

GLOBE Mosquito Habitat Mapper

Connections to Next Generation Science Standards (NGSS)

The Disciplinary Core Ideas (DCIs) in NGSS are purposefully broad; no DCI specifically focuses on insects or mosquitoes. For example, one DCI states that “Animals engage in characteristic behaviors that increase the odds of reproduction.” Others are similarly broad. Mosquitoes can serve as the exemplar organism for how animals engage in behaviors that increase their odds of reproduction. The same is true for each of the DCIs identified below that relate to the GLOBE Mosquito Habitat Mapper.

Learn more about GLOBE Mission Mosquito campaign, including webinars, activities, and resources to support student learning at: <https://www.globe.gov/web/mission-mosquito/overview/home>

Middle School: Disciplinary Core Ideas

LS1.B Growth and Development of Organisms

- Animals engage in characteristic behaviors that increase the odds of reproduction.

LS2.A Interdependent Relationships in Ecosystems

- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with non-living factors.

LS2.C Ecosystem Dynamics, Functioning, and Resilience

- Organisms, and populations of organisms, are dependent on their environmental interactions both with other living things and with non-living factors

ESS3.C Human Impacts on Earth Systems

- Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth’s environments can have different impacts (negative and positive) for different living things.

High School: Disciplinary Core Ideas

LS2.C: Ecosystem Dynamics, Functioning, and Resilience

- A complex set of interactions within an ecosystem can keep its numbers and types of organisms relatively constant over long periods of time under stable conditions. If a

modest biological or physical disturbance to an ecosystem occurs, it may return to its more or less original status (i.e., the ecosystem is resilient), as opposed to becoming a very different ecosystem. Extreme fluctuations in conditions or the size of any population, however, can challenge the functioning of ecosystems in terms of resources and habitat availability.

- Moreover, anthropogenic changes (induced by human activity) in the environment—including habitat destruction, pollution, introduction of invasive species, overexploitation, and climate change—can disrupt an ecosystem and threaten the survival of some species.