

Appendix 1: System Information for Benchmarking

The following system details are provided to support reproducibility of the performance measurements reported in this work. All benchmarks were conducted on a local machine with the specifications shown below. Information was collected via standard system commands at time of receiving reviewer comments.

Operating System

```
lsb_release -a
```

Distributor ID: Ubuntu
Description: Ubuntu 22.04.5 LTS
Release: 22.04
Codename: jammy

CPU

```
lscpu
```

Field	Value
Architecture	x86_64
CPU op-mode(s)	32-bit, 64-bit
Address sizes	39 bits physical, 48 bits virtual
Byte Order	Little Endian
CPU(s)	16
On-line CPU(s) list	0-15
Vendor ID	GenuineIntel
Model name	11th Gen Intel(R) Core(TM) i7-11700K @ 3.60GHz
CPU family	6
Model	167
Thread(s) per core	2
Core(s) per socket	8
Socket(s)	1
Stepping	1
CPU max MHz	5100.0000
CPU min MHz	800.0000
BogoMIPS	7200.00

Memory

```
free -h
```

Type	Total	Used	Free	Shared	Buff/Cache	Available
Mem	125Gi	3.1Gi	112Gi	569Mi	9.7Gi	120Gi
Swap	2.0Gi	0B	2.0Gi	—	—	—

Internet Speed

```
speedtest-cli
```

```
Retrieving speedtest.net configuration...
Testing from Astound Broadband (168.91.196.6)...
Retrieving speedtest.net server list...
Selecting best server based on ping...
Hosted by Sangoma (Chicago, IL) [17.63 km]: 18.388 ms
Testing download speed. ....
Download: 21.58 Mbit/s
Testing upload speed. ....
Upload: 27.43 Mbit/s
```

Filesystem Usage

```
df -h
```

Filesystem	Size	Used	Avail	Use%	Mounted on
tmpfs	13G	2.6M	13G	1%	/run
/dev/nvme0n1p2	468G	242G	203G	55%	/
tmpfs	63G	14M	63G	1%	/dev/shm
tmpfs	5.0M	4.0K	5.0M	1%	/run/lock
efivars	192K	88K	100K	47%	/sys/firmware/efi/efivars
/dev/nvme0n1p1	511M	6.1M	505M	2%	/boot/efi
tmpfs	13G	132K	13G	1%	/run/user/1000
/dev/sda1	3.6T	3.2T	295G	92%	/media/steppe/hdd

I/O Performance

```
sudo hdparm -Tt /dev/nvme0n1p2
```

```
Timing cached reads: 44096 MB in 2.00 seconds = 22095.91 MB/sec
Timing buffered disk reads: 4470 MB in 3.00 seconds = 1489.83 MB/sec
```

All files were stored on the following drive.

```
sudo hdparm -Tt /dev/sda1
```

Timing cached reads: 45870 MB in 2.00 seconds = 22986.94 MB/sec
Timing buffered disk reads: 514 MB in 3.01 seconds = 170.57 MB/sec

Appendix 2: Label Templates

Default Template

APIACEAE

Lomatium nevadense (S. Watson) J.M. Coulter. & Rose

U.S.A., Nevada, Washoe Co., 17N 20E 19. Washoe Summit. 39.32677 -119.78537 (WGS84 +/- 5m).

Granitoid derived aeolian loamy sand soils. At 5,200 ft, on a slope, 4° slo. 57° asp.; geology: Igneous and Sedimentary, undifferentiated.

Vegetation: *Artemisia tridentata* var. *wyomingensis*, *Poa secunda*, *Agropyron cristatum*, *Achnatherum thurberianum*, *Purshia tridentata*.

Associates: *Bromus tectorum*, *Phlox longifolia*.

Reed Clark Benkendorf 2823

6 May, 2023

SOS Template

APIACEAE

Lomatium nevadense (S. Watson) J.M. Coulter. & Rose

U.S.A., Nevada, Washoe Co., Virginia Range, 17N 20E 19. 0.5mi at 134° from Washoe Summit. 39.3268 -119.7854 (WGS84 +/- 5m).

Granitoid derived aeolian loamy sand soils. At 5,200 ft (1,586 m), on a slope, 4° slo. 57° asp.; geology: Igneous and Sedimentary, undifferentiated.

Veg.: *Artemisia tridentata* var. *wyomingensis*, *Poa secunda*, *Agropyron cristatum*, *Eriocoma thurberiana*, *Purshia tridentata*. Ass.: *Bromus tectorum*, *Phlox longifolia*.

30mins from Reno NV via I-580 S and US-395 ALT S. Head north on Old U.S. 395 N/N Virginia St toward W 5th St 0.3 mi. Turn R on Maple St 0.1 mi. Merge on I-80 E via the ramp to Sparks 1 mi. Take exit 15 to merge on I-580 S/US-395 S toward Carson City 10.1 mi. Take exit 25B for Virginia St South 0.5 mi. Con't on US-395 Alt S 6.8 mi. Turn L on Eastlake Blvd 0.1 mi. Turn L on Ophir Rd 0.5 mi. Head to Washoe Summit.

Reed Clark Benkendorf 2823; 6 May, 2023. Fide: *Intermountain Flora*, det.: RCB, 29 Aug, 2023.

Collected under the auspices of the Bureau of Land Management

Modern

APIACEAE

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Associates: *Bromus tectorum*, *Phlox longifolia*.

Reed Clark Benkendorf 2823; 6 May, 2023.
Fide: *Intermountain Flora*, det.: RCB, 29 Aug, 2023.

Custom font downloaded

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Label with Map

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Reed Clark Benkendorf 2823; 6 May, 2023 Fide: *Intermountain Flora*, det.: RCB, 29 Aug, 2023.

Logos

APIACEAE

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