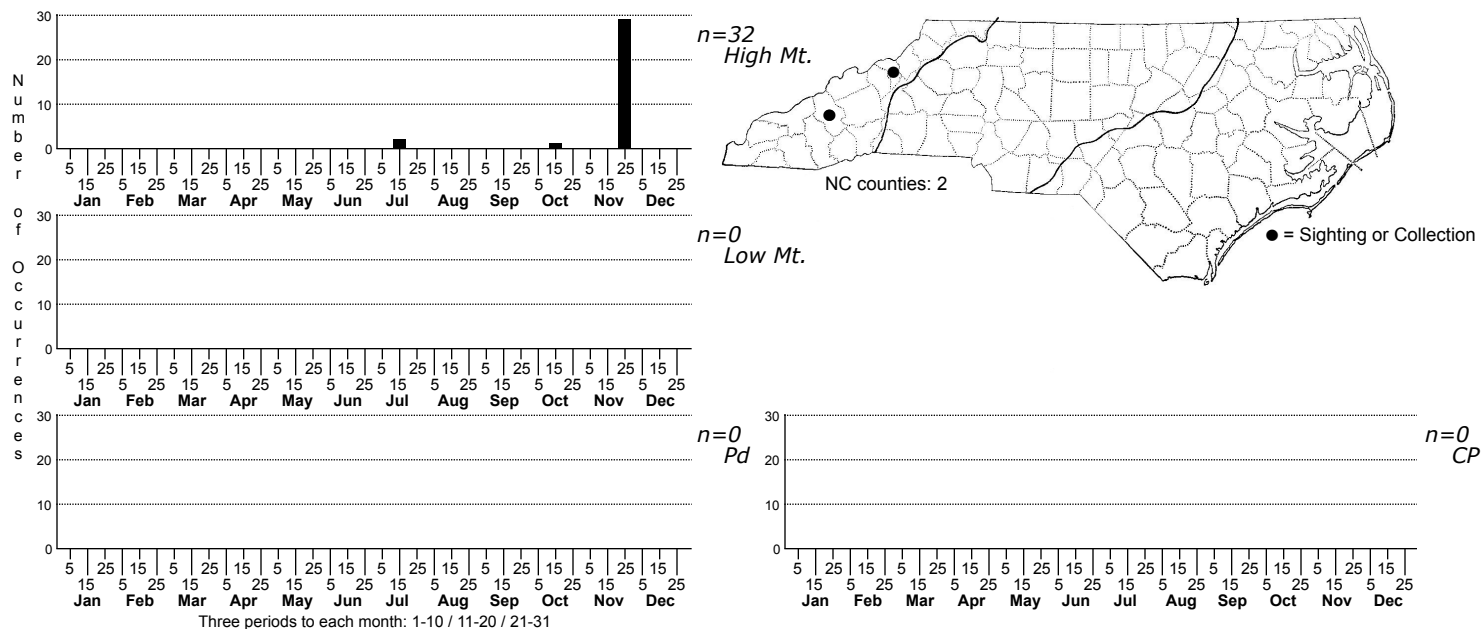


## *Diploechiniscus oihonnae*



FAMILY: Echiniscidae

TAXONOMIC COMMENTS: *Echiniscus horningi* synonymized with this species and re-described by Kacmarek et al. 2021

SPECIES COMMENTS: Terrestrial. Reported from scattered states in USA.

ID COMMENTS: Body orange in live specimens and transparent/light yellow after preparation (Fig. 1). Eyes dark brown, almost black. Apart from the head appendages which include: internal and external cirri and cylindrical cephalic papillae [secondary clava], only appendage A with clava [primary clava] near its base is present (Fig. 1D). Dorsal and lateral appendages in the shape of short, and long filaments, and teeth are present at positions A-B-BI-C-CI-Cd-D-DI-Dd-E-EI (Figs 1A&dash;C, 2A&dash;E). See also Morphological variability below. In many specimens, lateral filaments, especially E but occasionally others, barbed (Figs 1A&dash;B, 2C&dash;E, arrowheads). Dorsal plates well developed. Head and scapular plates not faceted. Under PCM, lateral portions of the scapular plate appear to be detached from the dorsal plate, forming small additional plates (one on each side of the body) divided from the scapular plate by a thin bright stripe. This false division is caused by a bend of the plate where the cuticle is thinner; under SEM, this pseudo-division is not visible. Paired plates I and II are divided into two parts &dash; narrow anterior part and a wider posterior part &dash; by smooth stripe without sculpture (Figs 2D&dash;E, asterisk). Anterior parts concave and moreover, often divided longitudinally into two parts (Figs 2D&dash;E, empty indented arrowhead). Median plate 1 undivided, m2 divided into concave anterior part and convex posterior part, m3 undivided and concave (Figs 1A&dash;C). The terminal plate with two notches (Figs 2D&dash;E, filled indented arrowhead). All dorsal plates, except neck plate, covered with double sculpture under PCM, i.e., regular polygonal granules (0.8&dash;1.7 &mu;m in diameter on scapular plate) and white circular pores (seen as white spots, 0.5&dash;1.6 &mu;m in diameter on scapular plate); but see below for more details (Fig. 3A). Lateral portions of the scapular plate (detached from the dorsal plate by white stripe) without pores (Fig. 2A, arrow). On anterior parts of paired plates granules and pores clearly smaller. Moreover, often pores are completely absent on anterior parts of paired plates or at least on the lateral parts (Fig. 2A, filled arrowhead). Pores often absent on anterior concave part of m2 (Fig. 3C, filled arrowhead), with typical double sculpture present on the posterior part. Under SEM the plates are covered by regularly distributed pores (Fig. 3B), which means that where the white pores visible under PCM are absent (i.e., neck plate, lateral portions of the scapular plate and anterior parts of paired plates) the plates appear to be smooth or with poorly visible granulation (Figs 1B&dash;C, 2E). Two poorly marked ventral triangular plates are present below the head (Figs 4A&dash;B) and on lateral sides of the gonopore (Figs 4C&dash;D). Ventral cuticle possesses tiny and regular granulation (caused by dense cuticular pillars). Granulation is a little larger on the plates around the gonophore (0.2&dash;0.4 &mu;m diameter) than in other parts of the ventral cuticle, 0.1&dash;0.3 &mu;m diameter) (Fig. 4C). Outer cuticle of legs I&dash;III with clearly visible patches (lateral leg plates) of tiny and regular granulation (0.3&dash;0.8 &mu;m in diameter), similar to the ventral cuticle; white pores absent. Granulation is larger on the upper and central part of the patch (leg plate). Additionally, a narrow stripe (cuticular fold) is present in upper part of the leg with very tiny granulation (ca. 0.1 &mu;m diameter) (Figs 1A&dash;B, empty arrow). Triangular spine on leg I (Figs 1A&dash;B, filled indented arrowhead) and finger-like papilla on leg IV, present (Figs 1A&dash;B, 2D&dash;E, filled arrow). Legs IV with dentate collar with eight to thirteen sharp, triangular teeth and the plate shows similar granulation to the patches on legs I&dash;III (granules 0.3&dash;0.8 &mu;m in diameter) (Figs 1A&dash;B, 2D&dash;E). External claws of all legs I&dash;III smooth, internal with spurs directed downwards (Figs 5A&dash;B). External claws IV with extremely small, straight spurs (seen best under SEM), internal claws with spurs directed downwards (Figs 5C&dash;D, arrow). The gonopore with the typical six-petal rosette (Figs 4C&dash;D). -Kacmarek et al. 2021

DISTRIBUTION: Please refer to the dot map.

HABITAT: Tree moss and lichen, rarely in soil and rock moss.

OBSERVATION METHODS: PC and DIC.