

ResFinder DB Compare

Monday meeting

Maja - 29/8-2022

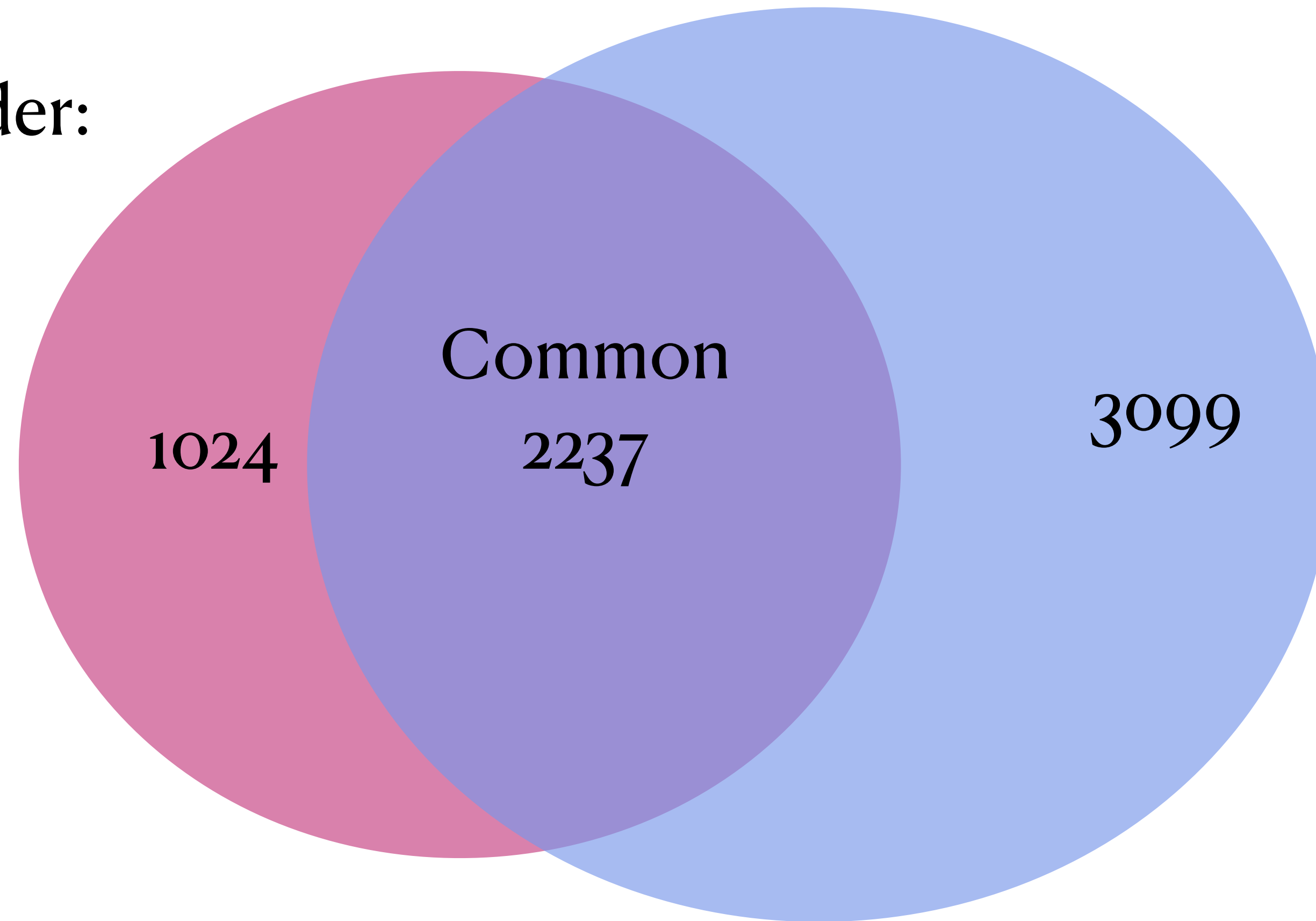
ResFinder DB Compare

ResFinder + PointFinder:

3259

CARD

5336



Database structures

ResFinder DB

- Homologs
- Structured around resistance type

PointFinder DB

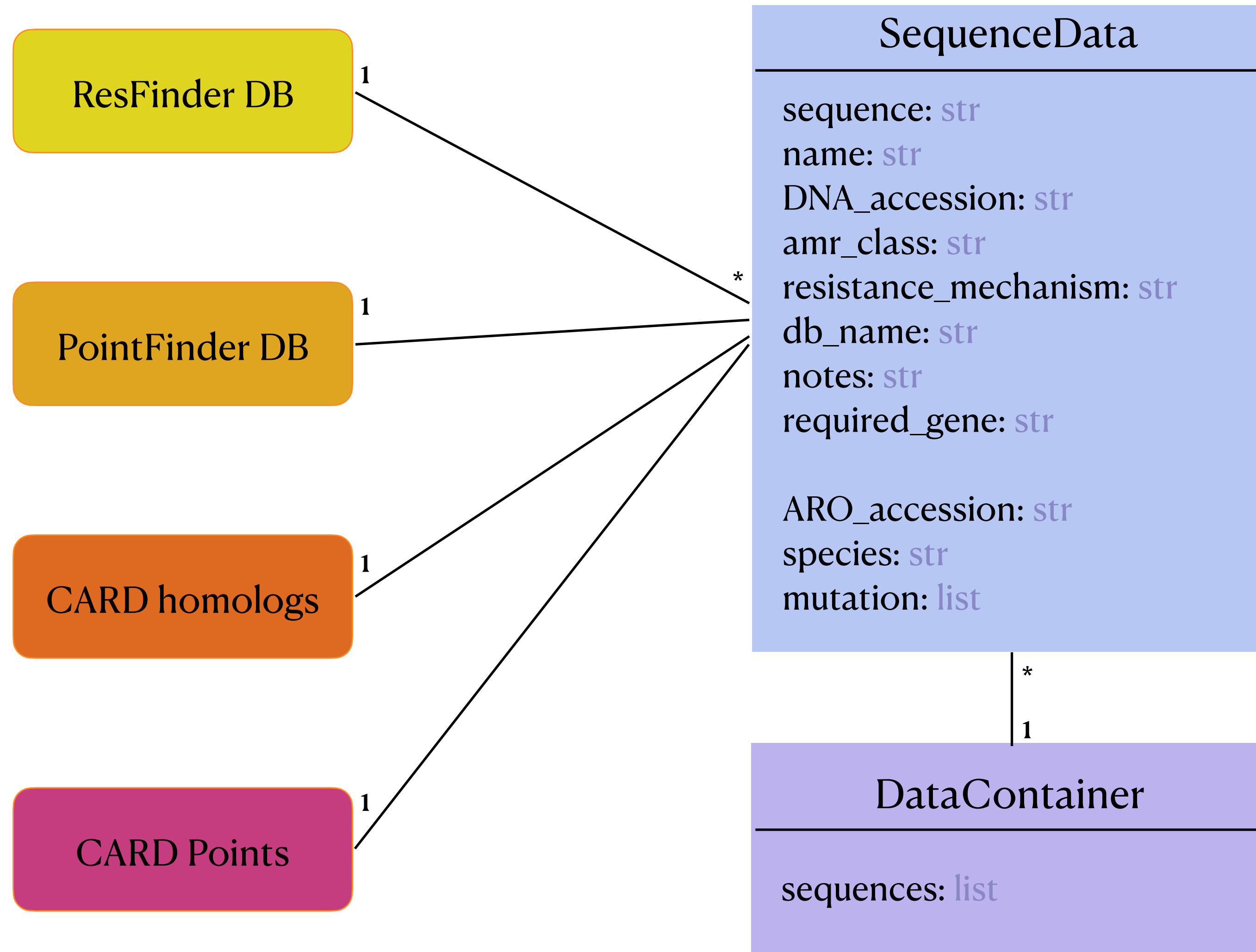
- Point mutations
- Structured around species

CARD

- Comprehensive Antibiotic Resistance Database
- Homologs and point mutations
- Structured around model types:
 - Homologs
 - Protein variant
 - rRNA gene variant
 - Over expression
 - Knockout

Point mutations

Database object



```
def __eq__(self, other):
    return self.sequence
        == other.sequence
```

Compare

ResFinder DB

CARD homologs

Find common sequences

Compare metadata

Name, DNA-accession, Antimicrobial class

Update resistance mechanism if missing

PointFinder DB

CARD Points

Find new sequences

Ignore previously assessed genes

Output

3 Text documents:

- Metadata variations
- New sequences
- Resistance mechanism updates


Gene_name	DNA_ accession	ARO_ accession	amr_ class	Resistance_ mechanism	Notes	Database_name	ToKeep [Y/N]	PMID
------------------	-----------------------	-----------------------	-------------------	------------------------------	--------------	----------------------	---------------------	-------------

Gene_name	DNA_ accession	ARO_ accession	amr_ class	Resistance_ mechanism	Species	Mutation	Notes	Database_name	ToKeep [Y/N]	PMID
------------------	-----------------------	-----------------------	-------------------	------------------------------	----------------	-----------------	--------------	----------------------	---------------------	-------------





Bitbucket

Genomic Epidemiology / CGE

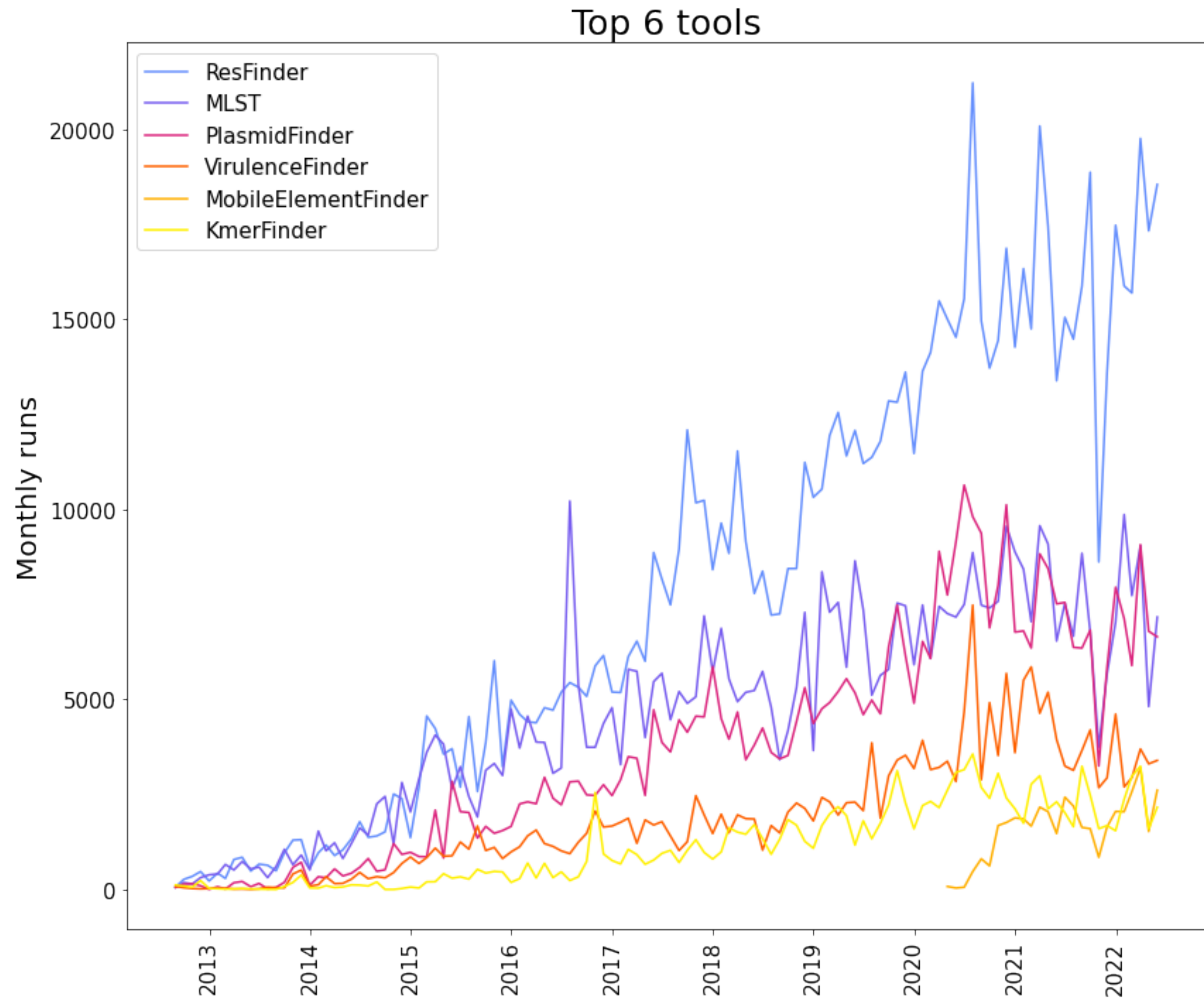
resfinder_db_compare

 master ▼ | Files ▼ | Filter files



Name	Size	Last commit	Message
 resfinder_db_compare		2022-07-08	add test files
 snakemake_workflow		2022-05-23	Rearrange folders
 README.md	4.78 KB	2022-05-23	Rearrange folders
 class_translations.csv	2.27 KB	2022-07-08	refactoring
 ignored_card_genes.txt	0 B	2022-05-23	Rearrange folders

CGE stats



CGE stats

Top 10 Country Representation

