

EUKARYOTIC PHOTOSYNTHESIS – A BRIEF HISTORY OF ENDOSYMBIOSIS

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Summary

Photosynthetic organisms belonging to the kingdom of eukaryota fulfill significant roles in the biosphere. Higher plants dominate on the land, therefore this group has been most intensively studied. However, plants are only one group of the many other groups of photosynthetic eukaryota. The ability to perform photosynthesis was acquired independently by ancestors of several eukaryotic lineages. Some of these lineages are major primary producers in the oceans. In this article, occurrence of photosynthesis in eukaryota, as well as processes responsible for acquirement of plastids are described. The authors decided to concentrate on systematic groups other than higher plants and green algae, because photosynthesis of last two has been widely described in the literature.