

Ramps Reporting: What 70 Years of Popular Media Tells Us About A Cultural Keystone Species

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Ramps (Allium tricoccum Aiton), a wild onion, are an enduring seasonal food and symbol of cultural identity in Appalachia. Growing national interest in ramps as a culinary delicacy has raised questions about their sustainable use, although systematic documentation of their rise in popularity is lacking. We seek to augment our understanding of demand for ramps by examining changes in media coverage of the plant over time. We trace shifts in the portrayal of ramps, from a provincial novelty to a high-end food source through a thematic analysis of two popular media datasets. Our analysis of over 3,100 news articles demonstrates that issue attention to ramps, quantified by the number of topical articles printed each decade, and geographical distribution of media coverage, has substantially increased since the 1980s. While narratives continue to acknowledge the importance of ramps as a cultural keystone species of Appalachia, the focus of recent reporting has expanded to promote ramps as a hyperlocal spring delicacy across Eastern North America. Articles increasingly introduce overharvesting concerns and sustainable gathering techniques. Importantly, we highlight those who are left out of media attention, namely Native American communities who have had relations with ramps as food and medicine for millennia.

Rampas (Allium tricoccum Aiton), una cebolla silvestre, son una duradera comida de temporada y un símbolo de identidad cultural en

Appalachia. El interés nacional en rampas como delicia ha provocado preguntas importantes sobre su uso sostenible, aunque falta una documentación sistemática del aumento de su popularidad. Buscamos aumentar nuestra comprensión de la demanda de rampas mediante el examen de los cambios en la cobertura de los medios de la planta a lo largo del tiempo. A través de un análisis temático de dos conjuntos de datos de medios populares, seguimos los cambios en la representación de las rampas desde una novedad provincial hasta una fuente de alimentos de alto nivel. Nuestro análisis de más de 3.100 artículos de noticias demuestra que la atención a las rampas, cuantificada por el número de artículos de actualidad impresos cada década, y la distribución geográfica de la cobertura de los medios, ha aumentado desde la década de los 1980. Mientras que las narrativas continúan reconociendo la importancia de las rampas como especie clave de Appalachia, el enfoque de los informes recientes ha expandido para promover las rampas como una delicia hiperlocal de primavera en el este de América del Norte. Los artículos nos presentan cada vez más preocupaciones sobre la recolección y técnicas de recolección sostenibles. Como aporte, destacamos a aquellos grupos que se quedan fuera de la atención de los medios de comunicación, que en este caso son las comunidades de indígenas norteamericanas que han tenido relaciones con rampas como alimentos y medicamentos durante milenios.

KEYWORDS: *Allium tricoccum*, wild leeks, forest foods

PALABRAS CLAVE: *Allium tricoccum*, puerro silvestre, comidas forestales

INTRODUCTION

Each spring, people across eastern North America take to the woods to gather the edible plant commonly known as ramps. Ramps (*Allium tricoccum* Aiton), a relative of onions, are an iconic wild edible, playing vital roles in food systems, local traditions and economies, particularly in the Appalachian portion of its range. Interest in ramps as a culinary delicacy has recently grown, popularizing them in restaurants from coast to coast, and raising concerns about increased harvesting pressure on the sustainability of ramp populations. It also raises questions about what types of narratives and conservation information about ramps are being communicated to public audiences, in new and established geographies.

We seek to augment our understanding of ramps by examining shifts in media attention to the plant over time through a systematic analysis of popular media datasets that encompass over 75 years of newspaper and magazine articles. We seek to answer two central questions: 1) How has frequency of ramps-related reporting and geographic distribution changed over time?; and 2) What types of information about use, cultural connections and conservation are being communicated about ramps through popular media? Our basic premise is that issue attention to ramps, in this case quantified by the number of articles in which they are featured each year, and their geographic distribution, is an indicator of the

general public's awareness of ramps and are related to demand for this nontimber forest product.

Ramps

Ramps, also known as wild leeks, are an herbaceous, perennial member of the onion family (Amaryllidaceae), native to rich hardwood forest types across much of eastern North America (Figure 1) from Nova Scotia south to Georgia and west to the Mississippi River (Jones 1979, USDA 2018). In the southern portion of its range, ramps are found in rich cove habitats, most commonly between 1070 and 1675 meters above sea level.

Ramps are typically considered to be commonly-occurring plants across their range. In favorable habitat conditions, ramps reproduce both sexually and vegetatively. Population expansion through bulb division is typical, and ramp patches can grow quite large, encompassing acres of forestland (Nault and Gagnon 1988). However, recent increases in the plant's popularity have caused some states to assign special legal conservation status to the plant (USDA 2018). This is also the case in the Canadian province of Quebec, where commercial harvesting of ramps is prohibited due to overharvesting (Tardiff et al. 2005). In the state of Maine, ramps are ranked S3, rare-in-state, due to a lack of suitable habitat, being at the northern end of the plant's range, rather than concern over gathering pressure (Maine Natural Areas Program 2013).

A spring ephemeral, the leaves of ramps emerge before the forest tree canopy leafs out; typically in early March or April, depending on location. In approximately eight weeks, the leaves photosynthesize all of the carbohydrates needed to sustain

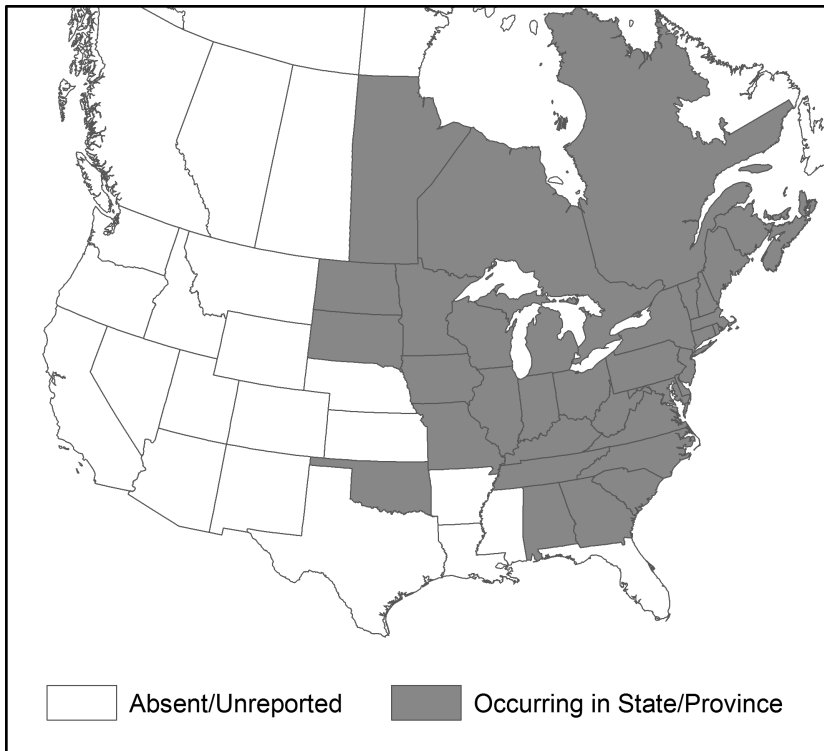


Figure 1. Geographic distribution of North American states and provinces in which ramps, *Allium tricoccum*, occur. Map adapted from USDA, NRCS (2018).

the plant for the year before senescing. While bulbs may be gathered throughout the year, most ramp harvesting occurs in spring, when leaves are visible.

Although ramps have a wide geographic distribution, they have been most commonly associated with the Appalachian region of the United States (US), where they are ascribed much socio-cultural meaning (Rivers et al. 2014). A cherished food and spring tonic, ramps hold an important place in shared cultural memory, as people recollect childhood days spent with family digging plants and picnicking in the ramp patch

(Lefler, 2013). Communities across the region host annual ramp suppers, local fundraisers that provide neighbors opportunities for social bonding while harvesting, cleaning and cooking the plants (Hufford, 2000). Ramp festivals, such as the famous Richwood Festival of the Ramson in West Virginia, are larger affairs that often feature live music, raffles, and ramp-based meals (Figure 2). Festivals have contributed to Appalachian identity and economies for decades and are an important source of tourism revenue (Rivers et al. 2014). The myriad roles that ramps play in Appalachia



Figure 2. Ramps have been an iconic Appalachian food for generations. Clockwise from left: Freshly harvested ramps, a sign for a local ramp festival in Tennessee, and an extensive ramp patch.

Photographs by Michelle Baumflek and James L. Chamberlain.

suggest that they are a cultural keystone species—one that plays a fundamentally significant role in shaping the identity of a group of people (Garibaldi and Turner 2004). These plants, animals and fungi typically make integral contributions to the nutritional, medicinal, spiritual and/or material needs of a culture.

All parts of the plant are edible, however, ramps have long been prized in the south for their pungent bulbs (Chamberlain et al. 2018). The intense, permeating odor of ramps is one of their most prominent, and divisive features, causing people to have either strong affinities or dislikes for their taste. Traditional Appalachian preparations of ramps include frying them

with fatback then adding to eggs or potatoes. Ramps are also mixed into meatloaf, pickled, and frozen for year-round consumption (Lefler 2013). Many people also enjoy ramps raw, including freshly harvested and cleaned off in a creek, when they are at their most potent, often with a piece of cornbread (Hufford, 2000).

While ramps, traditionally, have been associated with the Appalachian region, their distinct flavor and early season availability began to captivate the imaginations of chefs and local food enthusiasts across the country around the late 1990s, creating a national market for the plants, which continues to grow (Chamberlain et al. 2018). Ramps can now be bought from online

suppliers that specialize in wild-harvested food, found in local farmer's markets as well as chain stores such as Whole Foods, and appear on restaurant menus in cities from Washington D.C. to Seattle (Rivers et al. 2014, Earthy Delights 2018).

Increased demand for ramps raises conservation questions around impacts to local plant populations. Like many wild edible plants, relatively little scientific information is available concerning the ecology, traditional uses, and impacts of harvesting ramps. Because they are a slow growing perennial species, several studies have indicated that harvesting whole plants, including bulbs, can be extremely detrimental to plant populations, unless done in limited amounts with ample rotation time (Nault and Gagnon 1993). For instance, Rock et al. (2004) estimated a sustainable harvest rate to be approximately 10 percent of a ramp population once every 10 years. However, accurate estimates of ramp harvests are unknown in many locations, including public forestlands in the southeastern US, where record keeping and permit information may not completely capture what is being removed from forests (Frey and Chamberlain 2016).

While scholarly data on ramps may be limited, popular media may provide a rich data source to help us understand what types of information are being communicated about these plants, and how that information is geographically distributed. Sachdeva et al. (2018) use print and digital popular media datasets to explore the framing of wild foods foraging over a 15 year period in the United States and Canada. Their analysis highlighted the frequency of different foraging-related topics and was not intended to produce species-specific findings. Boehm (2015) compared class-based framing of ramps-related articles

in the New York Times and Charleston Gazette. However, a larger, systematic assessment of reporting on ramps has not been undertaken.

METHODS

Data Collection

Our study focuses on popular media related to ramps in the form of newspaper and magazine articles. We chose to limit our dataset to newspaper and popular magazine articles for two reasons: these formats were consistently available from the 1940s to the present and they are typically archived, and less ephemeral than certain types of online content such as blog posting, enhancing the replicability of our work.

Our study involves two components: 1) an analysis of the number of popular articles published about ramps over time, and their geographic distribution from 1980–2018, and 2) a content analysis of a subset of newspaper and magazine articles, to explore major themes in reporting over time, 1940–2016.

For our broader geographic analysis, we chose the database *News Bank*, which provided articles from 1980 to present, capturing the time period during which ramps increased in popularity. We queried the *News Bank* database with the search terms “Ramps” and “Onions” in all text. These search terms yielded over 3,600 results. An initial review of the articles revealed that search terms also retrieved many unrelated articles referring to highway on-ramps, as well as restaurant reviews that noted the availability of wheelchair ramps. Therefore, we limited our search to not include the terms “highway”, “wheelchair” or “disability”. Because publications related to ramps were relatively rare in the

1980s, all articles for the decade 1980–1989 were reviewed to ensure they were relevant. In addition, states that reported less than 15 articles about ramps for any given decade were also examined for accuracy. This refined search yielded 2571 articles. A separate search for the term “Wild Leeks”, NOT “Ramps”, NOT “Ramp” was also conducted to capture articles that may have only used this common name for the species. This yielded an additional 577 articles.

For the content analysis, a search was conducted in the *ProQuest* database available through Virginia Polytechnic Institute in the fall of 2016. The *ProQuest* database was chosen because it provided articles from as early as 1948, allowing us to explore content in reporting over a longer time period. We queried the database using the search terms “Ramps” AND “Onions”, and “Wild Leeks” AND “Onions”. These queries returned over 200 articles. Duplicate articles and articles that were not relevant to the study were discarded, resulting in 154 articles for analysis.

Publications included local, regional and national syndicates¹. It is important to acknowledge this study includes only the publications and articles that were indexed in the *News Bank* or *ProQuest* databases. We recognize that neither database provides exhaustive datasets, but a rather a representation of available reporting over time. Hyperlocal publications that are not indexed may have yielded different results.

Data Analysis

News Bank articles were queried by state and decade from 1980 to 2018, to

examine trends in frequency of articles published about ramps over time, as well as geographic distribution of reporting. To understand how ramps reporting changed over time, the search results were normalized by expressing them as a percentage of the total number of articles available from the *News Bank* database in the US and Canada each decade.

For each article retrieved through the *ProQuest* database, demographic information including date of publication, publication source, and publisher city and state/province were recorded. A thematic content analysis was then conducted based on both inductive and deductive coding processes (Boyatzis, 1998). Our initial codebook was based on themes related to environmental conservation, overharvesting and cultural representation. After initial review of several articles, other important themes emerged, and were included in the final coding strategy. Each article was coded as having a certain topic being ‘present’ or ‘absent’, and main points and key quotations from each article were also recorded. To maintain consistency, the first author conducted all coding.

RESULTS AND INTERPRETATION

News Bank Analysis, 1980–2018

Issue attention to ramps, as defined by changes in article frequency and geographic distribution, have increased substantially each decade from 1980 to 2018 (Figure 3). A refined search of the *News Bank* database retrieved 3,115 relevant articles: 45 (1980–1989), 305 (1990–1999), 1162 (2000–2009), and 1603 (2010–

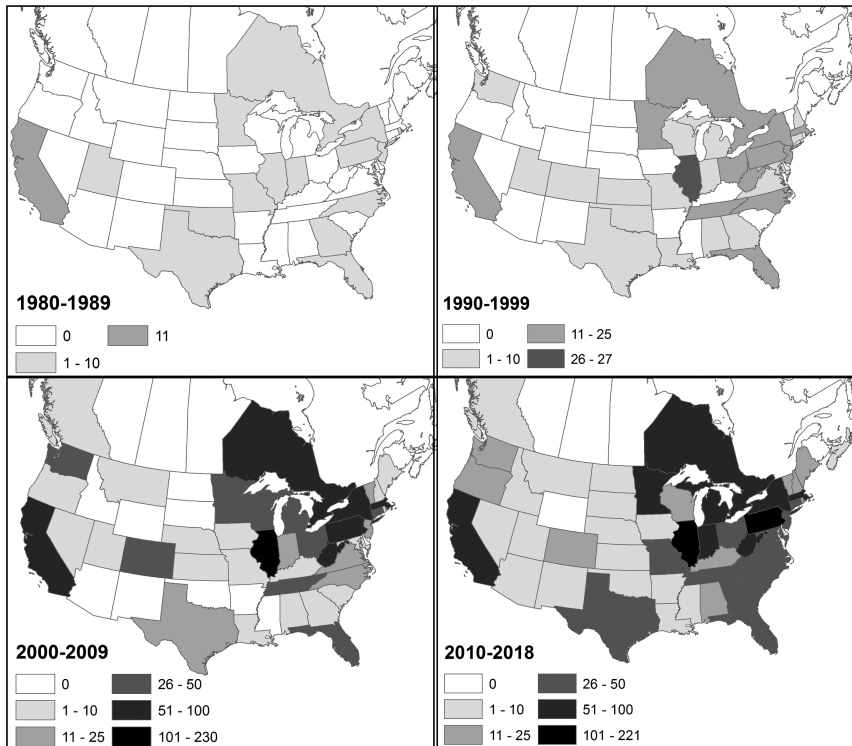


Figure 3. Frequency of newspaper articles reporting on ramps, *Allium tricoccum*, retrieved from News Bank database by state/province, in decadal intervals from 1980 to 2018.

Increases in reporting occurred throughout the nation, with highest levels of reporting in states that coincide with the geographic range of the plant. Hawaii (5 articles, 2010–2018) and Alaska (3 articles, 2010–2018) are not pictured.

2018) (Figure 4a.). Articles related to ramps tripled from 0.00036 percent in the 1980s to account for 0.00099 percent of *News Bank* articles in the 2010s. This percentage growth suggests that ramps-related articles have been increasing relative to all of the articles archived by *News Bank* in a given decade, supporting our assertion of increased issue attention.

By 2018, articles about ramps were featured in every state except Wyoming

and three provinces, expanding from only 10 states in the 1980s. News sources from Illinois, Pennsylvania, New York, West Virginia and California had the greatest total number of articles. In the 2000s and 2010s, Illinois had more than twice as many articles featuring ramps than second-place Pennsylvania. This was mainly due to weekly calendar segments advertising ramp suppers that were printed in local papers around the state. While numbers

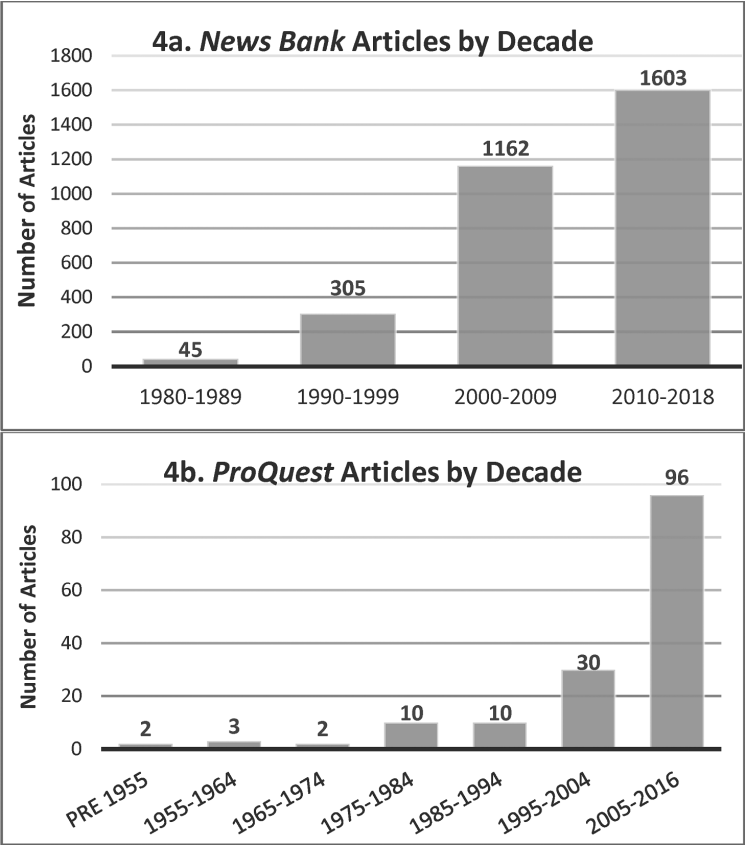


Figure 4. Frequency of ramps-related articles by decade, retrieved from a) News Bank (1980–2018) and b) ProQuest database (1948–2016).

of articles have increased each decade, the percent increase has decreased from 677 percent between the 1980s and 1990s to 50 percent between the 2000s and 2010s. This suggests that, while ramps continue to rise in popularity, issue attention may level off in coming years.

*ProQuest Content Analysis,
1940–2016*

To contextualize our broader dataset, we conducted a content analysis of 154

newspaper articles, based on 16 themes. Descriptions of each theme, and percentages of articles including related content are found in Table 1. The theme of Relations to Spring was encountered most frequently in reporting (116 articles) while reporting related to Native Americans was least frequent (8 articles).

Articles came from 25 states, the District of Columbia and three provinces. Reporting displayed a similar trend to the News Bank analysis, with a sharp rise

Table 1. Description of themes and their frequency of appearance from content analysis of 154 ramps-related articles.

Theme	Description	Number of Articles	Percentage of Articles
Spring	Mention of ramps in relation to spring season.	116	75.32
Onion Flavor	Description of the flavor of ramps in comparison to onions.	116	75.32
Pungent Odor	Reference to ramps as having a strong, noticeable smell.	83	53.90
Appalachians	Content relating ramps to the Appalachian region.	68	44.16
Festival	Reference to ramp festivals or similar community events.	67	43.5
Recipes	Inclusion of recipes for cooking ramps.	48	31.17
Delicacy	Description of ramps as a delicacy or gourmet food.	47	30.52
Foraging	Articles that feature or promote the foraging of ramps, or that provide foraging instructions for readers.	45	29.22
Restaurants	Mention of the use of ramps in restaurants.	44	28.57
Medicine	Mention of medicinal attributes of ramps.	31	20.13
Sustainable Techniques	Inclusion of techniques that promote the sustainable harvest and use of ramps.	25	16.23
Identity	Ramps as a symbol of identity for a community, geographic location or cultural group.	24	15.58
Cultural Memory	Recollection of memories or events involving ramps, collectively shared or experienced by a group of people.	23	14.94
Overharvest	Content that describes a specific mention of overharvesting, or voices concern about potential overharvesting of ramp populations.	23	14.94
Politics	The politicization of ramps or ramp festivals.	11	7.14
Native Americans	Reference to Native American use of, or relationship to, ramps.	9	5.84

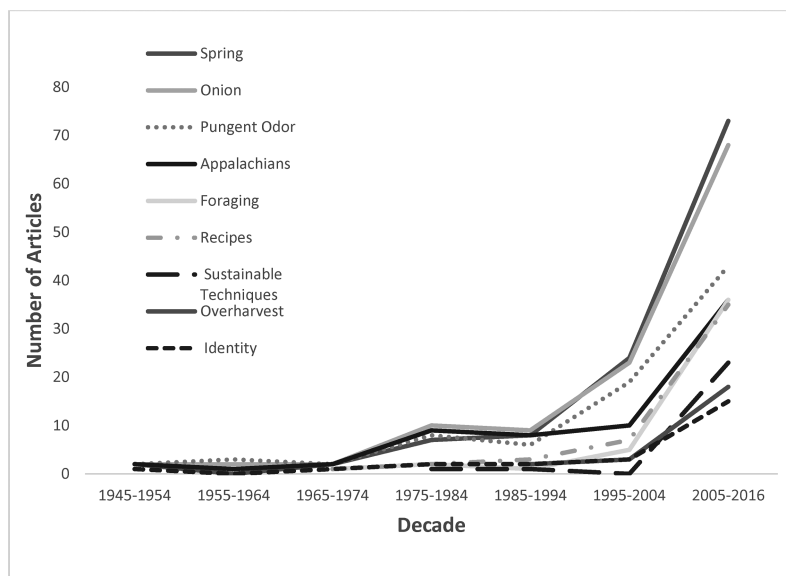


Figure 5. Frequency of occurrence of select reporting themes over time in popular articles related to ramps 1945–2016, retrieved from a ProQuest database search. Order of thematic symbols in legend from top to bottom correspond with the order of their occurrence at the end of the study period from top to bottom.

in articles between 1984–1994 (10) and 2005–2016 (96), as shown in Figure 4b.

Content of articles shifted over time, to include a broader range of themes; expansion was particularly pronounced beginning in the mid-1990s (Figure 5). The geographic distribution of six select themes (Identity, Festivals, Delicacy, Foraging, Overharvest and Sustainable Techniques) are provided in Figure 6. We discuss findings for key themes below.

Relations to Spring

Popular articles we reviewed consistently associate ramps with the onset of springtime, a theme present in 75 percent of reviewed articles. Ramps were described as harbingers of spring across geographic locations. Indeed, they are

often the first edible green to emerge, even as snow covers the ground. Throughout their range, people who harvest and eat ramps celebrate the end of winter with their emergence: "They talk about that groundhog being a weatherman, but I'll tell you exactly when it's spring –when the ramps poke up." (Moyer 2008). The seasonal importance of ramps is further underscored by the publication months of articles reviewed; approximately 85 percent were published in April or May.

Being celebrated as the first wild edible of spring has brought detractors as well. Some food critics felt that ramps received more cult-like attention than they deserved. Ozersky (2010) explains that ramps are "the first legitimately green thing that appears from the ground in

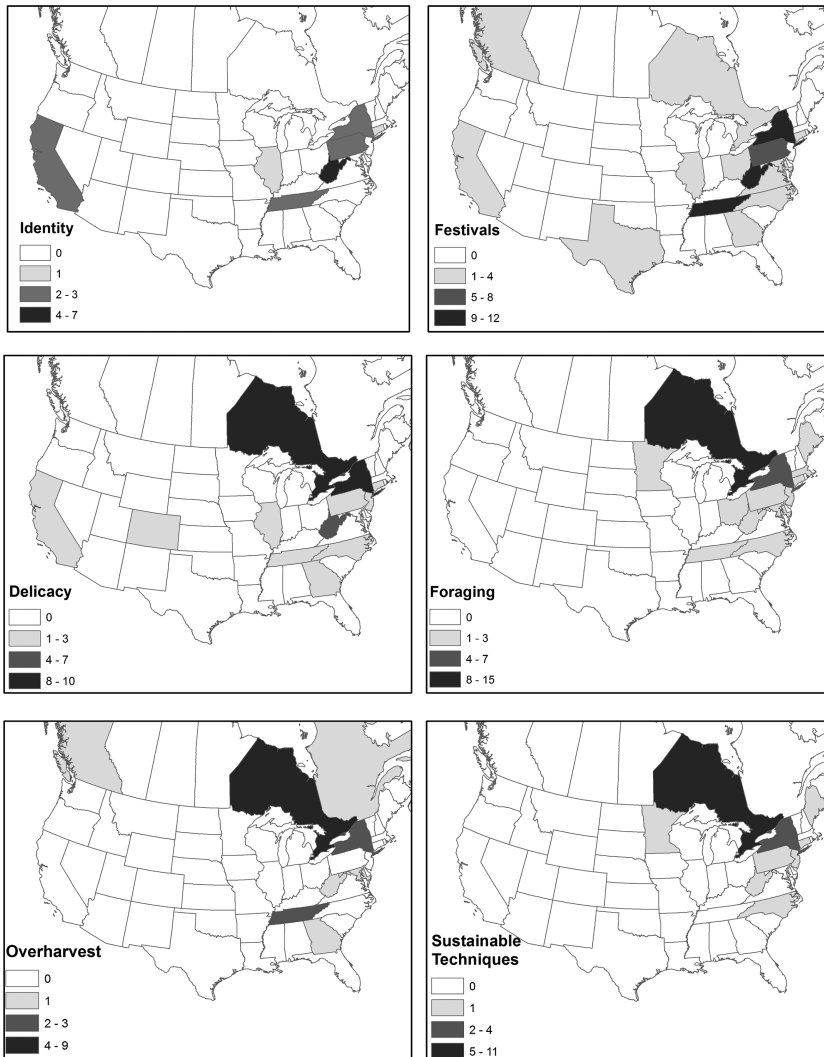


Figure 6. Geographic distribution of reporting on selected themes. Left to right from top: Identity, Festivals, Delicacy, Foraging, Overharvest, and Sustainable Techniques.

April, a month that, in terms of farm yield, is otherwise an extension of winter. For food snobs, therefore, ramps are over-celebrated and overly scrutinized, like the first ballgame played in April, even with 161 more games ahead."

Pungent Odor: Where Do Ramps Stink?

While ramp's association with onions was recognized in over 75 percent of articles reviewed, the characterization of their smell as pungent, intense or offensive

were mentioned in only 50 percent of reporting. Humorous descriptions often served as a warning, or an invitation, for those unfamiliar with the plant's charms. For instance, a food editor described the smell of ramps as a combination between "sautéed onions and funky feet." (Martinson 2004). Commenting on the effects of the lingering smell of ramps, reporters from the Knoxville News Sentinel of Tennessee noted that "Ramps are for people who are already married." (Hodge 2004) and "About the only thing that'll take the edge off of ramp breath is a bite of raw onion, followed by garlic toast and a cheap cigar." (Venable 2002).

Pungency was a key theme of ramps reporting for many decades. However, by the mid-2000s, as other prominent themes including relation to spring remain a fixture of reporting, the frequency of articles referring to ramps as odiferous do not climb at the same rate (see Figure 5). Interestingly, and falling along the class-based framing described by Boehm (2015), newspaper sources from West Virginia and Pennsylvania continued to make reference to ramps' pungency through the present, while newspapers from larger cities outside of Appalachia, including New York City and Washington D.C. referred less and less to this well-known attribute of the plant over time; by the 2010s preferring to describe ramps flavor as unique and delicious rather than comically offensive.

Appalachians, Cultural Memory and Identity

Popular articles reflected Appalachia's long-standing relationship with ramps in ways that both captured cultural memories

and signaled their shifting symbolism. Connections to Appalachia continue to be acknowledged in articles published across North America, even if it was not the main focus of a story. This theme appeared in 45 percent of analyzed articles.

A reoccurring example is childhood recollections of being removed from class due to smelling strongly of ramps. The most extreme case of this commonly shared story was reported in 1948, as the Raleigh County Board of Education in Beckley, West Virginia upheld a school principal's right to whip students who "came to class exhaling the odor of ramps" (Washington Post 1948).

While many articles acknowledged Appalachian connections to ramps, nowhere did the theme of identity come out as strongly as in West Virginia (see Figure 6). Content related to the state of West Virginia, reported from both within and outside of the state, contained the most references to ramps as a form of cultural identity. Ramps continue to be a source of pride for the state, which some use as a way to differentiate between regional specialties: "Georgia might have their peaches, but we have our ramps and everyone wants them." (Constantino, 2015). As an article from the Charleston Daily Mail notes: "In Texas you have barbecue. In Louisiana you have Cajun cooking. In New England, clam bakes. In West Virginia, ramps are a part of our cultural cuisine. It's a celebration of spring." (Blankenship 2000).

Ramp festivals remained a major theme in reporting across decades, appearing in 67 articles. Popular articles about ramps pre-1975 often originated from larger

cities and focused on portraying ramp festivals as examples of provincial Americana, such as this example from the *New York Times*: "the crowd was varied... but it remained a local gala. And there were reminders that this remains a part of the country where localism has not quite faded into the plastic-geranium sameness of life in the age of instant grits." (Charlton 1972). However, reporting became more nuanced over time, focusing on the social and economic benefits of festivals which included providing community members a reason to celebrate in difficult times, and through providing a source of fundraising for local causes including a women's shelter, a sustainable farming initiative and for sporting teams.

Festivals have been recognized as an important source of tourism revenue in reporting from as early as 1954, when the *Chicago Tribune* stated that the town of Cosby, Tennessee was turning to ramps as an alternative to moonshine (Morrow 1954). Articles often reported on expected, or actual sizes of festival attendees, which often numbered in the thousands, as well as how much food it would take to satisfy hungry crowds, such as this dispatch from the Cosby ramp festival 40 years later: "Enough ramps to feed 3,000 people: 40 bushels of ramps, 90 dozen eggs, 100 pounds cornmeal, 200 pounds of fatback." (DeLozier 1994). Rivers et al. (2014) found that between 1992 and 2012, the number of ramp festivals had more than doubled from 19 to 51. While many of the new additions are located in West Virginia and North Carolina—familiar territory for ramp celebrations—festival locations have also spread geographically, mirroring the widespread appeal of ramps as a

local delicacy. Our content analysis similarly identified recent reporting on ramp festivals in upstate New York, Chicago and Pennsylvania.

*Ramps As Delicacies:
Restaurants, Foodies and
Local Foods*

The framing of ramps as a delicacy was predominantly reported in major newspapers outside of Appalachia, in cities including New York, Los Angeles, Denver and Toronto (see Figure 6). Many attribute the rise of ramps in popular food culture popularity to Martha Stewart's adoption of them in the mid-late 1990s. However, our analysis demonstrates that food critics from the *New York Times* in particular were promoting ramps as a delicacy as early as 1978 (Sheraton 1978). By the 2010s however, the rarefication of ramps was not limited to northern news outlets: regional papers such as the *Charleston Daily Mail* of West Virginia featured articles describing farm-to-table dinners aimed towards foodies, in which ramps played starring roles (Keith 2015).

The increased focus on ramps in the late 1990s and early 2000s is likely tied to the explosion of interest in local and wild foods that has blossomed across North America. Writing for the *New York Times*, Feiring (2006) notes that ramps made their first appearance in New York City's Union Square Greenmarket in 1986 but did not receive a great deal of attention until the 1990s, around the same time as burgeoning local foods and Slow Foods movements were gaining popularity (Pietrykowski 2004, Goodman et al. 2012).

Chefs are also known to play important roles in the promotion of local foods

(Inwood et al. 2009), something that has certainly been the case with ramps. Approximately 29 percent of articles in our analysis featured restaurants and chefs, recently highlighting seasonal, epicurean dishes that differed from Appalachian home cooking, and festival fare of earlier reporting.

Similar to the framing of ramps as a delicacy, major newspapers such as the *Washington Post* began offering recipes for ramps as early as 1970. The *Globe and Mail*, based in Toronto, Ontario, offered a recipe for vichyssoise with ramps in 1982. However, 73 percent of articles that provided recipes for cooking ramps at home were published in the 2010s, likely mirroring increased familiarity and availability of ramps to consumers in many parts of the US. Recipe styles varied by source paper and year of publication and ranged from simple to elaborate. Moving away from traditional preparations, a 2000 article from the *Charleston Daily Mail* brought five West Virginia chefs together to create innovative recipes (Blankenship 2000). Recent offerings from sources such as the *Wall Street Journal* included gourmet recipes for ham and pickled ramp tartines, and ramp and morel risotto (Greenwald 2012, Palmeri 2016).

Foraging, Overharvesting and Sustainability

Foraging has been a growing theme in ramps reporting since the mid-1990s, and appears in approximately 30 percent of articles. These articles described first-hand foraging experiences, or offered tips for people interested in gathering their own ramps. The majority of articles that described or promoted foraging originated from states and provinces that are within

the range of ramps in northeastern North America (see Figure 6).

An increased focus on foraging may also be an extension of the local foods movement. Articles from northern news outlets in Philadelphia, New York City and Hartford, Connecticut that promoted foraging acknowledged that ramps grew prolifically in surrounding forests, but people were largely unaware of them until recently. Foraging was portrayed as providing hyper-local foods, which was beneficial for human wellbeing and environmental health: "It's a natural food.... It is a New England asset we need to look at more. Especially as energy prices rise we might want to look more toward local foods, what grows well here, what is native here, and have more respect for those things." (Grant 2006).

Themes of overharvesting and sustainability were featured in approximately 15 percent and 16 percent of articles, respectively. Geographically, news outlets in the province of Ontario, Canada published the greatest number of articles on both of these themes. A focus on species conservation may be related to the fact that ramps are a protected species in neighboring Quebec where they are considered a vulnerable species and commercial harvest is prohibited (Tardiff et al. 2005). Warning of a similar fate for Ontario, the *Globe and Mail* featured an article in which the author voiced concern about harvesting ramps due to their slow growth, noting that "eating a nice sized bulb could be the equivalent of dining on an old-growth cedar." (Elton, 2009).

In the US, publications from New York and Tennessee featured concerns of overharvesting most often. Accounts included specific reports of locations that had

been decimated, and hypothetical concerns of overharvest due to increased market pressure. Indeed, ramps are a species of concern in Tennessee, and narrow-leaf ramp (*Allium burdickii*) is listed as endangered in New York (USDA 2018). Concerns of overharvesting were also a key issue in the banning of ramp harvesting in Great Smoky Mountain National Park, a contentious decision that impacted gathering rights for the Eastern Band of the Cherokee Indians and was a focus of media attention in the mid-2000s (Lewis 2012).

The theme of sustainable harvesting did not emerge strongly in publications until 2005 and is more prevalent in northern states (see Figure 6). While ramp gathering has occurred in these areas for hundreds of years, it may be less ingrained in the cultural fabric of residents (Emery and Ginger 2014). Detailed local knowledge of how to harvest ramps may therefore be less robust for new harvesters, including those from major urban areas such as Boston and New York City. Therefore, reporting in these areas may dedicate more time to detailing foraging and sustainable harvesting practices.

Interestingly, Ontario may be an exception, as reporting suggests that ramps have been a popular wild edible in the Canadian province for generations. In fact, a 1982 article from the *Globe and Mail* offers the first techniques for sustainability in our analysis: "Using a trowel or knife, you can dig out a few white roots from each cluster, leaving some of them to propagate for next year's harvest." (English 1982).

States with well-known associations with ramps also highlight important sustainability measures. Gatherers from West

Virginia take care to harvest lightly and replant rhizomes from the end of ramp bulbs (Batz 2013). In North Carolina, the *Asheville Citizen Times* (2016) reported that a local farmers market recently began endorsing the purchase of ramps only without bulbs attached. Other reporting topics related to sustainability included taking a limited percentage of a given ramp patch, rotating harvesting sites to reduce stress on specific populations, and cultivating ramps to reduce pressure on existing populations.

DISCUSSION

As national popularity of ramps grows, our analysis reveals that popular media coverage delivers multiple narratives simultaneously, albeit with different, though sometimes overlapping, geographies. While reporting has expanded across North America, ramps continue to be framed as enduring symbol of regional pride and identity in parts of Appalachia. Cultural connections were demonstrated through reporting that captured a shared history and evolving traditions celebrating the plant, and also through innovative ways. However, while these themes are still vibrant, they are no longer the driving force of reporting for news sources that have shifted emphasis to focus on ramps as a high-end spring delicacy.

With the exception of California, the largest increases in numbers of articles published occurred in eastern states and provinces that overlap with the geographic range of ramp populations, highlighting the importance of place-based connections for wild edibles. As the plant's reputation continues to spread, this raises interesting questions about how ramps

might be infused with new layers of cultural meaning in wider geographies over time. As more and more locations begin to lay claim to the ramps that have been growing in their “backyards”, how will ramps’ cultural associations with Appalachia continue to be reported?

Given recent concerns expressed over increased commercial harvesting of ramps, it is perhaps surprising that themes of overharvest and sustainable gathering techniques only appear in approximately 21 percent of reporting between 2005 and 2016. It suggests that there may be an opportunity to increase conservation-related messaging to broader public audiences of consumers and foragers, in specific locations within the plant’s range.

While popular articles can provide rich insights into public perceptions and concerns regarding ramps, this type of analysis is unable to provide quantifiable specifics related to amounts of plants harvested. Reports from ramp festivals were the only sources that typically included descriptions of volumes of plants harvested from local forests; these events are discrete, and do not take the place of regional harvest statistics. Reporting might, however, be an additional form of evidence in identifying specific areas that may be receiving intense gathering pressure.

Under-reported: Native American Narratives

Only nine of the 154, (< 6 percent) of articles reviewed mentioned Native Americans. Of these, six made brief, generic references to American Indians, without recognizing specific tribal nations or communities. These attributions were typically situated in the past, referring to ramps as a food and medicine that was

“eagerly awaited by Native Americans and pioneers” (Moyer 2008). The remaining three articles referred specifically to the Eastern Band of Cherokee Indians. One speculated on the role that Cherokee people had in transmitting knowledge about ramps to early settlers. Another recognized the continued importance of ramps as a rite of spring for Cherokee communities and highlighted an essential relational aspect of plant gathering: sharing food with elders. The last included a discussion of specific gathering methods employed by Cherokee people to promote sustainability.

The virtual absence of reporting on Native Americans underscores a major gap in popular media coverage of ramps, which may be part of a larger trend of indigenous invisibility in mass media coverage (Leavitt et al. 2015). Ramps have, and continue to be, vital food and medicine sources for many Native American and First Nations communities across eastern North America, including the Haudenosaunee, Menominee, Anishnaabe and Potawatomi tribes (Moerman 1998). Place names including Chicago, and the Winooski River in Vermont are adopted from Miami and Abenaki terms for ramps, respectively, emphasizing the longstanding relations that specific tribes cultivated with these plants. The Eastern Band of Cherokees, who know ramps as ᎠᎩᎦᎵᎦ or *wasdi* have distinct harvesting practices for ramps based on generations of traditional knowledge that may promote sustainability (Clabby 2016).

Ramps As a (Multi)Cultural Keystone Species

The important roles that ramps play in traditional foodways, cultural memories

and livelihoods suggest that ramps are a cultural keystone species in parts of Appalachia and beyond. Garibaldi and Turner (2004) offer six criteria for identifying a cultural keystone species including: intensity, type, and multiplicity of use; use as a seasonal indicator; role in narratives, ceremonies, or symbolism; persistence and memory of use in relationship to cultural change; level of unique position in culture, e.g., it is difficult to replace with other available native species; and extent to which it provides opportunities for resource acquisition from beyond a territory.

Our analysis reveals reporting that reinforces all of the above cultural keystone criteria. While there are many other edible and medicinal plants in Appalachia, the ubiquity of ramps, the timing of their emergence and the love-hate relationship people have developed with the characteristically pungent food would be difficult to replace with another native species. Furthermore, ramps occupy a unique temporal niche as a seasonal indicator of spring. As the earliest edible spring green to emerge in many parts of eastern North America, and one that is harvested in abundance, there would be no other native forest plant to take its place.

The cultural keystone species framework provides us another opportunity to emphasize the need for additional popular media narratives about ramps that feature Native American voices. Cultural connections with ramps are ongoing and diverse, yet Native stories remain largely untold. When one thinks of a culture most closely identified with ramps, a generic Appalachian culture may be most likely conjured. However, different perspectives on ramps are making their way into some regional and national coverage. Recently, online

news outlets from North Carolina have focused on issues of food sovereignty related to the Eastern Band of Cherokees and access to ramps (Clabby 2016, Igleman 2017). Lakota Sioux chef Sean Sherman has been gaining acclaim for promoting an indigenous, precolonial diet that features ramps and other traditional foods (Rao 2016, Sherman and Dooley 2017). These stories and others can provide vital information on the many different ways ramps have meaning to individuals and communities, further deepening our understanding of the importance of connections to this plant.

CONCLUSION

Ramps are a cherished wild edible plant of Appalachia that is being increasingly recognized as a national seasonal delicacy. We have demonstrated that a systematic analysis of popular news articles can provide important insights about the geographic and temporal framing of this iconic nontimber forest product.

Issue attention to ramps has increased dramatically from 1948 to 2018. While the geographic distribution of articles published has expanded across the US and Canada, thematic focus of reporting varies from state to state, with Appalachian states, particularly West Virginia continuing to focus on evolving cultural connections to ramps. While our thematic inquiry supports the case for ramps as a cultural keystone species in Appalachia, certain communities and distinct cultural groups—including diverse Native American tribes within and outside the Appalachian region—remain left out of media reporting and representations about the importance of this traditional

food. We chose to focus on newspaper and magazine articles for consistency in a long-term dataset; future analyses could also explore current social media datasets to focus on contemporary understandings of ramps, particularly in regards to geographic trends in sustainability practices and cultural meaning.

Understanding how forest foods are depicted in public media can contribute to their conservation as well. Our analysis suggests that there is opportunity for reporting to place greater emphasis on sustainability in certain locations. Future analyses could explore how popular media portrayals of other newly-popular wild edibles, such as fiddlehead ferns (*Matteuccia struthiopteris* (L.) Todaro), have shifted over time, and what we might learn about the sustainability of harvesting efforts.

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NOTE

1. Articles in *ProQuest content analysis* originated from 75 publication sources. Publications that appeared most frequently in our content analysis are: the *Charleston Daily Mail*, West Virginia (10 articles), the *Charleston Gazette-Mail*, West Virginia, (10 articles), the *Globe and Mail*, Ontario (11 articles), the *Knoxville News Sentinel*, Tennessee (8 articles), *The New York Times*, New York (8 articles), the *Pittsburg Post-Gazette*, Pennsylvania (8 articles), and *The Washington Post*, Washington DC (7 articles). Certain publications changed names between 1948 and 2016; in these cases, they were identified by the most recent name.

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