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NEOCORUS IBIDIONOIDES (SERVILLE, 1834): NOTES ON THE BIOLOGY, DESCRIPTIONS OF THE LARVA AND PUPA (COL., CERAMBYCINAE)

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Observations made by one of the authors (Meyer) in Viamão (Fazenda dos Netinhos), Rio Grande do Sul, Brazil, constitute the basis of the present contribution, in which are given some notes on the biology of *Neocorus ibidionoides* (Serville, 1834), a description of the last instar of the larva and a description of the pupa.

HABITAT AND HOST PLANT

The materials were collected in the interior of a wood after clearing of under brush lianas which had been cut and left hanging, completely dry.

The species of liana in the absence of flowers, was identified by Instituto de Botânica da Secretaria da Agricultura do Estado de São Paulo by Dr. J. Corrêa Gomes Jr. as either *Zorsteronia glabrescens* DC or a closely allied species (Apocynaceae).

Neocorus ibidionoides attacks the whole host plant; the present remarks are made on stems about 17 mm in diameter.

MATERIAL AND METHODS

The lianas were cut in the field on October 1964 and taken to the laboratory. The greatest part of the larvae, at that time, were preparing the pupal chamber. All observations and figures here published are relative to the last instar of the larva.

The entomological material is deposited in the Departamento de Zoologia, São Paulo and Museu Anchieta, Pôrto Alegre.

Illustrations (figs. 1-7) were made in camera lucida, based on material dissected and mounted on microscopic slides.

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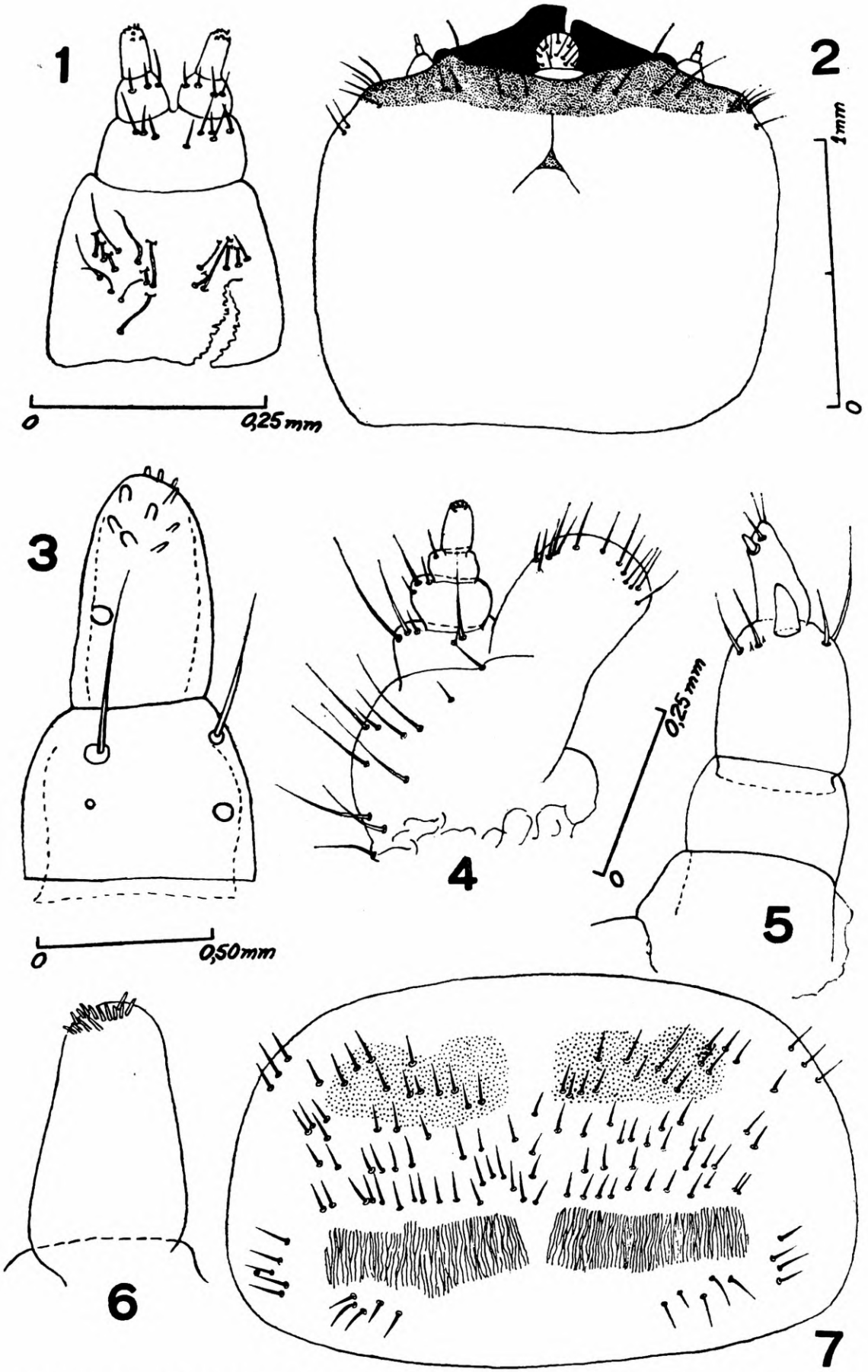
1. Departamento de Zoologia, Secretaria da Agricultura. São Paulo.
2. Museu Anchieta, Pôrto Alegre, Rio Grande do Sul.



Neocorus ibidionoides (serv., 1834). Fig. 1, labium; fig. 2, head (dorsal view); fig. 3. labial palp; fig. 4. maxilla; fig. 5, antenna; fig. 6, segment III of maxillary palp; fig. 7, pronotum. Figures 1 and 4, 2 and 7, and 3 and 6, respectively in the same scale.

Description of the larva

Length: 8,5 - 11 mm; prothorax width: 2,5 - 3 mm.

Head (fig. 2) rectangular. Clypeus transverse, distinct. Labium rounded, with some scattered hairs. Mandibles well developed, dark, with the lateral side oblique. Maxilla (fig. 4) with maxillary lobe rounded at the tip, with some scattered hairs. Maxillary palp without process of palpifer. Segment III (fig. 6) with dense and short hairs at the tip. Labium (fig. 1) with trapeziform mentum; labial stipes not divided anteriorly. Labial palpi (fig. 3) with a few long hairs on segment I and short hairs at the tip of segment II. One single pair of ocelli.

Antennae (fig. 5, dorsal view) with three segments. The supplementary process with about a half of the length of segment III. This segment with an apical papilla.

Pronotum (fig. 7) with two rectangular sclerotized areas at anterior region, and other two, posteriorly, which have characteristic numerous longitudinal rugosities. Central region of the pronotum with short, abundant hairs. The rugose areas are well visible, yellowish, even with the naked eye (fig. 8). Prosternum with short but evident (40x) hairs on all surface. Eusternum (well developed) and sternellum (40x) smooth and glabrous.

Legs present, much reduced.

Dorsal ampullae (40x) without modifications on surface, with some irregular and even furrows, and a more evident central depression. On the anterior ampullae the furoows constitutes a figure like two upside-down "U", with fused adjacent branches and distally bifurcate outer branches. Ventral ampullae resembling the dorsal ones, but with simpler furrows.

Peritreme of the abdominal spiracles with chambers on, at least, all anterior half.

Description of the pupa

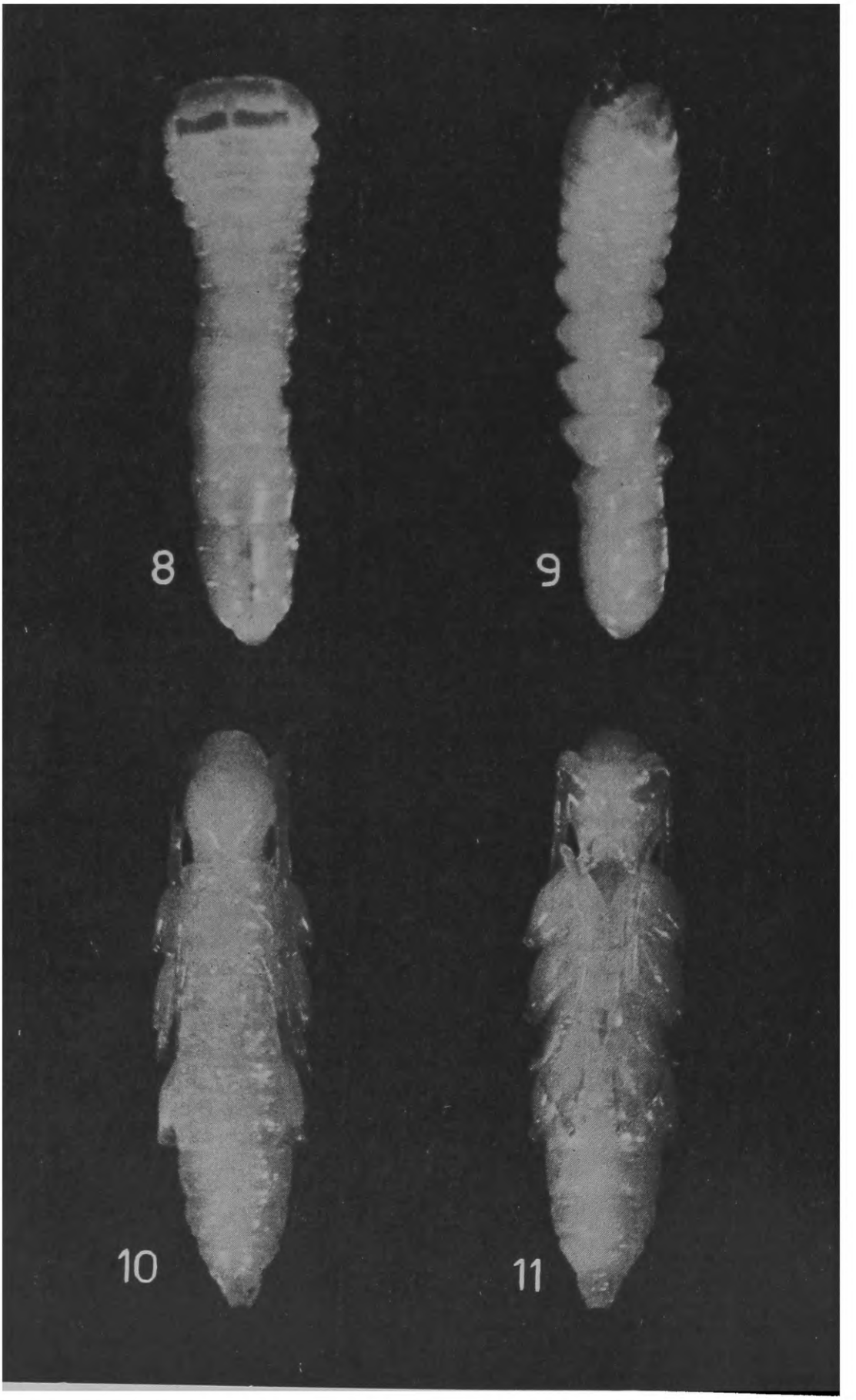
(Figs. 10-11)

Length: 9-12 mm; width: 3-3,5 mm.

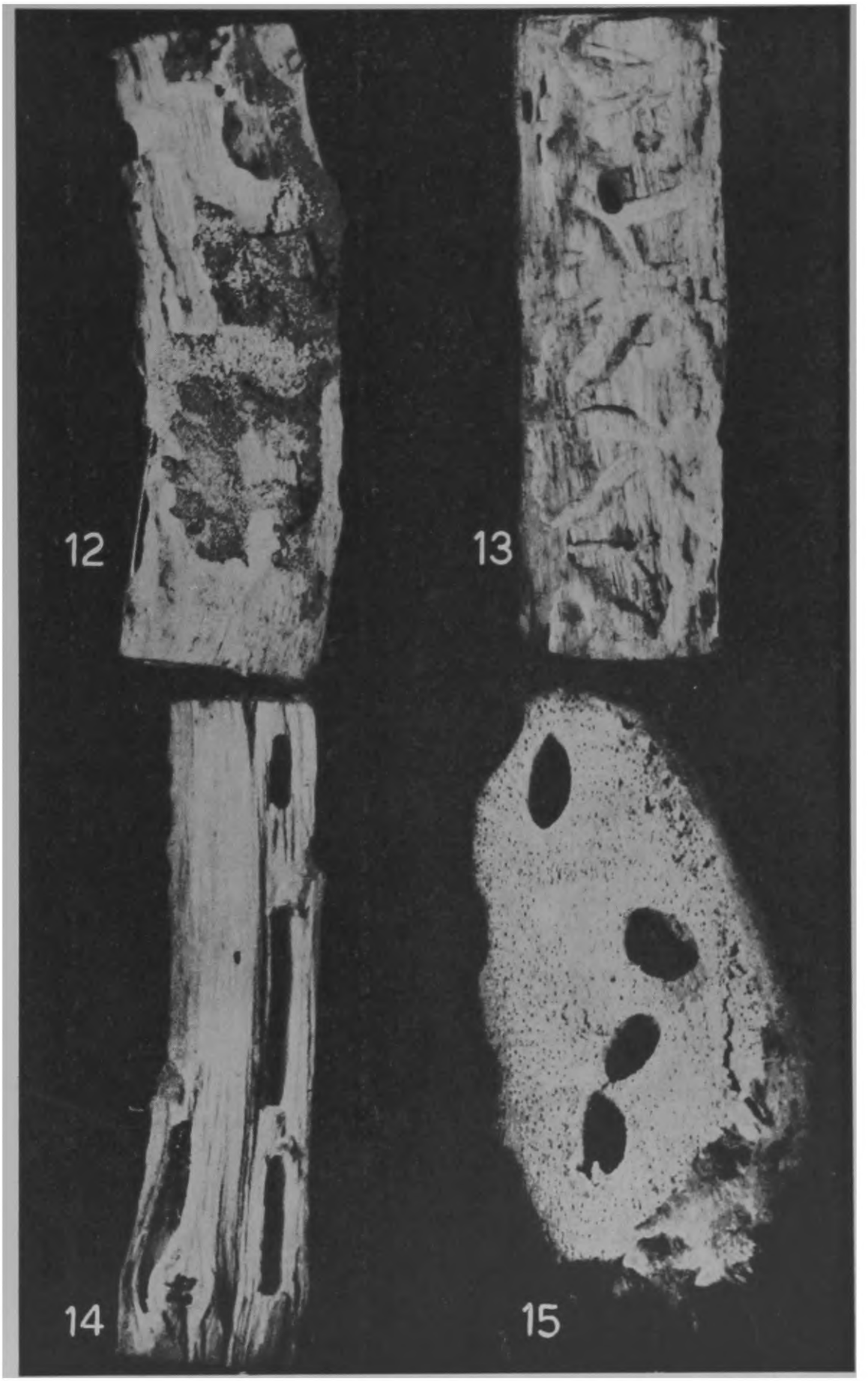
Head closely adpressed to the pronotum. Front (40x) with some long hairs on each side. The antennae reach the first abdominal segment. Hinder antennal segments, like at the adult, scarcely projected at the external side. Labrum triangular, long, glabrous.

Prothorax evidently constricted anterior and posteriorly, lateraly globose. Pronotum globose, without tubercles, with two narrow transversal areas, showing brownish hairs not very long: the first one, on the center of the pronotum, with hairs more closely set and closer to the middle; the second one, in front of the basal constriction, with hairs sparser and more lateral. Mesonotum triangular and (40x) glabrous. Scutellum (40x) glabrous. Metanotum smooth.

Abdomen (40x), except on the first tergite, with a transverse median row of short, brownish papillae. On the seventh tergite those papillae are reduced in number (about four), have the apex turned toward the side of the head and a long and thin hair turned backward. Apical tergites with similar papillae.



Neocorus ibidionoides (Serv., 1834). Larva; fig. 8, dorsal view; fig. 9, lateral view. Pupa: fig. 10, dorsal view; fig. 11, ventral view.



Neocorus ibidionoides (Serv., 1834). Larval galleries: fig. 12, with sawdust; fig. 13 without sawdust. Pupal cells: fig. 14, longitudinal section; fig. 15, transversal section.

Femora pedunculate and clavate; the apices of the posterior pair reach the end of the second abdominal segment.

Biology

We suppose, on account of the presence of deep furrows on the bark of the host plant, that the oviposition is made in these depressions. We have not, however, proof.

The galleries are of the type called by Duffy (1952:40) "subcortical galleries" (figs. 12-13).

The larva progresses under the bark, boring irregular galeries, compressing the sawdust behind (fig. 12). Those galleries are 1-3 mm wide, and about 2 mm high.

When fully grown, the larva changes its path within the plant, boring inwards and downwards, and progressing, parallel to the axis of stem 1-2 mm below the bark. This last section of the gallery is a pupal cell of the type called by Duffy (1952:44) "directed cell". The figure 14 (central cell, still closed by sawdust) shows this behaviour. The oblique gallery of penetration, is also obstructed by well packed sawdust (fig. 14).

Finally the larva turns back, and pupates.

Pupal cells (figs. 14-15) have an elliptic section with axes about 3,5 and 2,5 mm. The length of the cell varies between 10 and 16 mm.

To leave the plant, (fig. 14, left corner) the adult, gnaws its way through the sawdust and bark, emerging with help of the anterior legs and with the body parallel to the ground, dorsum above.

The attack is intense; 214 specimens were bred in about 12 meters of liana. Emergence was in spring and summer. We have observations from October to March.

Resumo

Com base nas observações de um dos autores (Meyer) em Viamão, Rio Grande do Sul, são apresentadas anotações à biologia de *Neocorus ibidionoides* (Serville, 1834), e descrições do último instar larval e da pupa.

O hospedeiro, *Zorsteronia glabrescens* DC (?) (Apocynaceae) ou espécie próxima, foi identificado pelo Dr. J. Corrêa Gomes Jr. O ataque se verifica quando o cipó já está completamente sêco.

O material entomológico encontra-se depositado no Departamento de Zoologia e no Museu Anchita.

As ilustrações (figs. 1-7) e descrição da larva referem-se ao último instar.

References

Duffy, E. A. J., 1952: *A monograph of the immature stages of British and imported timber beetles (Cerambycidae)*. 350 pp., 291 figs., 8 pls. British Museum, London.

— 1960: *A monograph of the immature stages of neotropical imber beetles (Cerambycidae)*. 327 pp., 176 figs., 13 pls. British Museum, London.