

# Generalidades sobre la clase Arachnida en Uruguay

Dr. Luis Fernando Garcia

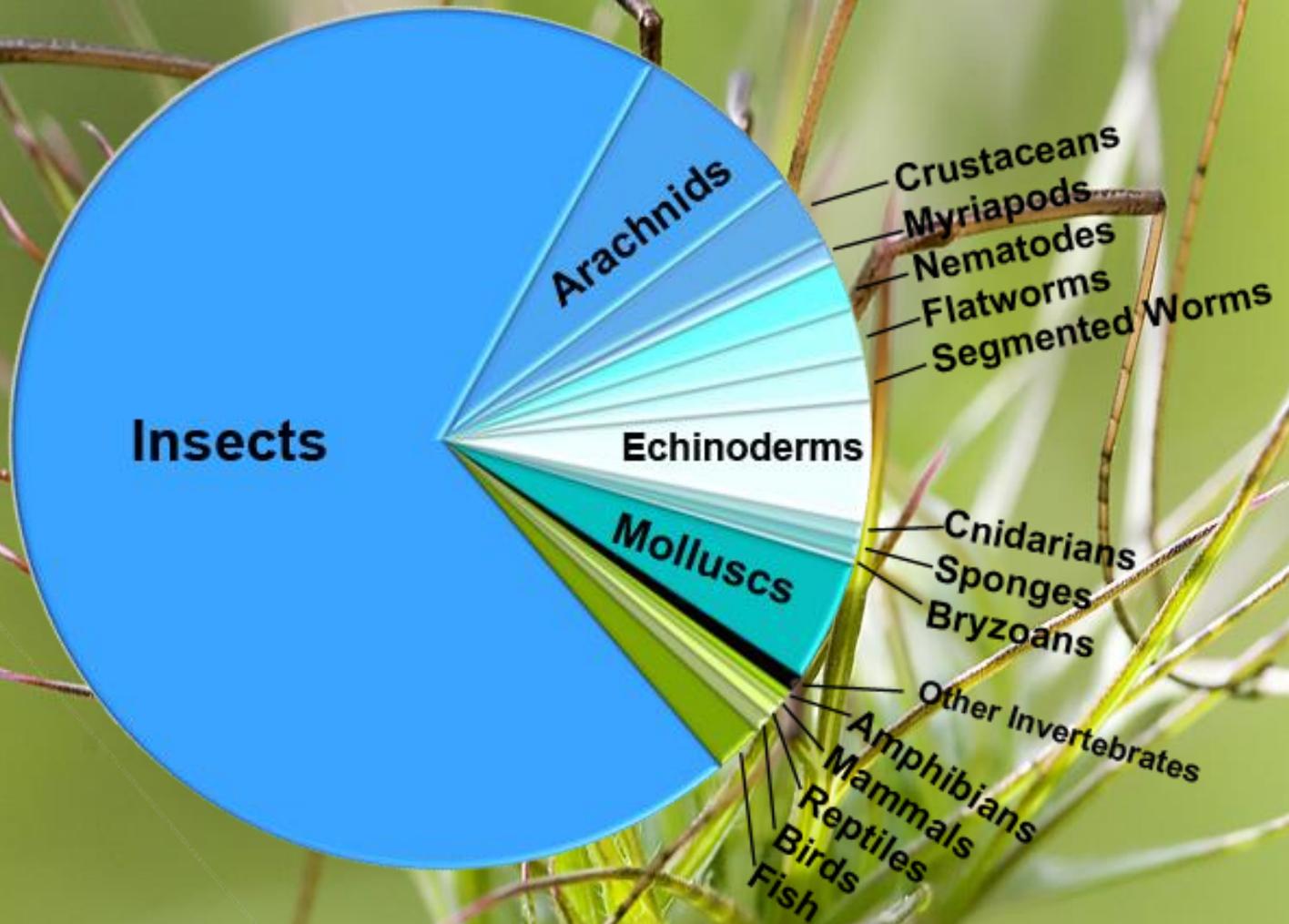


**CURE**  
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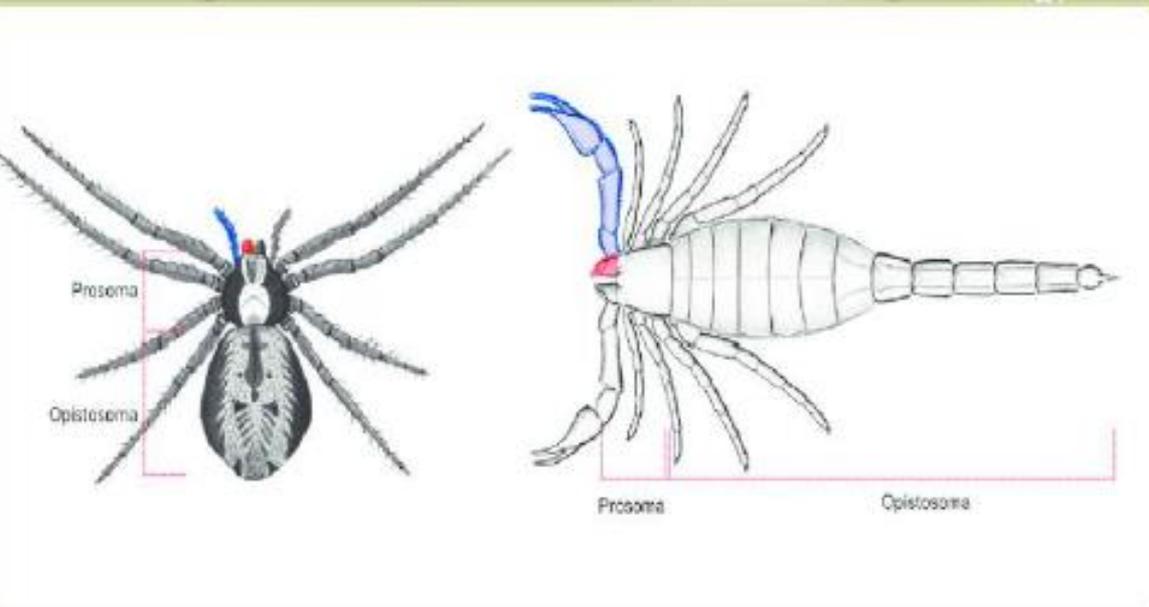


UNIVERSIDAD  
DE LA REPÚBLICA  
URUGUAY

# ARÁCNIDOS



# Características generales



Cuerpo dividido en dos regiones (prosoma, opistosoma)

Cuatro pares de patas

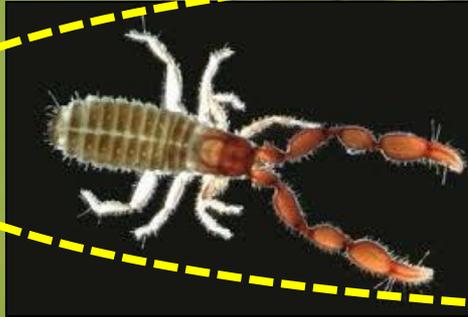
Un par de quelíceros



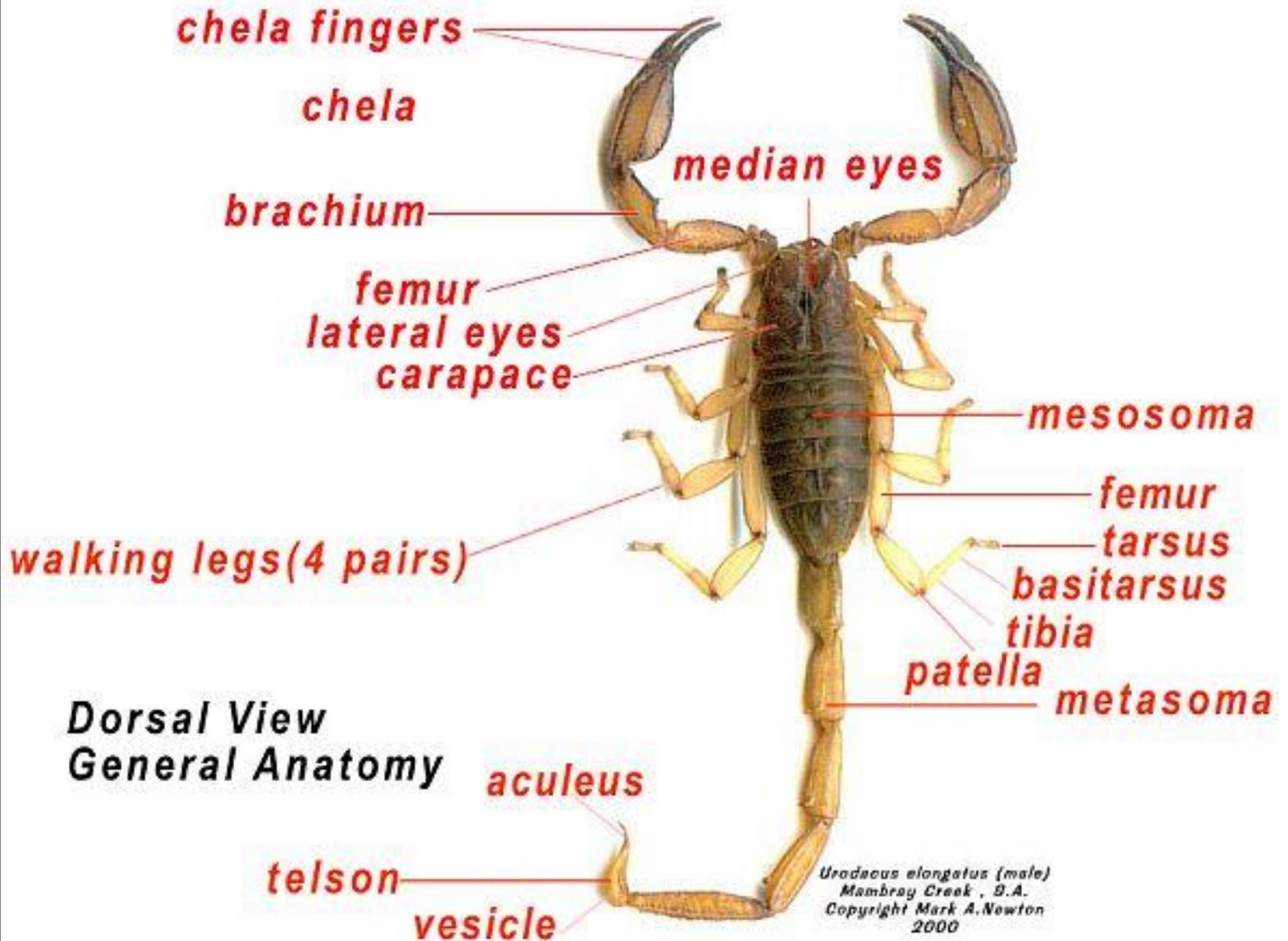
Un par de pedipalpos



# CLASE ARACHNIDA

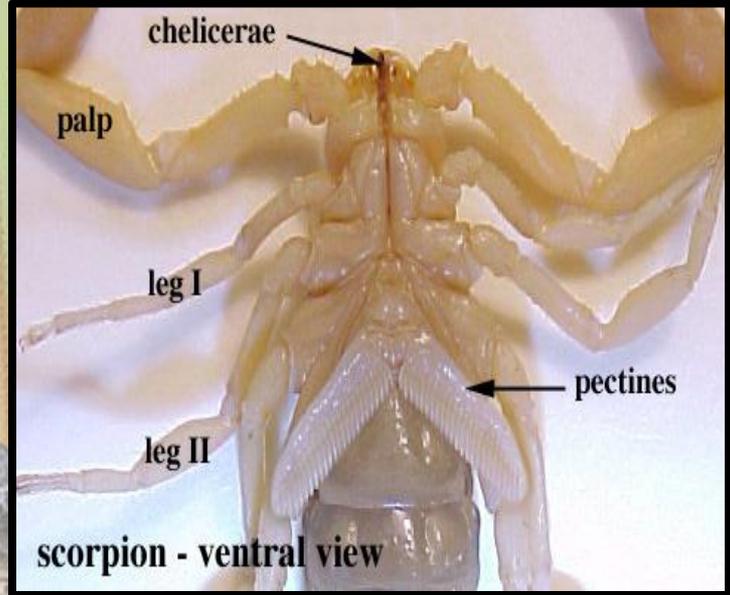
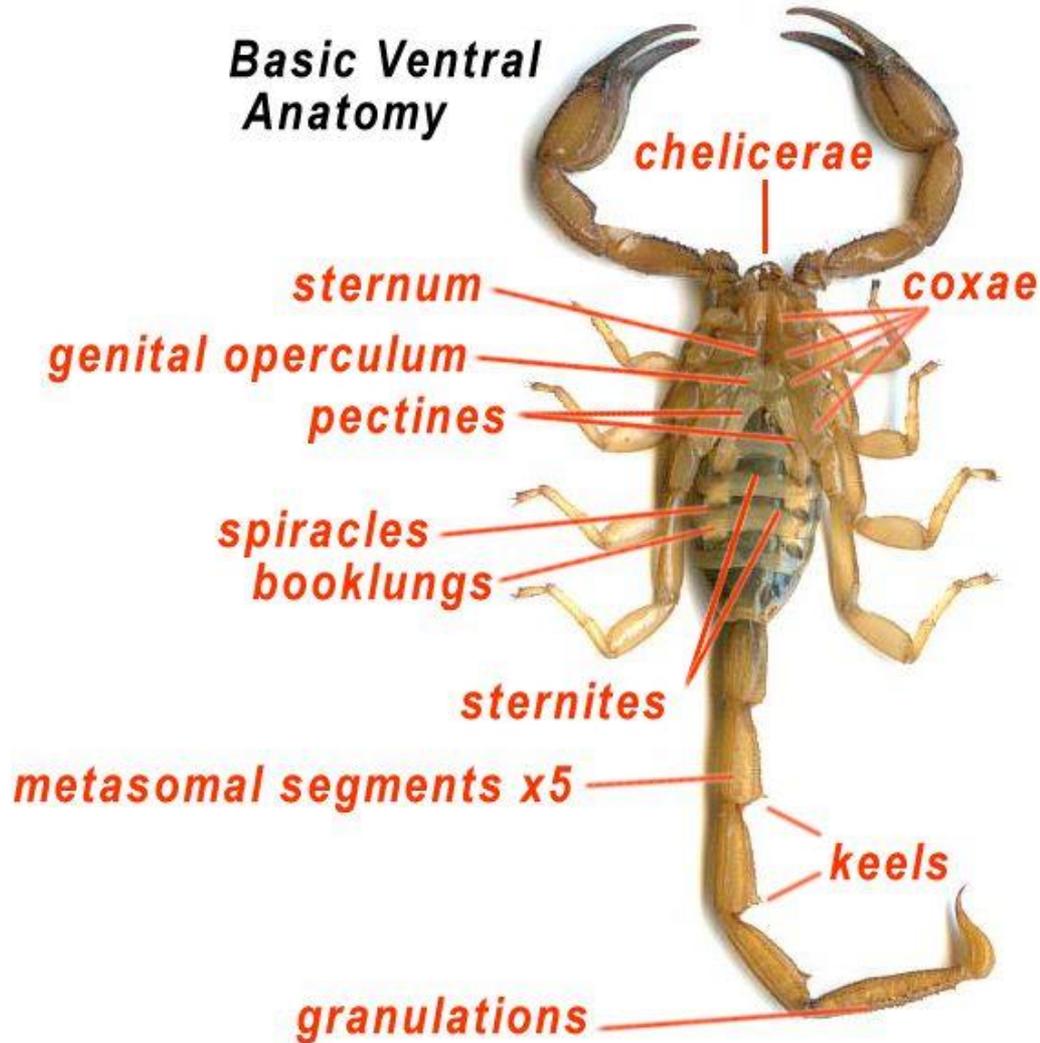


# Orden Scorpiones



# Orden Scorpiones

## Basic Ventral Anatomy



# Orden Scorpiones



# Apareamiento



# Apareamiento



# Reproducción



# Alimentación



# En Uruguay



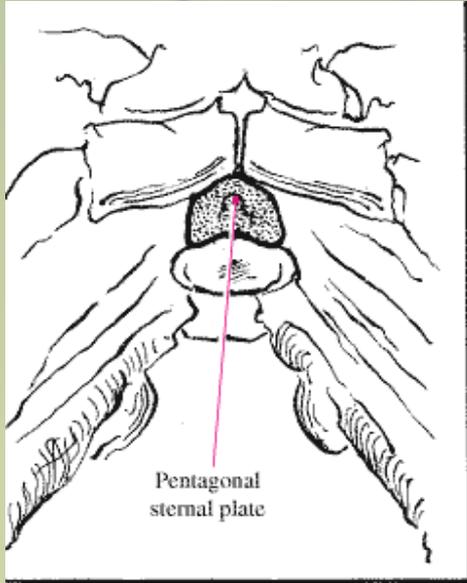
**Bothriuridae**



**Buthidae**



# Familia Bothriuridae



**Palpos engrosados**

**Aguijón sin espinas**

**Esternón pentagonal**

**Mayoría de especies en Uruguay**

**No representan importancia médica**



# La familia Bothriuridae en Uruguay



*Bothriurus bonariensis*



*Bothriurus rochensis*



*Urophonius iheringi*

CHRISTIAN CASAS

# Familia Buthidae

**Tubérculo subaculear: Buthidae (algunas especies)**  
**Palpos estilizados**

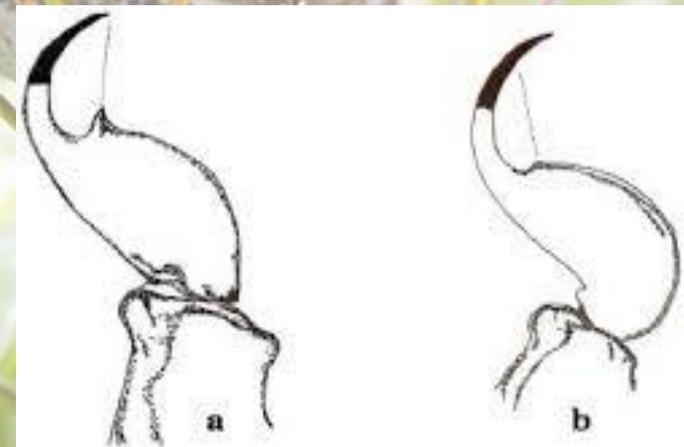
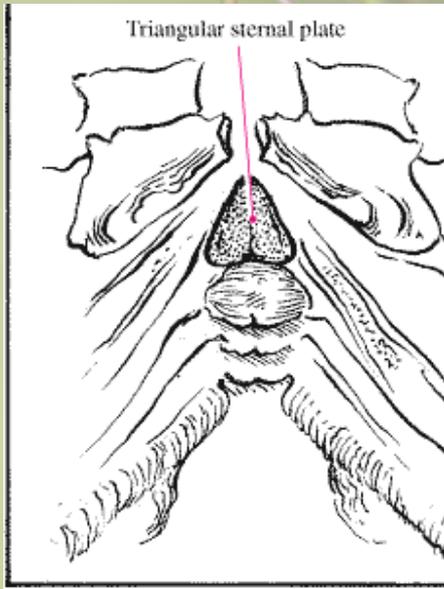


Figura 5. *Tityopsis aliciae*, hembra adulta; telson mostrando tubérculo subaculear trapecoidal (escala = 0.5 mm).

Figura 8. Vesícula, aguijón y tubérculo subaculear de (a) *C. tecomanus* Hoffmann y (b) *C. limpidus* Karsch.

# Especies peligrosas en Uruguay

## *Tityus uruguayensis*



**Especie de tamaño pequeño (40-50mm)**

**Amplia distribución en Uruguay, poca sinantropía**

**Partenogenética**

**Casuística y toxicidad poco conocida**

**Potencialmente peligrosa???**

# Especies peligrosas en Uruguay

## *Tityus trivittatus*

Especie de tamaño pequeño a mediano (40-70mm), con bandas longitudinales

Distribución en Uruguay: Colonia

Introducida desde Argentina

Partenogenética y sinantrópica

Importancia médica: Argentina

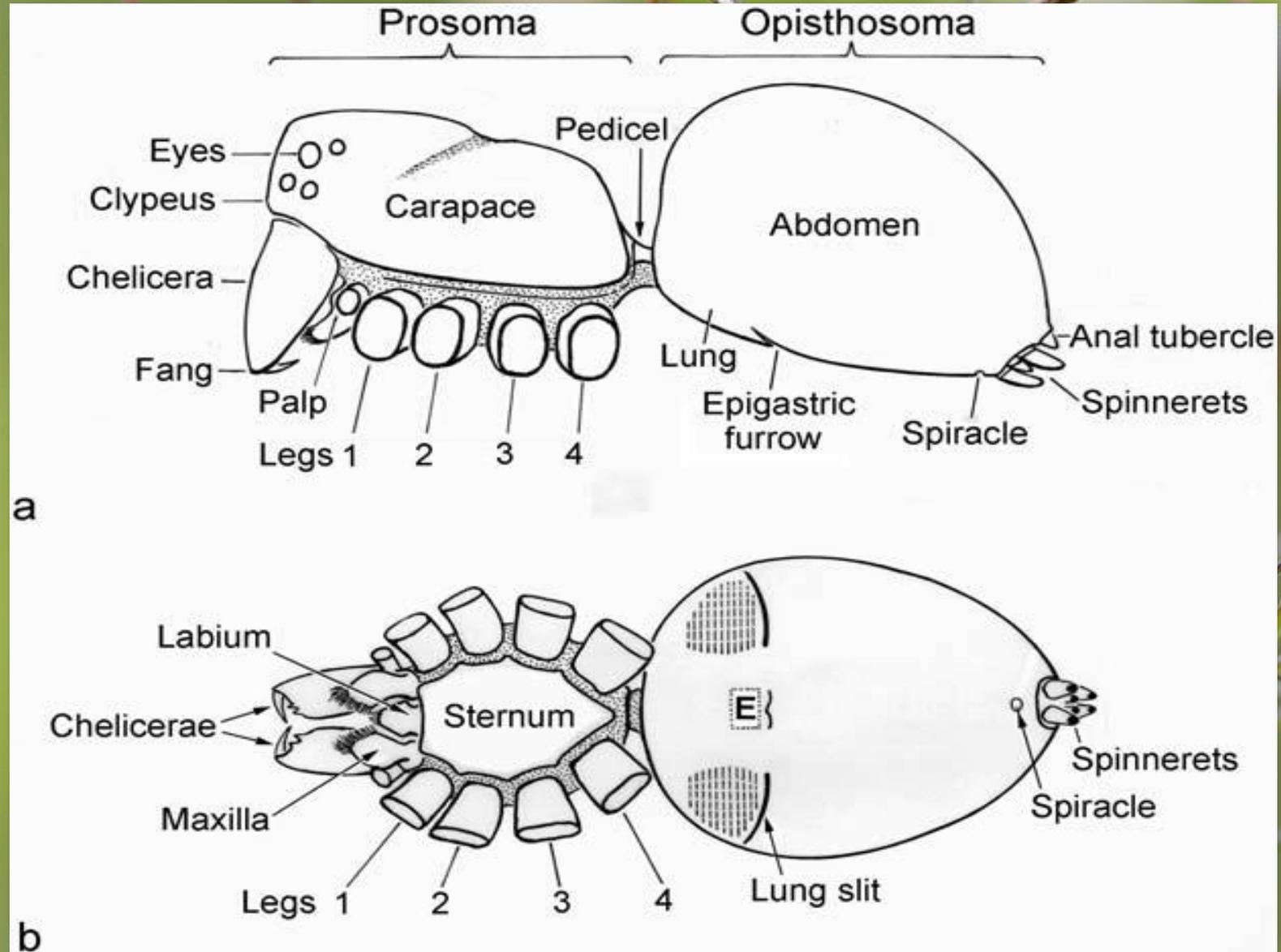
Potencialmente peligrosa para niños



Foto: L.F. García



# Orden Araneae



# Variedad de QUELICEROS?

**Araneomorfas**

**Migalomorfas**



# Variedad de QUELICEROS?

Araneomorfas

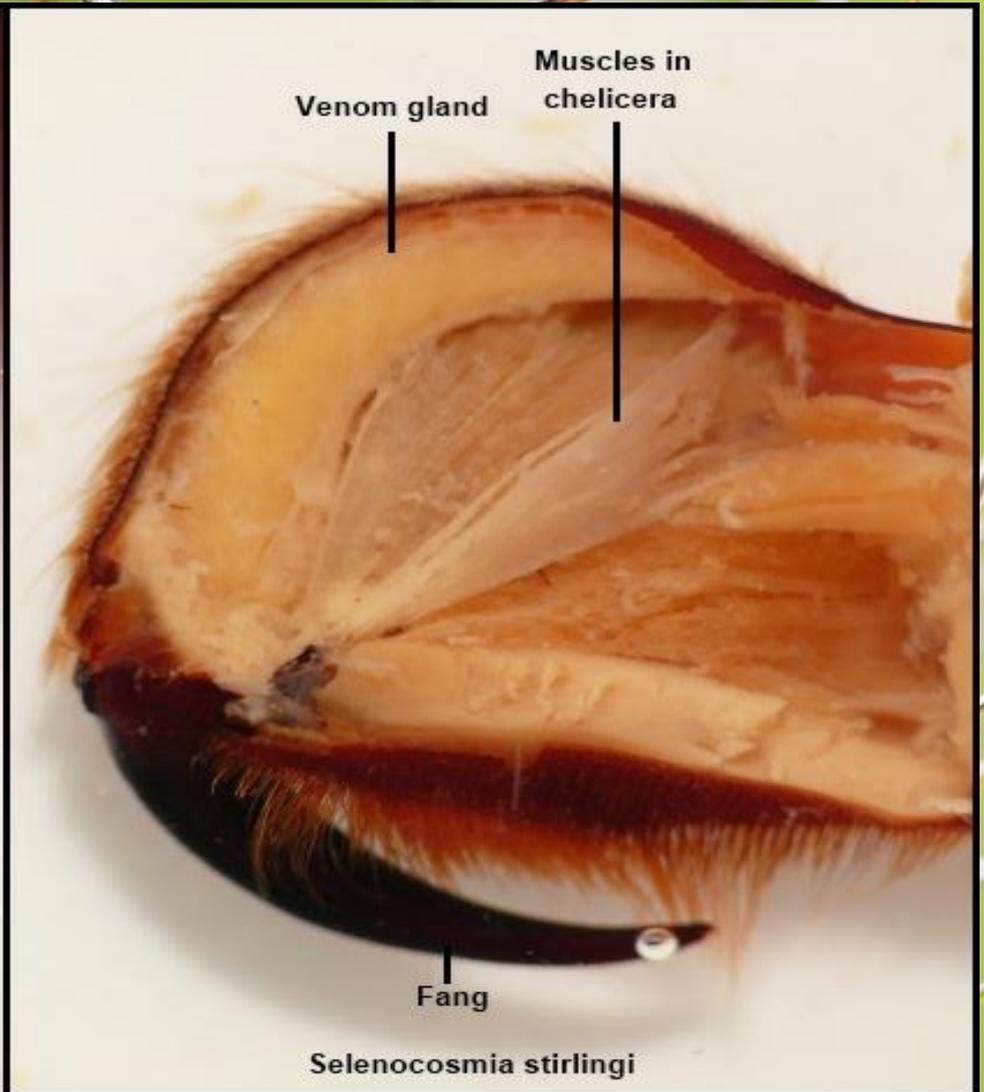
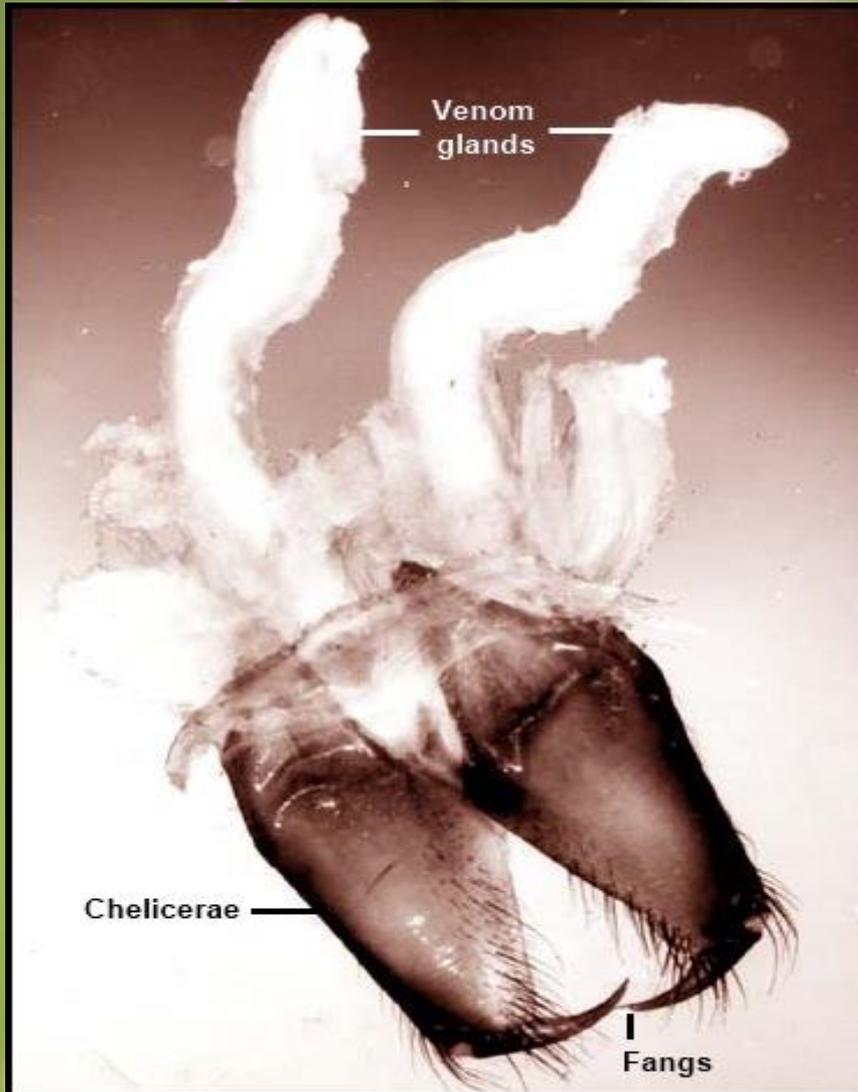
Mayoría de especies conocidas



Migalomorfas

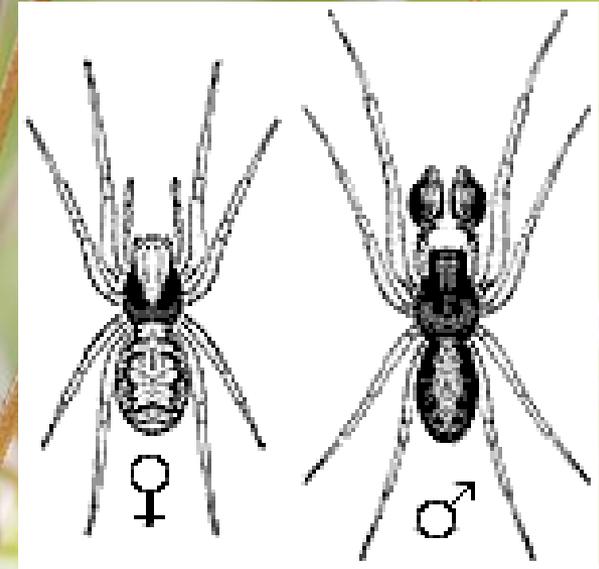


# Las arañas y el veneno

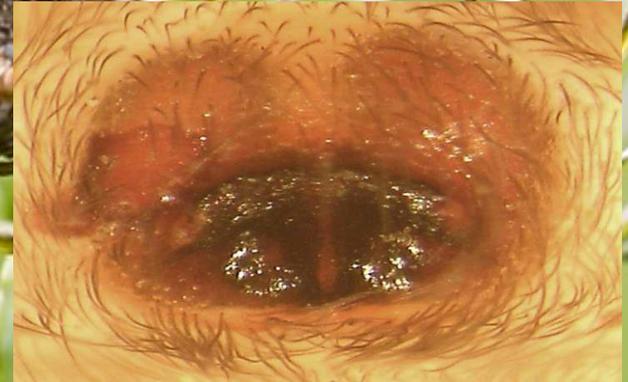
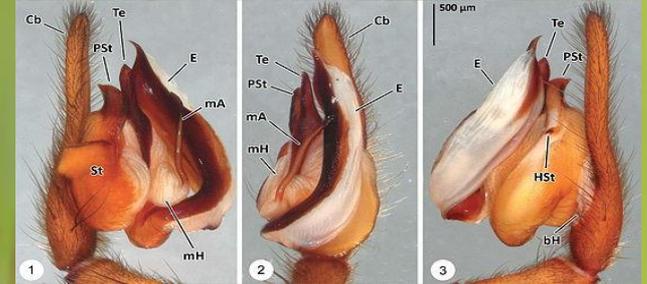


Dissected venom glands: araneomorph (left, in cephalothorax); mygalomorph (right, in chelicerae)

# Orden Araneae



# Genitalia e identificación



# Genitalia e identificación

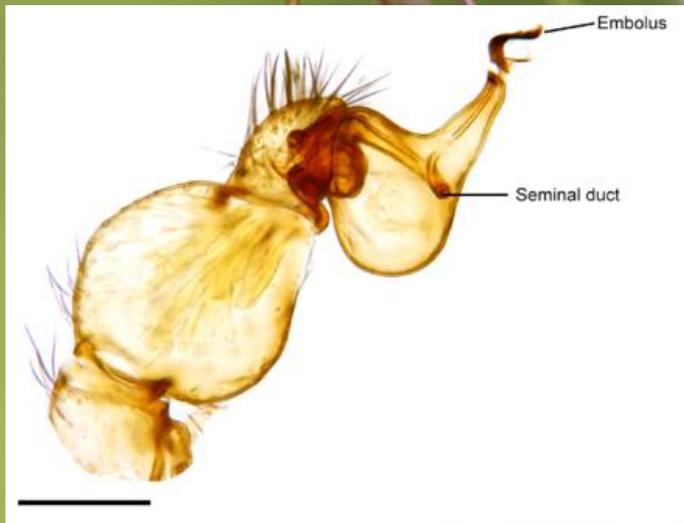
## Migalomorfas



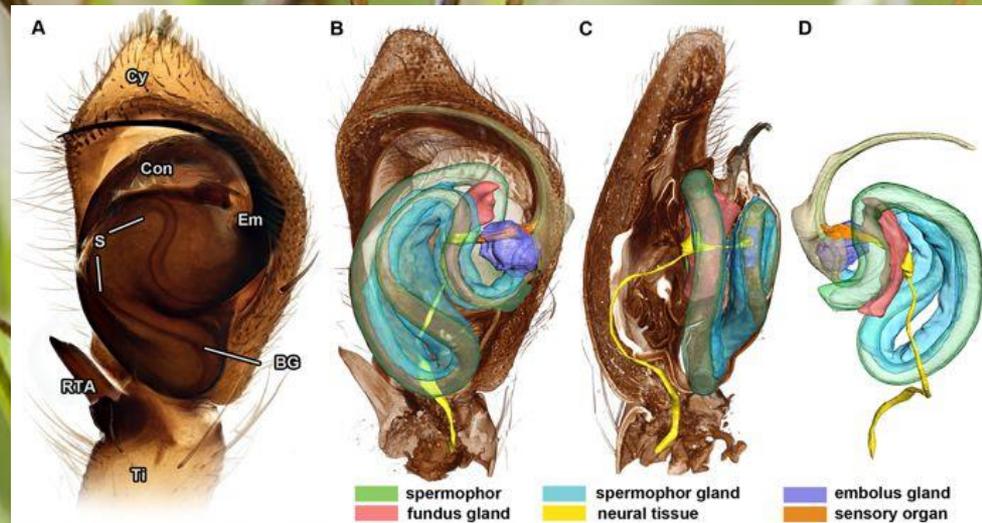
# Genitalia e identificación

Araneomorfas

Haplóginas



Enteleginas



# Variedad de hileras

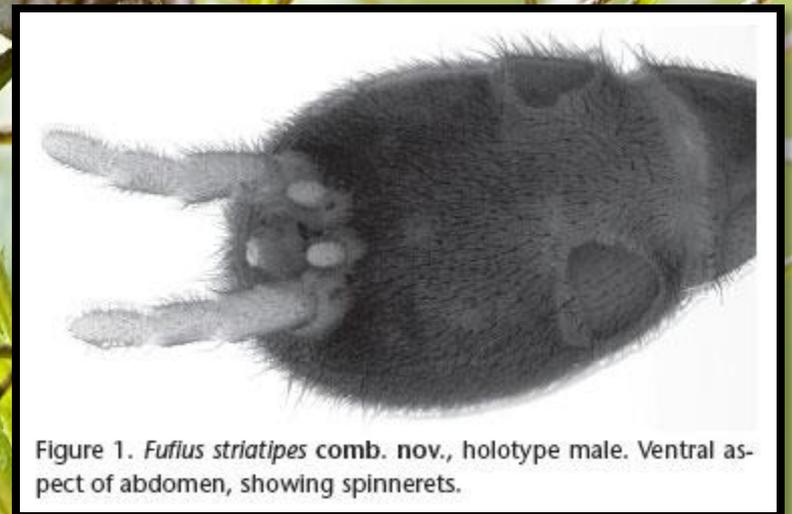
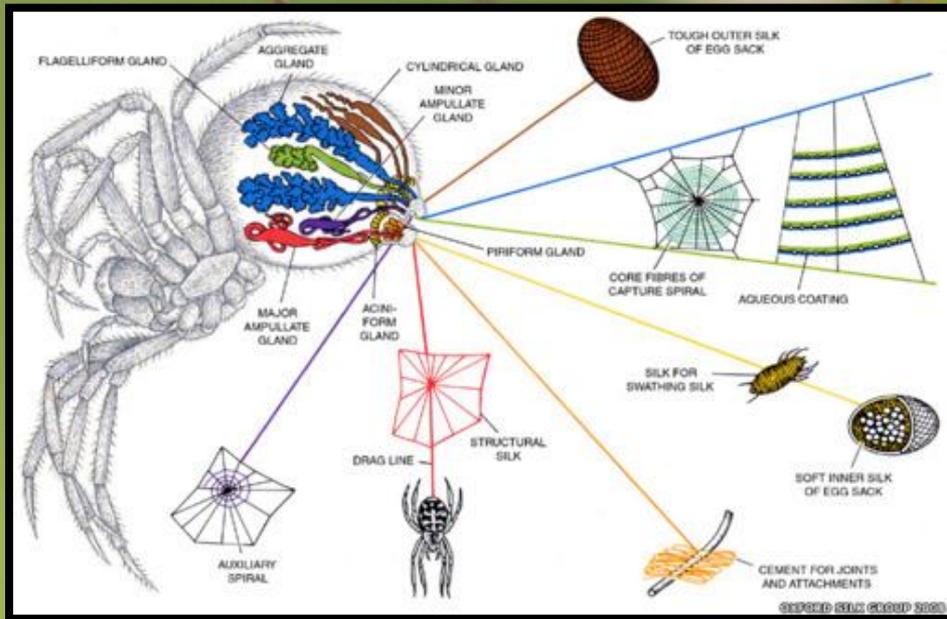


Figure 1. *Fufius striatipes* comb. nov., holotype male. Ventral aspect of abdomen, showing spinnerets.

# Reproducción



# Alimentación



# Consumo de insectos por arañas

Science / Animals

## Spiders eat up to 800 million tons of insects a year



Melissa Broyer  
December 9, 2017



© 2013 ThomasShahan.com

CC BY 2.0 Thomas Shahan/Photo

Meanwhile, humans consume a mere 400 million tons in meat and fish.



The Science of Nature

April 2017, 104:30 | [Cite as](#)

An estimated 400–800 million tons of prey are annually killed by the global spider community

Authors

[Authors and affiliations](#)

Martin Nyffeler , Klaus Birkhofer

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First Online: 14 March 2017

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# Arañas tejedoras



# Arañas no tejedoras

No usan tela para capturar a sus presas

Según la estrategia



“Ambushers”



“Runners”

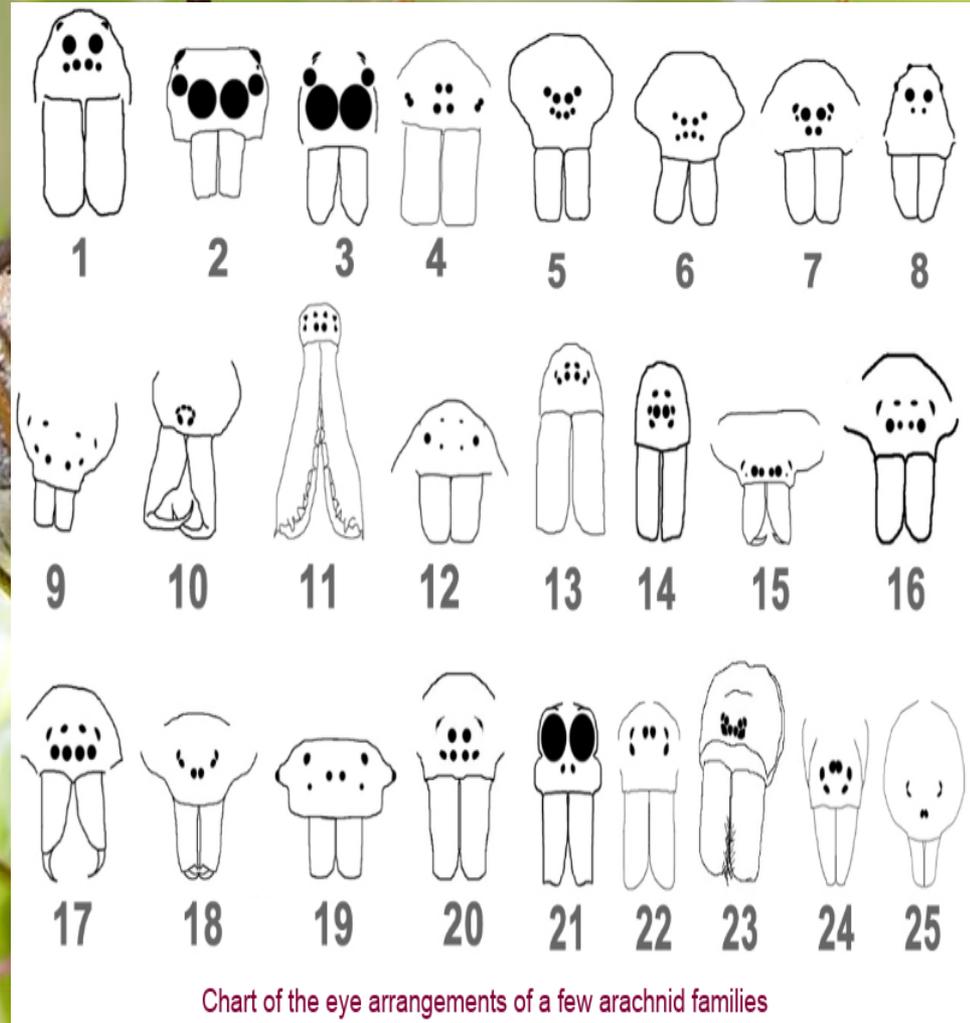
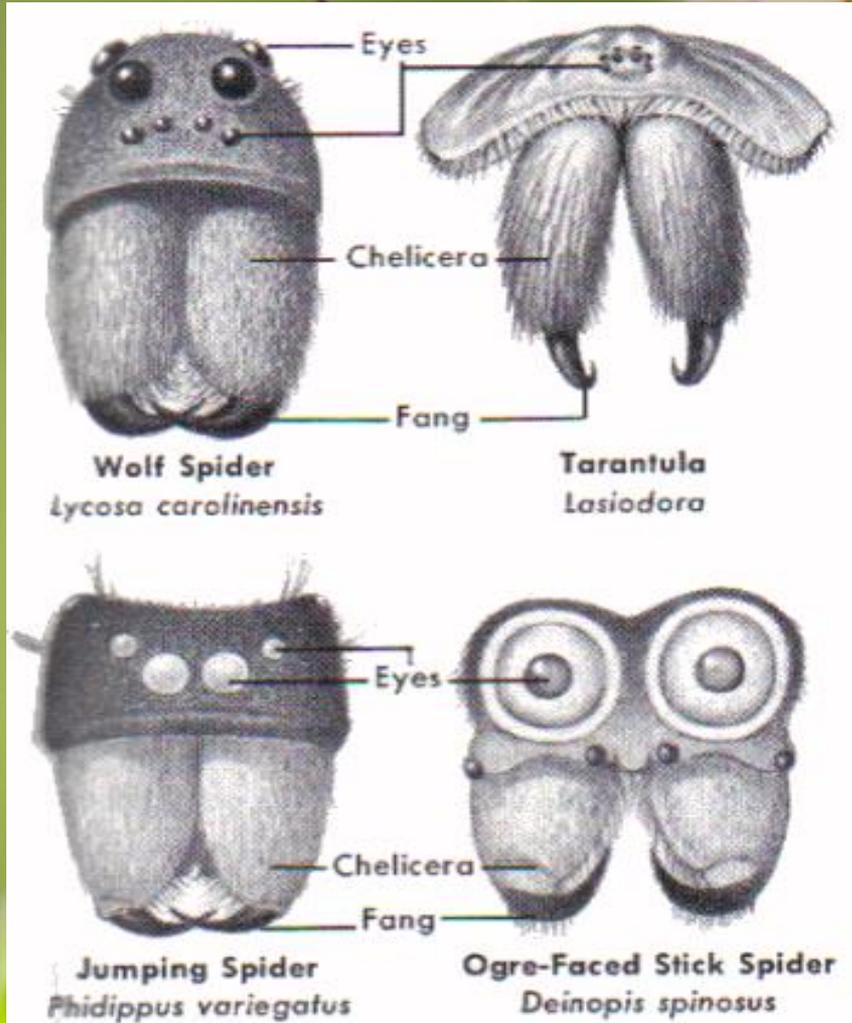


“Stalkers”

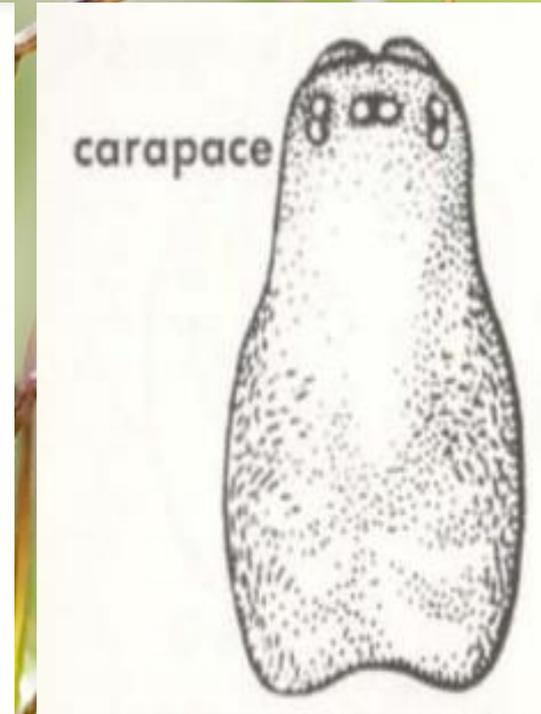
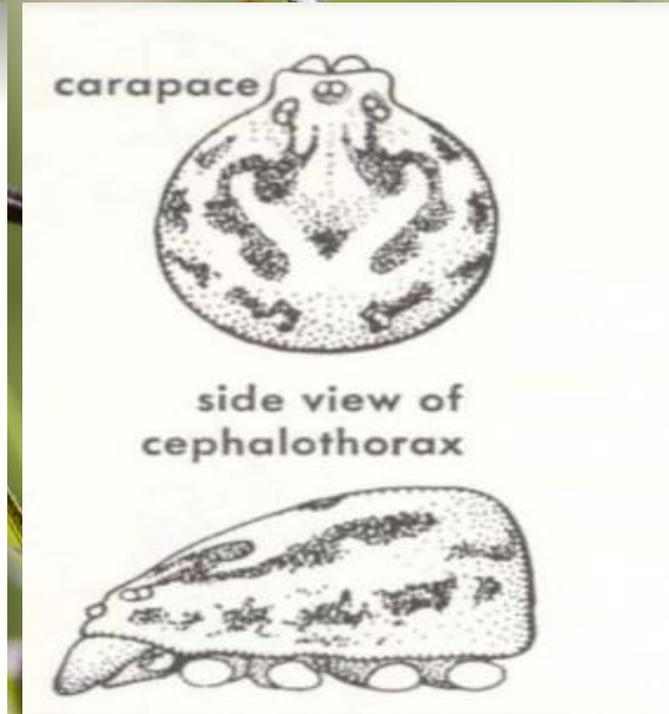
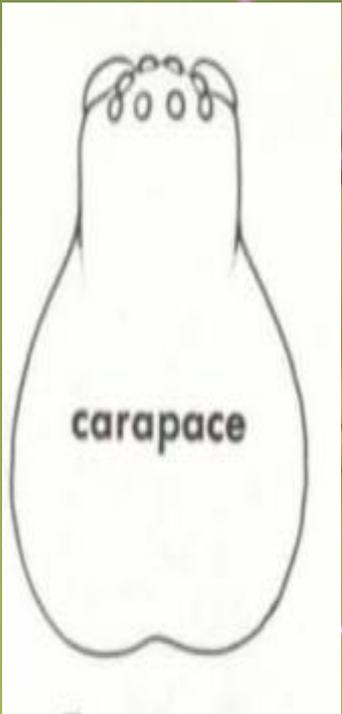
# Las arañas y el hombre: Arañas en cultivos



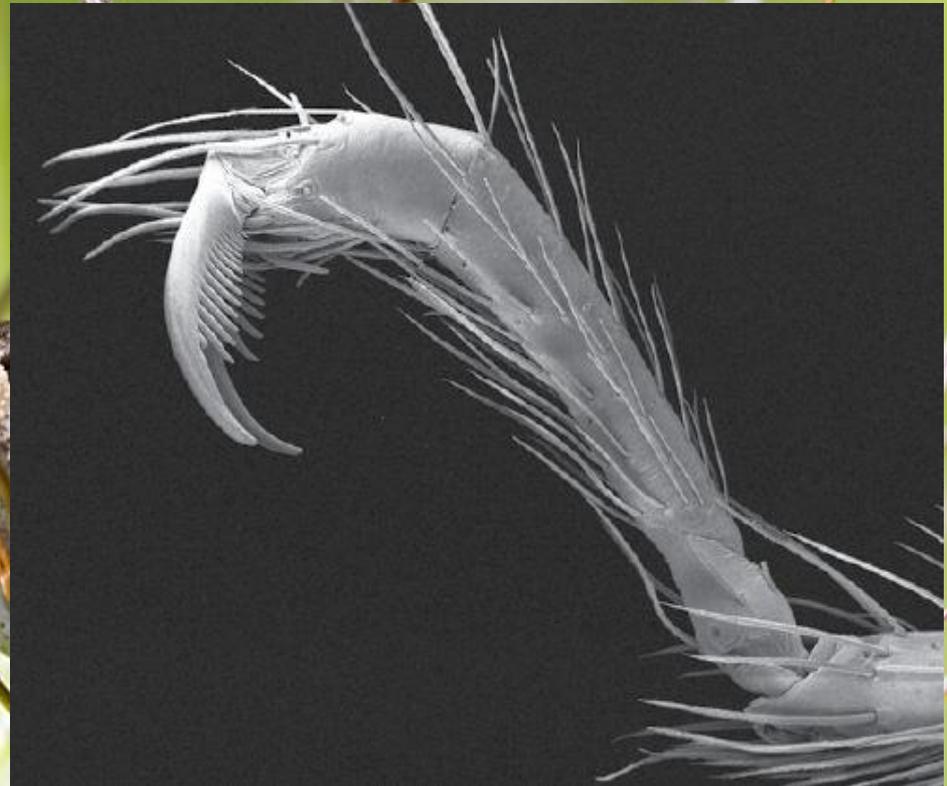
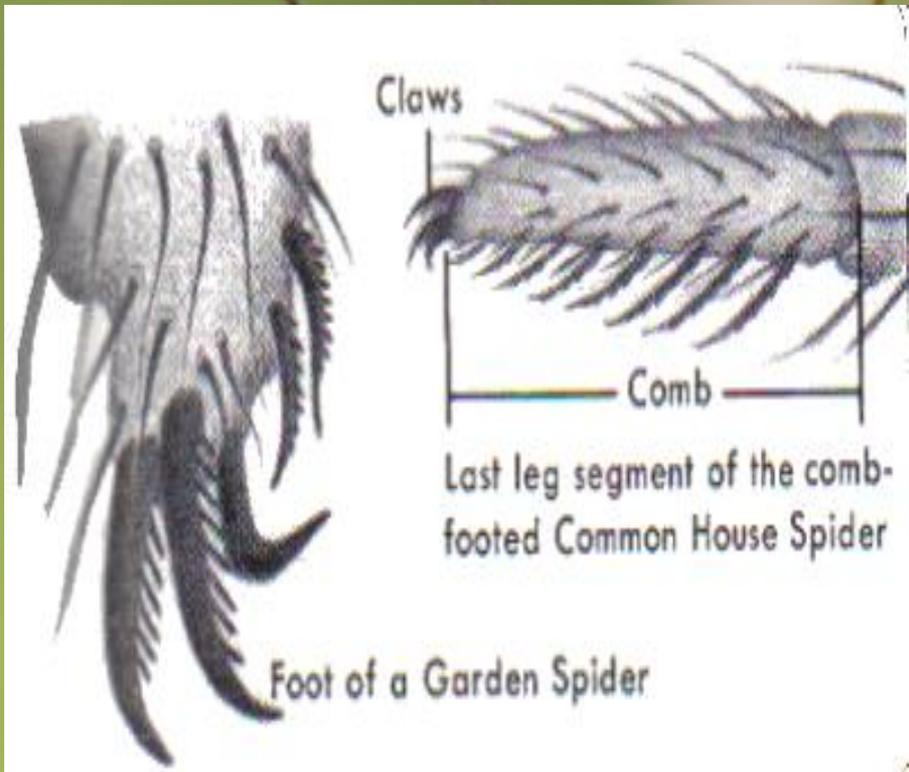
# Cómo identificarlas



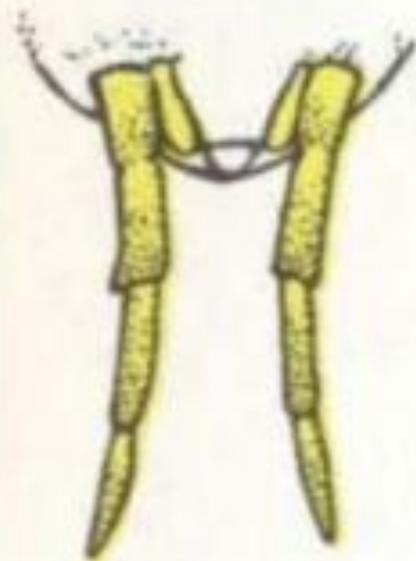
# Cómo identificarlas



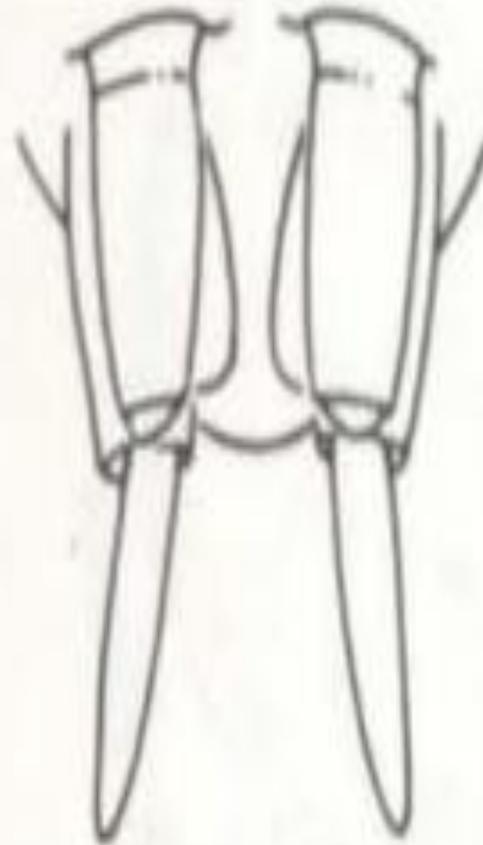
# Cómo identificarlas



# Cómo identificarlas

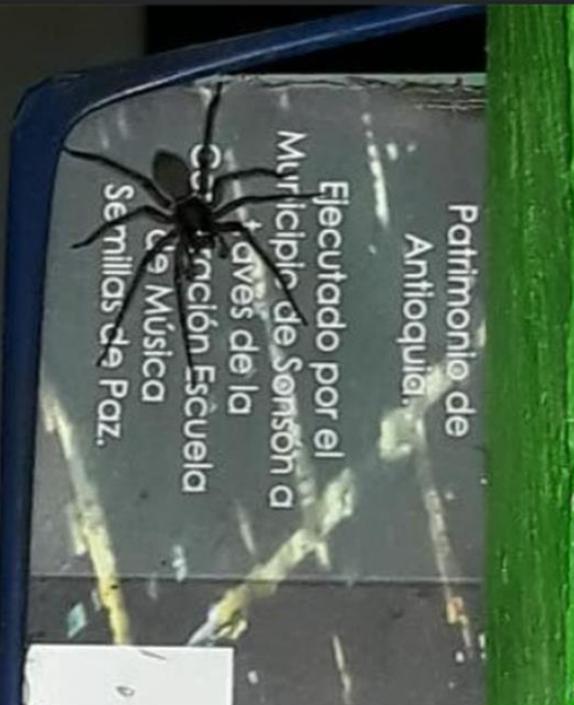


**Euagrus  
spinnerets**



# ¿Qué opinan de esto?

Hola! me encontré esta arañita en la zona rural de Iámesis. Alguien sabe a qué especie pertenece?



4

30 comentarios 1 vez compartido

Me gusta

Comentar

Compartir

Una araña bananera sin duda. Inofensiva, muy social además.

Me divierte · Responder · 4 h

3



## Key to families

In case you find an error or have a specific suggestion, please follow this link: [click](#)

- 1 Orthognath position of the chelicerae: Basic segments parallel, projecting forwards; the fangs **almost** parallel

2



Sternum  
(Decae 2000)



Sternum  
(Kraus & Baur 1974)

- Labidognath position of the chelicerae: Basic segments pointing downwards; tips of the fangs directed toward each other (in many labidognath spiders the tips of the claws converge (e.g. Dysderidae); the basic segments of the chelicerae almost always diverge (sloping or perpendicular) downwards

7



Chelicera, ventral view  
(Jocqué & Dippenaar-Schoeman 2007)

# SPIDER FAMILIES OF THE WORLD

R. Jocqué  
A.S. DIPPENAR-SCHOEMAN

SPIDER FAMILIES OF TH



# Arañas: Recursos

← → ↻ 🏠 wsc.nmbe.ch



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## World Spider Catalog Version 21.5

Currently **48'783** accepted species included

Introduction

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**Citation:** World Spider Catalog (2020). World Spider Catalog. Version 21.5. Natural History Museum Bern, online at <http://wsc.nmbe.ch>, accessed on {date of access}. doi: 10.24436/2

### Last updates

#### Taxon ([Show all](#))

2020-09-24 **New taxonomic reference entry** - Ref  
[Mesilla vittiventris](#) Simon, 1903

2020-09-24 **First description of male** - Ref  
[Mesilla vittiventris](#) Simon, 1903

2020-09-24 **New taxonomic reference entry** - Ref

#### Latest references included ([Show all](#)) | [Upcoming](#)

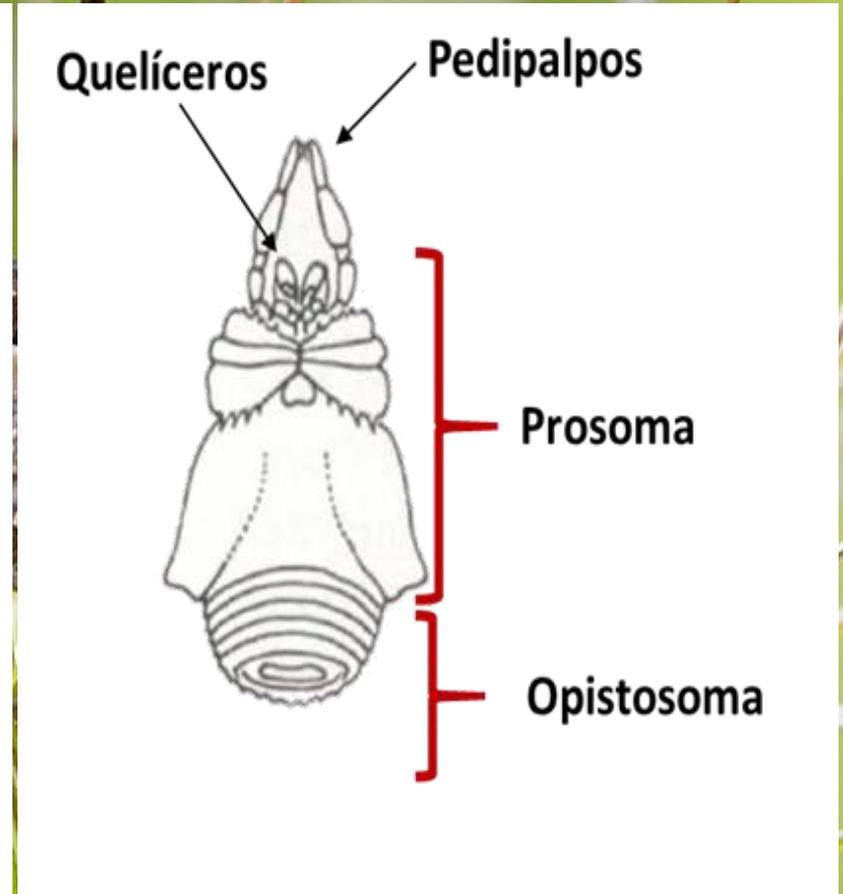
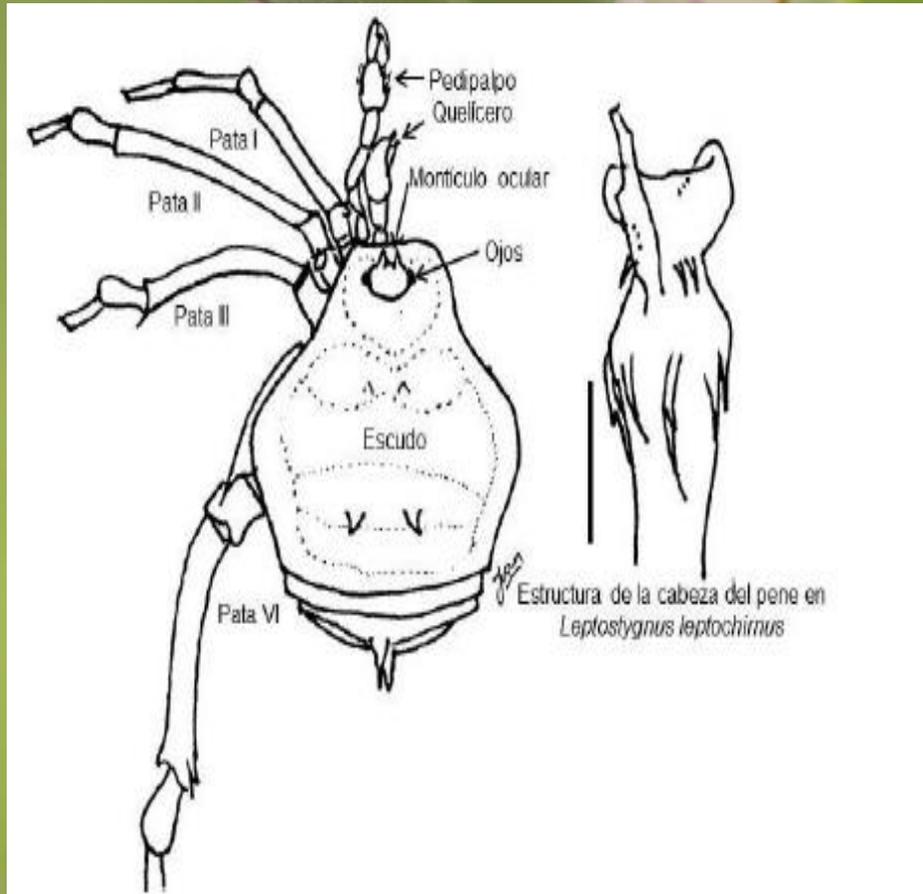
2020-09-24 [Martínez, Brescovit & Oliveira, 2020](#) -- [Show included taxa](#)

2020-09-24 [Indzhov, 2020](#) -- [Show included taxa](#)

2020-09-24 [Bauer, Lemke & Pantini, 2020](#) -- [Show included taxa](#)

2020-09-24 [Lecigne & Ocar, 2020](#) -- [Show included taxa](#)

# Orden Opiliones



# Glándulas repugnatorias



# Estructuras dimórficas



# Alimentación



# Defensa



Video recording – 3

Harvestman cuts flatworm in two pieces with sharp spines on legs IV

# Reproducción



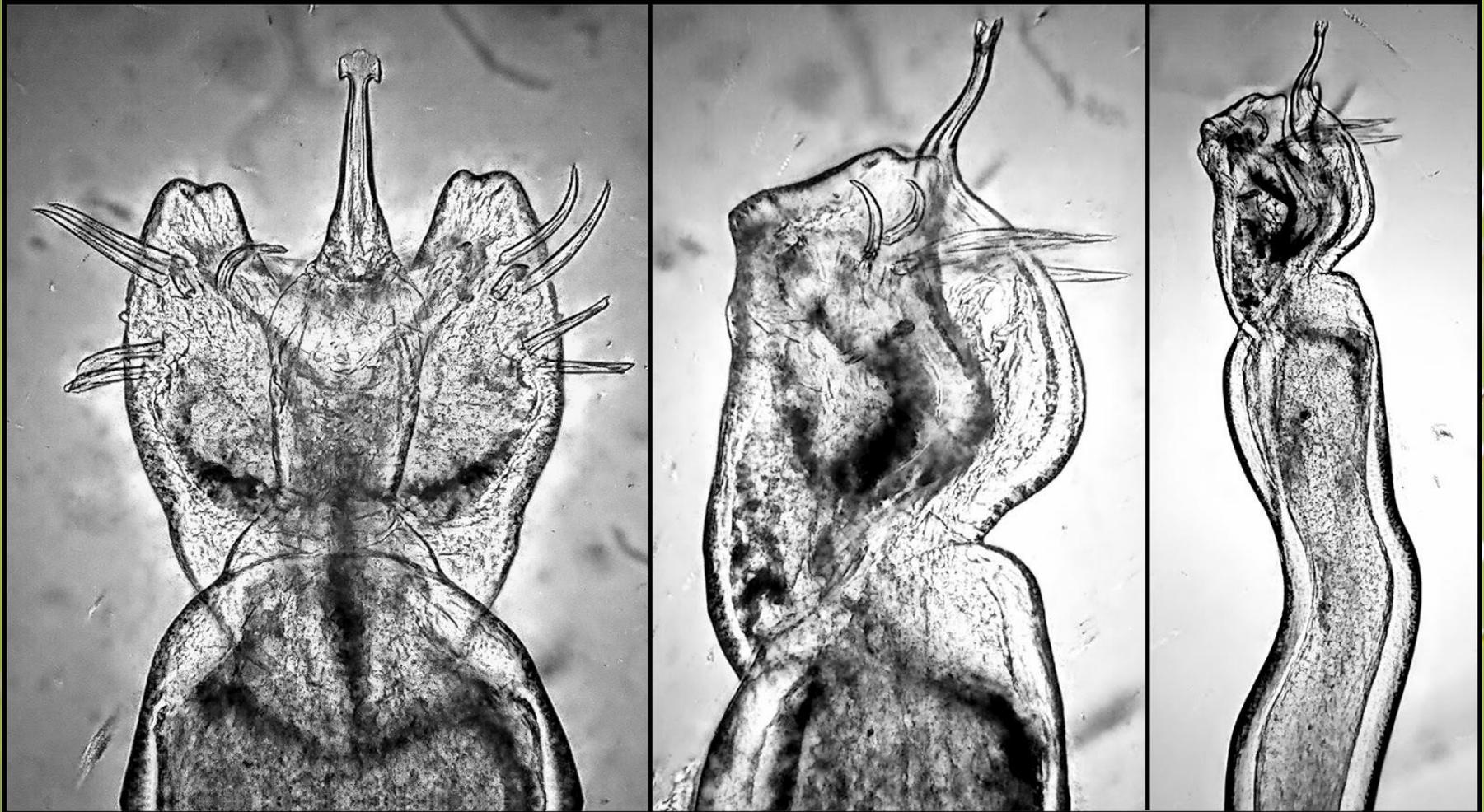
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© Andrea M. Singer

# Reproducción

Genitalia masculina



# Recursos: Opiliones



## Classification of Opiliones

[< back to Adriano B. Kury](#) [< back to Arachnology lab](#) [< back to Museu Nacional](#)  
> to [List of genera of Opiliones](#)

### Info

**Definition:** Harvestmen are members of the class Arachnida, order Opiliones.

**Relationships:** Opiliones are more closely related to scorpions than to spiders (following Shultz, 1990, but there are different interpretations in that Scorpiones do not even make part of the Arachnida).

**Diversity:** This group constitutes the fourth largest order of the arachnids (following Araneae, Acari, Pseudoscorpiones), with almost 6500 described species.

**Distribution:** They are one of the more widely distributed groups of organisms; occurring in most terrestrial habitats and on all continents except Antarctica proper. They are much vulnerable to human destructive action on our planet and many species are endangered by the quick deforestation of Earth.

**Who are they?**

**Laniatores:** these are the stout, spiny harvestmen found in the Tropics, which may reach very large size.

**Uropygii:** these are the Temperate Old World species, dull-colored and short-legged. Some species may have bizarre ocular ornamentation.

**Urosomatini:** these are the daddy-longlegs, familiar to Europeans and Americans. They have colossally legument, delicate pedipalps, legs often very thin and long. There is a myriad of tropical species (Gygerellae), which may

have metallic shines, intricate honeycomb patterns of granulation, and striped/dotted multicolored hues of blue, red, green, yellow.

**Urosomatini:** these are the minute acari-like Opiliones which were undersampled until the last decades, when intensive studies made them much better known.

**Acknowledgements:** warm thanks are due to all colleagues who contributed with pictures and assorted info. Gonzalo Giribet provided supplements, corrections and updates to the iconography.

You may cite this page as:

Kury, A.B. (2000 onwards) *Classification of Opiliones*. Museu Nacional/UF RJ website. Online at: <http://www.museunacional.ufrj.br/mndj/Aracnologia/opiliones.html>

wcolite.com



AB Kury, AC Mendes, L Cardoso, MS Kury & AA Granada

Tree  Card  Table

Find

Page 1 out of 1

Left click brick-colored links to use taxon as new table query, right click to view taxon cards.

Total query time: 560.000 ms  
C++ execution time: 0.034 ms  
Front-end time: 1.000 ms  
Latency & Sorcery: 558.966 ms

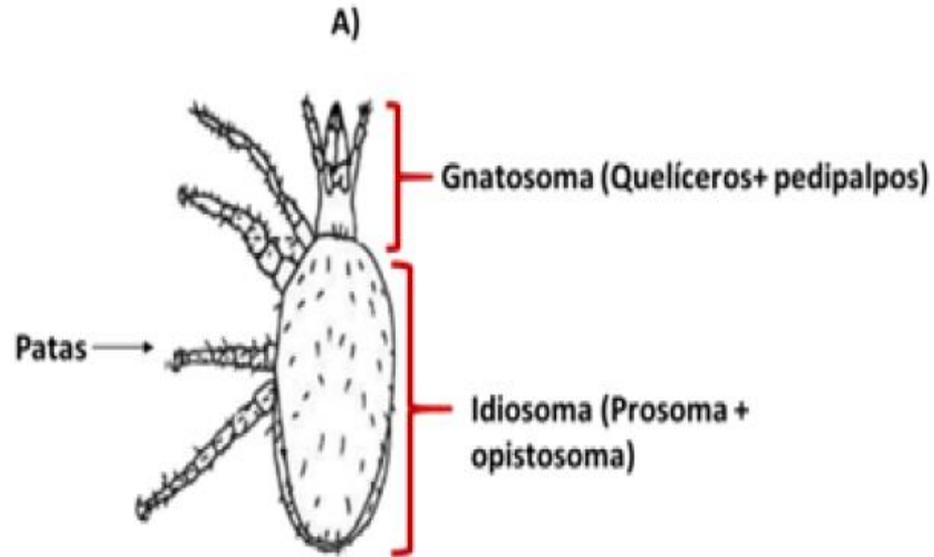
Coded by Ian Kury

## WCO-Lite 1.1



| Scientific name              | Authorship     | Rank    | AncesTREE                                                                                                                                                                                                                                              |
|------------------------------|----------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Pachyloides thorellii</i> | Holmberg, 1878 | species | <a href="#">Opiliones</a> > <a href="#">Laniatores</a> > <a href="#">Grassatores</a> > <a href="#">Gonyleptoidea</a> > <a href="#">Gonyleptidae</a> > <a href="#">Pachylinae</a> > <a href="#">Pachyloides</a> > <a href="#">Pachyloides thorellii</a> |

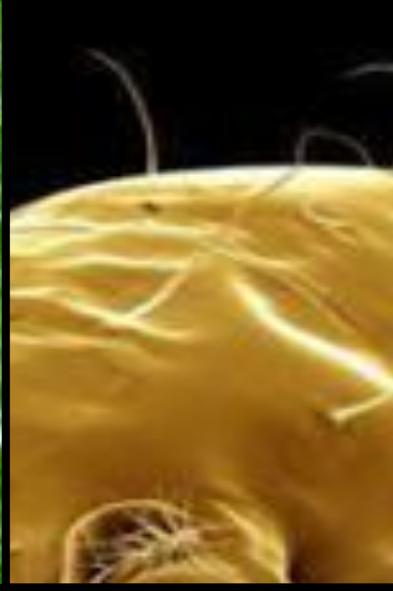
# Acari



# Acari



# Alimentación



# Reproducción



# Orden Pseudoscorpiones

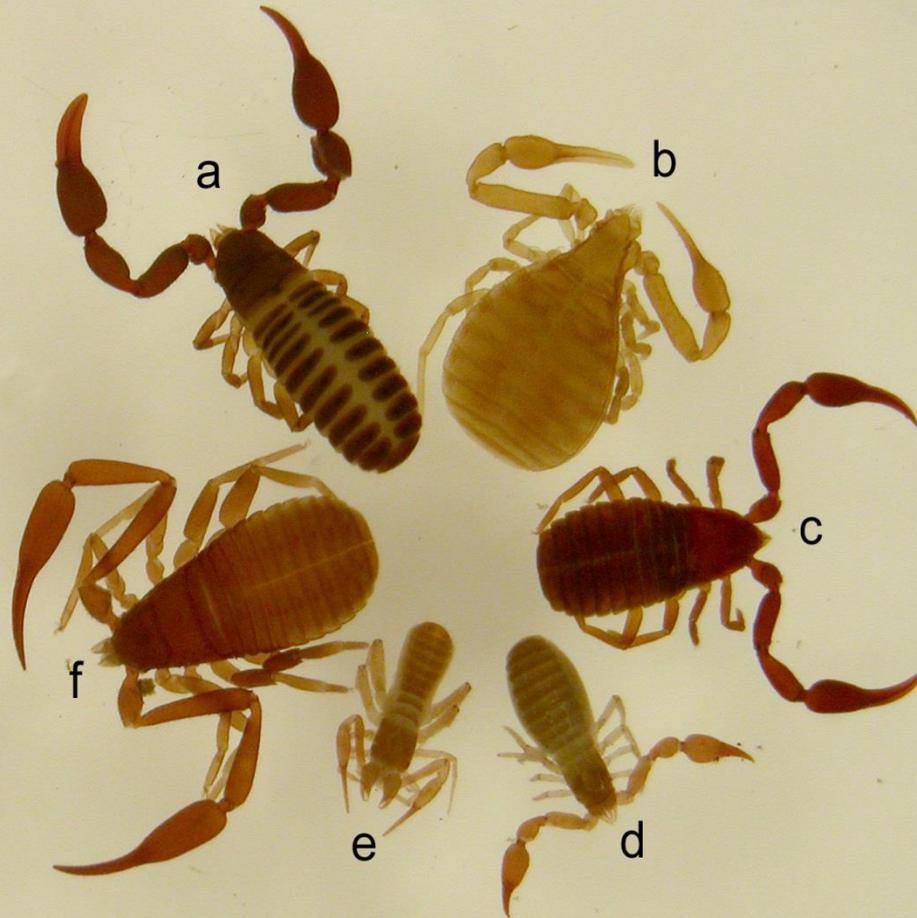


Figure 1. Selection of pseudoscorpions to illustrate range in body form and size: a. *Dendrochernes* (Chernetidae); b. *Pseudogarypus* (Pseudogarypidae); c. *Wyochernes* (Chernetidae); d. *Microbisium parvulum* (Neobisiidae); e. *Chthonius (Ephippiochthonius) tetrachelatus* (Chthoniidae); f. *Chelifer cancroides* (Cheliferidae).

**Pedipalpos quelados**

**Glándulas de seda en los quelíceros**

**Glándulas venenosas en los pedipalpos**

# Orden Pseudoscorpiones

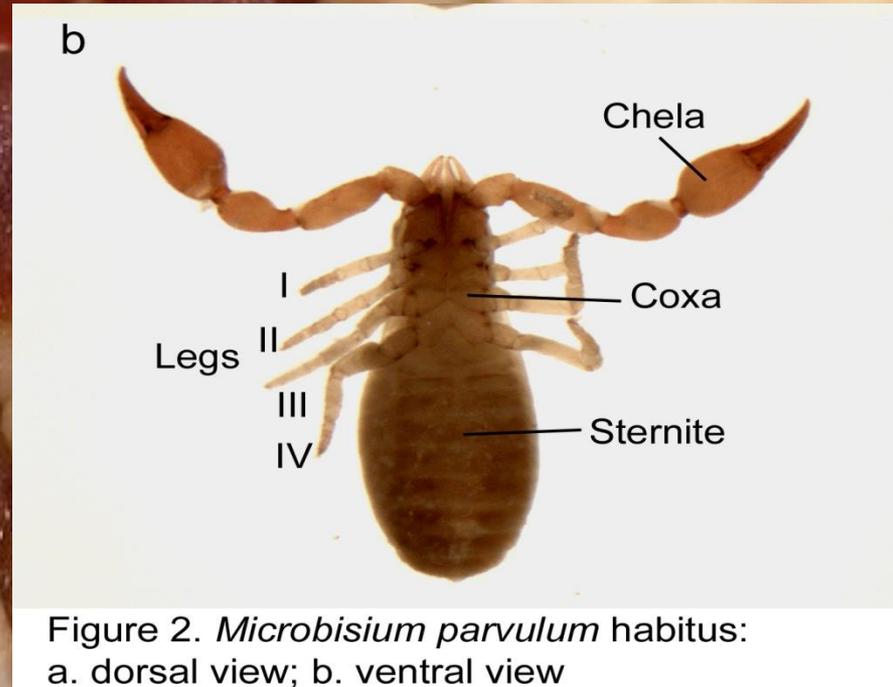
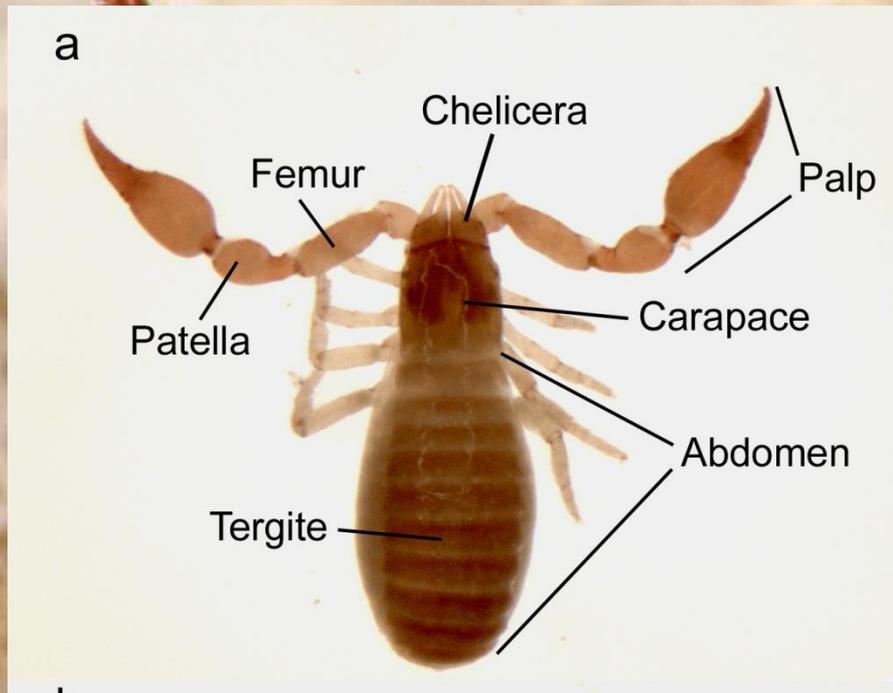


Figure 2. *Microbisium parvulum* habitus:  
a. dorsal view; b. ventral view

# Apaeramiento



*a*

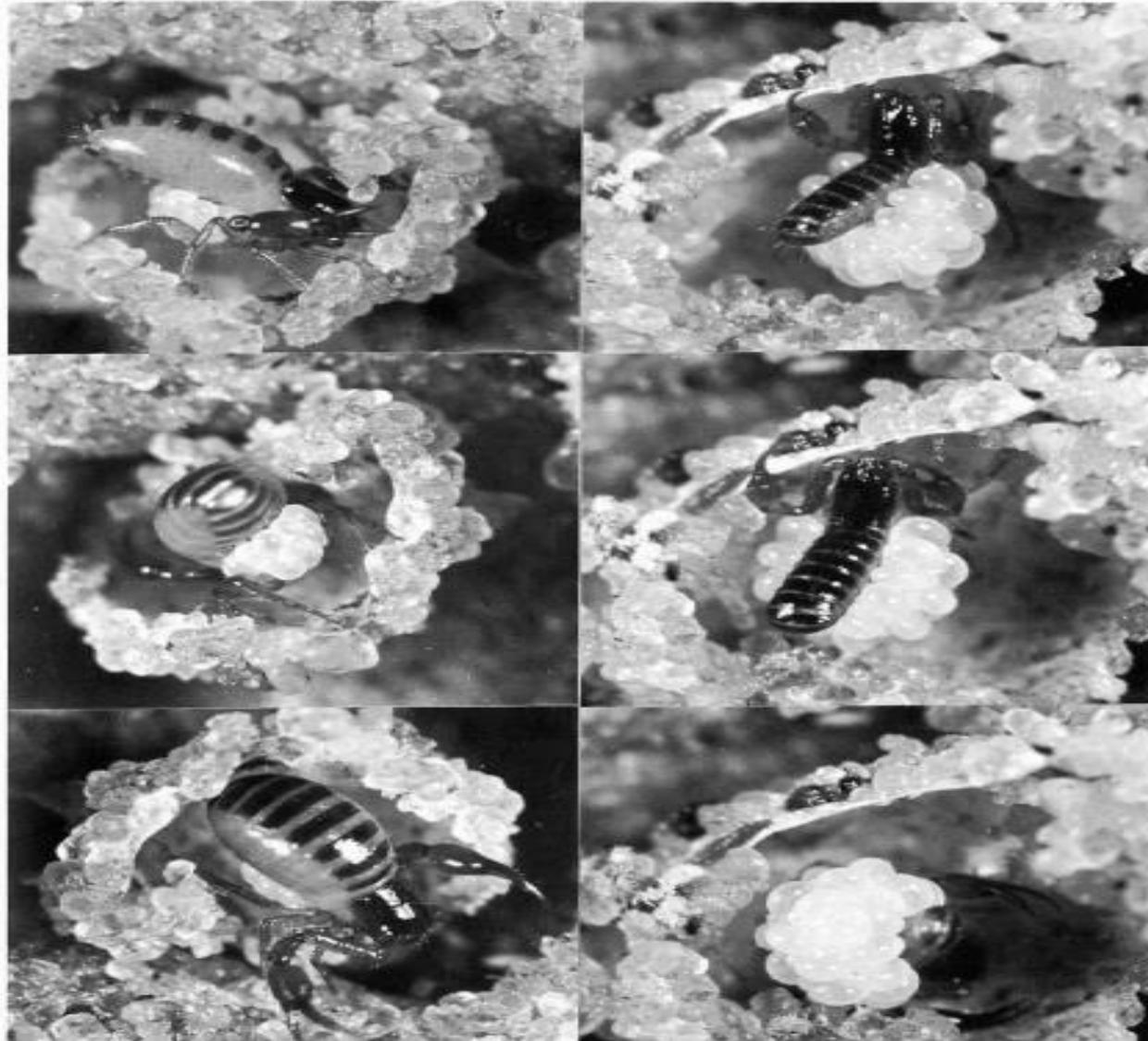


*b*



*c*

# Reproducción



# Foresis



© Jay Cossey

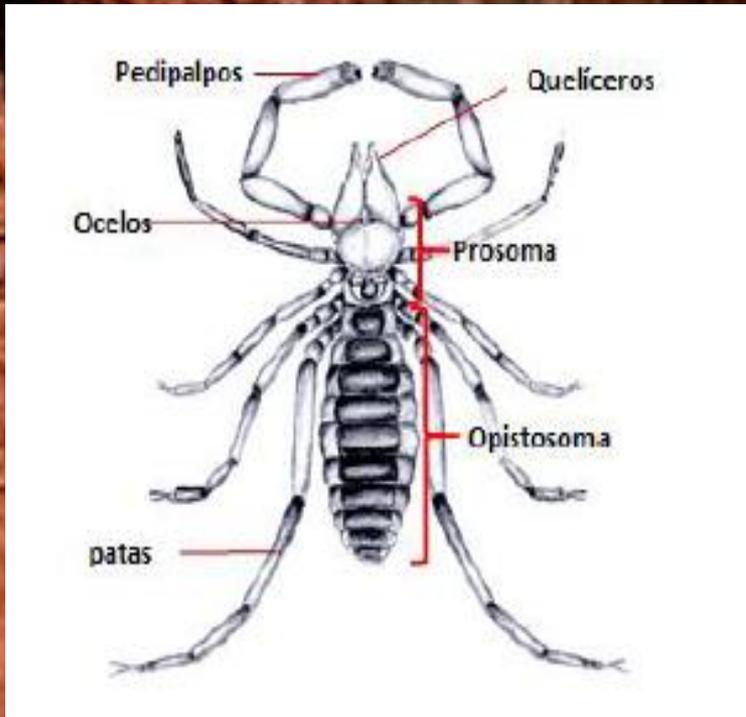
# Alimentación



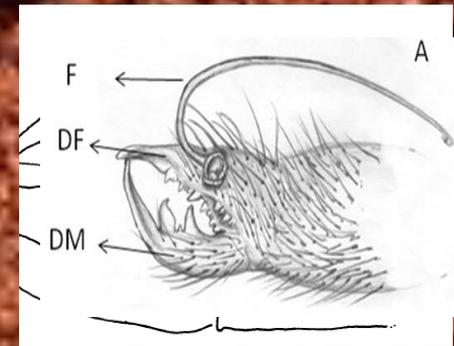
# Alimentación



# Orden Solifugae



(DF= Dedo fijo, DM= Dedo móvil, F=Flagelo)



F=Flagelo, MSP=Mesopeltidio, MTP=Metapeltido, OS= Órgano suctor,  
PD=Pedipalpo, PP=Propeltidio, QL=Quelícero, TA=Segmento abdominal, I-IV  
Primero a cuarto par de patas)

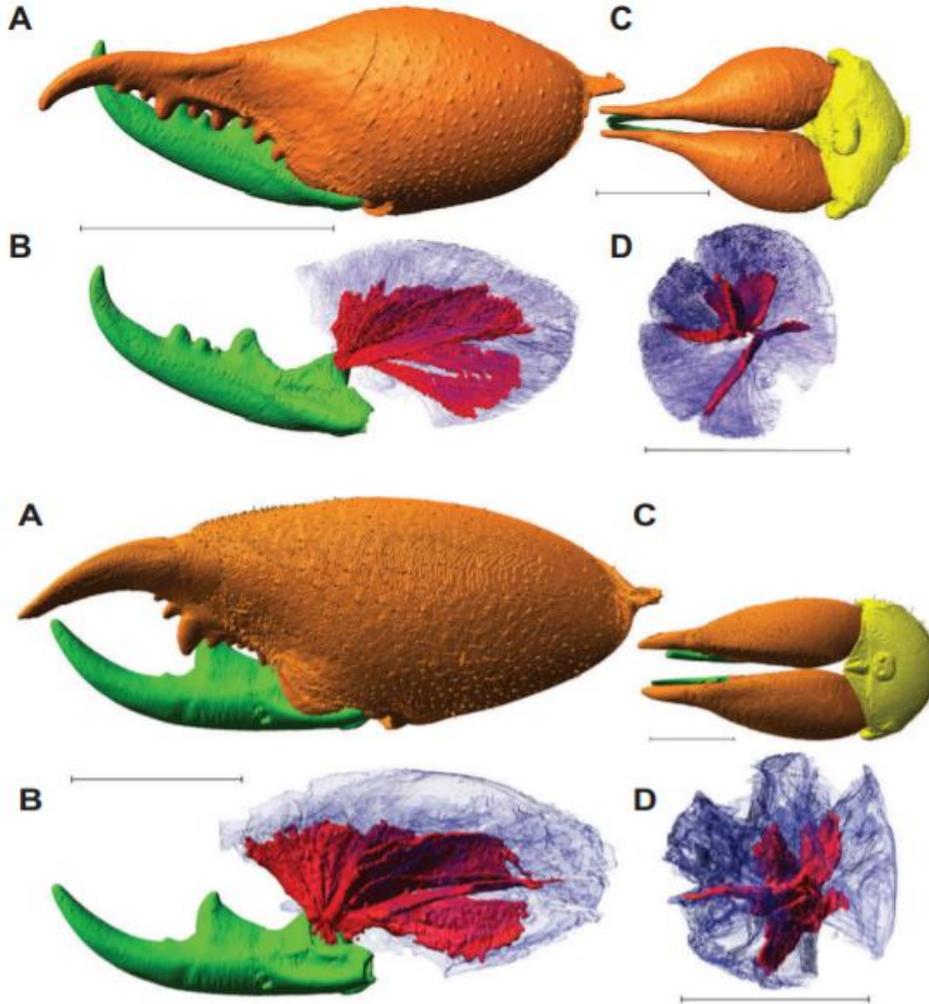
# Orden Solifugae

The Journal of Experimental Biology 215, 3411–3418  
© 2012. Published by The Company of Biologists Ltd  
doi:10.1242/jeb.072888

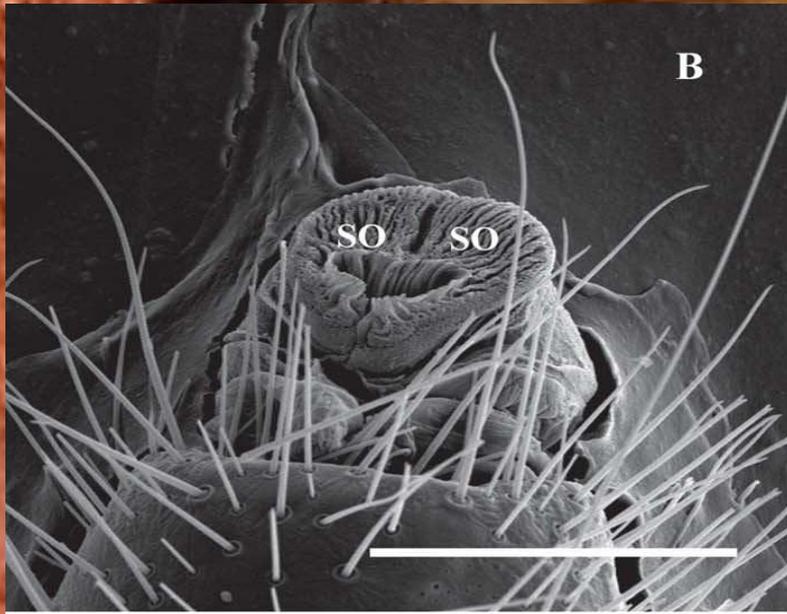
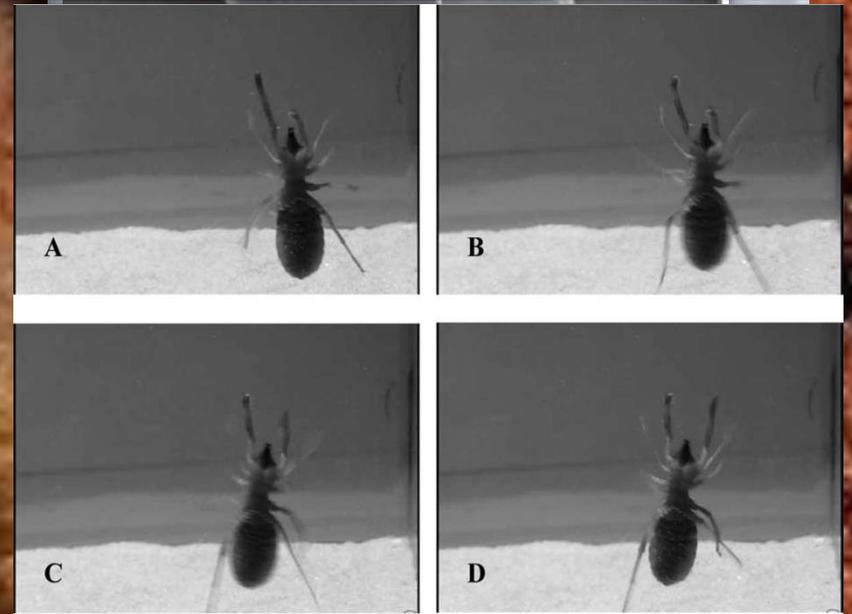
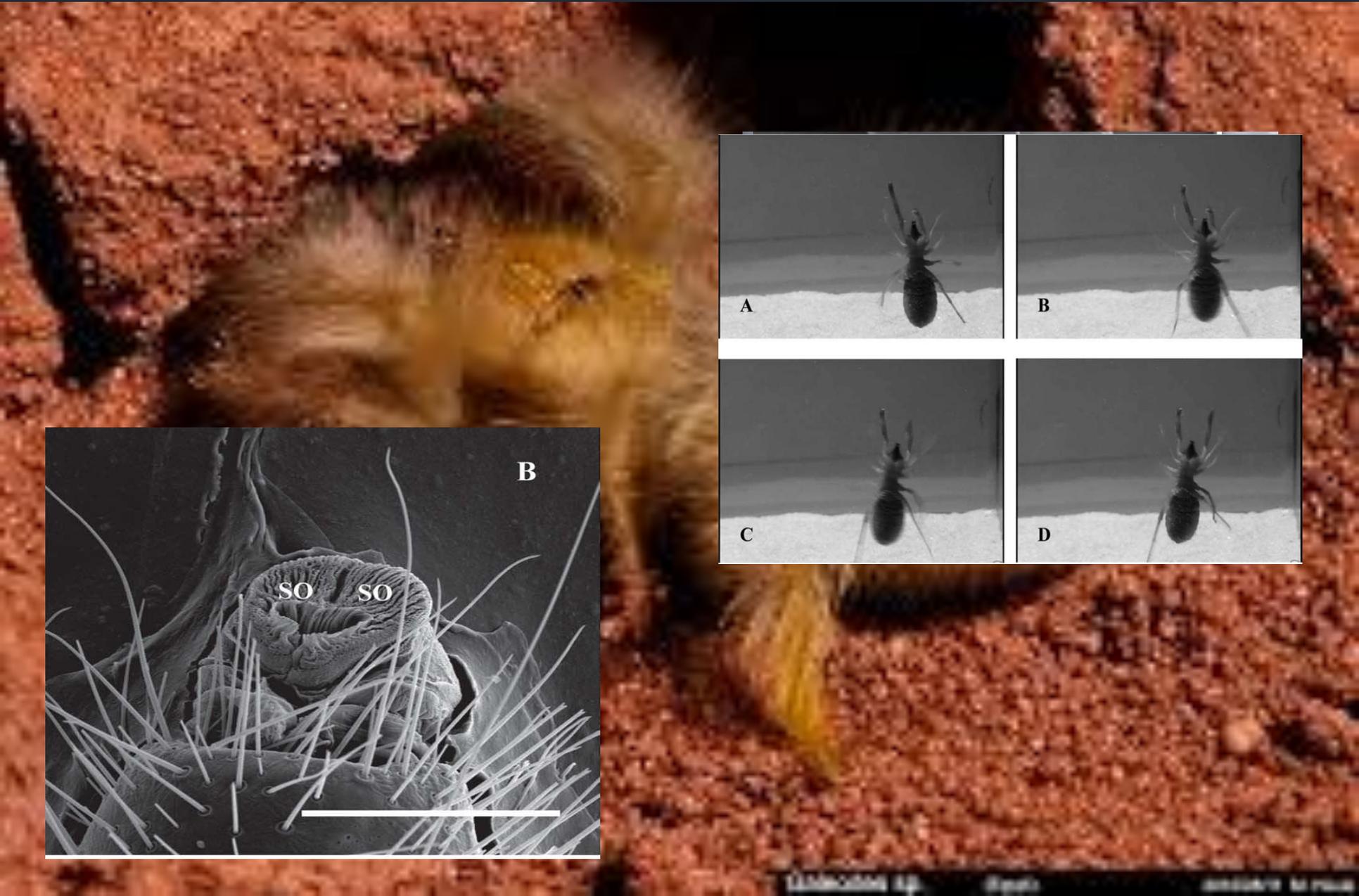
## RESEARCH ARTICLE

### Functional morphology and bite performance of raptorial chelicerae of camel spiders (Solifugae)

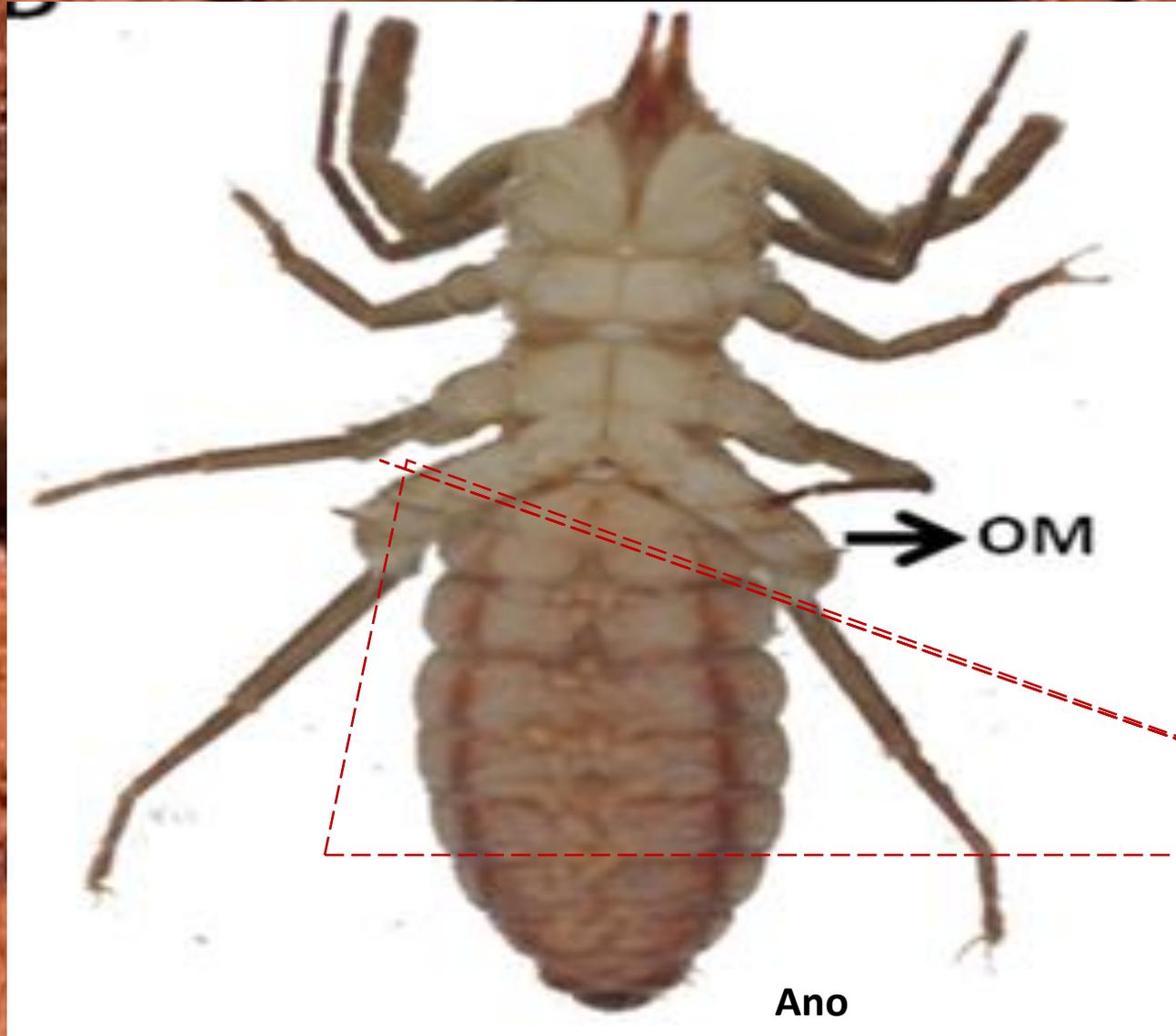
Arie van der Meijden<sup>1,\*</sup>, Franz Langer<sup>2</sup>, Renaud Boistel<sup>3</sup>, Patrik Vagovic<sup>4</sup> and Michael Heethoff<sup>2,\*</sup>



# Orden Solifugae



# Orden Solifugae



# Apareamiento

A



B



C



D



# Reproducción



# Alimentación



# Alimentación



PREGUNTAS????

HAPPY SPIDER



IS HAPPY