



NC Rabies Vector Species Rehabilitation

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Wildlife Interactions, Regulated Activities and Permits

WRC Responsibilities

- Conserve NC's wildlife and their habitats
- Provide opportunities for wildlife-associated recreation
- Provide **safeguards for wildlife-related activities**
 - Maintain healthy wildlife populations
 - Keep people healthy & safe
 - Long-term perspective



Regulated Activities & Permits Section (RAPS)

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NCWRC is the state authority that manages activities related to wildlife - overarching goal is to protect humans and conserve native wildlife for future generations.

RAPS office covers wildlife rehabilitation. A new RAPS supervisor started in Feb. 2023 - Christina Stylianos. Couldn't make it to the conference today but she's happy to help if you have any questions.

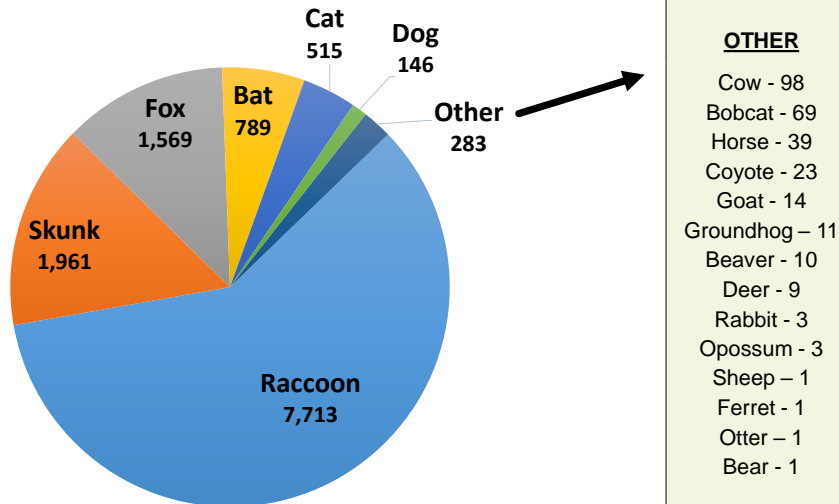
North Carolina's Rabies Vector Species



As of 2020, only individuals with a license for rabies vector species may possess, rehabilitate, or release:

- Raccoons
- Bats (threatened & endangered species permit may be needed & issued on case-by-case basis) – 17 species
- Red and Grey Foxes
- Skunks
- Bobcats
- Coyotes cannot be rehabilitated in NC

Rabies Positives in NC



Data covers 1990-2022, NCDHHS & SCWDS

32 years of data (1990-2022). State rabies records can be found at <https://epi.dph.ncdhhs.gov/cd/rabies/figures.html#graphs>, but this graph also includes a very small number of specimens sent directly to SCWDS (Southeastern Cooperative Wildlife Disease Study) by NCWRC staff. These data are compiled annually by the Black Bear and Furbearer Biologist, Colleen Olfenbuttel.

Why have special laws for RVS?

- Rabies is common in North Carolina, and 99.99% fatal
- You can't tell just by looking if an animal is harboring the virus
- Therefore...

We're **EXTRA** cautious because the consequences of rabies exposure can be very, **VERY bad**



NC Administrative Code

15A NCAC 10H .1400s

- .1401 General Requirements
- .1402 Captivity Licenses for Rehabilitation**
- .1403 Captivity Licenses for Holding
- .1404 Minimum Standards for Holding
- .1405 Revocation and Enforcement
- .1406 Forms and Record-Keeping

15A NCAC 10B .0106

Wildlife taken for depredation

15A NCAC 10H .1402 CAPTIVITY LICENSE FOR REHABILITATION

(a) A captivity license for rehabilitation shall be required for lawful possession of injured, crippled, or orphaned native wild animals or wild birds for the purpose of providing short term care and eventual release into the animal's natural habitat. A captivity license for rehabilitation shall not be issued for:

- (1) endangered, threatened, or special concern species as defined by 15A NCAC 10H .0100. Rehabilitation of these species requires an endangered species permit from the Commission;
- (2) domestic animals;
- (3) feral swine;
- (4) mink;
- (5) coyote;
- (6) adult black bear;
- (7) adult white-tailed deer or elk;
- (8) nine-banded armadillo; or
- (9) eggs of upland game birds.

(b) A captivity license for rehabilitation shall not be issued for the purpose of holding wild animals or wild birds:

- (1) as pets;
- (2) for education, exhibition, or scientific purposes, except as provided in Rule .1403 of this Section;
- (3) for dog training;
- (4) for hunting; or
- (5) acquired unlawfully.

(c) Individuals who do not possess a captivity license for rehabilitation may take temporary possession of injured, crippled, or orphaned wild animals or wild birds, provided they are surrendered to a North Carolina licensed veterinarian or an individual licensed under this Rule within 24 hours of taking possession of such animals.

(d) North Carolina licensed veterinarians providing medical care to sick, injured, or crippled wild animals or wild birds are not required to have a license for rehabilitation from the Commission. North Carolina licensed veterinarians without a captivity license for rehabilitation may hold wild animals or wild birds until the animal is medically stable. Once medically stable, the wild animal or wild bird shall be transferred to an individual possessing a captivity license for rehabilitation with the appropriate category for the given species. Licensed veterinarians rehabilitating wild animals or wild birds shall have a valid captivity license for rehabilitation.

(e) Individuals applying for a captivity license for rehabilitation that have never held this license in North Carolina or a similar license in another state shall be designated as an apprentice. The following requirements shall apply to an apprentice licensee:

- (1) On the application, the apprentice shall designate a mentor with a valid captivity license for rehabilitation in NC, who has held that license for two or more years;
- (2) An apprentice shall complete at least 12 months of supervised rehabilitation activities under a licensed rehabilitator; and
- (3) An apprentice license shall only authorize the possession of squirrels, rabbits, and opossums.

(f) Individuals applying for a captivity license for rehabilitation shall meet statutory and regulatory requirements, including those in G.S. 113-272.5 and all applicable rules of this Section. Individuals seeking to rehabilitate migratory birds shall provide proof of a valid and concurrent U.S. Fish and Wildlife Service Federal Migratory Bird Rehabilitation permit for each category of migratory birds to be rehabilitated. The Commission shall state on the captivity license for rehabilitation the categories of wild animals and wild birds that the individual is licensed to possess.

(g) Required facilities.

- (1) Individuals holding a captivity license for rehabilitation shall conduct their rehabilitation activities at the facility designated on their license that meets the minimum standards set forth in the "Miller, E.A., editor. 2000. Minimum Standards for Wildlife Rehabilitation, 3rd edition. National Wildlife Rehabilitators Association, St. Cloud, MN. 116 pages. ISBN 1-931439-00-1." This publication is hereby incorporated by reference, excluding subsequent amendments and editions, and is available at no cost at http://www.ncowildlife.org/page/Minimum_Standards.

Where do these laws 'live?' In the NC Administrative Code – Title 15A, Chapter 10H. Rabies-specific rules are mostly (not all) in section .1402 (n).

Strongly recommend reading these laws directly (Google 15A NCAC 10H). Can always contact WRC RAPS administrator for help.

Do you have
what it takes?



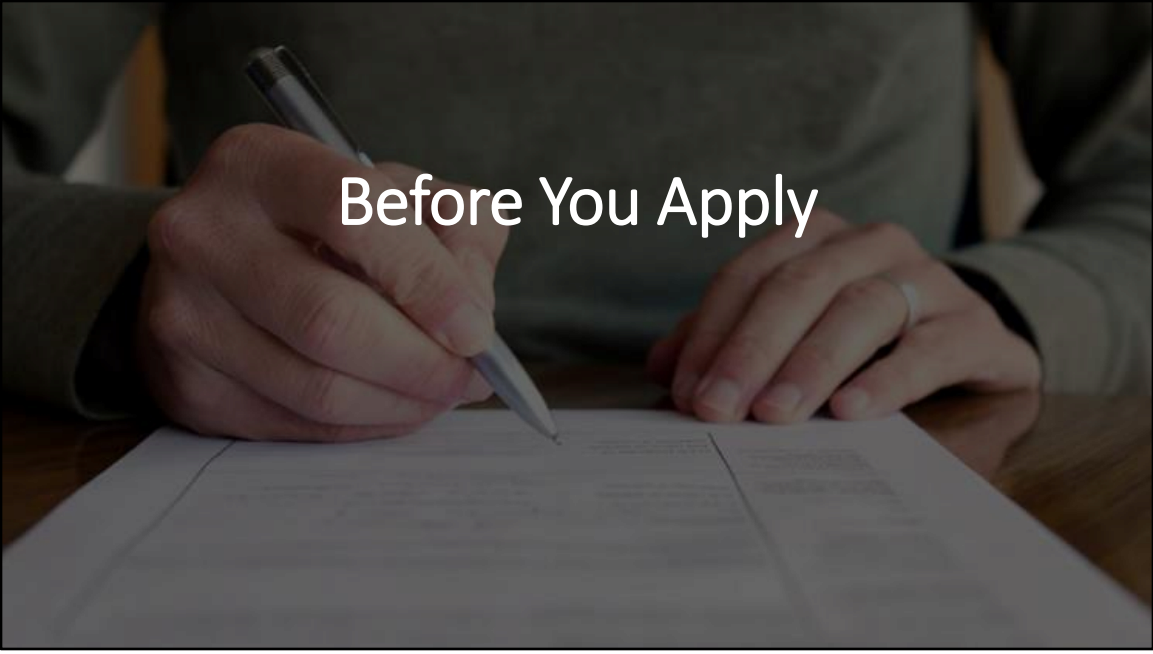
RVS rehab is not for the faint of heart



Minimum Requirements

- Must be an active, fully-licensed rehabber for at least the previous 3 years
 - Apprentice license doesn't count
 - Can be licensed in NC or another state
- Need 12 hours of rabies or RVS-specific training
 - Can be a combination of the two
- Must certify that you have an up-to-date rabies vaccination/titers
 - This applies to **any person** who may come in contact with the rabies species!

Responsibility for paying for vaccinations belongs to the rehabber.

A close-up photograph of a person's hands writing on a document. The person is wearing a grey long-sleeved shirt and a ring on their left hand. The document is on a wooden desk. The text "Before You Apply" is overlaid in white on the image.

Before You Apply

You are going to need a veterinarian

- They must agree to treat RVS in your care
- Must provide their contact info on your application
- Their contact info must be posted at your facility



Notify Local
Animal Control
&
County Health
Department



Onslow County
Health Department



Onslow County
Animal Services

CHARLOTTE-MECKLENBURG

POLICE



**ANIMAL CARE
& CONTROL**



Public Health

Local Animal Control & Health Department

- Contact info for both must be posted at your facility
- Must coordinate with health dept. to develop a written protocol for euthanasia & testing RVS
 - This protocol must be posted at your facility

- Coordinate with appropriate local health department regarding euthanasia and testing of rabies species.

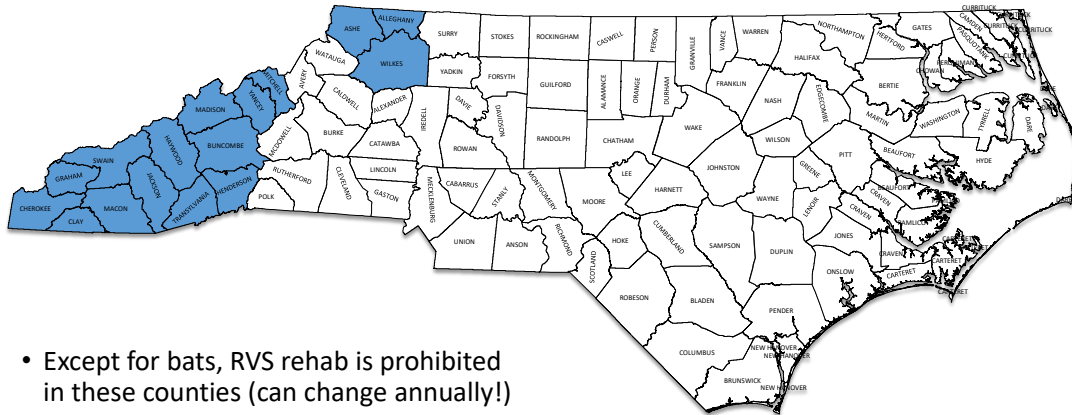


Make sure RSV rehabilitation is even an option in your area.

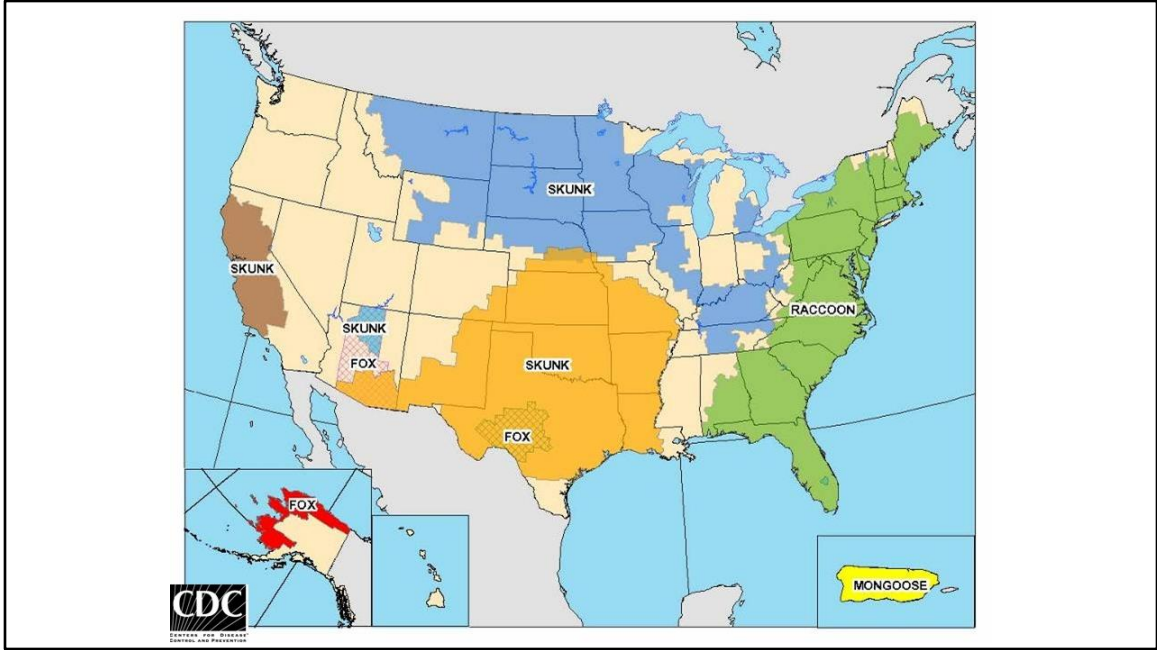
- Except for bats, rehabilitation and release of rabies species is not authorized in counties where the USDA-Animal and Plant Health Inspection Service Oral Rabies Vaccination (ORV) program is conducted.
- 2020: Ashe, Avery, Buncombe, Cherokee, Graham, Haywood, Jackson, Madison, Mitchell, Swain, Watauga, Yancey
- Oct. 2022: *Alleghany*, Ashe, Buncombe, Cherokee, *Clay*, Graham, Haywood, *Henderson*, Jackson, *Macon*, Madison, Mitchell, Swain, *Transylvania*, *Wilkes*, Yancey
- Oct. 2023: Alleghany, Ashe, Buncombe, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, Mitchell, Swain, Transylvania, Wilkes, Yancey

(<https://www.ncdohhs.gov/news/press-releases/2022/09/28/annual-wildlife-oral-rabies-vaccination-program-begins-next-week-helps-protect-north-carolinians-and>)

Oral Rabies Vaccination Counties – October 2023

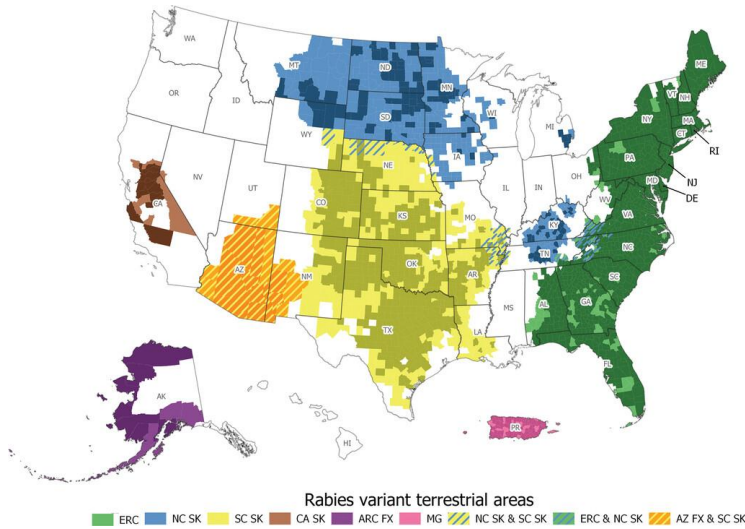


Participating counties in 2023. Subject to change each year!!!



Rabies variant distribution in the U.S.

Figure 1



Distribution of major rabies virus variants (RVVs) among mesocarnivores in the US, including Puerto Rico, for 2017 through 2021. Darker shading indicates counties with confirmed animal rabies cases in the past 5 years; lighter shading represents counties bordering enzootic counties without animal rabies cases that did not satisfy criteria for adequate surveillance. Small nonenzootic areas with no rabies cases reported in the past 15 years are shaded if they are in the vicinity of known enzootic counties and do not satisfy criteria for adequate surveillance. ARC FX = Arctic fox RVV. AZ FX = Arizona fox RVV. CA SK = California skunk RVV. ERC = Eastern raccoon RVV. MG = Dog-mongoose RVV. NC SK = North central skunk RVV. SC SK = South central skunk RVV.

2021 Rabies Surveillance in the U.S. Map (AVMA website)



2012 ORV map



GO OUTDOORS NORTH CAROLINA Licensing Vessel / Boat Administration

You Name & WRC ID #

Will you be rehabilitating Rabies Species?:

Rabies Species Applicant Information:

Training Course: <input type="text"/>	Date: <input type="text"/>	Credit Hours: <input type="text"/>	Instructor: <input type="text"/>
Name of Veterinarian: <input type="text"/>	Veterinarian Phone Number: <input type="text"/>	Upload Mentor Upgrade Form: <input type="text"/>	Organization Affiliation: <input type="text"/>
Veterinarian Office Address: <input type="text"/>	Facility Location: <input type="text"/>		

I have notified the animal control authority and local health department to inform them that I will be rehabilitating rabies species within the county. Contact information for both agencies has been posted at my facility where the rabies species are being rehabilitated.:

I hereby certify that contact information for the above veterinarian has been posted at my facility where the rabies species are being rehabilitated.:

I hereby certify that my rabies immunization is up to date.:

I hereby certify that all information contained herein is accurate and truthful to the best of my knowledge. I have read and understand the rules and statutes pertaining to the possession of wildlife in North Carolina under 15A NCAC 10H.1302.G.S. 113-274, and Article 55 and agree to abide by these regulations. I understand that the Commission may revoke my permit at any time and confiscate all wildlife in my

This field name is getting fixed. All uploaded records should go here.

We do not require that you provide proof of recent rabies vaccine or titer check with your application, but it is required by law and you must be able to provide proof on request. Remember, this is about protecting human lives and potentially saving you a lot of money if/when there's an exposure.

Form provides an option to upload supporting documents.

You Name & WRC ID #

I have notified the animal control authority and local health department to inform them that I will be rehabilitating rabies species within the county. Contact information for both agencies has been posted at my facility where the rabies species are being rehabilitated.:
Yes

I hereby certify that contact information for the above veterinarian has been posted at my facility where the rabies species are being rehabilitated.:
Yes

I hereby certify that my rabies immunization is up to date.:
Yes

I hereby certify that all information contained herein is accurate and truthful to the best of my knowledge. I have read and understand the rules and statutes pertaining to the possession of wildlife in North Carolina under 15A NCAC 10H.1302,G.S. 113-274, and Article 55and agree to abide by these regulations. I understand that the Commission may revoke my permit at any time and confiscate all wildlife in my possession should I violate any of these regulations or the conditions listed on my permit. I understand that it is my duty to ensure that I am in compliance with all applicable local, state, and federal laws prior to submitting this application.:

Your eSignature



Reporting Requirements

Must Report:

- Your captivity license #
- Date of animal's acceptance
- Species & sex
- Location of origin (if known)
- Disposition
- Date of transfer to other licensed individual (if applicable)
- Date and location of release (if applicable)
- **Your WRC customer ID#**

Must now include your WRC# on this form (for finding you in Go Outdoors). This should be a fillable field on the form going forward.

2023
Annual Rabies Vector Species Rehabilitation Activity Report



Name _____ Wildlife Rehabilitation License# _____

Date Received	Species (be specific)	County of Origin	Sex	Estimated age ¹	Disposition ²	Transferred to Name/WR License	Date of Disposition	County of Release	Release Address Specific Location
3/29	Fox red x 6	Halifax	3M 5F	5-7 (prim) weebs	released	—	6/4/23	Nash	—
4/3	Fox grey	Edgecombe		subadult juvenile	euth. - suspect dist.	—	(seizures)	—	—
4/6	raccoon	Nash Middlesex	M	sub adult	euth -	" "	(seizures)	—	—
4/7	raccoon	Nash	M	adult	euth -	" "	or neuro HBC (seizures)	—	—
5/1/23 5/1/23	raccoon	Halifax	M	juvenile (3 wks)	deceased	—	4/30/23	—	—
5/2	raccoon	Nash	M	adult	released	—	5/21/23	NASH	—
5/5	Fox-grey x 2	Nash	M	juven. 5-7 wks	DOA	—	—	—	—
5/10	x 2 raccoons	Nash	F	juven 5-7 wks	released	—	7/30/23	Nash	—
5/11	x 2 raccoons	Nash	F	juven 5-7 wks	released	—	7/30/23	Nash	—
5/13	x 3 raccoons	Wake	F M	juven. 2-3 wks	—	—	5/10/23	—	—
5/31	groundhog	Northampton	F	juven 6-8 wks	deceased	—	6/6/23	—	—
6/6	groundhog	Hartford (Middletown)	M	juven 12-15 wks	deceased	—	6/7/23	—	—
6/13	groundhog	Nash	M	adult	released	—	6/18/23	Nash	—
6/14 6/14	x 2 x 1 raccoons	Edgecombe Wilson	M/N F	4-5 wks 4-5 wks	1 male (4-5 wks) euth released	—	7/10/23 8/24/23	—	11

¹Estimated age: juvenile, subadult, adult, undetermined

²Disposition: euthanized, died, released, transferred, other (specify if other)

This form must be submitted annually, within 15 days of license expiration (Dec. 31) or prior to a request for reissuance.



Nor providing this report can be grounds to revoke your license or refusal to reissue.

Let's Talk
Enclosures



Requirements

- Follow the Minimum Standards for Wildlife Rehabilitation 3rd edition for all cage sizes
- Must have separate facilities from non-rabies species.
- Enclosures within the facility shall prevent escape of the animal and prevent exposure to people, pets, livestock, and other captive or free-ranging wildlife.
- Rabies species shall not be removed from their containment except for treatment, release, maintenance of the enclosure, or euthanasia.

MINIMUM STANDARDS FOR WILDLIFE REHABILITATION

Third Edition, 2000

Edited by Erica A. Miller, DVM



International Wildlife
Rehabilitation Council



National
WILDLIFE REHABILITATORS
Association

Minimum Standards for Wildlife Rehabilitation, 2000, NWRA & IWRC

Page 1

Minimum Standards is available online for download as a PDF.

Minimum Housing Dimensions

Order/Family	Infant Care	Nursing/Pre-weaned	Juvenile or Adult Outside	Initial Injured Adult Inside
Chiroptera (Bats)	18"x12"x12"	18"x12"x12"		18"x12"x12"
Little Browns & Pipistrelles			6x8x8	
Evening, Red, Myotis			8x12x8	
Big Browns, Free-tails, Hoary			10x20x8	
Raccoons	10-20 Gal	3x3x3	6x8x6*	2x3x3
Skunk	20 Gal	2x4x3	6x8x6	3x3x3
Fox	30 Gal	3x3x3	4x4x8	3x3x3
Bobcat	10 Gal	3x3x3	8x8x6*	3x3x3

WxLxH, * Additional species-specific requirements
From Minimum Standards for Wildlife Rehabilitation, 2000

Other requirements are specified in sections 5.1 & 5.2 of the Minimum Standards.
"This table should be used only in conjunction with 5.1 & 5.2."



"Exterior caging shall be locked and surrounded by double fencing or a solid wall barrier."

Can folks access your animals?



This would be a problem.

Doesn't matter how the enclosure prevents exposure, as long as it does (can't chain or tether the animal).

What About Potential Exposure?



“All rabies species shall be considered potentially infected with the rabies virus.”

This is the kind of thinking that can save peoples' lives, and why that pre-exposure prophylaxis is so vital for you and your assistants.

Exposure Protocol

“If any human or domestic animal has been scratched, bitten, or exposed to saliva, the fluid that surrounds the brain and spinal cord, or brain and spinal cord material from any rabies species, the license holder shall contact the local Health Department and immediately report the incident.”

- Health dept may require euthanasia and testing
- Can't release or dispose of the animal until health dept gives OK
 - Also applies to RVS that die in captivity

- Rehabilitators shall abide by all requests made by authorized public health department personnel, animal control, or Commission personnel regarding disposition of the animal.
- “No rabies species that has scratched or bitten a human or domestic animal or dies in captivity can be released or disposed of until the local Health Department investigates the situation to determine if testing is necessary.”
- Failure to do any of this can get your license revoked

Have a plan for safe transport!



Need to prevent exposures even outside your facility. The safety of the animal, you, and your assistants are your responsibility. Any exposures must be reported and the animal might have to be put down.



Release Time!

Releasing RVS

- Must be released in county of origin or county where rehabbed
 - Cannot be released in Oral Rabies Vaccination (ORV) counties
 - **ALWAYS** preferable to release where animal was originally found
 - Relocation of RVS is prohibited in NC.
-



- Soft release/acclimation is allowed at the rehabilitator's facility but final release location really should be where the animal was originally found when at all possible. Especially with older animals, they don't do well when relocated.
- Often we don't understand the harm of moving wildlife around (especially regarding new diseases, new problems) until extensive harm has already been done. Err on the side of not moving wildlife (and whatever they may be carrying) to other areas whenever possible.



Responsibilities of an RSV Rehabilitator

- Can go more strict than the law, but not more lax
 - Sometimes the right thing to do isn't necessarily a legal requirement
 - vax for all volunteers
 - release of animals where they were initially captured
-

The safeguards enforced by the NCWRC are the bare minimum of standards. You can always do more and better than the bare minimum.



Limit crowding to prevent spread of diseases

Recently dealt with a situation where distemper spread through a RVS rehab facility and it wiped out most of the animals. Consider separating animals beyond just different enclosures for different species to prevent the spread of contagious disease (obviously not appropriate for littermates).



Background info
from finder?



This may turn a rehab situation into a human health one if there has been an exposure. Getting this info from the finder could save someone's life. Example: baby raccoon passed around by entire family reunion group. The raccoon later tested positive for rabies and everyone had to get post-exposure prophylaxis shots.

This and That

Wildlife Taken for Depredation

- Wildlife captured under a depredation permit are not eligible for transfer to a rehabilitator (15A NCAC 10B .0106).
- Depredation permits only allow:
 - Euthanasia
 - Release on site
 - Relocation (not allowed for RVS)

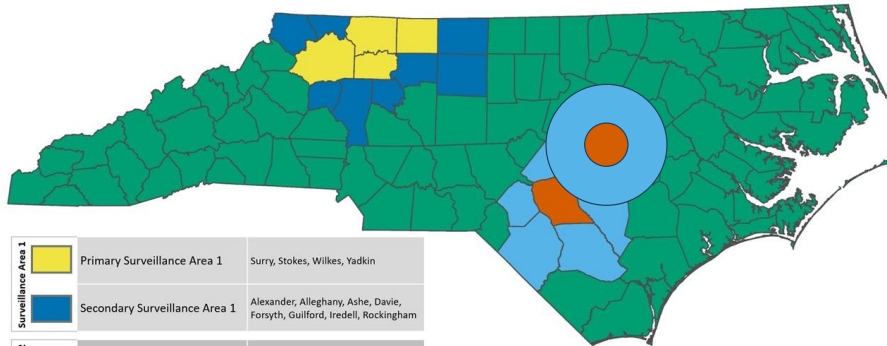


Best option in this situation (photo) is to get the raccoon to relocate her young, then exclude her from the building. Once depredation permit is issued, rehab is not an option.

CWD and Fawn Rehabilitation

- CWD is easily transmitted and 100% fatal
- Infectious prions “survive” in soil for decades
- Fawn rehab is prohibited in CWD counties

2023-24 CWD Surveillance Areas



Surveillance Area 1	Primary Surveillance Area 1	Surry, Stokes, Wilkes, Yadkin
	Secondary Surveillance Area 1	Alexander, Alleghany, Ashe, Davie, Forsyth, Guilford, Iredell, Rockingham
Surveillance Area 2	Primary Surveillance Area 2	Cumberland
	Secondary Surveillance Area 2	Bladen, Harnett, Hoke, Robeson, Sampson
	Non-Surveillance Area Counties	

More counties will be included in Fall 2024!!

North Carolina only found CWD for the first time in 2022 and is still conducting massive surveillance to learn where the disease has spread. As we find it in new counties, they will be added to the CWD surveillance areas. So far, new counties have been added every year. Up to date info can be found at www.ncwildlife.org/CWD.

Weasels Please!

- Very hard to monitor
- Multi-state survey efforts with cameras and detection dogs
- Needed samples:
 - Scat - training detection dogs
 - Carcasses - genetic samples & testing for disease and toxins

CONTACT:

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Questions?