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## Revision of the New World genus *Peckia* Robineau-Desvoidy (Diptera: Sarcophagidae)

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## Table of contents

Abstract	4
Introduction	4
Materials and Methods	5
Taxonomy	8
Genus <i>Peckia</i> Robineau-Desvoidy	8
Identification of <i>Peckia</i>	12
Subgenus <i>Euboettcheria</i> Townsend	17
<i>Peckia (Euboettcheria) abrupta</i> (Lopes, 1954)	17
<i>Peckia (Euboettcheria) anatina</i> (Lopes, 1953)	18
<i>Peckia (Euboettcheria) anguilla</i> (Curran & Walley, 1934)	18
<i>Peckia (Euboettcheria) asinoma</i> (Hall, 1938)	20
<i>Peckia (Euboettcheria) australis</i> (Townsend, 1927)	20
<i>Peckia (Euboettcheria) bifurcata</i> Dodge, 1965	21
<i>Peckia (Euboettcheria) buethni</i> Dodge, 1965	22
<i>Peckia (Euboettcheria) cacao n. sp.</i>	23
<i>Peckia (Euboettcheria) calixtoi n. sp.</i>	24
<i>Peckia (Euboettcheria) collusor</i> (Curran & Walley, 1934)	25
<i>Peckia (Euboettcheria) cubensis</i> Dodge, 1965	26
<i>Peckia (Euboettcheria) epimelia</i> (Lopes, 1938)	27
<i>Peckia (Euboettcheria) gagnei</i> (Lopes, 1975)	27
<i>Peckia (Euboettcheria) hernandosi n. sp.</i>	28
<i>Peckia (Euboettcheria) naides</i> (Lopes, 1941)	29
<i>Peckia (Euboettcheria) nicasia</i> (Lopes, 1941)	30
<i>Peckia (Euboettcheria) pascoensis</i> (Lopes, 1990)	32
<i>Peckia (Euboettcheria) percussa</i> (Lopes, 1938)	32
<i>Peckia (Euboettcheria) perlita</i> (Lopes, 1953)	33
<i>Peckia (Euboettcheria) santamariae n. sp.</i>	33
<i>Peckia (Euboettcheria) subducta</i> (Lopes, 1935)	34
<i>Peckia (Euboettcheria) trejosi</i> (Lopes, 1954)	35
<i>Peckia (Euboettcheria) volucris</i> (Wulp, 1895)	36
Subgenus <i>Pattonella</i> Enderlein	37
<i>Peckia (Pattonella) intermutans</i> (Walker, 1861)	39
<i>Peckia (Pattonella) kladosoides n. sp.</i>	40
<i>Peckia (Pattonella) pallidipilosa</i> (Curran & Walley, 1934)	41
<i>Peckia (Pattonella) resona</i> (Lopes, 1935)	42
<i>Peckia (Pattonella) smarti</i> (Lopes, 1941)	42
Subgenus <i>Peckia</i> Robineau-Desvoidy	43
<i>Peckia (Peckia) amoena</i> (Aldrich, 1916)	44
<i>Peckia (Peckia) chrysostoma</i> (Wiedemann, 1830)	45
<i>Peckia (Peckia) chrysostomata</i> (Hall, 1933)	48
<i>Peckia (Peckia) cocopex n. sp.</i>	48
<i>Peckia (Peckia) craigi</i> Dodge, 1964	49
<i>Peckia (Peckia) ecuatoriana</i> (Lopes, 1958)	50
<i>Peckia (Peckia) enderleini</i> (Engel, 1931)	52
<i>Peckia (Peckia) glyphis</i> Pape & Andersson, 2001	52
<i>Peckia (Peckia) gulo</i> (Fabricius, 1805)	53
<i>Peckia (Peckia) hillifera</i> (Aldrich, 1916)	54
<i>Peckia (Peckia) hirsuta</i> (Hall, 1933)	55
<i>Peckia (Peckia) hondurana</i> Dodge, 1965	56
<i>Peckia (Peckia) imperialis</i> Robineau-Desvoidy, 1830	57
<i>Peckia (Peckia) keyensis</i> Dodge, 1965	57
<i>Peckia (Peckia) lithogaster</i> (Curran & Walley, 1934)	58
<i>Peckia (Peckia) lutzi</i> (Lopes, 1958)	59
<i>Peckia (Peckia) nephele</i> (Lopes, 1941)	60
<i>Peckia (Peckia) nigricauda</i> Dodge, 1964	60
<i>Peckia (Peckia) pexata</i> (Wulp, 1895)	61
<i>Peckia (Peckia) rosalbae n. sp.</i>	63
<i>Peckia (Peckia) rubella</i> (Wiedemann, 1830)	64
<i>Peckia (Peckia) sarmientoi n. sp.</i>	65
<i>Peckia (Peckia) satanica</i> Dodge, 1965	65
<i>Peckia (Peckia) spectabilis</i> (Aldrich, 1916)	66
<i>Peckia (Peckia) uncinata</i> (Hall, 1933)	67

<i>Peckia (Peckia) urceola</i> (Hall, 1933) .....	67
<i>Peckia (Peckia) villegasi</i> Dodge, 1966 .....	68
Subgenus <i>Sarcodexia</i> Townsend .....	69
<i>Peckia (Sarcodexia) aequata</i> (Wulp, 1895), <b>new subgeneric affiliation</b> .....	69
<i>Peckia (Sarcodexia) chirotheca</i> (Hall, 1933), <b>new subgeneric affiliation</b> .....	72
<i>Peckia (Sarcodexia) cocos</i> <b>n. sp.</b> .....	72
<i>Peckia (Sarcodexia) dominicana</i> (Lopes, 1982), <b>new subgeneric affiliation</b> .....	73
<i>Peckia (Sarcodexia) florencioi</i> (Prado & Fonseca, 1932), <b>new subgeneric affiliation</b> .....	74
<i>Peckia (Sarcodexia) lambens</i> (Wiedemann, 1830), <b>n. comb.</b> .....	74
<i>Peckia (Sarcodexia) notata</i> (Lopes, 1953), <b>n. comb.</b> .....	76
<i>Peckia (Sarcodexia) roppai</i> (Lopes & Tibana, 1982), <b>new subgeneric affiliation</b> .....	76
<i>Peckia (Sarcodexia) tridentata</i> (Hall, 1937), <b>new subgeneric affiliation</b> .....	77
Subgenus <i>Squamatodes</i> Curran .....	79
<i>Peckia (Squamatodes) ingens</i> (Walker, 1849) .....	79
<i>Peckia (Squamatodes) trivittata</i> (Curran, 1927) .....	80
<i>Peckia (Squamatodes) virgo</i> (Pape, 1994), <b>new subgeneric affiliation</b> .....	81
Unplaced species-group names .....	82
Acknowledgements .....	82
References .....	82

## Abstract

The New World and largely Neotropical genus *Peckia* Robineau-Desvoidy, 1830 is revised with a key to all species. *Peckia* is considered a senior synonym of *Guanoxipha* Lehrer, 2012, **n. syn.** and of *Sarcodexia* Townsend, 1892, **n. syn.**, the first one under *Squamatodes* Curran and the latter maintained as a valid subgenus, which here is redefined giving the new generic combinations *Peckia (Sarcodexia) lambens* (Wiedemann, 1830), **n. comb.** and *P. (S.) notata* (Lopes, 1935), **n. comb.**; and the new subgeneric affiliations *P. (S.) aequata* (Wulp, 1895), *P. (S.) chirotheca* (Hall, 1933), *P. (S.) dominicana* (Lopes, 1982), *P. (S.) florencioi* (Prado & Fonseca, 1932), *P. (S.) roppai* (Lopes & Tibana, 1982) and *P. (S.) tridentata* (Hall, 1937). *Peckia virgo* (Pape, 1994) is transferred from subgenus *Euboettcheria* Townsend, 1927 to subgenus *Squamatodes* Curran, 1927. *Sarcophaga adolenda* Lopes, 1935 is transferred from its current position in *Peckia* to the genus *Retrocitomyia* Lopes, 1982, **n. comb.** A total of 67 species are recognized and grouped in the subgenera *Euboettcheria*, *Pattonella* Enderlein, 1928, *Peckia* Robineau-Desvoidy, 1830 (*sensu stricto*), *Sarcodexia* and *Squamatodes*. Nine new species are described, viz., *Peckia (Euboettcheria) santamariae* **n. sp.** (Colombia), *Peckia (Euboettcheria) cacao* **n. sp.** (Costa Rica), *Peckia (Euboettcheria) calixtoi* **n. sp.** (Puerto Rico), *Peckia (Euboettcheria) hernandosi* **n. sp.** (Ecuador), *Peckia (Pattonella) kladosoides* **n. sp.** (Colombia), *Peckia (Peckia) cocopex* **n. sp.** (Costa Rica: Cocos Island), *Peckia (Peckia) sarmientoi* **n. sp.** (Ecuador), *Peckia (Peckia) rosalbae* **n. sp.** (Colombia) and *Peckia (Sarcodexia) cocos* **n. sp.** (Costa Rica: Cocos Island). The following new synonymies are proposed as junior synonyms under their respective species: under *Peckia (Euboettcheria) tridentata* (Hall, 1937) is *Euboettcheria alvarengai* Lopes & Tibana, 1982, **n. syn.**; under *Peckia (Peckia) chrysostoma* (Wiedemann, 1830) is *Paraphrissopoda hugolopesiana* Lehrer, 2006, **n. syn.**; under *Peckia (Peckia) pexata* (Wulp, 1895) are *Sarcophaga concinnata* Williston, 1896, **n. syn.**, *Sarcophaga otiosa* Williston, 1896, **n. syn.** and *Paraphrissopoda catiae* Lehrer, 2006, **n. syn.**; under *Peckia (Peckia) rubella* (Wiedemann, 1830) is *Sarcophaga capitata* Aldrich, 1916, **n. syn.** and under *Peckia (Squamatodes) trivittata* (Curran, 1927) is *Squamatodes stahli* Dodge, 1966, **n. syn.** Lectotypes are designated for *Sarcophaga aequata* Wulp, 1895, *Sarcophaga concinnata* Williston, 1896, *Sarcophaga otiosa* Williston, 1896 and *Sarcophaga volucris* Wulp, 1895. *Paraphrissopoda alvesia* Lehrer, 2006 is deemed an unavailable name as no depository was given for the putative type material.

**Key words:** Diptera, Sarcophagidae, *Euboettcheria*, *Pattonella*, *Peckia*, *Sarcodexia*, *Squamatodes*, revision, systematics, Neotropical Region.

## Introduction

*Peckia* Robineau-Desvoidy, 1830 is a New World genus of generally large-bodied flesh flies, many of which breed in vertebrate excrement and carrion, including human corpses (Jirón *et al.* 1983; Salviano *et al.* 1996; Carvalho *et al.* 2000; Reeves *et al.* 2000), and for that reason the genus is considered of forensic and medical importance (Jirón *et al.* 1983; Moura *et al.* 1997; Oliveira-da-Silva *et al.* 2006; Barros *et al.* 2008; Buenaventura *et al.* 2009).

The genus *Peckia* was described by Robineau-Desvoidy (1830), who originally included five species (Evenhuis *et al.* 2010), and currently it contains 63 described species (Pape 1996; Pape & Andersson 2001). All of