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*Tersina viridis* (Illiger, 1811)

foto: U. Drechsel

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# A first glance to “Reserva Natural Privada Morombi”

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**Abstract:** First impressions during a short visit to the "Reserva Natural Privada Morombi" are represented by photographic documentation.

**Resumen:** Primeras impresiones durante una breve visita a la "Reserva Natural Privada Morombi" están representadas mediante documentación fotográfica.

**Zusammenfassung:** Erste Eindrücke während eines Kurzbesuches in der "Reserva Natural Privada Morombi" werden durch photographische Dokumentation dargestellt.

**Key words:** Paraguay, Morombi, biodiversity

In the northeast of the Department Caaguazú in the eastern region of Paraguay is located the "Reserva Natural Privada Morombi", a nature reserve under private management. The approximately 25.000 hectares of the reserve include wetlands, various types of Cerrado and Atlantic Forest. During a short visit from 12th to December 14th 2014 could be obtained first impressions of the existing biodiversity and photos of plants and animals were made. Special attention was paid to the most neglected invertebrate fauna, as this is the main part of biodiversity with thousands of species, many of them still unknown to science.

During a walk of about 4000 m length through the forested area in the northern part of the reserve photographs were taken of the species that deserve special attention. *Calathea zingiberina* Körn. (Marantaceae), a species with tropical amazonian distribution (figs. 1 and 2), was found flowering, as well as *Cipura paludosa* Aubl. of the Iridaceae family (fig. 4).

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A specimen of *Anteos menippe* (Hübner, 1818) of the Pieridae family (fig. 5), feeding on a blooming bromeliad, represents the southernmost evidence so far of its species in Paraguay. Several species of the Cerambycidae family could be observed like *Callichroma sericeum* (Fabricius, 1792) and *Maliodon spinibarbis* (Linnaeus, 1758) (figs. 6 and 7). Another beautiful beetle was *Pelidnota pulchella* Kirby, 1818 (Scarabaeidae: Rutelinae) (fig. 8). Diurnal spiders could be seen, like *Argiope argentata* (Fabricius, 1775) (fig. 9), *Tobias sp.* (fig.10) and *Architis sp.*, male and female (figs. 11 and 12) of the Araneidae, Thomisidae and Pisauridae families respectively.

From the enormous diversity of insects shall be presented here some of the most striking and colourful species. The order Heteroptera was present with Reduviidae (fig.13), Coreidae (fig. 14), Pentatomidae (fig. 15) and Scutelleridae (fig. 16). Grasshoppers and praying mantises could be seen like *Staleochlora arcuata* (Rehn, 1908) (fig. 17) and *Decimiana bolivari* Chopard, 1916 (fig. 18) respectively.

When crossing a swamp a rare species of the Araceae plant family, *Xanthosoma striatipes* (Kunth. & C.D. Bouché) (fig. 19) was seen. Predatory dragonflies as *Zenithoptera viola* Ris, 1910, males and females (figs. 33 and 34) were flying about like the scarab beetle *Macraspis morio* Burmeister, 1844 (fig. 20).

In the forest, the highest animal diversity is found in the upper strata and canopy region, so only larger animals such as birds and monkeys can be observed from the ground. In the Cerrado, however, all organisms are living on the same level as the human observer and are easy to see. Flowers and insects are among the most striking and abundant things which one can notice walking through the Cerrado.

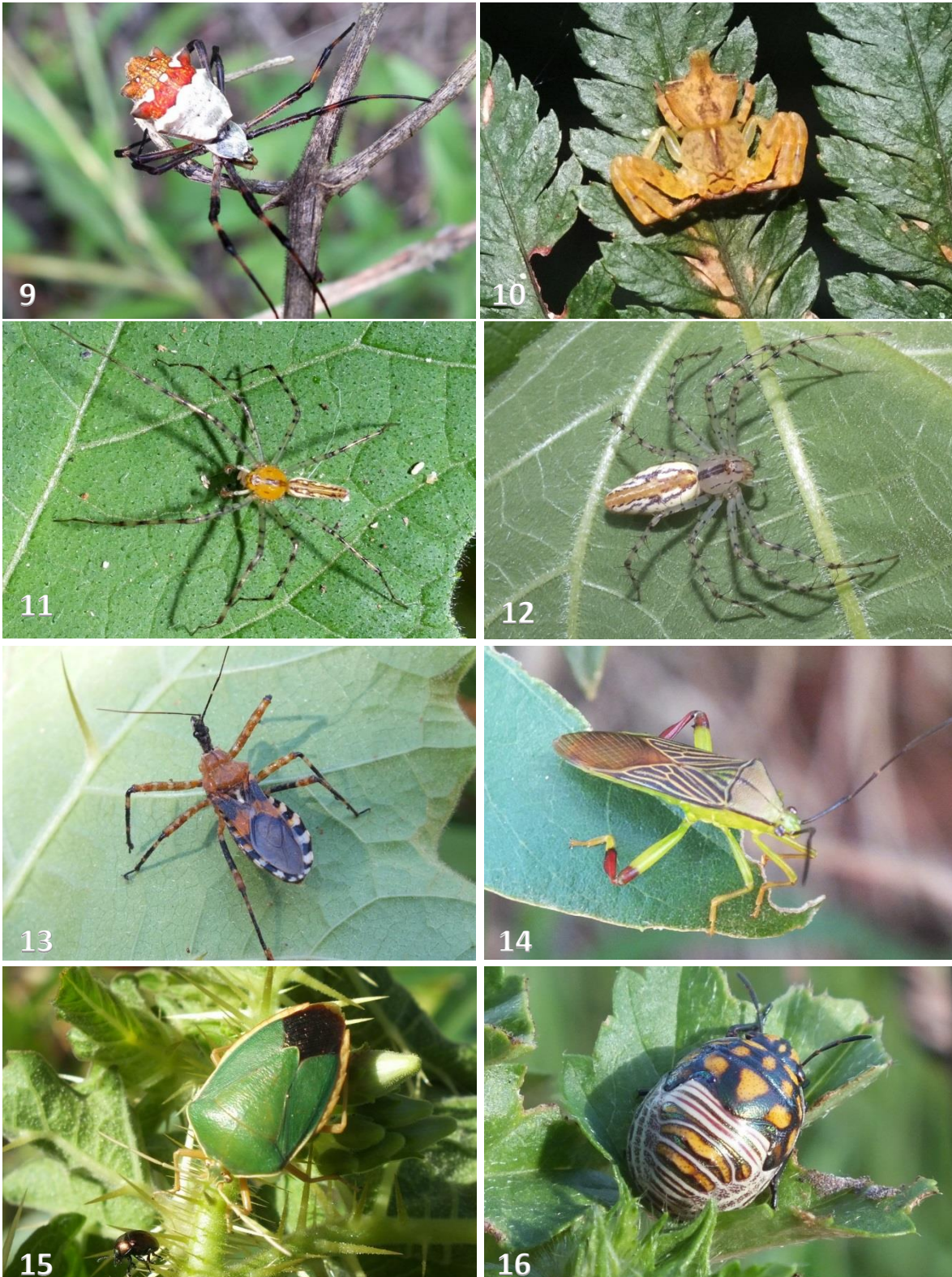
A very rare bromeliad, possibly endemic, could be found flowering. It is a species in the genus *Dyckia* (figs. 23 and 24). Additional conspicuous plant species that were encountered blooming are Asteraceae (fig.21), Euphorbiaceae (fig.22), *Mandevilla coccinea* (Hook. & Arn.) (Apocynaceae) (fig.25), *Borreria sp.* (Rubiaceae) (fig. 26), *Solanum, sp.* (Euphorbiaceae) (fig. 27) and Iridaceae (fig. 28).

A palm leaf eating beetle of the Chrysomelidae family, *Coraliomela sp.* (fig. 29) and *Heilipodus sp.* (Curculionidae) (fig. 30) belong to the phytophagous insects. Predatory insects hunting on termite hills are *Cheilonycha auripennis* Lucas, 1857 (fig. 37) and *Brasiella aureola* (Klug, 1834) (fig. 38), both of the Cicindelinae subfamily, and a Reduviidae species (fig. 39), probably new to science (K. Arnold, in litt., June 2014). Common are butterflies like *Heliopetes randa* Evans, 1953 (Hesperiidae) (fig. 31) and *Dynamine tithia* (Hübner, 1823) (fig. 32) of the Hesperidae and Nymphalidae families respectively.

A colourful bird species, *Tersina viridis* (Illiger, 1811) (figs. 35 and 36) was observed, both sexes collecting material for their nest



Figs. 1-8: 1) *Calathea zingiberina* Körn. leaf; 2) *C. zingiberina* flower; 3) *Heliconia* sp. (Heliconiaceae); 4) *Cipura paludosa* Aubl. (Iridaceae); 5) *Anteos menippe* (Hübner, 1818) (Pieridae); 6) *Callichroma sericeum* (Fabricius, 1792) (Cerambycidae); 7) *Mallodon spinibarbis* (Linnaeus, 1758) (Cerambycidae); 8) *Pelidnota pulchella* Kirby, 1818 (Scarabaeidae: Rutelinae)



Figs. 9-16: 9) *Argiope argentata* (Fabricius, 1775) (Araneidae); 10) *Tobias* sp. (Thomisidae); 11) *Architis* sp. male (Pisauridae); 12) *Architis* sp. female; 13) Heteroptera: Reduviidae; 14) Heteroptera: Coreidae; 15) Heteroptera: Pentatomidae; 16) Heteroptera: Scutelleridae



Figs. 17-24: 17) *Stalochlora arcuata* (Rehn, 1908) (Romaleidae); 18) *Decimiana bolivari* Chopard, 1916 (Mantidae); 19) *Xanthosoma striatipes* (Kunth. & C.D. Bouché) (Araceae); 20) *Macraspis morio* Burmeister, 1844 (Rutelinae); 21) Asteraceae; 22) Euphorbiaceae; 23-24) *Dyckia* sp. (Bromeliaceae)



Figs. 25-32: 25) *Mandevilla coccinea* (Hook. & Arn.) (Apocynaceae); 26) *Borreria* sp. (Rubiaceae); 27) *Solanum*, sp. (Euphorbiaceae); 28) Iridaceae; 29) *Coraliomela* sp. (Chrysomelidae: Cassidinae); 30) *Heilipodus* sp. (Curculionidae); 31) *Heliopetes randa* Evans, 1953 (Hesperiidae); 32) *Dynamine tithia* (Hübner, 1823) (Nymphalidae)



Figs. 33-40: 33) *Zenithoptera viola* Ris, 1910 male (Libellulidae); 34) *Z. viola* female; 35) *Tersina viridis* (Illiger, 1811) male (Tersinidae); 36) *T. viridis* female; 37) *Cheilonycha auripennis* Lucas, 1857 (Cicindelinae); 38) *Brasiella aureola* (Klug, 1834) (Cicindelinae); 39) Reduviidae; 40) *Mabuya frenata* Cope, 1862 (Scincidae)



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