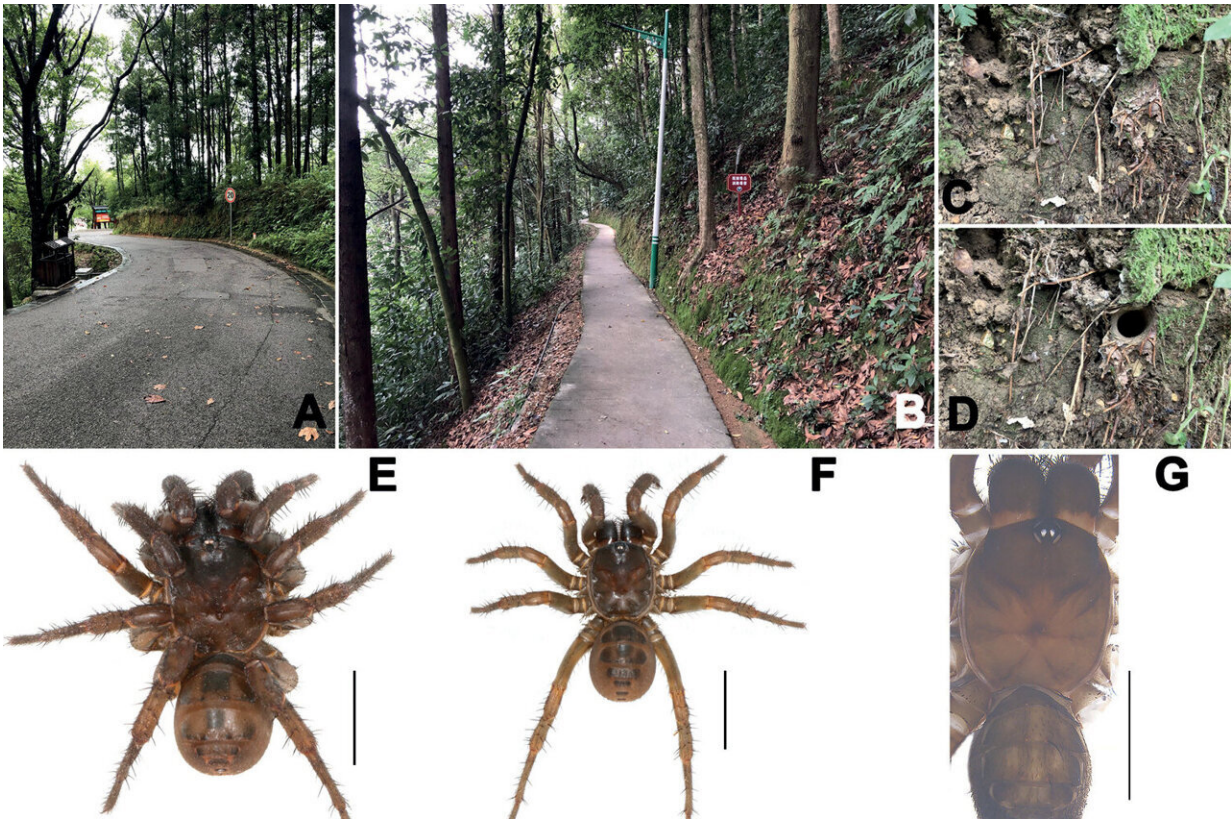


# Three new species of mesothelean spiders discovered in China

April 7 2023, by Bob Yirka



Microhabitat (A–D) and general somatic morphology (E–J) of three new *Songthela* species E–G female H–J male E, H *Songthela zhongpo* Zhang & Xu, sp. nov. F, I *Songthela longhui* Zhang & Xu, sp. nov. G, J *Songthela anhua* Zhang & Xu, sp. nov.

A team of life scientists at Hunan Normal University, in China, working

with a colleague from National University of Singapore, has discovered three new species of mesothelean spiders in China. In their study, reported in the journal *ZooKeys*, the group found the new species of spider living in plain sight at sites across Hunan province and discovered that it had not been identified before.

Prior research has shown that spiders can be divided into three broad groups: Mygalomorph, Araneomorph and Mesothelae. The first tend to have heavy bodies and sometimes hairy legs, such as funnel-web spiders and tarantulas. The second group is made up of less well-known spiders—the kind that are seen spinning webs in various places such as attics and empty houses. The third group is made up of far fewer species—approximately 1,000. They have segmented abdomens usually covered by plates.

Mesothelean spiders are believed to resemble their ancient ancestors—and they are notorious for living in relatively small environments, such as in groves of trees, in caves or along a few mountain folds. They are also very small, generally just 1 to 2 centimeters in length, and only live in parts of Asia.

In this new effort, the researchers were looking for new mesothelean species using an indirect approach because species of the [spider](#) look so much alike. They wandered around parts of Hunan province collecting young spiders from various sites such as parks, fields or other areas. They then raised them to adulthood back at their lab.

One of the most sure-fire ways of identifying species of mesothelean spiders is by comparing their [sexual organs](#), which cannot be done until they are mature. Using this approach, the researchers discovered three new species, which they promptly named *Songthela zhongpo*, *Songthela longhui* and, *Songthela anhua*—all named after the genus and the parts of Hunan province in which they were found.

Because Mesothelae species live in such limited geographic areas, most are considered to be at risk, thus finding and identifying them before they are impacted by human activities is considered to be crucial to preventing them from disappearing before they are even known to exist.

**More information:** Yan Zhang et al, Three new species of the primitively segmented spider genus *Songthela* (Mesothelae, Liphistiidae, Heptathelinae) from Hunan Province, China, *ZooKeys* (2023). [DOI: 10.3897/zookeys.1154.98273](https://doi.org/10.3897/zookeys.1154.98273)

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