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NEW DISTRIBUTION RECORDS FOR *ELEATES DEPRESSUS* (RANDALL) IN THE SOUTH-EASTERN UNITED STATES (COLEOPTERA: TENEBRIONIDAE; BOLITOPHAGINAE) AND NOTES ON THESE OCCURRENCES --- Scarcity in collections adds interest to certain small beetle species that are obscure, poorly documented, and for which the biology is unknown. *Eleates depressus* (Randall) is such an example, with few published records and scant information on its natural history. Since its description (Randall, 1838) from Hallowell, Maine, occurrences of this small bolitophagine (Fig. 1) have been reported in state listings from Michigan (Spilman, 1973), New Jersey (Smith, 1900), New York (Leonard, 1928), southwestern Pennsylvania (Hamilton, 1895), and Wisconsin (Dunford & Young, 2004), and from four provinces in eastern to central Canada (Bousquet & Campbell, 1991). Horn (1870) knew the species from "Middle and Eastern States and Canada" but recent U.S. regional works (Downie & Arnett, 1996; Aalbu et al., 2002) list only the Maine record. These records, and the lack of any listings in catalogs of the southern states, suggest a boreal distribution. However, recent captures and newly recognized specimens in collections from the southeastern United States, including the Coastal Plain, demonstrate otherwise, as reported here.

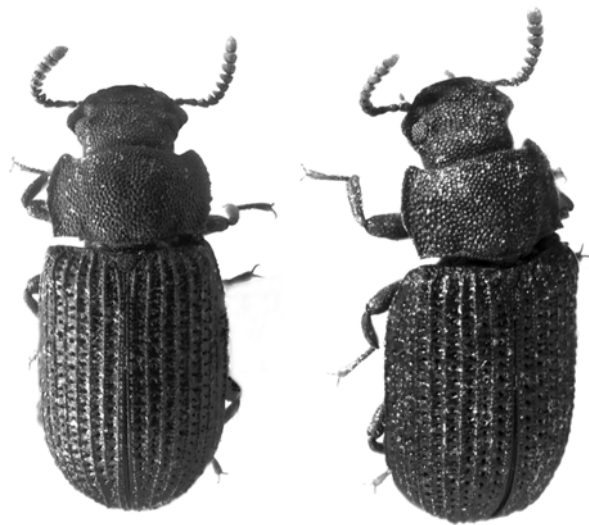


Fig. 1. *Eleates depressus*, dorsal (left) and dorsolateral (right) views; length of beetle, 3.7 mm. Specimen from Calvert County, Maryland.

NEW STATE RECORDS

GEORGIA: one specimen labeled: "Ga. Clarke Co., Athens, bl trap, 6-7 July 1973, R. Turnbow" (in R. H. Turnbow collection) and two specimens labeled: "Dunwoody [De Kalb County] Ga., 1955 / Collr. E. F. Mehinick" (in Ohio State University Collection).

MARYLAND: one specimen labeled: "MARYLAND: Calvert Co., Flag Ponds area 3 km SE Long Beach, 38°23'N, 76°27'W, 16 July 1988, J. M. Hill, collr. / Collected at black light near sand beach" (in U.S. National Museum, Smithsonian Institution).

TENNESSEE: five specimens labeled: "TENNESSEE: Great Smoky Mountains National Park / Trail to Ramsey Cascade; 13-V-1986, Paul Skelley" (in Florida State Collection of Arthropods) and two specimens, apparently from the same series, labeled: "Grt. Smokey Mts. Nat. Pk., trail to Ramsey Cascade, Tenn., 13 May 1986, P. Skelley" (in Ohio State University Collection).

VIRGINIA: one specimen labeled: "VA: Henrico Co., 4 km upstream Bottoms Bridge, Chickahominy R., Wilson Farm, 3 June 2000, I. T. Wilson" (in Virginia Museum of Natural History).

BIOLOGY

Other members of the Bolitophaginae are known to feed on and breed in the sporocarps of polypore fungi on dead wood and are restricted to certain species (Leschen, 1990). To date, no host fungus has been associated or identified for *E. depressus*. I have seen host records on specimens (in UCBC) of the two congeners from the western states: *Eleates occidentalis* Casey, labeled "ex *Fomes*" and *E. explanatus* Casey, labeled "*Fomes pinicola*" [*Fomitopsis pinicola* (Swartz: Fries) Karst.] and "*Fomes officinalis*" [*Fomitopsis officinalis*] (Villars.: Fr.) Bondartsev & Singer]; a series of the latter species is also labeled "*Draperia systyla*" but this may be in error, since this is a vascular plant in the Hydrophyllaceae.

Both species of the above polypore fungi have Holarctic distributions and cause wood rot. *Eleates depressus* may be using these same fungi, but the rarity of the beetle in collections suggests that its host(s) may be uncommon. A majority of records indicate only that specimens were taken at artificial lights, with no description of surrounding habitat. Literature records give only general habitat information, e.g., "under the bark of prostrate pine logs" (Randall, 1838), "in woody fungus or under bark of dead trees" (Spilman, 1973), "mostly on the mountains in woody fungus" (Hamilton,

1895) and “deciduous and coniferous forests” (Dunford & Young, 2004). The Maryland record is from a site with mature mixed forest behind a beach. The Virginia specimen, probably taken at black light, was near a mature loblolly planting and much older mixed hardwood forest with abundant dead wood (Irvine Wilson, pers. comm.). The Tennessee series was probably taken from logs and fungi, and was in old-growth forest (Paul Skelley, pers. comm.). In spite of the recent efforts to survey and identify all beetles known from the Great Smoky Mountains (Carlton, 2004), *E. depressus* has not been detected there until now, further indicating the rarity of this beetle. If restricted to mature and old growth forests, this would also explain its scarcity.

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