

# Administrative Procedures – Final Proposed Rule Filing

## Instructions:

In accordance with Title 3 Chapter 25 of the Vermont Statutes Annotated and the “Rule on Rulemaking” adopted by the Office of the Secretary of State, this filing will be considered complete upon filing and acceptance of these forms with the Office of the Secretary of State, and the Legislative Committee on Administrative Rules.

All forms requiring a signature shall be original signatures of the appropriate adopting authority or authorized person, and all filings are to be submitted at the Office of the Secretary of State, no later than 3:30 pm on the last scheduled day of the work week.

The data provided in text areas of these forms will be used to generate a notice of rulemaking in the portal of “Proposed Rule Postings” online, and the newspapers of record if the rule is marked for publication. Publication of notices will be charged back to the promulgating agency.

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**PLEASE REMOVE ANY COVERSHEET OR FORM NOT REQUIRED WITH THE CURRENT FILING BEFORE DELIVERY!**

**Certification Statement:** As the adopting Authority of this rule (see 3 V.S.A. § 801 (b) (11) for a definition), I approve the contents of this filing entitled:

**10 App. V.S.A. § 10. Vermont endangered and threatened species rule**

/s/ Julia Moore, P.E. , on 10/22/21

Printed Name and Title:

Julia Moore, P.E., Secretary, Vermont Agency of Natural Resources

RECEIVED BY: \_\_\_\_\_

- Coversheet
- Adopting Page
- Economic Impact Analysis
- Environmental Impact Analysis
- Strategy for Maximizing Public Input
- Scientific Information Statement (if applicable)
- Incorporated by Reference Statement (if applicable)
- Clean text of the rule (Amended text without annotation)
- Annotated text (Clearly marking changes from previous rule)
- ICAR Minutes
- Copy of Comments
- Responsiveness Summary

1. TITLE OF RULE FILING:

**10 App. V.S.A. § 10. Vermont endangered and threatened species rule**

2. PROPOSED NUMBER ASSIGNED BY THE SECRETARY OF STATE

21P-028

3. ADOPTING AGENCY:

Vermont Agency of Natural Resources

4. PRIMARY CONTACT PERSON:

*(A PERSON WHO IS ABLE TO ANSWER QUESTIONS ABOUT THE CONTENT OF THE RULE).*

Name: Catherine Gjessing

Agency: Vermont Department of Fish and Wildlife

Mailing Address: 1 National Life Drive, Davis 2,  
Montpelier VT 05620-3208

Telephone: 802 595 - 3331 Fax: 802 828 - 1250

E-Mail: catherine.gjessing@vermont.gov

Web URL *(WHERE THE RULE WILL BE POSTED)*:

<https://vtfishandwildlife.com/consERVE/endangered-and-threatened-species>

5. SECONDARY CONTACT PERSON:

*(A SPECIFIC PERSON FROM WHOM COPIES OF FILINGS MAY BE REQUESTED OR WHO MAY ANSWER QUESTIONS ABOUT FORMS SUBMITTED FOR FILING IF DIFFERENT FROM THE PRIMARY CONTACT PERSON).*

Name: Mark Scott

Agency: Vermont Department of Fish and Wildlife

Mailing Address: 1 National Life Drive, Davis 2,  
Montpelier VT 05620-3702

Telephone: 802 777 - 4217 Fax: 802 828 - 1250

E-Mail: mark.scott@vermont.gov

6. RECORDS EXEMPTION INCLUDED WITHIN RULE:

*(DOES THE RULE CONTAIN ANY PROVISION DESIGNATING INFORMATION AS CONFIDENTIAL; LIMITING ITS PUBLIC RELEASE; OR OTHERWISE EXEMPTING IT FROM INSPECTION AND COPYING?)* No

IF YES, CITE THE STATUTORY AUTHORITY FOR THE EXEMPTION:

PLEASE SUMMARIZE THE REASON FOR THE EXEMPTION:

7. LEGAL AUTHORITY / ENABLING LEGISLATION:

*(THE SPECIFIC STATUTORY OR LEGAL CITATION FROM SESSION LAW INDICATING WHO THE ADOPTING ENTITY IS AND THUS WHO THE SIGNATORY SHOULD BE. THIS SHOULD BE A SPECIFIC CITATION NOT A CHAPTER CITATION).*

10 V.S.A. §§ 5402, 5402a, and 5403

8. EXPLANATION OF HOW THE RULE IS WITHIN THE AUTHORITY OF THE AGENCY:

This rule is adopted pursuant to 10 V.S.A. §§ 5402, 5402a, and 5403. Section 5402(a) states that the "Secretary shall adopt by rule a State endangered species list and a State threatened species list." In addition, § 5402a provides that the Secretary may designate critical habitat and § 5403 allows the Secretary to adopt rules "for the protection, conservation and recovery of endangered and threatened species." The rules list threatened and endangered species, designate critical habitat and set forth the permitting framework for the protection of these species.

9. THE FILING HAS NOT CHANGED SINCE THE FILING OF THE PROPOSED RULE.

10. THE AGENCY HAS NOT INCLUDED WITH THIS FILING A LETTER EXPLAINING IN DETAIL WHAT CHANGES WERE MADE, CITING CHAPTER AND SECTION WHERE APPLICABLE.

11. SUBSTANTIAL ARGUMENTS AND CONSIDERATIONS WERE NOT RAISED FOR OR AGAINST THE ORIGINAL PROPOSAL.

12. THE AGENCY HAS INCLUDED COPIES OF ALL WRITTEN SUBMISSIONS AND SYNOPSES OF ORAL COMMENTS RECEIVED.

13. THE AGENCY HAS INCLUDED A LETTER EXPLAINING IN DETAIL THE REASONS FOR THE AGENCY'S DECISION TO REJECT OR ADOPT THEM.

14. CONCISE SUMMARY (150 WORDS OR LESS):

The purpose of the rule is to identify and protect threatened and endangered (T&E) species in Vermont. This amended rule proposes the following: changing the designation of a mussel, the Brook Floater from threatened to endangered; listing a grassland bird, the Eastern Meadowlark as a threatened species; listing a plant Rue Anemone (*Thalictrum thalictroides* L.) as

## Final Proposed Coversheet

endangered; listing the American bumble bee (one of many species of bees in Vermont) as endangered; listing a plant, Houghton's sedge (*Carex houghtoniana* Torr. ex Dewey) as endangered; designating critical habitat for threatened and endangered bats, a shoreland bird, the Common Tern, and the Spiny Softshell Turtle; and delist the Bald Eagle and the plant, Canada Black Snakeroot (*Sanicula canadensis* L. var. *canadensis*). All of these species are listed as T&E in Vermont and are not listed under federal law. In addition, the rule is amended to conform with statutory changes that occurred since the rule was last promulgated.

### 15. EXPLANATION OF WHY THE RULE IS NECESSARY:

The rule is necessary to protect threatened and endangered species and to designate critical habitat required for the survival of the species. The rule also delists 2 species. The Bald Eagle population has met recovery goals and the Canada Black Snakeroot is now known to be more abundant.

### 16. EXPLANATION OF HOW THE RULE IS NOT ARBITRARY:

The rule was fashioned with the advice of the Endangered Species Committee based on the best available information. The listing, delisting and designation proposals conform with the statutory definitions and standards regarding the authority to list and designate critical habitat. And finally, the rule is entirely consistent with the purposes of the statutes which are to protect and recover threatened and endangered species.

### 17. LIST OF PEOPLE, ENTERPRISES AND GOVERNMENT ENTITIES AFFECTED BY THIS RULE:

Landowners, farmers and agricultural organizations such as, Rural Vermont and the Vermont Farm Bureau, foresters, state agencies such as VTrans, AAFM, ACCD, FPR, and VHD; public utilities, electric generation developers, businesses and individuals who engage in development, academic and nonprofit environmental organizations, and Fish and Wildlife Department (Department) staff and law enforcement.

### 18. BRIEF SUMMARY OF ECONOMIC IMPACT (150 WORDS OR LESS):

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T&E listings do on occasion have real economic impacts on landowners and businesses that own land where such species are located, especially when engaged in development or other activities which may harm a T&E species. While these impacts are very rare, the presence of a T&E species may result in adjustments to development to ensure that any impacts are minimized or avoided.

19. A HEARING WAS HELD.

20. HEARING INFORMATION

(THE FIRST HEARING SHALL BE NO SOONER THAN 30 DAYS FOLLOWING THE POSTING OF NOTICES ONLINE).

IF THIS FORM IS INSUFFICIENT TO LIST THE INFORMATION FOR EACH HEARING PLEASE ATTACH A SEPARATE SHEET TO COMPLETE THE HEARING INFORMATION.

Date: 10/5/2021

Time: 06:30 PM

Street Address: Pavillion Auditorium

Zip Code: 109 State Street, Montpelier, VT 05609

Date:

Time: AM

Street Address:

Zip Code:

Date:

Time: AM

Street Address:

Zip Code:

Date:

Time: AM

Street Address:

Zip Code:

21. DEADLINE FOR COMMENT (NO EARLIER THAN 7 DAYS FOLLOWING LAST HEARING):

10/13/2021

KEYWORDS (PLEASE PROVIDE AT LEAST 3 KEYWORDS OR PHRASES TO AID IN THE SEARCHABILITY OF THE RULE NOTICE ONLINE).

Final Proposed Coversheet  
critical habitat  
threatened  
endangered  
species  
list  
delist

# Administrative Procedures – Adopting Page

## Instructions:

This form must accompany each filing made during the rulemaking process:

Note: To satisfy the requirement for an annotated text, an agency must submit the entire rule in annotated form with proposed and final proposed filings. Filing an annotated paragraph or page of a larger rule is not sufficient. Annotation must clearly show the changes to the rule.

When possible, the agency shall file the annotated text, using the appropriate page or pages from the Code of Vermont Rules as a basis for the annotated version. New rules need not be accompanied by an annotated text.

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1. TITLE OF RULE FILING:

**10 App. V.S.A. § 10. Vermont endangered and threatened species rule**

2. ADOPTING AGENCY:

Vermont Agency of Natural Resources

3. TYPE OF FILING (*PLEASE CHOOSE THE TYPE OF FILING FROM THE DROPDOWN MENU BASED ON THE DEFINITIONS PROVIDED BELOW*):

- **AMENDMENT** - Any change to an already existing rule, even if it is a complete rewrite of the rule, it is considered an amendment as long as the rule is replaced with other text.
- **NEW RULE** - A rule that did not previously exist even under a different name.
- **REPEAL** - The removal of a rule in its entirety, without replacing it with other text.

This filing is **AN AMENDMENT OF AN EXISTING RULE** .

4. LAST ADOPTED (*PLEASE PROVIDE THE SOS LOG#, TITLE AND EFFECTIVE DATE OF THE LAST ADOPTION FOR THE EXISTING RULE*):

14P058, 2015 Regulation of the Secretary of Agency of Natural Resources, 10 App. V.S.A. § 10. Vermont

Adopting Page

endangered and threatened species rule, eff. March 28,  
2015.



## INTERAGENCY COMMITTEE ON ADMINISTRATIVE RULES (ICAR) MINUTES

**Meeting Date/Location:** August 17, 2021, 3:00 PM, Physical Location: Pavilion Building, 109 State Street, 5th Floor, Montpelier, VT 05062; Virtual Option: Via Microsoft Teams Available

**Members Present:** Chair Kristin Clouser, Dirk Anderson, Ashley Berliner, Diane Bothfeld, Jennifer Mojo, John Kessler, Diane Sherman, Clare O'Shaughnessy and Michael Obuchowski

**Minutes By:** Melissa Mazza-Paquette

- 3:02 p.m. meeting called to order, welcome and introductions.
  - Introduction of new ICAR member Mike Obuchowski, Agency of Transportation.
- Review and approval of minutes from the July 12 and July 14, 2021 meetings, with abstention from those not in attendance of those prior meetings.
- Note: The following emergency rules were supported by ICAR Chair Clouser:
  - 1) 'VOSHA Subpart U/ COVID 19 Emergency Temporary Standard' by the Vermont Department of Labor on July 15, 2021
  - 2) 'Emergency Administrative Rules for Remote Hearings for the Board of Medical Practice' by the Agency of Human Services, Department of Health on July 26, 2021
- Note change to agenda:
  - Next meeting was moved from September 13, 2021 2:00 PM to September 8, 2021 3:00 PM due to lack of quorum.
  - Agenda **approved** as drafted with noted change above.
- No public comments made.
- Presentation of the following proposed rules on pages 2-5 to follow.
  1. 10 App. V.S.A. § 10. Vermont endangered and threatened species rule by the Agency of Natural Resources, Department of Fish and Wildlife, page 2
  2. Licensing and Operating Regulations for Therapeutic Community Residences, Agency of Human Services, Department of Disabilities, Aging and Independent Living, page 3
  3. Vermont Department of Financial Regulation Administrative Procedures, Vermont Department of Financial Regulation, page 4
  4. Rule No. S-2016-01 Vermont Securities Regulations Revised 2021, Vermont Department of Financial Regulation, page 5
- Next scheduled meeting is September 8, 2021 at 3:00 p.m.
- Committee discussion of suggested changes to the proposed rule filing forms will be moved to a future meeting to be scheduled separate from the regularly scheduled monthly meeting due to time constraints.
- 4:52 p.m. meeting adjourned.

**Proposed Rule:** 10 App. V.S.A. § 10. Vermont endangered and threatened species rule by the Agency of Natural Resources, Department of Fish and Wildlife

**Presented By:** Catherine Gjessing

Motion made to accept the rule by Diane Bothfeld, seconded by Dirk Anderson, and passed unanimously except for Jennifer Mojo who abstained, with the following recommendations:

1. Proposed Rule Coversheet, #5: Either state what information is confidential or remove 'Location confidential' and rely on the statute.
2. Proposed Rule Coversheet, #8:
  - a. Expand upon the American bumble bee as a particular species and include the range of other species.
  - b. Identify what the rule is generally about and the changes.
  - c. Clarify if those threatened and endangered are only in Vermont or national and also in Vermont.
  - d. Identify category of species in layman's terms.
3. Proposed Rule Coversheet, #11:
  - a. Include farmers, farmers associations and groups and organizations who interact with farmers. ICAR member Diane Bothfeld offered to provide a list if requested.
  - b. Provide reference to which groups of individuals and businesses.
4. Proposed Rule Coversheet, #12: Define 'T & E' before using the acronym and include the acronym in parentheses the first time using.
5. Proposed Rule Coversheet, #14 and #15: Complete once determined or state 'TBD'.
6. Adopting Page, #4: Confirm title.
7. Economic Impact Analysis, #3:
  - a. Define 'incidental take permits' and 'small businesses'.
  - b. Identify who is impacted and how is the rule effective.
  - c. Clarify the economic cost and to whom.
  - d. Remove the second 'the' in the second paragraph on page 3.
  - e. Reference guidance documents if available.
8. Economic Impact Analysis, #4: Clarify response.
9. Environmental Impact Analysis, #5: Specify 'do not unduly interfere' in the last sentence.
10. Environmental Impact Analysis, #6: Missing word between 'portions' and 'nesting'.
11. Environmental Impact Analysis, #9: Provide more details on the impact.
12. Public Input, #4: Include plans for a public hearing.
13. Public Input, #5: Clarify 'known' and add how they translate to the Economic Impact Analysis'.
14. Annotated Proposed Rule: The provisions designating critical habitat should be underlined.



# Administrative Procedures – Economic Impact Analysis

## **Instructions:**

In completing the economic impact analysis, an agency analyzes and evaluates the anticipated costs and benefits to be expected from adoption of the rule; estimates the costs and benefits for each category of people enterprises and government entities affected by the rule; compares alternatives to adopting the rule; and explains their analysis concluding that rulemaking is the most appropriate method of achieving the regulatory purpose.

Rules affecting or regulating schools or school districts must include cost implications to local school districts and taxpayers in the impact statement, a clear statement of associated costs, and consideration of alternatives to the rule to reduce or ameliorate costs to local school districts while still achieving the objectives of the rule (see 3 V.S.A. § 832b for details).

Rules affecting small businesses (excluding impacts incidental to the purchase and payment of goods and services by the State or an agency thereof), must include ways that a business can reduce the cost or burden of compliance or an explanation of why the agency determines that such evaluation isn't appropriate, and an evaluation of creative, innovative or flexible methods of compliance that would not significantly impair the effectiveness of the rule or increase the risk to the health, safety, or welfare of the public or those affected by the rule.

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### 1. TITLE OF RULE FILING:

**10 App. V.S.A. § 10. Vermont endangered and threatened species rule**

### 2. ADOPTING AGENCY:

Vermont Agency of Natural Resources

### 3. CATEGORY OF AFFECTED PARTIES:

*LIST CATEGORIES OF PEOPLE, ENTERPRISES, AND GOVERNMENTAL ENTITIES POTENTIALLY AFFECTED BY THE ADOPTION OF THIS RULE AND THE ESTIMATED COSTS AND BENEFITS ANTICIPATED:*

Landowners, state agencies such as VTrans, AAFM, ACCD, FPR, and VHD; public utilities, electric generation developers, individuals, businesses, foresters and farmers and associated organizations, academic and nonprofit environmental organizations, and Department staff and law enforcement. On average the Department issues approximately 35 permits a year. While many of

## Economic Impact Analysis

these permits are for educational, scientific collection and sometimes cultural purposes: approximately 4 to 8 incidental take permits are issued to businesses and other entities for development or; the expansion, improvement and maintenance of infrastructure on an annual basis. An incidental take permit is issued when it is likely that an otherwise lawful activity or development is likely to harm a T&E species. It is called an incidental take permit because the taking of T&E species is not the purpose of the development but a consequence of the development. Of the incidental take permits, about one half are permits issued to already built projects that have ongoing operations or maintenance requirements that present a risk of taking a T&E species.

The Department of Fish and Wildlife maintains an online Natural Heritage Atlas that maps estimated occupied habitat for many species including T&E species. The mapping is not absolute as there are uncertainties, for example many species move across the landscape and the limits of habitat may change now and again in response to natural processes and human activities. The Atlas does however provide some good information and potential notice to consultants and others who use the maps for educational, planning, and regulatory review.

For context, the size of Vermont is 2,492,300 hectares 6,158,598 acres, or 9623 sq. miles. The number of mapped T&E species in 2021 is 2,105. The size of mapped T&E polygons in 2021 is 214,107 acres or 335 miles. Note that these figures are skewed by the inclusion of two very mobile and wide ranging species - the Northern Long eared bat (NLEB) and the Canada Lynx. Without NLEB, the area includes 51,231 hectares 126,597 acres or 198 miles. Expressed in percentages, the area was approximately 3.4% of Vermont in 2021. Without NLEB that percent is 2.1%; and without the largest Lynx polygon and NLEB, it is 1.6% of Vermont land. Note that a handful of permits related to NLEB have been issued but none have been issued for Lynx and Lynx habitat is located on public lands owned by ANR. In fact, many of the T&E occurrences are found on conserved or public lands. For example, more than half of the T&E

## Economic Impact Analysis

occurrences are found partially or completely on public or privately conserved lands, more specifically 1178 of 2,105 occurrences in 2021.

ICAR requested that the ANR provide the number of potential landowners who may be affected by this rule. It is not possible to provide an accurate estimate of affected landowners without conducting extensive research at the municipal level. In addition, we cannot predict what activities a landowner may wish to engage in at some point in the future; or which landowners may wish to develop their properties in a manner that will harm T&E species. The range of T&E species and their biological behaviors also makes such predictions difficult. For example, because some species are mobile or seasonal, permits for taking such species may not be necessary depending on the activity or timing of construction. In August of 2021, 20,574 of a total of 337,292 parcels in Vermont are mapped for T&E occurrences. Here, again if Lynx and NLEB parcels are excluded, there are approximately 11,546 parcels of 337,292. These numbers do not exclude public or conserved lands and, these numbers overestimate the number of affected landowners because multiple parcels are owned by single landowners.

The new listing may result in no increase or a very small increase of number of required permits. The costs associated with permitting depends on several factors including; the size and scope of the project, the impact of the project on the species, and site specific characteristics. Permit fees are based on the number of individual T&E species that are likely to be taken and range from \$250 to \$25,000. Other costs include retaining a qualified consultant, designing projects to avoid and minimize takings, monitoring and reporting, mitigation, seasonal restrictions, and following best management practices. These costs may range from several hundred dollars to tens of thousands of dollars or more. Because the new listings may or may not potentially affect some persons and increase the costs associated with some projects where listed species occur, it is not possible to accurately estimate those costs. Under 3 V.S.A § 801, defines companies with

## Economic Impact Analysis

fewer than 20 employees as small businesses. Most T&E permits that are issued by the Secretary to small businesses in Vermont are for large multi-million dollar projects. On occasion, usually when there is a new proposed development or an expansion of an existing development, a business may be required to get a permit to take a threatened or endangered species. While 145 permits have been issued in the last 5 years, only 32 permits were incidental permits related to development. Depending on the project, the permit process may require hiring a qualified consultant, and proceeding with a development plan that avoids and minimizes impacts to a species. As discussed above, this can cost thousands of dollars. However, Fish & Wildlife Department biologists, permit administrators and legal counsel work closely with permit applicants to help them avoid, minimize and mitigate the taking of Threatened and Endangered species.

Of the species that are proposed for listing, the American Bumble bee and the Meadowlark were identified as species that may affect a range of activities such as development, farming and vegetation management. Note that other bees and grassland birds have been listed for almost a decade now. No permits or other costs associated with these activities have been imposed on any individuals, businesses or other state agencies. The Department has worked cooperatively with other state agencies such as Vtrans and AAFM to develop best management practices where applicable to avoid and minimize any impacts to many species including grassland birds, bees, and plants.

Based on ANR experience, the rules do not prevent projects from proceeding and only one permit has been denied in the past decade. Here, the delisting of 2 species could potentially result in some small cost savings but these are outweighed by the new listings. The benefit of the threatened and endangered species statutes and rules are largely related to intrinsic and environmental values. One exception is that there are real economic benefits associated with pollinators such as, bees. Here, the American bumble bee is very rare and the existing benefits are hard to quantify.

## Economic Impact Analysis

However, some economic benefits that would likely occur if the recovery of T&E bees is successful. Information about the economic impacts of declining pollinator populations can be found at:

<https://obamawhitehouse.archives.gov/the-press-office/2014/06/20/fact-sheet-economic-challenge-posed-declining-pollinator-populations#:~:text=Pollinators%20contribute%20more%20than%204, and%20vegetables%20in%20our%20diets.>

### 4. IMPACT ON SCHOOLS:

*INDICATE ANY IMPACT THAT THE RULE WILL HAVE ON PUBLIC EDUCATION, PUBLIC SCHOOLS, LOCAL SCHOOL DISTRICTS AND/OR TAXPAYERS CLEARLY STATING ANY ASSOCIATED COSTS:*

To date, there have been no impacts because there are no known occurrences of T&E species on school properties.

### 5. ALTERNATIVES: *CONSIDERATION OF ALTERNATIVES TO THE RULE TO REDUCE OR AMELIORATE COSTS TO LOCAL SCHOOL DISTRICTS WHILE STILL ACHIEVING THE OBJECTIVE OF THE RULE.*

None

### 6. IMPACT ON SMALL BUSINESSES:

*INDICATE ANY IMPACT THAT THE RULE WILL HAVE ON SMALL BUSINESSES (EXCLUDING IMPACTS INCIDENTAL TO THE PURCHASE AND PAYMENT OF GOODS AND SERVICES BY THE STATE OR AN AGENCY THEREOF):*

Note that the U.S. Small Business Administration counts companies with as much as \$35.5 million in sales and 1,500 employees as "small businesses", depending on the industry. In Vermont however, companies with fewer than five hundred employees are generally considered small businesses. Most T&E permits that are issued by the Secretary to "small" businesses are for large multi-million dollar projects. On occasion, usually when there is a new proposed development or an expansion of an existing development, a business may be required to get a permit to take a threatened or endangered species. While 145 permits have been issued in the last 5 years, only 32 permits were incidental permits related to development. Depending on the project, the permit process may require hiring a qualified consultant, and proceeding with a development plan that

## Economic Impact Analysis

avoids and minimizes impacts to a species. As discussed above, this can cost thousands of dollars. However, Fish & Wildlife Department biologists, permit administrators and legal counsel work closely with permit applicants to help them avoid, minimize and mitigate the taking of Threatened and Endangered species.

### 7. SMALL BUSINESS COMPLIANCE: *EXPLAIN WAYS A BUSINESS CAN REDUCE THE COST/BURDEN OF COMPLIANCE OR AN EXPLANATION OF WHY THE AGENCY DETERMINES THAT SUCH EVALUATION ISN'T APPROPRIATE.*

Depending on the species and its location, avoiding and minimizing impacts, as well as, Best Management Practices, such as seasonal restrictions are often effective ways to reduce the costs and burdens of compliance. The Department staff works cooperatively with businesses, individuals and other state agencies to protect these species and allow otherwise legal activities and development to proceed.

### 8. COMPARISON:

*COMPARE THE IMPACT OF THE RULE WITH THE ECONOMIC IMPACT OF OTHER ALTERNATIVES TO THE RULE, INCLUDING NO RULE ON THE SUBJECT OR A RULE HAVING SEPARATE REQUIREMENTS FOR SMALL BUSINESS:*

The benefit of the threatened and endangered species rule is that it protects listed species. In the absence of the rule, these species are less likely to survive and recover in Vermont. As noted above, with the exception of pollinators, the benefits of protecting T&E species are largely intrinsic and unquantifiable. The rules implement the explicit legislative policy of protecting and recovering vulnerable species. While it is not possible to accurately estimate the future costs, if any, associated with the amendments to the rule we do know that listing has not prevented projects from proceeding in the past. Implementing a rule that sets forth separate requirements for businesses would be inefficient and would undermine the protections provided by the proposed amended rules. The Department has developed guidance for avoiding and minimizing the impacts to many T&E species.



## Economic Impact Analysis

### 9. SUFFICIENCY: *EXPLAIN THE SUFFICIENCY OF THIS ECONOMIC IMPACT ANALYSIS.*

This filing explains the permitting fees and other costs associated with permitting, provides information about the likely numbers of projects impacted by the listing rules, and outlines the costs and benefits associated with the proposed rules.

# Administrative Procedures – Environmental Impact Analysis

## Instructions:

In completing the environmental impact analysis, an agency analyzes and evaluates the anticipated environmental impacts (positive or negative) to be expected from adoption of the rule; compares alternatives to adopting the rule; explains the sufficiency of the environmental impact analysis.

Examples of Environmental Impacts include but are not limited to:

- Impacts on the emission of greenhouse gases
- Impacts on the discharge of pollutants to water
- Impacts on the arability of land
- Impacts on the climate
- Impacts on the flow of water
- Impacts on recreation
- Or other environmental impacts

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### 1. TITLE OF RULE FILING:

**10 App. V.S.A. § 10. Vermont endangered and threatened species rule**

### 2. ADOPTING AGENCY:

Vermont Agency of Natural Resources

### 3. GREENHOUSE GAS: *EXPLAIN HOW THE RULE IMPACTS THE EMISSION OF GREENHOUSE GASES (E.G. TRANSPORTATION OF PEOPLE OR GOODS; BUILDING INFRASTRUCTURE; LAND USE AND DEVELOPMENT, WASTE GENERATION, ETC.):*

None

### 4. WATER: *EXPLAIN HOW THE RULE IMPACTS WATER (E.G. DISCHARGE / ELIMINATION OF POLLUTION INTO VERMONT WATERS, THE FLOW OF WATER IN THE STATE, WATER QUALITY ETC.):*

None

### 5. LAND: *EXPLAIN HOW THE RULE IMPACTS LAND (E.G. IMPACTS ON FORESTRY, AGRICULTURE ETC.):*

Because the meadowlark is a grassland bird, there is some possibility of impact to agricultural activities. Agricultural practices create pastures and hay fields used by grassland birds. The Agency of Natural Resources (ANR) has listed species of grassland birds

## Environmental Impact Analysis

since 1987 without adversely impacting agricultural practices. The ANR intends to work cooperatively with the agricultural community and the AAFM to conserve Eastern Meadowlarks and other grassland birds in Vermont. The ANR will pursue voluntary measures to enhance grassland bird conservation through landowner relations, agricultural incentive programs, and Best Management Practices. The ANR may notify a person engaged in agriculture of the presence of the Eastern Meadowlark or other listed species and advise that person to avoid taking or to obtain a permit. The statutes requires ANR to ensure that the T&E rules do not unduly interfere with agriculture. As such, the proposed rule language requires that we consult with AAFM first prior to regulating agricultural activities.

### 6. RECREATION: *EXPLAIN HOW THE RULE IMPACT RECREATION IN THE STATE:*

On rare occasions, locations that have threatened and endangered species may be restricted from access to protect T&E species. Examples include restricting access on trails during a bird nesting season, access to portions of nesting beaches during turtle nesting season or, access to bat hibernacula caves.

### 7. CLIMATE: *EXPLAIN HOW THE RULE IMPACTS THE CLIMATE IN THE STATE:*

None

### 8. OTHER: *EXPLAIN HOW THE RULE IMPACT OTHER ASPECTS OF VERMONT'S ENVIRONMENT:*

As noted above, the purpose of the rules is to protect and recover threatened and endangered species and the role of the species in the ecosystem. In the absence of the rule, these species are not likely to survive or persist in Vermont. The protection and recovery of T&E species is important to maintaining and supporting healthy and diverse ecosystems in Vermont.

### 9. SUFFICIENCY: *EXPLAIN THE SUFFICIENCY OF THIS ENVIRONMENTAL IMPACT ANALYSIS.*

This filing sets forth the potential impacts of the rules on traditional land uses, specifically agriculture; as well as on recreational uses. The rule is promulgated to conserve the most vulnerable species in Vermont, species that are in jeopardy and will not likely persist without protective measures or focused

**Environmental Impact Analysis**

recovery plans. There are no anticipated greenhouse gas, climate, or water quality impacts associated with this rule.

# Administrative Procedures – Public Input

## **Instructions:**

In completing the public input statement, an agency describes the strategy prescribed by ICAR to maximize public input, what it did do, or will do to comply with that plan to maximize the involvement of the public in the development of the rule.

This form must accompany each filing made during the rulemaking process:

1. TITLE OF RULE FILING:

**10 App. V.S.A. § 10. Vermont endangered and threatened species rule**

2. ADOPTING AGENCY:

Vermont Agency of Natural Resources

3. PLEASE DESCRIBE THE STRATEGY PRESCRIBED BY ICAR TO MAXIMIZE PUBLIC INVOLVEMENT IN THE DEVELOPMENT OF THE PROPOSED RULE:

ICAR has approved of the public outreach already conducted and the additional hearing that has been initiated by the ANR. An in person public hearing will be held at the Pavillion Auditorium in Montpelier at 6:30 pm on 9/28/21. ANR will consider holding another hearing based on the level of interest from stakeholders or members of the public.

4. PLEASE LIST THE STEPS THAT HAVE BEEN OR WILL BE TAKEN TO COMPLY WITH THAT STRATEGY:

The designation of critical habitat, and the listing and delisting of threatened and endangered (T&E) species was recommended by the Endangered Species Committee (ESC). The ESC holds periodic public meetings and accepts public comment. Recommendations are formally made and voted on during the public meetings. Prior to filing the rule with ICAR, ANR notified known affected landowners, municipalities in which critical habitat designations are proposed, and other state and federal agencies. In so doing, Department staff answered questions and secured the support of these

## Public Input

entities. The rule will be posted on our website, press releases will be issued at each step in the rulemaking process, social media content will be posted, a public hearing will be held, and public comment will be accepted and considered.

### 5. BEYOND GENERAL ADVERTISEMENTS, PLEASE LIST THE PEOPLE AND ORGANIZATIONS THAT HAVE BEEN OR WILL BE INVOLVED IN THE DEVELOPMENT OF THE PROPOSED RULE:

All affected Landowners and municipalities in which critical habitat designations are located, were notified of the proposed rules. Other state agencies were given an opportunity to make suggestions regarding the proposed rule.

**From:** [Terry Marron](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Meadowlark  
**Date:** Wednesday, October 13, 2021 7:47:51 AM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Dear committee members,

I believe that the Eastern Meadowlark be listed as threatened in the State of Vermont. The USGS estimates their annual population decline at 8.7% in Vermont.

It is estimated that the current Vermont population of Meadowlarks is around 90 breeding individuals and in 2016 the population was estimated to be 150 individuals.

Theses birds need our help in conserving their habitat to ensure their survival.

Thank you,

Terry Marron  
Williston VT

**From:** [maryholland505@gmail.com](mailto:maryholland505@gmail.com)  
**To:** ANR - FW Public Comment  
**Subject:** eastern meadowlark on endangered species list  
**Date:** Wednesday, October 13, 2021 3:30:03 PM

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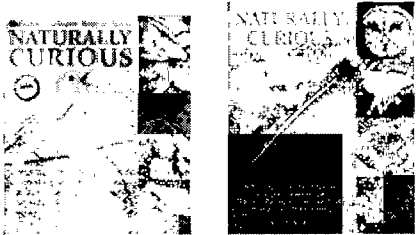
**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hi,

I just wanted to add my name to the list of Vermonters who would like to see the Eastern Meadowlark added to Vermont's Endangered Species List.

Sincerely,  
Mary Holland

Mary Holland  
505 Wake Robin Drive  
Shelburne, VT 05482  
802-279-2330



[www.naturallycuriouswithmaryholland.wordpress.com](http://www.naturallycuriouswithmaryholland.wordpress.com)



**From:** [Dan Allard](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** comment on T & E rule changes  
**Date:** Wednesday, October 13, 2021 9:26:38 AM

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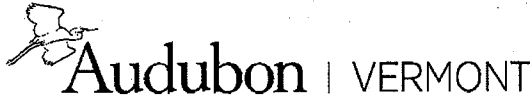
EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

It would appear that Vermont has no intention of protecting any of the new additions to the endangered species list. Every human knows, or should know, that the Eastern Meadowlark and the North American Bumblebee frequent meadows and fields for food, shelter and cross pollination. Now, the most liberal colleges In Vermont, Middlebury College, is destroying 22 acres of pristine field to use for solar panels. Why is this going to be allowed? It makes me sick to think that the State of Vermont would allow this, especially with the support of Sen. Pat Leahy. I watched them shovel some dirt on the news last night, all smiling and pleased about being in violation of the Endangered Species Protection Act.

Fix this!

Dan Allard

Sent from my iPad



255 Sherman Hollow Rd.  
Huntington, VT 06462  
802-434-3068

vt.audubon.org

October 13, 2021

Via Electronic Mail to [ANR.FWPublicComment@vermont.gov](mailto:ANR.FWPublicComment@vermont.gov)

Commissioner Louis Porter  
Vermont Department of Fish & Wildlife

Secretary Julie Moore  
Vermont Agency of Natural Resources

1 National Life Drive, Davis 2  
Montpelier, VT 05620-3702

Subject: Audubon Vermont Comments on Endangered and Threatened Species Rule

Dear Secretary Moore and Commissioner Porter:

Thank you for the opportunity to comment on the recommendations by the Vermont Endangered Species Committee to the Endangered and Threatened Species Rule. Audubon Vermont submits these comments on behalf of over ten thousand members in Vermont. We are the state office of the National Audubon Society with the mission to protect birds and the places birds need to thrive. Our comments are focused on the bird species affected by the proposed rule change. We strongly support these changes as consistent with our mission and science.

1. Bald Eagle Delisting:

Audubon Vermont supports the delisting of the Bald Eagle in Vermont. We are pleased to have played a role in recovering this species, with the support of the Department. We also owe thanks to the many volunteers who have committed their time and energy to monitoring Bald Eagle nests, as part of a shared community effort to recover this magnificent species. In the latter part of the 20<sup>th</sup> century, Bald Eagles disappeared from Vermont for decades, primarily due to the widespread use of the pesticide DDT.

Since the Bald Eagle was first listed under the United States Endangered Species Act in 1972, a number of important factors have led to this species' successful recovery. At the continental and state levels, the

ban on DDT, reintroduction programs and the protection of critical breeding and wintering habitat have played key roles in this success. Due to these actions and the implementation of recovery plans under the federal Endangered Species Act, the Bald Eagle was removed from the federal Endangered Species List in 2007.

Bald Eagles did not return to Vermont as quickly as in other parts of the country or region. The Bald Eagle was first listed as endangered in Vermont in 1987 but no breeding pairs were observed to nest in Vermont until 2006 and no eagles were observed to successfully fledge until 2008. Since that time, recovery in Vermont accelerated, due in part to a successful reintroduction effort in the Dead Creek Wildlife Management Area. The return of Bald Eagles has been dramatic in the intervening years. In 2021, forty-one pairs nested within Vermont's borders. This number reflects significant and steady population growth with four new pairs just since 2020. These population metrics have consistently exceeded the Vermont Bald Eagle Recovery Plan thresholds established for delisting.

In 2018, Audubon Vermont's conservation biologists participated in the deliberations of the Bird Science Advisory Group to the Endangered Species Committee, which voted approve a proposal to downlist the Bald Eagle from endangered to threatened. With additional data from the 2018-2021 nesting seasons, the Vermont Bald Eagle population has now exceeded the delisting criteria for number of successful pairs for a minimum of four years and Audubon Vermont now proudly joins in supporting the recommendation of the Committee to delist the Bald Eagle.

The successful growth of breeding pairs of Bald Eagles, combined with the fact that federal laws will continue to provide protections, including the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, provide sufficient assurances that Bald Eagles will remain protected even without the State of Vermont listing. We are committed to working with the Department to monitor Bald Eagle populations to ensure that the current protections are sufficient to ensure the success of the species after delisting.

## 2. Eastern Meadowlark Listing:

Audubon Vermont supports the listing of the Eastern Meadowlark as a threatened species. This recommendation is based on the dramatic population decline of this species over the past several decades due to a loss of habitat and human disturbance. Unless protected, the Eastern Meadowlark will become an endangered species. For this reason, the State of Vermont needs to consider the establishment of critical habitat and develop a recovery plan to avoid the total loss of this species from Vermont. A review of North American Breeding Bird Survey data on the Eastern Meadowlark indicates a 95% population decline since 1980. In addition, Vermont Breeding Bird Atlas data indicate a 55% decrease in distribution across its former range. Based on community science and volunteer monitoring, we estimate the number of Eastern Meadowlarks to be no more than one hundred breeding pairs. The decline of the Eastern Meadowlark in Vermont is among the highest in the region. Audubon Vermont's biologists have reviewed the above information and concur in the recommendation of the Bird Science Advisory Group to the Endangered Species Committee to list the Eastern Meadowlark as threatened.

The Eastern Meadowlark nests in open fields, pastures and meadows, including weedy pastures, hayfields, and sometimes in fields of other crops. Threats to the Eastern Meadowlark include the loss of the amount and quality of habitat due to the conversion of agricultural land to development or, even without development, a cessation of cultivation and a loss of the necessary grassland habitat characteristics required by this species. Economic pressures on farmers are, in some cases, increasing management intensity on remaining hayfields and pastures and this trend is another factor in the Eastern Meadowlark's decline. The cutting of grasslands and hayfields more frequently and earlier interferes with incubation and feeding behavior. These changes, in turn, result in nest failure and are a barrier to the species' ability to re-nest. Finally, habitat loss as a threat to the Eastern Meadowlark is exacerbated the threat of climate change. The Eastern Meadowlark identified as a vulnerable species for Vermont in the National Audubon Society Survival by Degrees report.

Although there are opportunities for conservation on public land, protection of this species will require appropriate management measures on private land. Enrollment of greater acreage in easement programs such as those administered by the United States Department of Agriculture, state programs, land trusts or innovative market-based approaches such as Audubon's Bobolink Project are necessary to allow farmers to delay harvesting or avoid cultivating grain crops are potential strategies. Education of farmers regarding bird-friendly farming practices, and collaboration with the Vermont Agency of Agriculture, Food and Markets to integrate Eastern Meadowlark protections into existing environmental management programs on farms will be necessary. Audubon Vermont will work with the Department, the Agency of Agriculture, and willing farmers and private landowners to implement practices that will contribute to the recovery of this species.

### 3. Critical Habitat Designation for Common Tern Islands:

Audubon Vermont supports the designation of critical habitat for Common Terns on three specific islands in Lake Champlain. Since 1988, Audubon Vermont has worked with the Department to protect Common Terns. As a result of these efforts, Common Tern populations have increased from fifty pairs to more than two hundred, though population numbers continue to fluctuate and the designation of the islands as critical habitat will increase the Department's authority to protect this species.

Common Terns in Vermont are limited to nesting on a series of small islands in Northern Lake Champlain. The three islands proposed for designation as critical habitat include their largest nesting location on Popasquash Island Sanctuary, as well as Rock and Grammas Islands. These islands are each less than a half-acre. Historical records show that Popasquash Island has been used by Common Terns for breeding since a least the late 1800's, and Rock and Grammas Islands since the 1960's. Up to eighty percent of Common Terns return to nest on Lake Champlain, sometimes to the same location and with the same mate.

The number of Common Tern breeding pairs on Lake Champlain were between three and four hundred in the late 1960's. Their numbers declined rapidly during subsequent decades and reached a low of fifty pairs in 1996. Vermont placed the Common Tern on the Endangered Species in 1989. Threats to the Common Tern include owl predation, over-crowding of the nesting islands by Ring-billed Gulls and human disturbance as the primary causes of the decline. More recent concerns include the expanding

Double-crested Cormorant on Lake Champlain and the impacts this species may have on tern nesting islands.

The Vermont Common Tern Recovery Plan identified acquisition and continued protection of the islands as a primary goal. Consistent with that goal, these islands have been protected through the efforts of first the Green Mountain Audubon Society, which owns the islands, and subsequently Audubon Vermont, which monitors and protects the Common Tern populations on the islands. This effort has been supported by the Lake Champlain Land Trust, which holds conservation easements on the islands.

Breeding Common Terns were monitored by the Vermont Institute of Natural Sciences (VINS) from 1988 to 1996, and since that time by Audubon Vermont. Audubon has managed the islands to enhance population levels and productivity since 1988 with support from the Department as well as from other conservation organizations and funding from private foundations

Audubon Vermont's biologists have reviewed the proposal by the Bird Science Advisory Group to the Endangered and Threatened Species Committee and agree that these islands should be designated as Critical Habitat Designation. The islands proposed for designation as critical habitat is supported by their listing as Vermont Important Bird Areas by the National Audubon Society. This critical habitat designation will enhance the ability of the State to address threats to the Common Terns. Current conservation efforts for the Common Tern have included posting the islands to prevent human disturbance, building shelters to protect newly hatched chicks from predation, and controlling gull and cormorant nesting on the islands. As a result of these techniques, the Common Tern populations on the islands has been increasing, though have not stabilized.

Additional protections including expanding the authority of the Department to enforce restrictions to prevent human disturbance are necessary given the fragile foothold that the Common Tern has on Lake Champlain. Common Tern numbers have fluctuated over the past two decades from about 140 pairs in the late 1990's to 275 pairs in 2013. The reproductive success of this species varies from year to year and continued protection of the islands is necessary to ensure that the Common Tern remains a part of the Lake Champlain avian community.

Thank you for your work to protect these vital species and for considering these comments. Please feel free to contact me, Margaret Fowle, or Mark LaBarr at (802) 434-3086 should you have any questions or to request additional information.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Mears', written in a cursive style.

David Mears  
Executive Director

# Public Comment Response Summary

PUBLIC COMMENTS ON PROPOSED RULE AMENDMENTS PRUSUANT TO 10 V.S.A. Chapter 123, Vermont Endangered and Threatened Species Rule Listing.

## Summary of public input process

In a public hearing held October 5, 2021 VFWD zoologist Mark Ferguson and VFWD botanist Bob Popp presented analysis and recommendations in support of changes to the state threatened/endangered lists for 5 species and the addition of 3 Critical Habitat designations. Online comments were accepted online from September 1, 2021 to October 13, 2021 on the VFWD website, advertised via a press release distributed to the VFWD distribution list.

## Summary of Responses

We received 24 comments from 23 individuals and organizations; one was provided in person at the public hearing and the remaining were provided by email.

**Support for all listings in this ruling (2):** Support for all proposed listing changes in this ruling.

The number of comments in support of or opposed to individual listing proposals follow. There were no comments specific to the three plant listing/delisting proposals, nor to two of the three Critical Habitat designation proposals.

**Support delisting of Bald Eagle (1):** Support for the delisting by the commenter is based on data demonstrating that all of the recovery goals for this species have been met to warrant delisting. They also indicated support for some level of continued monitoring to ensure the Vermont population continues to thrive. VFWD is currently drafting a post-delist recovery plan for Bald Eagle with input from the Scientific Advisory Group on Birds to the Endangered Species Committee. This plan will include a reduced level of monitoring than in past year that will still be adequate to detect changes in the population and/or in productivity that would trigger an increase in monitoring again and/or re-evaluation of status.

**Opposed to delisting Bald Eagle (1):** One individual opposed because the species should receive special protection because it is a symbol of our country. The VFWD recognizes the commenter's appreciation for the symbolic attribute of the Bald Eagle. There are no statutes in place, however, that give the Department the authority to extend a listed status for value-based reasons; listing recommendations are based on the best available scientific data and/or input from scientists with the relevant expertise.

**Support of listing Eastern Meadowlark as Threatened (16):** The proposed listing for this species received the vast majority of support among all of the proposed changes in this ruling. One comment mentioned that new data from a 2021 survey throughout Vermont estimates the Eastern Meadowlark breeding population at 90 pairs, lower than the estimate upon which this listing was based. These new, more rigorous data lend further evidence that listing the species as

Threatened is warranted. A few comments stated they were in support of adding the species to the “endangered” species list, but did not indicate that a threatened status may not be adequate, and it is assumed they were using the terms interchangeably and voicing their general support for listing the species. There is no difference between the protected status of a species based on whether the species is listed as threatened or endangered.

**Support for listing the American Bumble Bee as Endangered (2):** Comments cited the value of bees in general as pollinators and the general decline in bee populations.

**Support for changing Brook Floater status from Threatened to Endangered (1):** Support of this change in status was based on the fact that this species is found in only one tributary in Vermont and is listed as endangered in neighboring states (NH, MA, CT).

**Support for Critical Habitat designation for Common Tern Islands (1):** Support for this designation was based on overwhelming evidence that the three islands in this proposal are essential to reproduction for this state endangered species. The commenter also noted that the designation has the support of the private landowner, Green Mountain Audubon, and by the Lake Champlain Land Trust, which holds conservation easements on the islands. This rule change will expand the authority of the VFWD to enforce restrictions intended to prevent human disturbance that compromises reproductive success of the terns on these islands.

#### **Other Comments**

Impacts of development on listed species: One individual submitted two comments expressing concern about development and recreational impacts to listed species in general. The concern was that listing species is not adequate, citing a recent solar development. VFWD has developed and currently uses guidelines specifically intended for the development of biological opinions in the Section 248 and Act 250 processes and other local, state, and federal regulatory processes that apply to the protection of grassland habitat in Vermont. They set forth a decision-making framework by which VFWD determines the level of impact and necessary avoidance, minimization and mitigation/compensation measures that apply to a proposed development's impact on grassland habitat. They are used to make recommendations to the Public Utility Commission (PUC), Act 250 District Environmental Commissions, and other local, state and federal regulatory decision makers for permit conditions, mitigation agreements, land conservation instruments (e.g., easements), and, if necessary, permit denials. For example, mitigation might include replacing a grassland that would substantially impact grassland bird species at a 2:1 protected to impacted ratio.

**From:** [Mears, David](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Audubon Vermont Comments on Threatened & Endangered Species Rule  
**Date:** Wednesday, October 13, 2021 5:42:06 PM  
**Attachments:** [2021-10-13 Audubon VT Comments on E&T Rule.pdf](#)

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Please accept the attached comments in support of the proposed rule as it relates to three bird species.

**David K. Mears**

Vice President and Executive Director  
802.434.3068 (General)  
802.434.3006 (Direct)  
Pronouns: he, him, his

**Audubon Vermont**

Green Mountain Audubon Center  
255 Sherman Hollow Road  
Huntington, VT 05462  
[vt.audubon.org](http://vt.audubon.org)



**From:** [Elinor Osborn](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** meadowlark  
**Date:** Wednesday, October 13, 2021 7:17:05 AM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Please add the Eastern Meadowlark to the state threatened list. It is disappearing fast.

Elinor

Elinor Osborn  
1286 Lost Nation Rd  
Craftsbury Common VT 05827

802 586-9994  
[elinor91@me.com](mailto:elinor91@me.com)

**From:** [Martha Adams](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Eastern Meadowlark  
**Date:** Wednesday, October 13, 2021 6:29:22 AM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Please add the Eastern Meadowlark to Vermont's endangered species list. I have watched the struggle for survival and the decline of this specie here in Windham County, and strongly feel that it needs protection.

Thank you,  
Martha Adams

Sent from my iPad

**From:** [Julie CS](#)  
**To:** ANR - FW Public Comment  
**Subject:** Eastern meadowlark  
**Date:** Wednesday, October 13, 2021 6:12:27 AM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Please add the Eastern Meadowlark to the list of endangered species. Its numbers have dropped precipitously over the last five years. It is a beautiful bird with a beautiful song and needs the protection afforded by the Act.

Thank you,

Julie Cadwallader Staub

**From:** [Sue Wetmore](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Endangered species  
**Date:** Tuesday, October 12, 2021 9:30:33 PM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Please consider adding Eastern Meadowlark to the endangered species list. The dramatic decline in their population documented in a recent survey shows that they deserve to be on this list.

Sue Wetmore  
Brandon, Vermont

Sent from my iPod

**From:** [Megan Pratt](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Endangered Species Act  
**Date:** Tuesday, October 12, 2021 9:11:37 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

To whom it may concern:

I believe that Eastern Meadowlark should be listed as threatened in Vermont, since the USGS estimates their annual population decline at 8.7% in Vermont. After this summer's Vermont Meadowlark Blitz survey effort, the estimate of the current Vermont population of Meadowlarks was hovering around ~90 breeding individuals (around 40 breeding pairs); in 2016 the population was estimated to be ~150 individuals.

Best regards,  
Megan Pratt

**From:** [Kathleen Guinness](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Eastern Meadowlark  
**Date:** Tuesday, October 12, 2021 8:22:12 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hello,

I participated in Kevin Tolan's Meadowlark blitz in Rutland County this summer. Based on what I saw and heard, I strongly believe the Eastern Meadowlark should be listed as THREATENED. In my section, there was only one bird observed as inhabiting the area during the period. Two others were seen, but only once. They apparently did not find the habitat suitable for nesting. I cannot be certain that the one which stayed had a mate and nested. There were no signs of either a mate or fledglings. Ergo, Threatened is the best term for this beautiful bird which was abundant when I was young.

Thank you.

Sincerely,

Kathleen Guinness (RCAS Pres.)

**From:** [Rita Pitkin](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Eastern Meadowlarks  
**Date:** Tuesday, October 12, 2021 8:21:51 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hello - I am writing to request that the Eastern Meadowlark be added to the threatened species list in Vermont. Population decline of this species here has become alarming, and we need to do everything we can to increase the numbers of nesting birds in order for these beautiful birds to survive. Thank you.

Rita Pitkin  
Wolcott, Vermont

**From:** [Marvin Elliott](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Comment on Eastern Meadowlark  
**Date:** Tuesday, October 12, 2021 8:11:11 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

I wish to add my comment that I believe we should list the Eastern meadowlark as threatened. I am an active birder who loves the Eastern Meadowlark. Over the years I have assumed the species was declining and this year volunteered to help with the survey to get actual data to make a thought out decision.

Marvin Elliott



**From:** [Susan Elliott](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Eastern Meadowlark and American Bumble Bee - Change in Listing Status  
**Date:** Tuesday, October 12, 2021 7:43:19 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Please considering making the status of Eastern Meadowlark in Vermont as Threatened. The decline in this species has been precipitous. The Eastern Meadowlark is emblematic of our grasslands in the state and by working with farmers we can maintain both this bird, this special habitat and our agricultural economy.

Also, please consider listing the American Bumble Bee as Endangered. The decline in bumble bees and pollinators is alarming. Without these, our agricultural economy and natural habitats in Vermont are also endanger. The loss of any of these species should be a warning to us - hopefully the American Bumble Bee is not lost to the state.

Susan Elliott  
62 Heather Ln  
Rutland, VT 05701  
[ovenbird14@yahoo.com](mailto:ovenbird14@yahoo.com)

**From:** [Rebecca Lovejoy](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Meadowlark as Threatened  
**Date:** Tuesday, October 12, 2021 7:31:54 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

I worked on the Meadowlark survey for VCE this past summer. Based on my personal findings, I believe the Eastern Meadowlark should be moved to the "threatened" category of listings.

I had the chance to observe and listen to ONE Meadowlark this year. It was a solitary bird that had found an un-mown field, singing its heart out, and most probably it never found a mate because there was no evidence of a second bird or other signs of mating success.

They are beautiful birds, and deserve to be protected.

Many THanks,

Rebecca Lovejoy



**From:** [Cathryn Abbott](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** comment on T & E rule changes  
**Date:** Tuesday, October 12, 2021 3:16:11 PM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Dear Agency of Natural Resources:

I am writing in support of the recommended changes to Vermont's endangered and threatened species list.

I have worked on a grassland bird initiative, reaching out to landowners in search of management compromises that are compatible with bird nesting schedules. Eastern meadowlarks have all but vanished from Windham County. Although they are seen passing through our area during migration, we have been able to document recent successful nesting at one site only. Meadowlark population declines region-wide are simply staggering. Please provide some protections for this species before it is too late.

Thank you for considering my comments,

Cathryn Abbott  
Dummerston, VT

**From:** [dan allard](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** ESC proposed changes to T & E Rule  
**Date:** Friday, October 8, 2021 9:29:40 AM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

There is probably a good reason for these species to be placed on the endangered species list. It does baffle me that these species were not protected more in the past. The meadowlark, a bird that needs a habitat which includes open fields with some cover (trees and shrubs) would be fine today if the towns and villages along with the state of Vermont, would stop allowing so much development in these areas. The first area that comes to mind is the former open fields in Williston. Shameful!

In Burke, there is an open trench, over a hundred miles long, carved out by man with no tools other than bicycle tires. This trench stretches across the middle of open fields and through forests that were once open to deer yards, bird habitat and much new growth. This trench is anywhere from 3 inches deep to over 12 inches. This trench will allow for the destruction of tree roots, bumblebee hives, meadowlark nests, small stream ecosystems and, once enjoyed, hunting areas. The amount of people using this trench is absolutely horrible. All they do is scare all animals, trample fields and litter the woods.

The organization, responsible for this atrocity, pays no taxes in Burke yet gets to use the town as their own.

It is time to consider the cause of endangered species instead of the plant and animals themselves. Please think this through and don't think that changing the list of endangered species is going to do anything in the long run.

Thank you,  
Respectfully submitted,  
Dan Allard

Sent from my iPad

**From:** [Susan Lybeck](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** comment on T & E rule changes  
**Date:** Thursday, October 7, 2021 7:32:11 AM

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EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.

Hey—All for the meadow lark and bumblebees!

No meadowlarks in my 40 acre bobolink field.

As an organic gardener I depend on bumblebees and native pollinators.on.

Susan Lybeck  
West Haven

**From:** [Sarah Nicholson](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Bald Eagle decision to remove from endangered species  
**Date:** Wednesday, October 6, 2021 7:48:45 AM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hello Vermont Endangered Species Committee,

Please do not remove the Bald Eagle from the Endangered Species list in Vermont. Although it is said that the bald eagle will still be protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, the Bald Eagle remains as a beloved symbol of our beloved country and as such should be given special consideration and special protection.

Please reconsider your decision and keep our Bald Eagle protected.

Thank you

Sarah Nicholson, Castleton VT

802-377-0950

**From:** [Coleen Lawlor](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** I want to ask that Eastern Meadowlark be listed in Vermont.  
**Date:** Tuesday, October 5, 2021 8:10:49 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Currently there are no nesting EAME known in my county. I am very hopeful that this species will be listed in Vermont. I also support proposals for other species.

Coleen Lawlor  
211 Darby Hill Road,  
Rockingham Vermont 05101-3113  
802 289 3107

Sent from [Mail](#) for Windows

**From:** [Rachel Mann](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** WCAX: Endangered List  
**Date:** Tuesday, October 5, 2021 4:04:47 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hello!

I am with Channel 3 News. We're hoping to do a story on tonight's meeting regarding the endangered species list.

Is it being streamed anywhere? If not- would anyone be available to chat via ZOOM afterwards?

Thanks,

**Rachel Mann**  
Reporter, Channel 3 News  
(774) 226-3365





**From:** [Richard Littauer](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Eastern Meadowlark  
**Date:** Friday, October 1, 2021 12:24:33 PM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hey there,

The Eastern Meadowlark is heavily declining in this state, as the Vermont Center for Ecostudies and eBird has shown. Please consider listing it as endangered.

Thanks,  
R

**From:** [Peter Bergstrom](#)  
**To:** [ANR - FW Public Comment](#)  
**Subject:** Eastern MeadowLark listing  
**Date:** Thursday, September 30, 2021 8:25:20 AM

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

I am writing to ask that Eastern Meadow Larks be listed in our state as threatened. Estimates of population declines for the Eastern Meadowlark are based on data from the North American Breeding Bird Survey and Vermont's Breeding Bird Atlas. The former suggests a 95 percent population decline over the last 40 years. The latter shows a 55 percent decrease in distribution over the last 25 years.

I am a birder who moved to Saxtons River in 2013 and I have never seen or heard a meadowlark here. We used to have bobolinks nesting in a field near our house, and I have not seen or heard them since 2016.

Your action is needed to help protect meadowlarks.

Thanks  
Peter Bergstrom  
Saxtons River, VT

--

Peter Bergstrom  
PO Box 504 -OR- 12 Westminster St.  
Saxtons River, VT 05154  
802-869-1020 (home), 802-289-3271 (cell)

**From:** [Kathy Urffer](#)  
**To:** [ANR - FW Public Comment](#)  
**Cc:** [Ron Rhodes](#); [Fritz Gerhardt](#)  
**Subject:** CRC comments on E&T Rule change  
**Date:** Monday, September 27, 2021 4:41:19 PM  
**Attachments:** [CRC comments to VT Fish and Wildlife T&E Rule 9.27.21.pdf](#)

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**EXTERNAL SENDER: Do not open attachments or click on links unless you recognize and trust the sender.**

Hello,

Please find comments from CRC attached.

Thank you,

Kathy



**Connecticut River  
Conservancy**

*Clean water. Healthy habitat. Thriving communities.*

15 Bank Row, Greenfield, MA 01301  
413-772-2020 · [www.ctriver.org](http://www.ctriver.org)

September 27, 2021

VT Fish and Wildlife  
Endangered Species Committee

Via email: [ANR.FWPUBLICCOMMENT@vermont.gov](mailto:ANR.FWPUBLICCOMMENT@vermont.gov)

Re: changes to Vermont's Endangered and Threatened Species Rule

Dear Secretary and Committee members:

The Connecticut River Conservancy (CRC) is a nonprofit citizen group established in 1952 to advocate for the protection, restoration, and sustainable use of the Connecticut River and its four-state watershed. CRC closely monitors the ecological health of the Connecticut River watershed with an eye towards lasting ecosystem stability in this dynamic system.

CRC is thankful for the opportunity to comment in support of the status change from threatened to endangered for the Brook Floater (*Alismidonta varicosa*) under the Endangered and Threatened Species Rule.

CRC is very disturbed that eight out of twelve of our freshwater mussel species native to the Connecticut River watershed are listed as either threatened or endangered in the four watershed states due to decades of habitat impacts. As noted by VT ANR, the Brook Floater has been identified in only one tributary in Vermont, and only five other tributaries in the entire Connecticut River watershed. It is currently listed as endangered in NH, MA, and CT, and we are grateful that VT will change the listing to further protect the species in VT as well. Identifying source environmental issues that are affecting the species and developing protection and restoration strategies are very important priorities to maintain the existence of the Brook Floater. We are hopeful that with this formal status change to endangered, additional resources will be allocated to survey and study this species in VT, and further protections will be in place to preserve it.

Thank you for the opportunity to comment on this rulemaking

Sincerely,

Kathy Urffer, River Steward  
[kurffer@ctriver.org](mailto:kurffer@ctriver.org)  
802-258-0413

## 10 V.S.A. Appendix § 10, Vermont Endangered and Threatened Species Rule

### 1.0 Authority

This rule is adopted pursuant to 10 V.S.A., ~~§§ 5402, 5403 and 5408~~ Chapter 123 which provides that the Secretary "shall adopt by rule a state-endangered species list and a state-threatened species list," and may "adopt rules for the protection, ~~and conservation,~~ or recovery of endangered and threatened species."

### 2.0 Purpose

The purpose of this rule: is to identify and list species of wild plants and animals and designate critical habitats that have been determined by the Secretary to require protection under Vermont law. ~~be endangered and threatened in Vermont so that they may be protected under the law.~~ The rule also sets out a process for the issuance of permits for the take and possession of endangered and threatened species and the destruction or adverse impact to designated critical habitat. ~~Takings and Possession permits.~~

### 3.0 Definitions

- 3.1 "Accepted silvicultural practices" means the accepted silvicultural practices defined by the Commissioner of Forests, Parks and Recreation, including the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont adopted by the Commissioner of Forests, Parks and Recreation.
- 3.2 "Critical habitat" for a threatened species or endangered species means: (A) a delineated location within the geographical area occupied by the species that: (i) has the physical or biological features that are identifiable, concentrated, and decisive to the survival of a population of the species; and (ii) is necessary for the conservation or recovery of the species; and (iii) may require special management considerations or protection; or (B) a delineated location outside the geographical area occupied by a species at the time it is listed under section 5402 of this title that: (i) (I) was historically occupied by a species; or (II) contains habitat that is hydrologically connected or directly adjacent to occupied habitat; and (ii) contains habitat that is identifiable, concentrated, and decisive to the continued survival of a population of the species; and (iii) is necessary for the conservation or recovery of the species.
- 3.3 "Destroy or adversely impact" means, with respect to critical habitat, a direct or indirect activity that negatively affects the value of critical habitat for the survival, conservation, or recovery of a listed threatened or endangered species.
- 3.4 "Endangered Species" means ~~those~~ a species that has been listed as endangered by the Secretary because the species normally occurs in the State and its continued existence as a sustainable component of the State's wildlife or wild plants is in jeopardy, or it is listed as ~~whose continued existence as viable components of the state's wild flora or fauna is determined to be in jeopardy or determined to be an "endangered species" under the federal Endangered Species Act.~~
- 3.5 "Farming" shall have the same meaning as used in subdivision 6001(22) of this title.
- 3.6 "Forestry operations" means activities related to the management of forests, including a timber harvest; pruning; planting; reforestation; pest, disease, and invasive species control; wildlife habitat management; and fertilization. "Forestry operations" include the primary processing of forest products of commercial value on a parcel where the timber harvest occurs.

- 3.7 "Habitat" means the physical and biological environment in which a particular species of plant or animal lives.
- 3.8 "Harming," as used in the definition of "take" or "taking" in this rule means: an act that kills or injures a threatened or endangered species; or the destruction or imperilment of habitat that kills or injures a threatened or endangered species by significantly impairing continued survival or essential behavioral patterns, including reproduction, feeding, or sheltering.
- 3.9 "Plant" means any member of the plant kingdom, including seeds, roots, and other parts thereof. As used in this chapter, plants shall include fungi.
- 3.10 "Possession" means holding, controlling, exporting, importing, processing, selling, offering to sell, delivering, carrying, transporting, or shipping by any means a member of a species.

"Listed species" means any species that appears on the List in Section 5.0 of this rule, or has been determined to be threatened or endangered by other relevant law.

3.11 "Secretary" means the Secretary of the Agency of Natural Resources except where otherwise specified.

3.12 "Take and taking"

- (a) With respect to wildlife designated a threatened or endangered species, means: (1) pursuing, shooting, hunting, killing, capturing, trapping, harming, snaring, or netting wildlife; (2) an act that creates a risk of injury to wildlife, whether or not the injury occurs, including harassing, wounding, or placing, setting, drawing, or using any net or other device used to take animals; or (3) attempting to engage in or assisting another to engage in an act set forth under subdivision (1) or (2) of this subdivision.
- (b) With respect to a wild plant designated a threatened or endangered species, means uprooting, transplanting, gathering seeds or fruit, cutting, injuring, harming, or killing or any attempt to do the same or assisting another who is doing or attempting to do the same.

~~with respect to wildlife means pursuing, shooting, hunting, killing, capturing, trapping, snaring and netting fish, birds and quadrupeds and all lesser acts, such as disturbing, harrying or worrying or wounding or placing, setting, drawing or using any net or other device commonly used to take fish or wild animals, whether they result in the taking or not; and shall include every attempt to take and every act of assistance to every other person in taking or attempting to take fish or wild animals, provided that when taking is allowed by law, reference is had to taking by lawful means and in lawful manner, and with respect to wild plants means uprooting, transplanting, cutting, injuring or killing or any attempt to do the same or assisting another who is doing or is attempting to do the same, consistent with the definitions found in 10 V.S.A. §§5401 (14) and 4001(23).~~

3.13 "Threatened Species" means a species that has been listed as threatened by the Secretary because the species is a sustainable component of the State's wildlife or wild plants; it is reasonable to conclude based on available information that its numbers are declining; and unless protected, it will become an endangered species, those species that are likely within the foreseeable future to become Endangered.

#### **4.0 Critical Habitat Designations**

**4.1 "Critical habitat," as defined in 10 V.S.A. § 5401(4) and 10 V.S.A. § 5402a, has been designated for the following locations:**

- (a) Three (3) Common Tern Nesting Islands.**
- (b) Four (4) Spiny Softshell Nesting Areas.**
- (c) One (1) Bat Hibernaculum.**

#### **5.0 Permits for Taking and Possession**

**5.1 No person shall take or possess an endangered or threatened species without a permit, except when unless exempted as provided for in 10 V.S.A. §5408(d) and as follows:**

- (a) No enforcement shall be taken, and no permit shall be required for the taking of listed threatened or endangered plants in instances where the plants are legally acquired and exist in a cultivated state or are artificially propagated (produced and grown under controlled conditions or originated from cultivated parental stock); unless the plants are cultivated or artificially propagated as part of a recovery plan or, for mitigation purposes in accordance with a takings permit, a directive of the Secretary, or an enforcement action.**
- (b) Prior to requiring a permit or initiating enforcement for the taking of any threatened or endangered bee(s), the Secretary of the Agency of Natural Resources (ANR) shall:**
  - 1. notify affected landowners and persons who are engaged in activities that may result in taking the threatened or endangered bees of the presence of threatened or endangered bees and the requirement to avoid taking the bees or to obtain a permit; and**
  - 2. notify and consult with affected or interested state agencies including as applicable: the Agency of Commerce and Community Development (ACCD), the Agency of Transportation (AOT), the Vermont Department of Health (VDH), and the Agency of Agriculture, Food, and Markets (AAFV) whenever the presence of bees may impact farming or the application of pesticides.**
- (c) Pesticide applications performed in accordance with an Emergency Health Order issued by VDH pursuant to 18 V.S.A. § 127 shall not be required to obtain a permit.**
- (d) Upon discovering the presence of a threatened or endangered grassland bird on or in proximity to any farm or land used for farming, the Secretary of the Agency of Natural Resources shall:**
  - 1. consult with the Secretary of the Agency of Agriculture prior to requiring a taking permit or engaging in enforcement activities; and**
  - 2. ensure that the regulatory actions taken to protect the species do not cause undue interference with farming.**

**5.2 No person shall destroy or adversely impact the designated critical habitat of an endangered or threatened species without a permit.**

**5.3 Pursuant to 10 V.S.A. §5408(a) the Secretary may, after receiving the advice of the Endangered Species Committee, grant permits for the taking and possession of an endangered or threatened species:**

- (a) for scientific purposes;
- (b) to enhance the propagation or survival of species; ~~to prevent or mitigate economic hardship;~~
- (c) for zoological exhibition;
- (d) for educational purposes;
- (e) for noncommercial cultural or ceremonial purposes; ~~or, to a person for the collection and possession of a dead salvage bird or parts thereof, including bird feathers, provided that the permit issued complies with federal requirements regarding collection and possession of migratory birds and the bird was legally acquired, transferred from an individual who acquired it legally, or found dead and the permittee had no part in the intentional killing of the bird; or~~
- (f) for a special purpose consistent with the purpose of the Federal Endangered Species Act (*see* 16 U.S.C. §1531(b)).

**5.4** Pursuant to 10 V.S.A. §5408(b), the Secretary may allow the incidental take of a threatened or endangered species or the destruction or adverse impact to critical habitat only if:

- (a) the taking is necessary to conduct an otherwise lawful activity;
- (b) the taking or the destruction and impact to the critical habitat, is attendant or secondary to, and not the purpose of, the lawful activity;
- (c) the impact of the permitted incidental take or impact to critical habitat is minimized; and
- (d) the incidental taking or the impact to critical habitat will not impair the conservation or recovery of any endangered species or threatened species.

**5.5** An applicant for a Taking and Possession permit shall submit an administratively complete application to the Secretary, specifying for which purpose(s) the permit is required, as listed in 10 V.S.A. §5408(a) and (b). The permit application shall include:

- (a) a description of the activities that could lead to a taking of a listed threatened or endangered species or the destruction of or adverse impact on critical habitat;
- (b) the steps that the applicant has or will take to avoid, minimize, and mitigate the impact to the relevant threatened or endangered species or critical habitat;
- (c) a plan for ensuring that funding is available to conduct any required monitoring and mitigation, if applicable;
- (d) a summary of the alternative actions to the taking or destruction of critical habitat that the applicant considered and the reasons that these alternatives were not selected, if applicable;
- (e) the name or names and obligations and responsibilities of the person or persons that will be involved in the proposed taking or destruction of critical habitat;
- (f) a description of the possible impacts due to the proposed action, and as applicable a plan for conservation or mitigation;
- (g) permit fees and mitigation funding, if applicable; and
- (h) any additional information that the Secretary may require.

**5.6** ~~An administratively complete application shall include all information deemed necessary by the Secretary to evaluate the application. An application shall include a description of the possible~~



~~impacts due to the proposed action, and a plan for conservation or mitigation. The fee or mitigation proposal as required by 10 V.S.A. ch. 123 shall accompany the application.~~  
Avoidance and Minimization

- (a) Applicants for Taking and Possession permits shall have the burden to show that reasonable steps have been taken to avoid and minimize takings. The Applicant must provide information that demonstrates:
  - (1) The proposed activity cannot practicably be designed to avoid taking or the destruction or adverse impact to critical habitat, and still satisfy the basic project purpose; and
  - (2) If avoidance of taking of a listed species or the destruction or adverse impact to critical habitat, cannot practicably be achieved, the proposed activity has been planned to minimize adverse impacts on the listed species.
- (b) The Secretary may require an applicant to submit additional information that the Secretary considers necessary to make a decision on the issuance or denial of a permit. The Secretary may dismiss the application without prejudice if the requested information is not provided to the Secretary within sixty (60) days of the Secretary's request.
- (c) In determining whether the burden has been met, the Secretary shall evaluate the potential effect of any proposed activity on the basis of both its direct and immediate effects, as well as on the basis of any cumulative or on-going effects on the listed species.
- (d) The Secretary may develop, and require the implementation of, best management practices (BMPs) to avoid and minimize the taking of threatened and endangered species. The Secretary shall consult with the AAFM, the AOT, VDH, and any other interested state agency prior to finalizing the BMPs.

## 5.7 Mitigation

~~a. Mitigation may be required when full compliance with the requirements of 4.5 of this rule is insufficient to achieve no taking.~~

The Secretary may require the implementation of mitigation strategies and may collect mitigation funds, in addition to the permit fees, in order to mitigate the impacts of a taking or the destruction of or adverse impact on critical habitat. Provided that the mitigation is commensurate with the taking or adverse impact proposed, mitigation may include:

- (a) a requirement to rectify the taking or adverse impact or to reduce the adverse impact over time;
- (b) a requirement to manage or restore land within the area of the proposed activity or in an area outside the proposed area as habitat for the threatened or endangered species including, treatment of conserved areas for the purposes of restoration or propagation of listed species;
- (c) compensation, including payment into the Threatened and Endangered Species Fund for the uses of that Fund; or
- (d) Mitigation may include permanent conservation of habitat in which the same species exists, and ongoing monitoring of conserved areas, and treatment of conserved areas for the purposes of restoration or propagation of listed species.

~~The compensation may also include payment of fees to a state "in lieu fee" program or mitigation fund approved by the Secretary.~~

## 5.8 Hearings

- (a) The Secretary may conduct a non-adversarial, public hearing in order to evaluate the application. Such a hearing will be held within 60 (sixty) days of the receipt of the administratively complete application.
- (b) When a petition has been denied and no public hearing has been held, the Applicant may request in writing to the Secretary that a hearing be held regarding the proposed activity. The Secretary will conduct a hearing within 30 (thirty) days of receipt of the request.

**5.9 ~~Permit Conditions~~**

a.—The Secretary may require, as part of an issued permit, conditions for the protection and conservation of endangered species, ~~per 10 V.S.A. ch. 123.~~

- 5.10** The Secretary shall inform an applicant of a decision to approve or deny a permit no more than 60 (sixty) days following an application being deemed administratively complete unless the Secretary determines there is just cause.
- 5.11** The Secretary maintains continuing jurisdiction over activity permitted under this rule and may, at any time, order the permittee to undertake remedial measures to ensure the protection and conservation of listed species.

## 5.0 Listing

5.1 The following list of plants and animals is adopted as the Vermont Endangered and Threatened Species List pursuant to 10 V.S.A., chapter 123.

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	PreviouslyListedAs	Notes
5.2 Plants	Apiaceae-Parsley Family	Short-styled Snakeroot	<i>Sanicula canadensis</i> var. <i>canadensis</i>	-	04-13-1987	T	-	-
5.2 Plants	Apiaceae-Parsley-Carrot Family	Greater short-styled-Long-styled Snakeroot	<i>Sanicula canadensis</i> var. <i>grandis</i>	Fern.	04-13-1987	T		
5.2 Plants	Apiaceae-Parsley-Carrot Family	Yellow Pimpernel	<i>Taenidia integerrima</i>	(L.) Drude	04-13-1987	T		
5.2 Plants	<del>Asclepiadaceae-Milkweed</del> Apocynaceae-Dogbane Family	Blunt-leaved Milkweed	<i>Asclepias amplexicaulis</i>	Sm.	04-13-1987	T		
5.2 Plants	<del>Asclepiadaceae-Milkweed</del> Apocynaceae-Dogbane Family	Butterfly-weed	<i>Asclepias tuberosa</i> ssp. <i>tuberosa</i>	L.	04-13-1987	T	<i>Asclepias tuberosa</i> L.	
5.2 Plants	<del>Asclepiadaceae-Milkweed</del> Apocynaceae-Dogbane Family	Whorled Milkweed	<i>Asclepias verticillata</i>	L.	03-28-2015	E		
5.2 Plants	Araceae-Arum Family	Green Dragon	<i>Arisaema dracontium</i>	(L.) Schott	04-13-1987	T		
5.2 Plants	Aspleniaceae-Spleenwort Family	Mountain Spleenwort	<i>Asplenium montanum</i>	Willd.	04-13-1987	T		
5.2 Plants	Aspleniaceae-Spleenwort Family	Green Spleenwort	<i>Asplenium viride</i>	Huds.	04-13-1987	T	<i>Asplenium trichomanes-ramosum</i> L.	
5.2 Plants	Asteraceae-Aster Family	Sessile-leaved Boneset	<i>Eupatorium sessilifolium</i>	L.	11-09-1991	E		
5.2 Plants	Asteraceae-Aster Family	Harsh Sunflower	<i>Helianthus strumosus</i>	L.	04-13-1987	T		
5.2 Plants	Asteraceae-Aster Family	Hairy Lettuce	<i>Lactuca hirsuta</i>	Muhl. ex Nutt.	12-07-1994	T		
5.2 Plants	Asteraceae-Aster Family	Boott's Rattlesnake-root	<i>Nabalus boottii</i>	D.C.	04-13-1987	E	<i>Prenanthes boottii</i> (DC.) A. Gray	
5.2 Plants	Asteraceae-Aster Family	Woodland Cudweed	<i>Omalotheca sylvatica</i>	(L.) Schultz-Bip. & F.W. Schultz	11-09-1991	E		
5.2 Plants	Asteraceae-Aster Family	Sweet Coltsfoot	<i>Petasites frigidus</i> var. <i>palmatius</i>	(Ait.) Cronq.	04-13-1987	T		
5.2 Plants	Asteraceae-Aster Family	White-flowered Leafcup	<i>Polymnia canadensis</i>	L.	12-07-1994	E		Listed as Threatened on 04-13-1987.
5.2 Plants	Asteraceae-Aster Family	Sweet Goldenrod	<i>Solidago odora</i> ssp. <i>odora</i>	Ait.	04-13-1987	T	<i>Solidago odora</i> Ait.	
5.2 Plants	Asteraceae-Aster Family	Elm-leaved Goldenrod	<i>Solidago ulmifolia</i>	Muhl. ex Willd.	11-09-1991	E		Listed as Threatened on 04-13-1987.

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	PreviouslyListedAs	Notes
5.2 Plants	Betulaceae-Birch Family	Dwarf Birch	Betula minor	(Tuckerman) Fern.	03-28-2015	E		
5.2 Plants	Blechnaceae-Chain-fern Family	Virginia Chain-fern	Woodwardia virginica	(L.) Sm.	04-13-1987	T		
5.2 Plants	Boraginaceae-Borage Family	Northern Wild Comfrey	Cynoglossum virginianum var. boreale	(Fern.) Cooperrider	04-13-1987	T		
5.2 Plants	Boraginaceae-Borage Family	Nodding Stickseed	Hackelia deflexa ssp. americana	(Gray) A. & D. Löve	04-13-1987	T	Hackelia deflexa var. americana (Gray) Fern. & I.M. Johnston	
5.2 Plants	Brassicaceae-Mustard Family	Lyre-leaved Rock-cress	Arabidopsis lyrata	(L.) O'Kane & Al-Shehbaz	04-13-1987	T	Arabis lyrata L.	
5.2 Plants	Brassicaceae-Mustard Family	Drummond's Rock-cress	Boechea stricta	(Graham) Al-Shehbaz	11-09-1991	E	Arabis drummondii A. Gray	
5.2 Plants	Brassicaceae-Mustard Family	Northern Rock-cress	Braya humilis ssp. humilis	(C.A. Mey.) B.L. Robins.	04-13-1987	T	Braya humilis (C.A. Mey.) B.L. Rob.	
5.2 Plants	Brassicaceae-Mustard Family	Hoary Draba	Draba cana	Rydb.	04-13-1987	T	Draba breweri var. cana (Rydb.) Rollins	
5.2 Plants	Brassicaceae-Mustard Family	Smooth Draba	Draba glabella	Pursh	04-13-1987	T		
5.2 Plants	Brassicaceae-Mustard Family	Lake-cress	Rorippa aquatica	(Eat.) Palmer & Steyermark	04-13-1987	T	Neobeckia aquatica (Eaton) Greene	
5.2 Plants	Bryaceae-Bryum Moss Family	A Moss	Plagiobryum zieri	(Hedw.) Lindb.	06-23-1989	E		
5.2 Plants	Caprifoliaceae-Honeysuckle Family	Squashberry	Viburnum edule	(Michx.) Raf.	04-13-1987	T		
5.2 Plants	Caryophyllaceae-Pink Family	Marcascent Sandwort	Minuartia marcescens	(Fern.) House	04-13-1987	T		
5.2 Plants	Caryophyllaceae-Pink Family	Marble Sandwort	Minuartia rubella	(Wahlenb.) Hiern	04-13-1987	T		
5.2 Plants	Cistaceae-Rock-rose Family	Plains Frostweed	Crocianthemum bicknellii	(Fernald) Janchen	04-13-1987	T	Helianthemum bicknellii Fern.	
5.2 Plants	Cistaceae-Rock-rose Family	Beach Heather	Hudsonia tomentosa	Nutt.	04-13-1987	E		
5.2 Plants	Cistaceae-Rock-rose Family	Hairy Pinweed	Lechea mucronata	Raf.	11-09-1991	E		
5.2 Plants	Clusiaceae-St. John's-wort Family	Great St. John's-wort	Hypericum ascyron	L.	04-13-1987	T		
5.2 Plants	Convolvulaceae-Morning-glory Family	Low Bindweed	Calystegia spithamea ssp. spithamea	(L.) Pursh	04-13-1987	T	Calystegia spithamea (L.) Pursh	
5.2 Plants	Cornaceae-Dogwood Family	Flowering Dogwood	Cornus florida	L.	04-13-1987	T		
5.2 Plants	Crassulaceae-Stonecrop Family	Roseroot	Rhodiola rosea	L.	04-13-1987	T	Sedum rosea L. Scop.	
5.2 Plants	Cupressaceae-Cypress Family	Creeping Juniper	Juniperus horizontalis	Moench	04-13-1987	T		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	PreviouslyListedAs	Notes
5.2 Plants	Cyperaceae-Sedge Family	Contracted Sedge	Carex arcta	Boott	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Blackish Sedge	Carex atratiformis	Britt.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Buxbaum's Sedge	Carex buxbaumii	Wahlenb.	04-13-1987	E		
5.2 Plants	Cyperaceae-Sedge Family	Capillary Sedge	Carex capillaris ssp. capillaris	L.	04-13-1987	T	Carex capillaris L.	
5.2 Plants	Cyperaceae-Sedge Family	Creeping Sedge	Carex chordorrhiza	Ehrh. ex L. f.	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Bronze Sedge	Carex foenea	Willd.	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Garber's Sedge	Carex garberi	Fern.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Houghton's Sedge	Carex houghtoniana	Torr. ex Dewey	<del>XX-XX-XXXX</del>	E		
5.2 Plants	Cyperaceae-Sedge Family	Pale Sedge	Carex livida	(Wahlenb.) Willd.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Nerveless Muehlenberg Sedge	Carex muehlenbergii var. enervis	Boott	04-13-1987	T	Carex muehlenbergii Schkuhr ex Willd.	
5.2 Plants	Cyperaceae-Sedge Family	Muehlenberg's Sedge	Carex muehlenbergii var. muehlenbergii	Schkuhr ex Willd.	04-13-1987	T	Carex muehlenbergii Schkuhr ex Willd.	
5.2 Plants	Cyperaceae-Sedge Family	Few-fruited Sedge	Carex oligocarpa	Schkuhr ex Willd.	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Richardson's Sedge	Carex richardsonii	R. Br.	04-13-1987	E		
5.2 Plants	Cyperaceae-Sedge Family	Hay Sedge	Carex siccata	Dewey	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Sheathed Sedge	Carex vaginata	Tausch	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Low-Cyperus Flatsedge	Cyperus diandrus	Torr.	06-23-1989	E		
5.2 Plants	Cyperaceae-Sedge Family	Houghton's-Cyperus Flatsedge	Cyperus houghtonii	Torr.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Few-flowered Spikerush	Eleocharis quinqueflora	(F.X. Hartmann) Schwarz	04-13-1987	T	Eleocharis pauciflora (Lightf.) Link	
5.2 Plants	Cyperaceae-Sedge Family	Autumn Fimbristylis	Fimbristylis autumnalis	(L.) Roemer & J.A. Schultes	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Capillary Beak-rush	Rhynchospora capillacea	Torr.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Barbed-bristle Bulrush	Scirpus ancistrochaetus	Schuyler	11-09-1991	E		Listed as Threatened on 04-13-1987.
5.2 Plants	Cyperaceae-Sedge Family	Bashful Bulrush	Trichophorum planifolium	(Spreng.) Palla	11-09-1991	E	Scirpus verecundus Fern.	Listed as Threatened on 04-13-1987.
5.2 Plants	Diapensiaceae-Diapensia Family	Diapensia	Diapensia lapponica ssp. lapponica	L.	04-13-1987	E	Diapensia lapponica L.	
5.2 Plants	Dryopteridaceae-Wood-fern Family	Male Fern	Dryopteris filix-mas ssp. brittonii	(L.) Schott Fraser-Jenkins & Widén	04-13-1987	T	Dryopteris filix-mas (L.) Schott	
5.2 Plants	Dryopteridaceae-Wood-fern Family	Alpine Woodsia	Woodsia alpina	(Bolton) S.F. Gray	04-13-1987	E		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	PreviouslyListedAs	Notes
5.2 Plants	Equisetaceae-Horsetail Family	Marsh Horsetail	Equisetum palustre	L.	04-13-1987	T		
5.2 Plants	Ericaceae-Heath Family	Pinedrops	Pterospora andromedea	Nutt.	11-09-1991	E		
5.2 Plants	Ericaceae-Heath Family	Bog Wintergreen	Pyrola asarifolia ssp. asarifolia	Michx.	11-09-1991	T	Pyrola asarifolia Michx.	
5.2 Plants	Ericaceae-Heath Family	Lesser Pyrola	Pyrola minor	L.	04-13-1987	E		
5.2 Plants	Ericaceae-Heath Family	Great Laurel	Rhododendron maximum	L.	04-13-1987	T		
5.2 Plants	Ericaceae-Heath Family	Deerberry	Vaccinium stamineum	L.	12-07-1994	E		
5.2 Plants	Fabaceae-Pea Family	Canadian-Canada Milk-vetch	Astragalus canadensis var. canadensis	L.	04-13-1987	T	Astragalus canadensis L.	
5.2 Plants	Fabaceae-Pea Family	Jesup's Milk-vetch	Astragalus robbinsii var. jesupii	Egglest. & Sheldon	04-13-1987	E		
5.2 Plants	Fabaceae-Pea Family	Rattlebox	Crotalaria sagittalis	L.	04-13-1987	T		
5.2 Plants	Fabaceae-Pea Family	Large-bracted Tick-trefoil	Desmodium cuspidatum	(Muhl. ex Willd.) DC. ex Loud.	11-09-1991	E		
5.2 Plants	Fabaceae-Pea Family	Prostrate Tick-trefoil	Desmodium rotundifolium	DC.	04-13-1987	T		
5.2 Plants	Fabaceae-Pea Family	Beach Pea	Lathyrus japonicus var. maritimus	(L.) Kartesz & Gandhi	04-13-1987	T	Lathyrus maritimus (L.) Bigelow	
5.2 Plants	Fabaceae-Pea Family	Marsh Vetchling	Lathyrus palustris	L.	04-13-1987	T		
5.2 Plants	Fabaceae-Pea Family	Violet Bush-clover	Lespedeza frutescens	(L.) Hornem.	04-13-1987	T	Lespedeza violacea auct. non (L.) Pers	Lespedeza violacea (L.) Pers. is now what was formerly known as L. intermedia (S. Watts) Britton and is not listed.
5.2 Plants	Fabaceae-Pea Family	Hairy Bush-clover	Lespedeza hirta ssp. hirta	(L.) Hornem.	11-09-1991	T	Lespedeza hirta (L.) Hornem.	
5.2 Plants	Fabaceae-Pea Family	Wild Lupine	Lupinus perennis ssp. perennis	L.	03-18-1999	E	Lupinus perennis L.	Listed as Threatened on 04-13- 1987.
5.2 Plants	Fabaceae-Pea Family	Wild Senna	Senna hebecarpa	(Fern.) Irwin & Barneby	04-13-1987	T		
5.2 Plants	Fagaceae-Beech Family	Scrub Oak	Quercus ilicifolia	Wangenh.	11-09-1991	E		
5.2 Plants	Fagaceae-Beech Family	Dwarf Chinquapin Oak	Quercus prinoides	Willd.	04-23-2005	E		
5.2 Plants	Gentianaceae-Gentian Family	Fringe-top Closed Gentian	Gentiana andrewsii	Griseb.	04-13-1987	T		
5.2 Plants	Gentianaceae-Gentian Family	Felwort	Gentianella amarella ssp. acuta	(L.) Boerner (Michx.) J. Gillett	04-13-1987	T	Gentianella amarella (L.) Boerner	
5.2 Plants	Gentianaceae-Gentian Family	Stiff Gentian	Gentianella quinquefolia	(L.) Small	04-13-1987	T		
5.2 Plants	Hydrophyllaceae-Waterleaf Family	Broad-leaved Waterleaf	Hydrophyllum canadense	L.	04-13-1987	T		
5.2 Plants	Isoetaceae-Quillwort Family	Engelmann's Quillwort	Isoetes engelmannii	A. Braun	04-13-1987	T		

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5.2 Plants	Isoetaceae-Quillwort Family	Green Mountain Quillwort	Isoetes viridimontana	M. Rosenthal & W.C. Taylor	03-28-2015	E		
5.2 Plants	Juncaceae-Rush Family	Greene's Rush	Juncus greenei	Oakes & Tuckerman	11-09-1991	E		
5.2 Plants	Juncaceae-Rush Family	Soldier Rush	Juncus militaris	Bigelow	11-09-1991	E		
5.2 Plants	Juncaceae-Rush Family	Secund Rush	Juncus secundus	Beauv. ex Poir.	11-09-1991	E		
5.2 Plants	Juncaginaceae-Arrow-grass Family	Common Arrow-grass	Triglochin maritima	L.	02-16-2011	E		
5.2 Plants	Lamiaceae-Mint Family	Yellow Giant Hyssop	Agastache nepetoides	(L.) Kuntze	04-13-1987	T		
5.2 Plants	Lamiaceae-Mint Family	Purple Giant Hyssop	Agastache scrophulariifolia	(Willd.) Kuntze	04-13-1987	T		
5.2 Plants	Lamiaceae-Mint Family	Smooth Wood-mint	Blephilia hirsuta var. glabrata	Fern.	04-13-1987	T	Blephilia hirsuta (Pursh.) Benth.	
5.2 Plants	Lamiaceae-Mint Family	Hairy Wood-mint	Blephilia hirsuta var. hirsuta	(Pursh) Benth.	04-13-1987	T	Blephilia hirsuta (Pursh.) Benth.	
5.2 Plants	Lamiaceae-Mint Family	American Dragonhead	Dracocephalum parviflorum	Nutt.	04-13-1987	T		
5.2 Plants	Lamiaceae-Mint Family	Obedient Plant	Physostegia virginiana ssp. virginiana	(L.) Benth.	04-13-1987	T	Physostegia virginiana (L.) Benth.	
5.2 Plants	Lamiaceae-Mint Family	Hoary Mountain-mint	Pycnanthemum incanum var. incanum	(L.) Michx.	11-09-1991	E	Pycnanthemum incanum (L.) Michx.	
5.2 Plants	Lentibulariaceae-Bladderwort Family	Northeastern Bladderwort	Utricularia resupinata	B.D. Greene ex Bigelow	04-13-1987	T		
5.2 Plants	Liliaceae-Lily Family	Wild Garlic	Allium canadense var. canadense	L.	04-13-1987	T	Allium canadense L.	
5.2 Plants	Liliaceae-Lily Family	White Camas	Anticlea elegans ssp. glauca	(Nutt.) Kunth A. Haines	11-15-2012	E	Anticlea glauca (Nutt.) Kunth	
5.2 Plants	Lygodiaceae-Climbing Fern Family	Climbing Fern	Lygodium palmatum	(Bernh.) Sw.	04-13-1987	E		
5.2 Plants	Magnoliaceae-Magnolia Family	Tulip Tree	Liriodendron tulipifera	L.	03-28-2015	E		
5.2 Plants	Melastomataceae-Meadow Beauty-Melastome Family	Virginia Meadow-beauty	Rhexia virginica	L.	04-13-1987	T		
5.2 Plants	Moraceae-Mulberry Family	Red Mulberry	Morus rubra	L.	04-13-1987	T		
5.2 Plants	Nymphaeaceae-Water-lily Family	Pygmy Dwarf Water-lily	Nymphaea leibergii	Morong	04-23-2005	E		
5.2 Plants	Onagraceae-Evening-primrose Family	Many-fruited False-loosestrife	Ludwigia polycarpa	Short & Peter	04-13-1987	E		

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5.2 Plants	Ophioglossaceae-Adder's-tongue Family	Mingan Moonwort	Botrychium minganense	Victorin	02-16-2011	E		
5.2 Plants	Orchidaceae-Orchid Family	Putty-root	Aplectrum hyemale	(Muhl. ex Willd.) Nutt.-Torr.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Arethusa	Arethusa bulbosa	L.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Fairy Slipper	Calypso bulbosa var. americana	(R. Br. ex Ait. f.) Luer	04-13-1987	T	Calypso bulbosa (L.) Oakes	
5.2 Plants	Orchidaceae-Orchid Family	Autumn Coral-root	Corallorhiza odontorhiza var. odontorhiza	(Willd.) Nutt.	04-13-1987	T	Corallorhiza odontorhiza (Willd.) Nutt.	
5.2 Plants	Orchidaceae-Orchid Family	Ram's Head Lady's-slipper	Cypripedium arietinum	Ait. f.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Small Whorled Pogonia	Isotria medeoloides	(Pursh) Raf.	11-09-1991	E		
5.2 Plants	Orchidaceae-Orchid Family	Large Whorled Pogonia	Isotria verticillata	Raf.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Lily-leaved Twayblade	Liparis liliifolia	(L.) L. C. Rich. ex Ker-Gawl.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	White Adder's-mouth	Malaxis monophyllos var. brachypoda	(Gray) F. Morris & Eames	04-13-1987	T	Malaxis brachypoda (A. Gray) Fern.	
5.2 Plants	Orchidaceae-Orchid Family	Auricled Twayblade	Neottia auriculata	(Wiegand) Szlachetko	04-13-1987	E	Listera auriculata Wieg.	
5.2 Plants	Orchidaceae-Orchid Family	Southern Twayblade	Neottia bifolia	(Raf.) Baumbach	04-13-1987	E	Listera australis Lindl.	
5.2 Plants	Orchidaceae-Orchid Family	Tuberclad Orchid	Platanthera flava var. herbiola	(R. Br. ex Ait. f.) Luer	04-13-1987	T	Platanthera flava (L.) Lindl.	
5.2 Plants	Orchidaceae-Orchid Family	Hooker's Orchid	Platanthera hookeri	(Torr. ex Gray) Lindl.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Three-bird Orchid	Triphora trianthophora ssp. trianthophora	(Sw.) Rydb.	04-13-1987	T	Triphora trianthophora (Sw.) Rydb.	
5.2 Plants	Orobanchaceae-Cancer-root Family	Northern Pale Painted-cup	Castilleja septentrionalis	Lindl.	04-13-1987	T		
5.2 Plants	Papaveraceae-Poppy Family	Golden Corydalis	Corydalis aurea	Willd.	04-13-1987	T		
5.2 Plants	Pinaceae-Pine Family	Jack Pine	Pinus banksiana	Lamb.	04-13-1987	T		
5.2 Plants	Plantaginaceae-Plantain Family	Mare's-tail	Hippuris vulgaris	L.	11-09-1991	E		
5.2 Plants	Plantaginaceae-Plantain Family	Culver's-root	Veronicastrum virginicum	(L.) Farw.	04-13-1987	E		



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5.2 Plants	Poaceae-Grass Family	Champlain Beach Grass	<i>Ammophila breviligulata</i> ssp. <i>champlainensis</i>	(Seymour) P.J. Walker, C.A. Paris & Barrington ex Barkworth	04-13-1987	E	<i>Ammophila champlainensis</i> Seymour	
5.2 Plants	Poaceae-Grass Family	Alpine Sweet-grass	<i>Anthoxanthum monticola</i> ssp. <i>monticola</i>	(Bigelow) Veldkamp	04-13-1987	T	<i>Hierochloa alpina</i> (Swartz) R. & S. ; <i>Anthoxanthum monticola</i> (Bigelow) Veldkamp	
5.2 Plants	Poaceae-Grass Family	Pickering's Reed-grass	<i>Calamagrostis pickeringii</i>	Gray	02-16-2011	E		
5.2 Plants	Poaceae-Grass Family	Bentgrass	<i>Calamagrostis stricta</i> ssp. <i>inexpansa</i>	(Gray) C.W. Greene	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Sharp Manna-grass	<i>Glyceria acutiflora</i>	Torr.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Stiff Witch-grass	<i>Panicum flexile</i>	(Gattinger) Scribn.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Slender Mountain-rice	<i>Piptatheropsis pungens</i>	(Torr. ex Spreng.) Romasch., P.M. Peterson & Soreng	11-09-1991	T	<i>Oryzopsis pungens</i> (Torr.) Hitchc.; <i>Piptatherum pungens</i> (Torr ex Spreng.) Dorn	
5.2 Plants	Poaceae-Grass Family	Shiny Wedgegrass	<i>Sphenopholis nitida</i>	(Biehler) Scribn.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Blunt Sphenopholis	<i>Sphenopholis obtusata</i>	(Michx.) Scribn.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Rough Dropseed	<i>Sporobolus compositus</i> var. <i>compositus</i>	(Poir.) Merr.	04-13-1987	E	<i>Sporobolus compositus</i> (Poir.) Merr.; <i>Sporobolus asper</i> (Michx.) Kunth	
5.2 Plants	Poaceae-Grass Family	Eight-flowered Fescue	<i>Vulpia octoflora</i> var. <i>tenella</i>	(Walt.) Rydb. (Willd.) Fern.	11-09-1991	E	<i>Vulpia octoflora</i> (Walt.) Rydb.	
5.2 Plants	Polemoniaceae-Phlox Family	Eastern Jacob's Ladder	<i>Polemonium vanbruntiae</i>	Britt.	04-13-1987	T		
5.2 Plants	Polygonaceae-Buckwheat Family	Douglas' Knotweed	<i>Polygonum douglasii</i>	Greene	11-09-1991	E		
5.2 Plants	Primulaceae-Primrose Family	Bird's-eye Primrose	<i>Primula mistassinica</i>	Michx.	04-13-1987	T		
5.2 Plants	Pteridaceae-Maidenhair-fern Family	Green Mountain Maidenhair-fern	<i>Adiantum viridimontanum</i>	Paris	12-07-1994	T		
5.2 Plants	Ranunculaceae-Buttercup Family	Early Thimbleweed	<i>Anemone multifida</i> var. <i>multifida</i>	Poir.	04-13-1987	E	<i>Anemone multifida</i> Poir.	
5.2 Plants	Ranunculaceae-Buttercup Family	Golden-seal	<i>Hydrastis canadensis</i>	L.	04-13-1987	E		

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5.2 Plants	Ranunculaceae-Buttercup Family	Allegheny Crowfoot	Ranunculus allegheniensis	Britt.	11-09-1991	T		
5.2 Plants	Ranunculaceae-Buttercup Family	Rue-anemone	Thalictrum thalictroides	(L.) Farnes & Boivin	XX-XX-XXXX	E		
5.2 Plants	Rhamnaceae-Buckthorn Family	Prairie Redroot	Ceanothus herbaceus	Raf.	04-13-1987	E		
5.2 Plants	Rosaceae-Rose Family	Northern Cinquefoil	Potentilla litoralis	Rydb.	11-09-1991	E	Potentilla pensylvanica var. bipinnatifida (Douglas) T. & G.	
5.2 Plants	Rosaceae-Rose Family	Wild Plum	Prunus americana	Marsh.	04-13-1987	T		
5.2 Plants	Rosaceae-Rose Family	Susquehanna Sand Cherry	Prunus susquehanae	hort. ex Willd. (Schwein.) W.H. Lewis	11-15-2012	E		
5.2 Plants	Rosaceae-Rose Family	Needle-spine Rose	Rosa acicularis ssp. sayi	Lewis	11-09-1991	E	Rosa acicularis Lindl.	
5.2 Plants	Rubiaceae-Madder Family	Bog Bedstraw	Galium labradoricum	(Wieg.) Wieg.	04-13-1987	T		
5.2 Plants	Salicaceae-Willow Family	Tea-leaved Willow	Salix planifolia ssp. planifolia	Pursh	04-13-1987	T	Salix planifolia Pursh	
5.2 Plants	Salicaceae-Willow Family	Bearberry Willow	Salix uvva-ursi	Pursh	04-13-1987	E		
5.2 Plants	Scheuchzeriaceae-Scheuchzeria Family	Pod-grass	Scheuchzeria palustris	L.	04-13-1987	T		
5.2 Plants	Sparganiaceae-Bur-reed Family	Lesser Bur-reed	Sparganium natans	L.	11-09-1991	T		
5.2 Plants	Sphagnaceae-Sphagnum Family	A Peatmoss	Sphagnum subfulvum	Sjors	06-23-1989	E	Sphagnum nitidum Warnstorff	
5.2 Plants	Tofieldiaceae-False Asphodel Family	Sticky False-asphodel	Triantha glutinosa	(Michx.) Baker	04-13-1987	T	Tofieldia glutinosa (Michx.) Baker	
5.2 Plants	Ulmaceae-Elm Family	Cork Elm (Rock Elm)	Ulmus thomasii	Sarg.	02-16-2011	T		
5.2 Plants	Valerianaceae-Valerian Family	Marsh Valerian	Valeriana uliginosa	(Torr. & Gray) Rydb.	04-13-1987	E		
5.2 Plants	Violaceae-Violet Family	Lance-leaved Violet	Viola lanceolata ssp. lanceolata	L.	04-13-1987	T	Viola lanceolata L.	
5.2 Plants	Xyridaceae-Yellow-eyed-grass Family	Northern Yellow-eyed-grass	Xyris montana	Ries	04-13-1987	T		
5.3 Amphipods	Crangonyctidae-A Gammarid Amphipod Family	Taconic Cave Amphipod	Stygobromus borealis		12-07-1994	E		
5.4.1 Insects	Apidae-Bee Family	Rusty-patched Bumble Bee	Bombus affinis		03-28-2015	E		
5.4.1 Insects	Apidae-Bee Family	Ashton Cuckoo Bumble Bee	Bombus ashtoni		03-28-2015	E		

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5.4.1 Insects	Apidae-Bee Family	American Bumble Bee	<i>Bombus pensylvanicus</i>		<del>XX-XX-XXXX</del>	E		
5.4.1 Insects	Apidae-Bee Family	Yellow-banded Bumble Bee	<i>Bombus terricola</i>		03-28-2015	T		
5.4.4 Insects	<del>Cicindelidae-Carabidae-Tiger</del> Ground Beetle Family	Hairy-necked Tiger Beetle	<i>Cicindela hirticollis</i>		12-07-1994	T		
5.4.4 Insects	<del>Cicindelidae-Carabidae-Tiger</del> Ground Beetle Family	Cobblestone Tiger Beetle	<i>Cicindela marginipennis</i>		04-13-1987	T		
5.4.4 Insects	<del>Cicindelidae-Carabidae-Tiger</del> Ground Beetle Family	Puritan Tiger Beetle	<i>Cicindela-Ellipsoptera puritana</i>		12-07-1994	T	<i>Cicindela puritana</i>	As of the effective date of this rule, the U.S. Fish & Wildlife Service uses the name <i>Cicindela puritana</i> in its federal Endangered Species list; the two names are synonymous.
5.5 Mollusks	Margaritiferidae-Pearl Mussel Family	Eastern Pearlshell	<i>Margaritifera margaritifera</i>		12-07-1994	T		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>		11-09-1991	E		Listed as Threatened on 04-13-1987.
5.5 Mollusks	Unionidae-Unionid Mussel Family	Brook Floater	<i>Alasmidonta varicosa</i>		<del>12-07-1994XX-XX-XXXX</del>	FE		Listed as Threatened on 12-07-1994.
5.5 Mollusks	Unionidae-Unionid Mussel Family	Cylindrical Papershell	<i>Anodontoides ferussacianus</i>		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Pocketbook	<i>Lampsilis ovata</i>		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Flutedshell	<i>Lasmigona costata</i>		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Fragile Papershell	<i>Leptodea fragilis</i>		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Black Sandshell	<i>Ligumia recta</i>		03-18-1999	E		Listed as Threatened on 12-07-1994.
5.5 Mollusks	Unionidae-Unionid Mussel Family	Pink Heelsplitter	<i>Potamilus alatus</i>		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Giant Floater	<i>Pyganodon grandis</i>		03-18-1999	T		

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5.6 Fish	Acipenseridae-Sturgeon Family	Lake Sturgeon	Acipenser fulvescens		04-13-1987	E		
5.6 Fish	Ictaluridae-North American Freshwater Catfish Family	Stonecat	Noturus flavus		12-07-1994	E		
5.6 Fish	Percidae-Perch Family	Eastern Sand Darter	Ammocrypta pellucida		04-13-1987	T		
5.6 Fish	Percidae-Perch Family	Channel Darter	Percina copelandi		03-18-1999	E		
5.6 Fish	Petromyzontidae-Lamprey Family	Northern Brook Lamprey	Ichthyomyzon fossor		11-09-1991	E		Listed as Threatened on 04-13-1987.
5.6 Fish	Petromyzontidae-Lamprey Family	American Brook Lamprey	Lethenteron appendix		04-13-1987	T	Lampetra appendix	
5.7 Amphibians	Bufonidae-Toad Family	Fowler's Toad	Anaxyrus fowleri		03-28-2015	E		
5.7 Amphibians	Hylidae-New World Tree Frog Family	Boreal Chorus Frog	Pseudacris maculata		11-15-2012	E		
5.8 Reptiles	Colubridae-Colubrid Snake Family	North American Racer	Coluber constrictor		04-23-2005	T		
5.8 Reptiles	Colubridae-Colubrid Snake Family	Eastern Ratsnake	Pantherophis alleghaniensis		04-23-2005	T	Elaphe obsoleta	
5.8 Reptiles	Emydidae-Box Turtle and Pond Turtle Family	Spotted Turtle	Clemmys guttata		03-18-1999	E		Listed as Threatened on 06-23-1989.
5.8 Reptiles	Scincidae-Skink Family	Common Five-lined Skink	Plestiodon fasciatus		04-13-1987	E	Eumeces fasciatus	
5.8 Reptiles	Trionychidae-Softshell Turtle Family	Spiny Softshell	Apalone spinifera		04-13-1987	T		
5.8 Reptiles	Viperidae-Viper and Pit Viper Family	Timber Rattlesnake	Crotalus horridus		04-13-1987	E		
5.9 Birds	Accipitridae-Hawk and Eagle Family	Bald Eagle	Haliaeetus leucocephalus		04-13-1987	E		Listed as Endangered on 04-13-1987.
5.9 Birds	Caprimulgidae-Nightjar Family	Eastern Whip-poor-will	Antrostomus vociferus		11-15-2012	T	Caprimulgus vociferus	
5.9 Birds	Caprimulgidae-Nightjar Family	Common Nighthawk	Chordeiles minor		11-15-2012	E		
5.9 Birds	Icteridae-Blackbird Family	Rusty Blackbird	Euphagus carolinus		03-28-2015	E		
5.9 Birds	Icteridae-Blackbird Family	Eastern Meadowlark	Sturnella magna		XX-XX-XXXX	T		
5.9 Birds	Laniidae-Shrike Family	Loggerhead Shrike	Lanius ludovicianus		04-13-1987	E		

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5.9 Birds	Laridae-Gull and Tern Family	Black Tern	Chlidonias niger		04-23-2005	E		Listed as Threatened on 12-07-1994.
5.9 Birds	Laridae-Gull and Tern Family	Common Tern	Sterna hirundo		07-30-1988	E		Listed as Threatened on 04-13-1987.
5.9 Birds	Emberizidae- <del>Passerellidae-</del> American New World Sparrow and Relatives Family	Henslow's Sparrow	<del>Ammodramus</del> Centronyx henslowii		04-13-1987	E	Ammodramus henslowii	
5.9 Birds	Emberizidae- <del>Passerellidae-</del> American New World Sparrow and Relatives Family	Grasshopper Sparrow	Ammodramus savannarum		03-18-1999	T		
5.9 Birds	Phasianidae-Turkey, Grouse, Pheasant and Partridge Family	Spruce Grouse	<del>Falcipennis</del> Canachites canadensis		07-30-1988	E	Falcipennis canadensis	
5.9 Birds	Scolopacidae-Sandpiper, Snipe and Relatives Family	Upland Sandpiper	Bartramia longicauda		04-23-2005	E		Listed as Threatened on 04-13-1987.
5.9 Birds	Troglodytidae-Wren Family	Sedge Wren	Cistothorus <del>platensis</del> stellaris		03-18-1999	E	Cistothorus platensis	Listed as Threatened on 04-13-1987.
5.10 Mammals	Felidae-Cat Family	Canadian Lynx	Lynx canadensis		04-13-1987	E		
5.10 Mammals	Felidae-Cat Family	Eastern Mountain Lion	Puma concolor cougar		04-13-1987	E	Felis concolor cougar	
5.10 Mammals	Mustelidae-Weasel Family	American Marten	Martes americana		04-13-1987	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Eastern Small-footed Bat	Myotis leibii		04-13-1987	T		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Little Brown Bat	Myotis lucifugus		07-15-2011	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Northern Long-eared Bat	Myotis septentrionalis		07-15-2011	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Indiana Bat	Myotis sodalis		04-13-1987	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Tri-colored Bat	Perimyotis subflavus		11-15-2012	E		

52 PLANTS

APIACEAE PARSLEY FAMILY

- Sanicula canadensis var. canadensis L. Short-styled snakeroot T T
- Sanicula canadensis var. grandis Fern. Greater short-styled snakeroot T T
- Taenidia integrifolia (L.) Drude Yellow pimpinell T T

ARACEAE ARUM FAMILY

- Arisaema dracontium (L.) Schott Green dragon T T

ASCLEPIADACEAE MILKWEED FAMILY

- Asclepias emplexicaulis Sm. Blunt leaved milkweed T T
- Asclepias tuberosa L. Butterfly weed T T
- Asclepias verticillata L. Whorled Milkweed E T

ASPLENIACEAE SPLEENWORT FAMILY

- Asplenium montanum Willd. Mountain spleenwort T T
- Asplenium viride Huels. Green spleenwort T T
- \* (Asplenium trichomanes ramosum L.)

ASTERACEAE ASTER FAMILY

- Eupatorium sessilifolium L. Sessile leaved boneset E 4
- Helianthus strumosus L. Harsh sunflower T T
- Lactuca hirsuta Muhl. ex Nutt. Hairy lettuce T 5
- Nabalus boottii D.C. Boott's rattlesnake-root E 1
- \* (Prenanthes boottii (DC.) A. Gray)
- Omalotheca sylvatica Woodland eudweed (L.) Schultz-Bip. & F.W. Schultz E 4
- Petasites frigidus var. palmatus Sweet coltsfoot T 1
- (Ait.) Cronq.
- Polymnia canadensis L. White-flowered leafcup E 5, A
- Solidago odora ssp. odora Ait. Sweet goldenrod T 1
- (Solidago odora Ait.)
- Solidago ulmifolia Muhl. ex Willd. Elm leaved goldenrod E 4, A

BETULACEAE BIRCH FAMILY

- Betula minor (Tuckerman) Fern. Dwarf birch E T

BLECHNACEAE CHAIN-FERN FAMILY

- Woodwardia virginica (L.) Sm. Virginia chain fern T 1

BORAGINACEAE BORAGE FAMILY

- Cynoglossum virginianum var. boreale Northern wild-comfrey T 1
- (Fern.) Cooperider
- Hackelia deflexa (Wahlenb.) Opiz Nodding stickseed T 1
- ssp. americana (Gray) A. & D. Léve

## BRASSICACEAE-MUSTARD FAMILY

Arabidopsis lyrata	Lyre-leaved rock-eress	T
(L.) O'Kane & Al Shehbaz		
*(Arabis lyrata L.)		
Boechera striata (Graham) Al Shehbaz - Drummond's rock-eress		4
Braya humilis (C.A. Mey.) B.L. Rob.	Northern rock-eress	T
Draba cana Rydb.	Hairy draba	T
*(Draba breweri var. cana (Rydb.) Rollins)		
Draba giabella Pursh	Smooth draba	T
Rorippa aquatica	Lake-eress	T
(Eaton) E.J. Palmer & Steyermark		
*(Neobeckia aquatica (Eaton) Greene)		

## BRYACEAE-BRYUM MOSS FAMILY

Plagiobryum zieri (Hedw.) Lindb.	A moss	E-3
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## CAPRIFOLIACEAE-HONEYSUCKLE FAMILY

Viburnum edule (Michx.) Raf.	Squashberry	T
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## CARYOPHYLLACEAE-PINK FAMILY

Minuartia marcescens (Fern.) House	Marescent sandwort	T
Minuartia rubella (Wahlenb.) Hiern	Marble sandwort	T

## CISTACEAE-ROCK-ROSE FAMILY

Grocanthemum bicknellii (Fern.) Janchen	Plains frostweed	T
*(Helianthemum bicknellii Fern.)		
Hudsonia tomentosa Nutt.	Beach heather	E
Lechea mucronata Raf.	Hairy pinweed	E

## CLUSIACEAE-ST. JOHN'S WORT FAMILY

Hypericum ascyron L.	Great St. John's wort	T
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## CONVOLVULACEAE-MORNING-GLORY FAMILY

Calystegia spithamea ssp. spithamea - Low-bindweed		T
(L.) Pursh		
*(Calystegia spithamea (L.) Pursh)		

## CORNACEAE-DOGWOOD FAMILY

Cornus florida L.	Flowering dogwood	T
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## GRASSULACEAE-STONECROP FAMILY

Rhodiola rosea L.	Roseroot	T
*(Sedum rosea L. - Seep)		

## CUPRESSACEAE-CYPRESS FAMILY

Juniperus horizontalis Moench	Creeping juniper	T
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## CYPERACEAE-SEDGE FAMILY

Carex acuta Boott	Contracted sedge	E
Carex atratiformis Britt.	Blackish sedge	T
Carex buschbaumii Wahlenb.	Buxbaum's sedge	E
Carex capillaris ssp. capillaris L.	Capillary sedge	T
*(Carex capillaris L.)		
Carex chordeorrhiza Ehrh. ex L. f.	Creeping sedge	E
Carex foenea Willd.	Bronze sedge	E
Carex garberi Fern.	Garber's sedge	T
Carex livida (Wahlenb.) Willd.	Pale sedge	T
Carex muhlenbergii var. enervis Boott	Nerveless-Muehlenberg sedge	T
Carex muhlenbergii var. muhlenbergii Muehlenberg's sedge		T
Schkuhr ex Willd.		
Carex oligocarpa Schkuhr ex Willd.	Few fruited sedge	E

_____	Carex richardsonii R. Br.		
_____	Carex ostenata Dewey	E	1
_____	Carex vaginata Tausch	E	4
_____	Cyperus diandrus Torr.	E	4
_____	Cyperus houghtonii Torr.	E	3
_____	Eleocharis quinqueflora	T	1
_____	_____ (Hartmann) O. Schwartz	T	1
_____	_____ * (Eleocharis pauciflora (Lightf.) Link)		
_____	Fimbristylis autumnalis	E	4
_____	(L.) Roem. & Schult.		
_____	Rhynchospora capillacea Torr.	T	1
_____	_____ Scirpus anastrochaetus Schuyler	E	4, A
_____	Tritcheperum planifolium	E	4, A
_____	_____ (Spreng.) Palla		
_____	_____ * (Scirpus verecundus Fern.)		

DIAPENSIACEAE-DIAPENSIACEAE FAMILY

_____	Diapensia lepponica ssp. lepponica L.		
_____	_____ * (Diapensia lepponica L.)	E	1

DRYOPTERIDACEAE WOOD-FERN FAMILY

_____	Dryopteris filix mas (L.) Schott	T	1
_____	Woodesia alpina (Bolton) S.F. Gray	E	1

EQUISETACEAE HORSETAIL FAMILY

_____	Equisetum palustre L.	T	1
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ERICACEAE HEATH FAMILY

_____	Pterospora anemonea Nutt.		
_____	Pyrola asarifolia ssp. asarifolia Michx. Bog wintergreen	E	4
_____	_____ * (Pyrola asarifolia Michx.)	T	4
_____	Pyrola minor L.	T	1
_____	Rhododendron maximum L.	E	1
_____	Vaccinium stamineum L.	E	5

FABACEAE PEA FAMILY

_____	Astragalus canadensis var. canadensis L., Canadian milk-vetch	T	1
_____	_____ * (Astragalus canadensis L.)	E	1
_____	Astragalus Robbinsii var. Jesupii		
_____	_____ Jesup's milk-vetch		
_____	Egglest. & Sheldon		
_____	Crotalaria sagittalis L.	T	1
_____	Desmodium cuspidatum	E	4
_____	(Multi. ex Willd.) DC. ex Loud.		
_____	Desmodium rotundifolium DC.	T	1
_____	Lathyrus japonicus var. maritimus	T	1
_____	(L.) Kuntze & Gandhi		
_____	_____ * (Lathyrus maritimus (L.) Bigelow)		
_____	Lathyrus palustris L.	T	1
_____	Lespedeza frutescens	T	1
_____	(L.) Hornem		
_____	_____ * (Lespedeza violacea auct. non (L.) Pers.) <sup>†</sup>		
_____	Lespedeza hirta ssp. hirta (L.) Hornem. Hairy-bush-clover	T	4
_____	_____ * (Lespedeza hirta (L.) Hornem)		
_____	Lupinus perennis L.		
_____	Wild-lupine		
_____	Senna hobeocarpa (Fern.) Irwin & Barneby	E	6, A
_____	Wild-senna	T	1

FAGACEAE-BEECH FAMILY

_____	Quercus ilicifolia Wangerh.	E	4
_____	Quercus prinoides Willd.	E	7

GENTIANACEAE-GENTIAN FAMILY

_____	Gentiana andrewsii Griseb.	T	1
_____	Gentianella amarella (L.) Boemer	T	1



Centianella-quinquefolia (L.) Small	Stiff gentian	T	1
<b>HYDROPHYLLACEAE WATERLEAF FAMILY</b>			
Hydrophyllum-canadense L.	Broad-leaved waterleaf	T	1
<b>ISOETACEAE QUILLWORT FAMILY</b>			
Isoetes-engelmannii A. Braun	Engelmann's quillwort	T	1
Isoetes-viridimontana	Green Mountain quillwort	E	11
M. Rosenthal and W.C. Taylor			
<b>JUNCACEAE RUSH FAMILY</b>			
Juncus-greenii Oakes & Tutcher	Greene's rush	E	4
Juncus-militaris Bigelow	Soldier rush	E	4
Juncus-secundus Beauv. ex Poir.	Secund rush	E	4
<b>JUNCAGINACEAE ARROW-GRASS FAMILY</b>			
Triglochin-maritima L.	Arrow-grass	E	8
<b>LAMIACEAE MINT FAMILY</b>			
Agastache-nepetoides (L.) Kuntze	Yellow-giant hyssop	T	1
Agastache-serophulariifolia (Willd.) Kuntze	Purple-giant hyssop	T	1
Blephilia-hirsuta var. glabrata (Fernal) Smooth wood mint	*(Blephilia-hirsuta (Pursh.) Benth.)	T	1
Blephilia-hirsuta var. hirsuta (Pursh.) Benth.	Hairy-wood mint	T	1
*(Blephilia-hirsuta (Pursh.) Benth.)			
Dracocephalum-parviflorum Nutt.	American dragonhead	T	1
Physostegia-virginiana (L.) Benth.	Obedient plant	T	1
Pycnanthemum-incanum (L.) Michx.	Hoary mountain-mint	E	4
<b>LENTIBULARIACEAE BLADDERWORT FAMILY</b>			
Utricularia-resupinata	Northeastern bladderwort	T	1
B.D. Greene ex Bigelow			
<b>LILIACEAE LILY FAMILY</b>			
Allium-canadense var. canadense L.	Wild garlic	T	1
Anticlea-glaucra (Nutt.) Kunth	White-camas	E	10
<b>LYGODIACEAE CLIMBING-FERN FAMILY</b>			
Lygodium-palmatum (Benth.) Sw.	Climbing fern	E	1
<b>MAGNOLIACEAE MAGNOLIA FAMILY</b>			
Liliedendron-tulipifera L.	Tulip tree	E	11
<b>MELASTOMATACEAE MEADOW-BEAUTY FAMILY</b>			
Rhexia-virginica L.	Virginia-meadow-beauty	T	1
<b>MORACEAE MULBERRY FAMILY</b>			
Morus-rubra L.	Red mulberry	T	1
<b>NYMPHAEACEAE WATER-LILY FAMILY</b>			
Nymphaea-leibergii Merong	Pygmy-water-lily	E	7
<b>ONAGRACEAE EVENING-PRIMROSE FAMILY</b>			
Ludwigia-polycarpa Short & Peter	Many-fruited false-foescesitife	E	1
<b>OPHIOGLOSSACEAE ADDER'S-TONGUE FAMILY</b>			
Bettychium-minganense Viet.	Mingan-moonwort	E	1
<b>ORCHIDACEAE ORCHID FAMILY</b>			
Aplectrum-hyemale	Puffy root (Muhl. ex Willd.) Nutt.	T	1
Arethusa-bulbosa L.	Arethusa	T	1
Calypto-bulbosa var. americana (R. Br. ex Ait. f.) Luer	Calypto-fairy-slipper	T	1
*(Calypto-bulbosa (L.) Oakes)			
Corallorhiza-odontorhiza var. odontorhiza Autumn-earl-root		T	1
(Willd.) Nutt.			

PLANTAGINACEAE—PLANTAIN FAMILY

- Hippuris vulgaris* L. Mare's-tail 4  
*Veronicastrum virginicum* (L.) Farw. Culver's-root 1

POACEAE—GRASS FAMILY

- Ammophila breviflora* Champ. plain-beach grass 1  
 \*(*Ammophila champlainensis* Seymour) ssp. *champlainensis* (Seymour) Walker, Paris & Barrington ex Barkworth 1  
*Anthoxanthum monticola* ssp. *monticola* Alpine sweet grass 1  
 \*(*Heterochloa alpina* (Swartz) R. & S.; *Anthoxanthum monticola* (Bigelow) Veldkamp) 8  
*Calamagrostis pickeringii* A. Gray, Man. Pickering's reed-grass 4  
*Calamagrostis stricta* ssp. *inexpansa* (Gray) C.W. Greene Bentgrass 4  
*Glyceria acutiflora* Torr. Sharp manna-grass 4  
*Panicum flexile* (Cattiniger) Scribn. Stiff-witch-grass 4  
*Piptatheropsis pungens* Slender mountain-rice 4

\*(*Coralorrhiza odontorhiza* (Willd.) Nutt.)

- Cyripedium arctatum* Ait. f. Ram's-head lady's-slipper 1  
*Isotria medeoloides* (Pursh) Raf. Small whorled-pogonia 4  
*Isotria verticillata* Raf. Large whorled-pogonia 1  
*Liparis liliifolia* (L.) L.C. Rich. ex Ker Gawl. Lily-leaved twayblade 1  
*Malaxis monophyllos* var. *brachypoda* White-adder's-mouth 1  
 (Gray) Morris & Eames  
 \*(*Malaxis brachypoda* (A. Gray) Fern.) 1  
*Neottia auriculata* (Wieg.) Schach. Auricled twayblade \* (*Listera auriculata* Wieg.) 1  
*Neottia bifida* (Raf.) Baumbach Southern twayblade \* (*Listera australis* Lindl.) 1  
 (R. Br. ex Ait. f.) Luer *Platanthera flava* var. *herbiola* (L.) Lindl. Tubercled orchis 1  
 \* (*Platanthera flava* (L.) Lindl.) 1  
*Platanthera hookeri* (Torr. ex Gray) Lindl. Hooker's orchis 1  
*Triphora trianthophora* (Sw.) Rydb. Three-bird-orchid 1

OROBANCHACEAE—CANCER-ROOT FAMILY

- Castilleja septentrionalis* Lindl. Northern painted-cup 1

PAPAVERACEAE—POPPY FAMILY

- Corydalis aurea* Willd. Golden-corydalis PINACEAE—PINE FAMILY 1  
*Pinus banksiana* Lamb. Jack-pine 1  
 (Torr. ex Spreng.) Romeseri, P.M. Peterson, & Soreng  
 \* (*Oxyropsis pungens* (Torr.) Hitchc.; *Piptatherum pungens* (Torr. ex Spreng.) Donn) 4  
*Sphenopholis nitida* (Biebler) Scribn. Shiny-weedgrass 4  
*Sphenopholis obtusata* (Michx.) Scribn. Blunt-sphenopholis 4  
*Sporobolus compositus* (Poir.) Merr. Rough dropseed \* (*Sporobolus asper* (Michx.) Kunth) 1  
*Vulpia octoflora* (Walt.) Rydb. Eight-flowered fescue 4

POLEMONIACEAE—PHLOX FAMILY

- Polemonium vancouvericum* Britt. Eastern Jacob's-ladder 1

POLYGONACEAE—BUCKWHEAT FAMILY

- Polygonum douglasii* Greene Douglas-knotweed 4

PRIMULACEAE—PRIMROSE FAMILY

- Primula mistassinica* Michx. Bird's-eye-primrose 1

PTERIDACEAE—MAIDENHAIR-FERN FAMILY

- Adiantum vtridmontanum* Paris Green Mountain-maidenhair-fern 1

RANUNCULACEAE-BUTTERCUP FAMILY X		
— Anemone multifida var. multifida Poit. Early thimbleweed	* (Anemone multifida Poit.)	E 1
— Hydrocotyle canadensis L.	Golden seal	E 1
— Ranunculus allegheniensis Britt.	Allegheny crowfoot	T 4
RHAMNACEAE-BUCKTHORN FAMILY X		
— Ceanothus herbaceus Raf.	Prairie red root	E 1
ROSACEAE-ROSE FAMILY X		
— Potentilla litoralis Rydb.	Northern cinquefoil	E 4
— * (Potentilla pensylvanica var. bipinnatifida (Douglas) T. & G.)	Wild plum	T 1
— Prunus susquehannae Willd.	Susquehanna sand cherry	E 10
— Rosa acicularis ssp. ovi.	Needle spine rose	E 4
— (Schwein.) W.H. Lewis		
— * (Rosa acicularis Lindl.)		
RUBIACEAE-MADDER FAMILY X		
— Galium labradoricum (Wieg.) Wieg.	Bog bedstraw	T 1
SALICACEAE-WILLOW FAMILY X		
— Salix planifolia Pursh	Tea-leaved willow	T 1
— Salix uva-ursi Pursh	Bearberry willow	E 1
SCHEUCHZERIACEAE-SCHEUCHZERIA FAMILY X		
— Scheuchzeria palustris L.	Pod grass	T 1
SPARGANIACEAE-BUR-REED FAMILY X		
— Sparganium natans L.	Lesser bur reed	T 4
SPHAGNACEAE-SPHAGNUM FAMILY X		
— Sphagnum subfutuum Sjörs	A peat moss	E 3
— * (Sphagnum nitidum Warnstorff)		
TORILDIACEAE-FALSE ASPHODEL FAMILY X		
— Triartha glutinosa (Michx.) Baker	Sticky false asphodel	T 1
— * (Tetelidia glutinosa (Michx.) Baker)		
ULMACEAE-ELM FAMILY X		
— Ulmus thomasii Sarg.	Reek elm	T 8
VALERIANACEAE-VALERIAN FAMILY X		
— Valeriana uliginosa	Marsh valerian	E 1
— (Forr. & Gray) Rydb.		
VIOLACEAE-VIOLET FAMILY X		
— Viola lanceolata ssp. lanceolata L.	Lance-leaved violet	T 1
— * (Viola lanceolata L.)		
XYRIDACEAE-YELLOW-EYED GRASS FAMILY X		
— Xyris montana Rices	Yellow-eyed grass	T 1
5.2.1 No enforcement shall be taken and no permit shall be required for the taking of listed threatened or endangered plants in instances where the plants are legally acquired and exist in a cultivated state or are artificially propagated (produced and grown under controlled conditions or originated from cultivated parental stock), unless the plants are cultivated or artificially propagated as part of a recovery plan or for mitigation purposes in accordance with a taking permit, a directive of the Secretary or an enforcement action.		
5.3 AMPHIPODS		
CRANGONYCTIDAE-A GAMMARID AMPHIPOD FAMILY X		
— Stygobromus borealis	Faenite cave amphipod	E 5
5.4 INSECTS		
5.4.1		
APIDAE-BEE FAMILY X		
— Bombus affinis	Rusty patched Bumble Bee	E 11
— Bombus ashtoni	Ashton Cuckoo Bumble Bee	E 11
— Bombus terricola	Yellow-banded Bumble Bee	T 11
5.4.2 No enforcement shall be taken and no permit shall be required for the taking of threatened or endangered bees:		
a. for the application of pesticides unless:		
i. The pesticide was not applied in accordance with the applicable federally approved label and state Agency of Agriculture, Food, and Markets		

(AAFM) regulations or permits; or ii. The Secretary of the Agency of Natural Resources after consultation with the Secretary of the Agency of Agriculture, has notified a person of the likely presence of threatened or endangered bees, has advised the person to avoid taking the bees or to obtain a permit, and the person has failed to prevent a taking or obtain a permit;

d. for otherwise legal activities such as silviculture, mowing, road maintenance, construction, and painting and staining unless the Secretary of the Agency of Natural Resources, has notified a person of the likely presence of threatened or endangered bees, has advised the person to avoid taking the bees or to obtain a permit, and the person has failed to prevent a taking or obtain a permit;

c. for aerial spraying or other activities under the direction of the Vermont Department of Health (VDH) to address public health threats such as arbovirus. The Secretary shall coordinate with AAFA and VDH to reduce the likelihood of taking bees.

5.4.3 The Secretary may develop best management practices (BMPs) to avoid and minimize the taking of bees. The Secretary shall consult with the AAFA, the Vermont Agency of Transportation, VDH, and any other interested state agency prior to finalizing the BMPs.

5.4.4

**CICINDELIDAE-TIGER-BEETLE FAMILY**

Cicindela hirticollis	Hairy-necked tiger beetle	T	5
Cicindela marginipennis	Cobblestone-tiger beetle	T	1
Cicindela puritana	Puritan tiger beetle	T	5

**5.5 MOLLUSKS**

**MARGARITIFERIDAE-PEARL-MUSSEL FAMILY**

Margaritifera margaritifera	Eastern pearlshell	T	5
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**UNIONIDAE-UNIONID-MUSSEL FAMILY**

Alasmidonta heterodon	Dwarf wedgemussel	E	4,A
Alasmidonta varicosa	Brook floater	T	5
Anodonta imbecilis	Cylindrical papershell	E	6
Lampsilis ovata	Pocketbook	E	6
Lasmigona costata	Fluted shell	E	6
Leptodes fragilis	Fragile papershell	E	6
Ligumia recta	Black sandshell	E	6,B
Pezomachus alatus	Pink heelsplitter	E	6
Pyganodon grandis	Giant floater	T	6

**5.6 FISH**

**ACIPENSERIDAE-STURGEON FAMILY**

Acipenser fulvescens	Lake sturgeon	E	1
Noturus flavus	Steneac	E	5

**ICTALURIDAE-NORTH AMERICAN FRESHWATER CATFISH FAMILY**

Ammocrypta pellucida	Eastern sand darter	T	1
Percina copelandi	Channel darter	E	6

**PETROMYZONIDAE-LAMPREY FAMILY**

Lethenteron appandik	Northern brook lamprey	E	4,A
* (Lampetra appendix)	American brook lamprey	T	1

**5.7 AMPHIBIANS**

**BUFONIDAE-TOAD FAMILY**

Anaxyrus fowleri	Fowler's toad	E	11
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**HYLIDAE-NEW-WORLD-TREE-FROG FAMILY**

Pseudacris maculata	Boreal chorus frog	E	10
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**5.8 REPTILES**

**COLUBRIDAE-COLUBRID-SNAKE FAMILY**

Crotalus constrictor	North American racer	T	7
Pantherophis alleghaniensis	Eastern ratsnake	T	7

\* (Elaphe obsoleta)

**EMYDIDAE-BOX-TURTLE-AND-POND-TURTLE FAMILY**

Chelydra guttata	Spotted turtle	E	6,C
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**SCINCIDAE-SKINK FAMILY**

Plestiodon fasciatus	Common five-lined skink	E	1
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\* (Eumeces fasciatus)

**TRIONYCHIDAE-SOFT-SHELL-TURTLE FAMILY**

Apelone spaiifera	Spiny softshell	T	1
<b>VIPERIDAE-VIPER AND PIT VIPER FAMILY</b>			
Crotalus horridus	Timber rattlesnake	E	1
<b>5-9 BIRDS</b>			
<b>ACCIPTRIDAE HAWK AND EAGLE FAMILY</b>			
Haliaeetus leuccephalus	Bald eagle	E	1
<b>CAPRIMULGIDAE NIGHTJAR FAMILY</b>			
Antrosternus vociferus	Eastern whip-poor-will	T	10
*(Caprimulgus vociferus)			
<b>EMBERIZIDAE AMERICAN SPARROW AND RELATIVES FAMILY</b>			
Chondestes minor	Common nighthawk	E	10
Ammodramus heselwii	Henslow's sparrow	E	1
Ammodramus savaannarum	Grasshopper sparrow	T	6
<b>ICTERIDAE-BLACKBIRD FAMILY</b>			
Euphagus carolinus	Rusty blackbird	E	11
Lanius ludovicianus	Loggerhead shrike	E	1
<b>LARIDAE-GULL AND TERN FAMILY</b>			
Chlidonias niger	Black tern	E	7,B
Sterna hirundo	Common tern	E	2,A
<b>PHASIANIDAE-TURKEY, GROUSE, PHEASANT AND PARTIDGE FAMILY</b>			
Falciptennis canadensis	Spruce grouse	E	2
<b>SCOLOPACIDAE-SANDPIPER, SNIFE AND RELATIVES FAMILY</b>			
Bartramia longicauda	Upland sandpiper	E	7,A
<b>TROGLODYTIDAE-WREN FAMILY</b>			
Cistothorus platensis	Sedge wren	E	6,A
<b>6-10 MAMMALS</b>			
<b>FELIDAE-CAT FAMILY</b>			
Puma concolor cougar	Eastern mountain lion	E	1
*(Felis concolor cougar)			
Lynx canadensis	Canada lynx	E	1
<b>MUSTELIDAE-WEASEL FAMILY</b>			
Martes americana	American marten	E	1
<b>VESPERTILIONIDAE-EVENING BAT AND VESPER BAT FAMILY</b>			
Myotis leibii	Eastern small-footed bat	T	1
Myotis lucifugus	Little brown bat	E	9
Myotis septentrionalis	Northern long-eared bat	E	9
Myotis sodalis	Indiana bat	E	1
Perimyotis subflavus	Trit-colored bat	E	10



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## 10 V.S.A. Appendix § 10, Vermont Endangered and Threatened Species Rule

### 1.0 Authority

This rule is adopted pursuant to 10 V.S.A. Chapter 123 which provides that the Secretary "shall adopt by rule a state-endangered species list and a state-threatened species list," and may "adopt rules for the protection, conservation, or recovery of endangered and threatened species."

### 2.0 Purpose

The purpose of this rule: is to identify and list species of wild plants and animals and designate critical habitats that have been determined by the Secretary to require protection under Vermont law. The rule also sets out a process for the issuance of permits for the take and possession of endangered and threatened species and the destruction or adverse impact to designated critical habitat.

### 3.0 Definitions

- 3.1 "Accepted silvicultural practices" means the accepted silvicultural practices defined by the Commissioner of Forests, Parks and Recreation, including the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont adopted by the Commissioner of Forests, Parks and Recreation.
- 3.2 "Critical habitat" for a threatened species or endangered species means: (A) a delineated location within the geographical area occupied by the species that: (i) has the physical or biological features that are identifiable, concentrated, and decisive to the survival of a population of the species; and (ii) is necessary for the conservation or recovery of the species; and (iii) may require special management considerations or protection; or (B) a delineated location outside the geographical area occupied by a species at the time it is listed under section 5402 of this title that: (i) (I) was historically occupied by a species; or (II) contains habitat that is hydrologically connected or directly adjacent to occupied habitat; and (ii) contains habitat that is identifiable, concentrated, and decisive to the continued survival of a population of the species; and (iii) is necessary for the conservation or recovery of the species.
- 3.3 "Destroy or adversely impact" means, with respect to critical habitat, a direct or indirect activity that negatively affects the value of critical habitat for the survival, conservation, or recovery of a listed threatened or endangered species.
- 3.4 "Endangered Species" means a species that has been listed as endangered by the Secretary because the species normally occurs in the State and its continued existence as a sustainable component of the State's wildlife or wild plants is in jeopardy, or it is listed as an "endangered species" under the federal Endangered Species Act.
- 3.5 "Farming" shall have the same meaning as used in subdivision 6001(22) of this title.
- 3.6 "Forestry operations" means activities related to the management of forests, including a timber harvest; pruning; planting; reforestation; pest, disease, and invasive species control; wildlife habitat management; and fertilization. "Forestry operations" include the primary processing of forest products of commercial value on a parcel where the timber harvest occurs.
- 3.7 "Habitat" means the physical and biological environment in which a particular species of plant or animal lives.

- 3.8** "Harming," as used in the definition of "take" or "taking" in this rule means: an act that kills or injures a threatened or endangered species; or the destruction or imperilment of habitat that kills or injures a threatened or endangered species by significantly impairing continued survival or essential behavioral patterns, including reproduction, feeding, or sheltering.
- 3.9** "Plant" means any member of the plant kingdom, including seeds, roots, and other parts thereof. As used in this chapter, plants shall include fungi.
- 3.10** "Possession" means holding, controlling, exporting, importing, processing, selling, offering to sell, delivering, carrying, transporting, or shipping by any means a member of a species.
- 3.11** "Secretary" means the Secretary of the Agency of Natural Resources except where otherwise specified.
- 3.12** "Take and taking"
- (a) With respect to wildlife designated a threatened or endangered species, means: (1) pursuing, shooting, hunting, killing, capturing, trapping, harming, snaring, or netting wildlife; (2) an act that creates a risk of injury to wildlife, whether or not the injury occurs, including harassing, wounding, or placing, setting, drawing, or using any net or other device used to take animals; or (3) attempting to engage in or assisting another to engage in an act set forth under subdivision (1) or (2) of this subdivision.
  - (b) With respect to a wild plant designated a threatened or endangered species, means uprooting, transplanting, gathering seeds or fruit, cutting, injuring, harming, or killing or any attempt to do the same or assisting another who is doing or attempting to do the same.
- 3.13** "Threatened Species" means a species that has been listed as threatened by the Secretary because the species is a sustainable component of the State's wildlife or wild plants; it is reasonable to conclude based on available information that its numbers are declining; and unless protected, it will become an endangered species.

#### **4.0 Critical Habitat Designations**

- 4.1** "Critical habitat," as defined in 10 V.S.A. § 5401(4) and 10 V.S.A. § 5402a, has been designated for the following locations:
- (a) Three (3) Common Tern Nesting Islands.
  - (b) Four (4) Spiny Softshell Nesting Areas.
  - (c) One (1) Bat Hibernaculum.

#### **5.0 Permits for Taking and Possession**

- 5.1** No person shall take or possess an endangered or threatened species without a permit, unless exempted as provided for in 10 V.S.A. §5408(d) and as follows:
- (a) No enforcement shall be taken, and no permit shall be required for the taking of listed threatened or endangered plants in instances where the plants are legally acquired and exist in a cultivated state or are artificially propagated (produced and grown under controlled conditions or originated from cultivated parental stock); unless the plants are cultivated or artificially propagated as part of a recovery plan or, for mitigation purposes in accordance with a takings permit, a directive of the Secretary, or an enforcement action.



- (b) Prior to requiring a permit or initiating enforcement for the taking of any threatened or endangered bee(s), the Secretary of the Agency of Natural Resources (ANR) shall:
  - 1. notify affected landowners and persons who are engaged in activities that may result in taking the threatened or endangered bees of the presence of threatened or endangered bees and the requirement to avoid taking the bees or to obtain a permit; and
  - 2. notify and consult with affected or interested state agencies including as applicable: the Agency of Commerce and Community Development (ACCD), the Agency of Transportation (AOT), the Vermont Department of Health (VDH), and the Agency of Agriculture, Food, and Markets (AAFM) whenever the presence of bees may impact farming or the application of pesticides,
- (c) Pesticide applications performed in accordance with an Emergency Health Order issued by VDH pursuant to 18 V.S.A. § 127 shall not be required to obtain a permit.
- (d) Upon discovering the presence of a threatened or endangered grassland bird on or in proximity to any farm or land used for farming, the Secretary of the Agency of Natural Resources shall:
  - 1. consult with the Secretary of the Agency of Agriculture prior to requiring a taking permit or engaging in enforcement activities; and
  - 2. ensure that the regulatory actions taken to protect the species do not cause undue interference with farming.
- 5.2 No person shall destroy or adversely impact the designated critical habitat of an endangered or threatened species without a permit.
- 5.3 Pursuant to 10 V.S.A. §5408(a) the Secretary may, after receiving the advice of the Endangered Species Committee, grant permits for the taking and possession of an endangered or threatened species:
  - (a) for scientific purposes;
  - (b) to enhance the propagation or survival of species;
  - (c) for zoological exhibition;
  - (d) for educational purposes;
  - (e) for noncommercial cultural or ceremonial purposes; or;
  - (f) for a special purpose consistent with the purpose of the Federal Endangered Species Act (*see* 16 U.S.C. §1531(b)).
- 5.4 Pursuant to 10 V.S.A. §5408(b), the Secretary may allow the incidental take of a threatened or endangered species or the destruction or adverse impact to critical habitat only if:
  - (a) the taking is necessary to conduct an otherwise lawful activity;
  - (b) the taking or the destruction and impact to the critical habitat, is attendant or secondary to, and not the purpose of, the lawful activity;
  - (c) the impact of the permitted incidental take or impact to critical habitat is minimized; and
  - (d) the incidental taking or the impact to critical habitat will not impair the conservation or recovery of any endangered species or threatened species.

- 5.5** An applicant for a Taking and Possession permit shall submit an administratively complete application to the Secretary, specifying for which purpose(s) the permit is required, as listed in 10 V.S.A. §5408(a) and (b). The permit application shall include:
- (a) a description of the activities that could lead to a taking of a listed threatened or endangered species or the destruction of or adverse impact on critical habitat;
  - (b) the steps that the applicant has or will take to avoid, minimize, and mitigate the impact to the relevant threatened or endangered species or critical habitat;
  - (c) a plan for ensuring that funding is available to conduct any required monitoring and mitigation, if applicable;
  - (d) a summary of the alternative actions to the taking or destruction of critical habitat that the applicant considered and the reasons that these alternatives were not selected, if applicable;
  - (e) the name or names and obligations and responsibilities of the person or persons that will be involved in the proposed taking or destruction of critical habitat;
  - (f) a description of the possible impacts due to the proposed action, and as applicable a plan for conservation or mitigation;
  - (g) permit fees and mitigation funding, if applicable; and
  - (h) any additional information that the Secretary may require.

**5.6** Avoidance and Minimization

- (a) Applicants for Taking and Possession permits shall have the burden to show that reasonable steps have been taken to avoid and minimize takings. The Applicant must provide information that demonstrates:
  - (1) The proposed activity cannot practicably be designed to avoid taking or the destruction or adverse impact to critical habitat, and still satisfy the basic project purpose; and
  - (2) If avoidance of taking of a listed species or the destruction or adverse impact to critical habitat, cannot practicably be achieved, the proposed activity has been planned to minimize adverse impacts on the listed species.
- (b) The Secretary may require an applicant to submit additional information that the Secretary considers necessary to make a decision on the issuance or denial of a permit. The Secretary may dismiss the application without prejudice if the requested information is not provided to the Secretary within sixty (60) days of the Secretary's request.
- (c) In determining whether the burden has been met, the Secretary shall evaluate the potential effect of any proposed activity on the basis of both its direct and immediate effects, as well as on the basis of any cumulative or on-going effects on the listed species.
- (d) The Secretary may develop, and require the implementation of, best management practices (BMPs) to avoid and minimize the taking of threatened and endangered species. The Secretary shall consult with the AAFM, the AOT, VDH, and any other interested state agency prior to finalizing the BMPs.

**5.7** Mitigation.

The Secretary may require the implementation of mitigation strategies and may collect mitigation funds, in addition to the permit fees, in order to mitigate the impacts of a taking or the destruction

of or adverse impact on critical habitat. Provided that the mitigation is commensurate with the taking or adverse impact proposed, mitigation may include:

- (a) a requirement to rectify the taking or adverse impact or to reduce the adverse impact over time;
- (b) a requirement to manage or restore land within the area of the proposed activity or in an area outside the proposed area as habitat for the threatened or endangered species including, treatment of conserved areas for the purposes of restoration or propagation of listed species;
- (c) compensation, including payment into the Threatened and Endangered Species Fund for the uses of that Fund; or
- (d) permanent conservation of habitat in which the same species exists, and ongoing monitoring of conserved areas.

#### **5.8** Hearings

- (a) The Secretary may conduct a non-adversarial, public hearing in order to evaluate the application. Such a hearing will be held within 60 (sixty) days of the receipt of the administratively complete application.
- (b) When a petition has been denied and no public hearing has been held, the Applicant may request in writing to the Secretary that a hearing be held regarding the proposed activity. The Secretary will conduct a hearing within 30 (thirty) days of receipt of the request.

**5.9** The Secretary may require, as part of an issued permit, conditions for the protection and conservation of endangered species.

**5.10** The Secretary shall inform an applicant of a decision to approve or deny a permit no more than 60 (sixty) days following an application being deemed administratively complete unless the Secretary determines there is just cause.

**5.11** The Secretary maintains continuing jurisdiction over activity permitted under this rule and may, at any time, order the permittee to undertake remedial measures to ensure the protection and conservation of listed species.

## 5.0 Listing

5.1 The following list of plants and animals is adopted as the Vermont Endangered and Threatened Species List pursuant to 10 V.S.A., chapter 123.

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Apiaceae Carrot Family	Long-styled Snakeroot	<i>Sanicula canadensis</i> var. <i>grandis</i>	Fern.	04-13-1987	T		
5.2 Plants	Apiaceae Carrot Family	Yellow Pimpernel	<i>Taenidia integerrima</i>	(L.) Drude	04-13-1987	T		
5.2 Plants	Apocynaceae-Dogbane Family	Blunt-leaved Milkweed	<i>Asclepias amplexicaulis</i>	Sm.	04-13-1987	T		
5.2 Plants	Apocynaceae-Dogbane Family	Butterfly-weed	<i>Asclepias tuberosa</i> ssp. <i>tuberosa</i>	L.	04-13-1987	T	<i>Asclepias tuberosa</i> L.	
5.2 Plants	Apocynaceae-Dogbane Family	Whorled Milkweed	<i>Asclepias verticillata</i>	L.	03-28-2015	E		
5.2 Plants	Araceae-Arum Family	Green Dragon	<i>Arisaema dracontium</i>	(L.) Schott	04-13-1987	T		
5.2 Plants	Aspleniaceae-Spleenwort Family	Mountain Spleenwort	<i>Asplenium montanum</i>	Willd.	04-13-1987	T		
5.2 Plants	Aspleniaceae-Spleenwort Family	Green Spleenwort	<i>Asplenium viride</i>	Huds.	04-13-1987	T	<i>Asplenium trichomanes-ramosum</i> L.	
5.2 Plants	Asteraceae-Aster Family	Sessile-leaved Boneset	<i>Eupatorium sessilifolium</i>	L.	11-09-1991	E		
5.2 Plants	Asteraceae-Aster Family	Harsh Sunflower	<i>Helianthus strumosus</i>	L.	04-13-1987	T		
5.2 Plants	Asteraceae-Aster Family	Hairy Lettuce	<i>Lactuca hirsuta</i>	Muhl. ex Nutt.	12-07-1994	T		
5.2 Plants	Asteraceae-Aster Family	Boot's Rattlesnake-root	<i>Nabalus boottii</i>	D.C.	04-13-1987	E	<i>Prenanthes boottii</i> (DC.) A. Gray	
5.2 Plants	Asteraceae-Aster Family	Woodland Cudweed	<i>Omalotheca sylvatica</i>	(L.) Schultz-Bip. & F.W. Schultz	11-09-1991	E		
5.2 Plants	Asteraceae-Aster Family	Sweet Coltsfoot	<i>Petasites frigidus</i> var. <i>palmatus</i>	(Ait.) Cronq.	04-13-1987	T		
5.2 Plants	Asteraceae-Aster Family	White-flowered Leafcup	<i>Polymnia canadensis</i>	L.	12-07-1994	E		Listed as Threatened on 04-13-1987.
5.2 Plants	Asteraceae-Aster Family	Sweet Goldenrod	<i>Solidago odora</i> ssp. <i>odora</i>	Ait.	04-13-1987	T	<i>Solidago odora</i> Ait.	
5.2 Plants	Asteraceae-Aster Family	Elm-leaved Goldenrod	<i>Solidago ulmifolia</i>	Muhl. ex Willd.	11-09-1991	E		Listed as Threatened on 04-13-1987.
5.2 Plants	Betulaceae-Birch Family	Dwarf Birch	<i>Betula minor</i>	(Tuckerman) Fern.	03-28-2015	E		
5.2 Plants	Blechnaceae-Chain-fern Family	Virginia Chain-fern	<i>Woodwardia virginica</i>	(L.) Sm.	04-13-1987	T		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Boraginaceae-Borage Family	Northern Wild Comfrey	Cynoglossum virginianum var. boreale	(Fern.) Cooperrider	04-13-1987	T		
5.2 Plants	Boraginaceae-Borage Family	Nodding Stickseed	Hackelia deflexa ssp. americana	(Gray) A. & D. Löve	04-13-1987	T	Hackelia deflexa var. americana (Gray) Fern. & I.M. Johnston	
5.2 Plants	Brassicaceae-Mustard Family	Lyre-leaved Rock-cress	Arabidopsis lyrata	(L.) O'Kane & Al-Shehbaz	04-13-1987	T	Arabis lyrata L.	
5.2 Plants	Brassicaceae-Mustard Family	Drummond's Rock-cress	Boechera stricta	(Graham) Al-Shehbaz	11-09-1991	E	Arabis drummondii A. Gray	
5.2 Plants	Brassicaceae-Mustard Family	Northern Rock-cress	Braya humilis ssp. humilis	(C.A. Mey.) B.L. Robins.	04-13-1987	T	<u>Braya humilis (C.A. Mey.) B.L. Rob.</u>	
5.2 Plants	Brassicaceae-Mustard Family	Hoary Draba	Draba cana	Rydb.	04-13-1987	T	Draba breweri var. cana (Rydb.) Rollins	
5.2 Plants	Brassicaceae-Mustard Family	Smooth Draba	Draba glabella	Pursh	04-13-1987	T		
5.2 Plants	Brassicaceae-Mustard Family	Lake-cress	Rorippa aquatica	(Eat.) Palmer & Steyermark	04-13-1987	T	Neobeckia aquatica (Eaton) Greene	
5.2 Plants	Bryaceae-Bryum Moss Family	A Moss	Plagiobryum zieri	(Hedw.) Lindb.	06-23-1989	E		
5.2 Plants	Caprifoliaceae-Honeysuckle Family	Squashberry	Viburnum edule	(Michx.) Raf.	04-13-1987	T		
5.2 Plants	Caryophyllaceae-Pink Family	Marcescent Sandwort	Minuartia marcescens	(Fern.) House	04-13-1987	T		
5.2 Plants	Caryophyllaceae-Pink Family	Marble Sandwort	Minuartia rubella	(Wahlenb.) Hiern	04-13-1987	T		
5.2 Plants	Cistaceae-Rock-rose Family	Plains Frostweed	Crocotanthemum bicknellii	(Fernald) Janchen	04-13-1987	T	Helianthemum bicknellii Fern.	
5.2 Plants	Cistaceae-Rock-rose Family	Beach Heather	Hudsonia tomentosa	Nutt.	04-13-1987	E		
5.2 Plants	Cistaceae-Rock-rose Family	Hairy Pinweed	Lechea mucronata	Raf.	11-09-1991	E		
5.2 Plants	Clusiaceae-St. John's-wort Family	Great St. John's-wort	Hypericum ascyron	L.	04-13-1987	T		
5.2 Plants	Convolvulaceae-Morning-glory Family	Low Bindweed	Calystegia spithamea ssp. spithamea	(L.) Pursh	04-13-1987	T	Calystegia spithamea (L.) Pursh	
5.2 Plants	Cornaceae-Dogwood Family	Flowering Dogwood	Cornus florida	L.	04-13-1987	T		
5.2 Plants	Crassulaceae-Stoncrop Family	Roseroot	Rhodiola rosea	L.	04-13-1987	T	Sedum rosea L. Scop.	
5.2 Plants	Cupressaceae-Cypress Family	Creeping Juniper	Juniperus horizontalis	Moench	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Contracted Sedge	Carex arcta	Boott	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Blackish Sedge	Carex atratiformis	Britt.	04-13-1987	T		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Cyperaceae-Sedge Family	Buxbaum's Sedge	Carex buxbaumii	Wahlenb.	04-13-1987	E		
5.2 Plants	Cyperaceae-Sedge Family	Capillary Sedge	Carex capillaris ssp. capillaris	L.	04-13-1987	T	Carex capillaris L.	
5.2 Plants	Cyperaceae-Sedge Family	Creeping Sedge	Carex chordorrhiza	Ehrh. ex L. f.	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Bronze Sedge	Carex foenea	Willd.	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Garber's Sedge	Carex garberi	Fern.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Houghton's Sedge	Carex houghtoniana	Torr. ex Dewey	XX-XX-XXXX	E		
5.2 Plants	Cyperaceae-Sedge Family	Pale Sedge	Carex livida	(Wahlenb.) Willd.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Nerveless Muehlenberg Sedge	Carex muehlenbergii var. enervis	Boott	04-13-1987	T	Carex muehlenbergii Schkuhr ex Willd.	
5.2 Plants	Cyperaceae-Sedge Family	Muehlenberg's Sedge	Carex muehlenbergii var. muehlenbergii	Schkuhr ex Willd.	04-13-1987	T	Carex muehlenbergii Schkuhr ex Willd.	
5.2 Plants	Cyperaceae-Sedge Family	Few-fruited Sedge	Carex oligocarpa	Schkuhr ex Willd.	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Richardson's Sedge	Carex richardsonii	R. Br.	04-13-1987	E		
5.2 Plants	Cyperaceae-Sedge Family	Hay Sedge	Carex siccata	Dewey	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Sheathed Sedge	Carex vaginata	Tausch	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Low Cyperus Flatsedge	Cyperus diandrus	Torr.	06-23-1989	E		
5.2 Plants	Cyperaceae-Sedge Family	Houghton's Cyperus Flatsedge	Cyperus houghtonii	Torr.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Few-flowered Spikerush	Eleocharis quinqueflora	(F.X. Hartmann) Schwarz	04-13-1987	T	Eleocharis pauciflora (Lightf.) Link	
5.2 Plants	Cyperaceae-Sedge Family	Autumn Fimbristylis	Fimbristylis autumnalis	(L.) Roemer & J.A. Schultes	11-09-1991	E		
5.2 Plants	Cyperaceae-Sedge Family	Capillary Beak-rush	Rhynchospora capillacea	Torr.	04-13-1987	T		
5.2 Plants	Cyperaceae-Sedge Family	Barbed-bristle Bulrush	Scirpus ancistrochaetus	Schuyler	11-09-1991	E		Listed as Threatened on 04-13-1987.
5.2 Plants	Cyperaceae-Sedge Family	Bashful Bulrush	Trichophorum planifolium	(Spreng.) Palla	11-09-1991	E	Scirpus verecundus Fern.	Listed as Threatened on 04-13-1987.
5.2 Plants	Diapensiaceae-Diapensia Family	Diapensia	Diapensia lapponica ssp. lapponica	L.	04-13-1987	E	Diapensia lapponica L.	
5.2 Plants	Dryopteridaceae-Wood-fern Family	Male Fern	Dryopteris filix-mas ssp. brittonii	Fraser-Jenkins & Widén	04-13-1987	T	Dryopteris filix-mas (L.) Schott	
5.2 Plants	Dryopteridaceae-Wood-fern Family	Alpine Woodsia	Woodsia alpina	(Bolton) S.F. Gray	04-13-1987	E		
5.2 Plants	Equisetaceae-Horsetail Family	Marsh Horsetail	Equisetum palustre	L.	04-13-1987	T		
5.2 Plants	Ericaceae-Heath Family	Pinedrops	Pterospora andromedea	Nutt.	11-09-1991	E		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Ericaceae-Heath Family	Bog Wintergreen	Pyrola asarifolia ssp. asarifolia	Michx.	11-09-1991	T	Pyrola asarifolia Michx.	
5.2 Plants	Ericaceae-Heath Family	Lesser Pyrola	Pyrola minor	L.	04-13-1987	E		
5.2 Plants	Ericaceae-Heath Family	Great Laurel	Rhododendron maximum	L.	04-13-1987	T		
5.2 Plants	Ericaceae-Heath Family	Deerberry	Vaccinium stamineum	L.	12-07-1994	E		
5.2 Plants	Fabaceae-Pea Family	Canadian-Canada Milk-vetch	Astragalus canadensis var. canadensis	L.	04-13-1987	T	Astragalus canadensis L.	
5.2 Plants	Fabaceae-Pea Family	Jesup's Milk-vetch	Astragalus robbinsii var. jesupii	Egglest. & Sheldon	04-13-1987	E		
5.2 Plants	Fabaceae-Pea Family	Rattlebox	Crotalaria sagittalis	L.	04-13-1987	T		
5.2 Plants	Fabaceae-Pea Family	Large-bracted Tick-trefoil	Desmodium cuspidatum	(Muhl. ex Willd.) DC. ex Loud.	11-09-1991	E		
5.2 Plants	Fabaceae-Pea Family	Prostrate Tick-trefoil	Desmodium rotundifolium	DC.	04-13-1987	T		
5.2 Plants	Fabaceae-Pea Family	Beach Pea	Lathyrus japonicus var. maritimus	(L.) Kartesz & Gandhi	04-13-1987	T	Lathyrus maritimus (L.) Bigelow	
5.2 Plants	Fabaceae-Pea Family	Marsh Vetchling	Lathyrus palustris	L.	04-13-1987	T		
5.2 Plants	Fabaceae-Pea Family	Violet Bush-clover	Lespedeza frutescens	(L.) Hornem.	04-13-1987	T	Lespedeza violacea auct. non (L.) Pers	Lespedeza violacea (L.) Pers. is now what was formerly known as L. intermedia (S. Watts) Britton and is not listed.
5.2 Plants	Fabaceae-Pea Family	Hairy Bush-clover	Lespedeza hirta ssp. hirta	(L.) Hornem.	11-09-1991	T	Lespedeza hirta (L.) Hornem.	
5.2 Plants	Fabaceae-Pea Family	Wild Lupine	Lupinus perennis ssp. perennis	L.	03-18-1999	E	Lupinus perennis L.	Listed as Threatened on 04-13- 1987.
5.2 Plants	Fabaceae-Pea Family	Wild Senna	Senna hebecarpa	(Fern.) Irwin & Barneby	04-13-1987	T		
5.2 Plants	Fagaceae-Beech Family	Scrub Oak	Quercus ilicifolia	Wangenh.	11-09-1991	E		
5.2 Plants	Fagaceae-Beech Family	Dwarf Chinquapin Oak	Quercus prinoides	Willd.	04-23-2005	E		
5.2 Plants	Gentianaceae-Gentian Family	Fringe-top Closed Gentian	Gentiana andrewsii	Griseb.	04-13-1987	T		
5.2 Plants	Gentianaceae-Gentian Family	Felwort	Gentianella amarella ssp. acuta	(Michx.) J. Gillett	04-13-1987	T	Gentianella amarella (L.) Boerner	
5.2 Plants	Gentianaceae-Gentian Family	Stiff Gentian	Gentianella quinquefolia	(L.) Small	04-13-1987	T		
5.2 Plants	Hydrophyllaceae-Waterleaf Family	Broad-leaved Waterleaf	Hydrophyllum canadense	L.	04-13-1987	T		
5.2 Plants	Isoetaceae-Quillwort Family	Engelmann's Quillwort	Isoetes engelmannii	A. Braun	04-13-1987	T		
5.2 Plants	Isoetaceae-Quillwort Family	Green Mountain Quillwort	Isoetes viridimontana	M. Rosenthal & W.C. Taylor	03-28-2015	E		

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5.2 Plants	Juncaceae-Rush Family	Greene's Rush	<i>Juncus greenei</i>	Oakes & Tuckerman	11-09-1991	E		
5.2 Plants	Juncaceae-Rush Family	Soldier Rush	<i>Juncus militaris</i>	Bigelow	11-09-1991	E		
5.2 Plants	Juncaceae-Rush Family	Secund Rush	<i>Juncus secundus</i>	Beauv. ex Poir.	11-09-1991	E		
5.2 Plants	Juncaginaceae-Arrow-grass Family	Common Arrow-grass	<i>Triglochin maritima</i>	L.	02-16-2011	E		
5.2 Plants	Lamiaceae-Mint Family	Yellow Giant Hyssop	<i>Agastache nepetoides</i>	(L.) Kuntze	04-13-1987	T		
5.2 Plants	Lamiaceae-Mint Family	Purple Giant Hyssop	<i>Agastache scrophulariifolia</i>	(Willd.) Kuntze	04-13-1987	T		
5.2 Plants	Lamiaceae-Mint Family	Smooth Wood-mint	<i>Blephilia hirsuta</i> var. <i>glabrata</i>	Fern.	04-13-1987	T	<i>Blephilia hirsuta</i> (Pursh.) Benth.	
5.2 Plants	Lamiaceae-Mint Family	Hairy Wood-mint	<i>Blephilia hirsuta</i> var. <i>hirsuta</i>	(Pursh) Benth.	04-13-1987	T	<i>Blephilia hirsuta</i> (Pursh.) Benth.	
5.2 Plants	Lamiaceae-Mint Family	American Dragonhead	<i>Dracocephalum parviflorum</i>	Nutt.	04-13-1987	T		
5.2 Plants	Lamiaceae-Mint Family	Obedient Plant	<i>Physostegia virginiana</i> ssp. <i>virginiana</i>	(L.) Benth.	04-13-1987	T	<i>Physostegia virginiana</i> (L.) Benth.	
5.2 Plants	Lamiaceae-Mint Family	Hoary Mountain-mint	<i>Pycnanthemum incanum</i> var. <i>incanum</i>	(L.) Michx.	11-09-1991	E	<i>Pycnanthemum incanum</i> (L.) Michx.	
5.2 Plants	Lentibulariaceae-Bladderwort Family	Northeastern Bladderwort	<i>Utricularia resupinata</i>	B.D. Greene ex Bigelow	04-13-1987	T		
5.2 Plants	Liliaceae-Lily Family	Wild Garlic	<i>Allium canadense</i> var. <i>canadense</i>	L.	04-13-1987	T	<i>Allium canadense</i> L.	
5.2 Plants	Liliaceae-Lily Family	White Camas	<i>Anticlea elegans</i> ssp. <i>glauca</i>	(Nutt.) A. Haines	11-15-2012	E	<i>Anticlea glauca</i> (Nutt.) Kunth	
5.2 Plants	Lygodiaceae-Climbing Fern Family	Climbing Fern	<i>Lygodium palmatum</i>	(Bernh.) Sw.	04-13-1987	E		
5.2 Plants	Magnoliaceae-Magnolia Family	Tulip Tree	<i>Liriodendron tulipifera</i>	L.	03-28-2015	E		
5.2 Plants	Melastomataceae-Melastome Family	Virginia Meadow-beauty	<i>Rhexia virginica</i>	L.	04-13-1987	T		
5.2 Plants	Moraceae-Mulberry Family	Red Mulberry	<i>Morus rubra</i>	L.	04-13-1987	T		
5.2 Plants	Nymphaeaceae-Water-lily Family	Dwarf Water-lily	<i>Nymphaea leibergii</i>	Morong	04-23-2005	E		
5.2 Plants	Onagraceae-Evening-primrose Family	Many-fruited False-loosestrife	<i>Ludwigia polycarpa</i>	Short & Peter	04-13-1987	E		
5.2 Plants	Ophioglossaceae-Adder's-tongue Family	Mingan Moonwort	<i>Botrychium minganense</i>	Victorin	02-16-2011	E		



Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Orchidaceae-Orchid Family	Putty-root	Aplectrum hyemale	(Muhl. ex Willd.) Nutt.-Torr.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Arethusa	Arethusa bulbosa	L.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Fairy Slipper	Calypso bulbosa var. americana	(R. Br. ex Ait. f.) Luer	04-13-1987	T	Calypso bulbosa (L.) Oakes	
5.2 Plants	Orchidaceae-Orchid Family	Autumn Coral-root	Corallorhiza odontorhiza var. odontorhiza	(Willd.) Nutt.	04-13-1987	T	Corallorhiza odontorhiza (Willd.) Nutt.	
5.2 Plants	Orchidaceae-Orchid Family	Ram's Head Lady's-slipper	Cypripedium arietinum	Ait. f.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Small Whorled Pogonia	Isotria medeoloides	(Pursh) Raf.	11-09-1991	E		
5.2 Plants	Orchidaceae-Orchid Family	Large Whorled Pogonia	Isotria verticillata	Raf.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Lily-leaved Twayblade	Liparis liliifolia	(L.) L.C. Rich. ex Ker-Gawl.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	White Adder's-mouth	Malaxis monophyllos var. brachypoda	(Gray) F. Morris & Eames	04-13-1987	T	Malaxis brachypoda (A. Gray) Fern.	
5.2 Plants	Orchidaceae-Orchid Family	Auricled Twayblade	Neottia auriculata	(Wiegand) Szlachetko	04-13-1987	E	Listera auriculata Wieg.	
5.2 Plants	Orchidaceae-Orchid Family	Southern Twayblade	Neottia bifolia	(Raf.) Baumbach	04-13-1987	E	Listera australis Lindl.	
5.2 Plants	Orchidaceae-Orchid Family	Tuberclad Orchid	Platanthera flava var. herbiola	(R. Br. ex Ait. f.) Luer	04-13-1987	T	Platanthera flava (L.) Lindl.	
5.2 Plants	Orchidaceae-Orchid Family	Hooker's Orchid	Platanthera hookeri	(Torr. ex Gray) Lindl.	04-13-1987	T		
5.2 Plants	Orchidaceae-Orchid Family	Three-bird Orchid	Triphora trianthophora ssp. trianthophoros	(Sw.) Rydb.	04-13-1987	T	Triphora trianthophora (Sw.) Rydb.	
5.2 Plants	Orobanchaceae-Cancer-root Family	Pale Painted-cup	Castilleja septentrionalis	Lindl.	04-13-1987	T		
5.2 Plants	Papaveraceae-Poppy Family	Golden Corydalis	Corydalis aurea	Willd.	04-13-1987	T		
5.2 Plants	Pinaceae-Pine Family	Jack Pine	Pinus banksiana	Lamb.	04-13-1987	T		
5.2 Plants	Plantaginaceae-Plantain Family	Mare's-tail	Hippuris vulgaris	L.	11-09-1991	E		
5.2 Plants	Plantaginaceae-Plantain Family	Culver's-root	Veronicastrum virginicum	(L.) Farw.	04-13-1987	E		
5.2 Plants	Poaceae-Grass Family	Champlain Beach Grass	Ammophila breviligulata ssp. champlainensis	(Seymour) P.J. Walker, C.A. Paris & Barrington ex Barkworth	04-13-1987	E	Ammophila champlainensis Seymour	

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Poaceae-Grass Family	Alpine Sweet-grass	Anthoxanthum monticola ssp. monticola	(Bigelow) Veldkamp	04-13-1987	T	Hierochloa alpina (Swartz) R. & S. ; Anthoxanthum monticola (Bigelow) Veldkamp	
5.2 Plants	Poaceae-Grass Family	Pickering's Reed-grass	Calamagrostis pickeringii	Gray	02-16-2011	E		
5.2 Plants	Poaceae-Grass Family	Bentgrass	Calamagrostis stricta ssp. inexpansa	(Gray) C.W. Greene	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Sharp Manna-grass	Glyceria acutiflora	Torr.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Stiff Witch-grass	Panicum flexile	(Gattinger) Scribn.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Slender Mountain-rice	Piptatheropsis pungens	(Torr.) Romasch., P.M. Peterson & Soreng	11-09-1991	T	Oryzopsis pungens (Torr.) Hitchc.; Piptatherum pungens (Torr ex Spreng.) Dorn	
5.2 Plants	Poaceae-Grass Family	Shiny Wedgegrass	Sphenopholis nitida	(Biehler) Scribn.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Blunt Sphenopholis	Sphenopholis obtusata	(Michx.) Scribn.	11-09-1991	E		
5.2 Plants	Poaceae-Grass Family	Rough Dropseed	Sporobolus compositus var. compositus	(Poir.) Merr.	04-13-1987	E	Sporobolus compositus (Poir.) Merr.; Sporobolus asper (Michx.) Kunth	
5.2 Plants	Poaceae-Grass Family	Eight-flowered Fescue	Vulpia octoflora var. tenella	(Willd.) Fern.	11-09-1991	E	Vulpia octoflora (Walt.) Rydb.	
5.2 Plants	Polemoniaceae-Phlox Family	Eastern Jacob's Ladder	Polemonium vanbruntiae	Britt.	04-13-1987	T		
5.2 Plants	Polygonaceae-Buckwheat Family	Douglas' Knotweed	Polygonum douglasii	Greene	11-09-1991	E		
5.2 Plants	Primulaceae-Primrose Family	Bird's-eye Primrose	Primula mistassinica	Michx.	04-13-1987	T		
5.2 Plants	Pteridaceae-Maidenhair-fern Family	Green Mountain Maidenhair-fern	Adiantum viridimontanum	Paris	12-07-1994	T		
5.2 Plants	Ranunculaceae-Buttercup Family	Early Thimbleweed	Anemone multifida var. multifida	Poir.	04-13-1987	E	Anemone multifida Poir.	
5.2 Plants	Ranunculaceae-Buttercup Family	Golden-seal	Hydrastis canadensis	L.	04-13-1987	E		
5.2 Plants	Ranunculaceae-Buttercup Family	Allegheny Crowfoot	Ranunculus allegheniensis	Britt.	11-09-1991	T		
5.2 Plants	Ranunculaceae-Buttercup Family	Rue-anemone	Thalictrum thalictroides	(L.) Eames & Boivin	XX-XX-XXXX	E		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.2 Plants	Rhamnaceae-Buckthorn Family	Prairie Redroot	Ceanothus herbaceus	Raf.	04-13-1987	E		
5.2 Plants	Rosaceae-Rose Family	Northern Cinquefoil	Potentilla litoralis	Rydb.	11-09-1991	E	Potentilla pensylvanica var. bipinnatifida (Douglas) T. & G.	
5.2 Plants	Rosaceae-Rose Family	Wild Plum	Prunus americana	Marsh.	04-13-1987	T		
5.2 Plants	Rosaceae-Rose Family	Susquehanna Sand Cherry	Prunus susquehanae	hort. ex Willd.	11-15-2012	E		
5.2 Plants	Rosaceae-Rose Family	Needle-spine Rose	Rosa acicularis ssp. sayi	(Schwein.) W.H. Lewis	11-09-1991	E	Rosa acicularis Lindl.	
5.2 Plants	Rubiaceae-Madder Family	Bog Bedstraw	Galium labradoricum	(Wieg.) Wieg.	04-13-1987	T		
5.2 Plants	Salicaceae-Willow Family	Tea-leaved Willow	Salix planifolia ssp. planifolia	Pursh	04-13-1987	T	Salix planifolia Pursh	
5.2 Plants	Salicaceae-Willow Family	Bearberry Willow	Salix uva-ursi	Pursh	04-13-1987	E		
5.2 Plants	Scheuchzeriaceae-Scheuchzeria Family	Pod-grass	Scheuchzeria palustris	L.	04-13-1987	T		
5.2 Plants	Sparganiaceae-Bur-reed Family	Lesser Bur-reed	Sparganium natans	L.	11-09-1991	T		
5.2 Plants	Sphagnaceae-Sphagnum Family	A Peatmoss	Sphagnum subfulvum	Sjors	06-23-1989	E	Sphagnum nitidum Warnstorff	
5.2 Plants	Tofieldiaceae-False Asphodel Family	Sticky False-asphodel	Triantha glutinosa	(Michx.) Baker	04-13-1987	T	Tofieldia glutinosa (Michx.) Baker	
5.2 Plants	Ulmaceae-Elm Family	Cork Elm (Rock Elm)	Ulmus thomasii	Sarg.	02-16-2011	T		
5.2 Plants	Valerianaceae-Valerian Family	Marsh Valerian	Valeriana uliginosa	(Torr. & Gray) Rydb.	04-13-1987	E		
5.2 Plants	Violaceae-Violet Family	Lance-leaved Violet	Viola lanceolata ssp. lanceolata	L.	04-13-1987	T	Viola lanceolata L.	
5.2 Plants	Xyridaceae-Yellow-eyed-grass Family	Northern Yellow-eyed-grass	Xyris montana	Ries	04-13-1987	T		
5.3 Amphipods	Crangonyctidae-A Gammarid Amphipod Family	Taconic Cave Amphipod	Stygobromus borealis		12-07-1994	E		
5.4.1 Insects	Apidae-Bee Family	Rusty-patched Bumble Bee	Bombus affinis		03-28-2015	E		
5.4.1 Insects	Apidae-Bee Family	Ashton Cuckoo Bumble Bee	Bombus ashtoni		03-28-2015	E		
5.4.1 Insects	Apidae-Bee Family	American Bumble Bee	Bombus pensylvanicus		XX-XX-XXXX	E		
5.4.1 Insects	Apidae-Bee Family	Yellow-banded Bumble Bee	Bombus terricola		03-28-2015	T		
5.4.4 Insects	Carabidae-Ground Beetle Family	Hairy-necked Tiger Beetle	Cicindela hirticollis		12-07-1994	T		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.4.4 Insects	Carabidae-Ground Beetle Family	Cobblestone Tiger Beetle	Cicindela marginipennis		04-13-1987	T		
5.4.4 Insects	Carabidae-Ground Beetle Family	Puritan Tiger Beetle	Ellipsoptera puritana		12-07-1994	T	Cicindela puritana	As of the effective date of this rule, the U.S. Fish & Wildlife Service uses the name Cicindela puritana in its federal Endangered Species list; the two names are synonymous.
5.5 Mollusks	Margaritiferidae-Pearl Mussel Family	Eastern Pearlshell	Margaritifera margaritifera		12-07-1994	T		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Dwarf Wedgemussel	Alasmidonta heterodon		11-09-1991	E		Listed as Threatened on 04-13-1987.
5.5 Mollusks	Unionidae-Unionid Mussel Family	Brook Floater	Alasmidonta varicosa		XX-XX-XXXX	E		Listed as Threatened on 12-07-1994.
5.5 Mollusks	Unionidae-Unionid Mussel Family	Cylindrical Papershell	Anodontoides ferussacianus		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Pocketbook	Lampsilis ovata		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Flutedshell	Lasmigona costata		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Fragile Papershell	Leptodea fragilis		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Black Sandshell	Ligumia recta		03-18-1999	E		Listed as Threatened on 12-07-1994.
5.5 Mollusks	Unionidae-Unionid Mussel Family	Pink Heelsplitter	Potamilus alatus		03-18-1999	E		
5.5 Mollusks	Unionidae-Unionid Mussel Family	Giant Floater	Pyganodon grandis		03-18-1999	T		
5.6 Fish	Acipenseridae-Sturgeon Family	Lake Sturgeon	Acipenser fulvescens		04-13-1987	E		
5.6 Fish	Ictaluridae-North American Freshwater Catfish Family	Stonecat	Noturus flavus		12-07-1994	E		
5.6 Fish	Percidae-Perch Family	Eastern Sand Darter	Ammocrypta pellucida		04-13-1987	T		
5.6 Fish	Percidae-Perch Family	Channel Darter	Percina copelandi		03-18-1999	E		

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.6 Fish	Petromyzontidae-Lamprey Family	Northern Brook Lamprey	Ichthyomyzon fossor		11-09-1991	E		Listed as Threatened on 04-13-1987.
5.6 Fish	Petromyzontidae-Lamprey Family	American Brook Lamprey	Lethenteron appendix		04-13-1987	T	Lampetra appendix	
5.7 Amphibians	Bufoidea-Toad Family	Fowler's Toad	Anaxyrus fowleri		03-28-2015	E		
5.7 Amphibians	Hylidae-New World Tree Frog Family	Boreal Chorus Frog	Pseudacris maculata		11-15-2012	E		
5.8 Reptiles	Colubridae-Colubrid Snake Family	North American Racer	Coluber constrictor		04-23-2005	T		
5.8 Reptiles	Colubridae-Colubrid Snake Family	Eastern Ratsnake	Pantherophis alleghaniensis		04-23-2005	T	Elaphe obsoleta	
5.8 Reptiles	Emydidae-Box Turtle and Pond Turtle Family	Spotted Turtle	Clemmys guttata		03-18-1999	E		Listed as Threatened on 06-23-1989.
5.8 Reptiles	Scincidae-Skink Family	Common Five-lined Skink	Plestiodon fasciatus		04-13-1987	E	Eumeces fasciatus	
5.8 Reptiles	Trionychidae-Softshell Turtle Family	Spiny Softshell	Apalone spinifera		04-13-1987	T		
5.8 Reptiles	Viperidae-Viper and Pit Viper Family	Timber Rattlesnake	Crotalus horridus		04-13-1987	E		
5.9 Birds	Caprimulgidae-Nightjar Family	Eastern Whip-poor-will	Antrostomus vociferus		11-15-2012	T	Caprimulgus vociferus	
5.9 Birds	Caprimulgidae-Nightjar Family	Common Nighthawk	Chordeiles minor		11-15-2012	E		
5.9 Birds	Icteridae-Blackbird Family	Rusty Blackbird	Euphagus carolinus		03-28-2015	E		
5.9 Birds	Icteridae-Blackbird Family	Eastern Meadowlark	Sturnella magna		XX-XX-XXXX	T		
5.9 Birds	Laniidae-Shrike Family	Loggerhead Shrike	Lanius ludovicianus		04-13-1987	E		
5.9 Birds	Laridae-Gull and Tern Family	Black Tern	Chlidonias niger		04-23-2005	E		Listed as Threatened on 12-07-1994.
5.9 Birds	Laridae-Gull and Tern Family	Common Tern	Sterna hirundo		07-30-1988	E		Listed as Threatened on 04-13-1987.
5.9 Birds	Passerellidae-New World Sparrow Family	Henslow's Sparrow	Centronyx henslowii		04-13-1987	E	Ammodramus henslowii	

Group	Family	EnglishName	ScientificName	Author	DateListed	Status	sedListedAs	Notes
5.9 Birds	Passerellidae-New World Sparrow Family	Grasshopper Sparrow	Ammodramus savannarum		03-18-1999	T		
5.9 Birds	Phasianidae-Turkey, Grouse, Pheasant and Partridge Family	Spruce Grouse	Canachites canadensis	Falcipennis canadensis	07-30-1988	E		
5.9 Birds	Scolopacidae-Sandpiper, Snipe and Relatives Family	Upland Sandpiper	Bartramia longicauda		04-23-2005	E		Listed as Threatened on 04-13-1987.
5.9 Birds	Troglodytidae-Wren Family	Sedge Wren	Cistothorus stellaris		03-18-1999	E	Cistothorus platensis	Listed as Threatened on 04-13-1987.
5.10 Mammals	Felidae-Cat Family	Canadian Lynx	Lynx canadensis		04-13-1987	E		
5.10 Mammals	Felidae-Cat Family	Eastern Mountain Lion	Puma concolor cougar		04-13-1987	E	Felis concolor cougar	
5.10 Mammals	Mustelidae-Weasel Family	American Marten	Martes americana		04-13-1987	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Eastern Small-footed Bat	Myotis leibii		04-13-1987	T		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Little Brown Bat	Myotis lucifugus		07-15-2011	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Northern Long-eared Bat	Myotis septentrionalis		07-15-2011	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Indiana Bat	Myotis sodalis		04-13-1987	E		
5.10 Mammals	Vespertilionidae-Evening Bat and Vesper Bat Family	Tri-colored Bat	Perimyotis subflavus		11-15-2012	E		

# The Vermont Statutes Online

## Title 10 : Conservation And Development

### Chapter 123 : Protection Of Endangered Species

(Cite as: 10 V.S.A. § 5402)

#### § 5402. Endangered and threatened species lists

(a) The Secretary shall adopt by rule a State endangered species list and a State threatened species list. The listing for any species may apply to the whole State or to any part of the State and shall identify the species by its most recently accepted genus and species names and, if available, the common name.

(b) The Secretary shall determine a species to be endangered if it normally occurs in the State and its continued existence as a sustainable component of the State's wildlife or wild plants is in jeopardy.

(c) The Secretary shall determine a species to be threatened if:

- (1) it is a sustainable component of the State's wildlife or wild plants;
- (2) it is reasonable to conclude based on available information that its numbers are declining; and
- (3) unless protected, it will become an endangered species.

(d) In determining whether a species is threatened or endangered, the Secretary shall consider:

- (1) the present or threatened destruction, degradation, fragmentation, modification, or curtailment of the range or habitat of the species;
- (2) any killing, harming, or over-utilization of the species for commercial, sporting, scientific, educational, or other purposes;
- (3) disease or predation affecting the species;
- (4) the adequacy of existing regulation;
- (5) actions relating to the species carried out or about to be carried out by any governmental agency or any other person who may affect the species;
- (6) competition with other species, including nonnative invasive species;
- (7) the decline in the population;
- (8) cumulative impacts; and

(9) other natural or human-made factors affecting the continued existence of the species.

(e) In determining whether a species is threatened or endangered or whether to delist a species, the Secretary shall:

(1) use the best scientific, commercial, and other data available;

(2) at least 30 days prior to commencement of rulemaking, notify and consult with appropriate officials in Canada, appropriate State and federal agencies, other states having a common interest in the species, affected landowners, and any interested persons; and

(3) notify the appropriate officials and agencies of Quebec or any state contiguous to Vermont in which the species affected is known to occur. (Added 1981, No. 188 (Adj. Sess.), § 2; amended 2015, No. 145 (Adj. Sess.), § 20.)



## VERMONT GENERAL ASSEMBLY

# The Vermont Statutes Online

## Title 10 : Conservation And Development

### Chapter 123 : Protection Of Endangered Species

(Cite as: 10 V.S.A. § 5402a)

#### § 5402a. Critical habitat; listing

(a) Except as provided for under subsection (f) of this section, the Secretary may, after the consultation required under subsection 5408(e) of this section, adopt or amend by rule a critical habitat designation list for threatened or endangered species. Critical habitat may be designated in any part of the State. The Secretary shall not be required to designate critical habitat for every State-listed threatened or endangered species. When the Secretary designates critical habitat, the Secretary shall identify the species for which the designation is made, including its most recently accepted genus and species names and, if available, its common name.

(b) The Secretary shall designate only critical habitat that meets the definition of "critical habitat" under this chapter. In determining whether and where to designate critical habitat for a State-listed threatened or endangered species, the Secretary shall, after consultation with and consideration of recommendations of the Secretary of Agriculture, Food and Markets, the Secretary of Transportation, the Secretary of Commerce and Community Development, and the Commissioner of Forests, Parks and Recreation, consider the following:

- (1) the current or historic use of the habitat by the listed species;
- (2) the extent to which the habitat is decisive to the survival and recovery of the listed species at any stage of its life cycle;
- (3) the space necessary for individual and population growth of the listed species;
- (4) food, water, air, light, minerals, or other nutritional or physiological requirements of the listed species;
- (5) cover or shelter for the listed species;
- (6) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; migration corridors; and overwintering;
- (7) the present or threatened destruction, degradation, fragmentation, modification, or curtailment of the range or habitat of the listed species;
- (8) the adequacy of existing regulation;

(9) actions relating to the listed species carried out or about to be carried out by any governmental agency or any other person that may affect the listed species;

(10) cumulative impacts; and

(11) natural or human-made factors affecting the continued existence of the listed species.

(c) In determining whether to designate critical habitat for a State-listed threatened or endangered species, the Secretary shall:

(1) use the best scientific, commercial, and other data available;

(2) notify and consult with appropriate officials in Canada, appropriate State and federal agencies, other states having a common interest in the species, affected landowners, any municipality where the proposed designation is located, and any interested persons at least 60 days prior to commencement of rulemaking;

(3) notify the appropriate officials and agencies of Quebec and any state contiguous to Vermont in which the species affected is known to occur; and

(4) if a critical habitat designation is proposed in a growth center, new town center, or neighborhood development area designated under 24 V.S.A. chapter 76A, notify the Secretary of Commerce and Community Development and any municipality in which the designation is proposed.

(d) Prior to initiating rulemaking under this section to designate critical habitat, the Secretary shall notify the owner of record of any land on which critical habitat is proposed for designation. The Secretary shall make all reasonable efforts to work cooperatively with affected landowners.

(e) Where appropriate, the Secretary shall include well-established mitigation practices and best management practices in the critical habitat designation rule.

(f) The Secretary shall not designate critical habitat in a designated downtown or village center, designated under 24 V.S.A. chapter 76A. (Added 2015, No. 145 (Adj. Sess.), § 21.)

## VERMONT GENERAL ASSEMBLY

# The Vermont Statutes Online

## Title 10 : Conservation And Development

### Chapter 123 : Protection Of Endangered Species

(Cite as: 10 V.S.A. § 5403)

#### § 5403. Protection of endangered and threatened species

(a) Except as authorized under this chapter, a person shall not:

(1) take, possess, or transport wildlife or wild plants that are members of a threatened or endangered species; or

(2) destroy or adversely impact critical habitat.

(b) Any person who takes a threatened or endangered species shall report the taking to the Secretary.

(c) The Secretary may, with advice of the Endangered Species Committee and after the consultation required under subsection 5408(e) of this section, adopt rules for the protection, conservation, or recovery of endangered and threatened species. The rules may establish application requirements for an individual permit or general permits issued under this section, including requirements that differ from the requirements of subsection 5408(h) of this title.

(d) The Secretary may bring an environmental enforcement action against any person who violates subsection (a) or (b) of this section or rules adopted under this chapter in accordance with chapters 201 and 211 of this title.

(e) Instead of bringing an environmental enforcement action for a violation of this chapter or rules adopted under this chapter, the Secretary may refer violations of this chapter to the Commissioner of Fish and Wildlife for criminal enforcement.

(f) In a criminal enforcement action, a person who knowingly violates a requirement of this chapter or a rule of the Secretary adopted under subsection (c) of this section related to taking, possessing, transporting, buying, or selling a threatened or endangered species shall be fined in accordance with section 4518 of this title, and the person shall pay restitution under section 4514 of this title.

(g) Any person who violates subsection (a) or (b) of this section by knowingly injuring a member of a threatened or endangered species or knowingly destroying or adversely impacting critical habitat and who is subject to criminal prosecution may be required by the court to pay restitution for:

(1) actual costs and related expenses incurred in treating and caring for the injured

plant or animal to the person incurring these expenses, including the costs of veterinarian services and Agency of Natural Resources staff time; or

(2) reasonable mitigation and restoration costs such as species restoration plans; habitat protection; and enhancement, transplanting, cultivation, and propagation. (Added 1981, No. 188 (Adj. Sess.), § 2; amended 1985, No. 192 (Adj. Sess.), § 2; 1987, No. 216 (Adj. Sess.); 2015, No. 61, § 8, eff. June 17, 2015; 2015, No. 145 (Adj. Sess.), § 22.)



# Proposed Rules Postings

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### Deadline For Public Comment

Deadline: Oct 13, 2021

The deadline for public comment has expired. Contact the agency or primary contact person listed below for assistance.

### Rule Details

Rule Number:	21P028
Title:	10 Appendix V.S.A. § 10. Vermont endangered and threatened species rule.
Type:	Standard
Status:	Final Proposed
Agency:	Agency of Natural Resources
Legal Authority:	10 V.S.A. §§ 5402, 5402a, and 5403
Summary:	The purpose of the rule is to identify and protect threatened and endangered (T&E) species in Vermont. This amended rule proposes the following: changing the designation of a mussel, the Brook Floater from threatened to endangered; listing a

grassland bird, the Eastern Meadowlark as a threatened species; listing a plant Rue Anemone (*Thalictrum thalictroides* L.) as endangered; listing the American bumble bee (one of many species of bees in Vermont) as endangered; listing a plant, Houghton's sedge (*Carex houghtoniana* Torr. ex Dewey) as endangered; designating critical habitat for threatened and endangered bats, a shoreland bird, the Common Tern, and the Spiny Softshell Turtle; and delist the Bald Eagle and the plant, Canada Black Snakeroot (*Sanicula canadensis* L. var. *canadensis*). All of these species are listed as T&E in Vermont and are not listed under federal law. In addition, the rule is amended to conform with statutory changes that occurred since the rule was last promulgated.

**Persons Affected:**

Landowners, farmers and agricultural organizations such as, Rural Vermont and the Vermont Farm Bureau, foresters, state agencies such as VTrans, AAFM, ACCD, FPR, and VHD; public utilities, electric generation developers, businesses and individuals who engage in development, academic and nonprofit environmental organizations, and Fish and Wildlife Department (Department) staff and law enforcement.

**Economic Impact:**


T&E listings do on occasion have real economic impacts on landowners and businesses that own land where such species are located, especially when engaged in development or other activities which may harm a T&E species. While these impacts are very rare, the presence of a T&E species may result in adjustments to development to ensure that any impacts are minimized or avoided.

**Posting date:**

Sep 01,2021

## Hearing Information

### Information for Hearing # 1

Hearing date: 10-05-2021 6:30 PM 

Location: Pavilion Auditorium

Address: 109 State Street

City: Montpelier

State: VT

Zip: 05609

Hearing Notes:

## Contact Information

### Information for Primary Contact

**PRIMARY CONTACT PERSON** - A PERSON WHO IS ABLE TO ANSWER QUESTIONS ABOUT THE CONTENT OF THE RULE.

Level: Primary  
Name: Catherine J. Gessing  
Agency: Department of Fish and Wildlife, Agency of Natural Resources  
Address: 1 National Life Drive, Davis 2  
City: Montpelier  
State: VT  
Zip: 05620-3702  
Telephone: 802-595-3331  
Fax: 802-828-1250  
Email: [catherine.gessing@vermont.gov](mailto:catherine.gessing@vermont.gov)

[SEND A COMMENT](#)

Website: <https://vtfishandwildlife.com/conservation/endangered-and-threatened-species>  
Address: [CONTACT INFO](#)

### Information for Secondary Contact

**SECONDARY CONTACT PERSON** - A SPECIFIC PERSON FROM WHOM COPIES OF FILINGS MAY BE REQUESTED OR WHO MAY ANSWER QUESTIONS ABOUT FILINGS SUBMITTED FOR FILING IF DIFFERENT FROM THE PRIMARY CONTACT PERSON.

Level: Secondary  
Name: Mark Scott  
Agency: Department of Fish and Wildlife, Agency of Natural Resources  
Address: 1 National Life Drive, Davis 2  
City: Montpelier  
State: VT  
Zip: 05620-3702  
Telephone: 802-777-4217  
Fax: 802-828-1250  
Email: [mark.scott@state.vt.us](mailto:mark.scott@state.vt.us)

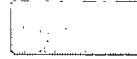
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## Keyword Information

Keywords:

critical habitat

threatened  
endangered  
species  
list  
delist



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The Islander ( <a href="mailto:islander@vermontislander.com">islander@vermontislander.com</a> )	Tel: 802-372-5600 FAX: 802-372-3025
Vermont Lawyer ( <a href="mailto:hunter.press.vermont@gmail.com">hunter.press.vermont@gmail.com</a> )	Attn: Will Hunter

**FROM:** APA Coordinator, VSARA

**Date of Fax:** August 30, 2021

**RE:** The "Proposed State Rules " ad copy to run on

**September 9, 2021**

**PAGES INCLUDING THIS COVER MEMO:**

**3**

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## PROPOSED STATE RULES

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By law, public notice of proposed rules must be given by publication in newspapers of record. The purpose of these notices is to give the public a chance to respond to the proposals. The public notices for administrative rules are now also available online at <https://secure.vermont.gov/SOS/rules/>. The law requires an agency to hold a public hearing on a proposed rule, if requested to do so in writing by 25 persons or an association having at least 25 members.

To make special arrangements for individuals with disabilities or special needs please call or write the contact person listed below as soon as possible.

To obtain further information concerning any scheduled hearing(s), obtain copies of proposed rule(s) or submit comments regarding proposed rule(s), please call or write the contact person listed below. You may also submit comments in writing to the Legislative Committee on Administrative Rules, State House, Montpelier, Vermont 05602 (802-828-2231).

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### 10 Appendix V.S.A. § 10. Vermont endangered and threatened species rule.

Vermont Proposed Rule: 21P028

AGENCY: Agency of Natural Resources

CONCISE SUMMARY: The purpose of the rule is to identify and protect threatened and endangered (T&E) species in Vermont. This amended rule proposes the following: changing the designation of a mussel, the Brook Floater from threatened to endangered; listing a grassland bird, the Eastern Meadowlark as a threatened species; listing a plant Rue Anemone (*Thalictrum thalictroides* L.) as endangered; listing the American bumble bee (one of many species of bees in Vermont) as endangered; listing a plant, Houghton's sedge (*Carex houghtoniana* Torr. ex Dewey) as endangered; designating critical habitat for threatened and endangered bats, a shoreland bird, the Common Tern, and the Spiny Softshell Turtle; and delist the Bald Eagle and the plant, Canada Black Snakeroot (*Sanicula canadensis* L. var. *canadensis*). All of these species are listed as T&E in Vermont and are not listed under federal law. In addition, the rule is amended to conform with statutory changes that occurred since the rule was last promulgated.

FOR FURTHER INFORMATION, CONTACT: Catherine Gjessing Vermont Fish and Wildlife Department 1 National Life Drive, Davis 2, Montpelier, VT 05620-3208 Tel: 802-595-3331 Fax: 802-828-1250 Email: [catherine.gjessing@vermont.gov](mailto:catherine.gjessing@vermont.gov) URL: <https://vtfishandwildlife.com/conservation/endangered-and-threatened-species>.

FOR COPIES: Mark Scott Vermont Fish and Wildlife Department 1 National Life Drive, Davis 2, Montpelier, VT 05620-3702 Tel: 802-777-4217 Fax: 802-828-1250 Email: [mark.scott@vermont.gov](mailto:mark.scott@vermont.gov).

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### Rule No. S-2016-01, Vermont Securities Regulations (Revised 2021).

Vermont Proposed Rule: 21P029

AGENCY: Department of Financial Regulation

CONCISE SUMMARY: The proposed revisions amend the Vermont Securities Regulation to improve readability and internal consistency, and to ensure that it is drafted in a manner consistent with model laws and regulations promulgated by the North American Securities Administrators Association (NASAA), federal securities laws and regulations, and to the extent possible, with the laws and regulations of neighboring states. Substantive changes include: adopting the NASAA model rule requiring investment advisers to complete continuing education requirements annually, adopting part of the NASAA model rule requiring

investment advisers to adopt a code of ethics, requiring investment advisers to establish written policies/procedures to ensure protection of vulnerable adults from financial exploitation, and setting forth the procedures for allocating money from the Vermont Financial Services Education and Victim Restitution Special Fund established in 9 V.S.A. § 5616 (Fund) to the victims of securities violations in Vermont.

FOR FURTHER INFORMATION, CONTACT: Erin Moore, Department of Financial Regulation 89 Main Street, Montpelier, VT 05620-3101 Tel: 802-622-4198 Email: [erin.moore@vermont.gov](mailto:erin.moore@vermont.gov) URL: <https://dfr.vermont.gov/about-us/legal-general-counsel/proposed-rules-and-public-comment>.

FOR COPIES: William R. Carrigan, Department of Financial Regulation 89 Main Street, Montpelier, VT 05620-3101 Tel: 802-828-4858 Email: [william.carrigan@vermont.gov](mailto:william.carrigan@vermont.gov).

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#### Administrative Rules for Veterinarians.

Vermont Proposed Rule: 21P030

AGENCY: Secretary of State, Office of Professional Regulation

CONCISE SUMMARY: This rule adopts a definition of the Veterinarian Client Patient Relationship that is consistent with 26 V.S.A. § 2433 (Rules 1-12 & 8-3); provides for inspection (Rule 3-8); clarifies that the Board declines to require laws and rules exams (Rule 4-4); clarifies and interprets the consultation exemption (Rule 4-5); Clarifies and interprets the livestock management exemption (Rule 4-6); conforms lapsed license reinstatement to the uniform standard at 3 V.S.A. § 135 (Rule 5-4) simplifies CE requirements (Rule 6-1); imposes clear duties to self-report certain sentinel events, consistent with other recent OPR rule updates (Rule 7-1); incorporates disease-reporting requirements found in Titles 6 & 13 (Rule 7-2); sets distinct recordkeeping requirements for companion and non-companion animals (Rule 8-4); announces a clear delegation rule (Rule 8-8); sets a clear rule on alternative therapies (Rule 8-9); and facilitates veterinarian participation in rabies clinics (Rule 8-11).

FOR FURTHER INFORMATION, CONTACT: Gabriel Gilman, Office of Professional Regulation, 89 Main St, Montpelier, VT 05620-3402 Tel: 802-828-2492 Email: [gabriel.gilman@vermont.gov](mailto:gabriel.gilman@vermont.gov) URL: <https://sos.vermont.gov/veterinary-medicine/statutes-rules-resources/>.

FOR COPIES: Jennifer Rotblatt, Office of Professional Regulation, 89 Main St, Montpelier, VT 05620-3402 Tel: 802-828-2191 Email: [jennifer.rotblatt@vermont.gov](mailto:jennifer.rotblatt@vermont.gov).

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