Explorations & Recreations in the Sciences (ERIS), 27th June 2023

Adaptive Envirotropic Male Florosis & Mating Florotaxis in Possibly Homologous Male & Female Flowers with Multiple Pollinator-like Associations, of a Wild Cucurbitoid Vine: Evolution of Systemic Overview & Complex High Level Systems in Plants & Life

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Figure 5.1 Possibly Mating Flowers

Figure 5.2 Florotaxis admegaflorus

Figure 5.3 Trilobic Genitalia Female (left) & Male (right) Flowers

The cucurbitaceous vine above with a female flower (Fig. 5.3 left, inferred from an ovary like structure at base of the flower) & some male flowers (Fig. 5.3 right, inferred from no ovary like structures & folded ribbon like stamens with lateral exposed anther-like trail; however, the pollen were not detectable by scraping) shows possibly imparsimonious twisted & long predictive florotaxis (Fig. 5.1 & 5.2). Moreover, the vine moved towards free environment & grew flowers selectively at & after the exposure to it; notably, mostly male flowers favoring distant & cross-pollination. However, it yielded the above florotactic stems at & as, due to lack of vine support in the extremety, it returned to, the intermediate environmental exposure.

The female & male stamen-anthers & style-stigmata are trilobic, suggesting likely homology in phenogenic systems of male & female flowers. The female-male genital homology is absent likely in close bisexual flowered relatives of the vine indicating the bisexual flowers either duplicate the homologous phenogenic stem phase or have coherent homologous stem phase pairs or more, for each lobe of the trilobic male or female genetalias of the relatives & thus, possibly the vine. Complete Genital Homology is absent in *Homo sapiens sapiens* alluding to diverse evolutionary potentials & systems in the tree of life, especially the terminal groups of angiosperms & humans, contrasted with lower taxa. The homology might aid in biological resonance within the female & male flowers of the vine for improved florotactic stimulation & signaling either internally or via media, however limiting bisexuality requiring duplicate homology.

The stamens of the vine are like folded ribbons united laterally with the floral centre & with serrate trail anthers on other centrifugal laterality, possibly aiding frictional pollen pick-up by ants observed inside the flowers, possibly walking or interacting with the ant hive & route like anther trails. The ants may be dipositing the pollen by on slightly rough & rugged female genitalia of the mating female flower connected physically. The anthers & stigmata do not seem to directly touch to necessitate medium(water, air) &/or pollinator mediated mating post-florotaxis. In addition to ants, small, normal & large bee-like insect species one each, were observed to interact with the flowers. They might be a means of distant insect-mediated pollinations with same or different vine flowers. Especially as female to

male ration of the vine observed was very low, possibly due to nutrient deficiency &/or lack of pollen exposure as corroborated by niche core tropic female florotaxis towards outgoing male flowers, it is likely that the vine employs cross & distant self pollinations via the bee-like species in combination with ant pollination & floral mating. Florotaxis with niche core tropic female tending favors self-pollination, in addition to the above distant self & cross pollination mechanisms.

Thus, the vine may be exhibiting varied pollination mechanisms (self, distant-self & cross pollination, floral mating, media &/or pollinator mediated mating) integrated with predictive sense of habitat & self (sense of vine support, extrematization of male flowers, niche core female flowers & florotaxis, sense of nutrient or pollen exposure) & with matching body systems (adapted & homologised floral genetalias for resonant stimulation & signaling, large proportioned body with large leaves & dense sensory hair), This system is the evogenotype of the vine-environment system that shall influence its evolution.

This complex high level system indicates the complexity & potential of natural evolutionary systems & processes. Especially, the origin of above complex evotype quasi-species informs from multiple physiological, anatomical, developmental & evolutionary systems within the involved species in addition to the abiotic components of the astrobiological context. The imparsomony may indicate inclusion & fixation of the rare &/or random variation influencing vine evogenotype & evolution.