# **Phylotastic Web Services Documentation**

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# Web Service 1.

**Service Name:** Find Scientific Names on web pages

**Service Description:** A service to find scientific names on web pages, PDFs,

Microsoft Office documents, images.

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic">http://phylo.cs.nmsu.edu:5004/phylotastic</a> ws/fn/names url

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

Name: url

Category: mandatory
Data Type: string

Description: an encoded URL for a web page, PDF,

Microsoft Office document, or image file

#### **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/fn/names\_url?url=http://en.wikipedia.org/wiki/Ant

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/fn/names\_urlurl=https://en.wikipedia.org/wiki/Plain\_pige\_on\_

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/fn/names\_url? url=http://www.fws.gov/westvirginiafieldoffice/PDF/beechridgehcp/Appendix\_D\_Table\_D-1.pdf

<u>Citation:</u> http://gnrd.globalnames.org/

**Service Quality:** 

Restrictions on capacity: Restrictions on scope:

*Expected response time:* 5s~12s

*Informative message:* 

- i) when service is down -
- ii) when malformed input is provided -

*Uptime:* 

## Web Service 2.

**Service Name:** Find Scientific Names on free-form text

**Service Description:** A service to find scientific names on free-form text.

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic-ws/fn/names-text">http://phylo.cs.nmsu.edu:5004/phylotastic-ws/fn/names-text</a>

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

*Name:* text

Category: mandatory
Data Type: string
Description: text content

## **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic ws/fn/names text?text=The lemon dove (Columba larvata) is a species of bird in the pigeon family Columbidae found in montane forests of sub-Saharan Africa.

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/fn/names\_text?text=Formica polyctena is a species of European red wood ant in the genus Formica. The pavement ant, Tetramorium caespitum is an ant native to Europe. Pseudomyrmex is a genus of stinging, wasp-like ants. Adetomyrma venatrix is an endangered species of ants endemic to Madagascar. Carebara diversa is a species of ants in the subfamily Formicinae. It is found in many Asian countries.

**Citation:** http://gnrd.globalnames.org/

**Service Quality:** 

Restrictions on capacity:

*Restrictions on scope:* 

*Expected response time:* 5s~12s

*Informative message:* 

i) when service is down -

ii) when malformed input is provided -

Uptime:

# Web Service 3.

**Service Name:** Resolve Scientific Names with Open Tree TNRS

**Service Description:** A service which resolves lists of scientific names against known sources.

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic">http://phylo.cs.nmsu.edu:5004/phylotastic</a> ws/tnrs/ot/resolve

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

Name: names
Category: mandatory
Data Type: string

*Description:* list of scientific names delimited by pipe "|"

## **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic ws/tnrs/ot/resolve?names=Setophaga striata|Setophaga megnolia|Setophaga angilae|Setophaga plumbea|Setophaga virens

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/ot/resolve?names=Formica polyctena|Formica exsectoides|Formica pecefica

**Resource URI:** http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/ot/names

**HTTP Method:** POST

**Input Format:** application/json

Output Format: application/json

**Parameters:** 

Name: scientificNames
Category: mandatory
Data Type: list of string

Description: list of scientific names to be resolved

# **Examples:**

curl -X POST "http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/ot/names" -H "content-type:application/json" -d '{"scientificNames": ["Formica exsectoides", "Formica pecefica", "Formica polyctena"]}'

<u>Citation:</u> https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-

APIs#tnrs

**Service Quality:** 

Restrictions on capacity: Restrictions on scope:

*Expected response time:* 3s~10s

*Informative message:* 

i) when service is down -

ii) when malformed input is provided -

Uptime:

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## Web Service 4.

**Service Name:** Resolve Scientific Names with GNR TNRS

**Service Description:** A service which resolves lists of scientific names against known sources.

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/gnr/resolve">http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/gnr/resolve</a>

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

Name: names
Category: mandatory
Data Type: string

Description: list of scientific names delimited by pipe "|"

# **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/gnr/resolve?names=Setophaga striata|Setophaga megnolia|Setophaga angilae|Setophaga plumbea|Setophaga virens

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/gnr/resolve?names=Formica polyctena|Formica exsectoides|Formica pecefica

**Resource URI:** http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/gnr/names

**HTTP Method:** POST

**Input Format:** application/json

Output Format: application/json

**Parameters:** 

Name: scientificNames
Category: mandatory
Data Type: list of string

Description: list of scientific names

#### **Examples:**

curl -X POST "http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/tnrs/gnr/names" -H "content-type:application/json" -d '{"scientificNames": ["Formica exsectoides", "Formica pecefica", "Formica polyctena"]}'

<u>Citation:</u> http://resolver.globalnames.org/

**Service Quality:** 

Restrictions on capacity: Restrictions on scope: Expected response time: 2s~10s

*Informative message:* 

i) when service is down -

ii) when malformed input is provided -

Uptime:

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# Web Service 5.

**Service Name:** Get Phylogenetic Trees from Open Tree of Life

**Service Description:** A service to get Phylogenetic Trees from Open Tree of life.

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic-ws/gt/ot/get-tree">http://phylo.cs.nmsu.edu:5004/phylotastic-ws/gt/ot/get-tree</a>

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

*Name:* taxa

Category: mandatory
Data Type: string

*Description:* list of resolved scientific names delimited by pipe "|"

# **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/gt/ot/get\_tree?taxa=Crabronidae|Ophiocordyceps|
Megalyridae|Formica polyctena|Tetramorium caespitum|Pseudomyrmex|Carebara diversa|Formicinae

http://phylo.cs.nmsu.edu:5004/phylotastic ws/gt/ot/get tree?taxa=Setophaga striata|Setophaga magnolia|Setophaga angelae|Setophaga plumbea|Setophaga virens

**Resource URI:** http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/gt/ot/tree

**HTTP Method:** POST

**Input Format:** application/json

Output Format: application/json

**Parameters:** 

Name: resolvedNames
Category: mandatory
Data Type: list of string

Description: list of resolved scientific names

## **Examples:**

curl -X POST "http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/gt/ot/tree" -H "content-type:application/json" -d '{"resolvedNames": [{"match\_type": "Exact", "resolver\_name": "OT", "matched\_name": "Setophaga striata", "search\_string": "setophaga strieta", "synonyms": ["Dendroica striata", "Setophaga striata"], "taxon\_id": 60236}, {"match\_type": "Fuzzy", "resolver\_name": "OT", "matched\_name": "Setophaga magnolia", "search\_string": "setophaga magnolia", "synonyms": ["Dendroica magnolia", "Setophaga magnolia"], "taxon\_id": 3597209}, {"match\_type": "Exact", "resolver\_name": "OT", "matched\_name": "Setophaga angelae", "search\_string": "setophaga angilae", "synonyms": ["Dendroica angelae", "Setophaga angelae"], "taxon\_id": 3597191}, {"match\_type": "Exact", "resolver\_name": "OT", "matched\_name": "Setophaga plumbea", "search\_string": "setophaga plambea", "synonyms": ["Dendroica plumbea", "Setophaga plumbea"], "taxon\_id": 3597205}, {"match\_type": "Fuzzy", "resolver\_name": "OT", "matched\_name": "Setophaga virens", "search\_string": "Setophaga virens"], "taxon\_id": 3597195}]}'

Citation: https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-

APIs#tree\_of\_life

**Service Quality:** 

Restrictions on capacity: Restrictions on scope:

*Expected response time:* 3s~10s

*Informative message:* 

i) when service is down -

ii) when malformed input is provided -

Uptime:

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# Web Service 6.

**Service Name:** Get all Species from a Taxon

**Service Description:** A service to get all Species that belong to a particular Taxon.

[source: Open Tree of Life]

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic-ws/ts/all-species">http://phylo.cs.nmsu.edu:5004/phylotastic-ws/ts/all-species</a>

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

Name: taxon
Category: mandatory
Data Type: string

Description: name of a taxon

# **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/all\_species?taxon=Vulpes

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/all\_species?taxon=Canidae

<u>Citation:</u> https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-

APIs#taxonomy

**Service Quality:** 

Restrictions on capacity: Restrictions on scope:

*Expected response time:* 3s~12s

*Informative message:* 

i) when service is down -

ii) when malformed input is provided -

Uptime:

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## Web Service 7.

**Service Name:** Get all Species from a Taxon filtered by country

**Service Description:** A service to get all Species that belong to a particular Taxon and

established in a particular country.
[source: Open Tree of Life, INaturalist]

Resource URI: <a href="http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/country\_species">http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/country\_species</a>

**HTTP Method:** GET

**Input Format:** application/x-www-form-urlencoded

Output Format: application/json

**Parameters:** 

Name: taxon
Category: mandatory
Data Type: string

Description: name of a taxon

Name: country
Category: mandatory
Data Type: string

*Description:* name of a country

## **Examples:**

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/country\_species?taxon=Panthera&country=Bangladesh

http://phylo.cs.nmsu.edu:5004/phylotastic\_ws/ts/country\_species?taxon=Felidae&country=India

<u>Citation:</u> https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-

APIs#taxonomy

http://www.inaturalist.org/pages/api+reference#get-places

**Service Quality:** 

Restrictions on capacity: Restrictions on scope:

*Expected response time:* 3s~20s

*Informative message:* 

- i) when service is down -
- ii) when malformed input is provided -

*Uptime:*