

NOTA BREVE:

A case of gynandry in *Oxyopes salticus* Hentz, 1845 (Oxyopidae)

Miguel Simó, Álvaro Laborda & Nadia Falero

Sección Entomología. Facultad de Ciencias. Iguá 4225. CP 11400. Montevideo. Uruguay.
simo@fcien.edu.uy

Revista Ibérica de Aracnología

ISSN: 1576 - 9518.

Dep. Legal: Z-2656-2000.

Vol. 14, 31-XII-2006

Sección: Artículos y Notas.

Pp: 179 - 181.

Fecha publicación: 25 Octubre 2007

Edita:

Grupo Ibérico de Aracnología (GIA)

Grupo de trabajo en Aracnología de la Sociedad Entomológica Aragonesa (SEA)

Avda. Radio Juventud, 37
50012 Zaragoza (ESPAÑA)

Tel. 976 324415

Fax. 976 535697

C-elect.: amelic@telefonica.net

Director: Carles Ribera

C-elect.: cribera@ub.edu

Información sobre suscripción, índices, resúmenes de artículos *on line*, normas de publicación, etc. en:

Índice, resúmenes, abstracts vols. publicados:

<http://entomologia.rediris.es/sea/publicaciones/ria/index.htm>

Página web GIA:

<http://entomologia.rediris.es/gia>

Página web SEA:

<http://entomologia.rediris.es/sea>

NOTA BREVE:

A case of gynandry in *Oxyopes salticus* Hentz, 1845 (Oxyopidae)

Miguel Simó, Álvaro Laborda & Nadia Falero

Abstract:

The occurrence of a gynandromorph specimen of *Oxyopes salticus*, from grassland in the Departamento de Canelones, Uruguay, is reported. The exemplar presents a bilateral gynandry, with the left part of the body male and the right one female. This is the first case for this species.

Key words: Araneae, Gynandromorph, *Oxyopes salticus*

Un caso de ginandromorfo en *Oxyopes salticus* Hentz, 1845 (Oxyopidae)

Resumen:

Se reporta el hallazgo de un ejemplar ginandromorfo de *Oxyopes salticus*, hallado en una pradera en el Departamento de Canelones, Uruguay. El individuo presenta un ginandromorfismo bilateral, siendo la parte izquierda masculina y la derecha femenina. Se trata del primer caso indicado para esta especie.

Palabras clave: Araneae. Ginandromorfo. *Oxyopes salticus*.

Introduction

A specimen is considered gynandromorph when normally developed parts of the body are female and others parts are male. In spiders this phenomenon has been reported for the first time by Blackwall (1867). Different combinations of morphological and physiological expressions of gynandry are possible. Roberts & Parker (1973) analyzed the term gynandry and intersexuality in spiders and recognized 14 types of gynandry for this order. Kaston (1961) and Stratton (1995) considered gynandry as a rare event. For this reason reports on such cases are relevant as they help to know abnormal genotypic and phenotypic states in spiders.

O. salticus is a widely distributed lynx spider ranging from the USA to Brazil (Platnick, 2006) frequently found in grasslands. The present report provides a description of a gynandromorphic *Oxyopes salticus*. This is the first record of gynandry in this species and at the same time an extension of its southern distribution range to Uruguay.

Description

The specimen was obtained by the authors from a sample of a pit fall trap, collected on 2nd February 2005 in a prairie of *Tripholium pratense* and *Avena sativum*, from Estación Experimental INIA "Las Brujas" Canelones, Uruguay (34° 33' 44.5" S; 56° 20' 19.9" W). The exemplar was deposited in the arachnological collection of Facultad de Ciencias, Universidad de la República (UDELAR), Montevideo, Uruguay (FCE-Ar 3205).

Based on the classification suggested by Roberts & Parker (1973) we consider that this specimen belongs to a regular Type 1 gynandromorph: the right side of the spider is female and the left one is male. The male and female areas are all normally developed.

Other material studied: twenty normal males and twenty normal females, proceeding from the same locality and collected with pit fall traps and sweep net, were measured and compared with the gynandromorph specimen: FCE-Ar 3165 19/02/05 6♀, 5♂; FCE-Ar 3167 19/02/05 8♀ 5♂; FCE-Ar 3166 19/02/05 1♀ 6♂; FCE-Ar 1350 23/10/04 1♀; FCE-Ar 1867 27/12/04 1♀; FCE-Ar 3172 23/04/05 1♀; FCE-Ar 3169 23/04/05 1♀; FCE-Ar 1894 27/12/04 1♀; FCE-Ar 3088 02/02/05 1♂; FCE-Ar 3087 02/02/05 1♂; FCE-Ar 1977 27/12/04 1♂; FCE-Ar 1339 23/10/04 1♂.

Abbreviations: g: gynandromorph specimen; f: normal females; m: normal males. Measurements (in millimetres, average and range values in brackets): Body length: g: 5.00 (f: 5.21, 4.30-6.10; m: 4.52, 3.80-5.50). Carapace length: g: 2.40 (f: 2.08, 1.90-2.40; m: 2.11, 1.80-2.50). Carapace width: g: 1.80 (f: 1.61, 1.40-1.90; m: 1.65, 1.50-1.90). Femur I length: g: 1.90 (f: 1.90, 1.70-2.00; m: 1.91, 1.60-2.20). Tibia I length: g: 2.00 (f: 1.93, 1.70-2.20; m: 1.95, 1.80-2.20). Epigynum length: g: 0.20 (f: 0.27, 0.20-0.30). Cymbium length: g: 0.95

(m: 0.94, 0.80-1.05). Cymbium width: g: 0.6 (m: 0.61, 0.50-0.70). While the body length was intermediate between male and female average values, the carapace length and width and the tibiae I length were greater than in average normal adults.

Asymmetry of some somatic parts is easily identified in the specimen. In the right side of the body (female) the spinnerets are greater and the lateral and ventral abdominal coloration are more pronounced (Figs. 1A, 1B). While the gynandromorph bulb morphology (Figs. 2A-2C) is similar to that of normal specimens, only the right part of the epigynum is present (Fig. 3) and the anterior process less well developed.

Kaston (1961) suggested that the frequency of gynandry could be estimated at once per 17.000 normal adult spiders. For *Schizocosa* Stratton (1995) estimated it at one per 5000 spiders or more. These results are in the same order of magnitude as our observation because we have found only this single gynandromorph in more than 7000 adult spiders, including specimens deposited in the FCE collection and data of several studies in Uruguayan spiders.



Fig. 1. Gynandromorphic *Oxyopes salticus*. A. Dorsal view. B. Ventral view.

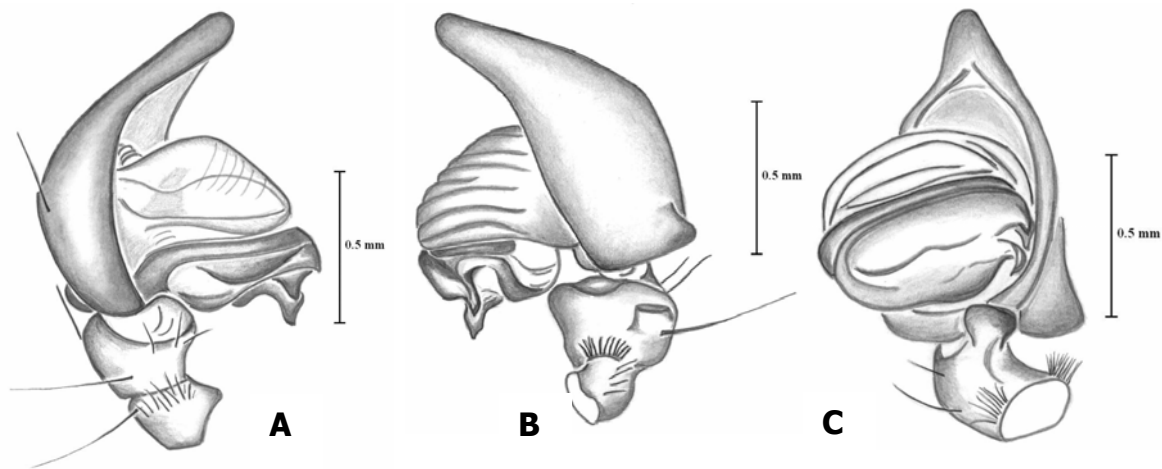


Fig. 2. Gynandromorphic *Oxyopes salticus*. Bulb. A. Prolateral view. B. Retrolateral view. C. Ventral view.

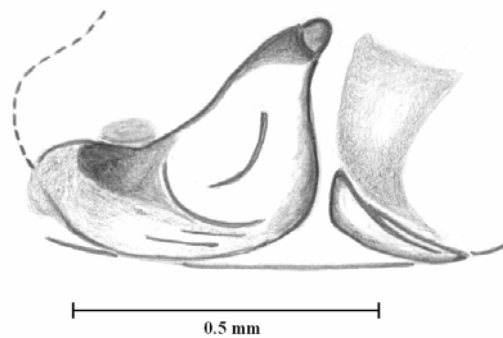


Fig. 3. Gynandromorphic *Oxyopes salticus*. Epigynum. Ventral view

References

- BLACKWALL, J. 1867. Description of several species of East Indian spiders apparently new or little known to arachnologists. *Annals and Magazine of Natural History*, **19**:387-394.
- KASTON, B. 1961. Spider gynandromorphs and intersexes. *Journal of the New York Entomological Society*, **69**:177-190.
- PLATNICK, N. I. 2006. The world spider catalog, version 6.5. American Museum of Natural History, online at <http://research.amnh.org/entomology/spiders/catalog/index.html>, access in October of 2006.
- ROBERTS, M. J. & J. R. PARKER. 1973. Gynandry and intersexuality in spiders. *Bulletin of the British Arachnological Society*, **2**: 177-183.
- STRATTON, G.E. 1995. A gynandromorphic *Schizocosa* (Araneae, Lycosidae). *Journal of Arachnology*, **23** (2): 130-133.

