

# The Little River WATERMARK



*Above: Yellow Honey Mushroom*



*Above: Bluing Bolete  
Left: Hot Lips Puffball*

## The Hidden Kingdom

*by Michael Hopping, Asheville Mushroom Club*

When you've admired the waterfalls in DuPont State Recreational Forest, hiked its woods and glimpsed the native wildlife, you've only begun to appreciate the richness of the place. Hidden away in the soil underfoot, in the trees, downed logs and leaf litter, Kingdom Fungi is at work renewing the forest.

Many hundreds of species are at home here, though seldom seen. That's because fungi live invisibly for the most part, as nondescript thready networks called mycelia. The threads are typically so small that miles of them inhabit a single cubic inch of good dirt. But the networks can be quite large and old. One famous mycelium in Oregon occupies 3.4 square miles of forest floor and has an estimated age of 2,400 years.

Fungi are often mistaken for plants, but they aren't. They can't convert sunlight to cellular

power. Like us, they rely on oxygen and imported sugar. Some get that sugar by forming mutually beneficial alliances with plant roots. Others steal it from an unwilling host or recycle decaying matter. Thanks to these recyclers, dead trees rot to humus rather than turn to coal as they once did.

Mycelia temporarily sacrifice their anonymity to reproduce. We know the palaces they build for that great occasion as mushrooms. No birds or bees are necessary for the sexual recombination of genetic material, but some species do rely on animals to transport spores to new territory. Mycelia may be "plain Jane's," but they have some incredibly varied and species-specific ideas about how to make a mushroom.

Perhaps none is stranger than the repulsively delightful puffball known as the Hot Lips or Bloody Eyeball, *Calostoma cinnabarinum*. The

*Continued on Page 8*

## CALENDAR OF EVENTS

*October 8 - 9*

### **Tour de Falls**

*October 16*

### **Moonlight Hike**

6:00 pm, meet at Corn Mill Shoals parking lot.

Contact Bev Parlier at 828-883-9278

*October 22*

### **Tree Identification Hike**

11:00 am, meet at Corn Mill Shoals parking lot, bring picnic lunch.

Limited to 8 participants. Contact Amy Kinsella at 828-692-0100

*November 1*

### **FODF Board Meeting**

6:30 pm at ASC Classroom

*November 12*

### **History / Cemetery Hike: Moore Cemetery**

Learn about the area's early settlers.

10:00 am, meet at Hooker Falls parking lot.

Limited to 15 participants. Contact Patty Stahl at 828-885-2498

*December 3*

### **Litter Pick Up**

9:00 am, meet at Lake Imaging parking lot. Please join the litter haters!

Contact Dan Bresnahan at 828-884-6806



## I SPY...

Where might you have been lucky enough to happen upon this forest icon?

*See Page 7 for Answer*

*December 21*

### **Winter Solstice Hike**

10:00 pm, meet at Hooker Falls parking lot.

Limited to 15 participants, contact Bev Parlier at 828-883-9278

*January 7*

### **FODF Annual Retreat**

Lake Julia Lodge

Contact Bev Parlier at 828-883-9278

*January 14*

### **"Plan for Success" FODF Board Workshop**

Lake Julia Lodge

## NEWSLETTER CONTRIBUTORS

**Editor:** Nancy Kay

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**Masthead Photo:**

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**Newsletter Committee:**

Aleen Steinberg, Jerry Brown, and Kent Wilcox



*The Gray Fox*

## The Gray Fox

Most people are familiar with the Red Fox, but those are not endemic to North Carolina. They were introduced in the 1700's by European settlers who wanted to fox hunt as they had abroad. Our native fox is the Gray Fox (*Urocyon cinereoargenteus*). They are among the most primitive of living canids having evolved some 3.6 million years ago. The only other living member of the genus is a fox that lives in the Channel Islands off of England.

The gray fox is the only fox that is very good at climbing trees. It can climb vertical tree trunks and may hide in an empty crow or hawk nest when it senses danger. Also, they are not true carnivores – in addition to meat, these foxes will also eat corn, peanuts and berries.

## Selaginella Moss Mats

Anyone who has ever trekked Big Rock or Cedar Rock Trails has seen the large moss mats that cover much of the rock domes. The darker component of these mats is Twisted-hair Spikemoss (*Selaginella tortipila*) and the lighter green component is Reindeer Moss (*Cladonia rangiferina*). Neither of these are true mosses. They are frequently referred to as “fern allies,” an odd assortment of ancient plants that are phylogenetically more closely related to ferns than to any other group of living plants.

The mats can get up to 18” high and are spongy to walk on. But, people should avoid walking on them as they can be hundreds of years old and they recover from abuse very slowly.

These are very tough plants living in a very tough environment – no soil, totally dependent on rain for water, baked under hot and continuous sun, no protection from wind and often buried under winter snow.

On March 9 of this year the DSRF conducted a prescribed burn on Cedar Rock Trail, and many of the moss mats went up in flames. I have been



*Selaginella Moss Mats*

watching those toasted mats and they seem to be making a very slow comeback, another tribute to the toughness of this unusual plant.

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Figure 1 – Stonework enhances entrance to Buck Forest Development

## Fifty-One Home Sites Originally Proposed for the Buck Forest Development in 1984

by Kent Wilcox

In the fall of 1967, a gentleman named Ben Cart Sr. purchased more than 1,400 acres in Cedar Mountain from private landowners and E. I. du Pont de Nemours and Company (hereafter referred to as the DuPont Corporation). This mostly forested land, locally referred to as Buck Forest, encompassed portions of the watersheds of Reasonover Creek and the Little River and was adjacent to approximately 10,000 acres owned by the DuPont Corporation. Soon thereafter, Mr. Cart built a dam on Reasonover Creek to create Lake Julia which became the centerpiece for Summit Camps. By the mid 1970's, youth from 25 states and several foreign countries were enjoying their summer vacations at Summit Camps.

### The airstrip and Fawn Lake

In 1976, Mr. Cart began construction of a private airstrip and hanger on a ridge above Lake Julia (described in the April, 2015 issue of The Little River Watermark). When construction began, the only route to the airport and Summit Camps from Reasonover Road was via Camp Summit Road, portions of which are now called Conservation Road and Short Cut Trail. Vehicles going to the hanger had to cross the airstrip- not a safe practice particularly for trucks delivering aviation fuel. For this reason, Mr. Cart graded an alternative route from near the beginning of Camp Summit



Figure 2 – left, Steel rod marks line between lots 39 and 40.



Figure 3 – right, Concrete monument marks line between lots 38 and 39

Road to the hanger, which he named Buck Forest Drive, now known as Fawn Lake Road. At the point where this new road crossed a stream that flows from a spring on Mine Mountain, Mr. Cart built a dam that created Buck Forest Lake, now known as Fawn Lake.

### The Buck Forest Development

In 1984, Mr. Cart decided to create the private Buck Forest Development containing 51 home sites. It has been said that Mr. Cart planned to sell lots to parents whose children were spending the summer at Summit Camps. This was not the case as Summit Camps closed in 1983.

Buck Forest Drive was extended around the perimeter of the lake to provide access to lake-front lots. From 1984 to 1989, several surveys were conducted to establish the boundaries for 51 lots. Steel rods (Fig. 2) and concrete monuments (Fig. 3) were placed as survey markers on lot lines. A new access from Reasonover Road to Buck Forest Drive was graded and the steep entranceway (now the entrance to Fawn Lake parking lot) was graded with elaborate stonework (Fig. 1).

Lots 1-15 (Fig. 4) and lots 3A and 3B, each approximately one acre in size, extended along Buck

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## Fifty-One Home Sites...

*Continued from Page 4*

Forest Drive from the Reasonover Road entrance towards Buck Forest Lake. Lot 3 is now the location of the Fawn Lake parking lot. The right-of-way for the Duke Energy high voltage transmission lines, which runs roughly parallel to Fawn Lake Road, formed the rear boundary for lots 4, 6-11, 13 and 15. Lots 16 to 32 (Fig. 5) were lakefront lots along the northern, western and southern shores of Buck Forest Lake. Lots 33 to 49 (Fig. 5) were on the slopes of Mine Mountain overlooking Buck Forest Lake and included both the smallest (0.63 acre) and largest (2.11 acres) lots in the development.

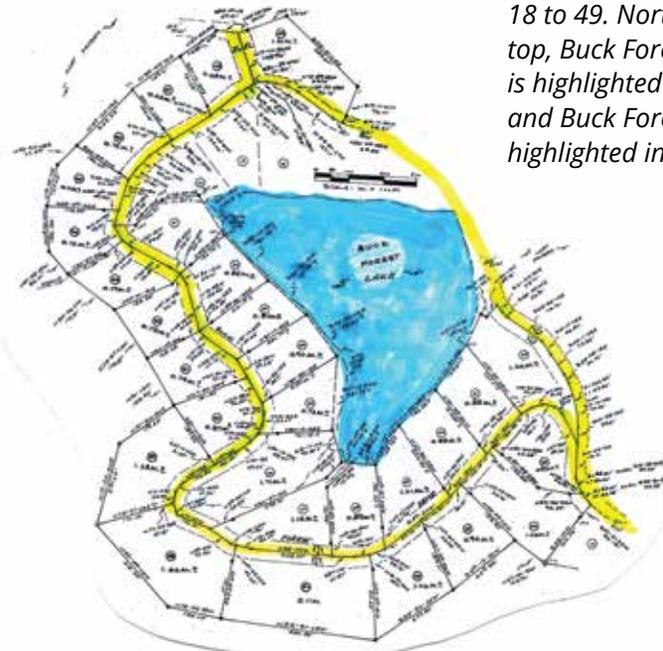
Mr. Cart spent a considerable sum for infrastructure in the Buck Forest Development, which is probably why he arranged to borrow up to \$450,000 from the Citizens and Southern National Bank of South Carolina in 1986. Underground power and phone lines were installed for lots 1-15 (Fig. 6). A 1,100-foot well (Fig. 7) was drilled near the intersection of Mine Mountain Trail and Fawn Lake Road. A 20,000 gallon water tank with a gravity-fed plumbing system for the 51 home sites was installed on Mine Mountain (Fig. 8).

### A change in plans

It is not clear whether Mr. Cart ever listed the 51 lots on the real estate market. The survey for lots 21-49 was filed in the Transylvania County Register of Deeds on April 24, 1989. Mr. Cart also owned 60 acres on the south side of Reasonover Road, across from the entrance to the Buck Forest Development. In May of 1989, he divided this 60-acre tract into four parcels of 6 to 28 acres, none of which were part of the Buck Forest Development. All four parcels were sold in July of 1989. The sale dates of these four parcels suggest that lots in the Buck Forest Development may have been listed for sale in the summer of 1989. It's unclear why none of the 51 lots were ever sold. In the summer of 1990, Mr. Cart terminated the plans for the Buck Forest Development by filing a deed to



*Figure 4 – Survey for lots 1 to 15; North is at the top, Reasonover Road is highlighted in orange, and Buck Forest Drive is highlighted in yellow.*



*Figure 5 – Survey for lots 18 to 49. North is at the top, Buck Forest Lake is highlighted in blue, and Buck Forest Drive is highlighted in yellow.*

recombine all of the 51 lots back into one parcel. This saved him the burden of paying property taxes on each of the 51 lots and facilitated the sale of his entire 1,400 acre holding in Buck Forest to the DuPont Corporation on March 27, 1991 for nearly \$2,000,000.

The DuPont Corporation purchased Ben Cart's property primarily to acquire Lake Julia which

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*Before photo (top). After photo (above from left to right: Randy Eggen, Lyle Burgmann, Dick Childs, Suzanne Childs, James Baldwin, Stephanie Sallaska, Terry Clever, Molly Burgmann)*

## Trail Crew Performs a Facelift on Burnt Mountain

*Article by Lyle Burgmann, Photos by Kemp Davis*

It may be a surprise to some to learn that DuPont's trails need maintenance to keep them in good condition. With time and use trails often develop low spots in the middle of the tracks with lips on the downhill sides that prevent the trails from immediately shedding water.

As a result, the water flows down the length of the trails. This water gathers speed and causes trail erosion. Eventually the water and sediment find a low place in the trail to settle and puddle.

Some trail users go around the puddles, others go through them. Going through deepens the puddles and damages the trail tread. Going around widens the trail. Neither result is desirable.

The FODF Trail Crew, also known as Department of Trail Corrections (pun intended), is one of the groups providing trail maintenance within the Forest. You might see them at work on the second Saturday of each month from 9:00 AM to 1:00 PM. One of the Trail Crew's primary jobs is to restore the trail drainage to its as-built or optimum condition.

On August 13 the FODF Trail Crew repaired three areas of major puddling on Burnt Mountain Trail.

Using shovels and hoes the crew removed large quantities of dirt and organic sediment in order to restore the original out slope of the trail in those areas. The results: water gone, mud gone and the areas will drain and dry quickly for months to come. See the before and after pictures in this article.

### **Join the Crew!**

If you would like to join the FODF trail crew, please contact Lyle Burgmann at [LLBMWB@GMAIL.COM](mailto:LLBMWB@GMAIL.COM) or 864-963-1405. No experience necessary. The DuPont rangers and the DuPont trail users will appreciate your work! 🌿



*White-tailed Deer*

## FOUND IN THE FOREST



*Yellow Fringed Orchid (Platanthera ciliaris) discovered in DuPont Forest. Photo by Danielle Rowland.*

### **A Walk on the Wild Side**

*Continued from Page 3*

### **White-tailed Deer**

White-tailed Deer (*Odocoileus virginianus*) populations in this part of the state are fairly low at about 15 per square mile. At the eastern end of the state the populations can get as high as 45 per square mile. They are primarily nocturnal but they can also be seen during the day when they browse on roadsides, in fields and people's yards.

The fawns, usually 1-2, are born in the spring without scent. This helps protect them from predators when the doe leaves them to go off to feed by herself.

This picture was taken by a game camera on August 22 and shows one of a pair of 4-point bucks with their antlers still in velvet. Deer antler is the fastest growing bone material known to man. 🍃



### **I SPY...**

Good ole' Smokey the Bear made an appearance at the Visitor Center in honor of his August birthday. Near as I can tell, he turned 72 this year – quite the lifespan for a black bear!

*Question on Page 2*

## The Hidden Kingdom

*Continued from Page 1*

mycelium partners with oaks and fruits in the summertime along the cut banks of shady DSRF trails. What begins as a gelatinous red-eyed blob develops into a stalked balloon that puffs spores when its magenta “lips” open.

The mycelia responsible for Yellow Honey mushrooms don't partner with oak trees; rather, they parasitize and eat them. Known to mycologists as *Armillaria mellea*, they are cousin to the Oregon giant that feasts on Douglas Fir. Our Yellow Honeys appear in early fall, sometimes also in late spring. Honey mushrooms taste nothing like honey, but some people enjoy them as food (well-cooked please so as to prevent gastrointestinal distress).

*Gyroporus cyanescens*, the Bluing Bolete, partners with a variety of hardwoods and other plants. Boletes have no gills. Their spores mature in small tubes under the cap, then drop out to sail away on air currents. As boletes go, dozens of varieties are found in DSRF. The Bluing Bolete is small and scruffy, totally forgettable until touched or cut. Instantly, the disturbed tissue turns ink-blue. Bruising reactions are common with boletes. Shades of blue are popular. Other options include brown, greenish, yellow, and red-orange.

Next time you visit DSRF, do yourself a favor and remember to look down once in a while. You never know who might be partying amongst the leaves.

**Note to mushroom hunters:** Collecting mushrooms in DuPont State Recreational Forest requires a written permit from DSRF staff. The permit allows the bearer to harvest mushrooms in an environmentally responsible manner for personal use only, not for sale. Send an email to [dupontsf.ncfs@ncagr.gov](mailto:dupontsf.ncfs@ncagr.gov) for information. 🍄

## PRESIDENT'S REPORT

*by Bev Parlier*

Finally, cooler temps! And, the leaves are a-changing! This past summer DuPont saw an unprecedented number of visitors, and the numbers that came through the Visitor Center over the holiday weekend broke all records. This increase in visitation meant an increase in incidents and medical emergencies. Thankfully, the state appropriated three million dollars will help alleviate some of these problems. Bathrooms will be built soon, and much needed nine positions will be added to the Forest Service staff.



*Hiking to Grand Teton, Wyoming*

Over the past fifteen years, FODF's goal for DuPont has been to Procure, Promote, and now Protect. This being said...

How do we continue to protect rare plants and endangered species from increased visitors?

How do we protect visitors around dangerous waterfalls?

How do we make sure all visitors know that the trails are multi-use?

Can one still have a “good” experience at DuPont? I do think so. I was at the ASC this past Labor Day and was amazed at the number of DuPont first-timers coming in with a smile on their face after viewing the waterfalls. On the most crowded summer day you can still go out Joanna Road to Twin Oaks or Briery Fork Trails and see almost no one. And, visitors continue to travel long distances just to experience Tour de Falls.

We know that, when the leaves drop, the number of visitors will too and things will get back to normal. But what is “normal”? The times are a-changing... See you on the trails... 🍄

# FOREST SUPERVISOR'S REPORT

Dear Friends of DuPont Forest,

Since the last newsletter much has changed with the management of the Forest. As you may know, the NC Legislature, led by House Representative Chuck McGrady and NC Department of Agriculture Commissioner Steve Troxler, were able to secure a historic amount of support for DuPont State Recreational Forest. Nine new full-time positions were created and funded, \$3 million was appropriated for new restrooms, parking lot improvements, and utility installation, and the Forest became eligible to submit for project funding from the NC Parks and Recreation Trust Fund.

## **New employee positions**

Here is a summary of our plans for the new positions:

1. Assistant Forest Supervisor: A new position providing support for implementing the DSRF Master Plan, environmental regulations pertaining to new land acquisitions, and other administrative programs.
2. Law Enforcement Supervisor: Senior law enforcement officer for DSRF; supervises Law Enforcement Agents.
3. Law Enforcement Agents: Certified law enforcement officers providing patrol of trails, property boundaries, and swimming areas.
4. Recreation Specialist: Focus on our recreational planning and programming.
5. Educational Ranger: Integrate with the functions of the Aleen Steinberg Center and provide educational programming on DSRF.
6. Administrative Associate: Assist with all administrative functions for a 22-person organization.
7. Vehicle Mechanic: Provide for the maintenance and safe operations of a fleet of 32 vehicles.
8. Maintenance Mechanic: Ensure our facilities are maintained for longevity and are safe for employees and the public.

## **Hooker Falls Restrooms**

The first initiative with capital improvement will be the design of the Hooker Falls restroom. A designer has been hired to develop site plans, adjust an existing design from the NC Farmers Market property, and develop construction bid documents. At present, the timeline for construction is more conjecture than anything, but I feel certain that we will be under construction in 2017.

## **Trail Improvements**

The latest trail improvement project focused on Rocky Ridge and Switchback Trails near the Guion Farm Access Area (Henderson County). This was a collaborative project with funding from both the FODF and Oskar Blues Brewery's Can'd Aid Foundation. Rocky Ridge was an unsustainable trail with severe erosion that had received several rounds of maintenance over the last decade. The project rerouted the trail to reduce the overall slope and add numerous water diversion structures that are crucial to preventing erosion. The trail will remain open to all user groups and bi-directional in its course.

## **Trail Courtesy**

A unique feature of DuPont's trail system is that almost every trail is available to hikers, horses, and bikes. Inevitably, this can lead to some conflict among those user groups. The difficulty in determining the significance of these conflicts is that they are rarely witnessed directly by our staff. Over the past three years there have been serious accidents on our trails, but none have been attributed to user conflict. That does not rule out "near-misses" or unreported problems, which I am sure occur from time to time. As the use of our trail system grows, we will continue to examine the problems related to simultaneous multi-use design. Any future changes to trail use will need to be backed by data, observations, and stakeholder feedback.

*Regards,*

*Jason I. Guidry, Forest Supervisor*



## Fifty-One Home Sites Proposed for the Buck Forest Development

*Continued from Page 5*



*Figure 6 – Electric transformer and telephone junction box provides service to lots 9 and 10*



*Figure 7 – Well house on Mine Mountain*



*Figure 8 - Water tank on Mine Mountain*

they needed as a supply for drinking water when the Little River became contaminated with run-offs from farms and homes upstream. However, DuPont had no interest in Buck Forest Lake or the proposed Buck Forest Development. On December 10, 1996, the DuPont Corporation sold a 526-acre tract that included the area for the Buck Forest Development to the Conservation Fund for approximately \$1,100,00. Surprisingly, the defunct development was briefly resurrected in the fall of 1997 when the Conservation Fund listed the 526-acre tract with a Brevard real estate company for \$1,946,000 (Fig. 9). Fortunately, there were no buyers at that price. The property was finally sold to the state of North Carolina for \$1.7 million on April 4, 2000.

In spite of numerous inquiries, the author has been unable to ascertain when and why the names of Buck Forest Lake and Buck Forest Drive were changed to Fawn Lake and Fawn Lake Road/Loop. Some have suggested that members of the Friends of the Falls changed the names soon after the property was acquired by the state in 2000.

The author wishes to acknowledge Ben Cart Sr. for providing information during telephone interviews. Mr. Cart is writing his memoir while living on St. Simons Island, Georgia. 🌿

### **556 ACRES WITH MOUNTAIN LAKE**

One section platted into 49 lots with underground electric and TV cable. Approximately 3800 ft. frontage on Reasonover Road. Very suitable for subdivision development. Some river frontage. Views! \$1,946,000 (3,500 per acre). Jack Dense, MLS 17373.



*Figure 9 – 1997 real estate listing; Jack Dense was a DuPont Plant Manager who oversaw the construction of Lakes Dense, Imaging, Alford, and Dera. At age 80, he became a realtor.*

*Photos for figures 1, 2, 3, 6, 7, and 8 taken by Kent Wilcox. Surveys in figures 4 and 5 obtained from the Transylvania County Register of Deeds. Photo in figure 9 copied from a listing by Coldwell Banker in the Transylvania County Real Estate Buyers Guide.*

## VOLUNTEER APPRECIATION

### Dick & Suzanne Childs

The Friends of DuPont Forest appreciates their volunteers, and none more than Dick and Suzanne Childs. They are simply awesome!

#### What are your volunteer activities, past and present?

We've participated in the following activities: FODF parking lot hosts, litter pickup crew, Tour de Falls volunteers, and trail maintenance crew. We've also headed up the annual Canoe Day event.

#### How long have you been donating your time to these projects?

We've been volunteering for approximately eight years.

#### What fuels your desire to volunteer in the Forest?

We have a love of the outdoors and belief in conservation. We also love seeing others' joy in discovery.



#### What is your favorite way to recreate in the Forest?

Hiking and enjoying nature.

#### Do you have a favorite trail? If so, which one and why is it your favorite?

There are too many to list! We would pick Big Rock for the view, Reasonover for the wildflowers & single track, and Mine Mountain for its winter view.

#### If you could be granted one wish for the forest, what would it be?

Our wish is that it will be in its glory for generations to come. 🌿

## BUSINESS MEMBERSHIPS

Join or renew online at [DuPontForest.com](http://DuPontForest.com)

BLACK BEAR MEMBERSHIPS



BLUE GHOST MEMBERSHIPS



# JOIN OR RENEW YOUR MEMBERSHIP

## Membership

- \$25 Friend (1 Year)
- \$35 Family (1 Year)
- \$50 Partner (1 Year)
- \$100 Supporter (1 Year)
- \$250 Hooker Falls Contributor (1 Year)
- \$500 Triple Falls Contributor (1 Year)
- \$1,000 High Falls Contributor (1 Year)
- \$1,500 Forest Angel (1 Year)
- \$\_\_\_\_\_ Additional Donation  
*(Donations are tax deductible)*

## I would like to volunteer...

- Trail Building & Work Crew
- Adopt-a-Hwy Litter Pick-Up
- Special Events (Tour de Falls, Canoe Day, etc)
- Special Forest Interest/Educational Programs
- Membership Services
- Grant Writing
- DuPont State Forest History Program
- Fundraising Efforts
- Other \_\_\_\_\_

Name: \_\_\_\_\_ Mailing Address: \_\_\_\_\_

Email: \_\_\_\_\_ City: \_\_\_\_\_

Phone: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

- Save paper! Email my newsletter to the address listed above.

MAIL THIS FORM TO: Friends of DuPont Forest – P.O. Box 2107 – Brevard, NC 28712

*Friends of DuPont Forest (FODF) is a non-profit, volunteer organization dedicated to enhancing the public's enjoyment of the Forest while protecting its natural and historic resources.*

### Board Members

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