Genus	Vol. 24(3-4): 275-290	Wrocław, 28 XII 2013

The Giant Butterfly-moths of the Natural History Museum of Wrocław University, Poland, with comments about Friedrich Wilhelm Niepelt and his insect collection (Lepidoptera: Castniidae)

Jorge M. González[1], Paweł Domagała[2], Ryszard Czaderna[3], Marek Wanat[4]
[1] California State University, Fresno, Department of Plant Science, 2415 San Ramon Ave. M/S AS72 Fresno, California 93740-8033 (Research Associate, McGuire Center for Lepidoptera & Biodiversity), USA
[2] Department of Biosystematics, Opole University, Oleska 22, 45-052 Opole, Poland
[3] ul. Południowa 3, 58-230 Niemcza, Poland
[4] Museum of Natural History, University of Wrocław, Sienkiewicza 21, PL 50-335 Wrocław, Poland

Abstract. Even though natural history museums are seen by some as rather gloomy places, they are actually repositories of countless treasures and magnificent sources of knowledge. The Museum of Natural History of the University of Wroclaw is no exception. A process to curate all Museum's Lepidoptera that started in 2012 allowed us to find among its several collections, the one that originally belonged to the renowned entomologist and insect dealer Friedrich Wilhelm Niepelt. Among the few moth groups in such collection 37 specimens within 19 species and 22 taxa of the neotropical giant butterfly-moths (Castniidae) were found. Even though several of those specimens lack detailed collecting information, and despite the somehow troubling history of the Museum, they are in very good shape and have been well maintained. We provide herein some historical background about the Museum and Niepelt, as well as general comments on the castniid taxa under the Museum's care.

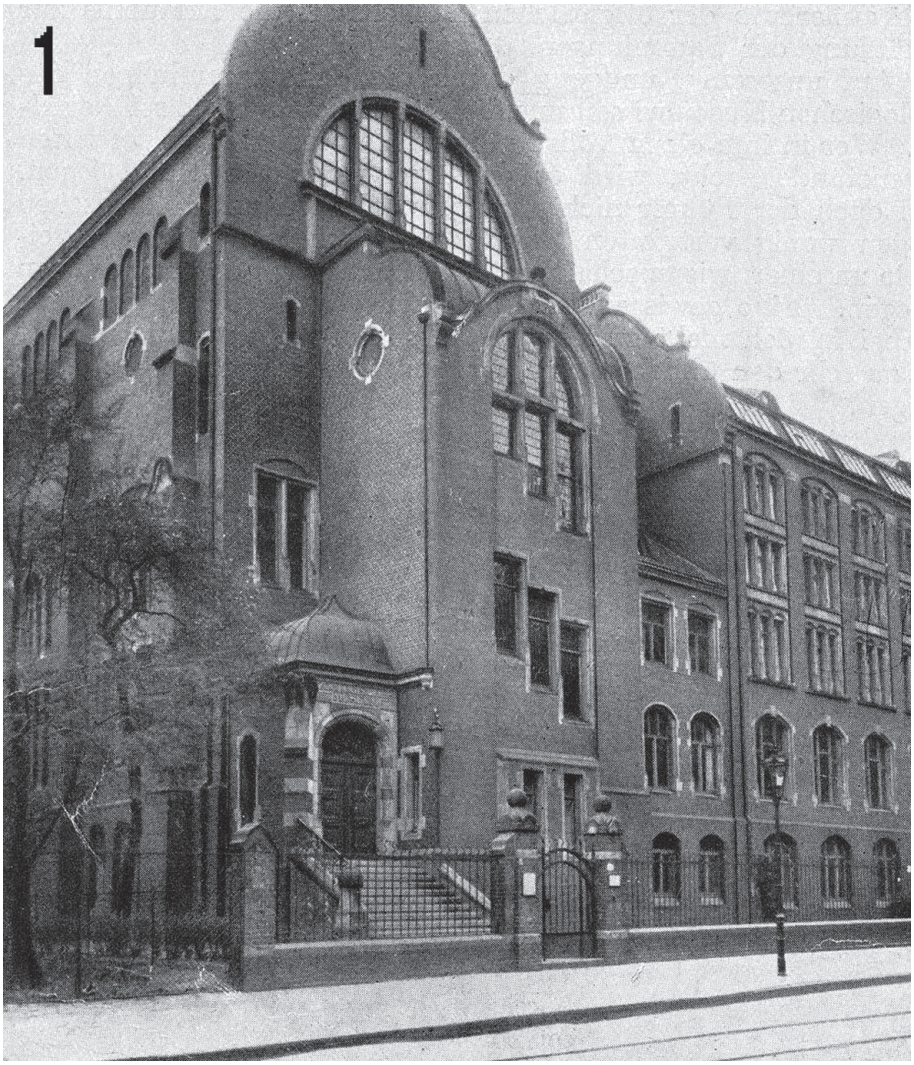
Key words: natural history, biodiversity, Castniidae, Giant Butterfly-Moths, Niepelt.

INTRODUCTION

The Museum of Natural History of the University of Wrocław (MNHW), is the second oldest university museum of its kind in Poland. Founded in 1814, some of its collections started in 1811. For its first ninety years, the museum was located in the main university building at Universitäts Platz (now Pl. Uniwersytecki 1); in 1904, all collections were settled in a new building at Sternstrasse (now Sienkiewicza 21)

(Fig. 1). The Zoological Institute, which was a didactic unit, was founded earlier in 1902-1903 by the zoologist Willy Georg Kükenthal (1861-1922) who was then assigned as Museum director (Wiktor 2002).

Among the museum's collections there were (and still are) numerous interesting and unique specimens of extinct and rare species. Several important collections are held in its halls, including a few insect collections that originally belonged to respected and well known entomologists. Among these we find Niepelt's collection of about 13,000 specimens of exotic Lepidoptera primarily collected in South America, Indonesia's



1. Museum of Natural History of the University of Wrocław, at Sienkiewicza 21, Wrocław, Poland (1904, fot. L. Pohl)

Sunda Archipelago and tropical Africa. Even though the exact date of the gift is undocumented, it certainly was executed by Niepelt himself between 1932 (one of the specimens cited herein was collected in March 1932) and 1936 (the year of Niepelt's death). It is also possible that there were several cumulative donations that started even before 1932, since all Niepelt's specimens were found provisionally ordered in museum drawers and cabinets immediately after WWII (Kinel 1957).

Friedrich Wilhelm Niepelt (Fig. 2) was born 10 November 1862 in Strigau (Strzegom), a Prussian town in the Lower Silesia Province of South Western of today's Poland. He attended the town's elementary school until the family moved to Freiburg (now Świebodzice) where his father opened a tavern (Calliess 1932; Strand 1932, 1938). While still a child, he became interested in insects and it was common to see him chasing butterflies. At age 14, just after finishing school, he entered into the profession of bookbinding. At age 18, he set out a journey through Germany up to Kassel where he was then established for about four years and eventually enrolled in the army (Calliess 1932).

After his military service ended, Niepelt returned to Lower Silesia to raise money for a collecting trip to Cuba (Calliess 1932; Strand 1932). He then travelled to the Caribbean Island where he collected at few different locations, to later return to Zirlau (currently Świebodzice – Ciernie), a town near Freiburg, Germany, where he became an entomological equipment and insect dealer with the money made from selling most of the insects he brought from Cuba (Calliess 1932; Strand 1932). In addition to maintaining his prosperous business manufacturing and selling entomological supplies (Fig. 6), he did several animal collecting expeditions. He also traded the animals he collected, mainly from tropical regions, with other naturalists and dealers, and many arthropods were sold through his company. Besides being a businessman, he became highly knowledgeable about Lepidoptera, and published numerous works describing species and subspecies of butterflies and moths (Röber 1932). He also published a book (Niepelt 1911) in which, among other things, he describes the methodology to properly prepare butterflies, beetles, and caterpillars (Fig. 7).

Renown naturalists and insect dealers such as Otto Staudinger (1830-1900), Andreas Bang-Haas (1846-1925) and Otto Bang-Haas (1882 – 1948) from "Staudinger & Bang-Haas" dealership (Fig. 8), Herman Strecker (1836-1901) (Fig. 9), Carl Ribbe (1860-1934) (Fig. 10), Johannes Karl Max Röber (1861-1942), and Heinrich Neustetter (?1873-1958), were in contact with Niepelt; he became a good friend of the highly respected arachnologist and entomologist Embrik Strand (1876-1947) (Salazar 2006). Strand highly valued Niepelt who provided him with material from his expeditions including many arachnids and numerous Hymenoptera and Lepidoptera specimens. In gratitude Strand named a few species after Niepelt.

In Zirlau, Niepelt occupied only one room in his house (Figs. 5, 11). The rest of the house held collections not only of insects, but also birds, coins, and ethnographic pieces (Berner 1996).

Since Niepelt became a recognized dealer of exotic insects, many of those he collected, traded, and/or sold ended up in many institutional and private collections, especially in Europe. It is unknown why he donated such a large number of insects

to the University of Wrocław; what appears to be clear is that he was alive when the collection was acquired and it seems that in return the University recognized him with a distinction, possibly a medal (Strand 1932; Berner 1996). Unfortunately, we were not able to find any records regarding this donation, nor if there were only lepidopterans or other insect orders among them (there is a general collection of tropical insects at MNHW which is poorly labeled but none of the few labels in it can be attributed to Niepelt).

2-5. Friedrich Wilhelm Niepelt, 1862-1936 (2); Ferdinand Pax jr, 1885-1964 (3); Jan Kinel, 1886-1950 (4); Niepelt's house at Świebodzice, Poland (5)

Niepelt collected and dealt insects until his death. He died at the age of 73, on 26 May 1936 (Berner 1996; Heikertinger 1937; Horn 1936; Strand 1938). The remaining of his private insect collection was sold in 1938. Even though there is no clear information about who bought it; it is believed that it was either Otto Bang-Haas or Hans Kotzsch (1901-1950). Eventually, many of the remaining Niepelt's specimens would end up in Kotzsch's dealership since he bought all that was left of "Staudinger & Bang-Haas" after Otto's death.

During WWII, several collections at the MNHW, including part of the valuable Max Wiskott's (1840-1911) collection of Palaearctic Lepidoptera, were evacuated to Kąty Wrocławskie, a small town near Wrocław (Wiktor 2002). Ferdinand Pax jr (1885 -1964) (Fig. 3), the last German director of the museum, examined the collection in 1945 after Wrocław had already been in Russian-Polish hands. He also published an article in which he tried to estimate collection loses after a bomb was dropped on the north/south wing of the museum building in 1944 (Pax 1949; Wiktor 2002). He lists Niepelt's collection among those found undamaged, but does not provide any information about number of cabinets or specimens (Pax 1949).

According to a report written by Jan Kinel (1886-1950) (Fig. 4), an eminent coleopterist and former director of Dzieduszycki Museum in Lvov, who became the first Polish custodian of the museum in May 1946, Niepelt's collection was retained in Wrocław. It avoided serious damage when the bomb hit the building because the hall with entomological collections was then in the east/west wing (Kinel 1957; Pax 1949). The collection was then stored in four huge cabinets (originally labeled with nos. 17 to 20) containing 240 standard drawers, most with a glass bottom, having almost exclusively tropical butterflies. About twenty extra loose drawers of various types consist of mostly moths. One of us (M.W.) found the same four numbered cabinets full of drawers with Niepelt's butterflies when he started working at MNHW in 1984. The specimens did not seem to be damaged more than any other sections of the old insect collection and even today, after a curation hiatus of 50+ years, they appear to be in very good condition. An earlier suggestion that Niepelt's collection "was scattered … during and after WWII" (González et al. 2013) is unintentionally misleading, since Niepelt, throughout his life, sold many specimens with labels bearing his name. When the whole MNHW entomological collection moved in 2003 to the top floor of a new building, Niepelt's collection was transferred to new and smaller cabinets. Since the end of 2012, the whole Lepidoptera collection has been under process of ordering and cataloguing.

Kinel's report (Kinel 1957), published seven years after his sudden death in 1950, was based on a manuscript found in his desk. It was apparently written to verify and correct several discrepancies from the earlier report of Pax (1949) concerning some MNHW collections, including that most valuable of Johann Gravenhorst (1777-1857).

It appears that Niepelt's material at the MNHW is a collection of doublets, judging from its rather geographical than systematic arrangement, with provisional division to genera only and prevailing specimens seemingly obtained by Niepelt from other collectors. It also appears that it is likely the complete collection originally acquired by the museum. If a more valuable part of Niepelt's collection was evacuated and did

Explanation to figures - see next page

not return, it was not noted by Pax (1949), who was not informed of any dislocations by officials responsible for the evacuations.

NIEPELT AND CASTNIIDAE

Niepelt published about 60 works on several scientific journals (Röber 1932). He reported and/or described new species belonging to butterflies (Papilionidae, Pieridae, Nymphalidae: Nymphalinae, Heliconiinae, Morphinae, including some Brassolini) and moths (Arctidae, Castniidae, Sphingidae, Saturniidae and Uranidae) (Röber 1932; Lamas 2013). Among those described species/subspecies four Castniidae are found: *Castnia* (*Gazera*) *strandi* Niepelt, 1914 [=*Duboisvalia ecuadoria strandi* (Niepelt, 1914)] (dedicated to his friend Dr. Embrik Strand), *Castnia kruegeri* Niepelt, 1927 [=*Amauta hodeei kruegeri* (Niepelt, 1927)] (to honor Dr. E. Krüger), *Castnia* (*Gazera*) *mocoana* Niepelt, 1930 [=*Duboisvalia cononia cononia* (Westwood, 1877)] (as homage to Mocoa, Colombia, where the specimen was found), and *Castnia satrapes* var. *pomposa* Niepelt, 1932 [=*Imara satrapes satrapes* (Kollar, 1839)] (Lamas 1995a; Niepelt 1927, 1930, 1932; Strand 1914; González et al. 2013b).

As for the Castniidae described by Niepelt, the holotype (female) of *C.* (*Gazera*) *strandi* is at the Naturhistorisches Museum, Vienna, Austria (Lamas 1995b) while the holotype (also a female) of *C.* (*Gazera*) *mocoana* is at the Natural History Museum, London, UK. The holotypes (male and female respectively) of *C. kruegeri* and *C. satrapes* var. *pomposa* are at the Museum für Naturkunde der Humboldt University ät Berlin. We were slightly surprised that we could not find replicates of the species/subspecies described by Niepelt, with the only exception of a beautiful specimen similar to his "var. *pomposa*" (Niepelt 1932), now synonymized within *Imara satrapes* (Kollar, 1839) (see below).

COMMENTS ON THE MUSEUM OF NATURAL HISTORY, WROCŁAW UNIVERSITY'S CASTNIIDAE

Most Castniidae in the museum are inside the original drawers that clearly identify the specimens that were obtained from Niepelt. However, not all specimens within these drawers bear the "Collection Niepelt" labels and most probably were obtained by Niepelt trough trading with other naturalists and dealers. Two specimens of Castniidae mentioned herein were found in drawers other than Niepelt's and they are identified as such. Complementary notes to data found in the labels are included within brackets.

6-11. Two pages of the catalog developed by Niepelt to advertise and sell entomological equipment and materials (6); Cover of *Der Insekten-Präparator*, written and published by Niepelt (7); Postcard sent by Niepelt to the the famous German entomologist and insect dealer Otto Staudinger (8); Invoice sent by Niepelt to renown American entomologist and insect dealer Herman Strecker detailing some insects sold and prices (9); Postcard sent by Niepelt to the German explorer, entomologist and insect dealer Carl Ribbe (10); Niepelt's Business Postcard sent to Andreas Bang-Haas and showing Niepelt's house (right) and factory (left) where most of the equipment he sold was manufactured (11). All Niepelt's material shown is from Mr. Paweł Domagała collection, except fig. 9, from the archives of the Field Museum of Natural History, Chicago, Illinois, USA, and fig. 10 from Mr. Adam Rubnikowicz collection

***Amauta cacica procera* (Boisduval, [1875])**
(Fig 12)

Material examined: 1♀, No label, [Panama?].

This subspecies was originally described (as *Castnia procera*) from Guatemala, but can be found throughout Central America down to Panama (González & Stünning 2007; Hernández-Baz et al. 2012; Miller & Sourakov 2009). The only specimen found in the museum that does not have any label. However, we suspect that it might have been originally collected in Panama, since Niepelt not only travelled to neighboring Colombia, but dealt many specimens from that Central American country.

12-20. Some Giant butterfly-moths (Lepidoptera: Castniidae) from the Insect collection of the Museum of Natural History of the University of Wrocław, Poland: *Amauta cacica procera* (12); *A. papilionaris velutina* (13); *Imara satrapes* (14); *Feschaeria amycus* (15); *Telchin atymnius atymnius* (16); *T. syphax* (17); *Geyeria decussata* (18); *G. hubneri* (19); *Zegara zagraea* (20). Figures not exactly at scale

Amauta papilionaris velutina (Houlbert, 1917)
(Fig. 13)

Material examined: 1♀, Macas, Ecuador; 1♀, *Cast. papilionaris* W[a]lk[e]r, ♀, Ecuador, Collection Niepelt [wings are displayed and mounted to the sides but not attached to the body]; 1♂, 2♀♀, No label, [Ecuador?].

Described (as *Castnia velutina*) from Macas, Ecuador (Houlbert 1917, 1918). Five specimens of this sub species were found in the collection. One of them is a topotype that only bears a label with the locality; it is highly possibly that this one was collected during Niepelt's trip to Ecuador. A second specimen has the wings displayed but detached from the body and bears the "Collection Niepelt" label. The remaining specimens do not have labels, but since they are clearly this subspecies we do not doubt that they came from Ecuador.

Hista fabricii (Swainson, 1823)

Material examined: 1♂, *C. beskei*[sic] Mén[étriès], ♂, Brazil, Collection Niepelt.

This species is found in several states of south/south east Brazil in areas of Atlantic forest (Moraes et al. 2010). Only one specimen was found in Niepelt's collection. The misspelled name "*C. beskei*" handwritten by Niepelt is found in the "Collection Niepelt" label attached to the insect. *Castnia besckei* was described by Ménétriès (1857) from a male collected in Bahia, Brazil, and its status as a synonym of *H. fabricii* has been sufficiently clarified (Moraes et al. 2010). The specimen is figured in Ménétriès (1857) but its name is misspelled in the plate. It appears that Niepelt had access to the above mentioned work and followed the spelling of the plate and not the one of the description in the internal pages.

Yagra fonscolombe (Godart, [1824])

Material examined: 1♂, *C. fonscolombe*, God[ar]t ♂, Brazil, Collection Niepelt; 1♂, No Label, [Brazil?]; 1♀, II/28, Sao Paulo, [Brazil], *Castnia fonscolombe* ♀.

This is one of the few species of the family that is available in long series in several collections worldwide (Moraes et al. 2011). It is commonly found in Southern Brazil, but it has also been collected in Northern Argentina. It is even possible that it could be eventually found in Paraguay (Ríos & González 2011). Only one of the three specimens found in the museum collection bears the "Collection Niepelt" label, one of them does not have labels of any kind but it was probably collected in Brazil.

Imara pallasia (Eschscholtz, 1821)

Material examined: 1♀, *C. diva*[sic] B[u]tl[e]r, ♂, Centr[al] Amer[ica], Collection Niepelt.

This species is restricted to southeastern Brazil (González et al. 2010). However, the specimen bears a label that identifies it as a different species and supposedly collected in Central America. That label clearly belongs to a specimen of *Divana diva* (see comments below under *D. diva*) also from Niepelt's.

Imara satrapes (Kollar, 1839)

(Fig. 14)

Material examined: 1♂, *C. satrapes*[sic], Koll[ar], ♂, Brazil.

This species is commonly found in Southeastern Brazil in the same regions were *I. pallasia* flies; however, it has been also reported from Paraguay (Ríos & González 2010). Niepelt (1932) described "var. *pomposa*" from a female collected in "Mato Grosso." Such "variety" was later considered a synonym of *I. satrapes* (Lamas 1995a; Miller 1995).

Synpalamides phalaris (Fabricius, 1793)

Material examined: 1♂, *C. anibilis* [?], W[a]lk[e]r, Brazil, Collection Niepelt; 1♂, *C. migdon*[sic], Dalm.[an] ♀, Brazil.

A species distributed in Southern Brazil, Uruguay, and Paraguay, but has been also reported from Argentina where it is considered rare (Ríos & González 2011; Penco 2011). The name "*C. anibilis*" appears in the "Collection Niepelt" label attached to one of the specimens, however such name is not associated to any of the known synonyms of the species or any other Castniidae. The "collection Niepelt" label of the other specimen has the misspelled name "*C. migdon*" (it should have been *mygdon*) now a synonym of *S. phalaris*.

Feschaeria amycus amycus (Cramer, [1779])

(Fig. 15)

Material examined: 1♂, *C. amycus* Stoll, Brazil, Collection Niepelt.

This ssp. is commonly found in South Eastern Brazil, but few specimens have been reported from Northern Brazil, Venezuela, Trinidad and Tobago and Argentina (González & Cock 2004; Penco 2011).

Castnia eudesmia Gray, 1838

Material examined: 1♂, Orestes, *Castnia orestes* W[al]k[e]r, Brazylia, Wenezuela[sic], [Chile].

This is the only known species of Castniidae in Chile, where it is also endemic, even though some authors have suggested that it might be eventually found in Bolivia and Argentina (Penco 2011; Vinciguerra et al. 2011). The specimen in Niepelt's collection is slightly faded for being exposed to the light for a long period of time. It bears a label that says "Orestes" and an identifying label as it were "*Castnia orestes*" [=*Synpalamides orestes* (Walker, 1854)]. If the original label belonged to this specimen, it was certainly mistaken since this is clearly not *S. orestes*; but it is possible that the specimen was mislabeled and whoever placed it in exhibition used such wrong identification.

Telchin atymnius atymnius (Dalman, 1824)
(Fig. 16)

Material examined: 1♂, *C. atymnius*, Dalm[an], ♂, Brazil, Collection Niepelt; 1♂, Bahia, [Brazil], *Castnia atymnius*; 1♂, *Castnia atymnius*, Brasilien, Collection Niepelt.

This is a subspecies commonly distributed in Southeastern Brazil (González et al. 2010). It was originally included in the genus *Castniomera* which was synonymized under *Telchin*, after a detailed morphological comparison with other congeneric species (Moraes & Duarte 2009).

Telchin atymnius newmanni (Houlbert, 1917)

Material examined: 1♂, *Castnia licus* D[ru]ry, Amer. Płd. i Śr. [Colombia?].

This subspecies is found in Panama, Colombia and Venezuela (González et al. 2010). There is no label attached to the specimen; however, it has an external label identifying it as *Castnia licus* [=*Telchin licus* (Drury)]. Such misidentification is somehow common since both species (*T. atymnius* and *T. licus*) have some external morphological resemblances (González & Cock 2004; González & Stünning 2007; González et al. 2010; Moraes & Duarte 2009). We suspect that the specimen was originally collected in Colombia, since Niepelt collected in the country and kept dealing material from it throughout his life.

Telchin licus (Drury, 1773)

Material examined: 1♂, 70, No data; 2♂♂, *Cast*[*nia*] *licus*, 9/30 [September, 1930], Manicore, [Brazil]; 1♂, *Castnia licus*, Manicore, [Brasil]; 1♂, *Castnia licoides*, [No data]; 1♀, *Castnia licus*, Peru, Huanuco, Tingo Maria, Febr.-Mar. 1997 [Specimen was not in Niepelt's Collection].

This is possibly the most common species of Castniidae found in collections worldwide because it is well known as a relevant pest of sugarcane (*Saccharum officinarum* (González et al. 2010). The group includes a specimen (bearing only a label with the number "70" inscribed) morphologically similar to those described as *licoidella* or *pauperata* which in our view are nothing more than color pattern varieties of *T. licus* and have been found together with typical specimens of the species in several locations in South America (González & Cock 2004; González & Stünning 2007; González et al. 2013; Miller 1986).

Telchin licus albomaculata (Houlbert, 1917)

Material examined: 1♂, *C. licus* Drury, ♂, Amazonas, [Brazil], Collection Niepelt.

This subspecies was described by Houlbert (as *Castnia albomaculata*) from specimens collected in the Amazon forest region in Northeast Peru, Northwest Brazil and South east Colombia (Houlbert 1917, 1918). This is a well-defined subspecies as its status has been clarified through genetic analysis by Silva-Brandao et al. (2012).

Telchin syphax (Fabricius, 1775)
(Fig. 17)

Material examined: 2♂♂, *Cast*[*nia*] *syphax*, 3/32 [March, 1932], Obidos, [Brazil].

This is a widely distributed species in South America South of the Orinoco River (Venezuela) and to Trinidad, the Guyanas and down to the lower Amazon, Brazil (González & Stünning 2007; González et al. 2010).

Xanthocastnia evalthe euphrosyne (Perty, 1833)

Material examined: 1♀, Euphrosyne. [Brazil?].

Also widely distributed in South America, this subspecies is found all over the Amazon and Orinoco basins, and reaches Southeastern Brazil (González et al. 2010). The specimen was probably collected in Brazil, even though it does not have any label that indicates its origin.

Xanthocastnia evalthe quadrata Rothschild, 1919

Material examined: 1♂, *Castnia Evalthe*[sic], ♂, var[iety?], Ob. Pastaza, Ecuad[or], c. 1000 m, Coll. Niepelt, Okt-Dec. 1906.

This subspecies was described [as *Castnia* (*Xanthocastnia*) *evalthe quadrata*] from material collected in Peru and Ecuador, and differentiated from *X. evalthe evalthoides* (Strand 1913) described from Bolivia, based on very subtle morphological differences (Lamas 1995a; Rothschild 1919). The attached label is quite curious and it appears that this particular specimen was actually collected by Niepelt during a collecting trip to Ecuador in 1906 (Calliess 1932).

Geyeria decussata (Godart, [1824])

(Fig. 18)

Material examined: 1♀, *C. decussata* God[ar]t, ♀, Brazil, Collection Niepelt.

This is a highly variable species found in Southeastern Brazil (Miller 1986; Rothschild 1919). Several species were described because of such external variability; the generated confusion has somehow diminished after most of them were synonymized (Rothschild 1919; Lamas 1995a).

Geyeria hubneri (Gray, 1838)

(Fig. 19)

Material examined: 1♂, *C. huebneri*[sic] Latr[eille], ♂, Mato Grosso, [Brazil], Collection Niepelt.

This is another species within a genus that presents a high phenotypic plasticity. It is also distributed in southern Brazil (Miller 1986).

Prometheus cochrus (Fabricius, 1787)

Material examined: 1♂, *C. garbei* Foett[erle], Brazilien, Collection Niepelt; 1♂, *Castnia garbei* 3356, No Data, [Brazil?] [Specimen is not part of Niepelt's collection].

This species is widely distributed in Southeastern Brazil but some specimens have been collected/reported from Paraguay (Ríos & González 2011).

Ceretes thais (Drury, 1782)

Material examined: 1♂, *C. thais* Drury, ♂, Brazil, Collection Niepelt.

This species is distributed in southern Brazil, and specimens have been reported from Argentina and Bolivia; however, the Bolivian record is possibly incorrect (Ríos & González 2011).

Divana diva (Butler, 1870)

Material examined: 1♂, No Label, [Specimen faded due to exposure to light over the years; It is highly possible that its original label is the one we found and is listed under *Imara pallasia* - *C. diva*[sic] B[u]tl[e]r, ♂, Centr[al] Amer[ica], Collection Niepelt]. [Panama?].

This is a beautiful Central American species found from Mexico south to the northwestern region of Colombia (González et al. 2010). The specimen in the collection is highly faded due to a long exposition to light. It does not have a label but we believe that his was misplaced and put under an *Imara pallasia* label (see above). Such label clearly indicates that the specimen came from Central America, but it is almost impossible to determine a more detailed collection site or country, even though we suspect that it might have been collected in Panama.

Zegara zagraea (R. Felder, 1874)

(Fig. 20)

Material examined: 1♂, *C.* (*Gazera*) *zagraea* Feld[er], cf Brazil, Collection Niepelt.

The species is known from Colombia and Panama; however, this particular specimen bears a "Collection Niepelt" label stating that it comes from Brazil. This is quite interesting and if true, this would be (as far as we know) the first record of this species from that country. However, due to the turbulent history of the collection, we suspect that the specimen was just mislabeled.

Acknowledgements

We are greatly indebted to James Boone and Armand Esai (Field Museum of Natutral History – FMNH, USA), Alessandro Giusti and Geoff Martin (Natural History Museum, London, UK), Eckhard Groll (Deutsches Entomologisches Institut, Germany), Gerardo Lamas (Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Peru), Adam Rubnikowicz (Swibodzice, Poland) and Dieter Stünning (Zoologisches Forschungsmuseum, Germany) who kindly contributed with comments, data, references and materials that allowed us to improve this work. Thanks also to Karen Angel (Jimmie Angel Historical Project, USA) and Andrea C. González (University of Georgia, USA) who proof read earlier manuscripts.

References

Berner, P., 1996. In Mem. Wilhelm Niepelt (Schmetterlings – Niepelt von Zirlau). Tägliche Rundschau. Heimatblat für den Stadt – und Landkreis Schweidnitz, **3**: 9-10.

Calliess, G., 1932. Wilhelm Niepelt 70 Jahre. Internationale Entomologische Zeitschrift, **26**(30): 327-328.

González, J.M., Boone, J.H., Brilmyer, G.M. & Le, D., 2010. The Giant Butterfly-moths of the Field Museum of Natural History, Chicago, with notes on the Herman Strecker collection (Lepidoptera: Castniidae). SHILAP Revista de Lepidopterología, **38**(152): 385-409.

González, J.M. & Cock, M.J.W., 2004. A synopsis of the Castniidae (Lepidoptera) of Trinidad and Tobago. Zootaxa, **762**: 1-19.

González, J.M., Domagala, P., Larysz, A., 2013. The giant Butterfly-Moths (Lepidoptera Castniidae) of the Upper Silesian Museum (Muzeum Górnośląskie) in Bytom, Poland, with notes on the history of the Museum. Biodiversity Journal, **4**(1): 219-228.

González, J.M. & Stünning, D., 2007. The Castniinae at the Zoologisches Forchungsmuseum Alexander Koenig, Bonn (Lepidoptera: Castniidae). Entomologische Zeitschrift, **117**(2): 89-93.

González, J.M., Vinciguerra, R., Ríos, S., 2013. *Amauta hodeei* and its subspecies (Lepidoptera: Castniidae), with comments on the life and times of Brother Apolinar María. Biodiversity Journal, **4**(2): 275-280.

Heikertinger, F., 1937. Wilhelm Niepelt. Koleopterische Rundschau, **23**(3): 116.

Houlbert, C., 1917. Diagnosis de castnies nouvelles et rectification de quelques noms indumenta employés. Etudes de Lépidoptérologie Comparée, **13**: 49-87.

Houlbert, C., 1918. Revisión monographique de la sous-famille des castniinae. Etudes de Lépidoptérologie Comparée, **15**: 1-730.

Kinel, J., 1957. W trzy lata po objęciu pracy w Muzeum Zoologicznym Uniwersytetu we Wrocławiu. Przegląd Zoologiczny, **1**(4): 305-312.

Lamas, G., 1995a. A critical review of J.Y. Miller's checklist of the Neotropical Castniidae (Lepidoptera). Revista Peruana de Entomología, **37**: 73-87.

Lamas, G., 1995b. Tipos de Castniidae en el Naturhistorisches Museum, Viena (Insecta: Lepidoptera). SHILAP Revista de Lepidopterologia, **23**(91): 247-249.

Lamas, G., 2013. Bibliography of Butterflies. An annotated bibliography of the Neotropical Butterflies and Skippers (Lepidoptera: Papilionoidea and hesperioidea). Revised Electronic Edition. 672 pp.

Ménétriés, E. 1857. Enumeratio corporum animalium Musei Imperialis Academiae Scientiarum Petropolitanae. Classis insectorun. Ordo lepidopterorum. Eggers et Soc., Petropoli, 127 pp.

Miller, J.Y., 1986. The taxonomy, phylogeny, and zoogeography of the Neotropical Castniinae (Lepidoptera: Castnioidea: Castniidae). Ph.D. thesis. University of Florida, Gainsville, USA. 571 pp.

Miller, J.Y., 1995. Castniidae, pp. 133-137, 176-177. In: Heppner, J.B. (ed.) Atlas of Neotropical Lepidoptera. Vol. 3. Checklist: Part 2. Hyblaeoidea-Pyraloidea-Tortricoidea. Association for Tropical Lepidoptera/ Scientific Publishers, Gainesville.

Miller, J.Y., Sourakov, A., 2009. Scientific note: Some observations on *Amauta cacica procera* (Boisduval (Castniidae: Castniinae) in Costa Rica. Tropical Lepidoptera Research, **19**(2): 113-114.

Moraes, S.S., Duarte, M., 2009. Morfologia externa comparada das três espécies do complexo *Telchin licus* (Drury) (Lepidoptera, Castniidae) com uma sinonímia. Revista Brasileira de Entomologia, **53** (2): 245-265.

Moraes, S.S., Duarte, M., Miller, J.Y., 2011. Revision of the Neotropical genus *Yagra* Oiticica (Lepidoptera: Castniidae). Journal of Natural History, **45**(25-26): 1511-1531.

Niepelt, W., 1911. Der Insekten-Präparator, Praktische Aleitung zur Praparation der Schmetterlinge, Kafer und Deren Larven. Author, Zirlau, 30 pp.

Pax, F., 1949. Erinnerungen an die Wanderjahre eines Schlesiers. Koleopterologische Zeitschrift, **1**: 53-66.

Penco, F.C., 2011. Lepidoptera Argentina. Catálogo ilustrado y comentado de las mariposas de Argentina. Parte I: Castniidae. El Autor, Morón, 41 pp.

Ríos, S.D., González, J.M., 2011. A synopsis of the Castniidae (Lepidoptera) of Paraguay. Zootaxa, **3055**: 43-61.

Rothschild, L.W., 1919. Supplementary notes to the review of Houlbert and Oberthur's monograph of Castniidae by Talbot and Prout. Novitates Zoologicae, **26**(1): 1-27.

Röber, J., 1932. Zusammenstellung der Publikationen von Wilh. Niepelt. Internationale Entomologische Zeitschrift, **26**(30): 329-333.

Salazar, J., 1999. Notas biográficas a una historia de la Lepidopterología en Colombia durante el Siglo XX. Boletín Científico del Centro de Museos de la Universidad de Caldas, **3**: 71-102.

Silva-Brandão, K.L., Almeida, L.C., Moraes, S.S., Cônsoli, F.L., 2012. Using population genetic methods to identify the origin of an invasive population and to diagnose cryptic subspecies of *Telchin licus* (Lepidoptera: Castniidae). Bulletin of Entomological Research, **103**(1): 89-97.

Strand, E., 1932. Entomologische Chronik. Wilhelm Niepelt, 70 Jahre alt. Entomologische Zeitschrift, **46** (16): 173-174.

Strand, E., 1938. Willhelm Niepelt. Festschrift für Prof. Dr. Embrik Strand, **4**: 670-672.

Vinciguerra, R., Lozano Rodriguez, P., Hernández-Baz, F., González, J.M., 2011. Observations on *Athis thysanete* (Dyar, 1912) (Lepidoptera, Castniidae) from Mexico and comparative notes to other species in the family. Biodiversity Journal, **2**(4): 189-194.

Wiktor, J., 2002. Museum of Natural History Wroclaw University. History and People. 1914-2000. Bogucki Wydawnictwo Naukowe, Poznań-Wrocław, 118 pp.