

**TETRAGNATHA RIMANDOI (ARANEAE :
TETRAGNATHIDAE), A NEW SPECIES OF LONG-JAWED
ORB-WEAVING SPIDER FROM THE PHILIPPINES**

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ABSTRACT

Tetragnatha rimandoi, a new species of long-jawed orb-weaving spider from Luzon Island, the Philippines is described and illustrated. It belongs to subfamily Tetragnathinae characterized by the presence of long and slender abdomen, porrect chelicerae and spiracle located in front of the spinnerets. *T. rimandoi* represents the 12th and 27th species from the Philippines and the Oriental Region, respectively. It is a predator of meenopliid leafhopper, *Anigrus* sp. associated with the wild taro, *Alocasia* sp. in a tropical rainforest.

Key words: Tetragnathidae, *Tetragnatha rimandoi* n. sp., long-jawed orb-weaving spider, *Anigrus*, *Alocasia*

INTRODUCTION

Tetragnatha Latreille, 1804 is a cosmopolitan genus of long-jawed orb-weaving spiders with very elongate and narrow abdomen, elongate carapace flattened dorsally with a distinct fovea in the middle, anterior eye row (AER) and posterior eye row (PER) parallel to each other or PER strongly recurved but lateral eyes (LE) never contiguous and all eyes have black rings, porrect chelicerae strongly developed with numerous teeth in the promargin and retromargin, maxillae parallel and dilated distally, and the epigynal slit is located posterior to the lung slits forming a procurved epigastric furrow. It belongs to subfamily Tetragnathinae (Kaston, 1948 & 1978; Rohwer, 1942; Dippenaar-Schoeman and Jocque, 1997) and superfamily Araneoidea or the aerial web spinners (Gertsch, 1979). Okuma (1987) revised the Australasian species of *Tetragnatha* and the Asian species in 1988.

The Philippine riceland *Tetragnatha* comprising six species, namely, *T. javana* (Thorell), *T. mandibulata* Walckenaer, *T. maxillosa* Thorell, *T. nitens* (Audouin), *T. vermiformis* (Emerton) and *T. virescens* Okuma were reported by Barrion and Litsinger (1981, 1984). Four new species were described and a new record was reported in 1995 bringing a total of 11 species of *Tetragnatha* found in the Philippines (Barrion and Litsinger, 1995). These were collected mostly from rice and rice-associated habitats and were considered important predators of rice green leafhoppers (Shepard *et al.*, 1987). This paper describes *T. rimandoi* n.sp., the 12th species from

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the Philippines collected from underneath wild taro leaves, *Alocasia* sp. while preying on the meenoplid leafhopper, *Anigrus* sp. (Hemiptera: Meenoplidae).

All measurements are in mm and all type materials are deposited in the Taxonomy Laboratory, Entomology and Plant Pathology Division, International Rice Research Institute (IRRI), Los Baños, Laguna, Philippines.

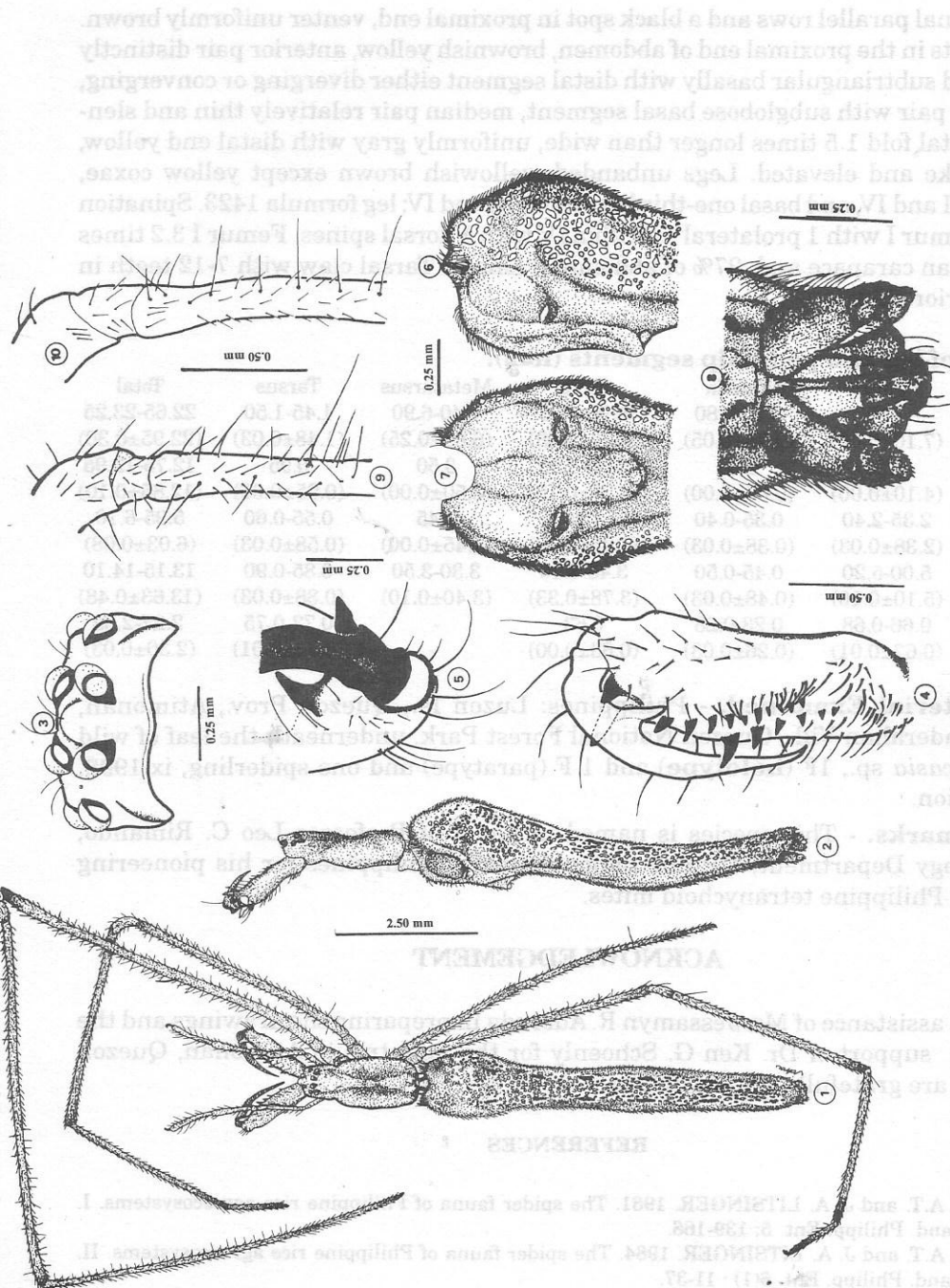
DESCRIPTION OF NEW SPECIES

Tetragnatha rimandoi Barrion, new species

(Figs. 1-10)

Diagnosis. - *T. rimandoi* n. sp. is related to *T. iriomotensis* Okuma, 1991 but is separated from the latter by its prominently large inner tooth and presence of excrescence (Ex) in the outer edge of the fang, stout guide tooth (Gu), 5 remaining teeth in the upper margin (rsu) and 10 remaining teeth in the lower margin (rsl), the moderately long genital fold, and leg formula 1423 with a prolateral spine in femur I and a dorsal spine in tibia IV. In contrast, *T. iriomotensis* has a very small guide tooth (Gu and Gl), fewer teeth in the cheliceral margins (3 rsu and 5 rsl), unarmed fang, short genital fold as long as wide, and leg formula 1243 with spines on all legs.

Description. - Female : (n=2). Total length excluding chelicerae 9.30-9.60 (X=9.45±0.15); length of chelicerae 1.20-1.25 (X=1.23±0.03), width of chelicerae 0.40 (X=0.40±0.00); height of chelicera 0.35-0.38 (X=0.37±0.02), length of carapace 2.20-2.30 (X=2.25±0.05), width of carapace 0.90-1.00 (X=0.95±0.05), height of carapace 0.65-0.73 (X=0.69±0.04); length of abdomen 7.30-7.80 (X=7.55±0.25), width of abdomen 1.20-1.25 (X=1.23±0.03), height of abdomen 1.40-1.60 (X=1.53±0.08); length of anterior eye row (AER) 0.50-0.55 (X=0.53±0.03), length of posterior eye row (PER) 0.53-0.55 (X=0.54±0.01); eye diameter : AME=0.11-0.13 (X=0.12±0.01), PME 0.08-0.11 (X=0.10±0.02), ALE 0.08-0.10 (X=0.09±0.01), PLE 0.08-0.10 (X=0.09±0.01); ratio of AME:ALE:PME:PLE= 0.12 : 0.09 : 0.10 : 0.09; eye separation: AME-AME=0.10 (X=0.10±0.00), AME-ALE=0.10-0.13 (X=0.12±0.02), ALE-PLE= 0.08-0.10 (X=0.09±0.01), PLE-PME=AME-AME, PME-PME=0.13-0.15 (X=0.14±0.01); central ocular quadrangle : anterior width = 0.25-0.28 (X=0.27±0.02) narrower than posterior width 0.28-0.29 (X=0.29±0.01), height 0.24-0.29 (X=0.27±0.03). Clypeus moderately wide, as long as one AME separation. Chelicerae yellow, porrect and diverging, slightly longer than one-half of carapace length. Promargin with 7 teeth, guide tooth (Gu) the largest and widely separated from the first largest tooth (T) of row proper and 5 small rows of teeth (rsu). Retromargin with 11 teeth, anteriormost tooth (Gl) the largest followed by 10 small rows of teeth (rsl). Fang with a prominently large inner tooth along basal one-third passing between Gl and first rsl, and a small excrescence (Ex) on the outer basal side. Labium dark reddish brown, wider (0.40mm) than long (0.33mm), broadest basally and distal margin with two pairs of long and converging hairs. Maxillae yellowish gray, 3.5 times longer than wide and almost parallel-sided. Carapace yellow with a pair of relatively broad longitudinal gray band medially and black eye margins, thoracic area 1.6 times wider than cephalic area, distal end with a small snout between AMEs, and midproximal end inverted V-shaped. Sternum grayish brown with a pale yellow transverse band distally, two times longer (X=1.27±0.14) than wide (X=0.62±0.04). Abdomen prominently elongate, 6 times longer than broad, widest anteriorly and highest middorsally as its posterior end curved downwards, dorsally lined with 6-7 pairs of thin and elongate black bands in two



Figures 1-10. *Tetragnatha rimandoi*, n.sp.: female: dorsal (1) and lateral (2) views, frontal view of head (3); dorsal view of right chelicera (4); frontal view of fang and apical cheliceral teeth (5); lateral (6) and dorsal (7) views of epigynal fold; spinnerets (8); and trichobothria in the posterodorsal portion of femur II (9) and femur IV (10).

longitudinal parallel rows and a black spot in proximal end, venter uniformly brown. Spinnerets in the proximal end of abdomen, brownish yellow, anterior pair distinctly broad and subtriangular basally with distal segment either diverging or converging, posterior pair with subglobose basal segment, median pair relatively thin and slender. Genital fold 1.5 times longer than wide, uniformly gray with distal end yellow, tongue-like and elevated. Legs unbanded, yellowish brown except yellow coxae, femora III and IV, and basal one-third of tarsi I, II, and IV; leg formula 1423. Spination only in femur I with 1 prolateral and tibia IV with 1 dorsal spines. Femur I 3.2 times longer than carapace and 97% of abdominal length. Tarsal claw with 7-12 teeth in the superior claws.

Length of leg and pedipalp segments (n=2).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
1	7.10 (7.10±0.00)	0.70-0.80 (0.75±0.05)	6.90-6.95 (6.93±0.03)	6.40-6.90 (6.65±0.25)	1.45-1.50 (1.48±0.03)	22.65-23.25 (22.95±0.30)
2	4.10 (4.10±0.00)	0.60 (0.60±0.00)	3.60-3.80 (3.70±0.10)	3.50 (3.50±0.00)	0.95 (0.95±0.00)	12.75-12.95 (12.85±0.10)
3	2.35-2.40 (2.38±0.03)	0.35-0.40 (0.38±0.03)	1.25 (1.25±0.00)	1.45 (1.45±0.00)	0.55-0.60 (0.58±0.03)	5.95-6.10 (6.03±0.08)
4	5.00-5.20 (5.10±0.10)	0.45-0.50 (0.48±0.03)	3.45-4.10 (3.78±0.33)	3.30-3.50 (3.40±0.10)	0.85-0.90 (0.88±0.03)	13.15-14.10 (13.63±0.48)
Pedipalp	0.66-0.68 (0.67±0.01)	0.23-0.28 (0.26±0.03)	0.63 (0.63±0.00)	-	0.73-0.75 (0.74±0.01)	2.27-2.32 (2.30±0.03)

Material Examined. - Philippines: Luzon Is., Quezon Prov., Atimonan, Pinagbanderahan Vill., Quezon National Forest Park, underneath the leaf of wild taro, *Alocasia* sp., 1F (**holotype**) and 1 F (paratype) and one spiderling, ix.1998, A.T.Barrion.

Remarks. - This species is named in honor of Professor Leo C. Rimando, Entomology Department, UP Los Baños, Laguna, Philippines for his pioneering works on Philippine tetranychoid mites.

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