intermediate and the smallest larvae. The leg discs were not found in the smallest or minim larvae before the sample of the seventh nomadic day.

E. **Differential growth rate of the leg discs.**—As the imaginal leg discs represent our indicator of local growth in the more detailed study of development in *Eciton burchelli* larvae, it is appropriate here to describe in further detail how the obtained measurements were treated. First, one randomly selected member of each pair of imaginal leg discs was measured in its length and width in each specimen of the four largest, four smallest, and twelve larvae of intervening sizes in each sample, with each of the larvae also measured in its overall body length. Then a theoretical expression was obtained for leg disc status in each larva by first obtaining the *length* × *width* product for each of the three discs measured, then averaging, the three products for each individual. These results are listed in Table 1, as three groups of averages of the larval leg-disc areas for each developmental stage studied, together with the similarly averaged ratios obtained by calculating *body length* : *leg-disc area.* This ratio of body length to the leg-disc area value serves as an expression of allometric growth status for larvae in samples taken at different stages of development.

With very few exceptions, primary developmental stages of the imaginal leg discs are present in *burchelli* larvae with body length greater than 2.6 mm of the last statary day; 2.4 mm of the third nomadic day; 2.3 mm of the fifth nomadic day; 2.0 mm of the seventh nomadic day; 2.7 mm of the eighth; 2.9 mm of the tenth and in all individuals of successive nomadic days. Hence there appears to be a relationship between the onset of leg-disc development and the attainment of a given threshold of size in the larva rather than to the phase-day age of the larvae. This is evident when one considers the fact that leg discs appear at correspondingly later phase-day ages in those larvae lest to hatch and to begin their development (i.e., in the smallest or potential minim castes).

In all samples, the leg discs exhibit their most advanced stages in the largest larvae. Thus in the sample of the third nomadic day, the presence of the peripodal cavity is apparent in some of the largest larvae but in none of the smaller specimens. In like manner, in the sample of the fifth nomadic day the presence of transverse segmentation in these discs is apparent in some of the largest larvae but not in any of the smaller specimens. These changes in the development of the leg discs are always observed first in the largest larvae, only later in the intermediate (size-graded) larvae, and last in the smallest larvae. With continued development the leg discs of some of the largest and size-graded larvae of the tenth, eleventh and twelfth nomadic days overlap the posterior margin of their thoracic segment and are partially or entirely covered by the surface integument. Consequently, most of the largest larvae of the twelfth nomadic day have no externally visible imaginal leg discs, so that