

These four species, *niphon*, *augustus*, *Henrici* and *irus*, constitute the representation of the genus east of the Mississippi, and our knowledge of their life-histories is far from complete. Since all are measurably common on the glacial sand plain west of this city, I endeavoured to ascertain the food plant of each (unknown, except in the case of *niphon*) and to breed the larvæ. The study has been full of interest, and my efforts have met with success beyond my expectation.

I.—*Incisalia Irus*.

*Time of flight*.—Species single brooded; the butterfly very abundant during May. It appears each year during the last week of April, and has practically disappeared by June 1st, although I have taken worn individuals as late as June 20th. Its season of greatest abundance is the end of the second week in May.

*Oviposition*.—Each female produces from 12 to 18 eggs,\* which she places singly on the opening buds (rarely on the leaves) of the food plant, *Lupinus perennis*. The butterfly chooses the middle of the day for ovipositing, and disposes of her whole store within an hour. I have never observed a second egg placed upon any plant, except when the butterfly chanced to return to it after visiting another. One cannot readily distinguish the gravid female by her flight, for it is not heavy, but rather may be described as businesslike. She flies directly to the erect raceme, alights without preliminary fluttering, and, after walking about for a few seconds with wings closely appressed and motionless, selects a suitable spot and thrusts her horny ovipositor among and beneath the hairs which clothe the lupine. Immediately upon extruding the egg the insect flies away, occasionally covering a distance of twenty or thirty yards before again ovipositing. In consequence, it often requires a sharp eye and a lively step to follow her through the low growth. Still, it is by no means impossible, for she never leaves the open, refusing to fly through dark spots and turning aside to circle a tree rather than come under its shadow. The eggs are thus scattered over a comparatively broad area, and are to be looked for upon the racemes (usually on the calyxes) of plants exposed during the middle of the day to the full glare of the sun.

*The egg*.—In all, forty-two eggs were carefully examined under the microscope, and I have nothing to add to the descriptions already published. However, the figures given in Scudder's "Butterflies of the Eastern United States and Canada" seem to me to be somewhat ideal or

\*Edwards secured 15 eggs from a female imprisoned over plum.