



CONSERVATION

Preservation and Protection of Species

Conservation, by definition, is the preservation and protection of different ecosystems or species. Conservation is vital to maintaining the many ecosystems found all over the world, along with all the species of animals within them. By conserving our natural resources, we are reducing the number of species that go extinct, maintaining and even restoring different habitats and ecosystems, and guaranteeing that there will still be vast biodiversity within these ecosystems. Biodiversity is when there is a large variety of life in an ecosystem. When biodiversity decreases there are issues that can occur. Many of which impact humans directly such as a decreased food supply.



However, by following different regulations made by federal agencies, we can guarantee that our ecosystems will never experience loss of biodiversity. There are many ways that you can support conservation efforts. You can donate to local projects that are restoring ecosystems and species, continue to teach others about conservation and its importance and lastly, make sure you are following the laws and regulations that federal and/or state agencies (like NYS DEC) set for recreational fishing to make sure you are doing your part in the species survival plan!



Fishing Regulations

Fishing regulations are put into place by state and federal agencies, such as the National Oceanic and Atmospheric Administration (NOAA) so we can manage fish populations in our waters. Often times, these regulations are dependent on the season and determine how many individuals from the species you may keep, depending on their size. Both commercial and recreational fishing can lead to overfishing if these regulations were not put in place by agencies like NOAA. Overfishing is when a species of fish is being caught beyond their sustainable limit.



As time goes on, the overfishing of populations can lead to the extinction of certain species. This disruption can cause severe threats to the food chain of numerous organisms because the predator-prey balance is changed. Overfishing also includes bycatch. Bycatch is when unwanted species, many times illegal marine life, are collected accidentally when fishing commercially. A few examples of these species are certain shark species, sea turtles, and even marine mammals.

Cornell Cooperative Extension Conservation Projects

Cornell Cooperative Extension Marine Program has many projects dedicated to the conservation of species. Two of which are the Striped Sea Bass Project and the Scallop Restoration Program. The Striped Bass Project is devoted to outreach and education of recreational fishermen to ensure proper tackle is being utilized along with teaching techniques to ensure the survival of the species after being released. The Scallop Restoration Program was created in 2005 to restore the Peconic Bay Scallop population. After severe brown tidal blooms (an overgrowth of harmful algae in the water) from the 1980's- the mid 1990's wiped the local species to near extinction, CCE partnered with Suffolk County and Long Island University to begin raising the scallops in hatcheries and releasing them back into the bay! The CCE Fisheries Team has worked on many "Conservation Gear Technology" projects aimed at reducing bycatch of different species in various fisheries. Working cooperatively with fishermen to design gears that reduce bycatch while still allowing the fishermen to catch their target species helps to keep other species from being caught. Gear is designed by looking at the body size, shape, and behaviors of the bycatch fish as to direct them out of the nets. To learn more go to <http://ccesuffolk.org/marine/fisheries/bycatch-reduction-projects>.





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After reading about conservation and CCE's efforts, answer the questions below.

Question 1. What is biodiversity and how do conservation efforts support it?

Question 2. What are some ways you can support conservation efforts?

Question 3. Why do federal agencies create rules that we have to follow when fishing?

Question 4. What is overfishing?

Question 5. Why is bycatch harmful to the environment? Name 2 types of animals that are often caught in bycatch.

Bonus Question: What happened that nearly brought the Peconic Bay Scallop population to extinction?

