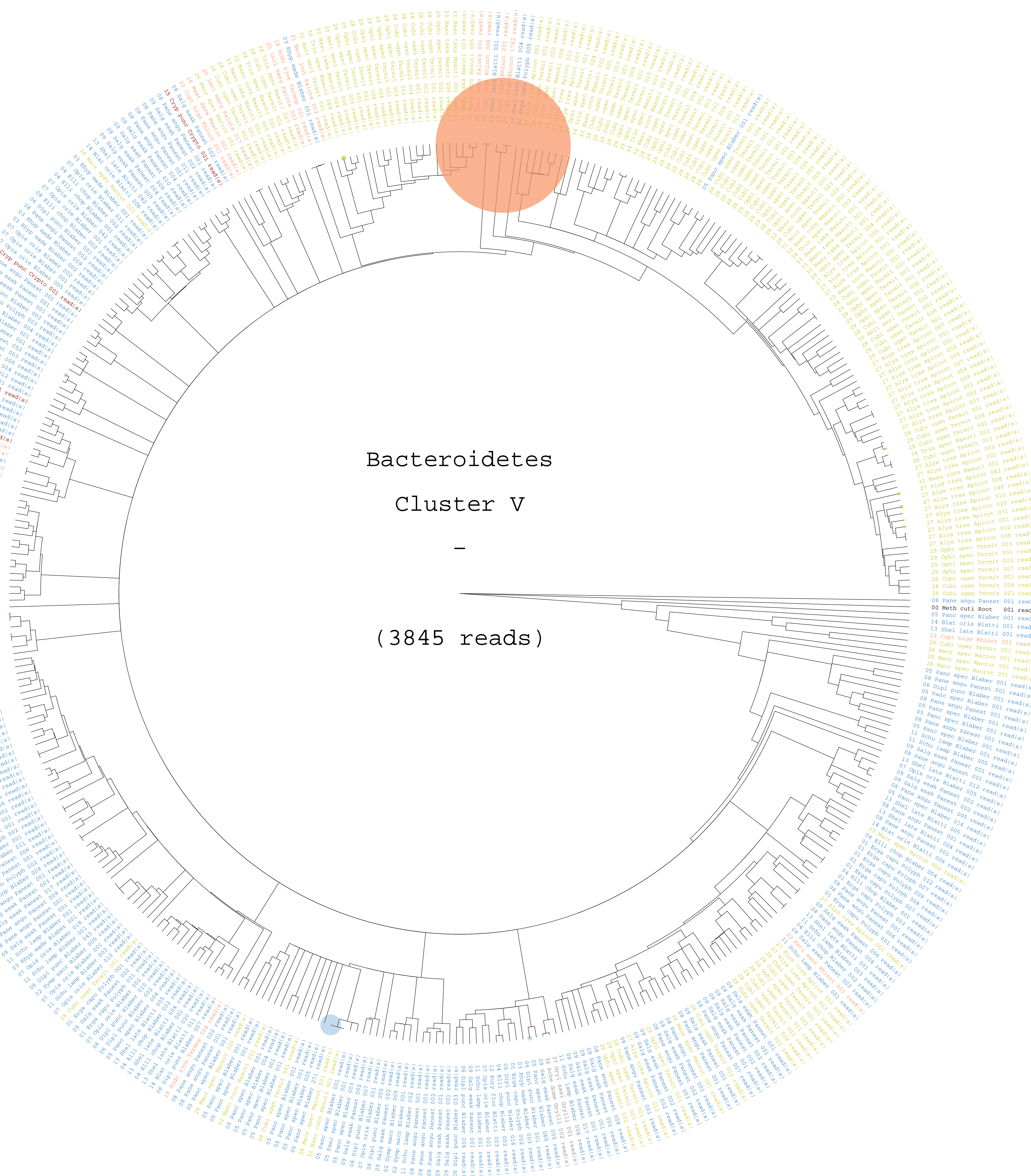
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

C



- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

D

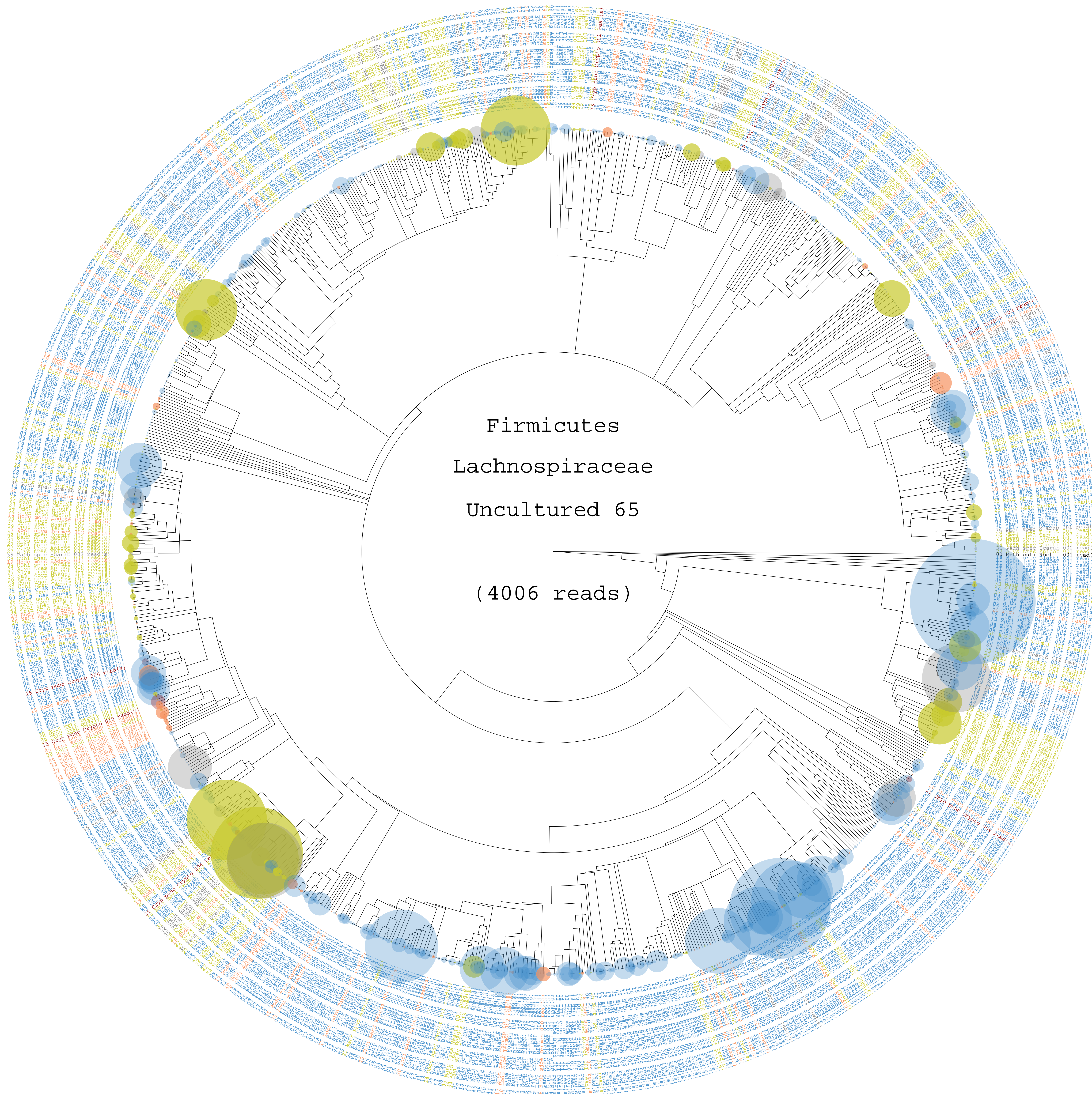


- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others



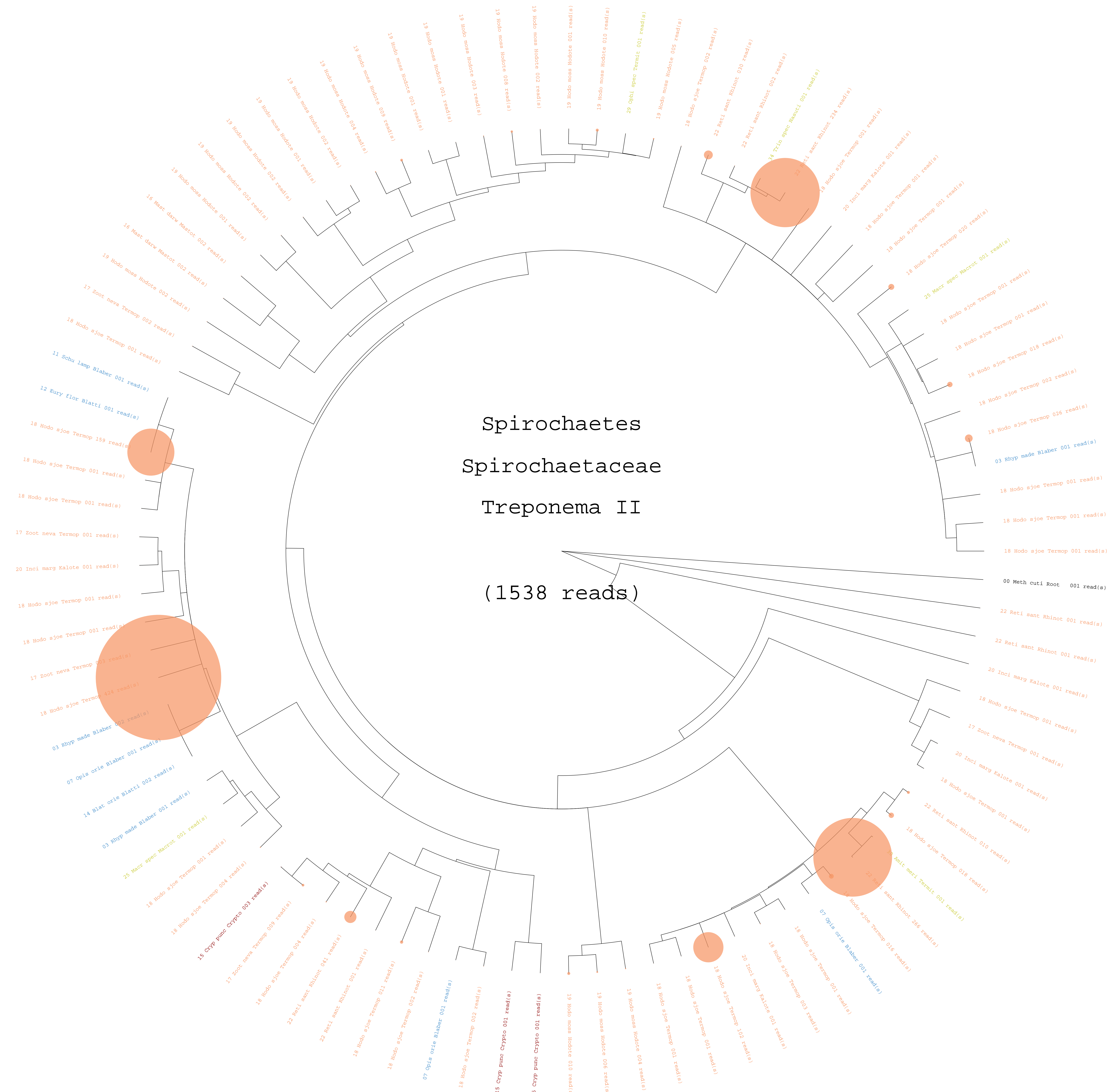
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

F



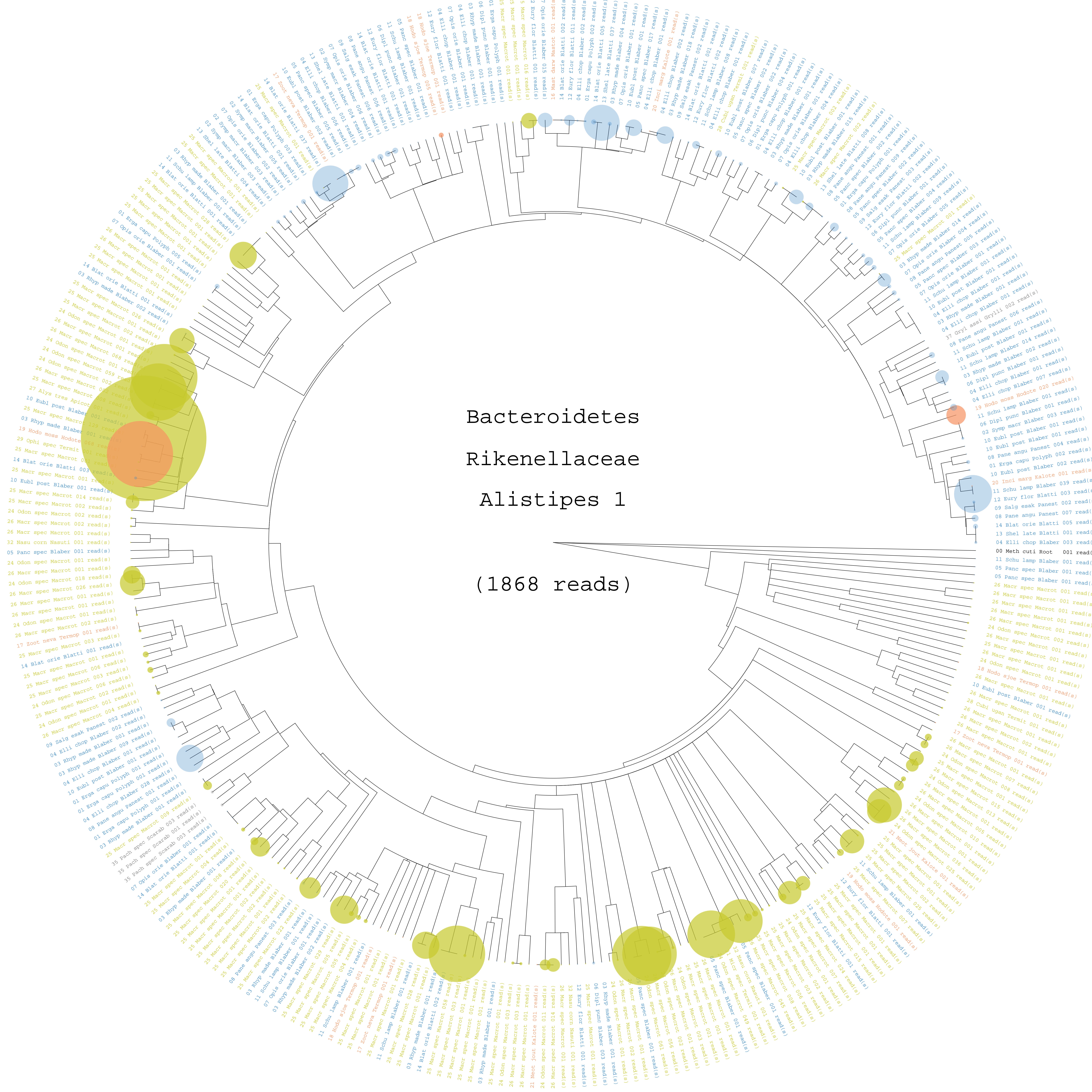
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

G



- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

H



Bacteroidetes

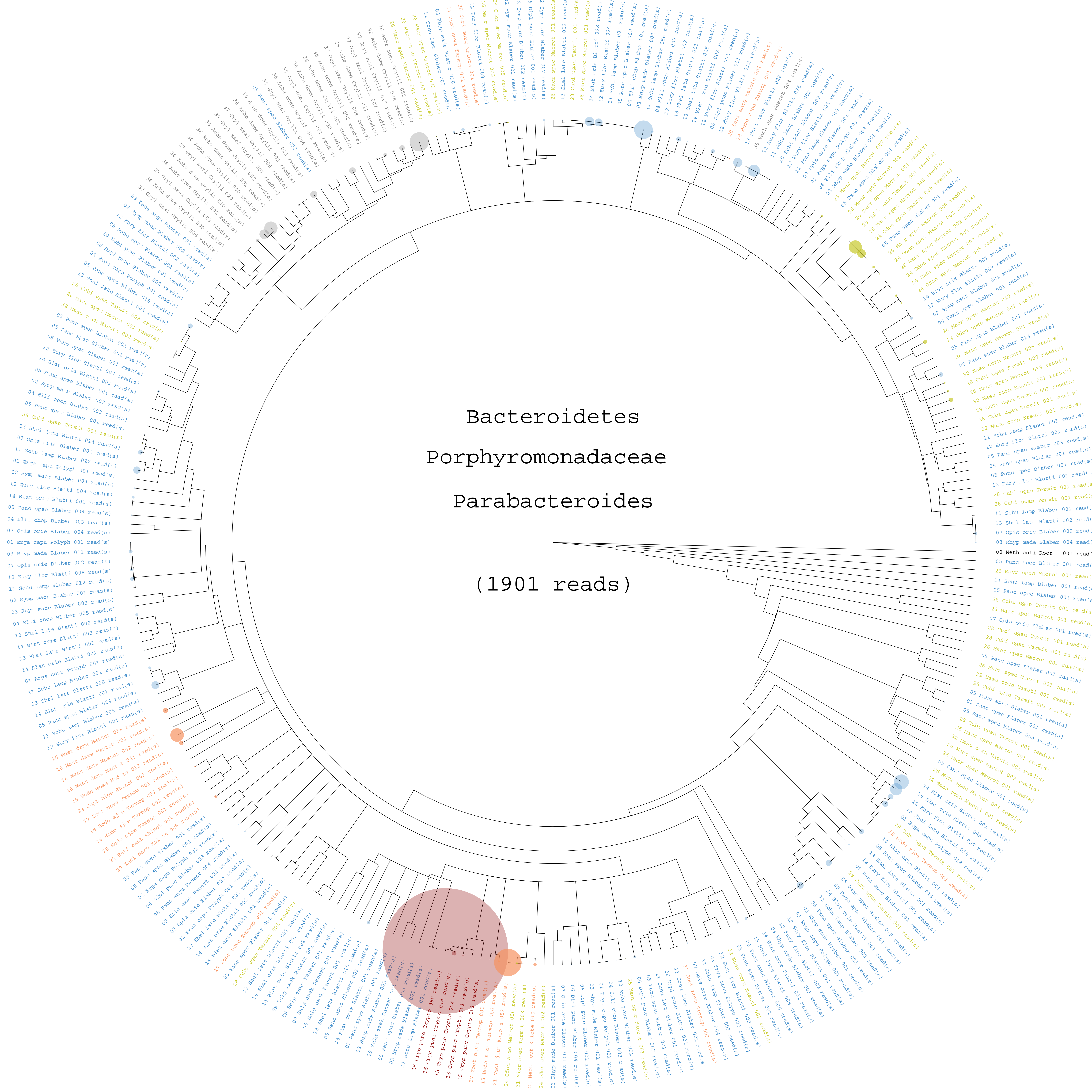
Rikenellaceae

Alistipes 1

(1868 reads)

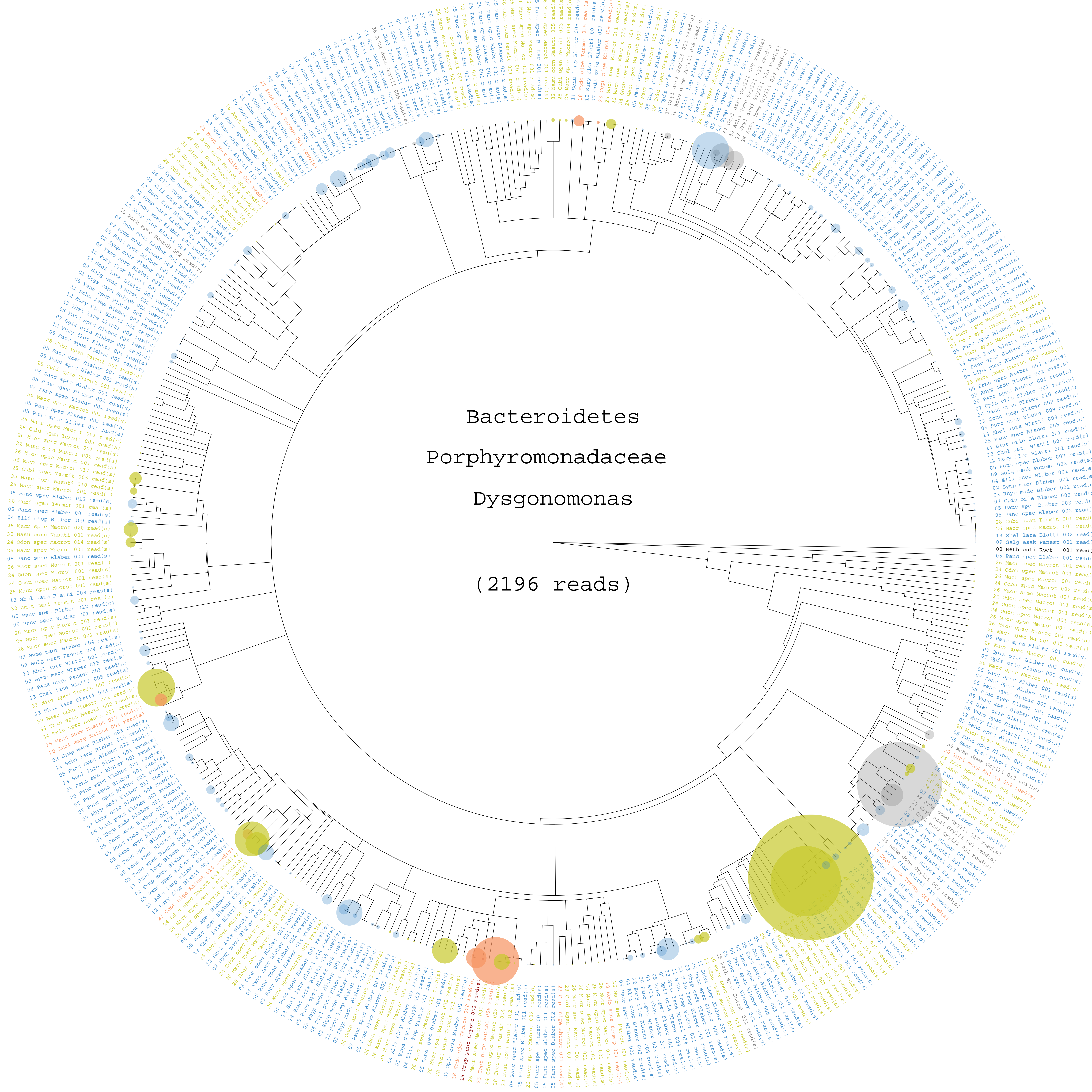
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

I



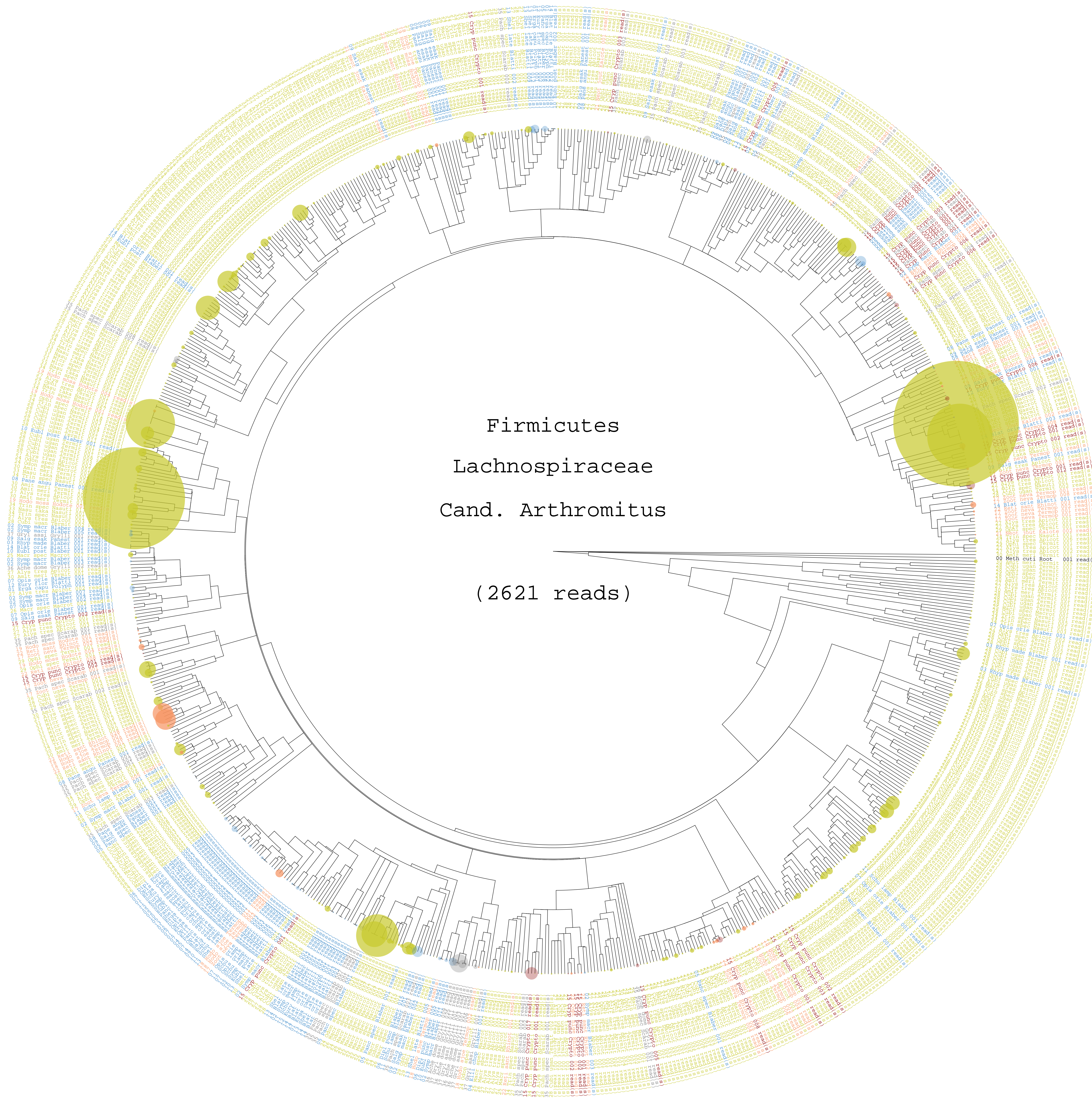
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

J



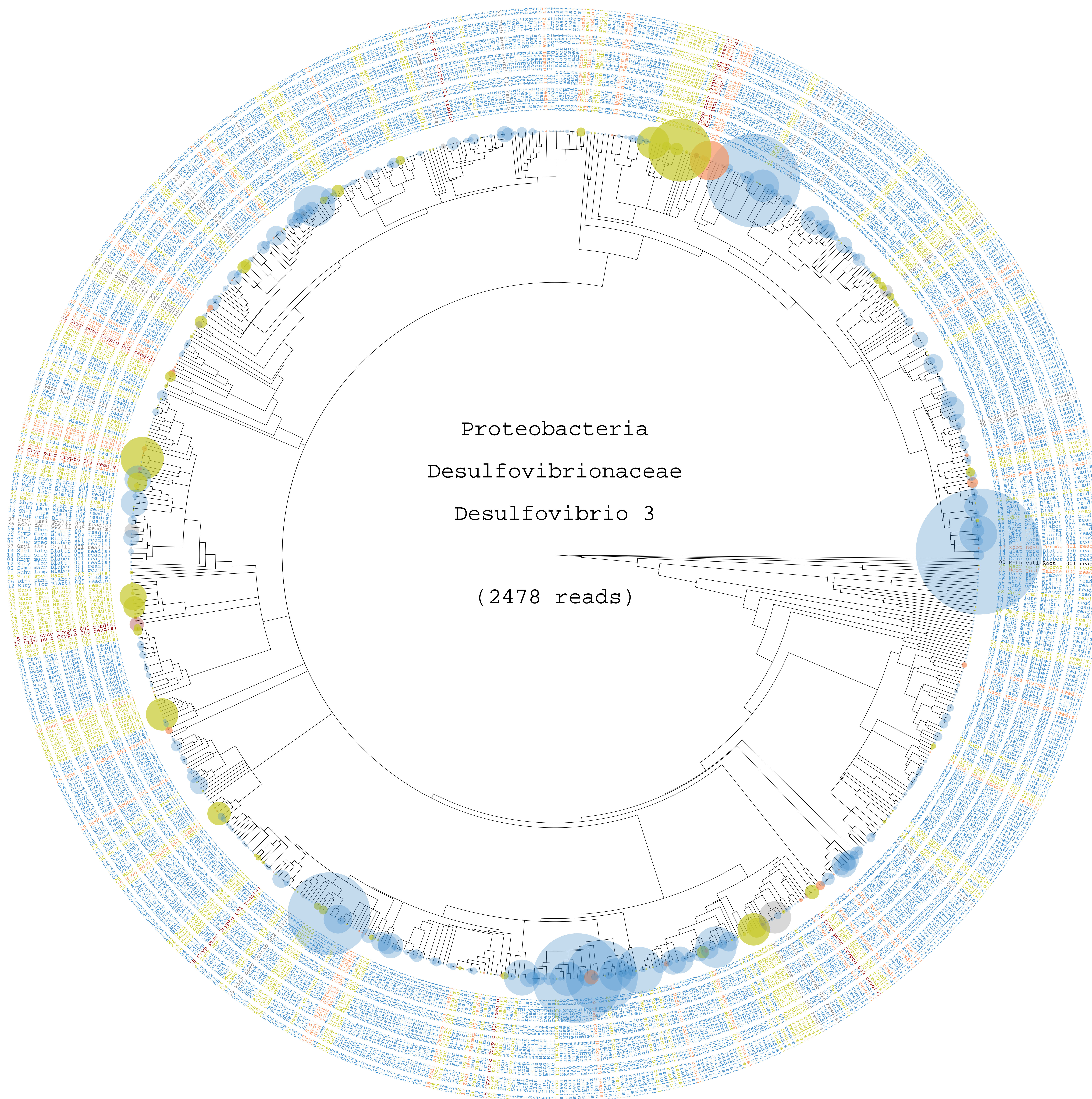
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

K



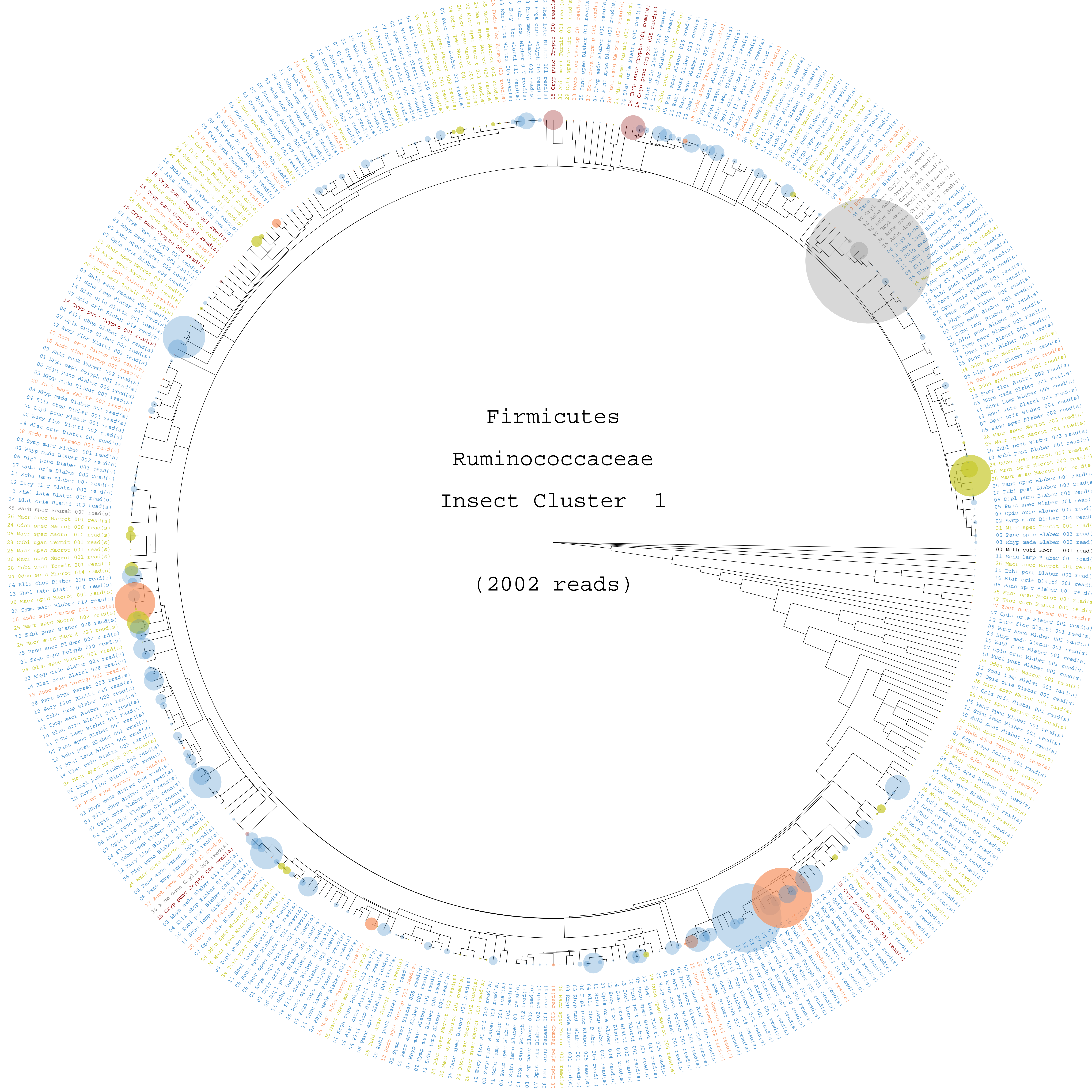
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

L



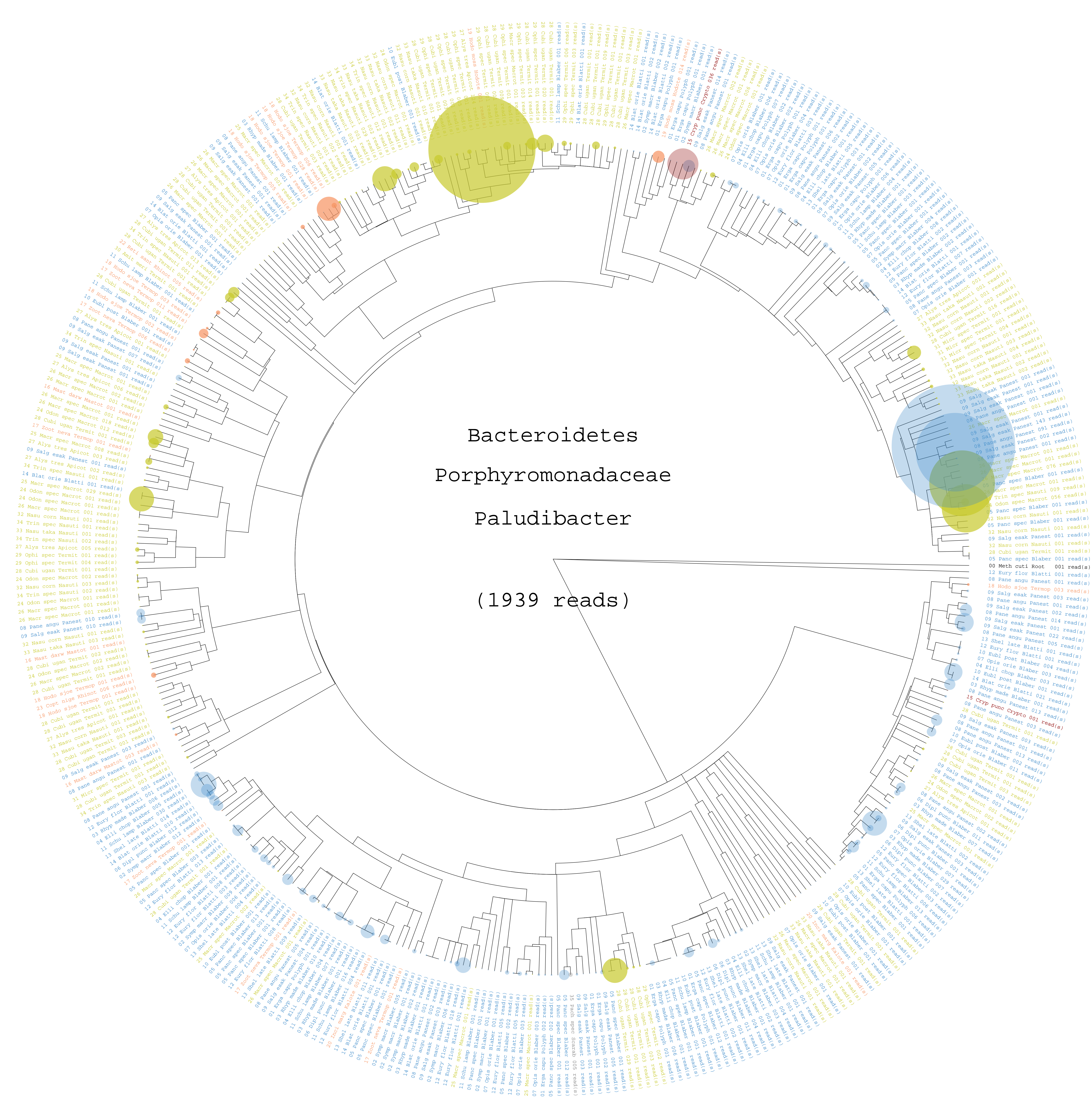
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

M



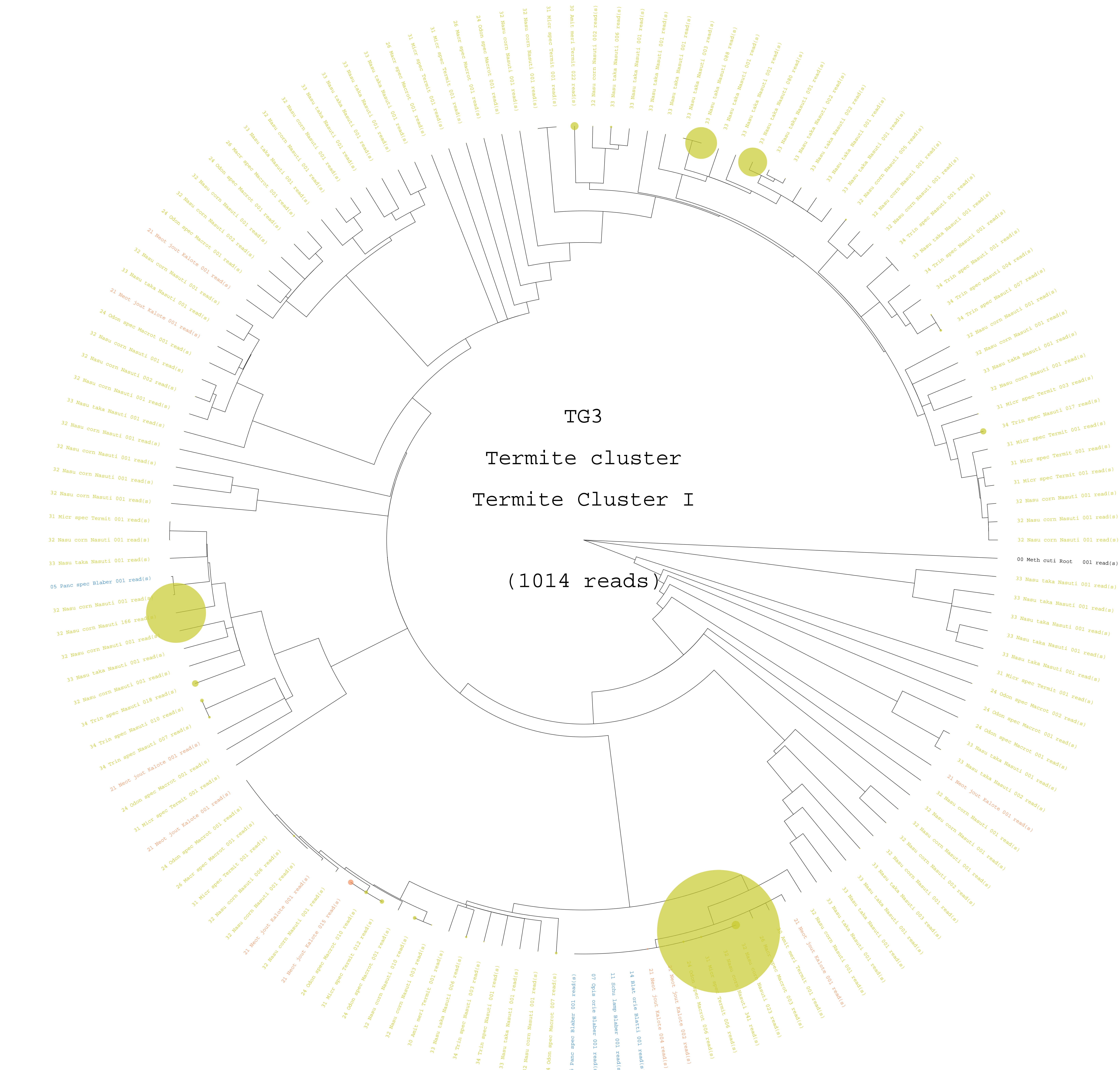
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

N



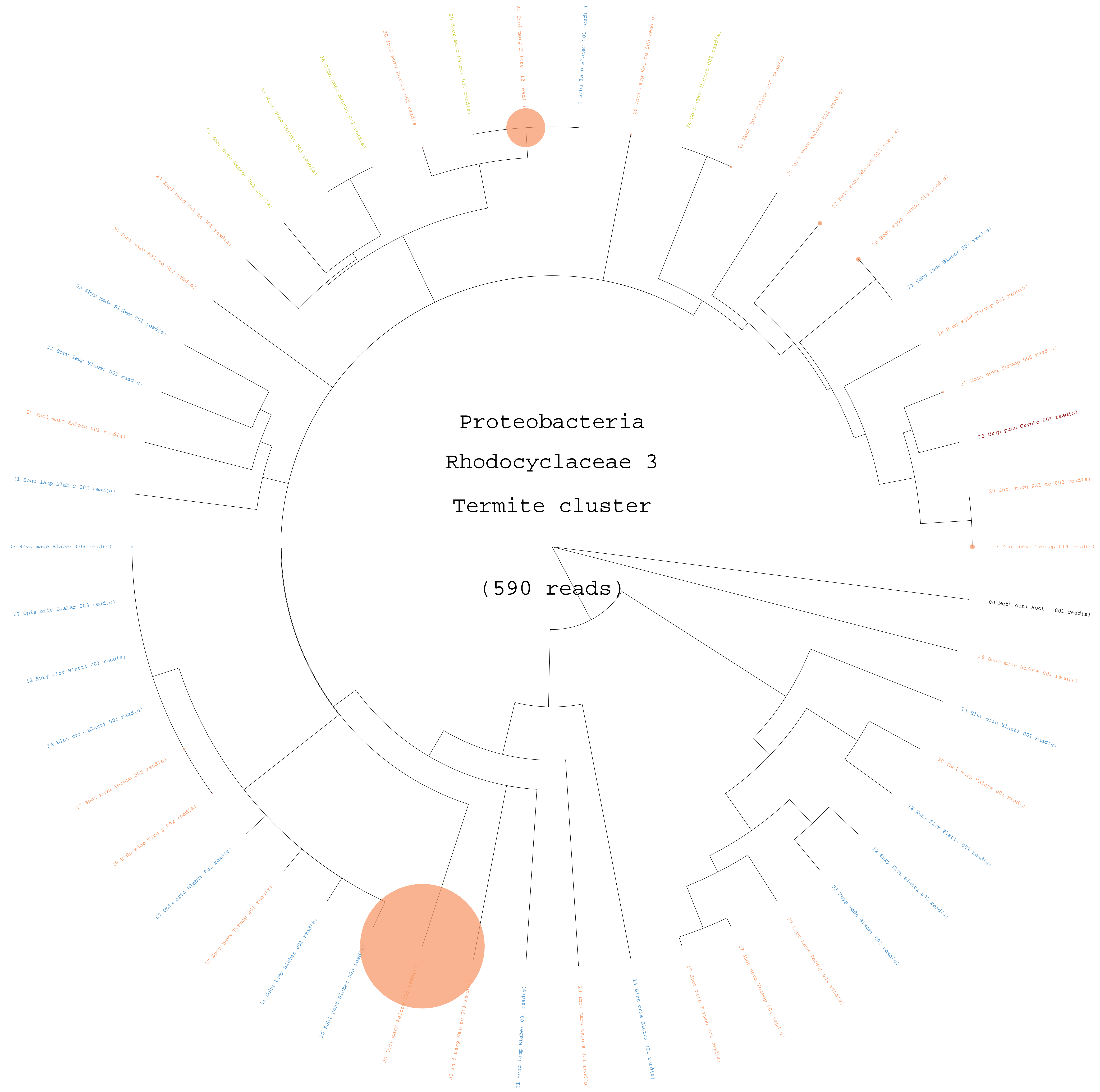
- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

0

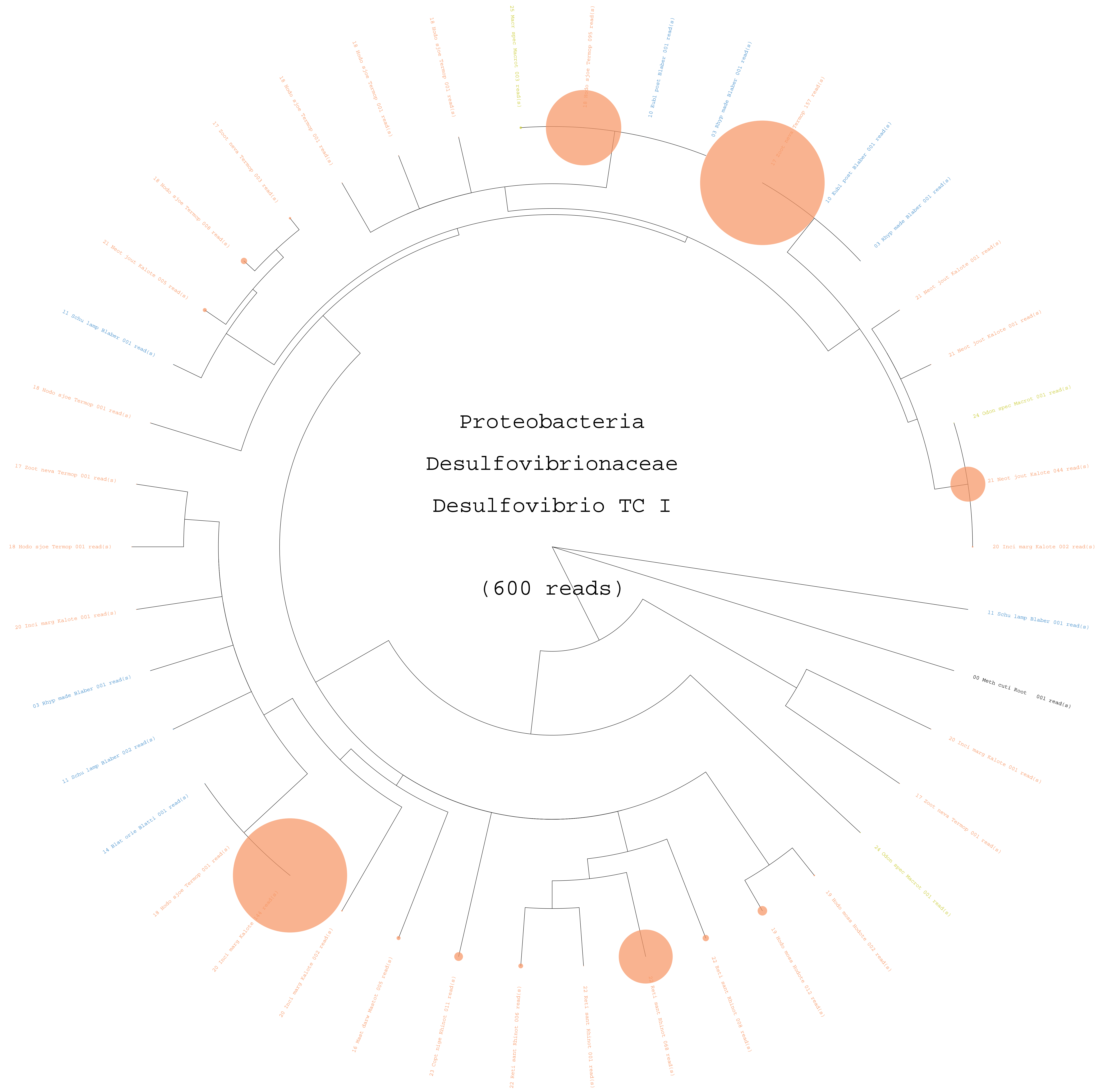


- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

P

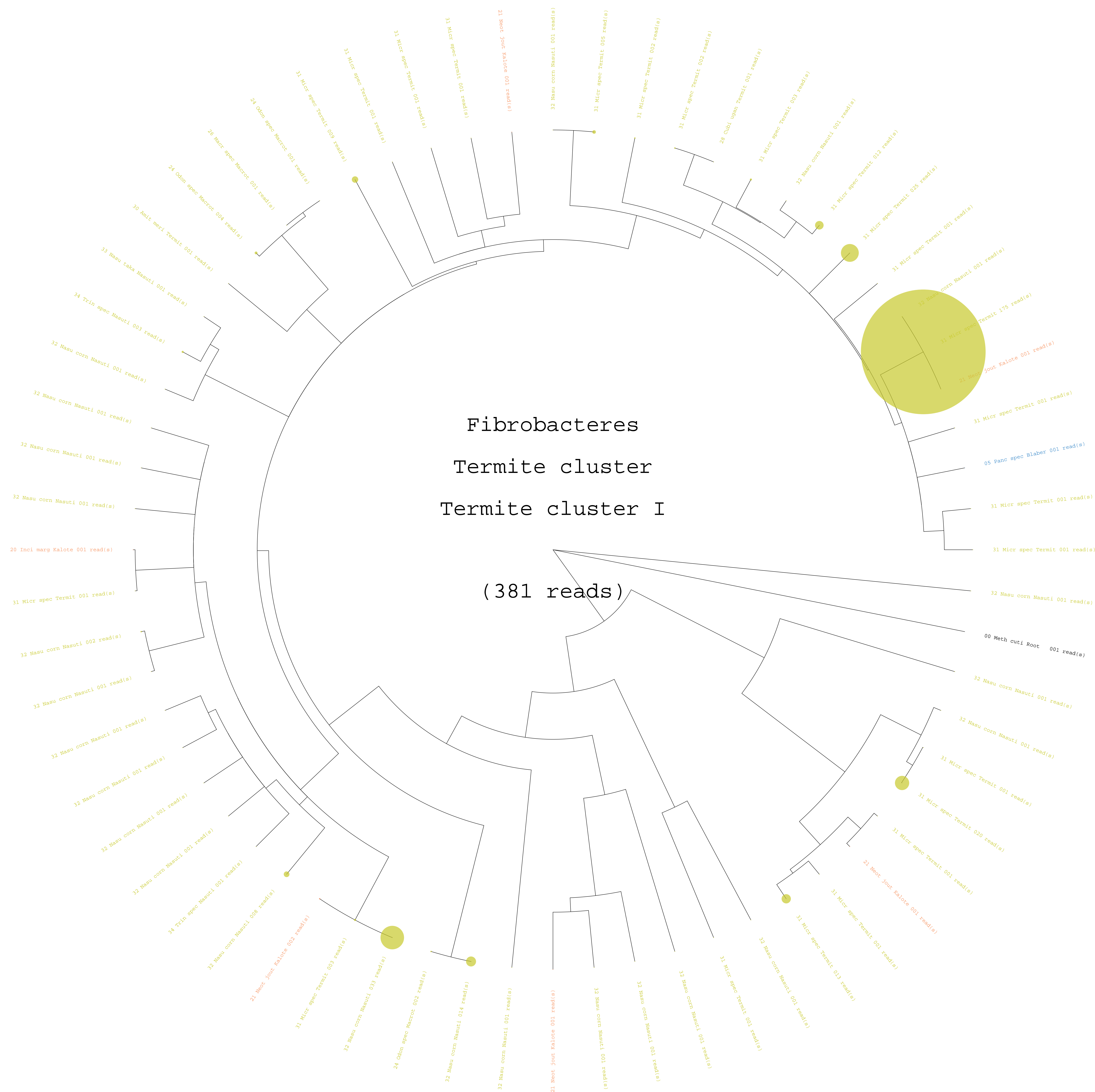


- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

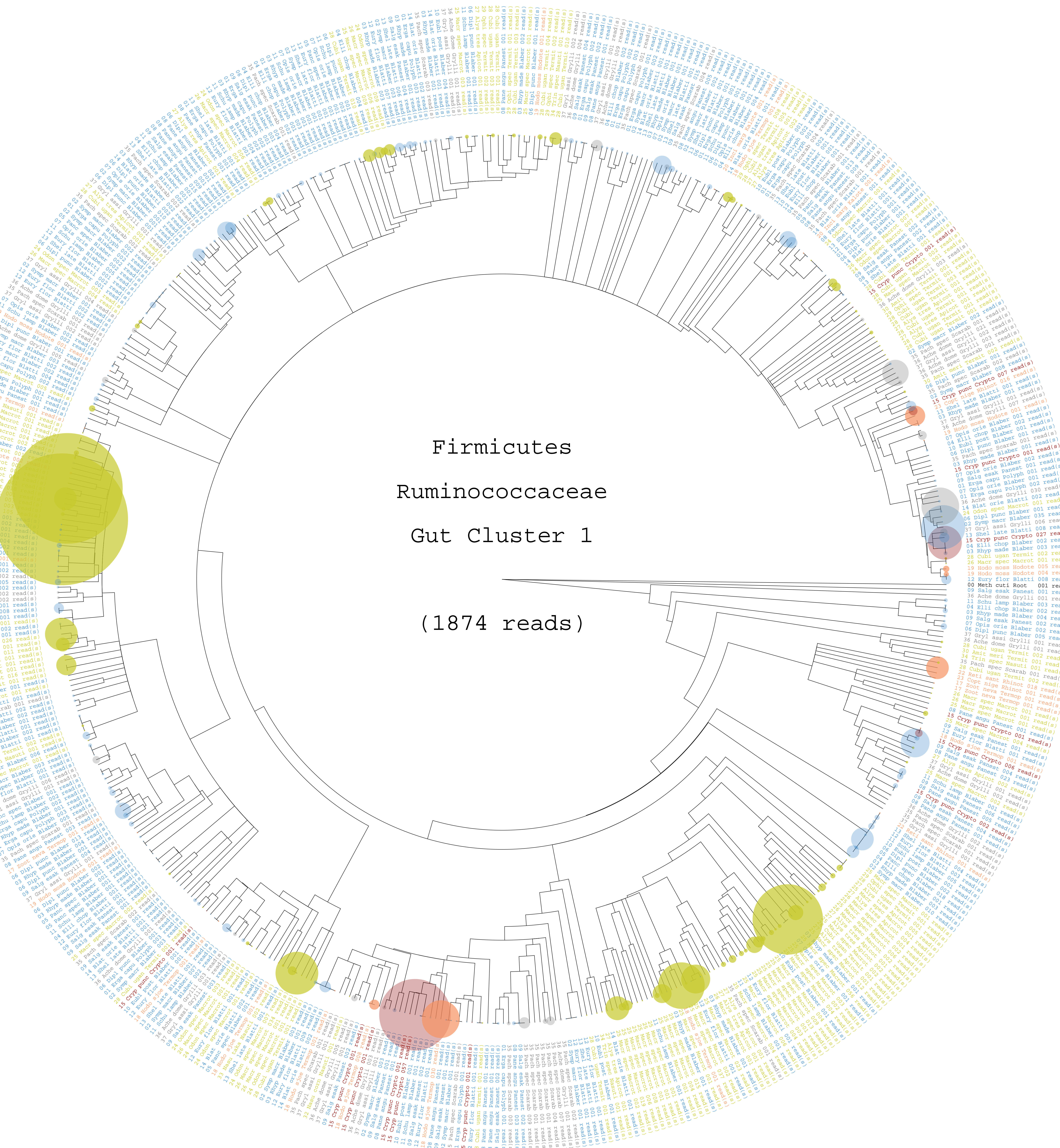


- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others

R



- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others



- Cockroaches
- Cryptocercus
- Lower termites
- Higher termites
- Others