

APGA/USFS Tree Gene Conservation Partnership:
Report on 2019 Scouting and Collection Efforts targeting
Magnolia fraseri var. *pyramidata*



Prepared by Matthew Lobdell, The Morton Arboretum, November 14 2019

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Project Overview

In 2016, the APGA/USFS Tree Gene Conservation Partnership sponsored a seed collecting trip targeting *Magnolia fraseri* var. *pyramidata* in Florida, Alabama, and Texas. Though this project was successful in locating populations and acquiring seed, there were several populations across two states, Mississippi and Georgia, that were not scouted due to time constraints. Additionally, though seed was collected during the 2016 trip, many germinated but resulting seedlings performed poorly or died during early production at several botanic gardens. Seed collections from Alabama appeared to be the most impacted, with no seedlings apparently surviving by late 2018. To further *ex-situ* conservation of this taxon, a follow-up project was initiated to learn more about the distribution of the taxon and collect additional seed from documented populations.

Objectives

1. Determine the extent of damage to *M. fraseri* var. *pyramidata* populations following Hurricane Michael
2. Scout for populations of *M. fraseri* var. *pyramidata* in Georgia and Mississippi to gauge potential of future collection
3. Collect seed from populations in Alabama to increase genetic representation of *M. fraseri* var. *pyramidata* *ex-situ*.

Summary of Daily Activities

Sunday, April 7

Matt Lobdell and Greg Paige arrived in Atlanta and met Andrew Bunting to prepare for an early departure the next morning.

Monday, April 8

Lobdell, Bunting, and Paige arrived at Spirewell Bluff State Park mid-morning. Kevin Conrad joined the group. Widowmaker Trail (marked with blue blazes) was used to access the bluff sloping down towards the banks of the Flint River. Several *M. fraseri* var. *pyramidata* were located, flowering and in good condition. Park staff were unable to meet up this day due to maintenance commitments, but expressed knowledge of additional populations across the park.



Figure 1: Greg Paige and Kevin Conrad at Sprewell Bluff Park

Tuesday, April 9

The group traveled to Apalachicola National Forest and joined Kelly Thomas to scout the population occurring near the northern terminus of FR 390, extending westward along a flat ridge. Approximately 40 individuals were observed. Hurricane damage appeared minimal in this site. Some mature trees had fallen (uncertain whether due to hurricane or other causes), but many were suckering extensively from the base suggesting the potential of regeneration.

Wednesday, April 10

The group traveled to Torreya State Park, which was heavily impacted by Hurricane Michael. Out of the 11 trees observed, the vast majority of the mature trees were fallen or uprooted. Some smaller saplings were spared. Many trees were suckering heavily from the base, indicating the potential of regeneration. Kevin Conrad and Kelly Thomas departed the group at the end of the day.



Figure 2: Andrew Bunting and Kelly Thomas at Torreya State Park

Thursday, April 11

The group visited Silver Lake Wildlife Management Area, in hopes of locating populations on the Northern side of Lake Seminole. Much of the Silver Lake WMA is a flat, marshy habitat not characteristic of *M. fraseri* var. *pyramidata*. At the staff's suggestion, a region of the WMA consisting of a drier oak-dominated canopy was scouted in hopes of locating *M. fraseri* var. *pyramidata* at the periphery. No plants were located, and it is unlikely the taxon occurs here. The group also spent some time scouting public roads (Booster Club Rd and SR 97) south of Lake Seminole in Decatur County, Georgia. This area is heavily developed and historic populations here are likely extirpated.



Figure 3: Lake Seminole as observed from Silver Lake Wildlife Management Area

Friday, April 12

While en route to Mississippi, the group stopped at the Apalachicola Bluffs and Ravine Preserve to scout for *M. fraseri* var. *pyramidata* along the Garden of Eden Trail. Though the population here is considerably smaller than at Apalachicola National Forest or Torreya State Park, a few trees were located here in good condition. Seed collection may be possible if permissions can be arranged through the Nature Conservancy.



Figure 4: Seedling recruitment observed near Kelley Creek

Saturday, April 13

Roads through the Southern district of the De Soto National Forest were scouted. Though much of the woodland here is relatively high quality, no *M. fraseri* var. *pyramidata* was located here. Greg Paige departed the group at the end of the day.



Figure 5: Andrew Bunting and Greg Paige scouting in De Soto National Forest

Sunday, April 14

Matt Lobdell and Andrew Bunting scouted the Chichasaway District of the De Soto National Forest. A small population documented by a herbarium voucher (McNair 517) was located in a woodland near Little Creek, just south of Smithtown-Chicora Rd. A much larger population was located on the north side of the road when exiting the district to the east, beginning at a powerline cut just east of the bridge and continuing along the roadside for ca. 200m. Due to their greater sun exposure, these trees were flowering much more extensively compared to other populations visited.



Figure 6: Andrew Bunting within a population of various *Magnolia* spp. in De Soto National Forest

Monday, April 15

A site off Interstate 59 was scouted, but no *M. fraseri* var. *pyramidata* were located. Lobdell was unable to gain advance permission to visit the Pascagoula Wildlife Management Area, so this site was not scouted during this phase of the trip. Lobdell and Bunting proceeded to Gulfport to ship herbarium specimens and prepare for departure.

Tuesday, April 16

Lobdell and Bunting departed from Gulfport in the early morning.

Monday, August 19

Matt Lobdell, Greg Paige, and Tim Marchlik met in Tuscaloosa, AL to prepare for three days of seed collecting.

Tuesday, August 20

The group departed for the Oakmulgee district of Talladega National Forest in the early morning. Populations confirmed during the 2016 trip were targeted. Seed was collected, in limited quantities, from populations along FR 705, FR 710, and FR 708. Overall, these populations appeared to be in reduced health compared to 2016, as it appears burn management is having a negative impact on the mature trees in the area.



Figure 7: Tim Marchlik with a fruiting sample in Hale County, Alabama

Wednesday, August 21

The group scouted reports of a population in Chilton County, further east in the district. A large tree was located south of FR 418 and Williams Creek, with one sapling in the area. No fruit was present on the tree, though an older rotten fruit likely dating to fall 2018 was found on the ground beneath the tree,

indicating past reproduction. No other *M. fraseri* var. *pyramidata* were located in the area. This population is likely in the process of becoming extirpated.

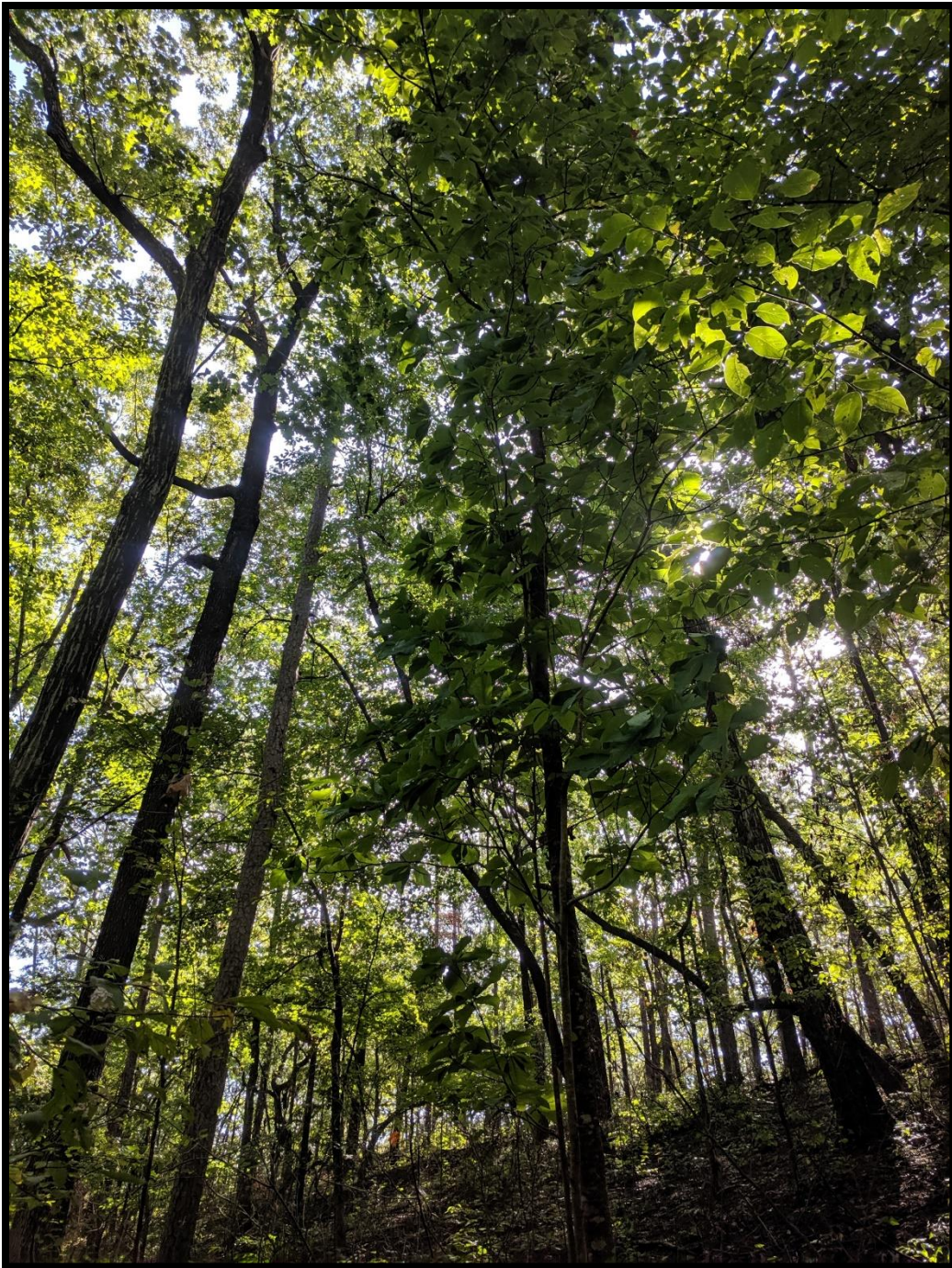


Figure 8: Solitary mature *M. fraseri* var. *pyramidata* in Chilton County, Alabama

Thursday, August 22

The group traveled west across the Mississippi State Line into the Chichasaway District of the De Soto National Forest to collect seed from the population observed in spring. The trees were fruiting extensively, allowing a relatively large quantity of fruit to be collected efficiently. After returning to Tuscaloosa, seeds and fruits were sorted and herbarium vouchers were prepared for shipment.



Figure 9: Greg Paige and Tim Marchlik collecting fruit from a population in Wayne County, Mississippi

Friday, August 23

Lobdell, Paige, and Marchlik departed in the early morning.

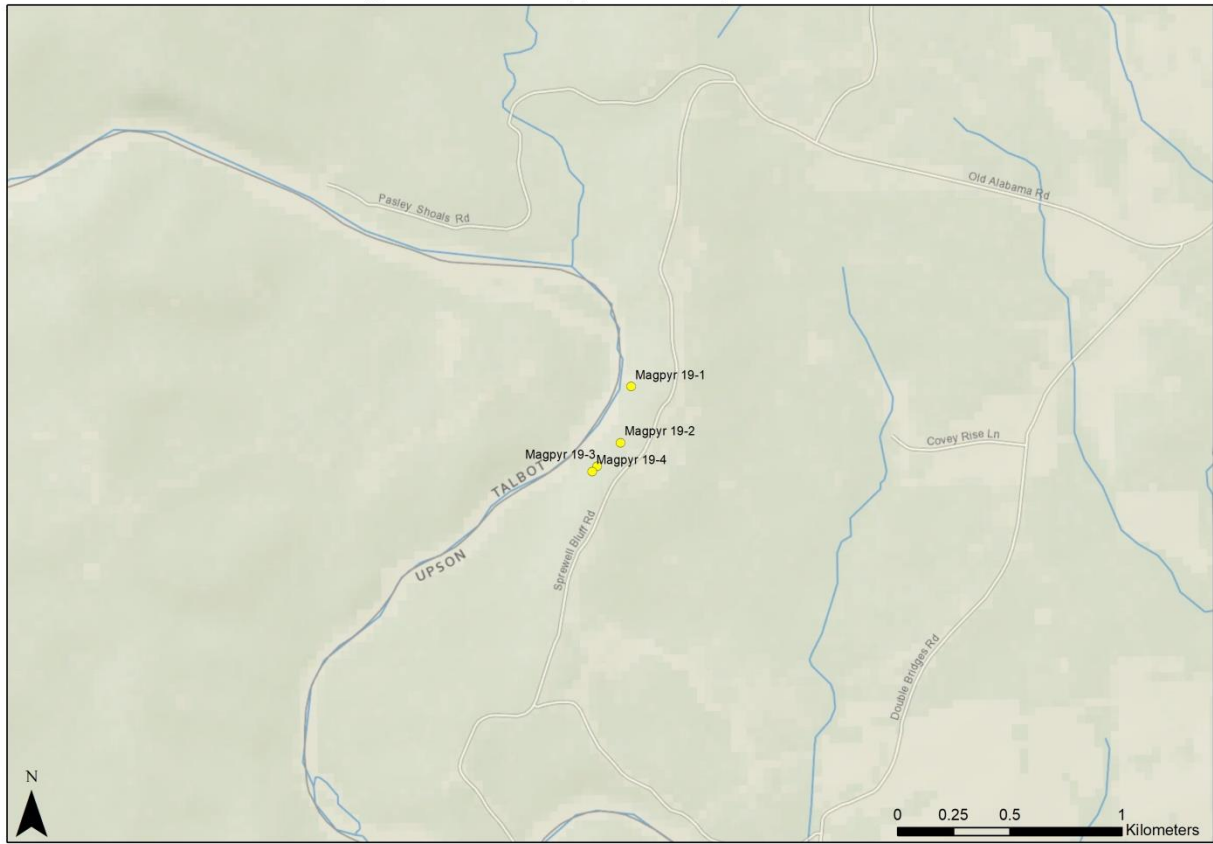
Material Collected

Table 1: Herbarium Vouchers (#V) and Seeds (#S) collected from *Magnolia fraseri* var. *pyramidata* during this expedition. Full collection notes are available in attached excel file.

Coll No.	Date	State	Locality	Lat	Long	Alt	#V	#S
Magpyr 19-1	4/8/19	GA	Sprewell Bluff Park	32.873	-84.47456	182m	0	0
Magpyr 19-2	4/8/19	GA	Sprewell Bluff Park	32.8708	-84.4751	186m	2	0
Magpyr 19-3	4/8/19	GA	Sprewell Bluff Park	32.8698	-84.47622	183m	2	0
Magpyr 19-4	4/8/19	GA	Sprewell Bluff Park	32.8696	-84.47647	199m	2	0
Magpyr 19-5	4/9/19	FL	Apalachicola National Forest	30.3637	-84.67332	31m	2	0
Magpyr 19-6	4/9/19	FL	Apalachicola National Forest	30.3625	-84.67336	33m	2	0
Magpyr 19-7	4/9/19	FL	Apalachicola National Forest	30.3619	-84.67347	33m	2	0
Magpyr 19-8	4/9/19	FL	Apalachicola National Forest	30.3607	-84.67265	38m	2	0
Magpyr 19-9	4/9/19	FL	Apalachicola National Forest	30.3604	-84.67262	40m	2	0
Magpyr 19-10	4/9/19	FL	Apalachicola National Forest	30.3592	-84.67487	40m	0	0
Magpyr 19-11	4/9/19	FL	Apalachicola National Forest	30.3595	-84.67475	55m	2	0
Magpyr 19-12	4/9/19	FL	Apalachicola National Forest	30.3587	-84.6754	35m	0	0
Magpyr 19-13	4/9/19	FL	Apalachicola National Forest	30.3584	-84.67569	36m	2	0
Magpyr 19-14	4/9/19	FL	Apalachicola National Forest	30.3581	-84.67593	35m	2	0
Magpyr 19-15	4/9/19	FL	Apalachicola National Forest	30.3578	-84.67483	40m	0	0
Magpyr 19-16	4/9/19	FL	Apalachicola National Forest	30.3576	-84.67619	28m	2	0
Magpyr 19-17	4/9/19	FL	Apalachicola National Forest	30.3557	-84.67484	37m	0	0
Magpyr 19-18	4/10/19	FL	Torreya State Park	30.5607	-84.95002	51m	2	0
Magpyr 19-19	4/10/19	FL	Torreya State Park	30.5602	-84.95122	59m	0	0
Magpyr 19-20	4/10/19	FL	Torreya State Park	30.5621	-84.95041	58m	0	0
Magpyr 19-20a	4/10/19	FL	Torreya State Park	30.5602	-84.95112	59m	0	0
Magpyr 19-21	4/11/19	FL	Apalachicola Bluffs and Ravines Preserve	30.456	-84.97655	26m	2	0
Magpyr 19-22	4/11/19	FL	Apalachicola Bluffs and Ravines Preserve	30.4585	-84.98192	34m	0	0
Magpyr 19-23	4/14/19	MS	DeSoto National Forest	31.4698	-88.65118	90m	2	0
Magpyr 19-24	4/14/19	MS	DeSoto National Forest	31.4697	-88.6498	79m	2	0
Magpyr 19-25	8/20/19	AL	Talladega NF - Oakmulgee District	32.9991	-87.45396		2	3
Magpyr 19-26	8/20/19	AL	Talladega NF - Oakmulgee District	32.9967	-87.43355	49m	2	14
Magpyr 19-27	8/20/19	AL	Talladega NF - Oakmulgee District	32.9969	-87.4334	52m	2	0
Magpyr 19-28	8/20/19	AL	Talladega NF - Oakmulgee District	32.9938	-87.4294	57m	2	2
Magpyr 19-29	8/20/19	AL	Talladega NF - Oakmulgee District	32.9926	-87.4288	72m	2	2
Magpyr 19-30	8/20/19	AL	Talladega NF - Oakmulgee District	32.9304	-87.46503	122m	2	2
Magpyr 19-31	8/20/19	AL	Talladega NF - Oakmulgee District	32.9304	-87.46501	124m	2	6
Magpyr 19-32	8/21/19	AL	Talladega NF - Oakmulgee District	32.7622	-86.99551		2	0
Magpyr 19-33	8/22/19	MS	DeSoto National Forest	31.4697	-88.64971	16m	2	9
Magpyr 19-34	8/22/19	MS	DeSoto National Forest	31.4694	-88.64935	16m	2	10
Magpyr 19-35	8/22/19	MS	DeSoto National Forest	31.4693	-88.64928	24m	2	11
Magpyr 19-36	8/22/19	MS	DeSoto National Forest	31.4692	-88.64917	29m	2	33
Magpyr 19-37	8/22/19	MS	DeSoto National Forest	31.4686	-88.64837	46m	2	0

Maps of Collection Sites

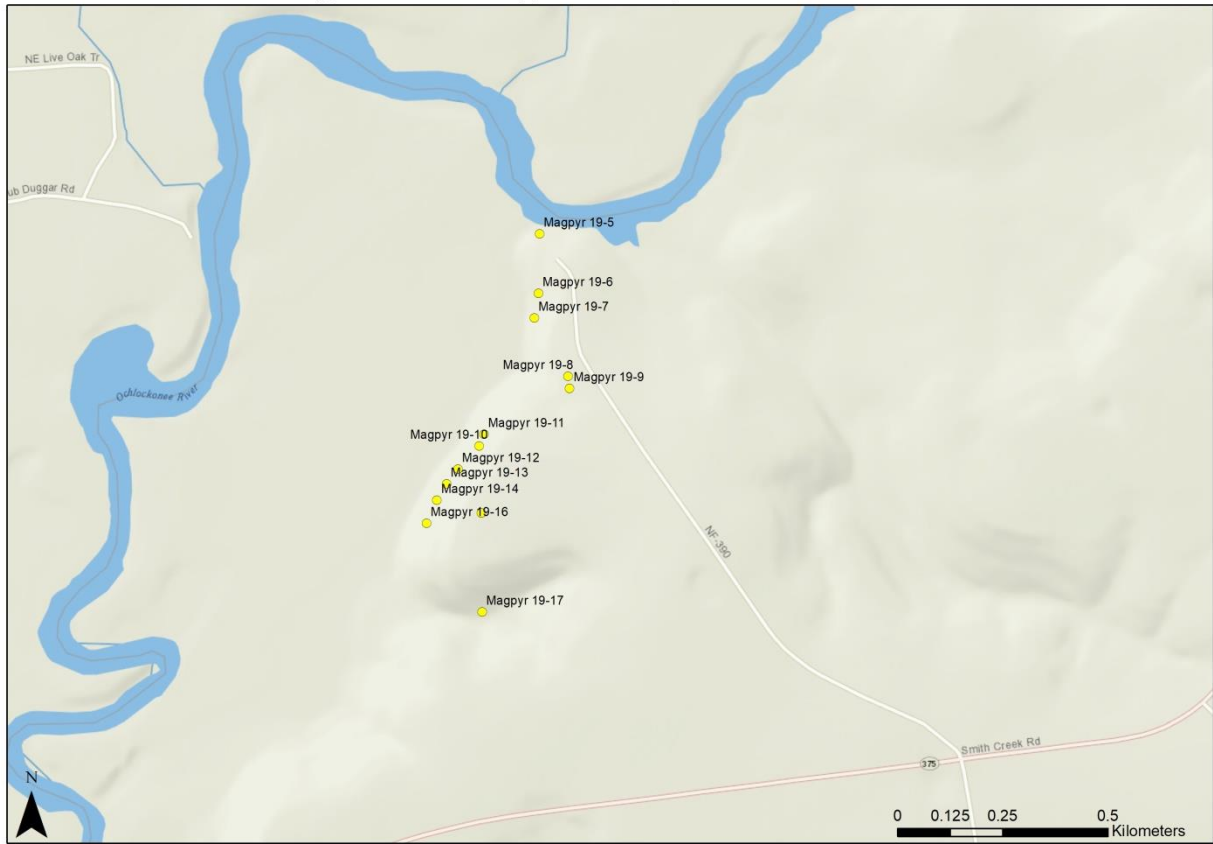
Magnolia fraseri var. *pyramidata*: Sprewell State Park



Service Layer Credits: Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS,

Figure 10: Collections in Sprewell State Park

Magnolia fraseri var. pyramidata: Apalachicola National Forest



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Figure 11: Collections in Apalachicola National Forest

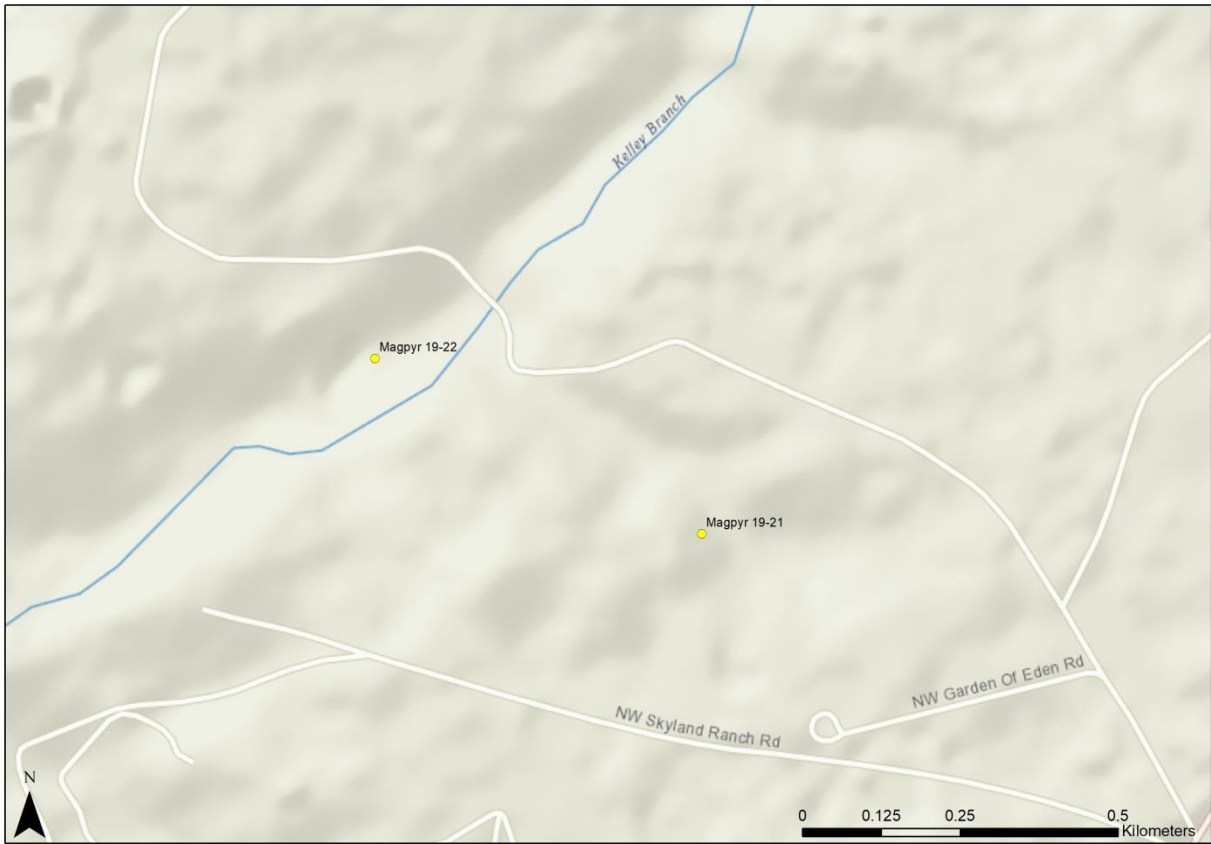
Magnolia fraseri var. pyramidata: Torreya State Park



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Figure 12: Collections in Torreya State Park

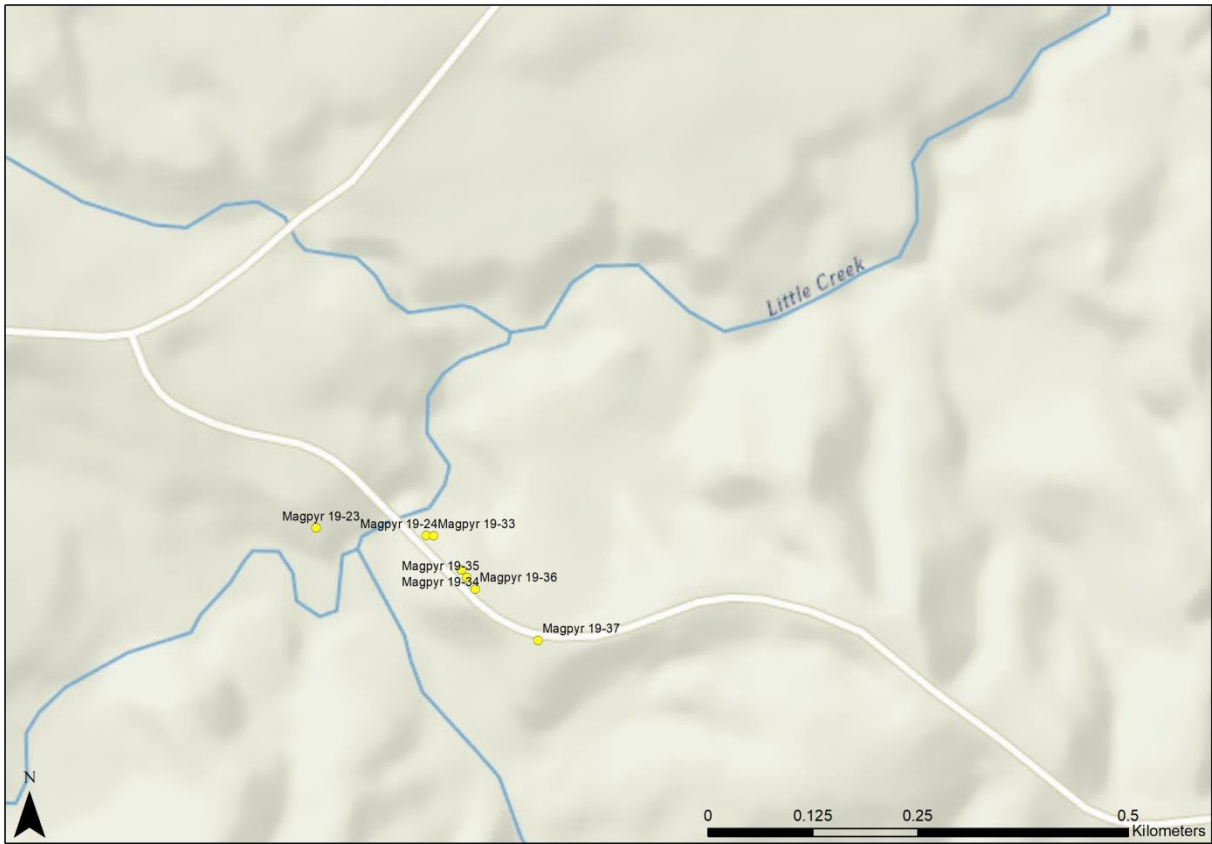
Magnolia fraseri var. pyramidata: Kelley Branch area



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Figure 13: Observations in Kelley Branch area

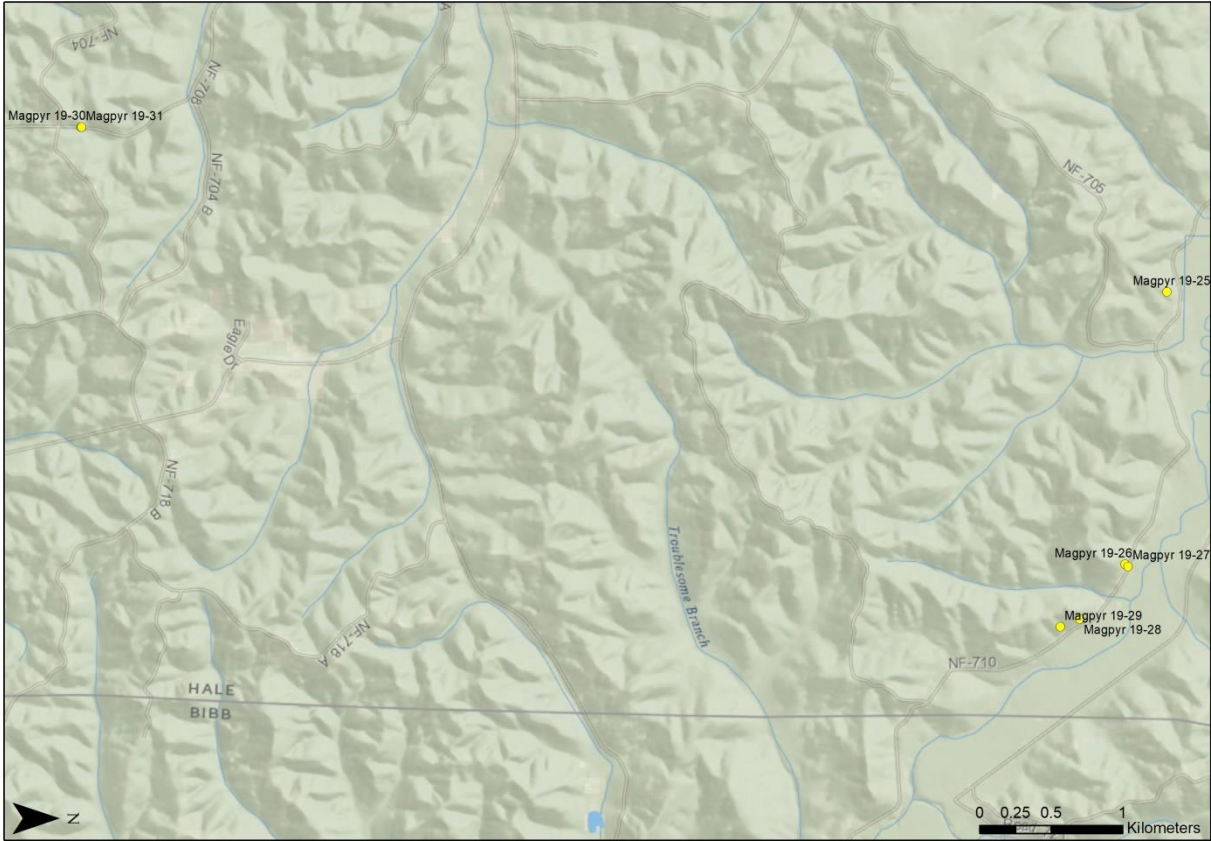
Magnolia fraseri var. pyramidata: Little Creek area



Service Layer Credits: Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS,

Figure 14: Collections in De Soto National Forest, near Little Creek

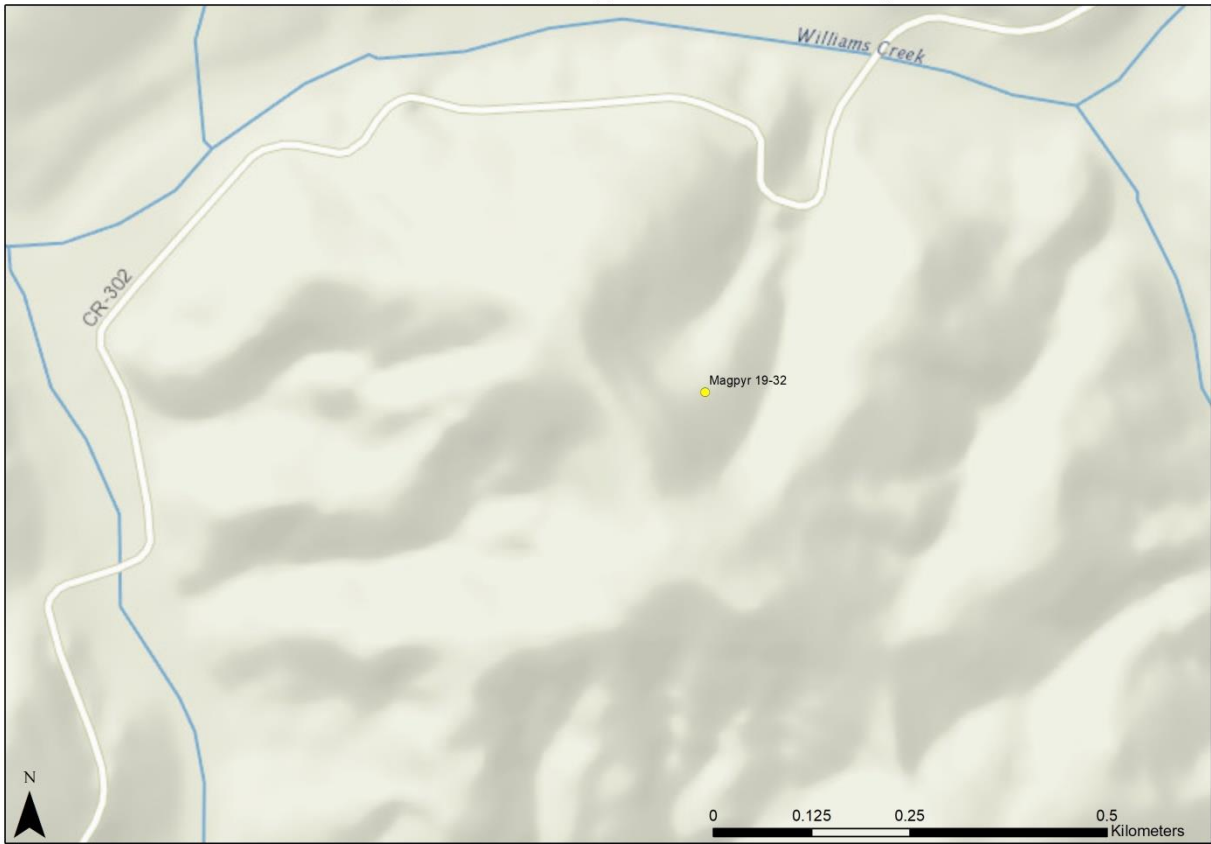
Magnolia fraseri var. pyramidata: Hale County



Service Layer Credits: Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS,

Figure 15: Collections in Oakmulgee District, Hale County

Magnolia fraseri var. pyramidata: Chilton County



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Figure 16: Collection in Oakmulgee District, Chilton County

Accomplishments and Future Directions

This scouting and collecting trip was successful in reaching three objectives: evaluating the extent of storm damage in the Florida Panhandle, scouting for populations in Georgia and Mississippi, and collecting seed from populations in Alabama. However, considering the known difficulty of raising *M. fraseri* var. *pyramidata* from seed, low numbers of seeds collected, and high interest in representing the taxon in plant collections, follow-up work would be advisable to better achieve these goals.

Despite heavy hurricane damage in the Florida Panhandle, specifically at Torreya State Park, the population of *M. fraseri* var. *pyramidata* shows potential of regenerating either from stem suckers or seedlings. How they will compete as other forest species regenerate following this disturbance however is unknown. It may be advisable to monitor this population again in 2-3 years to re-evaluate its health.

Considering supplemental seed collecting, the population at Sprewell State Park should be considered a priority due to the relative ease of access and the limited representation of Georgia provenance *M. fraseri* var. *pyramidata* in cultivation. As the quantity of seed collected in Alabama was admittedly low, follow-up work in that state should also be considered. There are additional populations documented outside of the Talladega National Forest, typically on private land, for which permissions could likely be acquired by working with a suitable local collaborator. Combining seed collecting of *M. fraseri* var. *pyramidata* with another tree species of interest in this region could also be a possibility, though the early fruiting timeframe (mid-August) may complicate the timeframe.

Acknowledgements

Thanks to Keith Coursey, Clinton Davis, Alan Isler, Nathan Klaus, Lisa Kruse, James Mordica, Jay McClain, Jason Vickery, and the Florida Department of Environmental Protection for providing permissions allowing for the completion of this project.

List of Participants and Contact Information

Matthew Lobdell – Project Contact

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Research and Education Center

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155 Research Rd

Quincy, FL 32351

Permits and Correspondences



Matt Lobdell <mlobdell@mortonarb.org>

Site Access for Magnolia pyramidata

3 messages

Matt Lobdell <mlobdell@mortonarb.org>

Thu, Apr 4, 2019 at 4:03 PM

To: jmccclain@fs.fed.us

Dear Mr. McClain,

I received your contact information through Keith Coursey and James Mordica, who I've been working with to secure site access at DeSoto National for an upcoming botanical research project to locate populations of *Magnolia pyramidata* in Mississippi.

I was also hoping to visit the Chichasaway Ranger District during this project. I am aware of at least one population reported about 1km south of the intersection between Jones Anderson Dr and Smithtown Chicora Rd, and was interested in searching for this one as well as seeking out others.

Would you be willing to allow site access for this project? I would be in the region and looking to visit sometime around Saturday Apr 13, Sunday Apr 14, or the morning of Monday Apr 15.

Thanks in advance,
-Matt

—



Matthew Lobdell | Curator of Living Collections
The Morton Arboretum | 4100 Illinois Route 53 | Lisle, Illinois 60532
T 630-719-2435 | F 630-725-2040 | mlobdell@mortonarb.org | mortonarb.org



McClain, Jay P -FS <jmccclain@fs.fed.us>
To: Matt Lobdell <mlobdell@mortonarb.org>

Fri, Apr 5, 2019 at 6:41 AM

Hey Matt,

Yes feel free to explore for your needs. Access is open in the area that it is already known to occur. I'd be happy to assist but I won't be able to on a weekend. You can give me a call at 601-319-3339 anytime and I can maybe help you by providing some maps.

Thanks!

[Quoted text hidden]

Figure 17: Email granting permission to access the Chichasaway Ranger District



United States
Department of
Agriculture

Forest
Service

National Forests
in Mississippi

654 W. Frontage Rd., PO Box 248
Wiggins, MS 39577
601-528-6160

File Code: 2720

Date: April 4, 2019

Matthew Lobdell
The Morton Arboretum
[4110](http://www.mortonarb.com) Illinois Route 53
Lisle, IL 60532

Dear Mr. Lobdell,

We have approved your request to conduct research on the De Soto National Forest to search for and monitor populations of *Magnolia pyramidata*, as described in your letter of April 2, 2019. It has been determined that the proposed use will have such nominal effects on National Forest System lands, resources, or programs that it is not necessary to establish terms and conditions in a special use authorization (36 CFR 251.50(e)1).

We recommend that you contact Mr. Tim Dickinson if you plan to work on Camp Shelby (Forest Service permitted lands or state owned). Mr. Dickinson knows where several trees are located on state land and has said he is willing to assist with this study. He can also let you know where military training may be occurring. His phone number is 601-558-2798 and email is timothy.m.dickinson.nfg@mail.mil.

Please remember that motorized travel is only allowed on those roads shown on the Forest's Motor Vehicle Use Map.

Please continue to reach out to Keith Coursey if you have questions or need assistance. Also, you should make contact with Jay McClain on the Chickasawhay Ranger District prior to your work in that portion of the De Soto National Forest. Jay can be reached at 601-428-0594, ext. 5226 or email jmccclain@fs.fed.us.

Sincerely,

JAMES MORDICA
Acting District Ranger



Caring for the Land and Serving People

Printed on Recycled Paper



Figure 18: Letter granting access to DeSoto National Forest



United States
Department of
Agriculture

Forest
Service

Apalachicola National Forest
Apalachicola Ranger District Wakulla Ranger District
P.O. Box 579 57 Tall Grove
Bristol, FL 32304 Crawfordville, FL 32327
850/643-2282 850/926-3561

File Code: 2720

Date: April 1, 2019

Expiration Date: April 1, 2020

Mr. Matthew Lobdell
The Morton Arboretum
4100 Illinois Route 53
Lisle, IL 60532

Dear Mr. Lobdell,

This letter is in reply to your request for research involving the collection of information and two herbarium vouchers of *Magnolia pyramidata* and *Magnolia ashei* on the Apalachicola National Forest. Your submitted application for the research has been reviewed by our resource specialists for any environmental concerns.

It has been determined that the proposed use will have such nominal effects on National Forest System lands, resources, or programs that it is not necessary to establish terms and conditions in a special use authorization to protect National Forest System lands and resources or to avoid conflict with National Forest System programs or operations (36 CFR 251.50(e)(1)).

Please remember that this does not authorize motorized cross county travel.

If you have any questions, please contact Sherry Gaston Salcido at 850/494-2617.

Sincerely,

 (for)
CLINTON DAVIS
District Ranger



Caring for the Land and Serving People



Figure 19: Letter granting access to Apalachicola Ranger District

Permit Number
19030111

Florida Department of Environmental Protection
 Division of Recreation and Parks
 Florida Park Service


SCIENTIFIC (NON-COMMERCIAL) RESEARCH / COLLECTING PERMIT

Park Visits Must Be Arranged A Minimum Of One Week In Advance. Failure To Make Required Arrangements Will Result In Denial Of Park Entry.
 Permit Must Be Carried At All Times While Working In State Parks.

Permittee: Matthew Lobdell	Address, Phone, Email: 4100 Illinois Route 53 Lisle, IL 60532 708-657-7645; mlobdell@mortonarb.org	Issue Date: March 1, 2019
Representing: The Morton Arboretum		Expiration Date: October 1, 2019
Additional Authorized Researchers: Andrew Bunting, Gary Knox, Greg Paige, Kelly Thomas	Subject: Monitoring Pyramid Magnolia tree population Permitted Activity: This project will involve a survey to determine the status of the Florida-endangered pyramid magnolia (<i>Magnolia pyramidata</i>) tree local population following the high-intensity Hurricane Michael, which severely impacted this park; focal areas for sampling individuals will be based on a previous population survey performed in 2016. Data recorded include remaining live crown per tree; signs and symptoms of disease or pests; presence of basal suckers, flowers, remaining mature tissue; and habitat description and photo documentation.	
In the Following Park(s): Torreya State Park	Permitted Collection: Up to five fruits per tree will be collected for preservation of their seeds for a total of 20 to 30 fruits taken from the park and distributed among cooperating botanical gardens toward the conservation of the species; two herbarium samples (branches with flowers or fruit) will be collected from every seed-bearing tree sampled. Pruners, ladders, and/or a three-stage 18-foot pole pruner will be used to collect the botanical specimens; in order to prevent the potential transfer of pathogens / diseases, cutting equipment should be cleaned between collections from different individuals / clusters if possible.	

Permit Attachments:
Standard Conditions

Permit Not Valid Unless Signed By All Parties

Approved By: (Signature and Title)

 Bureau Chief
 3-1-2019

Issuing Office
 District 1 Administration
 Division of Recreation and Parks
 4620 State Park Lane
 Panama City, FL 32408
 850-233-5110 (fax: 850-233-5147)

Permittee
 I have read this permit and all attachments listed above. I fully understand it, and will abide by all rules and regulations.

Permittee Signature:


Date:
 3-4-2019

Figure 20: Permit granting collection in Florida



GEORGIA
DEPARTMENT OF NATURAL RESOURCES
WILDLIFE RESOURCES DIVISION

MARK WILLIAMS
COMMISSIONER

RUSTY GARRISON
DIRECTOR

March 25, 2019

Matthew Lobdell
Curator of Living Collections
The Morton Arboretum
4100 Illinois Route 53
Lisle, IL 60532
mlobdell@mortonarb.org

Dear Mr. Lobdell:

This letter serves as permission to grant you access to Sprewell Bluff State Park and Wildlife Management Area for a botanical research project. The objective of the project is to survey for and monitor populations of *Magnolia pyramidalata* to inform red-listing and conservation efforts for the species.

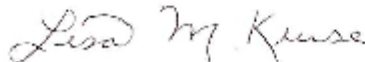
For this project you have permission to collection two voucher specimens from each location, or station, that you find of the species in the defined collection area. Voucher specimens will be collected in a manner that is not detrimental to the overall health of the plants. Whole plants may not be taken, and roots must be left intact. Reproductive parts are permitted for collection.

This permit is valid from April 1 through October 31 of 2019. Please carry a copy of the permit while you are on site as evidence of your permission to collect. Kevin Kramer of Game Management (478.825.6354) or Nathan Klaus of the Wildlife Conservation Section (478.994.1438) can advise you on the best way to access Sprewell Bluff.

We value the information that will be gained from this research, and will be especially grateful for updates on the status of individuals and populations of *Magnolia pyramidalata* at Sprewell Bluff State Park and Wildlife Management Area. We will look forward to receiving your report when your research is complete.

Please let me know if you have any questions.

Sincerely,



Lisa M. Kruse
Botanist

cc: Kevin Kramer, Nathan Klaus, Brett Albanese

WILDLIFE CONSERVATION SECTION
2067 U.S. HIGHWAY 278 S.E. | SOCIAL CIRCLE, GEORGIA 30025
770.557.3213 | FAX 706.557.3030 | WWW.GEORGIAWILDLIFE.COM

Figure 21: Permit granting access to Sprewell Bluff State Park



**MARK WILLIAMS
COMMISSIONER**

**RUSTY GARRISON
DIRECTOR**

February 14, 2019

Mr. Matt Lobdell
Morton Arboretum
4100 Illinois Route 53
Lisle, Illinois 60532

Dear Mr. Lobdell,

This letter will serve as the permit to allow you and staff from Morton Arboretum access to Silver Lake Wildlife Management Area between April 1 and April 15, 2019 to look for Pyramid Magnolia for the purpose of collecting cuttings for research. The Department reserves the right to cancel the permit at any time upon written notice to the permit holder.

Authorized activities will include: 1) use of roads closed to vehicular traffic on the WMA 2) collection of flora for research and 3) installation of temporary markers to be removed from the WMA upon completion of your visit. Should you find that you need to conduct additional activities during this project, please notify me in advance.

Upon your acceptance and use of this permit, the permittee (Matt Lobdell, Morton Arboretum, and any others present during your visit) agrees to hold harmless the Georgia Department of Natural Resources, its officers, staff, agents and representatives in any damage suit or claim filed because of the use of this permit. A copy of this permit must be kept with you during your visit. You further agree to notify Matthew Keel (404-783-1943) at least 24 hours prior to your date of arrival and submit the attached waiver of liability with the names and signature of all participants within 72 hours of completing your visit.

Please feel free to contact me if you have any questions at (229) 430-4254.

Sincerely,

Alan Isler

Region V Game Management Supervisor

cc Brent Howze
John Adams
Rick Sellers
Matthew Keel

GAME MANAGEMENT SECTION
2024 NEWTON ROAD | ALBANY, GEORGIA 31701
229.430.4254 | FAX 229.430.3838 | WWW.GEORGIAWILDLIFE.COM

Figure 22: Permit granting access to Silver Lake Wildlife Management Area