



## **Marketing Plan FY21-FY23**

**Office of Communications, Marketing and Digital Engagement  
Presented to NCWRC Education Committee - April 2021**

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# Acronyms

CMDE	Communications, Marketing and Digital Engagement
NCWRC	North Carolina Wildlife Resources Commission
UA Code	Universal Analytics Code
WINC	Wildlife in North Carolina

## Executive Summary

*Wildlife in North Carolina* (WINC) magazine promotes the work of the N.C. Wildlife Resources Commission (NCWRC) by illustrating its conservation efforts for North Carolina's wildlife resources as well as showcasing the opportunity and access provided to enjoy wildlife-associated outdoor recreation.

The NCWRC has been producing WINC magazine for more than 70 years, see **Appendix A: History of *Wildlife in North Carolina*** for high-level milestones. Over that time, due to major advances in technology and the advent of the Internet, traditional methods of content distribution have been upended. The magazine industry has seen a reduction in two major sources of revenue, circulation and ad revenue, while the costs of production, printing and dissemination remain. Advertisers are also being drawn away from paid hard print ads towards Internet-based advertising, as it offers a way to target precise demographics for a much smaller cost.

For years, the NCWRC has been operating WINC at a significant loss. NCWRC has struggled to effectively cut costs associated with WINC and to generate revenue and increased subscribers. Although the agency does not expect to profit from the publication, it is not sustainable to continue publishing WINC with the deficit it generates. NCWRC's 19-member board of Commissioners' Education Committee tasked staff to create a marketing plan aiming to make WINC sustainable.

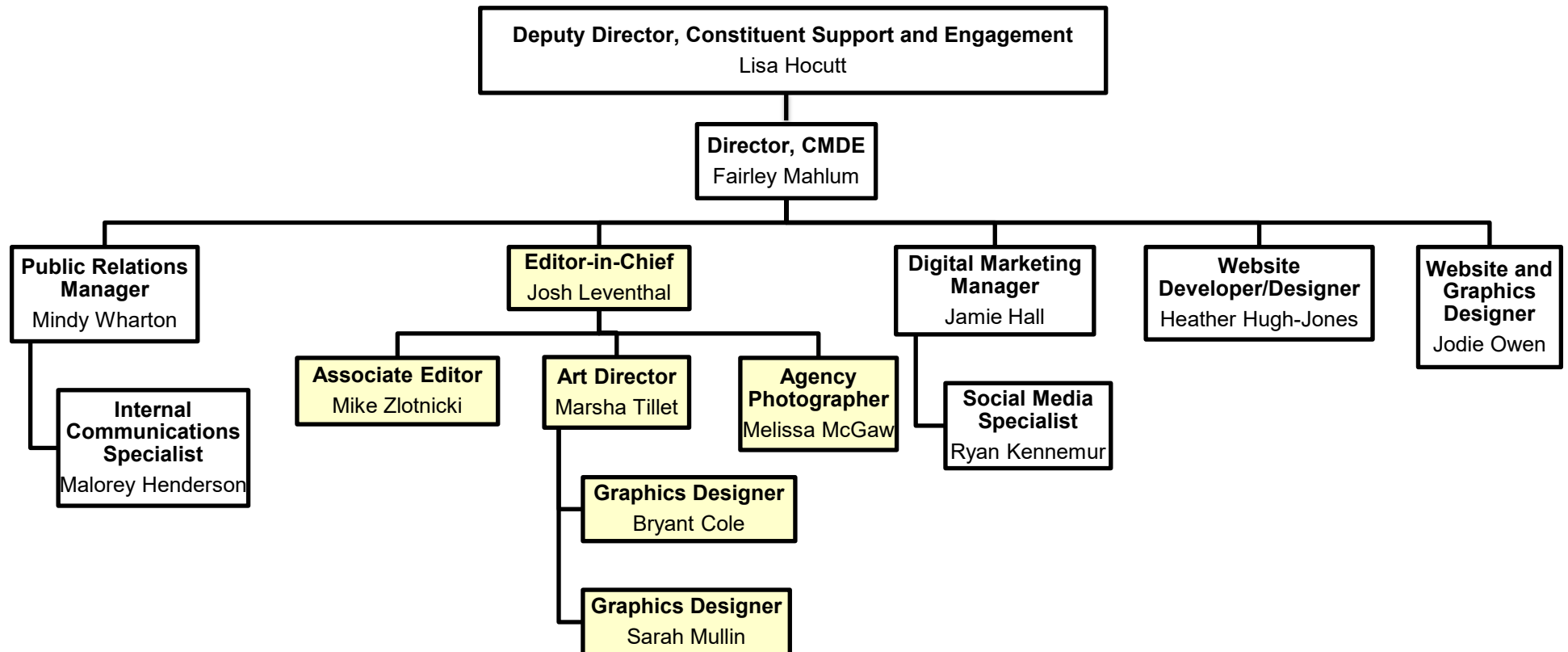
WINC faces pressing issues including a dwindling subscriber base and loss of revenue coupled with expenditures that far exceed any funds generated. To work towards a sustainable future, the magazine needs a reevaluation of its current business model to decrease expenditures through identifying cost cutting measures and to increase revenue by implementing aggressive, data driven marketing campaigns to increase circulation, subscription sales and generate advertising revenue.

The goal of this marketing plan is to focus primarily on process improvement with problem solving, and potentially implementation of program initiation that provides a strategy to cut expenditures and increase revenues. Clear goals and tactics are needed along with a process to implement evaluation of the business model so the agency can leverage its strengths and resources.

The operating costs need to be reduced significantly and revenue generated needs to increase in order to remain sustainable. Additionally, the digital version of WINC needs to be enhanced to differentiate it from the printed publication and should demonstrate how it provides added value to supplement what can be found in the printed version.

# Management and Organization

On February 1, 2021, WINC was transitioned from the Wildlife Education Division to the Office of Communications, Marketing and Digital Engagement (CMDE). This restructure resulted in all of the agency's communication tools now residing in one office allowing for greater synergy and collaboration. After this transition, CMDE began an evaluation of all aspects of the magazine from content to financials in an effort to reduce expenditures and increase subscribers/ revenues.





# Competitors

Entering its 84<sup>th</sup> year of publication ([complete digital archive](#)), WINC's long standing history as a North Carolina-based publication about conservation and outdoor recreation fomented its credibility. Due to the unique content WINC can provide about public opportunity and ongoing conservation efforts of the Commission, WINC can continue to stand out from its direct and indirect competitors, listed below. Due to the sheer scope and magnitude of the agency's myriad of conservation initiatives and publicly available wildlife-associated outdoor recreation opportunities offered, WINC fills a niche and void no other publication can.

## Direct Competitors

### Magazines

- **Carolina Sportsman** – print and digital magazine; formerly NC Sportsman and SC Sportsman. [carolinasportsman.com](http://carolinasportsman.com)
- **Game and Fish/South** – Pennsylvania-based editorial offices; formerly NC Game and Fish and other state-specific publications; now four regions.
- **Fishermen's Post** – Wilmington-based print and digital magazine; focus on saltwater fishing. [fishermanspost.com](http://fishermanspost.com)

## Indirect Competitors

### Magazines

- **Our State** – Greensboro-based; print and digital magazine; primarily non-outdoors content but includes some outdoor-related articles. [ourstate.com](http://ourstate.com)
- **Garden & Gun** – Charleston-based; sections dedicated to [Land & Conservation](#), [The Sporting Life](#) and [Good Dogs](#) and highlights items in individual Southern states. [gardenandgun.com](http://gardenandgun.com)
- **Western North Carolina** – Asheville-based; includes some outdoor-associate recreation content. [wncmagazine.com](http://wncmagazine.com)
- **Blue Ridge Outdoors** – Based in Asheville and Charlottesville; includes fishing content. [blueridgeoutdoors.com](http://blueridgeoutdoors.com)
- **Coastwatch** – publication of non-profit North Carolina Sea Grant; published quarterly; no advertising; content covers mainly science and conservation. <https://ncseagrant.ncsu.edu/coastwatch/>
- **Tidelines** – Raleigh-based; digital newsletter; published by non-profit Coastal Conservation Association of NC. [ccanc.org](http://ccanc.org)
- **Wild Lives, Wild Places** – Raleigh-based, quarterly publication; non-profit N.C. Wildlife Federation

### Digital News

- **Outer Banks Voice** – Nags Head-based; digital news service. [outerbanksvoice.com](http://outerbanksvoice.com)
- **Island Free Press** – Hatteras-based; digital news service for Hatteras and Ocracoke [islandfreepress.org](http://islandfreepress.org)

### e-Magazine

- **Coastal Carolina Fisherman** – Carolina Beach-based; e-magazine; covers NC, SC and N. Ga. [coastalcarolinafisherman.com](http://coastalcarolinafisherman.com)

# Circulation, Customers and Advertisers

## Current Circulation - March 2021

### Print Subscriptions

Paid:	26,826
Complimentary:	3,236
<u>Lifetime:</u>	<u>12,889</u>
<b>Total:</b>	<b>42,951</b>

### Digital Subscriptions

Paid:	1,283
<u>Complementary:</u>	<u>1,816</u>
<b>Total:</b>	<b>2,650</b>

Blue = Increase since Oct. 2020

Red = Decrease since Oct. 2020

## Customers

- **Paid Subscribers:**
  - Print
  - Digital
  - Lifetime
- **Complementary:**
  - Print:
    - State Legislators
    - Commissioners: Current and retired Commissioners
    - Government Services: State agencies and related individuals
    - Wildlife Organizations: Other state wildlife magazines, local and national agencies, parks and related individuals
    - Personnel: NCWRC current and retired personnel who request a subscription
  - Digital:
    - Schools
    - Teachers

## Advertisers

Advertisers – To reduce the budget in 2022 by \$79K, the decision was made in February 2021 to eliminate the Fall and Spring Guides. Ads have previously only been sold for the guides. Moving forward WINC will produce six issues a year with eight additional pages added that will be used for additional content and potentially advertisements\*.

\*A cost-benefit analysis will be conducted that will determine the various amounts and packages that can be asked for advertising across all agency communication platforms. See **Appendix B: Advertising Rate Card Example**. The opportunity to offer advertising across six issues will likely lead to more ad sales than the one-off sales that occurred historically for each guide.

Consider offering advertiser perks by level of monetary commitment, such as external links to advertisers' sites; feature advertiser products in have quarterly contests and giveaways; include in-feed ads on WINC web pages; and/or sponsored and branded content.

# Subscriptions and Digital Edition

## Subscription Rates

- Print Only - \$12\*
- Digital Only - \$10
- Print and Digital - \$15

\*The subscription rate has not been adjusted since 2003, when the price was raised from \$7.50 to \$12. As a result of that price increase, circulation decreased from 70,600 to 53,000 over the next five years. It was suspected the decline was as a result of a lack of marketing and subscriber follow-up to mitigate the effects of the price increase. Once we have worked through the marketing plan and redesign within the three-year term of the plan, we will evaluate the pricing to determine if WINC is at the right price point for the product that we're providing and make adjustments, as necessary.

## Subscription Variety

Increase variety of subscription options offered to include print, digital, gift, trial, single issue, year and multi-year. Promotions can be tailored around various bundle strategies. For example:

- Lapsed print subscribers could be offered a free single digital magazine issue with a subscription offer.
- Existing subscribers could be rewarded in some fashion for every reader they bring in with free issues or subscription.

## Digital Edition

The magazine launched a digital edition in September 2017 as an additional subscription option. The digital edition is an enhanced PDF version of the magazine that subscribers receive via email. The digital edition should offer bonus content, like hyperlinks to other stories, video and photo galleries. Currently several years of WINC are accessible via the digital platform, but we can continue to bring in content to build out the archive on the digital platform.

## Garnering Additional Data

A call was convened with BlueToad, the digital publication vendor to discuss available features on the platform. After that meeting, we provided a UA code for the digital version's website so we can track additional website analytics within the agency's Google Analytics account. This expands on the data the vendor tracks and will aid in data-based decision-making. We can adapt promotional strategies to improve conversion rates, in part, based on this additional data.

## WINC YouTube Channel

In March 2021, the agency created and built out a YouTube channel, specifically for the magazine, that will feed directly into the digital platform as bonus content for digital subscribers.

# 2022 Planning

## Editorial Calendar

On February 22, 2021, a meeting was held with the Director's Office to provide staff direction on content for WINC overall as well as the 2022 editorial calendar with a goal of pursuing content that supports the agency mission and strategic plan. Meetings were then held with within the agency to generate story ideas and concepts for the 2022 editorial calendar:

• Law Enforcement Division	March 11
• Wildlife Management Division	March 15
• Engineering Division	March 16
• Inland Fisheries Division	March 16
• Land and Water Access Division	March 17
• Wildlife Interactions and Regulated Activities and Permits Office	March 19
• Wildlife Education Division	March 22
• Conservation Policy and Analysis Office	March 24
• Habitat Conservation Division	March 25

Staff were directed to devise a 2022 editorial calendar with content stemming primarily from within the agency to reduce the use of freelancers to the greatest extent possible. The culmination of these efforts resulted in 166 story ideas. Given per year 42 feature articles will be featured in WINC, that is the equivalent of enough content to fill nearly 4 years of feature stories.

## Rebranding

Approximately every decade, the magazine reviews content sections and undergoes a redesign. The last redesign occurred 17 years ago in 2004. The time since the last redesign in combination with the additional eight pages, due to the elimination of the guides, will culminate into a redesign in 2022. See **Appendix C: 2022 Redesign Samples**.

## Vendors

InfoNet\* – Subscription management and marketing/promotions  
CDS – Customer fulfillment company outsourced through InfoNet contract  
PBM – Printer (contract to expire March 2022)  
BlueToad – Host of digital version of the magazine

\*The Infonet marketing contract was set to expire March 2021. We extended the contract by 90 days, as we plan meetings with new vendors to hopefully revisit all the subscription management, customer fulfillment, printing and potentially advertising sales under one umbrella.

# Marketing Promotions

Content alone is not enough to achieve more readers or higher subscription rates. Data analysis is key to increasing promotional efforts. Through tracking and analysis of all marketing efforts, we can double-down on those efforts that are most successful. We will consider opportunities to market WINC subscription to every license buyer as well as using WINC as an incentive for license purchasing. For example, when one completes hunter education, a free digital subscription could be offered in conjunction with a license purchase. If we were to pursue advertising as a source of revenue, we could consider offering agency license holders a free, one-year digital subscription to increase circulation numbers and, in return, request more advertising dollars due to a higher reach and larger subscriber base.

## Monthly

**Expiring subscribers** - Renewal notices\*

\*Research steps to employ automatic renewals for print subscribers. The subscriber would receive a notice prior to the subscription renewal. Auto-renewals are currently conducted for digital edition subscribers and we have received no complaints.

**NC Wildlife Update E-newsletter** (Monthly to more than 1.1 million subscribers) – Subscription promotions and/or special offers.

**Social Media** (Bi-monthly, Mid-month) – Showcase magazine cover, tease free article and offer subscription promotions and/or special offers.

## Seasonal

**Dixie Deer Classic** (March) – Special subscription rate offer/raffle.

**Turkey Hunting Workshops** (March/April) – Provide sample magazines and promote magazine subscription.

**Getting Started Outdoors Workshops** (March – May) – Offer complimentary one-year subscription to participants and follow up with renewal letter as subscription ends.

**Peak Season Mailings** (June – Sept) – Promotional flyer inserted into mailings to NCWRC constituents tied to giveaway multiple drawings offering numerous chances to win.

**Gift Subscription Promotion** (Sept.) – Begin gift subscription promotion. We currently sell roughly 5,000 gift subscriptions annually. Either offer a discounted subscription (1 year for \$10) to give as a gift or bulk subscription discounts if providing as a gift to multiple people.

**N.C. State Fair** (Sept./Oct.) – Subscription sales promotion at agency exhibit.

**Thanksgiving** (Nov.) – Promote combo offer (WINC and calendar for \$15) one-week only leading up to Thanksgiving.

**Holidays** (Dec.) – Last-minute holiday gift promotion.

## Yearly

**WINC Photo Competition** - Promote subscriptions sales tied to publicity of winners.

**North Carolina State Employees** – Offer subscription promotion to 130,000 state employees through the N.C. Office of State Human Resources email.

## Appendix A: History of *Wildlife in North Carolina*

<b>1937</b>	First issue <i>Wildlife Management in North Carolina</i> debuts in November.
<b>1947</b>	N.C. Wildlife Resources Commission was established.
<b>1948</b>	Began publishing monthly in September.
<b>2004</b>	Last redesign of the magazine.
<b>2009</b>	Subscriber survey conducted to evaluate potential changes to the magazine.
<b>2012</b>	Switched to a bi-monthly schedule and creation of the Spring Fishing and Boating Guide and the Fall Outdoor Guide.
<b>2017</b>	Launch of <i>Wildlife in North Carolina</i> Digital edition.
<b>2020</b>	Subscriber survey was conducted.
<b>2021</b>	Eliminated Spring Fishing and Boating and Fall Outdoor Guides.
<b>2022</b>	Begin producing 6 issues per year with 8 additional pages of content.

# Appendix B: Advertising Rate Card Example

## NC REALTORS® Rate Card & Specifications: Additional Print and Digital Ads

**Additional Print Advertising Rates & Sizes**

All rates are net. All rates include free color. Rate doesn't include printing costs. Advertiser must provide all printed collateral. An additional cost of \$1,000 plus printing costs will be added if your company decides to have NC REALTORS® print the collateral.

AD TYPE	Size	Annual (12 Months)
Full-Page Brochure/One-Page Insert in Be Epic Packets <sup>1</sup>	Max. size 8.75" x 11.75"	\$1,000
Full-Page Brochure/One-Page Insert in GRI Books <sup>2</sup>	Varies	\$1,000

**Digital Advertising Rates & Size**

SOCIAL MEDIA ADS <sup>3</sup>	Size	1 week	2 weeks	3 weeks
NC REALTORS® Facebook Cover Photo <sup>4</sup>	820px x 32px	\$600	\$1,000	\$1,200
NC REALTORS® Facebook Cover Video (20 – 90 seconds) <sup>5</sup>	820px x 456px	\$600	\$1,000	\$1,200

DIGITAL AD	Size	NC REALTORS® Major Events
Looping Presentation Slide <sup>6</sup>	1920px x 1080px	\$1,500

1. NC REALTORS® Be Epic Packets are mailed to new members every month and are passed out at events. The packets include essential information on member benefits and services provided by NC REALTORS®.  
2. The Graduate REALTOR® Institute (GRI) provides a strong educational foundation for REALTORS® to build their business and stay up-to-date on the latest real estate trends and standards. Books are passed out during classes that are held throughout the year.  
3. In order for your social media ads to reach more members, NC REALTORS® will pre-approve which week(s) the social media ads will be displayed on Facebook. We will make every attempt to meet your target audience.  
4. Adwork must be provided by advertiser and approved by NC REALTORS®. NC REALTORS® reserves the right to refuse ad creative and/or copy provided. Adwork must be provided by advertiser and approved by NC REALTORS®. NC REALTORS® reserves the right to refuse ad creative and/or copy provided. The ad will be included in the looping presentation during NC REALTORS® major events.  
5. Adwork must be provided by advertiser and approved by NC REALTORS®. NC REALTORS® reserves the right to refuse ad creative and/or copy provided. The ad will be included in the looping presentation during NC REALTORS® major events.  
6. The ad will be included in the looping presentation during NC REALTORS® major events.

**CONTACT** Keri Epps-Rashad | Director of Business Development | [kepps.rashad@ncrealtors.org](mailto:kepps.rashad@ncrealtors.org) | 336-217-1049

## INSIGHT MAGAZINE, DIGITAL AND WEB ADVERTISING NC REALTORS® Insertion Order & Advertising Agreement

Please email completed form to Keri Epps-Rashad at [kepps.rashad@ncrealtors.org](mailto:kepps.rashad@ncrealtors.org).

Name of Advertiser \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Contact Person \_\_\_\_\_

E-mail \_\_\_\_\_

Creative Services Notes \_\_\_\_\_

Total Cost \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_

I understand that I am bound by the guidelines, deadlines and rates published on the Insight and Web Advertising Rate Card and Specifications and by the terms and conditions stated in this insertion order.

**METHOD OF PAYMENT**

☐ Check (Payable to NC REALTORS®, Mail to NC REALTORS®, 4511 Weybridge Lane, Greensboro, NC 27407)

☐ Visa ☐ MasterCard® ☐ American Express

Credit Card Number \_\_\_\_\_ Exp. Date \_\_\_\_\_

Authorized Amount \_\_\_\_\_ 3-Digit Security Code \_\_\_\_\_

Name on Card \_\_\_\_\_

Card Billing Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_




Signature \_\_\_\_\_ Date \_\_\_\_\_

**CONTACT** Keri Epps-Rashad | Director of Business Development | [kepps.rashad@ncrealtors.org](mailto:kepps.rashad@ncrealtors.org) | 336-217-1049

## Reach 50,000 NC REALTORS® Print & Digital Advertising

**NC REALTORS® ADVERTISERS BENEFIT FROM EXPOSURE STATEWIDE 24/7**

**REACH NC REALTORS® 24 HOURS A DAY, 7 DAYS A WEEK THROUGH OUR PRINT AND DIGITAL ADVERTISING OFFERINGS.**

**INSIGHT MAGAZINE**  
Insight, NC REALTORS® quarterly print and electronic magazine, is mailed directly to over 50,000 NC REALTORS® from across the state and is available 24/7 on NC REALTORS® website, social media and on mobile devices. The goal of Insight is to serve our advertisers and readers through eye-catching design, creative photography and feature articles on the people, events and trends that shape the real estate industry. Digital Insight ads link directly to your website, bringing the traffic to you.

**DIRECT MAIL/PRINT ADVERTISING PLACEMENT**  
One of our new advertising opportunities includes free-standing advertisements in our member packets that are distributed via mail to each new member every month. Additionally, packets are distributed during all major NC REALTORS® events. Your brochure or flier will be placed directly in the hands of thousands of REALTORS® each month with a high-gloss, graphically appealing branding package, ensuring your message is seen.

**SOCIAL MEDIA PLACEMENT**  
NC REALTORS® social media channels have amassed a significant following over the years, including Facebook, Twitter, LinkedIn, Instagram, and more. With higher engagement on our social channels than any other communications channel, we are now offering our advertisers premium placement within our social media channels in the form of promoted content. If you want to reach more of our members and create conversation along the way, social media advertising opportunities are for you.

**DIGITAL PLACEMENT**  
There are multiple opportunities throughout the year for advertisers to reach our members through digital vehicles, which will reach thousands of members annually. From inclusion in videos to looping presentations displayed during our events across the state, digital placement is a high-profile advertising experience that associates your brand with NC REALTORS® in-person and high-tech audiences.

**CONTACT** Keri Epps-Rashad | Director of Business Development | [kepps.rashad@ncrealtors.org](mailto:kepps.rashad@ncrealtors.org) | 336-217-1049

## NC REALTORS® Rate Card & Specifications: Insight Magazine Ads

**Insight Print & Digital Advertising Rates & Sizes**

Insight, our full-color magazine, is printed and mailed quarterly to over 50,000 NC REALTORS® members and affiliates. It is also available online. Contact us today to reserve a package that is right for you. All rates are net. All rates include free color. Call for special pricing on custom ads, inserts, reply cards, etc.

Publication trim size: 8.375" x 10.875". All full-bleed ads must have an 1/8" bleed (0.125") extended on all four sides (see final page size below). Please send Insight ads as a high-quality PDF. WITHOUT trim marks and WITHOUT printer marks.

AD TYPE	Size	1 Issue	2 Issues	3 Issues	4 Issues
Quarter-Page Ad – Vertical (NO Bleed)	3.5" x 4.75"	\$1,200	\$1,100 each	\$1,000 each	\$900 each
Half-Page Ad – Horizontal (NO Bleed)	7.25" x 4.75"	\$1,650	\$1,500 each	\$1,400 each	\$1,250 each
Full-Page Ad (With Full-Bleed)	8.625" x 11.125"	\$2,000	\$1,950 each	\$1,850 each	\$1,700 each
Inside Front Cover Ad (With Full-Bleed)	8.625" x 11.125"	\$3,500	\$3,000 each	\$2,500 each	\$2,500 each
Inside Back Cover Ad (With Full-Bleed)	8.625" x 11.125"	\$3,200	\$2,800 each	\$2,200 each	\$2,200 each
Back Cover Ad (With Full-Bleed)	8.625" x 11.125"	\$3,300	\$2,900 each	\$2,300 each	\$2,000 each

**Insight Editorial Calendar**

ISSUE	AD SPACE CLOSE	MATERIALS DUE	MAIL DATE
February 2021	Monday, 11/30	Monday, 11/23/20	Monday, 1/25/21
May 2021	Monday, 2/1/21	Monday, 3/1/21	Monday, 4/26/21
August 2021*	Monday, 5/3/21	Monday, 5/31/21	Monday, 7/26/21
November 2021	Monday, 9/2/21	Monday, 8/30/21	Monday, 10/25/21

\*Novus distribution at the NC REALTORS® Conference & Expo

Frequency and distribution of Insight may evolve or change without notice to advertisers or sponsors to remain current and best meet the needs of our members and public. NC REALTORS® makes no guarantees or claims in terms of advertiser conversions, reach, impressions, clicks, or other quantifiable return on your advertising investment.

**CONTACT** Keri Epps-Rashad | Director of Business Development | [kepps.rashad@ncrealtors.org](mailto:kepps.rashad@ncrealtors.org) | 336-217-1049

## NC REALTORS® Rate Card: General Guidelines & Policies

### DIGITAL FILES

High-resolution PDF files with embedded fonts and artwork requested. Please DO NOT include trim marks or printer marks in the PDF file. Files not supplied in proper format will be corrected at the advertiser's expense or new files requested from the advertiser.

### ACCEPTED MEDIA

Files may be submitted via email or file-sharing cloud service.

### ARTWORK

All embedded artwork/links, i.e. placed graphics, photographs, logos should be at least 300 dpi at final scale.

### RATES

All rates are non-commissionable and are based on artwork being provided ready for publication. Rates are subject to change with 60 days written notice. Advertising ordered at frequency discount rates and not earned within a 12-month period will be rebilled at the earned rate.

### PRODUCTION CHARGES

Ad creation, typesetting, composition, and artwork will be done as needed and charged to the client. Clients will have production charges quoted on an individual basis.

### PROOFS TO ADVERTISERS

Ads prepared from artwork will be solely at the advertiser's risk unless sufficient time is allowed to furnish proofs for approval. When PDF proof is required, artwork must be in the hands of the publisher two weeks preceding the ad space deadline.

### COPY

Advertisers are solely responsible for submission of copy. The advertiser and/or its agency will indemnify and hold the Publisher harmless from and against any loss resulting from claims or suits for defamation, libel, violation of privacy, plagiarism, copyright infringement or any other cause. Publisher reserves the right to reject any advertising. Publisher shall own all advertising for which it has provided design and/or copywriting services.

### PLACEMENT

Higher contracted frequency takes precedence on placement. However, premium positions will be guaranteed at the quoted rate, space permitting.

### STORING OF MATERIALS

All final advertising files will be stored for six months and then deleted or destroyed.

## NC REALTORS® Insertion Order & Advertising Agreement: Standard Terms & Conditions

NC REALTORS®, with its principal office at 4511 Weybridge Lane, Greensboro, North Carolina (hereafter called the Publisher), reserves the right to approve all advertising copy and the right to reject any advertisement that is contracted for placement in insight. All Insertion Order & Advertising Agreements are subject to acceptance by the Publisher, and upon such acceptance, without further notice to the customer, the Insertion Order & Advertising Agreement becomes valid and is governed by the laws of North Carolina.

### Advertising Policy

The Publisher will not be bound by conditions on other contracts or insertion orders that may be in conflict with the provisions of this contract. All advertisement instructions must be submitted on the Insertion Order & Advertising Agreement. The Publisher reserves the right to amend or revise rates, terms and conditions of this agreement upon 60 days written notice. If said amendments are not acceptable to the advertiser, the advertiser may, by written notice to the Publisher prior to the effective date of the amendments, cancel its advertising contract upon payment of any outstanding invoices. If frequency discount is not earned because of cancellation, advertiser agrees to pay difference between frequency rate paid and frequency rate earned.

### Ad Materials Responsibility

In the event the advertiser fails to supply ad materials by the closing date, the Publisher reserves the right to repeat a previous advertisement. Advertisers who reserve space and fail to supply ad material are still liable for all costs regardless of what material is substituted in its place. Final ad materials will be stored for six months and destroyed thereafter, unless written request for the return of materials is provided upon ad submission.

### Copy Acceptance

Advertising copy furnished by the advertiser shall be in a form acceptable to the Publisher. Publisher reserves the right to edit or reject any advertising it finds, in its sole discretion, to be inappropriate, misleading or objectionable.

Advertising that resembles editorial shall be marked "Advertisement" at the top of the ad in not less than 10-point type.

### Advertiser's Responsibility

All advertisements are accepted and published by the Publisher upon the representation that the advertiser and/or agency is authorized to publish the entire contents and subject matter thereof. The advertiser agrees to indemnify and hold the Publisher harmless from and against any loss resulting from claims or suits for defamation, libel, violation of privacy, plagiarism, copyright infringement or any other cause.

### Advertising Design & Production

All ad material shall be submitted in accordance with the Publisher's Advertising and Production Specifications, as set forth on the Publisher's current Rate Card and Specifications. The Publisher reserves the right to adjust the size of ads that do not conform to required dimensions, exclude advertisements from certain pages, and control position of all ads.

### Billing

Prepayment is required for new clients. A signed contract and payment for the first insertion are due by the first closing date, with the ad. Subsequent insertions will be billed upon publication. Invoices are net and payable upon receipt unless otherwise noted. Invoices rendered will be accepted as correct unless the Publisher is notified in writing within 10 days of billing date. Payment will be made direct to the Publisher at the address on the front of this agreement. Accounts delinquent 30 days will be charged interest at the rate of 18 percent per annum. Should an advertiser and/or agency default or otherwise be late in payment of advertising invoices, the Publisher has the right to omit the advertisement from the publication. The advertiser and/or agency will forfeit any and all payments previously made toward the purchase of said advertisement.

In the event advertiser and/or agency default or are otherwise late in payment of bills, advertiser and/or agency shall be totally liable for all fees and sums of collections, including but not limited to, reasonable attorney's fees and court costs incurred by the Publisher in the collection of said bills. In such event, the Publisher reserves the right to either terminate

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## NC REALTORS® Insertion Order & Advertising Agreement: Standard Terms & Conditions Continued

this Agreement or to enforce this agreement pursuant to the terms set forth. Venue for any judicial proceeding concerning enforcement or any provisions of this contract, including any action of nonpayment, shall be in Guilford County, North Carolina.

### Digital Advertising Billing

Pre-payment is required for all digital advertisement placement.

### Cancellations

Cancellations must be in writing and are not considered accepted until confirmed by the Publisher. There is a \$500 cancellation fee for cancellations of ads less than 60 days prior to the ad space/copy deadline at the time which the ad is scheduled to run. The advertiser is responsible for the full amount of the ad for cancellations after the ad space/copy deadline has passed. In addition to any applicable fees for late cancellations, there is a \$500 fee for cancellation of multiple ads.

### Errors and Omissions

In the event of an error or omission of advertising copy or an advertisement for any reason, it is the advertiser's responsibility to notify the Publisher, in writing and within seven days after delivery of print or electronic magazine. Publisher's liability will not exceed the return of revenue for the ad space. Any adjustments will be based on percentage of ad or message affected. Publisher is not responsible for errors in key numbers, nor is the Publisher responsible for errors that the advertiser failed to identify on the approved advertising proof. In no event shall the Publisher be liable for incidental or consequential damages incurred by advertiser in the event of any error or omission by the Publisher.

### Performance

Publisher shall not be held responsible for damages for failure to circulate any issue or for delays distributing said issue. The advertiser shall be entitled to a complete refund of monies paid if the Publisher fails to distribute the issue covered by this Agreement. No discount of advertisers monies shall be paid for delays

beyond the Publisher's control, including delays caused by production and distribution. Performance by the Publisher shall be contingent upon availability of materials and labor, and no interruption by acts of God/nature, riots, warfare, government laws or regulations, vendor delays, and/or conditions beyond the Publisher's control. In no event shall Publisher be liable for incidental or consequential damages incurred by the advertiser for failure to distribute or the delay in distributing an issue.

### Miscellaneous

The Publisher may assign its rights, duties, and other obligations under this agreement to any corporation or other entity that becomes the publisher of the contracted publication. This Agreement shall be binding upon and shall ensure to the benefit of the successors and assigns of the advertiser. In the event that the advertiser ceases to exist or operate then this Agreement will terminate as of said date, except that in the event the principal(s) of the advertiser thereafter attempt to engage in the commerce in substantially the same form as before dissolution, this Agreement shall remain in effect and shall be binding upon the successor(s) of the advertiser.

This Agreement shall terminate after the last insertion, as set forth in this Agreement, is published provided that the Publisher may terminate this Agreement at any time if it ceases to publish the contracted publication.

This Agreement sets forth the entire agreement between the parties hereto and shall be construed under the laws of the state of North Carolina. Any waiver by the Publisher of any breach of this Agreement by the advertiser, or any default in payment by the advertiser, shall not be construed as a waiver of any prior or subsequent breach or default of the same or any other provision of this Agreement.

### Severability

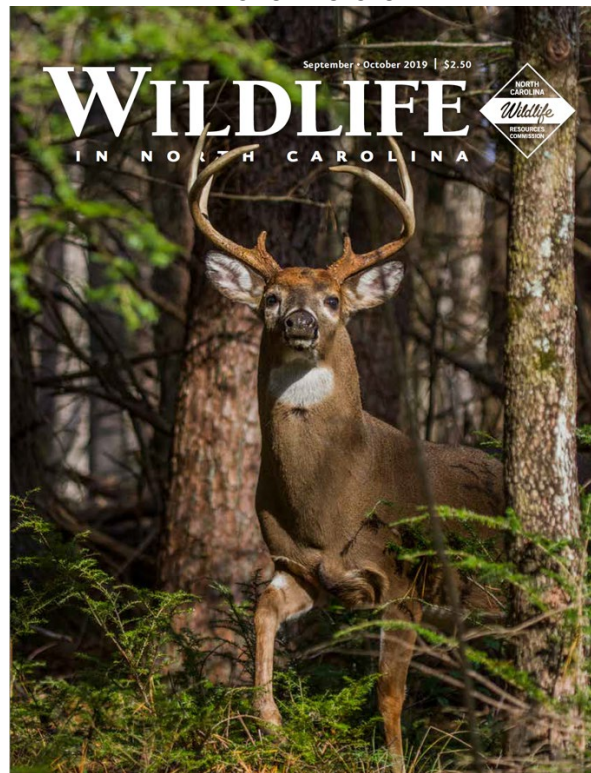
In case any one or more of the provisions of this Agreement or any application thereof shall be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein and any other application thereof shall not in any way be affected or impaired thereby.

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## Appendix C: 2022 Redesign Samples

Cover Before



Cover Redesign



## Contents Before



Two male turkeys feed in a fallow field. Wild turkey season opens April 3 for Youth Week and then April 10 for the regular season. PHOTOGRAPH BY RICK SHALL.

Volume 85 | Number 2

# WILDLIFE

IN NORTH CAROLINA

**contents |** march • april 2021

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Cover: There is no shortage of entertaining activities in the outdoors, like hunting for antlers shed by deer in late winter and early spring months. PHOTOGRAPH MELISSA MCGAW/NWC.

Wildlife in North Carolina is the official educational publication of the North Carolina Wildlife Resources Commission. It is dedicated to the sound conservation of North Carolina's wildlife and other associated natural resources and also to the environment we share with them.

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**20** Male ruffed grouse erect a "ruff" of dark feathers around their neck and spread their tail feathers during territory and courtship displays. PHOTOGRAPH BY MASLOWSKI PRODUCTIONS

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On The Cover: Cattle text to go here and can be longer if needed to fill the space. Wild trout in North Carolina's high-elevation mountain streams. PHOTOGRAPH BY TODD PUSSE



Wildlife in North Carolina is the official educational publication of the North Carolina Wildlife Resources Commission. It is dedicated to the sound conservation of North Carolina's wildlife and other associated natural resources and also to the environment we share with them.

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**38**







## Outdoor Moment Before

### Cabins in the Sky

written by Jim Wilson

OUR NATURAL HERITAGE



"I still wonder about that place. If a cabin, or shack, can have terror, as wine does, then that place was infused with it."

In the hearts of many anglers and hunters glows the desire for a cabin, a little place in the woods or by a stream to escape the grayness of life. Some fortunate few achieve that goal; most of us do not. Even if we don't, it's entertaining and comforting for the soul to consider the possibilities.

Many of us who dream of cabins probably have mentally sketched out what we'd need to make it homey but not luxurious. A cabin, after all, should have a bit of shabbiness about it. Maybe a couple of chairs are worn or a faucet handle turns past the stop or you have to pull on the kitchen door just so to close it properly. None of those things matter, as long as the place is warm in temperature and atmosphere and has enough room to move around a bit.

Some little things are quintessential for decor—oil lamps, candles, a wood fire—things that have kept humans comfortable for years too many to count. You know already what kind of stuff you'd put in your cabin, and yours would be different than mine in specifics but similar in spirit. Perhaps you'd like some duck decoys placed around, an old box of Peters shotgun shells, a fly rod that's no longer used, such as a decades old Eagle Claw "Of Yeller" you had as a child.

The late Jim Dean, the former editor of *Wildlife* in North Carolina, was a cabin connoisseur. Once he counted the number of cabins he had owned, rented or had access to in his life. I don't recall the exact figure, but it was upwards of a dozen. After he retired, he sent me a photograph of a tiny shack on a fragment of land surrounded by water. I called him immediately and said, "I don't know where that is, but I want to live there. I'm guessing it wouldn't be a long stay because it looks like a gale could blow the place away, but I'd still like to live there."

"You and me both," he laughed. "It's in the Caribbean, and it might not be there when I go back."

I still wonder about that place. If a cabin, or shack, can have terror, as wine does, then that place was infused with it.

When Henry David Thoreau, the 19th century American writer, naturalist and philosopher, wanted to leave civilization behind, he built a tiny cabin in the Massachusetts woods by Walden Pond and later wrote "*Walden*," which explores harmony with nature and simple living.

Thoreau's cabin is gone, although its original footprint has been found and a replica built. Other writers, of less literary importance but more popular among sporting folk, also had famous cabins which evoke yearnings in those of us who read of them.

John Voelker was better known by his pen name of Robert Traver and wrote two excellent books about trout fishing, "*Trout Madness*" (1960) and "*Anatomy of a Fisherman*" (1964). Voelker, a Michigan lawyer, prosecutor and state Supreme Court judge, had made a name for himself as a writer in 1938 with the publication of "*Anatomy of a Murder*," which was based on a real case in which he was the defense attorney.

It was, however, Voelker's fishing books with stories of Frenchman's Pond and his little cabin there that captivated readers then and now. Voelker's cabin was little more than a comfortable one room filled with the accoutrements of the typical outdoorsmen. It holds such sway in anglers' imaginations that there is even a book about Frenchman's Pond and the cabin. As much I love the idea of Voelker's cabin—and Gordon MacQuarrie's ("*Stories of the Old Hunters*")—the one that intrigues me the most is one that never existed. Its idea perfectly expresses the ideal of having a cabin, a place to leave the world behind.

The idea of a cabin finds life in Irish poet William Butler Yeats' "*The Lake Isle of Innisfree*" (1890). "I will arise and go now, go to Innisfree / And a small cabin build there, of clay and / wattle made..."

Yeats had spent idyllic childhood summers at Innisfree, an uninhabited island in Lough Gill in western Ireland. He said in a moment of sadness in the city he was reminded of those times by the sound of tinkling water.

"And I shall have some peace there," he continues. "I will arise and go now, for always night and day / I hear lake water lapping with low sounds by the shore / While I stand on the roadway or on the pavements grey / I hear it in the deep heart's core."

Although not as poetic, Voelker was aiming for the same idea in his well-known "*Testament of a Fisherman*." "I fish because I love to; because I love the environs where trout are found, which are invariably beautiful, and hate the environs where crowds of people are found, which are invariably ugly..."

In one of his best pieces, "*A Different Kind of New Year's*," Dean also tackled those issues, forsaking the cocktail parties in Raleigh for his tiny mountain cabin on Wilson Creek. Just before midnight, he walks a snowy road alone, thinking of the revelers he's left behind. "[P]erhaps there was no one left in the world," he writes. "I could half believe it. And for one soul in one particular place on one New Year's, it was a world supremely at peace."

And that, above all, is what we seek in a cabin.



"Nourish beginnings, let us nourish beginnings. Not all things are blest, but the seeds of all things are blest. The blessing is in the seed."

—Muriel Rukeyser

OUTDOOR MOMENT

Chipmunk

## Outdoor Moment Redesign



OUTDOOR MOMENT

One evening, as we were walking out at dusk from dove hunting, we saw these birds flying around very erratically which intrigued my father. After some research, he determined they were woodcock and very good table fare. He learned that they fly right at dusk looking for a spot to roost for the night. Soon after that we went down there about 5:00 and walked out into the thickly wooded marshy area and waited. Soon we heard the whistling sound of flying woodcock all around us and my dad shot two or three.

PHOTOGRAPH BY TODD PUSHER

4 MARCH • APRIL 2020 WING

MARCH • APRIL 2020 WING 5



## Back Porch Before

# back porch

NEWS and NOTES  
Edited by Mike Zelenicki

### Hunters and Anglers Flocked to the Outdoors in 2020

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### Introducing North Carolina's Newest Critter: The Carolina Sandhills Salamander

Already recognized as having more salamander species than any other state, North Carolina recently raised its total to 64 with the discovery of a new one. Meet the Carolina Sandhills salamander (*Eurycea arenicola*), a spotted reddish-orange amphibian roughly 2 to 3 1/2 inches in length that lives in springs and blackwater rivers within the Sandhills region.

The new species was introduced in December by the North Carolina Museum of Natural Sciences, a longtime research partner of the N.C. Wildlife Resources Commission. The salamander had previously been misidentified as a Southern two-lined salamander (*Eurycea cirrigera*), but researchers used next-generation sequencing technology to prove that the new species is genetically different. In a press release, the Museum noted that the new salamander also differs from other species of two-lined salamanders in coloration, size and natural history.

"It's a real neat critter," said Alvin Braswell, a co-author on the study and a retired herpetologist who spent 40 years in various roles with the Museum. Braswell first identified the species in 1969 but began to question his decision in the mid-1970s after finding more salamanders that did not fit the description of the Southern two-lined salamander. He thought, "Whoa, maybe there's something to this."

Braswell, the 2017 recipient of the Commission's prestigious Thomas L. Quay Wildlife Diversity Award, noted that the salamander's range is restricted to the Sandhills, an area he described as "the best of what's left in North Carolina" because its extensive game lands and Fort Bragg have preserved a longleaf pine ecosystem that once stretched from southeast Virginia to Florida.

Carolina Sandhills salamander specimens were located and collected in Harnett, Hoke, Montgomery, Moore, Richmond, Robeson and Scotland counties. "Almost every known specimen of the new species is housed in our collection, with just a handful of individuals at a few other museums," said co-author Jeff Beane, collections manager for herpetology at the museum and a frequent contributor to Wildlife in North Carolina. "No records are yet known from South Carolina, but we have a record in North Carolina that is only two miles from the state line, so it gets close."

The salamander has been added to the W3 Watch List by the North Carolina Natural Heritage Program and might be designated for protection in the future. "This research also shows that there are other undescribed species in this complex that await description, even some that occur in North Carolina," said Bryant Stuart, the Museum's research curator of herpetology and the lead author on the paper. "So, there is definitely more to do with two-lined salamanders in the state."

North Carolina's salamander species population increased to 64 with the recent discovery of the Carolina Sandhills salamander.



**e NEWSLETTER** Get N.C. Wildlife Updates—news including season dates, bag limits, legislative updates and more—delivered to your inbox from the N.C. Wildlife Resources Commission. Sign up at [ncwildlife.org/news](http://ncwildlife.org/news).

### Donate to Protect Wildlife at Tax Time

Help conserve North Carolina's wildlife with a voluntary contribution to the Nongame and Endangered Wildlife Fund (NGEWF), found on line 30 of your North Carolina state income tax form.

Your contribution will help the N.C. Wildlife Resources Commission fund projects and programs that benefit sea turtles, songbirds, freshwater mussels and fish, and other wildlife species without a designated hunting and fishing season.

The agency uses "tax check-off" donations to the NGEWF to support nongame wildlife research, conservation and management. Although tax check-off donations target projects benefiting nongame animals and their habitats, game species such as deer, turkey and bear also benefit because these animals live in many of the same habitats.

Donations make up the largest and most significant source of non-federal funding to help these animals, so donations—no matter how small—are critical to the continuation of many projects.

While paper tax forms show line 30 as the donation line, tax preparation software, such as TurboTax, does not have numbered lines, but e-filers will be asked if they would like to make a donation to the Nongame and Endangered Wildlife Fund. Other tax filers can also tell their tax preparer they would like to donate. Learn more about projects and programs that benefit nongame and Endangered wildlife at [ncwildlife.org/ConservingPrograms](http://ncwildlife.org/ConservingPrograms).



**NORTH CAROLINA  
NONGAME &  
ENDANGERED  
WILDLIFE  
FUND**

### CALENDAR OF EVENTS

Due to COVID-19 outbreak, many events have been canceled. Be sure to confirm that events are being held before attending.

**SATURDAY, MARCH 27**

The John E. Pechmann Fishing Education Center is offering a Family Fishing Workshop designed to teach families with children 7 years old and older the basic skills needed to go fishing. This workshop is an active, hands-on learning experience for all family members fishing on the Pechmann Center's stocked ponds. During this three-hour workshop, families learn how to: cast a spin-cast outfit, set up a fishing outfit for fishing, tie basic fishing knots, collect bait and catch a fish. Space is limited, so register early. For more details visit [ncwildlife.org/Learning/Education-Centers/Pechmann](http://ncwildlife.org/Learning/Education-Centers/Pechmann).

**SATURDAY, APRIL 3**

The town of Blowing Rock will hold its annual Trout Derby. The Derby begins at sunrise and ends at 4 p.m. Trout are eligible for entry if caught from any body of water in Watauga County. For more information, visit [blowingrock.com/troutderby](http://blowingrock.com/troutderby).

Readers should check with the contact listed before traveling to an event. Items for listing should be conservation-oriented and should be submitted at least four months in advance to [mike.zelenicki@ncwildlife.org](mailto:mike.zelenicki@ncwildlife.org) or call 919-707-0175.

### Commission Establishes New Harvest Season For Striped Bass on the Roanoke

The N.C. Wildlife Resources Commission issued a proclamation outlining significant changes to the 2021 striped bass harvest season in the Roanoke River Management Area. Striped bass open harvest dates will be:

- April 10-16 in the lower river zone (downstream of the U.S. Highway 258 bridge at Scotland Neck to the mouth at Albemarle Sound)
- April 24-30 in the upper river zone (upstream of the Highway U.S. 258 bridge at Scotland Neck to the base of Roanoke Rapids Dam)

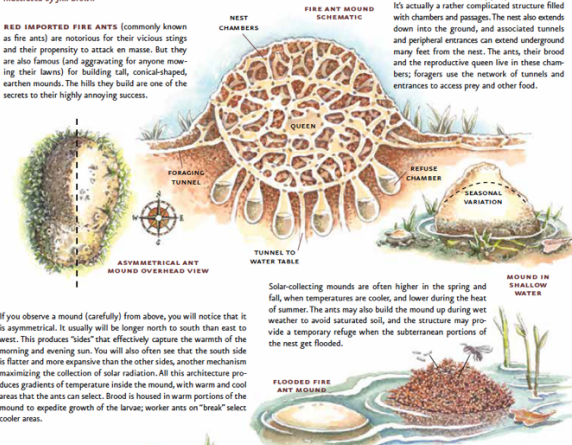
Changes to the season framework became necessary when the harvest quota in the Roanoke River was reduced from 68,750 pounds to 12,800 pounds. The reduction was deemed a necessary conservation action intended to rebuild the striped bass population. Results from a 2020 stock assessment of the Roanoke River/Albemarle Sound conducted by the N.C. Division of Marine Fisheries, with assistance from the Commission, indicated that the stock was overfished and overfishing was occurring.

"We identified the days where harvest was historically the highest in each area of the river. Although the timing of fish migration into the river is different each spring, daily harvest during the two weekly periods selected averaged between 700 and 1,300 pounds of striped bass per day," said Commission Coastal Fisheries Supervisor Chad Thomas. Size limits and daily creel limits will remain the same. During the two separate harvest periods, the minimum length limit is 18 inches, and no striped bass between 22 and 27 inches (the protective slot) may be possessed at any time. The daily creel limit is two fish, only one of which may be larger than 27 inches.

Despite the shortened harvest season, anglers can continue to catch and release striped bass throughout the spring. To reduce handling stress on fish that are released, the Commission recommends anglers use a single barbless hook or a lure with a single barbless hook, a requirement from April 1 through June 30 when fishing in the upper Roanoke River zone above the U.S. Highway 258 bridge near Scotland Neck.

### Why Do Red Imported Fire Ants Build Such Tall Nests?

illustrated by Jim Brown



**RED IMPORTED FIRE ANTS** (commonly known as fire ants) are notorious for their vicious stings and their propensity to attack en masse. But they are also famous (and aggravating for anyone mowing their lawn) for building tall, conical-shaped, earthen mounds. The hills they build are one of the secrets to their highly annoying success.

When you observe a mound (carefully) from above, you will notice that it is asymmetrical. It usually will be longer north to south than east to west. This produces "sides" that effectively capture the warmth of the morning and evening sun. You will also often see that the south side is flatter and more expansive than the other sides, another mechanism maximizing the collection of solar radiation. All this architecture produces gradients of temperature inside the mound, with warm and cool areas that the ants can select. Brood is housed in warm portions of the mound to expedite growth of the larvae; worker ants on "break" select cooler areas.

A fire ant mound isn't simply a pile of loose dirt. It's actually a rather complicated structure filled with chambers and passages. The nest also extends down into the ground, and associated tunnels and peripheral entrances can extend underground many feet from the nest. The ants, their brood and the reproductive queen live in these chambers; foragers use the network of tunnels and entrances to access prey and other food.

Solar-collecting mounds are often higher in the spring and fall, when temperatures are cooler, and lower during the heat of summer. The ants may also build the mound up during wet weather to avoid saturated soil, and the structure may provide a temporary refuge when the subterranean portions of the nest get flooded.

If the mound is completely submerged by floodwaters, the ants will make a raft of their living bodies, with the queen in the middle and the brood on top. The ants will drift until they hit something above the water they can use as a temporary bivouac. This is a useful adaptation in their native home, the great Pantanal wetlands of South America, and it allows them to successfully cope with hurricane-induced flooding here in North Carolina, too.

### Trout Unlimited Leads Davidson River Improvement Project

Last August, two Trout Unlimited (TU) Chapters—Pisgah (Brevard) and Rocky River (Charlotte)—partnered with the U.S. Fish and Wildlife Service, the N.C. Wildlife Resources Commission, TU Embrace-A-Stream Program and the Trout and Salmon Foundation to improve approximately 600 feet of habitat in the Davidson River. The two chapters, along with North Carolina TU Council, funded the \$28,000 project. Island Fisheries personnel Doug Beiler and Jake Eash reviewed the project for the Commission.

During the project, boulders and large logs (vane and toe wood structures) were strategically placed to create deeper pools and runs and other habitats required by fish species, hellgramites, aquatic insects and other invertebrates. This project created more natural pools where higher water flow velocities can remove excessive silt accumulation. They also created rock and log revetments to stabilize eroding riverbanks. The enhanced section of the river is just downstream from the Pisgah Center for Wildlife Education.

The goal of the endeavor reflects one of the primary goals of Trout Unlimited: restoration of streams. One species in particular benefiting from the project is the hellgramite, one of the largest salamanders in the world, which has a significant presence on the Davidson River and is protected in North Carolina.


### LIFETIME LICENSES

Help conserve wildlife for future generations. In 1981, hunters, anglers and wildlife enthusiasts became shareholders in an innovative investment and conservation program called the North Carolina Wildlife Endowment Fund.

Today, the commission has 19 different lifetime licenses in five categories: Infant, Youth, Adult, Senior and Disabled.

The endowment fund for wildlife was a simple yet revolutionary idea: Create a lifetime inland fishing or hunting license. Put the license fees into a special fund. Spend the accrued interest, not the principal, on programs and projects that benefit fish and wildlife. To learn more or to purchase a lifetime license visit [ncwildlife.org/licensing](http://ncwildlife.org/licensing) or call 1-888-248-6834.

### NATURE'S WAYS



**Why Do Red Imported Fire Ants Build Such Tall Nests?**

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## News & Notes

### Biologists Make a 'Golden' Discovery



Biologists with the N.C. Wildlife Resources Commission discovered golden-winged warblers using newly logged areas, or timber harvest units, on the Nantahala National Forest in Graham County last spring. Golden-winged warblers are state listed as special concern and the neo-tropical migratory songbirds have declined by 97 percent in the Appalachians since the 1960s. They continue to decline at 8 percent annually. Golden-winged warblers seek young forest conditions within a large forested landscape, both in the United States and on their wintering grounds in South America.

**ONLINE:**  
To learn more about the Golden-wing Warbler and the work NCWRC is doing, visit [ncwildlife.org/magazine](http://ncwildlife.org/magazine)

### TIPS, TRICKS & ADVICE

#### PRACTICE SAFETY DURING YOUR HOLIDAY HUNT

The holiday season means different things for different people. For hunters, the annual holiday hunt is just as much a part of the holiday ritual. As North Carolinians venture into the woods this month, the Commission's Home From The Hunt™ campaign reminds hunters to follow basic hunting safety guidelines.

Here are three tips for hunters to consider before heading outdoors:

- Take time to review hunter education training and equipment instructions.
  - Repair or replace faulty equipment before use.
  - Wear a full-body safety harness and maintain three points of contact while climbing.
- Following these tips will go a long way to keeping you and your loved ones accident-free during your holiday hunt.

### Turkey Harvest Near Record Level, Deer Harvest Down

Tar Heel wild turkey hunters had a banner season last spring. Hunters reported 18,730 turkeys last year, including 1,478 birds that were taken during the youth season. This season's harvest was the second-highest recorded and was only slightly below the record harvest of 18,919 birds harvested in 2017. This year's total harvest statewide was 3.5 percent higher than the average harvest during the previous three years.

Turkey populations in many areas of the Coastal region are still growing. This year's harvest in the Coastal region was 9.6 percent higher than the average harvest during the previous three years. In the Mountains, turkey populations are generally stable in some areas and declining in others. This year's harvest in the Mountains was 6.5 percent lower than the average harvest during the previous three years. In the Piedmont, this year's turkey harvest was 6.0 percent higher than the average harvest during the previous three years. The top five counties for the number of turkeys harvested were Duplin (497), Halifax (479), Rockingham (453), Columbus (443) and Bertie (437). When considering the size of counties, the top counties

for the number of turkeys harvested per square mile were Rockingham, Franklin, Northampton, Caswell and Lincoln.

#### DEER HARVEST NUMBERS

Hunters in North Carolina harvested 143,529 deer during the 2018-19 hunting season, consisting of 51.5 percent antlered bucks, 4.6 percent button bucks and 43.9 percent does. Most deer were harvested with a gun (81.1 percent), followed by black-powder firearm (8.1 percent), bow (6.3 percent) and crossbow (4.5 percent). The 2018-19 total statewide harvest was down 9.2 percent from the previous three-year average, with notable declines in Southeastern and Northeastern zones, little change in Central and Northwestern zones, and an increase in the Western Zone.

When compared to the previous three-year average, the largest declines occurred in the antlered buck harvest in the Southeastern Zone (-23.9 percent) and the Northeastern Zone (-24.9 percent). Significant rule changes and weather events occurred during this past hunting season that likely impacted hunter effort, harvest selectivity and reporting compliance; all of which influence reported

## News & Notes

### ASK A WILDLIFE OFFICER

#### WHEN IS THE BEST TIME BLAH BLAH FOR BLAH BLAH?

Help conserve wildlife for future generations. *(insert funny comment here)* In 1981, hunters, anglers and wildlife enthusiasts (who became shareholders in an innovative investment and conservation program called the North Carolina Wildlife Endowment. Today, therefore, Commission has 19 different life estate licenses in five categories: Infant, Youth, Adult, Senior and Disabled.

Each license allows the licensee to purchase a lifetime share of the investment and conservation program called the North Carolina Wildlife Endowment. Today, therefore, Commission has 19 different life estate licenses in five categories: Infant, Youth, Adult, Senior and Disabled.

Endowment significance: Today, the Commission and shareholders in an innovative investment and conservation program called the North Carolina Wildlife Endowment. Today, therefore, Commission has 19 different life estate licenses in five categories: Infant, Youth, Adult, Senior and Disabled.

### IN THE FIELD

The 2016 survey marks the highest estimates ever recorded for mallards and green-winged teal. Mallards increased 1 percent to 11.79 million, 51 percent above the long-term average. Green-winged teal populations grew by 5 percent to 4.28 million, which is more than twice the long-term average. The 2016 survey marks the highest estimates ever recorded for mallards and green-winged teal. Mallards increased 1 percent to 11.79 million, 51 percent above the long-term average. The 2016 survey marks the highest estimates ever recorded for mallards and green-winged teal. Mallards increased 1 percent to 11.79 million, 51 percent above the long-term average.



SUCH-N-SUCH PACK



SUCH-N-SUCH PACK



SUCH-N-SUCH PACK

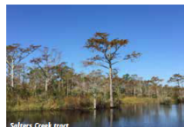
#### 2018-2019 NORTH CAROLINA REPORTED DEER HARVEST

SEASON ZONE	ANTLERED BUCKS	BUTTON BUCKS	DOES	TOTAL	% CHANGE (IN TOTAL FROM 3 YR. AVG.)
Southeastern	15,466	1,292	13,029	29,787	-19.2
Northeastern	14,936	1,549	14,621	31,106	-20.4
Central	20,096	2,033	18,519	40,648	-1.2
Northwestern	15,932	1,476	13,186	30,794	0.6
Western	7,495	267	3,432	11,194	7.3
State	73,925	6,617	62,987	143,529	-9.2

## News & Notes

### Commission Expands Coastal Game Lands

The N.C. Wildlife Resources Commission expanded several of its coastal game lands through recent land acquisitions.



Salter's Creek tract

tions that will help the agency continue its mission of providing public land for hunting, fishing and trapping, and conserving wildlife resources. Through a partnership with the North Carolina Coastal Land Trust, Ducks Unlimited and other organizations, the Commission added more than 12,000 acres to its Game Land Program in the Coastal Region last summer and fall. The Coastal Land Trust purchased the Salter's Creek tract in Carteret County and transferred approximately

5,170 acres to the Commission, which will manage it for outdoor recreational uses such as hunting, fishing and wildlife watching. The Salter's Creek tract features estuarine marsh, pocosin and longleaf pine forest, and is home to 23 rare plant and animal species. It adjoins the nearly 15,000-acre Cedar Island National Wildlife Refuge and is across Long Bay from an 11,000-acre Marine Corps bombing range. This combination creates a large, landscape-sized conservation area that protects natural resources and helps protect the military training mission at Pines Island. The Coastal Land Trust also purchased

more than 700 acres of freshwater marsh, cypress-gum swamp and bottomland hardwoods along the Neuse River in Craven County. It gave the property to the Commission, which is adding it to its Neuse River Game Land. In November, the Commission completed the purchase of the 6,310-acre Hubbard-Pinkerton tract, a forested wetland, marsh and riverfront property on the North River in Camden County that will join the North River Game Lands. It features wetlands and forests that are prime habitat for bald eagles, black bears, red-cockaded woodpeckers and waterfowl. —MIKE ZLOTNICK

The Commission also completed several notable land acquisitions in the Piedmont and Mountains in 2019, including:

- 115-acre addition to the William H. Silver Game Land (Waynes County) that protects key habitat for elk
- 1,344-acre addition to the Brinkleyville Game Land (Halifax) that will provide new opportunities for recreation and protects habitats associated with several rare aquatic species
- Phase I (High Rock) of the Alcoa project was completed, protecting 2,463 acres of the Alcoa Game Land (Davie, Davidson and Rowan)

### DID YOU KNOW

#### AUDUBON'S CHRISTMAS BIRD COUNT IS ONE OF THE LONGEST-RUNNING WILDLIFE CENSUSES IN THE WORLD!

For the 120th year, the National Audubon Society is organizing its annual Christmas Bird Count. Between December 14 and January 5, tens of thousands of bird-loving volunteers will participate in counts across the Western Hemisphere. The twelve decades' worth of data collected by participants continue to contribute to one of only two large existing pools of information notifying ornithologists and conservation biologists about what conservation action is required to protect birds and the places they need. For more information and to find a count near you visit [christmasbirdcount.org](http://christmasbirdcount.org)



### LIFETIME LICENSES

#### Help conserve wildlife for future generations.

In 1981, hunters, anglers and wildlife enthusiasts became shareholders in an innovative investment and conservation program called the North Carolina Wildlife Endowment Fund.

Today, the commission has 19 different lifetime licenses in five categories: Infant, Youth, Adult, Senior and Disabled. The endowment fund for wildlife was a simple yet revolutionary idea: Create a lifetime inland fishing or hunting license. Put the license fees into a special fund. Spend the accrued interest, not the principal, on programs and projects that benefit fish and wildlife. To learn more or to purchase a lifetime license visit [ncwildlife.org/licensing](http://ncwildlife.org/licensing) or call 1-888-248-6834.

### Monarch Butterfly to be Featured On State Fair Button



This year, the N.C. Wildlife Resources Commission selected the monarch butterfly for its 2020 Wildlife Button. Typically, the button is distributed during the Mountain State Fair and North Carolina State Fair. Since both events have been canceled this year, the 2020 button will be given out at both fairs in 2021.

The monarch butterfly was selected not just for its beautiful color patterns, but due to its contribution to the health of North Carolina's wildlife habitats. It is a key pollinator for various flowers around the state as well as a food source for birds, insects, lizards and other small animals.

Its role in North Carolina's and our country's ecosystem is critical. The conservation of monarch butterflies and all pollinators must be a national movement. Get involved and be a part of this conservation movement by:

- Planting milkweed and nectar plants that are native to our state.
- Garden organically, without using pesticides, to protect monarchs and other pollinators.
- Educate others about pollinators, including the monarch butterfly.

## News & Notes

THIS AREA FOR SPOTLIGHT ON THE COMMISSION/ PROGRAM/ EMPLOYEE/ FACILITY OR GAMLAND???