N O T E

New Distribution Record of *Larinus planus* (Coleoptera: Curculionidae) in Tennessee[1]

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Larinus planus (F.) (Coleoptera: Curculionidae: Lixinae) adults were collected from one population of Canada thistle, *Cirsium arvense* L., in Washington Co., TN, on 19 July 2005. Thirteen adults were found within the seed heads of 7 plants (20 total plants sampled from this population) with a single adult occurring in each seed head. These beetles were tentatively identified as *Larinus* spp. (GJW). All specimens were sent to Robert Anderson, Canada Museum of Nature (Ottawa, Ontario), for confirmation of identification and were identified as *L. planus*, representing the first documentation of this species in Tennessee. Four other populations of *C. arvense* were sampled in 3 other counties (Anderson, Campbell, and Knox) between 2004 and 2008, but no *L. planus* were collected from plants in these populations (Fig. 1). Additionally, multiple populations of 6 other *Cirsium* species [*C. altissimum* L. (tall thistle), *C. carolinianum* (Walt.) Fern & Schub. (soft thistle), *C. discolor* (Muhl. Ex Willd.) Spreng. (field thistle), *C. horridulum* Michx. (yellow thistle), *C. muticum* Michx. (swamp thistle), and *C. vulgare* (Savi) Ten.] were sampled in 24 counties in eastern Tennessee during a thistle survey (Wiggins 2009, NonTarget Host Utilization of Thistle Species by Introduced Biological Control Agents and Spatial Prediction of NonTarget Feeding Habitats, Ph.D. Diss., Univ. Tennessee, Knoxville; Wiggins et al. 2009, Biocon. Sci. Tech. 19: 993 - 998) (Fig. 1), and no *L. planus* were collected from plants of these species. The lack of this species occurring in native thistle populations in Tennessee suggests that *L. planus* does not use any of these native thistle species as host plants. This finding is important because *L. planus* has been documented feeding on and impacting seed production of the native thistle *C. undulatum* (Nutt.) Spreng. var. *tracyi* (Rydb.) Welsh in Colorado (Louda and O'Brien 2002, Conserv. Biol. 16: 717 - 727; Louda et al. 2003, Conserv. Biol. 17: 73 - 82).

This weevil species was considered for release against Eurasian thistles in North America in the 1960s but, following host specificity testing, was not recommended for

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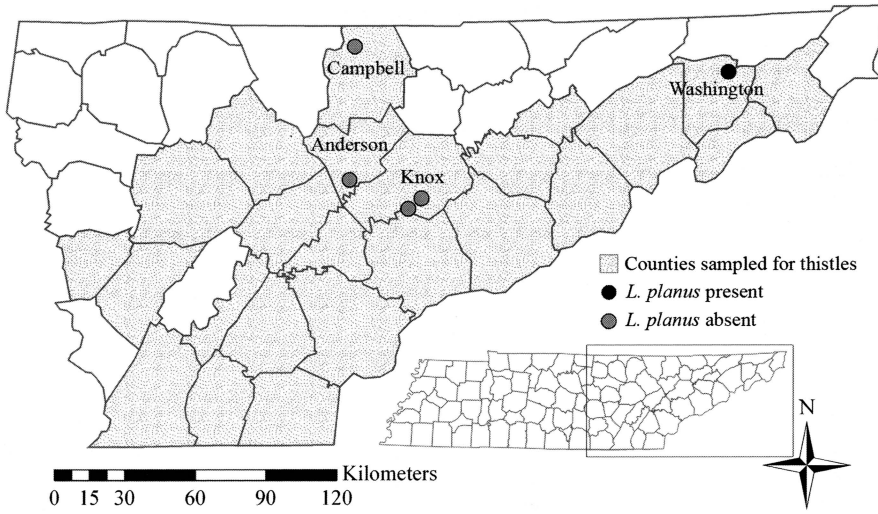

Fig. 1. Counties surveyed for *Carduus* and *Cirsium* thistles, and locations of populations of *Cirisum arvense* where *Larinus planus* was present and absent, 2004 - 2008, Tennessee.

release due to its wide host range in Europe (Zwölfer 1964, Prog. Rpt. No. 10. Commonwealth Inst. Biol. Con., European Station, Delmont, Switzerland; Zwölfer et al. 1971, Tech. Bull. 14. Commonwealth Inst. Biol. Con., European Station, Delmont, Switzerland). Although the introduction of *L. planus* into the U.S. was not approved for release by the Technical Advisory Group for Biological Control Agents of Weeds (Coombs et al. 2004, Pp. 106 - 113. *In* Biological Control of Invasive Plants in the United States, OR State Univ. Press, Corvallis), *L. planus* was first documented in the U.S. in Maryland in 1971 (White 1972, Coop. Econ. Insect Rpt. 22: 418). This species has now been established or documented in Colorado, Idaho, Indiana, Maryland, Nebraska, New York, Ohio, Oregon, Pennsylvania, South Dakota, West Virginia, and Wyoming (Wheeler and Whitehead 1985, Proc. Entomol. Soc. Washington 87: 751 - 758; Louda and O'Brien 2002; McClay 2002, Pp. 217 - 228. *In* Biological Control of Invasive Plants in the Eastern United States, USDA Forest Service, FHTET- 2002 - 04, Morgantown). No official releases have been made in states bordering Tennessee (pers. comm. from the following experts at Federal and State agencies and academic institutions: Glenn Hanes, U.S. Department of Agriculture, Agricultural Research Service; Steve Sims, Kentucky Department of Agriculture; Lee Townsend, University of Kentucky; Tim Banek, Missouri Department of Conservation; David Mason, Arkansas State Plant Board; Tim Kring, University of Arkansas; Kathleen Kidd, North Carolina Department of Agriculture, and; Loke Kok, Virginia Polytechnic Institute and State University), and *L. planus* has not been officially released in Tennessee (Steve Powell, Tennessee Department of Agriculture, pers. commun.). Therefore, this record of *L. planus* in Tennessee is probably the result of natural movement/dispersal. Continued monitoring to assess the distribution of *L. planus*, as well as its association with native plant species, will provide greater information on this introduced weevil species in Tennessee.

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