

INSECTS ATTRACTED BY FRAGRANCE OR BRILLANCY OF
FLOWERS FOR PURPOSES OF CROSS-FERTILIZATION.

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Nowhere in the flora or insect fauna do we see it better illustrated than by some of our *Argyrenids* and *Asclepiadaceae*. It must therefore be admitted that these Asclepiads are striking examples of entomophilous or insect-loving plants, and anyone in quest of insects will not be disappointed by diligently studying the distribution of the Milk-weed family. Lepidoptera and hymenoptera visit these plants. Some flowers attract insects for the purpose of cross-fertilization, and these are either showy, brilliant in colour, or more or less fragrant. All other flowers are either wind-fertilized or self-fertilized. Insects resort to flowers for the purpose of obtaining honey—their food, secreted by the nectaries, or to take pollen found on the stamens of flowers; the former constitutes their staple of life and the latter furnishes wax to others for utilitarian purposes. Lepidoptera take food by suction and it must be of a liquid nature. Thus it will be seen that the relation of certain insects to flowers is really of absolute necessity.

Darwin's attention was early drawn to flowers of *Asclepias*, because the mass of pollen grains was borne on a foot-stalk, which had a sticky gland at the end of it, as found in Orchids. Modern geological research has demonstrated that lepidoptera first made their appearance during the *Tertiary* period, when true flowers began to be abundant. And so it is to this day. Bright-coloured and highly perfumed flowers are always associated with myriads of insects, of which butterflies and moths contribute a large number. This is the reason why some of the larvæ Argynnid, such as *A. idalia* and *A. cybele*, are found to the best of advantage on flowering Asclepiads. When the various species of *Asclepias* are in full bloom, the Argynnids mentioned and even *A. aphrodite* may be looked for in more or less abundance.

Red Clover blossoms are resorted to by Argynnids before the advent of Milk-weed flowers, but I have never observed them there in such numbers. Another drawback to collectors, for reasons well understood, is that he must visit the locality when the owner of it is at church or taking his meal! I have seen a few *A. cybele* as early as May, on the azure flowers of *Echium vulgare*, known as Blue-weed and Viper's Bugloss, a very prickly plant introduced from Europe, found on poor, sandy soil. Papilios as well as Argynnids visit all these plants, in company with