

## APPENDIX 1B.

Descriptive matrix of *Periplaneta americana* and of BSPG 1967 XX.

		Inclusion of specimen BSPG 1967 XX (Nymph in amber)	Stage 1 nymph of <i>Periplaneta americana</i>
	Body	divided into presumably 20 segments.	divided into presumably 20 segments.
	Total body length (without appendages)	is about 2.5 mm.	is about 4 mm.
	Total body width (without appendages)	is about 0.8 mm.	is about 1.2 mm.
	Head capsule	is formed by ocular segment and post-ocular segments 1-5.	is formed by ocular segment and post-ocular segments 1-5.
	Thorax	with walking appendages includes post-ocular segment 6-8.	with walking appendages includes post-ocular segment 6-8.
	Abdomen	without walking appendages includes post-ocular segment 9-19.	without walking appendages includes post-ocular segment 9-19.
<b>DORSAL</b>			
Head	Ocular segment	dorsally contributing to the head capsule.	dorsally contributing to the head capsule.
	Post-ocular segment 1 (antennal segment)	dorsally contributing to the head capsule.	dorsally contributing to the head capsule.
	Post-ocular segment 2 (intercalary segment)	dorsally contributing to the head capsule.	dorsally contributing to the head capsule.
	Post-ocular segment 3 (mandibular segment)	dorsally contributing to the head capsule.	dorsally contributing to the head capsule.
	Post-ocular segment 4 (maxillary segment)	dorsally contributing to the head capsule.	dorsally contributing to the head capsule.
	Post-ocular segment 5 (labial segment)	dorsally contributing to the head capsule.	dorsally contributing to the head capsule.
	Shape of head capsule	is drop-shaped and about 0.8 mm long and 0.7 mm wide (without palps).	is drop-shaped and about 1.2 mm long and 1.1 mm wide (without palps).
	Head capsule	freely articulated against next posterior segment.	freely articulated against next posterior segment.
Thorax	Post-ocular segment 6 (thoracic segment 1 - prothorax)	dorsally with a separate, weakly sclerotised tergite (pronotum).  is about 0.8 mm wide and slightly longer than 0.5 mm.	dorsally with a separate, well sclerotised tergite (pronotum).  is about 1.2 mm wide and 1 mm long.
	Pronotum	partly overhanging the head capsule, but only the posterior region.	partly overhanging the head capsule, but only the posterior region.
	Post-ocular segment 7 (thoracic segment 2 - mesothorax)	dorsally with a separate, weakly sclerotised tergite (mesonotum).  is about 0.8 mm wide and 0.4 mm long.	dorsally with a separate, well sclerotised tergite (mesonotum).  is about 1.2 mm wide and 0.5 mm long.
	Post-ocular segment 8 (thoracic segment 3 - metathorax)	dorsally with a separate, weakly sclerotised tergite (metanotum).	dorsally with a separate, well sclerotised tergite (metanotum).

		Inclusion of specimen BSPG 1967 XX (Nymph in amber)	Stage 1 nymph of <i>Periplaneta americana</i>
	Length of thorax (post-ocular segments 6-8)	is about 0.8 mm wide and 0.35 mm long. is about 1.25 mm.	is about 1.2 mm wide and 0.4 mm long. is about 1.9 mm.
Abdomen	Post-ocular segment 9 (abdominal segment 1)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 10 (abdominal segment 2)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 11 (abdominal segment 3)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 12 (abdominal segment 4)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 13 (abdominal segment 5)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 14 (abdominal segment 6)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 15 (abdominal segment 7)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 16 (abdominal segment 8)	dorsally with a separate, weakly sclerotised tergite.	dorsally with a separate, well sclerotised tergite.
	Post-ocular segment 17 (abdominal segment 9)	is not observable.	is not observable.
	Post-ocular segment 18 (abdominal segment 10)	is not observable.	is not observable.
	Post-ocular segment 19 (abdominal segment 11)	is not observable.	is not observable.
	Length of abdomen (post-ocular segments 9-19)	is about 1.2 mm.	is about 1.9 mm.
VENTRAL	Ocular segment		
Head	Compound eyes	are absent.	well developed; dark compound eyes with slightly triangular form; about 0.2 mm long and 0.1 mm wide.
	Clypeus	is articulated distally to head capsule and proximally with labrum.	is articulated distally with head capsule and proximally with labrum.
	Labrum	is about 0.15 mm long and a little less than 0.2 mm wide.	is about 0.2 mm long and a little wider than 0.3 mm.
	Appendage of post-ocular segment 1 (insect terminology (IT): antenna; arthropod terminology (AT): antennula)	well developed, about 2.5 mm long.	well developed, about 6 mm long.
	Number of elements of antenna	is 19.	is 47.
	Appendage of post-ocular segment 2 (IT: intercalary segment)	each about 0.15 mm long and 0.1 mm wide. is absent.	each between 0.05 - 0.15 mm long and 0.1 mm wide. is absent.

		Inclusion of specimen BSPG 1967 XX (Nymph in amber)	Stage 1 nymph of <i>Periplaneta americana</i>
	Appendage of post-ocular segment 3 (mandible)	well developed, about 0.2 mm long and 0.1 mm wide; medially covered by labrum.	well developed, about 0.4 mm long and 0.3 mm wide; medially covered by labrum.
	Hypopharynx (median extension of mandibular sternite)	well developed, about 0.15 mm long and a little less than 0.1 mm wide.	well developed, slightly shorter than 0.3 mm and a little less than 0.2 mm wide.
	Appendage of post-ocular segment 4 (IT: maxilla; AT: maxillula)	Galea and lacinia well developed and prominent, proximal articulated with stipes; with distal, elongate structures (maxillary palps).	Galea and lacinia well developed and prominent, proximal articulated with stipes; with distal, elongate structures (maxillary palps).
	Galea	is about 0.3 mm long and 0.15 mm wide.	is slightly longer than 0.4 and 0.2 mm wide.
	Maxillary palp	is equipped with setae and subdivided into 5 elements.	is equipped with setae and subdivided into 5 elements.
	Element 1 of maxillary palp (palpifer)	is about 0.1 mm long and 0.05 mm wide; proximal articulated to stipes.	is about 0.05 mm long and 0.1 mm wide; proximal articulated to stipes.
	Element 2 of maxillary palp	is about 0.1 mm long and 0.05 mm wide.	is slightly shorter than 0.1 mm and 0.1 mm wide.
	Element 3 of maxillary palp	is about 0.2 mm long and 0.05 mm wide.	is about 0.2 mm long and 0.1 mm wide.
	Element 4 of maxillary palp	is slightly shorter than 0.2 mm and a little less than 0.1 mm wide.	is about 0.15 mm long and 0.1 mm wide.
	Element 5 of maxillary palp	is about 0.4 mm long and 0.15 mm wide.	is about 0.3 mm long and 0.15 mm wide.
	Appendage of post-ocular segment 5 (IT: labium; AT: maxilla)	medially conjoined; with pronounced enditic median protrusions (pointing relatively anteriorly) and distal, elongate structures (labial palps).	medially conjoined; with pronounced enditic median protrusions (pointing relatively anteriorly) and distal, elongate structures (labial palps).
	Paraglossa	is about 0.2 mm long and 0.1 mm wide.	is about 0.4 mm long and 0.3 mm wide.
	Labial palp	is equipped with setae and subdivided into 4 elements.	is equipped with setae and subdivided into 4 elements.
	Element 1 of labial palp	is about 0.1 mm long and 0.05 mm wide; proximal articulated to prementum.	is about 0.1 mm long and 0.1 mm wide; proximal articulated to prementum.
	Element 2 of labial palp	is about 0.1 mm long and 0.05 mm wide.	is about 0.15 mm long and 0.1 mm wide.
	Element 3 of labial palp	is about 0.15 mm long and a little less than 0.1 mm wide.	is about 0.25 mm long and 0.1 mm wide.
Thorax	Appendage of post-ocular segment 6 (thoracic segment 1)	divided into 5 main elements.	divided into 5 main elements.
	Element 1 (coxa)	is about 0.7 mm long and 0.25 mm wide.	is about 0.8 mm long and 0.3 mm wide.
	Element 2 (trochanter)	is about 0.1 mm long and a little less than 0.1 mm wide.	is about 0.15 mm long and 0.1 mm wide.
	Element 3 (femur)	is about 0.6 mm long and 0.1 mm wide.	is about 1 mm long and 0.2 mm wide.
	Element 4 (tibia)	is about 0.35 mm long and a little less than 0.1 mm wide.	is about 0.6 mm long and 0.1 mm wide.

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	Element 5 (tarsus)	is about 0.5 mm long 0.05 mm wide and further subdivided into 5 elements.	is about 1 mm long and a little less than 0.1 mm wide further subdivided into 5 elements.
	Appendage of post-ocular segment 7 (thoracic segment 2)	divided into 5 main elements.	divided into 5 main elements.
	Element 1 (coxa)	is about 0.7 mm long and 0.3 mm wide.	is about 0.8 mm long and 0.4 mm wide.
	Element 2 (trochanter)	is about 0.1 mm long and a little less than 0.1 mm wide.	is about 0.15 mm long and 0.1 mm wide.
	Element 3 (femur)	is about 0.7 mm long and 0.1 mm wide.	is about 1 mm long and 0.25 mm wide.
	Element 4 (tibia)	is about 0.5 mm long and a little less than 0.1 mm wide.	is about 0.7 mm long and 0.15 mm wide.
	Element 5 (tarsus)	is about 0.5 mm long 0.05 mm wide and further subdivided into 5 elements.	is about 1 mm long a little less than 0.1 mm wide and further subdivided into 5 elements.
	Appendage of post-ocular segment 8 (thoracic segment 3)	divided into 5 main elements.	divided into 5 main elements.
	Element 1 (coxa)	is about 0.7 mm long and 0.4 mm wide.	is about 0.8 mm long 0.5 mm wide.
	Element 2 (trochanter)	is about 0.2 mm long and 0.1 mm wide.	is about 0.2 mm long 0.15 mm wide.
	Element 3 (femur)	is about 0.8 mm long and 0.15 mm wide.	is about 1.1 mm long 0.2 mm wide.
	Element 4 (tibia)	is about 0.8 mm long and 0.1 mm wide.	is about 1.1 mm long 0.2 mm wide.
	Element 5 (tarsus)	is about 0.5 mm long 0.05 mm wide and further subdivided into 5 elements.	is about 1.4 mm long 0.1 mm wide and further subdivided into 5 elements.
Abdomen	Appendages of post-ocular segment 17 (styli)	are slightly curved and about 0.15 mm long.	are slightly curved and about 0.1 mm long.
	Appendages of post-ocular segment 19 (cerci)	tapers to a fine point on the distal end; is not curved; equipped with setae.	tapers to a fine point on the distal end; is not curved; equipped with setae.
		are about 0.5 mm long and at the base 0.1 mm wide.	are about 0.7 mm long and at the base 0.1 mm wide.