



# THE DRYMUSIDAE OF SOUTH AFRICA

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## ABSTRACT

The family Drymusidae is a small family known only from the Caribbean Region and South Africa and is represented by two genera and 17 species. *Izithunzi* is a South African endemic represented by five species. Four of the species are listed as Rare and *Izithunzi zondii* Labarque, Pérez-González, & Griswold, 2018 is listed as Data Deficient.

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## FAMILY DRYMUSIDAE Simon, 1893

The family Drymusidae is a small family described by Simon (1893) known only from the Caribbean Region, Costa Rica and South Africa and represented by two genera and 17 species (World Spider Catalog 2022).

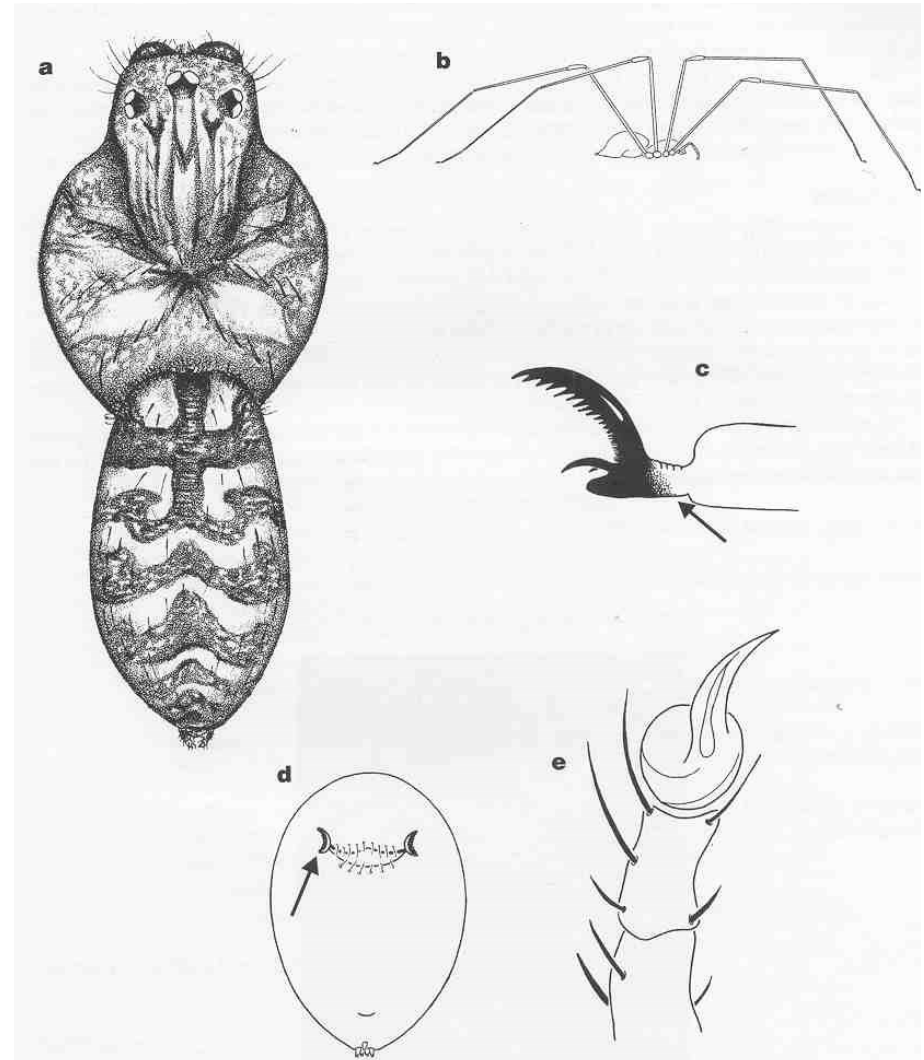
**COMMON NAMES:** False Violin Spider.

**MORPHOLOGY:** Colour: carapace and legs are brown, decorated with dark patterns, the abdomen has a distinct brown or purple hue and is dorsally decorated with pale chevron patterns. Carapace slightly depressed; thoracic region elevated, bearing numerous long, dark setae (more numerous in males) arranged in a V-shape; eyes six arranged in three groups of two each in a recurved row. Abdomen round to oval, with a light covering of short stiff setae. Legs long and slender without spines; three claws; formula 1-2-4-3 (Labarque et al. 2018).

**LIFE STYLE:** Drymusidae species are nocturnal and hang beneath loose space webs hidden in wall crevices or below leaf litter. Females may build small, spherical, wrinkled egg sacs, which they carry with their chelicerae, or build huge, irregular egg sacs, which are covered with detritus and attached to the webs.

The spider remains on the log when it is turned over and is easily overlooked. They behave differently towards larger and smaller prey. Small prey is attacked immediately and killed solely using their chelicerae. Larger prey is caught by quickly constructing a catch web consisting of partitions spun after the prey has entered the web, and enclosing it in a silken trap. Only then does the spider attack, biting the victim five to six times. The prey is then left until it has stopped moving before wrapping starts. During the wrapping process the spider only rotates its body, without assistance of the legs. Prey that is too large is ignored as it moves through the space web. The cocoon is temporarily abandoned when suitable prey enters the web. The female carries the egg sac in her chelicerae (Valerio (1971, 1974).

**TAXONOMY:** Revised by Labarque et al. (2018).



**Drymusidae.** a: *Drymusa* sp., female, dorsal view; b: line-drawing showing leg lengths; c: tarsus, showing onychium and claws; d: abdomen, ventral view, showing genital groove with sclerotized edges; e: male palp, ventral view (After Dippenaar-Schoeman & Jocqué 1997).

## GENUS *IZITHUNZI* Labarque, Pérez-González & Griswold, 2018

*Izithunzi* is represented by five South African endemic species (World Spider Catalog 2020). This genus was previously known under *Drymusa*.

**COMMON NAMES:** False Violin Spider

**TYPE SPECIES:** *Izithunzi capense* (Simon, 1893)

**MORPHOLOGY:** This genus resembles the violin spiders *Loxosceles* species. Colour of carapace and legs are brown, decorated with dark patterns and the abdomen with distinct brown or purple hue is dorsally decorated with pale chevron patterns. Carapace slightly depressed; thoracic region elevated; with numerous long, dark setae on the elevated thoracic region; six eyes are arranged in three groups of two each, in a recurved row. Abdomen round to oval with a light covering of short stiff setae. Legs very long and slender; without spines; leg formula is 1-2-4-3; three claws (Labarque et al. 2018).

**LIFE STYLE:** These cryptic nocturnal spiders hang beneath loose space webs hidden in wall crevices or below leaf litter frequently in forests or even caves.

**TAXONOMY:** Revised by Labarque et al. (2018).



*Izithunzi capense* Photo Jan Bosselaer



*Izithunzi capense* female Table Mountain National Park  
Photo J. van der Merwe



## *Izithunzi capense* (Simon, 1893)

**COMMON NAME:** Cape False Violin Spider

**CONSERVATION STATUS:** Rare

**NATIONAL RATIONALE:** A Western Cape endemic described by Simon (1893) as *Drymusa capensis* with type locality only given as Cape Peninsula. It is known from several localities all protected (EOO= 1 435km<sup>2</sup>; AOO=32 km<sup>2</sup>; 21-738 m a.s.l.). With no direct threats this species is listed as a rare habitat specialist.

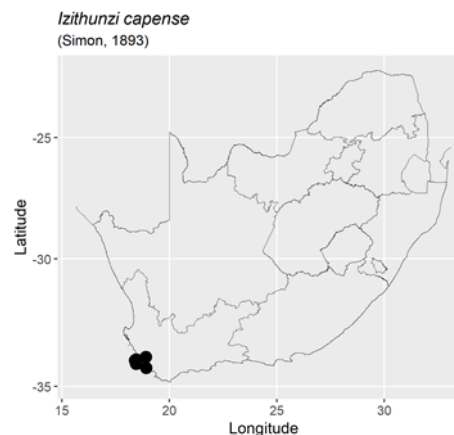
**LIFE STYLE:** According to Larsen (1994), specimens are found under exfoliated bark or in crevices between boulders, always in cool shaded areas and hanging beneath loose space webs, sometimes with sheet- or tube-like extensions. Individuals are sensitive to the light, and they quickly retreat to the darkness after a minute of exposure light. The species was sampled from Afromontane forest and pine plantations as well as caves in the Fynbos Biome.

**GLOBAL DISTRIBUTION:** South Africa.

**DISTRIBUTION IN SOUTH AFRICA: *Western Cape:*** Kogelberg Nature Reserve (-34.14, 18.34); Table Mountain National Park (Newlands Forest) (-33.91, 18.42); Table Mountain National Park (Fernkloof Gully) (-33.967, 18.450); Table Mountain National Park, Orange Kloof (-33.999, 18.393); Kalkbaai (-34.19, 18.42); Kirstenbosch National Botanical Garden (-33.988, 18.433); Kirstenbosch Botanic Garden, Skeleton Gorge Forest (-33.983, 18.433); Kogelberg Nature Reserve (-34.291, 18.919); Stellenbosch Delheim Berg (-33.873, 18.907); Nursery Ravine, Wynberg Caves (-33.986, 18.404); Boomslang Cave above Fishoek (-34.71, 18.26)

**CONSERVATION MEASURES:** Sampled from several caves around Cape Town. Protected in the following areas: Kogelberg Nature Reserve, Kirstenbosch National Botanical Garden and Table Mountain National Park (Dippenaar-Schoeman 2020). More sampling needed to determine the range.

**TAXONOMIC NOTES:** Revised by Labarque et al. (2018). *Loxosceles valida* a species found in caves around Cape Town (Lawrence 1964; Dippenaar-Schoeman & Myburgh (2009) is considered a junior synonym of *I. capense*. Known from both sexes.



*I. capense* female Photo Charles Haddad



*Izithunzi capense* female and male after Labarque et al. (2018)



*I. capense* female Photo J. Leroy

## *Izithunzi lina* Labarque, Pérez-González, & Griswold, 2018

**COMMON NAME:** Fernkloof False Violin Spider

**CONSERVATION STATUS:** Rare

**NATIONAL RATIONALE:** A Western Cape endemic described in 2018 from Fernkloof Nature Reserve. The species was also sampled from the Kogelberg Nature Reserve (EOO<500 km<sup>2</sup>; AOO= 8 km<sup>2</sup>; 41-288 m a.s.l.). Due to the species having a small restricted distribution range, being a habitat specialist that is only known from protected areas in the fynbos it is listed as Rare.

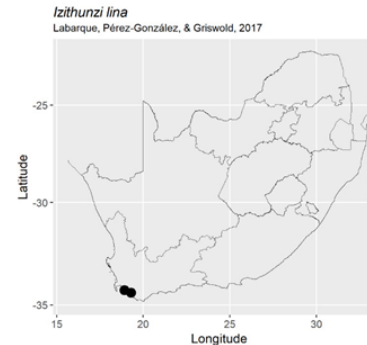
**LIFE STYLE:** Cryptic species that makes loosely spun space webs, sometimes with sheet- or tube like extensions. The species were sampled from holes (200-300mm wide and 500-1000 mm deep made in clay sand boulders. Also sampled in pitfall traps in the Fynbos Biome.

**GLOBAL DISTRIBUTION:** South Africa

**DISTRIBUTION IN SOUTH AFRICA:** *Western Cape:* Fernkloof Nature Reserve, Hermanus (-34.413, 19.288); Kogelberg Nature Reserve (-34.292, 18.919).

**CONSERVATION MEASURES:** Protected in the following reserves: Fernkloof Nature Reserve and Kogelberg Nature Reserve. More sapling needed.

**TAXONOMIC NOTES:** Known from both sexes (Labarque et al. 2018).



*Izithunzi lina* female Photos: V. Hamilton Atwell



*Izithunzi lina* female and male after Labarque et al. (2018)



## *Izithunzi productum* (Purcell, 1904)

**COMMON NAME:** Swellendam False Violin Spider

**CONSERVATION STATUS:** Rare

**NATIONAL RATIONALE:** A Western Cape endemic described by Purcell (1904) as *Drymusa producta* from Swellendam (EOO= 24 km<sup>2</sup>; AOO= 16 km<sup>2</sup>; 104-422 m a.s.l.). The species is known from the Langeberg Mountains from Swellendam to Grootvadersbosch and surrounding areas. Due to the species having a small restricted distribution range but occurring within protected areas it is listed as Rare.

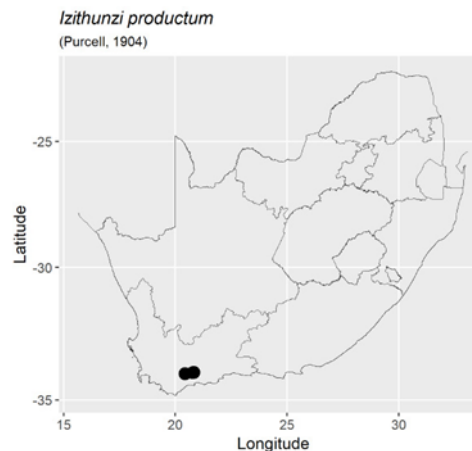
**LIFE STYLE:** This is a rare species found on the ground under debris. They make loosely spun space webs, sometimes with sheet- or tube-like extensions. Sampled from the indigenous forest in the Forest Biome.

**GLOBAL DISTRIBUTION:** South Africa

**DISTRIBUTION IN SOUTH AFRICA: *Western Cape*:** Swellendam (-34.02, 20.42); Grootvadersbosch Nature Reserve, 14.97 km NE Heidelberg (-33.984, 20.832); Grootvadersbosch Nature Reserve, Bushbuck Trail (Fonteintjiesbos) (-3.9850, 20.808); Grootvadersbosch Nature Reserve, 20 km WNW Heidelberg (-33.999, 20.783).

**CONSERVATION MEASURES:** Protected in the Grootvadersbosch Nature Reserve and surrounding forest but threatened by loss of habitat for infrastructure development, crop cultivation and deforestation around Swellendam. More sampling needed to determine the range.

**TAXONOMIC NOTES:** Revised by Labarque et al. (2018). Known from the both sexes.



*Izithunzi productum* female Photo SANSA VM



Female and male after Labarque et al. (2018).

## *Izithunzi silvicola* (Purcell, 1904)

**COMMON NAME:** Knysna False Violin Spider

**CONSERVATION STATUS:** Rare

**NATIONAL RATIONALE:** A South Africa endemic described by Purcell (1904) as *Drymusa silvicola* from Knysna. The species is presently known from two provinces including four protected areas (EOO=594 km<sup>2</sup>; AOO= 28 km<sup>2</sup>; 1-466 m a.s.l.). Due to the species having a small restricted distribution range it is listed as Rare.

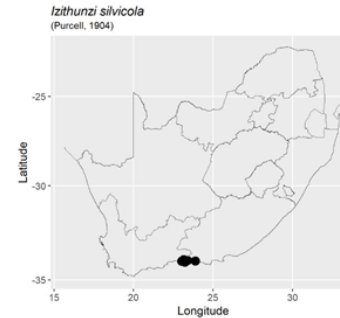
**LIFE STYLE:** This is a rare species found on the ground under debris or found in indigenous forest in holes in tree trunks in the Forest Biome.

**GLOBAL DISTRIBUTION:** South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** **Western Cape:** Knysna (-34.03, 23.03); Keurboom Nature Reserve (-34.001, 23.3985); Harkerville State Forest, 19 km E Knysna (-34.05, 23.233); Kranshoek, 20 km E Knysna (-34.083, 23.233); Diepwalle Forest Station, 22 km NE Knysna (-33.9486, 23.1574); Tsitsikamma National Park (-34.0235, 23.8903).

**CONSERVATION MEASURES:** Protected in the following areas: Keurboom Nature Reserve, Knysna Forest, Harkerville State Forest, Diepwalle Forest Station, Tsitsikamma National Park (Dippenaar-[Schoeman 2020]). The species is threatened by loss of habitat for urbanization around Knysna. More sampling needed.

**TAXONOMIC NOTES.** Revised by Labarque et al. (2018). Known from both sexes.



From Knysna Photo Esther vd Westhuizen

*Izithunzi silvicola* from Keurboom Photo David Wildeman



Female and male after Labarque et al. (2018).



## *Izithunzi zondii* Labarque, Pérez-González, & Griswold, 2018

**COMMON NAME:** KwaZulu-Natal False Violin Spider

**CONSERVATION STATUS:** DDT

**NATIONAL RATIONALE:** A KwaZulu-Natal endemic described in 2018 from Karkloof. The species is known from Karkloof to the coast at iSimangaliso Wetland Park (EOO < 500 km<sup>2</sup>; AOO = 8 km<sup>2</sup>; 24-847 m a.s.l.). The status of the species remains obscure. Some more sampling is needed to collect the male and to more accurately determine the species' range. Therefore, listed as Data Deficient for taxonomic reasons.

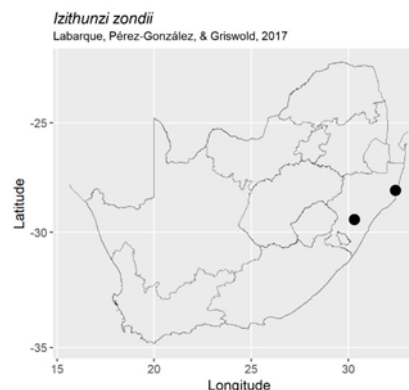
**LIFE STYLE:** They make loosely spun space webs, sometimes with sheet- or tube-like extensions. The retreat is usually at one side of the web. Sampled from the Forest and Indian Ocean Coastal Belt biomes.

**GLOBAL DISTRIBUTION:** South Africa.

**DISTRIBUTION IN SOUTH AFRICA:** *KwaZulu-Natal*: Indlovu, Karkloof, 50 km NNW Pietermaritzburg, (-29.4333, 30.3167); North Uthungulu, iSimangaliso Wetland Park, Fanies Island camp (-28.1125, 32.4314).

**CONSERVATION MEASURES:** Protected in the iSimangaliso Wetland Park. No conservation actions are recommended.

**TAXONOMIC NOTES:** Known from only the female (Labarque et al. 2018).



Female after Labarque et al. (2018).

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