REARING *SPEYERIA* IN CAPTIVITY

During the summer of 1951 I was able to secure plenty of worn females of *Speyeria hydaspe* Bdv., and a few of *S. zerene* Bdv. *S. hydaspe* females did not oviposit very readily in captivity, but I had so many that eventually I secured a fair lot of ova. The *S. zerene* were more accomodating. Neither species showed any particular preference in settling on a spot for oviposition, not even the presence or absence of the food plant seemed to make any difference. Ova were placed on leaves of violets sometimes, as often on the leaves of other plants, much more frequently on the glass walls of cages, or in moss and debris at the bottom.

The hatching times of the two species are quite different. *S. hydaspe* ova hatched two or three weeks after being deposited. *S. zerene* larvae did not come out until February, from eggs laid in September and late August.

I kept my *S. hydaspe* larvae outdoors. None survived the winter, I think most were dead a few weeks after hatching. None of them did any feeding. Dessication may be the trouble, but it seems that they would be very difficult to keep through the winter.

The first three *S. zerene* larvae, which hatched early in February, I moved at once to a small plastic vial on a shelf in my kitchen. The small amount of trouble I expended on these caterpillars, can be judged by the fact that no other member of the household ever knew what was in the vial. The larvae fed vigorously from the start, being supplied with one leaf at a time from cultivated viola plants in my garden. When they became too large for the vial, they were moved to a larger container in a sunny window. About this point two of them died. The third pupated, and a slightly undersized female butterfly emerged early in May. The normal flight period for the species is August.

The remaining larvae I moved indoors soon after the first three, but due to their number, I could not keep them in so warm a place. Also as the violas were getting somewhat heavily pruned, I switched them to pansies. I would guess that the temperature in which these larvae were kept was higher, especially at night, than would be normal outside in May and June. Still they fed little, and grew very slowly. By the end of May they seemed about fully grown. As I then had to leave them for a month, and preferred to have the butterflies emerge while I was around, I moved them away from artificial heat. I sleeved them on a large root of pansies, expecting they would soon pupate. On my return I was informed that they had eaten the pansy to the ground before pupating. All the pupae died without transforming.

The result of my experiment at least indicates that *S. zerene* can be easily forced with artificial heat, probably with better chance of success than if left to develop naturally. My failure can be attributed to two factors: a poor rearing cage, and in the case of the later lot, removal from the artificial heat, at a stage when the larvae should have been experiencing steadily increasing temperature. No doubt the failure of the food supply did them no good, but in such cases, some sort of undersized imagines usually result.

RICHARD GUPPY, R. R. 1, Marine Drive, Wellington, V. I., B. C., CANADA

ERRATUM

On page 99, Vol. 4 [1951], the hesperiid recorded as *Atrytone "arogos"* has been submitted to Dr. T. N. FREEMAN for confirmation and found to be *Adopoea lineola.* Mr. BAILEY finds this introduced European species extremely abundant near St. Catherines, Ontario.