Maturity as a factor influencing the use of detritus stabilimenta and web decorations by the orb-weaver Azilia vachoni (Tetragnathidae)

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The presence of silk stabilimenta in orb webs has incurred much debate and controversy with respect to its functionality. However, not much has been done with respect to detritus stabilimenta outside the genera *Cyclosa* and *Allocyclosa*. The orb-weaver *Azilia vachoni* (Tetragnathidae) also constructs detritus stabilimenta and sometimes suspends debris under its web. The habitat preference of this species and dependence of these web features on age were determined.
Twenty selected habitats varying in vegetation structure on the island of Trinidad, West Indies were sampled. The presence and location of detritus stabilimenta and suspended debris, spider position and age, web orientation and inclination and canopy cover were noted.
A total of 143 webs were observed with *A. vachoni* occupying 13 of the 20 selected habitats. Individuals of at all ages showed no significant preference for constructing either detritus stabilimenta or suspending debris with most preferring to use both in their web design.
In this species, linear stabilimenta ranged in length from 0.5 to 3 cm towards the top of the sheet and started from the hub above the resting position of the spider. Dried leaves were usually used for suspended debris and positioned in line with the spider.
Future studies using this data include testing the three major hypotheses of the functions of stabilimenta usually tested for silk stabilimenta with this species; 1) Warning hypothesis, 2) Prey attraction hypothesis; and 3) Camouflage hypothesis, as well as comparing it with other species exhibiting such behaviour, for example, *Nephila clavipes*.