MEMOIRS ON BIODIVERSITY

Volume I, 2008

Biodiversity of South America. I

Pier Mauro Giachino Editor
the Rio Guendá, 18-20 September 1996, Walter Rossi, on ventral parts of *Aristotomis shaumii* LeConte.

**Remarks.** The present records are the first for South America. In the thalli growing on ventral portions of the host insects, the appendages are longer and more numerous compared with those of the thalli observed on the dorsal areas of the same insects; perithecia are also different: in the thalli growing on the ventral portions, these are more elliptical and lack the subterminal elevation.

**Hesperomyces coccinelloides**  
*(Thaxter)* Thaxter (fig. 3)

**Distribution.** On "minute coccinellid allied to *Scymnus*" from the West Indies (Grenada, Trinidad & Jamaica), the Philippines, and Borneo (Thaxter 1917); on *Scymnus tardus* Mulsant from Panama (Thaxter 1931); on an unidentified coccinellid from the USA (Benjamin 1989); on *Scymnus* sp. from Spain (Santamaria 1995).

**New record from Ecuador.** Cotopaxi, Cantón Sigchos, San Francisco de Las Pampas, Bosque Integral Otonga, on leaves of *Crotton*, 79°00.1’W 0°25.1’S, 16 April 2006, Italo Tapia, on the elytra of *Diomus* sp. (Coccinellidae).

**Remarks.** The appendage of the examined Ecuadorian thalli bears usually three, rarely two or four antheridia; the number of antheridia reported in the original description is 1-3 (Thaxter 1931). The present Ecuadorian record is the first for South America.

**Laboulbenia bruchii** (Spegazzini) Thaxter  
*(fig. 16)*

**Distribution.** A common and widespread American species, reported so far from Argentina, Brazil and Central America on various species of *Lema* and allied genera (*Chrysomelidae: Cricicerinae*) (Balazuc 1988).

**New record from Ecuador.** Pichincha, Santo Domingo de Los Colorados, *La Unión del Toachi*, Otonga Natural Reserve, alt. about 800 m, 00°19’15.1”S 78°57’06.0”W, 21-30 July 2005, Walter Rossi, on various parts of the body of two specimens of *Neolema plumbea* (Chevrolat).
3. Esphalmenus whymperi n.sp.  
(figs. 1-5)

Diagnosis. Similar to *Esphalmenus camposi* (Borelli, 1907) for general shape and colour, but larger and stronger; tergites, especially in female, less punctured; 4 tergite with lateral fold; male pygidium widely depigmented; posterior margin of male penultimate sternite with deep emargination, producing two long, subparallel teeth, clavate at the apex; male genitalia sternite with deep emargination, producing two long, subparallel teeth, clavate at the apex, often visible form above. Genitalia (fig. 2) characteristic, of the camposi-shape; parameres stout, with two sclerified obtuse teeth on inner side; accessory structures of distal lobe strongly sclerotized, shorter and larger, more transverse and angulate.

Female similar to male in coloration and sculpture; abdomen distally more contracted. Tergete 4 with more evident lateral fold. Pygidium conically produced, obtuse at the apex. Forceps distinctly paler at the base; relatively slender and slightly arcuate in distal two-thirds; proximal one-third slightly expanded on inner margin. Penultimate sternite distally truncate.

Total length: males 11.5-13.6 mm (type 11.9 mm) and females 11.8-13.8 mm. Length of cerci: males 2.12-2.75 mm (type 2.20 mm) and females 1.87-2.25 mm.

**Type series.** Holotype: 1 cf., Ecuador, Pichincha, 4500 m, Volcán Pichincha verso, S, 10.XII.1996, A. Vigna leg., copulatory apparatus in eparal on the same pin (AVT). Paratypes: same locality and date, 4500 m, E. Tapia leg., 2 cf., 2 QQ, 1 larva (AVT); id. id., A. Vigna leg., 2 cf., 2 QQ, 2 larvae (AVT); same locality and date, 4400 m, E. Tapia leg. 1 cf (AVT).

Additional examined material. Ecuador, Pichincha, Antisana, 4200 m, 4.I.1984, G. Onore leg., 2 cf (QCAZ, AVT); id., Antisana, 6.VIII.1984, A. Velasco & M. Larrea leg., 1 Q (QCAZ); id., Antisana, cerca de Rio 4000 m, 22.VIII.1984, id., 1 Q (QCAZ); id., Antisana, 4000 m, 7.X.1984, L. Suarez leg., 1 Q (QCAZ).

Description

Male (fig. 1). Colour brown fuscous, more reddish on head and thorax; mouthparts, antennae, a spot on head near inner margin of eye, sides of pronotum, legs, the whole surface of the wide pygidium and cerci at the base, lighter in colour, flavous. Head shining, sparsely punctate; frons more or less flattened; coronal and postfrontal sutures distinct; lateral margin parallel, posterior margin subtruncate; eyes as long as 1st antennal segment, one half of the genae; genae and posterior margin with short erected pubescence. Antennae filiform, 23 segmented (frequently missing in some distal segments: i.e. 17 in the type); first segment shorter than the distance between antennal bases, as long as second and third together; 3rd shorter than first, long about as 4th, 5th and 6th together; 7th and succeeding segments slender and longer towards the apex. Pronotum transverse; distal margin a little narrower than base; lateral margin almost right, oblique and some diverging towards the base; base truncate; median sulcus weak; surface moderately shining, microreticulate, sparsely punctate; distal margin with short erected pubescence, similar to the temporal one. Mesonotum shorter and narrower than pronotum. Metanotum broader, much shorter, with caudal margin concave; sides of both meso- and metanotum with few short setae and a very short golden pubescence. Abdomen gradually expanded to the 6th tergite, often the widest; pubescence absent; surface microreticulate and finely punctate, the punctuation fine and more coarsely diffuse on the dorsum, closer laterally; sides of 7th to 9th tergites strongly longitudinally rugose. Tergite 4 with clear lateral fold. Ultimate tergite transverse, caudally depressed, with depression rugosely punctate; median sulcus weak; posterior margin truncate and smooth. Forceps relatively short, strongly curved, some angulate at basal third, thickened at the base. Pygidium wide, flat, weakly concave ventrally, depigmented. Penultimate sternite (fig. 3) distally depressed, with caudal margin deeply and strongly incised medially; sides of the incision prolonged in two long, subparallel teeth, clavate at the apex, often visible form above. Genitalia (fig. 2) characteristic, of the camposi-shape; parameres stout, with two sclerified obtuse teeth on inner side; accessory structures of distal lobe very heavily sclerotized, strongly and transversely angulate.

Female similar to male in coloration and sculpture; abdomen distally more contracted. Tergete 4 with more evident lateral fold. Pygidium conically produced, obtuse at the apex. Forceps distinctly paler at the base; relatively slender and slightly arcuate in distal two-thirds; proximal one-third slightly expanded on inner margin. Penultimate sternite distally truncate.
right (fig. 111) and only two on the left.

Prothorax narrow, transverse (L = 1.8 mm; W = 3.0 mm) with lateral margins broadly and slightly arcuate (fig. 113); punctuation on the disc with sparse punctures, dense here and there.

Scutellum small, triangular.

Elytra elongate, narrow behind humeri, densely punctured with deep punctures in almost regular rows, particularly on disc (fig. 114); punctures laterally and apically confused; surface between rows slightly raised; epipleura straight, weakly widened, with 2-3 short sparse setae on apical third, not easily visible.

Prosternal appendix narrow, slightly widened on the free apex, smooth. Mesosternum with a weakly deep furrow. Intercoxal process of metasternum without thickened margin.

Aedeagus rounded apically, with two small short teeth, slightly prominent; flagellum enlarged as a funnel on the apex (figs. 109-110).

Body L = 6.2 mm. Body W = 4.0 mm

Etymology
For the size, colour, and punctuation, it is similar to E. variegata, from which the name of this new species comes.

Remarks and comparative notes
The maxillary palpi are missing; only femora and tibiae of the fore and middle left legs are present, the right middle leg is missing and only the femur and the tibia of the left one have remained, only the femur of the right hind leg is present, and the onychium of the left hind leg is missing.

This species is very similar to E. variegata, but the latter has the sides of the prothorax with deeply sinusuous lateral margins, and the pronotal disc with denser and coarser punctures; apex of the aedeagus more elongate, and the small teeth on the sides more acute and prominent. The only female known differ by the slightly larger size (L = 7.0 mm; W = 4.3 mm), the spermatheca in fig. 112. This female specimen has only 5 antennomeres of the left antenna and 6 of the right one; there is only a femur of the right fore leg, the onychium of the right hind leg is missing; the tarsi are lacking on the right middle leg, only the left hind and middle legs are complete. It is a species rather similar also to E. giachinoi n. sp. and E. ballerioi n. sp., but it is immediately distinguishable from them by the narrow shape of the body; the black legs in E. giachinoi, the finer and denser elytral punctuation in E. ballerioi, and the much less punctured pronotum in E. paravariegata than in E. ballerioi and E. giachinoi.
village where field work was conducted include orchards, second growth, rather degraded varzea forest behind the village, flooded varzea forest (surveyed by canoe), and flooded, Cecropia dominated second growth.

Yarina (4° 45‘ S, 73° 59‘ W; m 110 a.s.l., March 15-21). This is another small village on the right bank of the Yanayacu-Pucate, about 20 km upstream from XX de Enero. Human impact is much more limited here, and there are no other settlements on the Yanayacu-Pucate upstream from Yarina. Most of the field work here was concentrated in varzeas and transitional forest. Sporadic observations were also made during boat travel between the two sites.

Methods

Birds were recorded through visual observations using 8 x 42 and 10 x 40 binoculars and tape recorded with a Sony TCM 5000 tape recorder and Sennheiser ME 80 directional microphone. Surveys were conducted either on foot, or by canoe on the Rio Yanayacu-Pucate. In addition, mist-nets set from ground level to 2 meters high were used at both XX de Enero and Yarina in order to sample the understory avifauna. Mist-net lines of 10-20 nets (using 12-meter nets) were run for a total of 570 net-hours at Yarina and 300 net-hours at XX de Enero. A total of 196 individuals of 58 species were detected exclusively by mist-net capture. Field work was carried out under a specific permit from the “Instituto Nacional de Recursos Naturales, Ministerio de Agricultura, Republica del Peru” n° 01 C/C-2002-INRENA-DGANP of the 12/3/02. The collected specimens are held in the Museo Cívico di Storia Naturale of Carmagnola, Italy (MCCI) and at the Universdad de la Amazonia Peruana, Peru (UNAP) (fig. 4).

All bird photographs are by G. B. (cfr. figs. 5-17); video recordings were made by Alberto Tamietti. Taxonomy and nomenclature of birds follow Schleuenberg et al. (2007).

Results

A total of 246 bird species were recorded at our two study sites, with 190 species recorded at Yarina, and 144 species recorded at XX de Enero (Appendix 1). These include five new records for Pacaya-Samiria National Reserve according to Begazo and Valqui (1998b). More details on these and other noteworthy records are found below.

Lesser Yellow-headed Vulture Cathartes burrovianus

This species was found to be fairly common at XX de Enero, with approximately 10 individuals sighted on March 22 and 23. Surprisingly, this species was not listed by Begazo and Valqui (1998b) as occurring in PSNR. Nevertheless, the species is common at Iquitos and its presence in the XX de Enero area is not unexpected.

"Painted" Parakeet Pyrrhura cfr. picta

This species was recorded on three occasions: a flock of 4 individuals between XX de Enero and Yarina on March 14, a single individual at Yarina on March 15, and a flock of 10 birds there on March 16. The P. picta complex has recently been the focus of taxonomic studies arguing that it is best considered as comprising six species, including two previously undescribed ones (Joseph 2002). An undescribed form of P. picta (sensu latu) is found south of the Amazon and east of the Ucayali in Peru, and this could be the taxon occurring in Pacaya-Samiria (T. Schleuenberg in litt.). The newly described (Joseph, 2002) Wavy-breasted Parakeet P. peruviana was collected in the 19th century at Chamicuro, but does not appear on modern maps, but was apparently on the upper Rio Samiria (T. Schleuenberg in litt.). This taxon could also therefore occur in PSNR. Unfortunately, all sightings of this species were too distant to note exact plumage details, but establishing which taxon (or taxa) of the P. picta complex occur in PSNR should be a priority in any further surveys.

Rufous-necked Puffbird Malacoptila rufa

At Yarina, one individual of this species was observed as it perched silently on a horizontal branch about 2 meters above the ground on March 15. It was remarkably tame, and allowed itself to be approached as close as 1.5 meters before flushing. There are five previous sightings of this generally rare and inconspicuous species from PSNR (Begazo & Valqui, 1998a); our record from a new location suggests that it is rather widely distributed throughout PSNR. Furthermore, at another site in Loreto south of the Amazon (but east of the Ucayali), this species “was encountered with surprising frequency” (Robbins et al., 1991), suggesting that this species may in fact be more common than previously thought, at least in this part of the Peruvian Amazon.

Plain-breasted Piculet Picumnus castelnau

At least three individuals of this species were observed (and one video-taped) in flooded forest and Cecropia-dominated second growth at XX de Enero on March 23. This is the first record for PSNR of this generally uncommon and local species.

Spot-throated Woodcreeper Deconychura stictolaema

(figs. 4, 9) - Until recently, most literature treated this species from PSNR. It is found south of the Amazon and east of the Ucayali, and was recently the focus of taxonomic studies arguing that it is best considered as comprising six species, including two previously undescribed ones (Joseph 2002). An undescribed form of P. picta (sensu latu) is found south of the Amazon and east of the Ucayali in Peru, and this could be the taxon occurring in Pacaya-Samiria (T. Schleuenberg in litt.). The newly described (Joseph, 2002) Wavy-breasted Parakeet P. peruviana was collected in the 19th century at Chamicuro, but does not appear on modern maps, but was apparently on the upper Rio Samiria (T. Schleuenberg in litt.). This taxon could also therefore occur in PSNR. Unfortunately, all sightings of this species were too distant to note exact plumage details, but establishing which taxon (or taxa) of the P. picta complex occur in PSNR should be a priority in any further surveys.

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