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RESEARCH ARTICLE

TWO-HUNDRED AND SEVEN BEETLE (COLEOPTERA) TAXA NEW TO A NATIONAL PARK IN NORTHERN VIRGINIA AND THE DISTRICT OF COLUMBIA WITH A SUMMARY OF SAMPLING EFFORT FROM 1998 THROUGH 2023

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ABSTRACT

Two-hundred and seven Coleoptera taxa in 51 families are reported for the first time from the George Washington Memorial Parkway (GWMP), a National Park site located in Fairfax County, Virginia, and the District of Columbia. Twenty-four species in the families Anthribidae (2), Histeridae (15), Melyridae (2), Ptinidae (1), Scirtidae (1), and Staphylinidae (3) are reported in published literature for the first time from Virginia. *Habroxenus politus* Valentine (Anthribidae) had not been previously reported anywhere in over 120 years. A summary of 20 years of inventory effort documenting 1739 Coleoptera taxa is presented. Images of five species are provided, including two of the new state records.

Keywords: Arthropoda, Adephaga, biodiversity, biological assessment, insect surveys, new state records, Polyphaga.

INTRODUCTION

The George Washington Memorial Parkway (GWMP) has the highest documented coleopteran species richness of any site in the District of Columbia, Maryland, or Virginia (Staines & Staines, 2023). However, Ulke (1902), reported 2975 species from the entirety of the District of Columbia. This paper adds 207 taxa in 51 families to the previous tally and provides a summary of 20 years of collecting effort conducted between 1998 and 2023 (see Table 1 and summary below).

Table 1. Number of identified beetle species per family in GWMP. Total number of taxa equals 1739 (1686 identified to species) and three subspecies. Total number of species new to Virginia equals 315; total number new to The District of Columbia equals 10.

Family	Number of species	Citations	Number of species new to Virginia or the District of Columbia
Aderidae	12 taxa (11 identified to species)	Steury (2019a; 2021), this paper.	3 (VA)
Anamorphidae	2	Steury (2018a; 2022).	1 (DC)
Anthicidae	13	Evans (2008), Steury et al. (2013), Steury (2017; 2018b; 2021).	1 (VA)
Anthribidae	19	Evans (2008), Steury et al. (2020), Steury (2022), this paper.	0
Artematopodidae	1	This paper.	0
Attelabidae	3	Evans (2008), Steury et al. (2020).	0
Biphyllidae	1	Steury (2018a).	0
Bolboceratidae	2	Steury & Paulsen (2022)	0
Bostrichidae	4	Evans (2008), Steury (2023a), this paper.	1 (VA)
Bothrideridae	1	This paper.	0
Brentidae	7 taxa (4 identified to species)	Evans (2008), Steury et al. (2020).	0
Buprestidae	32	Evans (2008), Steury et al. (2012), Steury & Messer (2015), Steury (2017; 2018b; 2022).	3 (VA)
Byrrhidae	1	This paper.	0
Byturidae	1	This paper.	0
Callirhipidae	1	This paper.	0
Cantharidae	*41	Steury et al. (2018), Steury (2018b), Steury (2019b), Steury (2020), Steury (2021).	14 (VA)
Carabidae (including Rhysodidae)	206	Steiner & Erwin (2007), Evans (2008), Bousquet & Messer (2010), Steury & Messer (2014), Steury et al. (2014), Steury & Messer (2015), Steury (2017; 2018b; 2021; 2022).	9 (DC), 8 (VA)
Cerambycidae	113	Evans (2008), Steury & MacRae (2014), Steury (2017; 2018b; 2021; 2022).	18 (VA)
Cerophytidae	1	Johnson & Steury (2021).	0

Table 1 cont.

Cerylonidae	1	Evans (2008).	0
Chrysomelidae	122	Evans (2008), Cavey et al. (2013), Steury et al. (2014), Steury (2017; 2018b; 2021; 2022).	4 (VA)
Ciidae	2	This paper.	0
Cleridae	20 (and 1 subspecies)	Evans (2008), Steury & Leavengood (2018), Steury (2021; 2022).	2 (VA)
Coccinellidae	15	This paper.	0
Corylophidae	5 taxa (4 identified to species)	This paper.	0
Cryptophagidae	5 taxa (3 identified to species)	This paper.	0
Cucujidae	2	This paper.	0
Cupedidae	2	Steury & Chandler (2021).	0
Curculionidae	168 taxa (166 identified to species)	Evans (2008), Steury et al. (2020), Steury (2021), Steury et al. (2023).	37 (VA)
Dermestidae	8	Evans (2008), this paper.	0
Derodontidae	2	Steury (2018a).	0
Dryopidae	3	Steury (2023b).	0
Dytiscidae	15	Evans (2008), Steury (2023b), this paper.	0
Elateridae	80	Evans (2008), Johnson & Steury (2021), Steury (2022).	10 (VA)
Elmidae	6	Evans (2008), Steury (2023b).	0
Endomychidae	7	Evans (2008), Steury (2018a).	0
Erotylidae	22 (and 1 subspecies)	Evans (2008), Steury (2018a; 2019b), this paper.	4 (VA)
Eucinetidae	2	This paper.	0
Eucnemidae	**30	Evans (2008), Johnson & Steury (2021), Steury (2022), this paper.	4 (VA)
Geotrupidae	2	Steury & Paulsen (2022).	0
Haliplidae	3	Evans (2008), Steury (2023b).	0
Heteroceridae	2	Evans (2008).	0
Histeridae	23	This paper.	15 (VA)
Hybosoridae	2	Steury & Paulsen (2022).	0
Hydrophilidae	25	Evans (2008), Steury (2023b), this paper.	0
Ithyceridae	1	Steury et al. (2020).	0
Laemophloeidae	7	This paper.	0
Lampyridae	8 taxa (7 identified to species)	Barrows et al. (2008), Evans (2008).	0

Table 1 cont.

Latridiidae	5	Evans (2008), Steury (2022), this paper.	2 (VA)
Leiodidae	12 taxa (10 identified to species)	Evans (2008), Eckerlin & Evans (2019), this paper.	1 (VA)
Limnichidae	1	This paper.	0
Lophocateridae	1	This paper.	0
Lucanidae	5	Paulsen & Smith (2005), Evans (2008), Steury & Paulsen (2022).	0
Lycidae	18	Steury & Chandler (2021), Green (1952; 1953).	6 (VA)
Lymexylidae	1	This paper.	0
Melandryidae	10	Evans (2008), this paper.	1 (VA)
Meloidae	4	This paper.	0
Melyridae	9	This paper.	2 (VA)
Monotomidae	8	This paper.	0
Mordellidae	*65 (and 1 subspecies)	Evans (2008), Steury & Steiner (2020; 2021), Steury & Steiner (2021).	33 (VA)
Mycetophagidae	10	This paper.	0
Nemonychidae	1	Steury et al. (2020).	0
Nitidulidae	39 taxa (38 identified to species)	Evans (2008), Chandler & Steury (2023).	26 (VA)
Noteridae	1	Steury (2023b).	0
Ochodaeidae	1	Steury & Paulsen (2022).	1 (VA)
Oedemeridae	4	This paper.	0
Omethidae	1	Steury et al. (2018).	0
Orsodacnidae	1	Cavey et al. (2013).	0
Passalidae	1	Evans (2008), Steury & Paulsen (2022).	0
Passandridae	1	This paper.	0
Phalacridae	1	This paper.	0
Phengodidae	1 taxon	This paper.	0
Psephenidae	3	Steury (2023b).	0
Ptilodactylidae	2	Evans (2008).	0
Ptiliidae	1 taxon	This paper.	0
Ptinidae	46	Evans (2008), Chandler & Steury (2022), Steury (2022), this paper.	21 (VA)
Pyrochroidae	6	Evans (2008), this paper.	0
Rhipiceridae	2	Evans & Steury (2012).	1 (VA)
Ripiphoridae	2	Evans (2008), this paper.	0

Table 1 cont.

Scarabaeidae	**69	Evans (2008), Steury (2022), Steury & Paulsen (2022), this paper.	10 (VA)
Scirtidae	10	Evans (2008), this paper.	1 (VA)
Scraptiidae	5	Evans (2008), this paper.	0
Silphidae	6	Evans (2008), this paper.	0
Silvanidae	7	Evans (2008), this paper.	0
Sphindidae	1	This paper.	0
Staphylinidae	228 taxa (190 identified to species)	Evans (2008), Steury (2017), Brattain et al. (2019), Steury & Brattain (2020), Steury (2021), this paper.	68 (VA)
Stenotrachelidae	1	This paper.	0
Synchroidae	1	Evans (2008).	0
Tenebrionidae	68 taxa (67 identified to species)	Evans (2008), Steury and Chandler (2023).	14 (VA)
Tetratomidae	9	Evans (2008), Steury (2018a).	1 (VA)
Throscidae	6	Johnson & Steury (2021).	2 (VA)
Trogidae	5	Evans (2008), Steury & Paulsen (2022).	0
Trogossitidae	4	Evans (2008), this paper.	0
Zopheridae	10	This paper.	0

* Includes species described as new to science.

** Includes species reported as new to North America.

MATERIALS AND METHODS

Study sites

The study site is in Fairfax and Arlington Counties, and the City of Alexandria, Virginia, and the District of Columbia on lands managed by the National Park Service as units of the George Washington Memorial Parkway (GWMP). Sites that have received inventory effort, their latitude and longitudes, years they were sampled, and habitat descriptions of these sites are provided in Table 2. These sites comprise approximately 1,615 ha (3990.8 ac). Great Falls and Turkey Run parks and Fort Marcy fall within the Piedmont physiographic province while all other collection sites are on the Coastal Plain. Most sites are situated along the shore of the Potomac River, and Great Falls and Turkey Run Parks border the Potomac Gorge. A map of the study area is shown in Fig. 1 of Steury & Chandler (2023). More than 1,300 vascular plant taxa have been documented from the study site (Steury et al., 2008; Steury, 2011).

Sampling

Fifteen collection methods have been used during this study. These are listed in Table 2. Specimens were pinned and labeled and deposited in the collections maintained at the George Washington Memorial Parkway, Turkey Run Park Headquarters in McLean, Virginia.

Table 2. Summary of site names, sampling years, latitude and longitude, habitats sampled, and trap types.

Location and years sampled	Latitude and longitude	Habitats sampled	Trap types
City of Alexandria, Virginia			
Daingerfield Island (DI) (2015)	N 38.828, W -77.041	Deciduous forest, freshwater marsh	Collecting by hand (hc)
Arlington County, Virginia			
Arlington Woods (AW) (2013)	N 38.883, W -77.074	Upland, deciduous forest	Berlese funnels (bf)
Roaches Run Waterfowl Sanctuary (RR) (2013)	N 38.866, W -77.041	Tidal wetland/shrubland ecotone	Berlese funnels
Fairfax County, Virginia			
Collingwood Picnic Area (CP) (2012, 2018, 2022)	N 38.730, W -77.043	Turf grass with scattered large deciduous trees	Collecting by hand
Dyke Marsh Wildlife Preserve (DM) (1998, 1999, 2010, 2017, 2021)	N 38.772, W -77.050	Tidal, freshwater marsh; deciduous floodplain forest; marsh/forest ecotone	Malaise traps (mt), collecting by hand, sweep netting (sn)
Fort Hunt (FH) (2013, 2014, 2023)	N 38.714, W -77.054	Mostly upland, deciduous forest with small, scattered patches of pine (<i>Pinus virginiana</i> Mill.)	Collecting by hand, fruit bait trap (fb), Lindgren funnels (lf), Malaise traps, panel traps (pa), vinegar jug traps (vt).
Fort Marcy (FM) (2012, 2013)	N 38.937, W -77.125	Upland, deciduous forest	Collecting by hand, Berlese funnels

Table 2 cont.

Great Falls Park (GF) (2006–2010, 2012, 2017, 2019, 2020, 2022, 2023)	N 38.985, W -77.246	Upland, dry, mixed deciduous/coniferous forest; deciduous swamp; deciduous floodplain forest	Berlese funnels, black-light (UV) shone on sheet (bl), beating sheet (bs), black-light bucket traps (bt), collecting by hand, deer dung (dd), dip netting (dn), Lindgren funnels, Malaise traps, panel traps, pan traps (pt), pit-fall traps (pf), vinegar jug traps.
Little Hunting Creek (LH) (2010, 2012, 2017, 2018)	N 38.717, W -77.078	Upland deciduous forest with some pine near large freshwater, tidal creek	Collecting by hand, Lindgren funnels, pit-fall traps, Malaise traps
Mount Vernon Woodland (MV) (2021)	N 38.717, W -77.078	Under stands of <i>Pinus virginiana</i> in mixed deciduous/coniferous woodland	Black light shown on sheet, Malaise traps
Riverside Park (RP) (2012, 2013, 2015, 2021)	N 38.712, W -77.074	Freshwater, tidal shoreline with cobble, sand, silt, beach debris and herbaceous shoreline vegetation	Collecting by hand
Turkey Run Park (TR) (2005–2013, 2015, 2017, 2019, 2023)	N 38.965, W -77.156	Upland deciduous forest; floodplain deciduous forest; herbaceous strip under powerline bordered by deciduous forest	Beating sheet, black-light shone on sheet, black-light bucket traps, Berlese funnels, collecting by hand, fruit bait trap, Lindgren funnels, Malaise traps, pan traps, panel traps, pit-fall traps, vinegar jug traps.
District of Columbia			
Theodore Roosevelt Island (RI) (2011–2015, 2022)	N 38.896, W -77.061	Freshwater, tidal marsh with scattered bald cypress (<i>Taxodium distichum</i> [L.] Rich)	Collecting by hand, Malaise traps

LIST OF SPECIES

Taxa are listed alphabetically within families. The number of specimens in the collection is indicated in parentheses after each taxon. Sites where specimens were collected are given following the site abbreviations given in Table 2. The periods of adult activity are given based on dates when taxa were captured at the GWMP. Dates separated by an en dash (–) indicate that the taxon was documented on at least one day during each month within this continuum of months, whereas dates separated by a comma represent individual observation dates. For traps set over multiple weeks, the first day of the set is used as the earliest date and the last day of the set as the latest date. The first year of collection is given for all new state records. The year is included immediately after the day and month range if the species was collected in only one year or separated by a semicolon if collected in multiple years. Micro-habitats are described for specimens that were collected by hand when provided on specimen labels. A two-letter abbreviation indicates the capture method used. These abbreviations are explained in Table 2.

Family Aderidae (ant-like leaf beetles)

Cnopus impressus (LeConte) (Fig. 1) – (2); LH, GF; 12 May–17 Jul; lf, mt. Gompel (2024) reported the first record from Virginia.

This record increases the number of aderid beetles documented from the GWMP to 12 species (Steury, 2021).



Figure 1. *Cnopus impressus* (LeConte). **Left:** dorsal habitus, **right:** close-up of anterior portion of body. Little Hunting Creek, Malaise trap set in deciduous woodland with ericaceous understory, 30 June–17 July 2017. Collector B. Steury. Body length 1.3 mm.

Family Anthribidae (fungus weevils)

Euxenus jordani Valentine – (1); TR; 15–31 Jul; mt.

Euxenus punctatus LeConte (Fig. 2) – **NEW STATE RECORD.** (1); TR; 15 Aug–5 Sep 2019; mt. This beetle feeds on pyrenomycete fungi of the family Xylariaceae (Valentine 1998). It has been documented from Michigan (Valentine, 1991) and Ohio and Alabama (Valentine, 1998). Bright (1993) included Washington and the District of Columbia and Quebec, Canada.



Figure 2. *Euxenus punctatus* LeConte. **Left:** dorsal habitus, **middle:** lateral view, **right:** face. Turkey Run Park, Malaise trap set under powerline in herbaceous strip bordered by deciduous woodland with some pine, 15 August–5 September 2019. Collector M. Stirzaker. Body length 1.1 mm.

Habroxenus politus Valentine – **NEW STATE RECORD.** (1); TR; 15–31 Jul 2019; mt. This is the first record of this species since 1903 when it was last collected by Eugene Schwarz on Plummers Island, Maryland, in the Potomac Gorge section of the Potomac River. It was described as a new species and a new genus by Valentine (1998). The specimen was identified by Marc DiGirolomo (United States Forest Service). Images of the specimen are posted to the BugGuide website (image numbers 2249847–224950).

Trigonorhinus rotundatus (LeConte) – (1); MV; 14 Jun–8 Jul; mt.

These four species, plus the record of *Choragus exophthalmos* Valentine, described from Great Falls Park, Virginia, (Valentine, 1998) which was not mentioned by Steury et al. (2020) or Steury (2022) bring the tally of anthribid beetles recorded from GWMP to 19 species.

Family Artematopodidae (soft-bodied moss beetles)

Eurypogon niger (Haldeman) – (8); GF, LH, TR; 23 May–30 Jun; bl, mt.

This is the first record of an artematopodid beetle from GWMP.

Family Bostrichidae (horned powder-post beetles)

Micrapate cristicauda Casey – (1); DM; 12–19 Apr; mt.

This record increases the number of bostrichid beetles documented from GWMP to four species (Steury, 2023a).

Family Bothrideridae (dry bark beetles)

Bothrideres cryptus Stephan – (5); GF, TR; 14 Apr, 15 Dec; hc. Under bark of dead standing *Carya tomentosa* Sarg. (Juglandaceae).

This is the first record of a bothriderid beetle to be recorded in GWMP.

Family Byrrhidae (pill beetles)

Cytilus alternans (Say) – (1); GF; 10–30 Apr; mt.

This is the first record of a byrrhid beetle from GWMP. The record of *Syncalypta spinosa* (Rossi) in Evans (2008) is an errant report of a species from the family Ptinidae.

Family Byturidae (fruitworm beetles)

Byturus unicolor Say – (1); FH, TR; 24 Apr–15 May; fb, lf.

This byturid species is the first record for GWMP.

Family Callirhipidae (cedar beetles)

Zenoa picea (Palisot de Beauvois) – (2); GF, TR; 12–14 Jul; bl, bt.

This is the only callirhipid species in North America and the first record of it from GWMP.

Family Cerambycidae (longhorned beetles)

Eupogonius tomentosus (Haldeman) – (1); MV; 17 May–14 Jun; mt.

Knulliana cincta (Drury) – (1); FH; 1–30 Apr; mt.

Leptostylus transversus (Gyllenhal) – (2); GF; 1 Apr–30 Mar; mt.

These records increase the number of longhorned beetles documented from GWMP to 113 species (Steury, 2022).

Family Chrysomelidae (leaf and seed beetles)

Diachus auratus (Fabricius) – (2); GF, TR; 22 Jun–6 Jul, 5 Sep–21 Oct; mt.

Distigmoptera pilosa (Illiger) – (2); GF, TR; 10–30 April; mt.

Epitrix humeralis Dury – (1); GF; 23 May–5 Jun; mt.

Hornaltica bicolorata (Horn) – (1); TR; 7–21 Jul; mt.

Pachybrachis trinotatus (Melsheimer) – (2); TR; 15–31 Jul; mt.

These records increase the number of leaf and seed beetles documented from the GWMP to 122 species (Steury, 2022).

Family Ciidae (minute tree-fungus beetles)

Cis creberrimus Mellié – (2); FH, TR; 15–24 Apr; bf, fb.

Cis hirsutus Casey – (1); DM; 9–23 May; mt.

These are the first ciid species reported from GWMP.

Family Coccinellidae (lady beetles)

Brachiacantha quadripunctata quadripunctata (Melsheimer) – (2); GF, TR; 1–20 May, 7–21 Jul; mt.

Chilorcoris stigma (Say) – (6); DM, TR; 11–25 Apr, 24 Jun–5 Dec; mt.

Coccinella septempunctata (Linnaeus) – (6); DM, GF; 23 May–24 Jun, 9 Aug–12 Sep; bs, bt, mt.

Coelomegilla maculata lengi Timberlake – (16); DM; 2 May–26 Sep; hc, mt.

Cycloneda munda (Say) – (10); DM, GF, TR; 20 Jun–29 Aug, 11–26 Oct; bt, mt.

Delphastus pusillus LeConte – (2); TR; 7–20 Jul; mt.

Diomus amabilis (LeConte) – (5); DM, RI; 28 Apr–23 May; 11 Jul–26 Sep; mt.

Diomus terminalis (Say) – (22); DM, GF, RI; 12 Apr–15 Aug, 11 Oct–21 Nov; bs, bt, mt.

Harmonia axyridis (Pallas) – (16); DM, GF, TR; 9 Jun–21 Nov; bs, bt, mt.

Nephus intrusus (Horn) – (1); DM; 11–26 Oct; mt.

Olla v-nigrum (Mulsant) – (12); DM, GF; 11 Apr–26 Jul; mt.

Propylea quatuordecimpunctata (Linnaeus) – (2); GF; 19 Jun–17 Aug; mt.

Psyllobora vigintimaculata (Say) – (9); DM, LH, GF, RI; 15 Jan, 11–25 Apr, 31 Aug–15 Jan; bs, mt.

Scymnus loewii Mulsant – (7); DM; 23 May–15 Aug; mt.

Stethorus punctum (LeConte) – (4); DM; 12 Apr–28 May; mt.

These 15 species are the only coccinellid beetles documented from GWMP.

Family Corylophidae (minute hooded beetles)

Clypastraea lepida (LeConte) – (1); GF; 1–27 Apr; mt.

Clypastraea lunata (LeConte) – (2); GF; 23–30 Mar, 22 Oct–17 Nov; mt, pa.

Gloeosoma hesperus (Casey) – (2); FM; 15 Apr; bf.

Holopsis marginicollis LeConte – (1); DM; 2–16 Jun; mt.

Sericoderus Stephens sp. – (1); FM; 16 May; bf.

These five taxa are the first corylophid beetles documented from GWMP.

Family Cryptophagidae (silken fungus beetles)

Antherophagus ocraceus Melsheimer – (1); DM; 5–19 Jul; mt.

Caenoscelis Thomson spp. – (9); DM, FH, GF, LH, TR; 1 Mar–19 May, 19 Sep–17 Nov; mt, pa.

Cryptophagus Herbst spp. – (28); DM, FH, GF, LH, TR; 23 Mar–1 Dec; fb, lf, pa, mt, vt.

Henoticus pilifer Reitter – (1); TR; 7–21 Jul; mt.

Henotiderus centromaculatus Reitter – (2); FH, GF; 18 Mar–25 May; mt.

These five taxa are the first cryptophagid beetles documented from GWMP.

Family Cucujidae (flat bark beetles)

Cucujus clavipes Fabricius – (5); FH, GF, TR; 23 Mar–22 May, 3–17 Jul; lf, mt, pa.

Pediacus subglaber LeConte – (3); FH, GF; 1 Apr–23 Mar; mt, pa.

These two species are the first flat bark beetles to be recorded from GWMP.

Family Dermestidae (skin beetles)

Anthrenus castaneae Melsheimer – (1); TR; 19–30 Jun; mt.

Anthrenus coloratus Reitter – (1); TR; 28 Feb; hc. In building.

Anthrenus isabellinus Küster – (1); FH; 4–10 Apr; pa.

Anthrenus verbasci (Linnaeus) – (4); LH, TR; 2 Mar–10 May; hc. In building. In snail shell.

Cryptorhopalum ruficorne LeConte – (1); TR; 5 Sep–21 Oct; mt.

Trogoderma inclusum LeConte – (2); CP, TR; 11 Jun, 29 Aug; hc. In building. Landed on clothing.

Trogoderma variabile Ballion – (5); TR; 7 Jun; hc. In box in building.

These seven species of dermestid beetles raise the number documented from GWMP to eight species (Evans, 2008).

Family Dytiscidae (predaceous diving beetles)

Neoporus clypealis (Sharp) – (1); DM; 28 May–6 Jun; mt.

This record increases the number of predaceous diving beetles documented from GWMP to 15 species (Steury, 2023b).

Erotylidae (pleasing fungus beetles)

Tritoma angulata Say (Fig. 3) – (1); MV; 1–31 Aug; mt. This specimen differs from typical *T. angulata* by its wrinkled (malformed) elytra, perhaps the result of some injury during elytral expansion after pupation.

This record increases the number of pleasing fungus beetles documented from GWMP to 22 species and one subspecies (Steury, 2018a).

Family Eucinetidae (plate-thigh beetles)

Eucinetus morio LeConte – (11); GF, TR; 11 Apr–20 May, 14 Jul–7 Sep; lf, mt.

Eucinetus strigosus LeConte – (8); GF, LH, TR; 1 Jun–30 Jul; mt.

These are the first two records of plate-thigh beetles from GWMP.



Figure 3. *Tritoma angulata* Say. **Left:** dorsal habitus, **right:** head and pronotum. Captured in a Malaise trap set just north of Mount Vernon in mixed deciduous/coniferous woodland, 1–31 August 2021. Collector B. Steury. Body length 3.9 mm.

Eucnemidae (false click beetles)

Rhagomicrus humeralis (Say) (Fig. 4) – (1); LH; 14–28 Jun; mt. Hoffman et al. (2009) reported the first record of this species from Virginia. The only previously published record from Virginia is a single specimen collected in Essex County (Hoffman et al., 2009).

This record increases the number of false click beetles documented from GWMP to 30 species (Steury, 2022).

Family Histeridae (clown beetles)

Aeletes floridae Marseul – **NEW STATE RECORD.** (1); FH; 1–4 Apr 2023; pa.

Bacanius punctiformis (LeConte) – **NEW STATE RECORD.** (5); AW, GF; 19–30 Jan, 18 Mar–15 Apr; 2013; bf, mt.

Caerosternus americanus (LeConte) – **NEW STATE RECORD.** (1); AW; 15 Apr 2013; bf.



Figure 4. *Rhagomicrus humeralis* (Say). Captured in a Malaise trap set during 14–28 Jun 2018 in deciduous woodland with an ericaceous understory along Little Hunting Creek. Collector B. Steury. Body length 4.0 mm.

Eblisia carolina (Paykull) – (2); GF; 14 Apr; hc. Under bark.

Epierus pulicarius Erichson – **NEW STATE RECORD.** (8); AW, FM, GF; 14–15 Apr, 20 Jun; 2008; bf, hc.

Epierus regularis (Palisot de Beauvois) – **NEW STATE RECORD.** (6); AW, GF, FM; 14–15 Apr; 2010; bf, bs, hc. Under bark.

Euspilotus assimilis (Paykull) – (2); GF; 29 Jul–24 Aug; lf, pf.

Geomysaprinus moniliatus (Casey) – **NEW STATE RECORD.** (9); GF, TR; 1 May–17 Aug; 2008; lf, mt.

Hololepta aequalis Say – (2); LH, TR; 14 Apr, 29 Jul–11 Aug; hc, lf. Under bark.

Hololepta lucida LeConte – (3); FH, LH; 13–17 Apr, 23 Sep–15 Oct; lf, pa.

Hypocaccus fitchi (Marseul) – **NEW STATE RECORD.** (1); TR; 23 May–5 Jun 2008; mt.

Margarinotus brunneus (Fabricius) – **NEW STATE RECORD.** (3); GF, LH, TR; 12 Apr–2 Jun; 2010; hc, pf. Shoreline of mouth of Difficult Run.

Margarinotus interruptus Beauvois – **NEW STATE RECORD.** (2); TR; 28 Apr–16 Jun 2010; pf.

Margarinotus hudsonicus (Casey) – **NEW STATE RECORD.** (2); GF, TR; 19 Jun–11 Aug; 2009; lf, mt.

Margarinotus marginicollis (LeConte) – **NEW STATE RECORD.** (2); AW, TR; 15 Apr–12 May; 2010; bf, pf.

Paromalus bistriatus Erichson – **NEW STATE RECORD.** (4); AW, FM, TR; 14–15 Apr; 2010; bf, hc. Under bark.

Paromalus seminulum Erichson – **NEW STATE RECORD.** (5); AW, GF, LH; 12 Apr–16 Jun; 2009; bf, hc, lf, pf.

Phelister vernus (Say) – (1); FM; 15 Apr; bf.

Platylomatus aequalis (Say) – **NEW STATE RECORD.** (5); AW, TR; 14–16 Apr; 2010; bf, hc. Under bark.

Platysoma aurelianum (Horn) – (2); FH; 13–24 Apr; pa.

Platysoma coarctatum LeConte – (1); FH; 4–10 Apr; lf.

Platysoma leonti Marseul – (10); GF, LH, MV, TR; 23 Mar–21 Oct; hc, mt, pa, pf. Under bark.

Pseudepierus gentilis (Horn) – **NEW STATE RECORD.** (1); GF; 17 May 2012; bf.

These 23 species represent the only clown beetles documented from GWMP. New state records are based on reviews of Leng (1920), Downie & Arnett (1996), Mazur (2011), and Caterino & Tishechkin (2019).

Family Hydrophilidae (water scavenger beetles)

Sperchopsis tessellata (Ziegler) – (1); RP; 11 May; hc. Freshwater, tidal shore with driftwood, sand, and cobble.

This record increases the number of water scavenger beetles from GWMP to 25 species (Steury, 2023b).

Family Laemophloeidae (lined flat bark beetles)

Charaphloeus adustus (LeConte) – (1); TR; 15–30 May; mt.

Charaphloeus convexulus (LeConte) – (5); GF, TR; 15 Jan, 23 Mar–30 Apr; bs, mt.

Dysmerus basalis Casey – (3); DM, GF; 24 Jun–15 Sep; mt.

Laemophloeus biguttatus (Say) – (8); GF, LH, MV; 1 Mar–8 Jul; mt, pa.

Laemophloeus fasciatus Melsheimer – (1); GF; 15 Aug–7 Sep; mt.

Placonotus modestus (Say) – (1); TR; 16 Apr; bf.

Placonotus zimmermanni (LeConte) – (7); FH, GF; 23 Mar–10 Apr; lf, pa.

These are the first seven species of laemophloeid beetles recorded from GWMP.

Family Latridiidae (minute brown scavenger beetles)

Enicmus aterrimus Motschulsky – (1); FH; 13–17 Apr; pa. It is a non-native species of European origin.

This is the fifth species of latridiid beetle documented from GWMP (Evans, 2008; Steury, 2022).

Family Leiodidae (round fungus beetles)

Agathidium oniscoides Beauvois – (3); GF, TR; 10–30 Apr, 2–16 Jun; hc, mt, pf. Deciduous woods under log.

Anistoma basalis (LeConte) – (5); GF, LH, TR; 30 Apr–30 Jun; mt.

Anistoma blanchardi (Horn) – (1); LH; 16 Jun; hc. Rotten log.

Anistoma discolor (Melsheimer) – (2); TR; 19–30 Jun; mt.

Anistoma horni Wheeler – (1); GF; 16–30 Jul; mt.

Catops simplex Say – (5); TR; 22 Oct–17 Nov; mt.

Colon thoracicum Horn – (1); TR; 15–30 May; mt.

Leiodes Latreille sp. – (1); TR; 22 Oct–1 Dec; mt.

Nemadus parasitus (LeConte) – (2); LH, TR; 20–30 Jun, 22–17 Oct; mt.

Ptomaphagus Illiger sp. – (1); TR; 18 Mar–9 Apr; mt.

These ten taxa increase the number of leiodid beetles documented from GWMP to 12 taxa (Evans, 2008; Eckerlin & Evans, 2019).

Family Limnichidae (minute marsh-loving beetles)

Eulimnichus ater (LeConte) – (2); GF; 6 Aug; bl.

This is the only record of a limnichid beetle from GWMP.

Family Lophocateridae (false bark-gnawing beetles)

Lycoptis americana (Motschulsky) – (1); FH; 20–24 Apr; lf.

This is the only record of a lophocaterid beetle from GWMP.

Family Lymexylidae (ship-timber beetles)

Melittomma sericeum (Harris) – (15); GF, LH, TR; 2 Jun–12 Jul; bl, bt, mt.

This is the only record of a lymexlid beetle from GWMP.

Family Melandryidae (false darkling beetles)

Enchodes sericea (Haldeman) – (5); GF, LH, RI, TR; 1 May–21 Jun; bt, lf, mt.

Hypulus simulator Newman – (6); GF, FH, LH, TR; 15 Mar–20 May; lf, mt.

Melandrya striata Say – (10); GF, LH, MV, TR; 20 Apr–16 Jun; bl, lf, mt, pf.

Microtonus sericans LeConte – (8); DM, GF, LH; 12 Apr–2 Jul; bt, hc, mt. In open gaps, rock outcrop above river.

Orchesia cultriformis Laliberté – (4); GF, LH, TR; 5 Sep–28 Oct; mt.

Osphya varians (LeConte) – (1); GF; 19–26 May; mt.

Spilotus quadripustulatus (Melsheimer) – (3); GF, LH, TR; 30 Apr–18 Jun; mt.

Symphora flavicollis (Haldeman) – (1); FH; 1–25 May; mt.

Symphora rugosa (Haldeman) – (2); GF; 24 Jun; bs. The record of *Orchesia ovata* Laliberte from Great Falls Park (Evans, 2008) is based on a misidentified specimen of this species.

These nine species increase the number of melandryid beetles documented from GWMP to 10 species (Evans, 2008).

Family Meloidae (blister beetles)

Lytta aenea Say – (7); GF, TR; 28 Mar–20 May; hc, mt. In building.

Meloe americanus Leach – (3); TR; 1 Mar–19 Apr, 20 Dec; hc. In building. In spider’s web.

Meloe impressus Kirby – (1); TR; 16–28 Jul; pf.

Tricrania sanguinipennis (Say) – (1); FH; 23 Apr; hc. Bare, sandy area with sparse vegetation containing a colony of ground nesting bees including the genera *Andrena* Fabricius and *Halictus* Latreille.

These are the first four species of meloid beetles documented from GWMP.

Family Melyridae (soft-winged flower beetles)

Anthocomus equestris (Fabricius) – (9); DM, LH, TR; 15 Mar–30 Apr; mt.

Attalus scincetus (Say) – (10); DM, FH, GF; 11 Apr–18 Jun; fb, mt, pf.

Collops balteatus LeConte – **NEW STATE RECORD.** (1); DM; 8–15 Aug 1999; mt. This is the northern most record of this species (Downie & Arnett, 1996). Nomenclature follows Fall (1912) who separates *C. balteatus* from the more northern reaching *C. quadrimaculatus* (Fabricius) by the prominent back patch in the center of the pronotum of *C. balteatus*. The specimen was captured in a freshwater, tidal marsh dominated by narrow-leaf cattail (*Typha angustifolia* L., Typhaceae). Body length of the specimen is 8.0 mm.

Collops quadrimaculatus (Fabricius) – (1); MV; 26 Aug; hc. On flowers of goldenrod (*Solidago* L.). Body length of the specimen is 4.7 mm.

Collops tricolor (Say) – (3); GF; 22 May–29 Jun, 27–28 Aug; pt.

Hypebaeus oblitus (LeConte) – (3); GF, LH; 5 May–5 Jun, 16–22 Aug; mt.

Melyrodes basalis (LeConte) – (1); GF; 10–30 Apr; mt.

Nodopus caviceps Marshall – **NEW STATE RECORD.** (2); GF, LH; 10 Apr–18 May; 2009; mt. This species is previously reported from Florida, Georgia, Mississippi, Pennsylvania, and South Carolina (Mayor & Wittmer, 1981).

Nodopus flavilabris (Say) – (8); GF, TR; 10 Apr–5 Jun; mt.

These nine species represent the only melyrid beetles documented from GWMP.

Family Monotomidae (minute clubbed beetles)

Bactridium ephippigerum (Guérin) – (2); LH; 15 Mar–11 Apr, 19 Sep–10 Oct; mt.

Bactridium striolatum (Guérin) – (4); LH, TR; 10 Apr–18 May, 5 Sep–28 Oct; mt.

Europs pallipennis (Leconte) – (3); FH, TR; 4 Apr–18 May; bf, pa.

Monotoma americana Aubé – (1); AW; 15 Apr; bf.

Monotoma longicollis Gyllenhal – (1); DM; 1–6 Jun; mt.

Rhizophagus brunneus Horn – (1); FH; 4–10 Apr; pa.

Rhizophagus cylindricus LeConte – (2); LH, TR; 19 Sep–25 Oct; mt.

Rhizophagus sayi Schaeffer – (4); GF, LH, TR; 5 Sep–1 Dec; mt.

These eight species represent the only monotomid beetles documented from GWMP.

Family Mycetophagidae (hairy fungus beetles)

Litargus balteatus LeConte – (5); DM, FH, RI, TR; 23–27 Mar, 24 Jun–13 Sep; lf, mt.

Litargus sexpunctatus (Say) – (1); GF; 12–19 May; pa.

Litargus tetraspilotus LeConte – (12); DM, GF, TR; 10 Apr–31 Jul; bs, mt.

Mycetophagus didesmus (Say) – (1); LH; 20–30 Jun; mt.

Mycetophagus flexuosus Say – (7); GF, LH, TR; 10 Apr–20 Jun; bt, mt.

Mycetophagus obsoletus (Melsheimer) – (1); LH; 30 Apr–18 May; mt.

Mycetophagus pluripunctatus LeConte – (7); DM, GF, LH, TR; 18 Mar–30 Jul, 21 Nov–5 Dec; mt.

Mycetophagus punctatus Say – (4); GF, TR; 10–30 Apr, 30 Jun–16 Jul; bt, mt.

Mycetophagus serrulatus (Casey) – (1); MV; 12 Jul; bl.

Typhaea stercorea (Linnaeus) – (3); DM, RI; 10–17 May, 12 Sep–26 Oct; mt.

These ten species represent the only mycetophagid beetles documented from GWMP.

Family Oedemeridae (false blister beetles)

Asclera puncticollis (Say) – (6); DM, GF, LH; 9 Apr–23 May; mt, pt.

Asclera ruficollis (Say) – (9); DM, GF, LH, TR; 10 Apr–6 Jun; mt, pt.

Oxycopsis thoracia Fabricius – (1); MV; 14 Jun–8 Jul; mt.

Xanthochroa lateralis Melsheimer – (1); DM; 30 Jul–9 Aug; mt.

These four species represent the first records of oedemerid beetles from GWMP.

Family Passandridae (parasitic flat bark beetles)

Catogenus rufus (Fabricius) – (5); DM, LH; 2 Jun–23 Jul; lf, mt.

This is the only species of passandrid beetle documented from GWMP.

Family Phalacridae (shining flower beetles)

Stilbus apicalis (Melsheimer) – (12); DM; 19 Apr–24 Jun, 15 Aug–21 Nov; mt.

This is the only species of phalacrid beetle known from GWMP.

Family Phengodidae (glowworm beetles)

Phengodes Illiger sp. – (6); GF, TR; 24 May–21 Jul; bt, mt.

Only one genus of phengodidae beetle is known from GWMP.

Family Ptiliidae (featherwing beetles)

Ptinella Motschulsky sp. – (1); AW; 15 Apr; bf.

Only one genus of ptiliid beetle is known from GWMP.

Family Ptinidae (deathwatch and spider beetles)

Ernobius hirsutus White – **NEW STATE RECORD.** (2); FH; 1–30 Apr 2023; mt. This species is previously recorded from New Jersey, southern New York, and eastern Oklahoma (White, 1966).

Trichodesma gibbosa (Say) – (1); FH; 1–25 May; mt.

Tricorynus dichrous (Fall) – (1); TR; 22 Jun–6 Jul; mt.

These records increase the number of deathwatch and spider beetles recorded from GWMP to 46 species (Steury, 2022).

Family Pyrochroidae (fire-colored beetles)

Dendroides canadensis LeConte – (21); CP, DM, GF, TR; 19 Jun–26 Sep; hc, mt. On picnic table.

Neopyrochora femoralis (LeConte) – (11); GF, TR; 12 May–30 Jun; bt, hc, mt. Attracted to light on building.

Pedilus impressus (Say) – (1); TR; 7–21 Jul; mt.

Pedilus lugubris (Say) – (2); TR; 1 May–5 Jun; mt.

Pedilus terminalis (Say) – (21); DM, GF, TR; 1 May–5 Jun; mt.

These records increase the number of pyrochroid beetles documented from GWMP to six species (Evans, 2008).

Family Rhiphoridae (wedge-shaped beetles)

Macrosiagon cruenta (Germar) – (1); DI; 2 Sep; hc. On *Eupatorium serotinum* Michx. (Asteracea).

This is the second species of rhiphorid beetle documented from GWMP (Evans, 2008).

Family Scarabaeidae (scarab beetles)

Gnorimella maculosa (Knoch) – (1); FH; 20–24 April; lf.

This record brings the tally of scarab beetles recorded from GWMP to 69 species (Steury, 2022; Steury & Paulson, 2022).

Family Scirtidae (marsh beetles)

Contacyphon variabilis (Thunberg) species complex – (1); DM, 18–23 Jul; mt.

Exneria ruficollis (Say) – (19); DM, GF, TR; 10 Apr–25 May; dn, mt, pf.

Prionocyphon discoideus (Say) – (7); GF, TR; 10 Apr–30 Jul; mt.

Prionocyphon limbatus LeConte – (9); GF, TR; 14 Apr, 19 Jun–7 Sep; hc, mt. Under bark.

Sacodes fuscipennis Guérin (Fig. 5) – **NEW STATE RECORD.** (2); LH; 11 Apr–18 May 2018; mt. This rarely collected species is previously documented from Georgia, Pennsylvania, and South Carolina (Gimmel & Epler, 2024).

Sacodes pulchella (Guérin-Méneville) – (10); FH, GF, LH, MV, TR; 10 Apr–18 Jun; bt, lf, mt.

Sacodes thoracica (Guérin-Méneville) – (6); GF, TR; 10 Apr–17 Jul; mt.

Scirtes orbiculatus (Fabricius) – (4); TR; 19 Jun–24 Aug; mt.

Scirtes tibialis (Guérin-Ménéville) – (9); GF; 25 Jun; bl.

These nine marsh beetle species raise the number recorded from GWMP to 10 (Evans, 2008).



Figure 5. *Sacodes fuscipennis* Guérin. **Left:** dorsal habitus, **right:** ventral habitus. Captured in a Malaise trap set during 11–30 April 2018 in deciduous woodland with an ericaceous understory along Little Hunting Creek. Left, dorsal view; right, ventral view. Collector B. Steury. Body length 4.8 mm.

Family Scrapyidae (false flower beetles)

Allopoda lutea (Haldeman) – (2); LH; 5–30 May; mt.

Anaspis flavipennis Haldeman – (1); GF; 23 May–5 Jun; mt.

Canifa pallipes (Melsheimer) – (4); LH; 20 Jun–16 Jul; mt.

Pentaria trifasciata (Melsheimer) – (4); DM; 20 Jun–2 Jul; mt.

These 4 species raise the total of false flower beetle species found in GWMP to five (Evans, 2008).

Family Silphidae (carrion beetles)

Nicrophorus pustulatus Herschel – (2); GF, TR; 16–30 Jul; bt, mt.

Oiceoptoma inaequale (Fabricius) – (2); GF; 3 Apr–19 May; pf.

These two species increase the number of carrion beetles documented from GWMP to six species (Evans, 2008). Some authors now include large carrion beetles in the family Staphylinidae (Sikes et al., 2024).

Family Silvanidae (silvan flat bark beetles)

Ahasverus advena (Waltl) – (6); DM; 24 Jun–1 Aug; mt.

Ahasverus rectus (LeConte) – (1); AW; 15 Apr; bf.

Carthartosilvanus imbellis LeConte – (1); DM; 15–26 May; mt.

Oryzaeophilus surinamensis (Linnaeus) – (5); TR; 26 Sep, 5 Dec; hc. In building. In grain bag. One specimen taken on 5 December was subteneral.

Silvanus muticus Sharp – (6); DM, GF, TR; 6 Jun–25 Aug; mt.

Telephanus atricapillus Erichson – (5); DM, GF, RR; 15 Apr, 19 Jun–17 Aug; bf, mt.

These six species increase the number of silvan flat bark beetles from GWMP to seven species (Evans, 2008).

Family Sphindidae (cryptic slime mold beetles)

Sphindus americanus LeConte – (11); DM, LH, TR; 30 Apr–5 Sep; mt.

These specimens represent the first species of a cryptic slime mold beetle recorded from GWMP.

Family Staphylinidae (rove beetles)

Brachygluta arguta (Casey) – **NEW STATE RECORD.** (1); TR; 5–24 Aug 2006; mt.

Brachygluta cavicornis (Brendel) – (1); GF; 5 Sep–21 Oct; mt.

Brachygluta floridana (Brendel) – (1); TR; 19 Sep–21 Oct; mt.

Brachygluta wickhami Buckle – **NEW STATE RECORD.** (1); GF; 10–30 Apr 2009; mt.

Reichenbachia arcifer Casey – **NEW STATE RECORD.** (1); TR; 22 Jun–6 Jul 2006; mt.

Omalius rivulare (Paykull) – (1); FH; 24 Apr; fb.

These records increase the number of rove beetles documented from GWMP to 228 taxa (190 identified to species) (Steury, 2021). New state records are based on Brattain et al. (2019).

Family Stenotrachelidae (false longhorn beetles)

Cephaloon lepturides Newman – (5); GF, MV, TR; 20 Apr–21 Jul; bl, mt.

These specimens represent the first false longhorn beetle species documented from GWMP.

Family Trogossitidae (bark-gnawing beetles)

Aiora cylindrica (Serville) – (2); GF, TR; 4 May, 31 Jul–17 Aug; hc, mt.

Corticotomus parallelum Melsheimer – (1); DM; 19–28 Apr; mt.

Tenebroides corticalis (Melsheimer) – (16); DM, GF, LH, MV, TR; 11 Apr–31 Aug, 1 Oct–8 Nov; hc, lf, mt. On tree trunk at night. Under bark.

These three species increase the number of bark-gnawing beetles recorded from GWMP to four species (Evans, 2008).

Family Zopheridae (ironclad beetles)

Aulonium parallelopipedum (Say) – (3); TR; 18 Apr; hc. In building.

Bitoma quadricollis (Horn) – (1); FH; 4–10 Apr; pt.

Bitoma quadriguttat (Say) – (3); GF, LH; 23 Mar–13 Apr, 28 Jun–16 Jul, mt, pt.

Colydium lineola Say – (9); FH, GF, MV; 23 Mar–17 May, 12 Jul; bt, hc, lf, mt, pa. On tree trunk at night.

Eucicones marginalis (Melsheimer) – (1); TR; 5 Sep–21 Oct; mt.

Eudesma undulata Melsheimer – (1); TR; 1–15 Jul; mt.

Microsicus parvulus (Guérin-Méneville) – (5); FH, GF, TR; 23–30 Mar, 19 Sep–21 Oct; lf, mt, pa.

Namunaria guttulata (LeConte) – (2); MV; 1 Aug–30 Sep; mt.

Pycnomerus reflexa (Say) – (4); AW, GF, TR; 15 Apr–19 May; bf, lf.

Synchita fuliginosa Melsheimer – (1); GF; 7 Jun; bl.

These 10 species are the first ironclad beetles documented from GWMP.

SUMMARY

The 207 taxa reported in this paper bring the total coleopteran fauna reported from GWMP to 1739 taxa (1686 identified to species) and three subspecies in 94 families (Table 1). Twenty-four of these species in eight families are new records for Virginia (see list of species above). The rediscovery of *Habroxenus politus* was the first time this species had been collected anywhere in over 120 years (Valentine, 1998).

Among the 1739 taxa, two species were reported as new to North America, *Dirrhagofarsus modestus* (Fleutiaux) (Johnson & Steury, 2021) and *Maladera japonica* (Motschulsky) (Steury and Paulsen, 2022). Both were introduced from Japan. Five species were described as new to science, *Cantharis sheraldi* Steury (Cantharidae) (Steury, 2020) and *Mordellina wimbledon* Steury & Steiner, *Mordellina washingtonensis* Steury & Steiner, *Mordellistena virginica* Steury & Steiner, and *Pseudotolida slyphaxi* Steury & Steiner (Mordellidae) (Steury & Steiner, 2020). Three specimens, one male Nitidulidae (*Epuraea* Erichson) (Chandler & Steury, 2023), a female Ptinidae (*Ernobius* Thomson) (Chandler & Steury, 2022), and a male Tenebrionidae (*Mycetochara* Berthold) (Steury & Chandler, 2023) were described but could not be assigned to any North American species and may be new to science or new introductions to North America. All three were represented by a single specimen. A total of 315 beetle species have been newly documented from Virginia and 10 species were reported as new to the District of Columbia (Table 1). The rarest beetles discovered in GWMP are *Gambrinus olentangyi* (Knull) (Elateridae), previously known from only three specimens collected in Ohio in 1945 (Steury, 2022) and *Habroxenus politus* Valentine (Anthribidae), known from only seven specimens collected in Texas (4) and Maryland (3) and last collected in Maryland in 1903 (see list of species above). The most commonly collected beetle species in GWMP is the non-native ambrosia beetle (weevil) *Xyleborinus saxeseni* (Ratzeburg) (Curculionidae). During one three-month period, March–May of 2023, more than 2,750 *X. saxeseni* specimens were collected in the park (Steury et al., 2023). This species is present in nearly all Malaise trap, panel trap and Lindgren funnel trap samples examined over the last 26 years. The largest families in the park are the Staphylinidae (228 taxa, 190 identified to species), Carabidae (206 species), Curculionidae (168 taxa, 166 identified to species), Chrysomelidae (122 species), Cerambycidae (113 species), Elateridae (80 species), Scarabaeidae (69 species), Tenebrionidae (68 species), and Mordellidae (65 species and one subspecies).

Some beetle families that potentially occur within the study site have not yet been documented. These are the Agyrtidae, Boridae, Chelonariidae, Clambidae, Cybocephalidae, Disteniidae, Endecatommidae, Euxestidae, Glaphyridae, Gyrinidae, Hydraenidae, Ischaliidae, Kateretidae, Megalopodidae, Micromalthidae, Mycteridae, Nosodendridae, and Salpingidae. Despite having the highest documented coleopteran fauna in Virginia (Staines & Staines, 2023), many more species are likely to be discovered within GWMP. However, all the expected Virginia species have been documented within GWMP for some of the smaller families (i.e., Byturidae, Callirhipidae, Cerophytidae, Cucujidae, Cupedidae, Lymexylidae, Ochodaeidae, Omethidae, Orsodacnidae, Passandridae, Rhipiceridae, etc.). For larger families it is more difficult to discern what proportion of the fauna documented from Virginia might be extant in GWMP. Virginia now has the third most species-rich carabid fauna (including Rhysodidae) of all political regions in the

United States and Canada when compared to the 2012 tallies provided in Bousquet (2012). Only California and Texas have more carabid species. Virginia contains 551 carabid species (Harden, 2018), but only 37.4% (206 species) have been documented in GWMP. Since no new carabid beetles were found in GWMP in 2023, it seems unlikely that it contains much more than 40% of the carabid fauna documented in Virginia. For most other large families, the number of species occurring in Virginia is still unknown. More sampling effort is needed within the various habitats across Virginia to better understand and compare the coleopteran species richness between sites.

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REFERENCES

- Barrows, E. M., S. B. Arsenault, & N. P. Grenier. 2008. Firefly (Coleoptera: Lampyridae) flight periods, sex ratios, and habitat frequencies in a United States Mid-Atlantic freshwater tidal marsh, low forest, and their ecotone. *Banisteria* 31: 47–52.
- Bousquet, Y. 2012. Catalogue of Geadephaga (Coleoptera, Adephaga) of America, north of Mexico. *ZooKeys* 245: 1-1722
- Bousquet, Y., & P. W. Messer. 2010. Redescription of *Stenolophus thoracicus* Casey (Coleoptera, Carabidae, Harpalini), a valid species. *ZooKeys* 53: 25–31.
- Brattain, R. M., B. W. Steury, A. F. Newton, M. K. Thayer, & J. D. Holland. 2019. The rove beetles (Coleoptera: Staphylinidae) of the George Washington Memorial Parkway, with a checklist of regional species. *Banisteria* 53: 27–71.
- Bright, D. E. 1993. The weevils of Canada and Alaska Volume 1. Coleoptera: Curculionoidea, excluding Scolytidae and Curculionidae. *Insects and Arachnids of Canada Part 21*. 224 pp.
- Caterino, M. S., & A. K. Tishechkin. 2019. A revision of the *Phelister haemorrhous* species group (Coleoptera, Histeridae, Exosternini). *ZooKeys* 854: 41–88.
- Cavey, J. F., B. W. Steury, & E. T. Oberg. 2013. Leaf beetles (Coleoptera: Bruchidae, Chrysomelidae, Orsodacnidae) from the George Washington Memorial Parkway, Fairfax County, Virginia. *Banisteria* 41: 71–79.
- Chandler, D. S., & B. W. Steury. 2022. The spider and death-watch beetles (Coleoptera: Ptinidae) of Virginia with an annotated checklist for the George Washington Memorial Parkway. *The Maryland Entomologist* 8(2): 80–94.
- Chandler, D. S., & B. W. Steury. 2023. The sap-feeding beetles (Coleoptera: Nitidulidae) of the George Washington Memorial Parkway, Virginia, and the District of Columbia. *Banisteria* 57: 67–74.
- Downey, N. M., & R. H. Arnett, Jr. 1996. *The Beetles of Northeastern North America*. Volumes I and II. Sandhill Crane Press, Gainesville, FL. 1, 721 pp.

- Eckerlin, R. P., & A. V. Evans. 2019. Notes on the parasitic beaver beetle, *Platypsyllus castoris* Ritsema, 1869 and mouse nest beetle, *Leptinus orientamericanus* Peck, 1982 (Coleoptera: Leiodidae: Platypsyllinae) in Virginia. *Banisteria* 53: 43–46.
- Evans, A. V. (Compiler). 2008. The 2006 Potomac Gorge BioBlitz: Overview and results of a 30-hour rapid biological survey. *Banisteria* 32: 3–80.
- Evans, A. V. 2014. Beetles of Eastern North America. Princeton University Press, Princeton, New Jersey. 560 pp.
- Evans, A. V., & B. W. Steury. 2012. The cicada parasite beetles (Coleoptera: Rhipiceridae) of Virginia. *Banisteria* 39: 65–70.
- Fall, H. C. 1912. A review of the North American species of *Collops* (Coleoptera). *Journal of the New York Entomological Society* 20: 249–274.
- Gimmel, M. L. & J. H. Epler. 2024. Catalog of the Scirtidae of America North of Mexico (Coleoptera: Scirtoidea), with taxonomic and distributional notes. *The Coleopterists Bulletin* 78(3): 319–334.
- Gompel, N. 2024. The Aderidae (Coleoptera Tenebrionoidea) of the USA and Canada. *The Coleopterists Society Monograph* 20. 84 pp.
- Green, J. W. 1952. The Lycidae of the United States and Canada. IV. The tribe Calopterini (Coleoptera). *Transactions of the American Entomological Society* 78(1): 1–19, pls. I–II.
- Green, J. W. 1953. The Lycidae of the United States and Canada. V. *Plateros* (Coleoptera). *Transactions of the American Entomological Society* 78(3/4): 149–181.
- Harden, C. W. 2018. Eight ground beetles (Coleoptera: Carabidae) new to Virginia, with additional records for West Virginia and Maryland. *Banisteria* 50: 15–20.
- Hoffman, R. L., R. L. Otto, & R. Vigneault. 2009. An annotated list of the false click beetles of Virginia (Coleoptera: Eucnemidae) *Banisteria* 34: 25–32.
- Johnson, P. J., & B. W. Steury. 2021. The Elateroid beetles of the George Washington Memorial Parkway, Virginia, USA, including new state records. *The Maryland Entomologist* 8: 31–51.
- Leng, C. W. 1920. Catalogue of the Coleoptera of America, north of Mexico. John D. Sherman, Jr., Mt. Vernon, New York, 470 pp.
- Mayor, A., & W. Wittmer. 1981. A review of the genus *Nodopus*, with a description of a new species from southeastern North America (Coleoptera: Malachiidae). *The Coleopterists Bulletin* 35(4): 473–476.
- Mazur, S. 2011. A concise catalogue of the Histeridae (Insecta: Coleoptera). Warsaw University of Life Sciences, SGGW Press, Warsaw, Poland. 332 pp.
- Paulsen, M. J., & A. D. Smith. 2005. A new species of stag beetle from sand dunes in west Texas, and a synopsis of the genus *Nicagus* (Coleoptera: Lucanidae: Aesalinae: Nicagini). *Zootaxa* 1050: 45–60.
- Sikes, D. S., M. K. Thayer, & A. F. Newton. 2024. Large carrion and burying beetles evolved from Staphylinidae (Coleoptera, Staphylinidae, Silphinae): a review of the evidence. *Zookeys* 1200: 159–182.
- Staines, C. L., & S. L. Staines. 2023. Coleoptera of the Smithsonian Environmental Research Center. 2023-Supplement. *Banisteria* 57: 102–126.
- Steiner, W. E., Jr., & T. L. Erwin. 2007. *Phloeoxena signata* (Dejean): northern range extensions to Maryland and Tennessee, U.S.A., and the first record for Costa Rica (Coleoptera: Carabidae). *The Coleopterists Bulletin* 61: 224–226.
- Steury, B. W. 2011. Additions to the vascular flora of the George Washington Memorial Parkway, Virginia, Maryland, and the District of Columbia. *Banisteria* 37(1): 35–52.

- Steury, B. W. 2017. First record of the rove beetle *Trigonodemus striatus* LeConte (Coleoptera: Staphylinidae) from Virginia and additional new park records (Coleoptera: Anthicidae, Buprestidae, Carabidae, Cerambycidae, Chrysomelidae) for the George Washington Memorial Parkway. *Banisteria* 48: 14–16.
- Steury, B. W. 2018a. Annotated checklist of some fungivorous beetles (Coleoptera: Anamorphidae, Biphyllidae, Derodontidae, Endomychidae, Erotylidae, and Tetratomidae) of the George Washington Memorial Parkway. *Banisteria* 50: 21–28.
- Steury, B. W. 2018b. Four longhorned beetles (Coleoptera: Cerambycidae) new to Virginia and additional new park records (Coleoptera: Anthicidae, Buprestidae, Cantharidae, Carabidae, Cerambycidae, Chrysomelidae) for the George Washington Memorial Parkway. *Banisteria* 50: 29–31.
- Steury, B. W. 2019a. The ant-like leaf beetles (Coleoptera, Aderidae) of the George Washington Memorial Parkway, Fairfax County, Virginia. *Banisteria* 52: 46–49.
- Steury, B. W. 2019b. Two beetles new to Virginia (Coleoptera: Cantharidae, Erotylidae). *Banisteria* 52: 50–51.
- Steury, B. W. 2020. *Cantharis sheraldi* Steury (Coleoptera: Cantharidae: Cantharini), a new species of soldier beetle from Virginia, USA. *The Coleopterists Bulletin* 74(3): 601–604.
- Steury, B. W. 2021. Additions to the beetle (Coleoptera) fauna of the George Washington Memorial Parkway, including new state records. *Banisteria* 55: 1–8.
- Steury, B. W. 2022. Beetle (Coleoptera) species new to the George Washington Memorial Parkway, including species new to Virginia and the District of Columbia. *Banisteria* 56: 107–117.
- Steury, B. W. 2023a. First Virginia record of the Japanese shoot-hole borer, *Dinoderus japonicus* Lesne (Coleoptera: Bostrichidae). *The Maryland Entomologist* 8(3): 45–47.
- Steury, B. W. 2023b. Some aquatic beetles (Coleoptera: Dryopidae, Dytiscidae, Elmidae, Haliplidae, Hydrophilidae, Noteridae, Psephenidae) of Great Falls Park and Turkey Run Park, Fairfax County, Virginia. *Banisteria* 57: 57–66.
- Steury, B. W., R. S. Anderson, & A. V. Evans. 2020. The Curculionoidea (weevils) of the George Washington Memorial Parkway, Virginia. *The Maryland Entomologist* 7: 43–62.
- Steury, B. W., T. H. Atkinson, R. J. Rabaglia, & M. Stirzaker. 2023. Additions to the weevil (Coleoptera: Curculionidae) fauna of the George Washington Memorial Parkway, Virginia and District of Columbia. *The Maryland Entomologist* 8(3): 61–67.
- Steury, B. W., & D. S. Chandler. 2023. The darkling beetles (Coleoptera: Tenebrionidae) of the George Washington Memorial Parkway, including twelve species new to Virginia, USA. *The Maryland Entomologist* 8(3): 48–60.
- Steury, B. W., D. S. Chandler, & W. E. Steiner. 2013. *Vacusus vicinus* (Laferté-Sénéctère) (Coleoptera: Anthicidae): Northern range extensions to Virginia, Maryland, Missouri, and Kansas. *Banisteria* 41: 97–98.
- Steury, B. W., G. P. Fleming, & M. T. Strong. 2008. An emendation of the vascular flora of Great Falls Park, Fairfax County, Virginia. *Castanea* 73(2): 123–149.
- Steury, B. W., & J. M. Leavengood. 2018. Annotated checklist of the checkered beetles of GWMP, Virginia (Coleoptera, Cleridae). *Banisteria* 51: 52–58.
- Steury, B. W., & T. C. MacRae. 2012. Annotated list of the metallic wood-boring beetles (Insecta: Coleoptera: Buprestidae) of the George Washington Memorial Parkway, Fairfax County, Virginia. *Banisteria* 39: 71–75.

- Steury, B. W., & T. C. MacRae. 2014. The longhorned beetles (Coleoptera: Cerambycidae) of the George Washington Memorial Parkway. *Banisteria* 44: 7–12.
- Steury, B. W., & P. W. Messer. 2014. Twelve ground beetles new to Virginia or the District of Columbia and an annotated checklist of the Geadephaga (Coleoptera, Adephaga) from the George Washington Memorial Parkway. *Banisteria* 43: 40–55.
- Steury, B.W., & P. W. Messer. 2015. Noteworthy beetle records from Virginia and Maryland (Coleoptera: Anthicidae, Buprestidae, Carabidae). *Banisteria* 45: 61–62.
- Steury, B. W., & M. J. Paulsen. 2022. Scarabaeoidea (Coleoptera) of the George Washington Memorial Parkway Virginia, USA. *The Maryland Entomologist* 8: 58–79.
- Steury, B. W., & W. E. Steiner. 2020. Descriptions of four new species of tumbling flower beetles (Coleoptera: Mordellidae) from Eastern North America. *The Coleopterists Bulletin* 74: 699–709.
- Steury, B. W., & W. E. Steiner. 2021. The tumbling flower beetles (Coleoptera: Mordellidae) of the George Washington Memorial Parkway, Virginia, USA. *The Maryland Entomologist* 8: 52–92.
- Steury, B. W., W. E. Steiner, & F. W. Shockley. 2018. The soldier beetles and false soldier beetles (Coleoptera: Cantharidae and Omethidae) of the George Washington Memorial Parkway. *The Maryland Entomologist* 7: 11–27.
- Ulke, H. 1902. A list of beetles of the District of Columbia. *Proceedings of the United States National Museum* 25: 1–57.
- Valentine, B. D. 1991. The *Choragus: Holostilpna* problem (Coleoptera: Anthribidae). *The Coleopterists Bulletin* 45(3): 301–307.
- Valentine, B. D. 1998. A review of Nearctic and some related Anthribidae (Coleoptera). *Insecta Mundi* 12(3&4): 251–296.
- White, R. E. 1966. Six new Anobiidae from North America with keys (Coleoptera). *Proceedings of the Entomological Society of Washington* 68(3): 228–236.