

Deceptions In The Plant World. By Fred Field 12/12 /2016

The one thing I suppose in common we have with plants and animals is deception; plants do it for survival; insects do it to pretend they are much more formidable than what they are; polar bears have a black inner coat but a white outer coat to blend in with their surroundings ; of course some of these factors are caused by long term environmental changes where genetic mutation is then locked in; With humans it is more straight forward if a bloke tells his wife that he is going to see a sick friend and goes to the pub then tells his wife that his friend is on the mend; or a woman puts on a bit lipply and a new hair piece and goes to see her rivals; that's short term deception. Any way back to the subject matter about weeds pretending to be usable crops such as weeds that mimic rice plants; plants in deserts shaped like small stones; flowers that look like insects or smell like dead carrion.

The best at it are orchids it convinces insects into believing it has met a female partner for mating; not with one fact; but with her shape; texture; smell; and the colour that the light she reflects but also the way she behaves; [movement]

Some plants mimic other flowers but don't supply nectar which raises the question as to the lengths a plant will go to just to get pollinated which raises a bigger question on the intelligence on how this is computed by the plant and put into action;

Another good example is the orchid epipactis whose flowers resemble aphids or green fly ; the lower lip of the flower oozes a sugary secretion resembling the honey dew excreted by aphids; its bumps and patterns look like aphid infestation; this is enough to fool aphid eating hover flies to rush in and pollinate the flower, I find the whole

Epiphyte family [plants that grow attached to trees and rely on what's carried to them] fascinating on how they evolved and they are the mother lode when it comes to deception;

Pitcher plants are another whose shape defines its needs; the plants are funnel shaped green leaves with red veins; now to us that looks just as it is but to insects their vision is different as it extends into the ultraviolet range which makes the traps stand out against other vegetation. Suspect that some insects do pollinate the pitcher plants but most become part of its diet; sort of a win win situation ; however the deception goes further; the rim of the pitcher makes drops of nectar and once the insect has landed and tasted the offering becomes intoxicated with a powerful narcotic; slowly it loses its footing and slides down inside the trap into a bath of lovely digestive juices don't worry we eat insects [prawns] but we cook them then let our digestive juices do the rest'

Now truffles give off strong pheromone the same as male boars [not the one that sits next to you at the pub and tells you the same story 100 times""'] and when female sows come into contact with truffles they get very excited but they are only the vehicle that distributes the spores to other parts carefully engineered by the truffle.

Self protection is a very important factor for plants and a good example is the passion fruit family and several species of these trick female butterflies into laying their eggs on other plants so avoiding damage to themselves from caterpillars; the whole deception relies on the fussy behavior of the female butterfly; which first feels her way over the stem to check for the presence of eggs from other females; if she finds eggs; she flies off to find a fresh site; the passion flower has exploited

this behavior by growing its own dummy eggs; small nodules the same shape and texture as butterfly eggs; deceptive enough to fool the butterfly to leave' Summarizing this; plants encompass a wide range of tools for deception for a number of reasons and purposes; they have all evolved from the interplay of random genetic mutations and the selective pressures of the environment in which plants live be it the pressure to find insect pollination; to avoid predation; even human interference; or to supplement their diet. My advice to everyone go into your garden or you tree area and crawl around and look carefully and I am sure you find something you never knew was there because its tiny and obscure but it is seething mass of activity let alone all the micro organisms and bacteria we can't see and also remember what you are looking at has been here at least 200 million years; never question the ability of plants better to question our own intelligence on to how we survive the next 200 hundred years; plants have to experience to cope but do we have the same knowledge and experience to cope with a major catastrophe; sorry don't think so and harming our whole ecology doesn't help either.