

Plant biology is the study of plants, which includes among other things, how plants evolved on earth, their structure, how they grow and develop, and how they interact with the environment. When all of life was divided arbitrarily into the animal and plant kingdoms, plant biology also included the study of bacteria, algae, and fungi. Today, bacteria, algae, and fungi are not included in the plant kingdom. Plants can reproduce two ways, via insects or the wind. Insect-pollinated flowers usually have bright colors and a scent to attract the insects while wind-pollinated plants are usually absent of both bright colors and scent. The flower is comprised of many different parts, each with a different function, it's the organ of reproduction in a plant and it is usually a hermaphrodite with the ovary deep in the plant.

Pollen is formed within the pollen sac of the anther in the flower. Pollen is crucial to plant reproduction because it is the sperm cells of the plant. Pollen grains are very small and require magnification to view but in large numbers form a ruff powder.

The formation of pollen grains is a combination of meiosis and mitosis. After two stages of meiosis a triad of haploid pollen grain cells is formed which later separate into singular pollen grain cells. Reproductive Biology of Plants is a comparative account of reproduction in viruses, bacteria, cyanobacteria, algae, fungi, lichens, bryophytes, pteridophytes, gymnosperms and angiosperms, each chapter written by an expert in the field. Special emphasis is placed on the truly comparative approach illustrating the vast range from simplicity to complexity in structure and function with respect to the various organisms. This book presents an up to date and comprehensive description of reproduction in lower plants, gymnosperms and higher plants and a reference tool for plant biologists or botanists.

