



Aquatic plants: benefits and challenges in maintaining ecosystem health

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DESCRIPTION

Aquatic plants are plants that grow entirely or partially submerged in water. They are found in a variety of aquatic environments such as ponds, lakes, rivers, and even in the ocean. Aquatic plants play an important role in the ecosystem as they provide shelter, food, and oxygen for various aquatic organisms. In addition, they are important for maintaining water quality and preventing erosion in aquatic habitats. There are three main types of aquatic plants based on their growth habit: floating plants, submerged plants, and emergent plants. Floating plants: These are plants that float on the surface of the water, either rooted or unrooted. They have no attachment to the bottom of the water body and are free to move with the currents. Examples of floating plants include water lilies, water hyacinths, and duckweeds. Submerged plants: These are plants that grow entirely underwater, with their leaves and stems completely submerged. They are anchored to the bottom of the water body by roots or rhizomes. Examples of submerged plants include eelgrass, hornwort, and Vallisneria. Emergent plants: These are plants that grow partially submerged in water, with their roots anchored in the soil or sediment at the bottom of the water body. Their stems and leaves emerge above the water surface. Examples of emergent plants include cattails, bulrushes, and reeds. Aquatic plants play a vital role in the health of aquatic ecosystems. Here are some of the benefits of aquatic plants: Oxygen production: Aquatic plants are responsible for producing oxygen

through photosynthesis. This oxygen is essential for the survival of aquatic organisms. Food source: Aquatic plants provide food for various aquatic organisms such as fish, turtles, and waterfowl. The leaves, stems, and seeds of aquatic plants are all important food sources. Shelter: Aquatic plants provide shelter for fish and other aquatic organisms. They offer hiding places and protection from predators. Water quality: Aquatic plants play an important role in maintaining water quality. They absorb excess nutrients such as nitrogen and phosphorus, which can lead to algal blooms and other water quality issues. Erosion prevention: Aquatic plants help prevent erosion by stabilizing the soil and sediment at the bottom of the water body. Aesthetics: Aquatic plants can enhance the beauty of a water body. Water lilies and lotus flowers, for example, are often prized for their ornamental value. While aquatic plants provide many benefits to aquatic ecosystems, they can also present challenges. Here are some of the challenges of aquatic plants: Invasive species: Some aquatic plants are invasive and can outcompete native species. This can have negative impacts on the ecosystem, such as reducing biodiversity and altering the food chain. Algal blooms: Excess nutrients can lead to algal blooms, which can be harmful to aquatic organisms and humans. Aquatic plants can help absorb excess nutrients, but they can also contribute to the problem if they are overgrown or dying.