**Cory Hofstad UGR 294 Scientific Literature 3**

**Defensive functions of white coloration in coastal and dune plants**

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**Introduction**

Trichomes are very well recognized for their multiple functions in plants. These trichomes defend plants from radiation, ecological hazards and insects. A hypothesis is formed that plants also use trichomes to camouflage themselves from predators against light colored conditions and also to hide their outlines from predators.

**Conclusion**

Direct, plant-oriented experimental data for functionality from the defensive mechanisms discussed listed here are missing or are just partial for new and old ideas. For example, light-colored plants within the seaside and desert plant life of Israel, ought to be studied first in similar habitats however with a different flora. It ought to be studied and in much cooler climates as well as in environments where light isn't excessive as well as in seaside dunes of seas that aren't salty, or uncovered to reduce amounts of herbivory and sun irradiation. Just the comparative picture that emerges from such studies will let the evaluation continue.

**Methods & Results**

This can be a paper discussed previous observations, no scientific data was collected, and new tests must be conducted.

**Discussion**

Both physiological functions and the Defensive white-colored plant coloration of plant trichomes may operate concurrently, this means that trichomes serve multiple purposes in plant life.

Two categories of plant species grow in sandy habitats. The very first includes plants engrossed in white-colored trichomes. The 2nd group includes plants which have glandular trichomes that secrete sticky substances that stick sand grains and clay particles for their surface.

Since plants and herbivores have co-evolved, recognition of plants via visual cues is really a fundamental facet of herbivore life. The ability for plants to disguise themselves is critical for plants survival in many plant life cycles.

**Bibliography**

Lev-Yadun, S. (2016). Defensive Functions of White Coloration in Coastal and Dune Plants. Defensive (anti-herbivory) Coloration in Land Plants, 59-64. doi:10.1007/978-3-319-42096-7\_16

**Seasonal pattern of leaf production and its effects on assimilation in giant summer-green herbs in deciduous forests in northern Japan.**

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**Introduction**

Summer-green herb which grow in temperature deciduous forests often start to grow before the leaf flush of canopy trees and retain their leaves after the trees loose theirs. This indicates that these herbs and smaller plants utilize both the short light-abundant season of early spring and during the summer when the tree canopy absorbs much of the sunlight.

**Conclusion**

The herbs with continued and early leaf production in this research demonstrated different patterns of sunshine utilization, carbon acquisition, and leaf durability. The development tricks of both appeared to become efficient within the seasonally fluctuating light conditions beneath deciduous forest canopies. The species with early leaf production assimilated intensively throughout the short leafless season of canopy trees in spring.

**Methods and Results**

Light levels decreased to 20%–25% after tree-canopy closure compared with those in early spring.

**Discussion**

leaf accumulation and height growth of understory herbs with continuous leaf production continued during tree-canopy closing season because of retention of old leaves. Plants inhabiting dense open habitats often exchange leaves faster during the growing season, because effective carbon gain is achieved by unshaded young leaves with high photosynthetic activity under high irradiance

**Bibliography**

Tani, T., & Kudo, G. (2006). Seasonal pattern of leaf production and its effects on assimilation in giant summer-green herbs in deciduous forests in northern Japan. Canadian Journal of Botany, 84(1), 87-98. doi:10.1139/b05-145