

TCD TRAVEL GRANT – FIELDWORK REPORT
**A pathway to nature conservation: the role of long-distance trails in connecting hikers,
communities, and landscapes.**

My Appalachian Trail Journey

Ernesto Viveiros de Castro
PhD Student

After winning the TCD Travel Grant for preliminary research on the Atlantic Forest Trail (Brazil) in 2020, I was unable to travel because of the COVID-19 pandemic. As the problem persisted in 2021, I asked TCD for authorization to adjust the schedule and use the resources for my first field trip along the Appalachian Trail (AT, USA), which was also part of my initial research project. I also received a grant from the US Forest Service to purchase some equipment and supplement travel costs.

The trip took place between July, 8th, 2021 and August, 21th, 2021, departing from Gainesville (FL) and extending to the state of Vermont. There were 5,202 miles driven by car in 13 East Coast States (FL, GA, NC, TN, VA, WV, MD, PA, NJ, NY, CT, MA, and VT), as well as DC. I also hiked some sections of the AT, trying to get to know as much as possible the characteristics of the trail and especially the trail sections studied or the ones close to the AT Communities, summing up around 100 miles.

Below I describe the main places visited and the activities carried out, in addition to presenting photo authorizations and vouchers obtained along the route (attachments).

Meetings with ATC and local communities' stakeholders

As planned, my first stop was in Asheville, NC. I met two ATC managers in Asheville (Leanna Joyner - Program Director for Volunteer Relations and Julie Judkins (Director of Education and Outreach, and manager of the AT Communities Program) to discuss support in contacts with local communities' stakeholders and understand better how the ATC works.

During the field trip I visited the six communities selected for my research, being three AT communities and three nearby communities to assess the economic impact of the trail and compare the level of environmental awareness between communities with different levels of involvement with TA. Within each town the proposal is also to compare environmental awareness between residents involved in tourism and not. The visits consisted in a recognition tour and meetings with local stakeholders pre-contacted with support of AT Communities program or recommended by local supporters. The meetings consisted in a short presentation of my research goals and methods and an informal interview with each stakeholder. The main goal was gathering the support to share the link for the online survey directed to local residents. The six towns were:

Damascus, VA (AT Community):

Recognized as the "Trail town", Damascus has only about 700 inhabitants and pays great attention to the Appalachian Trail, including hosting an annual AT festival. The city connects to seven nature trails and many visitors frequent other trails, but the AT is the city's big draw and has its brand stamped on signs, pavements on the sidewalks, and countless other spaces, as well as a street named Appalachian Trail Drive. The city offers long-term parking, free Wi-Fi, and showers for hikers and recently opened an ATC Trail Center to serve visitors and strengthen ties with the local community. In addition to traveling around the city, I hiked the AT both ways for some kilometers to know the accesses to the city.

The local AT Communities Program organizers scheduled a meeting in the public library that was attended by the following stakeholders: Gavin Blevins (Town Manager), Tuesday Pope (Town Clerk), Emily Mayo (Damascus Trail Center supervisor), Anne Maio (volunteer of the Mount Rogers AT Club), and Amanda Livingston (Director of Tourism of the Smyth County Tourism Association).

Glade Spring (VA):

The towns that are not part of the AT Communities program were chosen with the assistance of stakeholders from nearby AT Communities, who also nominated local people to contact. As they were not as involved with AT, it was difficult to contact more stakeholders and I tried to identify local tourism-related businesses for further contact. In Glade Spring, the contact was made with Dirk Moore, an Emory & Henry College manager and member of the Revitalize Glade community group. Besides the meeting, I toured the city for a brief recognition, including access to the Salt Trail, a long-distance trail initiative being implemented.

Harpers Ferry/Bolivar, WV (AT Community):

I've been on Harpers Ferry twice, going north and back. The town has tourism as its main activity, with emphasis on the historic quarter (HF National Historic Park), managed by the NPS. The AT passes through the city, being in great evidence and the city has the Headquarters of AT (NPS) and ATC. The AT Community also includes Bolivar Town, which adjoins Harpers Ferry and constitutes a single urban hub. Due to the COVID-19 pandemic, which restricted access to headquarters and put the employees in home office, it was difficult to meet the staff of the National Park Service (NPS) and ATC on the first visit. I met a representative of the AT Community Program (Karan Townsend – tourism business owner) and made recognition of the city and the local insertion of AT. On the second visit, I finally had access to the ATC Headquarters, talking to David Tarasevich and accessing the library (see section Research on ATC Library). I also met Chris Craig, the town government representative.

During the field trip, I was invited to present my experience with long-distance trails management in Brazil in the online event "ATC Emerging Leaders Summit", which I attended from the ATC headquarter.

Brunswick (MD):

Brunswick was chosen after conversations with Harpers Ferry stakeholders and visits to two other locations. This town proved to be the most suitable due to the short distance from the trail and for having some level of tourist activity, besides the population size similar to Bolivar/Harpers Ferry. In addition to a local recognition for identifying tourism-related businesses, I met with Abbie Rickett of the Canal Towns Partnership, an organization that brings together cities along the C&O Canal National Historical Park, which also includes a trail often used by bikers and hikers.

Manchester, VT (AT Community):

Manchester was chosen to represent the AT Communities in the northernmost part at the suggestion of the AT Communities Program director, due to the city's great involvement with the trail. The city offers free wi-fi and showers for hikers and the population is quite prone to offer a lift for hikers to move from the trail to the city center and vice versa (5 miles away). In addition to recognizing the area, I met with Anne Houser, an outfitter owner and local coordinator of the AT Communities program. The contact helped me redefine the town for comparison, moving from East Clarendon to Wallingford. Anne also gave me the contact to mobilize respondents in Wallingford.

Wallingford (VT):

At Wallingford, I met with Adrian Eisler, a member of the city council, and identified inns and other business contact and subsequent mobilization of respondents, in addition to local recognition. The city has some tourist activity, but it doesn't seem to have hikers as its main audience, being more associated with historical heritage.

Surveys with hikers

The survey with hikers aims to assess the sense of place and its scale, comparing different profiles of hikers, varying the length of the hike, and interview locations. Three popular and three moderately

trafficked sections along the AT, selected in pairs. After analyzing data provided by the All Trails app and recommendations from ATC and NPS members, I selected the following pairs of trail sections, also seeking to cover the southern, central, and northern parts of the AT: South – Newfound Gap x Fontana Dam (TN/ NC); Central - McAfee Knob x Sawtooth Ridge Trail (VA); North - Killington Peak x Clarendon Gorge (VT).

After obtaining approval from the IRB and NPS (for the Great Smoky Mountain National Park) and obtaining promising results in test applications in the Great Smoky Mountain National Park, I decided to interview as many hikers as possible in this first field trip. Hikers were interviewed primarily in trailheads, but also in shelters, campsites, or lookouts along the selected trail sections. I also tried to hike the selected trail sections as much as possible to get a more complete perception of the study sites. 226 hikers were interviewed, practically reaching the goal of having 40 hikers in each trail section. Only in two moderately trafficked sections, the target was not reached due to bad weather (Sawtooth Ridge, 32, and Fontana Dam, 34).

The results will still be processed and analyzed, but it was possible to find hikers covering several distances (most thru-hikers in Vermont, considering the timing to complete the trail in a single journey). The diversity of age, gender, income level, and other aspects should enable research questions to be answered.

Fieldworks on AT corridors

Along the field trip, I tried to follow the AT route as close as possible, even while moving from one study site to another far away. I rode parkways with routes very close to the trail, including many intersections such as the Blue Ridge Parkway and Sky Drive.

My initial plan was to visit the National Archives (Washington, DC) to obtain historical aerial images of the trail that are not available online. The images would be used to assess the influence of the AT on the amount of conserved habitats and the structural connectivity, in comparison with similar areas. I was at the National Archives to get to know the institution, but the restrictions imposed by the COVID-10 pandemic made access to the archives difficult.

At the same time, the field trip allowed me to realize that much of the mountainous areas along the east coast are forested and that, probably, as most sections of the AT run through mountainous areas, there is not a big difference between areas close to the trail and others further away with the same altitude and slope. However, on the plain stretches the situation looks quite different. There are few forested areas and occupation is intense. Along the field trip, I identified sections of corridors that were acquired to guarantee the passage of the trail and kept in natural conditions or even restored. During the trip, I did a quick survey using satellite images and relied on suggestions from hikers and stakeholders to identify open areas and acquired corridors and visit some of them in Massachusetts, Pennsylvania, Connecticut, New York, Maryland, and Virginia. I was able to see that some areas apparently used for agriculture are actually natural wetlands, such as the Wallkill River National Wildlife Refuge (NY-NJ). Elsewhere the AT corridor is the only strip of vegetation between croplands. So, I made some changes to my research questions related to connectivity. I still intend to test whether there is a difference in areas adjacent to the trail and those more distant, but I have included questions related to the importance of the corridors acquired to make up the TA, using path analysis.

Research on Appalachian Trail Conservancy Library and other archives

To understand the effect of AT on connectivity, it is important to know how the NPS, USFS, and ATC have acted throughout history to ensure the protection of the trail or even the restoration of forests or designation of protected areas. Internet searches brought me few references and I intended to obtain

information from the National Archives, but it was not possible. I identified that important land acquisition files were destined for Georgetown University (DC), but I also had difficulties in accessing these documents, which have not yet been cataloged or digitized.

While visiting the AT Museum (in the Pine Grove Furnace State Park, PA), a volunteer suggested I consult ATC publications, including annual newsletters and magazines. When visiting the ATC Headquarters, in Harpers Ferry, I was able to access the almost complete collection of AT Trailnews magazine, a publication with at least 3 annual editions between 1939 and 2005, when the publication was reformulated and renamed AT Journeys (at that time there was a change in the name of ATC, which changed from AT Conference to AT Conservancy). Flipping through 80 years of publications, I found invaluable information about changing the trail's routes, conflicts with private landowners, advocacy for funding and land acquisition, and many others that show how ATC has dealt with conservation along the trail since its inception, completed in the 1930s. It was also possible to observe the incorporation of themes related to wildlife conservation to the ATC discussions and the mobilizations against projects that threatened the integrity of the trail and the landscape. The collection is not scanned and, improvised, I scanned over 700 pages of documents using a mobile app. This material will be analyzed to support the discussion about the role of the trail in connectivity and several other aspects of my research.



Map of the travel route and study sites

Daily trip report:

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				<p>July 8 Gainesville (FL) – Asheville (NC)</p> <p>Meeting with ATC Directors (Leanna Joyner and Julie Judkins)</p>	<p>July 9 Asheville -Great Smoky Mountains National Park (GRSM)</p> <p>Recognition of study site</p>	<p>July 10 GRSM</p> <p>Interviews with hikers at Newfound Gap (popular AT section); overnight in an AT Shelter</p>
<p>July 11 GRSM</p> <p>Interviews with hikers at Fontana dam (isolated AT section)</p>	<p>July 12 GRSM</p> <p>Interviews with hikers at Fontana dam and Newfound Gap. Recognition hiking from Newfound Gap to Clingmans Dome (popular section)</p>	<p>July 13 GRSM – Cherokee NF</p> <p>Recognition of AT sections and corridors</p>	<p>July 14 Cherokee NF – Glade Spring (VA)</p> <p>Recognition of study site (local Community) and meeting with local stakeholder (Dirk Moore – Emory & Henry College)</p>	<p>July 15 Damascus (VA)</p> <p>Recognition of study site (AT Community) and meeting with local stakeholders (clerk, ATC, Mount Rogers AT Club)</p>	<p>July 16 Damascus – Jefferson NF</p> <p>Recognition of study site and interviews with hikers at McAfee Knob (popular AT section)</p>	<p>July 17 Jefferson NF</p> <p>Interviews with hikers at McAfee Knob trailhead and recognition hiking to McAfee Knob (overnight in an AT campsite)</p>
<p>July 18 Jefferson NF</p> <p>Interviews with hikers at McAfee Knob trailhead</p>	<p>July 19 Jefferson NF – Shennandoah NP</p> <p>Recognition of AT sections and corridors along Blue Ridge Parkway and Skyline Drive</p>	<p>July 20 Shennandoah NP - Harpers Ferry (WV)</p> <p>Recognition of study site (AT Community)</p>	<p>July 21 Harpers Ferry</p> <p>Meeting with local stakeholder (Karan Townsend – business owner)</p>	<p>July 22 Harpers Ferry</p> <p>Day off</p>	<p>July 23 Harpers Ferry - Green Mountains NF (VT)</p> <p>Study site recognition at Killington Peak (popular AT section)</p>	<p>July 24 Green Mountains NF</p> <p>Study site recognition and interviews with hikers at Clarendon Gorge (isolated AT section)</p>
<p>July 25 Green Mountains NF</p> <p>Interviews with hikers at Clarendon Gorge (isolated AT section)</p>	<p>July 26 Manchester (VT)</p> <p>Recognition of study site (AT Community) and meeting with local stakeholder (Anne Houser – Outfitter owner)</p>	<p>July 27 Wallingford (VT)</p> <p>Recognition of study site (local Community) and meeting with local stakeholder (Adrian Eisler)</p>	<p>July 28 Green Mountains NF</p> <p>Interviews with hikers at Clarendon Gorge</p>	<p>July 29 Green Mountains NF</p> <p>Interviews with hikers at Killington Peak (overnight in an AT shelter)</p>	<p>July 30 Green Mountains NF</p> <p>Interviews with hikers at Killington Peak</p>	<p>July 31 Green Mountains NF</p> <p>Interviews with hikers at Killington Peak and recognition hiking.</p>
August 1	August 2	August 3	August 4	August 5	August 6	August 7

Green Mountains NF - Mt Mansfield State Forest Recognition hiking at Long Trail and meeting at Green Mountain Club	Manchester (VT) – Fahnestock SP (NY) Recognition of AT sections and corridors in MA and CT	Fahnestock SP (NY) – Princeton (NJ) Recognition of AT sections and corridors in NY and NJ	Princeton (NJ) Day off	Princeton (NJ) - Washington (DC) Visit to the AT Museum (Pine Grove Furnace SP) and recognition of AT sections and corridors in PA	Washington (DC) Recognition visit to National Archives	Washington (DC) Day off
August 8 Washington (DC) Day off	August 9 Washington (DC) – Harpers Ferry (WV) Recognition of AT sections and corridors in MD and VA	August 10 Brunswick (VA) Recognition of study site (local Community) and meeting with local stakeholder (Abbie Rickett - Canal Town Partnership)	August 11 Harpers Ferry Meeting with ATC staff and local stakeholder (Chris Craig – HF town government) Presentation in ATC Emerging Leaders Summit	August 12 Harpers Ferry Research in ATC archives	August 13 Harpers Ferry Research in ATC archives	August 14 Harpers Ferry - Jefferson NF Research in ATC archives and travel
August 15 Jefferson NF Interviews with hikers at Sawtooth Ridge trailhead (isolated AT section)	August 16 Jefferson NF Interviews with hikers and recognition hiking in Sawtooth Ridge trail	August 17 Jefferson NF – New River Gorge NP Day off	August 18 Jefferson NF – GRSM Meeting with local stakeholder in Damascus (Tuesday Pope – Town clerk) and travel	August 19 GRSM Interviews with hikers at Fontana dam and recognition hiking to Shuckstack Tower (isolated AT section)	August 20 GRSM Interviews with hikers at Fontana dam and recognition hiking at Benton Mackaye trail	August 21 GRSM - Gainesville Interviews with hikers at Fontana dam (isolated AT section) and return

Photographic report:

Views of the trail sections where the survey with hikers was applied



View from Newfound Gap – Great Smoky Mountain National Park (TN)



View of Fontana dam from Shuckstack Tower – Great Smoky Mountain National Park (NC)



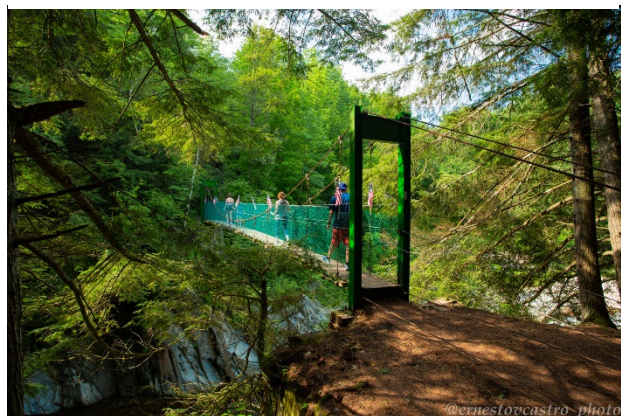
View from McAfee Knob – close to Jefferson National Forest (VA)



View from Sawtooth Ridge – close to Jefferson National Forest (VA)



View from Killington peak to Green Mountains National Forest (VT)



View of Clarendon Bridge – close to Jefferson National Forest (VA)

Views of the towns where the online survey for residents is being applied



Views of the “trailtown” of Damascus showing the strong presence of the AT in the city



View of Glade Spring: the town has the Salt Trail, but tourism is not a relevant activity



Views of the historic town of Harpers Ferry (above), where the ATC headquarter is located (left below)



ATC headquarter and Visitor Center, in Harpers Ferry

Outfitter in Manchester, AT Community in Vermont



Views of two tourism business in historical buildings at Wallingford (Vermont)

Views of AT corridors



Sign designating areas acquired to protect the AT Corridor



The AT crossing a natural wetland



Different views of the AT corridor at Cumberland Valley (PA), areas acquired in the 1980s (PA)



Views of the AT corridor along US-81 highway at Roanoke Valley. The corridor is a narrow strip of forest along the road.



Tha AT Museum, in Gardners (PA)



First day of interviews with hikers, at Great Smoky Mountain NP



Survey sign along the Blue Ridge Parkway (VA) and "the office" at Clarendon Gorge Trailhead (VT)

REGISTER NOW

Emerging Leaders' Summit

AUGUST 11-13, 2021
12:00 pm – 6:30 pm




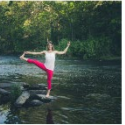




VIRTUAL EXPERIENCE

The Appalachian Trail Conservancy (ATC) is hosting a 2021 Emerging Leaders Summit! The Summit is a virtual experience with participation centered on young people aged 14-35 but open to all.

This summer's Summit will strengthen connections between young leaders and their networks, spark momentum for youth movements at the intersection of nature and climate justice, and provide a space for artistic creation and performance utilizing the outdoors and the Appalachian Trail as a muse.

REGISTER THEMES AGENDA SPEAKERS & FACILITATORS

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 Ernesto Viveiros de Castro SPEAKER	 Lucy Crespo SPEAKER	 MC Ellis SPEAKER	 Devin Everett SPEAKER
 Conchita M. Espino, Ph.D. SPEAKER	 John Evangelista SPEAKER	 Alexandra Garcia SPEAKER	 Deidra Goodwin SPEAKER

Banner of the ATC Emerging Leaders' Summit

Gas Receipts along the route

Aiming to prove the route traveled, of 5,202 miles (odometer before and after below), I gathered some of the fueling vouchers with dates and places (below)



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Enmarket # 880
1538 Bells Hwy
Walterboro, South C
29488
843 538 2352

Unl ad d
Pie p e o. 06
Gal Price 8.710
Total Fuel $25.25
Total Sll $25.25

Term Debit
P R N D 7001
Seq#: 028843
Tran #: 17487 8
Captu:
Debit
Type: 0921
USD 25.25

US DEBIT
Mode: Issuer
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TVR: 8000048000 4
IAD: XX XXXX XXX
TSI: 8800 XX X
ARC: 00
TC: A09E2810 925F2F3
07/08/2021 10:22:38

V r i e d b P l
e t y v w
I want to pay the
above total amount
according to card
issuer agreement.
THANKS FOR SHOPPING
AT ENMARKET

*****
Tell us how we
did by going to
ingage@enmarket.com
within 14
next 5 days and
receive a $1.00
1.00 COFFEE or
BIG WINCH FIV
OR X on your
next purchase o
2 or more
Bring this
receipt with
your valid id,
code, and
below to receive
your free
Valid thru code
    
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INGLES GAS EXP #24
867 Brevard Rd
Asheville, NC 28806
(828) 665-2188

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Date : 07/09/21
Time : 10:19:10am
Tran#: 20642
Seq#: 4154
Auth#: 674149
Type : DB
XXXXXXXXXXXX0921
Card : VISA

Product: Regular Unlea
Pump# : 4
Price : 2.899
Gallons : 10.848
Amount : 31.45
Total : 31.45

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THANK YOU
    
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HOT 1102
Re 201

1030 MAIN ST.
BRYSON CITY NC

DATE 7.12.21 12:13
TRAN# 9016640
PUMP# G1
SERVICE LEVEL: SELF
PRODUCT: UNLD
GALLONS: 10.611
PRICE/G: $2.999
FUEL SALE $31.82
DEBIT $31.82

FinalSale Receipt
DEBIT $31.82
Payment from Primary
Account
*****0921
Auth #: 001317
Odometer:
Resp Code: 030
Stan: 04181105299
Reference 35741
APPNAME US DEBIT
AID : A000000980840
APP (CRYPTOGRAM) :
ARQC 5675F8S1552B3E6
2
ENTRY : Insert
PIN USED

SITE ID: RLJ0110201

THANK YOU
HAVE A NICE DAY
    
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Welcome to Shell
423-638-2726
10002240009
SHELL

2490 ANDREW JOHNSON
HWY
GREENEVILLE TN
37745

DATE 7/13/21 20:22
TRAN# 9097889
PUMP# 09
SERVICE LEVEL: SELF
PRODUCT: UNLD
GALLONS: 9.921
PRICE/G: \$2.749
FUEL SALE \$27.27
DEBIT \$27.27

US DEBIT
USD\$27.27
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Chip Read
APPROVED
AUTH # 823563
INV # 322214
Verified by PIN
Mode: Issuer
AID: A0000000980840
TVR: 8000048000
IAD: 06061203A0A000
TSI: 6800
ARC: 00

TOTAL SAVED \$0.50

BeginRwds \$0.00/Gal
Gallon limits vary
Mbr Rwds \$0.05/Gal
Rwds Used \$0.05/Gal
Save on every fill,
see text messages &
complete sign-up.

Msg/rates may apply.
Thank You For Using
Fuel Rewards program

Please come again
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844-200-3100or GoTo
www.gpminvestments.c
with Suggestions or
Comments. Thank You

WELCOME
Circle K 2723715
CK 2723715
1995 E MAIN ST
WYTHEVILLE VA
24382

DATE 7/16/21 13:57
TRAN# 9025119
PUMP# 02
SERVICE LEVEL: SELF
PRODUCT: UNLD
GALLONS: 10.554
PRICE/G: \$2.899
FUEL SALE \$30.60
DEBIT \$30.60

USD\$30.60
Payment from
Primary Account
*****0921
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MODE: Issuer
AID: A0000000980840
Auth #: 236094
Resp Code: 000
Stan: 0067230557
Invoice #: 135046
Shift #: 1
Store # 4814992

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No Signature Needed

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EXXON EXPRESS PAY

STOP IN FOOD STORE #
XXXXXXXXXX4001
2030 ROSSER AVE
WAYNESBORO, VA
22988
07/19/2021 542209166
06:29:52 PM

XXXXXXXXXXXX0921
Debit
INVOICE 007658
AUTH 990877

PUMP# 2
Regular 14.7386
PRICE/GAL \$2.959
FUEL TOTAL \$ 43.61
DEBIT \$ 43.61

Customer-activated Purchase/Capture
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Shift Number 1
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US DEBIT
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TVR: 8000048000
IAD: 06061203602000
TSI: 6800
ARC: 00
TC: 6360049426A01F98
APPROVED 990877
Verified by PIN

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(540)-949-5818
4211074 for Exxon Survey

Wawa #8513
1001 West Patrick St
Frederick MD 21702-3

7/21/2021 3:50:10 PM
Term: XXXXXXXXX4004
Appr: 495206
Seq#: 015936
Product: Unleaded
Pump Gallons Price
12 8.638 \$2.899
Total Sale \$25.04
Capture

Debit
XXXXXXXXXXXX0921
Chip Read

USD\$ 25.04

US DEBIT

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TSI: 6800
ARC: 00
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07/21/2021 15:48:16

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I agree to pay the
above Total Amount
according to Card
Issuer Agreement.

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en Espanol

Survey Code: 1769906

Store Number: 08513

Please respond
within 5 days

NO PURCHASE
NECESSARY

See rules at website

WELCOME

DATE 7/23/21 19:14
TRAN# 9027002
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PRODUCT: Unld
GALLONS: 15.732
PRICE/G: \$3.039
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DEBIT \$47.81

USD\$47.81

*****0921
Entry: Chip Read
AppName: US DEBIT
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MODE: Issuer
AID: A0000000980840
Auth #: 140111
Resp Code: 000
Stan: 234710545610
Invoice #: 970804
Shift #: 1
Store # 9999426

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Welcome to
So. Main Mobil #550
802-775-8628
So. Main Mobil
118 South Main St
Rutland UT
05701

DATE 7/28/21 15:04
TRAN# 9024663
PUMP# 02
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GALLONS: 14.943
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Debit
Payment from
Primary Account
*****1523
Entry: Swiped
Auth #: 090614
Resp Code: 000
Stan: 11755639961
Invoice #: 836928
Store # 9751033

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Thank You
Please Come Again

Welcome to
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So. Main Mobil
118 South Main St
Rutland UT
05701

DATE 8/1/21 21:19
TRAN# 9024779
PUMP# 02
SERVICE LEVEL: SELF
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GALLONS: 11.024
PRICE/G: \$2.999
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Debit \$33.06

Debit
Payment from
Primary Account
*****1523
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Invoice #: 843186
Store # 9751033

Thank You
Please Come Again

Stop-In Food Store #126
177 Coleman Dr
Lewisburg WV 24901

COLEMAN DRIVE
177 COLEMAN DRIVE
LEWISBURG WV 24901
F054111338001

08/15/2021 5:03:44 PM
Register: 1 Trans #: 4387 Op ID: 12
Your cashier: Sabrina

*** PREPAID RECEIPT ***

Regular CA PUMP# 3 \$30.00 99

Subtotal = \$30.00

Total = \$30.00
Change Due = \$0.00

Debit \$30.00

XXXXXXXXXXXX1523 Debit
INVOICE: 025220
AUTH 401404

=====
POS Authorization Only
Site #: 000000004208658
Shift Number 1
Sequence Number 38622
Chip Read
US DEBIT
Mode: Issuer
AID: A0000000980840
TVR: 8000048000
IAD: 06010A03A08000
TSI: 6800
ARC: 00
APPROVED 4014:4
Verified by PIN
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Thank You!

3385 HWY 441 N
Whittier NC 28789

EXXON EXPRESS PAY

CATAMOUNT TRAVEL CEN
XXXXXXXXXX9001
3385 US HWY 441 N
WHITTIER , NC
28789
08/19/2021 464395907
08:32:00 PM

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Debit
INVOICE 035860
AUTH 778007

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Regular 8.634G
PRICE/GAL \$2.999

FUEL TOTAL \$ 25.89

DEBIT \$ 25.89

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APPROVED 778007
Verified by PIN
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SCIENTIFIC RESEARCH AND COLLECTING PERMIT



Grants permission in accordance with the attached
general and special conditions

United States Department of the Interior
National Park Service

Great Smoky Mountains

Study#: GRSM-02147

Permit#: GRSM-2021-SCI-2147

Start Date: Jul 10, 2021

Expiration Date: Aug 20, 2021

Coop Agreement#:

Optional Park Code:

Name of principal investigator:

Name: Mr Ernesto Bastos Viveiros de Castro

Phone: (352) 846-0850

Email: ernesto.castro@ufl.edu

Name of institution represented:

University of Florida

Additional investigators or key field assistants:

Name: Angélica Maria Almeyda Zambrano

Phone: (352) 273-4734

Email: aalmeyda@ufl.edu

Study Title:

A Pathway to Nature Conservation: the Role of Long-Distance Trails in Connecting Hikers, Communities, and Landscapes.

Purpose of study:

THE NATIONAL PARK SERVICE HAS NOT BEEN INVOLVED IN THE DESIGN OR SELECTION OF ANY OF THE QUESTIONS USED FOR THIS STUDY

Since its origins, nature conservation efforts have been strongly related to experiences in natural environments. Seminal environmentalists like Henry Thoreau and John Muir and pioneering movements, such as the Sierra Club, have their roots in nature-based activities. Trails are the most basic element to provide opportunities of contact with natural environments and since the proposition of the Appalachian Trail by the forester Benton Mackaye in 1921, many long-distance trails (LDT), which cross very large territories, connecting different landscapes and protected areas, have been implemented worldwide as a large-scale nature conservation strategy.

The motivation for implementing LDTs is based on a tripod that includes: promote connection to nature and engagement of hikers in conservation behavior; generate income for local communities; and protect biodiversity corridors and connectivity among natural areas. Although LDTs have been proposed as conservation tools on a regional scale since its conception and were officially recognized as a conservation tool in the USA in 1968 by the National Trail System Act, few studies have actually evaluated their direct or indirect contribution to nature conservation and much of the accumulated knowledge is empirical and non-systematized. The proposed research aims to integrate ecological, economic and social approaches to fill this gap and understand at what level LDTs are a valid strategy for promoting nature conservation in different socioeconomic contexts and guide the implementation of the Atlantic Forest Trail.

Some of the main questions that we intend to answer with the proposed study are: Does the LDT brand influences people's interest in visiting natural areas? Do hikers develop a sense of place for LDT? If so, at what scale? Does the level of involvement of communities and people with the LDT influence their environmental concern? Is the tourism income enough to influence the land-use decision-making by landholders and prevent deforestation? And finally, the trail use and management contribute to landscape conservation, influencing the amount of habitat conserved and the landscape structural connectivity?

To address these research questions, a case studies design will be used, and two long-distance trails were chosen to compare different countries, historical, and socioeconomic contexts. The Appalachian Trail (USA), with 3,500 km from Georgia to Maine, completed for the first time in 1937, will be used as a success case. As a case still in the early stages of implementation in a developing country, I will study the Atlantic Forest Trail (Brazil), a 4,000 km long that started being implemented in 2014 in the most populated and devastated region of Brazil.

Understanding and quantifying the role of LDTs as conservation tools is key to conciliate conservation of natural resources and tourism activities, guiding conservation planning of multi-purpose landscapes. This is especially important in the COVID-19 pandemic and post-pandemic context that has greatly changed the relationship of people with outdoor activities, which could have great impact in future conservation strategies.

Subject/Discipline:

Social Science

Locations authorized:

In order to preserve the wilderness experience of the visitor, you are limited to working at one of four trailheads:

- >Newfound Gap Parking Lot area (preferred for high visitation site)
- >Clingmans Dome Parking Lot area
- >Fontana Trailhead at edge of Park (preferred for low visitation site)
- >Davenport Gap Trailhead at edge of Park

Transportation method to research site(s):

The sites where apply the survey will be accessed by car, using the park roads.

Collection of the following specimens or materials, quantities, and any limitations on collecting:**Name of repository for specimens or sample materials if applicable:**

NPS General Conditions for Scientific Research and Collecting Permit (available at the RPRS HELP page) apply to this permit. The following specific conditions or restrictions, and any attached conditions, also apply to this permit:

READ AND ABIDE BY NPS GENERAL CONDITIONS #1-18, A-I (enclosed).

For any actions involving the Eastern Band of Cherokee Indians, you must be in compliance with EBCI research policy. This permit does not convey any waiver of EBCI policy, rules, or law.

ALL RESEARCH MUST BE CONDUCTED WITH MINIMAL IMPACT TO THE PARK'S RESOURCES. In no case should the continued survival of a population of any native species be jeopardized by your activities.

Check for current park conditions on-line before traveling to the park to insure the roads and trails you wish to use are accessible; <https://twitter.com/smokiesroadsnps> and <https://www.nps.gov/grsm/planyourvisit/conditions.htm>

THE PRINCIPAL INVESTIGATOR AND ALL CO-INVESTIGATORS MUST CARRY A COPY OF THE SIGNED RESEARCH PERMIT WITH THEM AT ALL TIMES WHILE WORKING IN THE PARK AND PRESENT IT TO ANY PARK EMPLOYEE WHO ASKS TO SEE IT.

THIS PERMIT DOES NOT AUTHORIZE YOU TO PARK OUTSIDE OF DESIGNATED PARKING AREAS...PLEASE PLAN YOUR FIELD SCHEDULE TO ARRIVE AT POPULAR DESTINATIONS EARLY IN THE MORNING TO INSURE ACCESS TO A DESIGNATED PARKING PLACE. Please be respectful of park visitors, employees, and neighbors; a permit to conduct research within the park does not convey or imply permission to conduct research on private land surrounding the park.

PROVIDE THE RESEARCH COORDINATOR WITH THE DATES OF YOUR WORK IN THE PARK AS SOON AS YOU KNOW THEM (it is acceptable to provide a range of dates if you are working both inside and outside the park over a period of time).

This permit is made upon the express condition that the United States, its agents and employees shall be free from all liabilities and claims for damages and/or suits for or by reason of any injury, injuries, or death to any person or persons or property of any kind whatsoever, whether to the person or property of the Permittee, its agents or employees, or third parties, from any cause or causes whatsoever while in or upon said premises or any part thereof during the term of this permit or occasioned by any occupancy or use of said premises or any activity carried on by the Permittee in connection herewith, and the Permittee hereby covenants and agrees to indemnify, defend, save and hold harmless the United States, its agents, and employees from all liabilities, charges, expenses and costs on account of or by reason of any such injuries, deaths, liabilities, claims, suits or losses however occurring or damages growing out of the same. Permittee promises to cooperate with the NPS in the investigation and defense of any claims that may be filed with the NPS arising out of the activities of the cooperator, its agents, and employees.

YOU ARE REQUIRED TO SUBMIT AN ONLINE REPORT OF YOUR RESEARCH ACTIVITIES EACH YEAR, and you must mail two copies of your final research report to our office upon completion of your project. Even if you did no work in the park during a calendar year, you must go online and say so. The report can be submitted at the end of your year's work at any time with your research account password that you used to submit your permit. A reminder to submit your Investigator's Annual Report will be distributed electronically to permit holders at the end of the calendar year by Washington. We also request copies (paper and/or electronic) for our library of any publications, dissertations, etc. that use data collected in Great Smoky Mountains National Park.

Breach of any of the terms of this permit or for violation of park regulations will be grounds for revocation of this permit and denial of future permits.

Summary of permitted field methods and activities:

This study includes social, economic, and ecological approaches. For the first two surveys will be applied with hikers and local residents. When approached, each respondent will be presented to a statement of informed consent and explanation on the purpose of the study. In addition to specific questions, demographic information will be collected for further analyses in the future (see the questionnaires attached).

The first survey has the goal to assess the sense of place developed by hikers and its scale according to the hike extension and the hiker's profile; the trail influence on their environmental awareness and engagement, and the economic impact of hiking in local economies. In a confirmatory approach, the survey aims to answer research questions and test hypothesis formulated for LDTs based on the literature and empirical observation. This survey will be carried out with about 480 trail users (240 in each trail) using a systematic random sampling. The interviews will take place in three trail sections classified as 'popular' (which have a high frequency of users and give access to outstanding attractions) and three classified as 'isolated' or 'less popular' (which have low frequency, without outstanding attractions). The three pairs of trail sections will be distributed in the South, Central, and North parts, trying to cover the diversity of environments and contexts. Along the AT the preliminary proposal include AT trailheads close to Newfound Gap and Fontana Dam (in the Great Somke Mountains NP); McAfee Knob and Dragon's Tooth Trail (close to Jefferson NF), and Killington Peak and Gifford Woods (in the Green Mountains NF). The questionnaires will be developed in Qualtrics software and applied by the PI and trained volunteers using tablets to directly feed the spreadsheets with the results. One person of each three on the trail will be addressed, whenever possible in moments of rest. If a group has more than 3 people only one will be interviewed. It is expected that each application last approximately 15 minutes.

Another survey will be applied with people from local communities to assess the level of environmental concern and whether it varies among people and communities with different levels of involvement with the trail, and whether tourism around the trail influences landowners' decision to maintain their areas preserved or not. This survey will be applied using a cluster sampling design with local residents in 6 towns along each trail, being three considered tourist places, and three not so related to tourism activities. Along the Appalachian Trail the comparison will include three towns of the AT Community Program and three towns that are close to that AT Communities. The survey includes questions about sources of income and the revised New Environmental Paradigm Scale (Dunlap et al., 2000), besides demographic information (see the attached questionnaire). In each community, at least of 30 people involved and 30 non-involved in tourism activities will be interviewed, summing 360 questionnaires in each trail and 720 in total.

The ecological approach will be based on GIS historical analysis based on aerial and satellite images. Thirty pairs of points in each trail with similar environmental conditions (one along the trail and one at least 10 km away) will have the land use classified at the moment of the trail implementation and presently using paired T-tests to compare landscape ecology trying to assess the trail's influence on the amount of conserved habitat and structural connectivity.

Recommended by park staff(name and title):

Reviewed by Collections Manager:

Yes ___ No ___ *NA*

Approved by park official:

Date Approved:

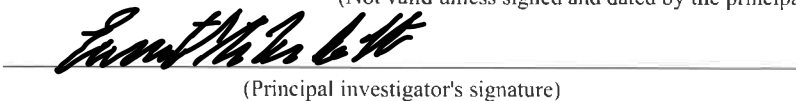


20 May, 2021

Title:

Biologist / Research Coordinator

I Agree To All Conditions And Restrictions Of this Permit As Specified
(Not valid unless signed and dated by the principal investigator)


(Principal investigator's signature)

May 20, 2021
(Date)

THIS PERMIT AND ATTACHED CONDITIONS AND RESTRICTIONS MUST BE CARRIED AT ALL TIMES WHILE CONDUCTING RESEARCH ACTIVITIES IN THE DESIGNATED PARK(S)

UF Institutional Review Board
UNIVERSITY of FLORIDA

Behavioral/NonMedical Institutional Review Board
FWA00005790

PO Box 112250
Gainesville FL 32611-2250
Telephone: (352) 392-0433
Facsimile: (352) 392-9234
Email: irb@ufl.edu

DATE: 4/29/2021
TO: Ernesto Castro
308 Reed Lab, PO Box 110565
Gainesville, Florida 32611
FROM: Ira Fischler, Ph.D., Professor Emeritus
Chair IRB-02

IRB#: **IRB202100413**

TITLE: A Pathway to Nature Conservation: the Role of Long-Distance Trails in Connecting Hikers, Communities, and Landscapes.

Approved as Exempt

You have received IRB approval to conduct the above-listed research project. Approval of this project was granted on 4/29/2021 by IRB-02. This study is approved as exempt because it poses minimal risk and is approved under the following exempt category/categories:

(2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met: (i) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects; (ii) Any disclosure of the human subjects' responses outside the research would not reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, educational advancement, or reputation; or (iii) The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

Special Note(s) to Investigator:

Exempt approved studies will not have an approval stamp on the consents, fliers, emails, etc.

However, the documents reviewed are the ones to be used. If you need to modify the document(s) in any manner then you'd need to submit to our office for review and approval prior to implementation.

Effective immediately, UF Research will adopt the UF Campus COVID-19 Guidelines found at <https://coronavirus.ufl.edu/resources/health-guidance/> as the requirements for UF research activities, with the exception of certain human subject research.

Principal Investigator Responsibilities:

The PI is responsible for the conduct of the study.

- Using currently approved consent form to enroll subjects (if applicable)
- Obtaining approval for revisions before implementation
- Reporting Adverse Events
- Retention of Research Records
- Obtaining approval to conduct research at the VA
- Notifying other parties about this project's approval status

Should the nature of the study change or you need to revise the protocol in any manner please contact this office prior to implementation at 352-392-0433 or via email at irb@ufl.edu.

Study Team:

Angelica Almeyda Zambrano Co-Investigator

The Foundation for The Gator Nation

An Equal Opportunity Institution

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