

COVERING CLIMATE GROUND ZERO



Florida newspapers are connecting
sea-level rise to climate change,
but falling short on **extreme heat**

Acknowledgments

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Introduction

In 2014 at a special Senate hearing held in Miami Beach, Senator Bill Nelson called Florida “Ground Zero” for climate change,¹ referring to the threat that sea level rise poses to coastal communities. His remarks were far from hyperbole. Sea level rise will be catastrophic for the Sunshine State; 22 of the 25 American cities most vulnerable to it are in Florida.²

The consequences are so dire that three Florida newspapers—the *Miami Herald*, the *Sun-Sentinel* and *The Palm Beach Post*—formed an unprecedented alliance to raise awareness, in drumbeat fashion, about the threat from sea level rise.³

Overall, Florida newspapers churned out more than 2,000 articles mentioning sea level rise over the most recent 22 months, and nearly 60 percent also mentioned climate change.

But rising seas are far from the only threat to Floridians from climate change. Extreme heat is no less serious, but far less reported. For the most part, Florida newspapers are not covering heat as a climate impact. Although 56.8 percent of articles that discussed sea level rise mentioned climate change, the same is true for just 22.2 percent of articles on extreme heat.⁴ Moreover, with a few notable exceptions, articles on greenhouse-gas-fueled extreme heat generally do not frame it as a public health issue.

Perhaps Florida media connect rising temperatures to climate change less often than they do flooding because Floridians are used to hot weather. As a result, the changes are less noticeable day to day. But rising heat is a growing—and newsworthy—problem in the Sunshine State. Over the past 30 years, extreme heat has been responsible for significantly more deaths than hurricanes, lightning, tornadoes, floods, or earthquakes.⁵ And the problem is only getting worse. Justin Gillis, who reports on climate issues for *The New York Times*, wrote in a 2017 article that scientists are raising the red flag on extreme heat: “In their estimation, the savage heat waves that we experience today will likely become routine in a matter of decades.”⁶

As in the case of sea level rise, Florida is “Ground Zero” for heat impacts:

¹ Jenny Staletovich, “At a Rare Field Hearing, U.S. Sen. Bill Nelson Calls Miami Beach Ground Zero for Sea Level Rise,” *Miami Herald*, Apr. 22, 2014. <https://www.miamiherald.com/news/local/environment/article1963249.htm>.

² Climate Central, “These U.S. Cities Are Most Vulnerable to Major Coastal Flooding and Sea Level Rise,” Oct. 25, 2017. <http://www.climatecentral.org/news/us-cities-most-vulnerable-major-coastal-flooding-sea-level-rise-21748>.

³ Miami Herald Editorial Board, “Three newspapers confront one challenge: Sea level rise is real, South Florida needs all hands on deck — now,” *Miami Herald*, May 4, 2018. <https://www.miamiherald.com/opinion/editorials/article210451219.html>.

⁴ This number might in fact be low. Arguably many mentions of sea level rise assume climate change without calling it out specifically.

⁵ NOAA, NATIONAL WEATHER SERVICE, OFFICE OF CLIMATE, WATER, AND WEATHER SERVICES, 78-YEAR LIST OF SEVERE WEATHER FATALITIES, at <https://pubc.it/2z0StID>.

⁶ Justin Gillis, “The Real Unknown of Climate Change: Our Behavior,” *The New York Times*, Sep. 18, 2017, <https://pubc.it/2zYApza>.

- About 94 percent of Florida's population—more than 18 million people—live in areas that recorded extreme heat days over the past 10 years.⁷
- In 2016 (the most recent available data), Florida saw the highest number of heat stress hospitalizations in the nation, with 1,112.⁸
- Florida is home to 10 of the hottest cities in the country. Miami tops the rankings.⁹
- The 13 metro areas in the U.S. projected to see the greatest increase in dangerous heat days by 2050 are all in Florida.¹⁰ Every one of these cities is projected to see an increase of more than 100 dangerous heat days.¹¹
- Florida currently has an average of 25 dangerous heat days each year. By 2050, it is projected to see 130 such days each year, more than any other state.¹²
- The year 2017 just edged out 2015 and 2016 for the state's hottest on record.¹³

This report examines Florida media coverage of heat and climate change from January 2017 through October 2018. For comparison, it discusses reporting on sea level rise as well.

Over half of the articles (92 of 174) that mention both heat and climate change are not primarily about heat or record temperatures. Most of these articles use the occurrence of record temperatures and extreme heat events to illustrate that climate change is real and that its effects are already being felt, or to identify heat as a contributor to other climate-related events or impacts.

Among pieces that connect heat to climate change in some way, we further examined whether a connection was made to public health or to action to address climate change.

The survey also identifies papers that have editorialized on climate change when mentioning heat.

Notably, several news outlets are covering climate by printing or adapting stories from other outlets or wire services such as the Associated Press, which has journalists dedicated to covering the climate crisis. In this way, they are managing to report well on climate for their audiences even if they lack the resources to do so on their own.

⁷ Jenny Staletovich, "Warming planet means Florida likely to get more dangerous hot days," *Miami Herald*, Oct. 24, 2017. <https://www.miamiherald.com/news/local/environment/article180684676.html>

⁸ The National Environmental Public Health Tracking Network, The Center for Disease Control, <https://ephtacking.cdc.gov/DataExplorer/#/>.

⁹ Climate Central, "The hottest cities in U.S. vs. the fastest warming," July 16, 2016. <http://www.climatecentral.org/news/fastest-warming-cities-20535>

¹⁰ The National Weather Service defines as dangerous any day when the heat index (the combination of heat and humidity, commonly known as the "feels like temperature") exceeds 104°F.

¹¹ Climate Central, "U.S. faces dramatic rise in extreme heat, humidity," July 13, 2016. <http://www.climatecentral.org/news/sizzling-summers-20515>

¹² Climate Central, States at Risk: America's Preparedness Report Card, <http://reportcard.statesatrisk.org/report-card/florida/extreme-heat-grade>.

¹³ Kimberly Miller, "Years-long warming trend continues for Florida in 2017," *The Palm Beach Post*, Dec. 20, 2017, <https://www.palmbeachpost.com/weather/years-long-warming-trend-continues-for-florida-2017/IMdHpNKGZ8rLfsjCqBbfK/>.

A fair number of Florida papers cover breaking or national climate stories, but many of the state's major newspapers papers are silent on these same events. As a result, many papers miss opportunities to communicate the crisis and its impacts to Florida readers. Although 2017 was Florida's hottest year on record only four newspapers—*The Palm Beach Post*, the *Miami Herald*, *Orlando Sentinel*, *Bradenton Herald*—covered this story in print and connected it to climate change.

Summary of Significant Findings

- Just 22.2 percent of 785 articles mentioning heat also mentioned climate change. Therefore, 77.8 percent of heat pieces did not make the connection. In contrast, 56.8 percent of articles connected sea level rise to climate change.
- Of the pieces that mentioned both heat and climate change, 43.7 percent connected the issue to climate action or adaptation (or lack thereof).
- Of the pieces that did mention both heat and climate change, only 12.6 percent mentioned public health impacts of heat.
- Of the 174 articles that mentioned both heat and climate change, 91 were written by Florida's top eight newspapers.
 - *The Sun-Sentinel* mentioned both heat and climate change in 29 articles, the most of any Florida paper.
 - *The Daytona Beach News-Journal* and the *Sarasota Herald-Tribune* mentioned both issues in just two articles each, the fewest of the top eight.
 - Seven Florida papers, including four of the top eight, editorialized on heat and climate. *The Florida Times-Union* alone accounted for 38 percent of the editorials, with five.

Just 22.2 percent of 785 articles discussing extreme heat also mentioned climate change.

Analysis: Heat Is an Under-recognized Part of Florida's Climate Crisis

Florida is ground zero for climate change. In addition to the encroaching sea, rising temperatures threaten the state's residents, especially those most vulnerable to extreme heat: older adults, children, those with chronic medical conditions, outdoor workers, and residents of low-income communities. A survey of 49 Florida newspapers spanning 22 months and two summer seasons found that only 22.2 percent of articles in Florida papers mentioning extreme heat also discuss climate change. More than 52 percent of those articles were by the top 8 papers in the state. Of the pieces discussion climate change, less than half connected climate impacts to mitigating policies or adaptation. Even fewer explained the relationship between rising temperatures and public health.

Of the pieces that discuss both extreme heat and climate change, only 53 percent (92 of 174) are primarily about heat or include a discussion of it. By way of illustration, several articles reviewed for this report discuss record-breaking or unseasonable heat. For example, at least 13 articles focus primarily on or feature a discussion of Florida's two-year run of February heat waves or above

average winter temperatures. (In February of 2017, many parts of the country experienced freakishly warm weather. The first four months of 2017 were the hottest on record for the Southeast—and Florida—according to the National Centers for Environmental Information.¹⁴ In February 2018, Florida experienced its hottest winter month in history.)

Still other pieces center on heat as a climate-change impact. For example, a *Florida Times-Union* article by Steve Patterson discusses a new study on how rising temperatures diminish trees' ability to absorb carbon.¹⁵

Articles that do not focus primarily on heat might mention it only as one among several climate change threats. For example, a *Bradenton Herald* article on Sarasota's first climate vulnerability assessment reports that the "main climate threats determined in the interim vulnerability report include sea level rise, storm surge, extreme heat and extreme precipitation." This is the only mention of heat in the article.¹⁶ Other pieces mention heat as contributing to another climate impact. For example, an article about wildfire risks in the *Charlotte Sun* identifies "record-setting temperatures and below-average rainfall in the area" as contributors to wildfires.¹⁷

Connecting Climate Impacts to Climate (In)action

In addition to giving context to climate-related extreme weather by drawing that connection explicitly, it is vital to discuss efforts to mitigate or adapt to climate when reporting on its impacts. During the period for which this review was done, the Donald Trump administration took multiple steps backward on climate change, including announcing a withdrawal from the Paris climate accord and working to repeal fuel economy rules and the Clean Power Plan. Conversely. At the same time, and to some extent in response to Trump's actions, many cities and states have initiated significant efforts to cut carbon pollution and prepare for local effects of climate change. In this review, we evaluated articles to determine whether they discussed climate action or adaptation alongside heat impacts.

Of the pieces that mention both heat and climate change, 43.7 percent or 76 articles connect the issue to climate action or adaptation (or lack thereof). These articles mention either the failure or progress of federal, state or local administrations to reduce climate causing pollution or plan for climate adaptation. The majority of these articles—43, or 57 percent—mention President Trump's rollback of Obama-era climate regulations or policies. Furthermore, 28 of those 43 specifically reference the withdrawal from the Paris climate accord. In an article published in the aftermath of Hurricane Harvey and Irma, *Miami Herald* reporter Andres Oppenheimer points out the irony of Trump and his cadre of climate skeptics' reliance "on the National Oceanic and Atmospheric Administration (NOAA) and its National Hurricane Center to warn us about incoming hurricanes, [without paying] attention

¹⁴ National Center for Environmental Information, National Oceanic and Atmospheric Administration, https://www.ncdc.noaa.gov/cag/statewide/time-series/8/tavg/4/4/2017-2017?base_prd=true&firstbaseyear=1901&lastbaseyear=2000

¹⁵ Steve Patterson, "Research raises questions about trees' reaction to climate change," *Florida Times-Union*, Mar. 5, 2018.

¹⁶ Hannah Morse, "Local governments, more or less, tackling effects of climate change," *Bradenton Herald*, June 9, 2017.

¹⁷ Sommer Brokaw, "Driest winter in years, drought and wildfire risk up in Southwest Florida," *Charlotte Sun*, Mar. 10, 2017.

to NOAA's own scientific conclusions about human-caused climate change.¹⁸ Oppenheimer uses Trump's "reckless decision to withdraw from the Paris Climate Accord" to illustrate how Trump's climate denial is being translated into national policy.¹⁹

The remaining articles mention resiliency efforts (19.7 percent) or advocate for a specific climate policy (13.2 percent) or other state policies that are not related to resiliency (10.5 percent). An excellent piece by Howard Goodman of *The Palm Beach Post* discusses the scope of climate impacts on Southeast Florida and what local leaders are doing to prepare. Goodman reports that "for the past nine years, government leaders from the four counties of Florida's southeast corner—Palm Beach, Broward, Miami-Dade and Monroe—have been meeting regularly to figure out how to meet the common challenges from a future of greater flooding, fiercer storms, bigger storm surges, worse heat waves."²⁰ The article also touches on political challenges and opportunities for resilience efforts, pointing to Governor Rick Scott's lack of leadership on the issue and citing recent polling suggesting that the majority of residents in the four counties support climate action.²¹

Top 8 Papers. During the survey period, Florida's top 8 newspapers published 52.3 percent of articles that mentioned on extreme heat. Of the top 8 papers, the *Sun-Sentinel* and the *Orlando Sentinel* led with the most articles connecting heat to climate change, with 29 and 24, respectively. But many papers that were not in the top 8 performed well by these measures. See Table 1 in the Appendix for full numbers.

Of the top 8 papers, *The Daytona Beach News-Journal* and the *Sarasota Herald-Tribune* each mentioned climate change in just two articles on extreme heat, the lowest among the top 8 papers.

Editorials. Only seven papers published any editorial mentioning heat and climate, and only three published more than one. *The Florida Times-Union* led with five. While none of its editorials focuses on heat specifically, all use record-breaking temperatures and the warming trend to underscore their position on a number of climate-related issues and to issue a call for action. *The Gainesville Sun* and *The Stuart News* each published two.²² The remaining papers, with one each, are the *Orlando Sentinel*, the *Sun-Sentinel*, *The Palm Beach Post*, and the *Tampa Bay Times*.

The May 29, *Sun-Sentinel* editorial, "Think South Florida's hot? Just you wait"²³ is the only editorial primarily about heat. It uses the Memorial Day holiday and the start of summer to ground its discussion of record breaking heat and the early arrival of Florida's extreme heat season. The editorial rightly acknowledges that "climate change is certainly a contributor."

¹⁸ Andrés Oppenheimer, "President Trump, hurricanes Harvey and Irma are sending you a message," *Miami Herald*, Sep. 7, 2017.

¹⁹ *Id.*

²⁰ Howard Goodman, "Counties, businesses tackle climate change," *The Palm Beach Post*, Dec. 17, 2017.

²¹ *Id.*

²² The two editorials in *The Stuart News* are a "View–Opposing View" set reprinted from *USA Today*.

²³ "Think South Florida's hot? Just you wait." *Sun-Sentinel*, May 29, 2017.

Reporting on Greenhouse-Gas-Fueled Heat as a Public Health Crisis

Numerous articles on record-breaking or extreme heat focus solely on the fact that it is hot and getting hotter without explaining what rising temperatures mean for public health. Heat is the most direct way many people experience climate change, especially those residing in Florida. It is also the weather event most readily attributable to climate change, as global warming has contributed to 82 percent of global record-hot days by making them more likely or more severe.²⁴ In fact, heat can be deadly. For places like Arizona²⁵ and northern India,²⁶ dangerously high temperatures are already creating a public health crisis. Journalists can play a key role in drawing attention to heat's effect on human health.

Of the pieces that mention both heat and climate change, only 22 (12.6 percent) mention public health impacts from heat. Three were prompted by Natural Resources Defense Council (NRDC) report from the fall of 2017, which found that extremely hot days are on the rise, with Florida among the states with the biggest uptick.²⁷ The NRDC report concludes that soaring temperatures pose grave health risks for children, the elderly, people with heart, lung, and other illnesses, and those engaged in outdoor sports. The *Charlotte Sun*, the *Miami Herald*, and the *Orlando Sentinel* covered the report.²⁸

One great model of reporting comes from Kimberly Miller of *The Palm Beach Post*. Her piece appears to have been prompted by the release of the National Climate Assessment's Climate Science Special Report in November 2017. Miller pulls out the findings most relevant to Floridians—" [t]here are pieces specific to Florida, including an estimated increase in days where temperatures reach higher than 90 degrees, more frequent extreme rainfall events, rising seas and the potential for more intense hurricanes with warming ocean temperatures²⁹—and uses the report as a springboard to dive into heat. She covers what the science predicts and why heat is harmful, gives examples of recent heat fatalities in Florida, and wraps up by acknowledging the shortcomings of the climate report. Miller's article is one of 22 articles over a 22-month period that connect climate driven heat to health.

One of the best articles focusing on public in the context of heat was filed by Alex Harris of the *Miami Herald*. Harris interviews doctors who are seeing more evidence of heat related illness in their waiting and emergency rooms. The article notes that heat is underrepresented in discussions about

²⁴ Climate Signals, "Extreme heat and heat waves," July 25, 2018. <https://pubc.it/2KfLinA>.

²⁵ Lily Altavena & Ian James, "Heat killed a record number of people in Phoenix last year as days, nights grow warmer," *Arizona Republic*, Sep. 10, 2018.

<https://www.azcentral.com/story/news/local/arizona-environment/2018/09/10/heat-killed-record-number-people-phoenix-area-last-year/1149695002/>

²⁶ Scott Waldman, "India Faces Fatal Rise in Heat Waves," *E&E News Climate*, June 8, 2017.

<https://www.scientificamerican.com/article/india-faces-fatal-rise-in-heat-waves/>

²⁷ Natural Resources Defense Council, Extreme Heat, <https://www.nrdc.org/climate-change-and-health-extreme-heat#/map>.

²⁸ Phil Fernandez, "Charlotte on track for hottest year. The summers of the past no longer speak to the summers of the present," *Charlotte Sun*, Nov. 6, 2017; Jenny Staletovich, "Warming planet means Florida likely to get more dangerous hot days," *Miami Herald*, Oct. 24, 2017; Kevin Spear, "Environmental group warns state's record heat poses grave health risks," *Orlando Sentinel*, Oct. 25, 2017.

²⁹ Kimberly Miller, "Weather extremes expected to continue: Dire warning: More extremes coming," *The Palm Beach Post*, Nov. 24, 2017.

and preparation for climate change. It further identifies those most vulnerable to heat: “Low-income populations, the elderly and people of color The same group that’s already underinsured, overexposed to risk and financially unequipped . . . isn’t prepared for a far-reaching issue like climate change.”³⁰ And it discusses the role physicians can play in communicating about climate risks: “Not that many people know a climate scientist, but everyone knows or has contact with a doctor.”³¹

Another stellar example, also from the *Miami Herald*, identifies those at risk during episodes of extreme heat. Reporter Joey Flechas investigates the plight of public housing residents who live without air conditioning. His piece reveals the gaps in state funding and federal policy that combined could be lethal when extreme heat hits, noting, “The fact that a basic amenity such as air conditioning is not a requirement might come as a surprise to some. The U.S. Department of Housing and Urban Development does not mandate air conditioning, nor does it provide the kind of funding that would allow local officials to buy everyone a unit.”³² One expert interviewed by Flechas captures the issue accurately by saying, “The heat is going to be the thing that gets us on climate change much faster than sea level rise.”³³

Just 13 of the 49 papers reviewed for this study were responsible for the 22 pieces connecting rising temperatures to health in some way.

There Are Plenty of Opportunities to Cover and Localize Climate Change

In the period reviewed for this report, Florida newspapers published 2,161 articles mentioning sea level rise. Nearly 57 percent or 1,227 of those articles also mention climate change. To cover sea level rise, Florida journalists are learning the science, connecting with experts, identifying at-risk populations, and acquiring a working knowledge of policies and actions to both mitigate climate change and to adapt to it. Even if they are not covering extreme heat as a climate threat, they are primed to do so—and they can improve easily by moving in the direction of their sea level rise reporting.

Major climate events are occurring with greater frequency, and scientific understanding is improving constantly. During the time period discussed by this review, many significant climate events were covered by Florida news outlets or wire services, and many were related to heat:

2017

- January. NOAA reports that 2016 was the hottest year on record globally. In Florida, 2016 ranked as the second-warmest on record, behind 2015.³⁴

³⁰ Alex Harris, “If you live in Florida, doctors say climate change is already affecting your health,” *Miami Herald*, Feb. 9, 2018.

³¹ *Id.*

³² Joey Flechas, “It’s really hot in Miami, but the feds don’t require A/C in public housing,” *Miami Herald*, Aug. 23, 2018.

³³ *Id.*

³⁴ Kimberly Miller, “Second-warmest year for U.S., Florida in 2016,” *The Palm Beach Post*, Jan. 10, 2017.

- February. A massive heat wave affects large swaths of the U.S., including Florida.³⁵
- April. The People's Climate March draws millions into the streets in over 300 locations across the globe.³⁶
- June. President Trump announces U.S. withdrawal from the Paris Climate Accord, and an extreme summer heat wave hits Western states.³⁷
- August. *The New York Times* reports on a "leaked" federal climate science special report.³⁸ The American Meteorological Society publishes its 2016 *State of the Climate* report concluding, among other things, that greenhouse gas levels were the highest of any year.³⁹ Europe is hit with the "Lucifer" heat wave.⁴⁰
- August–September. Hurricanes Harvey and Irma hit Texas, Louisiana, and Florida.⁴¹
- November. The National Climate Assessment's final Climate Science Special Report is released.⁴² U.N. climate negotiations are held in Bonn, Germany, and the U.N.'s weather and climate agency says 2017 is set to be among top three hottest years on record.⁴³

2018

- January. NOAA releases report finding that 2017 was the costliest year ever for natural disasters, and records reveal 2017 to be the hottest year on record for Florida.⁴⁴
- February. Florida experiences its hottest February on record.⁴⁵
- March. Arctic sea ice reaches near record low for winter months.⁴⁶
- June. This month marks the 30th anniversary of James Hanson's historic testimony to Congress on global warming.⁴⁷
- July. A massive heat wave spreads across most of the U.S.⁴⁸
- August. California burns as the state experiences its worst fire season in history.⁴⁹

³⁵ Amanda Williamson, "Jacksonville sees fourth warmest winter on record," *Florida Times-Union*, Mar. 20, 2017.

³⁶ Sara Dinatale, "Hundreds March for Climate," *Tampa Bay Times*, Apr. 30, 2017.

³⁷ Diane Maye, "Decision to exit Paris Agreement has political, military repercussions," *The Daytona Beach News-Journal*, June 7, 2017.

³⁸ At the time, it was reported that *The New York Times* had leaked copy of the Climate Special Report, in fact, the report was in draft form and had been publicly viewable for months.

³⁹ Editorial Board, "Climate chaos is happening all over," *Florida Times-Union*, Sept. 9, 2017.

⁴⁰ Barbara Marshall, "European heat wave called Lucifer: What should we call South Florida's?" *The Palm Beach Post*, Aug. 8, 2017.

⁴¹ Andres Oppenheimer, "President Trump, hurricanes Harvey and Irma are sending you a message," *Miami Herald*, Sep. 2, 2012.

⁴² Kimberly Miller, "Weather extremes expected to continue: Dire warning: More extremes coming," *The Palm Beach Post*, Nov. 24, 2017.

⁴³ Jamey Keaton, "2017 set to be among top 3 hottest years, UN weather agency says," *Associated Press*, Nov. 6, 2017.

⁴⁴ Jenny Staletovich, "It's official: 2017 ties for hottest year on record in Miami," *Miami Herald*, Jan. 2, 2018.

⁴⁵ Kayla Gleason, "The heat is on: Fevered February gets 2018 off to hot start," *Charlotte Sun*, Mar. 2, 2018.

⁴⁶ Doyle Rice, "Arctic sea ice reaches near record low for winter months," *Associated Press*, Mar. 28, 2018.

⁴⁷ Seth Borenstein and Nicky Forster, "Earth getting sicker, has a bad fever Decades of global warming cooks up 'different world,'" *Associated Press*, June 27, 2018.

⁴⁸ Seth Borenstein and Frank Jordans, "As global warming heats planet, 'weirdness abounds,'" *Associated Press*, July 31, 2018.

⁴⁹ Paul Elias, "Biggest fire in Calif. history pushes firefighters to limit," *Associated Press*, Aug. 8, 2018.

- September. South Florida experiences record high September temperatures.⁵⁰
- October. The IPCC releases a report on the impacts of global warming above 1.5 degrees C⁵¹ and Hurricane Michael hits the Florida Panhandle.⁵²

Reporting on these major events makes up 23.6 percent of all articles mentioning heat and climate. While a number of Florida news outlets responded to breaking or major climate stories, far too few used these key climate moments to communicate the crisis and its impacts to Florida readers.

A handful of papers covered in this review provide models of how to adapt national climate stories for local audiences, which is an effective way to engage readers on the climate crisis.

One remarkable example comes from *Miami Herald* reporter Fred Grimm. In August 2017, *The New York Times* reported on the imminent release of a significant federal climate report whose authors feared it would be suppressed or modified by the Trump administration. Grimm uses the *Times*'s reporting to highlight a key finding from the draft report and brings it home for Floridians:

“It is very likely that the accelerated rate of Arctic warming will have a significant consequence for the United States due to accelerating land and sea ice melting that is driving changes in the ocean including sea level rise threatening our coastal communities.” Yeah, that’s us. That ought to convince even the most obstinate politicians that unless something is done about greenhouse emissions, we’re in deep, deep (as in encroaching sea waters) trouble.⁵³

Grimm doesn’t stop there. He also reminds readers that the governor has barred state officials from using the terms “climate change” or “global warming” in emails, reports or official communications. He riffs, “That doesn’t sound like an administration ready to confront Florida’s coming climate crisis.”⁵⁴

Pulling from the Wires

News outlets that want to inform their audience about the most important issue of our time, but have too few reporters or other resources to do the subject justice, can reprint or repackaged content from the newswires or other outlets. Our analysis found that 37 percent of articles mentioning heat and climate change were reprinted or repackaged from a newswire service or a larger paper like *USA Today* or *The Washington Post*.

⁵⁰ Josh Solomon, “September was the hottest month on record in Tampa ever, October is no better so far,” *Tampa Bay Times*, Oct. 6, 2018.

⁵¹ Doyle Rice, “UN report: ‘Unprecedented changes’ needed to protect Earth from global warming,” *Associated Press*, Oct. 10, 2018.

⁵² Steve Contorno, “Bill Nelson says global warming led to Hurricane Michael’s strength: ‘Listen to the scientists,’” *Tampa Bay Times*, Oct. 11, 2018.

⁵³ Fred Grimm, “New studies and new catastrophes give climate change deniers a lot to deny,” *Miami Herald*, Aug. 10, 2017.

⁵⁴ *Id.*

Most of these pieces were from the Associated Press (AP). Forty-five percent or 29 of 65 of the stories mentioning heat and climate change were attributed to the AP. The AP, with over 3,000 employees, sends its stories to more than 14,000 newsrooms globally. In 2016, AP announced a significant expansion of its environmental coverage with the formation of a dedicated team to report on global environmental issues, including climate change. The company's vice president for U.S. News said of the decision, "There is no single issue that affects as many as the future of the globe itself."⁵⁵

Second to AP was content reprinted from *USA Today*, with 22 percent or 14 of the 65 coming from the Gannett-owned news outlet. (All of the papers that reprinted *USA Today* articles are also owned by Gannett.)

Conclusion

Extreme heat has been described as a silent killer. The death toll and hospitalizations related to extreme heats are often underestimated and its impacts underreported. Articles on heat rarely go beyond statistics and records. As a result, many, especially in Florida where heat is often a punchline, don't understand what's at risk, the role of climate change and what if anything is being done to protect those who call the Sunshine State home. Journalists have a role to play in breaking the silence and bringing heat to the forefront. And they should be able to do so seamlessly.

Florida news outlets are loud and clear that sea level rise is an imminent threat. Thorough reporting on this climate issue has positioned Florida journalists to be leaders in climate reporting. As this review reveals, they are primed to turn their expertise to the issue of extreme heat. This review identified some notable reporting and models for how best to cover climate in the context of extreme heat events. Overall, however, Florida news outlets continue to tell only half the story or no story at all. These exceptions need to become the norm if the public is going to wake from its slumber on climate change in time to take the action we urgently need to avoid catastrophic harm, and possibly even an existential threat to the U.S., later this century.

⁵⁵ "AP expanding environmental coverage with global teamwork," *Associated Press*, Sep. 12, 2016. <https://pubc.it/2NN9Ja6>.

Methodology

For this analysis, we used Westlaw to search Florida newspapers for terms related to extreme heat, record heat, or heat waves, then searched again for those terms and “climate change” or “global warming.”⁵⁶ We searched for sea level rise articles using the same methodology.⁵⁷ The analysis includes articles published from January 1, 2017 through October 31, 2018.

The Westlaw database includes 73 newspapers,⁵⁸ but only 49 of them reported on extreme heat. Therefore, only those papers are included in this analysis. Also, this review is limited to print articles, as Westlaw generally does not include articles that appear exclusively online. The list of Florida’s top 8 papers was determined by circulation using Cision.⁵⁹ Westlaw’s database does not include the ninth-ranked paper, *The Villages Daily Sun*, and therefore this report stops at number eight when discussing the top newspapers.

In most cases, we credited a piece with mentioning heat or climate if it made the barest mention of the relevant terms—that is, if the piece merely turned up in the search results for those keywords. We excluded articles mentioning the phrase “letter to the editor” from our initial search. We also removed other pieces that were obviously letters to the editor based on their title or first paragraph.

We then completed a qualitative evaluation of each article mentioning “climate change” or “global warming” and our key terms. We noted if the article was an op-ed, an editorial, a reprint from a wire service or localized reporting, the source of wired articles, the context in which heat was mentioned, and whether the article referenced resiliency or political action on the local, regional, or national level.

⁵⁶ The search terms included any variation on the following: “heat wave,” “extreme heat,” “record temperature,” “temperature record,” “record high temperature,” “heat record,” “record heat,” “hottest year,” “hottest month,” “warmest year,” “warmest month,” “hottest day,” or “warmest day.”

⁵⁷ The terms follow: “sea level rise,” “sea level rising,” “rising sea,” or “raised sea.”

⁵⁸ The list of Florida newspapers is not exhaustive and is dependent upon the intellectual property contracts Westlaw pursues. The 73 papers included in the database are as follows: *Apalachicola Times*, *Boca Beacon*, *Bonita Springs Banner*, *Bradenton Herald*, *Caloosa Belle*, *Cedar Key Beacon*, *Charlotte Sun*, *Chiefland Citizen*, *Citrus County Chronicle*, *Clewiston News*, *Collier Citizen*, *Crestview News Bulletin*, *Daytona Beach News-Journal*, *Destin Log*, *East County Observer*, *El Nuevo Herald*, *El Sentinel (Orlando)*, *El Sentinel (South Florida)*, *Englewood Sun*, *Florida Keys Keynoter*, *Florida Times Union*, *Florida Today*, the *Sun-Sentinel*, *Fort Myers Florida Weekly*, *Fort Myers News Press*, *Fort Pierce Tribune*, *Gainesville Sun*, *Hernando Today*, *Highlands News-Sun*, *Highlands Today*, *Holmes County Times Advertiser*, *Jackson County Floridian*, *Jacksonville Business Journal*, *Jasper News*, *Jupiter Courier*, *Key West Citizen*, *Lakeland Ledger*, *Leesburg Daily Commercial*, *Marco Island Eagle*, *Mayo Free Press*, *Miami Herald*, *Naples Daily News*, *North Port Sun*, *Northwest Florida Daily News*, *Ocala Star Banner*, *Okeechobee News*, *Orlando Business Journal*, *Orlando Sentinel*, *Palm Beach Post*, *Panama City News Herald*, *Pensacola News Journal*, *Polk County Democrat*, *Port Charlotte Sun Herald*, *Port St. Joe Star*, *Santa Rosa Press Gazette*, *Sarasota Herald Tribune*, *Sebastian Sun*, *South Florida Business Journal*, *St. Augustine Record*, *St. Lucie News Tribune*, *Stuart News*, *Suwannee Democrat*, *Tallahassee Democrat*, *Tampa Bay Business Journal*, *Tampa Bay Times*, *Tavernier Reporter*, *The Arcadian*, *Treasure Coast Newspapers*, *Venice Gondolier Sun*, *Vero Beach Press Journal*, *Vista Semanal*, *Walton Sun*, and *West Volusia Beacon*.

⁵⁹ The top eight Florida papers are: *Tampa Bay Times*, the *Orlando Sentinel*, the *Sun-Sentinel*, the *Miami Herald*, *The Palm Beach Post*, the *Naples Daily News*, *The Daytona Beach News-Journal*, and the *Sarasota Herald-Tribune*.

Appendix

Table 1: Florida newspapers by number of articles mentioning heat and climate change, January 1, 2017 to October 31, 2018

Newspaper	Articles on Heat and Climate
Sun-Sentinel	29
Orlando Sentinel	24
Florida Times-Union	16
Miami Herald	15
Charlotte Sun (Port Charlotte)	13
Tallahassee Democrat	13
Palm Beach Post	11
Gainesville Sun	10
Tampa Bay Times	10
Naples Daily News	6
Florida Today (Melbourne)	5
News-Press (Fort Myers)	5
Pensacola News Journal	4
Key West Citizen	4
St. Augustine Record	4
Stuart News	4
West Volusia Beacon (DeLand)	3
Daily Commercial (Leesburg)	3
Banner (Bonita Springs)	2
Venice Gondolier Sun	2
Treasure Coast Newspapers (Stuart)	2
Citrus County Chronicle (Crystal River)	2
Sarasota Herald Tribune	2
Daytona Beach News-Journal	2
Bradenton Herald	2
South Florida Business Journal	1
Crestview News Bulletin	1
Englewood Sun	1
St. Lucie News Tribune (Fort Pierce)	1
Collier Citizen (Naples)	1
Ledger (Lakeland)	1
North Port Sun	1
Highlands News-Sun (Sebring)	1
Apalachicola Times	0

Newspaper	Articles on Heat and Climate
Boca Beacon	0
Business Journal (Jacksonville)	0
Chiefland Citizen	0
Clewiston News	0
Destin Log	0
East County Observer (Bradenton)	0
Fort Myers Florida Weekly	0
Jupiter Courier	0
Marco Island Eagle	0
News Herald (Panama City)	0
Northwest Florida Daily News (Fort Walton Beach)	0
Ocala Star-Banner	0
Okeechobee News	0
Sewanee Democrat (Live Oak)	0
Vero Beach Press Journal	0