

Remote Programmatic Access to Neotoma

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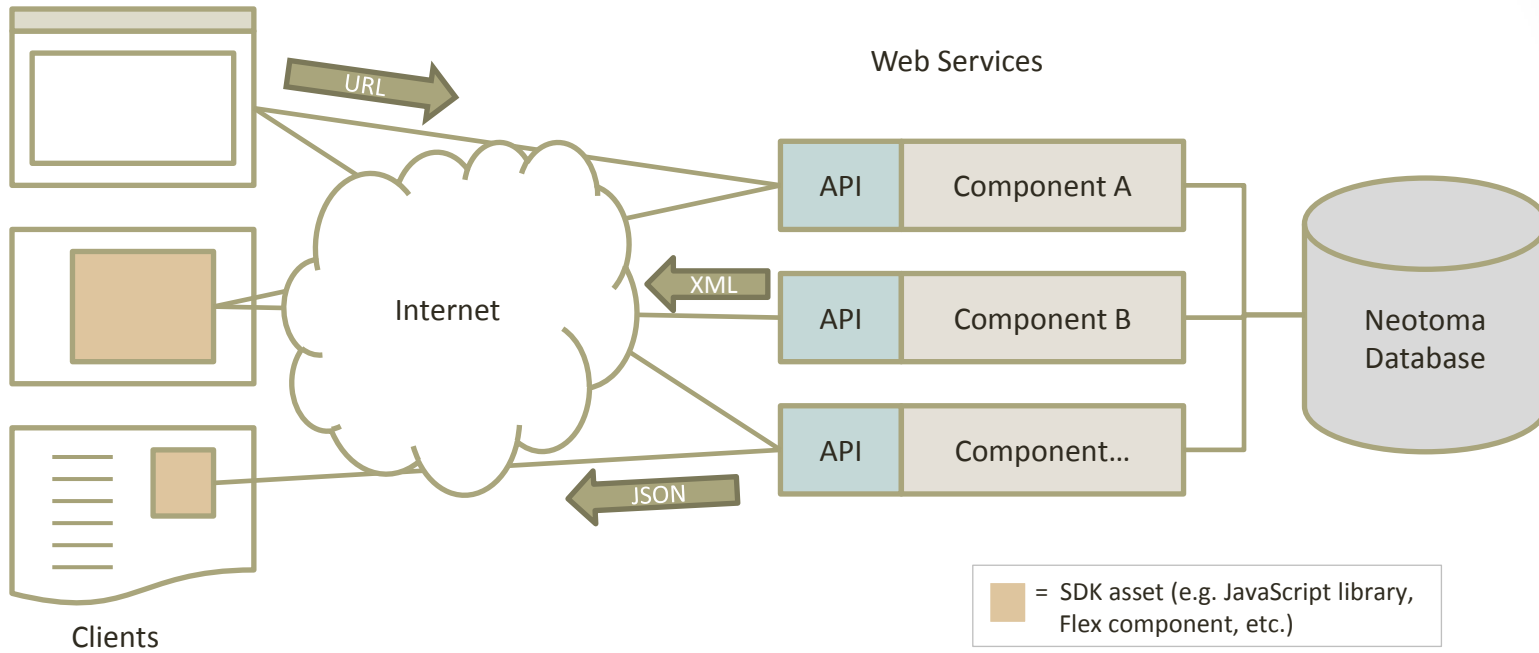
Neotoma Database Workshop

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Architecture



Example URIs

URI Pattern	Description
/sites	All sites
/sites?type=pollen	All pollen sites
/sites/106	An individual site
/sites/106/collectUnits/2	A collection unit for a given site
/datasets?siteID=106	All datasets for a given site
/datasets?author="Grimm, Eric C"	All datasets published by an author
/taxa	All taxonomic entities



Example API call

<http://ceiwin5.cei.psu.edu/NeotomaREST/sites/?datasetTypes='vertebrate fauna'&longWest=-109&latSouth=37&longEast=-102&latNorth=41>

The image displays two overlapping browser windows showing the results of an API call. The top window shows the full JSON response for the URL `GET sites?dataset1`. The bottom window shows a detailed view of the first object in the response, for SiteID 3531.

URL	Status	Domain	Size	Timeline
<code>GET sites?dataset1</code>	200 OK	ceiwin5.cei.psu.edu	14.3 KB	110ms

Params Headers **Response** Cache JSON

```
[{"SiteID":3531,"SiteName":"Chimney Rock Animal Trap","Longitude":-105.75,"Latitude":40.86666666666667,"SiteDescription":"null","datasetTypes":"vertebrate fauna"}, {"SiteID":3532,"SiteName":"Lir [5LR13]","Longitude":-105,"Latitude":40.86666666666667,"SiteDescription":"null","datasetTypes":"vertebrate fauna"}, {"SiteID":3533,"SiteName":"Jones-Miller","Longitude":-102.11666666666667,"Latitude":39.86666666666667,"SiteDescription":"null","datasetTypes":"vertebrate fauna"}, {"SiteID":3534,"SiteName":"Sel [-102.25,"Latitude":39.86666666666667,"SiteDescription":"null","datasetTypes":"vertebrate fauna"}, {"SiteID":3535,"SiteName":"Lamb Springs [5DA201]","Longitude":-105.06666666666667,"Latitude":39.5,"SiteDescription":"null","datasetTypes":"vertebrate fauna"}, {"SiteID":39.61666666666667,"SiteDescription":"Ouray Homestead","Longitude":38.72916666666667,"SiteDescription":"Michaud Site B [5AH3]","datasetTypes":"vertebrate fauna"}, {"SiteID":38.5,"SiteDescription":"..."}]
```

URL	Status	Domain	Size	Timeline
<code>GET sites?dataset1</code>	200 OK	ceiwin5.cei.psu.edu	14.3 KB	110ms

Params Headers **Response** Cache JSON

```
0 Object { SiteID=3531, more... }
  Latitude 40.86666666666667
  Longitude -105.75
  SiteDescription "null"
  SiteID 3531
  SiteName "Chimney Rock Animal Trap"
  datasetTypes "vertebrate fauna"
1 Object { SiteID=3532, more... }
2 Object { SiteID=3533, more... }
3 Object { SiteID=3534, more... }
4 Object { SiteID=3535, more... }
```



API Reference

Neotoma REST API

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NeotomaREST

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 CollectUnits
 Chronologies
 ChronControls
Taxa
...

Sites

URL <http://neotomadb.org/rest/sites>

Description

Returns basic metadata (name, description, coordinate) on sites.

Use when...

Parameters

Parameter	Details
?datasetTypes	Required. Dataset types to search. Types are specified as a comma-separated list of the following: pollen, vertebrate...
?bbox	The extent of the geographic area to search. Syntax: xmin, ymin...

Examples

This example returns all vertebrate fauna sites within a bounding box that represents the extent of Colorado.

<http://ceiwin5.cei.psu.edu/NeotomaREST/sites?datasetTypes='vertebrate fauna'&longWest=-109&latSouth=37&longEast=-102&latNorth=41>

Response

```
[{"SiteID":3531,"SiteName":"Chimney Rock Animal Trap","Longitude":-105.75,"Latitude":40.8666666666667,"SiteDescription":null,"datasetTypes":"ver
```



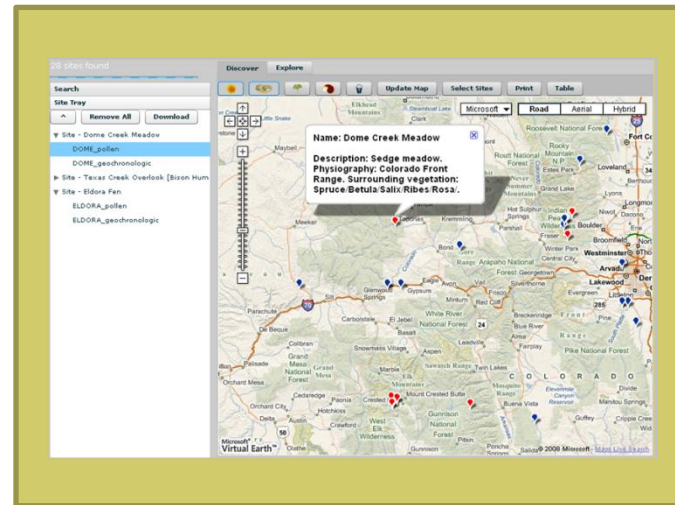
SDK Examples

```
function findSitesHandler() {  
  var respStr;  
  var loadSites = new Array();  
  var areaindex = 0;  
  var allMarkers = [];  
  if (ajaxRequest.readyState == 4 &&  
  ajaxRequest.status == 200) {  
    respStr = ajaxRequest.responseText;  
    if (respStr.indexOf("Error") != -1) {  
      alert("Response: " + respStr);  
    }  
    return;  
  }  
}
```

JavaScript Library



Neotoma Developer Network



Flash Components (swc)



Example JavaScript Viewer

The image displays a web-based JavaScript viewer interface for a map of Colorado. The map shows various cities and towns, with several red and blue markers indicating specific sites. A 'Site Search' dialog box is open in the foreground, allowing users to filter results based on dataset types, investigator, place name, site name, taxon name, altitude, age, and sample type.

Site Search

Dataset Types: Pollen Fauna Mixed

Principle Investigator:

Place Name:

Site Name:

Taxon Name:

Altitude(m):

Age (Young):

Age (Old):

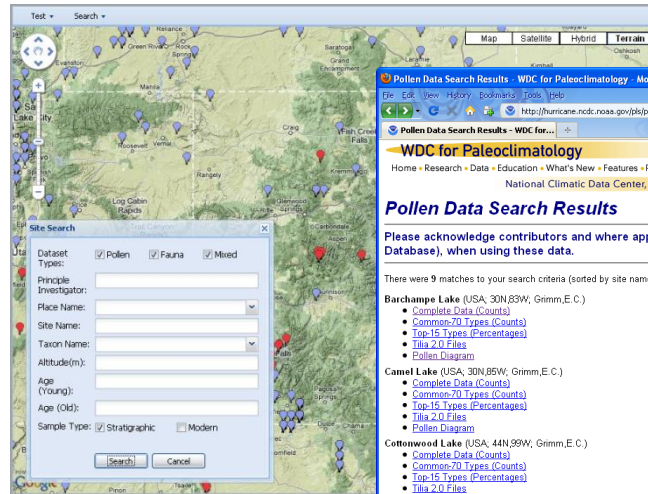
Sample Type: Stratigraphic Modern

Map data ©2010 Google - [Terms of Use](#)



Endless Possibilities

Web
Applications



Map-based

Catalog/form-based



Mobile
Applications



Name	Group	Element	Units	1	2	3	4	5	6
1									
2				320	332	336	344	352	360
3				0.8	0.8	0.8	0.8	0.8	0.8
4									
5	Chron-NAPD 1	Age	Radiocarbon years BP	11153	11155	11157	11159	11161	11163
6	Chron-NAPD 1	Age Younger	Radiocarbon years BP	-21	20	33	60	93	126
7	Chron-NAPD 1	Age Older	Radiocarbon years BP						
8	Abies	TRSH	pollen						
9	Acer negundo	TRSH	pollen				1		
10	Acer saccharinum-type	TRSH	pollen						
11	Acer saccharum	TRSH	pollen						
12	Allium	UPHE	pollen						
13	Alnus incana-type	TRSH	pollen						
14	Alnus undiff.	TRSH	pollen	6	1	2		4	2
15	Alnus viridis-type	TRSH	pollen						
16	Amaranthaceae undiff.	UPHE	pollen	1	1				
17	Ambrosia-type	UPHE	pollen	51	57	20	31	60	65
18	Amorphia-type	UPHE	pollen						
19	Anemone canadensis-type	UPHE	pollen	1		1			
20	Apiaceae	UPHE	pollen						
21	Aquillapollenites	ANAC	pollen	1	1		1		
22	Artemisia	UPHE	pollen						
23	Asteraceae subf. Asteroideae undiff.	UPHE	pollen	44	21	27	32	38	36
24	Asteraceae subf. Cichorioideae	UPHE	pollen	5	15	22	17	29	40
25	Asteraceae tribe Cynareae	UPHE	pollen	1				3	2
26	Athyrium filix-femina	VACR	spore						
27	Avena-type	UPHE	pollen			1			
28	Betula	TRSH	pollen						
29	Botrychium	VACR	spore			1		1	2
30	Brassicaceae	UPHE	pollen						
31	Citrus-type	UPHE	pollen	1					1

Internet-
Connected
Desktop
Applications

