

## THE LABIUM OF THE NYMPHS OF ZYGOPTERA

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Several forms of labia occur in the Zygoptera, differing mainly as regards shape of mentum, submentum and lateral arms. There are also variations in the number of setae possessed by the different parts.

The labium can be homologized throughout with that of other insects. Palpi, ligula, mentum and submentum are present.

The use of the labium for capturing prey has led to rather extensive muscular development within. Two pairs of mental muscles serve to operate the organ to open and close the lateral arm. Two pairs of submental muscles, together with a pair of oblique basal muscles, open and close, extend and retract the piece as a whole. The presence of a median unpaired chitinous "rod" or ligament aids in this last operation, and is of interest because it occurs only in the Order Odonata. Caudad it is attached to the dorsal, ental surface of the submentum not far behind the articulation of that portion with the head capsule. Cephalad it is fastened to the cuticle immediately behind the hypopharynx.