BEFORE THE SECRETARY OF THE INTERIOR

PETITION TO LIST THE MALAYSIAN PURPLE-FEMUR TARANTULA (*Coremiocnemis hoggi*) AS ENDANGERED UNDER THE ENDANGERED SPECIES ACT

Photo by Chris R. Shepherd

CENTER FOR BIOLOGICAL DIVERSITY

16 December 2025

Notice of Petition

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The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats. The Center works through science, law, and creative media to secure a future for all species, great or small, hovering on the brink of extinction. The Center is supported by more than 1.8 million members and activists throughout the United States and around the globe. The Center and its members are concerned with the conservation of imperiled species and the effective implementation of the Endangered Species Act. The Center's International Program works to protect global biodiversity by using U.S. and international law to hold governments accountable for threatening imperiled species wherever they are found.

Submitted this 16th Day of December 2025

Pursuant to Section 4(b) of the Endangered Species Act (ESA), 16 U.S.C. § 1533(b), Section 553(e) of the Administrative Procedure Act, 5 U.S.C. § 553(e), and 50 C.F.R. § 424.14(a), Petitioner, the Center for Biological Diversity, hereby petitions the Secretary of the Interior and the U.S. Fish and Wildlife Service (FWS or the Service) to protect the Malaysian purple-femur tarantula (*Coremiocnemis hoggi*) as an endangered species under the Endangered Species Act, 16 U.S.C. §§ 1531-1544.

As outlined in this petition, the Malaysian purple-femur tarantula is a species endemic to Malaysia, with a highly restricted, specialized, and fragmented habitat. Its limited range and small population size make it especially vulnerable to a range of threats. In addition to ongoing habitat loss, the species is at serious risk from overexploitation driven by demand in the international wildlife trade, including significant demand from the United States. Despite legal protections in Malaysia, which prohibit both the collection and commercial export of the species without a permit, illegal trade persists and continues to endanger the survival of this rare tarantula. Given the species' decline, habitat destruction, and its vulnerability to the ongoing demand in the pet trade, there is a significant risk to species' survival, and the Malaysian purple-femur tarantula warrants listing as endangered under the ESA. 16 U.S.C. § 1533.

This Petition presents substantial scientific and commercial information indicating that the Malaysian purple-femur tarantula is in danger of extinction throughout all its range. *See* 50 C.F.R. § 424.14(h)(1)(i) ("substantial scientific or commercial information" refers to credible scientific or commercial information in support of the Petition's claims such that a reasonable person conducting an impartial scientific review would conclude that the action proposed in the Petition may be warranted). Therefore, the Secretary of the Interior, through the Service, must make an initial finding "that the petitioned action may be warranted" within 90 days of receiving this Petition and make a subsequent finding that listing is warranted within 12 months receiving this Petition. 16 U.S.C. § 1533(b)(3)(A), (B).

The best available scientific information indicates that the Malaysian purple-femur tarantula is highly range-restricted, inhabiting only Fraser's Hill, Malaysia, where it is found in limited and specialized habitat. Specimens are dug out of their burrows on Fraser's Hill and trafficked out of Malaysia to meet the demand in the exotic pet market, posing a major threat to this species.

Given these threats, the U.S. Fish and Wildlife Service has a clear responsibility to protect the Malaysian purple-femur tarantula by listing it as an endangered species under the ESA. Such a listing would provide critical conservation benefits by strictly regulating import, export, and interstate commerce and highlighting conservation concerns for the species. *See* 16 U.S.C. § 1538(a)(1) (prohibiting the importation, transportation, and sale of endangered species).

Respectfully submitted,

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I. Introduction

The global wildlife trade is a multibillion-dollar industry that poses one of the most serious and immediate threats to biodiversity worldwide. Encompassing both legal and illegal markets, it involves the commercial exchange of millions of animals and plants each year, live and as parts and derivatives, to meet demand for pets, food, medicine, luxury goods, and ornamental items. The illegal wildlife trade ranks among the most lucrative forms of transnational organized crime comparable to drug and arms trafficking. This trade drives overexploitation of species, accelerates extinction rates, and disrupts entire ecosystems (Rosser and Mainka, 2002, p. 584-586; Eaton et al., 2015, p. 8; Hughes et al., 2023, p. 15).

Beyond its devastating ecological impacts, the wildlife trade also poses significant risks to human health and global security. The capture and transport of wild animals under inhumane and unsanitary conditions can facilitate the spread of zoonotic diseases, as seen in the recent emergence of viruses such as SARS and COVID-19 (Decaro et al., 2020, p. 21-23). Wildlife trafficking fuels organized crime, corruption, and the exploitation of vulnerable communities (UNODC, 2024, p. 12, 32).

Efforts to curb this destructive trade require coordinated international action, robust law enforcement, and strong legal protections for threatened species, in both origin and consumer countries. Without decisive intervention, the continued expansion of the global wildlife trade will further erode biodiversity and compromise the health of both the planet and its people.

The United States is one of the world's largest importers of wildlife (Andersson et al., 2021 p. 9; Liew et al., 2021 p. 1; Watters et al., 2022 p 12), and among the many species in demand in the United States are those in the tarantula family.

Tarantulas, arachnids in the family Theraphosidae, are the largest and heaviest spiders in the world (Mendoza and Francke, 2020, p. 1) and are one of the most traded invertebrate groups (Rivera et al, 2024, p. 1). Tarantulas inhabit most terrestrial ecosystems, with the exception of polar areas, although they are largely found in tropical, subtropical, semi-arid, and arid regions (Mendoza and Francke, 2020, p. 1). According to the World Spider Catalogue, there are 1160 extant species of tarantulas (World Spider Catalogue, 2025, unpaginated). Almost half of known tarantula species are found in online markets catering to demand for exotic pets (Marshall et al., 2022, p. 7). One study in the Philippines looking specifically at the trade in tarantulas and scorpions found a total of 1,097 unique Facebook accounts posting 6,600 posts. The top 10 traders offered 3,443 arachnid individuals (21.4%) (Raymundo et al., 2024, p. 11). Nearly 25% of the tarantula species described since 2000 are being traded, and many more are potentially in trade before they are officially known to science (Rivera et al., 2024, p. 2).

Some tarantula species are especially vulnerable to overharvesting for trade, due to their long lifespans, limited geographic ranges, and slow reproductive rates (Mendoza and Francke, 2020, p. 1, 61; Marshall et al., 2020, p. 2). The scarcity of biological and ecological data, such as population dynamics, geographic range, distribution, and life history, for most tarantula species hinders scientists from accurately assessing whether collection for pet trade is occurring at unsustainable levels (Marshall et al., 2022, p. 2).

The international pet trade is a major driver of population declines in many tarantula species. These spiders are highly sought after by collectors due to their striking appearance and low space requirements, which make them especially appealing to individuals living in urban environments (Marshall et al., 2022, p. 2). Demand is particularly high for rare, unique, or newly described species, such as the Malaysian purple-femur tarantula, which are often targeted for their novelty and perceived value in the exotic pet market. Monitoring the trade in this species, as it is not listed in the appendices of CITES, is complicated, and most nations do not track exports of non-CITES listed species. Data available for the United States for the years 2016–2024 from the USFWS LEMIS database show that 261 Malaysian purple-femur tarantulas were likely imported for commercial purposes, including 23 specimens declared as wild-sourced. Malaysia was not listed as the source country for any of the imports, likely because export from Malaysia is illegal under domestic law.

The trade in range-restricted species, particularly those highly sought after in the international pet market, poses a serious conservation concern (Rivera et al., 2023, p. 1). Endemic species with limited distributions are especially vulnerable to overexploitation, as even low levels of extraction can rapidly escalate into major threats (Marshall et al., 2020, pp. 6, 8; Hughes et al., 2021, p. 12). In Malaysia, long-standing concerns have been raised over the illegal collection and trafficking of the Malaysian Purple-femur Tarantula, targeted to supply the global pet trade, due to its rarity and striking appearance.

The Malaysian purple-femur tarantula is endemic to Fraser's Hill, a highland region encompassing only approximately 2,829 hectares (or roughly 10 square miles) (West and Nunn, 2020, p. 38). The region is situated on the slopes of several hills within the Titiwangsa Range, the principal mountain range in Peninsular Malaysia (West and Nunn, 2020, p. 38), a highly restricted and specialized habitat within the country's montane forests. This species relies on a unique microclimate and specific environmental conditions to thrive, living in burrows excavated into earthen banks and emerging exclusively at night to forage (West and Nunn, 2010 p. 30-38). During daylight hours, the tarantulas remain concealed within their burrows, which they seal with silk webbing. Unfortunately, this behavior renders them vulnerable to poachers, who can easily locate and extract them with minimal disturbance. The montane forest ecosystem of Fraser's Hill is characterized by a high degree of endemism, particularly among its invertebrate fauna, underscoring the ecological importance of conserving this fragile habitat (Cheong, 2013, p. 11).

These large, visually striking tarantulas are highly sought after in international pet trade. Despite being legally protected in Malaysia, with both collection and export prohibited without a permit (no permits have been given), the species continues to appear regularly in international markets. This ongoing illegal trade is placing unsustainable pressure on the species and driving it toward extinction.

Given its extremely limited range, specialized habitat requirements, and the persistent threat from illegal collection, the Malaysian purple-femur tarantula is "in danger of extinction throughout all... of its range," and clearly qualifies for protection under the Endangered Species Act. 16 U.S.C. §§ 1532(6), 1533. As one of the primary importers of this species, the United States bears a critical responsibility to act swiftly and decisively to prevent its further decline.

II. Natural History

A. Taxonomy

The Malaysian purple-femur tarantula (*Coremiocnemis hoggi*) (West and Nunn, 2010, p. 3), belongs to the family *Theraphosidae*, (Table 1). It has no recognized subspecies.

Table 1. Taxonomy of *Coremiocnemis hoggi*.

Kingdom	*Animalia*
Phylum	*Anthropoda*
Class	*Arachnida*
Order	*Squamata*
Family	*Theraphosidae*
Genus	*Coremiocnemis*
Species	*Hoggi*

B. Description

The Malaysian purple-femur tarantula is a medium-sized spider with a body length of about 5.4 cm (female) and distinctive coloring. Its body is mostly dark brown, with lighter sandy-colored legs and has long, fine hair on its legs, especially on the back ones, which look like tiny brushes. The femurs (the upper leg segments) have a unique violet sheen that gives the species its name. At rest, the spider hides in burrows. Females are larger and more robust than males, with rounded abdomens covered in fine brown hairs. Males are smaller and have a pinkish tint on parts of their bodies, with black legs speckled by pale hairs. This tarantula has specialized features like strong jaws with many tiny teeth and spines and uniquely shaped reproductive organs. Its legs vary in length, with the fourth pair being the longest. The spider's body and leg shapes help it move and capture prey in its forest home. Both males and females have claws for gripping surfaces, and their bodies are adapted for a life spent mostly in burrows, emerging mainly at night to hunt (West and Nunn, 2010 p. 30-38). For a far more detailed description, see West and Nunn, 2010, p. 28-38.

The species was named after Mr. Stephen Hogg who gathered specimens and natural history data on *Coremiocnemis* species from Fraser's Hill for the authors that described the species (West and Nunn, 2020, p. 30).


Photo by Chris R. Shepherd

C. Life Cycle

Tarantulas generally have long lifespans and reach maturity relatively late, traits that make them particularly vulnerable to exploitation. Little is known of the life cycle of the Malaysian purple-femur tarantula. Males have been recorded between January and March, coinciding with the monsoon season. Females carrying egg sacs have been observed from March through September. Incubation periods in monitored females ranged from 24 to 28 weeks. Newly emerged Malaysian purple-femur tarantula instars were documented within maternal burrows from September to late October. During dispersal, young instars were observed being captured and killed by ants (R. West and S. Hogg, pers. obs. In: West and Nunn, 2010, p. 38).

D. Behavior

The Malaysian purple-femur tarantula is a fossorial species that constructs burrow retreats on steep, shaded slopes within montane tropical rainforests in peninsula Malaysia (West and Nunn, 2010, p. 38). Burrow depth varies with the size of the individual, typically ranging from 20 to 60 cm, and terminates in an enlarged, flask-shaped chamber. The entrance is marked by a distinctive silken collar intricately woven with surrounding leaf litter and organic debris, providing both camouflage and structural support. The substrate in which these burrows are constructed is typically moist and clay-rich (West and Nunn, 2010, p. 38). In the wild, the species has been observed preying on insects and small reptiles (Stephen Hogg *in litt* to Chris R. Shepherd, 09-09-2025).

The Malaysian purple-femur tarantula requires burrows, built in banks, in which it hides all day and hunts from at night. Poachers dig the tarantulas out of these burrows. Photo by Chris R. Shepherd

E. Habitat

The Malaysian purple-femur tarantula is a fossorial species that constructs its burrow in steep sloped ground in shaded areas of montane tropical rainforest (West and Nunn, 2010, p. 38). It has been recorded from the summit and south-western slopes of Fraser's Hill, Selangor, West Malaysia, at elevations ranging from 550 to 1,150 meters (West & Nunn, 2010, p. 38). Elevation of Fraser's Hill varies from 300 m to 1,450 m in a series of rolling hills, with vegetation ranging from lowland and hill dipterocarp forest to lower montane above 1,200 m (Cheong, 2013, p. 5). Located within the Titiwangsa Range (Main Range), it is the least developed and lowest in elevation among the three principal hill stations in Peninsular Malaysia. Approximately 100 kilometers north of Kuala Lumpur, Fraser's Hill lies within the Raub District of Pahang and encompasses an area of only about 2,829 hectares (Baharuddin and Zuhairi, 2021, p. 265).

Designated as an environmentally sensitive area, Fraser's Hill supports fragile montane ecosystems that are vital to the conservation of highland biodiversity. It serves as an important stronghold for forest-dependent species, particularly birds and invertebrates, and is recognized as a significant site for ecological research, environmental monitoring, and nature-based tourism.

III. Distribution

Endemic to Malaysia, all known specimens Malaysian purple-femur tarantula have come from the summit and south-western slopes of Fraser's Hill, Selangor, West Malaysia, between elevations of 550-1150 meters (West and Nunn, 2010, p. 38), however, specimens of this species have recently been found at lower elevations on Fraser's Hill, nearer Kuala Kubu Bahru, Selangor, West Malaysia (J.-M. Verdez, pers. comm. in: West and Nunn, 2010, p. 38).

IV. Conservation Status and Warranted Endangered Species Act Protection

The Endangered Species Act (ESA) is a "comprehensive scheme with the 'broad purpose' of protecting endangered and threatened species." *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 698 F.3d 1101, 1106 (9th Cir. 2012) (quoting *Babbitt v. Sweet Home*, 515 U.S. 687, 698 (1995)). Congress' plain intent in enacting the ESA was "to halt and reverse the trend toward species extinction" *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978). In doing so, the ESA requires that "all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of [these] purposes." 16 U.S.C. § 1531(c)(1). Endangered and threatened species are "afforded the highest of priorities." *Tenn. Valley Auth.*, 437 U.S. at 174. Endangered species are species that are "in danger of extinction throughout all or a significant portion of its range," and threatened species are species that are "likely to become endangered species within the foreseeable future" throughout all or a significant portion of range. 16 U.S.C. §§ 1532(6), (20), 1533. As demonstrated by the best available science on the species, the Malaysian purple-femur tarantula meets the definition of endangered.

No tarantulas in the genus *Coremiocnemis* have been assessed by the IUCN Red List of Threatened Species (hereafter the IUCN Red List). While no population estimate has been made, given its extremely small range and limited habitat within this range, the overall population is likely to be small, declining due to overexploitation, and extremely vulnerable to threats.

V. Current Threats

Under the ESA, the Service is required to list a species as "endangered" if it "is in danger of extinction throughout all or a significant portion of its range" or as "threatened" if it "is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" based upon one or more threats or factors. 16 U.S.C. § 1532(6), (20). There are five statutory listing factors that the Service must analyze for the species: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence. *Id.* § 1533(a)(1). Based upon an analysis of these factors, the Malaysian purple-femur tarantula must be protected as an endangered species under the ESA.

A. The Present or Threatened Destruction, Modification, or Curtailment of its Habitat or Range

Habitat loss is a threat to the Malaysian purple-femur tarantula, as forest coverage in the montane areas of Malaysia continues to be degraded due to numerous anthropogenic activities. Malaysia has experienced a rapid and alarming rate of deforestation over the past several decades (Hu et al., 2022, p. 281). In response to extensive environmental degradation caused by development, particularly during the 1990s, the Pahang state government in 2010 formally prohibited any further development in the remaining virgin forest areas of Fraser's Hill (Cheong, 2013, p. 5). Regardless, the area remains under threat to small scale development by local people, for agriculture, small scale clearing, and tourism activities.

Additional threats to this fragile environment include unsustainable clearing of forests and hillside vegetation for development, unregulated tourism activities, and improper disposal of waste, sewage, and sullage effluents—all of which exacerbate the degradation of Fraser's Hill's unique biodiversity and ecological integrity.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

1. Trade of Malaysian purple-femur tarantula

Illegal capture and trafficking to supply international demand, though poorly reported, is a threat to the survival of the Malaysian purple-femur tarantula. Indeed, collection of tarantulas for the international pet trade is recognized as a significant threat to several species (Raymundo et al., 2024, p. 16; Rivera et al, 2024, p. 2).

The Malaysian purple-femur tarantula is not listed in the appendices of CITES and therefore there are no CITES records of trade, for commercial purposes or any other purposes available.

An analysis of the U.S. Law Enforcement Management Information System (LEMIS) database, the most comprehensive data available for gaining an understanding of the U.S. trade, shows relatively recent imports of Malaysian purple-femur tarantula to the United States (Table 2). The LEMIS data show a total of 261 tarantulas in the genus *Coremiocnemis* were imported into the United States from 2016 to 2024, however, most were likely *C. hoggi*, as described below.[1] All were exported live and for commercial purposes; 23 were wild-sourced. A total of 203 of the tarantulas were exported from Germany, by far the greatest source of this species.

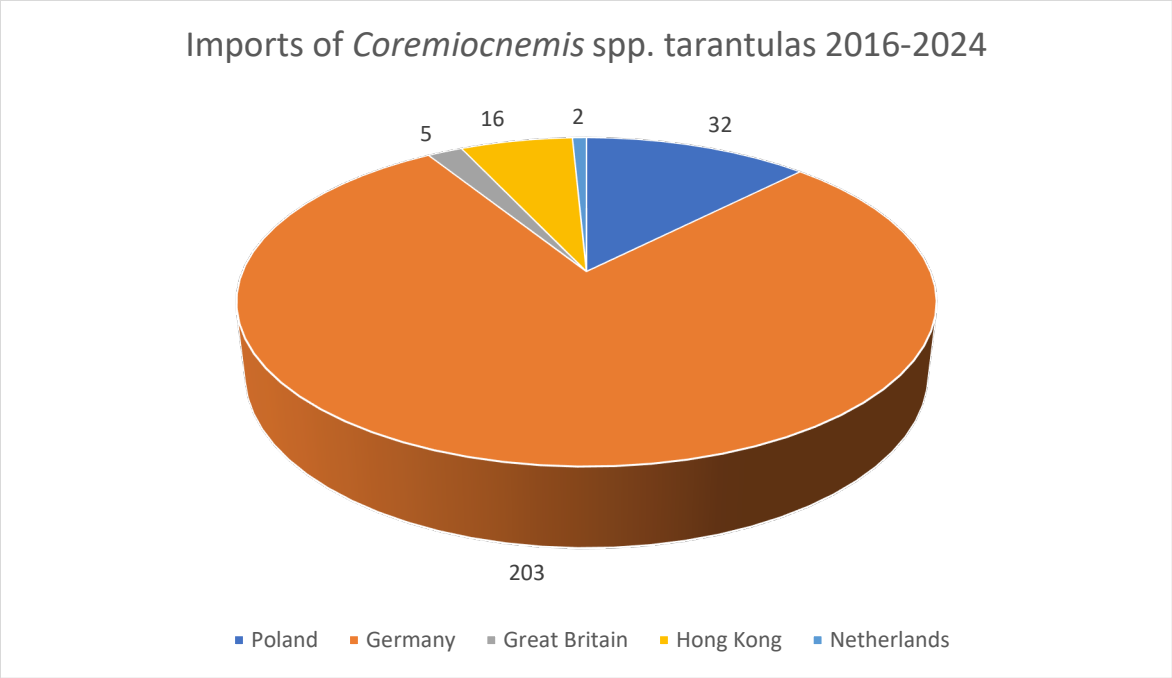

Figure 1. Tarantulas of the genus *Coremiocnemis* and origin countries and territories, as reported in LEMIS, 2016-2024. (DE-Germany, GB-Great Britain, HK-Hong Kong (Special Administrative Region of the People's Republic of China), NL-the Netherlands, PL-Poland).

Of the 261 tarantulas of the genus *Coremiocnemis* that are reported in LEMIS for the years 2016-2024, only two shipments, totaling four specimens, were declared as *C. hoggi*. Additionally, three animals from Germany were declared as *C. cunicularia* (brown tarantula). All other specimens were reported at a genus level only. However, according to IUCN SSC Spider and Scorpion Specialist Group Co-Chair, Sergio Henriques, it is most likely the vast majority, if not all of the specimens declared as *Coremiocnemis* only are *Coremiocnemis hoggi* (Sergio Henriques, co-chair of the IUCN SSC Spider and Scorpion Specialist Group, in litt. To Chris R. Shepherd, 09 September, 2025). Also, the brown tarantula does not appear to be popular in the pet trade and is not readily found for sale online, unlike the Malaysian purple-femur tarantula, which is clearly popular and frequently advertised for sale online. It is likely specimens marked as brown tarantula are actually Malaysian purple-femur tarantula.

All imports from the years 2016-2024 were of live specimens for commercial purposes, with the exception of two shipments in 2024 that together consisted of 27kg of tarantula bodies. They were apparently from Indonesia, sent via Malaysia and were refused entry into the United States. The LEMIS data does not specify if these were seized or not. These are the only records of this genus being shipped to the United States that were not live. These shipments of dead tarantulas are not further included in the analysis provided here of live tarantulas.

None of the shipments were reported as sourced from Malaysia, the only nation the species is native to. With the exception of 16 coming from Hong Kong, five from Great Britain and two from Australia, all other tarantulas of the genus *Coremiocnemis* documented in LEMIS as being imported by the United States were exported from the EU. Because the EU lacks Lacey Act–type legislation, wildlife can be removed from the wild in violation of source-country laws, such as

those in Malaysia. Existing EU regulations do not adequately ensure that traded wildlife is legally or sustainably sourced (Cardoso et al. 2024, p. 1066). Consequently, species like the Malaysian Purple-femur tarantula may be illegally collected in their native habitats, trafficked into the EU, and subsequently re-exported to other markets, such as the United States, where they can be falsely marketed as captive-bred, effectively laundering wild-caught animals through the international trade system.

Table 2. Imports of live tarantulas of the genus *Coremiocnemis* to the United States from 2016-2024 according to the LEMIS database.

Year	Quantity	Country of origin	Source
2016	4	Poland	Wild
2016	2	Poland	Wild
2016	1	Poland	Wild
2016	2	Netherlands	Captive bred
2017	6	Germany	Captive bred
2017	15	Germany	Captive bred
2017	5	Poland	Captive bred
2017	2	Germany	Captive bred
2017	5	Poland	Captive bred
2018	6	Germany	Captive bred
2018	3	Poland	Captive bred
2018	1	Germany	Captive bred
2018	70	Germany	Captive bred
2018	69	Germany	Captive bred
2018	2	Poland	Captive bred
2018	4	Poland	Captive bred
2018	4	Poland	Captive bred
2018	5	Great Britain	Captive bred
2019	2	Poland	Captive bred
2019	12	Germany	Captive bred
2019	6	Germany	Captive bred
2020	16	Hong Kong	Wild
2020	10	Germany	Captive bred
2020	6	Germany	Captive bred

A total of 23 imported Malaysian purple-femur tarantulas were declared as wild-caught, the remainder declared as captive-bred (table 2). The Malaysian purple-femur tarantula has apparently been bred in captivity though breeding stock would most likely have been acquired illegally as the Malaysian Government has not issued permits for the export of this species. And while captive-breeding may be carried out by hobbyists and breeders of this species in the United States, it is highly likely that the advertising of this species online creates more demand, thus potentially increasing pressure on wild populations.

Malaysian Purple-femur tarantulas are commonly available for purchase through various online sellers. While some advertisements claim the spiders are captive-bred, others provide no such details, leaving the origin of the specimens unclear. Notably, none of the listings mention any collection or export restrictions from Malaysia, the species' native country. Prices for these tarantulas typically range between USD 100 and 200 (Appendix I).

Despite legal protections under Malaysian law, Malaysian species, such as the Malaysian purple-femur tarantula, are available in the U.S. pet trade. Under the U.S. Lacey Act, it is illegal to import, export, or sell wildlife taken, transported, or sold in violation of foreign laws. 16 U.S.C. § 3372(a)(1), (2)(A). Since Malaysia prohibits the commercial export of the Malaysian purple-femur tarantula, whether wild-caught or captive-bred, direct importation into the United States is unlawful. However, evidence suggests that U.S. buyers circumvent these restrictions by sourcing wildlife through European traders, where these species are not similarly protected (Auliya et al., 2016, p. 8).

a) Impact of Trade on the Wild Population

Species with limited geographic ranges or endemism are particularly prone to overexploitation (Janssen and Shepherd, 2018, p. 1; Rivera et al., 2024, p. 2). The Malaysian purple-femur tarantula exemplifies this vulnerability: it is endemic to Malaysia and confined to the Fraser's Hill region, which covers approximately 2,829 hectares. Its dependence on specific habitat types and microclimatic conditions, combined with ongoing habitat degradation caused by human activities, heightens the species' vulnerability to population decline.

Information on the numbers of Malaysian purple-femur tarantula removed from the wild to supply demand for pets is lacking, however, given vulnerability of its small range and therefore limited population, any offtake should be considered a threat. Given there is no legal trade in this species from Malaysia, there is a dearth of information on the number of specimens entering the illegal trade. Without such records, and without population estimates, it is difficult to quantify the impact of trade on these endemic species (Janssen and Shepherd, 2018, p. 2), though trade is very likely to be threatening the species.

b) Illegal Trade is an Ongoing Threat to the Malaysian purple-femur tarantula

Illegal trade in Malaysian purple-femur tarantula remains ongoing despite legal protection this species receives under Malaysian law. Reported imports of this species into the United States, as recorded in the LEMIS database, warrant close scrutiny, especially those shipments declared as wild-sourced from countries such as Germany, which are unlikely to be legitimate points of origin. According to the LEMIS database, only one seizure of *Coremiocnemis* spp. has taken place in the United States. In 2022, one specimen was seized upon entry into the United States. The shipment had come from Germany and was declared as being captive bred. However, in 2024, according to the LEMIS data, two shipments totaling 37kg of tarantula bodies were refused entry into the United States, coming from Indonesia via Malaysia. It is not known if these were seized or not.

The unlawful capture of individuals from the wild represents a blatant breach of Malaysian law and significantly accelerates the decline of a species already teetering on the brink of extinction. The Malaysian purple-femur tarantula, renowned for its striking appearance, large size, and highly restricted range, is especially vulnerable. Its distinctive traits, combined with increasing rarity, make it a prime target for collectors, driving persistent and potentially escalating demand that threatens the species' survival.

To effectively safeguard the Malaysian purple-femur tarantula, strong legal protections within Malaysia must be matched by robust enforcement and regulatory measures in consumer countries. Without coordinated international action to reduce demand and disrupt trafficking routes, conservation efforts within the species' native range will remain undermined.

C. Disease and Parasites

Very little is currently known about the disease and parasite-related threats facing wild populations of the Malaysian purple-femur tarantula—or tarantulas in general. The COVID-19 pandemic has underscored the increasing risks associated with human-driven pressures on wildlife, raising concerns about the potential involvement of less-studied species in zoonotic disease dynamics. Habitat destruction, wildlife trade, and closer human-wildlife interactions can all contribute to the emergence and spread of novel pathogens. These factors highlight the need for research into the health and disease susceptibility of tarantulas, particularly in the context of global biodiversity and public health challenges (Decaro et al., 2020, pp. 21–23; Mendoza-Roldán et al., 2020, p. 678).

D. Other Natural or Anthropogenic Threats

1. Climate Change

Although detailed studies on the impacts of climate change on the Malaysian purple-femur tarantula are lacking, it is considered a likely threat to the species' long-term survival. According to the IPCC Climate Change 2021 report, global surface temperatures are projected to continue rising at least until the mid-21st century under all emission scenarios (IPCC, 2021, unpaginated). In Southeast Asia, median temperature increases of approximately 2.5°C are projected by the end of the century (Christensen et al., 2007, p. 883), which may exacerbate habitat loss and further stress high-elevation endemics such as this species. The ecosystem of Fraser's Hill is highly sensitive to the impacts of climate change. Even slight alterations in temperature and moisture can lead to the decline or death of the epiphyte community, which plays a crucial role in maintaining the hydrological balance and nutrient cycling within the montane forest. Many plant and animal species at Fraser's Hill occupy narrowly defined ecological niches, making them particularly vulnerable to the increasing frequency and intensity of storms, droughts, and extended dry seasons predicted under climate change scenarios (Cheong, 2013, p. 24).

2. Introduced predators

While feral cats are present on Fraser's Hill, it is not known if these, or any other introduced species, prey on the Malaysian purple-femur tarantula. An online tarantula hobbyist site, Tarantula

Zone,[2] states that "Invasive species that have a predatory nature can pose a direct threat to tarantulas. For instance, invasive mammals like feral cats and rats can prey on tarantulas…"). Research found that feral cats collectively consume 1.1 billion invertebrates per year across Australia, including spiders (NESP Threatened Species Recovery Hub, 2021, p. 1). It is highly likely the feral cats on Fraser's Hill pose a threat to the Malaysian purple-femur tarantula.

3. Road Mortalities

The Malaysian purple-femur tarantula often occupies banks created by roadways that cut through the steep terrain of Fraser's Hill. While roadkill has not been reported, as no such studies have been carried out, it is highly likely that dispersing tarantulas are killed by vehicles. As such, vulnerability to road mortality should be considered a potential threat.

E. Regulatory Mechanisms

Existing domestic protections in Malaysia and global regulatory mechanisms are inadequate to fully protect the Malaysian purple-femur tarantula from trade to supply the international pet trade. As discussed below, despite regulatory measures that are in place domestically in Malaysia, Malaysian purple-femur tarantula continues to be dug out of their burrows and taken from the wild and smuggled out of the country. The United States is an important end market for the Malaysian purple-femur tarantula and is complicit in the overexploitation of this species. Protection under the Endangered Species Act, including a ban on imports of Malaysian purple-femur tarantula to the United States, is necessary to support efforts to protect this species from extinction given the inadequacy of the regulatory mechanisms discussed below.

1. Domestic Protections

The Wildlife Conservation Act 2010 is the primary governing law for wildlife conservation, management and regulation in Peninsular Malaysia. Under this Act, *Coremiocnemis spp*. are protected under Schedule I,[3] which means the law allows for regulated use (harvesting, keeping, trade) with permits issued by the Department of Wildlife and National Parks Peninsular Malaysia.[4] This in contrast to species that are listed on Schedule II, which are totally protected and therefore no legal collection or trade is allowed, bar exceptional circumstances where a special permit is issued. To our knowledge, no permits have been issued for the Malaysian purple-femur tarantula.

2. International Protections

[2] https://tarantulazone.com/can-tarantulas-be-threatened-by-invasive-species-in-their-habitats/?utm_source=chatgpt.com.
[3] Wildlife Conservation Act 2010, Act 716, § 3 (First Schedule), at p. 95. Available at: https://faolex.fao.org/docs/pdf/mal107883.pdf
[4] *Id.* § 9(a).

a. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The Malaysian purple-femur tarantula is not listed in the appendices of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and therefore there are no effective means of monitoring or regulating international trade in this species.

VI. Conclusion

The Malaysian purple-femur tarantula faces an escalating risk of extinction across its already restricted and ecologically specialized mountainous range. While habitat loss and the growing impacts of climate change present significant threats, illegal collection to supply the international exotic pet trade represents the most immediate and severe danger to this species' survival.

Existing regulatory frameworks have proven insufficient to prevent illicit exploitation, particularly in the face of persistent demand from international markets. The United States remains a major driver of this trade.

Illegal trade in the Malaysian purple-femur tarantula persists, with demand from the United States acting as a significant driver. Much of this trade occurs covertly, making it difficult to detect, monitor, or quantify accurately. Imports into Germany and other countries and territories are highly likely to involve specimens taken directly from the wild in Malaysia or bred from founder stock that was illegally acquired. This ongoing illicit activity poses a serious threat to the species' survival and undermines Malaysia's conservation efforts.

The Malaysian purple-femur tarantula clearly warrants listing as endangered under the Endangered Species Act, as it faces a serious risk of extinction, and intervention from the United States is needed to protect this unique and sought after species from further decline.

We strongly urge the Service to swiftly list the Malaysian purple-femur tarantula as endangered under the Endangered Species Act.

VII. References

Please note that all references have been submitted on a jump drive and can also be found in this folder.

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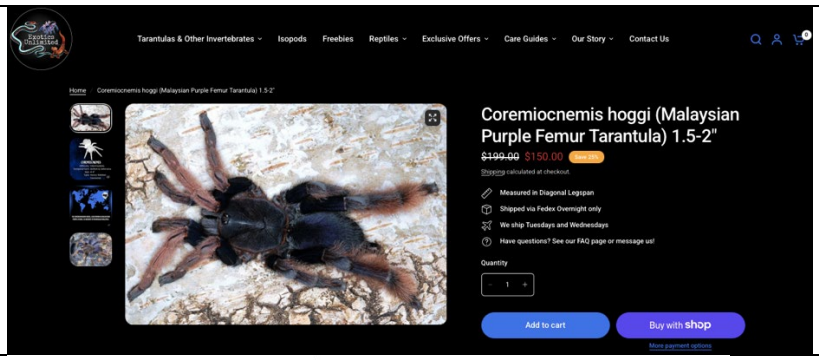
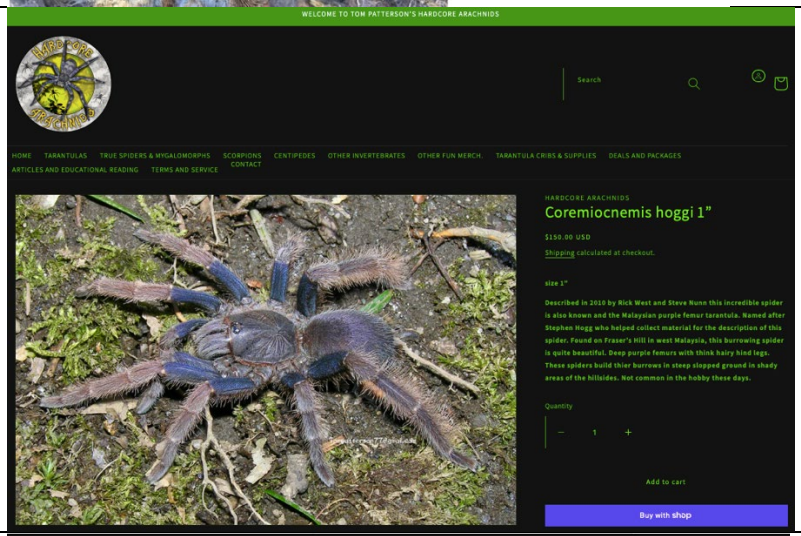
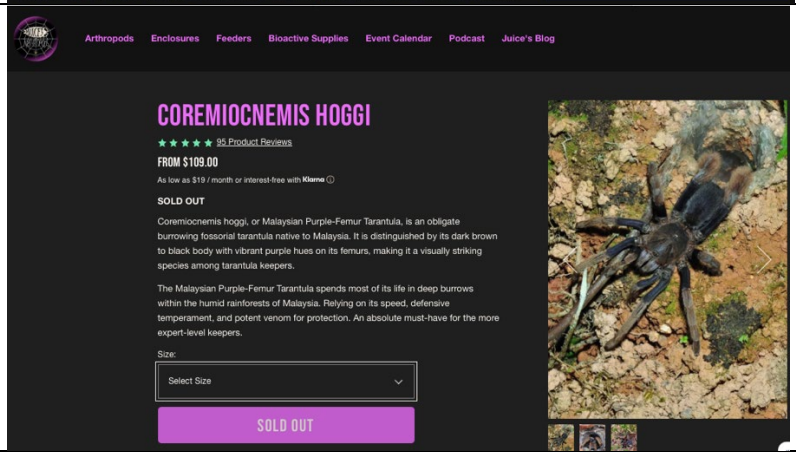
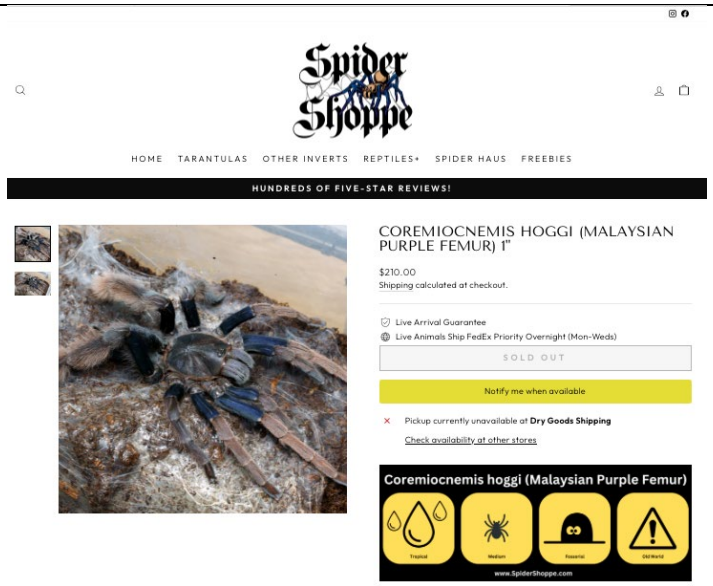
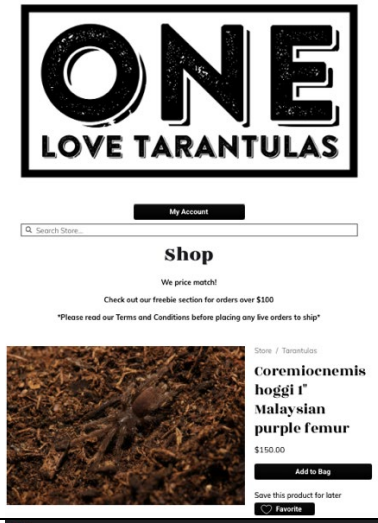
Appendix I

Table 1. Malaysian purple-femur tarantulas for sale online in the United States.

Exotics Unlimited USA (Accessed 25 Sept, 2025)	
Buddha Bugs (Accessed 25 Sept, 2025)	
Hardcore Arachnids (Accessed 25 Sept, 2025)	
Juices Arthropods (Accessed 25 Sept, 2025)	

Spider Shoppe (Accessed 25 Sept, 2025)	
One Love Tarantulas (Accessed 25 Sept, 2025)	
The Mother of Spiders (Accessed 25 Sept, 2025)