Contributor: Erin K. Morris, DVM, Diplomate ACVP. WRAIR-NMRC. Forest-Glen Annex, MD.

Clinical History: Multiple instar waxworm (Galleria mellonella) larvae were inoculated with Shigella sp. via injection through a posterior proleg directly into the hemocoel.

Necropsy Findings: Multifocal to diffuse areas of brown discoloration are present on the cuticles of affected and dead larvae.

Gross and Microscopic Images:

Figure 1. Instar pupae cuticles. Gross photo (photo borrowed from www.waxworm.com).
Figure 2. Fat body (Hemocoel adipose tissue). 200X, H&E stain.

Figure 3. Dorsal vessel. 100X, H&E stain.
**Figure 4.** Midgut. 200X, H&E stain.

**Figure 5.** Cuticle. 200X, H&E stain.

**Follow-Up Questions:** Gross and microscopic morphologic diagnoses.
*The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation. These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this material with answers and a brief discussion will be posted on the CL Davis website (http://www.cldavis.org/diagnostic_exercises.html).

Associate Editor for this Diagnostic Exercise: Ingeborg Langohr
Editor-in-chief: Vinicius Carreira