

segment 10 raises into a prominence usually pointed toward the apex in *I. barberi*, *I. ramburii*, *I. denticollis*, *I. verticalis*, and *I. posita*; however, this prominence is distinctly smaller than the spine developed on the same margin in *I. prognatha* and *I. demorsa*. Only *I. kellicotti* has a 10th abdominal segment without a raised apical margin. The superior abdominal appendage of *I. ramburii* in lateral view may appear slightly bifid with a blunt lateral lobe, depending on articulation of the appendage. The bifid nature of *I. prognatha's* superior appendage in lateral view is distinct with slender lobes or arms. The bifid condition of the inferior abdominal appendages of *I. demorsa* is diagnostic for that species in Texas, and is visible in both lateral and dorsal view; however, the latter view must have the longitudinal axis of the 10th segment perpendicular to the line of vision to insure seeing the bifid condition.

The antehumeral pale stripes (totally absent in *I. denticollis*) are more narrow in width than the middorsal and humeral dark stripes. In *I. posita*, each stripe typically separates into an elongated anterior and a circular posterior spot having an exclamation mark-pattern. Nonetheless, infrequent individuals of *I. posita* occur with the spots connected resulting in a medially constricted stripe. Large samples of *I. ramburii* and *I. verticalis* occasionally have individuals with their antehumeral stripes separated into two spots, and similar variation may occur in other ischnurans.

The eighth and ninth abdominal segments (and also the 10th segment in *I. kellicotti*) possess a pattern of blue and black: a reduced or absence of abdominal blue color is characteristic of *I. posita*. The variation between species in this trait largely involves the extent of black on lateral sides of the eighth and ninth abdominal segments. Black pattern on the sides of segment eight in *I. demorsa* varies from total absence to a wide line, the latter being the typical condition. The key uses only such abdominal patterns as a primary diagnostic difference in couplet six involving species without conflicting variation to our knowledge. Use of all color patterns requires caution. Variation of pattern on the ninth abdominal segment of *I. ramburii* was the basis for the taxonomic recognition of *Ischnura credula* or *I. ramburii credula* by different authorities. The variation has geographic correlation in some areas (Paulson, 1966); however, the two types are widely sympatric.

Ischnurans frequently have shape and color differences in the stigma of fore and hind wings of males. This difference is absent in *I. posita*, occurs in color although weakly developed in *I. demorsa*, *I. denticollis*, *I. barberi*, *I. verticalis*, *I. ramburii*, and is distinct for color in *I. kellicotti*. Both shape and color differences characterize fore and hind stigmas of male *I. prognatha*.

Range in body length within *Ischnura* species has a seasonal correlation. Larger specimens characterize early season collections, and smaller individuals appear in late summer or fall. The wide range in body length of adults probably indicates different generations experiencing different larval durations. Table 2 gives the species from smallest to largest minimal