

3 <sup>6</sup>/<sub>10</sub> mi. E and 3 <sup>1</sup>/<sub>10</sub> mi. N Lawrence (P.O.), Douglas Co., Kansas

June 23, 1968

Collected the following insects from sand dunes. These sandy areas have been in this area as long as I can remember, although limited in extent and development. They now occupy an area between cultivated fields to north and uncultivated areas to S. The area to S is depressional and is not suitable for agriculture. Riparian forests beyond depression area to sands adjacent river. This area may have been the edge of the Kaw at one time and since then trees have grown between here and the river and have since been cut.

The sand is pure in about an area 50 x 40 and elsewhere has a few weeds growing from surface. One large robber fly in area, all others were small <sup>in</sup>  $\frac{1}{2}$  inch length.

680622-1 to 680622-80 Cicindela \_\_\_\_\_

680622-81 to 680622-89 Cicindela \_\_\_\_\_

680622-90 to 680622-92 Cicindela \_\_\_\_\_

680622-93 \_\_\_\_\_ silver spot butterfly. Only one in area.

The other common butterfly at dunes were alpha butterfly. The two ~~Cicindelids~~ Cicindelids other than the common one were always solitary and peripheral to typical sand area.

Observed the following behaviorism of the large Cicindelids (680622-1 to 680622-80):

When approached into wind they would fly forward for 8-15 feet, generally along sandy routes. When approached with the wind they would fly 20-30 ft. and upon alighting would most frequently tumble over several times in the course of a linear foot before coming to rest. I have noticed when pinning these beetles that when removed from jar <sup>killing</sup> they will, in almost 100 per cent of the time, come to rest with legs upright and regardless of readjustment of these beetles will remain on their backs. The route of escape when approached is usually along avenues of sands, but some times they fly laterally into weeds. When one alights a foot or so from another, the one already in position will run over to new arrival and will make a weak contact but will not pursue. Observed one to feed on small insects on sand.

Upon alighting in sparse vegetation in sand area, they desperately run to edge where they have unobstructed position for a get-a-way and where they remain until disturbed again. These beetles are best approached by