

# **Environmental Discovery Experience at Norris (EDEN) Schedule**

## **Day 1, Sunday, August 4, 2024**

Day one begins with the arrival and settling of Scouts participating in the EDEN Program. There are several week-long merit badge requirements that need to start on Sunday. A final decision on which campsite we will occupy has not been made (as of March 24<sup>th</sup>, 2024).

The following Day-by-Day schedules show which merit badges requirements are being covered on which days. These requirement placements provide the structure for the entire week. The discussion of each requirement is supported by the EDEN Curriculum Guide.

### **1:00 p.m.**

Scouts should arrive at 1:00 p.m. and move to their campsite. (We are in discussions with the Waterfront Director as to whether-or-not we need to do a swim test. It is our current plan to have swimming available as a later-afternoon activity.) EDEN Scouts will be placed in a Provisional Troop and that adult leadership may have information to put out. The entire week is full of activities, instruction, and self-discovery. We need to use time on Sunday to begin several week-long requirements.

### **2:00 p.m. Swim Test at Waterfront (if needed) (We have not made a final decision on this.)**

### **2:00 – 5:00 p.m. Merit Badge requirements**

There are three merit badge requirements that the Scouts should do between 2:00 and 5:00 pm. One requirement is from the *Fish and Wildlife Management* merit badge, one is from the *Weather* merit badge and one is from the *Bird Study* merit badge. We also have our first of six birdwalks scheduled with a focus on marsh and shoreline birds.

***Fish and Wildlife Merit Badge Requirement 7c: Examine the stomach contents of three fish and record the findings.***

***Weather Merit Badge Requirement 9a: Keep a daily log for one week using information from this instrument (one the Scouts will make) as well as from other sources such as local radio and television stations, NOAA Weather Radio All Hazards and internet sources (with your parent's permission). Record the following information at the same time every day: wind direction and speed, temperature, precipitation, and types of clouds. Be sure to make a note of any morning dew or frost. In the log, also list the weather forecasts from radio or television at the same time each day and show how the weather turned out. (Use the weekly log sheet provided by the Counselor.)***

***Bird Study Merit Badge Requirement 5a-d: Observe and be able to identify at least 20 species of wild birds. Prepare a field notebook, making a separate entry for each species and record the following information from your field observation and other references. A. Note the date and time; b. Note the location and habitat; c. Describe the bird's main feeding habitat and list two***

*types of food that bird is likely to eat; and d., Note whether the bird is a migrant, summer, winter or year-round resident of your area.*

**5:00-5:45 p.m.** Personal time; Buddy System in use

**5:45-6:00 p.m.** Flag Ceremony with NYLT

**6:00-7:00 p.m.** Evening Meal.

**7:00-9:00 p.m.** Nature Game and/or Appalachian Trail slideshow. Possible nature-related movie.

**9:00-10:00 p.m.** Personal time, personal hygiene and then lights out.

**End of Day 1**

# **Environmental Discovery Experience at Norris (EDEN) Schedule**

## **Day 2, Monday, August 5, 2024**

### ***“This Thing Called Nature.”***

On this first full day of the EDEN Program, we will envelope the Scouts with nature concepts and they will begin to develop a sense of place in the out-of-doors. We will focus on *Nature* and *Mammal* Study Merit Badges with some additional *Environmental Science* and *Bird Study* requirements covered as the material from those badges dovetails nicely with the other topics.

**6:00 a.m.** Wake-up and ready for the day

**6:30-6:40 a.m.** Assemble at the ECON Lodge for the first morning bird walk.

**6:40-7:30 a.m.** Conduct the birdwalk.

**7:30-7:45 a.m.** Return to campsite and get ready for the morning flag-raising ceremony.

**7:45-8:00 a.m.** Flag-raising ceremony and morning announcements.

**8:00 – 8:45 a.m.** Morning Meal (Clean-up duties shared with NYLT.)

**8:45-9:00 a.m.** Return to campsite and then the Econ Lodge.

**9:00-11:45 a.m.** Morning instruction, games and activities.

***Nature Merit Badge Requirement 1: Explain why plants are important to animals. Name a plant that is protected in your area.***

***Nature Merit Badge Requirement 2: Name three ways in which animals are important to plants. Name an animal that is protected in your state or region and explain why it is at risk.***

***Nature Merit Badge Requirement 3: Explain the term “Food Chain.” Give an example of a four-step food chain on land and a four-step food chain in water.***

***Nature Merit Badge Requirement 4: Do all the requirements for FIVE of the following fields: a. Birds 1 and 2; b. Mammals 1 and 2; c. Reptiles or Amphibians; d. Insects or Spiders 1 and 2; e. Fish 1 and 2; f. Mollusks and Crustaceans 1 and 2; Plants 1 and 2; h. Soils and Rocks 1 and 2.***

***b. Mammals***

- 1. In the field, identify three species of wild mammals.***
- 2. Make plaster casts of the tracks of a wild mammal.***

***c. Reptiles and Amphibians.***

- 1. Show that you can recognize the venomous snakes in your area.***
- 2. In the field, identify three species of reptiles or amphibians. Each 1. In the field, identify three species of wild mammals.***

***d. Insects and Spiders***

***1. Collect, identify either in the field or through photographs 10 species of Insects or Spiders***

***2. Hatch an insect from the pupa or cocoon; OR hatch adults from nymphs; OR keep larvae until they form pupae or cocoons; OR keep a colony of ants or bees through one season.***

***e. Fish***

***1. Identify two species of fish native to your area.***

***2. Collect four kinds of animal food eaten by fish in the wild.***

***h. Soils and Rocks***

***1. Collect and identify three different types of soil that represents soils high in sand, clay and humus.***

***2. Collect and identify five different types of rocks from your area. The Econ***

***Nature Merit Badge Requirement 5: Discuss the principle of Leave No Trace and how it relates to nature.***

***Environmental Science Merit Badge Requirement 3f3: Pollution, Prevention, Resource Recovery and Conservation. Perform an experiment on packing materials to find out which ones are biodegradable. Discuss your conclusions with your counselor.***

**11:45 a.m.-12:00 p.m.** Prepare for the Noon Meal

**12:00-1:00 p.m.** Noon Meal

**1:00-2:00p.m.** Siesta

**2:00-5:00 p.m.** Afternoon Instruction, games and activities

***Mammal Study Merit Badge Requirement 1: Explain the meaning of “animal,” “invertebrate,” “vertebrate” and “mammal.”***

***Mammal Study Merit Badge Requirement 2: Explain how the Animal Kingdom is classified. Explain where mammals fit in this classification of animals. Classify three mammals from phylum through species.***

***Mammal Study Merit Badge Requirement 3: Do ONE of the following: (We will do 3c): From study and reading, write a simple life history of one non-game mammal that lives in your area. Tell how this mammal lived before its habitat was affected in any way by humans. Tell how it reproduces, what it eats and its natural habitat. Describe its dependency upon plants and other***

*animals (including humans), and how they depend upon it. Describe how humans have benefitted from the mammal you have chosen and whether the mammal has benefitted from association with humankind.*

***Mammal Study Merit Badge Requirement 5: Working with your counselor, select and carry out one project that will influence the numbers of one or more mammals.***

***Bird Study Merit Badge Requirement 9a: Do ONE of the following: b. Build a birdbath and put it in an appropriate place.***

***Environmental Science Merit Badge Requirement 4: Choose two outdoor study areas that are very different from one another (e.g., hilltop versus bottom of a hill; field versus forest; swamp versus dry land. For BOTH areas, do ONE of the following:***

***a. Mark off a plot of 4 square yards in each study area and count the number of species found there. Estimate how much space is occupied by each plant species and the type and number of non-plant species you find. Write a report that adequately discusses the biodiversity and population density of these study areas. Discuss your report with your counselor.***

**5:00-5:45 p.m.** Personal time; Buddy System in use

**5:45-6:00 p.m.** Flag Ceremony with NYLT

**6:00-7:00 p.m.** Evening Meal.

**7:00-9:00 p.m.**

***Mammal Study Merit Badge Requirement 4: Do ONE of the following: d. Make a bait and tracking pit. Report what mammals and other animals came to the bait.***

**9:00-10:00 p.m.** Personal time, personal hygiene and then lights out.

**End of Day 2**

# **Environmental Discovery Experience at Norris (EDEN) Schedule**

## **Day 3, Tuesday, August 6, 2024**

### ***“Why Environmental Science?”***

Human impact on the landscape of Vermont is the main focus today with the curriculum using the Environmental Science merit Badge as a bridge to several concepts. Nearly each requirement will force the participants to understand their role in making Vermont a better place. We will also develop strategies to mitigate additional future damage to our environment.

**6:00 a.m.** Wake-up and ready for the day

**6:30-6:40 a.m.** Assemble at the ECON Lodge for the first morning bird walk.

**6:40-7:30 a.m.** Conduct the birdwalk.

**7:30-7:45 a.m.** Return to campsite and get ready for the morning flag-raising ceremony.

**7:45-8:00 a.m.** Flag-raising ceremony and morning announcements.

**8:00 – 8:45 a.m.** Morning Meal (Clean-up duties shared with NYLT.)

**8:45-9:00 a.m.** Return to campsite and then the Econ Lodge.

**9:00-11:45 a.m.** Morning instruction, games and activities.

*Leave No Trace Discussion; Memory drill and Recap from the previous day.*

***Environmental Science Merit Badge Requirement 1: Make a timeline of the history of environmental science in America. Define the contribution made by the Boy Scouts of America to environmental science. Include dates, names of people or organizations and important events.***

***Environmental Science Merit Badge Requirement 2: Define the following: population, community, ecosystem, biosphere, symbiosis, niche, habitat, conservation, threatened species, endangered species, extinction, pollution prevention, brownfield, ozone, watershed, airshed, nonpoint source, hybrid vehicle and fuel cell.***

***Environmental Science Merit Badge Requirement 3: Do ONE activity in SEVEN of the following categories (using activities in the pamphlet as the basis for planning and carrying out your projects).*** (These seven are: a. Ecology; b. Air Pollution; c. Water Pollution; d. Land Pollution; e. Endangered Species; f. Pollution Prevention, Resource Recovery and Conservation; g. Pollination and h. Invasive Species.)

***Requirement 3a(3): Ecology: Discuss what an ecosystem is. Tell how it is maintained in nature and how it survives.***

***Requirement 3b (3) Air Pollution: Explain what is acid rain. In your explanation, tell how it affects plants and the environment and the steps society can take to help reduce its effects.***

**11:45 a.m. -12:00 p.m.** Prepare for the Noon Meal

**12:00-1:00 p.m.** Noon Meal

**1:00-2:00 p.m.** Siesta

**2:00-5:00 p.m.** Afternoon Instruction, games and activities

***Soil and Water Conservation Merit Badge Requirement 4a-4e: Do the following:***

- a. Explain what a watershed is.***
- b. Outline the smallest watershed that you can find on a contour map.***
- c. Then outline on your map, as far as possible, the next larger watershed which also has the smallest in it.***
- d. Explain what a river basin is. Tell why all people living in it should be concerned about land use in it.***
- e. Explain what an aquifer is and why it can be important to communities.***

***Requirement 3d (3) Land Pollution: Photograph an area affected by erosion. Share your photographs with your counselor and discuss why the area has eroded and what might be done to help alleviate the erosion.***

***Requirement 3e (1) Endangered Species. Do research on one endangered species found in your state. Find out what its natural habitat is and why it is endangered, what is being done to preserve it and how many individual organisms are left in the wild. Prepare a 100-word report about the organism, including a drawing. Present your report to your patrol or troop.***

***Requirement 3f (3) Pollution Prevention, Resource Recovery and Conservation: Perform and experiment on packaging materials to find out which ones are biodegradable. Discuss your conclusions with the counselor.***

***Requirement 3g (1) Pollination: Using photographs or illustrations point out the differences between a drone and a worker bee. Discuss the stages of bee development (eggs, larvae and pupae). Explain the pollination process and what propolis is and how it is used by honeybees. Tell how bees make honey and beeswax and how both are harvested. Explain the part played in the life of the hive by the Queen, the drones, and the workers.***

***Requirement 3h (2) Invasive Species: Do research on two invasive plant or animal species in your community or camp. Find out where the species originated, how they were transported to***

*the United States, their life history, how they spread and the recommended means to eradicate or control their spread. Report your research orally or in writing to your counselor.*

*Requirement 3h (3) Invasive Species: Take part in a project of at least one hour to eradicate or control the spread of an invasive plant species in your community.*

*Environmental Science Merit Badge Requirement 5: Identify the items that would be included in an environmental impact statement for a construction project such as a house, adding a new building to your Scout Camp or one you create on your own that is approved by your counselor.*

*Environmental Science Merit Badge Requirement 6: Find out about three career opportunities in environmental science. Pick one and explain how to prepare for such a career. Discuss with your counselor what education and training are required and explain why this profession might interest you.*

**5:00-5:45 p.m.** Personal time; Buddy System in use

**5:45-6:00 p.m.** Flag Ceremony with NYLT

**6:00-7:00 p.m.** Evening Meal.

**7:00-9:00 p.m.** Possible canoe trip out past our peninsula and then toward the State Boat Launch. This is the marshy area of Lake Eden and we increase our chances of seeing bird species such as Mallards, Red-winged Blackbirds, Great blue herons and Canada Geese. Rain cancels.

Optional Evening Activities include Late to the Sky's *Forest Animal-opoly* board game or Genius Game's *Ecosystem* board game.

**9:00-10:00 p.m.** Personal time, personal hygiene and then lights out.

**End of Day 3**

## **Environmental Discovery Experience at Norris (EDEN) Schedule Day 4, Wednesday, August 7, 2024**

### ***“How about that Weather & How about them Birds?”***

*Weather* and *Bird Study* merit badges are the focus of our discovery activities and classroom time. Weather has a huge effect on the Vermont Landscape and, with climate change, these effects will likely increase in frequency and severity. We will discuss the effect of so much water entering the Lake Eden watershed and the dramatic results we might observe.

The second half of the day we will take a close look at the one vertebrate family Scouts would most likely encounter at MNSR: birds. All EDEN participants will be encouraged to participate in the early-morning birdwalks. During the week we set up a series of birdfeeders near the ECON Lodge and attempt to lure different species. Since EDEN is during the first week of August it is likely that many songbirds will be raising a second brood of young. This may present us with an opportunity to see Robins, Phoebes and Barnswallows; all species that nest in or around our camp structures.

**6:00 a.m.** Wake-up and ready for the day

**6:30-6:40 a.m.** Assemble at the ECON Lodge for the first morning bird walk.

**6:40-7:30 a.m.** Conduct the birdwalk.

**7:30-7:45 a.m.** Return to campsite and get ready for the morning flag-raising ceremony.

**7:45-8:00 a.m.** Flag-raising ceremony and morning announcements.

**8:00 – 8:45 a.m.** Morning Meal (Clean-up duties shared with NYLT.)

**8:45-9:00 a.m.** Return to campsite and then the Econ Lodge.

**9:00-11:45 a.m.** Morning instruction, games and activities.

***Weather Merit Badge Requirement 1: Define meteorology. Explain what weather is and what climate is. Discuss how weather affects farmers, sailors, aviators, and the outdoor construction industry. Tell why weather forecasts are important to each of these groups.***

***Weather Merit Badge Requirement 2: Name five dangerous weather-related conditions. Give the safety rules for each when outdoors and explain the difference between a severe weather watch and warning.***

***Weather Merit Badge Requirement 3: Explain the difference between high and low pressure systems in the atmosphere. Tell which is related to good and to poor weather. Draw cross sections of a cold front and a warm front showing the location of the cold and warm air, the frontal slope, the location and types of clouds associated with each type of front and the location of precipitation.***

***Weather Merit Badge Requirement 4: Tell what causes wind, why it rains and how lightning and hail are formed.***

***Weather Merit Badge Requirement 5: Identify and describe clouds in the low, middle and upper levels of the atmosphere. Relate these to specific types of weather.***

***Weather Merit Badge Requirement 6: Draw a diagram of the water cycle and label its major processes. Explain the water cycle to your counselor.***

***Weather Merit Badge Requirement 7: Identify some human activities that can alter the environment and describe how they affect the climate and people.***

***Weather Merit Badge Requirement 8: Describe how the tilt of the Earth's axis helps determine the climate of a region near the equator, near the poles and across the area in between.***

***Weather Merit Badge Requirement 9: Do one of the following: a. Make one of the following instruments: 1. Wind Vane; 2. Anemometer; 3. Rain Gauge; or 4. Hygrometer.***

***Weather Merit Badge Requirement 10: Do ONE of the following: a. Give a talk of at least five minutes to a group explaining the outdoor safety rules in the event of lightning, flash floods and tornadoes. Before you talk, share your outline with your counselor. b. Read articles about Acid Rain and give a prepared talk of more than five minutes about the articles to your unit. Before your talk, show your outline to your counselor for approval.***

***Weather Merit Badge Requirement 11: Find out about a weather-related career opportunity that interests you. Discuss with and explain to your counselor what training and education are required for such a position and the responsibilities of such a position.***

**11:45 a.m.-12:00 p.m.** Prepare for the Noon Meal

**12:00-1:00 p.m.** Noon Meal

**1:00-2:00p.m.** Siesta

**2:00-5:00 p.m.** Afternoon Instruction, games and activities

Note: The afternoon session will concentrate on the Bird Study Merit Badge requirements. The curriculum for this section is informed by the Cornell Laboratory of Ornithology and its Cornell Nest Box Network Research Kit.

The EDEN Program has brought the *Bird Study* Merit Badge back after a very long absence. Birds are wonderful pieces of all those ecosystems to which they are part. We have many different bird species that call the Mt. Norris Scout Reservation home. The fields, forests and water habitats of our property present us with so many beautiful examples. Most of the birds found on the MNSR, however, would have completed their breeding by early August which could reduce the number of chances to see them as they search for food for their young.

***Bird Study Merit Badge Requirement 1: Explain the need for bird study and why birds are useful indicators of the quality of the environment. Describe how birds are part of the ecosystem.***

***Bird Study Merit Badge Requirement 2: Show that you are familiar with the term to describe birds by doing the following:***

- a. Sketch or trace a perched bird and then label 15 different parts of the bird.
- b. Sketch or trace an extended wing and label types of wing feathers.

***Bird Study Merit Badge Requirement 3: Demonstrate that you know how to properly use and care for binoculars, a spotting scope or monocular.***

- a. Explain what the specification numbers mean on binoculars, a spotting scope or a monocular.
- b. Show how to adjust the eyepiece and how to focus for proper viewing.
- c. Show how to properly care for and clean lenses.
- d. Describe when and where each type of viewing device would be the most effective.

***Bird Study Merit Badge Requirement 4: Demonstrate that you are able to understand a range map by locating in the book and pointing out the wintering range, the breeding range and/or the year-round range of one species of each of the following types of birds:***

- a. Petrel
- b. Plover
- Falcon or hawk
- d. Warbler or vireo
- e. Heron or egret
- f. Sparrow.

***Bird Study Merit Badge Requirement 5 is done during the six birdwalks.***

***Bird Study Merit Badge Requirement 6: Describe to your counselor how certain Orders of birds are uniquely adapted to a specific habitat. Describe a. beaks; b. body; c. legs/feet; d. feathers.***

**a. Beaks:**

**b. Body:**

**c. Legs & Feet:**

**d. Feathers:**

***Bird Study Merit Badge Requirement 7: Explain the function of a bird's song. Be able to identify five of the 20 species in your field notebook by song or call alone. Explain the difference between songs and calls. For each of these five species, enter a description of the song or call and note the behavior of the bird making the sound. Note why you think the bird was making the call or song that you heard.***

***Bird Study Merit Badge Requirement 8: Do ONE of the following: a. By using a public library, the Internet or contacting the National Audubon Society, find the name and location of the Christmas Bird Count nearest your home (or, for the Scouts, MNSR), and obtain the results of a recent count.***

- 1. Explain what kinds of information are collected during the annual event.***
- 2. Tell the counselor which species are most common and explain why these birds are abundant.***
- 3. Tell the counselor which species are uncommon and explain why these were present in small numbers. If the number of birds of that species is decreasing, explain why and what, if anything, could be done to reverse their decline.***

***Bird Study Merit Badge Requirement 9: Do ONE of the following:***

- a. Build a bird feeder and put it in an appropriate place in your yard or another location.***
- b. Build a birdbath and put it in an appropriate place.***
- c. Build a backyard sanctuary for birds by planting trees and shrubs for food and cover. For the option you choose, describe what birds you hope to attract and why.***

***Bird Study Merit Badge Requirement 10: Do the following:***

- a. Explain the differences between extinct, endangered and threatened.*
- b. Identify a bird species that is on the endangered or threatened list. Explain what caused their decline.*
- c. Discuss with your counselor what can be done to reverse this trend and what can be done to help remove the species from the endangered or threatened list.*

***Bird Study Merit Badge Requirement 11: Identify three career opportunities connected to the study of birds. Pick one and find out the education, training, and experience required for this profession. Discuss with your counselor if this profession might interest you.***

***Forestry Merit Badge Requirement 1: Prepare a field notebook, make a collection and identify 15 species of trees, wild shrubs or vines in a local forested area. Write a description in which you identify and discuss the following:***

- a. The characteristics of leaf, twig, cone or fruiting bodies.*
- b. The habitat in which trees, shrubs or vines were found.*
- c. The important ways each tree, shrub or vine is used by humans or wildlife and whether the species is native or was introduced. If it is not native, explain whether it is considered invasive or potentially invasive.*

**5:00-5:45 p.m.** Personal time; Buddy System in use

**5:45-6:00 p.m.** Flag Ceremony with NYLT

**6:00-7:00 p.m.** Evening Meal.

**7:00-9:00 p.m.** If this was not done yesterday, then a Possible canoe trip out past our peninsula and then toward the State Boat Launch. This is the marshy area of Lake Eden and we increase our chances of seeing bird species such as Mallards, Red-winged Blackbirds, Great blue herons and Canada Geese. Rain cancels.

Optional Evening Activities include Build-a-Nest Race, Bird Egg Identification and Bird Nest Trivia. The Econ Lodge has an extensive collection of replica bird eggs ranging from Hummingbirds to Condors. The Lodge also has over 20 examples of bird nests. Each Scout will have a nest placed in front of them inside a box, but not seen by the other Scouts. Scouts need to describe the nest to the others. The Scouts will try and guess what bird made the nest.

**9:00-10:00 p.m.** Personal time, personal hygiene and then lights out.

**End of Day 4**

# **Environmental Discovery Experience at Norris (EDEN) Schedule**

## **Day 5, Thursday, August 8, 2024**

### **“Managing our Forests”**

The Mount Norris Scout Reservation is located on 1,071 acres and there is a lot happening in these woods and fields. We will explore what it means to be good stewards of the land that we own. EDEN Participants will read and interpret the Forestry Management Plan that we paid a professional forester to write. During the instruction for this day the EDEN participants will meet one of the two maple sap production lessees that operate on our property. The Scouts will also meet the Lamoille County Forester.

**:00 a.m.** Wake-up and ready for the day

**6:30-6:40 a.m.** Assemble at the ECON Lodge for the morning bird walk.

**6:40-7:30 a.m.** Conduct the birdwalk.

**7:30-7:45 a.m.** Return to campsite and get ready for the morning flag-raising ceremony.

**7:45-8:00 a.m.** Flag-raising ceremony and morning announcements.

**8:00 – 8:45 a.m.** Morning Meal (Clean-up duties shared with NYLT.)

**8:45-9:00 a.m.** Return to campsite and then the Econ Lodge.

**9:00-11:45 a.m.** Morning instruction, games and activities.

***Forestry Merit Badge Requirement 2a. Collect and identify wood samples of 10 species of trees. List several ways the wood of each species can be used.***

***Forestry Merit Badge Requirement 2c: Find and examine two types of animal, insect or disease damage to trees. In the field notebook you prepared for Requirement 1 (Identify 15 species of trees), identify the damage, explain how the damage was caused and describe the effects of the damage on the trees. Photograph or sketch each example.***

***Forestry Merit Badge Requirement 3. Do the following:***

***a. Describe contributions forest make to:***

- 1. Our economy in the form of products.***
- 2. Our social well-being, including recreation***
- 3. Soil protection and increased fertility***

4. *Clean water*
5. *Clean air (carbon cycling and sequestration)*
6. *Wildlife habitat*
7. *Fisheries habitat*
8. *Threatened and endangered species of plants and animals*

*b. Tell which watershed or other source your community relies on for its water supply*

**Forestry Merit Badge Requirement 4: Describe what forest management means, including the following:**

- a. Multiple-use management:*
- b. Sustainable forest management:*
- c. Even-aged and uneven-aged management and the silvicultural systems associated with each:*
- d. Intermediate Cuts:*
- e. The role of prescribed burning and related forest management practices.*

To reduce the danger of devastating fires, foresters may intentionally burn an area to reduce the fuel load on the forest floor and reduce the number of brushy areas. These prescribed burns also expose the soil, releases nutrients into the soil and sometimes eliminates insects and diseases. These burns are done on a regular basis, every three to five years, for example.

**Forestry Merit Badge Requirement 5: With your parent's and counselor's approval, do ONE of the following:**

*a. Visit a managed public or private forest area with the manager or forester who is familiar with it. Write a report describing the type of forest, the management objectives and the forestry techniques used to achieve the objectives.*

**Forestry Merit Badge Requirement 6: In your camp, local recreation area (park or equivalent) or neighborhood, inventory the trees that may be a hazard to structures or people. Make a list by area (campsite, road, trail, street, etc.). Note the species and hazardous condition and suggest a remedy (removal or trimming). Make your list available to the proper authority or agency. The proper authority at MNSR is the Ranger, Camp Director or ECON Director.**

**Forestry Merit Badge Requirement 7: Do the following:**

- a. Describe the consequences to forests that result from five of the following elements:*
  1. *Wildfire*
  2. *Absence of Fire*
  3. *Destructive Insects*

4. *Loss of pollinating insect population*
5. *Tree diseases*
6. *Air Pollution*
7. *Overgrazing\*
8. *Deer or other wildlife overpopulation*
9. *Improper harvesting*
10. *Urbanization*

*b. Explain what can be done to reduce the consequences you discussed in 7a.*

*c. Describe what you should do if you discover a forest fire and how a professional firefighting crew might control it. Name your State or local wildfire control agency.*

***Soil and Water Conservation Merit Badge Requirement 1: Do the following:***

- a. Tell what soil is. Tell how it is formed.*
- b. Describe three kinds of soil. Tell how they are different.*
- c. Name the three main plant nutrients in fertile soil. Tell how they can be put back when used up.*

***Soil and Water Conservation Merit Badge Requirement 2. Do the following:***

- a. Define soil erosion.*
- b. Tell why soil erosion is important. Tell how it affects you.*
- c. Name three kinds of soil erosion. Describe each.*
- b. d. Take pictures of or draw two kinds of soil erosion*

***Soil and Water Conservation Merit Badge Requirement 3: Do the following:***

- a. Tell what is meant by “conservation practices.”*
- b. Describe the effect of three kinds of erosion-control practices.*
- c. Take pictures of or draw three kinds of erosion-control practices.*

***Soil and Water Conservation Merit Badge Requirement 4:*** This lesson and activity based on watershed terminology and examples is completed on Tuesday morning during similar topics with the *Environmental Science* Merit Badge lessons.

**11:45 a.m.-12:00 p.m.** Prepare for the Noon Meal

**12:00-1:00 p.m.** Noon Meal

**1:00-2:00p.m.** Siesta

**2:00-5:00 p.m.** Afternoon Instruction, games and activities

***Soil and Water Conservation Merit Badge Requirement 5: Do the following:***

***a. Make a drawing to show the hydrologic cycle.***

The Scouts already encountered the water cycle earlier in the week. Here they will be asked to demonstrate and explain other aspects of water.

***b. Demonstrate at least two of the following actions of water in relation to soil: percolation, capillary action, precipitation, evaporation, transpiration.***

***c. Explain how removal of vegetation will affect the way water runs off a watershed.***

***c. Tell how uses of forest, range, and farmland affect usable water supply.***

***e. Explain how industrial use affects water supply***

***Soil and Water Conservation Merit Badge Requirement 6: Do the following:***

***a. Tell what is meant by “water pollution.”***

***b. Describe common sources of water pollution and explain the effects of each.***

***c. Tell what is meant by “primary water treatment,” “secondary waste treatment,” and “biochemical oxygen demand.”***

***d. Make a drawing showing the principles of complete waste treatment.***

***Soil and Water Conservation Merit Badge Requirement 7: Do TWO of the following:***

***a. Study a soil survey report. Describe the things in it. Using tracing paper and pen, trace over any of the soil maps and outline an area with three or more different kinds of soil. List each kind of soil by full name and map symbol.***

***f. Carry out any other soil and water conservation project approved by your merit badge counselor.***

***Fish and Wildlife Management Merit Badge Requirement 1: Describe the meaning and purposes of fish and wildlife conservation and management.***

***Fish and Wildlife Management Merit Badge Requirement 2: List and discuss at least three major problems that continue to threaten your state’s fish and wildlife resources.***

- a. Loss of habitat:
- b. Invasive Species:
- c. Climate Change:
- d. Poaching:

***Fish and Wildlife Merit Badge Requirement 3. Describe some practical ways in which everyone can help with the fish and wildlife conservation effort.***

- a. Invasive Species Control:
- b. Supporting Hunting Regulations:
- c. Supporting Fishing Regulations:

***Fish and Wildlife Management Merit Badge Requirement 4. List and describe five major fish and wildlife management practices used by managers in your state.***

1. Prescribed burning:
2. Clearcutting:
3. Stream Habitat Improvement:
4. Hunting and Fishing:
5. Damage Control:

***Fish and Wildlife Merit Badge Requirement 5: Do ONE of the following: b. Construct, erect, and check regularly bird feeders and keep written records of the kinds of birds visiting the feeders.***

***Fish and Wildlife Management Merit Badge Requirement 6c. Start a scrapbook of North American wildlife. Insert markers to divide the book into separate parts for mammals, birds, reptiles, amphibians, and fish. Collect articles on such subjects as life histories, habitat, behavior, and feeding habits on all of the five categories and place them in your notebook accordingly. Articles and pictures may be taken from newspapers or science, nature, and outdoor magazines, or from other sources including the Internet (with your parent's permission). Enter at least five articles on mammals, five on birds, five on reptiles, five on amphibians, and five on fish. Put each animal on a separate sheet in alphabetical order. Include pictures whenever possible.***

**Fish and Wildlife Management Merit Badge Requirement 7:** *Examine the stomach contents of three fish and record the findings. It is not necessary to catch any fish for this option. You may visit a cleaning station set up for fishermen or find another, similar alternative.*

**Fish and Wildlife Management Merit Badge Requirement 8:** *Using resources found at the library and in periodicals, books, and the Internet (with your parent's permission), learn about three different kinds of work done by fish and wildlife managers. Find out the education and training requirements for each position.*

**5:00-5:45 p.m.** Personal time; Buddy System in use

**5:45-6:00 p.m.** Flag Ceremony with NYLT

**6:00-7:00 p.m.** Evening Meal.

**7:00-9:00 p.m.** Discuss hike up Mt. Norris for the following day.

Optional Evening Activities include things that might not have been done on previous evenings to include the Build-a-Nest Race, Bird Egg Identification and Bird Nest Trivia. Scouts can also make plaster casts from an extensive silicone mold collection.

**9:00-10:00 p.m.** Personal time, personal hygiene and then lights out.

**End of Day 5**

## **Environmental Discovery Experience at Norris (EDEN) Schedule Day 6, Friday, August 9, 2024 “Time to Climb that Mountain!”**

The Mount Norris Scout reservation is also home to the Mt. Norris Trail. Generations of Scouts have used this popular trail to get to the top and enjoy the amazing views of the surrounding area. The Mt. Norris Trail crosses private land in several places and the actual top is also privately-owned. We will use this private land use as a discussion about a larger, more critical land ethic. We will also use our hike up the mountain to ponder the newly-installed interpretive signage and mark the transition between the broadleaf forest and the higher elevation spruce trees.

**6:00 a.m.** Wake-up and ready for the day

**6:30-6:40 a.m.** Assemble at the ECON Lodge for the morning bird walk.

**6:40-7:30 a.m.** Conduct the birdwalk.

NOTE: This activity will be cancelled if the Scouts have successfully logged the identification of 20 separate bird species.

**7:30-7:45 a.m.** Return to campsite and get ready for the morning flag-raising ceremony.

**7:45-8:00 a.m.** Flag-raising ceremony and morning announcements.

**8:00 – 8:45 a.m.** Morning Meal (Clean-up duties shared with NYLT.)

**8:45-9:00 a.m.** Assemble by the Dining Hall for our hike preparation; safety notes and communications checks.

NOTE: Depending on the weather, the hike may have taken place on an earlier day of the week.

NOTE: It is our hope that Lamoille County Forester Emily Potter will be able to join us on the hike up Mt. Norris. We will take this opportunity for us to learn about her background and help further interpret the woods of the Mt. Norris Scout reservation. She will also help us fully understand the concept of forest succession.

***Forestry Merit Badge Requirement 8: Visit one or more local foresters and write a brief report about the person (or persons). Or, write about a forester’s occupation, including the education, qualifications, career opportunities, and duties related to forestry.***

***Nature Merit Badge Requirement 6. Do the following:***

***a. Explain what succession is to your counselor.***

***b. Visit a natural area (forest, grassland, meadow, water feature) and explain what stage of succession (both plant and animal) the area is in.***

*c. Talk about what community/succession stages may have been there before and what community/succession stages may replace what you see.*

*d. Discuss what disturbances or changes have taken place in the past to create this landscape and what changes may occur in the future to change the landscape further.*

This requirement will be covered on Friday as part of our hike up Mt. Norris.

The hike up Mt. Norris can be strenuous in two places. We will take our time and observe the woods for enrichment and a fuller understanding of many of the concepts learned throughout the week. Weather depending, we will spend time on the top of the mountain. We will have lunch on top of the mountain as well.

**11:45 a.m.-12:00 p.m.** Continued hike itinerary.

**12:00-1:00 p.m.** Continued hike itinerary.

**1:00-2:00p.m.** Siesta

**2:00-5:00 p.m.** The schedule has built in flexibility here. If necessary, we will revisit certain concepts or catch-up with any that we were not able to completely cover earlier in the week.

The Scouts might also elect to do a cooling-off swim and we will remain flexible to that as well.

**5:00-5:45 p.m.** Personal time; Buddy System in use

**5:45-6:00 p.m.** Flag Ceremony with NYLT

**6:00-7:00 p.m.** Evening Meal.

**7:00-9:00 p.m.** End-of-Week Campfire. Stories and certificate awards.

**9:00-10:00 p.m.** Personal time, personal hygiene and then lights out.

**End of Day 6**

**Saturday, Aug 9<sup>th</sup>, 2024 “*Time to Head Home and Spread the Word!*”**

**6:00 a.m.** Wake-up and ready for the day

**6:30-6:40 a.m.** Assemble at the ECON Lodge for the morning bird walk.

**6:40-7:30 a.m.** We will conduct a final birdwalk for any Scout that still might need to complete the identification of just a bird or two.

**7:30-7:45 a.m.** Return to campsite and get ready for the morning flag-raising ceremony.

**7:45-8:00 a.m.** Flag-raising ceremony and morning announcements.

**8:00 – 8:45 a.m.** Morning Meal (Clean-up duties shared with NYLT.)

**8:45-11:00 a.m.** Assemble at the campsite, clean up and prepare for departure. Complete end-of-course feedback form.

**11:00 a.m-12:00 p.m.** Departure