

# *Nature Talk in an Appalachian Newspaper: What Environmental Discourse Analysis Reveals about Efforts to Address Exurbanization and Climate Change*

Brian J. Burke, Meredith Welch-Devine, and Seth Gustafson

As the people of Southern Appalachia confront the challenges of climate change and exurban development, their foundational beliefs about the environment and human-environment relations will significantly shape the types of individual and collective action that they imagine and pursue. In this paper, we use critical discourse analysis of an influential small-town newspaper to understand how the environment is being represented publicly and consider how these representations might affect local environmental politics and efforts to mitigate or adapt to climate change and exurban sprawl. We find that the environment is generally represented as an amenity to be enjoyed rather than a subject of concern, that environmental degradation, when represented at all, is often discussed in vague or distancing terms, and that human agency is typically presented in individualizing, hyper-local terms rather than in collective, community- or national-scale ones. In conclusion, we suggest that these representational styles are likely very effective for inspiring interest in and connection to local landscapes, but they do not provide a strong basis for collective efforts to understand and address climate change and exurbanization.

**Key words:** environment, climate change, exurbanization, critical discourse analysis, journalism

## Introduction

In the coming decades, the residents of Southern Appalachia will be confronted with significant socioecological challenges related to climate change and exurbanization. In Southern Appalachia, exurbanization is driven largely by “amenity migration”—the movement of second homeowners and retirees to historically rural areas of notable natural beauty, recreation opportunities, and comfortable lifestyles. In other locations, amenity migration has altered socioecological conditions through the direct impacts of land subdivision, development, and changes in private land use, as well as indirect effects on governance institutions, cultural values, and trans-border management capacity (Abrams et al. 2012). In Southern Appalachia, climate change and exurbanization are expected to increase forest patchiness and mountain slope instability, degrade stream quality, and generate human and

non-human vulnerabilities with high likelihood of extinction for especially sensitive populations. Addressing these changes—whether to prevent them, mitigate them, or prepare for them—will require individual household action and collective action at community and regional scales (Gragson et al. 2008). Achieving this coordination is no easy task in a region long opposed to regulation and suspicious of newcomers (Gustafson et al. 2014; Vercoe et al. 2014).

Responses to these challenges will depend on how people in Southern Appalachia understand the environment and socioecological relations. Such worldviews are rarely homogenous, particularly in regions experiencing demographic change, and they are often connected to a range of other values, concerns, and power relations. For example, Hønneland (2004) shows that Arctic cod fishery policies were shaped as much by Russian and Norwegian views on resource geopolitics and humanitarianism as they were by fisheries science or sustainability principles. Similarly, Nesbitt and Weiner (2001:333) examined conflicting environmental imaginaries in Central Appalachia, distinguishing between “local land owners who view natural resources as a means for social reproduction and cultural survival, and government and environmentalist ‘outsiders’ who view local environmental resources in the context of recreational consumption and resource conservation.” These groups do not simply have different hopes and plans for the environment; they actually experience and understand the environment in fundamentally

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different terms and link nature to different core concerns. The path from diverse environmental imaginaries to collective action, therefore, often includes a phase of competition and negotiation among discourses. Whichever environmental imaginary becomes the basis for dominant discourses significantly influences environmental politics by naturalizing certain ways of viewing and acting in the world and providing “windows of opportunity” for particular political outcomes (Hønneland 2004:76).

Attention to environmental worldviews and discourses, therefore, forms a key part of our long-term action-research on socioecological change in southwestern North Carolina. Our research is part of the Coweeta Listening Project, an action-research collective that forms part of the Coweeta Long Term Ecological Research (LTER) Program. The Listening Project studies socioecological change in the region and promotes mutually beneficial dialogue about such changes between scientists and non-scientists.

Our experience in the region suggests that, while new media and personal networks are important, the local newspaper remains an influential and trusted community institution. It serves as an opinion leader and public forum, and it has shaped past environmental politics (Newfont 2012). These roles are especially important in the context of exurbanization because the newspaper is a rare site for communication among natives and newcomers. To understand environmental discourses, we therefore chose to analyze *The Franklin Press*, the oldest and most widely read newspaper in Macon County, N.C. Our goal was not to assess *how much* knowledge local people are given or *how accurate* the newspaper is—these questions seem increasingly irrelevant given that conveyance of factual information has little impact on beliefs and behaviors (Nisbet and Scheufele 2009; Wolf and Moser 2011)—but rather to examine how the newspaper discursively constructs the environment, people’s relationship to it, and environmental governance.

We begin by describing the area, its people, and the historical relations of power and inequality that continue to influence local views of environmental politics. We then detail our method of critical discourse analysis before turning to the results of our study. Our results indicate that the environment is constructed primarily as an amenity for people to consume and enjoy, and that environmental change and positive or negative human impacts on the environment are rarely explored. To conclude, we consider how representations of the environment in *The Franklin Press* might influence the relationship of humans to the environment and the contemporary moment in environmental politics.

## Environmental Change in Southern Appalachia

Since the 17th century, humans have dramatically altered Southern Appalachian landscapes through extraction, land speculation, tourism, and recreation.<sup>1</sup> Indeed, Southern Appalachia’s landscape has been integral to national and

international economic development since the colonial era. Throughout this history, mountain ecology has been repeatedly transformed in response to changing ideas about what nature is, how people do and should relate to it, and how the region should serve other locales. In the 17th and 18th centuries, trade with mountain people (both indigenous and European-descended) was an important occupation and source of wealth for White colonists and coastal cities. The Appalachian leather industry culled several million deer from the mountains in the early- and mid-18th century, transforming forest ecology, supporting migration to the frontier, and generating some of the colonies’ earliest environmental regulations (Davis 2000; Newfont 2012). Westward expansion of European colonists provoked widespread forest clearing for farms and settlements and, perhaps more importantly, the establishment of a livestock grazing commons in the forest.

The ecological effects of these early subsistence and mercantile economies, however, paled in comparison to post-Civil War land speculation and widespread timber harvests to support national (especially Northern) industrialization. The rebounding post-war economy was hungry for wood to supply the energy, communication, construction, and transport sectors, quickly exhausting forests in New England and around the Great Lakes. By 1909, Southern Appalachia supplied nearly 40 percent of the nation’s hardwood timber. While colonial hunters took pieces of the forest ecosystem, industrial logging took the entire forest, exposing the mountains to unprecedented erosion, widespread loss of topsoil, stream pollution, and new cycles of fire and flooding. Industrial logging also transformed regional demography and political economy. As Newfont (2012:43) writes, “Industrial timber harvesting . . . changed ownership patterns on a grand scale, damaged or destroyed large sections of the forest commons, tied the southern mountain region more tightly to the global economy, and made it more susceptible to the vagaries of that economy.” Industrial harvesting and export via rail required enormous capital investments, bringing large companies into the region. Mountain people faced serious disadvantages as they negotiated land and timber deals with outsiders who typically had more wealth, education, legal savvy, knowledge of national and international markets, and political clout. Not surprisingly, the historical treatment of Southern Appalachia as an “internal colony” or “internal periphery” generated among these multi-generational residents a deep-seated suspicion of outsiders and their socioenvironmental schemes.

A third major socioecological transformation of Appalachia was driven by national efforts to protect, manage, and exploit environmental resources as public lands. The timber industry’s ecological effects—and especially damage to economically important waterways—prompted the 1911 Weeks Act authorizing the creation of the United States Forest Service, land acquisition for headwater protection, and significant reforestation. Forest Service holdings reached almost 400,000 acres by 1930. The industrial decline of the 1930s brought urbanites back to their mountain homes,

but the region's degraded landscape could not sustain these returned migrants. Furthermore, high levels of public land ownership had hampered regional development by removing land from the tax base. Locals thus suffered from poor government services even while paying higher-than-average taxes. These inexpensive and impoverished backwoods became central to New Deal programs, driving further acquisition: public lands offered a site for thousands of jobs to support the national economy and new Forest Service purchases directly subsidized Appalachian landowners pinched by debt and tax delinquency. Between 1930 and 1940, there was a twofold increase in the Nantahala and Pisgah National Forests and a significant investment in reforestation and infrastructure.

After the Second World War, the Forest Service changed its focus from forest protection and restoration to support for corporate timber extraction. Although they provided some jobs, timber operations offended local people in a number of ways: they were typically managed by university-educated "scientific foresters" who spoke of the forest in the strange language of boardfeet and volume tables; they were often justified as part of a civilizing mission that would bring progress to this isolated and "backwards" region; and they shifted Forest Service priorities toward a singular focus on maximal extraction at the expense of maintaining access to, and the quality of, the forest commons. Restrictions on fire effectively eliminated grazing possibilities, use fees and regulations seemed intended to keep locals out of what they saw as their land, and clear cutting made that land useful for only one purpose.

Finally, over the last thirty to forty years, the region has experienced a fourth socioecological transformation. Migration into the region by seasonal second homeowners and retirees who are drawn to the beauty and tranquility of rural mountain life has made southwestern North Carolina a central hub in the Piedmont Megapolitan Region. This exurbanization has significant demographic, economic, and ecological impacts. Researchers at the Coweeta Long Term Ecological Research Program have found that home construction on mountain slopes, road building, and land use decisions can significantly increase runoff, erosion, sedimentation, slope instability and landslides, and stream nitrate levels (Kirk, Bolstad, and Manson 2012; Webster et al. 2012), and land management practices leave discernible decades-long legacies on nutrient cycling, soil microbiota, and invasibility by non-native species (Gragson and Bolstad 2006; Kuhman, Pearson, and Turner 2013). Even relatively small changes in forest cover have significant effects on local streams and soils (Leigh 2010; Price and Leigh 2006). It is unclear how these impacts will interact with climate change, but exurban development will likely exacerbate vulnerabilities to extreme weather events, droughts, floods, and landslides (Wei, Clark, and Vose 2012) and may affect the vegetative diversity, ecological functional redundancy, deep soils, dense forests, and riparian cover necessary for ecological resilience (Kloppel et al. 2003; Laliberté et al. 2010).

## Methods: Critical Environmental Discourse Analysis

Critical discourse analysis (CDA) examines how power, inequality, and hegemony are constructed in and through language (Blommaert and Bulcaen 2000; van Dijk 1993). CDA considers discourses as indicators of long-term, political-economic change and as potential drivers of change (Fairclough 2012). Methodologically, critical discourse analysts (1) draw from social theory to conceptualize how inequality and power relations are likely to be represented and/or enacted through discourse, (2) purposively select discourses that are likely to illuminate these changes, and (3) analyze these discourses through (a) more or less formal linguistic analysis; (b) a first degree of contextualization that considers the production, circulation, distribution, and consumption of texts and the ways people use them to construct their selves, social relations, and social/material realities; and (c) a second degree of contextualization that considers the relationship between textual features, these broader discursive dynamics, and political programs, institutional action, and hegemonic or counter-hegemonic processes.

Critical discourse analysis has been used by anthropologists, and others, in a wide variety of applications. Rebecca Rogers (2002) uses CDA to examine two meetings of a Committee on Special Education, both involving one adolescent girl. Rogers' analysis shows deep contradictions in the two meetings and illustrates how they contribute to the social reproduction of a system in which minority children are over-represented in self-contained special education classrooms. Lutz and Collins (1993) examine *National Geographic*, focusing their discourse analysis on the magazine's photographic portrayals of its subjects. They argue that the magazine reflects the tastes and desires of its American readers as much as, if not more than, it portrays the cultures on which it reports, highlighting how the magazine's photographs change in line with historical, political, and cultural developments related to the role of the United States abroad. O'Barr (1994) uses CDA to examine how the "secondary discourse" of advertisements reveals an ideal-type construction of social relationships. In each of these examples, CDA is used to reveal hidden influences of power and to unpack the role of discourse in both reflecting and constructing social relations.

Our analysis proceeded as follows.

### Step 1: Developing the Theoretical and Contextual Foundation for Analysis

Critical discourse analysis has been criticized as an imposition of researchers' *a priori* assumptions about textual interpretation, social practice, and power relations. Schegloff (1997:167) offers a particularly reasoned critique of this well-intentioned "hegemony of the intellectuals... who get to stipulate the terms by reference to which the world is to be understood." "There has already *been* a set of terms by reference to which the world was understood," he writes, and

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**Table 1. Definition of Article Themes**

**Article Themes**

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**Environment:** Focus on environmental issues/concerns, ecological dynamics, or the state of the environment. Does not include: advertisements of outdoor activities, reports on the work of environmental organizations (when focused on the organizations themselves), and information about agriculture.

**Science:** Focus on science, the scientific process, or scientific data, whether addressing the environment or not. Includes natural and social science and events about science (e.g., science lectures, book presentations).

**Policy, governance, or planning:** Focus on policy understood broadly to include local planning issues and “big picture” regional governance. Does not include electoral politics except when these are issue-focused (e.g., candidates’ positions on land use planning).

**Minor environment or science:** Focus on other issues with a mention of the environment or science, including requests for volunteers, advertisements of outdoor activities, obituaries, agricultural policy changes, etc.

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these might serve as a stronger basis for analysis because they are the terms developed “by those endogenously involved in [the world’s] very coming to pass” (Schegloff 1997:167). Thus, while Schegloff agrees that power, inequality, and hegemony may be constructed partly through language, he contests the presumption that formal theories—rather than participants’ own understandings—point us toward the most relevant socioeconomic-political context for analyzing those processes.

With this critique in mind, we used insights from long-term research in the region, as well as the socioecological history described above, to develop empirically grounded and locally resonant hypotheses about what issues might be most important and how those issues might be expressed discursively. We hypothesized how environmental discourses might be related to one another, to what audiences they might be addressed, and what types of narratives and silences we might expect to see in the newspaper. We did not, however, entirely abandon “external” conceptualizations of power and discourse. Rather, because our goal was to understand not simply the *meaning* of discourses to participants, but their broader *import* for participants (see Schegloff 1997), we found it useful to juxtapose Southern Appalachian discourses and understandings with other (actual and possible) discourses and understandings. “External” theories and “terms by reference to which” the world might be understood are useful for highlighting silences and non-explicit ways in which discourses might matter.

More concretely, our initial hypotheses included the following. We suspected that environmental narratives might be especially affected by other prominent local discourses, like a discourse of landowner freedom and a suspicion of government intrusion, both of which are historically constituted sensibilities amplified among some people by the Tea Party. Other relevant local discourses concern regional demographic change, the contrast between natives and newcomers, and their distinct values; a deeply felt connection to the land as settlers, stewards, and people of that place; and an emerging

sense that public policy can and should be guided by science rather than values or emotions.

### Step 2: Selecting a Sample

To permit future quantitative analyses, we began by selecting a broad sample of environmentally related texts from the 2012 edition of *The Franklin Press*. To refine our selection criteria and develop consistency among authors, we used a “jigsaw” format to review the entirety of each issue from January through March. Two authors read each issue and identified all text related to the environment, science, or policy (as outlined in Table 1). Reviewing this first three months’ worth of data, we decided to exclude certain genres (obituaries and arrest records), to give calendar entries a quicker treatment in the database, and to discontinue collection of “policy”-themed items, which generated the most disagreement among authors and yielded little relevant text that was not captured by the other codes.

We then repeated the same article selection process for an additional three months of newspaper issues (April through June), not using a jigsaw format now that we had substantial agreement on coding rules, but liberally seeking second opinions for any uncertain cases. Reviewing this half-year’s worth of articles, we decided that we had reached a saturation point at which we were no longer collecting items that were significantly different in content, style, or intent. However, to be certain that we were not missing important fluctuations related to natural seasons, political seasons, and the coming and going of part-year residents, we conducted the same analysis on six additional issues from late summer and early fall. These turned up no evident change in environmental representations in the newspaper. This process yielded 521 pieces of text, far more than we needed to conduct a discourse analysis.

We therefore needed to select a subsample of these articles for detailed discourse analysis. A random sample of the entire corpus or a sample stratified by theme would

**Table 2. Variables Considered during Detailed Textual Analysis**

Variable	Description
Main goal	Is the main goal of the article (a) to describe natural history; (b) to report on policy, planning, or governance; (c) to discuss environmental changes in the region; (d) to report and explain scientific results; (e) to explain the relevance of environmental science to policy questions; (f) to explain the relevance of environmental science to individuals or landowners; (g) public reflections about environmental issues?
Emotional tone	Does the article convey a sense that the environment is threatened, cherished, homey, etc.?
People	Does the article represent people as disturbers, users, protectors, investigators, etc.? Does it represent them as collectively interested in the environment (we/our) or individually so (me/my)? How does it represent relationships within the community (especially between insiders and outsiders)?
Everyday life	How does the article represent the relationship between the environment and people's everyday lives, actions, and concerns?
Spatial scale	At what scale does the article consider environmental issues or concerns: individual, sub-set of community, local community, regional, national, global? If human intervention in the environment is discussed, what scale of intervention is privileged?
Temporal scale	What time scale does the article discuss: how far into the past and how far into the future? If human intervention in the environment is discussed, at what temporal scale is it presumed to function?
Environmental politics	How does the article convey the relationship of the environment to formal politics (government, policies, regulations) and informal politics (civic action, public debate)? What types of intervention are described? What types of intervention are ignored despite being commonly discussed elsewhere?
Valuing the environment	What does the article suggest about why the environment is valuable (intrinsic value, ecological value, spiritual value, relationship to economic growth, human health, climate resilience, etc.)?
Risks	Does the article use a risk frame? If so, what types of risks or costs does it discuss (economic, health, legal, environmental, etc.) and to what extent does it discuss the probability of those risks or costs?
Change	Does the article represent the environment as static or changing? If changing, how does it evaluate those changes (unavoidable, primarily positive, primarily negative, neutral)?

have yielded too many texts that made only a minor mention of the environment. Therefore, we decided to purposively sample texts that provided what appeared to be the most meaningful representations. We narrowed the genres to only articles, letters, and editorials and selected only texts with the environment as a major focus. We then reviewed each of the dismissed texts to ensure that we were not excluding key issues. This yielded fifty-three articles. We believe this sample effectively represents environmentally related discourse in *The Franklin Press* during this time period.<sup>2</sup>

### Step 3: Analyzing Discourses

We began analyzing this subset of fifty-three articles through a collective discussion involving all three authors. We divided the articles into what appeared to be “natural” thematic clusters—the Backyard Naturalist column and clusters

on pollution, wildlife, weather, public lands, and “other”—based on the idea that different topics might lend themselves to different styles of writing and representation. Each author reviewed one cluster, and we discussed commonalities and differences across clusters and the different authors’ analytical approaches. (For example, one author was particularly attentive to the use of collective versus individualized pronouns, while another was more focused on the local political context.) We then repeated the process with the remaining clusters and incorporated this preliminary, discussion-based analysis into the next phase of detailed discourse analysis by each author, following the framework laid out in Table 2.

### Results

The dominant environmental discourse in *The Franklin Press* focused on local natural history rather than environmental problems or issues, and it suggested

a form of human-environment interaction that was highly individualized and oriented toward enjoyment of nature. The environment was represented primarily as interesting context for everyday life and a source of local pride. Rather than highlighting environmental politics or environmental problems, articles focused on the natural history of the area. This focus suggests to readers a subjectivity based on individualism and a somewhat passive appreciation of nature (bird watching, animal watching, gardening) but limited intervention in nature, belying an assumption that nature takes care of itself, and people should be left to manage it on a traditional scale of individuals or families. However, the dominant discourse in *The Franklin Press* exhibited variations with somewhat different characteristics and consequences, which we describe below.

Notably, this dominant discourse reflects a broader bifurcation of American environmentalism into a more activist camp seeking to protect nature and a more conservative camp promoting appreciation and enjoyment of nature. It also echoes distinctions between ecocentric and anthropocentric environmentalisms and between the dominant social paradigm and the “new environmental paradigm” (Dunlap and Van Liere 1978; Kilbourne and Polonsky 2005; Noe and Snow 1990). However, none of those distinctions completely captures the distinction we found between this dominant natural history discourse and a largely absent discourse of environmental politics.

We refer to the dominant environmental discourse as the “outdoor life” discourse because many articles illustrative of this discourse type appear on a newspaper page with that title and because that label exemplifies the value orientation and socioecological relations suggested by the entire discourse. To illustrate how the “outdoor life” discourse frames the environment and human-environment relationships, we first detail the “Backyard Naturalist” column, which contributed the largest proportion of articles in our sample (thirteen out of fifty-three).

As the title suggests, the Backyard Naturalist approaches the environment through a strongly place-based, natural history lens. The column is extremely consistent: it appears every week on the Outdoor Life page; it is sole-authored by the paper’s former editor, a long-term resident of Macon County, birder, and expert in local history; and it follows a regular pattern of representing the environment to readers through discussions of a single species or family of local animal or plant life. The column’s goal is clearly to describe the natural history of the region and to inspire interest and appreciation. This is reflected in the articles’ tone, which conveys interest, curiosity, appreciation, and wonder through phrases such as “these exquisitely beautiful birds might have been designed for bird watchers” (McRae 2012b:4B) or “the hooded merganser is a real stunner” (McRae 2012a:4B).

The Backyard Naturalist almost invariably begins and ends with a “hook” that frames the environment as accessible and familiar, using place-based and anthropomorphic language or cute anecdotes. The author often begins by

describing her own discoveries over the last week, and she invites readers to connect with her writing and with nature by directly engaging them—“if you spot one, get out the binoculars and enjoy the sight” (McRae 2012b:4B) or “go to an open area . . . and you will have a good chance of encountering this striking flycatcher” (McRae 2012d:4B)—and by using terms such as “our region” or “our county” when referring to the hollows, creeks, valleys, and ridgelines that serve as a habitat for the species. She also relies on highly specific local vernacular when referring to good sites to spot the species (e.g., Frogtown, Crawford Branch, or the Greenway). Anthropomorphic language, too, adds to the amiable sensibilities of the Backyard Naturalist columns. The reader is told that Kingfisher birds are aptly named for their arrogant, kingly personalities and that female wood ducks have “delicate” coloring patterns and “precocious” chicks (McRae 2012e).

These simple facts told in an engaging style offer an environment to which humans can relate and that they can readily know. These techniques of writing bookend the scientific information that comprises the bulk of each article, helping to make the science accessible and interesting by connecting it to local people and places.

Between these bookends, the Backyard Naturalist draws from naturalist guides and scientific journals to detail species’ habitats, ranges, any noteworthy behavioral patterns or identifiable markings, and local places where the reader might find the animal or plant subject of the column. Environmental change and environmental problems are never the focus of the Backyard Naturalist, but they are mentioned in about half of the articles, primarily with regard to how historical harvesting or land use changes affected animal and plant populations. In contrast to the clearly defined and locally salient places of direct, personal engagement with nature, these broader landscape and population changes are typically represented in the passive tense, without clear agents, and as having occurred in abstract and timeless spaces. Thus, we learn that urbanization is blamed for reducing the Kestrel falcon’s habitat (McRae 2012b), that fox “habitat[s] change[d] following colonization” (McRae 2012c:4B), and that hooded mergansers and beavers “were extirpated” from portions of the southeast (McRae 2012a). However, the passive sentence construction leaves no indications of causes, responsible parties, when and where this occurred, what types of cascading effects it might have, or why we should care about these histories today. This is consistent with how the environment is valued in this column: exclusively in implicit terms as something to enjoy, perhaps as something with its own intrinsic value, and as something that some residents might want to maintain in a certain state (free of invasive exotics, for example, or amenable to foxes, or with lichens to support other species). In this sense, the column seems to strive for journalistic neutrality, providing facts about change without judgments about whether or not they are *problems*.

This brings us to the Backyard Naturalist’s representations of human-environment relationships. Humans are described actively as observers, knowers, and admirers of

nature but only passively in relation to change. Similarly, there is virtually no talk about how humans might contribute to positive environmental changes or preservation through resource management, restoration, or environmental policy, even when issues such as depopulation, habitat loss, and a species' conservation status are raised, and even when there are local examples of conservation activities organized by groups like land trusts. Thus, while the species is highly detailed thoroughly using scientific content and place-based language, the deterioration of their conditions and local efforts to ameliorate those conditions are scarcely mentioned. Responses to environmental problems—like the problems themselves—are described neutrally as possibilities for whomever might be interested rather than as recommendations.

In sum, then, the column's style is truly docent-like in its approach: factual and dispassionate in content, yet amiable and familiar in tone. In this way, the Backyard Naturalist reinforces a scientifically factual, yet accessible, amenity-centric, observational attitude toward the environment. Human relations with the local environment in these columns are framed as understanding the particular facts and curiosities of local flora and fauna. Environmental facts become part of the environmental amenities that readers consume and enjoy. Like a wine connoisseur's knowledge, they enhance the experience of drinking-in nature. Portraying environmental knowledge as interesting facts reinforces the same ideology of nature that many amenity migrants already embody, and likely reinscribes the amenity-driven migration that, paradoxically, threatens to undermine the biodiversity and environmental amenities of Southern Appalachia.

While the Backyard Naturalist columns do not explicitly discuss human agency in the environment, they may play an important role in generating concern for, and connection to, the local environment. The column's place-based language and fact-centric approach serve an important function in educating newcomers about the uniquely diverse species composition of Southern Appalachia. Many Macon County amenity migrants are from southern Florida, metropolitan Atlanta, and other locations that do not share Macon County's ecological makeup. Given that amenity migrants are often interested in consuming environmental amenities for their own individual recreation purposes, the Backyard Naturalist columns signal to the non-local reader that they now live in a place with its own environmental past and present. It encourages them to become rooted in the place, to know its environmental peculiarities, and perhaps to develop their own ways of caring for it.

While the "outdoor life" discourse is clearest and most consistent in the Backyard Naturalist, we see it in other sections of the paper as well. Weather received a great deal of coverage, with extreme events often prominently portrayed with photographs on the front page. In weather-related photos and articles, changes in weather and unusual or extreme weather events are not linked to climate change, development patterns, or other socioecological processes. Similarly, unequal exposure and sensitivity to weather is not addressed.

Rather, weather is portrayed primarily as a momentary concern that affects human use and enjoyment of nature or makes for a "beautiful" or "striking" scene (McCandless 2012a, 2012d). The tone and content of these weather articles was particularly interesting given that the region was in the midst of a severe drought. Even drought-related articles simply reported rainfall figures, while remaining silent on long-term climate trends, future projections, and possible actions for drought mitigation.

Articles on wildlife that were not part of the Backyard Naturalist series convey slightly different messages about the value of the environment and human agency. Many of these articles were based on press releases from state agencies that aimed to reduce human-wildlife conflicts. While they also assumed that humans engaged with nature primarily through recreation, they did not engage readers by connecting to a sense of place but repeatedly emphasized the personal safety risks that people face if they do not steer clear of baby animals while hiking or tailor their habits and houses to peaceful coexistence with bears. Humans and non-humans were represented as essentially distinct realms that should remain distinct for the (concrete) sake of human health and enjoyment and the (vague) benefit of animals. For instance, readers were urged to avoid feeding bears: "Feeding animals may seem harmless or even helpful. However it causes the animal to lose its natural fear of humans and seek more human food... Wildlife can transmit diseases, including rabies and roundworm, to humans" (Anonymous 2012d:7A).

In these wildlife articles, human activity was individually- and locally-scaled (in our backyards or on our hikes) rather than socially- or regionally-scaled (human population dynamics and exurbanization), and changes in animal populations, habitats, and ecosystems were mentioned as context but not explored. The exhortation in these pieces is typically to let nature take care of itself and to stay out of its way (Anonymous 2012c, 2012d, 2012e; Boots 2012). When intervention is required, however, it should be handled by certified professionals such as the fawn rehabilitator profiled in one article (Scheidler 2012). This leaves the impression that the know-how to manage and assist nature is now vested in only a small few. It also reinforces the separation between humans and nature, as in this quote from the fawn rehabilitator: "The idea of [fawn rehabilitation] is less human contact as you possibly can so you can put them back in the wild [sic]" (Scheidler 2012:1C).

In contrast to the theme of "leaving nature to the experts," many articles encourage readers to actively manage their private spaces to further their enjoyment of nature. Several articles, and even a special section on home improvement and lawns, tell readers that they should not just go out into nature, but rather bring nature to them by providing foliage, nectar, berries, seeds, and nuts that will attract wildlife. "You want to find ways to literally bring critters to your own backyard so you can watch them from your window when you are eating breakfast in the morning or relaxing on the porch on a warm afternoon" (McCandless 2012c:1).

## Discussion

Finally, a series of articles on public lands re-emphasized that environmental quality, conservation, or preservation rarely matter for their own sake, but rather are important for human health, well-being, and enjoyment. An editorial discussing a local trail renovation plan described the region's "almost sacred places," "treasures [that] belong to us all," that are part of "time-honored traditions" of connecting with family and friends, and that bring in valuable tourist dollars (*The Franklin Press* Editorial Board 2012:4A). While press release-based updates on planning processes and construction projects took a less spiritual tone, they also focused on the need to create a safe, "quality environment" (McCandless 2012b) and to respect users' search for peace, solitude, recreation, as well as communities' economic benefits (Webb 2012). While these articles complement the "outdoor life" narrative in terms of enjoyment, they present a very different sense of human agency. In these, the "great outdoors" needs to be managed actively to ensure that we can use it safely and to maximize the economic benefits of recreation and tourism (McRae 2012f). Here, then, we see that some people clearly have agency vis-à-vis the environment, but who those people are remains a bit of a mystery; they are cloaked within the alphabet soup of government agencies and seen primarily during formal consultations with the "public." Virtually no space was devoted to exploring the range of possible management goals or competing interests, and the single opinion piece voicing an impassioned commons environmentalism (Stoudemire 2012) sharply contrasted with conflict-free natural histories and press releases.

While articles on wildlife and public lands already began to differentiate between local people (as users of nature) and "experts" and agencies (as managers of nature), the relatively small number of *Franklin Press* articles about environmental quality and pollution further emphasized this distinction. Environmental quality articles are not at all linked to individuals or the community. Rather, they are discussed in terms of the state or the federal government compelling the state to take certain actions (Anonymous 2012a, 2012b). Articles discussing nuclear power and regional efforts to decrease mercury pollution, for example, are wholly focused on outsiders' actions. They include significantly more discussion of the causes and effects of environmental problems, describing pollution pathways, bioaccumulation, and local sites of concern, but they are silent about possible individual or community responses. At a broad, regional level, then, environmental issues seem to be controlled by a vague "world out there"—distant industrial operations and high-level regulatory regimes—over which citizens are represented as having little influence. Even when reporting good news, such as the positive impacts of historical smokestack laws, the newspaper does not draw a connection between those historical precedents and current or future recommendations, nor does it discuss how those historical laws emerged through active citizen engagement.

In summary, the environment tends to be represented in *The Franklin Press* primarily through a natural history lens, as a constitutive feature of the region and an amenity to be enjoyed. There is a sense that more information allows people to build deeper and more meaningful connections to the plants and animals that grace their lawns and forests. However, there is little attention to how people might be degrading the environment, little detail about past and future environmental impacts, and little sense that more information might enhance environmental governance. Environmental impacts and agency are both hyper-local and individualized, providing little basis for the collective actions necessary to mitigate and adapt to climate change and exurbanization. When large-scale action is mentioned, it often appears to be the work of experts, policymakers, or regulators with minimal suggestion that citizens can influence this work or that they might benefit from understanding the complexities of it.

Finally, although community members often express misgivings about amenity migration and its possible social and environmental impacts (misgivings also highlighted in the work of Cadieux [2011] and Nesbitt and Weiner [2001]), the newspaper provides virtually no reflection of social heterogeneity and the ways that distinct demographic groups might be differentially affected by, or responsible for, environmental change. For example, amenity migrants frequently settle on steeper hillsides and along ridgelines; by clearing vegetation and increasing the impermeable surface at their home sites and along access roads, they increase downslope residents' vulnerability to landslides, erosion, and storms. By contrast, many long-term residents use generations-old land management practices, such as clearing streams of fallen logs or allowing livestock to graze on riverbanks, which are now known to degrade ecosystems and the natural amenities that are increasingly important for the region's economy. If social heterogeneity and differential environmental impacts and effects are not made explicit in public fora like newspapers, false appearances of homogeneity may hide diverse interests and thereby impede more democratic and effective responses to exurbanization (see Cadieux 2011).

Trusted local news outlets like *The Franklin Press* introduce new ideas and flag them as important, set the tone for discussions, and signal to newcomers the politics and character of a region and its people. They have the potential for being sites of negotiation of diverse views, particularly around issues that affect local populations. Some of the distinct elements of *The Franklin Press*'s representation of the environment that arose in our study appear to derive, at least partially, from its mission as a local paper. A local paper fills a niche, bringing attention to issues that do not merit national attention or providing local interpretations of national events and issues. As editor Barbara McRae (personal communication, 24 June 2010) put it: "At *The Franklin Press*, we think locally, that's our job."



What appears to be even more important in setting tone and content, however, is the journalists' professional assessment of their audience and the best ways to reach them. Almost all environmentally themed articles in the paper fall into one of three categories: (1) written by Barbara McRae, the former editor; (2) written by one staff journalist; or (3) written, as a press release, by a local organization or local or state agency. McRae is clear that the paper is not a vehicle for advocacy and that its reporters do not "take sides" on issues. They do, though, strive to "be a force for good in the community." As such, the editor and journalist have carefully considered their audience and observed that "there's...this very conservative way of politics that is natural in the mountains" and that depends to a large degree on uncontroversial politeness. McRae used a local organization to exemplify how people concerned about environmental issues can go out and talk to different people, "finding commonalities between people's philosophies." Her columns (primarily Backyard Naturalist) strongly reflect an approach that attempts to relate to people in local cultural terms, providing a hyper-local connection to songbirds and other species, eliciting emotional connections to them, but avoiding potentially controversial or divisive angles on those stories, even when such angles may be relevant to political decision making.

McRae has written the Backyard Naturalist column for thirty years, and positive feedback from the community leads her to believe that her approach of leaving aside direct, explicit discussion of human impacts on the environment makes the columns inviting to a larger group of people in the area, including those who might be hostile to perceived environmentalist agendas. Given that her analysis of the audience has clearly shaped the tone and content of articles, the question becomes: what does this mean for the readership's access to the knowledge necessary for environmental decision making in the context of exurbanization and climate change? As previously noted, this is an area in which people rely heavily on this paper for information. If what they are learning does not include some of the myriad ways they both influence and are influenced by the environment, as well as the differential distribution of impacts, that likely reduces their ability to make policy and personal decisions related to environmental issues. There are, of course, trade-offs. For example, articles discussing responsibility for environmental change and the uneven distribution of environmental harms might provide better context for policy making, but if such articles were seen as inflammatory, and therefore contradictory to local political norms, then they might alienate the general readership and make them less willing to act upon this information. One interesting consideration is the role of local NGOs and policy advocates in this area. We observed in one article about a migratory bird day hosted by the local NGO Land Trust for the Little Tennessee (LTLT) that the content and tone were similar to those of the Backyard Naturalist columns. There was no mention of how these species were threatened and what people could do (other than count them). This might suggest that local organizations have come

to similar conclusions about their audience. We would point out, in contrast, that the readership of *The Franklin Press* is certainly not homogenous, and that there is a segment of the population that has expressed interest in other forms of environmental coverage.

Macon County residents embrace and exhibit many different types of environmentalism, and this is likely to increase as exurbanization brings further changes in conceptualizations of nature, environmental ideals, and governance (Abrams et al. 2012; Boucquey et al. 2012). In Southern Appalachia, as in other regions, cultural dynamics have shifted due to the emigration of local youth who see few desirable economic opportunities in the region and the simultaneous immigration of wealthier and more formally-educated people with more urban relationships to the land (i.e., people who identify less with working landscapes and focus more on conventional "environmentalist" concerns such as pollution, recycling, and nature conservation). The long-term outcome of this encounter among environmentalisms is uncertain. Cadieux (2011) suggests that exurbanites who flee degraded urban lands for more natural environments may be inspired to protect their new homes, and empirical research by Jones et al. (2003) found that newcomers to Southern Appalachia scored higher on a measure of environmental values when compared to long-term natives. Jones et al. celebrated exurbanization as the "greening of rural America," but they problematically measured "environmentalism" using a scale tailored to non-working-class, urban, White conceptualizations of environmentalism, a scale that could not have captured the "commons environmentalism" that Newfont (2012) convincingly identifies as a cornerstone of Appalachian environmental politics. In their research in Central Appalachia, Nesbitt and Weiner (2001:347) showed that the heterogeneous environmental imaginaries of natives and newcomers generated "an oppositional cultural politics of nature" that did not always advance "progressive" political values such as collective environmental governance and equity. Most articles in our sample reflect a culture that is relatively averse to regulation, though there are a few isolated calls for policy and regulation to protect nature from humans. Given this diversity of local perspectives, it is important to remain analytically open to different types of environmentalism that might be in play in Southern Appalachia, how these may interact with one another, and how resulting environmental politics may affect long-term ecological change.

In the particular case of Macon County, it is especially possible that some long-term residents' perspectives may not be voiced or heard, a dynamic that is enabled by traditions of autonomy, independence, and resistance to regulation that have arisen in response to past abuses by the state and wealthier outsiders. Exurbanization has made capital-intensive residential construction a cornerstone of Macon County's economy. While some long-term locals are primed to continue to reap significant benefits from this influx of exurban capital, other locals stand to lose much, especially those who live in environmentally vulnerable places, those

who do not have developable land in their family, or those who simply do not want the continuation of exurban growth patterns. Indeed, some long-term residents have advocated for zoning laws and other development regulations, but this tactic of collective action is met with significant resistance from the county's vocal libertarians and economically strong exurban developers.

Returning to McRae's desire for the paper to be a "force for good," we might ask what that means in a region facing very real challenges related to climate change and exurban development. Residents hoping to address these challenges have had difficulty engaging in successful collective action, and *The Franklin Press* seems to do little to support a sense of collective agency. In this political climate, in which atmospheric health and environmental change have become partisan issues, is there a way for the paper to frankly discuss human drivers of environmental change and possible actions to mitigate or respond to that change and still stay within its mission of speaking to local issues in a locally tailored style?

Moving forward, we hope that additional ethnographic research can provide a deeper understanding of how these environmental discourses are interpreted and applied via environmental governance at household and community scales. As a first step, we hope to compare these results with a parallel analysis of bi-weekly environmental science columns that we have contributed to *The Franklin Press* over the past two years via a writing collective of natural and social scientists (Burke et al. 2015). Second, we hope to work more systematically with readers to understand how they interpret and respond to these different environmental discourses. Third, given that exurbanites and seasonal residents are significantly influenced by both *The Franklin Press* and their home newspapers, we would be interested in analyzing environmental discourses in exurbanites' home newspapers and examining how environmental discourses, concerns, and knowledge are transported from home communities into the mountains. Finally, we will be interested to see how environmental communication changes over the long term. Will the growing population of exurbanites change the newspaper's priorities? Will the dominant environmental discourse change as local impacts of exurbanization and climate change become more obvious? And will the communication strategies of local NGOs continue to mimic the tone and content of *The Franklin Press*, or will these organizations raise alternative visions of human-environment relationships and questions of responsibility and agency? Finally, as we continue to work with ecologists and non-scientists in the region, we hope to examine which environmental dynamics are taken up as "issues" or "problems" and how those problems are interpreted and addressed.

#### Notes

<sup>1</sup> General information on the environmental and political economic history of Southern Appalachia is drawn from Davis (2000), Newfont (2012), and Yamell (1998). Newfont (2012), Brown (2000), and Weaver

(1996) detail United States Forest Service and National Park Service interventions in the region, related cultural politics, and community responses. Howell (2002), Hufford (2002), and Williams (2002) illustrate how historical livelihood, economic, and state-making projects continue to shape contemporary cultural and environmental politics.

<sup>2</sup> By contrast, consider that Hester and Dougall's (2007) analysis of sampling methodologies concluded that a single "constructed week" (a "week" composed of a randomly selected Monday, a randomly selected Tuesday, etc.) was adequate for representing a six-month period of on-line news content.

#### References Cited

- Abrams, Jesse B., Hannah Gosnell, Nicholas J. Gill, and Peter J. Klepeis  
2012 Re-creating the Rural, Reconstructing Nature: An International Literature Review of the Environmental Implications of Amenity Migration. *Conservation and Society* 10(3):270-284.
- Anonymous  
2012a Getting Better: NC Environmental Quality Assessment. The Franklin Press (Franklin, N.C.), February 3:8A.  
2012b State Seeking Ways to Lower Mercury Pollution. The Franklin Press (Franklin, N.C.), May 2:8A.  
2012c BEAR Talks...Bear Facts May 15. The Franklin Press (Franklin, N.C.), May 11:8A.  
2012d Don't Touch that Fawn! Warns N.C. Wildlife Commission. The Franklin Press (Franklin, N.C.), May 25:8A.  
2012e State: Leave Young Wildlife Alone. The Franklin Press (Franklin, N.C.), June 8:7A.
- Blommaert, Jan, and Chris Bulcaen  
2000 Critical Discourse Analysis. *Annual Review of Anthropology* 29:447-466.
- Boots, Debby  
2012 Fox Story Illustrates Effects of "Sanitizing" Greenway. Letter to the Editor. The Franklin Press (Franklin, N.C.), May 9:4A.
- Boucquey, Noëlle, Lisa M. Campbell, Gabriel Cumming, Zoë A. Melitis, Carla Norwood, and Joshua Stoll  
2012 Interpreting Amenities, Envisioning the Future: Common Ground and Conflict in North Carolina's Rural Coastal Communities. *GeoJournal* 77(1):83-101.
- Brown, Margaret Lynn  
2000 *The Wild East: A Biography of the Great Smoky Mountains*. Gainesville: University of Florida Press.
- Burke, Brian J., Meredith Welch-Devine, Seth J. Gustafson, Nik Heynen, Jennifer L. Rice, Ted L. Gragson, Sakura R. Evans, and Donald R. Nelson  
2015 Can Science Writing Collectives Overcome Barriers to More Democratic Communication and Collaboration? Lessons from Environmental Communication Praxis in Southern Appalachia. *Environmental Communication*. Online pre-publication January 27, 2015. URL:<<http://www.tandfonline.com/doi/pdf/10.1080/17524032.2014.999695>> March 8, 2015.
- Cadieux, Kirsten Valentine  
2011 Competing Discourses of Nature in Exurbia. *GeoJournal* 76(4):341-363.
- Davis, Donald Edward  
2000 *Where There are Mountains: An Environmental History of the Southern Appalachians*. Athens: University of Georgia Press.

- Dunlap, Riley E., and Kent D. Van Liere  
1978 The "New Environmental Paradigm." *The Journal of Environmental Education* 9(4):10-19.
- Fairclough, Norman  
2012 Critical Discourse Analysis. *International Advances in Engineering and Technology* 7:452-487. URL:<<http://scholarism.net/FullText/2012071.pdf>> (March 8, 2015).
- The Franklin Press Editorial Board  
2012 Dry Falls Trail Project Pleases on Many Levels. *The Franklin Press* (Franklin, N.C.), January 25:4A.
- Gragson, Ted L., and Paul V. Bolstad  
2006 Land Use Legacies and the Future of Southern Appalachia. *Society and Natural Resources* 19(2):175-190.
- Gragson, Ted L. and the co-Principal Investigators of the Coweeta Long Term Ecological Research Program  
2008 Southern Appalachia on the Edge—Exurbanization and Climate Interaction in the Southeast. Renewal Proposal Submitted to Long-Term Ecological Research Program, Division of Environmental Biology, National Science Foundation. Athens: University of Georgia Research Foundation. URL:<<http://coweeta.uga.edu/publications/10462.pdf>> (May 9, 2014).
- Gustafson, Seth, Nik Heynen, Jennifer L. Rice, Ted L. Gragson, J. Marshall Shepherd, and Christopher Strother  
2014 Megapolitan Political Ecology and Urban Metabolism in Southern Appalachia. *Professional Geographer* 66(4):664-675.
- Hester, Joe Bob, and Elizabeth Dougall  
2007 The Efficiency of Constructed Week Sampling for Content Analysis of Online News. *Journalism and Mass Communication Quarterly* 84(4):811-824.
- Hønneland, Geir  
2004 Fish Discourse: Russia, Norway, and the Northeast Arctic Cod. *Human Organization* 63(1):68-77.
- Howell, Benita J.  
2002 Appalachian Culture and Environmental Planning: Expanding the Role of the Cultural Sciences. *In Culture, Environment, and Conservation in the Appalachian South*. Benita J. Howell, ed. Pp. 1-16. Urbana: University of Illinois Press.
- Hufford, Mary  
2002 Reclaiming the Commons: Narratives of Progress, Preservation, and Ginseng. *In Culture, Environment, and Conservation in the Appalachian South*. Benita J. Howell, ed. Pp. 100-120. Urbana: University of Illinois Press.
- Jones, Robert Emmet, J. Mark Fly, James Talley, and H. Kenn Cordell  
2003 Green Migration into Rural America: The New Frontier of Environmentalism? *Society and Natural Resources* 16(3):221-238.
- Kilbourne, William E., and Michael J. Polonsky  
2005 Environmental Attitudes and their Relation to the Dominant Social Paradigm among University Students in New Zealand and Australia. *Australasian Marketing Journal* 13(2): 37-48.
- Kirk, Ryan W., Paul V. Bolstad, and Steven M. Manson  
2012 Spatio-temporal Trend Analysis of Long-term Development Patterns (1900-2030) in a Southern Appalachian County. *Landscape and Urban Planning* 104(1):47-58.
- Kloepfel, Brian D., Barton D. Clinton, James M. Vose, and Aaron R. Cooper  
2003 Drought Impacts on Tree Growth and Mortality of Southern Appalachian Forests. *In Climate Variability and Ecosystem Response at Long-term Ecological Research Sites*. David Greenland, Douglas G. Goodin, and Raymond C. Smith, eds. Pp. 43-55. New York: Oxford University Press.
- Kuhman, Timothy R., Scott M. Pearson, and Monica G. Turner  
2013 Why Does Land-use History Facilitate Non-native Plant Invasion? A Field Experiment with *Celastrus orbiculatus* in the Southern Appalachians. *Biological Invasions* 15(3):613-626.
- Labrière, Etienne, Jessie A. Wells, Fabrice DeClerck, Daniel J. Metcalfe, Carla P. Catterall, Cibele Queiroz, Isabelle Aubin, Stephen P. Bonser, Yi Ding, Jennifer M. Fraterrigo, John W. Morgan, Dalia Sánchez Merlos, Peter A. Vesk, and Margaret M. Mayfield  
2010 Land Use Intensification Reduces Response Diversity in Plant Communities. *Ecology Letters* 13(1):76-86.
- Leigh, David S.  
2010 Morphology and Channel Evolution of Small Streams in the Southern Blue Ridge Mountains of Western North Carolina. *Southeastern Geographer* 50(4):397-421.
- Lutz, Catherine A., and Jane L. Collins  
1993 Reading National Geographic. Chicago, Ill.: University of Chicago Press.
- McCandless, Colin  
2012a Surprise Storm Creates Havoc. *The Franklin Press* (Franklin, N.C.), January 6:1A, 3A.  
2012b USFS Launches Trails Initiative. *The Franklin Press* (Franklin, N.C.), February 1:1A, 10A.  
2012c Take Wildlife into Consideration. *The Franklin Press* (Franklin, N.C.), April 20:Special Section 1.  
2012d Soggy Start to October. *The Franklin Press* (Franklin, N.C.), October 5:1A, 3A.
- McRae, Barbara  
2012a Backyard Naturalist: Stunning Hooded Mergansers May Be Visiting a Pond Near You. *The Franklin Press* (Franklin, N.C.), January 6:4B.  
2012b Backyard Naturalist: Killy, Killy, Killy—the Call of the Kestrel. *The Franklin Press* (Franklin, N.C.), January 13:4B.  
2012c Backyard Naturalist: Little Foxes Ready to Roam. *The Franklin Press* (Franklin, N.C.), April 27:4B.  
2012d Backyard Naturalist. *The Franklin Press* (Franklin, N.C.), May 4:4B.  
2012e Backyard Naturalist: Kingfisher: A Familiar Presence on the River. *The Franklin Press* (Franklin, N.C.), May 25:4B.  
2012f Community Forests: USDA Grant to Protect Hall Mountain Tract. *The Franklin Press* (Franklin, N.C.), August 29:1A, 7A.
- Nesbitt, J. Todd, and Daniel Weiner  
2001 Conflicting Environmental Imaginaries and the Politics of Nature in Central Appalachia. *GeoForum* 32(3):333-349.
- Newfont, Kathryn  
2012 Blue Ridge Commons: Environmental Activism and Forest History in Western North Carolina. Athens: University of Georgia Press.
- Nisbet, Matthew C., and Dietram A. Scheufele  
2009 What's Next for Science Communication? Promising Directions and Lingering Distractions. *American Journal of Botany* 96(10):1767-1778.

- Noe, Francis P., and Rob Snow  
1990 The New Environmental Paradigm and Further Scale Analysis. *The Journal of Environmental Education* 21(4):20-26.
- O'Barr, William.  
1994 *Culture and the Ad: Exploring Otherness in the World of Advertising*. Boulder, Colo.: Westview Press.
- Price, Katie, and David S. Leigh  
2006 Comparative Water Quality of Lightly- and Moderately-Impacted Streams in the Southern Blue Ridge Mountains, USA. *Environmental Monitoring and Assessment* 120(1):269-300.
- Rogers, Rebecca  
2002 Through the Eyes of the Institution: A Critical Discourse Analysis of Decision Making in Two Special Education Meetings. *Anthropology and Education Quarterly* 33(2):213-237.
- Scheidler, Andy  
2012 Raffle Supports Franklin's Fawn Rehabilitator. *The Franklin Press* (Franklin, N.C.), May 25:1C.
- Schegloff, Emanuel A.  
1997 Whose Text? Whose Context? *Discourse and Society* 8(2):165-187.
- Stoudemire, Danita  
2012 My Way O' Thinkin': Change Not Always Good for us Locals. *The Franklin Press* (Franklin, N.C.), May 23:4A.
- van Dijk, Teun  
1993 Principles of Critical Discourse Analysis. *Discourse and Society* 4(2):249-283.
- Vercoe, Richard A., Meredith Welch-Devine, Dean Hardy, Jennifer A. Demoss, Shannon N. Bonney, Karen Allen, J. Peter Brosius, David Charles, Brian Crawford, Sarah Heisel, Nik Heynen, Rebecca G. de Jesús-Crespo, Nathan Nibbelink, Lowery Parker, Cathy Pringle, Alana Shaw, and Levi Van Sant  
2014 Acknowledging Trade-offs and Understanding Complexity: Exurbanization Issues in Macon County, North Carolina. *Ecology and Society* 19(1):23.
- Weaver, Bruce J.  
1996 "What to Do with the Mountain People?": The Darker Side of the Successful Campaign to Establish the Great Smoky Mountains National Park. *In The Symbolic Earth: Discourse and Our Creation of the Environment*. James G. Cantrill and Christine L. Oravec, eds. Pp. 151-175. Lexington: University of Kentucky Press.
- Webb, Jessica  
2012 Chattooga Users Value River's Solitude. *The Franklin Press* (Franklin, N.C.), February 10:1A, 3A.
- Webster, Jackson R., Ernest F. Benfield, Kristen K. Cecala, John F. Chamblee, Carolyn A. Dehring, Ted L. Gragson, Jeffrey Hepinstall-Cymerman, C. Rhett Jackson, Jennifer D. Knoepp, David S. Leigh, John C. Maerz, Catherine Pringle, and H. Maurice Valett  
2012 Water Quality and Exurbanization in Southern Appalachian Streams. *In River Conservation and Management: Catchment Conservation, Ecosystem Integrity, and Threats to River Systems*. Philip J. Boon and Paul J. Raven, eds. Pp. 91-107. Hoboken, N.J.: John Wiley and Sons.
- Wei, Wu, James S. Clark, and James M. Vose  
2012 Application of a Full Hierarchical Bayesian Model in Assessing Streamflow Response to a Climate Change Scenario at the Coweeta Basin, NC, USA. *Journal of Resources and Ecology* 3(2):118-128.
- Williams, Michael Ann  
2002 "When I Can Read My Title Clear": Anti-Environmentalism and Sense of Place in the Great Smoky Mountains. *In Culture, Environment, and Conservation in the Appalachian South*. Benita J. Howell, ed. Pp. 87-99. Urbana: University of Illinois Press.
- Wolf, Johanna, and Susanne C. Moser  
2011 Individual Understandings, Perceptions, and Engagement with Climate Change: Insights from In-Depth Studies across the World. *Wiley Interdisciplinary Reviews: Climate Change* 2(4):547-569.
- Yarnell, Susan L.  
1998 *The Southern Appalachians: A History of the Landscape*. Asheville, N.C.: United States Department of Agriculture Forest Service Southern Research Station.