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#### A UNIDIRECTIONAL MASS MOVEMENT BY *Satyrrium saepium* (LYCAENIDAE)

On 12 July, 1967, near the site of the ghost town of Nortonville in Contra Costa County, California, a large number of *Satyrrium saepium* (Bdv.) were observed in a rather continuous downslope flight. The flight was noted only along the steeply inclined bottom of a small dry ravine where it passed northwesterly through grazed oak woodland. A broken canopy of live oak and arborescent toyon (*Heteromeles*) partly shaded the dry oat-forb understory. The insects were observed from about 12:30 to 1:00 PM. P.D.T., as they passed in an erratic stream perhaps no more than three or four feet wide and about three feet above the ground. Although no count was taken, it is estimated that the rate of passage varied from about five to fifteen individuals, averaging ten or twelve, per minute.

Generally the butterflies continued rapidly downward but occasionally an individual became diverted long enough to flutter briefly around the downstream base of a small rocky outcrop in the drainage bed. Only three or four individuals were seen to fly up the ravine. Probable larval food plant was common some hundred yards upstream in an extensive community of chamise—ceanothus chaparral. No water was available in the ravine or for some distance below its mouth. Some moisture was present in an adjacent ravine, where, however, only a few individuals of *S. saepium* were seen behaving in a manner not remarkable. Other examples of the species were encountered at more normal density elsewhere in the vicinity.

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