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The effect of wind and light on the selection of web site by the spider *Argiope aurantia* Lucas.

*Argiope aurantia* occurs near the ground in dense vegetation that is not heavily shaded. Successive stages build webs located at increasing height in this vegetation. A most important factor influencing the location of successive webs of this species is that these spiders are quite sedentary. Despite this fact, in experimental releases the first web-building stage already left sparsely vegetated sites; only the larger-sized animals left woodlands. But all stages were positively phototactic. Removal of vegetation surrounding existing webs caused early stages to leave web sites. Both in bare cages and in natural vegetation, spiders built webs significantly higher up if the area was covered, either by opaque or by translucent plastic, which eliminated air currents. Differences between early, predominantly wind-avoiding behavior and later, predominantly phototactic behavior could be explained if in later life the response to light is no longer held in check by the response to wind. (Supported by N.S.F. Grant GB-6246 to Dr. Peter N. Witt.)