

Correspondence



https://doi.org/10.11646/zootaxa.4808.2.11

http://zoobank.org/urn:lsid:zoobank.org:pub:D9064293-1CB5-4684-88E5-F9D7E3458E0C

Type designations for fireflies (Coleoptera: Lampyridae) of the Biologia Centrali Americana Gorham, 1881 housed in the Natural History Museum, London

GAVIN J. MARTIN^{1,2,*} & GARETH S. POWELL^{1,3}

¹Department of Biology, Brigham Young University, 4102 LSB, Provo, Utah, 84602, USA

The Biologia Centrali Americana (B.C.A.) is comprised of eight volumes that deal specifically with Coleoptera. These volumes were split into 18 parts and were published between 1879 and 1911. The family Lampyridae was treated in two parts, the main text (1881) with a supplement (1884). Within volume three, part 2, Gorham lists ~90 species in 14 genera, not including the Phengodini subfamily. Of these, Gorham provided original descriptions for 37 species. During recent research visits (2018 and 2020) the authors were able to study material pertinent to the B.C.A. We were able to confidently designate holotypes, lectotypes, and paralectotypes following ICZN articles 73.1 and 74.1 within these species. Two species described by Gorham (1881) are not treated here. *Phaenolis nirgricollis* was located with a single specimen, already designate as the holotype. Two female syntypes of *Photinus consanguineous* were located, however Oliver (1907) synonymized these females with *Photinus pyralis*. These designations contribute to a larger taxonomic effort to stabilize the nomenclature of this group. The species described in the supplement will be treated in a future work. Subfamilies are listed according to Martin et al. (2019) and genera/species within each subfamily are listed according to the order in Gorham (1881).

Abbreviations of collections utilized are as follows:

NHM Natural History Museum, London, England

All label information is given verbatim within quotations; line breaks are denoted with "/". Multiple labels are listed in succession in unique quotations. All new labels were printed or written on colored acid-free card stock, holotype and lectotype labels are added in red, paralectotype labels in yellow.

Psilocladinae McDermott, 1964 Psilocladus Blanchard, 1846

Type species: Psilocladus miltoderus Blanchard, 1846, by monotypy

Psilocladus stolatus (Gorham, 1881)

Drilolampadius stolatus Gorham 1881: 33

Several specimens were found in the collection bearing syntype labels. Two specimens, mounted on a single card, bear the type label as well as a "Sp. figured" label. The left specimen of these is herein designated as the lectotype (ICZN recommendation 74B), while one on the right, along with 10 additional specimens bearing syntype labels, are designated paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Type./Sp. figured." "Zapote,/Guatemala,/G. C. Champion." "B.C.A.Col.III.(2)./Drilolampadius/stolatus, &/ Gorham" "Drilolampadius/stolatus, Gorh.". A red label is added with the following text: "LECTOTYPE/ Drilolampadius stolatus Gorham/Designated by/Martin and Powell 2020".

² gavin.jon.martin@gmail.com; https://orcid.org/0000-0002-8989-2601

³ gspowell90@gmail.com; https://orcid.org/0000-0003-0847-2718

^{*}Corresponding author

Psilocladus scutellaris (Gorham, 1881)

Drilolampadius scutellaris Gorham 1881: 33

Two specimens, a male and a female, were found in the collection bearing syntype labels, however Gorham (1881) does mention seeing three total specimens. The male is designated as the lectotype, while the female is designated as the paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Cache./Costa Rica./H. Rogers." "B.C.A.Col.III.(2)./Drilolampadius/scutellaris.". A red label is added with the following text: "LECTOTYPE/*Drilolampadius scutellaris* Gorham/Designated by/Martin and Powell 2020".

Amydetinae Olivier *in* Wytsman, 1907 Amydetini Olivier *in* Wytsman, 1907 *Magnoculus* McDermott, 1964

Type species: Megalophthalmus bennetti Gray, 1832, by original designation

Magnoculus godmani (Gorham, 1881)

Megalophthalmus godmani Gorham 1881: 34

Four syntype specimens were located, one bearing a red type label. Gorham (1881) does not mention how many specimens he viewed; however, he does list a range for body measurements. The specimen bearing a red type label is designated as the lectotype, while the three others are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Cubilguitz,/Vera Paz./Champion." "B.C.A.Col.III.(2)./Megalophthalmus/godmani/Gorham" "Megalophthalmus/godmani,Gorh:". A red label is added with the following text: "LECTOTYPE/Megalophthalmus godmani/Gorham/Designated by/Martin and Powell 2020".

Photurinae Lacordaire, 1857 *Photuris* Dejean, 1833

Type species: Lampyris versicolor Fabricius, 1798

Photuris fasciata Gorham, 1881

Photuris fasciata Gorham 1881: 56

Current name Pyrogaster telephorinus (Perty, 1833), synonymy by McDermott 1966

A single female "type" was located matching the type locality, it is unclear if Gorham (1881) saw more than this, however his body measurement is not listed as a range and there is no description of a male. Because of the uncertainty this female is herein designated as the lectotype. Labels for the designated lectotype specimen are as follows:

"Ç" "Type" "Sinanja,/Vera Paz./Champion." "B.C.A.Col.III.(2)./Photuris/fasciata,/Gorham ♀" "Photuris/fasciata, Gorh." "Bicellonycha/fasciatus Gor./I.H.Davidson det. 1973". A red label is added with the following text: "LECTO-TYPE/*Photuris fasciata* Gorham/Designated by/Martin and Powell 2020".

Photuris facialis Gorham, 1881

Photuris facialis Gorham 1881: 59

Current name Bicellonycha amoena (Gorham, 1880), synonymized by McDermott 1966

A very large series of this species was located in the collection, including 21 specimens labelled as syntypes. There are many synonymies within *B. amoena* including *B. facialis* and *B. nitida*. There was also much more variation within the syntype series than is indicated in Gorham (1881) including at least three morphotypes. There was however a single male, syntype specimen bearing a red "type" label. Gorham (1881) also described a female, however this specimen was not found. Due to the confusion regarding what Gorham (1881) actually saw versus what was found in the collection, we choose to only designate a lectotype. Future, more directed research is needed to determine which specimens if any actually constitute the rest of the syntype series. The male specimen is therefore designated as the lectotype. Labels for the designated lectotype specimen are as follows:

"Type \circlearrowleft " "Sinanja,/Vera Paz./Champion" "Type." "B.C.A.Col.III.(2)./Photuris/facialis, \circlearrowleft /Gorham" "SYN-/TYPE" "61" "Photuris/facialis/Gorham \circlearrowleft ". A red label is added with the following text: "LECTOTYPE/*Photuris facialis* Gorham/Designated by/Martin and Powell 2020".

Photuris lugubris Gorham, 1881

Photuris lugubris Gorham 1881: 61

Three syntype specimens, one male and two females, were located. The male specimen bearing several type labels is designated the lectotype, the two female specimens are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type &" "Oaxaca" "B.C.A.Col.III.(2)./Photuris/lugubris, /Gorh. &" "Type." "Photuris/lugubris/Gorh:". A red label is added with the following text: "LECTOTYPE/*Photuris facialis* Gorham/Designated by/Martin and Powell 2020".

Photuris simplex Gorham, 1881

Photuris simplex Gorham 1881: 61

Two syntype specimens, both female, were located out of the four Gorham (1881) mentions examining. One of these, bearing several type labels, is designated as the lectotype, the other is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type $\ ^\circ$ " "Irazu,/6-7000 ft./H. Rogers." "B.C.A.Col.III.(2)./Photuris/simplex, /Gorham $\ ^\circ$ " "Type." "Photuris/simplex/Gorham.". A red label is added with the following text: "LECTOTYPE/*Photuris simplex* Gorham/Designated by/Martin and Powell 2020".

Bicellonycha Motschulsky, 1853

Type species: Bicellonycha deleta Motschulsky, 1854, designated by McDermott 1966

Bicellonycha discicollis (Gorham, 1881)

Photuris discicollis Gorham 1881: 57

Eight specimens bearing syntype labels were located, Gorham (1881) does not mention how many specimens he examined. The male in the best condition is herein designated as the lectotype, the other seven specimens are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-TYPE" "Tuxtla" "Mexico./Salle Coll." "B.C.A.Col.III.(2)./Photuris/discicollis, ♂/Gorham" "B". A red label is added with the following text: "LECTOTYPE/*Photuris discicollis* Gorham/Designated by/Martin and Powell 2020".

Bicellonycha cyathigera (Gorham, 1881)

Photuris cyathigera Gorham 1881: 57

Two of the three syntype specimens mentioned by Gorham (1881) were located in the collection, one male and one female. The male specimen, bearing a red type label, is designated as the lectotype. The remaining female is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type &" "B.C.A.Col.III.(2)./Photuris/cyathigera, &/Gorham" "Photuris/cyathigera G." "Parada" "Mexico./Salle Coll." "&" "55". A red label is added with the following text: "LECTOTYPE/*Photuris cyathigera* Gorham/Designated by/Martin and Powell 2020".

Pyrogaster Motschulsky, 1853

Type species: Pyrogaster grylloides Motschulsky, 1853, by original designation

Pyrogaster scapularis (Gorham, 1881)

Photuris scapularis Gorham 1881: 62

Two syntype specimens, one male and one female, were located. These correspond to the two specimens Gorham (1881) examined. There was an additional specimen located with a syntype label, however we believe this to be in error as the locality does not match that which Gorham (1881) listed. The male specimen, bearing several type labels, is designated as the lectotype. The female is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type &" "Cerro Zunil,/4-5000 ft./Champion." "Type." "&" "P./scapularis/Gorham." "B.C.A.Col. III.(2)./Photuris/simplex, &/var scapularis". A red label is added with the following text: "LECTOTYPE/*Photuris scapularis* Gorham/Designated by/Martin and Powell 2020".

Lampyrinae Rafinesque, 1815 Cratomorphini Green, 1948

Pyractomena Melsheimer, 1846

Type species: Pyractomena lucifera Melsheimer, 1846, designated by McDermott 1966

Pyractomena vexillaria Gorham, 1881

Pyrectomena vexillaria Gorham 1881: 50; genus misspelled by Gorham

Two specimens bearing syntype labels were found, however we believe one of these may be in error. Gorham mentioned only seeing one specimen which was figured (Gorham, 1881). Therefore, the specimen bearing a "Sp. figured" label can confidently be designated as the holotype specimen. Labels for the designated holotype specimen are as follows:

"SYN-/TYPE" "Veracruz" "214./Salle Coll." "Type. 4.f.20/Sp. figured." "B.C.A.Col.III.(2)./Pyrectomena/vexillaria/Gorham.". A red label is added with the following text: "HOLOTYPE/*Pyrectomena vexillaria*/Gorham/Determined by/Martin and Powell 2020".

Cratomorphus Motschulsky, 1853

Type species: Photinus fabricii Laporte, 1840, by original designation

Cratomorphus picipennis Gorham, 1881

Cratomorphus picipennis Gorham 1881: 52

Two syntype female specimens were located matching the description given by Gorham (1881). The larger specimen, matching the general description and bearing a "Sp. figured" label is herein designated as the lectotype. The smaller specimen, which seemed to Gorham (1881) to be a variant, is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "San Juan,/Vera Paz./Champion." "B.C.A.Col.III.(2)./Cratomorphus/picipennis ♀/Gorham" "Type./Sp. figured." "Cratomorphus/picipennis/Gorh." "NHMUK 013584674". A red label is added with the following text: "LECTOTYPE/*Cratomorphus picipennis*/Gorham/Designated by/Martin and Powell 2020".

Aspisoma Laporte, 1833

Type species: Lampyris ignita Linnaeus, 1767, designated by McDermott 1966

Aspisoma lepidum (Gorham, 1881)

Aspidosoma lepidum Gorham 1881: 54

Three syntype specimens were located, all from the Champion collection. It is unclear where the specimens from the Sallé collection are. The male in the best condition is herein designated as the lectotype, while the other two specimens are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "S. Geronimo,/Guatemala./Champion." "3" "B.C.A.Col.III.(2)./Aspidosoma/lepidum, 3/Gorham" "Aspidos./lepidu Gorh.". A red label is added with the following text: "LECTOTYPE/*Aspidosoma lepidum* Gorham/Designated by/Martin and Powell 2020".

Lamprocerini Olivier, 1907

Tenaspis LeConte, 1881

Type species: Hyas angularis Gorham, 1880, by monotypy

Tenaspis lugubris (Gorham, 1881)

Hyas lugubris Gorham 1881: 30

A single specimen was found housed in the collection; however, it is unclear from Gorham's description (1881) how many specimens were examined, although it does appear that he saw more than one. We therefore designate this single male as the lectotype. Labels for the designated specimen are as follows:

"Type" "Senahu,/Vera Paz./Champion." "Hyas/lugubris/Gorham" "B.C.A.Col.III.(2)./Hyas/lugubris/Gorham". A red label is added with the following text: "LECTOTYPE/*Hyas lugubris* Gorham/Designated by/Martin and Powell 2020".

Tenaspis semifusca (Gorham, 1881)

Hyas semifusca Gorham 1881: 31

Several specimens were found in the collection, however only one was located with a type label and matching the type locality, and only a single specimen was observed by Gorham (1881). We can therefore confidently designate this specimen as the holotype. Labels for the designated specimen are as follows:

"Type" "Zapote,/Guatemala,/G. C. Champion." "Type." "Hyas &/semifusca/Gorham" "B.C.A.Col.III.(2)./Hyas/semifusca,/Type Gorham". A red label is added with the following text: "HOLOTYPE/*Hyas semifusca* Gorham/Determined by/Martin and Powell 2020".

Photinini LeConte, 1881 Lucidota Laporte, 1883

Type species: Lucidota banoni Laporte, 1833, fixed by Motschulsky 1853

Lucidota diaphanura Gorham, 1881

Lucidota diaphanura Gorham 1881: 36

Several syntype specimens were located, one bearing a "Sp. figured" label. This specimen is designated as the lectotype, while the four others are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Cordova" "Salle Coll." "130" "Type. 4. f. 22/Sp. figured." "B.C.A.Col.III.(2)./Lucidota/diaphanura,/Gorham \c ". A red label is added with the following text: "LECTOTYPE/*Lucidota diaphanura* Gorham/Designated by/Martin and Powell 2020".

Lucidota discolor Gorham, 1881

Lucidota discolor Gorham 1881: 37

Several specimens in the syntype series were located. The male in the best condition is herein designated as the lectotype. We also designate another 17 specimens as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Rio Hondo,/B. Honduras./Blancaneau." "♂" "B.C.A.Col.III.(2)./Lucidota/discolor,/Gorham ♂". A red label is added with the following text: "LECTOTYPE/*Lucidota discolor* Gorham/Designated by/Martin and Powell 2020".

Lucidota lugens Gorham, 1881

Lucidota lugens Gorham 1881: 37

Current name: Ellychnia moesta (Perty, 1830); synonymy by McDermott 1966

Lucidota lugens was originally synonymized with Homalisus moestus by Olivier (1907). This was subsequently transferred to Ellychnia by McDermott (1966) which gave priority to the original moestus by Perty (1830). Three syntype specimens were located. A male specimen bearing a "Sp. figured" label and matching the locality referenced by Gorham (1881) was located. The figured male is herein designated as the lectotype, with the remaining two specimens designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Peras" "202. Salle Coll." "Type. 4, f. 18/Sp. figured." "B.C.A.Col.III.(2)./Lucidota/lugens/Gorham & "Lucidota/lugens Gorh." "NHMUK 013584684". A red label is added with the following text: "LECTO-TYPE/*Lucidota lugens* Gorham/Designated by/Martin and Powell 2020".

Photinus Laporte, 1833

Type species: Lampyris pallens Fabricius, 1798, fixed by Fleutiaux et al. 1947

Photinus meteoralis Gorham, 1881

Photinus meteoralis Gorham 1881: 38

Two syntype specimens were located, one male and one female. The male is herein designated as the lectotype and the female is designated as the paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "S. Geronimo/Guatemala/Champion" "B.C.A.Col.III.(2)./Photinus/meteoralis,/Gorham \circlearrowleft ". A red label is added with the following text: "LECTOTYPE/*Photinus meteoralis* Gorham/Designated by/Martin and Powell 2020".

Photinus gliscens Gorham, 1881

Photinus gliscens Gorham 1881: 39

Two syntype specimens were located, both male. It is unclear where the female examined by Gorham (1881) is. One male bore a "Sp. figured" label and is herein designated as the lectotype. The other male is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Tuxtla" "Salle Coll." "136" "Type./Sp. figured." "B.C.A.Col.III.(2)./Photinus/gliscens, &/Gorham" "Photinus/gliscens, Gorh". A red label is added with the following text: "LECTOTYPE/*Photinus gliscens* Gorham/Designated by/Martin and Powell 2020".

Photinus nigridorsis Gorham, 1881

Photinus nigridorsis Gorham 1881: 39

Three syntype specimens were located. One female specimen bore a "Sp. figured" label and is herein designated as the lectotype, while the other two specimens (both male) are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Juquila" "208./Salle Coll. ♀" "Type. 4, f. 17/Sp. figured." "B.C.A.Col.III.(2)./Photinus/nigridorsis,/Gorham" "Photinus/nigridorsis". A red label is added with the following text: "LECTOTYPE/*Photinus nigridorsis* Gorham/Designated by/Martin and Powell 2020".

Photinus ovatus Gorham, 1881

Photinus ovatus Gorham 1881: 40

A single specimen bearing a type label was located with matching locality labels. Gorham (1881) was only able to view this single specimen, as such we ae confident in designating this specimen as the holotype specimen. Labels for the designated holotype specimen are as follows:

"Type" "Juquila" "209" "609" "\$\infty\$ Mexico/Salle Coll." "Type. J. 4, f. 16/Sp. figured." "Photinus/ovatus G." "B.C.A.Col.III.(2)./Photinus/ovatus,/Gorham". A red label is added with the following text: "HOLOTYPE/*Photinus ovatus* Gorham/Determined by/Martin and Powell 2020".

Photinus extensus Gorham, 1881

Photinus extensus Gorham 1881: 41

Three syntype specimens were located, two male and one female. Although the female specimen was the one figured, given that it is brachypterous, we elect to designate the male specimen in the best condition as the lectotype, while the other two specimens are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Mexico. ③/Salle Coll." "159" "B.C.A.Col.III.(2)./Photinus/extensus, ③/Gorham". A red label is added with the following text: "LECTOTYPE/*Photinus extensus* Gorham/Designated by/Martin and Powell 2020".

Photinus simplex Gorham, 1881

Photinus simplex Gorham 1881: 42

Two female specimens bearing syntype labels were located. Given that Gorham (1881) only saw female specimens in his description, we designate the specimen in the best condition as the lectotype, and the other female as the paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Parada" "♀ Mexico./Salle Coll." "267" "B.C.A.Col.III.(2)./Photinus/simplex, ♀/Gorham" "Photinus simplex" "Type.". A red label is added with the following text: "LECTOTYPE/*Photinus simplex* Gorham/Designated by/Martin and Powell 2020".

Photinus reichei Gorham, 1881

Photinus reichei Gorham 1881: 43

Two specimens bearing syntype labels were located, one male and one female. The male also bearing several type labels is designated as the lectotype, while the female is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "& Mexico./Salle Coll." "161" "Type." "B.C.A.Col.III.(2)./Photinus/reichei, &/Gorham" "Photinus Reichei, Gorh". A red label is added with the following text: "LECTOTYPE/*Photinus reichei* Gorham/Designated by/Martin and Powell 2020".

Photinus sturmii Gorham, 1881

Photinus sturmii Gorham 1881: 43

Current name Ellychnia albiltera Motschulsky, 1854, synonymy by Olivier 1911

Three female specimens bearing syntype labels were located, Gorham (1881) mentions seeing five specimens, all female. The female specimen bearing a "Sp. figured" label is designated as the lectotype, while the other specimens are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Puebla" "Mexico./Salle Coll." "\$\sumsymbol{\texts}\$" "Type. 4. f. 21/Sp. figured" "B.C.A.Col.III.(2)./Photinus/sturmii,/Gorham" "Photinus sturmii Gorh". A red label is added with the following text: "LECTOTYPE/*Photinus strumii* Gorham/Designated by/Martin and Powell 2020".

Photinus albicauda Gorham, 1881

Photinus albicauda Gorham 1881: 46

Three syntype specimens were located out of the four males Gorham (1881) mentions seeing. One male also had several type labels and is therefore designated as the lectotype, while the other two specimens are designated paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Cordova" "454." "\$\infty\$" "Mexico./Salle Coll." "B.C.A.Col.III.(2)./Photinus/albicauda,/Gorham" "Type." "P./ albicauda/Gorham.". A red label is added with the following text: "LECTOTYPE/*Photinus albicauda* Gorham/Designated by/Martin and Powell 2020".

Photinus latiusculus Gorham, 1881

Photinus latiusculus Gorham 1881: 46

Current name *Photinus ampliatus* Olivier, 1907, synonymy by Olivier 1907

Two syntype specimens were located, one male and one female. The male specimen also had several type labels and is therefore designated as the lectotype, while the female specimen is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Mexico. Ø/Salle Coll." "186" "Type." "B.C.A.Col.III.(2)./Photinus/latiusculus,/Gorham" "Photinus/latiusculus/Gorham.". A red label is added with the following text: "LECTOTYPE/*Photinus latiusculus* Gorham/Designated by/Martin and Powell 2020".

Photinus parvulus Gorham, 1881

Photinus parvulus Gorham 1881: 47

Several specimens bearing syntype labels were located including two variants from localities different from the type locality. One specimen, bearing a red type label and matching the type locality, is designated as the lectotype. There are also three additional specimens which match the type locality and are herein designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Zapote,/Guatemala,/G. C. Champion." "6" "6" "Photinus/parvulus" "B.C.A.Col.III.(2)./ Photinus/parvulus,/Gorham". A red label is added with the following text: "LECTOTYPE/*Photinus parvulus* Gorham/ Designated by/Martin and Powell 2020".

Photinus picticollis Gorham, 1881

Photinus picticollis Gorham 1881: 48

Several syntype specimens were located however it is unclear how many specimens Gorham (1881) had access to. One specimen also had a red type label and is therefore designated as the lectotype, while the other seven specimens are designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "S. Geronimo/3000 ft./Champion" "Photinus/picticollis/Gorham." "B.C.A.Col.III.(2)./Photinus/picticollis,/Gorh.". A red label is added with the following text: "LECTOTYPE/*Photinus picticollis* Gorham/Designated by/Martin and Powell 2020".

Photinus ater Gorham, 1881

Photinus ater Gorham 1881: 49

Several syntype specimens were located however, Gorham (1881) does not mention how total specimens he had access to. One specimen also had a red type label and is therefore designated as the lectotype, with an additional eight specimens designated as paralectotypes. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Mexico ♂/Salle Coll." "Duges" "B.C.A.Col.III.(2)./Photinus/ater,/Gorham ♂.". A red label is added with the following text: "LECTOTYPE/*Photinus ater* Gorham/Designated by/Martin and Powell 2020".

Macrolampis Motschulsky, 1853

Type species: Macrolampis longipennis Motschulsky, 1853, by original designation

Macrolampis producta (Gorham, 1881)

Photinus productus Gorham 1881: 41

Two syntype specimens were located. The specimen bearing a "Sp. figured" label is herein designated as the lectotype, while the other specimen is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "Puebla" "163./Salle Coll." "B.C.A.Col.III.(2)./Photinus/productus. ③,/Gorham" "Photinus/productus Gorh/ Type" "Type./Sp. figured". A red label is added with the following text: "LECTOTYPE/*Photinus productus* Gorham/Designated by/Martin and Powell 2020".

Macrolampis attenuatus (Gorham, 1881)

Photinus attenuatus Gorham 1881: 41

Two male specimens bearing syntype labels were located, however it is unclear how many Gorham (1881) examined. The male also bearing a red type label is designated as the lectotype, while the second male is designated as a paralectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Type" "165." "Mexico./Salle Coll." "B.C.A.Col.III.(2)./Photinus/attenuatus, &/Gorham". A red label is added with the following text: "LECTOTYPE/*Photinus attenuatus* Gorham/Designated by/Martin and Powell 2020".

Ellychnia Blanchard, 1845

Type species: Lampyris corrusca Linnaeus, 1767, first included species

Ellychnia salvini (Gorham, 1881)

Photinus salvini Gorham 1881: 44

Gorham (1881) examined four specimens, two in the British Museum collection and two in Sallé's collection. A single female syntype from Sallé's collection was located bearing a "Sp. figured" label and is therefore designated as the lectotype. Labels for the designated lectotype specimen are as follows:

"SYN-/TYPE" "Durasnal" "Salle Coll." "200" "232" "Type. 4. f. 6/Sp. figured." "B.C.A.Col.III.(2)./Photinus/salvini,/Gorham" "NHMUK 013584678". A red label is added with the following text: "LECTOTYPE/*Photinus salvini* Gorham/Designated by/Martin and Powell 2020".

Ellychnia cordovae (Gorham, 1881)

Photinus cordovæ Gorham 1881: 45

Two specimens, a male and female, were located. The male specimen is designated as the lectotype, and the female specimen is designated as the paralectotype. Labels for the designated lectotype specimen are as follows:

"Mexico./Salle Coll." "1564" "\$\infty\$" "B.C.A.Col.III.(2)./Photinus/cordovae,/Gorham" "P. cordovae/Gorham.". A red label is added with the following text: "LECTOTYPE/*Photinus cordovæ* Gorham/Designated by/Martin and Powell 2020".

Acknowledgments

The authors would like to thank Max Barclay (NHM) and Michael Geiser (NHM) for access to valuable historic material. We thank Seth Bybee and Natalie Saxton for assistance within the NHM collection. We also thank Nathan Lord and Oliver Keller for discussion pertaining to unique nomenclatural issues. The authors also appreciate comments provided by three anonymous reviewers and the editor that improved the manuscript. This work was supported in part by the Graduate Student Research Enhancement Award (The Coleopterists Society) to GSP and in part by NSF: DEB-1655981.

References

- ICZN [International Commission on Zoological Nomenclature] (1999) *International Code of Zoological Nomenclature*. 4th Edition. International Trust of Zoological Nomenclature, London, xxix + 306 pp.
- Gorham, H.S. (1881) Insecta. Coleoptera. Malacodermata. Lampyridae. Biologia Centrali-Americana, 3 (2), 29-65.
- Gorham, H.S. (1884) Supplement. Insecta. Coleoptera. Malacodermata. Lampyridae. *Biologia Centrali-Americana*, 3 (2), 249–276.
- Martin, G.J., Stanger-Hall, K.F., Branham, M.A., Silveira, L.F.L., Lower, S.E., Hall, D.W., Li, X.-Y., Lemmon, A.R., Lemmon, E.M. & Bybee, S.M. (2019) Higher-level phylogeny and reclassification of Lampyridae (Coleoptera: Elateroidea). *Insect Systematics and Diversity*, 3 (6), 1–15.
- McDermott, F.A. (1966) Lampyridae. *In*: Steel, W.O. (Ed.), *Coleopterorum catalogus supplementa. Pars 9*. Uitgeverij Dr. W. Junk, Gravenhage, pp. 1–149.
- Olivier, E. (1907) 53me fascicule. Coleoptera. Fam. Lampyridae. *In*: Wytsman, P.A. (Ed.), *Genera Insectorum. Vol. VIII*. Verteneuil & Desmet, Bruxelles, pp. 1–74.
- Perty, J.A.M. (1830–1834) Delectus animalium articulatorum, quae in itinere per Brasiliam annis MDCCCXVII–MDCCCXX jussu et auspiciis Maximiliani Josephi I. Bavariae regis augustissimi peracto collegerunt Dr. J. B. de Spix et Dr. C. F. Ph. de Martius. Impensis Editoris, Munich, 64 pp.