

Figure 1: Above, 31 days in January.

January 2023 at UVic

What follows is a brief summary of the weather at UVic in January, 2023. The Month in a Minute video (Fig. 1) is on YouTube.

Monthly average temperatures for all Januaries observed at UVic are shown at right, in Fig. 2. 2023 was a bit warmer than average but not exceptional. See also Fig. 4.

The daily average temperatures, with extremes are shown in Fig. 3. Following on from a warm end to December (2022), the first two weeks of January 2023 were warmer than average at UVic. We expect daily averages of 5.5°C but were generally above that value until mid-month. The high got close to 12°C on the fifth and was more than 10°C on a few days. However, even in Victoria, winter can always bring a freeze. This year we recorded -1.4°C on the 19th and -1.1°C on the 22nd.

We returned to normal temperatures for a week or so. At the end of the month a strong high-pressure ridge developed in the north-east Pacific. This led to a northeasterly flow of cold continental air over southern Vancouver Island. For a couple of days freezing temperatures returned. This time we recorded a low of -3.1°C , with an accompanying Special Weather Statement from the forecasters. These statements, and warnings are calibrated to each region. What may be

Year	Minimum °C	Mean (Std. Dev.) °C	Maximum °C	Count
2003	5.6	7.55 (1.0)	9.7	31
2010	5.6	7.49 (1.0)	9.6	31
2006	5.2	7.09 (1.0)	9.3	31
2015	4.9	6.71 (1.0)	8.7	31
2019	4.5	6.37 (1.1)	8.4	31
2018	4.7	6.25 (0.9)	8.0	31
2023	4.0	6.15 (1.1)	8.0	31
2021	3.8	6.06 (1.1)	8.0	31
2016	4.1	6.06 (1.0)	7.9	31
2014	4.0	5.67 (0.9)	7.4	31
2020	3.2	5.53 (1.3)	7.8	31
2005	3.3	5.38 (1.1)	7.6	31
2004	3.3	5.12 (0.9)	6.9	31
2011	2.9	5.04 (1.2)	7.1	31
2022	3.0	4.87 (1.0)	6.7	31
2007	2.4	4.56 (1.1)	6.9	31
2013	2.4	4.22 (1.0)	5.9	31
2008	2.2	4.18 (1.0)	6.3	31
2012	1.9	4.14 (1.2)	6.3	31
2009	2.1	4.06 (1.0)	5.9	31
2017	1.1	3.50 (1.2)	5.6	31
Means	3.5	5.5	7.5	

Figure 2: January monthly temperatures, ranked.

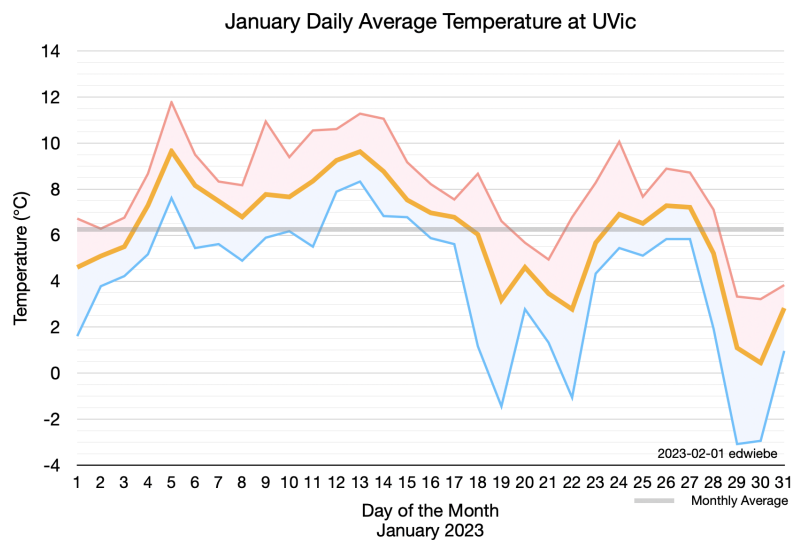


Figure 3: Daily average temperatures with extremes.

difficult for Victorians is just a chilly day for people in other parts of Canada. When the cold flow weakened, as is typical when the colder, dry continental air is jostling up against the warmer, moist oceanic air mass, we observed a few flurries. There was no significant accumulation of snow.

One nice aspect of these chilly days was some sunshine. Fig. 1 shows a snapshot, a particular minute of each day, of the view of the sky looking north from UVic. For the most part January 2023 was overcast. There were some blue-sky moments but we saw rain on 20 of the 31 days in the month (Fig. 5). This isn't actually too surprising. January can be a very wet month. This year though the rain fell only in small amounts over those 20 days. It was actually the second driest January at UVic since 2003 (Fig. 5).

Comet C/2022 E3 (ZTF) was moving closer to the north celestial pole in January, and I had been trying to see it. So many nights were cloudy! It was quite frustrating. I finally did manage to spot it on the night of the 19th. It wasn't a very interesting naked-eye comet, binoculars or telescopes were needed, but it was actually nice to finally see it (Fig. 8).

Wind observations are shown in Fig. 7. Fall and early winter weather in this region is typified by passing storms. These are usually cyclones following the storm track (which can move from year to year). Figure 7 shows wind speed (orange) and wind gusts (blue¹). There were some such events, around 6 and 17 January, but otherwise it was relatively quiet. The strongest winds were observed on 28

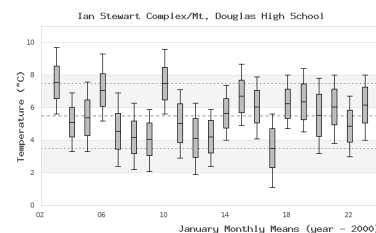


Figure 4: Monthly average January temperatures.

¹ Our instruments are sampled about 30 times per minute. These observations are averaged, and recorded once per minute. The strongest wind observation each minute is recorded separately as the gust speed.

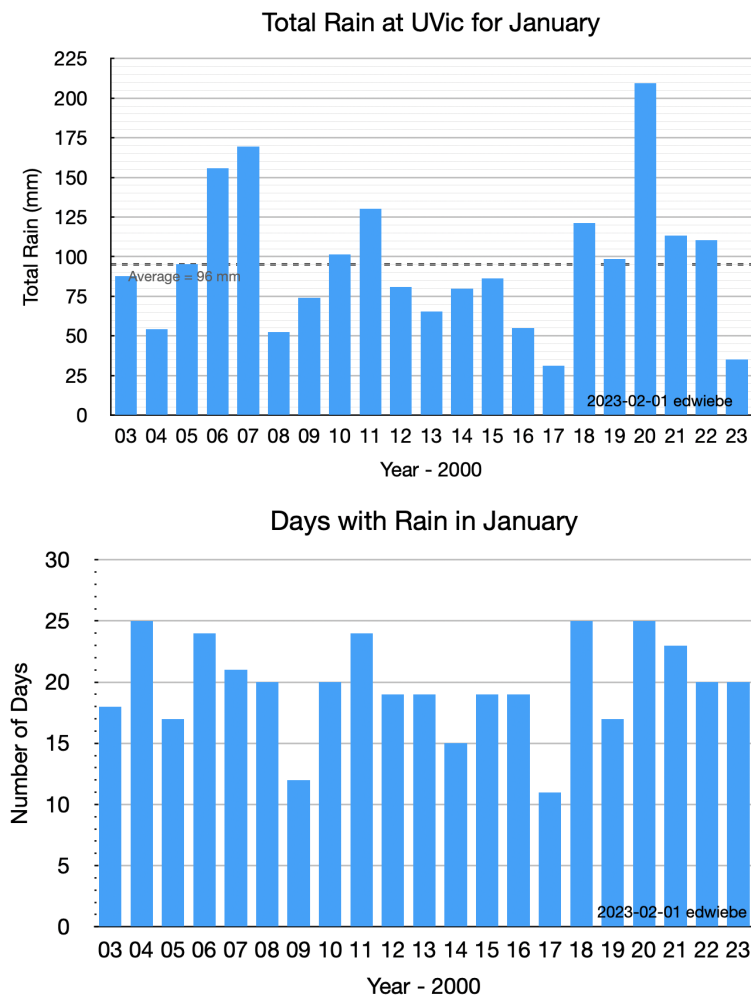


Figure 5: Total monthly rain and days with rain at UVic.

January. This was the outflow event that brought cold northerly flow across Georgia Strait toward UVic.

You can see the arrival of the colder air mass very clearly at 16:00 on 28 January in the relative humidity data for that day (Fig.??). The humidity drops from 60% to 40% over only five minutes!

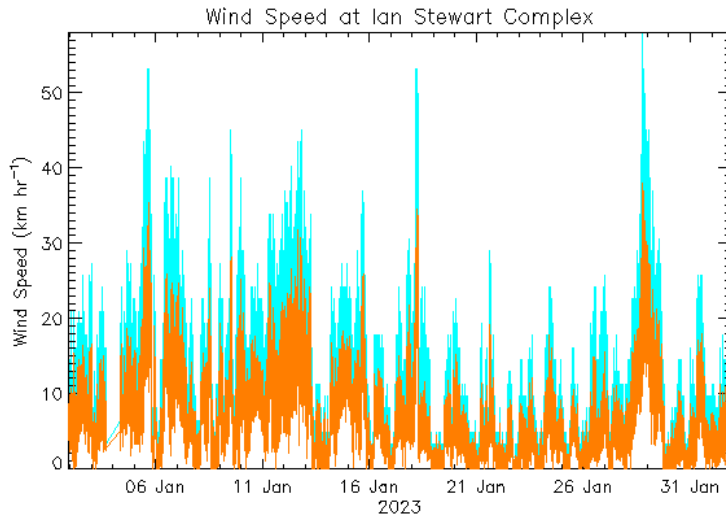


Figure 6: Wind at UVic in January, 2023.

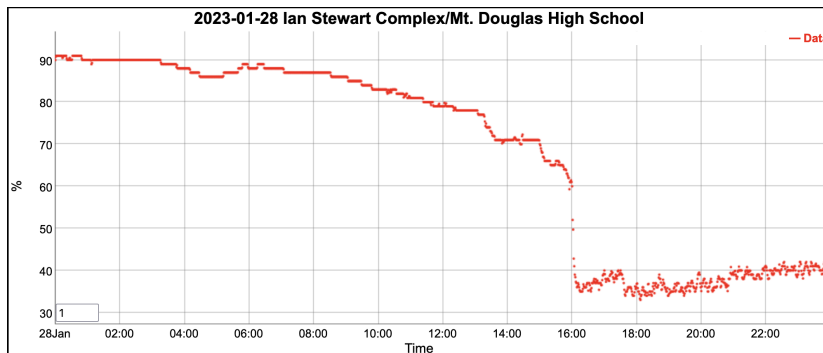


Figure 7: Relative humidity at UVic on 2023-01-28.

Problems

There was a failure of the the equipment (the computer that logs data locally, at the site) between 2023-01-03 16:47 and 2023-01-04 08:14. This introduces some error in the daily statistics for those dates, as well as the monthly mean.



Figure 8: Comet C/2022 E3 (ZTF). It's the faint fuzzy blob in a field of faint stars.