

BioTools Plant biology Report

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Data source: bio.tools Web API (June 30, 2025)

In this report we will analyze the data extracted from the BioTools database more specifically related to the topic 'Plant biology' using the bio.tools Web API.

Automated Report

This notebook is **automatically generated** by querying the [bio.tools](#) Web API for the topic *Plant biology*.

All available data is fetched, programmatically parsed, plotted, and rendered in-line.

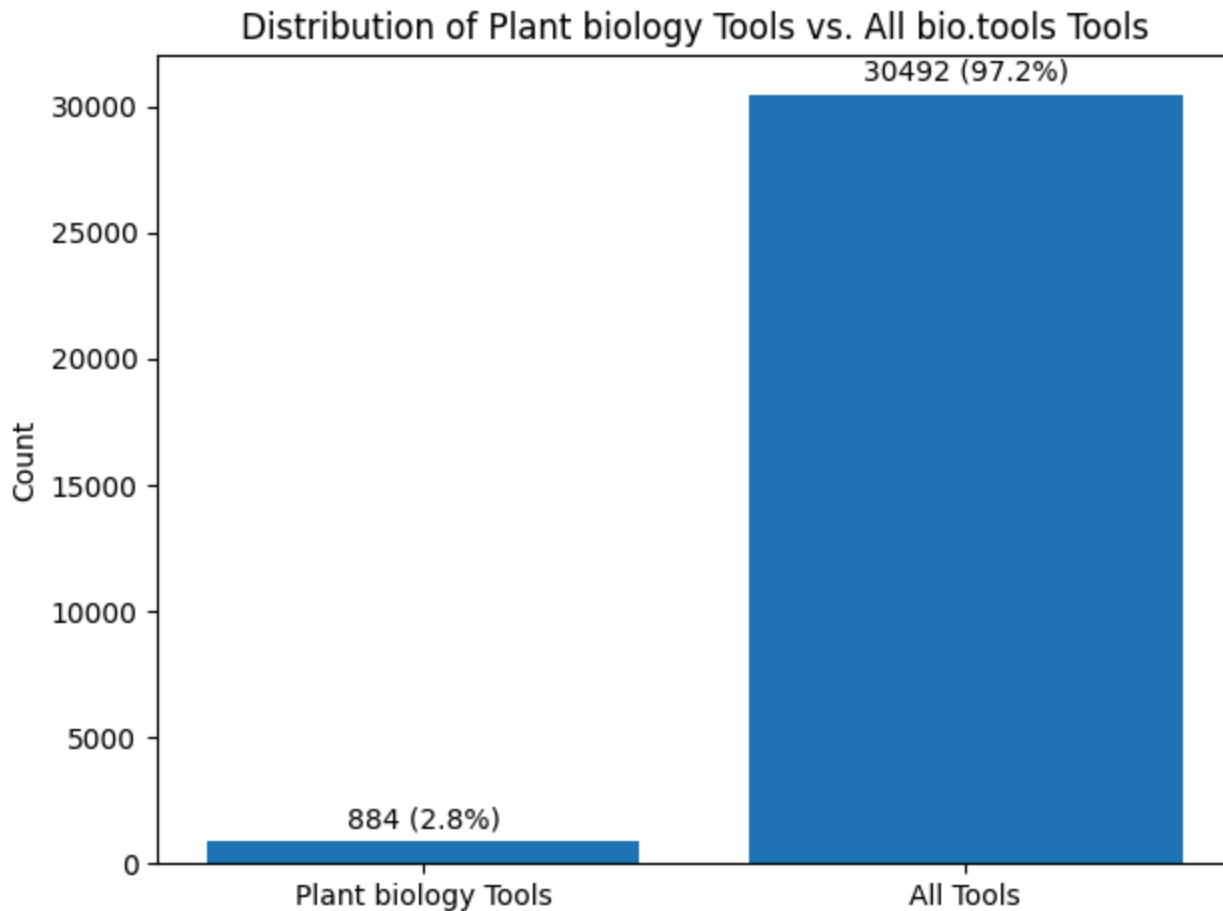
Because the bio.tools schema is consistent across communities, you can adapt this exact code simply by changing the community identifier to produce reports for any other domain.

All available topics can be found in the [BioPortal - EDAM](#) .

Tools Extraction

A total of 884 tools were extracted from the bio.tools database by filtering the topic 'Plant biology'.

As shown in the bar chart below, 884 out of 30492 total tools ($\approx 2.9\%$) are tagged under *Plant biology*.



Attributes Analysis

In this section, we will analyze all the attributes of the tools related to 'Plant biology' extracted from the BioTools database:

- [name](#)
- [description](#)
- [homepage](#)
- [biotoolsID](#)
- [biotoolsCURIE](#)
- [version](#)
- [otherID](#)
- [relation](#)
- [function](#)
- [toolType](#)
- [topic](#)
- [operatingSystem](#)
- [language](#)
- [license](#)
- [collectionID](#)
- [maturity](#)
- [cost](#)
- [accessibility](#)
- [elixirPlatform](#)
- [elixirNode](#)
- [elixirCommunity](#)
- [link](#)
- [download](#)
- [documentation](#)
- [publication](#)
- [credit](#)
- [owner](#)
- [additionDate](#)
- [lastUpdate](#)
- [editPermission](#)
- [validated](#)
- [homepage_status](#)
- [elixir_badge](#)
- [confidence_flag](#)

Note: Detailed definitions for each attribute are available in the [BioTools Curators Guide](#).

Name

A total of 883 unique names were found for the tools related to 'Plant biology'.

Column name: name

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 883

Any additionnal notes can be inserted here.

Description

A total of 884 unique descriptions were found for the tools related to 'Plant biology'.

Column name: description

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 884

Any additionnal notes can be inserted here.

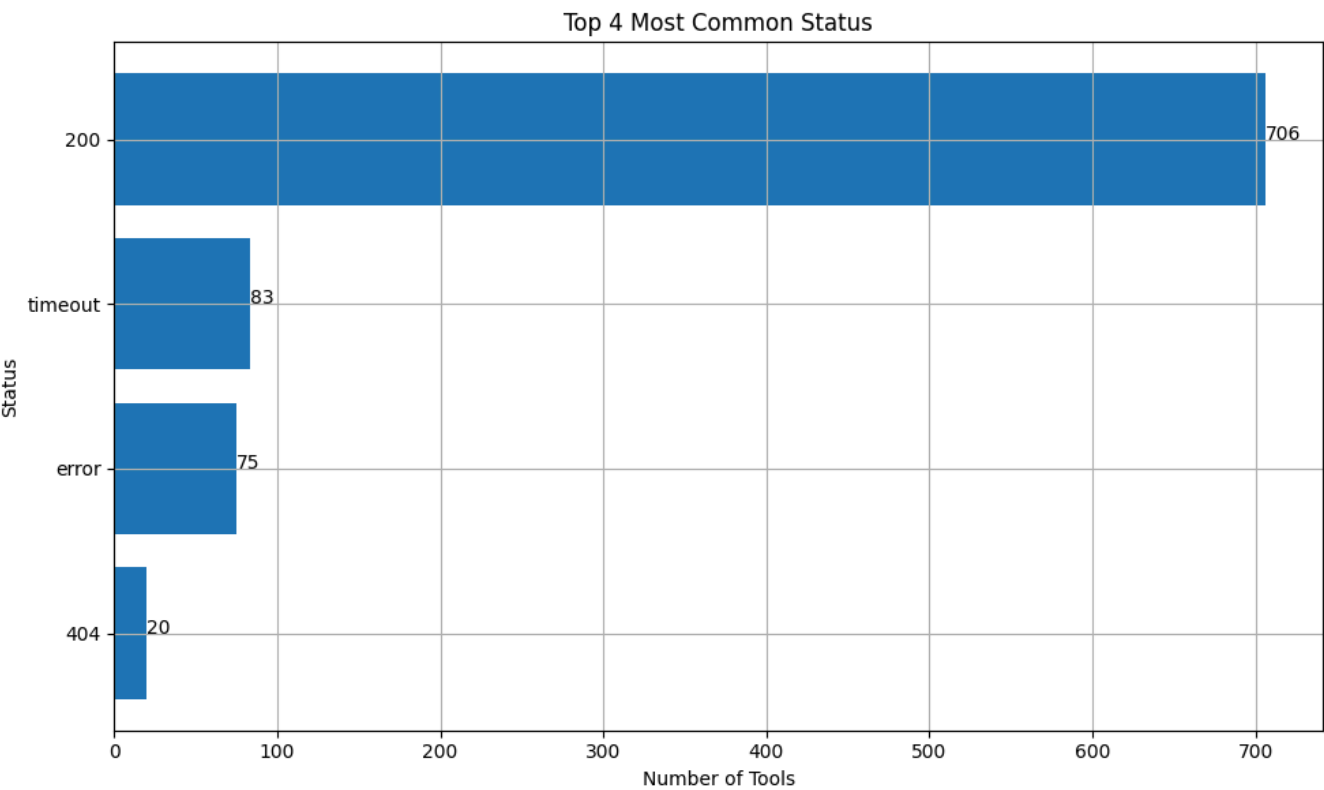
Homepage

A total of 881 unique homepages were found for the tools related to 'Plant biology'.

Column name: homepage

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 881

In order to check the availability of the homepage, we will use the check_url function to check the status of the homepage. Available (200), were not found (error 404), not accessible (several different errors) and timeout (no response in 2 seconds time).



Any additionnal notes can be inserted here.

BiotooolsID

A total of 884 unique biotooolsIDs were found for the tools related to 'Plant biology'.

Column name: biotooolsID

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 884

Any additionnal notes can be inserted here.

BioToolsCURIE

A total of 884 unique BioTools CURIEs were found for the tools related to 'Plant biology'.

Column name: biotoolsCURIE

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 884

Any additionnal notes can be inserted here.

Version

A total of 838 tools without a version.

The other tools have inconsistent version formats.

Column name: version

Total number of tags: 46

Number of empty tags: 838

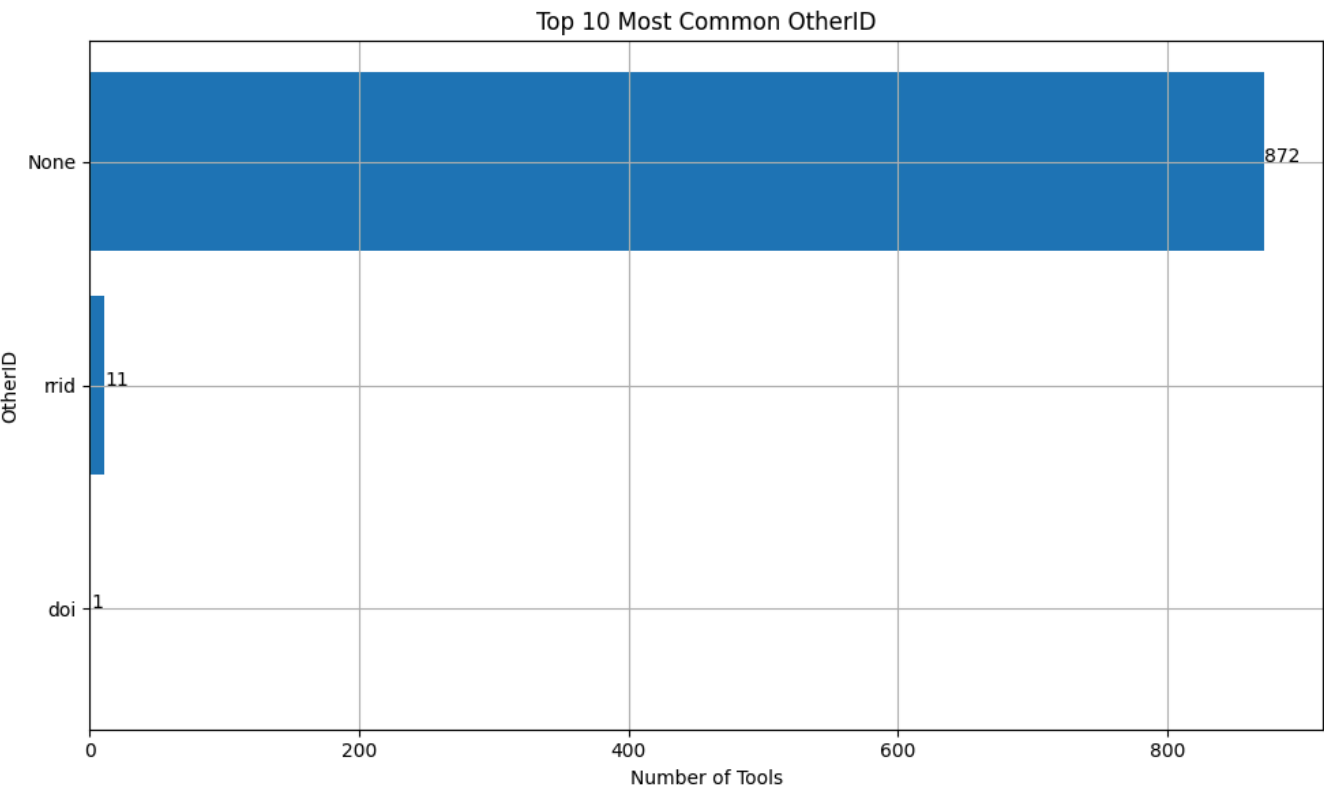
Percentage of empty tags: 94.80%

Any additionnal notes can be inserted here.

OtherID

Column name: otherID

Total number of tags: 12
Number of empty tags: 872
Percentage of empty tags: 98.64%

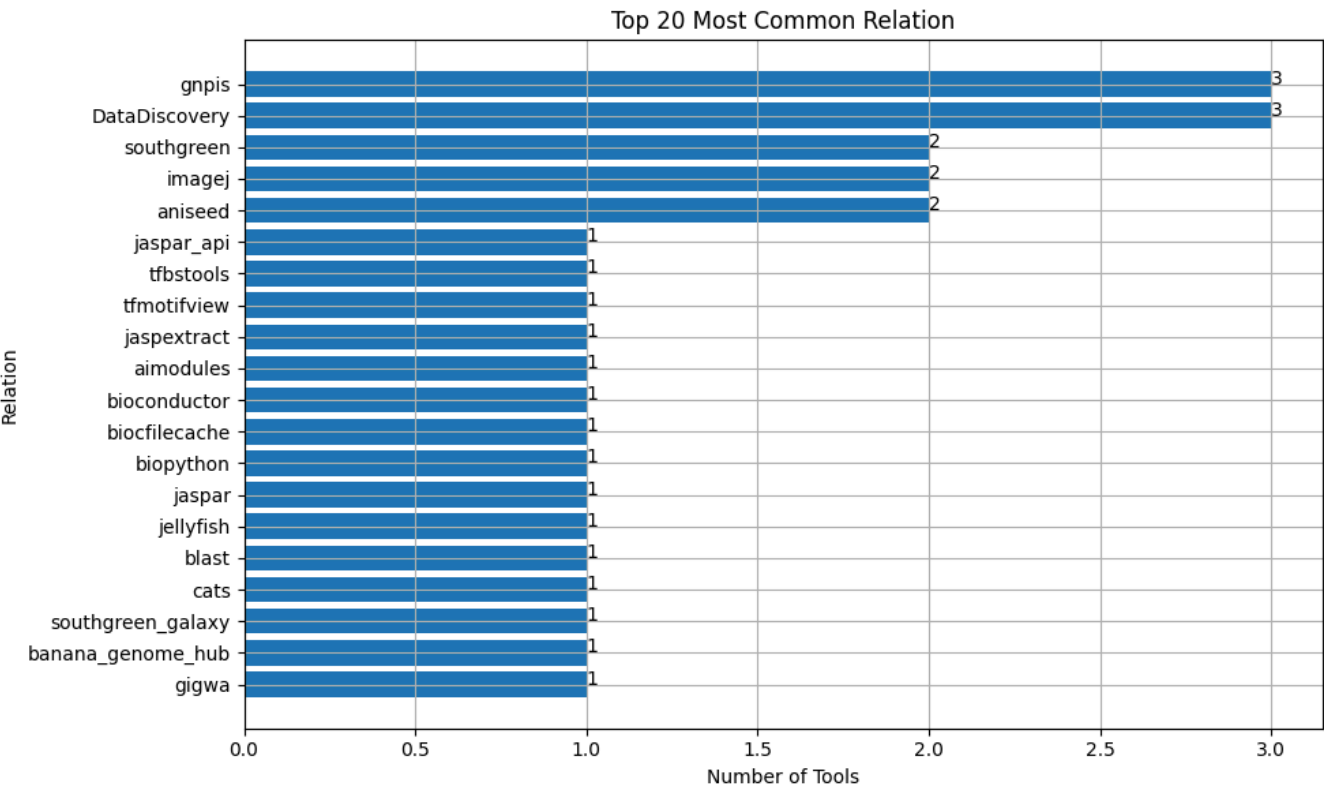


Any additionnal notes can be inserted here.

Relation

Column name: relation

Total number of tags: 17
Number of empty tags: 867
Percentage of empty tags: 98.08%



Any additionnal notes can be inserted here.

Function

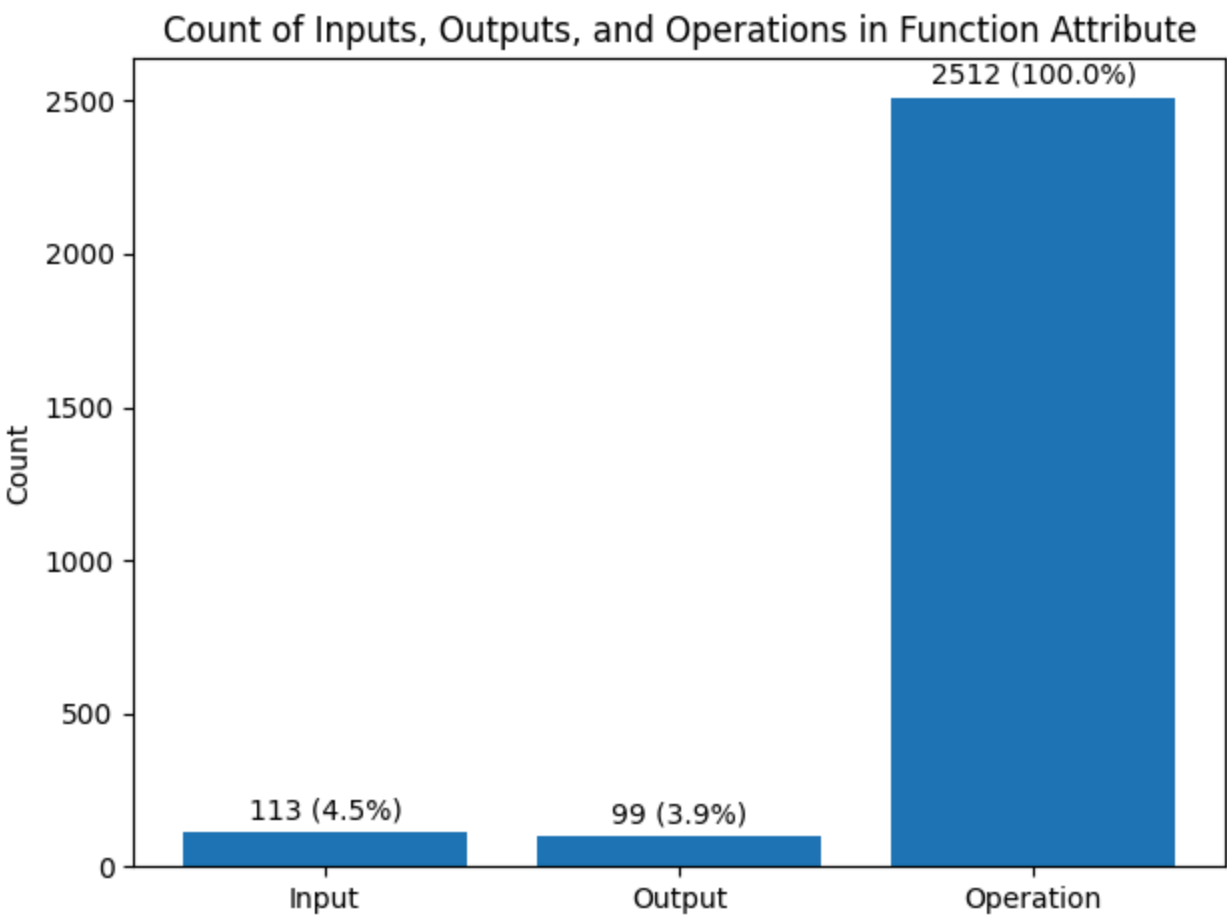
This attribute describes the primary function of the tool, the input and output and the operation it performs.

Its importante to note that a single tool can have multiple operations

```
-----
Column name: function
-----
Total number of tags: 844
Number of empty tags: 40
Percentage of empty tags: 4.52%
-----
```

The bar graph below illustrates the distribution of tool functions associated with 'Plant biology'.

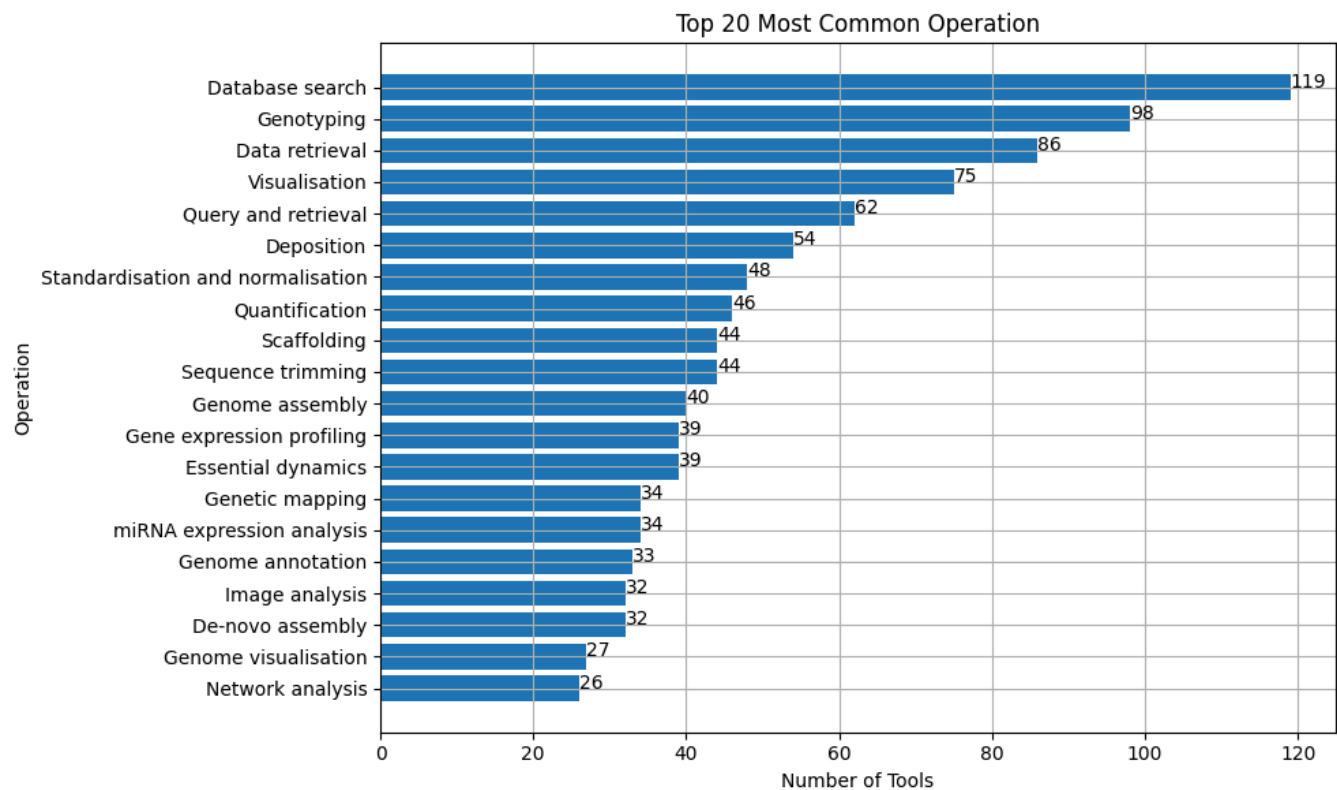
It's important to note that these fields primarily support interoperability; their limited availability can make automated workflow generation challenging.



Any additionnal notes can be inserted here.

Function - Operation

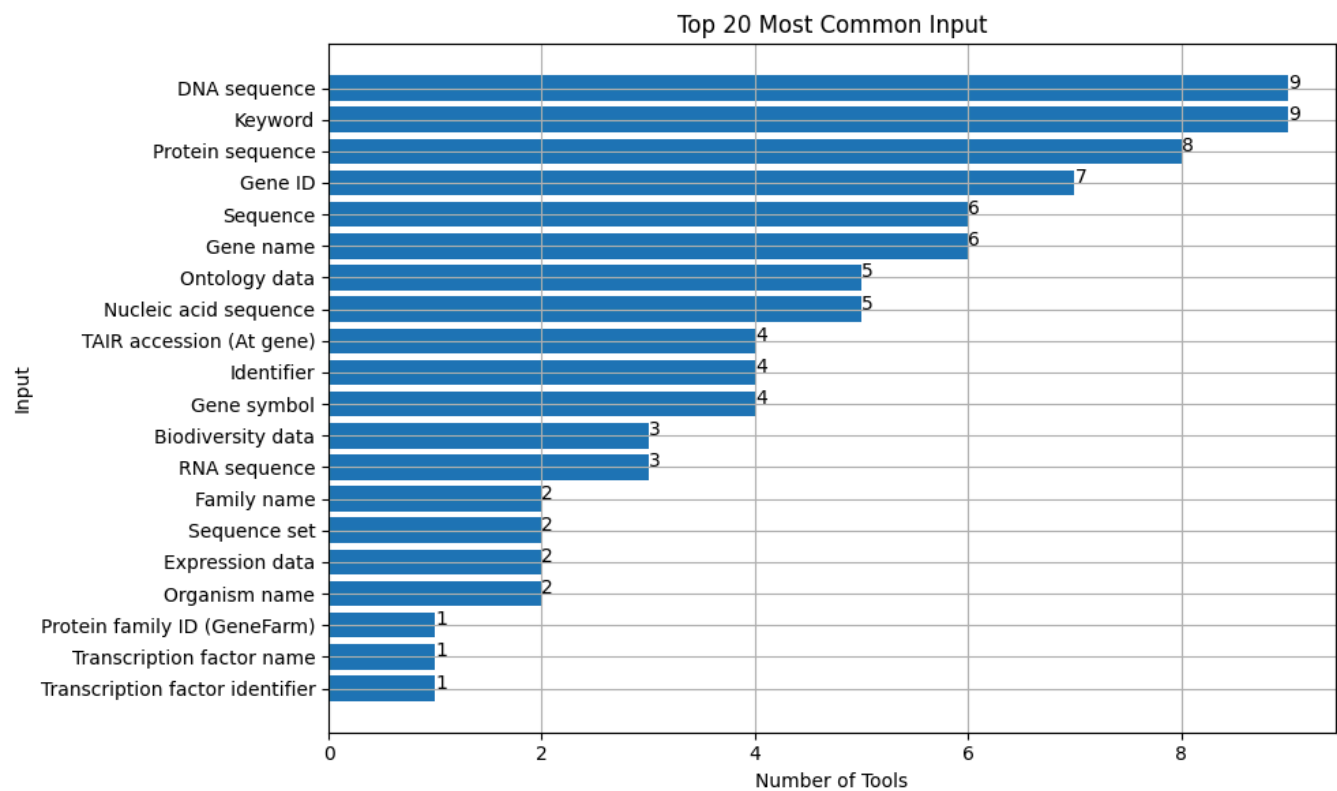
The bar graph below illustrates the distribution of tool operations associated with 'Plant biology'.



Any additionnal notes can be inserted here.

Function - Input

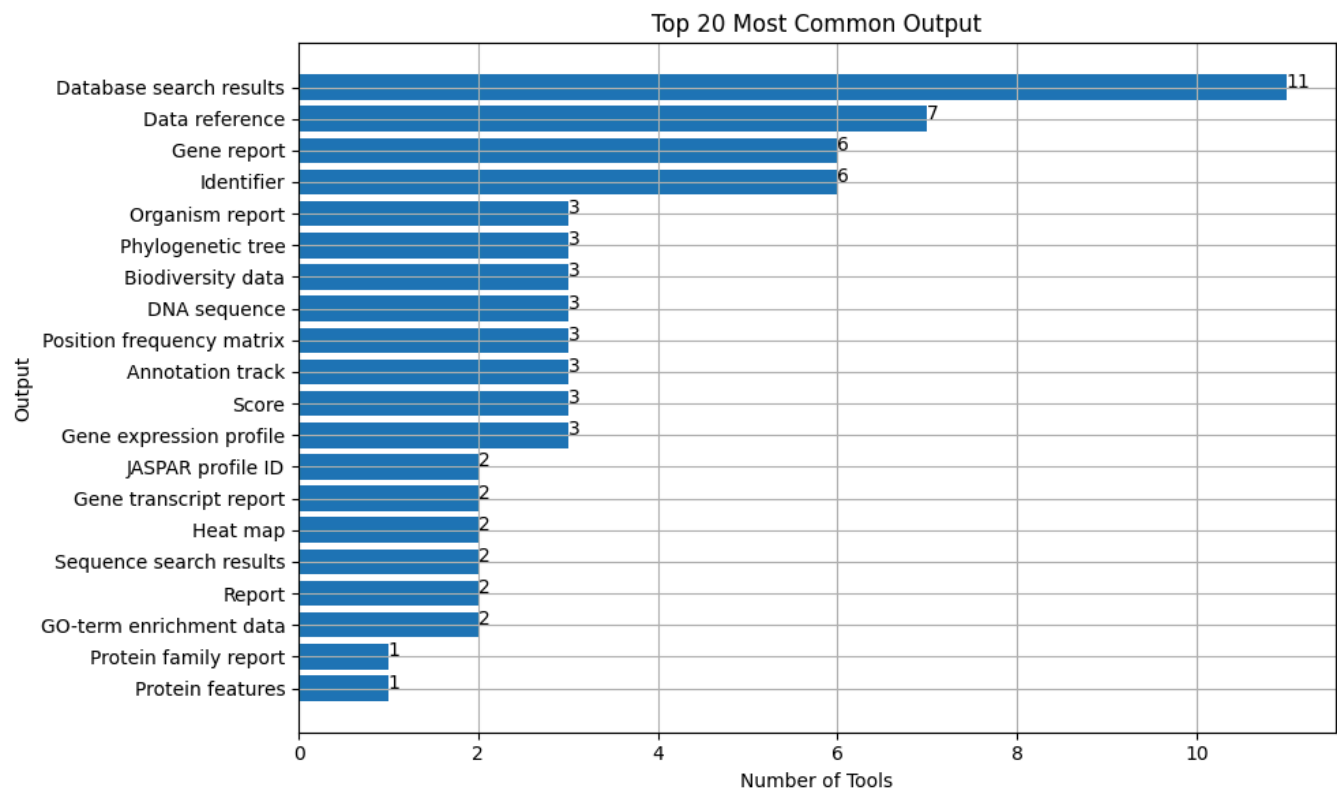
The bar graph below illustrates the distribution of tool inputs associated with 'Plant biology'.



Any additionnal notes can be inserted here.

Function - Output

The bar graph below illustrates the distribution of tool outputs associated with 'Plant biology'.



Any additional notes can be inserted here.

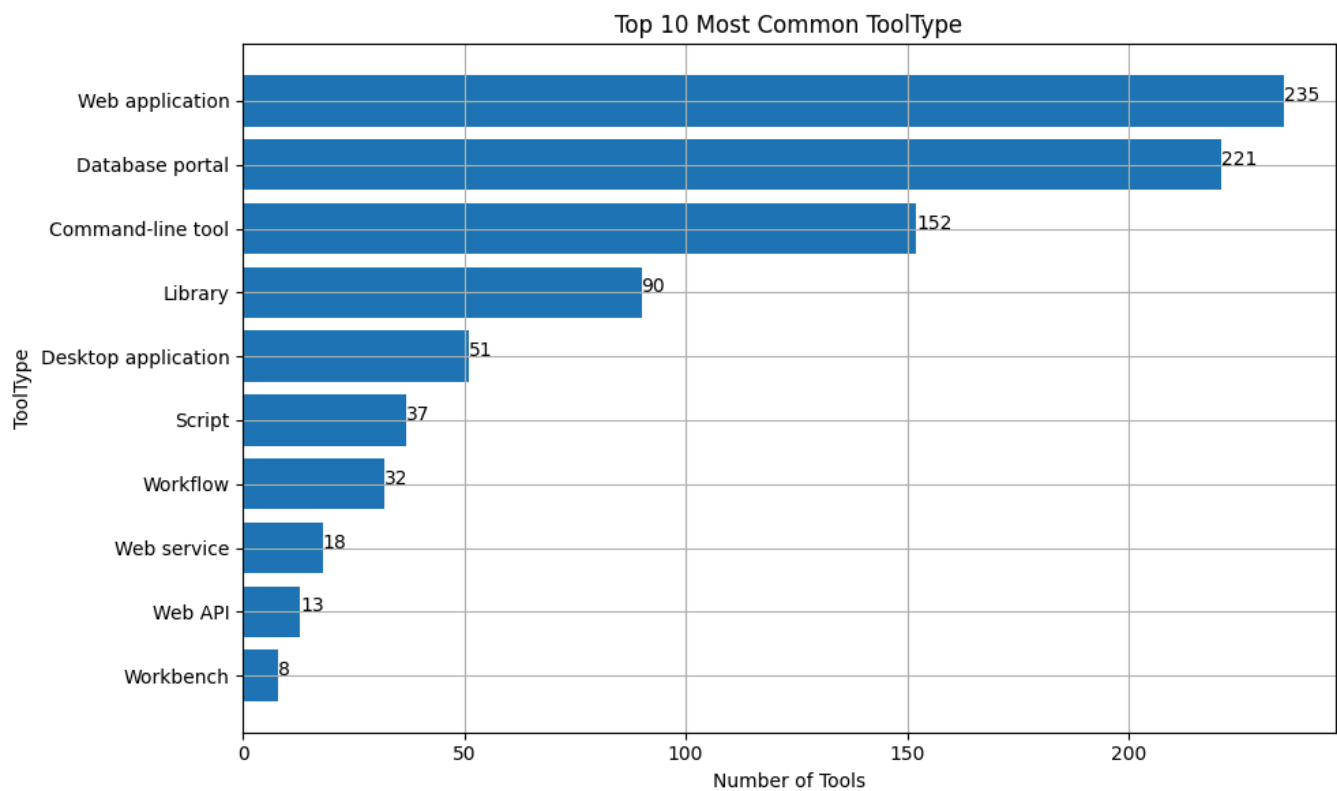
ToolType

Column name: toolType

Total number of tags: 735

Number of empty tags: 149

Percentage of empty tags: 16.86%



Any additionnal notes can be inserted here.

Topic

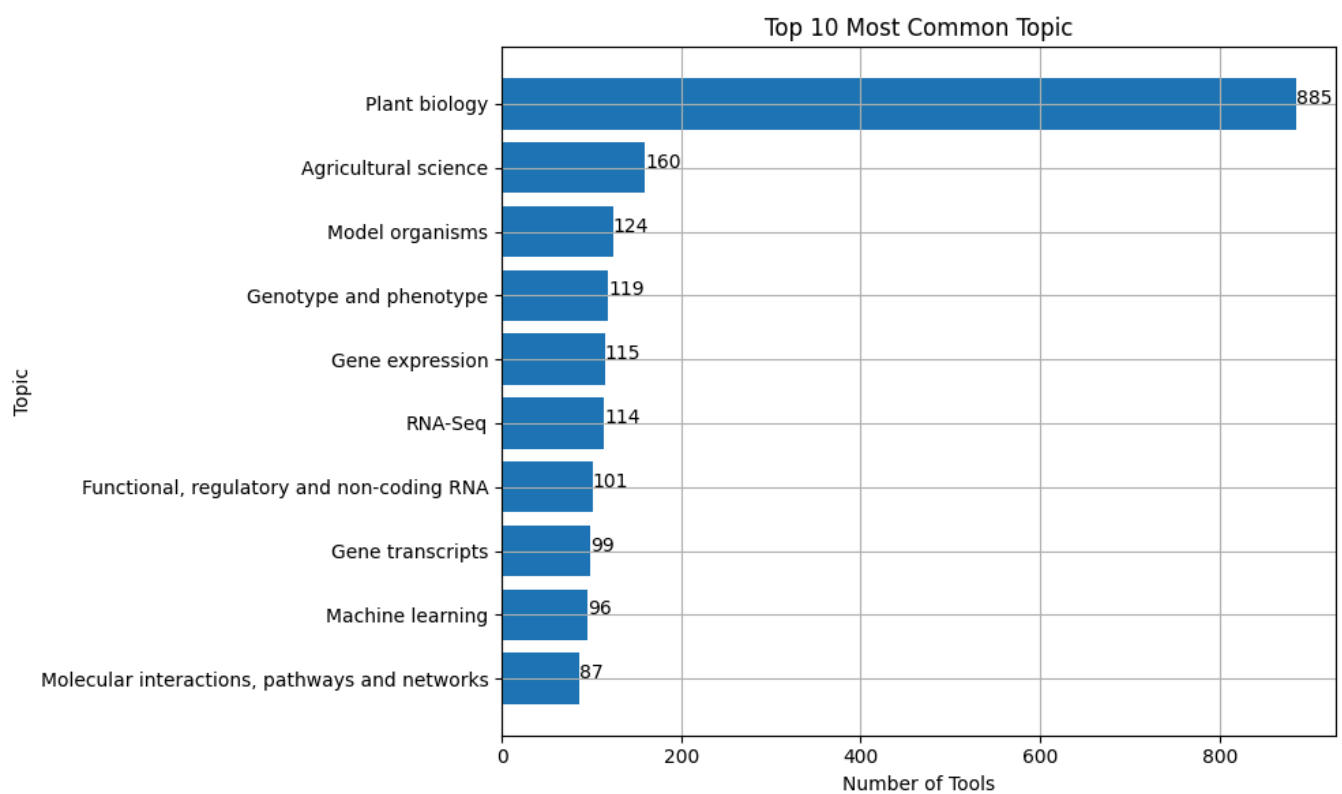
As expected, the topic Plant biology is present in all tools related to 'Plant biology'.

Column name: topic

Total number of tags: 884

Number of empty tags: 0

Percentage of empty tags: 0.00%



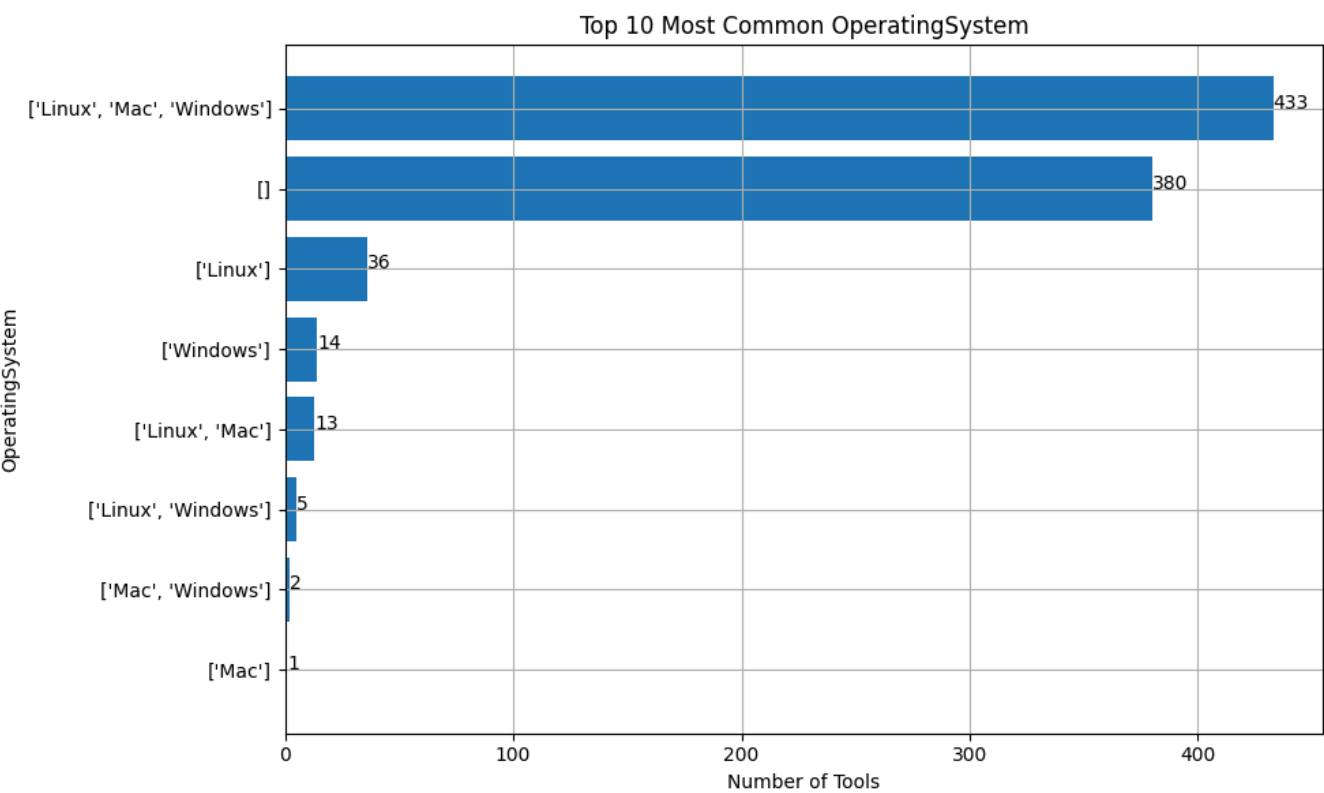
Any additionnal notes can be inserted here.

Operating System

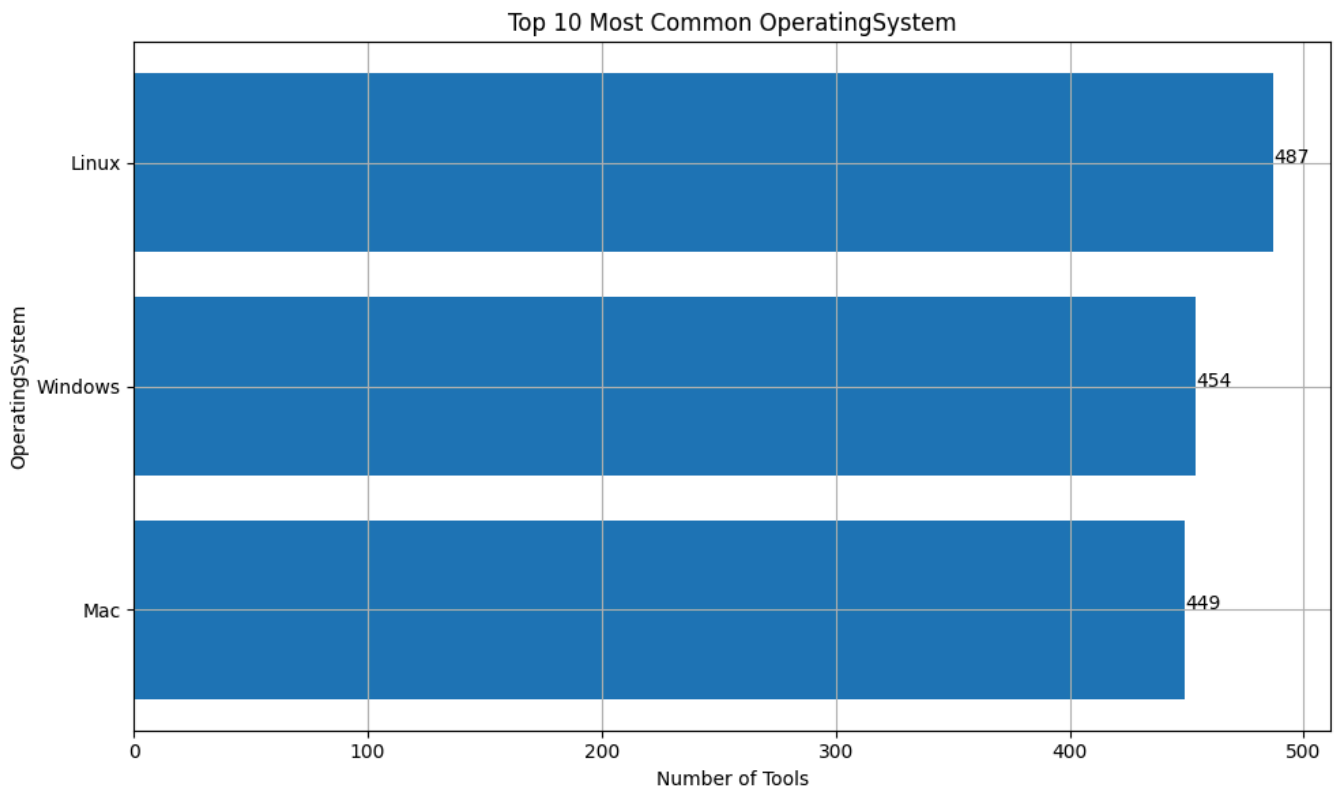
Column name: operatingSystem

Total number of tags: 504
Number of empty tags: 380
Percentage of empty tags: 42.99%

The bar graph below illustrates the distribution of operating systems associated with 'Plant biology'.



Furthermore, the bar graph below illustrates the overall distribution of operating systems associated with 'Plant biology'.



Any additionnal notes can be inserted here.

Language

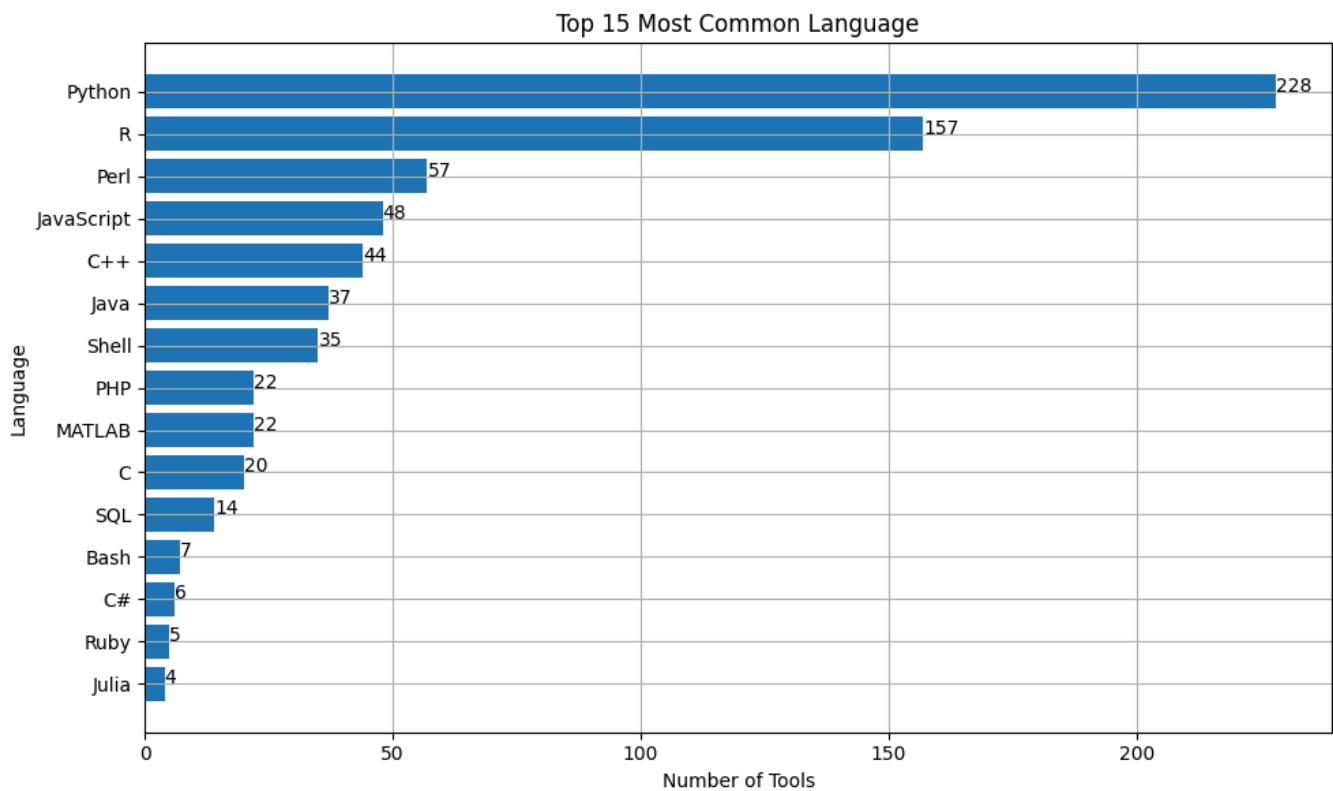
Column name: language

Total number of tags: 508

Number of empty tags: 376

Percentage of empty tags: 42.53%

The bar graph below illustrates the distribution of languages associated with 'Plant biology'.



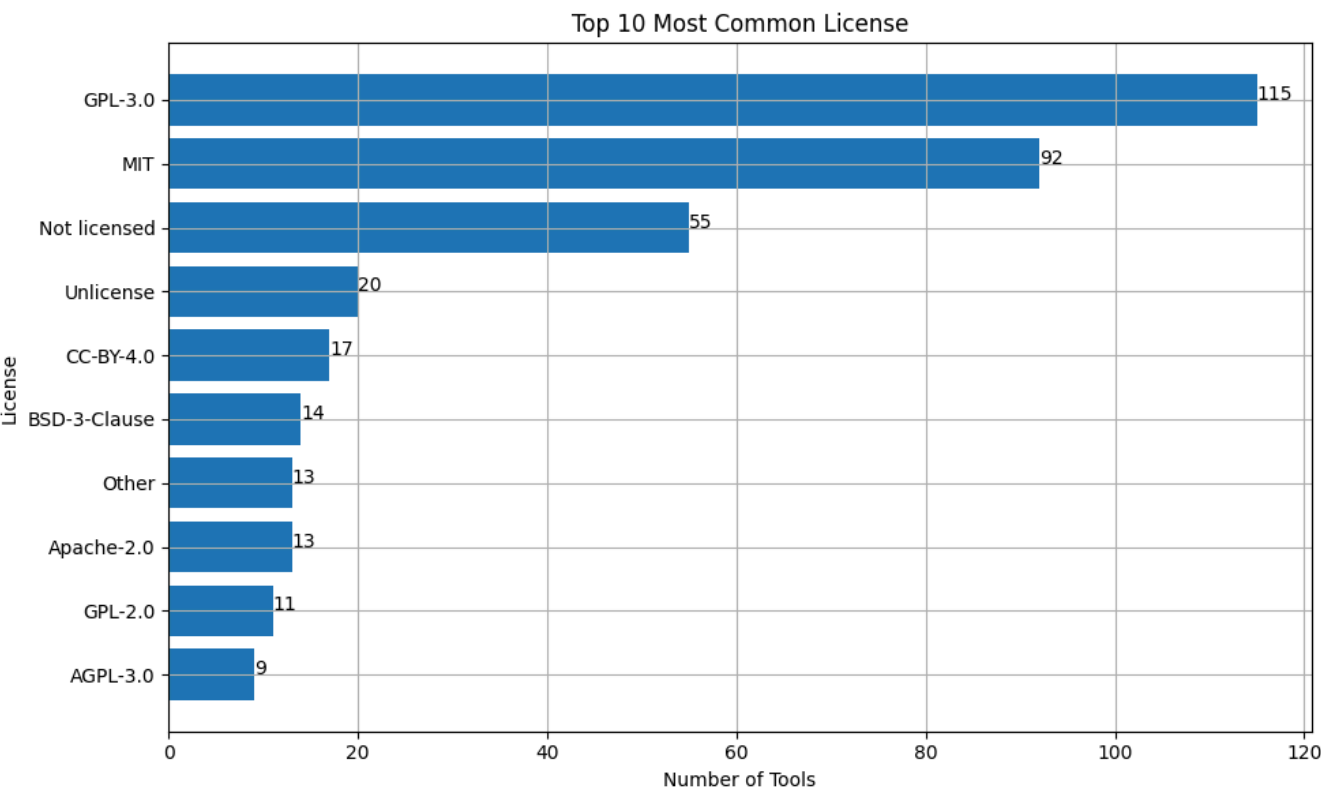
Any additionnal notes can be inserted here.

License

Its important to note that exist a 'Not licensed ' option available and not being used.

Column name: license

Total number of tags: 381
Number of empty tags: 503
Percentage of empty tags: 56.90%



Any additionnal notes can be inserted here.

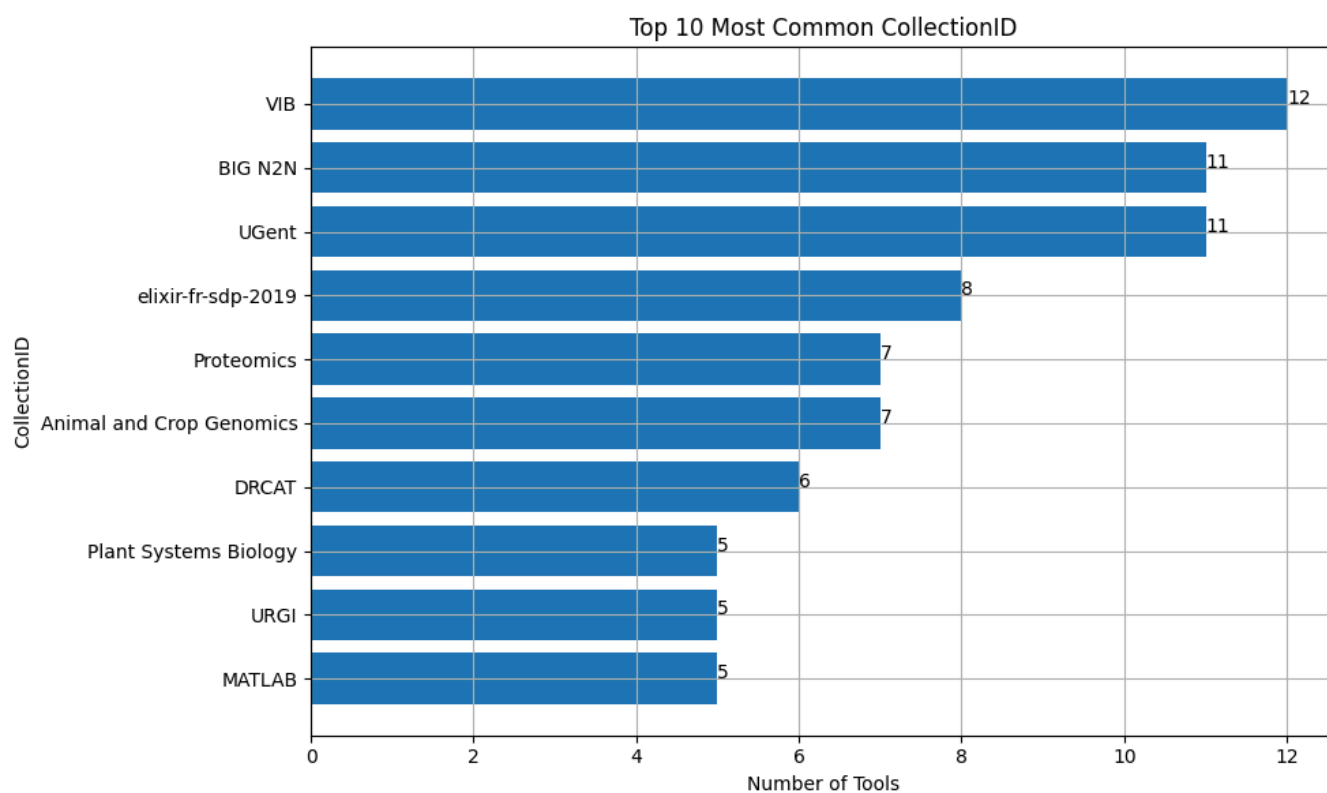
CollectionID

Column name: collectionID

Total number of tags: 57

Number of empty tags: 827

Percentage of empty tags: 93.55%

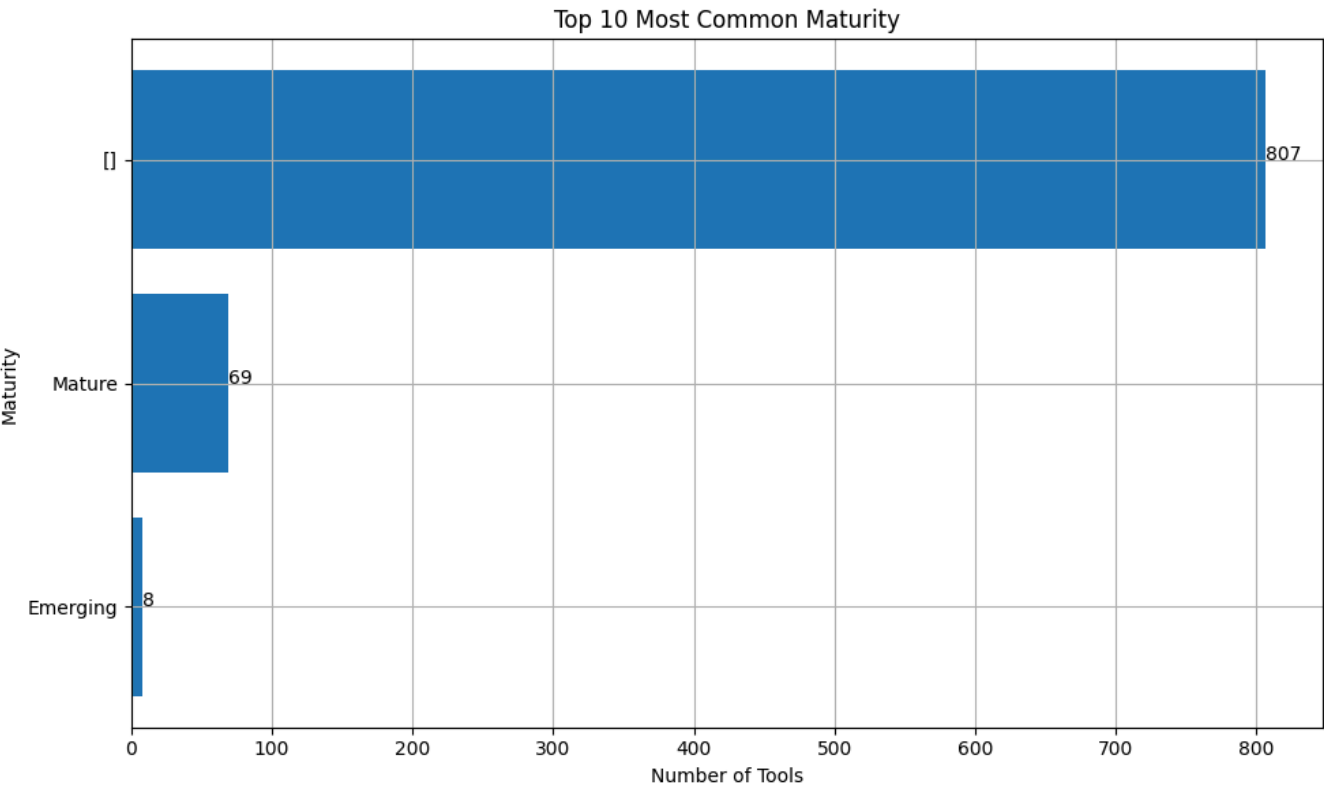


Any additionnal notes can be inserted here.

Maturity

Column name: maturity

Total number of tags: 77
Number of empty tags: 807
Percentage of empty tags: 91.29%

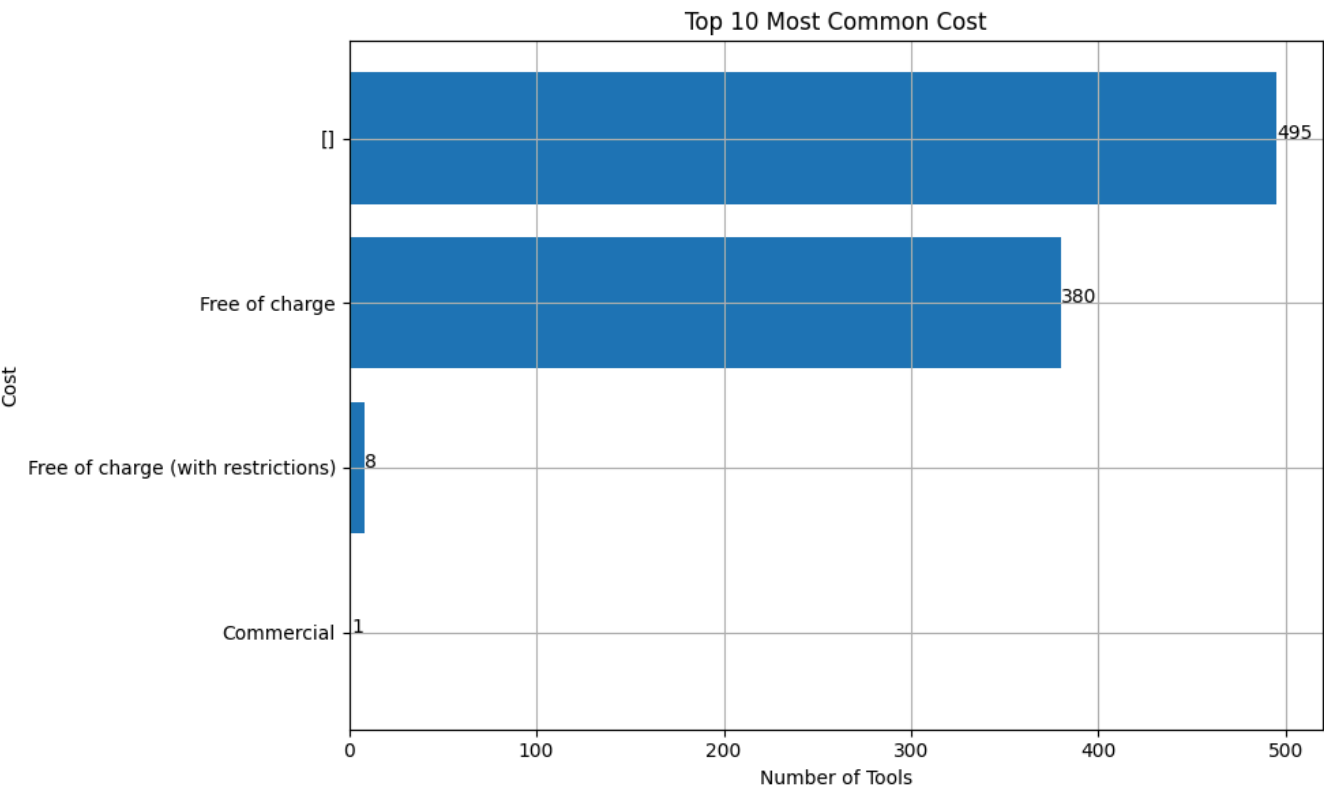


Any additionnal notes can be inserted here.

Cost

Column name: cost

Total number of tags: 389
Number of empty tags: 495
Percentage of empty tags: 56.00%



Any additionnal notes can be inserted here.

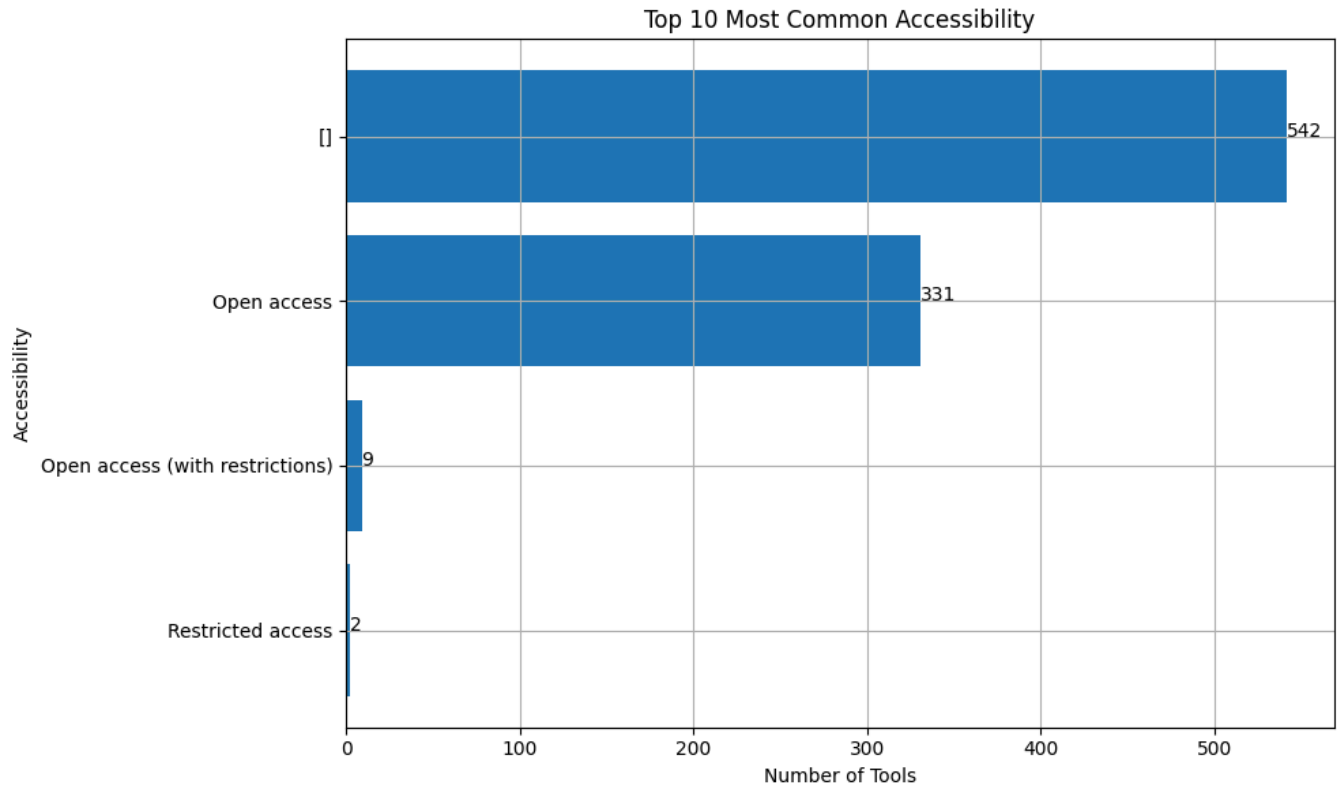
Accessibility

Column name: accessibility

Total number of tags: 342

Number of empty tags: 542

Percentage of empty tags: 61.31%

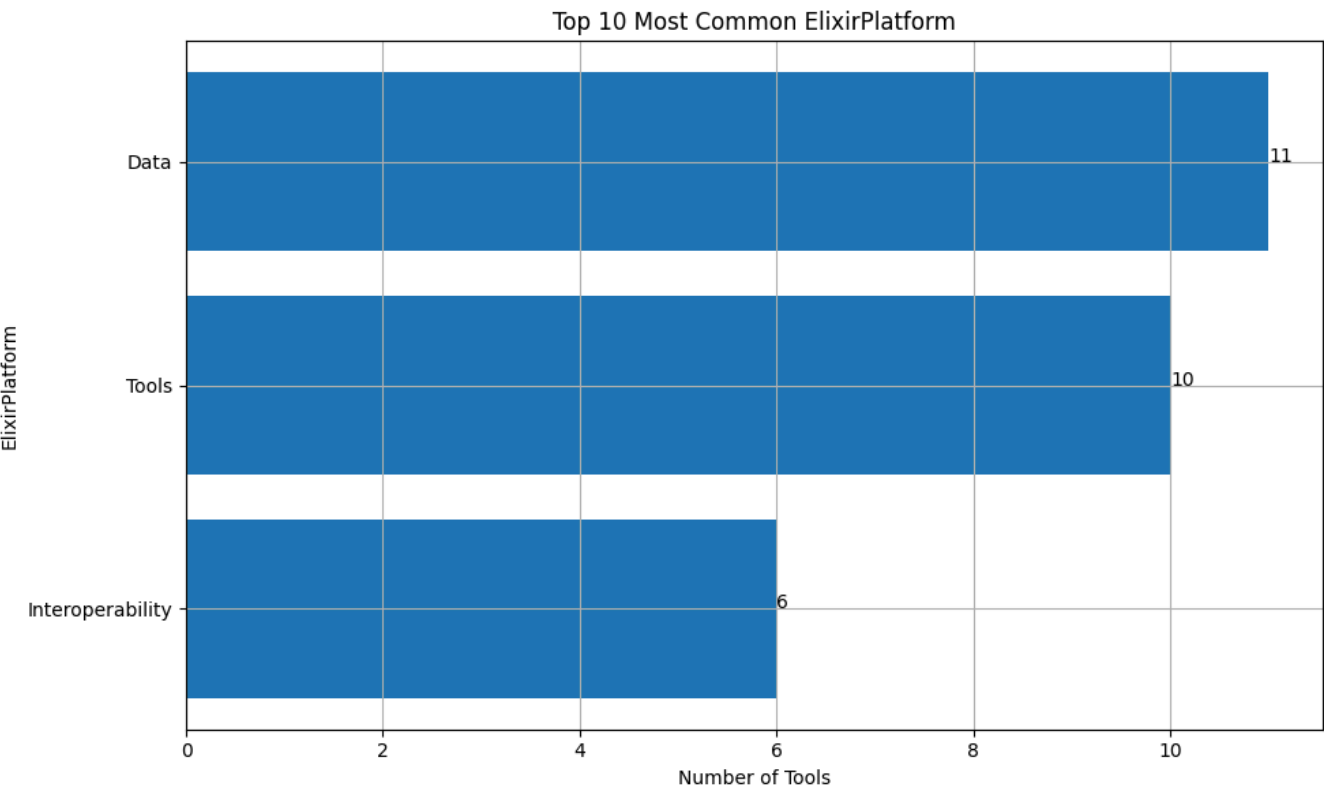


Any additionnal notes can be inserted here.

Elixir Platform

Column name: elixirPlatform

Total number of tags: 15
Number of empty tags: 869
Percentage of empty tags: 98.30%

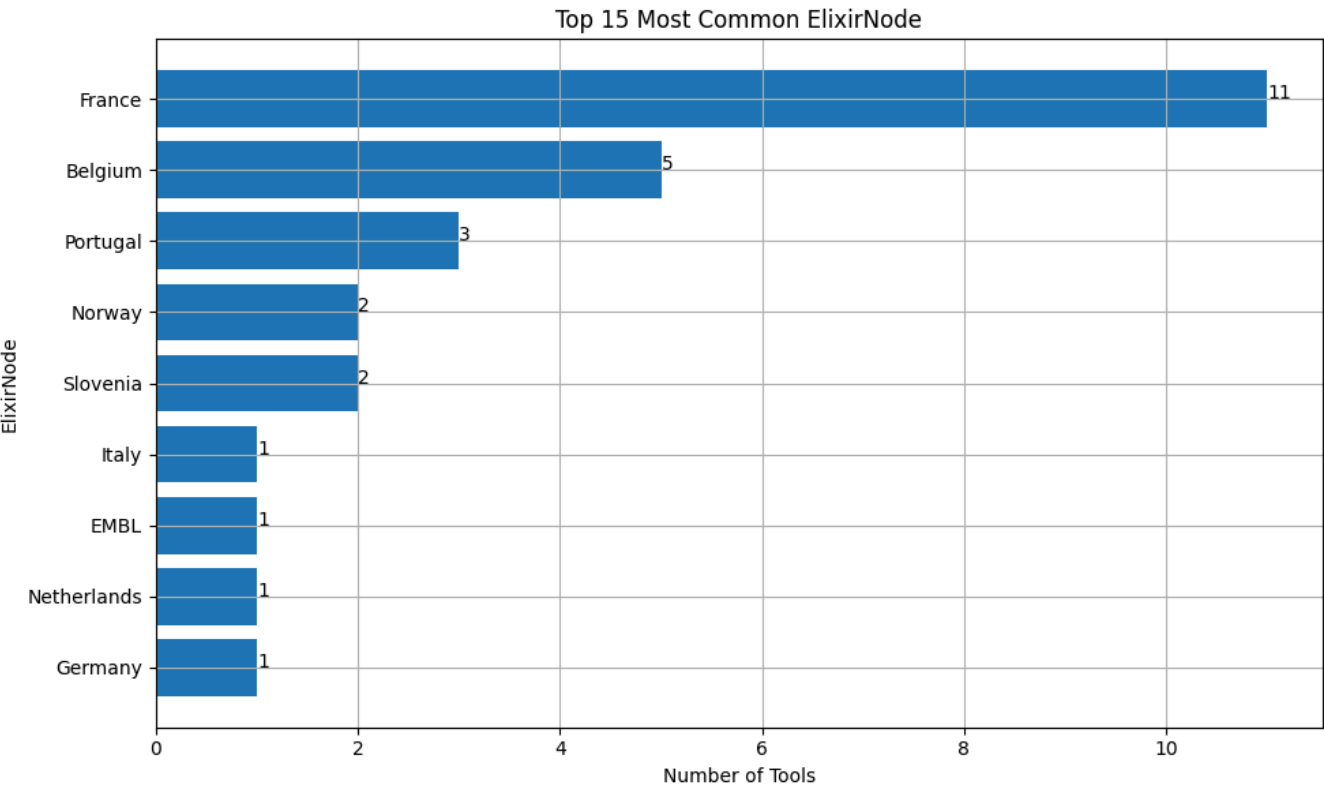


Any additionnal notes can be inserted here.

ElixirNode

Column name: elixirNode

Total number of tags: 27
Number of empty tags: 857
Percentage of empty tags: 96.95%

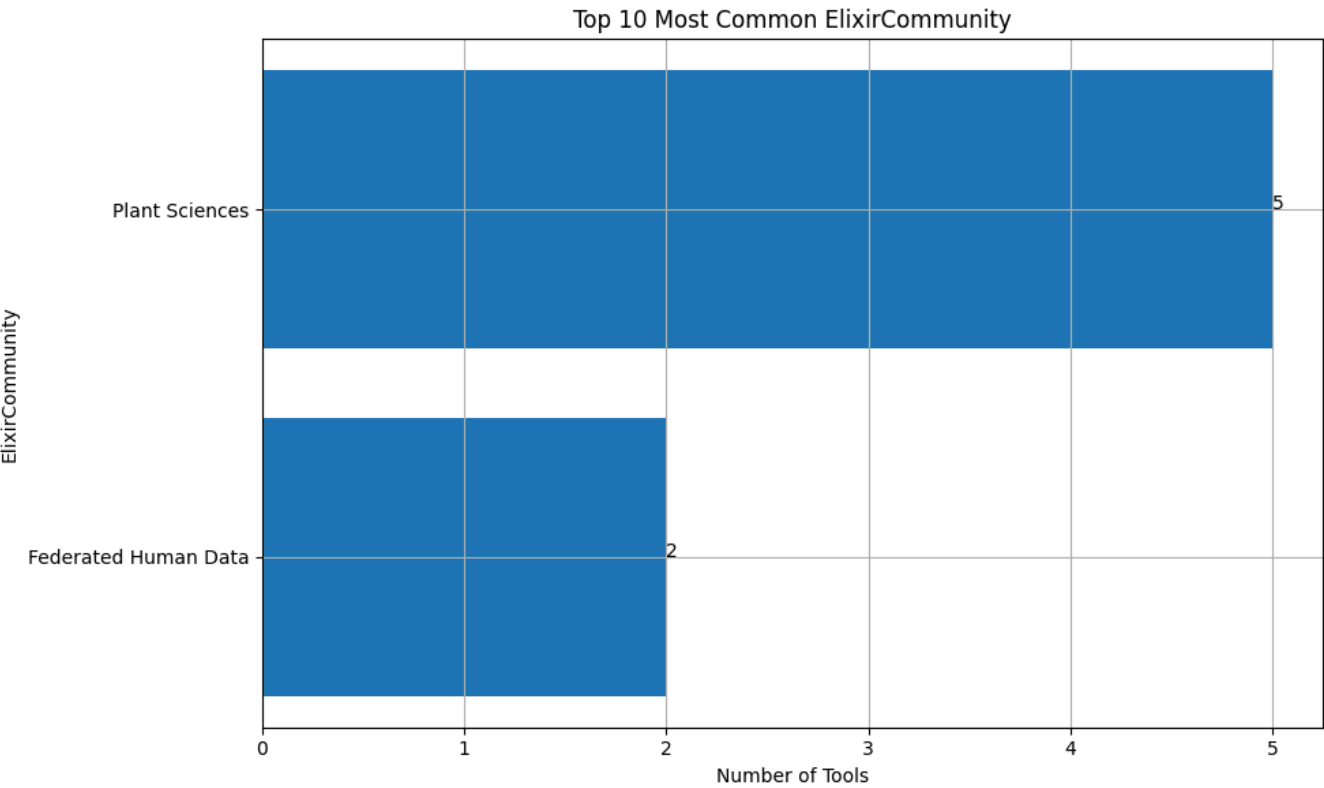


Any additionnal notes can be inserted here.

ElixirCommunity

Column name: elixirCommunity

Total number of tags: 5
Number of empty tags: 879
Percentage of empty tags: 99.43%

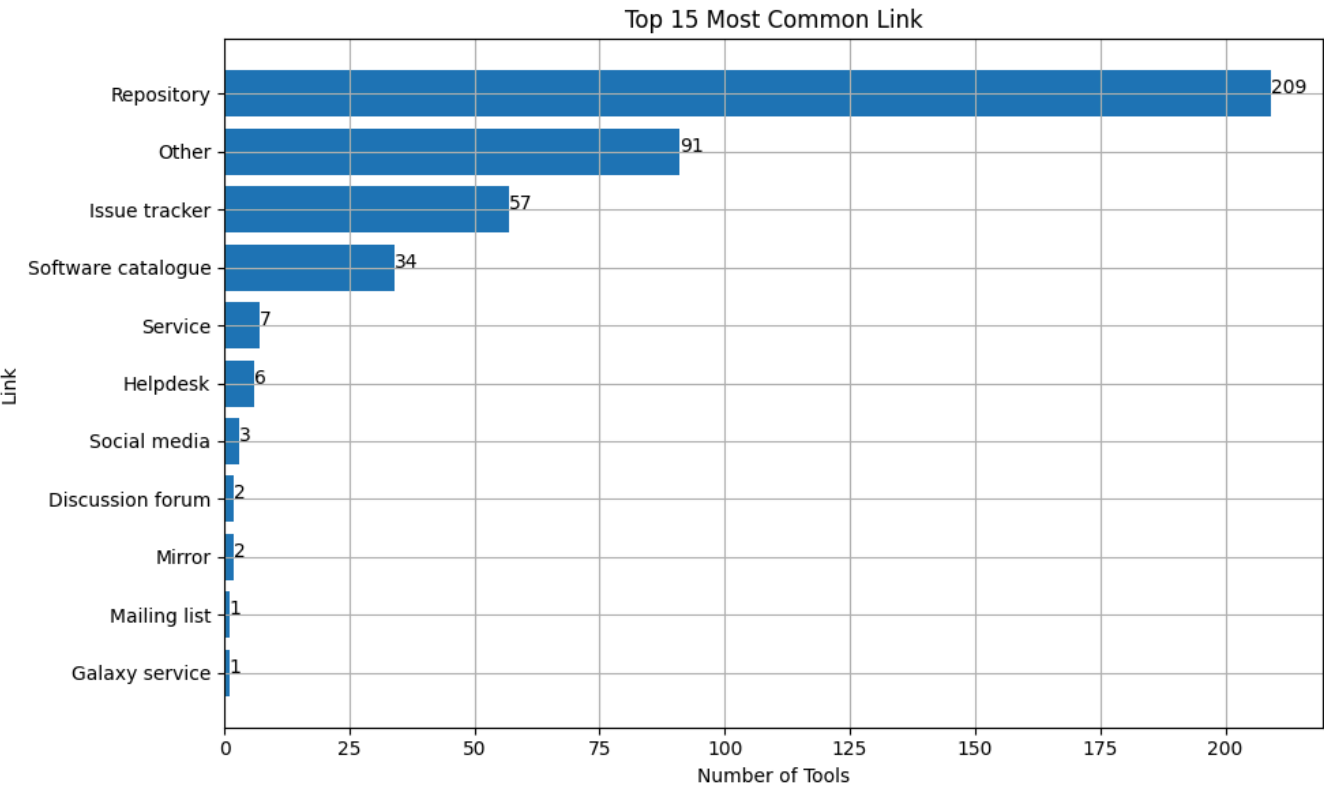


Any additionnal notes can be inserted here.

Link

Column name: link

Total number of tags: 296
Number of empty tags: 588
Percentage of empty tags: 66.52%



Any additionnal notes can be inserted here.

Publication

Column name: publication

Total number of tags: 867

Number of empty tags: 17

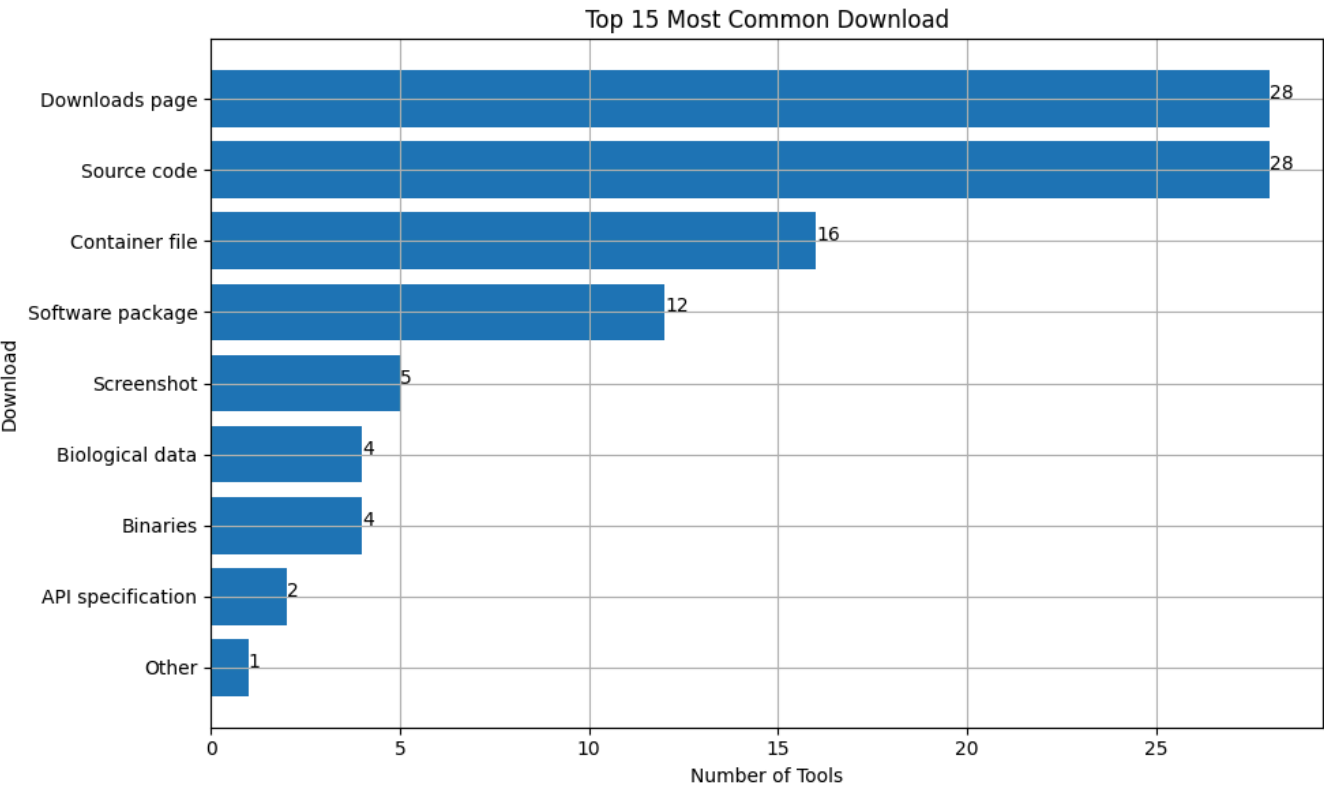
Percentage of empty tags: 1.92%

Any additionnal notes can be inserted here.

Download

Column name: download

Total number of tags: 84
Number of empty tags: 800
Percentage of empty tags: 90.50%

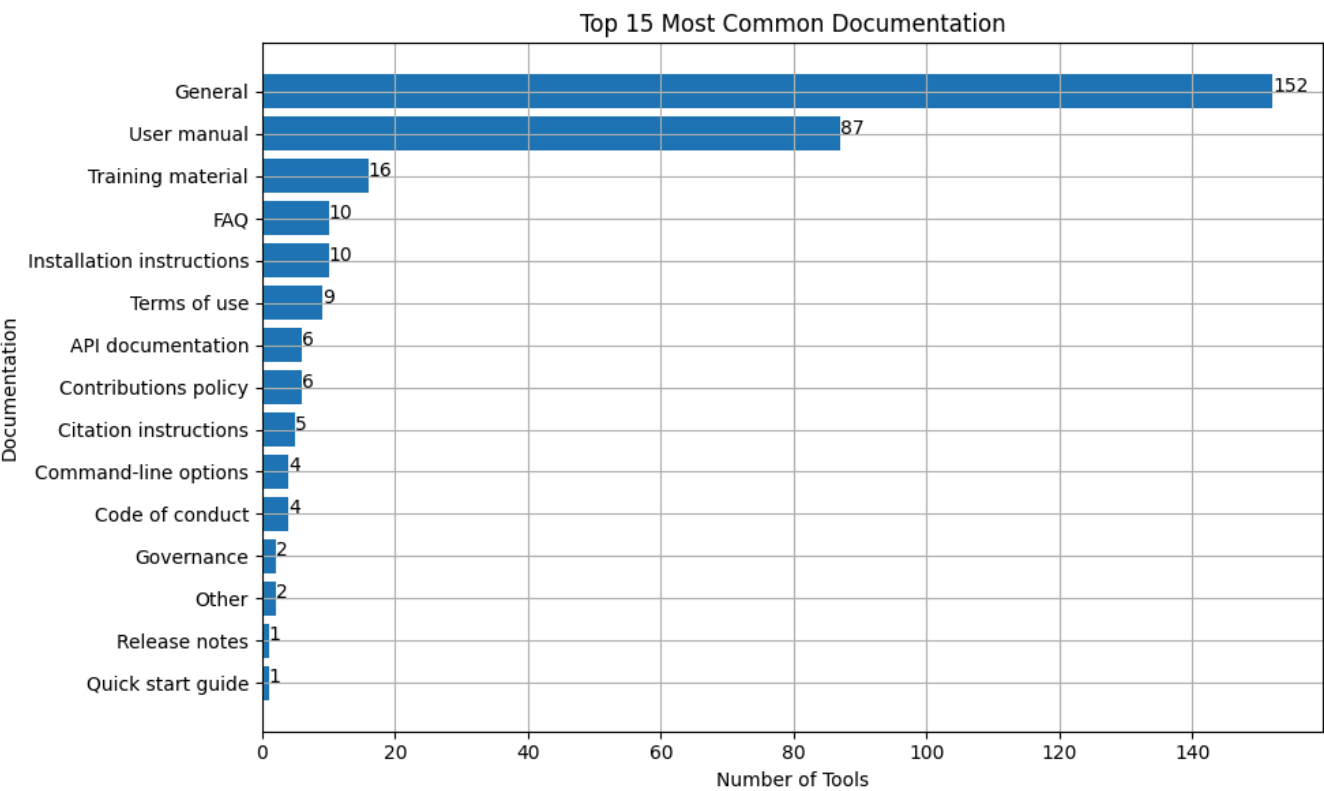


Any additionnal notes can be inserted here.

Documentation

Column name: documentation

Total number of tags: 245
Number of empty tags: 639
Percentage of empty tags: 72.29%



Any additionnal notes can be inserted here.

Publication

Column name: publication

Total number of tags: 867

Number of empty tags: 17

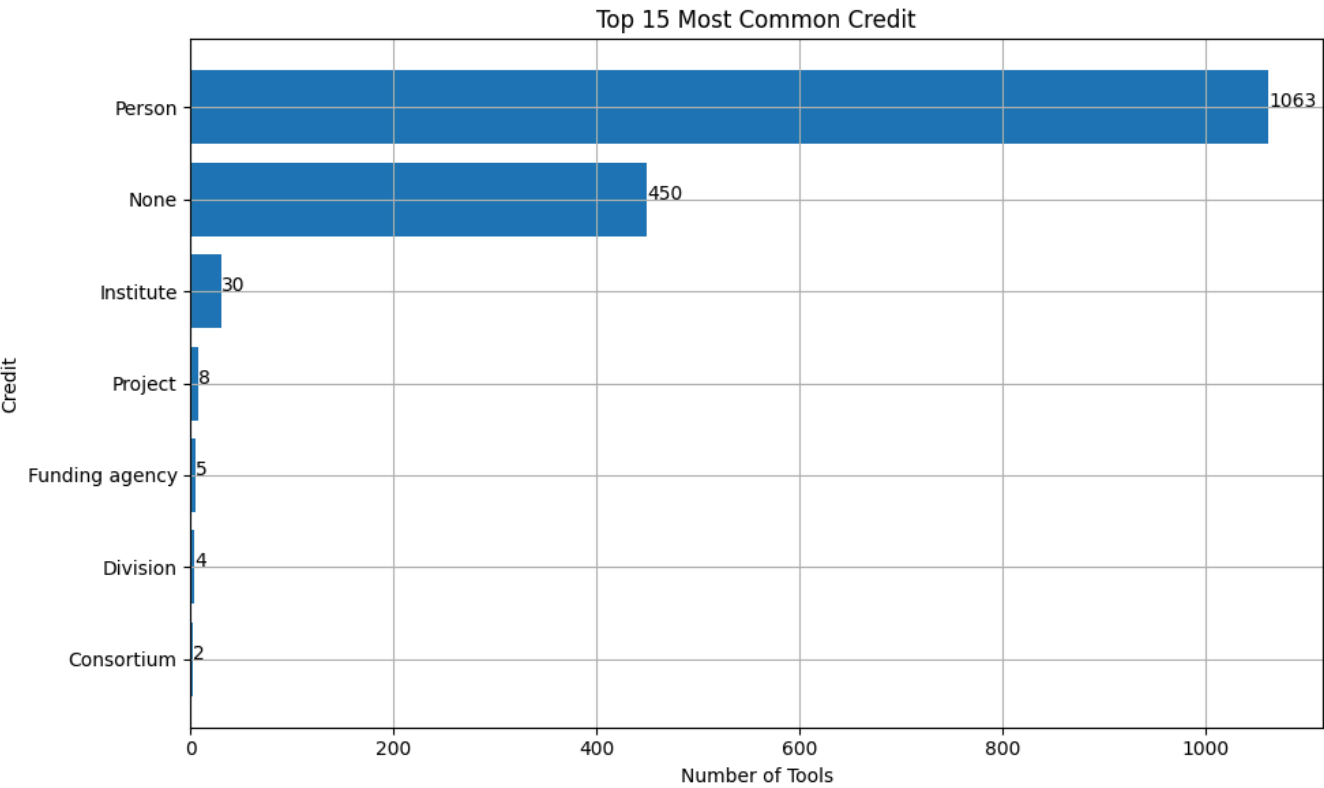
Percentage of empty tags: 1.92%

Any additionnal notes can be inserted here.

Credit

Column name: credit

Total number of tags: 777
Number of empty tags: 107
Percentage of empty tags: 12.10%



Any additionnal notes can be inserted here.

Owner

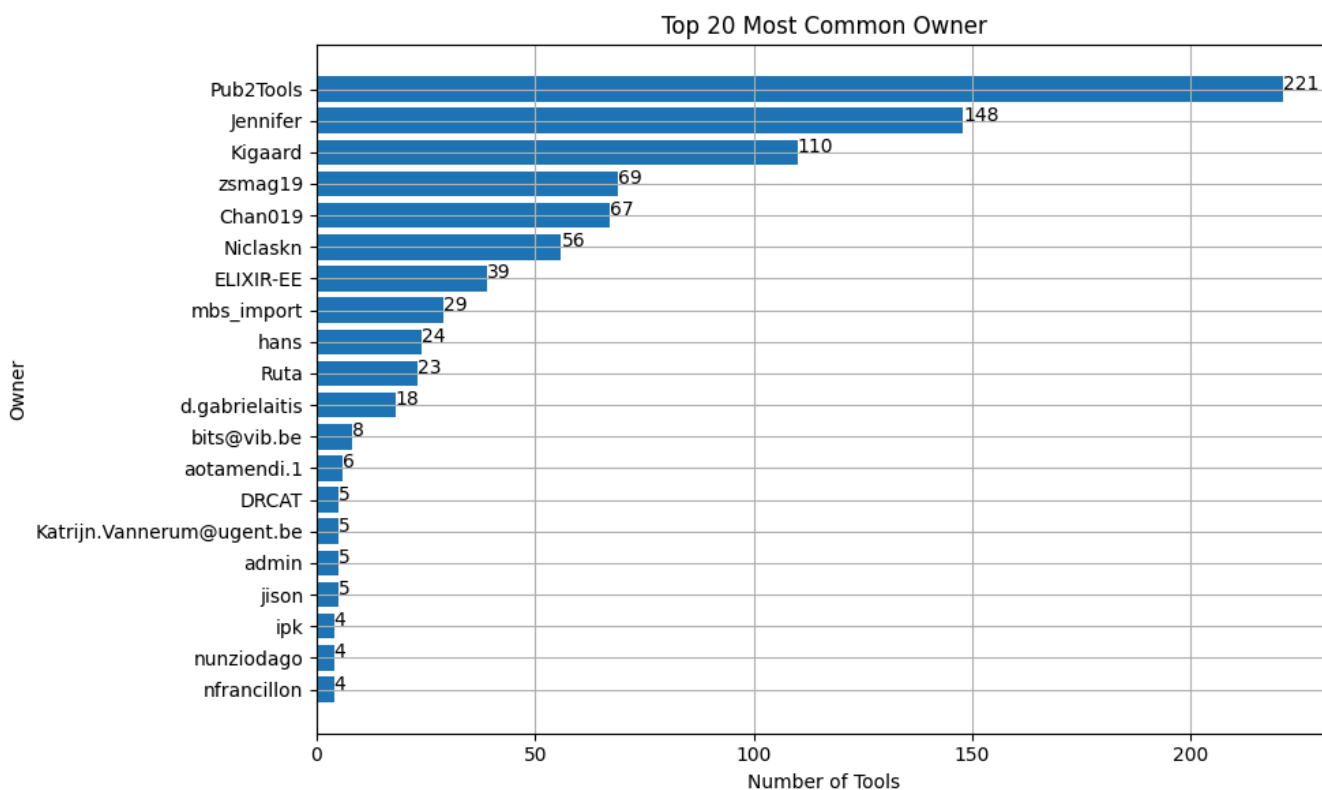
Column name: owner

Total number of tags: 884

Number of empty tags: 0

Percentage of empty tags: 0.00%

Number of unique tags: 49

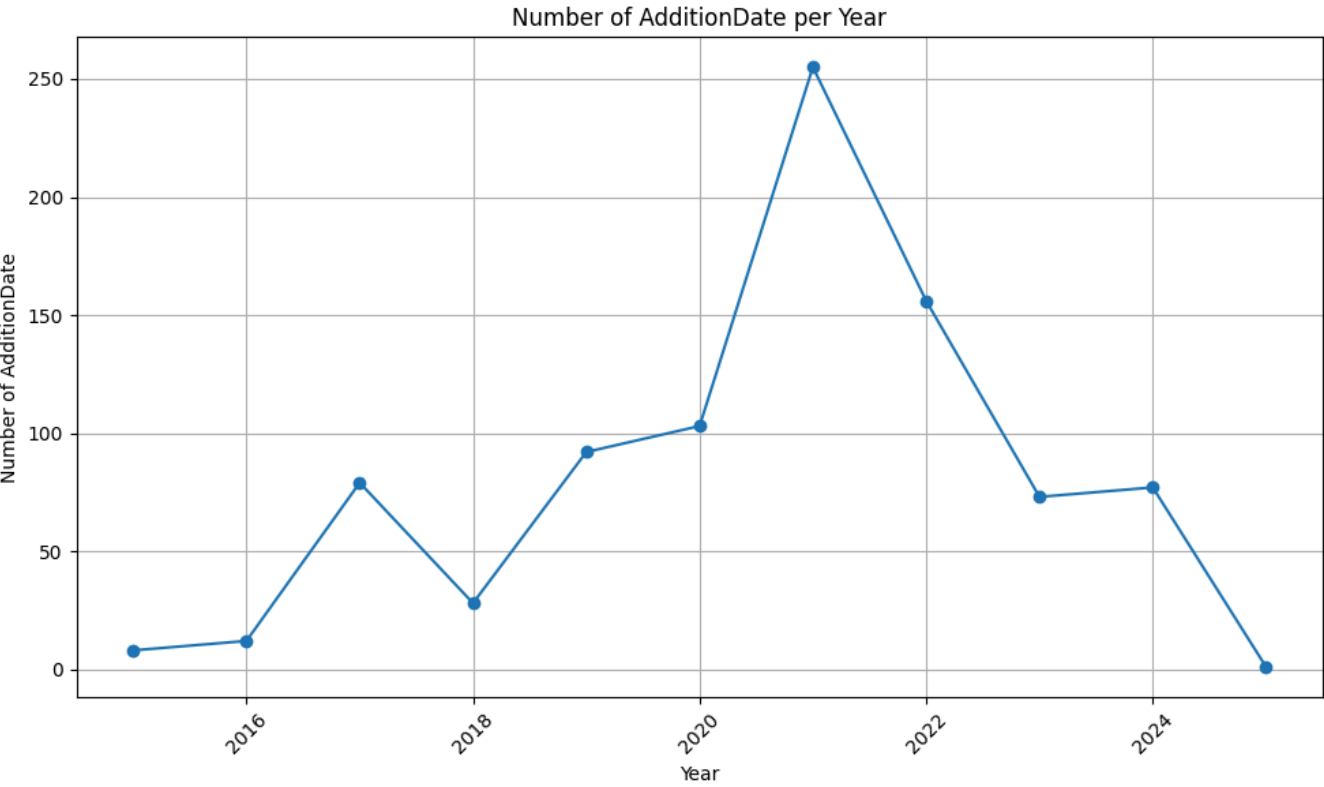


Any additionnal notes can be inserted here.

Addition Date

Column name: additionDate

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 881

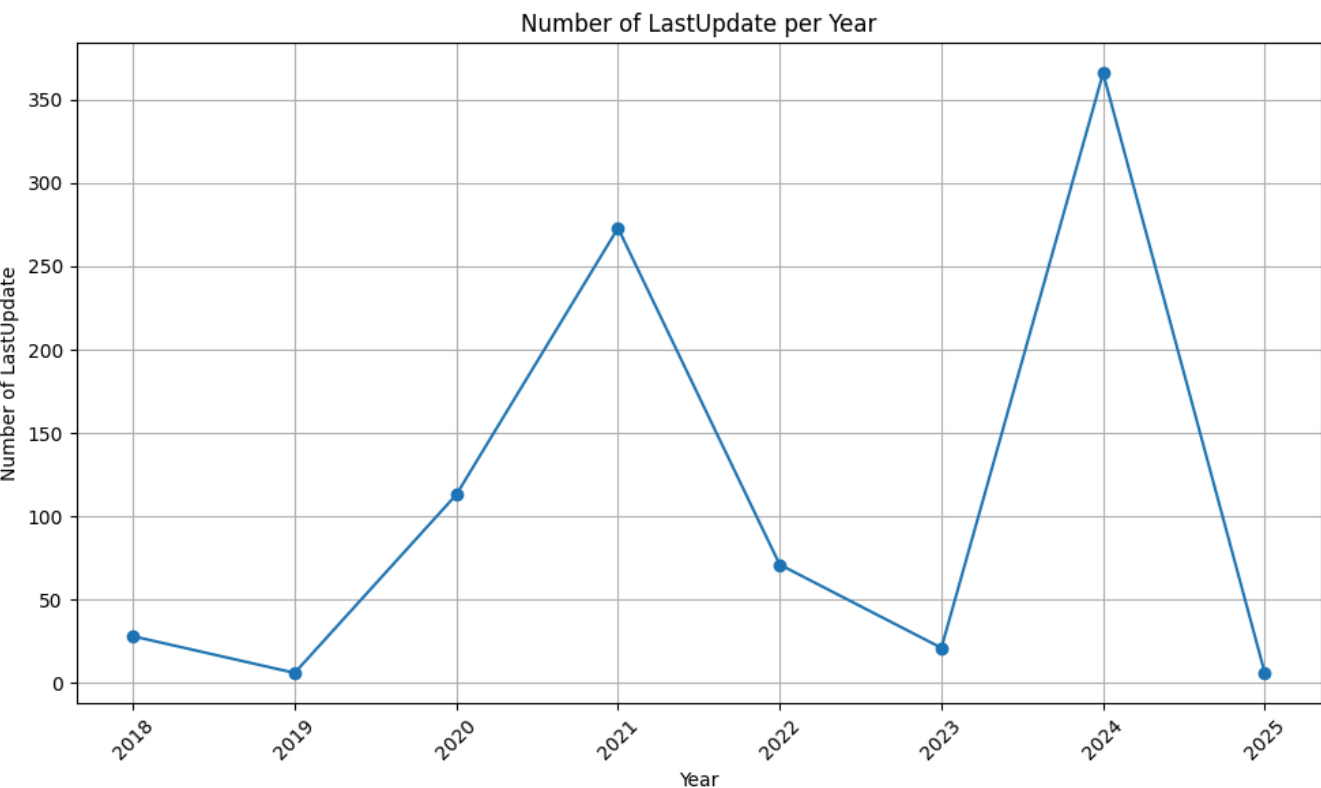


Any additionnal notes can be inserted here.

LastUpdate

Column name: lastUpdate

Total number of tags: 884
Number of empty tags: 0
Percentage of empty tags: 0.00%
Number of unique tags: 833



Any additionnal notes can be inserted here.

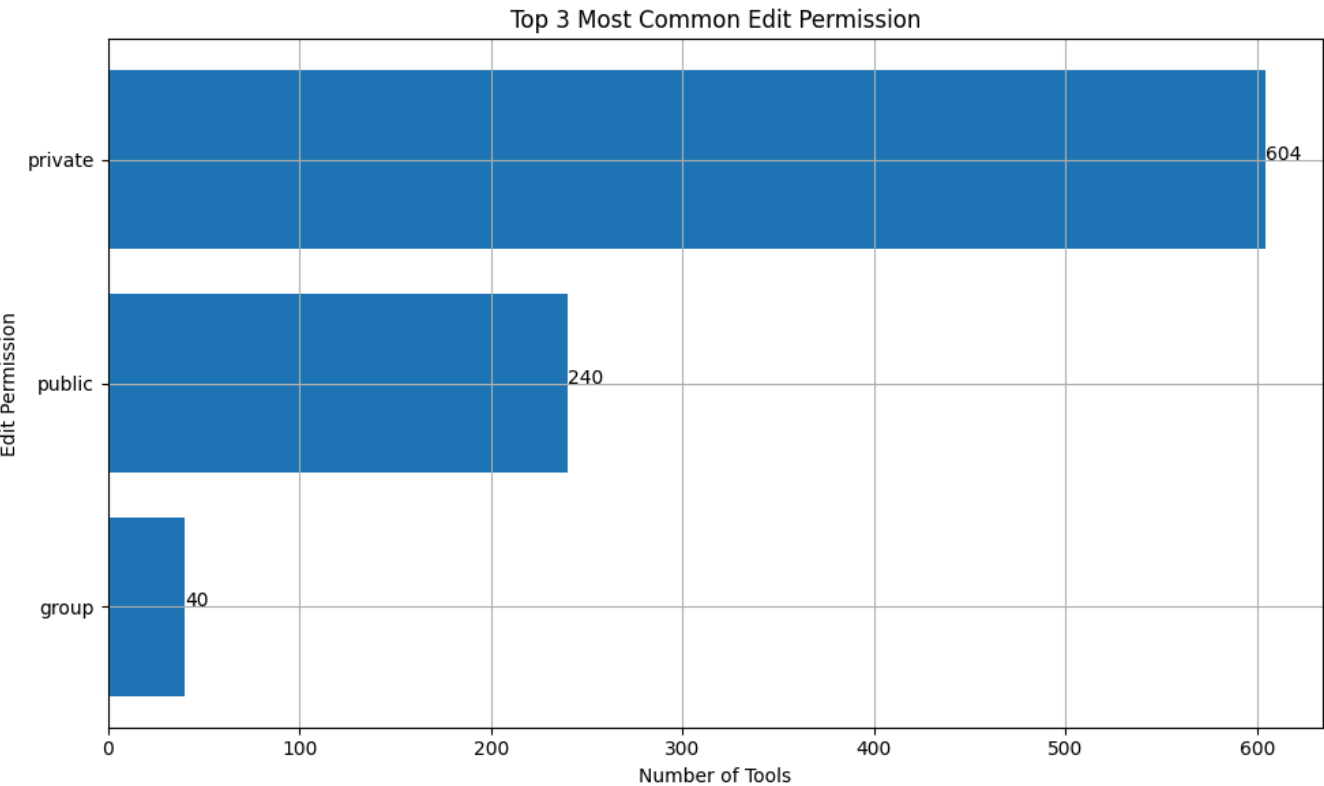
EditPermission

Column name: editPermission

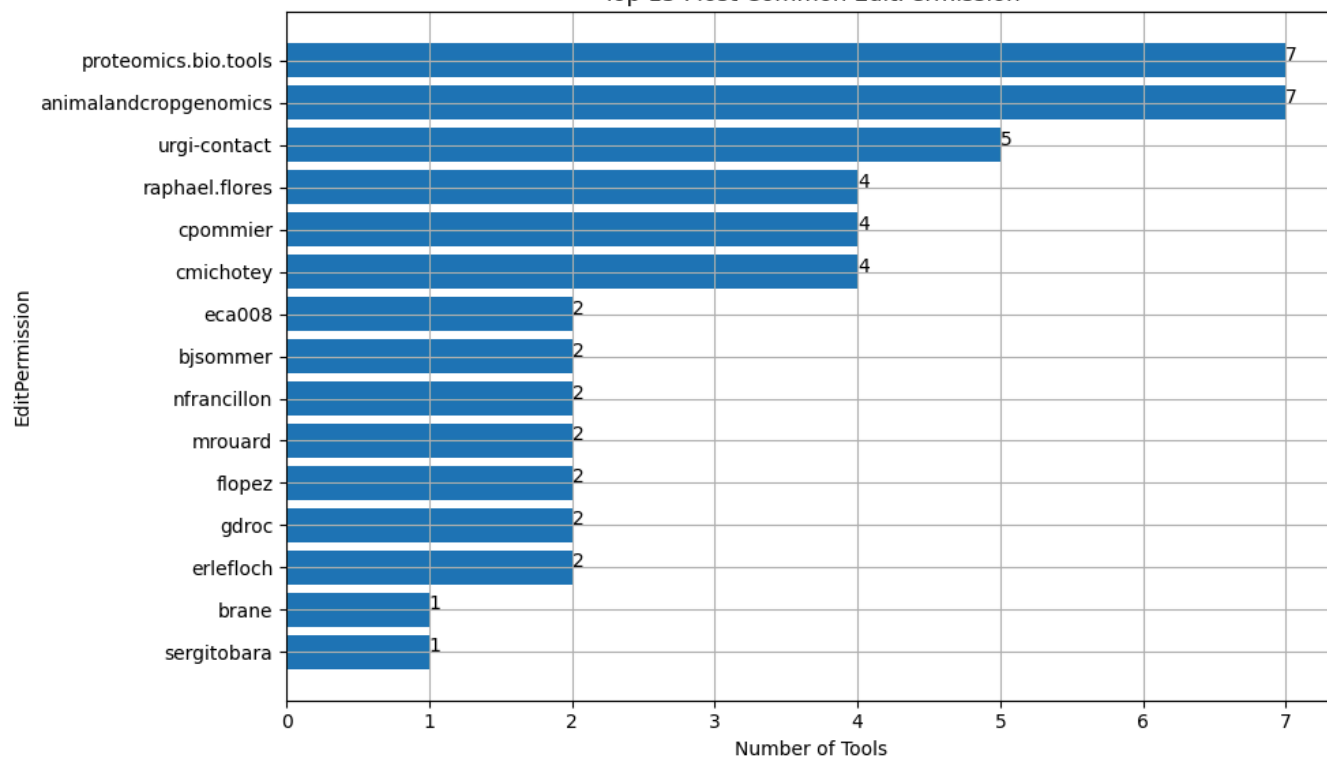
Total number of tags: 884

Number of empty tags: 0

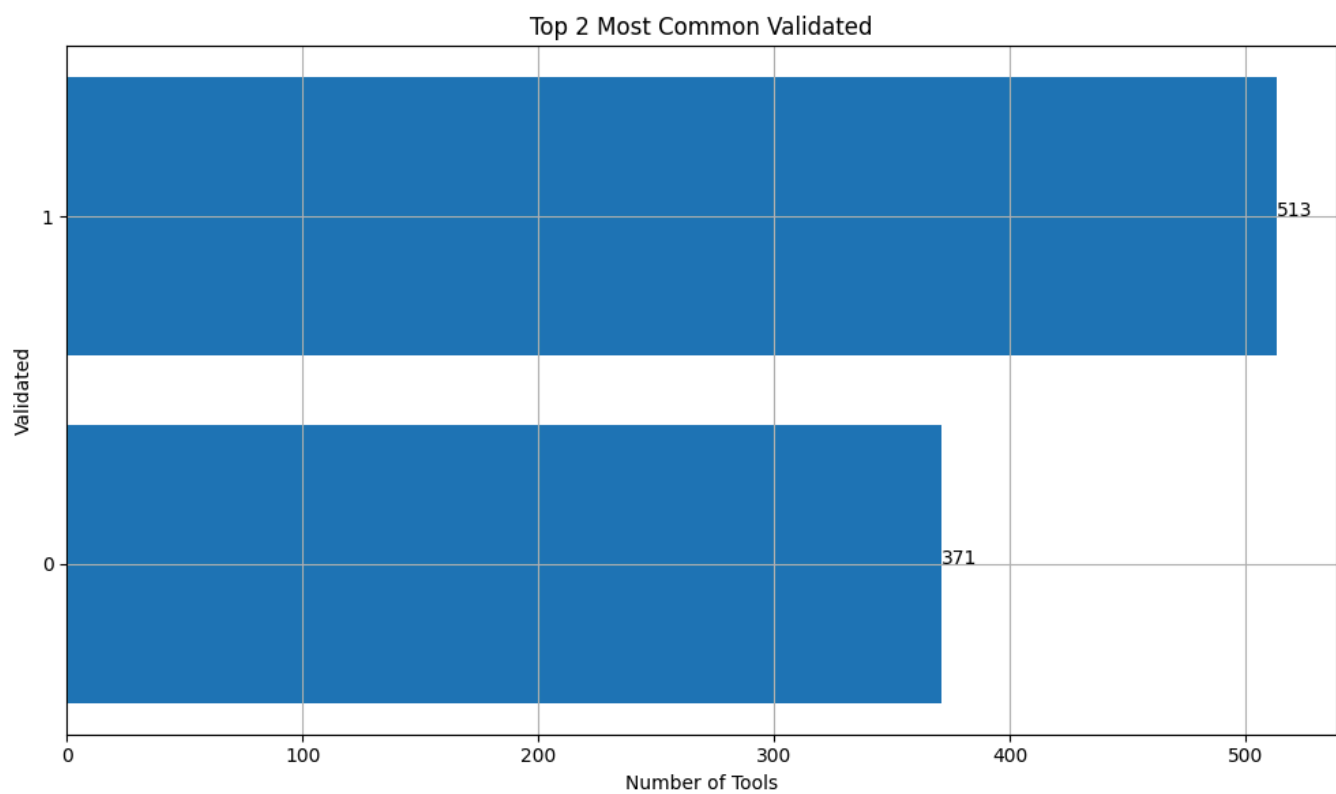
Percentage of empty tags: 0.00%



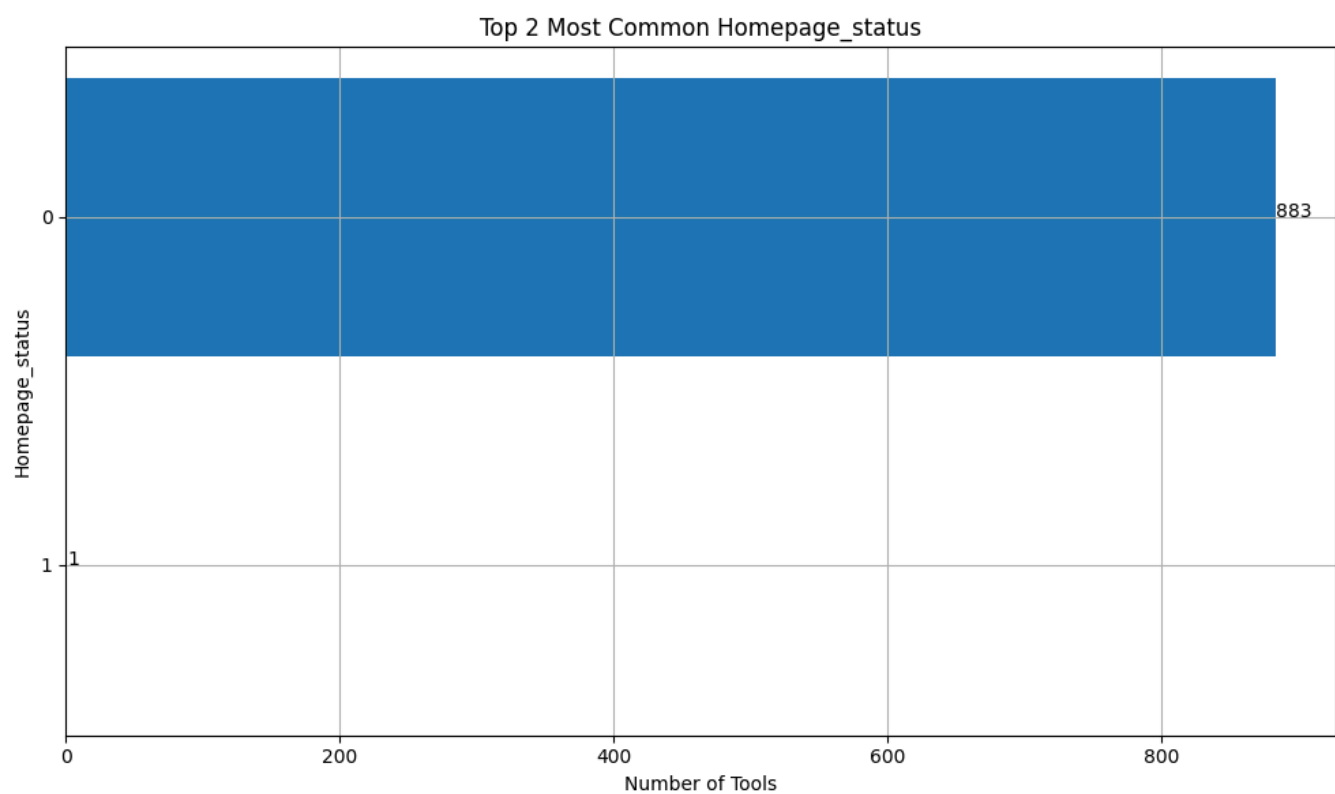
Top 15 Most Common EditPermission



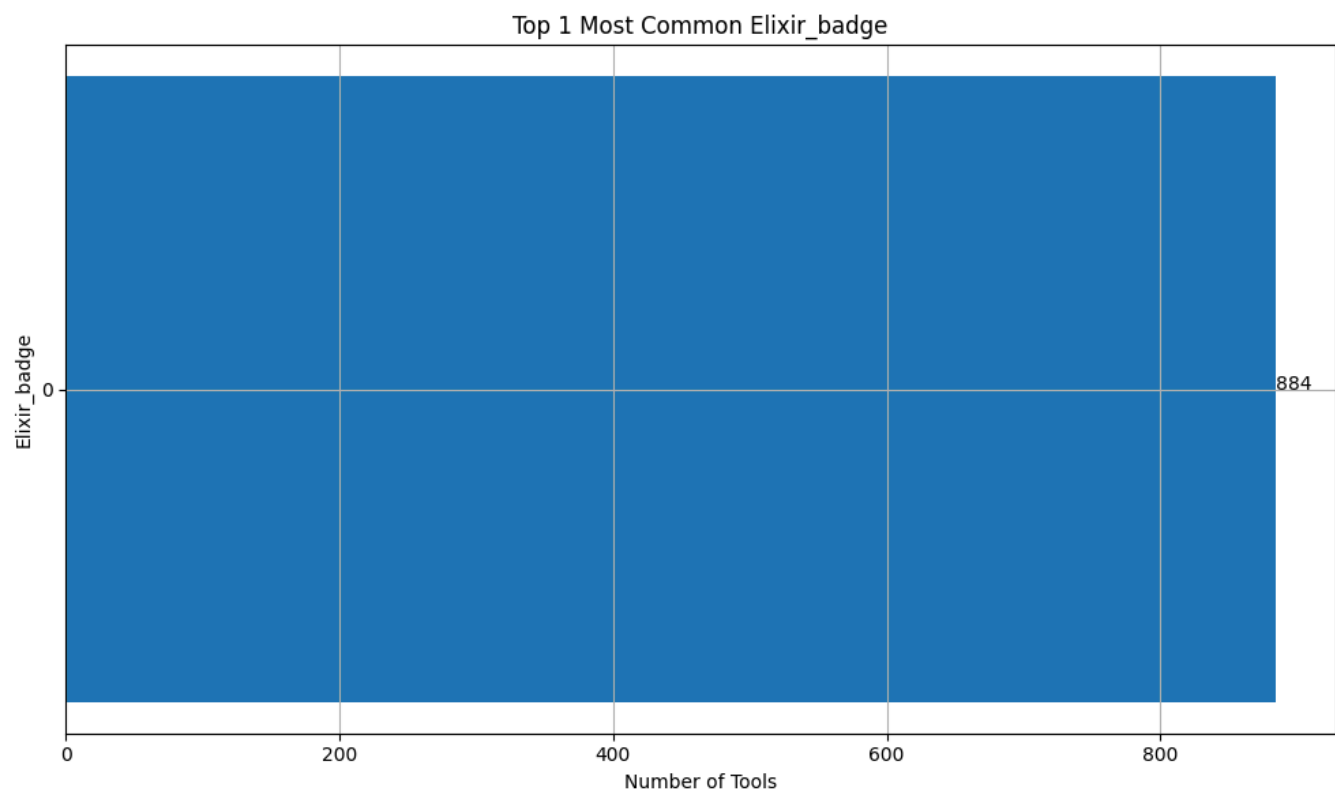
Validated



Homepage Status



Elixir_badge



Confidence Flag

