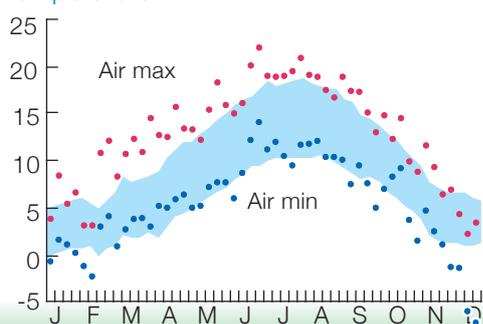


# Meteorological Records 2009

Marion Grassie

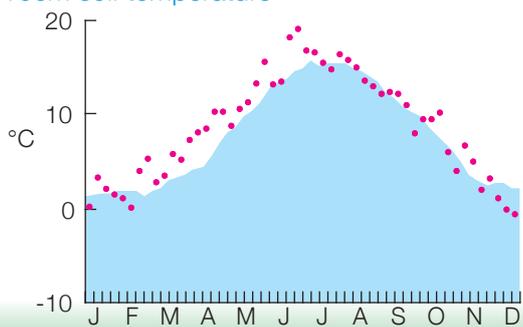
The main features of 2009 were high rainfall, flooding, higher than normal air and soil temperatures and perhaps surprisingly, higher than average sunshine. Outstanding months were March, with record sunshine, warmer temperatures and low rainfall; November with record rainfall; and December which was a particularly cold month breaking a number of our records, held since 1954.

## Air temperature



**Temperature** All months boasted average maximum air temperatures higher than the Long Term Average (LTA), with the exceptions of January, fractionally under the LTA of 5.9°C at 5.8°C, and December, at 4.7°C (LTA 6.7°C). Most significant were March, April and September. The highest maximum air temperature recorded was July's 26.0°C.

## 10cm soil temperature

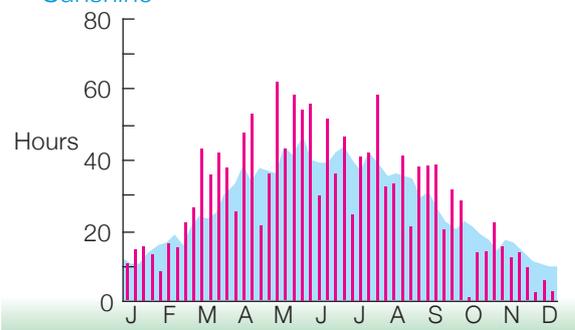


Blue areas on figures indicate long term average 1961-1990

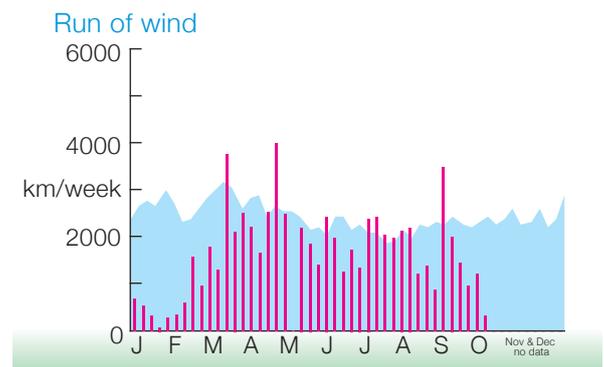
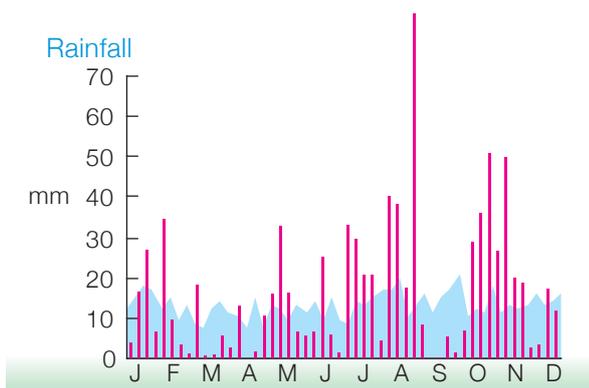
Average minimum air temperatures were all equal to or higher than the LTA with only one exception, December. April's minimum was 5.6°C (LTA 3.7°C). August, with a minimum air temperature of 8.9°C (LTA 5.5°C) was the highest on our records. December's average figure was the lowest on our records at -3.4°C (LTA 1.2°C). The total number of days with air temperature <0°C came to 62, 15 more than the LTA of 47.

Minimum grass temperatures showed mixed results with April, May, and August through to November all displaying higher than expected figures. January to March, June, July and December all showed minimum monthly temperatures below normal. December's LTA figure of -9.2°C was beaten with -11.3°C, but does not compare with the particularly chilly -13.3°C recorded in 2008. The total number of days with grass temperature <0°C (frost) was 125, 9 days fewer than the LTA of 134. Although only August and September escaped frost, most months had fewer nights of frost than expected. December had 31 nights of frost for the first time on our records (LTA 21).

## Sunshine



Mean soil temperatures were again higher than the LTA for most months; the exceptions were January and December, where figures were slightly lower than normal.



**Sunshine and solar radiation** Sunshine figures were fairly mixed with a total of 1523.4 hours of bright sunshine, higher than the LTA of 1411.6 hours. January, March through to June, and September all had more hours of sunshine than expected. March logged the highest figures on our records for the second year running. All other months showed lower than normal sunshine figures, the poorest being December. Solar radiation values were again higher than normal with the exception of August.

**Rainfall** As with 2007 and 2008, 2009 is likely to be remembered for its exceptional rainfall. Once again levels were higher than normal, the annual total reaching 845.9mm as compared to the LTA of 664.5mm. Seven months had greater than normal rainfall – the figures being significantly higher, November produced 147.3mm – three times the LTA of 52.1mm. This was the highest on our records and resulted in major flooding across the country. Also of note is the 65.6mm of rain which fell during a single 24 hour period on the 3rd September. This was more than the LTA for the entire month and again resulted in considerable local flooding and the cancellation of the first day of the Dundee Flower and Food Festival for the first time in its 21 year history.



Dundee Flower & Food Festival, 2009.

Thunder was reported three times during the year, twice during July and once on 30th December.

**Wind** On the whole, wind speeds were lower than normal. Worth mentioning are the 10 recorded days of gale (mean wind speeds of 34 knots+) as opposed to 20 in 2008. Also, the unusual occurrence of a funnel cloud was witnessed from SCRI on the 24th August.

SCRI's weather data is available on our website. You can find a general overview, a data page and a current weather page that displays the present day's data from SCRI's Automatic Weather Station, updated in 15 minute intervals.

Every month, our weather data is featured in the Courier and Dundee Evening Telegraph.