# NEST (Nature Education for Students and Teachers) Invasive Species (6-8) Standards

## Next Generation Science Standards (NGSS):

**MS-LS2-1**   Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

- Analyzing and Interpreting Data – Analyze and interpret data to provide evidence for phenomena.
- LS2.A: Interdependent Relationships – (a) Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with nonliving factors. (b) In any ecosystem, organisms and populations with similar requirements for food, water, oxygen, or other resources may compete with each other for limited resources, access to which consequently constrains growth and reproduction. (c) Growth of organisms and populations are limited by access to resources.
- Cause and Effect – Cause and effect relationships may be used to predict phenomena in natural or designed systems.

**MS-LS2-4**   Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

- Engaging in Arguments from Science – Construct an oral and written argument supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem.
- Science Knowledge is based on Empirical Evidence – Science disciplines share common rules of obtaining and evaluating empirical evidence.
- LSC2.C: Ecosystem Dynamics, Functioning, and Resilience – Ecosystems are dynamic in nature, their characteristics can vary over time. Disruptions to any physical or biological component of an ecosystem can lead to shifts in all its populations.
- Stability and Change – Small changes in one part of a system might cause large changes in another part.

## Michigan Grade Level Content Expectations (MGLCE):

- S.IP.(06,07).11 Generate scientific questions based on observations, investigations, and research.
- S.IP.(06,07).12 Design and conduct scientific investigations.
- S.IP.(06,07).13 Use tools and equipment appropriate to scientific investigations.
- S.IP.(06,07).15 Construct charts and graphs from data and observations.
- S.IP.(06,07).16 Identify patterns in data.
- S.IA.(06,07).11 Analyze information from data tables and graphs to answer scientific questions.
- S.RS.(06,07).15 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
- S.RS.(06,07).17 Describe the effect humans and other organisms have on the balance in the natural world.
- L.EC.06.11 Identify and describe examples of populations, communities, and ecosystems including the Great Lakes region.
- L.EC.06.21 Describe common patterns of relationships between and among populations.
- L.EC.06.31 Identify the living (biotic) and nonliving (abiotic) components of an ecosystem.
- L.EC.06.32 Identify the factors in an ecosystem that influence changes in population size.
- L.EC.06.41 Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance in ecosystems.
- L.EC.06.42 Predict possible consequences of overpopulation of organisms, including humans.
- E.ES.07.41 Explain how human activities change the surface of the Earth and affect the survival of organisms.