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# Revision of the North American genus *Scirites* (Araneae, Linyphiidae)

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## ABSTRACT

The genus *Scirites* Bishop & Crosby (1938) is revised and now includes *Scirites pectinatus* (Emerton 1911) the type species, and *Scirites finitimus* n.sp. Diagnoses, descriptions, locality records, habitat information and distribution maps are given for both species. A morphological analysis places the genus in the distal erigonine clade of Miller & Hormiga (2004) and sister to (*Tapinocyba* (*Ceratinops* + *Parapelecopsis)*. *Scirites pectinatus* is a widespread species occurring mostly north of the 40th parallel; *S. finitimus* has been collected from sphagnum bogs mostly in the Great Lakes region with a single isolated collection in Washington state.

**Key words**: bog, monotypic genus, taxonomy, habitat specialist

## INTRODUCTION

The genus *Scirites* was erected by Bishop & Crosby (1938) to include a single species, *Dicymbium pectinatum* Emerton 1911. Recent collections of *S. pectinatus* from Québec (Canada) and comparison with material curated at the Canadian National Collection (CNC) led to the discovery of an undescribed *Scirites*, previously misidentified as *S. pectinatus.* The two species are described and illustrated, and the phylogenetic affinities of the genus are investigated.

## METHODS

*Specimen examination*

Specimens were examined in 70% ethanol under a SMZ-U Nikon dissection microscope. A Nikon Coolpix 950 digital camera attached to the microscope was used to photograph all the structures to illustrate. The digital photos were used to trace proportions and the illustrations were detailed and shaded by referring back to the structure under the microscope. For the study of the embolic division, the male palps (Figs 4 and 12) were placed for ~10 minutes in warm KOH, washed in 80% alcohol, mounted on a slide in lactic acid and observed under a AmScope XSG Series T-500 compound microscope. Female genitalia were excised using a sharp entomological needle and transferred to lactic acid to clear non-chitinous tissues. A temporary lactic acid mount was used to examine the genitalia under the compound microscope. The structure was photographed and illustrated as explained above. For the study of the tracheal system, legs were pulled off and an incision was made at the apex of the abdomen to allow the macerating fluid to reach the tissues. The specimen was placed in warm potassium hydroxide (10%). After the complete digestion of the tissues, the specimens were washed and stained with a solution of chlorazol black, then mounted on a slide in lactic acid and studied under a compound microscope (Donald J. Buckle, pers. comm.).

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