

**Lesson or Unit Plan Title:  
North Carolina's Newest Symbol:  
The Eastern Tiger Swallowtail Butterfly**

**Grade Level/Subject Area:**

Grade 4: Social Studies and Science (may be modified for other grade levels)

**Standard Course of Study Objectives:**

- Essential Standard 4.H.2 Understand how notable structures, symbols, and place names are significant to North Carolina.
- 4.H.2.2 Explain the historical significance of North Carolina's state symbols.
- Essential Standard 4.G.1 Understand how human, environmental and technological factors affect the growth and development of North Carolina.
- 4.G.1.2 Explain the impact that human activity has on the availability of natural resources in North Carolina.
- 4.G.1.3 Exemplify the interactions of various peoples, places, and cultures in terms of adaptation and modification of the environment.
- Essential Standard 4.L.1 Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats.

**Lesson/Unit Plan Objectives:**

Students will

- Identify the Eastern Tiger Swallowtail as the official butterfly of the State of North Carolina
- Explain the historical connection of the Eastern Tiger Swallowtail with the early North Carolina Colony
- Understand the legislative process for the adoption of a state symbol
- Recognize the importance of the butterfly in the ecosystem of North Carolina

**Background Information**

**(Teachers may use this as a resource or select parts to be presented to students)**

**Why was the Eastern Tiger Swallowtail selected as the State Butterfly?**

Approximately 175 species of butterflies are known to reside in North Carolina. Most of these breed in our state while some breed elsewhere and migrate into the state. The Eastern Tiger Swallowtail is one of the most recognized and commonly seen species due

to its size and beauty. With a wingspan of 3 to 5.5 inches, bright yellow color with black tiger stripes, it commands our attention. In the central and western parts of the state the female swallowtail can be dark with a bit of yellow with blue on her hind wings or yellow with black stripes and blue on the hind wings, while the male is always yellow with black stripes and less blue on the hind wings. It should be noted that the Eastern Tiger Swallowtail is found in all 100 counties of NC and is an easy butterfly to identify for the experienced butterflyer, gardener, or a casual spectator, making it a natural selection to be the North Carolina State Butterfly Symbol.

### **Where does the Eastern Tiger Swallowtail live?**

The Eastern Tiger Swallowtail does not favor one county over another. Common habitats include along the edges of deciduous or mixed woods, fields, rivers, creeks, roadsides, and gardens. They prefer open areas rather than shady areas. Because it has adapted to many different habitats and host plants it is not considered threatened.

### **What does the Eastern Tiger Swallowtail eat?**

Remember that butterflies must eat in two different stages of their life one being a caterpillar and another as a butterfly. As a caterpillar they feed on specific plants including Tulip tree (*Liriodendron tulipifera*), Black Cherry (*Prunus serotina*), and Sweet Bay (*Magnolia virginiana*). Nectar plants for the adult butterfly are very widespread, but the species prefers tall herbs such as Joe-pye-weed (*Eupatorium* spp.), ironweed (*Vernonia* spp.) and milkweed (*Asclepias* spp.). You will also find them sipping water and minerals from mud and possibly on dung and carrion.

### **When is the Eastern Tiger Swallowtail visible?**

The butterfly flies from spring to fall producing two to three broods in a year. Males are often seen flying high in search of females while females search out specific plants to lay their eggs. Their flight period ranges from early March to early October. In the Coastal Plain and Piedmont, the butterflies can be seen from early March to late May, and early June to mid-September. Mountain flights generally occur from mid-March to mid- or late June, and late June to early October. Adults are known to fly high above the ground, usually above the tree canopy.

### **How is the Eastern Tiger Swallowtail linked to the history of the early colony of North Carolina?**

The Eastern tiger swallowtail is native to North America and is generally considered the first North American butterfly to have been drawn. The first drawing of it was by John White. [John White](#). White was an artist, cartographer, and is also known as the governor of the Roanoke Island colony that came to be known as the "Lost Colony". [Lost Colony](#)." (from article by Michelle Underhill in [www.ncpedia.org/symbol/](http://www.ncpedia.org/symbol/) )

## Introduction or Focus and Review

Show photo below then ask students if they know what this is and why it is important in North Carolina.



Explain that this is a picture of North Carolina's newest symbol, the Eastern Tiger Swallowtail Butterfly.

Ask students why it is important that we have an official state butterfly? Write their responses on large chart paper. (Use later in lesson.)

Review other state symbols the class has studied. (If the class has not already studied state symbols, this is a good time to show photos of the other symbols and discuss them. A good source is [www.ncpedia.org](http://www.ncpedia.org))

## Statement of Objectives

List for students the purpose of this lesson.

Students will

- Identify the Eastern Tiger Swallowtail as the official butterfly of the State of North Carolina
- Explain the historical connection of the Eastern Tiger Swallowtail with the early North Carolina Colony
- Understand the legislative process for the adoption of a state symbol
- Recognize the importance of the butterfly in the ecosystem of North Carolina.

Ask students if there are other reasons for learning more about the state butterfly.

## Presentation of information

Have students fill out the first two columns of the KWL Chart. They may be completed individually or as a group.

K (What I know)	W (What I want to learn)	L (What I have learned)

Have students share answers. The teacher can post the responses if appropriate.

Teacher presents relevant information from the above Background Information. Show students the documentary “*North Carolina State Symbols: Eastern Tiger Swallowtail Butterfly*”. This is a ten-minute video explaining the butterfly. It has beautiful photos very clear explanations of why the butterfly was selected, the historical link to the early colony, and the science related concepts as well.

Use the social studies textbook or other information to teach students the legislative process used to enact the legislation required to adopt the North Carolina Butterfly. Show the copy of the law. (Below)

GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2011

SESSION LAW 2012-29 SENATE BILL 236

AN ACT ADOPTING THE EASTERN TIGER SWALLOWTAIL AS THE OFFICIAL STATE BUTTERFLY, DESIGNATING THE SHELBY LIVERMUSH FESTIVAL AS THE OFFICIAL FALL LIVERMUSH FESTIVAL OF THE STATE OF NORTH CAROLINA, DESIGNATING THE MARION LIVERMUSH FESTIVAL AS THE OFFICIAL SPRING LIVERMUSH FESTIVAL OF THE STATE OF NORTH CAROLINA, AND DESIGNATING THE SWANSBORO MULLET FESTIVAL AS THE OFFICIAL MULLET FESTIVAL OF NORTH CAROLINA.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 145 of the General Statutes is amended by adding the following sections:

"§ 145-38. State butterfly. The Eastern tiger swallowtail (*Papilio glaucus*) is adopted as the official State butterfly of the State of North Carolina. "§ 145-39. State spring and fall livermush festivals.

(a) The Shelby Livermush Festival is adopted as the official fall livermush festival of the State of North Carolina.

(b) The Marion Livermush Festival is adopted as the official spring livermush festival of the State of North Carolina. "§ 145-40. State mullet festival.

The Swansboro Mullet Festival is adopted as the official mullet festival of the State of North Carolina."

SECTION 2. This act is effective when it becomes law. In the General Assembly read three times and ratified this the 11<sup>th</sup> day of June

s/ Walter H. Dalton President of the Senate

s/ Dale R. Folwell Speaker Pro Tempore of the House of Representatives

s/ Beverly E. Perdue Governor

Approved 1:03 p.m. this 15th day of June, 2012

## Guided/Independent Practice (Possible Activities)

1. Students write a letter to a friend in another state explaining to them some important facts about the Eastern Tiger Swallowtail.
2. Take a walk outside and look for butterflies, especially the Eastern Tiger Swallowtail. If possible, take photos.
3. Research the drawings of the early Roanoke Island Colony by John White.
4. Create a butterfly garden at school. Discuss all of the reasons butterflies are important in the environment.

## Culminating Activities

1. In class, complete the “L” column of the KWL chart. This will help students review and remember what they have learned.
2. Take a field trip to a butterfly house (such as the one at Airlie Gardens in Wilmington, North Carolina).

## Resources

- Butterflies and Caterpillars by Anita Ganeri (Board Book)
- From Caterpillar to Butterfly by Deborah Heiligman
- Caterpillars, Bugs, and Butterflies by Mel Boring
- Caterpillar, Caterpillar by Vivian French
- Where Butterflies Grow by Joanna Ryder
- Butterflies by Seymour Simon
- Butterflies in the Garden by Carol Lerner (k-3book)
- A Butterfly is Patient by Dianne Aston (Beautiful Book!!)
- ***America 1585: the Complete Drawings of John White* by Paul Hulton**
- ***Roanoke: The Abandoned Colony* by Karen Ordahl Kupperman**
- **Airlie Gardens website** <http://airliegardens.org/education/butterflies>
- Tiger Swallowtail Butterfly Lesson Plan  
<http://capclass.virginiageneralassembly.gov>
- “North Carolina State Symbols: Eastern Tiger Swallowtail Butterfly” video documentary produced by the Cape Fear Garden Club, Wilmington, NC and available for viewing online at [www.capefeargardenclub.org](http://www.capefeargardenclub.org)