

Sample #	Species	Common name	ΔE_M (mV)	current fold change	Pain/ rheum	Burn/ dermat	GI	Use score
1	<i>Marah oregana</i>	Wild cucumber	-1.5±0.6	1.7±0.8	+	+	+	3
2	<i>Lathyrus latifolius</i>	Everlasting pea	-0.3±0.9	1.1±0.5				0
3	<i>Urtica dioica</i>	Stinging nettle	-5.5±0.8	15±4.8	+	+	+	3
4	<i>Iris douglasiana</i>	Douglas Iris	-0.5±0.6	2.3±0.7				0
5	<i>Gaultheria shallon</i>	Salal	-7.4±1.4	3.3±1.2		+	+	2
6	<i>Anthoxanthum occidentale</i>	Sweet grass	0.5±0.6	0.4±0.1	+	+		2
7	<i>Iris sp.</i>	Iris	1.5±1.5	0.5±0.3				0
8	<i>Polygala californica</i>	California milkwort	11.8±3.4	1.1±0.6				0
9	<i>Calystegia occidentalis</i>	Western morning glory	-0.3±1.2	1.4±0.2				0
10	<i>Clematis vitalba</i>	Old Man's Beard	0.3±0.3	1.4±0.1				0
11	<i>Polypodium glycyrrhiza</i>	Licorice fern	-2.0±1.2	1.4±0.2	+		+	2
12	<i>Lilium pardalinum</i>	Tiger lily	-1.0±1.5	1.0±0.2				0
13	<i>Taxus brevifolia</i>	Pacific yew	1.5±2.5	1.0±0.5	+	+	+	3
14	<i>Hedera canariensis</i>	Algerian ivy	-5.5±3.5	1.7±0.6	+	+	+	3
15	<i>Arctostaphylos glandulosa</i>	Eastwood manzanita	-11±1.8	3.8±0.8	+	+	+	3
16	<i>Polystichum munitum</i>	Western Sword fern	-3.6±2.2	3.3±0.7	+	+	+	3
17	<i>Lolium perenne L. ssp</i>	Italian wild rye	-1.5±0.8	3.3±1.2				0
18	<i>Aristida pallens</i>	Bentgrass	-1.8±1.2	1.4±0.02				0
19	<i>Stipa pulchra</i>	Purple needle grass	-1.5±0.8	1.4±0.2				0
20	<i>Acacia dealbata</i>	Silver wattle	-1.8±0.7	1.5±0.3		+	+	2
21	<i>Notholithocarpus densiflorus</i>	Tanoak	-1.8±0.6	1.8±0.4				0
22	<i>Berberis nervosa</i>	Oregon grape	3.0±2.6	1.0±0.4	+			1
23	<i>Aesculus californica</i>	California buckeye (flowers)	-1.8±0.4	1.6±0.4				0
24	<i>Sisyrinchium bellum</i>	Western blue-eyed grass	-4.5±1.6	2.1±0.3	+		+	2
25	<i>Silene calycosa</i>	Checker mallow	-2.8±0.4	1.9±0.3				0
26	<i>Nemophila heterophylla</i>	Small Baby Blue Eyes	-2.5±0.3	1.9±0.4				0
27	<i>Sanicula crassicaulis</i>	Pacific black snakeroot	-0.2±2.1	1.5±0.4		+		1
28	<i>Anemone grayi</i>	Blue windflower	-1.2±0.6	1.6±0.2				0
29	<i>Elymus californicus</i>	California Bottle Brush Grass	2.8±2.7	1.3±0.5				0
30	<i>Rosa gymnocarpa</i>	Dwarf rose	-4.6±0.8	1.5±0.2	+	+	+	3
31	<i>Arnica discolor</i>	Rayless arnica	-0.5±1.3	1.6±0.5				0
32	<i>Tellima grandiflora</i>	Fringe Cup	-2.3±1.4	2.8±1.6				0
33	<i>Sedum spatulifolium</i>	Stone Crop	0.7±1.3	1.4±0.1			+	1
34	<i>Euphorbia peplus</i>	Petty Spurge	-1.9±1.0	1.6±0.5				0
35	<i>Salix lasiolepis</i>	Arroyo willow	-1.5±1.1	2.3±0.4		+	+	2
36	<i>Sambucus racemosa</i>	Red elderberry	1.6±1.4	1.2±0.1	+	+		2
37	<i>Gastrophysalis pheloides</i>	Nit grass	0.75±1.0	0.7±0.1				0
38	<i>Arbutus menziesii</i>	Pacific Madrone	-9.1±3.9	8.3±5.0	+	+	+	3
39	<i>Plantago erecta</i>	Dotseed plantain	1.2±0.6	0.6±0.7				0
40	<i>Heracleum maximum</i>	Common cow parsnip	-7.6±1.6	8.8±1.6	+	+	+	3

Supplementary Table 1. Indigenous use of Muir Woods plant species and their effects on KCNQ2/3 channels.

Current fold change = fold change induced by 1:50 plant extract in tail current after a -60 mV prepulse. ΔE_M = shift in resting membrane potential. “Burn/derm”, used as a topical therapy for burns, sores, bites, and/or stings; “Pain/rheum”, used as an analgesic and/or rheumatism treatment. Traditional uses attributed only to roots or bark are not included as these parts were not collected/tested. Score is calculated from recorded indigenous use in each of the therapeutic categories in the table (indicated by ‘+’), primarily from (4) with additional literature searches to provide reasonable verification of lack of recorded use in specific categories.

Supplementary Information – sources for tribe/First Nations locations

Algonquin, Quebec

<https://www.canadashistory.ca/explore/politics-law/algonquin-territory>

Potawatomi <https://www.mpm.edu/plan-visit/educators/wirp/history>

Delaware

[http://delawaretribe.org/services-and-programs/historic-preservation/removal-history-of-t](http://delawaretribe.org/services-and-programs/historic-preservation/removal-history-of-the-delaware-tribe/)

[he-delaware-tribe/](http://delawaretribe.org/services-and-programs/historic-preservation/removal-history-of-the-delaware-tribe/)

Iroquois <https://www.britannica.com/topic/Northeast-Indian>

Menominee <https://www.glitc.org/tribes-served/menominee-indian-tribe-of-wisconsin/>

Ojibwe (Chippewa/Ojibwa) <https://project.geo.msu.edu/geogmich/ojibwe.html>

<https://project.geo.msu.edu/geogmich/ojibwe.html#:~:text=The%20Chippewa%20Indian>

[s%2C%20also%20known,the%20Ottawa%20and%20Potawatomi%20Indians.](https://project.geo.msu.edu/geogmich/ojibwe.html#:~:text=The%20Chippewa%20Indian)

Tete-de-boule (Atikamekw)

[https://www.cbc.ca/news/indigenous/atikamekw-first-nation-declares-sovereignty-over-it](https://www.cbc.ca/news/indigenous/atikamekw-first-nation-declares-sovereignty-over-its-territory-1.2761105)

[s-territory-1.2761105](https://www.cbc.ca/news/indigenous/atikamekw-first-nation-declares-sovereignty-over-its-territory-1.2761105)

Cherokee <https://www.tribalpedia.com/us-tribes/a-l/ Cherokee-nation/>

Nitinaht <https://www.nitinaht.com/first-nation/>

Quinault

[https://www.usgs.gov/media/images/location-quinault-indian-reservation-within-queets-q](https://www.usgs.gov/media/images/location-quinault-indian-reservation-within-queets-quinault)

[uinault](https://www.usgs.gov/media/images/location-quinault-indian-reservation-within-queets-quinault)

Bella Coola (Nuxalk) <https://stoningtongallery.com/tribe/nuxalk-bella-coola/>

Quileute https://www7.nau.edu/itep/main/tcc/Tribes/pn_quileute
 Clallam (Klallam) https://www7.nau.edu/itep/main/tcc/Tribes/pn_sklallam
 Cheyenne
<https://tribalnations.mt.gov/northerncheyenne#:~:text=The%20Cheyenne%20Nation%20i>
[s%20comprised,%2Dnative%2Fnative%20owned%20businesses.](https://tribalnations.mt.gov/northerncheyenne#:~:text=The%20Cheyenne%20Nation%20i)
 Pomo, little lake <https://factcards.califa.org/cai/pomo.html>
 Miwok <https://factcards.califa.org/cai/miwok.html>
 Atsugewi <https://factcards.califa.org/cai/atsugewi.html>
 Blackfeet <https://tribalnations.mt.gov/blackfeet>
 Cahuilla <https://factcards.califa.org/cai/cahuilla.html>
 Carrier <http://www.canadahistoryproject.ca/1500/1500-11-dene.html>
 Konkow (Concow) <http://www.rosevillehistorical.org/before-1820>
 Sanpoil <https://native-land.ca/maps/territories/san-poil/>
 Flathead
http://www.nativepartnership.org/site/PageServer?pagename=PWNA_Native_Reservatio
[ns_Flathead](http://www.nativepartnership.org/site/PageServer?pagename=PWNA_Native_Reservatio) <https://www.britannica.com/topic/Flathead-people>
 Meskwaki <https://www.meskwaki.org/about-us/history/>
 Seminole <https://www.semtribe.com/stof/history/introduction>
<https://americanindian.si.edu/nk360/removal-six-nations/seminole/map>
 Chehalis <https://www.chehalistribe.org/our-story/people-of-the-sands/>
 Arapaho <https://www.tribalpedia.com/us-tribes/a-l/arapaho-tribe/>
 Costanoan (Ohlone) <https://factcards.califa.org/cai/costanoan.html>
 Tanana <https://www.tananachiefs.org/about/communities/tanana/>
 Okanagn-colville <https://www.colvilletribes.com/tribal-chiefs>
 Shoshone <https://commons.marymount.edu/jowetttopic/different-tribes/>
 Thompson <https://www.everyculture.com/North-America/Thompson.html>
 Paiute <https://native-land.ca/maps/territories/northern-paiute/>
 Pawnee
[https://pawneenation.org/pawnee-](https://pawneenation.org/pawnee-history/#:~:text=The%20Pawnee%20Nation%20of%20Oklahoma,)
[history/#:~:text=The%20Pawnee%20Nation%20of%20](https://pawneenation.org/pawnee-history/#:~:text=The%20Pawnee%20Nation%20of%20Oklahoma,)
[Oklahoma, North%20Platt%20River%20in%20Nebraska.](https://pawneenation.org/pawnee-history/#:~:text=The%20Pawnee%20Nation%20of%20Oklahoma,)
 Skokomish <https://www.skokomish.org/culture-and-history/>
 Yuki <https://factcards.califa.org/cai/yuki.html>
 Cowichan
<https://cowichantribes.com/about-cowichan-tribes/land-base/traditional-territory>
 Hesquiat
<https://www.thecanadianencyclopedia.ca/en/article/hesquiaht#:~:text=Part%20of%20the%20Nuu%2Dchah,west%20coast%20of%20Vancouver%20Island.>
 Kawaiisu https://www.parks.ca.gov/?page_id=24579
 Kwakiutl <https://stoningtongallery.com/tribe/kwakwakawakw-kwakiutl-kwagiulth/>
 Diegueno <https://www.britannica.com/topic/Diegueno>
<https://factcards.califa.org/cai/diegueno.html>
 Haisla <https://stoningtongallery.com/tribe/haisla/>
 Tanaina
<https://www.encyclopedia.com/humanities/encyclopedias-almanacs-transcripts-and-maps>

/tanaina#:~:text=Tanaina%20are%20located%20in%20the,and%20social%20intercha
nge
%20Including%20intermarriage.
Tolowa <https://www.tolowa-nsn.gov/>