

# Irish droughts in newspaper archives: rediscovering forgotten hazards?

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## Introduction

‘Irish drought’ might appear to be an oxymoron. However, the island of Ireland has been surprisingly drought prone over the last couple of centuries, but perhaps less so in living memory. We recently established a 160-year drought catalogue for the island covering the period 1850–2015 (Noone *et al.*, 2015; Wilby *et al.*, 2015). This was subsequently extended by Noone *et al.* (2017) to create a 250-year drought catalogue for Ireland (1765–2015) based on the Standardised Precipitation Index (SPI). In constructing this extended drought catalogue we used documentary sources from newspaper archives spanning the last 250 years. Together with other historical sources, these add confidence to the quantitative detection of drought episodes from rainfall records and provide glimpses into the socio-economic impacts of historic droughts.

As we discovered, Ireland is in the fortunate position of having some of the longest running newspapers in the world. Of particular note are the *Belfast Newsletter* (one of the world’s oldest continuously published newspapers) and the *Freeman’s Journal*, which began reporting in the early and mid-eighteenth century, respectively. Another nine titles commenced publication in the nineteenth century, with many continuing to the present day (see Table 1). Noone *et al.* (2017) show that newspaper archives can be used to trace the progression of drought

**Table 1**

*Newspaper titles accessed through the Irish Newspaper Archive (www.irishnewsarchive.com) together with their abbreviations, the start and end dates of publication, readership (national/county) and frequency of publication.*

Title	Start and end year	County	Publication frequency
Belfast Newsletter	9 Jan 1738–30 Aug 1890	National (NI)	Daily
Freeman’s Journal	3 Jan 1763–19 Dec 1924	National	Daily
Kerry Evening Post	1813–1917	Kerry	Weekly
Tuam Herald	13 May 1837–Current	Galway	Weekly
Nenagh Tribune	21 Jul 1838–Current	Tipperary	Weekly
Irish Examiner	30 Aug 1841–1999	National	Daily
The Nation	15 Oct 1842–5 June 1897	Dublin	Weekly
Tralee Chronicle	18 Mar 1843–20 May 1881	Kerry	Daily
Anglo-Celt	6 Feb 1846–Current	Cavan	Weekly
Western People	4 May 1889–Current	Mayo	Weekly
Meath Chronicle	1 May 1897–Current	Meath	Weekly
Longford Leader	14 Aug 1897–Current	Longford	Weekly
Kerryman	20 Aug 1904–Current	Kerry	Weekly
Irish Independent	2 Jan 1905–Current	National	Daily
Connacht Tribune	22 May 1909–Current	Galway	Weekly
Irish Press	5 Sep 1931–25 May 1995	National	Daily
Irish Farmers Journal	16 Mar 1957–26 Dec 1998	National	Weekly
Irish Times	1785–Current	National	Weekly
Nenagh Guardian	21 July 1838–Current	Sligo	Weekly
Leinster Express	24 Sep 1831–Current	Offaly	Weekly

events and impacts. Articles reveal that over the last 250 years droughts have resulted in agricultural hardship, water resource crises and failures, and preceded some of the major famines of the eighteenth and nineteenth centuries. They also show that Ireland was subject to persistent multi-season drought episodes in the 1800s, 1820s, 1850s, 1880s, and in the twentieth century in the 1920s, 1930s, 1950s and 1970s.

During our trawl of the newspaper archives we uncovered hundreds of articles referring to drought in all its guises. In this paper, we bring to life four notable articles that convey aspects of three significant droughts in the nineteenth century. These articles are selected as they relay the cultural influence of drought and some unusual

societal responses that reflect the historical context. The following sections introduce each article and provide a short narrative of the drought event in which they appeared. For interested readers, full details of the specific droughts mentioned and their quantitative assessment are given by Noone *et al.* (2017). We close with some reflections on how such events might (re)shape modern perceptions of drought and how newspaper archives might be further exploited in understanding historic weather extremes.

## ‘Drought’ – 1806

The period September 1800 to January 1809 was one of the most persistent drought episodes on the island of Ireland of the past



250 years. In fact, this period was marked by three individual drought events, separated only by brief wet interludes of three months or less (Noone *et al.*, 2017). There is evidence from newspaper records that, at least early in the event, drought impacts were not island-wide, with counties Leitrim and Roscommon supplying potatoes and other crops for severely impacted areas in the south and west (*Freeman's Journal*, 3 January 1801, page 2). Reports in the *Freeman's Journal* highlight that the woollen industry declined in 1802 due to a lack of water to work the mills (*Freeman's Journal*, 9 September 1800, page 3). The 1851 Census of Ireland refers to the years 1800, 1801 and 1803 as being excessively hot and dry. During 1802 officials put in place financial support so that grain and maize could be imported from the USA to help alleviate the emergency, with disease and death also prevalent during this period (Gráda, 2015). At this time, there are also several reports of widespread failure of potato crops, the staple food source, causing severe hardship for the population (*Freeman's Journal*, 15 July 1806, page 2).

On the 8 July 1806 a poem simply entitled *Drought* appeared in the *Belfast Newsletter*. The poem, signed HAFIZ, was written on 28 June 1806 and is reproduced in Figure 1. It provides a powerful depiction of the devastating impact of drought, with the tone and language pleading for reprieve from the 'demon' drought. The poem begins with reference to the emergence of drought in spring, noting impacts on local water bodies in the second verse, impacts on agriculture and flora in the third, and devastation of

the water-powered linen industry in the fourth verse. The last two verses long for wet conditions and the return of rain, making reference to both Greek mythology and astronomy. In Greek mythology, the 'Pleiads' refer to the seven daughters of Atlas and Pleione. In astronomy, the Pleiades, or seven sisters, are stars in the constellation Taurus: primarily winter stars, featuring prominently in the ancient agricultural calendar, along with Orion. Hence, the plea for them both to rise is a call for the end of summer and the arrival of rain. Reference to the 'Naiads' is again an appeal to the female spirit of freshwater bodies in Greek mythology.

### 'Pray for Rain' – 1887

The drought of 1887 was one of the most intense island-wide droughts experienced in the last 250 years (Noone *et al.*, 2017). The event itself is well documented by Barrington (1888) who mapped the spatial extent of rainfall anomalies over the previous 5 years and provided detailed insight to the agricultural impacts. This drought commenced in early spring of 1887 and continued well into autumn. Figure 2 shows an image of the original 1887 daily reporting sheet taken at Fassaroe, Bray, County Wicklow, by Barrington. Evident is the occur-

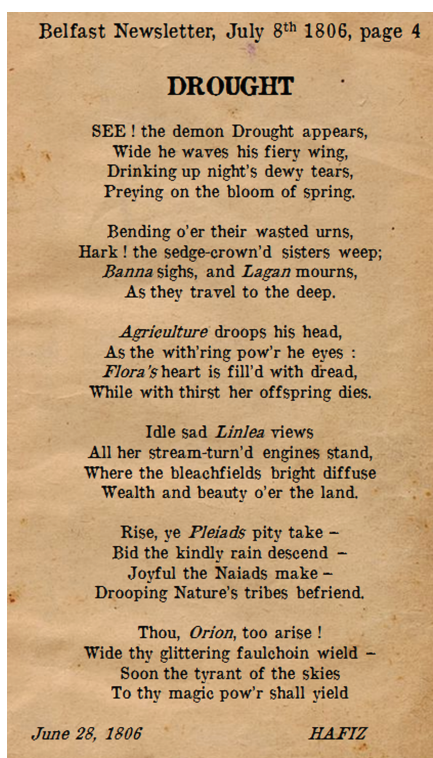


Figure 1. The poem 'Drought' which appeared in the *Belfast Newsletter* on the 28 June 1806.

REGISTER OF RAINFALL IN 1887

Kept at *Fassaroe* in the County of *Wicklow* by *Rich. M. Barrington*

Latitude \_\_\_\_\_ Diameter *10 in.*

Time of Observation *Jan* Height of top above Ground *5 feet*

Longitude \_\_\_\_\_ Sea Level *250 feet*

RAINFALL GAUGE

Note.—Full instructions respecting the measurement of rain are given in "Arrangements respecting the Systematic Observation and Record of the Rainfall of the British Isles," which is sent post-free on application to Mr. G. J. SYMONS, 62, Camden Square, London, N.W.

Date.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1		.150			.060	.055			.800		.040		1
2	.040	.450				.030			.190		.550		2
3	.540	.200				.110			.090		.200	.055	3
4		.340	.020		.100				.150		.090		4
5		.050			.290						1.050	.500	5
6		.070							.110		.380	.050	6
7		.110					.090		.070	.070	.260	.150	7
8					.025		.070		.020	.430		.160	8
9							.150		.025	.410	.010	.050	9
10	1.380								.010	.010	.015	.020	10
11			.560		.010				.080	.075	.085		11
12			.020				.260	1.100			.020	.400	12
13		.075	.035				.110	.100			.050	.055	13
14	.020	.030	.170		.020		.010				.840	.230	14
15			.010									.140	15
16	.140	.070	.060									.060	16
17	.300		.070		.025			.320				.175	17
18	.095				.020			.070			.015	.080	18
19	.185		.035		.780			.100			.320		19
20					.120						.025	.140	20
21			.320	.100	.130						.625		21
22			.600	.300	.200						.320		22
23		.050	.070	.160			.010			.285			23
24	.210	.160	.185	.160			.070	.070				.010	24
25	.020		.175	.170	.010			.100	.040			.025	25
26			.050	.040			.230	.460		.365	.200		26
27	.015		.015	.220	.060			1.520	.060		.080	.010	27
28							.120	.130	.090	.025	.330	.220	28
29							.010		.060				29
30	.120						.020	.140		.150			30
31	.310		.045		.300		.420	.120		.820			31
Totals	39.45	12.05	2.420	1.520	1.760	.285	1.480	4.230	1.795	2.640	5.565	2.530	
Total from Jan. 1	29.375												

K3,000/11/87. EDWARD STANFORD, CHURCH CROSS, S.W. PRICE 3d.

Figure 2. Image of the daily rainfall sheet for 1887 at Fassaroe, Bray, County Wicklow. The gauge was maintained by Richard M. Barrington, and we thank the Met Éireann Library for access to the archives for this station.



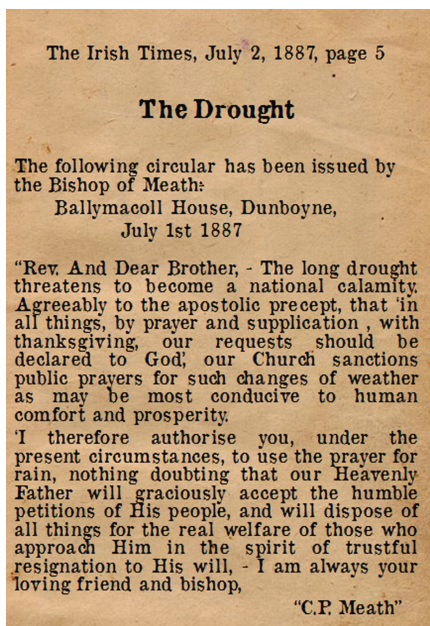


Figure 3. Circular from the Bishop of Meath authorising the prayer for rain. Published in the Irish Times on 2 July 1887.

rence of just 9 rain days in February and April and only 4 rain days in June. Overall Barrington (1888) reports that 10 months in 1887 saw deficient rainfall relative to the previous 30-year monthly means. By summer 1887, with the long drought threatening to become a national calamity, the Bishop of Meath issued a circular entitled *The Drought*. This appeared in the *Irish Times* on 2 July 1887 and called the faithful to pray for rain. Figure 3 provides a transcript of the original article and is a sign of the desperation that must have been felt across society. Figure 4 shows a classic high pressure blocking system present over Ireland on 30 June 1887, which was typical of much of that month. Also shown in Figure 4 is the weather chart for 2 July, the day the call to prayer appeared in print. Noone *et al.* (2017) establish that this drought was most intense in the east of the country and led to widespread crop failures and water supply issues. In the city of Dublin, the state of the public sewers gave rise to public health concerns due to a lack of water to flush the system (Noone *et al.*, 2017). The prayers were answered in November 1887 when the drought broke. As far as we can tell, this is the only public call for drought relief by prayer in the 250 years of the Irish newspaper archive (although such cries continue to be heard in other places and cultural contexts today<sup>1</sup>).

### Dublin water crisis – 1893

In spring 1893, an extreme drought began that eventually severely affected the east and southeast of Ireland, culminating in

<sup>1</sup>See for example, prayers to end the California drought: <http://ismreview.yale.edu/article/praying-for-rain-in-the-california-drought/>

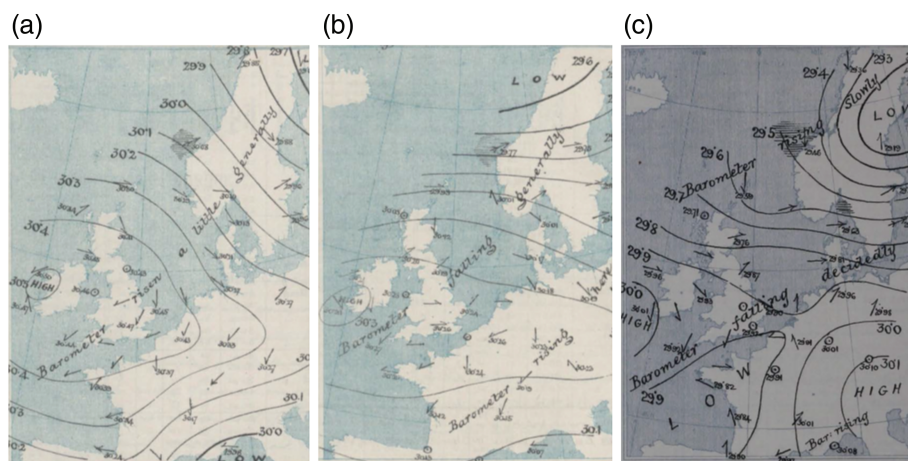


Figure 4. Weather charts for (a) 30 June 1887 (left) showing classical high pressure blocking that dominated that month when only 4 rain days occurred at Fassaroe, Bray on the east coast of Ireland (see Figure 2); (b) 2 July 1887 when the circular issuing a call to pray for rain appeared in the *Irish Times* (see Figure 3); and (c) 16 September 1893, when the weather modification letter appeared in the *Irish Times* (see Figure 6). (Source: Met Office Daily Weather Reports.)

a water supply crisis for Dublin City by autumn. The *Freeman's Journal* states on 27 April 1893 that *there has been an absolute drought since March 5th – for fifty two days*. The article then quotes Mr. Symons, the eminent English meteorologist, who said that *this is by far the longest period during which dry conditions have prevailed since he began making observations in 1857* (*Freeman's Journal*, 27 April 1893, page 8).

By September 1893, the *Freeman's Journal* reported that the great drought of the present season has reduced the water supply of the city to such an extent that the greatest care and economy will be required on the part of the citizens to avert the calamity of a water famine (*Freeman's Journal*, 5 September 1893, page 4). Water usage in the city was reduced from 15 to 10 million gallons per day by imposing water restrictions during September. By October the city could only rely on 16 days of supply from the River Vartry. For long periods, northern parts of Dublin City were reduced to intermittent supplies delivered between 2200h and 1000h at the request of local bakeries (*Irish Times*, 31 October 1893, page 5). In addition to water supply issues, residents spoke of the foul smell from city sewers and fear of disease due to a lack of water to flush the waste (*Irish Times*, 30 June 1887, page 6; *Irish Times*, 21 July 1887, page 5).

At that time, Dublin's main source of potable water was from a reservoir on the River Vartry at Roundwood, County Wicklow. This reservoir still contributes to Dublin's water supply today. At capacity in 1893, the reservoir provided four months of water supply for the city (Walker, 1894). The crisis of supply caused debate within the media and academic circles about the primary cause of failure and potential solutions. In March 1894, John A. Walker, chairman of the Dublin Waterworks Committee, gave a paper to the Statistical and Social Inquiry

Society of Ireland entitled *Our Present and Future Water Supply*. In it he argued that the drought was exacerbated by an expansion of the urban area supplied by the Vartry reservoir, beyond the initial design assumptions, to suburban areas of the city where wastage among wealthy households was seen as profligate (Walker, 1894). This view was supported by others in the audience, as recounted the following day (*Irish Times*, 14 March 1894, page 7).

By November 1893, The *Irish Times* was documenting meetings of the Waterworks Committee, who were making arrangements to secure additional supplies from the Royal Canal to meet Dublin's water needs (*Irish Times*, 1 November 1893, page 5). The newspaper also reported no change in conditions at the Vartry reservoir later in the same month, with a Waterworks Committee meeting held at City Hall to consider plans and cost estimates for the damming of Lough Dan in the Wicklow Mountains (*Irish Times*, 15 November 1893, page 5). Other options considered included the transfer of water from the River Ovoca (Avoca) and its tributaries by tunnelling through the watershed between Lough Tay and Lough Dan (*Irish Times*, 28 November 1893, page 5). Ultimately, plans to dam Lough Dan were deemed too expensive and never came to fruition.

On 30 December 1893, at the end of the drought, a poem entitled *Water* (Figure 5) appeared in the *Irish Times*. The poem, signed *W. I. R.*, satirised the events of the drought and the surrounding controversies, and courted solutions. Against the tapping of Loch Dan, the author proceeds to put forward a plan *to make the Vartry do*. It calls for seasonal metering of water consumption and fines for wasteful use. The finger is pointed at housewives, in reference to the blame assigned to suburban locations for their reckless water usage. Scorn is also poured on the use of filtered Vartry waters



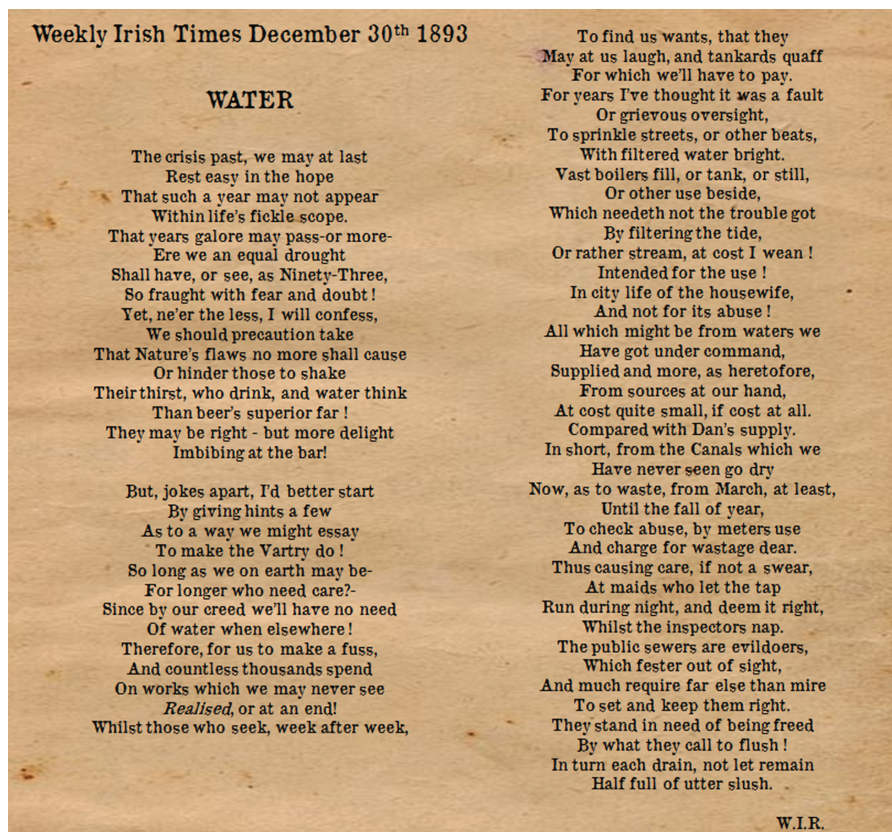


Figure 5. The poem 'Water' that appeared in *The weekly Irish Times* on 30 December 1893. Italicised words identify those we had trouble transcribing due to blurring of the original.

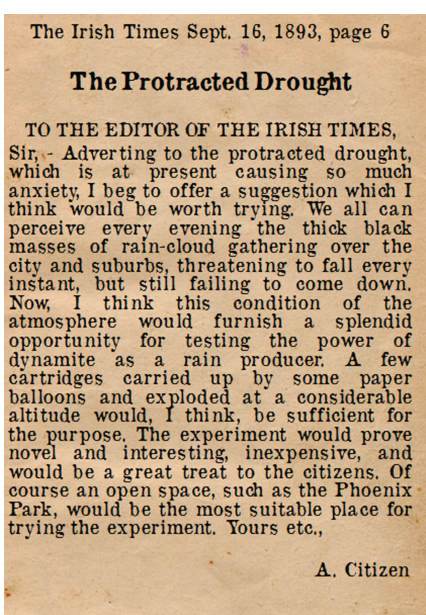


Figure 6. Letter to the Irish Times published 16 September 1893 proposing exploding dynamite over Dublin to induce rainfall.

to sprinkle on the streets and fill tankers, presumably for fire fighting. The poem points out that for these purposes, sea water or untreated water from other streams would have sufficed.

The drought and subsequent water supply crisis in 1893 obviously left a major impression on the public imagination. Facing intermittent supplies and water restrictions, one

member of the public wrote to the *Irish Times* on 16 September 1893 about 'The Protracted Drought' and made an audacious suggestion. In the letter, the author (signed *A. Citizen*) recommends a weather modification experiment to bring an end to the drought by exploding dynamite above the city to urge the obvious clouds to give up their moisture (Figure 6). As the author claims, this experiment would indeed have proved novel, if in the end unlikely to alter the course of events. Even so, the proposal is not so far removed from modern-day cloud-seeding and controversial geoengineering technologies. Figure 4(c) depicts the pressure conditions in situ when the article appeared in print.

### Final analysis

Recollections of past extremes can play a role in building resilience to future events (McEwen and Jones, 2012). Recent decades have been conspicuously drought free in Ireland (Wilby *et al.*, 2015; Noone *et al.*, 2017), to the extent that most recent experiences of protracted drought are based on the mid-1970s. Although short, sharp droughts occurred in the summers of 1995, 2006 and 2013, these events bear little resemblance to the long and intense droughts of earlier centuries, which often spanned multiple seasons and even years. This raises questions about whether the underlying causes of long droughts in Ireland have changed in

the interim. Moreover, past events challenge water managers to consider how they might manage a repeat episode of 1887 or 1893, given the present supply-demand balance in Dublin, and the condition of infrastructure (much of which is the same as in the nineteenth century). Information on historic droughts uncovered by this research is currently feeding into water resource and drought planning in Ireland.

The paucity of notable recent droughts also highlights the value of recalling past events from media archives. Newspapers provide an important source of such information, particularly where confidence in observations decreases, which is the case in Ireland prior to 1850. Noone *et al.* (2017) show that newspaper archives can be cross-referenced with available observations, other documentary sources and indeed other drought catalogues (e.g. Marsh *et al.*, 2007). As we show here, Ireland is fortunate to have rich archives that contain interesting eye-witness accounts of how drought can impact society. As is evident for the 1893 event, newspaper archives even help to add detail to how the drought impacts propagated through society. In addition, the 1851 Census of Ireland contains valuable information on various weather extremes prior to 1850. An interesting avenue for further research would be to investigate how these sources corroborate each other for overlapping periods. A further important avenue is to continue efforts to digitise archived data to extend both the temporal and spatial understanding of historic droughts while there are other documentary sources such as weather diaries (e.g. Dixon, 1959) that can help extend assessments of drought further back in time. Finally, it is our hope that this paper will serve as a reminder that Ireland is, despite popular perceptions and recent experience, surprisingly drought prone.

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