

# **Fish and Wildlife Board Meeting Minutes**

## **Wednesday, May 24, 2023**

The Vermont Fish and Wildlife Board held an in-person meeting at 5:00 pm on Wednesday, May 24, 2023, at the National Life Dewey Conference Room, 1 National Life Drive, Montpelier, VT 05620. A recording of the meeting is available on the department's YouTube channel.

### **Agenda**

1. Approval of Previous Meeting Minutes (April 26, 2023)
2. Public Comments (Limited to 2-minutes per speaker)
3. Revisions to the Baitfish Regulations – Second Vote
4. 2023 Antlerless Deer Permits and Youth/Novice Season – Final Vote
5. Wild Turkey Management Update
6. Commissioner's Update

**Board Members Present:** Michael Bancroft, Brian Bailey, Nicholas Burnham, Jamie Dragon, Brad Ferland (Chair), Allison Frazier, Neal Hogan, Michael Kolsun, Bryan McCarthy, Paul Noel, Robert Patterson, Jay Sweeny, Martin Van Buren

**Virtual:** David Deen

**Department Staff Present:** Commissioner Christopher Herrick, Counsel Catherine Gjessing, Wildlife Management Program Manager David Sausville, Fisheries Program Manager Margaret Murphy, Wildlife Biologist Chris Bernier, Game Warden Major Sean Fowler, Public Information Officer Joshua Morse, Principal Assistant Abigail Connolly

**Virtual:** Fish Division Director Eric Palmer, Wildlife Director Mark Scott, Deer & Moose Project Leader Nick Fortin, Information Specialist John Hall

**Members of the Public Present:** Bob Galvin, Butch Spear, Rod Coronado, Christa Rose

**Virtual:** Sarah Gorsline, Brian, Jenna Reed

The meeting was called to order at 5:00 pm

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### **APPROVAL OF PREVIOUS MEETING MINUTES**

Board Member Patterson moved to approve the minutes from April 26, 2023. Board Member Deen seconded the motion. The Board voted to approve the minutes (14-0).

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### **PUBLIC COMMENT PERIOD**

Christa Rose, NH  
Rod Coronado, Orange  
Bob Galvin, Richmond

Sarah Gorsline, Grand Isle

[The recording of the public comments can be viewed here.](#)

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### **Revisions to the Baitfish Regulations – Second Vote**

Margaret Murphy explained that the current proposed revisions to the baitfish regulations are minor and would take effect January 1, 2024. The 2020 revisions to the regulations were significant, so they are giving anglers time to get used to those changes. The Board held its first vote on the revisions on January 18, 2023. Since then, the revised regulations were filed with ICAR, the changes were published in newspapers, and there were two public hearings on May 11 and May 19, 2023. The public comment period ended on May 19, 2023 and two written public comments were received. After the Board's second vote, the revised regulations will be filed with LCAR, then go before the Board for a third vote, and the final rule will be filed with the Secretary of State. Chair Ferland asked about how often the regulations are updated and Eric Palmer explained the history and that they committed to review them at least every four years.

Board Member Bailey moved to approve the revisions to the baitfish regulations. Board Member Sweeny seconded the motion. The Board voted by roll call to approve the motion (14-0).

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### **2023 Antlerless Deer Permits and Youth/Novice Season – Final Vote**

Mark Scott explained that five public informational hearings on deer were held in March and May 2023. The Board held its first vote on the recommendations on April 26, 2023. Mark explained the timing of opening the deer rule if the Board chose to do so. The Board asked about expectations for the 2024 and 2025 season and the data that breaks down the percentages of the age of the bucks taken. Nick Fortin explained the history of the antlerless restriction and the objective from the hunter satisfaction goal in the big game plan to maintain a level of mature bucks. The objective is measured by the percentage of yearlings in the buck harvest as a trend.

Board Member Frazier moved to approve the recommendations from the department on the 2023 antlerless deer permits and youth/novice season, which is included below. Board Member Sweeny seconded the motion. The Board voted by roll call to approve the motion (14-0).

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### **Wild Turkey Management Update**

Chris Bernier presented on ruffed grouse management and turkey management as the project leader. The presentation is included below. The Board asked questions about allowing turkey hunting all day instead of just the morning, the type of damages turkeys cause, and the

adaptability of turkeys, and commented on the reputation of Vermont as a good place to hunt turkeys.

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## **COMMISSIONER'S UPDATE**

Commissioner Herrick updated the Board that a number of department biologists have been working on projects involving threatened and endangered species. The department's budget has passed out of the Legislature and has not been signed by the Governor yet. The budget included funds to take care of repairs at the conservation camp at Buck Lake, work on buildings used to maintain Wildlife Management Areas, infrastructure and work at fish culture stations, and one-time funding for a crop damage liability claim. Elizabeth Stratton was promoted to be the director of the department's business office. Because of the cooperative effort to control sea lampreys with the U.S. Fish & Wildlife Service and New York, the wild trout population in Lake Champlain is increasing, thus the department will reduce the number of trout being stocked into the lake. For the first time, the Lamoille River has been stocked with Walleye. Commissioner Herrick attended the Morpion Stream Sea Lamprey Barrier 10-year Anniversary Exposition on May 11.

Chair Ferland asked about the structure of the public hearings in June on the proposed regulations for trapping and hunting coyotes with the aid of dogs. Mark Scott explained that the department will briefly present the information and then they will break into groups with the public to get input. The virtual meeting will be structured differently. Written public comments are also being collected. There is no Board meeting in June 2023 and Board Members are encouraged to attend the public hearings.

Board Member Patterson received feedback about the timing of the department's free fishing day in June conflicting with high school graduation.

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## **Motion To Adjourn:**

The Board moved and approved to adjourn the meeting at approximately 7:15 pm.

TITLE 10 Conservation and Development APPENDIX  
CHAPTER 2. FISH  
Subchapter 2. Seasons, Waters, and Limits

§ 141. Baitfish Regulation

**1.0 Authority**

This regulation is adopted pursuant to 10 V.S.A. §4081(b). In adopting this regulation, the Fish and Wildlife Board is implementing the policy that the protection, propagation, control, management, and conservation of fish, wildlife and fur-bearing animals in this state is in the interest of the public welfare and that the safeguarding of this valuable resource for the people of the state requires a constant and continual vigilance.

In accordance with 10 V.S.A. §4082, this regulation is designed to maintain the best health, population and utilization levels of Vermont's fisheries.

In accordance with 10 V.S.A. §4083, this regulation establishes open seasons; establishes daily, season, possession limits and size limits; prescribes the manner and means of taking fish; and prescribes the purchase, sale, and use of baitfish.

**2.0 Purpose**

- 2.1 This regulation applies to fish used as bait. This regulation shall apply to all persons who take, possess, transport, use, purchase, or sell baitfish.
- 2.2 The purpose of this regulation is to: a) conserve and protect the fish, and fisheries in the state, b) maintain the best health of species and natural ecological systems in the state, c) prevent the introduction or spread of diseases or parasites harmful to humans and wild species, and d) prevent the escape or release of non-native species or species that injure or compete with natural ecological systems and processes.

**3.0 Definitions**

- 3.1 "Application" means a specific form provided by the Department of Fish and Wildlife.
- 3.2 "Baitbox" means a receptacle used for holding or keeping baitfish alive for personal use. A legal baitbox shall not exceed 25 cubic feet in volume.

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- 3.3 "Baitfish" means fish species and parts thereof, living or dead, used for the purpose of attracting and catching fish.
- 3.4 "Baitfish zone" means a specific geographic area, where it is permissible to use baitfish in accordance with this regulation, and the area is described and depicted on a map by the Commissioner and posted on the Department website.
- 3.5 ~~"Black list water"~~ "Restricted Water" means a specific waterbody and any listed tributaries where the use of baitfish is restricted in accordance with this regulation, and the waterbody is described and depicted on a map by the Commissioner and posted on the Department website.
- 3.6 "Commissioner" means the Commissioner of the Vermont Department of Fish and Wildlife.
- 3.7 "Department" means the Vermont Department of Fish and Wildlife.
- 3.8 "Fish hatchery" refers to any fish culture station, hatchery, or artificial rearing pond which grows or maintains baitfish for sale in Vermont.
- 3.9 "Ice fishing" means a manner of fishing as described in 10 V.S.A App. §122 Subsection 4.0.
- 3.10 "Open-water fishing" means a manner of fishing as described in 10 V.S.A. App. § 122 Subsection 3.0.
- 3.11 "Permit" is a document from the Commissioner granting a Commercial Bait Dealers Permit.
- 3.12 "Waterbody" means any lake, pond, river, or stream including all tributaries upstream to the first barrier impassable to upstream fish movement.
- 3.13 "Commercially preserved baitfish" means baitfish which are chemically treated in a manner approved by the Department, and then packaged for retail sale.
- 3.14 "Personal baitfish harvest" and "Personally harvested baitfish" means baitfish taken for non-commercial use.
- 3.15 "Non-Restricted Water" means any waterbody not included in the list of Restricted Waters

### 4.0 Personal Baitfish Harvest

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- 4.1 Personally harvested baitfish from ~~black-list waters~~ Restricted Waters shall not be used on any other waters or transported away from the ~~black-list water~~ Restricted Water from which they were harvested.
- 4.2 Personally harvested baitfish may be used on multiple waterbodies and may be transported away from the waterbody from which they were collected and retained for later use, provided that all of the following criteria are met:
  - 4.2.1 The personally harvested baitfish shall not be harvested from or have been previously used on a ~~black-list water~~ Restricted Water;
  - 4.2.2 Personally harvested baitfish shall only be used in the same baitfish zone they were harvested in; and
  - 4.2.3 A person using personally harvested baitfish on any waterbody that is different from the waterbody where the baitfish was harvested shall possess a wild baitfish endorsement in accordance with Subsection 6.0 of this regulation.
- 4.3 A person shall only harvest for use as bait those fish species listed under Subsection 8.1, 8.2, 8.3, and 8.4 of this regulation.
- 4.4 Personally harvested baitfish shall only be taken by the following methods: a) minnow traps no longer than eighteen inches with an entrance for fish not exceeding one inch in diameter, b) dip nets, cast nets, and umbrella nets not exceeding a total of 51 square feet of mesh, or a seine net not exceeding 25 feet in length, c) Open-water/ice fishing by hook and line.
- 4.5 No person shall personally harvest baitfish in seasonally closed waters for trout as listed in 10 V.S.A. App. § 122, Subsection ~~67.0~~, except during the open season for trout. Personal baitfish harvest in seasonally closed waters during open seasons for trout shall only be conducted by open-water/ice fishing or the use of minnow traps no longer than eighteen inches with an entrance for fish not exceeding one inch in diameter.
- 4.6 All traps, nets, baitboxes or other holding receptacles capable of taking, holding or keeping live baitfish in public waters shall be marked with the name, address, and telephone number of the owner and user.
- 4.7 Baitfish may be held on the water in a baitbox as defined in Subsection 3.2 of this regulation.

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- 4.8 Only a person with a valid wild baitfish endorsement (Subsection 6.0) may transport unused personally harvested baitfish, collected in non-~~black-list waters~~ Restricted Water, away from waters of the state for later use. Baitfish may be held in waters of the baitfish zone where they were harvested provided the water is not a ~~black-list water~~ Restricted Water or waters described in Subsection 12.0. Outside of the baitfish zone where harvested, the baitfish shall be kept in a closed container isolated from any inflow of lake, pond, or stream water, or outflows to such waters of the state.
- 4.9 No person shall personally harvest baitfish from any waterbody of the state that is defined as closed to baitfish harvest. The Department will maintain and make available a list of closed waters.
- 4.10 Fish eggs may be collected from legally harvested fish from Vermont waters, and used immediately as bait on the same water where taken unless that waterbody has been closed to baitfish collection. Personally harvested fish eggs shall not be transported and used in any waterbody other than the waterbody where the fish eggs were harvested. No person shall transport fish eggs away from a waterbody and return them to the same waterbody for use as bait unless they have been processed in a manner approved by the Department as described on the Department website.

### **5.0 Commercially Purchased Baitfish**

- 5.1 No person shall import baitfish into the State of Vermont without a fish importation permit, except as provided for in subsections 5.8 and 5.9 of this regulation.
- 5.2 A person purchasing commercial baitfish shall retain a transportation receipt issued by a state-approved commercial bait dealer, authorizing transportation of baitfish overland. The receipt shall contain the following information: 1) A unique receipt identification number, 2) The name and telephone number of the bait dealer, 3) time and date of sale, 4) species purchased, 5) quantity purchased, 6) baitfish zone or ~~black-list water~~ Restricted Water (limited to one) in which the baitfish will be used, and 7) the signature of purchaser.
- 5.3 A person in possession of commercially purchased baitfish shall only use those baitfish in the baitfish zone or ~~black-list water~~ Restricted Water recorded on the transportation receipt and shall retain and exhibit the receipt upon request of the Commissioner or the Commissioner's designee(s).

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- 5.4 A transportation receipt shall be valid for 10 days from time and date of sale.
- 5.5 A person may transport unused commercially purchased baitfish away from waters of the state, and retain for later use in the same baitfish zone or ~~black-list water~~ Restricted Water as indicated on the baitfish transportation receipt, with the following prohibitions.
- 5.5.1 A person shall not transport unused commercially purchased baitfish away from a ~~black-list water~~ Restricted Water if the baitfish transportation receipt does not specify that ~~black-list water~~ Restricted Water.
- 5.5.2 A person shall not transport unused commercially purchased smelt for the use as bait away from a ~~black-list water~~ Restricted Water.
- 5.6 A person transporting unused commercially purchased baitfish away from waters of the state for later use may hold them in waters of the baitfish zone listed on the transportation receipt provided that the water is not a ~~black-list water~~ Restricted Water and the holding waters are not listed in subsection 12.0 of this regulation. Outside of the baitfish zone or ~~black-listed water~~ Restricted Water listed on the transportation receipt, the commercially purchased baitfish shall be kept in a closed container isolated from any inflow of lake, pond, or stream water, or outflow to such waters of the state.
- 5.7 Baitfish may be held beyond the 10 days period in a baitfish zone or ~~black-list water~~ Restricted Water provided they remain in the same waterbody in a baitbox in accordance with Subsection 3.2 of this regulation.
- 5.8 A person may purchase baitfish from a New York baitshop for use in the Lake Champlain ~~black-list water~~ Restricted Water, provided the baitshop is Vermont-licensed, and the baitfish are accompanied by a Vermont-issued baitfish transportation receipt. For the purposes of this regulation, the Lake Champlain ~~black-list water~~ Restricted Water are defined in 10 V.S.A. Appendix § 122 Subsection 5.
- 5.9 A person may purchase baitfish from a New Hampshire baitshop for use in the Connecticut River ~~black-list water~~ Restricted Water, provided the baitshop is Vermont-licensed, and the baitfish are accompanied by a Vermont-issued baitfish transportation receipt. For the purposes of this regulation, the Connecticut River is defined as all waters of the river including the bays, setbacks, and tributaries, but only to the first highway bridge crossing said tributaries on the Vermont side.



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- 5.10 Commercially prepared and preserved baitfish and fish eggs available from retail stores may be purchased and used as bait, taken home, and kept for later use provided they are retained in the original packaging at all times.

### 6.0 Wild Baitfish Endorsement

- 6.1 Any person who wishes to use, sell, or transport personally harvested baitfish outside of the waterbody in which they were harvested must possess and exhibit upon request of the Commissioner or the Commissioner's designee(s) a wild baitfish endorsement as developed and administered by the Department.
- 6.2 A person who wishes to obtain a wild baitfish endorsement shall satisfactorily complete a wild baitfish certification course.
- 6.3 The wild baitfish certification course shall instruct participants regarding the requirements of the baitfish regulations and the vectors and risks associated with aquatic nuisance species and pathogens.

### 7.0 Commercial Bait Dealers

- 7.1 Any person who buys baitfish for resale or sells baitfish shall obtain a commercial bait dealers permit from the Commissioner except as provided for in subsection 7.2. Only persons operating a place of business and offering baitfish for sale to the public may apply for and hold a commercial bait dealers permit.
- 7.2 A commercial bait dealers permit is not required when:
  - 7.2.1 A person only sells commercially preserved baitfish as defined in Subsection 3.13 of this regulation.
  - 7.2.2 A person sells baitfish as specified by subsections 8.1 and 8.2 to another angler while on the same waterbody where the baitfish were personally harvested.
  - 7.2.3 A person sells personally harvested rainbow smelt and meets the following criteria:
    - 7.2.3.1 The personally harvested rainbow smelt shall be harvested, transported, and possessed in accordance with subsection 4.0 of this regulation.

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- 7.2.3.2 The buyer shall possess a valid zone-specific commercial bait dealers permit.
  - 7.2.3.3 The commercial bait dealer's zone designation shall be the same zone from which the personally harvested rainbow smelt were harvested.
  - 7.2.3.4 The seller shall possess a valid wild baitfish endorsement in accordance with subsection 6.0 of this regulation.
  - 7.2.3.5 The seller shall complete and sign an affidavit, as specified by subsection 7.11.1 of this regulation, attesting the waterbody of origin for any personally harvested rainbow smelt that are sold.
- 7.3 Commercial bait dealers shall only purchase and sell the baitfish species listed under subsection 8.1 of this regulation. Commercial bait dealers may also sell rainbow smelt as bait, provided one of the following criteria are met:
- 7.3.1 Rainbow smelt are obtained from a fish hatchery approved by the Commissioner as set forth in subsection 7.5 of this regulation and its subsections: or
  - 7.3.2 Rainbow smelt are harvested by open-water/ice fishing and sold for use on the same waterbody on which the bait dealer is located in accordance with subsection 7.6 of this regulation and its subsections; or
  - 7.3.3 Rainbow smelt are commercially purchased or harvested in accordance with subsection 7.7 and its subsections.
- 7.4 Commercial bait dealers must declare in their permit application if they will be a statewide baitfish dealer, waterbody-specific baitfish dealer, or a zone-specific baitfish dealer (limited to one).
- 7.5 Statewide baitfish dealers are prohibited from possessing, buying or selling wild-caught baitfish.
- 7.5.1 Baitfish sold by statewide baitfish dealers shall originate from a fish hatchery approved by the Commissioner.
  - 7.5.2 Statewide baitfish dealers shall hold or keep baitfish in waters drawn from a secure well, a municipal water source, or other water source approved by the Department.

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- 7.5.3 Baitfish sold by statewide baitfish dealers may be used in waters throughout the state, except those waters listed in subsection 12.0 of this regulation.
- 7.6 Waterbody specific baitfish dealers shall declare on their permit application the waterbody on which they are located.
- 7.6.1 Waterbody-specific baitfish dealers may harvest wild baitfish only from the declared waterbody and offer them for sale and use only on the declared waterbody.
- 7.6.2 The baitfish facilities of waterbody specific bait fish dealers shall discharge to their declared waterbody. The discharge treatment infrastructure shall adequately filter and disinfect water to the satisfaction of the Department. Note that this does not relieve the baitfish dealer from compliance with all other applicable requirements.
- 7.6.3 No waterbody-specific baitfish dealer shall harvest baitfish by netting in or on seasonally closed waters ~~for trout~~ as listed in 10 V.S.A. Appendix § 122 Subsection ~~67.0~~ unless otherwise permitted by their commercial bait dealers permit. Waterbody specific baitfish dealers shall not operate dip nets, cast nets, or umbrella nets exceeding 51 square feet of mesh, or a seine net exceeding 125 feet in length, for the purposes of taking fish for bait, unless otherwise permitted by their commercial bait dealers permit.
- 7.6.4 All traps, nets, baitboxes or other holding receptacles capable of taking, holding or keeping live baitfish in public waters shall be marked with the name, address, and telephone number of the owner and user.
- 7.6.5 No person shall commercially harvest baitfish on any waterbody of the state that is listed as closed to baitfish harvest. The Department will maintain and make available a list of closed waters.
- 7.7 Zone-specific baitfish dealers shall declare on their permit application the waterbody on which they are located, the baitfish zone in which they are located, the baitfish zone from which they intend to harvest, and purchase wild baitfish (limited to one) and the baitfish zone where the baitfish they sell may be used (limited to one).

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- 7.7.1 Zone-specific baitfish dealers shall be located in the baitfish zone which they intend to harvest, purchase, hold, and sell baitfish in, with the following exceptions:
- 7.7.1.1 Baitfish may be purchased from a fish hatchery approved by the Commissioner outside of the zone-specific dealer's baitfish zone and sold as zone-specific baitfish.
  - 7.7.1.2 A Zone-specific baitfish dealer can be physically located outside of the baitfish zone in which they intend to sell baitfish for provided they hold or keep baitfish in water drawn from a secure water source as approved by the Department.
- 7.7.2 Zone-specific baitfish dealers shall harvest and purchase wild baitfish only from the declared baitfish zone where the baitfish they sell may be used, and such baitfish shall be offered for sale and use only in the declared baitfish zone or ~~black-list water~~ Restricted Water within the declared baitfish zone.
- 7.7.3 Zone-specific baitfish dealers may purchase wild rainbow smelt provided they meet the provisions of subsections 7.2.3 and 7.11.1 of this regulation.
- 7.7.4 Zone-specific baitfish dealers shall not harvest or purchase wild baitfish which are from or have been used previously on a ~~black-list water~~ Restricted Water nor shall they hold or keep baitfish in waters drawn from a ~~black-list water~~ Restricted Water.
- 7.7.5 The baitfish holding facilities of zone-specific baitfish dealers shall discharge to the declared baitfish zone or to a water treatment infrastructure which adequately filters and disinfects water to the satisfaction of the Department. Note that this does not relieve the baitfish dealer from compliance with all other applicable requirements.
- 7.7.6 No zone-specific baitfish dealer shall harvest baitfish by netting in seasonally closed waters ~~for trout~~ as listed in 10 V.S.A App § 122 subsection ~~6~~7.0, unless otherwise permitted by their commercial bait fish dealers permit. No zone-specific baitfish dealer shall operate dip nets, cast nets, or umbrella nets that exceed 51 square feet of mesh, or a seine net that exceeds 125 feet in length, for the purposes of taking fish for bait, unless otherwise permitted by their commercial bait dealers permit.

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- 7.7.7 All traps, nets, baitboxes, or other holding receptacles capable of taking, holding, or keeping live baitfish in public waters shall be marked with the name, address, and telephone number of the owner and user.
- 7.7.8 No person shall commercially harvest baitfish on any waterbody of the state that is defined as closed to baitfish harvest. The Department will maintain and make available a list of closed waters.
- 7.8 A commercial bait dealer shall provide to each customer at the point of sale a copy of a transportation receipt containing the following information: 1) A unique receipt identification number, 2) The name and telephone number of the bait dealer, 3) time and date of sale, 4) species purchased, 5) quantity purchased, 6) baitfish zone or ~~black list water~~ Restricted Water (limited to one) in which the baitfish will be used, and 7) the signature of purchaser.
- 7.9 A transportation receipt shall be valid for 10 days from time and date of sale.
- 7.10 Receipt books shall be provided to commercial bait dealers by the Department.
- 7.11 Any holder of a commercial bait dealers permit shall maintain receipts or records for each lot of wholesaled hatchery-raised or wild-caught baitfish introduced into their shop. The receipts or records shall include: name, address and telephone number of seller (for wholesaled baitfish), and date received, species identification, and quantity purchased or harvested, for wholesaled and wild-caught baitfish. The permit holder shall retain the receipts and records for at least one year after the date of sale or harvest. Receipts or records shall be provided to the Department immediately upon request.
- 7.11.1 Any holder of a commercial bait dealers permit that purchases personally harvested wild rainbow smelt from a person shall maintain a list of purchases which includes: name, address, telephone number, and signature of the seller, date of sale, quantity of fish purchased, and waterbody of origin. Such form will be provided by the Department to the commercial bait dealer.

### **8.0 Approved Species of Fish for use as Bait**

- 8.1 Banded killifish *Fundulus diaphanus*  
Blacknose dace *Rhinichthys atratulus*

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Bluntnose minnow *Pimephales notatus*  
Common shiner *Luxilus cornutus*  
Creek chub *Semotilus atromaculatus*  
Eastern silvery minnow *Hybognathus regius*  
Emerald shiner *Notropis atherinoides*  
Fallfish *Semotilus corporalis*  
Fathead minnow *Pimephales promelas*  
Golden shiner *Notemigonus crysoleucas*  
Longnose dace *Rhinichthys cataractae*  
Longnose sucker *Catostomus catostomus*  
Mimic shiner *Notropis volucellus*  
Northern redbelly dace ~~*Phoxinus*~~ *Chrosomus eos*  
Spottail shiner *Notropis hudsonius*  
White sucker *Catostomus commersoni*

- 8.2 Rainbow smelt *Osmerus mordax* may be taken only by open-water/ice fishing by hook and line and may be commercially sold as bait.
- 8.3 The following additional fish species, or parts thereof, may be taken only by open-water/ice fishing by hook and line and used for bait only in those waters where taken and shall not be transported alive from those waters.

Bluegill *Lepomis macrochirus*  
Pumpkinseed *Lepomis gibbosus*  
Rock bass *Ambloplites rupestris*  
Yellow perch *Perca flavescens*

- 8.4 Lake Champlain – In addition to subsection 8.2, the following fish species, or parts thereof, may be taken only by open-water/ice fishing by hook and line in Lake Champlain and used as bait in Lake Champlain, as described in 10 V.S.A. App §122 subsection 5.0, and may not be commercially harvested or sold as bait; Alewife may only be used/possessed if dead:

Alewife *Alosa pseudoharengus*  
White perch *Morone americana*

- 8.5 All other species of fish are prohibited for use as bait.

### 9.0 Commercial Bait Dealer Application Process

- 9.1 A person who wishes to obtain a commercial bait dealers permit shall apply to the Commissioner in writing on a form provided by the Department. The Department may require the applicant to submit such additional information as is necessary to determine that the permitted activities comply with the purposes of this regulation, including but not

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limited to fish health testing, and an analysis of the impact of the sale of baitfish on Vermont's fish species, fisheries, and natural ecosystems and processes.

- 9.2 If the application is deficient, the Department shall inform the applicant of the deficiencies and return the application within 30 days of receipt, along with any associated fee, to the applicant for revision and re-submission.
- 9.3 If the application is denied, the Commissioner shall, within 30 days of receipt of application, send the applicant a written denial setting forth the reasons for the denial.

### **10.0 Permit Compliance**

- 10.1 The Permittee shall make the permit available upon request by Commissioner or Commissioner's designee. Premises and equipment used by persons to take, harvest, purchase, store, or sell in baitfish shall be accessible for inspection by the Commissioner and his or her designee. Samples for species determination or disease examination shall be provided immediately upon request.
- 10.2 Permittees shall provide the Department with additional information as requested on an annual basis or prior to the re-issuance of a new permit.

### **11.0 Permit Revocation**

- 11.1 The Commissioner may revoke any permit for: any violation of a permit; failure to comply with this regulation; a violation of any regulations of the Board; a violation of the provisions of Part 4, Title 10, Vermont Statutes Annotated; or if the Commissioner determines that the revocation is necessary to protect fish or fisheries of Vermont.
- 11.2 The Commissioner shall comply with all applicable requirements of 3 V.S.A. Chapter 25, related to any permit revocation.
- 11.3 Appeals of the decisions of the Commissioner are subject to the Vermont Regulations of Civil Procedure.

### **12.0 Waterbodies where the Use of fish as bait is prohibited**

The use of fish in any form whether alive or dead for bait in fishing is prohibited in:

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Adams Reservoir, Woodford;  
Beaver Pond, Holland;  
Beck Pond, Newark;  
Beebe Pond, Sunderland;  
Big Mud Pond, Mt. Tabor;  
Blake Pond, Sutton;  
Bourn Pond, Sunderland;  
Branch Pond, Sunderland;  
Cary Pond, Walden;  
Cow Mountain Pond, Granby;  
Griffith Lake, Mt. Tabor;  
Jobs Pond, Westmore;  
Lake Pleiad, Hancock;  
Lewis Pond, Lewis;  
Little Rock Pond, Wallingford;  
Martins Pond, Peacham;  
~~McIntosh Pond, Royalton;~~  
Mud Pond, Hyde Park;  
North Pond, Chittenden;  
Notch Pond, Ferdinand;  
Red Mill Pond, Woodford;  
Sterling Pond, Cambridge;  
South America Pond, Ferdinand;  
Stratton Pond, Stratton;  
Unknown Pond, Averys Gore;  
Unknown Pond, Ferdinand;  
West Mountain Pond, Maidstone

and any additional waters created or reclaimed by the Department. This regulation shall be posted at all waters affected.



# 2023 Antlerless Harvest and Youth/Novice Season Recommendation

to the  
Vermont Fish and Wildlife Board



Vermont Fish and Wildlife Department  
Agency of Natural Resources  
1 National Life Drive, Davis 2  
Montpelier, VT 05620-3208  
802-828-1000

*The Fish & Wildlife Department recommends the same antlerless harvest and youth/novice season regulations adopted by the Board by straw vote on April 26, 2023. During the public comment period, which started immediately after the Board meeting on February 15, the Department did not receive any new or additional information to justify changes to the initial recommendation.*

*The following is the same text the Department submitted to the Board for its April 26<sup>th</sup> meeting. All public comments received are provided in the appendices.*

## Summary of Key Points

- Recent antlerless harvests have been sufficient to stabilize deer numbers in most WMUs.
- Vermont had a relatively easy winter in 2023.
- Yearling antler beam diameters, fawn weights, and other physical condition metrics are below optimal levels in many areas, indicating that deer numbers have exceeded the level their habitat can support long-term.
- Deer populations in eight WMUs are projected to be above their respective population objectives in 2023. The recommended antlerless harvest is intended to reduce deer populations in these WMUs.
- Populations in all other WMUs will be close to their respective population objectives and the recommended antlerless harvest is intended to stabilize populations and provide additional harvest opportunities.
- The recommended permit allocations are expected to result in the harvest of 3,257 antlerless deer during the antlerless (early muzzleloader) and December muzzleloader seasons. This would result in an estimated total harvest from all seasons of approximately 8,262 antlerless deer.

## Executive Summary

The Vermont Fish and Wildlife Department estimates there will be approximately 139,000 white-tailed deer on the Vermont landscape prior to the start of the 2023 deer hunting seasons. This represents an increase of 2 percent from the retrospective 2022 pre-hunt estimate. Deer populations in 8 Wildlife Management Units (WMU) are expected to be above their respective density objectives established in the *2020-2030 Big Game Management Plan*. The remaining 13 WMUs will have deer densities close to their respective density objectives. Deer are not evenly distributed across Vermont. As a result, harvest management strategies that account for regional differences in deer density are essential to the health and proper management of Vermont's deer herd.

For deer to be healthy and productive, deer populations must be kept below the carrying capacity of the habitat through the regulated harvest of antlerless deer. Biological information collected annually by the Department, including reproductive data, fawn and yearling body weights, and yearling antler size, indicate that deer populations have exceeded the level the habitat can support long-term in some parts of Vermont. Deer populations must be reduced or maintained below the limits of their habitat or physical condition will continue to decline, habitat damage will increase, and populations will become unstable and susceptible to substantial winter mortality.

The winter of 2023 was relatively easy for deer throughout most of Vermont. Increased antlerless harvests in recent years will limit deer population growth in many areas, but some growth is still expected. Antlerless harvests will need to be maintained or increased to reduce deer densities in those WMUs that remain above objective and to stabilize populations in other WMUs at their current level.

To achieve established density objectives, the Department recommends the harvest of 8,262 antlerless deer during the 2023 hunting seasons. The Department recommends that antlerless harvest be authorized during the archery and youth/novice seasons in all WMUs. After accounting for expected archery and youth/novice season harvests, the Department recommends that 3,257 antlerless deer be harvested, by permit, during the antlerless-only muzzleloader season in late October and the December muzzleloader season. Achieving this harvest requires the issuance of 22,000 WMU-specific antlerless permits distributed among 19 of Vermont's 21 WMUs (12 percent more permits than the 19,400 allotted in 2022).

Five public hearings were held March 20, 23, 24, and May 9, and 17, 2023 to gather comments on the deer herd. Approximately 117 members of the public participated in these hearings.

## 2023 Muzzleloader Antlerless Harvest Recommendation

Pursuant to 10 V.S.A. §§4081, 4082 and 4084, and Appendix Chapter 1 §2c, hereafter is the Department's 2023 antlerless harvest and youth season recommendation. Based on population estimates, a harvest of 8,262 antlerless deer is recommended during the 2023 hunting seasons. This includes 5,004 antlerless deer harvested during the archery, youth, and novice seasons, and 3,257 antlerless deer harvested, by permit, during the antlerless (October muzzleloader) and December muzzleloader seasons. Adult females are typically 84 percent of the total antlerless deer harvest, so harvesting this number of antlerless deer would yield approximately 6,904 adult does.

## Population Status

The 2022 deer hunting seasons saw a buck harvest one percent higher than the previous 3-year average (see *2022 Vermont White-tailed Deer Harvest Report* for more information). Seven WMUs had retrospective population estimates in 2022 that exceeded their respective population objectives established in the *2020-2030 Big Game Management Plan*. The winter of 2023 was relatively easy for deer in most of the state; however, increased antlerless harvests in recent years are expected to limit deer population growth in most WMUs.

## Winter Severity 2023

The Department has long recognized the influence that winter weather can have on Vermont's deer herd and has been collecting winter severity data since 1970. Between December 1 and April 15, volunteers record one winter severity index (WSI) point for each day with at least 18 inches of snow on the ground, and one point for each day the temperature reaches 0°F or below. These data have proven useful to describe deer population dynamics; however, how well deer survive winter depends largely on three factors: 1) body condition of deer as winter begins, 2) availability of quality deer wintering habitats, and 3) the timing of snow in the fall and snowmelt in spring. Snow cover that remains late into spring can cause significant negative impacts by delaying spring green up and, consequently, reducing fawn survival.

The winter of 2023 was relatively easy for deer, with a state-wide average WSI of 16 points (**Figure 1**). This was well below the 30-year median of 36. All WMUs experienced an easier-than-normal winter (**Figure 2**). Statewide, the month of January was the easiest on record, and December–February collectively was the easiest on record. While March brought more normal conditions, the lack of deep snow across much of the state for much of the winter allowed deer to utilize habitats outside of traditional wintering areas and access the best available foods. As a result, overwinter mortality was minimal.

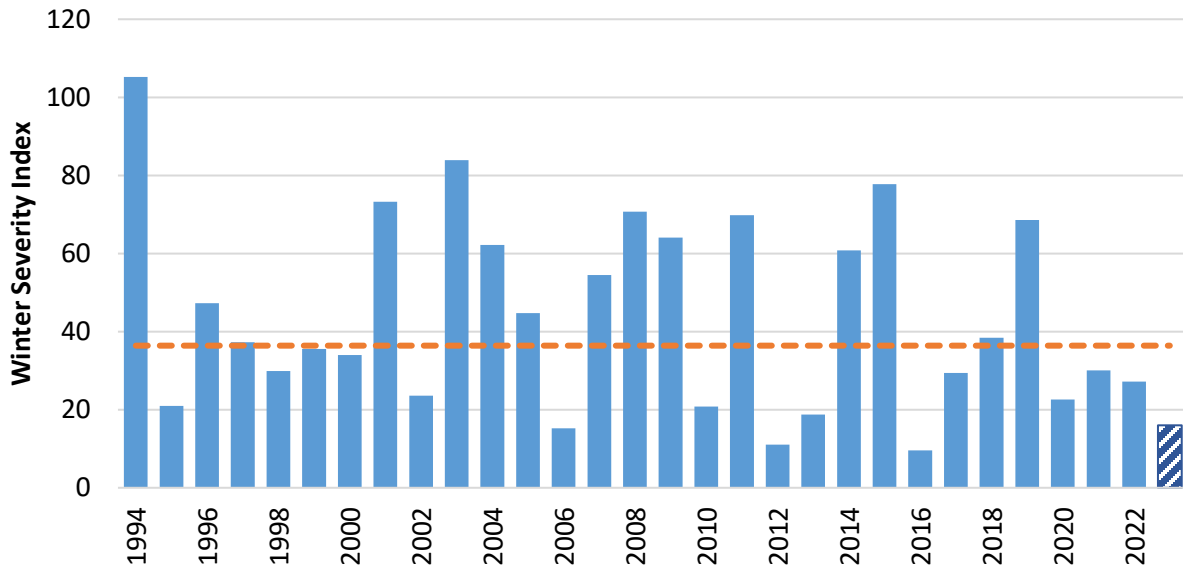


Figure 1. Statewide winter severity index (WSI), 1994–2023. The dashed line shows the 30-year median of 36.4.

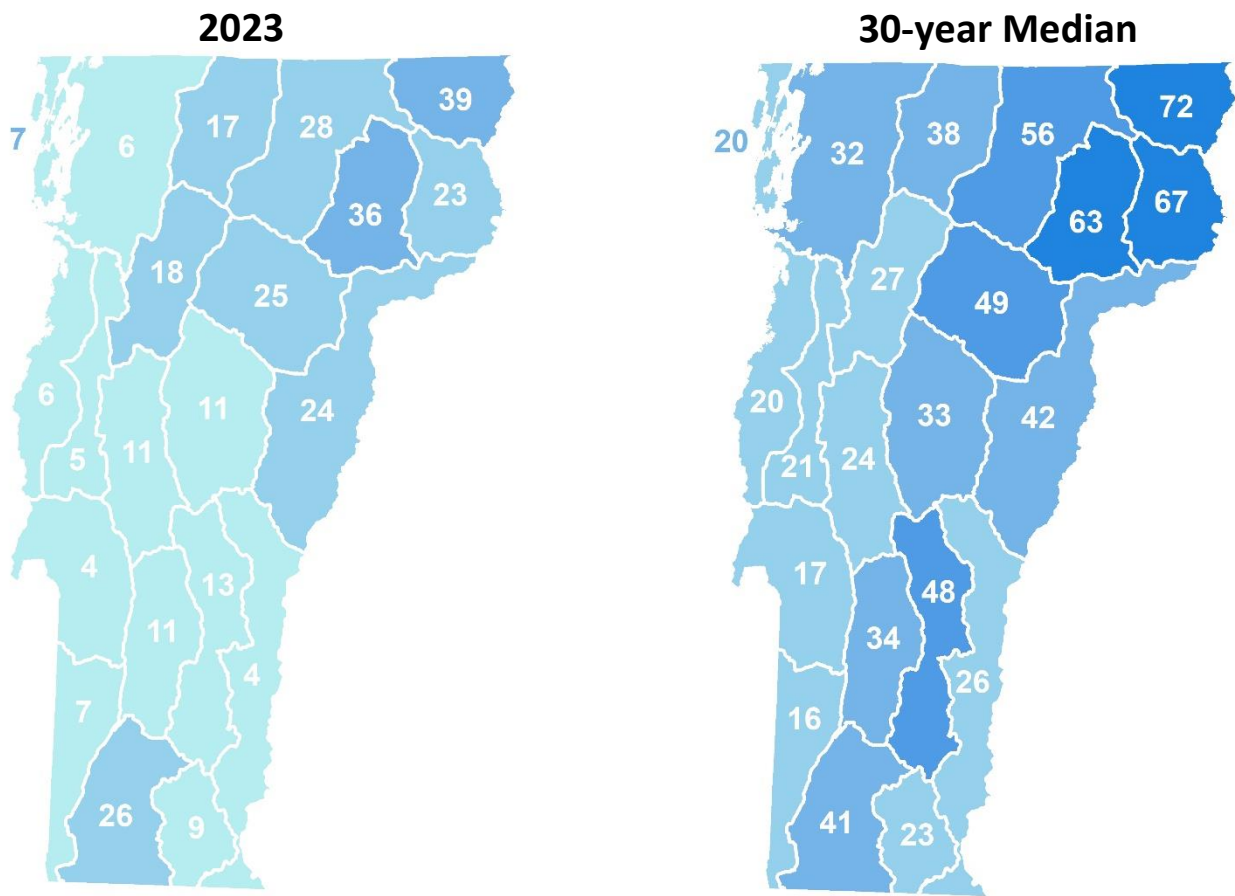
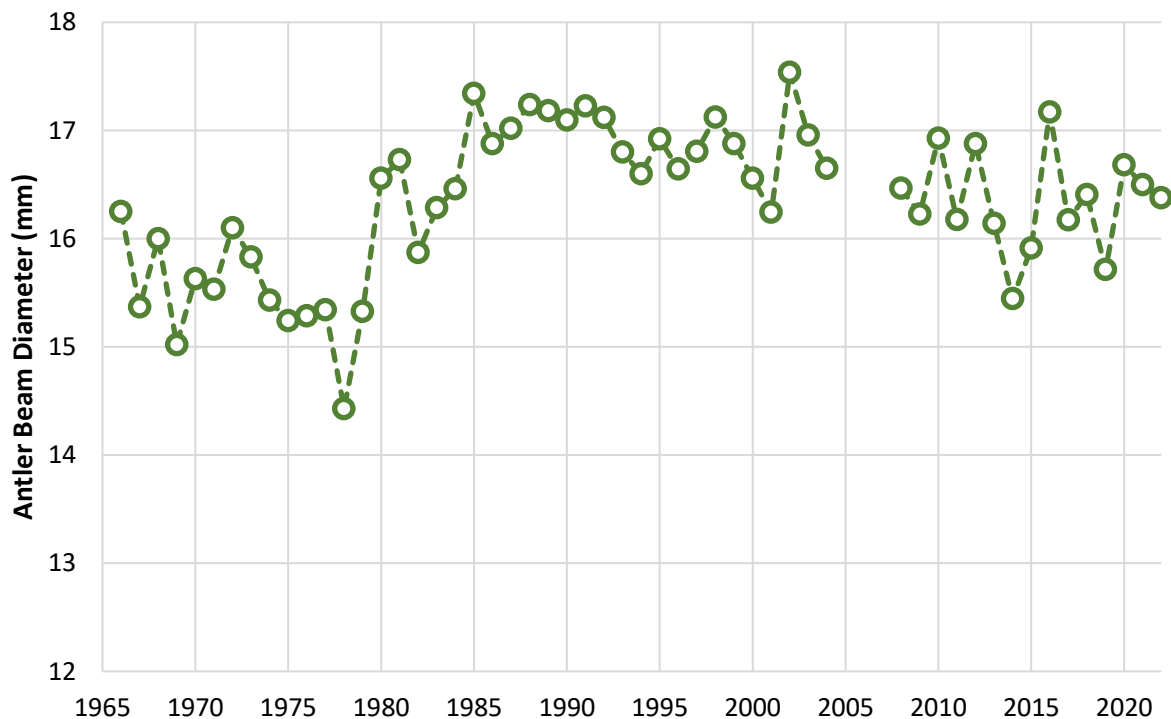


Figure 2. Winter severity index by Wildlife Management Unit in 2023 and the 30-year median.

## Population Health

Biological information collected annually by the Department, including reproductive data, fawn and yearling body weights, and yearling antler size, indicate that deer populations have exceeded the level the habitat can support long-term in some parts of Vermont (**Figure 3**, see Appendix A for individual WMU information). In many cases, this does not appear to be a new problem. Instead, this appears to be a subtle but chronic problem that may have occurred for decades in some areas. Declines in measures like yearling antler beam diameter have been slow (**Figure 3**); therefore, it takes many years of data to separate the trend from normal annual variation.

Health concerns are most pronounced in central Vermont but are evident in many parts of the state (see Appendix A for more detail). In most cases, the Department believes the primary driver of declines in physical condition was not a recent increase in deer abundance, but rather a slow, steady decline in the quality of deer habitat. Deer abundance has been relatively stable during the past 15 years, and, arguably, the past 30 years. However, Vermont's forests are aging and the amount of young forest (less than 20 years old), which provides critical forage for deer, is declining. Other factors, including hunter access to private land, proliferation of invasive plants, and climate change are also important, and make the problem and any solutions more complex. The simple result, however, is that the habitat cannot support the number of deer it used to, and it is likely that carrying capacity will continue to decline. Deer populations must be reduced below the limits of their habitat or physical condition will continue to decline, habitat damage will increase, and populations will become unstable and more susceptible to disease and substantial winter mortality.



**Figure 3. Antler beam diameter of yearling bucks in Vermont, 1965–2022. Data are from deer examined at biological check stations.**

## Population Projections and Management Objectives

Although the winter of 2023 was relatively easy for deer, increased antlerless harvests in recent years will limit population growth in most areas. Importantly, deer densities remain above population objectives in several WMUs and recent management efforts are only beginning to affect some of those populations. To provide healthy habitats and thereby keep deer healthy and productive, deer densities must be kept at established objectives (Figure 8). Maintaining a healthy deer herd is the best way to mitigate the potential effects of winter weather and provide a stable population over the long term.

Based on analysis of herd demographic data, hunter effort, deer sighting rates (Figure 4), buck harvests (Figure 5), antlerless deer harvests, and winter severity data (Figure 2), the Department expects deer numbers to remain stable in most areas with minor increases in a few WMUs (Figures 6 and 7). Importantly, eight WMUs will have deer densities that exceed their respective population objectives (Figure 8), and the Department's intent is to reduce deer densities in those areas (Figures 9). Other WMUs will have deer densities that are within two deer per square mile of their population objective and the intent is to stabilize those populations at or near their current level.

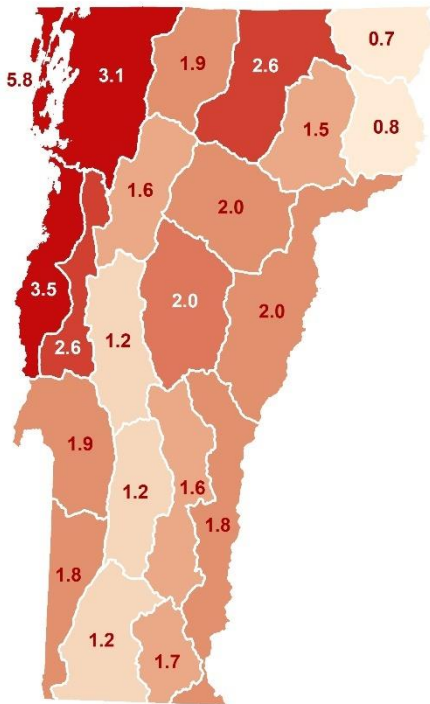


Figure 4. Deer seen per 10 hours of hunting by regular season deer hunters, 2020–2022.

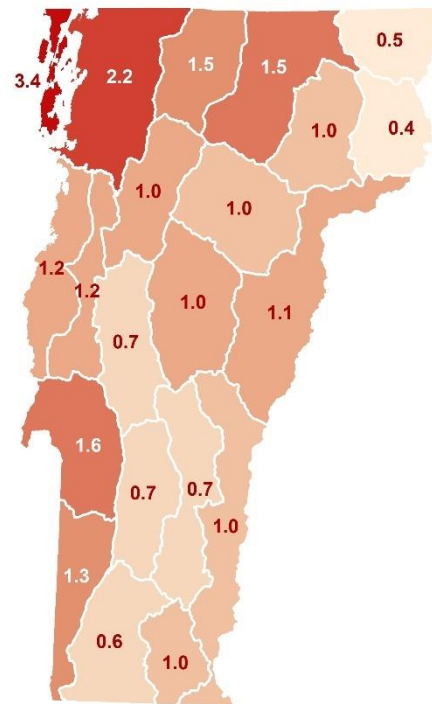


Figure 5. Adult buck harvest per square mile during the 2022 deer seasons. Buck harvest rate is affected by antler restrictions in some WMUs.

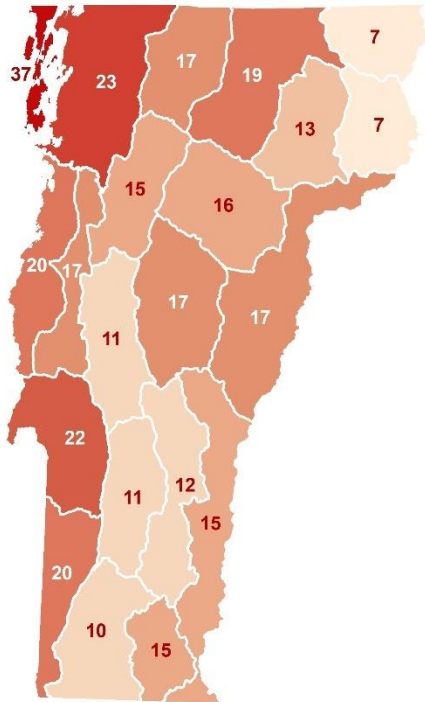


Figure 6. 2022 estimated deer density (deer per square mile of habitat), by WMU.

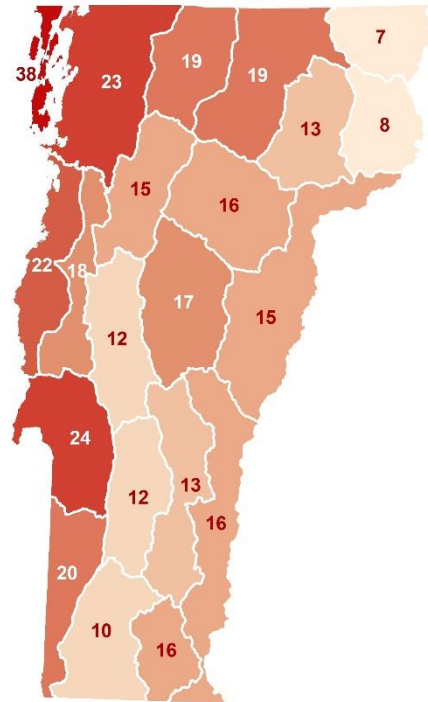


Figure 7. 2023 predicted deer density (deer per square mile of habitat), by WMU.

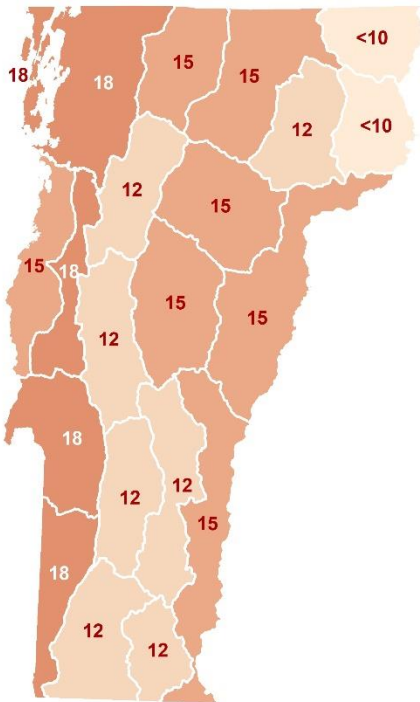


Figure 8. Deer density objectives (deer per square mile of habitat), by WMU.

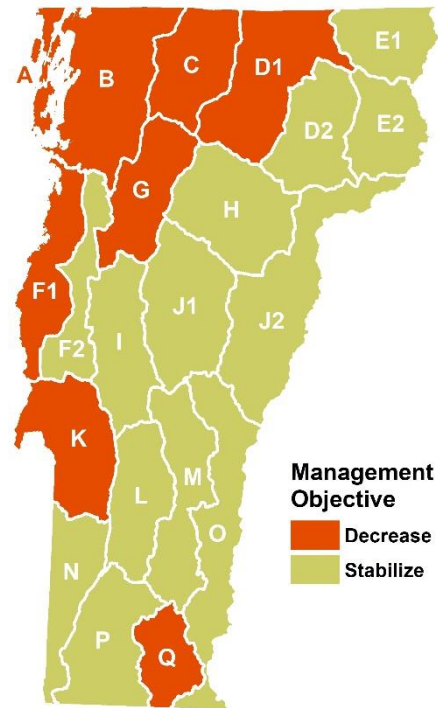


Figure 9. Desired change in the deer population, by WMU, to reach density objectives.



## Antlerless Harvest and Buck Age Structure Management

Antlerless harvests are an important tool for managing buck age structure and the overall buck hunting experience. The 2018 Big Game Survey found that 74% of Vermont hunters are interested in managing for older, larger deer. Further, the most important drivers of hunter satisfaction, after “just going deer hunting,” were “harvesting an older, larger-antlered buck” and “the amount of buck sign in the woods.” Providing additional antlerless harvest opportunities helps to reduce hunting pressure on bucks, allowing more bucks to survive to older ages. Increased antlerless harvests are also necessary to achieve a more balanced buck-to-doe ratio. Perhaps most importantly, a healthy deer population produces healthier, larger-antlered, larger-bodied bucks.

Ultimately, the Department would like to maintain the buck population at its current level. It may seem counterintuitive that this can be done with fewer does in the population, but age structure and birth rate data clearly indicate that it is possible. When does are in better physical condition they give birth to more fawns, and, more importantly, are able to raise more of those fawns to adulthood. This means that fewer, healthier does can recruit more deer into the population than a larger number of less-healthy does on over-browsed habitat. If the physical condition of deer can be improved, recruitment of fawns to adulthood will improve. Since half of fawns are male, this would allow the buck population to remain at its current level, or even increase, despite fewer does on the landscape.

## Antlerless Harvest Recommendation

### Archery Season

The Department believes it is appropriate to have all WMUs open to the taking of antlerless deer during the 2023 archery season. Antlerless harvest in archery season is a key component in deer population management in Vermont. Archery hunters tend to distribute their hunting effort and, as a result, harvest in areas with higher deer numbers. Therefore, archery harvest has a low impact in areas with fewer deer. Importantly, archery harvest allows hunters to better regulate local deer herds in areas with high deer densities, particularly areas where firearm hunting is limited.

### Youth and Novice Season

The Department is strongly committed to recruiting new hunters into Vermont’s deer hunting heritage. Based on this commitment and the importance of harvesting an adequate number of female deer each year, the Department recommends that the youth and novice season bag limit be one deer of either sex in all WMUs. This will provide these hunters with additional opportunity to harvest a deer and the opportunity to help properly manage Vermont’s deer herd. The Department also recommends that hunters during this season be able to take any buck, regardless of antler characteristics. It is critical that spike-antlered bucks be taken during this season so the Department can track their prevalence in the population (for population modeling) and obtain important biological information (e.g., weight, antler measurements) from this portion of the yearling buck population. This is the primary reason Department biologists examine deer during this season each year. This will have no impact on buck age structure management in WMUs that still have an antler restriction, as the buck harvest during this season is typically about five percent (four percent in 2022) of the overall buck harvest.

## Antlerless Permits

Antlerless permits are recommended for 19 of the state’s 21 WMUs in 2023. These permits may be filled during the early antlerless-only muzzleloader season in late October or during the December muzzleloader season. The Department recommends that a total of 22,000 antlerless permits be issued (12 percent more than the 19,400 approved for distribution in 2022). An increase in antlerless permits is recommended in six WMUs, while all other WMUs would have the same number of permits as allocated in 2022 (**Figure 10**). These recommendations are intended to move populations toward WMU-specific deer density and physical condition objectives established in the *2020-2030 Big Game Management Plan* (see Appendix A for additional detail). This permit allocation is expected to result in the harvest of an additional 3,257 antlerless deer above those harvested during the archery and youth/novice seasons. Harvesting this number of antlerless deer should yield approximately 2,769 adult female deer (85 percent of muzzleloader antlerless deer are adult does).

The total recommended antlerless harvest is slightly higher than the average antlerless harvest during 2020–2022, with most of the increase occurring in WMUs where deer populations remain above objectives. This recommendation continues to take advantage of new hunting regulations to achieve the higher antlerless harvests that are necessary to achieve WMU-specific deer density and physical condition objectives. Harvests are intended to maintain populations near their current level, or to reduce populations toward density objectives over several years, not all at once. Relatively high antlerless harvests will continue to be necessary in the future to maintain populations at desired densities, particularly when winters are mild and as deer condition and fawn recruitment rates improve.

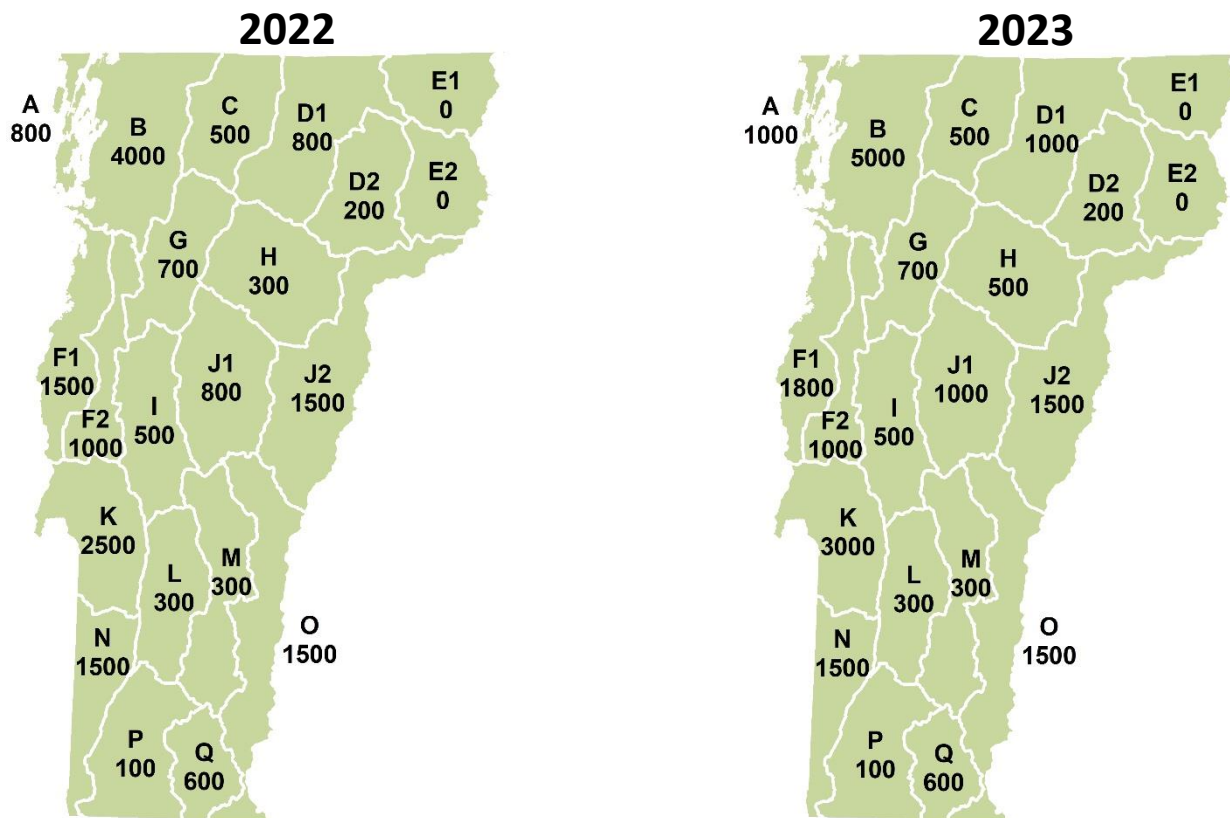


Figure 10. Antlerless permit allocations by wildlife management unit for 2022 and 2023 (proposed).

Table 1. Estimated deer densities and predicted antlerless deer harvests during the 2023 archery, youth/novice, and muzzleloader seasons, by wildlife management unit.

WMU	Deer per mi <sup>2</sup>			Muzzleloader Antlerless			Other Antlerless		2023 Total Antlerless	% of Doe Population Harvested	Doe Harvest per Mi <sup>2</sup>	Doe Harvest per 100 Bucks <sup>a</sup>
	Objective	2022	2023	Permits	Fill Rate	Harvest	Archery	Youth/Novice				
A	18	37	38	1000	14%	137	164	23	324	22%	3.84	124
B	18	23	23	5000	15%	766	717	148	1630	20%	2.21	115
C	15	17	19	500	20%	100	232	53	385	9%	0.83	58
D1	15	19	19	1000	21%	211	397	117	724	11%	1.05	68
D2	12	13	13	200	19%	38	160	36	234	8%	0.50	50
E1	<10	7	7	0		0	27	5	32	2%	0.09	18
E2	<10	7	8	0		0	21	3	23	2%	0.06	17
F1	15	20	22	1800	14%	245	175	30	450	11%	1.20	99
F2	18	17	18	1000	13%	127	161	30	318	11%	0.99	75
G	12	15	15	700	14%	97	156	13	266	8%	0.58	61
H	15	16	16	500	18%	92	305	43	440	9%	0.71	81
I	12	11	11	500	15%	73	108	15	195	7%	0.39	49
J1	15	17	17	1000	17%	171	322	44	537	10%	0.85	90
J2	15	17	15	1500	18%	267	392	71	730	11%	0.86	84
K	18	22	24	3000	13%	394	215	55	664	11%	1.27	81
L	12	11	12	300	13%	40	65	9	115	4%	0.26	36
M	12	12	13	300	15%	45	61	12	118	3%	0.22	32
N	18	20	20	1500	12%	173	130	36	340	9%	0.88	65
O	15	15	16	1500	14%	204	235	31	470	9%	0.72	72
P	12	10	10	100	15%	15	88	11	113	4%	0.21	33
Q	12	15	16	600	11%	63	88	3	155	7%	0.56	54
<b>STATE</b>				<b>22000</b>	<b>15%</b>	<b>3257</b>	<b>4217</b>	<b>787</b>	<b>8262</b>			

<sup>a</sup> In WMUs with an antler restriction, which reduces buck harvest, this number will be higher than a comparable area with no antler restriction.

Table 2. Muzzleloader antlerless permit history by WMU, 2015–2022, and recommended permit allocation for 2023. Numbers in parentheses are the number of permits actually distributed.

<b>WMU</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>A</b>	900	1100	1100 (843)	1100 (720)	1100 (939)	1000	500	800	<b>1000</b>
<b>B</b>	3350	5500	5500	5500	5500	4500	3500	4000	<b>5000</b>
<b>C</b>	100	350	700	800	300	500	500	500	<b>500</b>
<b>D1</b>	100	300	500	1200	500	1000	800	800	<b>1000</b>
<b>D2</b>	0	100	300	800	300	500	300	200	<b>200</b>
<b>E1</b>	0	0	0	0	0	0	0	0	<b>0</b>
<b>E2</b>	0	0	0	0	0	0	0	0	<b>0</b>
<b>F1</b>	0	200	1200 (917)	1000 (900)	1000	1000	1300	1500 (1453)	<b>1800</b>
<b>F2</b>	0	700	1500 (1297)	1300	1300	1300	1000	1000	<b>1000</b>
<b>G</b>	100	300	300	300	300	700	700	700	<b>700</b>
<b>H</b>	100	750	900	1100	400	300	300	300	<b>500</b>
<b>I</b>	0	0	300	300	300	500	500	500	<b>500</b>
<b>J1</b>	0	300	750	1200	800	1500	1200	800	<b>1000</b>
<b>J2</b>	400	1500	1750	2500	2000	2000	1800	1500	<b>1500</b>
<b>K</b>	2250	4100 (3569)	4100 (2505)	4000 (2446)	4000 (2440)	3000	3000 (2795)	2500	<b>3000</b>
<b>L</b>	0	0	300	300	300	300	300	300	<b>300</b>
<b>M</b>	0	200	300	300	300	300	300	300	<b>300</b>
<b>N</b>	1850	2100 (1835)	2100 (1588)	2000 (1487)	2000 (1462)	2000	1800 (1642)	1500	<b>1500</b>
<b>O</b>	500	1200	2000	2600 (2300)	2000	2000	1500	1500	<b>1500</b>
<b>P</b>	0	0	0	0	0	100	100	100	<b>100</b>
<b>Q</b>	0	250	900 (692)	700 (604)	600	500	600	600	<b>600</b>
<b>STATE</b>	<b>9650</b>	<b>18950</b> (18254)	<b>24500</b> (21442)	<b>27000</b> (24057)	<b>23000</b> (20741)	<b>23000</b>	<b>20000</b> (19637)	<b>19400</b> (19353)	<b>22000</b>

Table 3. Muzzleloader antlerless permit fill rate by WMU, 2015–2022.

<b>WMU</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>A</b>	9%	10%	12%	19%	13%	17%	14%	11%
<b>B</b>	12%	15%	13%	19%	14%	18%	15%	14%
<b>C</b>	20%	29%	19%	33%	24%	23%	20%	20%
<b>D1</b>	10%	25%	28%	29%	24%	23%	19%	18%
<b>D2</b>		18%	18%	21%	21%	20%	17%	18%
<b>E1</b>								
<b>E2</b>								
<b>F1</b>		15%	11%	16%	13%	17%	13%	12%
<b>F2</b>		14%	11%	19%	12%	17%	11%	10%
<b>G</b>	7%	20%	16%	28%	14%	17%	12%	12%
<b>H</b>	12%	16%	17%	20%	18%	21%	18%	16%
<b>I</b>			11%	24%	15%	19%	14%	10%
<b>J1</b>		23%	19%	26%	19%	18%	14%	17%
<b>J2</b>	16%	20%	16%	23%	17%	21%	16%	18%
<b>K</b>	10%	13%	12%	18%	14%	16%	11%	12%
<b>L</b>			14%	31%	15%	17%	13%	9%
<b>M</b>		18%	15%	24%	13%	17%	13%	17%
<b>N</b>	9%	13%	12%	18%	11%	13%	11%	11%
<b>O</b>	15%	15%	15%	20%	11%	13%	13%	16%
<b>P</b>						17%	13%	14%
<b>Q</b>		11%	12%	18%	10%	13%	9%	11%
<b>STATE</b>	<b>11%</b>	<b>15%</b>	<b>14%</b>	<b>21%</b>	<b>14%</b>	<b>17%</b>	<b>14%</b>	<b>14%</b>

## Public Comments

Five public hearings were held March 20, 23, 24, and May 9, and 17, 2023 to gather comments on the deer herd. Approximately 117 members of the public participated in these hearings. Summaries of comments on the status of the deer herd from these hearings and from emails received by the Department are provided in Appendices B and C.

## Appendix A: Population Status and Management Recommendations by WMU

Deer densities, habitat conditions, and winter severity can vary substantially from one part of Vermont to another. Additionally, these factors and the effects of historical deer densities have resulted in deer in some regions being in better physical condition than others. This results in variable deer population dynamics across the state; therefore, deer management prescriptions are made at the WMU level rather than statewide.

The Department is aware that deer densities (and other factors) vary within each WMU, sometimes substantially. Unfortunately, managing deer at a smaller scale than a WMU is not currently feasible given the structure of hunting regulations and the Department's ability to collect enough data. However, hunters generally do a good job of targeting areas of higher deer density within a WMU if they have sufficient access.

### Description of data provided for each WMU

**Area of deer habitat:** Deer habitat is all land that is not developed.

**Management Objective:** The desired change in the deer population (Increase, Decrease, Stabilize)

**Recommended Antlerless Harvest:** The recommended antlerless harvest for 2023 during the archery, youth/novice, and muzzleloader seasons. Archery and youth/novice antlerless harvests are based on the previous 3-year averages and adjusted for the expected change in deer numbers from 2022 to 2023. The number of permits required to achieve the recommended muzzleloader antlerless harvest is also shown.

**Deer Density:** Estimated pre-hunt deer density over the past 10 years based on retrospective population modelling and the projected density in fall 2023. The density objective established in the *2020-2030 Big Game Management Plan* is represented by a red line in the figure. The shaded green area shows  $\pm 2$  deer per square mile – the range in which the management objective will be to stabilize.

**Harvest:** The total buck and antlerless deer harvests during all seasons during the past 10 years. The proposed antlerless harvest for 2023 is shown by the dotted red line.

**Yearling Antler Beam Diameter/Yearling Male Weight/Fawn Weight:** These physical condition metrics are from deer examined by biologists at check stations. The average for the most recent three years of data is provided. Sample size is shown in parentheses. Minimum acceptable levels for each metric, established in the *2020-2030 Big Game Management Plan*, are also shown.

**Adult Birth Rate:** The average adult birth rate (fetuses per doe) over the past five years based on examinations of incidentally killed deer during February-May. Sample size is shown in parentheses. The minimum acceptable level established in the *2020-2030 Big Game Management Plan* is also shown.

**Winter Severity:** The median winter severity index in that WMU over the past 30 years and the expected adult doe mortality outside of the hunting seasons based on that winter severity.

**Red Numbers:** Numbers are red when a metric does not meet the objectives established in the *2020-2030 Big Game Management Plan*.

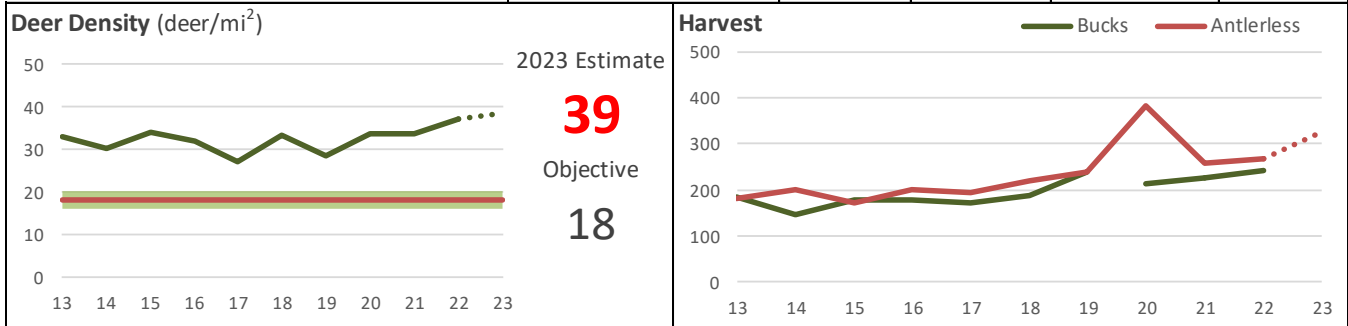
# A

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mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	164	23	137 <small>1000 permits</small>	<b>324</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>17.4</b> (5)	3-Year Avg. <b>128.8</b> (6)	3-Year Avg. <b>55.3</b> (3)	5-Year Avg. <b>2.20</b> (5)	Median WSI <b>20</b>
Minimum <b>17</b>	Minimum <b>118</b>	Minimum <b>60</b>	Minimum <b>1.60</b>	expected non-hunt mortality <b>9%</b>



Wildlife Management Unit A encompasses the Champlain Islands (Grand Isle County). Winters here are among the least severe anywhere in Vermont and the habitat is relatively productive due to an abundance of agriculture. Despite high population density, physical condition of deer in this region remains good, presumably due to the abundance of agricultural habitat.

The abundant agriculture and other open land results in only 46% of the habitat being forested. This means the estimated density of 39 deer per square mile of habitat equates to 84 deer per square mile of forest. This density of deer is having significant impacts on forest ecosystems. The health of these ecosystems is the primary management concern in this region.

The archery antlerless harvest has increased in this WMU under the new regulations. However, it has not been sufficient to reduce deer numbers. The 2023 antlerless harvest recommendation is higher than recent years and should be sufficient to reduce deer numbers over time.

Limited hunter access to private land is a significant management challenge in this WMU.

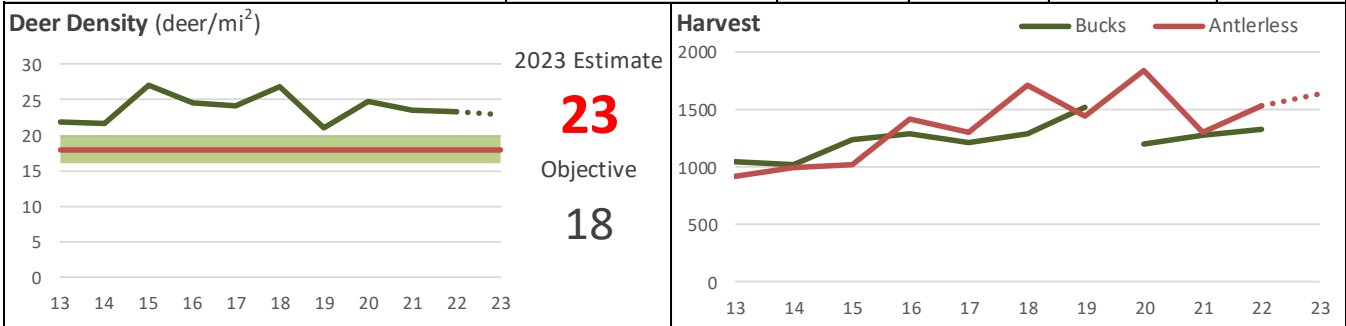
# B

616

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	717	148	766 <small>5000 permits</small>	<b>1630</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>16.0</b> (90)	<b>117.3</b> (92)	<b>59.0</b> (44)	<b>1.90</b> (20)	<b>32</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
17	118	60	1.60	11%



Wildlife Management Unit B encompasses the Champlain Valley north of the Winooski River. Severe winters are rare in this region and the habitat is relatively productive, with an ideal mix of forest and fields.

Physical condition of deer in this region is mediocre considering the quality of the habitat, indicating that deer densities have exceeded the level that the habitat can support long-term. This is further supported by widespread and often substantial evidence of deer impacts to forest ecosystems. It appears that recent increases in antlerless harvest may have stopped physical condition from declining, but have been insufficient to allow for improvement.

Deer density in this WMU has been above management objective for many years, but antlerless harvests achieved in 2018 and 2020 appear to have begun reducing the population. The recommended antlerless harvest in 2023 is higher than the 2021 and 2022 harvests in an attempt to reduce deer numbers more quickly.

Limited hunter access to private land is a significant management challenge in this WMU.



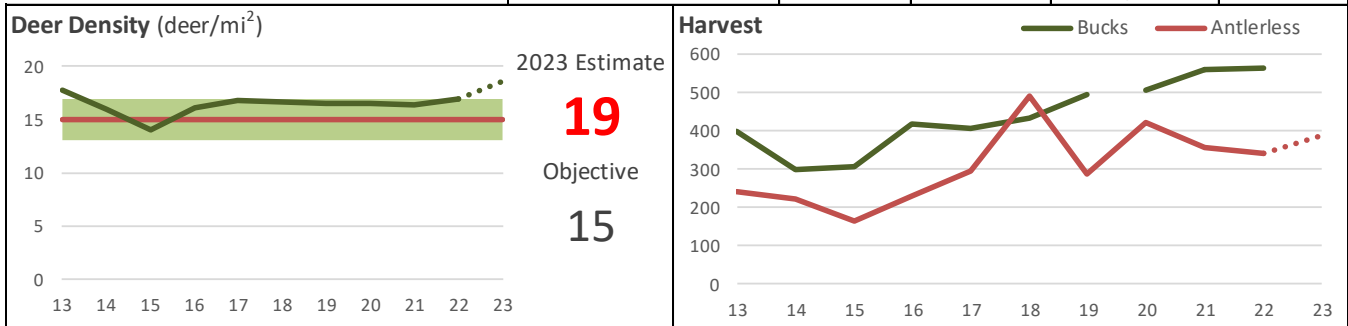
# C

386

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	232	53	100 <small>500 permits</small>	<b>385</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>16.8</b> (16)	<b>117.4</b> (16)	<b>57.8</b> (19)	<b>1.64</b> (11)	<b>38</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
17	118	60	1.60	12%



Wildlife Management Unit C encompasses the northernmost portion of the Green Mountains, from Johnson to the Canadian border. The westernmost portion of the WMU consists of lower elevation farmland similar to WMU B and has notably higher deer densities than higher elevation portions of the WMU.

Physical condition of deer in this WMU is mediocre and suggests that density has been near or slightly above the level the habitat can support for many years. This is presumably driven primarily by higher density in the western portion of the WMU and/or declining habitat quality in the more heavily forested, mountainous areas.

Deer density has remained relatively stable in this WMU over the past 10 years, and importantly has been above the current objective of 15 deer/mi<sup>2</sup> (albeit only slightly) since 2016. The projected increase in deer numbers in 2023 may not be accurate given the stability of the population over the previous 6 years. Due to uncertainty in that estimate, the 2023 recommended antlerless harvest is similar to the harvest achieved in recent years. Future antlerless harvests may need to be higher in order to reduce deer numbers and improve physical condition.

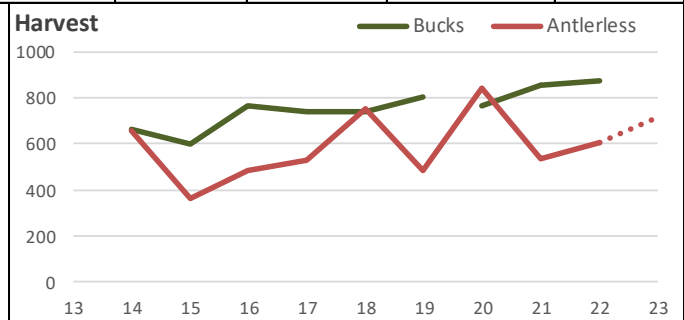
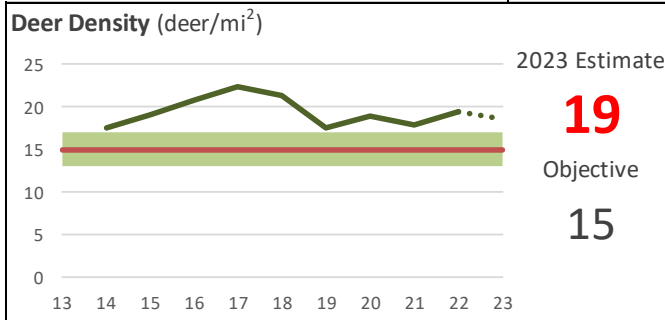
# D1

570

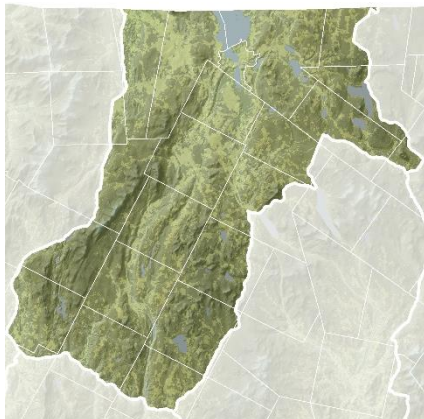
mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	390	115	211 <small>1000 permits</small>	<b>716</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>16.6</b> (40)	<b>118.4</b> (41)	<b>59.2</b> (22)	<b>1.87</b> (30)	<b>56</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
<b>17</b>	<b>118</b>	<b>60</b>	<b>1.60</b>	<b>15%</b>



Wildlife Management Unit D1 is in the northern Vermont piedmont biophysical region. Deer habitat in this WMU is fairly productive, with a mix of forest and fields. Winters in this region tend to be more severe than much of the rest of the state, which limits the density of deer that can be supported long term.

Physical condition of deer in this WMU has been stable near the minimum acceptable levels. This is concerning, particularly given the amount of agriculture and general quality of habitat and suggests the population has been overabundant for many years.

Recent higher antlerless harvests appear to have stabilized deer density in this WMU, but have been insufficient to reduce deer numbers when winters are easy or moderate. A slightly higher antlerless harvest is recommended in 2023, and will likely be necessary going forward to effectively reduce deer numbers and improve physical condition.

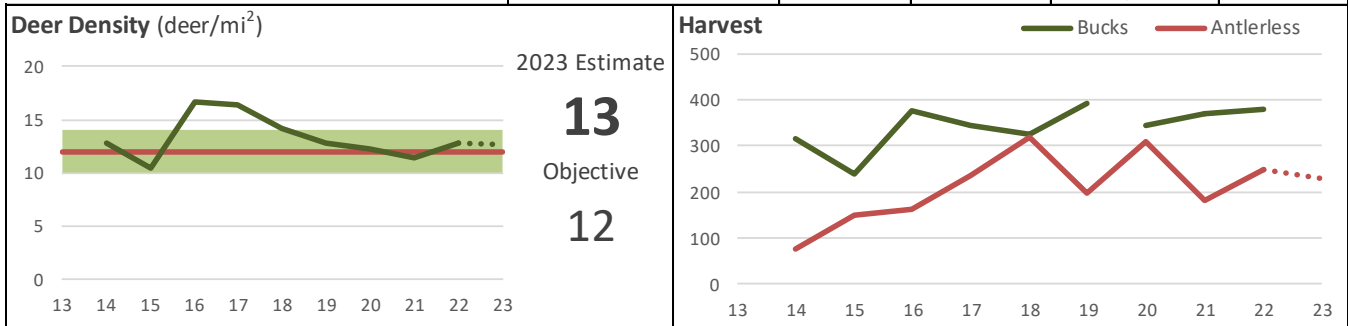
# D2

387

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	155	35	38 <small>200 permits</small>	<b>228</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>17.9</b> (7)	<b>119.3</b> (8)	<b>60.9</b> (10)	<b>1.94</b> (17)	<b>63</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
<b>17</b>	<b>118</b>	<b>60</b>	<b>1.60</b>	<b>16%</b>



Wildlife Management Unit D2 is located in the Northeast Kingdom. Higher elevation portions of the unit are heavily forested while lower elevations, particularly along the Passumpsic river valley, include more open land and agriculture. As a result, deer density is higher in lower elevation areas in the southeastern part of the unit.

Winters in this WMU are often severe, which limits deer density, particularly in the higher elevation areas, and helps keep deer in good physical condition. However, several of the lower elevation towns (e.g., Burke, Lyndon, St. Johnsbury) have seen record or near-record harvests in recent years, suggesting the deer population in this part of the WMU is growing.

The antlerless harvest recommendation is intended to maintain the population at 12 deer/mi<sup>2</sup>. Most antlerless harvest, particularly during the archery season, tends to be concentrated in the lower elevation, higher density parts of the WMU. The Department will also be considering an expanded archery zone around St. Johnsbury to further increase antlerless harvests in this area where complaints about deer damage to gardens and landscaping are common.

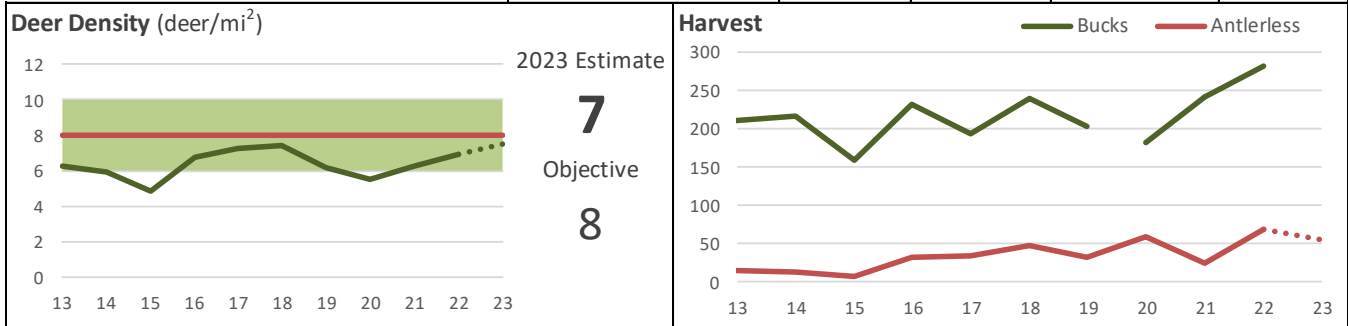
# E

648

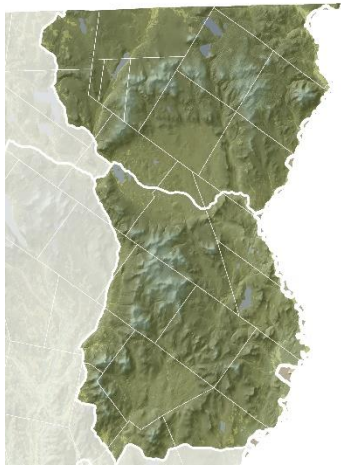
mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	47	8	0 0 permits	55



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>19.9</b> (8)	3-Year Avg. <b>125.5</b> (8)	3-Year Avg. <b>71.5</b> (2)	5-Year Avg. <b>2.14</b> (7)	Median WSI <b>70</b>
Minimum <b>17</b>	Minimum <b>118</b>	Minimum <b>60</b>	Minimum <b>1.60</b>	expected non-hunt mortality <b>17%</b>



Wildlife Management Units E1 and E2 are located in the northeast corner of Vermont in the northeast highlands biophysical region. This region regularly experiences severe winters which limit deer density.

These WMUs are heavily forested, but young forest is abundant due to widespread commercial timber harvesting. As a result, summer deer habitat is relatively high quality. It is the quantity and quality of winter habitat, specifically mature softwood cover, that limits deer abundance in this region.

Additionally, deer in this region must coexist with a relatively abundant moose population. Because they largely compete for the same resources at certain times of year, the densities of both species must be considered in management decisions. The current density objective in these WMUs considers both the relationship between deer and moose and the limited quantity and quality of current deer winter habitat. Maintaining deer density below 10/mi<sup>2</sup> helps minimize the risk of brainworm infection in moose and allows deer winter habitats to improve.

Deer density remains well below the 10/mi<sup>2</sup> threshold and has been relatively stable over the past 10 years. The current antlerless recommendation provides additional harvest opportunity to archery and youth/novice hunters and will have no effect on the population.

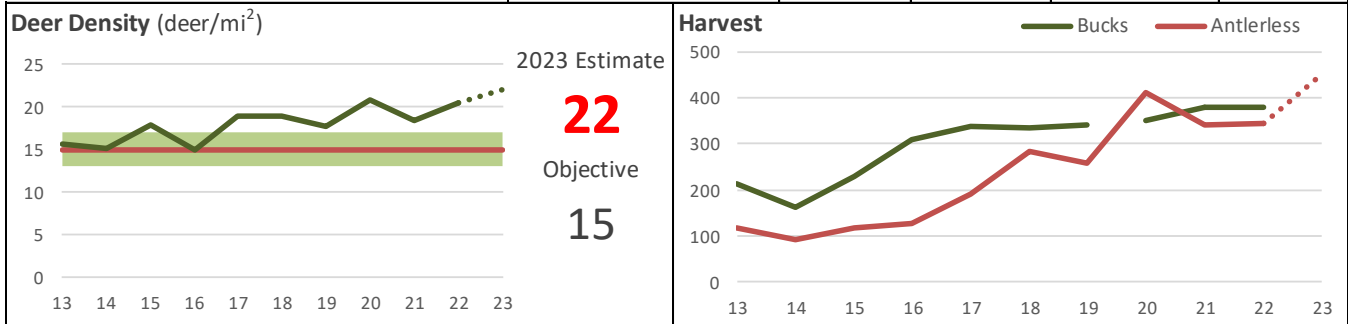
# F1

316

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	175	30	245 <small>1800 permits</small>	<b>450</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>16.3</b> (22)	3-Year Avg. <b>119.6</b> (23)	3-Year Avg. <b>62.6</b> (9)	5-Year Avg. <b>2.08</b> (12)	Median WSI <b>20</b>
Minimum <b>17</b>	Minimum <b>118</b>	Minimum <b>60</b>	Minimum <b>1.60</b>	expected non-hunt mortality <b>9%</b>



Wildlife Management Unit F1 is in the southern Champlain Valley, from Burlington south through the heavily agricultural regions of Addison County. Winters are relatively easy for deer in this part of Vermont and the abundance of agriculture results in excellent deer habitat. This is reflected in the physical condition of the deer, which is consistently among the best in the state.

The abundance of agriculture and otherwise open land results in only 33% of this WMU being forested. The current density of 22 deer/mi<sup>2</sup> of habitat therefore equates to 68 deer/mi<sup>2</sup> of forest. These high densities have caused widespread and significant impacts to forest ecosystems, including many of the uncommon natural communities that are found in this region.

Deer density has increased steadily over the past decade, with many towns having record or near-record harvests each year. The recent increases in antlerless harvest may have helped to slow this increase, and possibly stabilize the population, but harvests have been insufficient to reduce deer density toward the objective. The recommended antlerless harvest represents an increase over the harvest achieved in recent years. Consistently higher antlerless harvests will be necessary to reduce the population and maintain it at the objective level.

Limited hunter access to private land is a significant management challenge in this WMU.

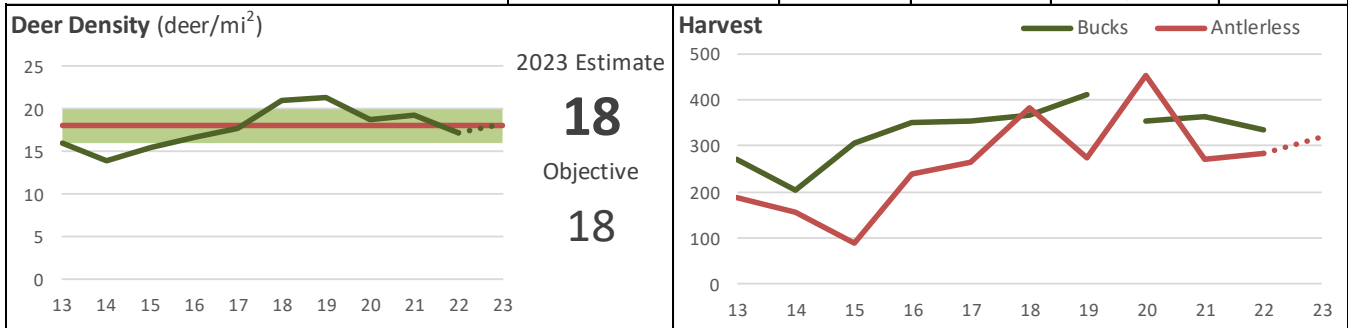
# F2

268

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	161	30	127 <small>1000 permits</small>	<b>318</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>15.6</b> (13)	<b>122.4</b> (13)	<b>60.8</b> (13)	<b>1.71</b> (7)	<b>21</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
17	118	60	1.60	10%



Wildlife Management Unit F2 is located in the southern Champlain Valley in the foothills of the Green Mountains. Winters here are relatively easy for deer and the habitat is generally good with a mix of forest and field.

Considering the prevalence of agriculture and mild winters, the mediocre condition of yearling bucks is concerning. This suggests that deer density has exceeded the level the habitat can support. Indeed, deer impacts to forest ecosystems are common in this WMU.

Many towns in this WMU have experienced record or near record harvests in the past few years. However, recent increases in the antlerless harvest appear to have stabilized the population near the objective.

The current antlerless harvest recommendation is similar to the harvest achieved in recent years, and will be necessary to maintain the population near the objective level.

Limited hunter access to private land is a significant management challenge in this WMU.

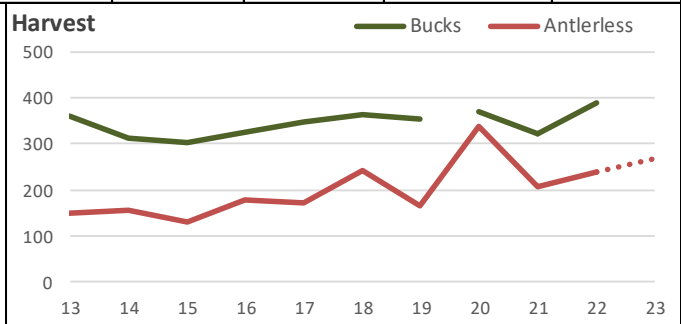
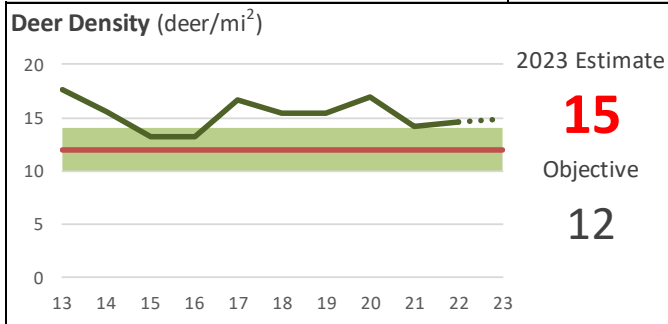
# G

388

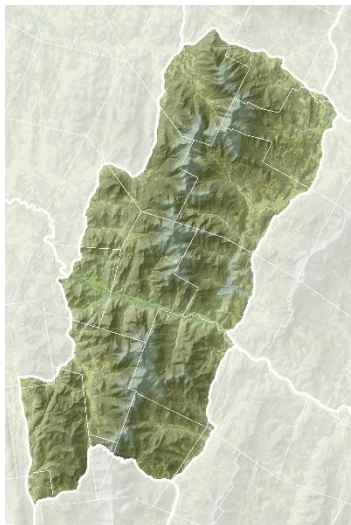
mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	156	13	97 700 permits	<b>266</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>18.0</b> (9)	<b>117.3</b> (9)	<b>67.0</b> (2)	<b>1.62</b> (13)	<b>27</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
<b>16.5</b>	<b>115</b>	<b>60</b>	<b>1.60</b>	<b>10%</b>



Wildlife Management Unit G is in the northern Green Mountains from the Appalachian Gap (Rte 17) north to Johnson. This area is heavily forested and mountainous, and includes both Camel’s Hump and Mount Mansfield. Deer habitat is poor due to the unproductive mountain terrain and very limited young forest habitat. Winters here can occasionally be severe, but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is low at higher elevations, but moderate to high at lower elevations, particularly on the western edge of the unit. Physical condition of deer was below optimal levels for many years, although it has improved recently. This indicates that density had exceeded what the habitat can support, likely for many years, and was the primary basis for setting the current population objective in this unit at 12 deer/mi<sup>2</sup>.

Past antlerless harvests have had no clear effect on deer numbers in this WMU, although they may be slowly declining. The recommended antlerless harvest in 2023 is similar to recent years. This should reduce deer numbers if winter severity is normal, which will help to maintain the improved physical condition.

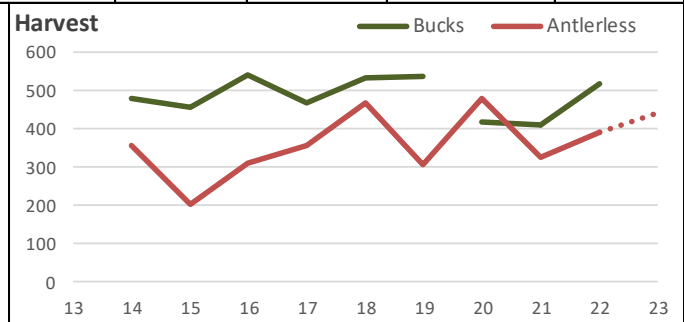
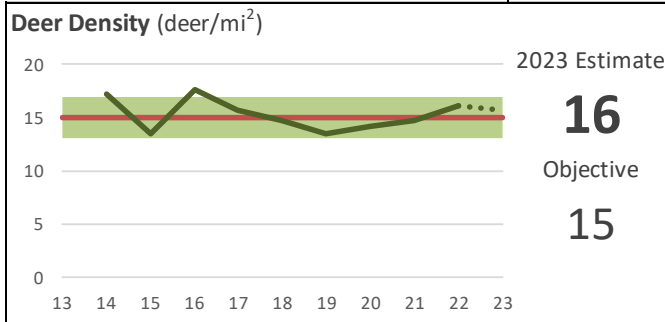
# H

518

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	305	43	92 <small>500 permits</small>	<b>440</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>16.2</b> (15)	<b>118.3</b> (16)	<b>58.0</b> (12)	<b>1.55</b> (22)	<b>49</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
<b>16</b>	<b>115</b>	<b>60</b>	<b>1.60</b>	<b>14%</b>



Wildlife Management Unit H is located in north-central Vermont, from Stowe east to Groton and Barre-Montpelier north to Hardwick. Habitat quality for deer varies considerably in this unit, and that is reflected in local deer densities. Lower elevation areas closer to Montpelier and Barre have more agriculture and open land and easier winters, resulting in relatively high deer density. The remainder of the WMU is higher elevation (including the Worcester and Groton ranges) and heavily forested. Winters are more severe in these areas and habitat quality is generally poor. As a result, deer density is lower.

Physical condition of deer in this WMU is generally mediocre, although trends in yearling antler beam diameter and weight are encouraging. The current overall density of deer in this WMU should be sustainable;

however, it will be important to achieve and maintain higher antlerless harvests in the Barre-Montpelier area where deer are overabundant. The Department will be considering an expanded archery zone to address this concern.

Most of the antlerless harvest in this WMU occurs during archery season and is heavily concentrated closer to Barre and Montpelier. The recommendation for 2023 allows additional antlerless harvest opportunity in the muzzleloader seasons and should help to stabilize deer numbers near the objective.



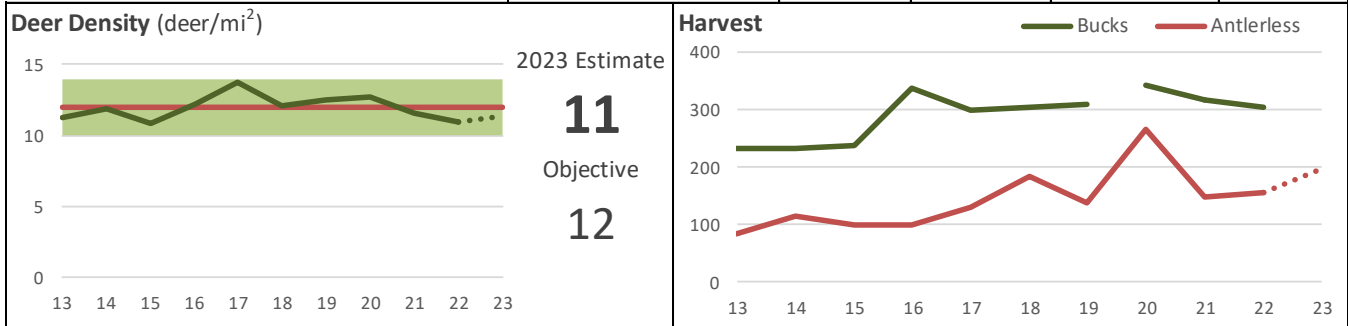


424

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	108	15	73 500 permits	<b>195</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>15.8</b> (5)	3-Year Avg. <b>118.4</b> (5)	3-Year Avg. <b>50.0</b> (2)	5-Year Avg. <b>1.38</b> (8)	Median WSI <b>24</b>
Minimum 16.5	Minimum 115	Minimum 60	Minimum 1.60	expected non-hunt mortality 10%



Wildlife Management Unit I is located in the central Green Mountains, from Route 4 in Killington north to the Appalachian Gap (Rte. 17). Deer habitat is generally poor due to the unproductive mountain terrain and very limited young forest habitat. Winters here can occasionally be severe but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is low at higher elevations, but can be moderate to high at lower elevations, particularly on the western edge of the unit. The birth rate and fawn weights are concerning, but sample sizes are limited. It appears that higher antlerless harvests since 2017 have helped to stabilize the population at the objective of 12 deer/mi<sup>2</sup>.

The recommendation for 2023 is to continue with that harvest level to maintain current deer numbers and provide additional harvest opportunity.

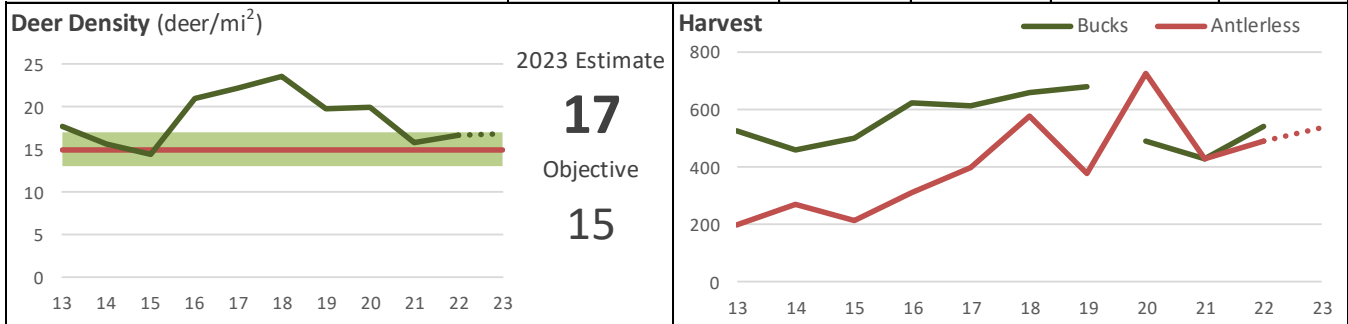
# J1

528

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	322	44	171 <small>1000 permits</small>	<b>537</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>15.4</b> (7)	3-Year Avg. <b>117.8</b> (8)	3-Year Avg. <b>60.3</b> (9)	5-Year Avg. <b>1.79</b> (24)	Median WSI <b>33</b>
Minimum <b>16</b>	Minimum <b>115</b>	Minimum <b>60</b>	Minimum <b>1.60</b>	expected non-hunt mortality <b>11%</b>



Wildlife Management Unit J1 is located in central Vermont. It encompasses the area from route 100 east to route 110 in Tunbridge and Chelsea, and from route 2 south to Bethel. Habitat quality for deer varies considerably in this unit, and that is reflected in local deer densities. Eastern parts of the WMU are hilly with an almost ideal mix of forest and field resulting in relatively high deer density. Conversely, the western half of the WMU is more mountainous and heavily forested. Habitat quality is poorer and, as a result, deer density is lower.

Physical condition of deer in this WMU has been poor for many years, but appears to be improving. Poor condition is presumably related to declining habitat quality and historical overabundance of deer. Clearly, deer density in this unit had exceeded the level the habitat can support long-term. Recent population reductions appear to be having the desired effect of improving physical condition.

Recent higher antlerless harvests and the moderately severe winter of 2019 have reduced the population in this WMU. The recommended antlerless harvest in 2023 is similar to the harvests achieved in recent years. This level of harvest will be necessary to maintain the population near the objective level, particularly when winters are mild.

It will also be important to increase antlerless harvest in the Barre-Montpelier area where deer are overabundant and conflicts are more likely. The Department will be considering an expanded archery zone to address this concern.

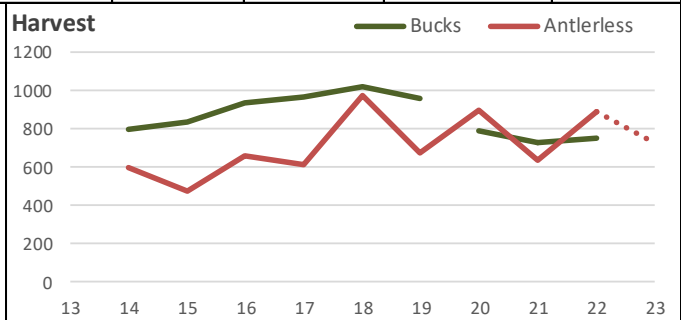
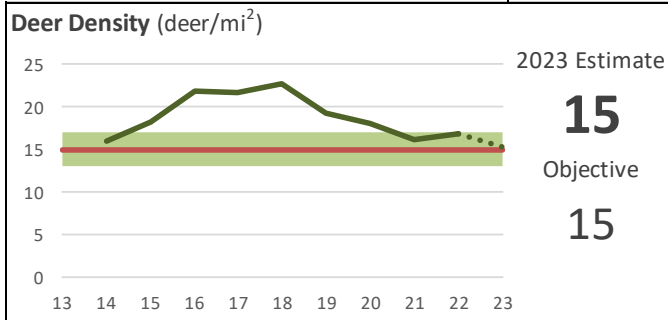
# J2

705

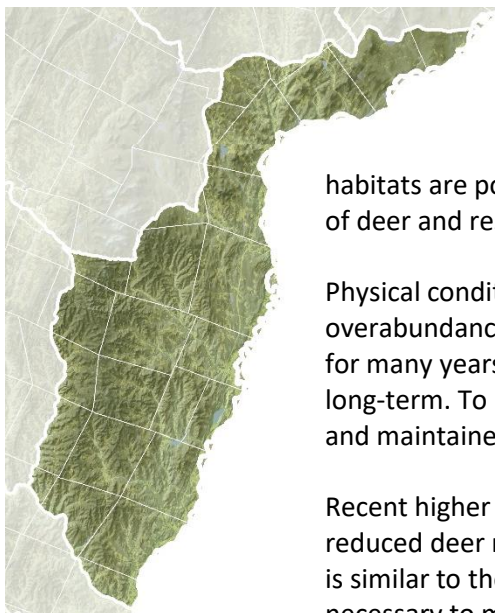
mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	392	71	267 1500 permits	<b>730</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>15.6</b> (21)	3-Year Avg. <b>106.0</b> (21)	3-Year Avg. <b>57.1</b> (26)	5-Year Avg. <b>1.64</b> (28)	Median WSI <b>42</b>
Minimum <b>16</b>	Minimum <b>115</b>	Minimum <b>60</b>	Minimum <b>1.60</b>	expected non-hunt mortality <b>13%</b>



Wildlife Management Unit J2 encompasses the Connecticut River Valley from Lunenburg to White River Junction. Winters can occasionally be severe but are typically moderate to easy. The habitat contains a desirable mix of forest and field but forest habitats are poor quality due to a lack of young forest and historical overabundance of deer and resultant chronic overbrowsing.

Physical condition of deer in this WMU is poor. This is presumably related to historical overabundance of deer and declining habitat quality, as these metrics have been low for many years. Clearly, deer density has exceeded the level the habitat can support long-term. To improve the health of deer in this WMU, deer density must be reduced and maintained at the objective level.

Recent higher antlerless harvests and the moderately severe winter of 2019 have reduced deer numbers in recent years. The recommended antlerless harvest in 2023 is similar to the harvest achieved in recent years. This level of harvest will be necessary to maintain the population near the objective level, particularly when

winters are mild.

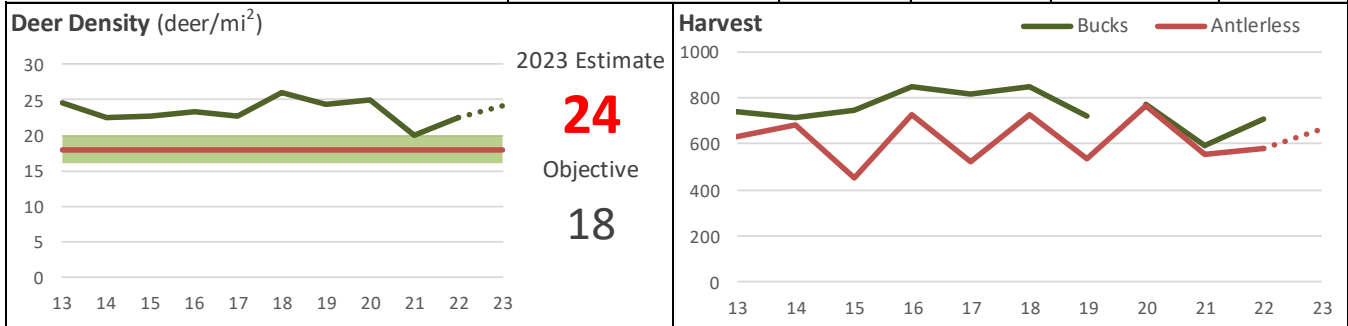
# K

438

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	215	55	394 <small>3000 permits</small>	<b>664</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>17.2</b> (18)	<b>114.3</b> (22)	<b>64.3</b> (14)	<b>1.54</b> (24)	<b>17</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
16.5	115	60	1.60	9%



Wildlife Management Unit K is located in the Western Foothills biophysical region, encompassing areas west of US Route 7 from Brandon south through Rutland to Danby. This region has relatively easy winters and habitat with a good mix of forest and field. Importantly, oak is abundant and widespread and is an important factor in maintaining mediocre physical condition of deer despite chronic overabundance.

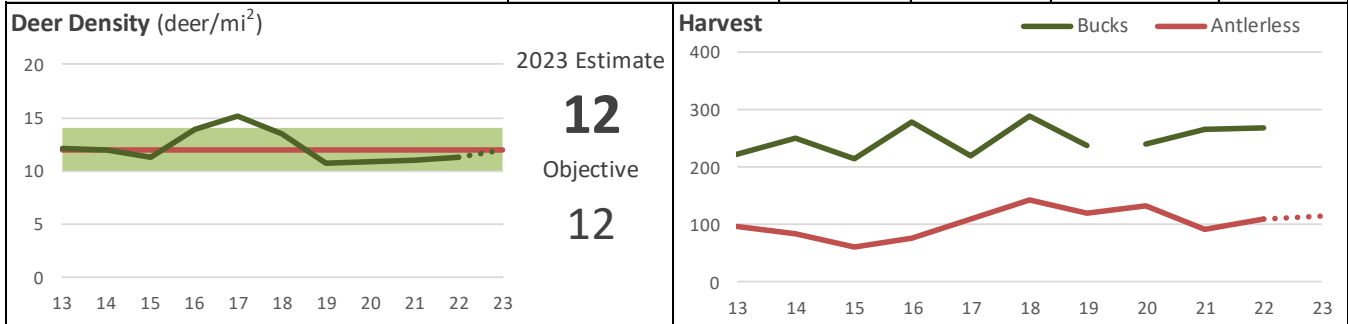
Deer browse damage to forest regeneration is ubiquitous throughout the WMU and has been occurring for decades in many areas. Chronic overabundance of deer has significantly impacted forest ecosystems and contributed to the proliferation of invasive species.

Following an apparent population decline in 2021 that was likely related to reduced hunting effort following a local EHD outbreak, the density estimate in 2022 returned to levels typical of this WMU over the past decade. The recommended antlerless harvest in 2023 is similar to the harvest achieved in recent years and likely represents the maximum harvest achievable under current regulations. A higher antlerless harvest will be necessary to achieve deer density objectives and bring the deer population into balance with what the habitat can support long-term.

Limited hunter access to private land is a significant management challenge in this WMU.

**L****365**mi<sup>2</sup> deer habitat

Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	<b>65</b>	<b>9</b>	<b>40</b> 300 permits	<b>115</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>14.6</b> (2)	3-Year Avg. <b>107.0</b> (2)	3-Year Avg. <b>54.0</b> (1)	5-Year Avg. <b>1.75</b> (20)	Median WSI <b>34</b>
Minimum <b>16.5</b>	Minimum <b>110</b>	Minimum <b>60</b>	Minimum <b>1.60</b>	expected non-hunt mortality <b>12%</b>



Wildlife Management Unit L is located in the southern Green Mountains, from US Route 4 in Killington south to route 30 in Winhall. Deer habitat is generally poor due to the unproductive mountain terrain and very limited young forest habitat. Winters here can occasionally be severe but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is low at higher elevations, but can be moderate to high at lower elevations on the western edge of the unit, particularly closer to Rutland.

Physical condition metrics are below desired levels, but sample sizes have been limited. Importantly, the population has not grown over the past 10 years despite very limited antlerless harvests. This suggests that habitat quality is the primary factor limiting deer density in this WMU.

The recommended antlerless harvest is intended to maintain the population at its current level. It is similar to recent antlerless harvests and will provide reasonable antlerless harvest opportunities and help address higher deer densities along the western edge of the unit without impacting overall deer numbers.

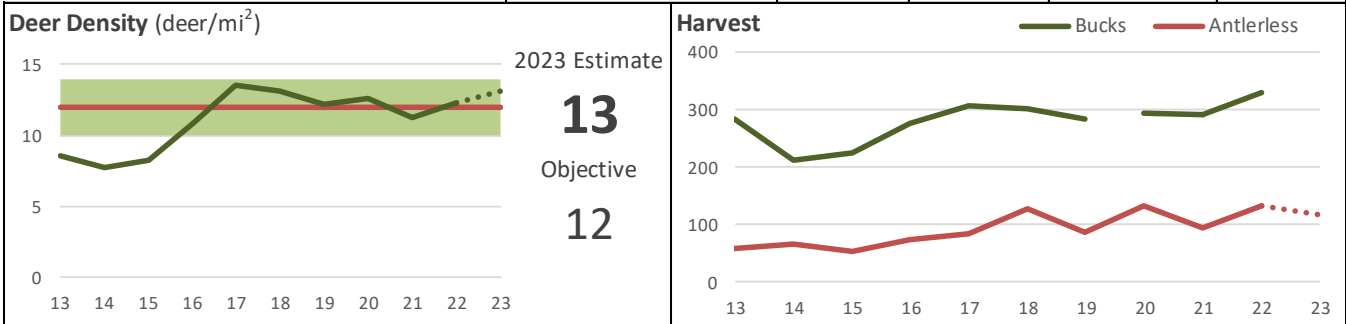
# M

451

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	61	12	45 <small>300 permits</small>	<b>118</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>16.9</b> (4)	<b>112.8</b> (4)	<b>57.0</b> (2)	<b>1.56</b> (18)	<b>48</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
16.5	110	60	1.60	14%



Wildlife Management Unit M is located in the eastern foothills biophysical region from Stockbridge south to Townshend. Deer habitat is generally poor due to the heavily forested, unproductive mountain terrain and limited young forest. Winters here can occasionally be severe but are often more moderate at lower elevations where deer typically spend the winter.

Deer density in this unit is variable, but generally low.

Physical condition metrics are near minimum levels, but sample sizes have been low. Physical condition of deer is not currently concerning, and the current density of deer should be sustainable. The population increased in 2016 and 2017 following exceptionally easy winters but has otherwise been stable for many years despite very minimal antlerless harvests. This, and the current physical condition of the deer, suggests that habitat is the primary factor limiting deer density.

The recommended antlerless harvest is intended to maintain the population at its current level. It is similar to recent antlerless harvests and will provide additional antlerless harvest opportunities with little or no effect on the population.

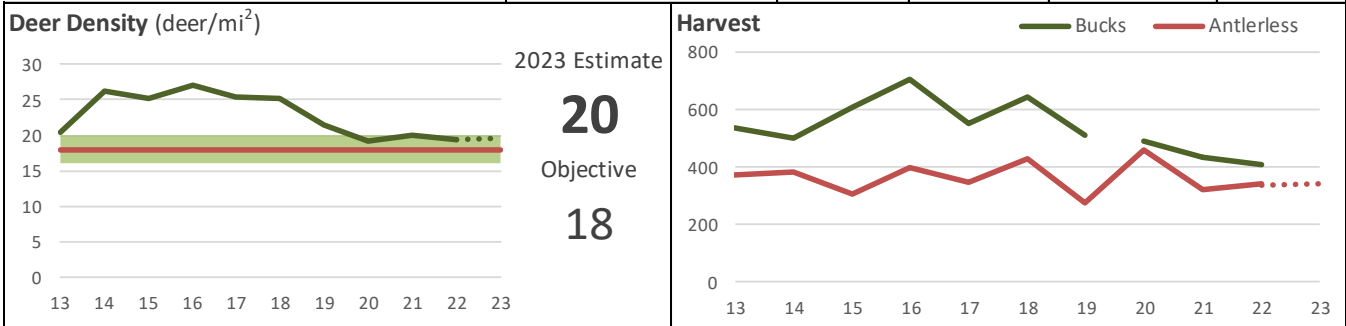
# N

323

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	130	36	173 <small>1500 permits</small>	<b>340</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>16.9</b> (20)	3-Year Avg. <b>117.1</b> (20)	3-Year Avg. <b>59.3</b> (15)	5-Year Avg. <b>1.83</b> (35)	Median WSI <b>16</b>
Minimum 16.5	Minimum 110	Minimum 60	Minimum 1.60	expected non-hunt mortality 9%



Wildlife Management Unit N is in the southwest corner of Vermont, including parts of the Taconic Mountains and Vermont Valley biophysical regions. This region has easy winters, productive soils, and habitat with a good mix of forest and field.

Deer browse damage to forest regeneration is ubiquitous and has been occurring for decades in most areas. Chronic overabundance of deer has significantly impacted forest ecosystems and contributed to the proliferation of invasive species. Importantly, oak is abundant and widespread and is likely an important factor in maintaining physical condition at mediocre levels.

Physical condition of deer is concerning, particularly given the productivity of the soils, mild winters, and abundance of oak. Presumably, this is related to chronic overabundance and declining amounts of young forest. Deer densities must be maintained at lower levels to improve the health of the deer and the forest ecosystems.

The deer population in this region appears to have declined from 2017 to 2020 and is now stable slightly above the target density. The decline appears to have been caused by poor fawn recruitment during those years. Antlerless harvests have been consistent for many years (despite Department efforts to increase them), and likely represent the maximum harvest achievable under current regulations. The recommended harvest is similar to that achieved in recent years and will be necessary to maintain the population close to the objective.

Limited hunter access to private land is a significant management challenge in this WMU.

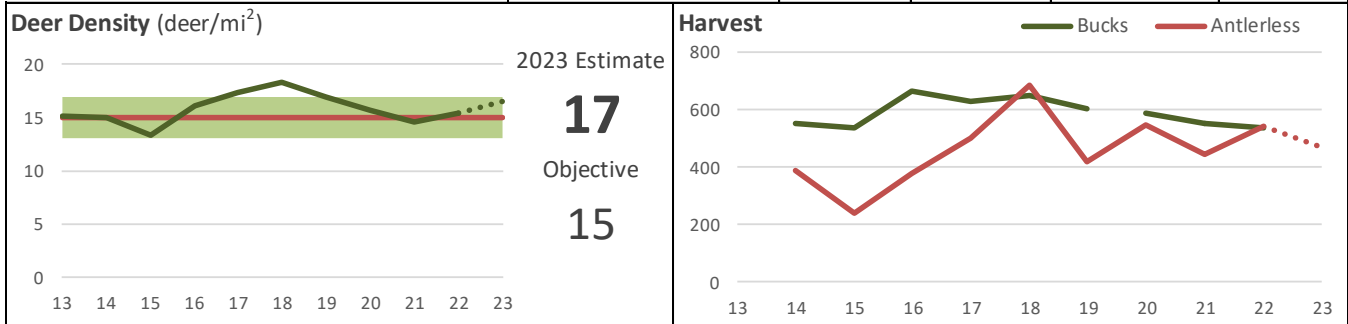
# O

548

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	235	31	204 <small>1500 permits</small>	<b>470</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>175</b> (7)	<b>117.6</b> (7)	<b>51.4</b> (8)	<b>1.83</b> (24)	<b>26</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
<b>16</b>	<b>110</b>	<b>60</b>	<b>1.60</b>	<b>10%</b>



Wildlife Management Unit O encompasses the Connecticut River Valley from White River Junction south to Massachusetts. Winters here are relatively easy for deer and the habitat contains a good mix of forest and field.

Deer browse damage to forest regeneration is common throughout the WMU and has been occurring for decades in many areas. Chronic overabundance of deer has significantly impacted forest ecosystems and contributed to the proliferation of invasive species. This, combined with declining amounts of young forest, has contributed to the generally poor quality of forest habitats. Physical condition of deer is mediocre, but appears to be improving. This provides additional evidence that past deer numbers were at or above the level the habitat could support for many years.

Recent antlerless harvests have helped stabilize deer numbers near the objective level, and will need to continue. The recommended antlerless harvest is similar to that achieved in recent years.

Deer density does vary within this unit due to both habitat quality and hunter access to private land. Limited hunter access to private land is a substantial management challenge.



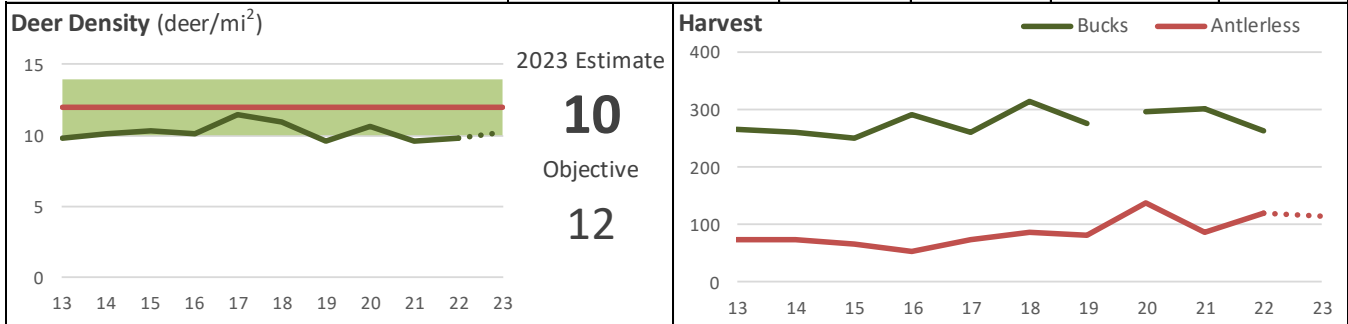
# P

455

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Stabilize</b>	<b>88</b>	<b>11</b>	<b>15</b> <small>100 permits</small>	<b>113</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg.	3-Year Avg.	3-Year Avg.	5-Year Avg.	Median WSI
<b>15.2</b> (3)	<b>93.7</b> (3)	<b>59.5</b> (2)	<b>2.08</b> (13)	<b>41</b>
Minimum	Minimum	Minimum	Minimum	expected non-hunt mortality
16.5	110	60	1.60	13%



Wildlife Management Unit P is in the southern Green Mountains, from the Massachusetts border north to Winhall. This high elevation, mountainous, heavily forested unit contains some of the poorest quality deer habitat in the state. Winters are often severe, particularly at higher elevations. However, many deer can migrate to lower elevation areas along the southern and western edge of the unit where winters are much more moderate.

Physical condition of deer in this unit is concerning, but small sample sizes limit inference from these data. However, deer density has remained around 10 deer/mi<sup>2</sup> over the past 10 years despite very minimal antlerless harvest, suggesting that deer numbers are limited by habitat quality.

A lower density objective may be appropriate in this WMU, but deer impacts to forest ecosystems are uncommon and the Department is hopeful that increased timber harvesting on National Forest lands will improve habitat quality and allow for some population growth.

Deer harvests have been steadily increasing near Bennington and in towns along the Massachusetts border. Some of these towns have had near-record harvests in recent years. Given this trend, the Department would like to continue issuing a small number of antlerless permits in this WMU. Most antlerless permits are likely to go to landowners, which will increase the likelihood that deer are harvested from areas of higher deer density.

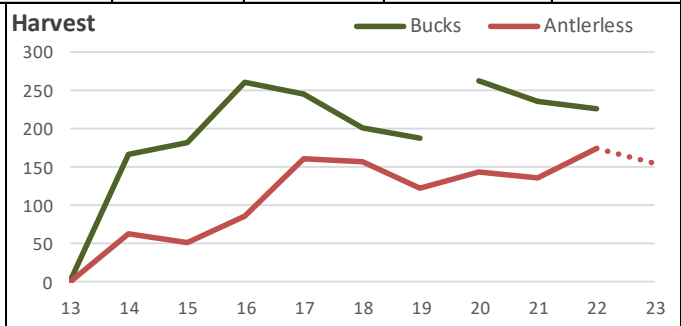
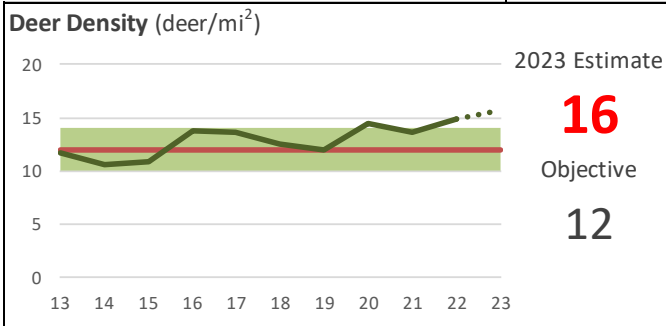
# Q

233

mi<sup>2</sup> deer habitat



Management Objective	Recommended Antlerless Harvest			
	Archery	Youth/Nov	Muzzleloader	Total
<b>Decrease</b>	88	3	63 <small>600 permits</small>	<b>155</b>



Yearling Male		Fawn Weight	Adult Birth Rate	Winter Severity
Beam Diameter	Weight			
3-Year Avg. <b>15.0</b> (1)	3-Year Avg. <b>112.0</b> (1)	3-Year Avg. <i>no data</i>	5-Year Avg. <b>1.50</b> (10)	Median WSI <b>23</b>
Minimum 16.5	Minimum 110	Minimum 60	Minimum 1.60	expected non-hunt mortality 10%



Wildlife Management Unit Q is located in the eastern foothills biophysical region from Massachusetts north to Townshend. Habitat quality is relatively poor in this small, heavily forested WMU, primarily due to a lack of young forest habitat. Winters here are relatively easy for deer. Generally, deer density is highest near Brattleboro and lower to the north and west as elevation increases.

Physical condition metrics are currently below minimum acceptable levels, but samples sizes have been very low which limits inference from these data.

The deer population appears to be slowly increasing. The recommended antlerless harvest maintains the higher harvest levels achieved in recent years and is intended to reduce, or at least stabilize, the deer population.

Evidence of deer damage to forest ecosystems is common near Brattleboro. Unfortunately, deer harvest is limited by the town’s firearm discharge ordinance. As a result, the Department will be considering an expanded archery zone to reduce deer impacts in this area.

## Appendix B: Comments, questions, and department responses from 2023 deer public hearings

### Orleans – March 20, 2023

Deer herd is healthy and at target.

Deer herd is stable. F&W is doing a great job.

Satisfied with management.

Too many deer in the '60s. The Department is doing a good job.

Information from these meetings needs to be more widely available.

Not convinced there are too many deer in Vermont.

You can't keep shooting does and have a good deer population.

Population of deer in D2 very low/poor habitat.

In J2, feel number of antlerless permits is too high.

Increase doe kill in rifle season if lack of muzzleloader hunters.

Open up rifle season to antlerless to achieve objectives.

Posted land is a big issue.

More access to private property, especially for archery season.

Difficulty with posted property and access to hunt.

Land Use property should be open to hunting.

Does getting shot in wrong areas due to too much posted land.

Multi-use areas need to accommodate hunting seasons.

Move youth season back to prior season dates – 1<sup>st</sup> weekend in November.

Consider starting archery September 1.

Maybe a longer early season to increase antlerless permit success.

Allow successful antlerless permit hunter ability to get a second antlerless deer to achieve objectives.

Find the suppressor law to be very beneficial to areas more sensitive to gunfire.

Concerned that several members of same family get antlerless permits / not equally distributed.

What is the state doing to increase youth participation?

Buck to doe ratio in Eden areas seems very good.

Need to manage state land in Eden area – need some logging.

Maple sugaring pipelines are a big issue.

Rather bow hunt than muzzleloader hunt in early season.

Don't see a need for the early muzzleloader season.

One buck rule is too restrictive. Sends too many hunters to NH.

Like one buck rule.

Really like no APR in NEK.

Would like to see 3 point on one side antler restriction.

## Woodstock – March 23, 2023

Too much posted land.

Should be allowed to hunt land in Current Use since they're getting a tax break.  
Consider tiered system like NH.

More turkey hunting.

Multiple muzzleloader tags at once.

VT hunters don't want to kill does.

Still people who carry permits who don't want to fill it.

Increase antler restrictions.

### **Are food plots helping?**

**Department Response:** Yes, but not nearly as much as most hunters believe they are. Food plots serve primarily to increase hunting success. They occupy a very small percentage to the landscape and provide food primarily at a time of year when it is already naturally abundant. While they certainly don't hurt, the impact of food plots on the overall health of Vermont deer is negligible.

Forests account for 85% of deer habitat in Vermont. So, the best way to improve habitat quality for deer – and thus improve the physical condition of deer – is to manage for healthy, diverse, and complex forests. These forests provide critical food and cover for deer year-round.

### **What is the impact of killing does when they are pregnant?**

**Department Response:** It makes no difference when a doe is killed. Any time a doe is killed, it removes both her and her potential future offspring from the population. This is why deer population

management focuses on female deer. Removing a doe in October (before breeding) is no different than removing that same doe in December (after breeding).

Make early muzzleloader either sex.

Make rifle season either sex.

How do we incentivize more youth to hunt?

No shooting spikes.

Don't like 4 deer limit.

Too many coyotes.

Reduce antlerless permits.

One buck only – no does.

Too many seasons going on at the same time.

Early muzzleloader is a bad time to put pressure on deer.

## Manchester – March 24, 2023

Loss of habitat. Promote habitat management more.

Need more logging on National Forest.

Keep handing doe permits.

Too many antlerless permits.

Lower number of doe permits on the spine of green mountains.

Like permit numbers in P, N

No need to buy permit early in N.

Some buy permits to throw away.

Hunting has improved in southern VT.

Some areas have fewer deer due to habitat, but are in zones with a lot of permits.

Lots of posted land.

Higher tax breaks for unposted land in current use that improve wildlife habitat.

Move youth weekend back to where it was.

Promote youth hunting.

Like the antler restrictions.

No more spikes, WMU confusion.

Like one buck limit.

Consider earn-a-buck.

Want longer season.

Allow single shot, straight wall cartridges during muzzleloader.

### **Middlebury – May 9, 2023**

I have faith in the Department's management. I worry about decreasing participation rates.

Totally agree with the recommendation, especially increasing permits in F1.

More concerned about what you're doing to address habitat problem and hunting participation problem.

Don't agree with how health is being assessed. There is nothing wrong with deer health, it's how it's being assessed.

Lack of mast should be factored into success of season.

No youths anymore. Was a good program. Changing rules all the time makes it less likely participation will increase.

Health seems good. Prospects for 2023 for (WMU I) are bleak – very low density of deer.

Think WMU I has too many permits – at least until the food sources improve.

If you kill too many does not sure how that will help. Think the deer herd is getting smaller.

I really don't like killing of does.

Don't think we need to increase permits in Addison County area.

Wish we could get more youth involved.

## Montpelier – May 17, 2023

Same rules as last year = OK.

Sounds good. No comments.

Agree deer condition is low in J2. Content with the recommendation.

Continue as we have been.

Population stable in my area.

Hunting opportunity decreasing due to other users, mainly mountain bikers.

Consider moving youth season back to the traditional time of year.

Quotas can't be met because of access to hunt on some properties.

Need more turkeys taken.

## Appendix C: Deer Public Comment Emails

*No email comments were received during the public comment period. The comment below was read at the Woodstock hearing and later emailed to Department staff.*

March 23, 2023 Deer Meeting

My name is Glenn Dunning and I am a 70 year old multi season Vermont deer hunter.

The last 3 years have been the least enjoyable of any of my 57 years of chasing whitetails in VT. In preparation for this meeting I reread the 10 year plan, the 2021 stats and the recently released 2022 stats. Like most everyone in this room I am a serious whitetail hunter and I maximize my time in the field during the fall but I will always hunt the rut.

Rifle season is special to me for the additional reason that my brothers and I are second generation owners of the Dunning Family camp on north side of Mt Hunger in Barnard where the lantern lites have glowed for the last 80 deer seasons. My Dad bought the place in 1943 and this year we will have 3 generations of Dunning deer hunters around the kitchen table. I will always be in camp for opening week.

Many in this room are also die-hard bow hunters. I have been taking to the woods with stick and string for a half a century. I have never shot a good Vermont buck with my bow. I will typically take a doe with my bow and donate it to the family whose farm I have permission to hunt. But I have little use for shooting 4 just for the sake of killing. I am a buck hunter.

Based on your stats there has been little change in the buck kill since the one buck rule has been enacted. But the change for me has been profound. Because of my commitment to hunt the rut from our family camp the idea that I could one day kill a good buck with my bow has been taken off the table and my hours in the woods reduced only to that time needed to kill one doe usually during the first week.

I am here to ask you personally to reconsider the impact of the one buck rule. Unlike many in this room of deer hunters, I am about to turn 71 and my deer hunting days are limited going forward. With good fortune and good luck I may have another 10 years to climb into a ladder stand, maybe far less.

The chance that I will kill a mature buck with my bow during that time is negligible after all I haven't killed one yet. But what this rule has taken away from me is the opportunity to try. I typically over the years have spent far more time in the deer woods during October than the rest of the seasons combined, up until the last 3 years. It is one of the most disheartening aspects of my life. I know and I believe you know that I am not the only one whose hunting routine has been totally disrupted by the one buck rule. I also know you have heard numerous ideas for creating a work around for those of us who live to hunt bucks in the Vermont deer woods.

I ask you to consider putting an antler restriction on the second deer. I don't care if its 4 points to a side!!



# Wild Turkey Management

An overview of accomplishments and data collection efforts related to assessing fall turkey harvest management strategies



A PRESENTATION TO THE VT FISH AND WILDLIFE BOARD, MAY 24<sup>TH</sup>, 2023







## Number of Permits Issues

### Permit Type

Field Trial

Importation

Propagation

Shooting Grounds

2018

2019

2020

2021

2022

2

2

1

2

2

1

4

4

3

3

4

5

1

2

2

3

4

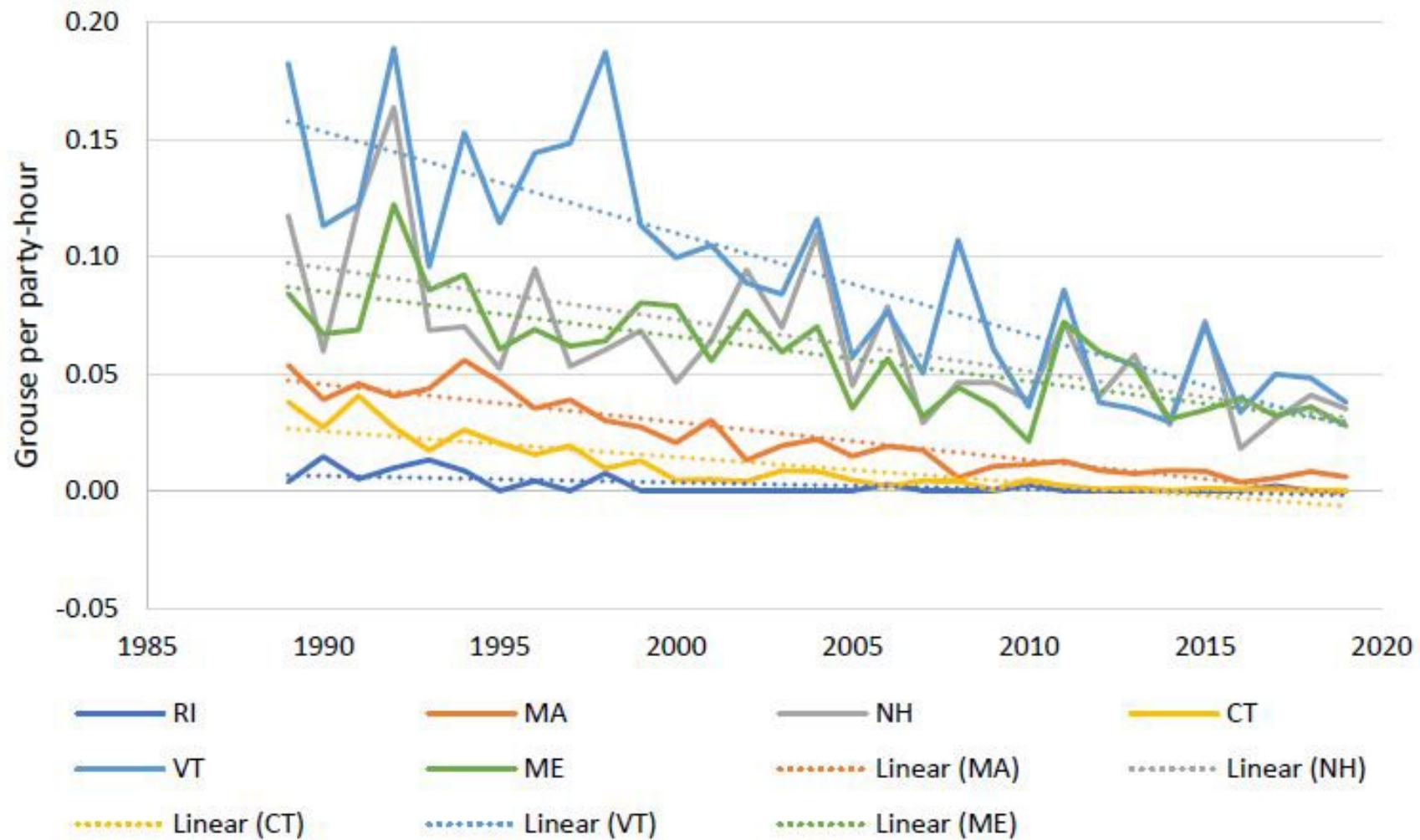
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4

4





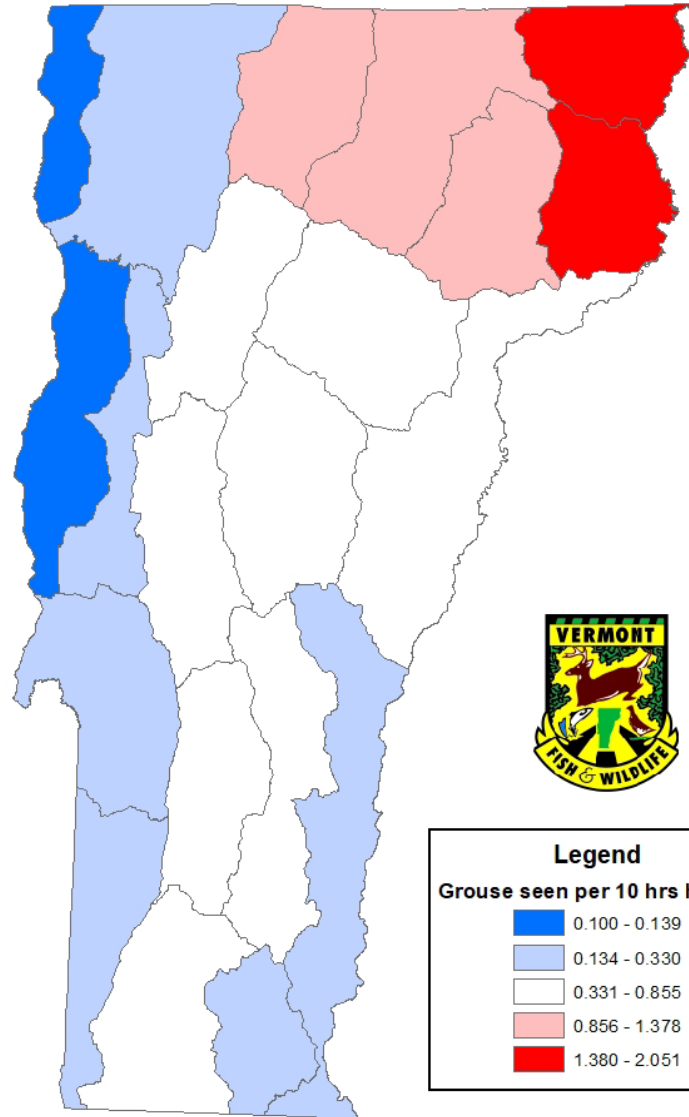


Audubon Christmas Bird Count Index for ruffed grouse in New England States (1989-2019).

Sighting Rate (per 10 hunter-hours)									
WMU	2016	2017	2018	2019	2020	2021	2022		Average
A	0.08	0.11	0.19	0.15	0.05	0.01	0.13		0.10
B	0.45	0.33	0.30	0.27	0.42	0.28	0.18		0.32
C	0.98	1.16	1.05	0.88	1.01	1.64	0.65		1.05
D1	1.33	1.31	1.29	0.66	1.29	1.28	0.43		1.09
D2	1.07	1.50	1.41	0.82	1.93	1.83	1.11		1.38
E1	1.70	1.70	2.00	1.70	2.98	1.92	1.51		1.93
E2	2.34	2.21	2.88	0.99	2.62	1.91	1.41		2.05
F1	0.29	0.13	0.14	0.06	0.10	0.10	0.16		0.14
F2	0.37	0.22	0.33	0.20	0.27	0.38	0.17		0.27
G	0.91	0.84	0.47	0.37	0.85	0.47	0.45		0.62
H	1.05	0.81	0.92	0.64	1.04	1.02	0.52		0.86
I	0.85	0.58	1.04	0.63	0.55	1.02	0.63		0.76
J1	1.10	1.06	0.62	0.39	0.83	0.78	0.30		0.72
J2	0.93	0.86	0.44	0.37	0.77	1.01	0.35		0.68
K	0.50	0.49	0.23	0.15	0.21	0.13	0.10		0.26
L	1.00	0.68	0.84	0.14	0.78	0.31	0.23		0.57
M	1.19	1.04	0.54	0.43	0.91	0.66	0.34		0.73
N	0.29	0.36	0.23	0.24	0.29	0.12	0.13		0.24
O	0.34	0.55	0.30	0.26	0.39	0.24	0.23		0.33
P	0.63	0.47	0.29	0.39	0.65	0.56	0.46		0.49
Q	0.42	0.30	0.17	0.13	0.35	0.24	0.07		0.24
<b>Total</b>	<b>0.84</b>	<b>0.77</b>	<b>0.63</b>	<b>0.43</b>	<b>0.89</b>	<b>0.73</b>	<b>0.41</b>		<b>0.67</b>






Deer hunter survey sighting rates for ruffed grouse (2016-2022).

## Deer Hunter Sighting Rates Ruffed Grouse, 2016-2022

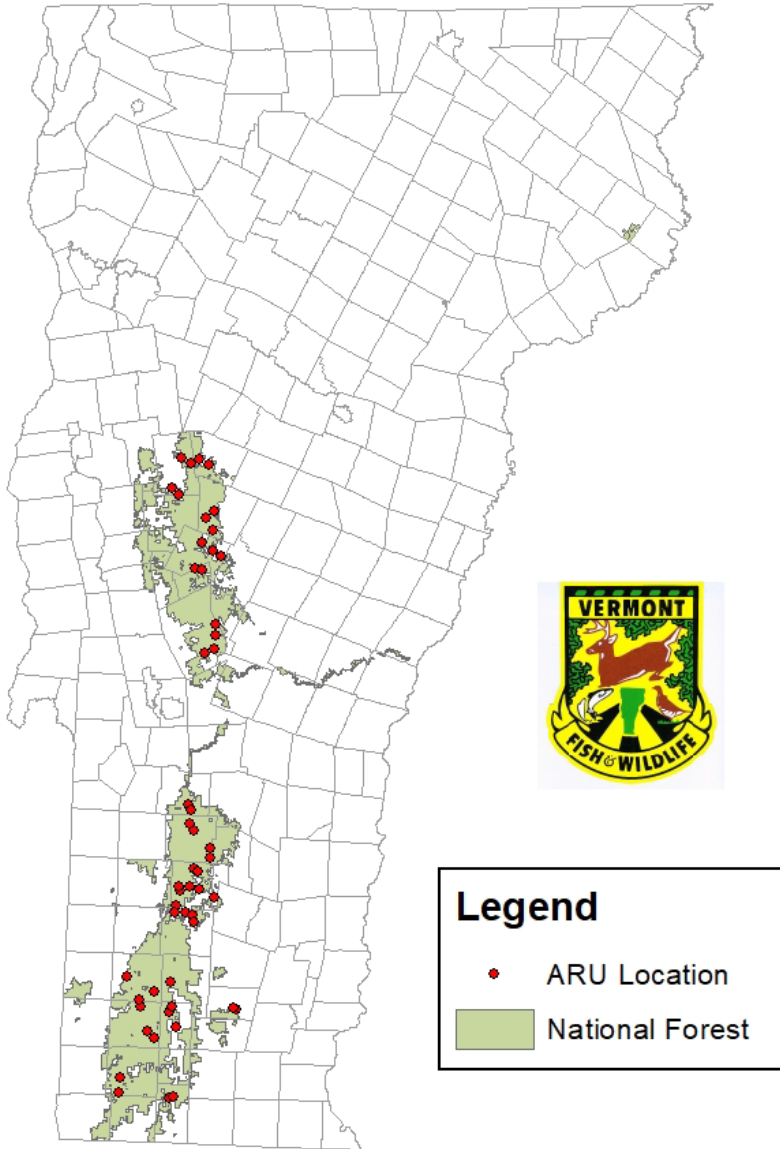


### Legend

Grouse seen per 10 hrs hunted

	0.100 - 0.139
	0.134 - 0.330
	0.331 - 0.855
	0.856 - 1.378
	1.380 - 2.051

## Ruffed Grouse ARU Monitoring Locations 2022-2023



- Objective is to develop/test a grouse occupancy monitoring system
- Funded by a Forest Ecosystem Monitoring Cooperative grant
- Completed in partnership with the University of Vermont, The Ruffed Grouse Society, and the Green Mountain National Forest



# VERMONT FISH & WILDLIFE

## Press Release

For Immediate Release: September 29, 2020

Media Contacts: Chris Bernier 802-289-0628; Mark Scott 802-777-4217

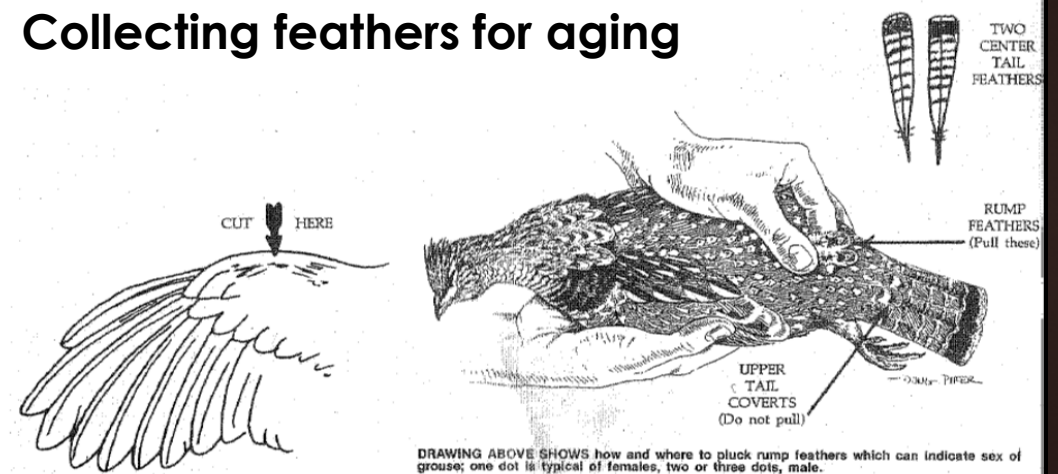
### Vermont Hunters Contribute to Ruffed Grouse Research

MONTPELIER, Vt. —The ruffed grouse is an iconic game bird of Vermont that is widely recognized and enjoyed by hunters and non-hunters alike, but wildlife biologists are concerned that grouse populations across the Northeast have declined over the past 30 years.

This trend has prompted ruffed grouse research on potential causes, including emerging disease threats and habitat loss. Recently, the mosquito-borne West Nile virus was implicated as a significant contributor to population declines in Pennsylvania, and research is underway to help biologists better understand the potential impact of this virus on grouse populations across their range, including here in Vermont.



### Collecting feathers for aging



DRAWING ABOVE SHOWS how and where to pluck rump feathers which can indicate sex of grouse; one dot is typical of females, two or three dots, male.

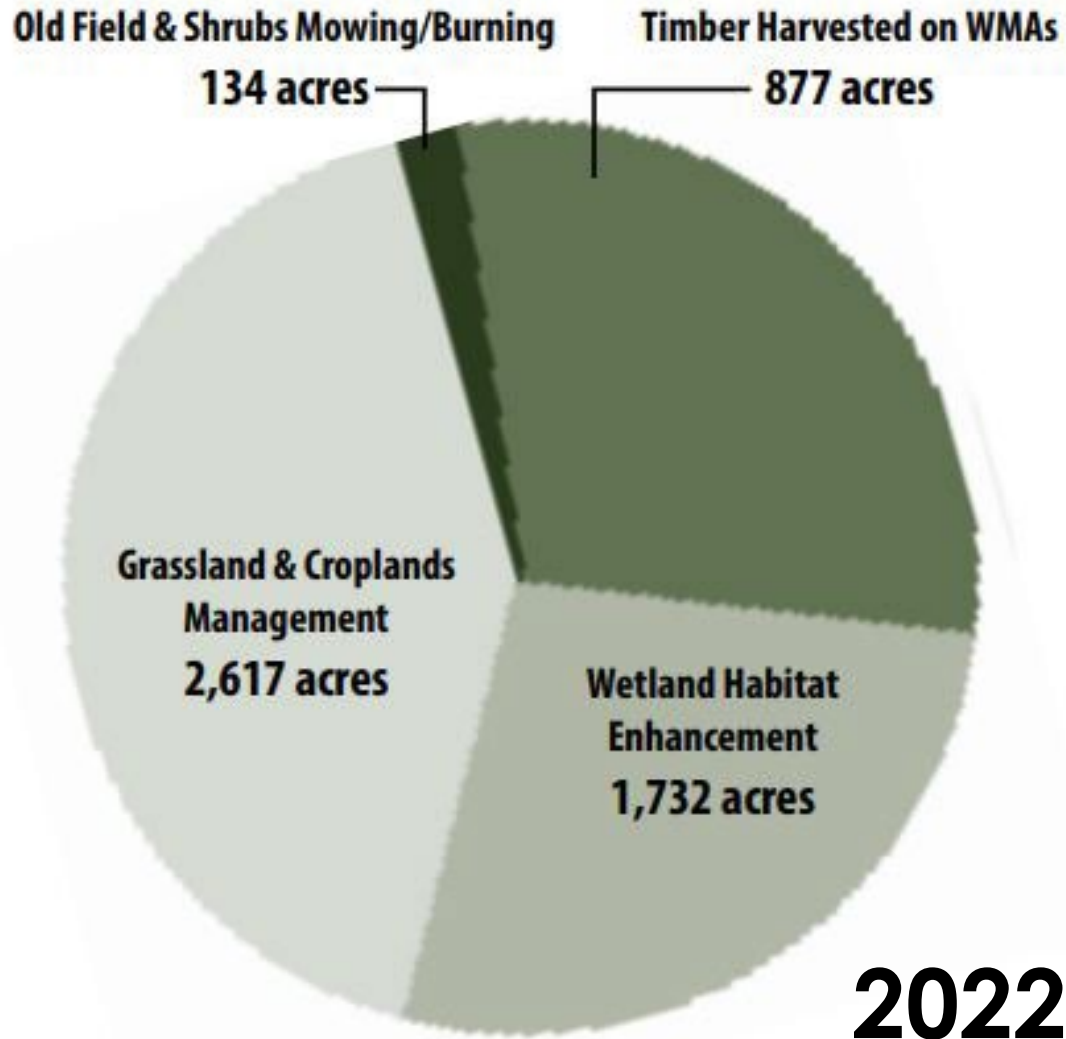
State	2018-2019 Seroprevalence* % (n)	2019-2020 Seroprevalence* % (n)	2020-2021 Seroprevalence* % (n)
Kentucky	0 (1)	14.3 (7)	No samples
Maine	2 (101)	6.3 (32)	14.4 (132)
Maryland	0 (5)	No samples	0 (1)
Massachusetts	0 (8)	No samples	No samples
New Hampshire	12.2 (49)	7.1 (42)	7.5 (40)
New York	14.5 (110)	13.2 (151)	20.5 (127)
North Carolina	6.9 (58)	17.1 (35)	18.8 (16)
Pennsylvania	9.6 (94)	10.3 (68)	15 (100)
Tennessee	0 (5)	0 (1)	0 (2)
Vermont	No samples	16.7 (30)	2.6 (38)
Virginia	8.8 (80)	9.9 (81)	12.5 (24)
West Virginia	2.1 (47)	10.6 (47)	3.6 (28)
Total	8.1 (558)	11.5 (494)	14.0 (508)

\*Seroprevalence % includes both antibodies to WNV and antibodies to a flavivirus.

## West Nile Virus sampling results (2018-2021).

# WILDLIFE MANAGEMENT AREAS

## 5,360 Acres of Habitat Managed



2022

- Habitat Stamp funded management
- Private lands technical assistance
- Partnerships with Green Mountain National Forest, NWTF, RGS, etc.

## Ruffed Grouse Management in the East: Envisioning the Road to Recovery

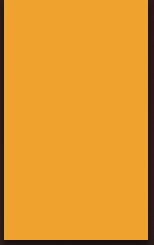
*"Where are we, where do we want to go, and what components of the social-ecological system need to be in place to get there?"*

Developed by the Eastern Grouse Working Group

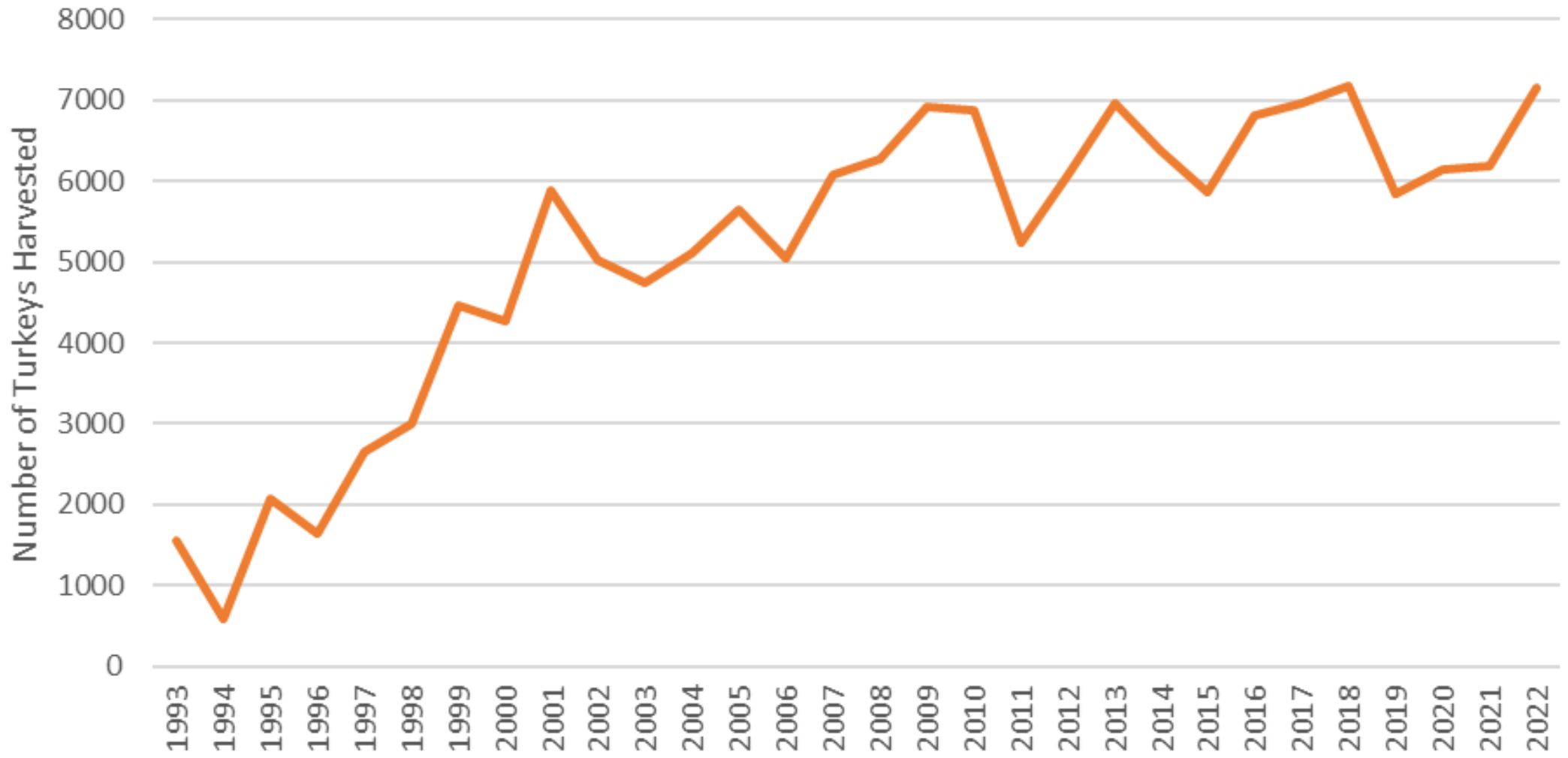
4/1/2021







### Total annual turkey harvest, 1993-2022



# 2022 Season Summary

- **Total turkey licenses sold – 18,710**
- **Total youth weekend harvest - 627**
- **Total spring harvest – 5,589**
- **Total fall harvest - 908**



**DRAFT**  
**Big Game Management Plan**  
**2020-2030**



Comments can be submitted electronically to:  
[ANR.FWPublicComment@vermont.gov](mailto:ANR.FWPublicComment@vermont.gov)

or by mail to:

Vermont Department of Fish and Wildlife, One National Life Drive, Montpelier, Vermont  
05620.

The department would like to receive public comment until Saturday, May 30, 2020.

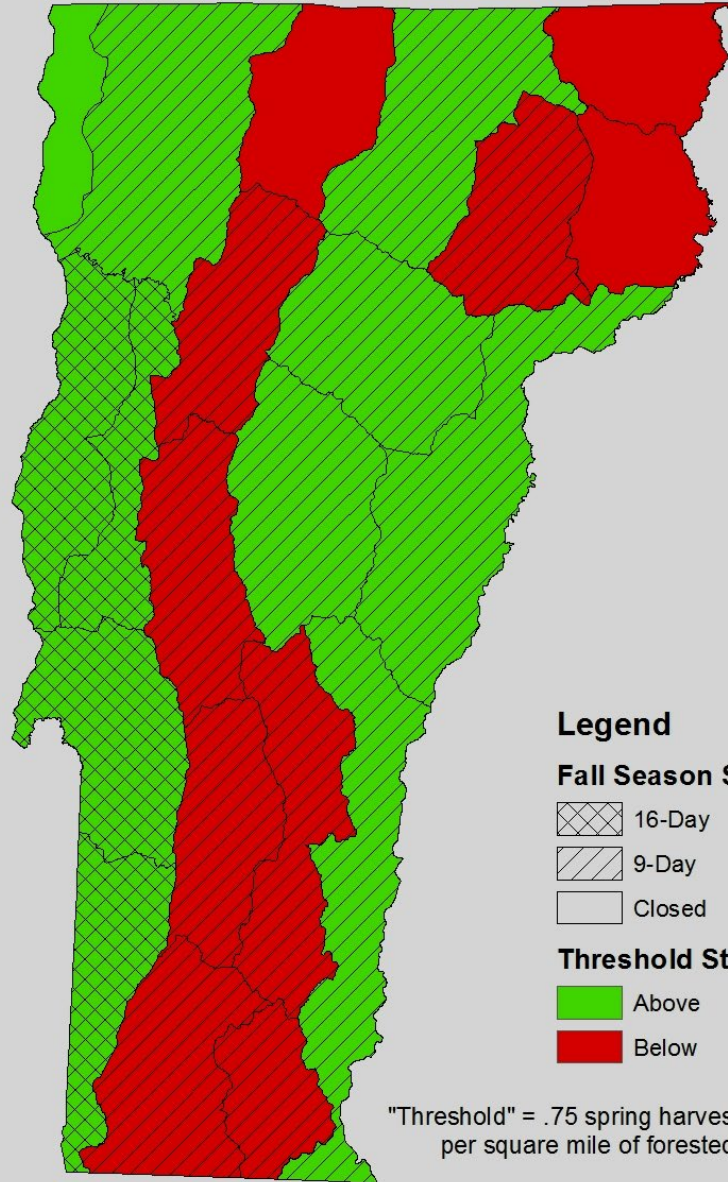
# Accomplishments

- **Online reporting**
- **Liberalized shot size**
- **Established a novice season**
- **Reconfigured the brood survey to align with regional protocol**
- **Restructured turkey harvest database to facilitate long-term trend analyses**
- **Developed and tested several survey methods for collecting hunter effort data**
- **Began process for establishing a nuisance/damage reporting system**

# Fall Season Strategy




- Continue prioritizing quality spring hunting over fall hunting
- Evaluate/implement new population monitoring methods
- Improve regional approach to managing turkeys
- Consider liberalizing fall hunting opportunities
- Pursue a regional harvest management strategy that strives to minimize conflicts caused by wild turkeys

# Current Fall Season Status



## Legend

### Fall Season Status

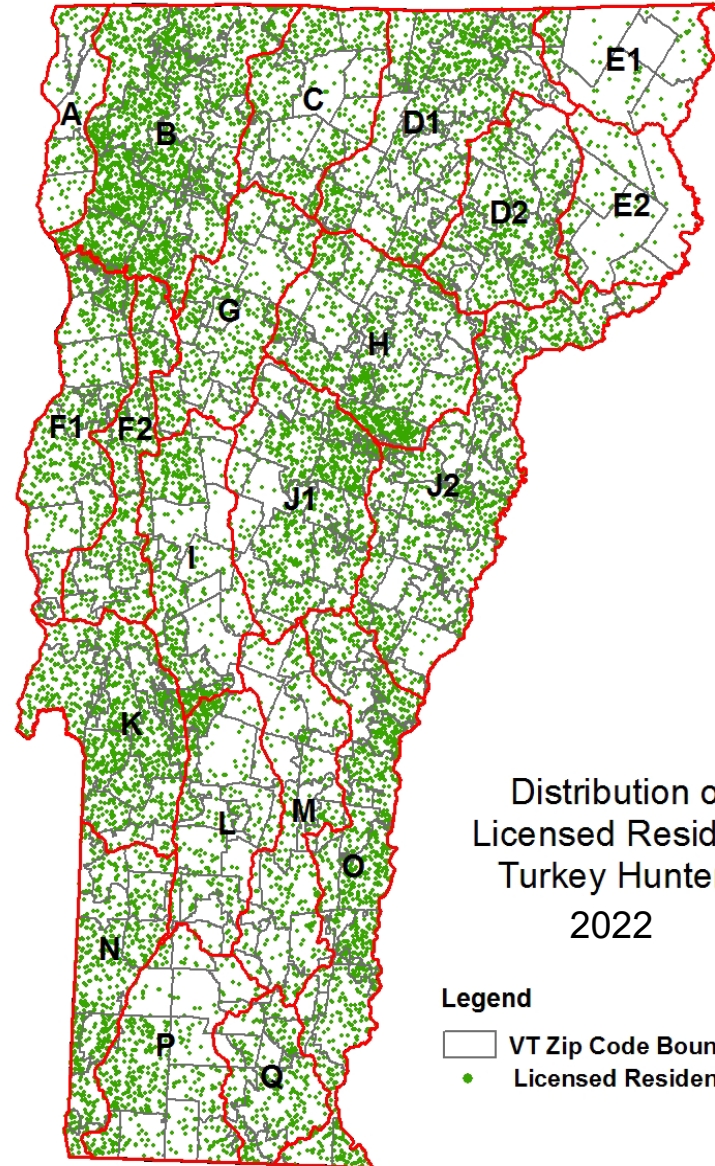
-  16-Day
-  9-Day
-  Closed

### Threshold Status

-  Above
-  Below

"Threshold" = .75 spring harvested gobblers per square mile of forested habitat

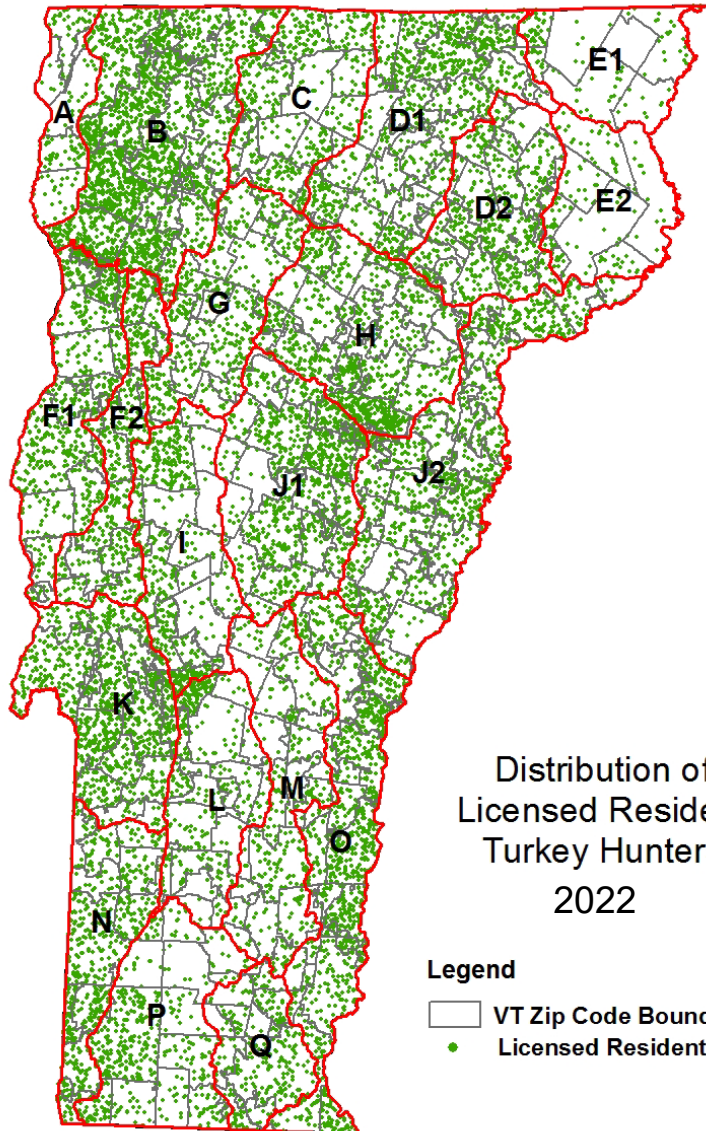




Distribution of  
Licensed Resident  
Turkey Hunters  
2022

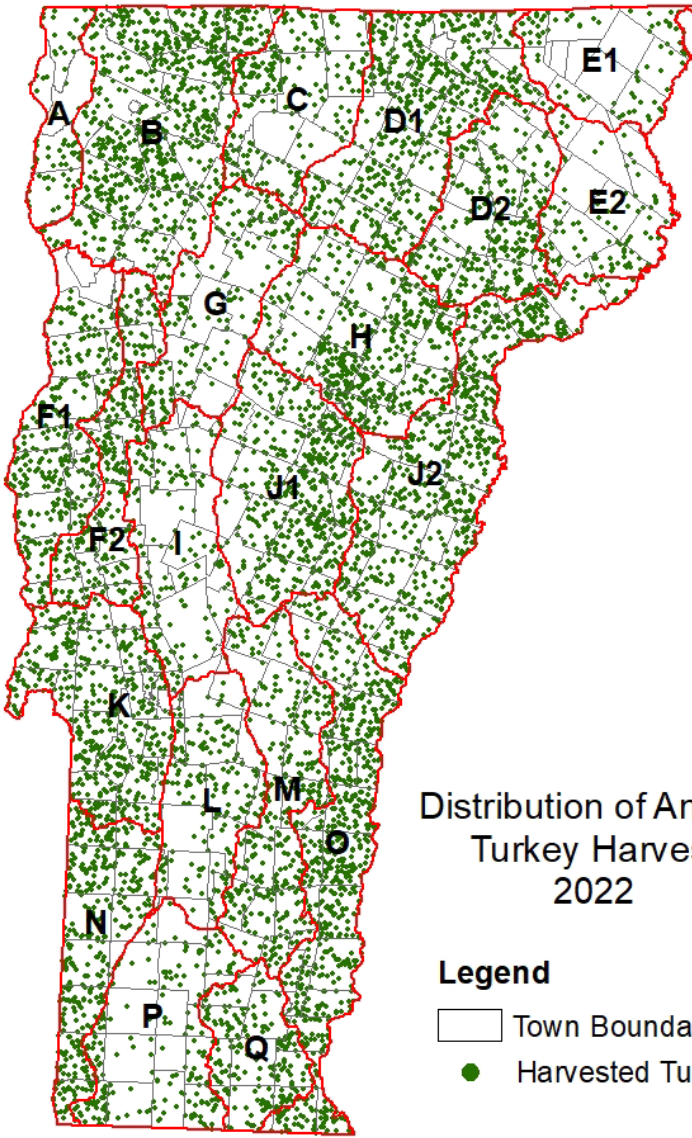
Legend

- VT Zip Code Boundaries
- Licensed Resident Hunter



Distribution of  
Licensed Resident  
Turkey Hunters  
2022

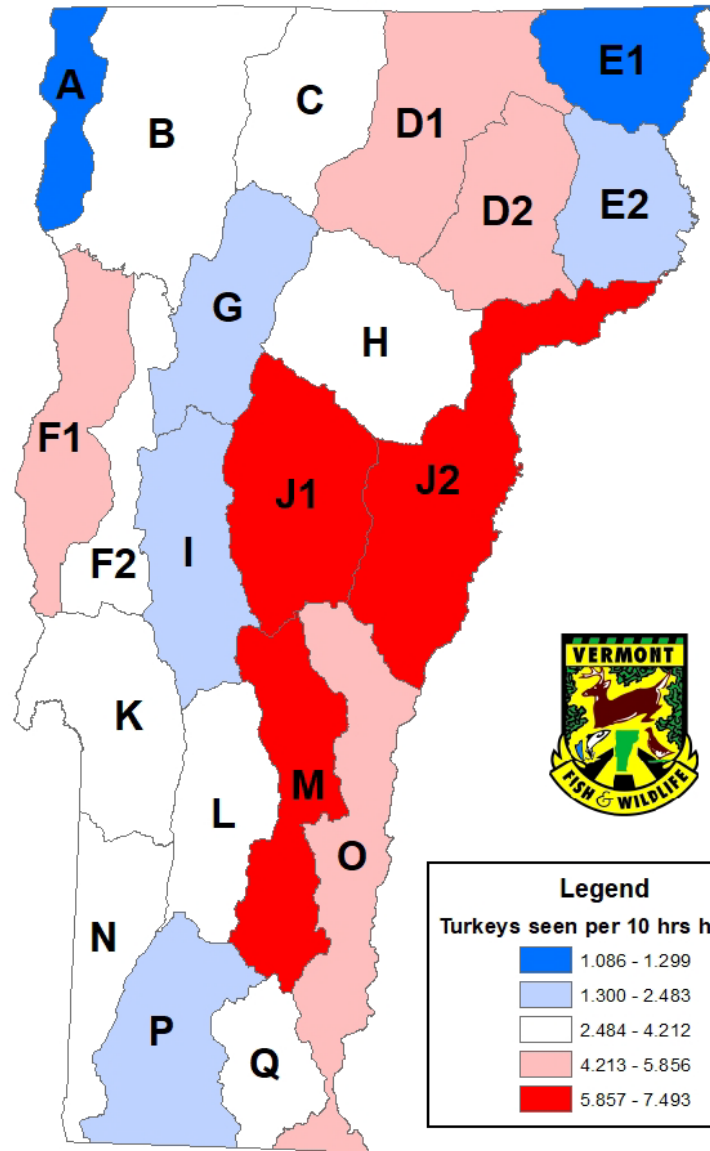
- Legend**
- VT Zip Code Boundaries
  - Licensed Resident Hunter



Distribution of Annual  
Turkey Harvest  
2022

- Legend**
- Town Boundary
  - Harvested Turkey

# Deer Hunter Sighting Rates Wild Turkey, 2016-2022

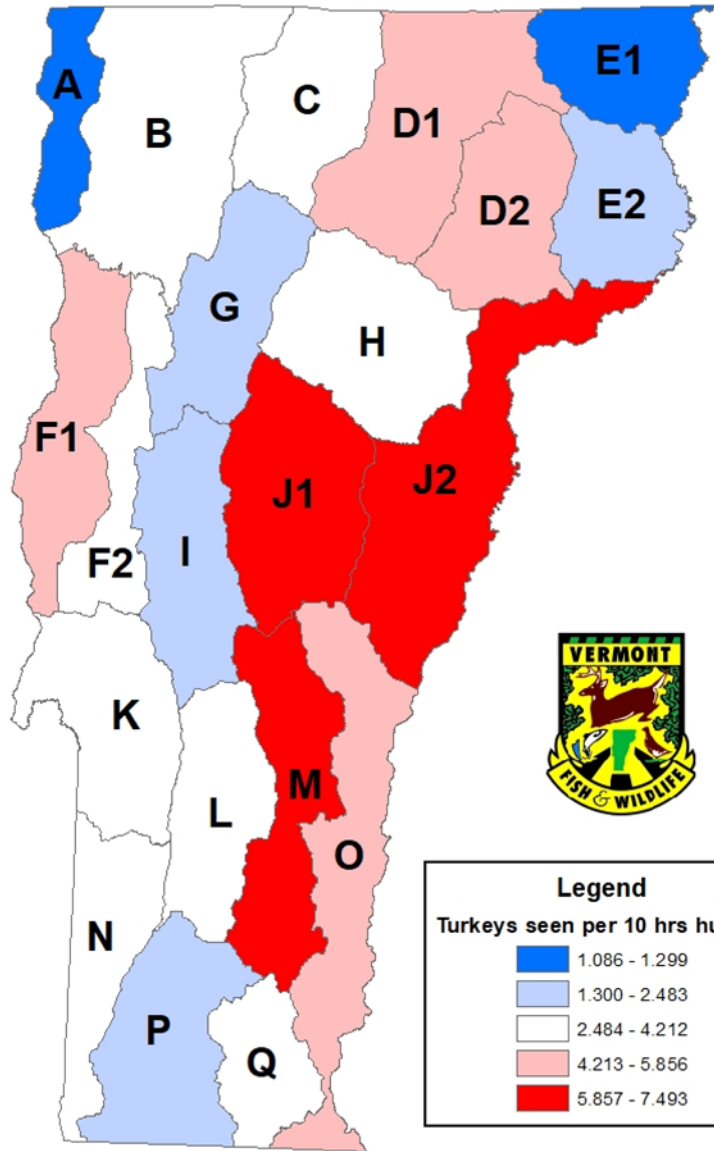


**Legend**  
Turkeys seen per 10 hrs hunted

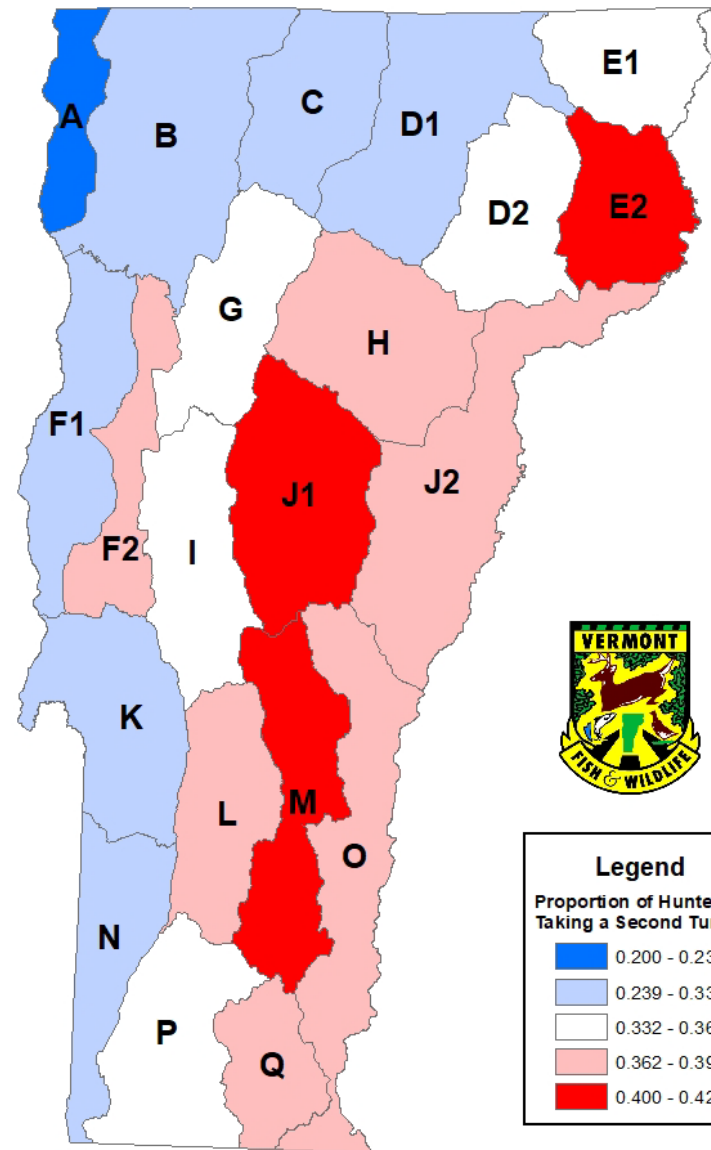
Dark Blue	1.086 - 1.299
Light Blue	1.300 - 2.483
White	2.484 - 4.212
Light Pink	4.213 - 5.856
Red	5.857 - 7.493



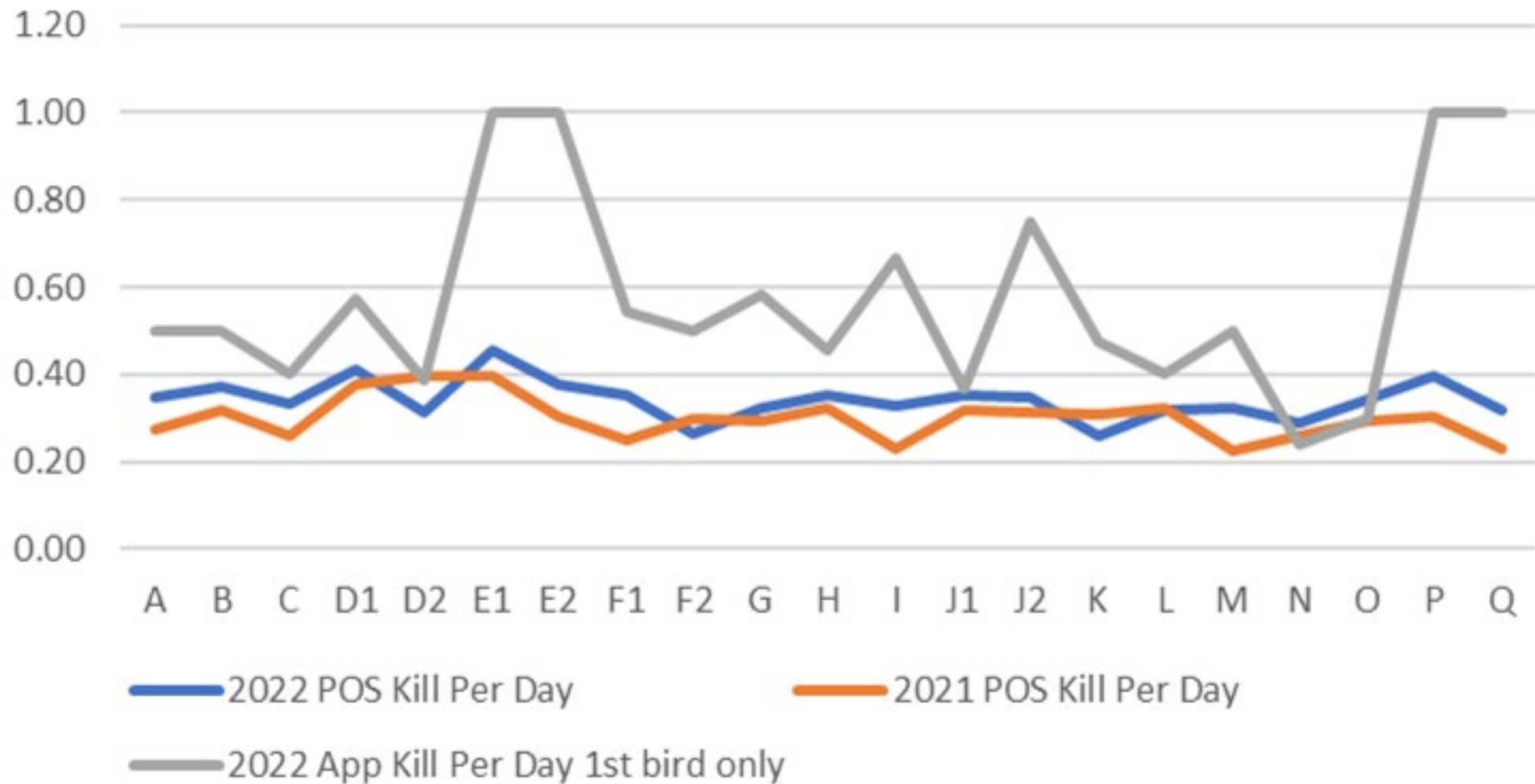
### Deer Hunter Sighting Rates Wild Turkey, 2016-2022



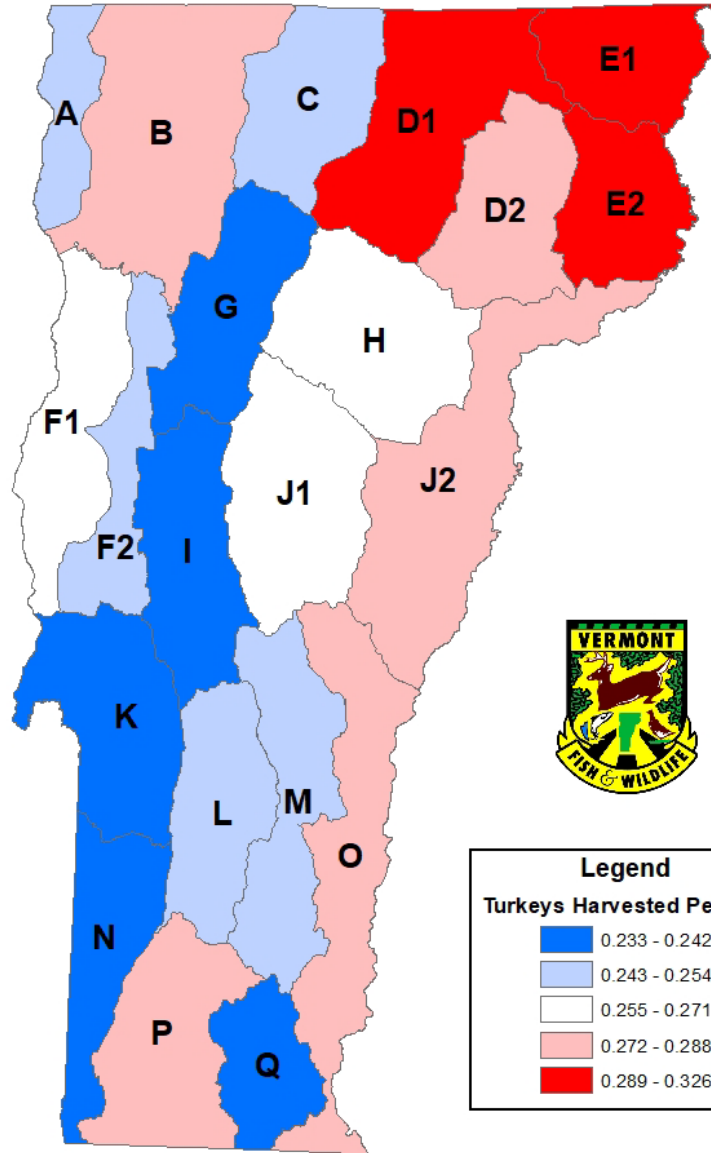
### Proportion of Successful Hunters Harvesting a Second Turkey, 2016-2022



# 1st Bird Kill Per Day Comparison, 2021-2022



Turkeys Harvested Per Day, 2021-2023  
Data collected via POS online reporting, 2023 incomplete

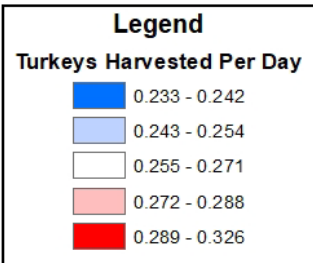
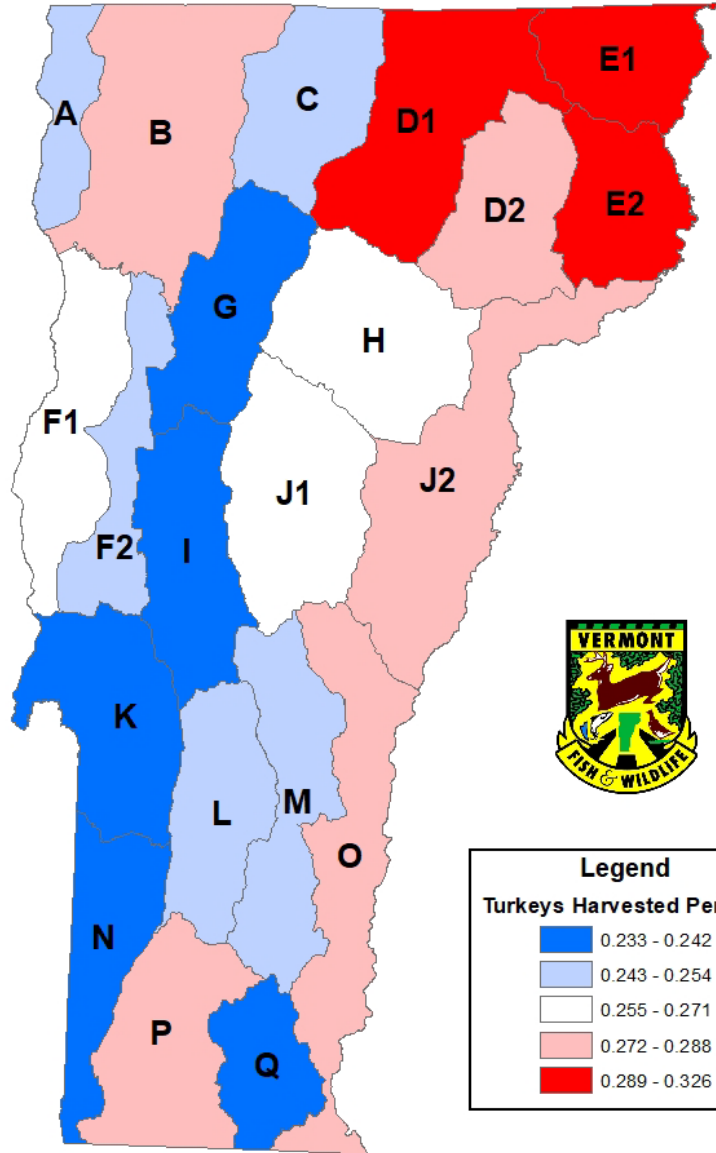


**Legend**  
Turkeys Harvested Per Day

Dark Blue	0.233 - 0.242
Light Blue	0.243 - 0.254
White	0.255 - 0.271
Pink	0.272 - 0.288
Red	0.289 - 0.326

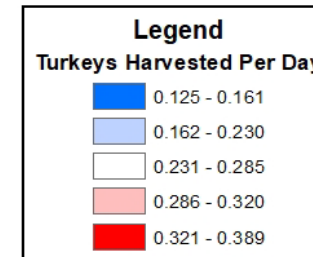
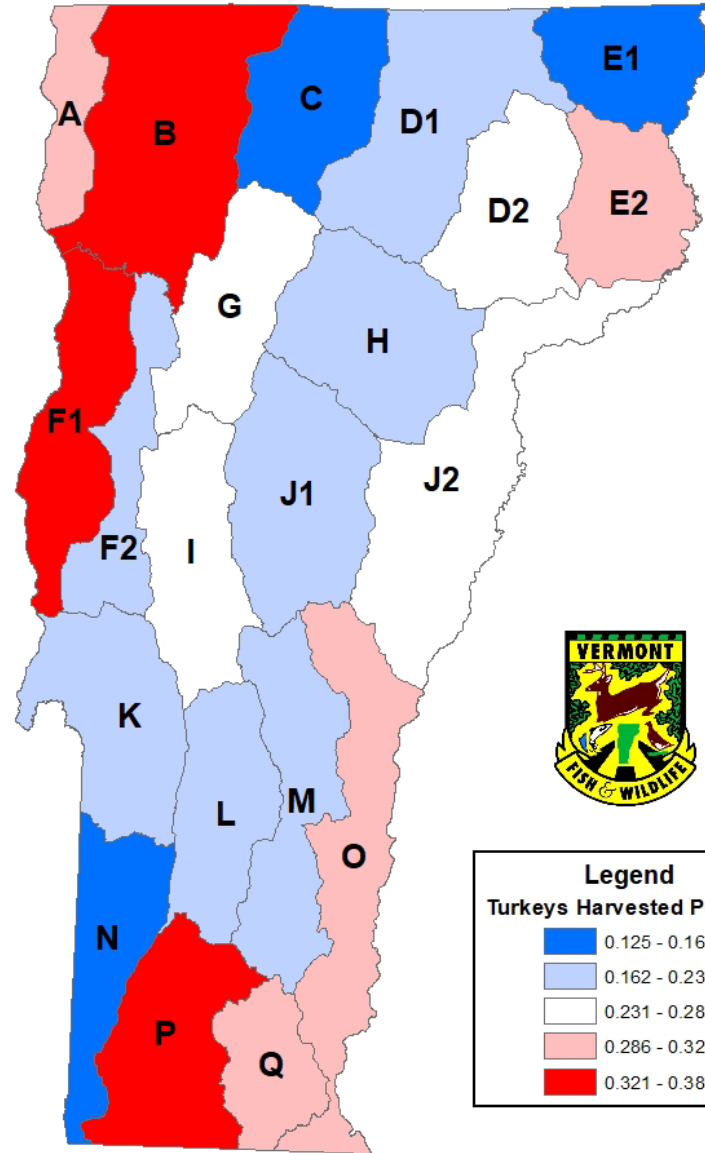
### Turkeys Harvested Per Day, 2021-2023

Data collected via POS online reporting, 2023 incomplete



### Turkeys Harvested Per Day, 2022-2023

Data collected via Vermont Outdoors App, 2023 incomplete



# Data Collection / Regulatory Timeline

## **3-year adaptive management approach**

- ▶ 2020 – Identify objectives, finalize metrics and implement new data collection methods (i.e., sighting surveys, hunter effort, nuisance/damage complaints, etc.)
- ▶ 2021 – Data collection
- ▶ 2022 – Data collection
- ▶ 2023 – Data collection / analysis, propose further potential regulatory changes
- ▶ 2024 – 2026 – Continued eval. of changes, propose further regulatory changes (3-year cycle)

A photograph of a turkey and arrows in a field with autumn foliage in the background. The turkey is lying on the grass, and several arrows are scattered around it. The background shows a rolling landscape with trees in shades of orange and yellow, suggesting an autumn setting. The text "Questions?" is overlaid in the center of the image.

Questions?

# Objectives Moving Forward



To develop and implement a decision-making system for managing the fall harvest that:

- Safeguards the health and sustainability of Vermont's turkey population
- Provides the data needed to more confidently assess regional population trends
- Simplifies and strengthens the process for implementing a regional management approach
- Maintains current levels of hunter satisfaction
- Maximizes opportunities for hunting

# Data Needs

## Hunter effort per WMU (CPUE)

- Online survey taking advantage of new online reporting platform
- Email blast surveys to licensed hunters
- Partner with the NWTF to survey membership
- Analyze license data to estimate number of hunters per WMU

## Harvest-independent population trend

- Strengthening brood survey data
- Winter flock survey
- Hunter sighting surveys

## Nuisance/damage complaint data

- Online complaint reporting form

## Public opinion data

- Survey conducted as part of 10-year Big game Planning process



	Status Quo	Package 1	Package 2	Package 3	Package 4	Weight
<b>Maximize Hunter Satisfaction</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>55</b>
<b>Prioritize quality spring hunting over fall hunting</b>						
Minimize risk of overharvest in the fall	0	0	0	0	0	
Preserve statewide spring hunting opportunity	0	0	0	0	0	
Maintain high statewide spring hunter success rates	0	0	0	0	0	
<b>Maximize hunting opportunity</b>						
Length of fall season	0	0	0	0	0	
Timing of fall season	0	0	0	0	0	
Bag limit of fall season	0	0	0	0	0	
Distribution of fall harvest opportunity	0	0	0	0	0	
<b>Minimize complexity</b>						
Frequency of changing harvest regulations	0	0	0	0	0	
Regulatory complexity	0	0	0	0	0	
<b>Maximize Ability to Manage Turkeys Regionally</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35</b>
Responsive to fluctuating populations	0	0	0	0	0	
Sensitive to regional differences in productivity	0	0	0	0	0	
Sensitive to public opinion	0	0	0	0	0	
<b>Minimize Costs to F&amp;W</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>
Required outreach & education	0	0	0	0	0	
Challenge to law enforcement	0	0	0	0	0	
Revenue impacts	0	0	0	0	0	