

Ninetis russellsmithi n. sp., an unusual new pholcid spider species from Malawi (Araneae: Pholcidae)

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Abstract

A new species *Ninetis russellsmithi* n. sp. is described from Malawi. It lacks the most prominent autapomorphy of pholcid spiders, the retrolateral projection of the cymbium (procursus). Biogeographically this species marks the first record for the genus in a 3000 km gap between its African congeners in Namibia and Tanzania.

INTRODUCTION

The ninetines (Ninetinae Simon, 1890) are a subfamily of mostly tiny and therefore rarely collected pholcid spiders (review in Huber 2000). It has long been considered the most basal group within the family, and cladistic analysis has not refuted this view (Huber 2000, 2001). Most genera (12 of 14) occur in the New World. The nominotypical genus *Ninetis* Simon is the only one known from the Ethiopian Region. It was previously known from three species, one in Yemen (Simon 1890; Huber & van Harten 2001), one in Eastern Africa (Kenya and Tanzania), and one in Namibia (Huber 2000). The new species described herein indicates that the genus may be widely distributed throughout the Ethiopian Region. This is the first pholcid known to lack a procursus, but all other pholcid synapomorphies listed in Huber (2000) are present. Moreover, the ventral spine on the bulb and the armature of the male chelicerae leaves no doubt as to its assignment to the genus *Ninetis*.

MATERIALS AND METHODS

Methods and style are as in Huber (2000). All measurements are in mm. Drawings were done with a camera lucida on a Nikon Labophot-2 compound microscope. Photos were made with a Nikon Coolpix 950 digital camera (1600x1200 pixels) mounted on Nikon SMZ-U dissecting scope.

RESULTS

Taxonomy

Ninetis russellsmithi n. sp.

Type

Male holotype from 12 km S Monkey Bay (~35°00'E, 14° 03'S), Central Malawi, Malawi; rocky hill, under stones, Dec. 19, 1977 (A. Russell-Smith), in Museum Koenig, Bonn.

Etymology

Named for Anthony Russell-Smith, who collected the present material and many more interesting species in Africa.

Diagnosis

Distinguished from known congeners by the missing procursus (Fig. 8), by the pair of long projections on the bulb (Figs. 7-8), by the short, but wide, male cheliceral apophyses (Figs. 9-10), and by the epigynum with median sclerotized structure (Figs. 11-12). For comparisons see Huber & van Harten (2001).

Male (holotype)

Total length 1.10; carapace width 0.48. Leg 1: 2.17 (0.65 + 0.13 + 0.58 + 0.52 + 0.29), tibia 2: 0.45, tibia 3: 0.39, tibia 4: 0.65; tibia 1 l/d: 10.3. Habitus as in Figures 1-4. Prosoma and legs ochre yellow; opisthosoma greyish with indistinct small brown spots. Carapace without thoracic furrow. Eye pattern as in Figure 4, AME smaller than eyes in lateral triads. Chelicerae as in Figures 9-10, with characteristically wide frontal apophyses and very fine stridulatory ridges. Sternum with small but distinct humps near bases of coxae 1. Palps as in Figures 7-8, without procursus, but with two long bulbal projections (dorsal projection = embolus) and one flat membranous projection retrolaterally. Legs without spines, without curved hairs; two to three trichobothria on tibiae, one on metatarsi; retrolateral trichobothrium on tibia 1 at 63%; tarsus 1 with about 3-4 indistinct pseudosegments. Opisthosoma globular. Three pairs of spinnerets; ALS with one widened, one pointed, and several cylindrically shaped spigots; PMS with one pair of small spigots; PLS without spigots.

Female (type locality)

In general, very similar to male (Fig. 6). Carapace width (N=3) 0.45. Epigynum consisting of posterior plate and large frontal plate with



Figures 1 and 2. *Ninetis russellsmithi*. Male, habitus



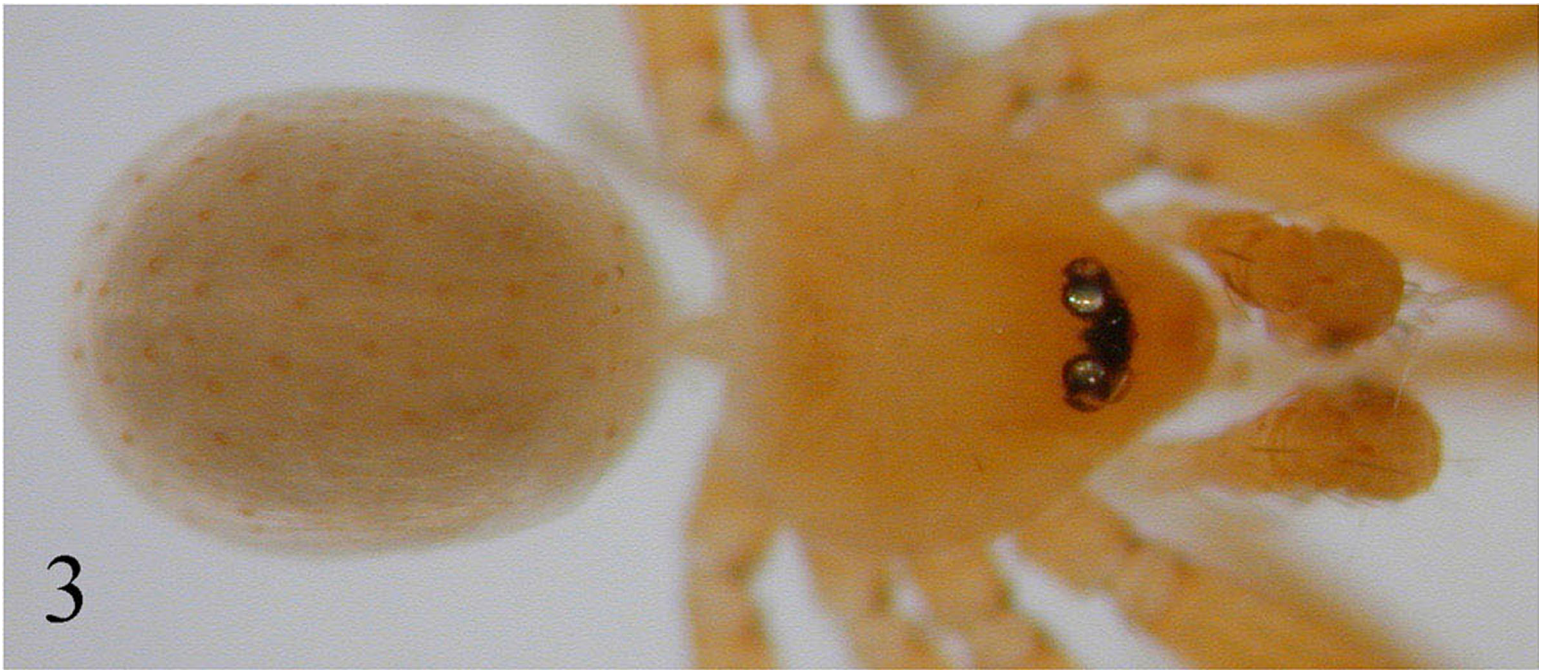


Figure 3. *Ninetis russellsmithi*. Male, habitus

median pocket and small lateral indentations frontally (Figs. 5, 11); dorsal view as in Figure 12.

Biology

The spiders were collected under rocks in a semi-arid area. While this is exceptional for pholcids in general, which are usually most diverse in humid tropical forests, it seems to be the rule for ninetines.

This subfamily has been collected in areas with very low rainfall, such as northern Chile, northern Mexico, Namibia, and Yemen (Huber 2000). Even in countries like Brazil, ninetines seem to be restricted to relatively dry areas, for example the so-called “caatinga” and “cerrado” formations (Huber & Brescovit, in prep.). With an average annual rainfall of about 600-700 mm (A. Russell-Smith, personal communication), the lake shore in Malawi is at the upper



Figure 4. *Ninetis russellsmithi*. Male prosoma, frontal view

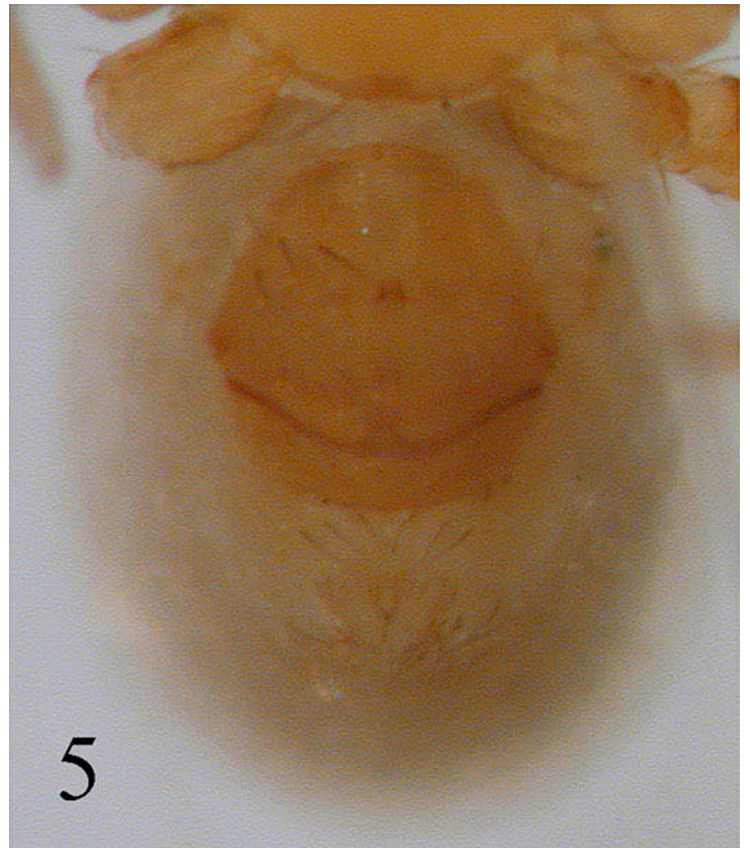


Figure 5. *Ninetis russellsmithi*. Female opisthosoma with epigynum



Figure 6. *Ninetis russellsmithi*. Female, ventral view

side of the spectrum.

Material Examined: Malawi

Central Malawi: 12 km S Monkey Bay: holotype above, with 3 females (same data).

ACKNOWLEDGEMENTS

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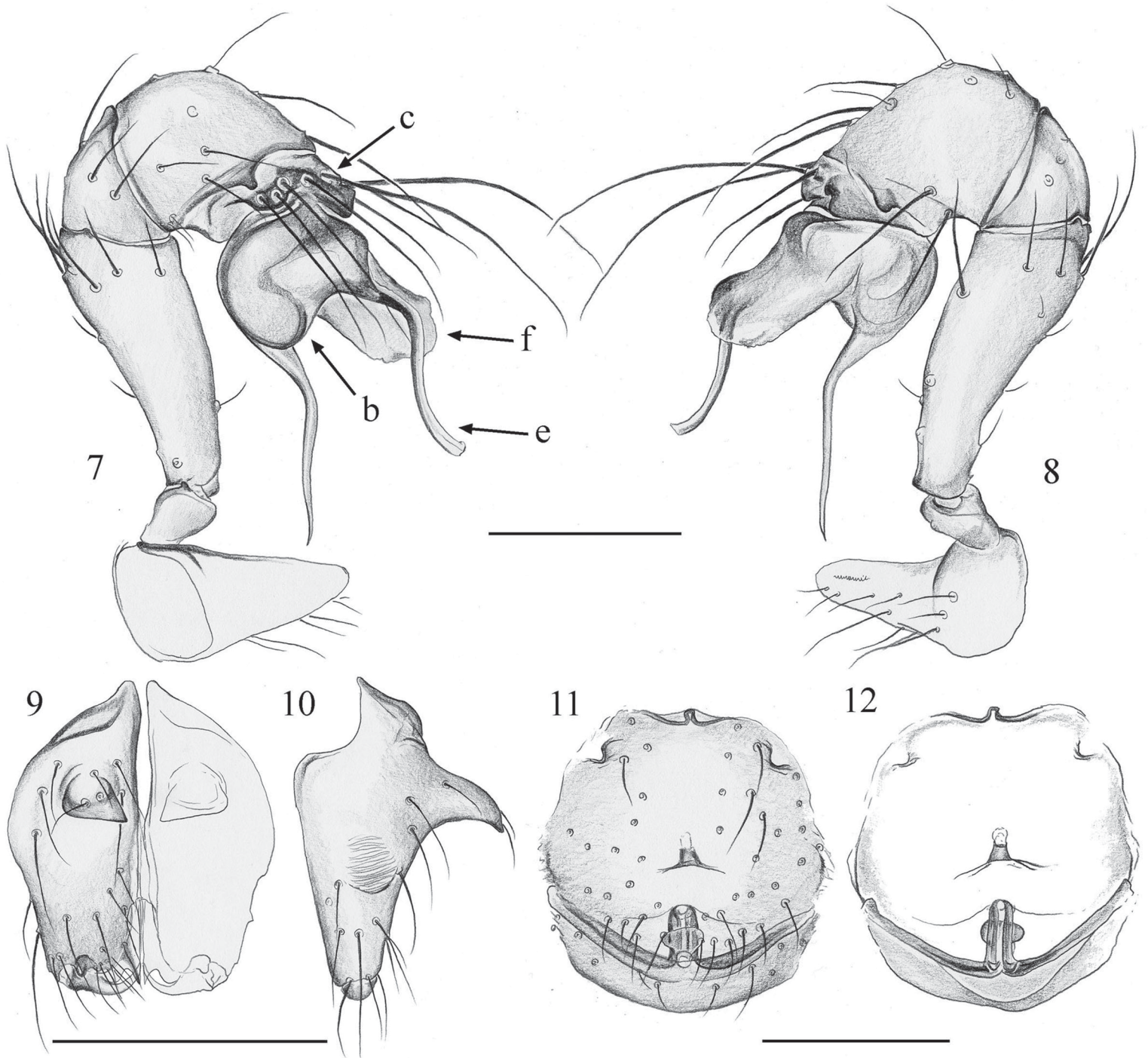
Editor's note

Paper copies of this paper will be deposited in the following libraries. Senckenberg Library, Frankfurt Germany; National Museum of Natural History, Paris, France; Field Museum of Natural History, Chicago, Illinois USA; the University of Wisconsin, Madison, USA; the University of Arizona, Tucson, Arizona USA.; Linnean Society, London, England.

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Figures 7-12 are on the last page of this article



Figures. 7-12. *Ninetis russellsmithi*. 7-8. Male pedipalp, prolateral (7) and retrolateral (8) views. 9-10. male chelicerae, frontal (9) and lateral (10) views. 11-12. Epigynum, cleared in NaOH, ventral (11) and dorsal (12) views. c = cymbium, b = bulb, e = embolus, f = flat projection on bulb. Scale lines: 0.2 mm.