

STAMINAL MOVEMENTS IN GERBERA LANUGINOSA

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The object of this note is to record the occurrence of staminal movements in a common West Himalayan plant, *Gerbera lanuginosa*, Benth., a member of the Compositae. This plant is widely distributed in the Punjab hills at altitudes of 4,000 to 8,000 feet above sea-level and extends eastwards into Jaunsar and Tehri-Garhwal.¹ It is a common herb on sunny road-side banks at places like Murree, Simla and Mussoorie, easily recognised by its lyrate radical leaves, which are dark-green above and pure white below owing to a dense tomentum (like very fine cotton wool); the latter is commonly gathered by the hill-folk for use as tinder and also for making cloth.

The movements are remarkably like those well known to occur in members of the Tribe Cynareæ, of which the best known example is *Centaurea*, and the mechanism is the same, namely, a shortening of the filaments owing to diminished turgidity of their cells. When the disc floret is ready to be stimulated the tip of the anther tube is closed by the 5 valves of the tube meeting in a point at the top. The staminal column presents exactly the same subulate, very slightly curved, appearance as in *Centaurea*. If the tip is gently tickled the staminal column becomes visibly shorter, at the same time swaying gently to one side or the other in the same manner as in *Centaurea*. The tip of the anther tube is then seen to be covered by a mass of pollen; if one observes the process carefully with a strong pocket lens, the fairly large pollen grains are seen forced out in strings through the five chinks between the valves of the anther tube.

There is a slight difference from *Centaurea* in the structure of the style. In *Centaurea* the style is covered by upwardly pointed hairs

¹ Collet, *Flora Simlensis* (1902) p. 278 fig. 83; U. Kanjilal, *Forest Flora of the Siwalik and Jaunsar Forest Divisions* (1911) p. 250; Hooker, *Flora of British India*, vol. III, p. 390.