



## Re-description of *Olios stimulator* (Simon, 1897) (Aranei: Sparassidae) from Pakistan

Ikram Ullah<sup>1,4\*</sup>, Muhammad Zahid<sup>2</sup>, Dr. Abida Butt<sup>3</sup>

<sup>1</sup>Department of Zoology Islamia College Peshawar, Pakistan

<sup>2</sup>Associate Proferrsor Department of Zoology Islamia College Peshawar, Pakistan

<sup>3</sup>Associate Professor Department of Zoology, University of Punjab, Pakistan

<sup>4</sup>Lecturer, Department of Zoology University of Swat, Shangla Campus, Pakistan

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### Abstract

*Olios stimulator* belongs to the family Sparassidae. *Olios* is the largest genus of huntsman spiders, containing 235 species. They are found throughout the world, with most species occurring in hot countries. The genus was first described by Charles Athanase Walckenaer in 1837. *Olios stimulator* (Simon, 1897) is re-described based on specimen collected from Pashtonai, District Swat and Talash, District Dir Lower, Khyber Pakhtunkhwa, Pakistan. Male palp is digitally photographed and illustrated in detail. Spiders were collected by hand and then preserved in 80% ethanol. They were studied and photographed with LABOMED, INC. Los Angeles, USA (LB-344) stereomicroscope.

\* Corresponding Author: Ikram Ullah ✉ [ikram@uswat.edu.pk](mailto:ikram@uswat.edu.pk)

## Introduction

The family Sparassidae was erected in 1872 by Bertkau. It presently consists of 89 genera and 1262 species worldwide. *Olios* Walckenaer, 1837 is the largest genus of the family with 235 accepted species from around the world (WSC, 2020). Seven species i.e. *Olios flavovittatus* (Caporiacco, 1935), *Olios fugax* (Dayal, 1935), *Olios iranii* (Pocock, 1901), *Olios lutescens* (Thorell, 1894), *Olios punjabensis* (Dyal, 1935), *Olios sanguinifrons* (Simon, 1906) and *Olios tener* (Thorell, 1891) are reported from Pakistan (WSC, 2020). *O. stimulator* was first described from Dehra-Dun, India (Simon, 1897) and was then re-described by Sethi & Tikader (1988) from Poona, Konkan, Maharashtra and Himalayan ranges India. The present work is based on fresh collections from Nagri Payeen, Khyber Pakhtunkhwa (KPK), Pakistan. Male species is re-described and illustrated in detail.

## Material and methods

Spiders were collected by hand and then preserved in 80% ethanol. They were studied and photographed with LABOMED, INC. Los Angeles, USA (LB-344) stereomicroscope. Measurements are given in millimeters. Legs measurements are given as total length (femur, patella, tibia metatarsus and tarsus).

Specimens were deposited in the Museum of Zoology Department, Islamia College University Peshawar. Abbreviations: BL-body length, AL-abdomen length, AW-abdomen width, CL-carapace length, CW-carapace width, AER-anterior eye row, PER-posterior eye row, AME-anterior median eye, ALE-anterior lateral eye, PME-posterior median eye, PLE-posterior lateral eye, TA-tegular apophysis, RTA-retrolateral tibial apophysis

## Results and discussion

### Taxonomy

Family Sparassidae Bertkau, 1872

Genus *Olios* Walckenaer, 1837

*Olios stimulator* (Simon, 1897)

*Sparassus stimulator* Simon, 1897: 258 (D♂).

*Olios stimulator* Sethi & Tikader, 1988: 45, f. 219-220 (♂).

Material studied: PAKISTAN: 1 ♂ (H19) Pashtonai, Matta, District Swat Khyber Pakhtunkhwa (KP), (35.3311N, 72.1840E) 1510m a.s.l., 29.05.2018; 2 ♂ (H21, H27) Nalkot, District Swat Khyber Pakhtunkhwa (KP), ((35.7311N, 72.8840E) 1530m a.s.l., 31.5.2018; 1 ♂ (S24) Aghal, District Swat Khyber Pakhtunkhwa (KP), (34.73451N, 071.93971E) 1052m a.s.l., 29.05.2018; 2 ♂ (S40, S45) Nagri Payeen, Talash, District Dir Lower Khyber Pakhtunkhwa (KP), (34.74621N, 071.93986E) 1002m a.s.l., 5.06.2018; 1 ♂ (S66) Nagri Payeen, Talash, District Dir Lower Khyber Pakhtunkhwa (KP), (34.74601N, 071.94046E) 1018m a.s.l., 13.06.2018, all collected by. Ikram Ullah. Diagnosis: Large-sized spider with total body length ranging from 18 to 22.20 mm (Simon, 1897' Sethi and Tikader, 1988). A stout and pointed TA and RTA are present. TA shows great similarities with *O. lamarcki* (Latreille, 1806) and *O. suung* Jäger, 2012 (cf--with figs 5-6,13-15 in Caleb, 2018, figs 10-11 in Jager, 2012). *O. stimulator* can be distinguished from the related ones by the position of conductor that is present in the middle as well as in shape (bulging and nearly leaf-shaped from ventral view in *O. stimulator*), that (T shaped) in *O. lamarcki* (Latreille, 1806), while concave ventrally and round in literarily in *O. suung* (Jäger, 2012). TA in *O. suung* Jäger (2012) is triangular, proximo-centrally and nearly vertical from tegulum, while in *O. stimulator* it is horizontal and at the base of tegulum. RTA is also different from both in shape, constricted at the base in *O. stimulator* and pointed at tips. While in *O. suung* Jäger (2012), RTA is tapered and with a distal finger-like tip.

### Description

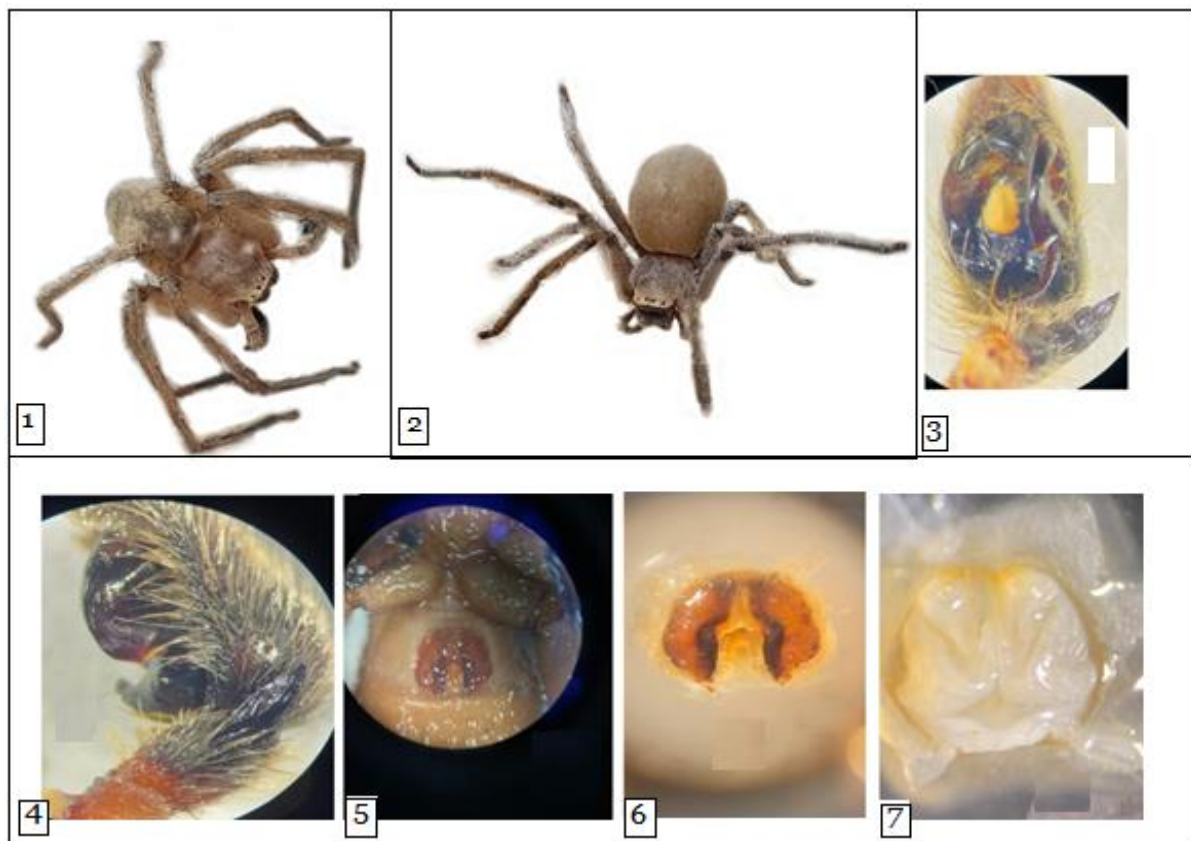
Measurement: BL-17, CL-7.8, CW-9.5, AL- 9.2, AW-6.5. Length of eye rows. AER-2.6, PER-2.9. Leg formula: 2143: Legs measurement: leg I: 41.5 (11.2+3.6+11+11.7+4). Leg II: 45 (12+3.5+12.5+13+4). Leg III: 30.4 (8+2.5+9+8+2.9) Leg IV: 33.5 (11+2.5+9+8+3). Eye interdistances: AME-AME 0.4, AME-ALE 0.44, PME-PME 0.6, PME-PLE 0.9, AME-PME 0.50, ALE-PLE 0.33. Chelicerae with 4 retro marginal teeth and two promarginal (one in it is bicuspid).

**Table 1.** Complete Measurement of Legs.

Legs	Femur	Patella	Tibia	Metatarsus
Leg I Pdrv [prolateral, dorsal, retrolateral, ventral]	D=8 0800	PV=1 1000	Pv=2, D=1, Rv=2, V=4 2124	Pv=2, D=0 Rv=2, V=4 2024
Leg II	D=8 0800	PV=1 1000	Pv=2, D=1, Rv=2, V=4 2124	Pv=2, D=0 Rv=2, V=4 2024
Leg III	D=8 0800	PV=1 1000	Pv=2, D=1, Rv=2, V=4 2124	Pv=2, D=0 Rv=2, V=4 2024
Leg IV	D=8 0800	PV=1 1000	Pv=2, D=1, Rv=2, V=4 2124	Pv=2, D=0 Rv=2, V=4 2024

Prosoma is wider than long, yellowish-brown, with small brown and whitish hairs. Ocular quad narrower at anterior than the posterior end and longer than wider. The fovea is visible. Anterior eyes are straight or little recurved and posterior eyes are procurved. The sternum is heart-shaped and yellow-brown in

color. Labium and maxillae yellow-brown in colors with scopulae. Chelicerae black to dark brown in color. Eyes surrounded by dens small and some long brown hairs. Anterior median eyes are the largest in all, ALE closer to AME than PLE.



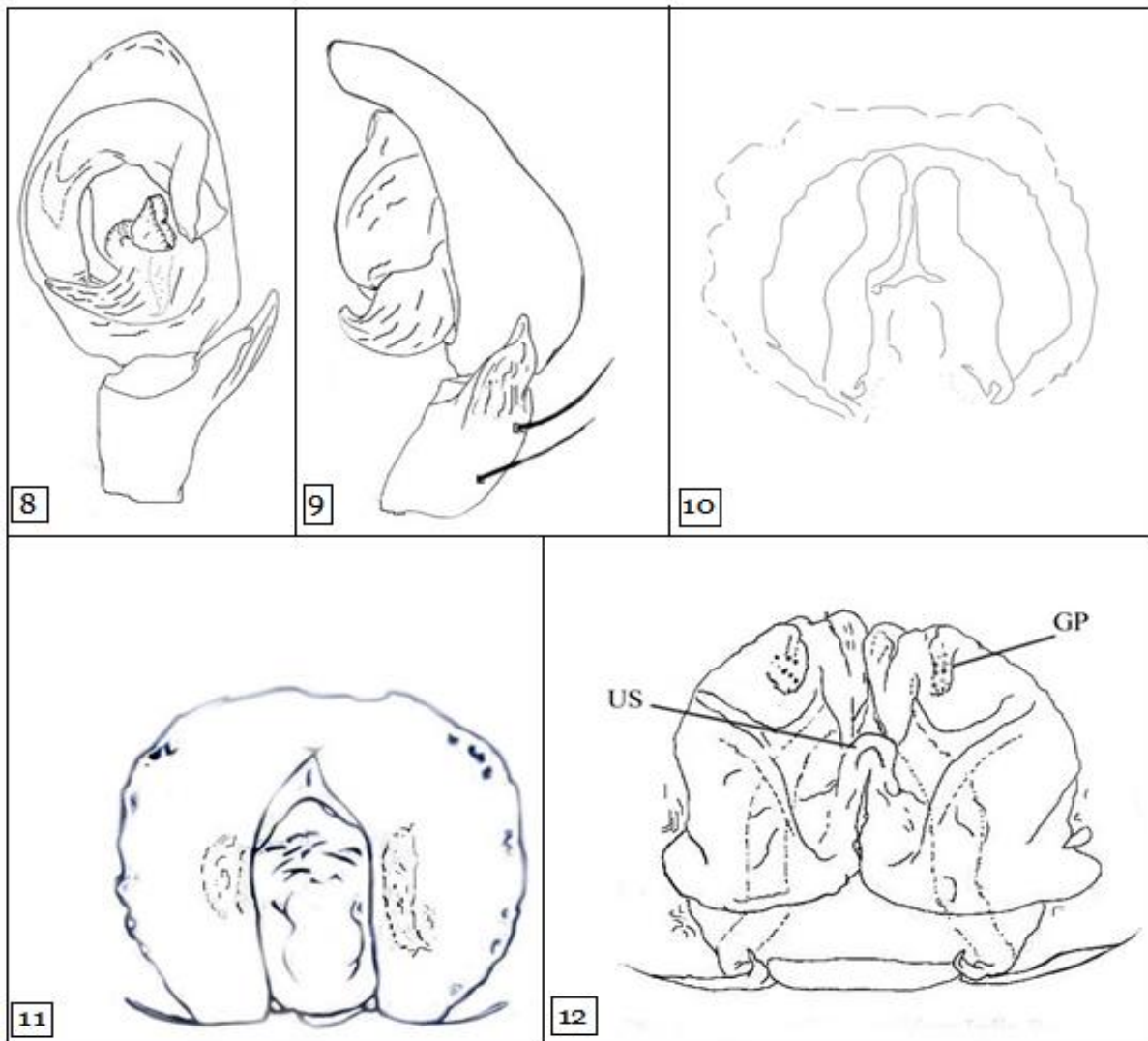
**Fig. 1-7.** *Olios stimulator*: 1-Male habitus; 2- Female habitus; 3- left palp ventral view; 4- retrolateral view; 5-6-epigyne ventral view; 7- dorsal view.

The clypeus is very low with some brown hairs. Abdomen oval covered with dense brown hairs. Dorsum brown anteriorly and dark brown posteriorly, venter yellow-brown anteriorly and dark brown

posteriorly. Spinnerets brownish, tarsus with 2 serrate claws, Coxa, trochanter and femur of the legs yellowish-brown while other parts of legs are dark brown. Femur contains small white and brown hairs

and sparse bristles or setae. Tibia, tarsus and metatarsus are with lots of small brown and black hairs (also contain setae and bristles). Leg I and II are longer than III and IV. Metatarsus is extensively

hairy. Palpal bulb orange-brown with the white conductor in the middle. RTA and TA stout, orange-brown, Embolus thick and dark orange in color.



**Fig. 8-12.** *Olios stimulator*: 8-Male palp ventral view; 9- retrolateral view; 10-11- epigyne ventral view; 12- vulva dorsal view.

Remarks: Anterior eye (row) is a little recurved abdomen brown at anterior and dark brown at the posterior end that is different from the described specimen of Sethi and Tikader (1988).

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