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On the *Phyllium* Illiger, 1798 of Palawan (Philippines), with description of a new species (Phasmida: Phylliidae)

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Phylliidae ; *saltonae* ;
Phyllini ; *siccifolium* ;
*Phyllium* ; Taxonomy ;
leaf insect ; description ;
Palawan ; new species.

**Abstract.** – Prompted by the discovery of an undescribed species of *Phyllium* Illiger, 1798 from within the Natural History Museum, London, United Kingdom collection, the *Phylliidae* (*Leaf Insects*) of Palawan, Philippines are here reviewed. The new species *Phyllium* (*Phyllium*) *saltonae* Cumming, Baker, Le Tirant, & Marshall n. sp. is currently only known from female and egg specimens and represents the third species of leaf insect on the island. Taxonomically this new species belongs to the *siccifolium* species group of *Phyllium* (as per Hennemann, et al., 2009. To conclude, a key to species of Palawan is included and all species are illustrated.


**Introduction**

The *Phylliidae* Brunner von Wattenwyl consists of 83 valid species in five genera (Brock, Büscher, & Baker, 2019). These enigmatic members of the Phasmida known as ‘walking leaves’ or ‘leaf insects’ are currently distributed from southern mainland China through southeast Asia, and south to Australia and Fiji. The *Phylliidae* are placed subordinately among the Euphasmatodea within the Old World clade Oriphasmata based upon recent phylogenetic analyses (Simon et al., 2019). A calibration of time based on several phasmid fossils suggest a soft upper bound for time of divergence of the *Phylliidae* at approximately 66 million years ago during the Paleogene as calibrated by a 47 million year old leaf insect *Eophyllium messelense* Wedmann, et al., 2007.

The Palawan archipelago lies between northern Borneo and the island of Mindoro and separates the Sulu Sea from the South China Sea. Interestingly enough, the first written account of leaf insects was from Palawan in 1521 by the Venetian scholar Antonio Pigafetta who joined Ferdinand Magellan on his circumnavigation of the world. While the fleet hauled ashore for repairs, Pigafetta chronicled the fauna of the islands and recorded the following passage about *Phyllium* (Bergreen, 2003).

“In this island are also found certain trees, the leaves of which, when they fall, are animated, and walk. They are like the leaves of the mulberry tree, but not so long; they have the leaf stalk short and pointed, and near the leaf stalk they have on each side two feet. If they are touched they escape, but if crushed they do not give out blood. I kept one for nine days in a box. When I opened it the leaf went round the box. I believe they live upon air.” (Pigafetta: translated in Alderley, 1874).

It would not be for another 480 years that *Phyllium* would again be recorded and noted in literature from Palawan with the first species described from the island with the toponym name of *Phyllium palawanense* Grösser, 2001.

Palawan is biogeographically part of the Sundaic region, on the continental shelf of southeast Asia (exposed during the Quaternary glaciation), and the insect fauna is closely related to that of Borneo (e.g. Vane-Wright, 1990). Two of the three *Phyllium* species on Palawan illustrate this close biogeographic relationship as their geologic history suggests they may have originated from Borneo (e.g. Vane-Wright, 1990). The third species, *Phyllium* *saltonae* (as per Hennemann, et al., 2009, is sister species to *Phyllium* *gantungense* Seow-Choen, 2016, and *Phyllium cummingi* Seow-Choen, 2017, both currently only known from Northern Borneo. And *Phyllium palawanense* Grösser, 2001 is sister species to *Phyllium* *cheniae* Seow-Choen, 2017 from Northern Borneo. Comparatively, *Phyllium* *saltonae* n. sp. appears to be more morphologically related to known species of *Phyllium* from the Philippines such as *Phyllium philippinicum* Hennemann, et al., 2009, *Phyllium mindorensae* Hennemann, et al., 2009, and *Phyllium mabintai* Bressel, et al., 2009, than it does to any known Bornean species.

**Materials and Methods**

Photographs of the holotype *Phyllium* (*Phyllium*) *saltonae* n. sp. were taken by Ed Baker, using a Canon EOS 5DR and Canon 100 mm Macro Lens mounted on a StackShot image system controlled by Helicon Remote. Images were combined in Helicon Focus. All
type material is deposited in the Natural History Museum, London, United Kingdom (NHMUK). Photographs of the other species illustrated were taken by Royce Cumming in the San Diego Natural History Museum, California, United States using a Canon 5D Mark II and a MP-E 65 mm macro lens and stacked using Zerene photo stacking software, version 1.04, 64-bit. Measurements of type material were taken using digital calipers to the nearest 0.1 mm. Egg orientation terminology follows that of Clark (1978).

**Taxonomy**

**Subgenus Phyllium (Phyllium) Illiger, 1798**

Type species: *Gryllis (Mantis) siccifolius* Linnaeus, 1758: 425, by monotypy.

**Phyllium (Phyllium) gantungense** Hennemann, Conle, Gottardo, & Bresscel, 2009

urn:lsid:Phasmida.speciesfile.org:TaxonName:7056
(Figs. 1A-C, 2A-C, 3A-D, 4A-D, 5B, 6A, 8A, 8D, 9A, 10A)

**Discussion.** – *Phyllium gantungense* is easily the most common leaf insect species found on Palawan, and has recently entered the phasmid breeding community as a relatively easy to care for species (Fig. 1A-C courtesy of Bruno Kneubühler).

This species is remarkable for its extreme variation observed within females, with abdominal shape ranging from nearly perfectly smooth (Fig. 2A) to intricately lobed (Fig. 2C). As noted by Hennemann, et al., (2009) and Cumming (2017) the abdominal shape (ranging from smooth to strongly lobed) directly corresponds to the size of the profermal interior lobe teeth (small serrate teeth to large triangular teeth, Fig. 3A-D). When viewed in a large set, these variations fall within a continuous series, not in discrete forms. In contrast to the variable female morphology, the male morphology is relatively stable with males lacking abdominal variation, with all observed males rather similar (Fig. 4A-D).

*Phyllium arthurchungi* Seow-Choen, 2016 and *Phyllium cummingi* Seow-Choen, 2017 from Northern Borneo are the sister species to *Phyllium gantungense*. Their shared ancestry is evident by their nearly identical egg morphology and very similar adult morphology. The only morphological feature to easily separate females of *Ph. gantungense* and *Ph. arthurchungi* from each other is the ventral color of their coxae, with *Ph. gantungense* having distinct black markings (Fig. 5B) compared with *Ph. arthurchungi* which lacks these black marking and instead has an orange to red coloration (Fig. 5A).

Body lengths: ♂ 74.4–90.2 mm, ♀ 57.0–61.8 mm (Hennemann, et al., 2009).

**Phyllium (Phyllium) palawanense** Grösser, 2001

urn:lsid:Phasmida.speciesfile.org:TaxonName:7112
(Figs. 3E-F, 6B, 7A-D, 8B, 8E, 9B, 10B)

**Discussion.** – A rare species, only known from a handful of records since its description in 2001. Based on review of photos and specimens exported from Palawan over the last few years, *Phyllium palawanense* has only been observed less than 6% of the time, with all other species belonging to the morphologically variable *Phyllium gantungense*.

The adult male *Phyllium palawanense* is not yet described, however a subadult from the Royce Cumming private collection is the first record of a male for this species. Morphologically, the males share the unique mesopraescutum structure (with nodes throughout the surface, not just along the sagittal plane) with the females of this species, a feature which is rather unique among the Phyllidae (female Fig. 6B, subadult male Fig. 7B). This subadult male also exhibits a spade shaped abdomen (Fig. 7A), a clear shared morphology between the female and male. The only collection records of *Phyllium palawanense* are from “Port Berton, Roxas, Matalangao, 200–350 m.” (paratype female in the collection of Oliver Zompro, Grösser, 2001), a female from the Stephane Le Tirant private collection from “San Vicente, Palawan”, and from “Brooke’s Point Municipality, Mt. Mantalingajan” (Royce Cumming private collection). Localities respectively from the far north and south of the island, suggesting a likely distribution throughout. Hopefully future collections on the island reveal the distribution of this species with more clarity, as well as reveal the adult male morphology.

Body lengths: ♂ 74.2–82.8 mm; subadult male 45.0 mm (RC Coll 16-253).

**Phyllium (Phyllium) saltonae** Cumming, Baker, Le Tirant & Marshall n. sp.

urn:lsid:Phasmida.speciesfile.org:TaxonName:507800
(Figs. 3G, 3H, 6C, 8C, 8F, 9C, 10C, 11A-D)

ZooBank: [http://zoobank.org/017F0D8F-6DC6-4171-B6CC-524FB85B97F1](http://zoobank.org/017F0D8F-6DC6-4171-B6CC-524FB85B97F1)

**Holotype.** ♂. – PHILIPPINES, Palawan, Balabac Islands, 2 V 1997. [NHMUK 013802808].

**Paratypes** [2 ♂, 7 eggs]


Fig. 1. *Phyllium gantungense* dorsal view, live captive bred individuals, photos courtesy of Bruno Kneubühler. – A: Female. – B: Male. – C: Newly hatched nymph.
Fig. 2. Phyllium gantungense females, dorsal view, weakest abdominal lobes to most pronounced (left to right).
- A: Phyllium gantungense Coll RC.
- B: Phyllium gantungense Coll RC.
- C: Phyllium gantungense Coll RC 17-169.

Fig. 3. Front legs for the Phyllium of Palawan.
A-D: Phyllium gantungense, left to right: weak to strongly lobed females (Coll RC).
G-H: Phyllium saltonae n. sp., holotype NHMUK#013802808 & paratype NHMUK #013802809.

Fig. 4. Phyllium gantungense male, RC 17-110.
- A: Full body, dorsal.
- B: Thorax, dorsal.
- C: Genitalia, ventral.
- D: Base of antennae, head, and thorax, lateral.
Discussion. – This undescribed species was located during a review of the Phylliidae collection within the Natural History Museum United Kingdom in January, 2019 by the first author. Most notably, the egg morphology helped to identify the unique nature of this species. Allan Harman received the now holotype ± plus eggs from a dealer (as detailed in a note placed with the specimen), and from these eggs reared the two paratype specimens, retaining all material for eventual donation to the NHMUK as an unidentified Phyllium species. Knowledge of the egg structure, as detailed below, was essential for recognition of this new species as the females are not at first review overly unique and might have been overlooked initially. While reviewing the sicciolium species group we attempted to identify apomorphic features of *Phyllium saltonae* n. sp. and the other species group members. Unfortunately, with this species group rather large (presently with twenty eight species, Brock, Büsscher, & Baker, 2019) and not subdivided based on a robust phylogeny we were unable to locate apomorphic features. Instead we present a differentiation section below which discusses in depth the three most likely sister species based on morphology in order to attempt to place this new species systematically. Upcoming molecular based phylogenies will help to bring clarity to the sicciolium species group and allow us to give a clearer systematic context to this species and clade members. Unfortunately, until then we are restricted to placing this new species within the sicciolium species group and identifying possible sister species based on a combination of morphological features but not upon single morphological feature.

Differenziation. – The female *Phyllium saltonae* n. sp. is most morphologically similar to *Phyllium philippinicum* Henne mann et al., 2009, *Phyllium mindorense* Henne mann et al., 2009, and *Phyllium mabantai* Bressel et al., 2009. Each species is discussed below independently to help place this new species taxonomically. *Phyllium philippinicum* shares several similarities with *Phyllium saltonae* n. sp. such as antennae with ten antennomeres, a similar abdominal shape in more broadly lobed *Phyllium saltonae* n. sp., and an adult size range which is very similar with *Phyllium philippinicum* ranging from 77.5–88.0 mm and *Phyllium saltonae* n. sp. from 74.5–88.2 mm. There are several consistent features which allow differentiation of these two species. One feature to differentiate *Phyllium philippinicum* from *Phyllium saltonae* n. sp. is the arrangement of teeth on the pronotal superior lobe, with *Phyllium saltonae* n. sp. having a longer looping gap between the middle teeth versus *Phyllium philippinicum* which has small teeth uniformly spaced throughout the pronotal superior lobe. Also, there are only 25–29 teeth on the pars stridens of antennomere III in *Phyllium saltonae* n. sp. versus *Phyllium philippinicum* which has 40 teeth on the pars stridens of antennomere III. One additional feature which allows for differentiation is the length and spination of the mesoscutum on the thorax. *Phyllium saltonae* n. sp. has mesoscutum which are longer, reaching to the anterior rim of the mesopraescutum and with a lateral margin which is more granular throughout the length, lacking prominent well defined tubercles. *Phyllium philippinicum* comparatively has mesoscutum which are shorter, with the anterior margin not reaching the anterior rim of the mesopraescutum, and lateral margins with distinct tubercles not bordered by small granulation.

*Phyllium mindorense*, is also morphologically very similar in regards to abdominal shape, adult size, shape of the femoral lobes, and the anterior mesopraescutum rim which lacks a prominent spine in the center. An easy feature to differentiate these two species are the antennae which are different both in number of teeth on the pars stridens and number of total antennae segments with *Phyllium saltonae* n. sp. having 25–29 teeth on the pars striders and ten antennal segments, and *Phyllium mindorense* with 34 teeth on the pars striders and nine antennomeres. One additional feature which allows for differentiation is the length of the mesopraescutum, with the mesopraescutum longer, reaching to the anterior rim of the mesopraescutum in *Phyllium saltonae* n. sp., versus not reaching the anterior rim of the mesopraescutum in *Phyllium mindorense*. With *Phyllium mabantai* being a rather variable species in abdominal shape and profemoral lobe form, there are many features of certain forms which are paralleled closely between the two species. Of particular similarity are the pro-, meso-, and metafemoral lobes and their corresponding serration. Both species also have a similar number of teeth on the pars striders of antennomere III, with 25–29 teeth in *Phyllium saltonae* n. sp. and 23–27 teeth in *Phyllium mabantai*. The only reliable feature which can be used to differentiate females of these two species is the number of antennomeres, as *Phyllium saltonae* n. sp. has ten antennomeres but *Phyllium mabantai* only has nine antennomeres. Morphologically, the easiest to differentiate are the eggs of *Phyllium saltonae* n. sp. as the combination of a lateral surface with irregular “bald” impressions and long feather-like pinnae surrounding the entire capsule are a unique combination. “Bald” lateral impressions are a feature seen in several other species, such as the common *Phyllium hau seltheini* Brock, 1999 from West Malaysia and other closely related species, however, these species eggs lack long feather-like pinnae surrounding the entire capsule, generally only having these long pinnae on the dorsal, anterior, and posterior surfaces, not also present on the ventral surface. The only other species which also have the combination of lateral surfaces with irregular “bald” impressions and long feather-like pinnae surrounding the entire capsule are *Phyllium mindorense* and *Phyllium palawanense*. From both species, *Phyllium saltonae* n. sp. can immediately be differentiated by the operculum which is raised above the anterior margin of the capsule (Fig. 8C), versus the other two which have the operculum lower which allows the long feather-like pinnae of the lateral margins to line up uniformly with those on the operculum pinnae (Fig. 8B). The lateral “bald” impressions also help to differentiate the three species, as *Phyllium saltonae* n. sp. is the only one which does not have clear lateral arrangements of these “bald” impressions which are clearly seen in *Phyllium mindorense* and *Phyllium palawanense* (Fig. 8B), instead *Phyllium saltonae* n. sp. has the “bald” impressions irregular, in no detectable pattern (Fig. 8C).

Morphological description of the female.

Coloration. – Currently only the three females from the type material have been observed, all of which are discolored with only slight hints of green still present. This species is likely a vibrant green in life.

Head. – Capsule slightly longer than wide, vertex nearly smooth, with only slight texture and few granules throughout the surface smaller than the prominent postero medial tubercle which is the most prominent feature on the vertex. Frontal convexity stout, notably shorter than the length of the first antennomere, and with a moderate number of clear setae uniformly covering the surface. Antennal segment III pars striders with 25–29 teeth. – Compound eyes not strongly protruding from the head capsule. – Ocelli absent. Antennal fields not significantly wider than the first antennomere and not protruding back farther than the frontal suture.

Thorax. – Pronotum with anterior margin which is slightly concave, and lateral margins that are slightly convex and converge to a straight posterior margin that is about half the width of the anterior rim (Fig. 6C). The pronotum surface lacks nodes but instead has a lumpy surface texture. The surface has a prominent pit in the center, and a prominent furrow across the anterior rim, and two parallel furrows posterior of the central pit running to the posterior rim. The pronotum has a moderate anterior rim, lateral rims which are moderately rimmed, and the posterior which lacks a rim. – Pre- and mesosternum with slight granulation evenly throughout the surface. – Metasternum somewhat variable, can be nearly smooth with only slight granulation, or can have a
Phyllium palawanense

Hennemann, et al., 2009, photo credit Tim Van molle.

Phyllium gantungense

Coll RC 17-315.

Phyllium saltonae

Seow-Choen, 2017,

General shape of capsule ovular when viewed laterally and Of moderate size for the genus with prominent feather-like pinnae on all margins of the capsule and encircling the operculum cap. General shape of capsule ovular when viewed laterally and rectangular when viewed from the dorsal surface. Lateral surfaces are flat and parallel to each other. Lateral surfaces with numerous irregular shaped networks of bold impressions, the spaces in between appearing as a network of short moss-like pinnae. Lateral longitudinal feather-like pinnae which surround the entire egg varying little in length, with those on the anterior and posterior margins only slightly longer than those on the lateral margins. Micropylar plate oval and uniform in shape, not teardrop shaped like in most Phyllium species, plate about half as wide as tall and covering the central half of the length of dorsal egg surface. Micropylar cup moderate in size and slightly displaced towards the posterior, entire micropylar plate with a hairy textured margin. Dorsal surface around the micropylar plate covered in radiating short simple pinnae. Ventral surface with the short, simple pinnae varying little in length, with those on the anterior and posterior margins only slightly longer than those on the lateral margins. Micropylar plate ovular and uniform in shape, not teardrop shaped like in most Phyllium species, plate about half as wide as tall and covering the central half of the length of dorsal egg surface. Micropylar cup moderate in size and slightly displaced towards the posterior, entire micropylar plate with a hairy textured margin. Dorsal surface around the micropylar plate covered in radiating short simple pinnae. Ventral surface with the short, simple pinnae...
similar to those on the dorsal surface surrounding the micropylar plate, but the ventral surface also has a sagittal row of feather-like pinnae primarily running along the posterior half of the capsule. Operculum circular and flat, with short, simple pinnae and with the outer margin set with a row of the same long feather-like pinnae seen along the longitudinal lateral margins of the egg-capsule. General colour tan, the impressions on the lateral egg surfaces slightly lighter in color.

*Measurements including the feather-like pinnae [mm]:*
- lateral length (including operculum) 5.6
- lateral length (excluding operculum) 4.8
- width of dorsal surface 2.4
- width of lateral surface 4.4
- length of micropylar plate 2.3

**Etymology.** – This new species is a patronym dedicated to Mary Salton, in gratitude for 40 years of assistance to Allan Harman and to many years of service to the Phasmid Study Group (PSG: http://phasmidstudygroup.org).

**Biogeography of Palawan**

The projected arrival of the Palawan Microcontinental Plate near northern Borneo and the Philippines was during the Late Miocene (~10 Ma) as it moved south from Eurasia (Hall, 1998). As Palawan approached Borneo and the Philippines, it created a route for the sharing of organisms between the two regions. This bridge has been coined Huxley’s Filter Zone as it was first noted by well-known biogeographists Thomas Huxley in 1868 with his observations primarily based on birds and mammal distributions. This bridge was later referred to by Huxley as the Wallace’s Line (Huxley, 1868; Esselstyn et al., 2010). Esselstyn et al., 2010 notes that Palawan and the surrounding islands contain a mix of lineages from both Borneo and the oceanic Philippines and depending on what authors you ask and what model organism you are reviewing the ratio of their origins vary.

In relation to the phylliid diversity of Palawan, it is likely that we are only observing a limited view of the diversity and we would not be surprised if several more species still remain to be discovered. Presently, the diversity we are aware of illustrate a mixed phylliid origin, with two of the three known species with sister species from Northern Borneo. The sister species to Phyllium saltonae n. sp. based on our current knowledge of species likely originated in the Philippines (Fig. 13). Morphologically, we believe that the most likely sister species to Phyllium saltonae n. sp. to be Phyllium mindorensis from Mindoro island, largely based on egg morphology similarity. With all species of phylliid resembling deciduous leaves beautifully and looking very similar in many regards, it is difficult to ascertain what features are derived from a common ancestor and what are simply homoplasies from the selective pressure to look like leaves as adults. Instead, we emphasize the significance of molecular analyses and egg morphology to help elucidate the evolutionary history of these cryptic creatures. Eggs, because they are devoid of the predation pressure to masquerade as leaves, when observed across a wide range of species, have a diverse variety of morphological features. The diverse egg morphology frequently allows species differentiation and easy separation into subgenera and species groups. Presently, the first large-scale analysis of molecular evidence within the Phylliidae is underway. Hopefully this will reveal additional evidence to allow identification of sister species which in turn will allow better biogeographic review of the Huxley Filter Zone.

**Acknowledgments**

The authors thank Allan Harman (United Kingdom) for his forethought in preserving the specimens and eggs of this unique species once they died so that now they can be studied and formally described. Thank you to Bruno Kneubühler (Switzerland) and

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Table 1. Measurements of Phyllium (Phyllium) saltonae n. sp., holotype and paratype females. All measurements made to the nearest 0.1 mm.

* Including cerci and head, excluding antennae.

** Only measured on paratype specimen NHMUK 013802810.
Fig. 8. Phyllium of Palawan eggs. – A-C: lateral view, micropylar plate to the right. – D-F: micropylar plate view. – A & D: Phyllium gantungense. – B & E: Phyllium palawanense (RC Coll 18-032). – C & F: Phyllium saltonae n. sp. paratype NHMUK #01380811.

Fig. 9. Phyllium female, antennae, dorsal view. – A: Phyllium gantungense RC 17-169. – B: Phyllium palawanense RC 17-315. – C: Phyllium saltonae n. sp. paratype NHMUK #013802809.

Fig. 10. Phyllium female, genitalia, ventral view. – A: Phyllium gantungense RC 17-324. – B: Phyllium palawanense RC 17-315. – C: Phyllium saltonae n. sp. paratype NHMUK #013802809.

Fig. 11. – A: Phyllium saltonae n. sp., holotype NHMUK#013802808. – B: Paratype NHMUK #013802809. – C: Paratype NHMUK #013802810. – D: Lateral view of paratype NHMUK #013802809.
Key to known species of Phyllium from Palawan, Philippines

Keys are broken into female and egg morphology. With adult male Phyllium palawanense and male Phyllium saltonae n. sp. currently unknown, a key to males is not yet possible.

Female

1. Meso- and metacoxae with distinct black marking on ventral surface (Fig. 5B) ........................ Ph. gantungense Hennemann et al., 2009
   — Meso- and metacoxae without distinct black marking on ventral surface (Fig. 5A) ................................................. 2

2. Mesoperaescutum without distinct crest along sagittal plane, nodes spread without detectable pattern throughout surface (Fig. 6B); antennae with nine segments (Fig. 9B); pars stridens of antennomere III with 34–36 teeth ................ Ph. palawanense Grösser, 2001
   — Mesoperaescutum with distinct crest along sagittal plane, nodes running along the sagittal plane only (Fig. 6C); antennae with ten segments (Fig. 9C); pars stridens of antennomere III with 25–29 teeth ................................................. Ph. saltonae n. sp.

Egg

1. Capsule lateral surface with eight large circular impressions (arranged in a two by four pattern) (Fig. 8A); longitudinal margins of the capsule lacking long feather-like pinnae ................................................................. Ph. gantungense Hennemann et al., 2009
   — Capsule lateral surface without eight large circular impressions, surface instead with shallow smooth excavations throughout the surface (Fig. 8B & 8C); longitudinal margins of the capsule with distinct feather-like pinnae (Fig. 8B & 8C) ................................. 2

2. Lateral surface with longitudinal smooth impressions (Fig. 8B); pinnae of the lateral margins the same length as those on the operculum, creating a uniform, seamless appearance between the capsule and the operculum (Fig. 8B); pinnae of the operculum only on the lateral margins, not fully encircling the operculum (Fig. 8E) ............................................................... Ph. palawanense Grösser, 2001
   — Lateral surface with irregular, spotty, smooth impressions (Fig. 8C); pinnae of the lateral margin shorter than the pinnae on the operculum, giving the operculum a distinct raised appearance (Fig. 8C); pinnae of the operculum encircling the entire operculum rim (Fig. 8F) ........................................................................................................................................................................ Ph. saltonae n. sp.

Tim Van molle (Belgium) for allowing us to use photos of the live Phyllium gantungense. Albert Kang (Malaysia) for allowing us to use photos of the live Phyllium arthurchungi female in the wild. Thank you to Jim Berrian (San Diego Natural History Museum, San Diego) for years of support and access to the museum’s camera. To conclude we thank our two peer reviewers who gave us valuable feedback and suggestions on how best to improve this text, thank you Thies Büscher (Germany) and Francis Seow-Choen (Singapore).

References


Fig. 12. River in the forest of Palawan, Philippines.
Fig. 13. The Huxley Filter Zone (Esselstyn et al. 2010) as illustrated by Phyllium.

Résumé


Suite à la découverte d’un Phyllium Illiger, 1798, non décrit au sein de la collection du Museum d’Histoire naturelle de Londres (Royalme-Unit), les Phylliidae (insectes feuilles) de Palawan (Philippines) sont ici passés en revue. La nouvelle espèce Phyllium (Phyllium) saltonae Cumming, Baker, Le Tirant et Marshall n. sp. n est actuellement connue que de spécimens femelles et d’œufs, et représente la troisième espèce de l’île. Elle appartient au groupe d’espèces siccifolium de Phyllium (Phyllium) selon Hennemann et al., 2009. Pour conclure, une clé pour les espèces de Palawan est incluse et toutes les espèces sont illustrées.

Mots-clés. – Phasmatoidea, Phasmida, Phylliidae, Phylliini, Phyllium, insecte feuille, Palawan, Asie du Sud-Est, Philippines, saltonae, siccifolium, taxonomie, description, espèce nouvelle.
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SOMMAIRE

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On the Phyllium Illiger, 1798 of Palawan (Philippines), with description of a new species (Phasmida: Phylliidae).

Illustration de la couverture : River crossing in the forest of Palawan, Philippines (Local Photographer).

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