

white becomes dull and sordid. Twelve hours after suspension, pupation takes place.

**CHRYSALIS**—Length to top of head .95 inch, to end of processes on head 1.1 inch; slender, compressed laterally, the thoracic segments on ventral side highly arched and rounded abruptly down to abdomen; the sides of this elevation covered entirely by the wing cases, sloping, almost flat or a little convex, the two wing cases not quite meeting, but separated by a narrow depressed ridge, on either side of which is a row of small bead-like tubercles, each giving out at top a short sharp bristle or thorn; this ridge widens anteriorly so as to include the antennæ cases, and the rows of beads pass along and around head case to its top on the dorsal side, but for a little distance at the base of the antennæ lose their bristles; head case prominent, compressed transversely, nearly square at top; upon each vertex a narrow leaf-like process, lanceolate, flattened and thin, serrated on both edges, divergent, like horns; mesonotum prominent, compressed at top into a thin carina which rises on the anterior part in a double curve to a sharp point, but on the posterior side slopes at about 45°; followed by a rounded excavation considerably longer than the mesonotum itself; abdomen cylindrical; on the two upper segments a large sub-dorsal, flaring, flattened process rounded irregularly on the edge and completely spanning both segments; on the next segment is a small sharp rounded process, and on the next another small and flattened; on the next a sharp tubercle, in some cases flattened; on the tops of all these processes are thorns, one on each of the smaller, and two on the largest; in row with these, on the depression and on the sides of mesonotum are four low conical tubercles, each with a short thorn; segments 9, 10, 11, in the ventral line, have the anterior edges turned up and produced into low divergent points; at the base of the head case on dorsal side a large burnished gold spot, and the tubercles behind the mesonotum are similar to this in color; general hue brown, in shades; the anterior parts, which includes head case, mesonotum and half the wing cases, being light or yellowish; the rest of wing cases dark, or streaked dark in the interspaces of the wings; the light part of these cases somewhat gray or whitish; the processes on head and the antennæ cases are dark; abdomen varied in longitudinal streaks, confined to each segment, dark and light brown, with some oblique whitish marks on the ventral side. Duration of this stage 6 to 7 days.

This species is common in Southern Florida, and has been taken at