



VIRGINIA FOREST LANDOWNER UPDATE

Events, News, and Information Promoting the Stewardship of Virginia's Forest Resources

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Jennifer L. Gagnon, Editor

Address all correspondence to:
Virginia Forest Landowner Update
228 Cheatham Hall (0324)
Blacksburg, VA 24061
540-231-6391
jgagnon@vt.edu
<https://forestupdate.frec.vt.edu>

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So I Bought Some Woods. Now What?

by Neil Clark, Virginia Cooperative Extension

So I bought some woods. Now what? In the most general sense, this is Extension forestry's most frequently asked question. Kind of along the lines of "Well, I live in a human body, so I guess I should find out what I need to do to maintain it, enhance it, and make it work for me." And to be frank, the answer can be as simple or as complicated as you wish to make it. Both organisms, your body and the woods, are carefully designed and, for the most part, can function reasonably well without too much effort. But just as diet and exercise choices can optimize the condition of your body, good management practices can optimize the condition of your woods.

To answer the "Now what?" question, the first step is to determine what your ownership goals are. Goals state your vision for the future of your land. A goal might also be described as the big picture or a general statement about your desire for a future condition. Goals are broadly defined. They explain how you want something to be, but don't say how you plan to get there. The process of establishing your goals is the starting point of successful forest management planning because your goals will provide the foundation for on-the-ground management decisions and actions. They also help you communicate with natural resource professionals. This worksheet can help you start this process: <https://tinyurl.com/ownershipgoals>.

Objectives are more specific than goals. Rather than describing the big picture, objectives describe specific strategies to reach a goal. Objectives are courses of action that refine goals into workable tasks, and they often include a timeline for actions and associated costs. While goals may be stated before information on existing forest conditions is collected and analyzed, objectives are based on the realities of on-the-ground conditions and are therefore formulated after

inventorying your forest resources. You may need the assistance of a natural resources professional to help determine what objectives are needed to reach your goals.

Both goal setting and objective writing are integral steps of the planning process whether you have 1 acre or 10,000 acres. For more information on goals and objectives, watch this short video: <https://tinyurl.com/GoalandObjectiveSetting>. Also, the information covered in the article, plus much more, is available in the Extension publication *Welcome to the Woods! A Guide for New Virginia Woodland Owners* (<https://tinyurl.com/Welcome2Woods>).

—So I bought some woods, continued on page 3.



Events Calendar

For the most complete listing of natural resource education events, visit the online events calendar at <https://forestupdate.frec.vt.edu>

SCHEDULED EVENTS - FEBRUARY - APRIL 2023

DATE	LOCATION / DETAILS	EVENT DESCRIPTION	CONTACT
February 11 February 25	<ul style="list-style-type: none"> • Wytheville • Culpoper • 8:30 – 4:30 • \$55*/person • \$90*/couple 	2023 Landowner Woods & Wildlife Conference The Woods & Wildlife Conferences provide information, tools, and personal contacts to help private woodland owners keep their woods, and the wildlife that live in them, healthy and productive. A variety of topics are offered to appeal to owners of both small & large tracts, and both new & experienced owners.	Jennifer Gagnon jgagnon@vt.edu 540-231-6391 Adam Downing adowning@vt.edu 540-948-6881
February 13-14	<ul style="list-style-type: none"> • Blacksburg • \$120/2 days • \$85/1 day • Free/virtual 	Forest Health Professionals Conference Learn about emerging threats to forest health. Recertification credits are available to in-person attendees. Lunch will be provided on Feb. 13.	VAFHP https://www.vafhp.org/
March 3	<ul style="list-style-type: none"> • Chester or • Virtual • 9:00 – 3:30 • \$55*/person • \$90*/couple 	Introduction to Forest Carbon Programs Forest carbon programs are expanding rapidly in the commonwealth. This conference is for foresters and landowners who want to learn how to make sound decisions regarding participation in these programs.	Jennifer Gagnon jgagnon@vt.edu 540-231-6391
Tuesdays Feb. – March	<ul style="list-style-type: none"> • Online • 1:00 • Free 	Woodland Stewards Webinar Series This series will focus on various aspects of woodland management on private lands in the southeastern US.	Jennifer Gagnon jgagnon@vt.edu 540-231-6391
March 24-25	<ul style="list-style-type: none"> • Appomattox • 3/24 7:15 – 6:00 • 3/25 7:15 – 1:00 • \$65*/person • \$110*/couple 	Central Virginia Beginning Woodland Owner Retreat Developed for those new to actively managing their woods, Retreats combine classroom, field trip, and hands-on activities to teach concepts of sustainable woodland management. On-site lodging is available for an addition \$20/person/night.	Jason Fisher jasonf@vt.edu 434-476-2147
April 26	<ul style="list-style-type: none"> • Williamsburg • 8:00 – 12:30 • \$25*/person • 40*/couple 	Forest Farming Workshop Join professionals from Appalachian Sustainable Development to learn about growing medicinal, herbal, and decorative plants in your woods.	Jennifer Gagnon jgagnon@vt.edu 540-231-6391
April 26-28	<ul style="list-style-type: none"> • Williamsburg • Price varies 	Virginia Forestry Summit Join natural resources professionals and landowners for this annual education event.	https://www.forestrysummit.com/

*Includes meal(s)

ONGOING EDUCATIONAL PROGRAMS

Virginia Master Naturalist Volunteer Basic Training

Available statewide. Dates, times and fees vary. People who are curious about nature, enjoy the outdoors, and want to be a part of natural resource management and conservation in Virginia are perfect candidates to become Virginia Master Naturalists. Visit www.virginiamasternaturalist.org to find a chapter near you and learn more about training schedules or contact Michelle Prysby, Statewide Coordinator, 434-872-4580.

Fifteen Minutes in the Forest

Online video series. Every other Friday at 12:15 pm. Join Virginia Cooperative Extension's Forestry Team (and special guests) for videos about natural resource-related topics. Connect or find past videos:

- **YouTube:** <https://www.youtube.com/c/VirginiaForestLandownerEducationProgram>
- **Facebook live:** www.facebook.com/VFLEP

So I bought some woods, *continued from page 1*

Now what if I bought 5 - 20 acres?

Properties in this size range are used by wildlife and can provide visual, wind, and sound buffers. Creating trails and recreational areas (such as camping and picnic sites) can help you increase your use and enjoyment of the land. Typically, the volume of wood on these smaller parcels may not be enough for a commercial timber harvest. However, a mature stand of highly desirable species may be of interest to the owner of a portable sawmill or a logger operating on a nearby property.

If you have a young forest, you may want to encourage species such as yellow-poplar, oak, or loblolly pine (depending on where you live in Virginia). You may also want to adjust the species composition and age classes to enhance wildlife benefits. This would include activities such as encouraging oak regeneration, planting fruit-bearing trees such as persimmon and blackhaw, and having several different ages of trees. In addition, creating soft edges, areas where vines, brambles, and other soft-mast species grow and provide food, and brush piles to provide cover, will greatly enhance wildlife viewing opportunities.



A natural resources professional, such as a forester with the Virginia Department of Forestry, can help you determine what management objectives can help you reach your ownership goals.

With any size property, you want to be on the lookout for nonnative invasive species which can reduce biodiversity and productivity, and replace native species. The Blue Ridge PRISM has fact sheets and control methods for many of the common nonnative plant species in Virginia: <https://blueridgeprism.org/>. Your local Extension office can also help you with this: <https://ext.vt.edu/offices.html>.

The Woods in Your Backyard workbook (<https://extension.psu.edu/woods-in-your-backyard>) is an excellent resource for ideas and techniques to enhance a small forested property.

Now what if I bought more than 20 acres?

On forested properties this size, you should consider obtaining a forest management plan. A forester with the Virginia Department of Forestry (VDof) or a private consulting or industry forester can write a plan for you. You can find a forester here: <https://dof.virginia.gov/>. While there is a cost to have a management plan written, it is a sound investment. They are written specifically for your property and will include maps and objectives to help you meet your goals.

Commercial harvests are economically viable on properties over 20 acres in most parts of Virginia, with the exception of those that are far from mills or have access issues. If you decide to conduct a harvest, you should hire a consulting forester who can prepare and administer the sale. Consulting foresters are familiar with local markets and will make sure you receive the most money for your timber. They will also oversee the timber harvest, ensure conditions are suitable for regenerating the next forest, check that roads are left in good condition, and confirm that there are no erosion problems. They can also assist you with replanting in cases where that is desired (particularly in the pine region).

Properties with more than 20 acres of forest are eligible for Use Value Taxation in many counties. This program provides you with a reduced property tax rate and can save you a lot of money. Check with your Commissioner of the Revenue office to see if you qualify.

Now how can I learn more?

Seeing that you are reading this article in the Virginia Forest Landowner Update newsletter, you are on the right track to making decisions about sustainably managing your woods. The Virginia Forest Landowner Education Program (<https://forestupdate.frec.vt.edu/>) provides a wealth of free, science-based publications, low-cost online and field-based classes on specific topics, and connections to a large network of professionals.

While you are only just beginning to start working on your land, it is never too early to start the legacy planning process – planning for what will happen to your land after you are gone. Legacy planning can help ensure your wishes for the land are carried out by heirs, and that your land stays intact, in forest, and in the family. More information about this topic is available in the Extension publication: *Legacy Planning: A Guide for Virginia Landowners* (<https://tinyurl.com/VALegacyPlanning>).

And finally, Virginia Cooperative Extension has statewide and district foresters who provide a great place to start learning about managing your woods. Find your district forester (<https://tinyurl.com/DistrictForesters>) or contact Jennifer Gagnon, Virginia Forest Landowner Education Program Coordinator, jgagnon@vt.edu, 540-231-6391.

So glad to have you on board and engaged in improving the condition of your woods. Now about that diet and exercise...

Neil Clark is the Eastern District Forestry and Natural Resources Agent; 757-653-2572; southeast@vt.edu.

You Ain't From Around Here: Nonnative Invasive Species of the Quarter: Nine-banded Armadillo (*Dasypus novemcinctus*)

by Jennifer Gagnon, Virginia Tech

I typically experience despair when there is a sighting of a new nonnative invasive species in Virginia. But, when I heard that a nine-banded armadillo was spotted in Christiansburg on New Year's Day 2022, I squealed with delight. This oddball animal brings back many fond memories of my time working in the deep south. Turns out, though, this was not the first nine-banded armadillo sighting in Montgomery County. That occurred in 1932 about five miles from my home. Since then, there have been sporadic sightings in southwest and central Virginia of what are assumed to be rogue males. This means there may not be a breeding population here – yet.

There are 21 different species of armadillos, ranging in length from 6 inches to 5 feet. Aside from the nine-banded, they live exclusively in central and south America. Nine-banded armadillos migrated across the Rio Grande into Texas in the late 1800s and their range has expanded across North America ever since. Their current US range is primarily in the south-central states, but extends as far east as Virginia and Florida, and as far north as southern Nebraska and southern Illinois.

This increase in range is attributed to many factors. First, they lack natural predators. Second, they are prolific reproducers. Third, they can easily cross small bodies of water. And finally, they take advantage of public transportation. It has been reported that “in rail shipments of cattle from Texas to Mississippi during the 1930s armadillos frequently were aboard and escaped from boxcars at the destination.”

What's in a Name?

In my college wildlife class, I learned a lot of scientific names. Some I remember, many I do not. But one I remember well is the name for the nine-banded armadillo – *Dasypus novemcinctus*. They are in the family *Dasyopidae*, and in the order *Xenarthra*.

The genus, *Dasypus* comes from the ancient Greek word *dasúpus*, meaning rough-foot. And the species name, *novemcinctus*, comes from the Latin *novenary*, meaning an aggregate of nine. (If you are like me, this may have you wondering – what's up with November, our 11th month? Turns out, November was the 9th month of the Roman calendar.)

The word *Xenarthra* comes from the root *xeno*, meaning strange or foreign. Not surprisingly, this order includes other peculiar creatures, such as anteaters and sloths. And, finally, in Spanish, armadillo means little armored one.

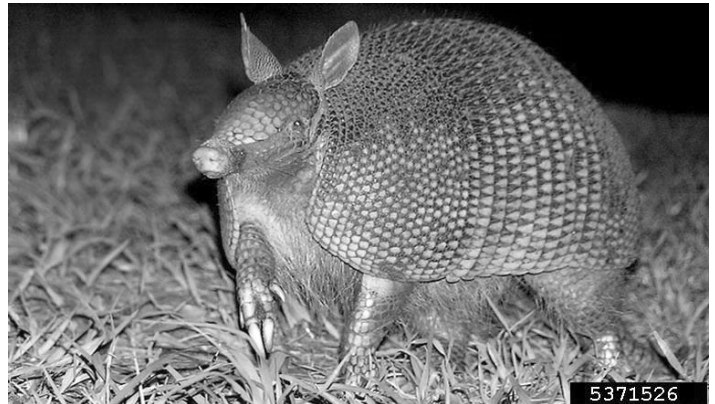
So nine-banded armadillos are strange, rough-footed, small, armored critters with nine-ish bands.

How to Identify a Nine-banded Armadillo

Weight: up to 12 pounds

Length: 2.5 feet from nose to tip of tail

Body: Squat with short legs and a round body covered by scutes (the actual shell that forms deep within the dermis



Nine-banded armadillos are strange, rough-footed, small, armored critters and are moving across the US. Photo by: Vladimir Dinets, University of Miami.

and provides protection) and scales (structures formed from the top layer of skin that prevent moisture loss and are shed and replaced) that are connected by flexible bands of skin. They have long snouts, large ears, and a long-armored tail. Their chins and bellies have scraggly hairs.

Eyes: Tiny, almost useless, colorblind

Bands: Range from 7 to 11

Feet: Claws on middle toes of forefeet are elongated for digging.

Lifespan: 12-15 years

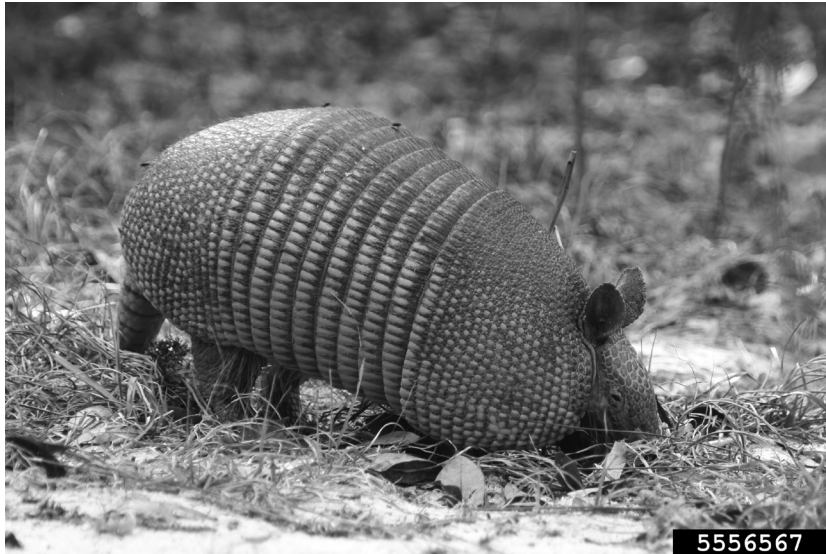
Lifestyles of the Small and Armored

Nine-banded armadillos eat over 500 different foods, most of which are insects. They will occasionally eat small reptiles, amphibians, eggs, and plant material. They use their long snouts to forage (at dusk) in loose soil and frantically dig in erratic patterns. They have an amazing sense of smell and can detect food through eight inches of soil.

Nine-banded armadillos are solitary, nocturnal animals that love to burrow. A single animal may maintain up to 12 burrows at one time. Burrows are about eight inches wide, seven feet deep, and 25 feet long. Males are territorial and will ward off interlopers by kicking and chasing.

When facing a predator, they can move surprisingly fast (supposedly up to 30 miles an hour – not unlike wild hogs: <https://tinyurl.com/VAwildhogs>). If fleeing doesn't work, they may dig a shallow trench and lodge themselves inside – making it difficult for predators to dislodge them. Main predators that occur in Virginia include coyotes, black bears, bobcats, and large raptors.

Other defensive mechanisms employed by nine-banded armadillos include inflating their intestines, allowing them to float on water, and holding their breath for up to six minutes, allowing them to submerge and walk along streambeds (an adaptation that also allows them to keep their snout buried in soil while foraging).



While their actual number of bands may range from 7 to 11, nine-banded armadillos are easily identifiable. Photo by: Caleb Slemmons National Ecological Observatory Network.

They cannot, however, roll into a ball when threatened – this is a trick reserved for their distant relatives, southern and Brazilian three-banded armadillos.

Nine-banded armadillos start reproducing annually by their first birthday and females can have up to 56 babies during their lives. They almost always give birth to identical quadruplets. Pups are born in March and nurse (yes, they are mammals!) for about three months, after which they begin to forage with their mothers. Nine-banded armadillo pups are susceptible to predation until their shells harden. They are independent by six months.

Habitat and Range

The nine-banded armadillo occurs in South America, Central America, and North America in forested and riparian habitats. While they can survive extended periods of cold by remaining in their burrows, nine-banded armadillos are highly susceptible to hypothermia and starvation in the winter. They have a low metabolic rate, sparse fur, low body fat, and a large surface area and as such, do not thermo-regulate well. They prefer warm wet climates. Climate, in fact, may be the limiting factor to their establishment in the mountains of southwest Virginia. But points further east in Virginia may provide suitable environments for breeding populations.

Ecological Impacts

Although technically a nonnative invasive species in the US, nine-banded armadillos are not the worst of their kind. While they can cause property damage, they are protected in some states and may even provide ecological benefits. Foraging and burrowing behaviors cause damage to lawns and to the roots of certain plants. Further south, nine-banded armadillos may displace gopher tortoises by confiscating their burrows. However, skinks, cotton rats, burrowing owls, pine snakes, and rattlesnakes use the burrows.

And, believe it or not, these animals are edible, a fact given way by their aliases: Hoover hog, possum on the half-shell, or poor man's pork. However, nine-banded armadillos are the only animals besides humans that carry the pathogen

that causes leprosy. While the risk is low, transmission of this pathogen to humans has been documented in the US. Fortunately, 95% of the human population is genetically unsusceptible to contracting leprosy, which is also a highly treatable disease. But care should be taken when handling and eating this critter.

The biggest problem with nine-banded armadillos may be the preponderance of roadkill. They are notoriously bad at crossing roads. Why? The answer is simple and sad – when startled, they jump vertically – up to 4 feet off the ground. So, they tend to jump into the undercarriages of moving vehicles. Resulting in lots of roadside carnage.

Control of Nine-banded Armadillos

Forest landowners may find the digging activities of the nine-banded armadillo to be unacceptable. If so, fences or other barriers can be installed at an angle with one portion buried underground to try to exclude them. Like the native groundhog, nine-banded armadillos may burrow under structures. If this happens, lighting the burrow or placing a radio near the entrance may help drive them away. Fumigants, poisons, or traps are not advised for control.

Closing Thoughts

While I do like them, I don't usually think about nine-banded armadillos all that often. But on a Thursday in late November, while doing research for this article, I was thinking about them quite a bit. I also don't usually watch the TV show *Young Sheldon*. But on that very same Thursday in late November, several factors came into play resulting in me watching a rerun episode of the show. Which was about...an armadillo (<https://www.imdb.com/title/tt18266388/>). The world is a very strange place. Strange like nine-banded armadillos.

Jennifer Gagnon is an Extension Associate in the Department of Forest Resources and Environmental Conservation, Virginia Tech.

*jgagnon@vt.edu
540-231-6391.*

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Virginia Cooperative Extension
Department of Forest Resources &
Environmental Conservation (0324)
Virginia Tech
Blacksburg, VA 24061

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Virginia Department of Forestry
900 Natural Resources Drive, Ste 300
Charlottesville, VA 22903
434-977-6555
www.dof.virginia.gov



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**Virginia Tech Department of Forest
Resources & Environmental Conservation
and Virginia Cooperative Extension**
228 Cheatham Hall 0324
Blacksburg, VA 24061
540-231-6391
frec.vt.edu



**USDA Forest Service
Forest Stewardship Program**
1400 Independence Ave SW
Washington, D.C. 20250
212-205-0929
www.fs.usda.gov/managing-land/private-land/forest-stewardship



Virginia Forestry Association
3808 Augusta Ave.
Richmond, VA 23230
804-278-8733
www.veforestry.org



Virginia Sustainable Forestry Initiative SIC
3808 Augusta Ave.
Richmond, VA 23230
804-278-8733
www.virginiasfi.com



Virginia Tree Farm Foundation
P.O. Box 12
Franklin, VA 23851
757-354-6721
www.vtff.org

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