PEST ALERT

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Anoplophora glabripennis (Motschulsky), Asian longhorn beetle (ALB) and *Anoplophora chinensis* (Forster), citrus longhorn beetle (CLB), potential threats to the southeastern United States

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INTRODUCTION
A recent discovery of a population of *Anoplophora glabripennis* (Motschulsky, 1853) in South Carolina has prompted renewed interest in this invasive species. Two members of the genus *Anoplophora* with significant threat potential to the Southeast are occasionally intercepted.

Anoplophora glabripennis, or Asian longhorn beetle (ALB) (Figure 1), has been intercepted at least 17 times in the United States. It also has populations currently undergoing eradication in Massachusetts, New York and Ohio. Populations once in Illinois and New Jersey have been eradicated.

Anoplophora chinensis (Forster, 1771), or citrus longhorn beetle (CLB) (Figure 3), has been intercepted five times in the United States. These interceptions have been successfully quarantined or eradicated from Arkansas, California, Georgia, Washington and Wisconsin.

DISTRIBUTION
ALB and CLB are native to Asia, but have become established in several countries in Europe and North America. Outside of its native range ALB has populations in Austria, Canada, France, Germany and Italy, and CLB is known from Italy, France and the Netherlands. These populations have either been eradicated or are currently undergoing eradication.

IDENTIFICATION
Both beetles are characterized by their long antennae and distinctive white spots that contrast with their black body. ALB ranges in size from 17–39 mm (0.7–1.5 inches), and CLB ranges from 21–37 mm (0.8–1.5 inches). CLB is differentiated by the granulate texture at the base of the elytra (Figure 4), lacking in ALB (Figure 2). A similar native species, *Plectrodera scalator* (Fabricius, 1792), or the cottonwood borer (Figure 5), is superficially similar in being black with white spots, but differs in having all black antennae and a solid white elytral suture.

LIFE CYCLE AND DAMAGE
ALB and CLB have four life stages: egg, larva, pupa and adult. After mating, females lay eggs on the host, larvae emerge and feed under the bark. The larval stage is responsible for most of the damage to the host plant (Figure 6). The larvae then create a pupal chamber in the wood and pupate (Figure 7). After some time, the adult emerges and creates an exit hole (Figure 8). Typical development time from egg to adult is one year. Eggs are laid in the summer and larvae feed and develop the rest of the year, usually overwintering as larvae. Pupation typically occurs in late spring or early summer and adults then emerge in the summer. Both species attack healthy and stressed trees, varying in size from small bonsai to mature trees (Haack et al. 2010).

HOSTS
Recorded host plant genera for ALB include but are not limited to: *Acer*, *Aesculus*, *Betula*, *Fraxinus*, *Hibiscus*, *Melia*, *Morus*, *Populus*, *Prunus*, *Pyrus*, *Robinia*, *Salix* and *Ulmus*.

Recorded host plant genera for CLB include but are not limited to: *Acacia*, *Acer*, *Albizzia*, *Aleurites*, *Alnus*, *Aralia*, *Atalantia*, *Betula*, *Broussonetia*, *Cajanus*, *Camellia*, *Carpinus*, *Carya*, *Castanea*, *Casuarina*, *Citrus*, *Cryptomeria*, *Elaeagnus*, *Eriobotrya*, *Fagus*, *Ficus*, *Hedera*, *Hibiscus*, *Ilex*, *Juglans*, *Lindera*, *Litchi*, *Maackia*, *Mallotus*, *Malus*, *Melia*, *Morus*, *Olea*, *Persea*, *Photinia*, *Pinus*, *Platanus*, *Polygonum*, *Populus*, *Prunus*, *Psidium*, *Pyracantha*, *Pyrus*, *Quercus*, *Rhus*, *Robinia*, *Rosa*, *Rubus*, *Salix*, *Sapium*, *Shima*, *Sophora*, *Styrax* and *Ulmus*.

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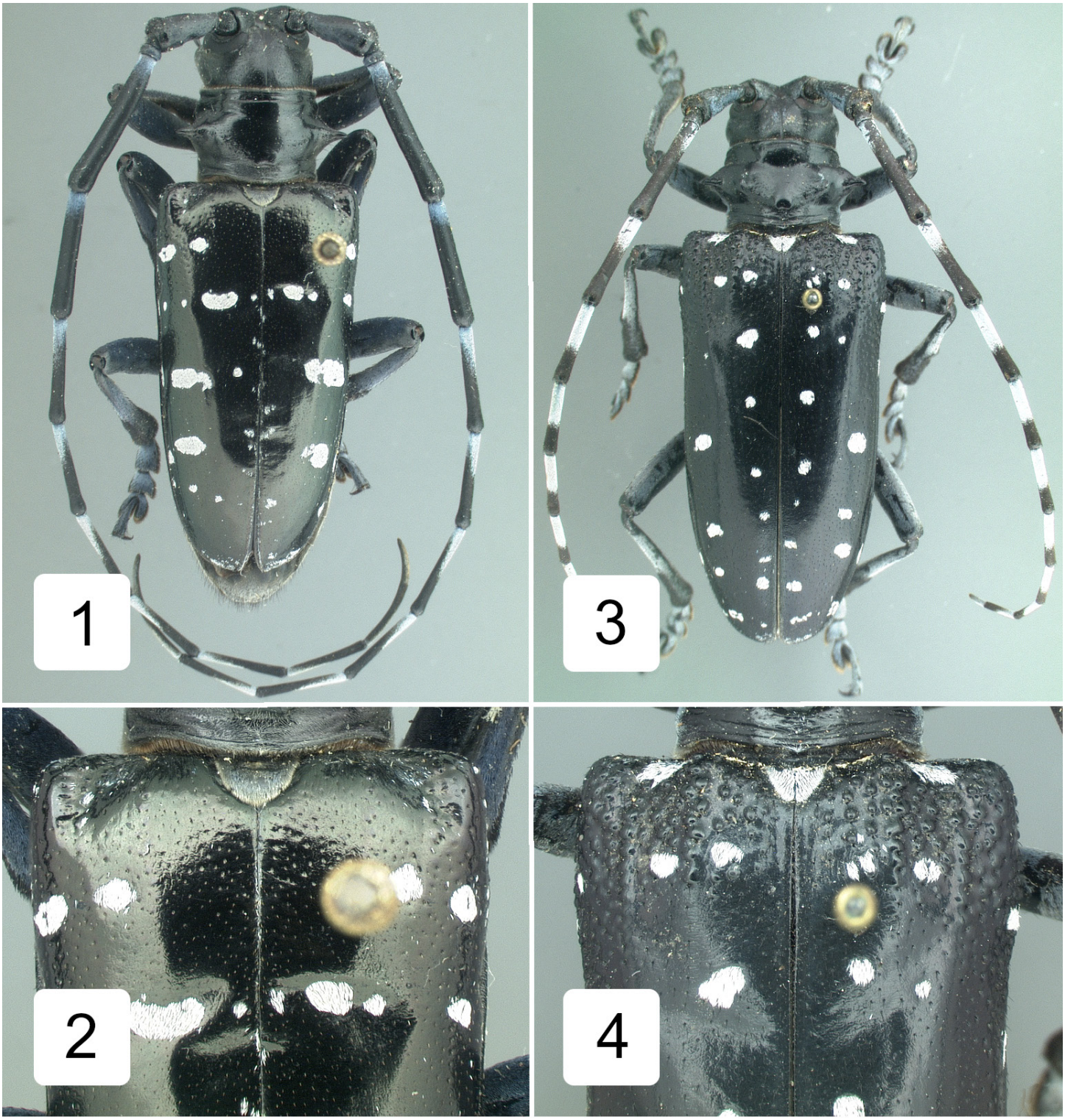

Figures 1–2 *Anoplophora glabripennis*, dorsal habitus and closeup of smooth elytra. **Figures 3–4** *Anoplophora chinensis*, dorsal habitus and closeup of elytra showing granulate texture. Photos by Kyle Schnepp, FDACS-DPI.

Figure 5 *Plectrodera scalator*, dorsal. **Figure 6** Larval damage of *Anoplophora glabripennis*. **Figure 7** Pupa and pupal chamber of *Anoplophora glabripennis*. **Figure 8** Adult emergence hole of *Anoplophora glabripennis*.
Photos by Kyle Schnepp, FDACS-DPI (Fig. 5); Steven Katovitch (Fig. 6); Kenneth R. Law, USDA APHIS PPQ (Fig. 7); Pennsylvania Department of Conservation and Natural Resources - Forestry (Fig. 8); bugwood.org (Fig. 6–8).