

Part 5: Pathogen Detection (RG3/4 Species)

Pathogen detection analysis focuses on RG3/4 species and non-microbiome organisms.

Filtering criteria:

- Include: RG3, RG4, risk groups and NotAnnotated species
- Exclude: RG1, RG2, risk groups
- Exclude: Species annotated as 'Microbiome' in HOMD.Category

Key findings:

- Total species after annotation: 579
- Potential pathogenic species identified: 307
- Most abundant pathogen: Homo sapiens
- Average pathogen clade reads: 233682.1

Data source: Filtered from annotated_species object

Output location: Check outputs/ directory for:

- pathogen_detection_report.xlsx (pathogen summary by sample)

Species per Risk Group – All Samples

Total species: 307

Number of Species

300

200

100

0

Homo sapiens
Sphingomonas pannii
Sphingobium cloacae

NotAnnotated

RG1

RG2

RG3

RG4

Risk Group

Severe acute respiratory syndrome-related coronavirus
Burkholderia pseudomallei

Species by Risk Group – All Samples

Top 30 species by Log10(cladeReads_mean + 1)

