



Media Ecosystem Observatory Brief

Smoke and Mirrors: Social Media Coverage of Wildfires in the Age of Climate Change

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in English and French
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Smoke and Mirrors: Social Media Coverage of Wildfires in the Age of Climate Change

Executive summary

The 2024 Jasper wildfire garnered widespread media attention across Canada, despite a smaller total area burned than some catastrophic wildfires that occurred in 2023.¹ This heightened focus may be attributed to the symbolic significance of Jasper National Park, a beloved and iconic Canadian destination, which may have triggered a deeper emotional response from the public as they were witnessing its destruction by the flames.

In this report, we explore public attitudes toward climate change during the 2023 and 2024 wildfire seasons. Given the unparalleled severity of the 2023 wildfire season and the media's heavy coverage of the Jasper wildfire in 2024, we expected these events to influence people's beliefs about climate change. However, our research shows that public concern about climate change stayed mostly unchanged. This suggests that while specific events, like the Jasper wildfire, capture attention due to their symbolic value, they do not necessarily prompt a broader change in attitudes toward climate issues.

Écran de fumée : les feux de forêt et leur couverture sur les médias sociaux à l'ère des changements climatiques

Sommaire exécutif

Les feux de forêt à Jasper en 2024 ont fait l'objet d'une vaste couverture médiatique à travers le Canada, malgré une superficie brûlée inférieure à certains incendies catastrophiques de 2023.² Cette attention médiatique accrue peut s'expliquer par l'importance symbolique du parc national de Jasper, emblème national et destination très prisée des Canadien·nes dont la destruction par les flammes a sans doute suscité une réaction émotionnelle plus intense de la part du public.

Dans ce rapport, nous analysons les attitudes du public face aux changements climatiques pendant les saisons de feux de forêt de 2023 et 2024. Compte tenu de la gravité exceptionnelle des feux en 2023, et de la forte couverture médiatique de l'incendie de Jasper en 2024, nous nous attendions à ce que ces événements influencent les opinions des Canadien·nes concernant les changements climatiques. Cependant, notre recherche démontre que les préoccupations du public concernant les changements climatiques sont restées pratiquement inchangées. Bien que certains événements comme le feu de forêt ayant dévasté Jasper



A more detailed examination of social media coverage surrounding the wildfires sheds light on possible reasons for this lack of increased concern. On social media, politicians' and journalists' framing of the Jasper wildfire often centred around the park's status as a national treasure, emphasizing its iconic beauty and significance, but rarely linked the fire to the broader issue of climate change. This tendency to focus on the immediate impact and emotional appeal of the event, rather than contextualizing it within the wider climate crisis, may have contributed to the stagnation in public concern about climate change. As a result, the wildfire, despite its prominence in the news, did not catalyze widespread calls for climate action or policy reform.

The heightened attention paid to the Jasper wildfire underscores the public's emotional response to environmental threats affecting culturally significant locations. However, without more effective media framing that ties such events to the systemic issue of climate change, this attention may not translate into greater public concern or policy pressure. This highlights the critical role that media plays in shaping public discourse and influencing the salience of climate change in times of environmental crisis.

Key findings:

- ◆ The catastrophic Jasper wildfire did not significantly change Canadian attitudes toward climate change.
- ◆ We find that Canadians became more convinced that wildfires were caused by human activity following the Jasper fire.
- ◆ We observe little to no discussion of climate change in the social media coverage of wildfires and Jasper.
- ◆ The information ecosystem responds unevenly to wildfire events. Although 2024 was a relatively mild wildfire season, especially in comparison to 2023, the Jasper wildfire became the most searched and discussed wildfire in Canada in recent years.

captent l'attention en raison de leur valeur symbolique, nos résultats suggèrent qu'ils n'entraînent pas nécessairement un changement plus large des attitudes face aux enjeux climatiques.

Une analyse plus approfondie de la couverture des feux de forêt sur les médias sociaux permet de mieux comprendre les raisons possibles de cette absence de prise de conscience. Sur les médias sociaux, les politiciens et les journalistes ont souvent centré leur analyse de l'incendie de Jasper sur son statut de symbole national, en soulignant sa beauté et son importance, mais ils ont rarement fait le lien avec la problématique plus large des changements climatiques. Cette tendance à se concentrer sur l'impact immédiat et l'aspect émotionnel de l'événement, plutôt que de le contextualiser dans la crise climatique mondiale, a probablement contribué à la stagnation de l'inquiétude publique face aux changements climatiques. Par conséquent, l'incendie, malgré son importance dans l'actualité, n'a pas déclenché de vastes appels à l'action climatique ou à des réformes des politiques.

L'attention accrue portée au feu de forêt de Jasper souligne la réaction émotionnelle du public face aux menaces environnementales affectant des lieux d'importance culturelle. Cependant, sans un cadrage médiatique plus efficace qui lie ce genre d'événements aux enjeux systémiques des changements climatiques, cette attention risque de ne pas se traduire par une prise de conscience accrue ou une pression politique renforcée. Cela met en lumière le rôle crucial des médias dans la construction du discours public et dans l'importance accordée au changement climatique en période de crise environnementale.

Principaux constats :

- ◆ L'incendie de Jasper, bien que catastrophique, n'a pas significativement modifié les attitudes des Canadien·nes à l'égard des changements climatiques.
- ◆ Nous constatons que les Canadien·nes sont de plus en plus convaincus que les feux de forêt sont causés par l'activité humaine à la suite de l'incendie de Jasper.
- ◆ Nous n'observons peu ou pas de discussion sur les changements climatiques dans la couverture des feux de forêt et de Jasper sur les médias sociaux.
- ◆ La réponse des médias aux événements de feux de forêt est inégale. Bien que la saison 2024 ait été relativement modérée, surtout en comparaison avec 2023, le feu de Jasper est devenu l'incendie de forêt le plus recherché et discuté au Canada ces dernières années.

Context

Recent Canadian history is littered with devastating wildfire seasons. The second worst wildfire season on record was 1995, when 7.1 million hectares of land were scorched.³ Later, in 2016, the oil-rich city of Fort McMurray, Alberta, was engulfed by flames, marking the most expensive natural disaster in Canadian history.⁴ More recently, in 2021, residents were forced to evacuate when the majority of the town of Lytton, BC, succumbed to wildfires.⁵ The summers of 2023 and 2024 were also marked by severe wildfires.

The 2023 wildfire season was the worst in Canadian history, breaking the previous record for total area burned.⁶ The season was unusually long, lasting from April into October, and severe drought conditions contributed to almost 16.5 million hectares of land burned across 6,132 fires, an 866% increase compared to the 2022 wildfire season.⁷ Canada's 2023 wildfires were so severe that they emitted more carbon than all but three entire countries, China, the US and India.⁸ Many Canadians were directly affected by the 2023 wildfires. Some had to leave their homes due to fire danger, while others faced poor air quality from the smoke. On June 30, 2023, New York, Montreal, and Toronto were ranked the most polluted cities in the world because of smoke from Canadian wildfires.⁹

The 2024 wildfire season has also been one of the worst in Canadian history, with 5.3 million hectares burned. The hardest-hit regions include the Northwest Territories, British Columbia, and Alberta.¹⁰ One of the most devastating events was the wildfire that ravaged Jasper National Park and the historic town of Jasper, Alberta. Spanning 32,722 hectares, the fire forced the evacuation of over 25,000 people. The blaze garnered widespread social and traditional media attention due to its intensity and rapid progression toward Jasper, leaving a significant mark on one of Canada's most iconic landscapes.¹¹

These recent fire seasons have raised significant concerns about the future of extreme weather events. The consensus from the scientific community is that the increase in the frequency of wildfires over the last century is due to climate change.^{12,13,14} Researchers show that climate change can aggravate all three necessary conditions for wildfires, "fuel, ignition, and weather,"¹⁵ and that climate change also contributes to more lightning strikes which often trigger wildfires.¹⁶ In terms of the 2023 wildfires, climate scientists have shown that the severe weather conditions caused by climate change "more than doubled the likelihood of extreme fire weather conditions in Eastern Canada."¹⁷ Scientists expect that in almost all regions of the country, wildfires will become worse in the years to come.¹⁸

This increasing severity of extreme weather events has garnered increasing media attention in recent years.¹⁹ A recent U.S. study shows that news coverage of wildfires has grown since 2016, with an increasing focus on their connection to climate change.²⁰ Increased media attention on extreme weather events can boost public awareness and concern, which in turn can shape perceptions of climate change. When events like wildfires, hurricanes, or heatwaves are widely covered, they can serve as vivid examples of the tangible impacts of climate change, making the issue feel more immediate and personal. This heightened visibility may influence public opinion, increase the perceived urgency for action, and shape policy discussions.²¹ However, the framing and frequency of such coverage can also affect how people interpret the link between extreme weather and climate change, potentially leading to either increased support for climate policies or, in some cases, fatigue or a feeling of helplessness if the information is perceived as alarmist or overwhelming.²² Others have suggested that people lack concern for climate change because they are more preoccupied with maintaining a decent standard of living under the pressure of rising food and housing costs.²³

Media coverage could, therefore, be a double-edged sword regarding extreme weather events. While it can potentially increase public concern and motivate action for climate change, it may also contribute to disengagement if people feel overwhelmed or powerless in the face of constant alarming news.

Question

The unprecedented interest in the destruction of Jasper compared to other wildfires raises two questions: **why do some wildfires receive more public attention than others? Does social media coverage drive broader concerns about climate change?**

Our research uses public opinion surveys and digital trace data to explore this issue. We find no change in the number of Canadians attributing wildfires to climate change after the Jasper fire, and no corresponding change in people's broader beliefs about climate change or how often they thought about the environment. This disconnect prompts us to ask why these fires, despite their severity, didn't drive more Canadians to think about climate change.

We further analyze social media data to examine how the Jasper wildfire was framed in coverage of the event. Understanding how social media shapes the narrative around specific environmental disasters may shed light on why certain events fail to trigger wider concern about climate change.

Analysis

Political scientists often speak of an “issue attention cycle” where dramatic events, like an environmental catastrophe, can temporarily spark public and governmental interest in tackling related policy problems.²⁴ We anticipate that heightened social media attention surrounding a climate disaster, such as the Jasper wildfire, would lead to an increased concern about the environment. When people observe the tangible effects of climate change, particularly through severe weather events, it can influence their perceptions of the issue. To explore this hypothesis, we conducted public opinion surveys with a representative sample of Canadians in June and July 2024. We expected that more people would be thinking about climate change and the environment after this event. Despite the significant social media coverage of the Jasper wildfire, we found no corresponding increase in the public’s concern about climate change and the environment.

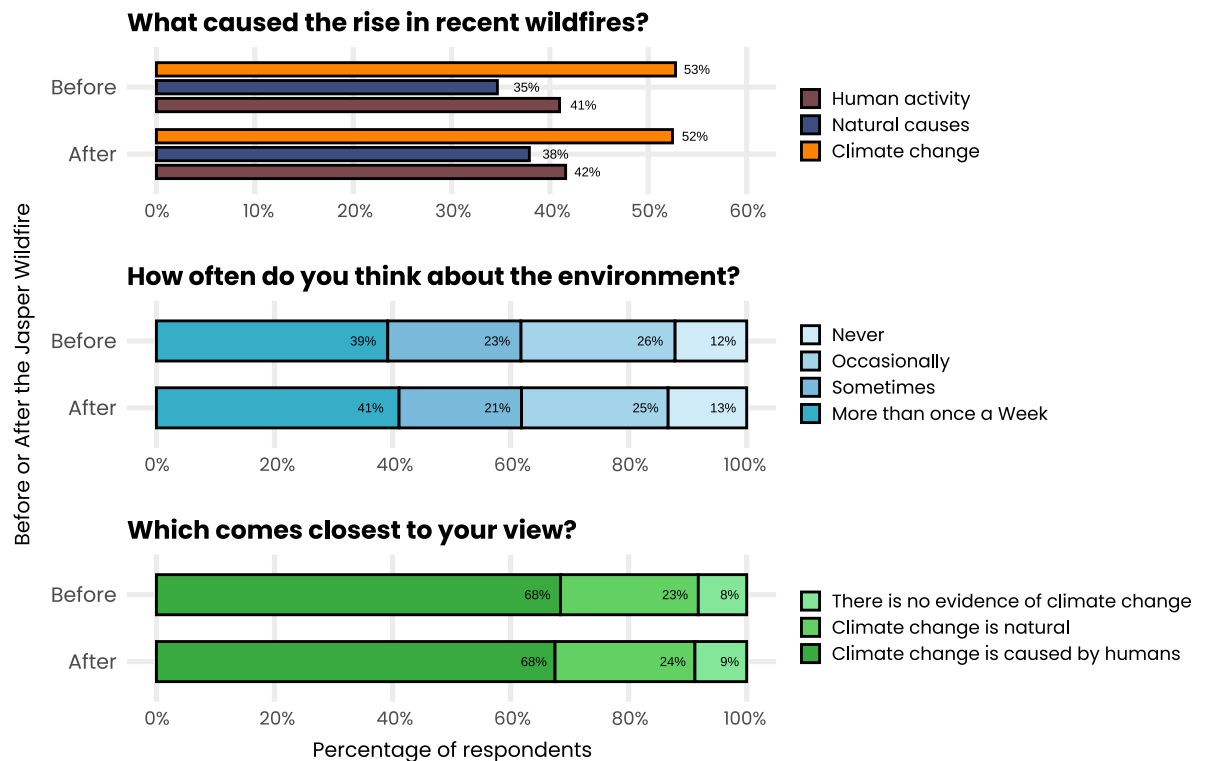
First, we asked respondents to identify what they believed was responsible for the rise in recent wildfires, and they were allowed to select multiple options (climate change, natural causes or human activity). Our analysis (top panel of Figure 1) shows that the proportion of opinions shifted after the Jasper wildfire, with a smaller proportion of the after group selecting

“climate change” and a greater proportion selecting “human activity” and “natural causes” compared to the proportion of responses collected before the event. This is puzzling, and may be due to the media framing of this event.

Despite these shifts in views about the causes of the rise in wildfires, we found no significant change in the salience of environmental issues before and after the Jasper wildfire (middle panel of Figure 1). To measure this we asked individuals to assess how often they think about various issues, including the environment.

Finally, our findings revealed no significant change in the general belief in climate change (bottom panel of Figure 1). Approximately 70% of Canadians continue to believe that climate change is primarily caused by human activities, while about 24% attribute it to natural causes, and 8% express skepticism, stating that there is no evidence of climate change. The considerable attention paid to the Jasper wildfire did not translate into an increased focus on environmental concerns or increase the proportion who believed that climate change is caused by humans more generally.

Figure 1. Before and After Jasper Survey Results



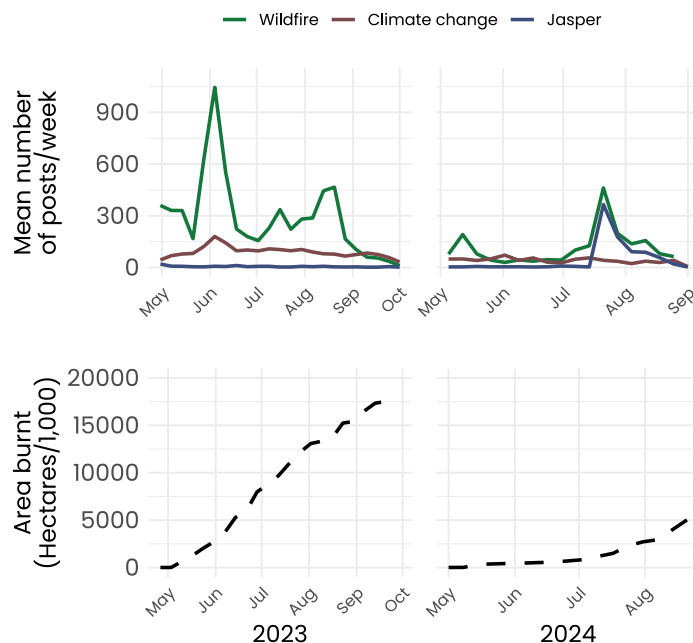
Note: We surveyed 1408 Canadians between June 26 and June 30, 2024 and 1505 Canadians between July 24 and July 29, 2024. The town of Jasper was evacuated on July 24, 2024. In the first question, respondents could select more than one option.

Why didn't the wildfires increase concern about climate change and the environment? To answer this, we explored how the traditional media and politicians responded to this event. Using digital trace data from the Canadian Digital Media Research Network (CDMRN), we present online social media engagement related to wildfires, climate change, and Jasper during the 2023 and 2024 wildfire seasons in French and English.

In Figure 2, we show the average number of posts per week on these topics. As expected, given the severity of the season, we find high engagement on social media during the 2023 wildfires. However, we find that the discussion around wildfires remained consistent across 2023, even as the fires became progressively worse. While overall engagement in 2024 was lower, the Jasper wildfire alone generated as much attention as all of the wildfire events in the 2023 season. We observe little to no relationship between the severity of wildfires and social media engagement.

As expected, engagement with the term 'Jasper' surged at the end of July when residents were evacuated from the town. Notably, this engagement did not include discussions of climate change. Less than 1% of posts about the Jasper wildfire between July 14 and August 25 mentioned climate change. In the same period, 90% of social media engagement mentioned "Jasper" or "wildfire" (32% contained both). These proportions were similar among politicians and news outlets.

Figure 2. Online Engagement with Wildfires



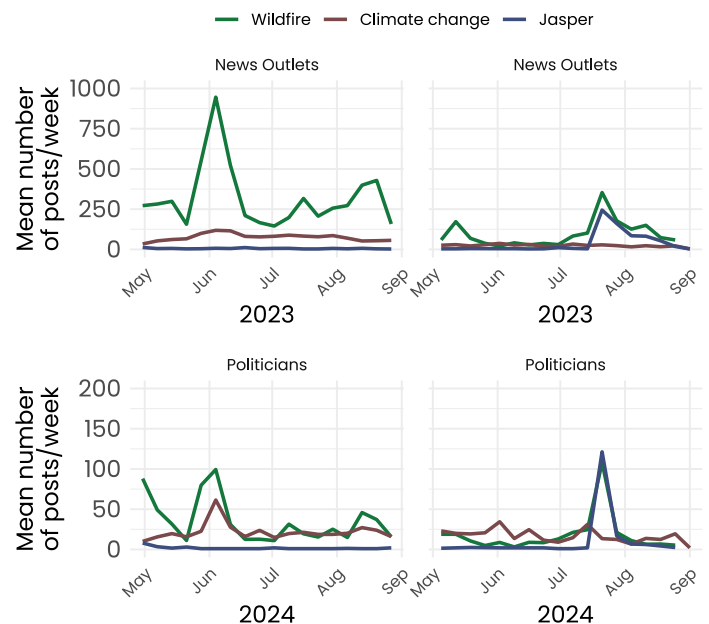
Note: Weekly engagement based on 83,314 posts on social media (Facebook, Instagram, TikTok, Twitter and Youtube)

Additionally, we analyze how this event was covered by mainstream news outlets and politicians. How did these sources frame the wildfires? Did they link these events to climate change in their coverage? We specifically examine whether their discussions of the wildfires also included references to climate change.

We observe two interesting trends. First, there is a stark difference in social media engagement regarding wildfires between news outlets and politicians. Indeed, news outlets seem to predominantly drive engagement on this issue on social media, particularly in 2023.

Second, we find that while there was an increase in the mentions of the terms "Jasper" and "wildfires" by both news outlets and politicians at the time of the Jasper wildfire, there was no corresponding increase in coverage which included the term "climate change". Notably, we see that while politicians mentioned the event in a short spike immediately after the event, news outlets maintained consistent coverage of the Jasper wildfires in the weeks following the event. This shows us that there was extended coverage of this event in the news cycle, but this coverage did not include a discussion of climate change. However, it is important to note that early in the 2023 wildfire season, there was a significant increase in the use of the term climate change, showing some engagement by politicians on social media.

Figure 3. Online Engagement with Wildfires by Sources



Note: Weekly engagement based on 83,314 posts on social media (Facebook, Instagram, TikTok, Twitter and Youtube)



Conclusions

Our research reveals that public attention to wildfires peaked during the Jasper wildfires, outpacing interest in any other period since January 2023, despite the fact that the overall severity of the 2023 wildfire season was greater. We investigated whether the heightened conversations surrounding these wildfires were linked to discussions about climate change.

The surge in social media focus on the Jasper wildfire carries potential benefits, including increased awareness of the immediate impacts of wildfires, prompting discussions on environmental policy, and motivating proactive engagement with environmental issues. For individuals to feel compelled to act against severe climate events, a belief in climate change is crucial.

However, our survey results indicate that, in the aftermath of the Jasper fire, a greater number of respondents attributed the cause of the wildfires to either human activities or natural factors, rather than climate change. Furthermore, we observed minimal change in the frequency with which people contemplate environmental issues, and overall attitudes toward climate change remained relatively stable.

These findings suggest a disconnect between increased awareness of specific wildfire events and a broader understanding of the relationship between such events and climate change. Despite the significant social media attention and potential for dialogue on environmental issues, the prevailing narratives may not effectively connect individual experiences of wildfires to the larger context of climate change. This highlights the need for more targeted communication strategies that foster a clearer understanding of how climate change contributes to the increasing frequency and intensity of wildfires, thereby enhancing public motivation to engage with climate action.

Recommendations

Based on these findings, we urge media outlets and politicians to be mindful of how they report extreme weather events like wildfires. For decades media scholars have noted a tendency of journalists to frame stories in “episodic” terms - to focus reporting on sensationalized events with scant attention on the broader context that caused those events. Critics argue that this form of fragmented news coverage makes it considerably harder for ordinary citizens to learn about pressing issues and demand policy action from governments.²⁵

While it is reasonable for journalists and politicians to talk about wildfires and its impacts on the residents of Jasper and Canadians more broadly, it is also important to inform Canadians about the broader context of climate change's escalating effects on extreme weather events. Catastrophes like the Jasper wildfire should be presented within a broader, substantive context that acknowledges the ongoing climate crisis. It is crucial that reporting connects these events to the need for climate change mitigation.

Contributors

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Thank you to the Media Ecosystem Observatory team for their collaboration on this brief.

Methodology

For survey findings, this report relies on two sources. First, we surveyed 4,808 Canadians between June 9 and June 28, 2023, all of whom were part of a Dynata commercial panel. Second, we surveyed 1408 Canadians between June 26 and June 30 2024 and 1505 Canadians between July 24 and July 29, 2024 from a commercial panel of Léger. Both samples were administered on the Qualtrics survey platform using quotas on gender, province, and age based on the 2021 Canadian census data to help make the samples generally representative of the general Canadian population. Regarding the analysis of the Jasper wildfire, the June sample served as the “Before” and the July sample served as the “After” group.

The specific survey questions analyzed in this report are:

- ◆ In your view, what is the main cause of the rise and severity of wildfires in Canada? (Select all that apply) (Climate Change, Natural causes (e.g., lightning strike), Unintentional human activity (e.g., unattended campfire), Intentional human activity (e.g., arson), I don’t know)
- ◆ In the past month, how often have you thought about the following issues? (Environment – Never, Once or twice a month, Several times a month, Several times a week, At least once a day, Several times a day)
- ◆ Which comes closest to your view? (Climate change exists primarily because of human activity, Climate change exists primarily because of natural patterns, There is no solid evidence of climate change, Don’t know / Prefer not to say)

Social media data in this report covers May 1 to October 7 in 2023 and May 5 to August 31 in 2024. All media organizations were identified manually by a team of research assistants, with each of their social media handles across Facebook, Instagram, YouTube, TikTok, X/Twitter collected as well. All data collected from Meta platforms for this Brief was through the CrowdTangle API. The search was done by using the keywords “wildfire(s),” “climate change,” “climate,” “feu(x) de forêt,” “changement climatique” and “Jasper.” The final corpus contained 83,314 posts on social media from politicians and news outlets.

Notes

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