**Phylotastic Web Services Documentation**

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**Web Service 1.**

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

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

Microsoft Office documents, images.

**Resource URI:** <http://phylo.cs.nmsu.edu:5004/phylotastic_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_pigeon>

<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>

**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:*

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**Web Service 2.**

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

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

**Resource URI:** <http://phylo.cs.nmsu.edu:5004/phylotastic_ws/fn/names_text>

**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:*

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**Web Service 3.**

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

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

**Resource URI:** <http://phylo.cs.nmsu.edu:5004/phylotastic_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"]}'

**Citation:** [https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs#tnrs](https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs" \l "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 servicewhich resolves lists of scientific names against known sources.

**Resource URI:** <http://phylo.cs.nmsu.edu:5004/phylotastic_ws/tnrs/gnr/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/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"]}'

**Citation:** <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:** <http://phylo.cs.nmsu.edu:5004/phylotastic_ws/gt/ot/get_tree>

**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", "synonyms": ["Dendroica virens", "Setophaga virens"], "taxon\_id": 3597195}]}'

**Citation:** [https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs#tree\_of\_life](https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs" \l "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:** <http://phylo.cs.nmsu.edu:5004/phylotastic_ws/ts/all_species>

**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>

**Citation:** [https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs#taxonomy](https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs" \l "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:** <http://phylo.cs.nmsu.edu:5004/phylotastic_ws/ts/country_species>

**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>

**Citation:** [https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs#taxonomy](https://github.com/OpenTreeOfLife/opentree/wiki/Open-Tree-of-Life-APIs" \l "taxonomy)

[http://www.inaturalist.org/pages/api+reference#get-places](http://www.inaturalist.org/pages/api+reference" \l "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:*

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