

Instrument Control Number

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Commonwealth of Virginia
Land Record Instruments
Cover Sheet - Form A

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TAX REPORT
C Date of Instrument [ 06/09/2011 ]
O Instrument Type [ DE ]
P Number of Parcels [ 2 ]
Number of Pages [ 22 ]
City [ ] County [ X ] [ Montgomery County ]

(Box for Deed Stamp Only)

First and Second Grantors
Last Name First Name Middle Name Suffix
[ X ] [ X ] RADFORD UNIVERSITY FOUNDATION, INC.

First and Second Grantees
Last Name First Name Middle Name Suffix
[ X ] [ ] VIRGINIA OUTDOORS

Grantee Address (Name) [ Virginia Outdoors Foundation
(Address 1) [ 900 S Main St
(Address 2)
(City, State, Zip) [ Blacksburg ] [ VA ] [ 24060
Consideration [ 0.00 ] Existing Debt [ 0.00 ] Assumption Balance [ 0.00 ]

Prior Instr. Recorded at: City [ ] County [ X ] [ Montgomery County ] Percent. in this Juris.(%) [ 100 ]
Book [ ] Page [ ] Instr. No [ ]
Parcel Identification No (PIN) [ 002271
Tax Map Num. (if different than PIN) [ TM 103-A-25
Short Property Description [ 191 ACRES NEAR THE CITY OF RADFORD, MONTGOMERY CO
Current Property Addr(Address 1) [ 376 ACRES NEAR CITY OF RADFORD
(Address 2)
(City, State, Zip) [ MONTGOMERY COUNTY ] [ VA ] [ 24073

Instrument Prepared by [ Michele A. W. McKinnon
Recording Paid for by [ Virginia Outdoors Foundation
Return Recording to (Name) [ Virginia Outdoors Foundation
(Address 1) [ 900 S Main St
(Address 2)
(City, State, Zip) [ Blacksburg ] [ VA ] [ 24060
Customer Case ID [ esmt deed ] [ CS-398936 ]





Prepared by: Michele A. W. McKinnon  
McGuireWoods LLP  
One James Center  
901 East Cary Street  
Richmond, VA 23219-4030

PIN: 002271 (TM 103-A-25)

PIN: 002268 (TM 115-A-9)

Exempted from recordation tax  
under the Code of Virginia (1950), as amended,  
Sections 58.1-811 (A) (3), 58.1-811 (D) and 10.1-1803  
and from Circuit Court Clerk's fee under Section 17.1-266

THIS DEED OF GIFT OF OPEN SPACE EASEMENT (this "Easement"), is made as of this 9<sup>th</sup> day of June, 2011, between RADFORD UNIVERSITY FOUNDATION, INC., a Virginia corporation, ("Grantor") and the VIRGINIA OUTDOORS FOUNDATION, an agency of the COMMONWEALTH OF VIRGINIA ("Grantee") (the designations "Grantor" and "Grantee" refer to Grantor and Grantee and their respective successors and assigns).

#### **RECITALS:**

**R-1** Grantor is the owner in fee simple of real property situated in Montgomery County, Virginia, containing in the aggregate 376 acres, more or less, as further described below (the "Property"), which qualifies as "open space land", and Grantor desires to give and convey to Grantee a perpetual conservation and open-space easement over the Property on the terms and conditions as herein set forth; and

**R-2** Grantee is a governmental agency of the Commonwealth of Virginia and a "qualified organization" and "eligible donee" under Section 170(h)(3) of the Internal Revenue Code (references to the Internal Revenue Code in this Easement shall be to the United States Internal Revenue Code of 1986, as amended, and the applicable regulations and rulings issued thereunder, or the corresponding provision of any subsequent federal tax laws and regulations) (the "IRC") and Treasury Regulation Section 1.170A-14(c)(1), is authorized to accept and hold real property or any estate or interest therein for the purpose of preserving the natural, scenic, historic, scientific, open space and recreational lands of the Commonwealth, is willing to accept a perpetual conservation and open-space easement over the Property on the terms and conditions as herein set forth, and has sufficient funds with which to enforce compliance with the restrictions and obligations under the properties, easements in gross, and interests in properties which it receives; and

**R-3** Chapter 461 of the Acts of 1966, codified in Chapter 17, Title 10.1, Sections 10.1-1700 through 10.1-1705 of the Code of Virginia, as amended (the "Open-Space Land Act"), declares that the preservation of open-space land serves a public purpose by curbing urban sprawl, preventing the spread of urban blight and deterioration and encouraging more economic and

desirable urban development, helping provide or preserve necessary park, recreational, historic and scenic areas, and conserving land and other natural resources, and authorizes the acquisition of interests in real property, including easements in gross, as a means of preserving open-space land; and

**R-4** Pursuant to Sections 10.1-1700 and 10.1-1703 of the Open-Space Land Act, the purposes of this Easement include retaining and protecting open-space and natural resource values of the Property, and the limitation on division, residential construction and commercial and industrial uses contained in Section II ensures that the Property will remain perpetually available for agriculture, livestock production, forest or open-space use, all as more particularly set forth below; and

**R-5** Chapter 525 of the Acts of 1966, Chapter 18, Title 10.1, Sections 10.1-1800 through 10.1-1804 of the Code of Virginia, as amended, declares it to be the public policy of the Commonwealth to encourage preservation of open-space land and authorizes the Virginia Outdoors Foundation to hold real property or any estate or interest therein for the purpose of preserving the natural, scenic, historic, scientific, open-space and recreational lands of the Commonwealth; and

**R-6** As required under Section 10.1-1701 of the Open-Space Land Act, the use of the Property for open-space land conforms to the County of Montgomery “Comprehensive Plan, 2025”, adopted on October 10, 2004, and is designated as Resource Stewardship on the county’s Future Policy Map; and

**R-7** This Easement is intended to constitute (i) a “qualified conservation contribution” as defined in IRC Section 170(h)(1) as more particularly explained below, and (ii) a qualifying “interest in land” under the Virginia Land Conservation Incentives Act of 1999 (Section 58.1-510 *et seq.* of the Code of Virginia (1950), as amended); and

**R-8** This Easement is intended to be a grant “exclusively for conservation purposes” under IRC Section 170(h)(1)(C) because it effects “the preservation of open space (including farmland and forest land)” under IRC Section 170(h)(4)(A)(iii); specifically, the preservation of open space on the Property is pursuant to clearly delineated state governmental conservation policies and will yield a significant public benefit; and

**R-9** This open-space easement in gross constitutes a restriction granted in perpetuity on the use which may be made of the Property, and is in furtherance of and pursuant to the clearly delineated governmental conservation policies set forth below:

(i) Land conservation policies of the Commonwealth of Virginia as set forth in:

a. Section 1 of Article XI of the Constitution of Virginia, which states that it is the Commonwealth’s policy to protect its atmosphere, lands and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth;

- b. The Open-Space Land Act cited above;
- c. Chapter 18, of Title 10.1, Sections 10.1-1800 through 10.1-1804 of the Code of Virginia cited above;
- d. The Virginia Land Conservation Incentives Act, Chapter 3 of Title 58.1, Sections 58.1-510 through 58.1-513 of the Code of Virginia cited above, which supplements existing land conservation programs to further encourage the preservation and sustainability of the Commonwealth's unique natural resources, wildlife habitats, open spaces and forest resources;
- e. Grantee's formal practices in reviewing and accepting this Easement. Grantee has engaged in a rigorous review, considered and evaluated the benefits provided by this Easement to the general public as set forth in these recitals, documented the condition of the Property in the Documentation Report described in Section IV below, and concluded that the protection afforded the open-space character of the Property by this Easement will yield a significant public benefit and further the open-space conservation objectives of Grantee and the Commonwealth of Virginia. Grantor believes that such review and acceptance of this Easement by Grantee tends to establish a clearly delineated governmental conservation policy as required under IRC Section 170(h)(4)(A)(iii);

(ii) Land use policies of the County of Montgomery as delineated in:

- a. its recognition of the rural character of the Property and support for its continued use as agricultural, forest or open space land by providing "Land Use" or use value taxation for the Property under the authority provided by Chapter 2, Article 2, Division 6 of the Code of the County of Montgomery, Virginia; and
- b. its comprehensive plan adopted on October 10, 2004 to which plan the restrictions set forth in this deed conform and which includes the following policies, goals and objectives:

#### Land Use Policies

##### Environmental Resources: Goals

ENV 1.0 Natural Resource Stewardship: The County is committed to preserving, conserving, and managing its natural resources, as a sustainable asset, for the benefit of its citizens and future generations.

ENV 1.7 Species Protection: Protect threatened and endangered plant and animal species in the County. Wildlife habitat management is a critical component due to the increasing development in the county.

ENV 2.0 Open Space and Natural Resources: To work with county residents to conserve the natural resources and agricultural character of the land in the county.

ENV 2.6 Open Space Corridors: Create a countywide greenway plan which would include a riverside protection plan for the New, Roanoke, and Little Rivers and their tributaries.

ENV 6.0 Karst Goal: Montgomery County is committed to managing karst terrain in such a manner so as to: 1) protect groundwater and surface water resources from contamination; 2) reduce potential for property damage resulting from subsidence or other earth movement, and sinkhole flooding; 3) protect the health, safety and welfare of the public; and 4) protect the habitat of rare, threatened and endangered animal species and ecosystems that depend on the environmental quality of Montgomery County's karst terrain.

ENV 6.4 Conservation: Encourage and facilitate the application of permanent open space land conservation tools to protect areas of the County identified as sensitive karst. Potential open space tools include, but are not limited to, agricultural-forestral districts, conservation easements, large lot zoning, sliding scale zoning, rural cluster zoning, public land acquisition, and the purchase of development rights. Each of these tools is detailed in the open space section of this plan.

**R-10** The Property is the site of Selu Conservancy, a 376-acre "outdoor classroom" utilized by students of all levels and community groups with an emphasis on preserving and researching plant and animal species; and

**R-11** The Property lies on the banks of the Little River for over one mile, contributing to the scenic enjoyment of the public from the river; and

**R-12** The Virginia Department of Conservation and Recreation's Division of Natural Heritage has documented two natural heritage plant species on the Property, *Paxistima canbyi* and *Viola walteri*, and the restrictions in this Easement will contribute to the continuing success of those species; and

**R-13** The Property lies almost entirely within a Source Water Protection Area as defined by the Virginia Department of Health, and the preservation of the Property in its relatively undeveloped state may contribute to the quality of the public drinking water supply in that area; and

**R-14** The Property has sinkholes within its boundary and protection of the Property contributes to the protection of groundwater and the karst ecosystem; and

**R-15** The Property is located in an area that is facing increasing residential development pressure due to its proximity to Interstate 81 and the City of Radford; and

**R-16** This Easement will protect the Property from inappropriate development, which existing and foreseeable trends in the vicinity of the Property indicate is increasing and which could contribute to the degradation of the scenic and natural character of the area; and

**R-17** This Easement will yield significant public benefit to the citizens of the Commonwealth as set forth in these recitals and in Section I below; and

**R-18** Grantor and Grantee desire to protect in perpetuity the conservation values of the Property as specified in Section I by restricting the use of the Property as set forth in Section II; and

**R-19** Grantee has determined that the restrictions set forth in Section II (the Restrictions) will preserve and protect in perpetuity the conservation values of the Property and will limit use of the Property to those uses consistent with, and not adversely affecting, the conservation values of the Property, the scenic values enjoyed by the general public, and the governmental conservation policies furthered by the Easement; and

**R-20** Grantee, by acceptance of this Easement, designates the Property as property to be retained and used in perpetuity for the preservation and provision of open-space land pursuant to the Open-Space Land Act.

**NOW, THEREFORE**, in consideration of the foregoing recitals incorporated herein and made a part hereof and in consideration of the mutual covenants herein and their acceptance by Grantee, Grantor does hereby give, grant and convey to Grantee a conservation and open-space easement in gross over, and the right in perpetuity to restrict the use of, the Property, which is described below and consists of 376 acres, more or less, located in Montgomery County, Virginia, near the City of Radford, accessible from State Route 787 (Dry Valley Road), to-wit:

**PARCEL 1:**

**PIN: 002268 (TM 115-A-9)**

**All that 191 acres, more or less, which land adjoins the Zoll land, the Grange place and the Little River;**

**BEING more fully described by metes and bounds, and known as the John E. Peterson homeplace, in deed dated March 26, 1921, from John E. Peterson et ux to W.L. Peters and J.S. Peters, recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Deed Book 74 page 444.**

**BEING the same property conveyed to Radford University Foundation, Inc., a Virginia corporation, by deed dated October 22, 1990 from Holly Bowles Blanton, Martha T. Bowles, Hargrove Bowles III, & Erskine B. Bowles, recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Deed Book 695 page 165.**

**PARCEL 2:**

**PIN 002271 (TM 103-A-25)**

All that 194.8866 acres as shown on a plat entitled "Plat of Property of John Hargrove Bowles Located in Riner Magisterial District of Montgomery County, Virginia" dated August 11, 1989, prepared by Robert C. James, CLS No. 1564, a copy of which plat is recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Plat Book 15 page 222.

BEING the same property conveyed to Radford University Foundation, Inc., a Virginia corporation, by deed dated October 5, 1989 from John Hargrove Bowles, recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Deed Book 660 page 58, by deed dated May 17, 1990 from John Hargrove Bowles, recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Deed Book 678 page 215, by deed dated June 27, 1991 from John Hargrove Bowles, recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Deed Book 711 page 51, and by deed dated January 6, 1994 from John Hargrove Bowles, recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Deed Book 826 page 135.

LESS AND EXCEPT that 10.000 acres tract conveyed to John Hargrove Bowles, as shown on a plat entitled "Plat Showing Relocation of Lot Line for John Hargrove Bowles and Radford University Foundation, Inc., Located in Riner Magisterial District Montgomery County, Virginia", dated November 10, 1993, and designated Plan No. P-6817, prepared by Marvi D. Stine, LS, and recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Plat Book 16 page 102.

TOGETHER WITH a thirty (30) foot right of way, as shown on a Map of Survey for Selu Conservancy Radford University Foundation, Inc., dated January 31, 1996, prepared by Jack G. Bess, a copy of which is recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia in Plat Book 16 page 528, pursuant to Easement Agreement dated March 13, 1996 by and between Robert A. Sale and Judith C. Sale and Radford University Foundation, Inc., recorded in the Clerk's Office of the Circuit Court of Montgomery County, Virginia as Instrument No. 96-2088.

The Property is shown as PIN 002271 (Tax Map Number 103-A-25) (185 ac.) and PIN 002268 (Tax Map Number 115-A-9) (191 ac.) among the land records of the County of Montgomery, Virginia. Even if the Property consists of more than one parcel for real estate tax or any other purpose, it shall be considered one parcel for purposes of this Easement, and the restrictions and covenants of this Easement shall apply to the Property as a whole.

## SECTION I -PURPOSE

The purpose of this Easement is to preserve and protect the conservation values of the Property in perpetuity by imposing the restrictions on the use of the Property set forth in Section II and providing for their enforcement in Section III. The conservation values of the Property are described in the above recitals, are documented in the Documentation Report described in Section IV below and include its open-space, scenic and natural values and its value as land preserved for wildlife habitat and biological diversity. Pursuant to the Virginia Land Conservation Foundation's (VLCF's) Conservation Value Review Criteria the further purpose of this Easement is preservation of land for natural habitat and biological diversity.

Any act or use of the Property that is inconsistent with the purpose of this Easement or the conservation values herein protected is prohibited.

## SECTION II – RESTRICTIONS

Restrictions are hereby imposed on the use of the Property pursuant to the public policies set forth above. The acts that Grantor covenants to do and not to do upon the Property, and the restrictions that Grantee is hereby entitled to enforce, are and shall be as follows:

1. **DIVISION.** Separate conveyance of a portion of the Property or division, or subdivision of the Property is prohibited. Boundary line adjustments with adjoining parcels of land are permitted and shall not be considered separate conveyances of portions of the Property or divisions or subdivisions of the Property, provided that Grantee approves such adjustments, is made party to any deed creating a boundary line adjustment, and at least one of the following conditions is met: (i) The entire adjacent parcel is subject to a recorded open-space easement owned by Grantee; or (ii) The proposed boundary line adjustment shall have been reviewed and approved in advance by the Board of Trustees of Grantee.
  
2. **BUILDINGS, STRUCTURES, ROADS, AND UTILITIES.**
  - (i) No buildings, structures, roads or utilities, other than the following, are permitted on the Property:
    - (a) **Retreat Center.** The existing Retreat Center, which includes overnight accommodations for guests and one residential apartment; and
  
    - (b) **Accommodations.** Additional accommodations for overnight guests which may take the form of one small lodge, several small dwellings or dwelling units such as barn or garage apartments or any combination of these housing types. The aggregate square footage of such accommodations shall not exceed 2,000 square feet of above-ground enclosed living area without Grantee's prior review and written approval, which approval shall take into consideration the impact of the size, height and siting of the proposed accommodations on the scenic and other conservation values of the Property. The

accommodations (second floor apartment) currently existing within the Retreat Center on the Property shall not be counted in this aggregate square footage; and

(c) **Conference Center.** The existing Conference Center, including the observatory; and

(d) **Farmhouse.** The existing farmhouse; and

(e) **Non-residential outbuildings and structures.** Non-residential outbuildings and structures commonly and appropriately incidental to the buildings permitted in subsections (a) through (d) of this paragraph (including but not limited to the existing restroom building, boardwalk, picnic tables, kiosks, trails, and the existing structures for the ropes course), and sized appropriately to serve as amenities to current uses, residential use, or for use in a public park intended for nature study or passive recreation, provided that the aggregate footprint of non-residential outbuildings for the buildings permitted in (a) through (d) shall not exceed 3,000 square feet in ground area unless prior written approval shall have been obtained from Grantee that a larger footprint is permitted, considering the purpose of this Easement and the scale of the proposed outbuilding in relation to the surrounding area.

(f) **Farm buildings or structures.** Farm buildings or structures, except that a farm building or farm structure exceeding 4,500 square feet in ground area may not be constructed on the Property unless prior written approval for the building or structure shall have been obtained from Grantee, which approval shall be limited to consideration of the impact of the size, height and siting of the proposed structure on the conservation values of the Property. For purposes of this subparagraph, a farm building or structure shall mean a building or structure originally constructed and used for the activities specified in Section 2 Paragraph 3 subsections (i) and (ii); and

(g) **Observation Platform.** The existing observation platform on the cliff above the Little River; and

(h) **Riverfront structures.** The existing boathouse, docks, boat ramp and associated structures; and

(i) **Carroll House.** The existing uninhabitable cabin known as the "Carroll House" (this cabin, if restored, shall be counted under subsection (b) or (e) above); and

(j) **Structures Associated with the Peterson Family Cemetery.**

(k) **Roads.** Private roads to serve permitted buildings or structures, and roads with permeable surfaces for other permitted uses, such as farming or forestry; and

(l) **Utilities.** Public or private utilities to serve permitted buildings or structures. Public or private utilities to be constructed in whole or in part to serve other properties shall not cross the Property unless Grantee determines that the construction and

maintenance of such utilities will not impair the conservation values of the Property and gives its prior written approval for such construction and maintenance, which approval shall take into consideration the visibility and other impact of such utilities on the conservation values of the Property. Grantor reserves its separate rights to approve such public or private utilities;

(ii) Grantor shall have the right to construct new buildings, structures, roads, and utilities permitted in this Section II Paragraph 2 and to repair, maintain, renovate, enlarge and replace all new and existing permitted buildings, structures, roads, and utilities on the Property, within the limitations set forth in this Easement.

(iii) To protect the scenic values of the Property, no new building larger than 600 square feet in ground area shall be constructed within view of the Little River without Grantee's prior written approval.

(iv) The collective footprint of all buildings on the Property, excluding roads, shall not exceed 30,000 square feet of ground area without prior written approval of Grantee, provided that if Grantor can demonstrate that an increase in the collective footprint would result in increased protection of the conservation values of the Property, Grantee may approve such increase. For the purpose of this paragraph the collective footprint is the ground area measured in square feet of the buildings set forth in subsections (a) through (i) above and all other impervious surfaces, excluding roads, trails, and parking areas.

**3. COMMERCIAL ACTIVITIES.** Commercial activities are prohibited with the exception of the following:

- (i) agriculture (including livestock production), equine activities and forestry;
- (ii) small-scale incidental commercial operations related to activities set forth in (i) above that Grantee approves in writing as being consistent with the conservation purpose of this Easement;
- (iii) processing and sale of products produced on the Property as long as no additional buildings are required;
- (iv) temporary or seasonal outdoor activities that do not permanently alter the physical appearance of the Property and that do not diminish the conservation values of the Property herein protected; and
- (v) activities that can be and in fact are conducted within permitted buildings without material alteration to their external appearance.
- (vi) educational and scientific activities, such as lectures, meetings, guided walks, stream monitoring, wildlife observation, taking of plant and animal inventories, nature studies and the like.

Temporary outdoor activities involving 100 or more people shall not exceed 7 consecutive days in any 90-day period without prior written approval of Grantee.

Nothing in this paragraph shall prevent Grantor from developing ecosystem functions on the Property including, but not limited to, stream bank restoration, biodiversity

mitigation, carbon sequestration and wetland mitigation (other than creation of wetlands from historically upland property, such as hillsides or sites with no more than one of the following: current or historical evidence of hydric soils, hydrophytic vegetation, or wetland hydrology), provided that such developments are not in conflict or inconsistent with the conservation purpose of or the restrictions set forth in this Easement and that prior written approval for same shall have been obtained from Grantee. Grantee is not responsible for monitoring any such activities for compliance with permit(s), easement(s) or restrictions therefor, and Grantee has no obligation to enforce said permit(s), easement(s), or restrictions.

4. **MANAGEMENT OF FOREST.** No timbering shall be permitted on the Property other than for the following purposes: (i) cutting of trees for the construction of permitted roads, utilities, buildings and structures (including those cut for site clearing and those to be used as materials in on-site construction), (ii) cutting of trees for creation or maintenance of trails, (iii) cutting of trees for wildlife habitat management or for the protection or enhancement of the Natural Heritage Resources described in Paragraph 6 below, (iv) removal of trees posing an imminent hazard to the health or safety of persons, (v) removal of invasive species or trees which are diseased or have died naturally, (vi) cutting or removal of trees for the control of active fires or prevention of fire, (vii) cutting of trees to improve the forest's condition for sequestering carbon as limited by and permitted in Section II, Paragraph 3 above, or (viii) with prior approval of Grantee, the removal of trees necessary to maintain or create sightlines for viewing the Little River, to provide access points to the Little River, or to otherwise enhance the recreational use and enjoyment of the Property. It is the intent of Grantor that the forest be maintained in its natural state and further timber cutting restrictions shall apply to the Natural Resources Protection Area as described in Paragraph 6 below.
5. **RIPARIAN BUFFER.** To protect water quality, riparian buffer strips shall be maintained as follows: a 300-foot buffer strip along the edge of the Little River as measured from the top of the bank and 200-foot buffer strips along all perennial and intermittent tributaries to the Little River all as measured from the tops of the banks, in which buffer strips no plowing, cultivation, filling, or other earth-disturbing activity is permitted, except as set forth below. There shall be no grazing of livestock within the buffer strips, and livestock shall not be permitted access to the river.

Within the buffer strips there shall be (a) except for existing buildings and structures documented in the Baseline Documentation Report, no buildings or other substantial structures constructed, (b) no storage of compost, manure, fertilizers, chemicals, machinery or equipment, (c) no removal of trees except: invasive species, dead, diseased or dying trees or trees posing a human health or safety hazard, for control of active fires or prevention of fire, or with Grantee approval to maintain or create sightlines as described in Section II Paragraph 4 above, and (d) no plowing, cultivation, filling, or other earth-disturbing activity, except as may be reasonably necessary for (1) wetland or stream bank restoration, or erosion control, pursuant to a government permit, (2) fencing along or within the buffer strips, (3) construction and maintenance of stream crossings

that minimize obstruction of water flow, (4) creation and maintenance of foot or horse trails with unimproved surfaces, and (5) dam construction to create ponds.

Should the Little River or any of its tributaries meander or change course naturally, the riparian buffer strips shall remain the same width, but move relative to the movement of the watercourses. In such event any buildings or structures that were outside of the original buffer strips and are determined to be within the new buffer strips shall not be considered in violation of these restrictions and may be maintained, repaired, and replaced at such locations.

6. **NATURAL HERITAGE RESOURCES.** In addition to the timbering restrictions specified in Paragraph 4 above, to protect the natural heritage resources on the Property, except for the existing buildings and structures documented in the Baseline Documentation Report, no new roads, trails, buildings, structures or utility lines shall be constructed within the area designated as “Natural Heritage Resources Protection Area” on Exhibit A attached hereto without the prior written approval of Grantee, with the exception of one six-foot wide unpaved recreational trail, the location of which is also subject to the prior written approval of Grantee. Grantee’s approval shall be based on consultation with the staff of the Virginia Department of Conservation and Recreation’s Division of Natural Heritage or their successor organization in regard to minimizing the impact from construction on the rare species habitat on the Property. Grantor shall be permitted to control or remove invasive species in any location on the Property.
7. **KARST FEATURES.** To protect water quality and the unique karst features on the Property:
  - a) the harvest of trees within sinkholes shall be limited to invasive species or removal of trees posing a safety hazard,
  - b) livestock shall not be permitted access to sinkholes or caves,
  - c) disposal of any material, man-made or natural, in sinkholes or caves is prohibited, and
  - d) no new building or structure shall be located within 50 feet of any sinkhole or other significant karst feature on the Property
8. **GRADING, BLASTING, FILLING AND MINING.** Grading, blasting, filling, or earth removal shall not materially alter the topography of the Property except for (i) dam construction to create ponds, (ii) wetlands or stream bank restoration pursuant to a government permit, (iii) erosion and sediment control pursuant to an erosion and sediment control plan, or (iv) as required in the construction of permitted buildings, structures, roads, and utilities. Best Management Practices, in accordance with the Virginia Erosion and Sediment Control Law, shall be used to control erosion and protect water quality in such construction. Grading, blasting, filling, or earth removal in excess of one acre for the purposes set forth in subparagraphs (i) through (iv) above require 30 days’ prior notice to Grantee. Generally accepted agricultural activities shall not constitute a material alteration. Notwithstanding the foregoing, no grading, blasting, or earth removal is permitted on the Property if it will materially diminish or impair the

conservation values of the Property. Surface mining, subsurface mining, dredging on or from the Property, or drilling for oil or gas on the Property is prohibited.

9. **ACCUMULATION OF TRASH.** Accumulation or dumping of trash, refuse, junk or toxic materials is not permitted on the Property. This restriction shall not prevent generally accepted agricultural or wildlife management practices, such as creation of brush piles, composting, or the storage of farm machinery, organic matter, agricultural products or agricultural byproducts on the Property.
10. **SIGNS.** Display of billboards, signs, or other advertisements is not permitted on or over the Property except to: (i) state the name and/or address of the owners of the Property, (ii) advertise the sale or lease of the Property, (iii) advertise the sale of goods or services produced incidentally to a permitted use of the Property, (iv) provide notice necessary for the protection of the Property, (v) give directions to visitors, (vi) provide educational information for visitors, or (vii) recognize historic status or participation in a conservation program. Temporary political signs are allowed. No sign visible from outside the Property shall exceed nine square feet in size.

### SECTION III – ENFORCEMENT

1. **RIGHT OF INSPECTION.** Representatives of Grantee may enter the Property from time to time, after permission from or reasonable notice to Grantor or Grantor's representative, scheduled at mutually convenient times, for purposes of inspection (including photographic documentation of the condition of the Property) and enforcement of the terms of this Easement; provided, however, that in the event of an emergency, entrance may be made to prevent, terminate or mitigate a potential violation of these restrictions with notice to Grantor or Grantor's representative being given at the earliest practicable time.
2. **ENFORCEMENT.** Grantee has the right to bring an action at law or in equity to enforce the Restrictions contained herein. This right specifically includes the right (i) to require restoration of the Property to its condition at the time of the donation or to its condition prior to the violation, provided that such prior condition was in compliance with the Restrictions set forth herein; (ii) to recover any damages arising from non-compliance; and (iii) to enjoin non-compliance by *ex parte* temporary or permanent injunction. If the court determines that Grantor failed to comply with this Easement, Grantor shall reimburse Grantee for any reasonable costs of enforcement, including costs of restoration, court costs and attorney's fees, in addition to any other payments ordered by the court. Grantee's prior failure to discover non-compliance, failure to act upon discovering non-compliance, forbearing to act upon discovering non-compliance, or delay in exercising its rights under this Easement shall not waive or forfeit its right to take such action as may be necessary to ensure compliance with this Easement, and Grantor hereby waives any defenses of waiver, estoppel or laches with respect to any failure to act by Grantee. Notwithstanding any other provision of this Easement, Grantor shall not be responsible or liable for any damage to the Property or change in the condition of the Property (i) caused by fire, flood, storm, Act of God, governmental act or

other cause outside of Grantor's control or (ii) resulting from prudent action taken by Grantor to avoid, abate, prevent or mitigate such damage to or changes in the condition of the Property from such causes.

#### **SECTION IV – DOCUMENTATION**

Documentation retained in the office of Grantee including, but not limited to, the Baseline Documentation Report ("Documentation Report"), describes the condition and character of the Property at the time of the gift. The Documentation Report may be used to determine compliance with and enforcement of the terms of this Easement; however, the parties are not precluded from using other relevant evidence or information to assist in that determination. Grantor has made available to Grantee, prior to donating this Easement, documentation sufficient to establish the condition of the Property at the time of the gift. The parties hereby acknowledge that the Documentation Report contained in the files of Grantee is an accurate representation of the Property.

#### **SECTION V – GENERAL PROVISIONS**

1. **DURATION.** This Easement shall be perpetual. It is an easement in gross that runs with the land as an incorporeal interest in the Property. The covenants, terms, conditions and restrictions contained in this Easement are binding upon, and inure to the benefit of, the parties hereto and their successors and assigns, and shall continue as a servitude running in perpetuity with the Property. The rights and obligations of an owner of the Property under this Easement terminate upon proper transfer of such owner's interest in the Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.
2. **NO PUBLIC ACCESS AND GRANTOR'S RETENTION OF USE.** Although this Easement will benefit the public as described above, nothing herein shall be construed to convey to the public a right of access to, or use of the Property. Subject to the terms hereof, Grantor retains the exclusive right to such access and use.
3. **TITLE.** Grantor covenants and warrants that Grantor has good title to the Property, that Grantor has all right and authority to grant and convey this Easement and that the Property is free and clear of all encumbrances (other than restrictions, covenants, conditions, and utility and access easements of record) including, but not limited to, any mortgages or deeds of trust not subordinated to this Easement.
4. **ACCEPTANCE.** Acceptance of this conveyance by Grantee is authorized by Virginia Code Section 10.1-1801 and is evidenced by the signature of a Deputy Director, by authority granted by Grantee's Board of Trustees.
5. **INTERACTION WITH OTHER LAWS.** This Easement does not permit any use of the Property that is otherwise prohibited by federal, state, or local law or regulation.

Neither the Property, nor any portion of it, has been or shall be dedicated as open space within, or as part of, a residential subdivision or any other type of residential or commercial development; dedicated as open space in, or as part of, any real estate development plan; or dedicated for the purpose of fulfilling density requirements to obtain approvals for zoning, subdivision, site plan, or building permits. No development rights that have been encumbered or extinguished by this Easement shall be transferred to any other property pursuant to a transferable development rights scheme, cluster development arrangement or otherwise.

6. **CONSTRUCTION.** Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed in favor of the grant to effect the purposes of the Easement and the policy and purposes of Grantee. If any provision of this Easement is found to be ambiguous, an interpretation consistent with the purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid. Notwithstanding the foregoing, lawful acts or uses consistent with the purpose of and not expressly prohibited by this Easement are permitted on the Property. Grantor and Grantee intend that the grant of this Easement qualify as a “qualified conservation contribution” as that term is defined in Section 170(h)(1) of the Internal Revenue Code and Treasury Regulations Section 1.170A-14, and the restrictions and other provisions of this instrument shall be construed and applied in a manner that will not prevent this Easement from being a qualified conservation contribution.
7. **SUCCESSORS IN INTEREST.** This Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective agents, successors, and assigns (herein, “Successors in Interest”) and shall continue as a servitude running in perpetuity with the Property.
8. **REFERENCE TO EASEMENT IN SUBSEQUENT DEEDS.** This Easement shall be referenced by deed book and page number, instrument number or other appropriate reference in any deed or other instrument conveying any interest in the Property. Failure of Grantor to comply with this requirement or to notify any Successor in Interest shall not impair the validity of the Easement or limit its enforceability in any way.
9. **NOTICE TO GRANTEE AND GRANTOR.** For the purpose of giving notices hereunder, the current address of Grantee is Capitol Place Building, 1108 East Main Street, Suite 700, Richmond, Virginia 23219, and any notice to Grantor shall be given to the recipient at the address at which the real estate tax bill is mailed for the Property or portion thereof that is the subject of the notice and which is currently 6226 University Park Drive, Radford, VA 24141. Notices shall be deemed to be given on the date given if personally delivered, or three (3) business days after the post-mark date if sent by mail.

Grantor agrees to notify Grantee in writing (i) before exercising any reserved right that Grantor believes may have an adverse effect on the conservation or open-space values or interests associated with the Property (the purpose of requiring such notice is to afford Grantee an adequate opportunity to monitor such activities to ensure that they are carried out in a manner consistent with the purpose of this Easement; such notice shall

describe the proposed activity in sufficient detail to allow Grantee to make an informed judgment as to the consistency of the proposed activity with the purpose of this Easement); and (ii) at or prior to closing on any *inter vivos* transfer, other than a deed of trust or mortgage, of all or any part of the Property. Grantee may not unreasonably deny, withhold, or delay approval of a permitted activity.

Failure of the Grantor to comply with any requirement of this Paragraph shall not impair the validity of the Easement or limit its enforceability in any way.

10. **TAX MATTERS.** The parties hereto agree and understand that any value of this Easement claimed for tax purposes as a charitable gift must be fully and accurately substantiated by an appraisal from a qualified appraiser as defined in IRS regulations (*see* Section 1.170A-13(c)(5)), and that the appraisal is subject to review and audit by all appropriate tax authorities. Grantee makes no express or implied warranties regarding whether any tax benefits will be available to Grantor from donation of this Easement, nor whether any such tax benefits might be transferable, nor whether there will be any market for any tax benefits that might be transferable. By its execution hereof, Grantee acknowledges and confirms receipt of the Easement and further acknowledges that Grantee has not provided any goods or services to Grantor in consideration of the grant of the Easement.
11. **NO MERGER.** Grantor and Grantee agree that in the event that Grantee acquires a fee simple interest in the Property, (1) this Easement shall not merge into the fee interest, but shall survive the deed and continue to encumber the Property, and (2) the Grantee will, in the event of subsequent conveyance of the Property to another, retain this Easement in itself or convey such Easement to a similar local or national organization having similar purposes that agrees to assume the responsibilities imposed by this Easement.
12. **TRANSFER OF EASEMENT.** Grantee may not, by operation of law or otherwise, transfer, convey, or assign this Easement unless Grantee conditions such transfer or conveyance on the requirement that (i) all restrictions and conservation purposes set forth in this Easement are to be continued in perpetuity and (ii) the transferee then qualifies as an eligible donee as defined in Section 170(h)(3) of the Internal Revenue Code and the applicable Treasury Regulations.
13. **GRANTEE'S PROPERTY RIGHT.** Grantor agrees that the donation of this Easement gives rise to a property right, immediately vested in Grantee, with a fair market value that is at least equal to the proportionate value that this Easement at the time of the gift bears to the value of the Property as a whole at that time.
14. **CONVERSION OR DIVERSION.** Grantor and Grantee intend that this Easement be perpetual and acknowledge that no part of the Property may be converted or diverted from its open-space use except in compliance with the provisions of Section 10.1-1704 of the Open-Space Land Act which does not permit loss of open space.

15. **EXTINGUISHMENT.** Notwithstanding the provisions of Section 10.1-1704 of the Open-Space Land Act, should an attempt be made to extinguish this Easement, such extinguishment can be carried out only by judicial proceedings and only if in compliance with Section 10.1-1704 and Internal Revenue Code Section 170(h) and applicable Treasury Regulations. In a sale or exchange of the Property subsequent to such an extinguishment, Grantee shall be entitled to a portion of the proceeds at least equal to the proportionate value of this Easement computed as set forth in Paragraph 13 above, but not to be less than the proportion that the value of this Easement at the time of extinguishment bears to the then value of the Property as a whole. Grantee shall use all its share of the proceeds from the sale of the Property in a manner consistent with the conservation purpose of this Easement and the Open-Space Land Act.
16. **AMENDMENT.** Grantee and Grantor may amend this Easement to enhance the Property's conservation values or add to the restricted property, provided that no amendment shall (i) affect this Easement's perpetual duration, (ii) conflict with or be contrary to or inconsistent with the conservation purpose of this Easement, (iii) reduce the protection of the conservation values, (iv) affect the qualification of this Easement as a "qualified conservation contribution" or "interest in land" or (v) affect the status of Grantee as a "qualified organization" or "eligible donee". No amendment shall be effective unless documented in a notarized writing executed by Grantee and Grantor and recorded among the land records of the County of Montgomery, Virginia.
17. **SEVERABILITY.** If any provision of this Easement or its application to any person or circumstance is determined by a court of competent jurisdiction to be invalid, the remaining provisions of this Easement shall not be affected thereby.
18. **ENTIRE AGREEMENT.** This instrument sets forth the entire agreement of the parties with respect to this Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement. This Easement shall not be construed to permit any use of the Property which is otherwise prohibited by federal, state, or local law or regulation.
19. **CONTROLLING LAW.** This Easement shall be governed by the laws of the Commonwealth of Virginia, resolving any ambiguities or questions of the validity of specific provisions in order to give maximum effect to its conservation purposes.
20. **RECORDING.** The Grantee will do and perform at its cost all acts necessary to the prompt recording of this Easement among the land records in the Circuit Court Clerk's Office of the County of Montgomery, Virginia, and Grantee may re-record it any time as may be required to preserve its rights under this Easement.
21. **COUNTERPARTS.** This Easement may be executed in one or more counterpart copies, each of which, when executed and delivered shall be an original, but all of which shall constitute one and the same Easement. Execution of this Easement at different times and in different places by the parties hereto shall not affect the validity of the Easement.

WITNESS the following signatures and seals:

[Counterpart signature page 1 of 2]

RADFORD UNIVERSITY FOUNDATION,  
INC., Grantor

By: John F. Cox, Jr.  
Title: EXECUTIVE DIRECTOR

COMMONWEALTH OF VIRGINIA,  
CITY/COUNTY OF Montgomery, TO WIT:

The foregoing instrument was acknowledged before me this 9<sup>th</sup> day of June,  
2011 by John F. Cox, Jr., as Executive Director of Radford  
University Foundation, Inc.

Jennifer D. Hubbard  
Notary Public



My commission expires: 30 June 2013

Registration No. 7283689

I was commissioned notary  
as Jennifer L. Ducote

[Counterpart signature page 2 of 2]

Accepted:  
VIRGINIA OUTDOORS FOUNDATION

By: Tamara A Vance  
Title: Deputy Director

COMMONWEALTH OF VIRGINIA,  
CITY/COUNTY OF Montgomery, TO WIT:

The foregoing instrument was acknowledged before me this 14<sup>th</sup> day of  
June, 2011 by Tamara A. Vance, a Deputy Director of the Virginia  
Outdoors Foundation.

Jennifer L. Ducote  
Notary Public



My commission expires: 30 June 2013

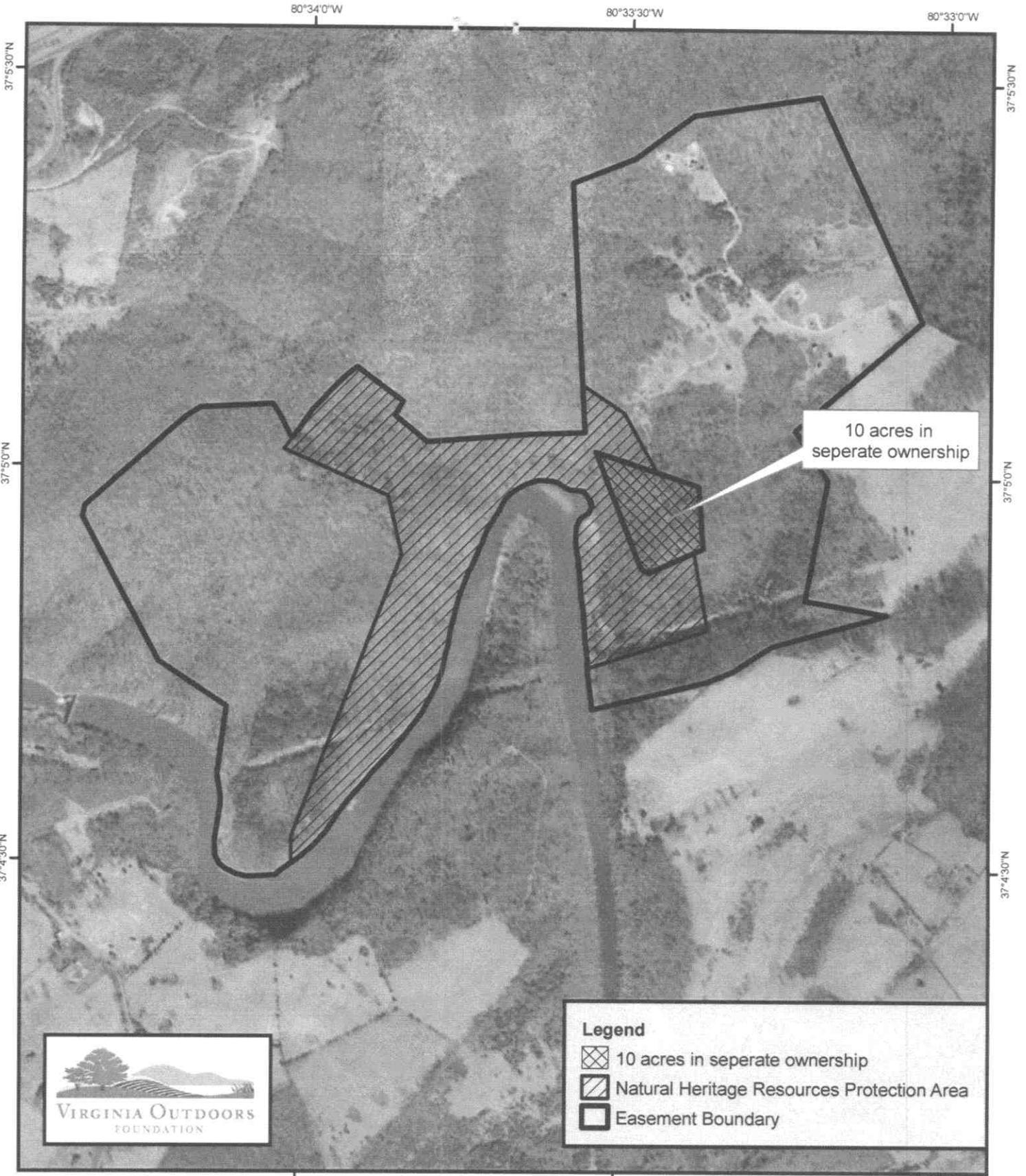
Registration No. 7283689

*I was commissioned notary as  
Jennifer L. Ducote*

31469721.1

INSTRUMENT #11004678  
RECORDED IN THE CLERK'S OFFICE OF  
MONTGOMERY COUNTY ON  
JUNE 22, 2011 AT 03:39PM

ERICA W. WILLIAMS, CLERK  
RECORDED BY: ABR



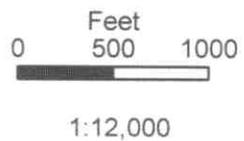
**Legend**

-  10 acres in separate ownership
-  Natural Heritage Resources Protection Area
-  Easement Boundary

Projection: Lambert Conformal Conic  
 GCS North America 1983  
 Datum: D North America 1983

Map created 5/2/11 by Ruth Babylon.  
 Source data provided by survey & tax map  
 Aerial Imagery © Commonwealth of Virginia  
 This map is for general reference and display  
 purposes only.

**EXHIBIT A**  
 Radford University Fdn.  
 Natural Heritage  
 Resources Protection Area  
 (Selu Conservancy)



COMMONWEALTH OF VIRGINIA



OFFICIAL RECEIPT  
MONTGOMERY COUNTY CIRCUIT COURT  
1 EAST MAIN ST. STE 2-6  
CHRISTIANSBURG VA 24073  
540-382-5760

DEED RECEIPT

DATE: 06/22/11 TIME: 15:39:37 ACCOUNT: 121CLR11004678 RECEIPT: 11000011027  
 CASHIER: ABR REG: MNAP TYPE: DE PAYMENT: FULL PAYMENT  
 INSTRUMENT : 11004678 BOOK: PAGE: RECORDED: 06/22/11 AT 15:39  
 GRANTOR: RADFORD UNIVERSITY FOUNDATION, INC. EX: Y LOC: CO  
 GRANTEE: VIRGINIA OUTDOORS FOUNDATION. EX: Y POT: 100%  
 AND ADDRESS : 900 S MAIN ST. BLACKSBURG, VA. 24060  
 RECEIVED OF : VIRGINIA OUTDOORS FOUNDATION DATE OF DEED: 06/09/11  
 : \$1.00  
 DESCRIPTION 1: 191 ACRES NEAR THE CITY OF RADFORD, MONTGOMER PAGES: 22 O/P 0  
 2: NAMES: 0  
 CONSIDERATION: .00 A/VAL: .00 MAP: TM 103-A-25  
 301 DEEDS .00 PIN: 002271  
 TENDERED : .00  
 AMOUNT PAID: .00  
 CHANGE AMT : .00

CLERK OF COURT: ERICA W. WILLIAMS

## Appendix C

# Conservancy Guidelines

The 190-acre Montgomery County property being donated to Radford University by John H. Bowles will remain in the University's possession, in perpetuity, as a conservancy for the preservation and study of nature, the investigation and appreciation of indigenous and local cultures, and as a picturesque setting for the diverse educational and recreational needs of the University and the community it serves. The conservancy will be governed by a steering committee comprised of no less than five faculty chairpersons or their appointed representatives, one representative of the Radford University Foundation, one undergraduate representative, and two life-time members: David Sale, a neighbor to the property and long-time steward of its maintenance and welfare; and John H. Bowles, the donor of the property.

Upon accepting this donation, the University and its steering committee assume responsibility for maintaining the following restrictions on the property:

1. No trees or shrubs shall be cut, removed or destroyed except for:
  - a. dead, diseased, or insect-infested shrubs or timber.
  - b. the purpose of biological projects, including, but not limited to, sampling, surveying, and successional studies.
  - c. the purpose of implementing silviculture practices which serve to maintain and/or enhance wildlife habitat.
  - d. site development for reconstructions of a retreat center, a caretaker's residence, reconstructions of an Appalachian pioneer homestead and a native American dwelling/lodge, and associated storage and maintenance facilities, and excavations conducted by the Anthropology Department.
  - e. the development of paths and trails, as approved by the conservancy's steering committee.
  - f. the installation of a modest, scenic observation area overlooking the Little River, in honor of the donor's Grandmother.
  
2. No sign, billboard, outdoor advertising structure or advertising of any kind shall be erected or displayed on the property, except for:
  - a. signs stating the name, address and/or basic directions relating to the property and its residents, facilities, and trails.
  - b. signs posting the property against unauthorized entry or use.  
All such signs must be designed so as not to significantly diminish the scenic character of the property.
  
3. No trash, ashes, garbage, sewage, sawdust or any unsightly polluting or offensive material shall be brought to or placed upon the property solely for disposal purposes. Any use or activity that causes or is likely to cause significant soil degradation or erosion or significant pollution of any surface or subsurface waters is likewise forbidden.

4. No buildings, structures, or improvements shall be constructed, erected or moved onto the property except in conjunction with:
  - a. the development and construction of a retreat center, a caretaker's residence, associated storage and maintenance facilities, and reconstructions of an Appalachian pioneer homestead and a native American dwelling/lodge.
  - b. the development of modest lean-to's or open-air shelters for specific programs or projects approved by the steering committee.
  - c. the preservation and educational use of significant biotic communities.  
All such buildings, structures or improvements must conform to the spirit and styles of Appalachian pioneer or Native American architecture.
  
5. No mechanized equipment or vehicle shall be used within the property except in conjunction with:
  - a. practices authorized in condition 1 above.
  - b. the maintenance and reconstruction of existing roads, trails, and fields.
  - c. the construction and maintenance of new roads and trails deemed necessary and approved by the conservancy's steering committee.
  - d. the development, operation, and maintenance of the retreat center, caretaker's residence, reconstructed Appalachian pioneer homestead and Native American dwelling/lodge, associated storage and maintenance facilities.
  - e. biological, geological, archeological, and other scientific studies requiring surface or subsurface alternations.
  - f. the transport of individuals and equipment to selected outlying sites within the property for accessibility.
  - g. the implementation of emergency procedures.
  
6. No disturbances of the surface including, but not limited to, filling, excavating, removing topsoil, sand, gravel, rocks and minerals or changing the topography in any manner will be allowed except in conjunction with:
  - a. the practices authorized in conditions 1 and 4 above.
  - b. formally conducted biological, geological, archaeological studies not requiring mechanized equipment or vehicles.
  - c. the maintenance and construction of trails deemed necessary and approved by the steering committee.
  - d. the development, construction, operation, and maintenance of the retreat center, caretaker's residence, reconstructed Appalachian pioneer homestead and native American dwelling/lodge, associated storage and maintenance facilities, and modest scenic observation area overlooking the Little River.
  
7. There should be no rights-of-way for access for any other purpose constructed, maintained or developed into, on, over, under and across the property except those reserved by the donor and in conjunction with the permitted uses of the property set forth herein by the donor. In addition to reserving a right-of-way within the property,

the donor reserves the right to bring electrical and telephone lines onto his own ten-acre premises within the conservancy. The donor and donee agree to share any water resources developed on the conservancy, along with mutual right-of-way of piped access to such resources.

8. There shall be no commercial or industrial uses of or activities on the property other than those relating to the operations of, or affiliated with, the retreat center, the Appalachian pioneer homestead and native American dwelling/lodge and events or festivals approved by the conservancy's steering committee.
9. The use of agrichemicals such as fertilizers, pesticides, herbicides, and fungicides is restricted to the implementation of pest suppression treatments. The strategies chosen for the implementation of such treatments must be:
  - a. least disruptive of natural controls
  - b. least hazardous to human health
  - c. least toxic to non-target organisms
  - d. least damaging to the general environment
  - e. most likely to produce a permanent reduction in the environment's ability to support that pest
  - f. most cost effective in the short and long term

**Appalachian Herpetology**  
**Survey of Reptiles and Amphibians at the Selu Conservancy, Dewese Property, and**  
**Dalrymple Property located in Montgomery County and Giles County, Virginia**

Kayla Hiatt, Leah Nichols, Hannah Reed, and Samantha Jones  
Radford University  
Department of Biology  
801 E Main Street  
Radford, VA 24141

**Introduction:**

For week one, our field research sites for observing reptiles and amphibians consisted of three different properties two of which were located in Montgomery County and the other in Giles County. Selu Conservancy was found in 1989 after John Bowles donated 185 acres of his inherited land to Radford University, which was then expanded many years later to a total of 380 acres that lies along the Little River (History of Selu). Selu was named for the mythical Cherokee meaning grandmother corn-spirit by a poet named Marilou Awiakta (History of Selu). Selu Observatory is located just a few miles from Radford in Montgomery County, and is home to numerous trails, beautiful views, and provides a setting for classes and research projects.

Montgomery County was named after General Richard Montgomery who died during the American Revolutionary War in 1755 while attempting to capture Canada (Montgomery County, Virginia Genealogy). It was established in 1777 from Fincastle County. Montgomery County is part of the Blacksburg, Christiansburg, and Radford, Virginia areas. The County lies in the Ridge and Valley province and approximately 60% of the county is forested. 7% of that area is located in the Jefferson National Forest (Forestry in Montgomery County, Virginia). During our field research, we surveyed two properties in Montgomery County, the Dewese property and Selu.

Giles County was established in 1806 and named after William Branch Giles (Giles County Virginia History and Genealogy). It is home to Mountain Lake which is one of the only two natural freshwater lakes in Virginia. The last place we surveyed for week one was the Dalrymple property in Giles. Doug and Claire Dalrymple own approximately 300 acres in the White Gate Community which contains multiple streams, sandstone caves, grassy fields, and mixed hardwood forest areas.

**Study Sites:**

Selu Conservancy:

This area consisted of undisturbed grassfields, hardwood forest, walking trails, and small stream/pond areas stretched out across 380 acres of land. There was a variety of tree and plant species throughout the property.

Site 1: Burn Field/Garden Area. The area consisted of highgrass fields on one side with high grass areas on the outskirts of the hardwood forest on the other side with an access trail in between them.

Site 2: Dr. Smalls Spring Pond Area. Within the Selu Conservancy there is a small spring pond area just to the right of the walking trail past the Burn Field/Garden area. The area is surrounded by leaf litter, trees, and small shrubbery.

Site 3: Mixed Hardwood Forest. A westward facing slope with a small stream dividing the area near the cemetery located on the Selu Conservancy.

Site 4: Gravel Roads. Neighboring cattle fields right before the access gate to the Selu Conservancy.

Dewese Property:

This area included a fire road, secondary succession habitats, mixed hardwood forest, and a partially dried up stream in Shawsville, Virginia. There were various plant and tree species throughout the property.

Site 1: Secondary Succession Environment. Parallel to the fire road on both sides for less than a mile long.

Site 2: (N 37.116646, W -80.294613) Left side of the edge of the fire road on a flat surface approximately one mile from the road.

Site 3: Mixed Hardwood Forest. Both sides of fire road. Mixed plant species along trail with various rocks and logs

Site 4: Partially Dried Stream. At the end of the fire road. Water started to appear in sections of the stream further up into the forest. Various rocks and leaf litter within stream.

Dalrymple Property:

Throughout approximately 300 acres of land there are numerous sandstone caves, small streams, maintained grass fields, rock quarries, maintained walking trails, and numerous species of plants and trees surrounding the area.

Site 1: Double Door Cave. The cave is located approximately half a mile away from the barn on the property within a ravine adjacent to a small stream.

Site 2: Small Stream. Adjacent to the double door cave approximately half of a mile from the barn on the property.

Site 3: Waterfall. Directly below the camper on the property the waterfall transitions into a small stream going through a section of the property. Surrounded by stinging nettle and various other vegetation.

**Materials and Methods:**

Before surveying, all participants were certified in Working the the IACUC. Participants arrived to Selu property at 12:00 P.M. and the Dewise and Dalrymple property at 11:00 A.M. Participants were informed on how to safely turn over rocks and logs, as well as exploring the caves. Surveys usually consisted of a time constraint of thirty minutes. During surveys, many methods of collection included: flipping rocks/logs, inspecting leaf litter and cave walls/crevices, capturing organisms, placing them into plastic bags for further observation and identification as well as conducting night cruising surveys. All animals that were captured were released back where they were discovered on site.

Property	Selu	Dewise	Dalrymple
Number of surveyors	10	10	10
Hours spent observing/surveying	2.66	1.75	3.5
Night cruise?	Yes	No	Yes

**Table 1. Time spent surveying at each property, 16-18 May 2018**

**Results:**

Selu Conservatory: A total of four different species were found on Selu’s property for our first day. Three out of the four species that were found were amphibian species (two salamander species and one frog species) and the other was a reptile (one snake species). A total of six animals were collected from three different sites on the Selu property. On the second night, a toad was found on a gravel road on the Selu property.

Species	Site 1	Site 2	Site 3	Site 4
<b>Reptiles:</b>				
<b>Snakes</b>				
<i>Diadophis punctatus</i>	1		1	
<b>Amphibians:</b>				
<b>Salamanders</b>				

<i>Plethodon glutinosus</i>	1			
<i>Plethodon wehrlei</i>	2			
<b>Frogs</b>				
<i>Hyla versicolor</i>				1
<b>Toads</b>				
<i>Anaxyrus americanus</i>				1

### Annotated Checklist

#### Reptiles:

1. *Diadophis punctatus* (Northern Ring-necked Snake) was found at site 1 and 2. One of the snakes were found under debris along the edge habitat. Another was found under a large rock in a mixed hardwood forested area during a microhabitat survey.
2. *Plethodon glutinosus* (Northern Slimy Salamander) was found at site 1. This salamander was found under a cover board near a small body of water. It had 13 costal grooves, a light chin, and a dark belly. His weight was 1.9 grams, the snout-to-vent length was 46.59 millimeters and its tail length was 22.1 millimeters.
3. *Plethodon wehrlei* (Wehrle's Salamander) was found at site 1. One wehrle's salamander, a juvenile was seen under a cover board beside the pond. It had 17 costal grooves with some bronze flecking. Its weight was 1 gram, its snout-to-vent length was 26.3 millimeters and its tail length was 21.15 millimeters. The tail was complete. The other wehrle's salamander was found under a large rock within close proximity of the pond. Its weight was 3 grams, the snout-to-vent length was 33 millimeters, and the tail length was 37.8 millimeters.

#### Amphibians:

4. *Hyla versicolor* (Gray Treefrog) was found at site 4. This frog was seen during a night driving survey and it was spotted on the Selu property on the gravel road heading back to the retreat center.
5. *Anaxyrus americanus* (American Toad) was found at site 4. The toad was found returning from a night driving survey on the side of a gravel road on the Selu Property right before passing through the entrance gate.

Dewese property: A total of six different species were found during the survey of the property. Two of the species were reptiles (one snake and one turtle) and the remaining four were amphibians, specifically salamanders. A total of sixteen specimens were collected between the four sites.

Species	Site 1	Site 2	Site 3	Site 4
<b>Reptiles</b>				
<b>Snakes</b>				
<i>Carphophis amoenus</i>	1			
<b>Turtles</b>				
<i>Terrapene carolina</i>		1		
<b>Amphibians</b>				
<b>Salamanders</b>				
<i>Notophthalmus viridescens viridescens</i>			6	
<i>Desmognathus fuscus</i>				4
<i>Desmognathus ochrophaeus</i>				3
<i>Pseudotriton ruber</i>				1

### Annotated Checklist

#### Reptiles:

1. *Carphophis amoenus* (Eastern Worm Snake) was found at site 1 underneath a rock in secondary succession. The specimen was identified as a male. Measurements were taken and revealed that the snake had a SVL of 19.2 mm and a tail length of 4.7 mm.
2. *Terrapene carolina* (Eastern Box Turtle) was found at site 2 along side of the fire road in the grass. Based off of its anuli, the species could possibly be 16 years old. The carapace was measured at 67.4 mm in height, 132.7 mm in length, 100.6 mm in width, and approximately 540 g in weight.

#### Amphibians

3. *Notophthalmus viridescens viridescens* (Eastern Red-Spotted Newt) was found at site 3 along various vegetation and rocks along the fire road. One specimen appeared to be a male and had 14 red spots along its back, with 7 on each side.
4. *Desmognathus fuscus* (Northern Dusky Salamander) was found at site 4 in various parts throughout the stream, mainly under rocks and logs and in stagnant pools.
5. *Desmognathus ochrophaeus* (Allegheny Mountain Dusky) was found at site 4 in various parts throughout the stream, mainly under rocks and logs and in stagnant pools.

6. *Pseudotriton ruber* (Red Salamander) was found in site 4. The specimen appeared to be a larvae. It was found under a small rock within the stream.

Dalrymple property: A total of 6 species were found on the Dalrymple property at three different sites. All of these species were salamanders. Overall, there were 22 animals collected between the two different sites.

Species	Site 1	Site 2	Site 3
<b>Amphibians:</b>			
<b>Salamanders</b>			
<i>Eurycea lucifuga</i>	8		
<i>Plethodon glutinosus</i>		2	
<i>Desmognathus fuscus</i>		1	
<i>Plethodon hoffmani</i>		1	
<i>Desmognathus monticola</i>			7
<i>Eurycea cirrigera</i>		1	2

#### Annotated Checklist

1. *Eurycea lucifuga* (Cave Salamander) was found at site 1. There was a total of 8 cave salamanders found inside a cave located near a stream on the dalrymple property.
2. *Plethodon glutinosus* (Northern Slimy Salamander) was found at site 2. It was located under a big rock near the stream.
3. *Desmognathus fuscus* (Northern Dusky Salamander) was found at site 2. This northern dusky salamander was found under a rock that was partially in the stream.
4. *Plethodon hoffmani* (Valley and Ridge Salamander) was found at site 2. It had 20 costal grooves and some bronze flecking.
5. *Desmognathus monticola* (Seal Salamander) was found at site 3. There were a total of 8 seal salamanders that were found during the woodland stream survey, mainly underneath rocks located in and beside the stream.
6. *Eurycea cirrigera* (Southern Two-lined Salamander) were found at both site 2 and site 3. The first Southern Two-lined Salamander seen at site 2 was found underneath a rock located very close to the stream. The other two, Two-lined Salamanders were found at site 3 both under rocks in the stream.

#### Discussion:

A total of 15 different species of reptiles and amphibians were observed during the first week of field research for the Appalachian Herpetology course at Radford University. There

were 45 organisms total that were collected and identified between the three properties visited. All reported species were known to be located within the two counties surveyed. One species that was collected and observed in the Dalrymple property was named after one of the professors that taught at Radford University. This species was *Plethodon hoffmani* (Valley and Ridge Salamander). Lizards were not reported at any of the properties. This may have been due to the weather being rainy or the habitats searched were not suitable for lizards.

In the future, these surveys could be conducted in drier weather and/or a different time a year to see if any other species may present themselves at these locations. More locations on the properties may also show more or different species than what was collected. Access to equipment may be useful in the future as well. There were several caves that could have been explored on the Dalrymple property if proper equipment was available to the group.

Proper management and conservation of all the species collected and to still be collected is very important to population statuses of three properties limited. Salamanders especially have a narrow habitat range in which they thrive and need the habitat to be preserved. All of the properties surveyed seemed to be doing a great job of conserving the habitats by not having a lot of development on the land and there were a high number of salamanders present. Salamanders are a key indicator of how the habitat is doing because they have such a narrow habitat range. If anything changes within the habitat, salamander populations are the first species to show any changes.

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## INTRODUCTION

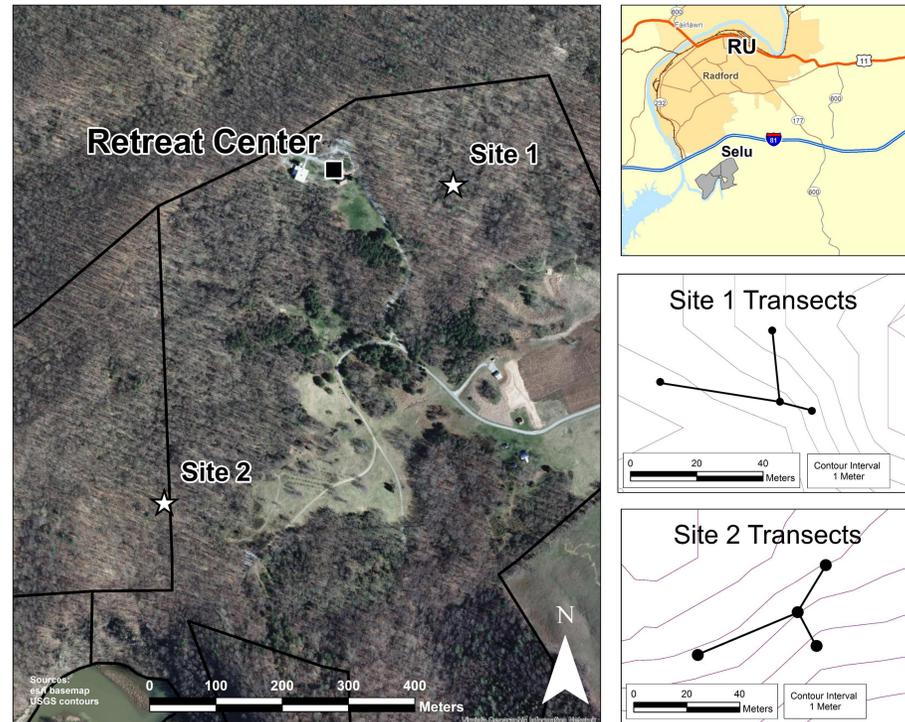
- Declines in species of reptiles and amphibians have been reported with a variety of suspected and demonstrated causes (Gibbons *et al*, 2000).
- Recent reports on amphibian and reptile declines have stressed the need for more data on underrepresented taxa and taxa that are not easily detected by some conventional techniques like surveys using strictly visual encounter (Reading *et al*, 2010).
- Reptiles and amphibians can be bioindicators for the health of an environment due to their roles as both predator and prey (Bohm *et al*, 2012; Mendelson *et al*, 2006).
- Currently, data on reptile and amphibian diversity at Selu Conservancy are limited.
- Our objective was to establish a monitoring program to begin acquiring long-term data on herpetofaunal communities in our region.

## METHODS

- Drift fence installation to create Y shaped transects.
  - Funnel/box traps
  - Pitfall traps
- Visual encounters
- Mark-recapture - Visible Implant Elastomer
- Body size and body temperature measurements

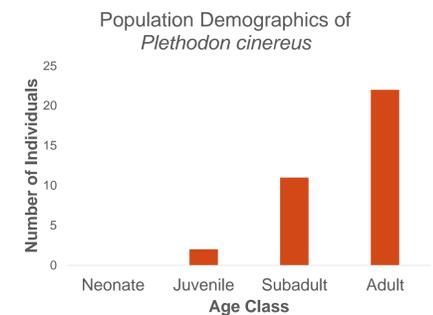
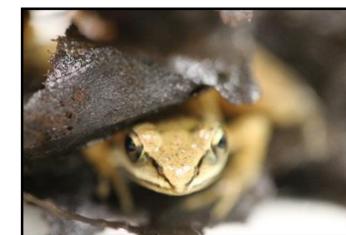
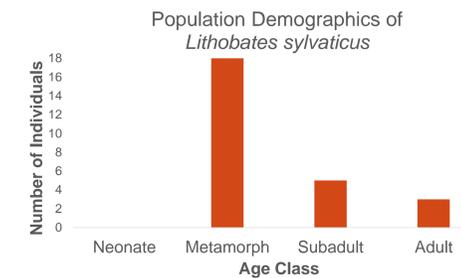
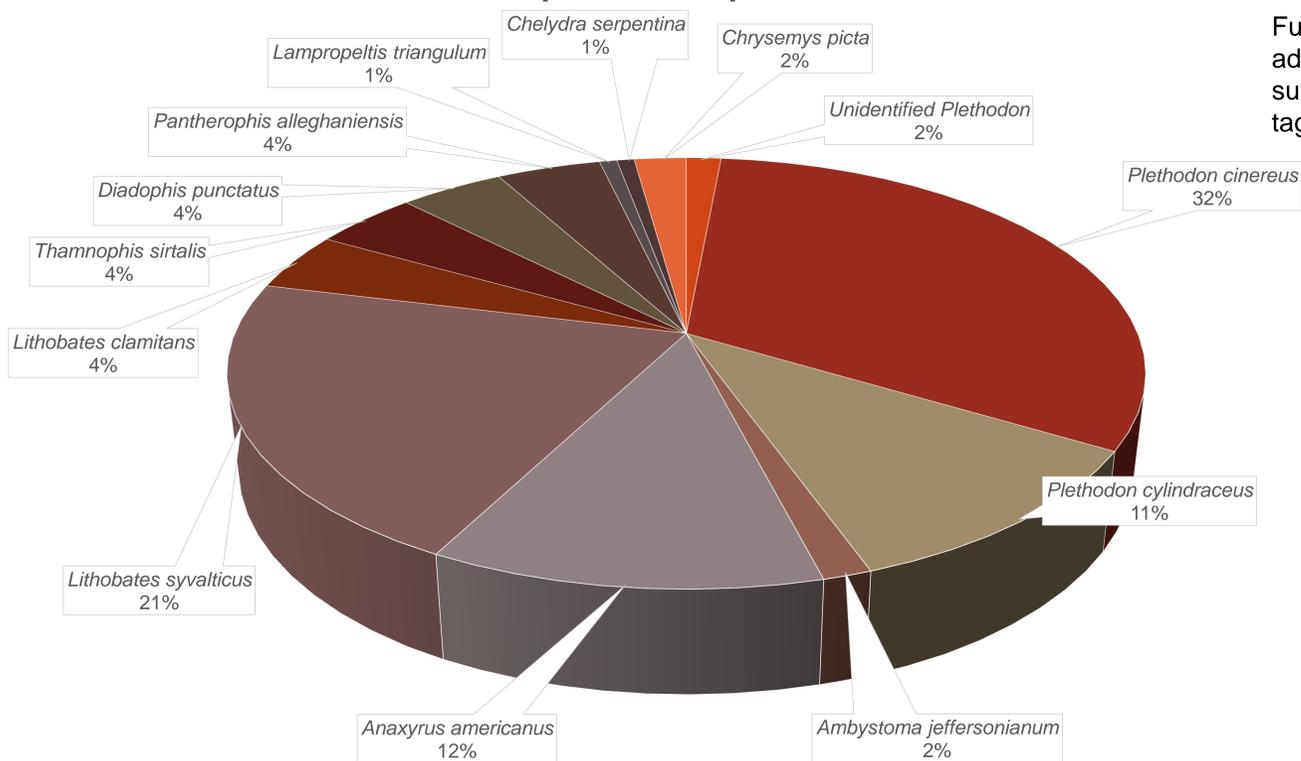


## Monitoring Sites at Selu Conservancy



## RESULTS

### Species Composition



## DISCUSSION

### Species of Greatest Conservation Need:

- Ambystoma jeffersonianum*, Jefferson Salamander
- Terrapene carolina*, Eastern Box Turtle, IUCN Vulnerable



Future directions include installation of additional drift fence arrays, visual encounter surveys, and different marking methods (PIT tags).

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