# Status and Distribution of Terrestrial Snails in Southwestern New Mexico

# **Professional Services Contract #20-516-0000-00033**

# Final Report to: New Mexico Department of Game and Fish Share with Wildlife Program

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Mineral Creek mountainsnail (Oreohelix pilsbryi)

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#### INTRODUCTION

Southwestern New Mexico supports a diversity of land snail species, many of which are endemic to a relatively small area (e.g., an isolated mountain range or individual canyons or talus slopes within a mountain range; Pilsbry 1915, Ferriss 1917, Thompson 1974, Vagvolgyi 1974, Miller 1976). The New Mexico Department of Game and Fish (NMDGF 2016) lists 22 species¹ of land snails as Species of Greatest Conservation Need (SGCN); 17 (72%) of these species occur in southwestern New Mexico². Fifteen of these 17 species (88%) are represented by larger, more conspicuous snails in the families Helminthoglyptidae (*Sonorella* spp.), Oreohelicidae (*Oreohelix* and *Radiocentrum* spp.), Polygyridae (*Ashmunella* spp.), and Urocoptidae (*Holospira* spp.). Four of these 17 SGCN are considered Threatened by NMDGF (2020), and the U.S. Fish and Wildlife Service (USFWS 2009) determined that Cooke's Peak woodlandsnail (*Ashmunella macromphala*), Mineral Creek mountainsnail (*Oreohelix pilsbryi*) and Doña Ana talussnail (*Sonorella todseni*) may be warranted for listing under the Endangered Species Act (ESA) and are currently "Under Review" (USFWS 2021b, c, d).

The isolated nature and small population size of many of these species make them vulnerable to natural and human-caused disturbances that could lead to negative population-level effects, local extirpation, or extinction. Primary threats for terrestrial snails in southwestern New Mexico include 1) natural, stochastic events such as extended drought or flooding; 2) soil disturbance from recreational use and mining activities; 3) environmental contamination from historical or contemporary mining; 4) vegetation disturbance and removal; 5) wildland and prescribed fires; 6) livestock overgrazing; 7) erosion, sedimentation, and changes in soil moisture related to the aforementioned threats; and 8) human-mediated climate change and its interaction with threats listed above (Lang 2000, NMDGF 2016).

Due to the potential future listing of the three species under USFWS review (as well as other SGCN snails) in southwestern New Mexico, state and federal agencies, non-profit organizations, private landowners, and other potential stakeholders are moving towards a model that seeks to develop conservation agreements that identify and mitigate potential environmental stressors for one or more of these species, similar to previous efforts in Arizona, (e.g.,CAPLSWG 2017, CPSXTWG 2018). Development of conservation agreements among stakeholders could potentially preclude listing of species under the ESA when they are evaluated in the future. Potential stakeholders in southwestern New Mexico that could benefit from conservation agreements focused on SGCN snails include the NMDGF, U.S. Forest Service (USFS), U.S. Bureau of Land Management (BLM), Malpais Borderlands Group, the Animas Foundation, the Nature Conservancy, and the Department of Defense (DOD; Fort Bliss and White Sands Missile Range<sup>3</sup>).

To formulate and develop conservation agreements, contemporary data on species distribution, natural history, and population status, as well as an initial threats assessment, are required. These data can inform the subsequent development and implementation of monitoring programs that ensure conservation agreements are meeting defined goals. Most surveys for southwestern New Mexico land snails occurred during two disparate periods, i.e., during the early 20<sup>th</sup> century (e.g., Pilsbry 1915, Pilsbry and Ferriss 1917) and the late 20<sup>th</sup> century (Metcalf and Smartt 1997, Lang 2000). While these reports represent a foundational data set, the most recent work is 20 years old. Therefore, to inform the U.S. Fish and

<sup>&</sup>lt;sup>1</sup> This list excludes the Florida mountainsnail (*Oreohelix florida*) that is listed as Endangered by NMDGF (2020) but is considered extinct based on the most recent field surveys for this species by Metcalf and Smartt (1997) and Lang (2000).

<sup>&</sup>lt;sup>2</sup> Southwestern New Mexico in this report is defined as Doña Ana, Grant, Hidalgo, Luna, and Sierra counties.

<sup>&</sup>lt;sup>3</sup> Currently no species occurring on these DOD lands are listed as SGCN, but there is a diverse land snail fauna on these lands (Metcalf and Smartt 1997, Sullivan 1997, Kroll et al. 2003).

Wildlife Service (USFWS) status review of the three aforementioned snail SGCN, as well as potential future reviews of other such species, I have gathered updated status and distribution data on ten SGCN snail species in southwestern New Mexico. Further data collection is planned for 2021.

#### **METHODS**

I prepared for field surveys of targeted terrestrial snail SGCN (Table 1) using a two-pronged approach: 1) I compiled historical records based on primary reports and published articles, and 2) I queried and compiled museum records online from natural history museums known to house New Mexico terrestrial snail specimens. Historical records from reports, articles, and museum records have been compiled in Microsoft Excel spreadsheets and are included here as abbreviated tables.

**Table 1.** Terrestrial snail Species of Greatest Conservation Need in southwestern New Mexico targeted during 2020 surveys.

Family	Common Name	Species	County
	New Mexico talussnail (Big Hatchet Mtns)	Sonorella hachitana hachitana <sup>1</sup>	Hidalgo
Helminthoglyptidae	New Mexico talussnail (Florida Mtns)	Sonorella hachitana flora <sup>1</sup>	Luna
	Doña Ana talussnail	Sonorella todseni <sup>3</sup>	Doña Ana
Oreohelicidae	Mineral Creek mountainsnail	Oreohelix pilsbryi <sup>2</sup>	Sierra
	Fringed mountainsnail	Radiocentrum ferrissi <sup>1</sup>	Hidalgo
	Silver Creek woodlandsnail	Ashmunella binneyi <sup>2</sup>	Grant
Polygyridae	Hacheta Grande woodlandsnail	Ashmunella hebardi¹	Hidalgo
	Cooke's Peak woodlandsnail	Ashmunella macromphala <sup>2</sup>	Luna
Urocoptidae	Cross Holospira snail	Holospira crossei¹	Hidalgo
or occipitate	Metcalf Holospira snail	Holospira metcalfi³	Grant

<sup>&</sup>lt;sup>1</sup> Species occurs in the Madrean Archipelago ecoregion.

I used reports, publications, and museum records to develop a survey approach that identified specific mountain ranges and sites within mountain ranges that maximized efficiency of field efforts. Mountain ranges identified included the Black and Cooke's ranges and the Doña Ana, Florida, Big Hatchet, and Little Hatchet mountains. A critical component of this approach was coordination with knowledgeable individuals from the U.S. Forest Service and the U.S. Bureau of Land Management familiar with the landscape regarding access to sites or lack thereof (e.g., private lands, locked gates, inaccessible roads, etc.).

I surveyed for snails using visual encounter surveys (VES) that targeted micro-environments that support more mesic conditions (e.g., slopes with decomposing rock piles or talus slides, wood or leaf debris

<sup>&</sup>lt;sup>2</sup> Species occurs in the Arizona/New Mexico Mountains ecoregion.

<sup>&</sup>lt;sup>3</sup> Species occurs in Chihuahuan Deserts ecoregion. All ecoregions as defined by NMDGF (2016).

accumulations, and shaded canyon bottoms) to increase the probability of detecting snails. This included flipping rocks and other potential cover objects (e.g., leaf litter, woody debris). I also sifted through fine sediments, small rocks, and plant debris (e.g., decaying leaves, twigs, etc.) as snails and shells were often buried at a depth of approximately 1 cm to 0.5 m depending on the substrate (e.g., fine soils vs. rocky talus). The survey approach at any given site is dictated by on-site conditions and varies widely among sites and species.

All data, including presence of snail species (including live snails, shells, or shell fragments) and GPS coordinates, are being provided to NMDGF in an Excel spreadsheet compatible with existing NMDGF databases. I photo-vouchered live specimens and shells and photographed representative habitat at each site. I also collected and preserved voucher specimens of live individuals for accessioning into an accredited natural history museum.

At each survey site, I recorded a suite of habitat variables that included 1) elevation, 2) aspect, 3) slope, 4) dominant geology and vegetation, 5) air and soil temperature, 6) relative soil moisture, and 7) soil and litter accumulation. I used this information to provide a generalized description of the environment in which individual target species were observed across sites. I also recorded signs of habitat disturbance at survey sites that included: a) mining activities; b) development projects; c) livestock presence; d) vegetation removal; e) recreational use; f) fire; g) invasive plants or mollusks; and/or h) chemical contamination and used this information to determine a preliminary threats assessment.

#### **RESULTS**

### Historical Records

I extracted over 200 records of terrestrial snail species from published reports and research articles (e.g., Pilsbry and Ferriss 1917, Metcalf and Smartt 1997, Sullivan 1997, Lang 2000, Lang 2005) and over 700 records from museums the two primary museums with New Mexico terrestrial snail holdings; The Academy of Natural Sciences of Philadelphia (ANSP) and the University of Texas at El Paso Biodiversity Collections (UTEPBC; Appendices B, C, and D). A majority of these records are due to the extensive work done in the state by Henry A. Pilsbry and James H. Ferris (ANSP) in the early 20<sup>th</sup> century and from the work of Dr. Artie Metcalf and Brian K. Lang (UTEPBC), among other individuals, in the latter 20<sup>th</sup> century.

Mapping historical sites was a laborious process that often led to uncertain or imprecise results. Information related to a given species locality ranged from descriptive narrative in older references<sup>4</sup> to the U.S. Public Land Survey System reference (i.e., Township, Range, Section; TRS) to latitude and longitude or Universal Transverse Mercator (UTM) coordinates. I interfaced available locality information with USGS topographic maps using National Geographic TOPO<sup>TM</sup> and satellite imagery from Google Earth<sup>TM</sup> in an iterative process to attempt to further refine and locate historical sites. This often entailed locating topographic map features described in references and records and/or landform or geologic features that could represent snail habitat and that could better direct field investigations. When latitude and longitude and UTM coordinates were provided (e.g., Metcalf and Smartt 1997, Lang 2000), these proved to be nearly useless as the coordinates as listed rarely mapped to areas that were consistent with the site, habitat, or TRS descriptions. The reasons for these discrepancies are unclear but may be a result of less precise GPS technology in the 1990's.

<sup>&</sup>lt;sup>4</sup> These sources often used archaic place names (i.e., names that could not be located using contemporary map sources, including U.S.Geological Survey or U.S. Forest Service maps).

I shared maps of historical snail observations with appropriate land managers (BLM, USFS) to further determine accessibility of potential survey sites. While in the field, I used these maps in combination with landform and geologic features to further locate potential historic or novel snail localities. An important and informative result of the current survey will be more precise, georeferenced localities that will greatly aid in future investigations.

#### Field Surveys - Overview

I surveyed for target species during 17-26 June and between 14 October and 5 November, 2020 in southwestern New Mexico (Figure 1). Survey results are summarized in Tables 2 and 3 and representative photographs of snails and their habitat are found in Appendix A.

**Table 2.** Overview of terrestrial snail survey results for targeted areas in southwestern New Mexico, 2020.

Locality	Mountain Range	County	Sites Surveyed <sup>a</sup>
Spring Canyon	Black Range	Grant	7
Silver Creek	Black Range	Grant	15 <sup>b</sup>
Mineral Creek	Black Range	Sierra	6
Doña Ana Peak	Doña Ana Mountains	Doña Ana	17 <sup>c</sup>
Cooke's Peak	Cooke's Range	Luna	7
Castle Dome Wash	Florida Mountains	Luna	2
Baldy Peak, NW slope	Florida Mountains	Luna	3
Howell's Ridge	Little Hatchet Mountains	Grant	5
Thompson Canyon	Big Hatchet Mountains	Hidalgo	4

<sup>&</sup>lt;sup>a</sup> Sites surveyed is a count of unique and/or separate habitat features surveyed within a given locality and is often determined by the extent of a species' geographical range, potential available habitat, and access.

The survey year, 2020, was an exceptionally dry year in southwestern New Mexico and summer rains were well below average. All surveys occurred under dry conditions (i.e., no recent precipitation had been recorded in the vicinity of any given mountain range during survey periods). July was the wettest month in 2020 but, due to the COVID-19 pandemic, out-of-state travelers were banned from entering New Mexico without committing to a 2-week quarantine period. Despite these climatic and public health challenges, I was able to find live, aestivating individuals<sup>5</sup> of several species in some of the driest months of the year in this region. This outcome informs survey approaches, at least with certain species, in that detectability of live individuals may not be as linked to moist periods as is generally assumed. Despite this, I most often encountered shells or shell fragments, rather than live individuals. Surveys during the monsoon season from July through September *should* yield more live individuals, at least with some species at some sites. It will be interesting to compare detectability between wet and dry seasons in 2021.

<sup>&</sup>lt;sup>b</sup> Silver Creek is the type locality (Pilsbry 1917) for *Ashmunella binneyi*. An intense wildfire occurred in this area in 2013 (i.e., the Silver Fire); hence, extra survey effort was expended here to ascertain potential impacts.

<sup>&</sup>lt;sup>c</sup> Potential habitat for the Doña Ana talussnail occurs as relatively small, scattered patches on an extremely steep and environmentally exposed slope.

<sup>&</sup>lt;sup>5</sup> Terrestrial snails seal off the shell aperture with a dried mucous seal (known as an epiphragm) to reduce moisture loss. This can be readily observed in the field with some species.

Being able to survey during the wet season may allow for a better understanding of the current population status of target species.

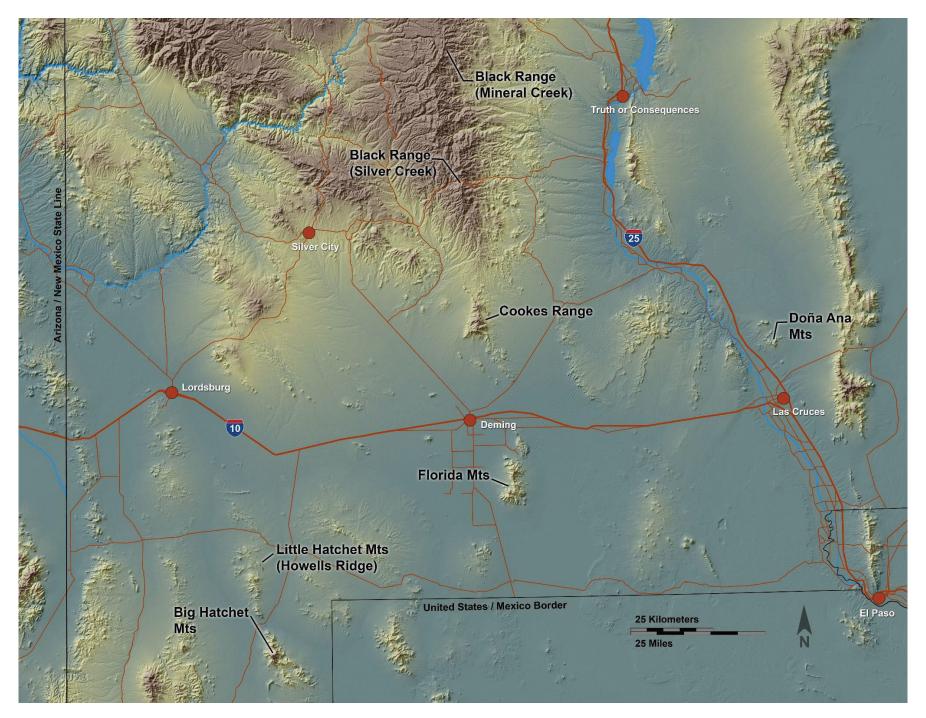


Figure 1. Overview of 2020 terrestrial snail survey area with target mountain ranges in southwestern New Mexico.

Access to most public lands was relatively unhindered with the exception of Chaney Canyon in the northwestern part of the Big Hatchet Mountains. Access to BLM lands in the upper part of the canyon is blocked by a locked gate on a small parcel of private land. This canyon contains several potential historical localities for Hacheta Grande woodlandsnail (*Ashmunella herbardi*) and New Mexico talussnail (Big Hatchet Mountains; *Sonorella hachitana*). In February 2021, with the support of NMDGF, the landowner has agreed to allow access for the 2021 survey season.

### <u>Field Survey – Target Species</u>

# **FAMILY: POLYGYRIDAE**

### Silver Creek woodlandsnail - Ashmunella binneyi

The type locality of the Silver Creek woodlandsnail is Silver Creek at ~8,500 ft in the Black Range (Pilsbry and Ferriss 1917). The Silver Creek woodlandsnail is known to occur in Grant County along the northwestern slope of Sawyer Peak from Silver Creek north to Bull Top Creek [sic]<sup>6</sup> and Spring Canyon from between 8,000-8,500 ft. in elevation (Pilsbry and Ferriss 1917). These are northeast – southwest trending, steep-sided, relatively narrow canyons with slopes ranging from 50-70%. Dominant geology is igneous with limestone rock outcrops occurring sporadically along the canyon slopes (Slaughter and Boykin 2011). The vegetation community is dominated by a ponderosa and southwestern white pine overstory (*Pinus ponderosa*, *P. strobiformis*) with mixed stands of Gambel's oak (*Quercus gambelii*) and alligator bark juniper (*Juniperus deppeana*). There is relatively little understory development, typical of Petran Montane Conifer Forest (Brown 1994). Ash and fine soils associated with wildfire are the dominant substrates. All of its known range occurs on Gila National Forest, Silver City Ranger District.

Metcalf and Smartt (1997) report finding individuals of the Silver Creek woodlandsnail in its historic range in upper Spring Canyon, but they provide no details as to when they surveyed or relative abundance of live snails or shells. Slaughter and Boykin (2011) report Silver Creek woodlandsnail localities as follows: 1) abundant in upper Silver Creek at 8,550 elevation (n=30 live collected), 2) abundant at "Spring Canyon Trailhead<sup>7</sup>" at 7,100 elevation (n=30 live collected), 3) Spring Canyon at 7,439 ft. elevation (n=22 live collected)<sup>8</sup>, and 4) Spring Canyon at 7,396 ft. elevation (n=8 live collected)<sup>7</sup>.

The Silver Creek woodlandsnail has no ranking with USFWS and is considered "Sensitive" by USFS (2013).

My surveys focused on both sides of focal canyons (see below) and were generally within 75 meters of the canyon bottom. I primarily targeted rock piles and outcrops but also flipped down, dead woody debris when encountered.

I surveyed for this species at 15 sites in Silver Creek and 7 sites in Spring Canyon (Table 2). I encountered 5 live adults and 3 live juveniles in Silver Creek and 5 live adults and 2 live juveniles in Spring Canyon. Live snails (including adults and juveniles) ranged from 0 to 2.8 individuals per hour (Table 3) and were relatively uncommon. Shells were moderately common; detection rates ranged from 1

<sup>&</sup>lt;sup>6</sup> This is assumed to be Bull Trap Canyon as named on USGS 7.5 min. Hillsboro Peak quadrangle (2000). Bull Trap Canyon lies between Silver Creek and Spring Canyon and Pilsbry and Ferris (1917) state they accessed all sites from above, along the main ridgeline.

<sup>&</sup>lt;sup>7</sup> This site could not be identified on USGS topographic or USFS maps (i.e., elevations do not match potential "trailheads)."

<sup>&</sup>lt;sup>8</sup> Authors assumed these individuals to be presumptive hybrids with the Iron Creek woodlandsnail.

to 32 shells per hour. Many of the shells located showed obvious signs of fire damage. All but one live snail were associated with rocks. I did find one adult, live snail under a piece of burned pinewood in upper Silver Creek.

Metcalf and Smartt (1997) considered Silver Creek woodlandsnail and the Iron Creek woodlandsnail (*Ashmunella. mendax*) as "...probably closely related and possibly conspecific..." but maintained them as separate species based on Pilsbry and Ferriss' (1917) original description. Slaughter and Boykin (2011) conducted a phylogenetic analysis on *Ashmunella* spp. from the Black Range to clarify taxonomic uncertainties using polymerase chain reaction (PCR) amplifications of two mitochondrial gene regions. Their results do not support the recognition of Silver Creek woodlandsnail as a valid taxon. Regarding the validity of the current taxonomy, NMDGF should consult with experts in phylogenetics to determine if this species warrants continued recognition as a Species of Greatest Conservation Need.

The single greatest threat to this species is the impact of the Silver Fire of 2013. This wildfire burned a large portion of these watersheds at moderate to severe intensities, including much of the upper watersheds where historic locations of Silver Creek woodlandsnail were recorded. This resulted in a mosaic of small, unburned areas and larger areas where stand replacing fires occurred. The latter resulted in an obvious reduction in canopy and organic ground cover across large areas of canyon slopes and likely led to direct mortality from fire or indirect mortality from post-fire erosion and/or debris flows. Removal of large areas of canopy and ground cover likely increased the aridity of slopes that were previously inhabited by snails and has resulted in a reduction in available habitat and therefore smaller, more isolated occupied areas. While the species has not been extirpated, its range-wide population may have been greatly reduced with remaining snail subpopulations now functionally isolated from other subpopulations. Future surveys will target both burned and unburned areas to determine (to the extent possible) if snails are still found in burned areas. I recommend that the USFS monitor forest recovery post-fire and implement fire management practices that reduce the potential for severe wildfires.

#### Hacheta Grande Woodlandsnail - Ashmunella hebardi

The Hacheta Grande woodlandsnail was described by Pilsbry and Vanatta (1923) from "...the northwestern slope of Hacheta Grande...in a broad canyon...at about 7600 ft.9" in the Big Hatchet Mountains, south-southwest of Hachita in Hidalgo County. This canyon is undoubtably Chaney Canyon. The species' description is based solely on bleached or partially bleached shells, and although they considered them to be related to the Big Hatchet woodlandsnail (*Ashmunella mearnsii*) (known from Big Hatchet Peak approximately 1000 ft. higher in elevation), they considered their shell morphology as "...conspicuously distinct (Pilsbry and Vanatta 1923)." The upper slopes of Chaney Canyon are composed of limestone (Drewes 1991). The vegetation community is Madrean Evergreen Woodland at higher elevations and a mixture of Interior Chaparral and Semidesert Grassland at mid- to lower elevations (Brown 1994). Metcalf and Smartt (1997) report pinyon pine (*Pinus* spp.) on slopes. Satellite imagery shows relatively densely vegetated, northwest-facing slopes likely supporting juniper and oaks as well. This species occurs exclusively on the Las Cruces District, BLM.

Metcalf and Smartt (1997) report that "Ashmunella hebardi,...appears to be a local endemic of the Big Hatchet Peak area. We have collected it near what must be the type locality [T.L.] on the south side of Chainey [sic] Canyon (a broad canyon, as indicated in the description of the T.L.) on the northwestern, precipitous slope of Hacheta Grande. Here, it occurs under loose stones below cliffs in an area of unusually tall pinyon pines." They also report that they found shells that fit the morphology of the

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<sup>&</sup>lt;sup>9</sup> Shells were not collected by the authors.

original description of Hacheta Grande woodlandsnail, but also shells that were transitional in shell morphology with Big Hatchet woodlandsnails, and shells more typical of Big Hatchet woodlandsnails "...within 0.3 mile and several hundred feet, altitudinally."

The Hacheta Grande woodlandsnail was first reviewed for listing under the ESA in 1991 and subsequently in 1994 (USFWS 1991, 1994) and was considered a Category 2 species. Category 2 species were those species USFWS considered to have potential for protection under the ESA but for which there were insufficient data, at that time, to initiate a formal review. The USFWS eliminated Category 2 species in 1995 and therefore these species were no longer afforded protections under the ESA. USFWS (2009) published a 90-day finding that determined "...the petition does not present substantial information to indicate that listing the Hacheta Grande woodlandsnail may be warranted. 10" This species is currently "Not Listed" (USFWS 2021a). The Hacheta Grande woodlandsnail is also considered "Sensitive" by BLM (2018) and threatened by NMDGF (2020).

Due to previously mentioned, private lands-related access issues, I have yet to survey BLM lands in Chaney Canyon. These access issues have been resolved as of early 2021, and surveys will occur in this canyon during 2021.

The area is remote, and access is limited due to private lands (i.e., a locked gate) that bar the public from accessing public BLM lands beyond. Therefore, the area would be very unlikely to receive recreational use. Cattle grazing likely occurs in Chaney Canyon but is probably limited to the lower slopes (i.e., not on the steep, rocky slopes where the species is found). It is difficult to make any recommendations at this time as occupied habitat has yet to be surveyed, but I urge the BLM to consider this species when developing management plans for this part of the mountain range, especially plans related to controlled or prescribed burns. Taxonomic studies using molecular techniques are needed to determine whether the Hacheta Grande woodlandsnail and the Big Hatchet woodlandsnail represent full species or simply a single species with a range of intergrading shell morphologies. I will target future surveys in areas in upper Chaney Canyon during 2021.

### Cooke's Peak woodlandsnail - Ashmunella macromphala

Cooke's Peak woodlandsnail was described by Vagvolgyi (1974) and is only known from Cooke's Peak in the Cooke's Range north-northeast of Deming in Luna County. Snails have been collected from north and east of Cooke's Peak, primarily along igneous talus slides at an elevation of approximately 6100-7600 ft. (Vagvolgyi 1974, Lang 2000). The vegetation community at higher elevations is Madrean Evergreen Woodland and at mid- to lower elevations is a mixture of Interior Chaparral and Semidesert Grassland (Brown 1994). The upper slopes are steep, ranging from about 55 to 70% slope and are characterized by long, narrow talus slides bordered historically by Gambel's oak and mountain mahogany (*Cercocarpus* spp.) (Vagvolgyi 1974; S. Torrez, BLM, pers. comm.). These talus slides are composed of relatively large rocks (~0.4m²) with smaller rocks, soil, and leaf litter filling interstitial spaces, especially along the talus border where the Gambel's oaks historically provided shade. Predominant substrates are fine sediments and ash related to fire. This species occurs exclusively on the Las Cruces District, BLM.

At the type locality, Vagvolgyi (1974) collected 80-90 live adults at one talus slide that was bordered by oaks from under rocks and among leaf debris that had accumulated in the interstitial spaces; debris was lacking in moisture; elevation was estimated at 6,900-7,000. Metcalf and Smartt (1997) collected "specimens" from talus slides similar to those described by Vagvolgyi (1974). They do not specify if specimens were live or shells. In May of 1998 and 2000, Lang (2000) collected live juveniles and adults

<sup>&</sup>lt;sup>10</sup> The same determination was made for the Big Hatchet woodlandsnail (Ashmunells mearnsii) (USFWS 2009).

from leaf litter that had accumulated in talus slides to a depth of  $\leq 1$  m in the "vicinity of the" type locality at an elevation of  $\sim 7600$  ft. <sup>11</sup>

The Cooke's Peak woodlandsnail was first reviewed for listing under the ESA in 1991 and subsequently in 1994 (USFWS 1991, 1994) and was considered a Category 2 species. Category 2 species were those species USFWS considered to have potential for protection under the ESA but for which there were insufficient data, at that time, to initiate a formal review. The USFWS eliminated Category 2 species in 1995 and therefore these species were no longer afforded protections under the ESA. USFWS (2009) published a 90-day finding that determined the Cooke's Peak woodlandsnail may be warranted for listing under the ESA due to current or potential threats to its habitat (e.g., fire, rockslides and manmade or natural impacts related to climate change). This species is currently "Under Review" (USFWS 2021b). The Cooke's Peak woodlandsnail is also considered "Sensitive" by BLM (2018) and threatened by NMDGF (2020).

I targeted areas of the talus-oak interface for surveys. Surveys involved slowly digging in the talus slides at the soil-talus-Gambel's oak interface to avoid collapse of the depression that could lead to crushed or buried snails or shells. Pits were excavated from  $\sim 0.3$  - 0.5 m deep and  $\sim 0.25$  m<sup>2</sup>. Ash and fine soils associated with the fire were the dominant substrates.

I surveyed for this species at 7 sites in the Cooke's Range (Table 2). I encountered no live snails and shells were relatively uncommon. Of those shells I did detect, most were fragments and/or apparently fire-damaged. Shell detections ranged from 0 to 4.6 per hour (Table 3).

The primary observed threats for this snail are the impacts from the BLM controlled-burn that occurred in June of 2014. The goal of this management action was to burn some of the dense mountain mahogany to stimulate new growth, but because of the steep and rocky nature of the terrain, the majority of the burn was in the denser areas of Gambel's oak trees, which are also the areas where the best snail habitat was previously found. The result was that the oaks burned fairly intensely and, while it did not kill all the trees, it dramatically reduced canopy cover (S. Torrez, BLM, pers, comm.). At present, the oaks are sucker-sprouting and the "crowns" do provide some degree of shade, albeit only from about a third the height of the former canopy. Future surveys will target both burned and unburned areas (if they exist) to determine (to the extent possible) if snails are still found in burned areas. I recommend that the BLM continue to monitor vegetation recovery post-fire and implement fire management practices in the Cooke's range that consider the potential impacts to this species.

#### **FAMILY: UROCOPTIDAE**

# Cross Holospira Snail - Holospira crossei

Cross Holospira was described by Dall (1895)<sup>12</sup> from the "Top of Hacheta Grande Mountains..." and is known from several locations throughout the Big Hatchet Mountains (Pilsbry 1915, Pilsbry and Vanatta 1923<sup>13</sup>), which are located south-southwest of Hachita in Hidalgo County. The Big Hatchet mountains are

<sup>&</sup>lt;sup>11</sup> Elevations for the type locality of Cooke's Peak woodlandsnail reported in Vagvolgyi (1974) are not congruent with that reported by Lang (2000) from what he considered near the "type locality."

<sup>&</sup>lt;sup>12</sup> This species, along with *Sonorella hachitana* and others, was among the first land snails to be described for New Mexico. These descriptions were a result of collections made by Dr. E.A. Mearns during the Mexican Boundary Survey (Pilsbry 1915).

<sup>&</sup>lt;sup>13</sup> These shells were collected in Chaney Canyon at 7600 ft.

composed primarily of limestone (Drewes 1991). The vegetation community is a mixture of Madrean Evergreen Woodland at higher elevations and a mixture of Interior Chaparral and Semidesert Grassland at mid- to lower elevations. (Brown 1994). Big Hatchet Peak is at 8,366 ft elevation. Mountain slopes can range from ~ 45 to 60 % but slope is negligible when surveying along the base of limestone cliffs (Wallace pers. obs.). This species is associated with dry, rocky limestone outcrops in the vicinity of pinyon pines and junipers. The terrain I have surveyed in Thompson Canyon consists of scattered limestone outcrops surrounding the east and north slopes of "Daniels Mountain<sup>14</sup>", which is the biggest peak in the southwestern portion of the canyon. This species occurs exclusively on the Las Cruces District, BLM.

During 20-26 August 1910<sup>15</sup>, Pilsbry collected thousands of shells during a week-long survey throughout the central and southern part of the range (Pilsbry 1915, 1946). It is unclear if he collected any live material, but the descriptions of the many "races" he collected are all based on shell morphology and not internal anatomy. Metcalf and Smartt (1997) report collections of live individuals "...in limestone talus on the north facing slope of this mountain..." in 1985 (no date given). During November 1988 surveys, they encountered abundant shells "...along the northern cliff face of Hachita Grande..."

The Cross Holospira snail has no ranking with USFWS and is considered "Sensitive" by BLM (2018).

I surveyed for this species by moving along within 1-3 m of the base of the cliff and flipping any cover objects encountered; these were predominantly relatively flat limestone rocks. I sifted through loose sediments and debris that was associated with cover objects. Habitat is similar to Metcalf Holospira (see below).

I surveyed for Cross Holospira at 4 sites in Thompson Canyon in the Big Hatchet Mountains (Table 2). I encountered no live snails, but shells were very common along the bases of limestone cliffs. I detected shells at a rate that ranged from 12.5-77.3 per hour (Table 3). It seems likely that detections of live snails should increase in this dry mountain range during the summer monsoon season.

I did not observe any overt threats to this species, but surveys in the mountain range are as yet incomplete. Due to the steep, rocky terrain and general inaccessibility of snail localities, recreational use seems limited to intrepid hikers and mountain climbers and appears to be very low. This rough terrain also limits access by livestock, although some sign of livestock was noted along the lower, less steep slopes. There is always the possibility that wildfire or prescribed burns could affect Cross Holospira and other snail species in the range (e.g., see Cooke's Peak woodlandsnail account). I recommended that BLM consider this unique and endemic group of invertebrates in the Big Hatchet mountains when developing management plans, in particular as they relate to fire management.

# Metcalf Holospira Snail – Holospira metcalfi

Metcalf Holospira was described by Thompson (1974) and is endemic to Howell's Ridge, an isolated limestone reef in the northeastern portion of the Little Hatchet Mountains in Grant County. This species was found at an average elevation of 5,500 ft. (Metcalf and Smartt 1997, Wallace pers. obs.). Mountain slopes perpendicular to the ridge range from  $\sim 40$  to 50% but slope is negligible when surveying along the base of limestone cliffs. The vegetation community is Semidesert Grassland (Brown 1994) with isolated

<sup>&</sup>lt;sup>14</sup> This feature was named by Pilsbry (1915), but is not named on any contemporary maps. I have conclusively identified its location based on Pilsbry's description.

<sup>&</sup>lt;sup>15</sup> Pilsbry states that conditions during surveys were very dry and hot.

junipers and shrubs occurring at the base of 60-80 ft. cliffs and on the slopes below. This species occurs exclusively on BLM-managed land.

This species was found underneath and along the edges of limestone rocks, where soil interfaces with the rock. Based on previous accounts (Metcalf and Smartt 1974, Metcalf and Smartt 1997), the species has been collected from 3 locations, but the impression is given that the species is or could be present at any point along Howell's Ridge, a feature that is approximately 6 miles long (Metcalf and Smartt 1997). To date, I have surveyed  $\sim 50\%$  of the ridge and the species appears to only be found on the largest outcrop in the center of this geological feature. If this is the case, the species is even more highly endemic then previously assumed.

The Metcalf Holospira snail has no ranking with USFWS and is considered "Sensitive" by BLM (2018).

I surveyed for this species by moving along within 1-3 m of the base of the cliff and flipping any cover objects encountered; these were predominantly relatively flat limestone rocks. I sifted through loose sediments and debris that was associated with cover objects. Habitat is similar to Cross Holospira (see above).

I surveyed for Metcalf Holospira at 5 sites along Howell's ridge (Table 2) and detected 34 live adults and 3 live juveniles; all were aestivating with an epiphragm. Detection rates were 5 to 6.8 live snails (adults and juveniles combined) per hour (Table 3). Individuals were found singularly and in aggregations of 3 - 8 individuals as previously reported (Metcalf and Smartt 1997). I detected shells at a rate that ranged from 12.5 to 77.3 per hour (Table 3). It seems likely that detections of live snails should increase in this dry mountain range during the summer monsoon season. Despite surveys being conducted during the dry season, it appears this highly endemic species maintains a relatively robust population. Future surveys will allow further clarification of this species' status.

The area is remote and would be unlikely to receive any recreational use. During surveys, I did encounter limited debris associated with immigrants (backpacks, clothing, blankets, food tins) at the immediate base of cliffs and larger rock piles that were likely used for cover. This all appeared very weathered and probably dates to the last major wave of immigration around 2000<sup>16</sup>. This human activity certainly posed a minor threat due to trampling and disturbance of micro-habitats but was likely limited temporally and relatively inconsequential to the population's status. I did not detect heavy cattle grazing; despite this, some sites where this species occurs would be accessible to cattle, resulting in potential trampling if cattle are present. I recommend that BLM consider this unique and endemic group of invertebrates when developing management plans. I will target future surveys in areas along Howell's Ridge that are as yet unsurveyed to determine the actual range of this species, as it appears to more highly endemic than previously assumed.

# **FAMILY: HELMINTHOGLYPIDAE**

## New Mexico talussnail (Big Hatchet Mountains) - Sonorella hachitana hachitana

The New Mexico talussnail (Big Hatchet Mountains)<sup>17</sup> was described by Dall (1895) from "Hachita Grande Mountain, at an elevation of 8270 ft..." and is known from several other locations throughout the

 $<sup>^{16}</sup>$  I am familiar with this phenomenon with  $\sim 10$  years of experience working along the Arizona-Mexico border from 1993 - 2003.

<sup>&</sup>lt;sup>17</sup> This species is the type genus for *Sonorella* (Pilsbry 1900, 1905).

central part of the range as well as upper Chaney Canyon (Dall 1895, Pilsbry 1915, Pilsbry and Vanatta 1923). The Big Hatchet Mountains are located south-southwest of Hachita in Hidalgo County and are composed primarily of limestone (Drewes 1991). The vegetation community is a mixture of Madrean Evergreen Woodland at higher elevations and Interior Chaparral and Semidesert Grassland at mid- to lower elevations (Brown 1994). Pilsbry (1915) reports pinyon pine, "scrubby cedars", and "small scrub oaks" only from the highest elevations. Miller (1967) reports from his collecting sites, "Vegetation...consists mainly of piñon, scrub oak, [mountain mahogany] *Cercocarpus*." This species occurs exclusively on the Las Cruces District, BLM.

Pilsbry (1915) surveyed this range during 20-26 August 1910<sup>18</sup> and collected this species, both live<sup>19</sup> and as shells, at four stations; they were most abundant at Station 7 (Pilsbry 1915). Miller (1967) reports first encountering shells at 6800 ft. on the way to Big Hatchet Peak from Thompson Canyon and above this "...shells are scattered nearly everywhere, probably indicating a nearly continuous population." At Pilsbry's station 7, Miller collected "...12 live adults, 48 live immatures, and numerous dead shells....at 7400 ft." Metcalf and Smartt (1997) report finding this species "...on the northern face of Big Hatchet Peak, also under tall pinyon pines" and report collecting live specimens in the "1980's" (Table 6).

The New Mexico talussnail, Big Hatchet Mountains population, has no ranking with USFWS and is considered "Sensitive" by BLM (2018).

I have yet to access the higher elevations of the Big Hatchet Mountains and conduct surveys targeting this species. Surveys in 2021 will occur from approximately 7400 ft. to 8360 ft., at and around Big Hatchet Peak.

Due to the steep, rocky terrain and general inaccessibility of snail localities, recreational use seems limited to intrepid hikers and mountain climbers and appears to be very low. This rough terrain likely limits access by livestock, although some sign of livestock was noted along the lower, less steep slopes. There is always the possibility that wildfire or prescribed burns could affect *S. hachitana* and other snail species in the range (e.g., see *Ashmunella macromphala* account). It is difficult to make any recommendations at this time as occupied habitat has yet to be surveyed, but I urge the BLM to consider this species (and similar endemic species of this mountain range) when developing management plans for the Big Hatchet Mountains, especially as they relate to fire management.

### New Mexico talussnail (Florida Mtns) - Sonorella hachitana flora

The New Mexico talussnail (Florida Mountains) subspecies, was first described by Pilsbry (1915) from the Florida Mountains south-southeast of Deming in, Luna County. It is known to occur in the western and northwestern portion of the mountain range (Pilsbry 1939, Miller 1967). Based on these historical descriptions, the previous localities would appear to be in upper Capitol Dome Draw and at the base of the mountain northwest of Mount Baldy, in the vicinity of Mahoney Park, at an approximate elevation of 5,500 to 7,000 ft. Mountain slopes range from 50 to 70 % (Wallace pers. obs.). The vegetation community is a transition zone of Semidesert Grassland and Interior Chaparral with elements of Madrean Evergreen Woodland along washes and at the base of cliffs (Brown 1994). This species occurs exclusively on the Las Cruces District, BLM.

<sup>&</sup>lt;sup>18</sup> Pilsbry states that conditions during surveys were very dry and hot.

<sup>&</sup>lt;sup>19</sup> This not stated directly but is implied based on dissections of genitalia illustrated in the paper.

Pilsbry (1915) states "Around the base of this central summit [Baldy Peak?] we found... Sonorella by digging in the soil among the rocks where there was shade." Miller reports finding this species "...in rock piles on north facing slopes below large cliffs on the south side of the canyon [Castle Dome Draw?]..."

The New Mexico talussnail (Florida Mountains) subspecies, has no ranking with USFWS and is considered "Sensitive" by BLM (2018).

I surveyed for this species by traversing the slopes and looking for suitable talussnail habitat. Potential habitat was not commonly encountered, despite long walks across slopes and at the base of cliffs. When encountered, which was uncommon, I sifted through small rock piles and talus slides.

I surveyed for this species at 3 sites in the vicinity of Mahoney Park and 2 sites in upper Castle Dome Draw (Table 2). I did not detect any living snails but did find several shells and shell fragments. I detected shells at a rate that ranged from 0 to 12 shells per hour (Table 3). Most shells detected were in the open on exposed rocks or soil and did not seem to be associated with typical talussnail habitat (although these can vary widely among species). Based on the position I found them in, I assume they had been moved downslope by wind and water from areas with suitable habitat above. This is a large talussnail with a thick, robust shell making it more difficult to determine the relative age of shells (i.e., are they recent or subfossils). It seems likely that detections of live snails of this species in this arid range might increase during the summer monsoon season.

The area is remote and would be unlikely to receive much recreational use. I did not detect any cattle grazing up on the steep, precarious slopes, although there are cattle in the area. It is difficult to make any recommendations at this time as currently occupied habitat has yet to be determined. I urge the BLM to consider this species when developing management plans for this mountain range, especially plans related to controlled or prescribed burns. I will target future surveys in areas in Castle Dome Draw and the slopes above Mahoney Park that are as yet unsurveyed.

#### Doña Ana talussnail - Sonorella todseni

The Doña talussnail was first described by Miller (1976) from the north slope of the Doña Ana Mountains immediately north of Las Cruces in Doña Ana County. It is known to occur on the north, northeast, and southeast slopes of Doña Ana Peak at an elevation of approximately 5600-5835 ft (Sullivan 1997, Lang 2000). Slopes range from ~ 50 to 80% (Sullivan 1997, Wallace pers. obs.). It is most often found associated with rhyolitic outcrops and talus slides and Lang (2000) suggested that live snails were more often associated with black rhyolitic rocks, as opposed to brown rhyolitic rocks. The vegetation community is characteristic of Semidesert Grassland (Brown 1994) and grasses are the dominant vegetative cover. Plants with a stature greater than grasses are sparse and widely dispersed and include juniper, desert spoon (*Dasylirion wheeleri*), yuccas (*Yucca* spp.), silktassel (*Garrya* spp.), and Mormon tea (*Ephedra* spp.). This species occurs exclusively on the Las Cruces District, BLM.

Miller (1976) reports that on 28 August 1972, many live snails, as well as shells, were collected. Sullivan (1997) found 50 live individuals at 5 sites, suggesting they were relatively abundant during his survey(s). While he does not specify the months or weather conditions during his surveys, it is assumed that these occurred during a wet/moist period. Metcalf and Smartt (1997) report that "specimens" were not very common, but they do not specify when or under what environmental conditions their survey(s) occurred, nor whether their "specimens" were live snails or shells.

The Doña Ana talussnail was first reviewed for listing under the ESA in 1991 and subsequently in 1994 (USFWS 1991, 1994) and was considered a Category 2 species. Category 2 species were those species

USFWS considered to have potential for protection under the ESA but for which there were insufficient data, at that time, to initiate a formal review. The USFWS eliminated Category 2 species in 1995 and therefore these species were no longer afforded protections under the ESA. In 2009, USFWS (2009) published a 90-day finding that determined the Doña Ana talussnail may be warranted for listing under the ESA due to manmade or natural impacts related to climate change. This species is currently "Under Review" (USFWS 2021c). The Doña Ana talussnail is also considered "Sensitive" by BLM (2018) and threatened by NMDGF (2020).

Surveys involved slowly digging in the talus slides to avoid collapse that could lead to crushed or buried snails or shells. Pits were excavated from 0.1-0.5 m deep and  $\sim 0.25$  m<sup>2</sup>. Shells were often found in clusters or aggregations. Usually when aggregations were encountered, I would uncover rocks with epiphragm scars on them. The epiphragm is a mucous plug that seals a snails' aperture and reduces moisture loss during periods of inactivity<sup>20</sup>.

I surveyed for this species at 17 sites on the north slope of Doña Ana Peak (Table 2). Potential habitat for the Doña Ana talussnail occurs as relatively small, scattered patches of rock piles and talus slides of varying depths on steep and environmentally exposed slopes. I encountered only one live, juvenile snail during a survey; the detection rate during this survey was 0.4 snails per hour (Table 3). Lack of observations of live snails was likely due to the extremely dry conditions under which surveys occurred. Talussnails will often move to the deepest areas of the talus during dry periods, thus making them difficult to detect. During surveys, shells were extremely abundant. While there were sites I surveyed where I found no shells, there were several where the detection rate ranged from 28 to 126 shells per hour (Table 3).

The area is remote but given its close proximity to Las Cruces, there is a recreational demand for hiking and "summiting" of the peak. In fact, the BLM is currently considering applications for outdoor outfits to obtain commercial access permits (J. Barela, BLM, pers. comm.). I did not detect any cattle grazing up on the steep, precarious slopes, although there are cattle in the area. The area is protected as a BLM wilderness area. I recommend that the BLM monitor this species for the potential effects of increased recreational activities and urge the BLM to consider this species when developing management plans for this mountain range. I will target future surveys in areas along the northeastern slopes and continue to determine what constitutes ideal habitat for this species.

### **FAMILY: OREOHELICIDAE**

### Mineral Creek mountainsnail – Oreohelix pilsbryi

The Mineral Creek mountainsnail was first described by Ferriss (1917) from a short reach of Mineral Creek west-northwest of Chloride in Sierra County. It is known to occur along an approximately 400 m reach on Mineral Creek and is associated with limestone outcrops along the creek on both sides (Lang 2000). The creek appears to be perennial with a steady but low discharge based on visits in June and October 2020. The dominant vegetation is Montane Riparian Woodland (Brown 1994) with alder (*Alnus oblongifolia*), oak, and alligator bark juniper dominating the nearly closed canopy. This species occurs exclusively on Gila National Forest, Black Range Ranger District, but there are private inholdings related to old mining claims immediately adjacent to the site.

<sup>&</sup>lt;sup>20</sup> Sonorella as a species group are well known for leaving epiphragm scars (see Waters 2011).

Surveys in 1915, 1987, and 1999 found these snails to be abundant at the type locality (Ferriss 1917, Metcalf and Smartt 1997, Lang 2000). Ferriss (1917) reports a potential, but unknown, predator of this species as evidenced by a  $\sim$  2 mm hole found on some shells.

The Mineral Creek mountainsnail was first reviewed for listing under the ESA in 1991 and subsequently in 1994 (USFWS 1991, 1994) and was considered a Category 2 species. Category 2 species were those species USFWS considered to have potential for protection under the ESA but for which there were insufficient data, at that time, to initiate a formal review. The USFWS eliminated Category 2 species in 1995 and therefore these species were no longer afforded protections under the ESA. In 2009, USFWS (2009) published a 90-day finding that determined the Mineral Creek mountainsnail may be warranted for listing under the ESA due to current or potential threats to its habitat. This species is currently "Under Review" (USFWS 2021d). The species is also considered "Sensitive" by USFS (2013) and threatened by NMDGF (2020).

Surveys involved looking for snails attached (with epiphragm) to the rock outcrop or gently digging through the abundant leaf litter to look for live individuals and shells loose in litter or under litter on the ground. Shells were often found in clusters or aggregations with several life stages present ranging from those a few millimeters in diameter to adults. One such aggregation contained 11 individuals within an  $\sim 0.01 \text{ m}^2$  area.

I surveyed for this species at 6 sites (Table 2). I encountered 43 live adults and 17 live juveniles. Detection rates of live snails of all life stages ranged from 0 to 20.0 snails per hour. Three of the six surveys yielded live detection rates of 15.3, 18.9, and 20.0 snails per hour. Shell detection rates were also high and ranged from 3.6 to 56.0 shells per hour (Table 3). Based on the high detection rates of live snails of all life stages centered around the core habitat, this appears to be a robust, breeding population. This result, in addition to historical survey results, suggests this population has remained robust for over 100 years (Ferris 1917, Metcalf and Smartt 1997, Lang 2000).

Metcalf and Smartt (1997) reported another population ~ 400 m upslope from the type locality, although no details were provided. I did locate a site approximately 300 m straight-line from the type locality to the west-northwest. It was at the top of a north-facing ridgeline with numerous limestone outcrops that were well shaded by pinyon pine and alligator bark juniper. Shells were abundant with a detection rate of 31.3 shells per hour (Table 3). No live snails were found. All shells were bleached and on the soil surface and may represent subfossils from a previously extant population. I will target this area during wet-season surveys in 2021.

Mineral Creek is relatively remote because access through the canyon is restricted by private lands. To access USFS lands, one must hike over the ridgeline from Chloride Creek. This protects the site from what otherwise could be heavy, canyon-bottom recreational uses (e.g., off-road vehicles, camping, bouldering, etc.). The greatest potential threat is that cattle have unrestricted access to the riparian corridor that the snails occur along. The limestone outcrops where the population of Mineral Creek mountainsnail occurs in the canyon bottom is immediately adjacent to a seepy, shallow, pooled area in the creek that is heavily used by cattle. Many snails of all life stages were observed in leaf litter and on the ground under leaf litter near the base of outcrops on flat ground. Individuals in such a position could easily be trampled by cattle accessing the watering area. It is unknown if minerals or compounds from abandoned mines that occur upslope of occupied areas could leach into these areas, thereby contaminating local water and soil. I recommend that the USFS fence off areas used by the snails. This would be a relatively simple, protective action and would still allow cattle access to local water. In future surveys, I

will continue to expand out from the core area (type locality) to better determine what area is currently occupied along Mineral Creek.

## Fringed Mountainsnail – Radiocentrum ferrissi

The fringed mountainsnail was first described by Pilsbry (1915)<sup>21</sup> from Sheridan Canyon on the east-central slope of the Big Hatchet Mountains located south-southwest of Hachita in Hidalgo County; the range is composed primarily of limestone (Drewes 1991). Based on satellite imagery, the dominant vegetation is represented by Semidesert Grassland (Brown 1994). Pilsbry (1915) reports "On the talus slope there is a growth of dwarf oak about knee-high,...big wild roses [*Rosa* spp.]... *Cylindropuntia*, *Opuntia*, bisnagas [Barrel cactus (*Ferocactus* spp.)]. On top, above the cliffs, the *Fouquieria*, sotol [*Dasylirion* spp.], mescal [*Agave* spp.] society is found." This species occurs exclusively on the Las Cruces District, BLM.

Pilsbry (1915) collected this species from 2 stations; "...Station 3<sup>22</sup>, on ledges of high cliffs opposite the mouth of Sheridan Canyon, under stones,...August 21, 1910...Also at Station 1,Teocalli Butte<sup>23</sup>." Pilsbry describes the site in Sheridan Canyon as "...on an almost inaccessible cliff...The *Oreohelix* colony is of small extent; the ledges where they were observed living are probably not over a couple of square rods in area<sup>24</sup>, with perhaps an equal area on the talus below the cliffs, where dead shells were found. These estimates are from memory..." Based on descriptions of live genitalia, live specimens were collected. This species has not been collected since Pilsbry's 1910 expedition (Metcalf and Smartt 1997, Lang 2000).

The fringed mountainsnail has no ranking with USFWS and is considered "Sensitive" by BLM (2018).

I have not accessed Sheridan Canyon to date. Sheridan Canyon is likely not accessible by a 4x4 pickup truck due to frequent washouts where the two-track road crosses the canyon bottom; BLM accesses the canyon using all-terrain vehicles (ATV) (T. Mitchusson, BLM, pers. comm.). In 2021, I will continue to communicate with BLM regarding the condition of this road and explore the possibility of doing a ridealong with BLM in an ATV on one of their wildlife monitoring surveys in order gain access to this canyon.

Due to the steep, rocky terrain, and general inaccessibility of the limited localities of this species, recreational use would seem limited to an occasional intrepid hiker or mountain climber and is likely very low. Livestock use of this canyon is unknown at present but, based on the locality description above, the rough terrain likely limits access by livestock. There is always the possibility that wildfire or prescribed burns could affect fringed mountainsnail and other snail species in the range (e.g., see *Ashmunella macromphala* account). It is difficult to make any recommendations at this time as occupied habitat has yet to be surveyed. I urge the BLM to consider this species (and similar endemic species of this range) when developing management plans for the Big Hatchet Mountains, in particular as they relate to fire management.

<sup>&</sup>lt;sup>21</sup> Described as *Oreohelix* (*Radiocentrum*) *hachetana*. At the time, Pilsbry considered *Radiocentrum* a subgenus of *Oreohelix*. It has since been raised to full generic status (Babrakzai et al. 1975).

<sup>&</sup>lt;sup>22</sup> J.H. Ferriss made the collection at these seemingly precarious sites at Station 3.

<sup>&</sup>lt;sup>23</sup> This named feature is not found on contemporary USGS topographic maps but appears to be at the head of Sheridan Canyon based on Pilsbry's sketched map.

<sup>&</sup>lt;sup>24</sup> This would be equivalent to approximately 50 m<sup>2</sup> in total.

**Table 3.** Summary of survey results and relative abundance estimates for live snails and shells.

Date	Location	Species <sup>2</sup>	Adult_Live	Juvenile_Live	Adult_Shell	Juvenile_Shell	Live/hr³	Shell/hr <sup>4</sup>
6/19/20	Silver Creek	ASHBIN	0	0	2	0	0.0	3.4
6/19/20	Silver Creek	ASHBIN	0	0	6	6	0.0	24.0
6/19/20	Silver Creek	ASHBIN	0	0	3	1	0.0	16.0
6/19/20	Silver Creek	ASHBIN	0	0	1	1	0.0	6.0
10/17/20	Silver Creek	ASHBIN	0	0	2	1	0.0	4.6
10/17/20	Silver Creek	ASHBIN	0	0	3	0	0.0	5.1
10/18/20	Silver Creek	ASHBIN	0	0	9	5	0.0	18.7
10/18/20	Silver Creek	ASHBIN	0	0	9	7	0.0	32.0
10/18/20	Silver Creek	ASHBIN	0	0	1	2	0.0	6.7
10/19/20	Silver Creek	ASHBIN	2	2	4	2	2.8	4.1
10/19/20	Silver Creek	ASHBIN	1	1	9	9	2.0	18.0
10/20/20	Silver Creek	ASHBIN	1	0	1	7	0.5	4.2
10/20/20	Silver Creek	ASHBIN	0	0	1	0	0.0	1.0
10/20/20	Silver Creek	ASHBIN	1	0	0	3	2.4	7.2
6/18/20	Spring Canyon	ASHBIN	1	0	13	13	1.0	26.0
6/18/20	Spring Canyon	ASHBIN	0	0	2	5	0.0	11.1
6/18/20	Spring Canyon	ASHBIN	0	0	6	3	0.0	12.0
10/21/20	Spring Canyon	ASHBIN	4	2	13	13	1.9	8.3
10/22/20	Spring Canyon	ASHBIN	0	0	21	16	0.0	30.4
10/22/20	Spring Canyon	ASHBIN	0	0	14	9	0.0	27.6
10/22/20	Spring Canyon	ASHBIN	0	0	0	1	0.0	0.9
6/19/20	Silver Creek	ASHBIN	0	0	2	0	0.0	3.4
6/19/20	Silver Creek	ASHBIN	0	0	6	6	0.0	24.0
6/22/20	Cooke's Range	ASHMAC	0	0	1	0	0.0	1.3
6/22/20	Cooke's Range	ASHMAC	0	0	2	2	0.0	3.2
11/1/20	Cooke's Range	ASHMAC	0	0	7	3	0.0	4.6
11/1/20	Cooke's Range	ASHMAC	0	0	0	0	0.0	0.0
11/2/20	Cooke's Range	ASHMAC	0	0	1	0	0.0	0.8
6/26/20	Big Hatchet Mts	HOLCRO	0	0	65	2	0.0	77.3
6/26/20	Big Hatchet Mts	HOLCRO	0	0	20	5	0.0	44.1
6/26/20	Big Hatchet Mts	HOLCRO	0	0	5	15	0.0	15.0
10/14/20	Howell's Ridge	HOLMET	10	0	21	5	5.0	13.0
10/16/20	Howell's Ridge	HOLMET	24	3	37	13	6.8	12.5

Date	Location	Species <sup>2</sup>	Adult_Live	Juvenile_Live	Adult_Shell	Juvenile_Shell	Live/hr³	Shell/hr <sup>4</sup>
10/18/20	Silver Creek	OREMET	0	0	1	0	0.0	2.0
6/18/20	Spring Canyon	OREMET	0	0	9	4	0.0	13.0
6/18/20	Spring Canyon	OREMET	0	0	11	29	0.0	63.2
10/21/20	Spring Canyon	OREMET	1	2	5	6	1.0	3.5
10/22/20	Spring Canyon	OREMET	11	1	30	18	9.9	39.5
6/20/20	Mineral Creek	OREPIL	9	3	13	41	15.3	68.9
10/23/20	Mineral Creek	OREPIL	0	0	16	31	0.0	31.3
10/23/20	Mineral Creek	OREPIL	0	0	2	4	0.0	3.6
10/24/20	Mineral Creek	OREPIL	17	8	9	12	20.0	16.8
10/24/20	Mineral Creek	OREPIL	1	0	25	31	1.0	56.0
10/24/20	Mineral Creek	OREPIL	16	6	23	27	18.9	42.9
6/26/20	Big Hatchet Mts	ORESPP	0	0	0	1	0.0	1.8
10/17/20	Silver Creek	ORESPP	0	0	0	0	0.0	0.0
10/20/20	Silver Creek	ORESPP	0	0	0	0	0.0	0.0
10/17/20	Silver Creek	ORESUB	0	0	1	0	0.0	1.7
10/18/20	Silver Creek	ORESUB	0	0	1	0	0.0	2.0
10/19/20	Silver Creek	ORESUB	0	0	2	0	0.0	2.0
10/20/20	Silver Creek	ORESUB	0	0	1	1	0.0	1.1
6/18/20	Spring Canyon	ORESUB	0	0	1	0	0.0	1.3
10/21/20	Spring Canyon	ORESUB	0	0	2	3	0.0	1.6
10/22/20	Spring Canyon	ORESUB	0	0	1	1	0.0	1.6
10/22/20	Spring Canyon	ORESUB	0	0	7	2	0.0	10.8
10/22/20	Spring Canyon	ORESUB	0	0	4	0	0.0	3.7
10/14/20	Howell's Ridge	RABDUR	1	0	68	8	0.5	38.0
10/16/20	Howell's Ridge	RABDUR	0	0	41	10	0.0	12.8
10/14/20	Howell's Ridge	RADFER	0	0	1	0	0.0	0.5
10/15/20	Howell's Ridge	RADFER	0	0	2	1	0.0	1.1
10/16/20	Howell's Ridge	RADFER	0	0	0	1	0.0	0.3
6/23/20	Florida Mtns.	SOHAFL	0	0	2	0	0.0	4.1
6/24/20	Florida Mtns.	SOHAFL	0	0	13	1	0.0	12.0
6/24/20	Florida Mtns.	SOHAFL	0	0	3	2	0.0	5.5
10/14/20	Howell's Ridge	SOHAHA	0	0	2	1	0.0	1.5
10/15/20	Howell's Ridge	SOHAHA	0	0	3	0	0.0	1.1
10/16/20	Howell's Ridge	SOHAHA	0	0	1	0	0.0	0.3
6/21/20	Doña Ana Mtns	SONTOD	0	0	7	5	0.0	28.8

Date	Location	Species <sup>2</sup>	Adult_Live	Juvenile_Live	Adult_Shell	Juvenile_Shell	Live/hr³	Shell/hr <sup>4</sup>
6/21/20	Doña Ana Mtns	SONTOD	0	0	0	0	0.0	0.0
6/21/20	Doña Ana Mtns	SONTOD	0	0	3	1	0.0	16.0
6/21/20	Doña Ana Mtns	SONTOD	0	0	13	13	0.0	78.0
6/21/20	Doña Ana Mtns	SONTOD	0	0	5	9	0.0	28.0
10/28/20	Doña Ana Mtns	SONTOD	0	1	86	39	0.4	44.1
10/29/20	Doña Ana Mtns	SONTOD	0	0	11	20	0.0	46.5
10/29/20	Doña Ana Mtns	SONTOD	0	0	23	31	0.0	104.5
10/29/20	Doña Ana Mtns	SONTOD	0	0	26	55	0.0	86.8
10/30/20	Doña Ana Mtns	SONTOD	0	0	0	3	0.0	12.0
10/30/20	Doña Ana Mtns	SONTOD	0	0	39	24	0.0	126.0
10/30/20	Doña Ana Mtns	SONTOD	0	0	2	3	0.0	10.0
10/30/20	Doña Ana Mtns	SONTOD	0	0	20	21	0.0	44.7
11/5/20	Big Hatchet Mts	None	0	0	0	0	0.0	0.0
6/22/20	Cooke's Range	None	0	0	0	0	0.0	0.0
11/2/20	Cooke's Range	None	0	0	0	0	0.0	0.0
6/21/20	Doña Ana Mtns	None	0	0	0	0	0.0	0.0
10/28/20	Doña Ana Mtns	None	0	0	0	0	0.0	0.0
10/29/20	Doña Ana Mtns	None	0	0	0	0	0.0	0.0
10/31/20	Doña Ana Mtns	None	0	0	0	0	0.0	0.0
6/24/20	Florida Mtns.	None	0	0	0	0	0.0	0.0
11/3/20	Florida Mtns.	None	0	0	0	0	0.0	0.0
11/4/20	Howell's Ridge	None	0	0	0	0	0.0	0.0
10/25/20	Mineral Creek	None	0	0	0	0	0.0	0.0
6/19/20	Silver Creek	None	0	0	0	0	0.0	0.0

<sup>&</sup>lt;sup>1</sup> Universal Transverse Mercator (UTM) coordinates (Datum: NAD83); All are Zone 13 except Big Hatchet and Little Hatchet Mountains which are Zone 12

<sup>&</sup>lt;sup>2</sup> Genus/Species six letter codes: **ASHBIN** = *Ashmunella binneyi*; **ASHMAC** = *Ashmunella macromphala*; **HOLCRO** = *Holospira crossei*; **HOLMET** = *Holospira metcalfi*; **OREMET** = *Oreohelix metcalfei*; **OREPIL** = *Oreohelix pilsbryi*; ORESPP = Oreohelix spp.; **ORESUB** = *Oreohelix subrudis*; **RABDUR** = *Rabdotus durangoanus*; **RADFER** = *Radiocentrum ferrissi*; **SOHAFL** = *Sonorella hachitana flora*; **SOHAHA** = *Sonorella hachitana hachitana*; **SONTOD** = *Sonorella todseni* 

<sup>&</sup>lt;sup>3</sup> Total live snails (adults and juveniles combined) calculated per hour

<sup>&</sup>lt;sup>4</sup> Total shells (adults and juveniles combined) calculated per hour

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#### **Literature Cited**

- Babrakzai, N., W.B., Miller, and O.G. Ward. 1975, Cytotaxonomy of some Arizona Oreohelicidae (Gastropoda: Pulmonata). American Malacological Union Bulletin 40: 4-11.
- [BLM] Bureau of Land Management. 2018. 2018 BLM NM Sensitive Update: Amphibians, arthropods, birds, crustaceans, fish, mammals, mollusks, and reptiles. Available at: <a href="https://www.blm.gov/sites/blm.gov/files/IB%20NM-2019-002\_Attachment%201%20Animal.pdf">https://www.blm.gov/sites/blm.gov/files/IB%20NM-2019-002\_Attachment%201%20Animal.pdf</a>. Accessed: 15 February 2021.
- [CAPLSWG] Cooperating Agencies of the Pinaleño Land Snail Working Group. 2017 (Draft)

  Conservation Agreement for land snails in the Pinaleño Mountains on the Coronado National
  Forest in Arizona. July.
- [CPSXTWG] Cooperating Partners of the San Xavier Talussnail Working Group. 2018 (Draft) Conservation Agreement for San Xavier Talussnail in Pima County, Arizona. January.
- Dall, W.H. 1895. Diagnosis of new mollusks from the survey of the Mexican Boundary. Proceedings of the U.S. National Museum 18: 4.
- Drewes, H. 1991. Geologic map of the Big Hatchet Mountains, Hidalgo County, New Mexico. U.S. Geological Survey. Miscellaneous Investigations Series: Map 1-2144.
- Ferriss, J.H. 1917, A shell hunt in the Black Range, with description of a new *Oreohelix*: Nautilus 30: 99-103.
- Kroll, A.J. K. Boykin, M. C. Andersen, B.C. Thompson, and D.L. Daniel. 2003. Habitat characteristics of *Ashmunella* (Gastropoda: Pulmonata: Polygyridae) at White Sands Missile Range and Fort Bliss, New Mexico. The Southwestern Naturalist 48(1):14–22.
- Lang, B. K. 2000. Status and distribution of terrestrial snails of southern New Mexico. New MexicoDepartment of Game and Fish. Completion Report E-36 submitted to the Division of Federal Aid,U. S. Fish and Wildlife Service, Albuquerque, New Mexico.
- Metcalf, A.L. and R.A. Smartt. 1974. Gastropods of Howells Ridge, Grant County, New Mexico: A Fauna in the Process of Extinction? The Southwestern Naturalist 19(1): 57-64.
- Metcalf, A.L. and R. A. Smartt. 1997. Land snails of New Mexico. New Mexico Museum of Natural History and Science, Bulletin 10. 145 pp.
- Miller, W.B. 1967. Anatomical revision of the genus *Sonorella* (Pulmonata: Helminthoglyptidae). PhD Dissertation, University of Arizona, Tucson.

- Miller, W.B. 1976. New species of *Sonorella* (Pulmonata: Helminthoglyptidae) from New Mexico and Texas. Nautilus 90:70-73.
- [NMDGF] New Mexico Department of Game and Fish. 2020. Threatened and Endangered Species of New Mexico 2020 Biennial Review. October 16.
- [NMDGF] New Mexico Department of Game and Fish. 2016. State Wildlife Action Plan for New Mexico. New Mexico Department of Game and Fish, Santa Fe, New Mexico, USA.
- Pilsbry, H. A.1900. Sonorella, a new genus of helices. Proceedings of the Academy of Natural Sciences of Philadelphia. (for 1900): 556-560 (Plate XXI).
- Pilsbry, H. A. 1905. Mollusca of the Southwestern States, I: Urocoptidae; Helicidae of Arizona and New Mexico. Proceedings of the Academy of Natural Sciences of Philadelphia. 57: 211-290 (Plates XI-XXVII).
- Pilsbry, H. A.1915. Mollusca of the Southwestern States. VI: The Hacheta Grande, Florida, and Peloncillo Mountains, New Mexico. Proceedings of the Academy of Natural Sciences of Philadelphia. 67: 323-350.
- Pilsbry, H.A. 1939. Land mollusca of North America (north of Mexico). The Academy of Natural Sciences of Philadelphia Monographs No. 3: Volume 1 Part 1: 1–573.
- Pilsbry, H.A. 1940. Land mollusca of North America (north of Mexico). The Academy of Natural Sciences of Philadelphia Monographs No. 3: Volume 1 Part 2: 574–994.
- Pilsbry, H.A. 1946. Land mollusca of North America (north of Mexico). The Academy of Natural Sciences of Philadelphia Monographs No. 3: Volume 2 Part 1: 1-520.
- Pilsbry, H.A. and J.H. Ferriss. 1917. Mollusca of the Southwestern States. VIII: The Black Range, New Mexico. Proceedings of the Academy of Natural Sciences of Philadelphia. 69: 83-107.
- Pilsbry, H.A. and E.G. Vanatta. 1923. Ashmunella Hebardi, a new snail from the Hacheta Grande Mountains, New Mexico. Nautilus 36:119-120.
- Slaughter, C.T. and K.G. Boykin. 2011. Genetic Analysis and Habitat Assessment of the Iron Creek Woodlandsnail including Black Range congeners. Final Project Report for the State of New Mexico Department of Game and Fish. Professional Services Contract # 11 516 0000 00026. NMDGF Share with Wildlife, State Wildlife Grants T-32-P-2, 28. December.
- Sullivan, R. M. 1997. Inventory of some terrestrial snails of southern New Mexico, with emphasis on state listed and federal candidate species of Doña Ana, Otero, and Socorro counties. Final Report submitted to the NMDGF under Professional Services Contract 96-516.64.
- Thompson, F.G. 1974, A xeric snail from New Mexico. The Southwestern Naturalist 19: 53-56.
- [USFWS] U.S. Fish and Wildlife Service. 1991. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 56(225): 58804-58836.
- [USFWS] U.S. Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 59(219): 58982-59028.

- [USFWS] U.S. Fish and Wildlife Service. 2009. Endangered and Threatened Wildlife and Plants; Partial 90-Day Finding on a Petition to List 475 Species in the Southwestern United States as Threatened or Endangered With Critical Habitat; Proposed Rule. Federal Register 74(240): 66866-66905.
- [USFWS] U.S. Fish and Wildlife Service. 2021a. Hacheta Grande woodlandsnail (*Ashmunella hebardi*). Species Profile. Environmental Conservation Online System (ECOS). Available at: <a href="https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7549">https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7549</a>. Accessed: 2 March 2021.
- [USFWS] U.S. Fish and Wildlife Service. 2021b. Cooke's Peak woodlandsnail (*Ashmunella macromphala*). Species Profile. Environmental Conservation Online System (ECOS). Available at: <a href="https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7876">https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7876</a>. Accessed: 2 March 2021.
- [USFWS] U.S. Fish and Wildlife Service. 2021c. Doña Ana talussnail (*Sonorella todseni*). Species Profile. Environmental Conservation Online System (ECOS). Available at: https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=G08X. Accessed: 2 March 2021.
- [USFWS] U.S. Fish and Wildlife Service. 2021d. Mineral Creek mountainsnail (*Oreohelix pilsbryi*). Species Profile. Environmental Conservation Online System (ECOS). Available at: <a href="https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=2583">https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=2583</a>. Accessed: 2 March 2021.
- [USFS] U.S. Forest Service. 2013. USFS R3 Regional Forester's Sensitive Species: Animal 2013. Available at: <a href="https://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprd3806393.pdf">https://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/stelprd3806393.pdf</a>. Accessed: 15 February 2021.
- Vagvolgyi, J. 1974, Eight new *Ashmunellas* from the southwestern United States (Pulmonata: Polygyridae): Biological Society of Washington, Proceedings 87: 139-166.
- Waters, N.D. 2011. Distribution and Ecology of the Phoenix Talussnail, *Sonorella allynsmithi*. Nongame and Endangered Wildlife Program Technical Report 264. Arizona Game and Fish Department, Phoenix, Arizona.

Appendix A Representative Photographs of Snails and Habitat



**Photo 1.** Spring Canyon, Black Range, limestone rock pile where live *Asmunella binneyi* was located. June 2020.



**Photo 2.** Ashmunella binneyi, one live individual (center-bottom) found under limestone rock; Silver Creek, Black Range. October 2020.



**Photo 3.** Ashmunella binneyi, one live individual (center) found under charred log; Silver Creek, Black Range. October 2020.



**Photo 4.** Silver Creek, Black Range, talus slide where shells of *Ashmunella binneyi* were located.



**Photo 5.** Silver Creek, Black Range, showing fire damage from the Silver Fire, 2013. Locality of *Ashmunella binneyi*. June 2020



**Photo 6.** Spring Canyon. Silver Fire (2013) damage, looking up-canyon October 2020.



**Photo 7.** Spring Canyon. Silver Fire (2013) damage, looking SSW; note lack of canopy cover and leaf litter. October 2020.



**Photo 8.** Silver Creek, Black Range, showing partially burned pine stand from the Silver Fire (2013). Locality of *Ashmunella binneyi*. October 2020.



**Photo 9.** Ashmunella binneyi, 4 representative shells and one live individual (right); Spring Canyon, Black Range. June 2020.



**Photo 10.** Ashmunella binneyi, live individual (right); Silver Creek, Black Range. October 2020.



**Photo 11.** *Oreohelix metcalfei,* 4 representative shells; Spring Canyon, Black Range. June 2020.



**Photo 12.** Oreohelix metcalfei, 1 of 11 live individuals found under a limestone rock in open burned area; Spring Canyon, Black Range. October 2020.



**Photo 13.** Mineral Creek, Black Range, limestone outcrop where *Oreohelix pilsbry*i was located. June 2020



**Photo 14.** Mineral Creek, Black Range, limestone outcrop (close-up) where *Oreohelix pilsbry*i was located.



**Photo 15.** *Oreohelix pilsbryi*, aestivating, live individual adhered to rock-face Mineral Creek, Black Range. June 2020.



**Photo 16.** *Oreohelix pilsbryi*, Representative live individuals, Mineral Creek, Black Range. June 2020.



**Photo 17.** Oreohelix pilsbryi, live adults found in leaf litter at base of limestone outcrop at type-locality Mineral Creek, Black Range. October 2020.



**Photo 18.** Oreohelix pilsbryi, live juveniles found in leaf litter at base of limestone outcrop at type-locality Mineral Creek, Black Range. October 2020.



**Photo 19.** *Oreohelix pilsbryi* (subfossil), found in exposed limestone outcrops upslope of type-locality Mineral Creek, Black Range. October 2020.



**Photo 20.** Ridge (shown above) upslope of type-locality where many subfossils were found, Mineral Creek, Black Range. October 2020.



**Photo 21.** Doña Ana Peak, north slope. Rock pile where shells of *Sonorella todseni* were located. June 2020.



**Photo 22.** Doña Ana Peak, north slope. Excavated talus slide where shells of *Sonorella todseni* were located. October 2020.



**Photo 23.** Doña Ana Peak, north slope. Site of *Sonorella todseni* with talus slides. October 2020



**Photo 24.** Doña Ana Peak, north slope. Site of *Sonorella todseni* with talus slides. June 2020.



**Photo 25.** *Sonorella todseni*, representative shells. Doña Ana Peak, north slope. June 2020



**Photo 26.** *Sonorella todseni*, representative shells (peristracum intact). Doña Ana Peak, north slope. October 2020



**Photo 27.** *Sonorella todseni*, epiphragm scars. Doña Ana Peak, north slope. October 2020



**Photo 28.** Cooke's Peak, north-northeast slope showing large talus slide (close-up) where *Ashmunella macromphala* is found. Cooke's Range. June 2020.



**Photo 29.** Cooke's Peak, north-northeast slope showing large talus slides where *Ashmunella macromphala* is found. Cooke's Range. June 2020



**Photo 30.** Cooke's Peak, north-northeast slope showing large talus slides where *Ashmunella macromphala* is found. Cooke's Range. June 2020



**Photo 31.** Ashmunella macromphala, excavated talus with ash and burned organic matter; burned shells were located here. Cooke's Peak, Cooke's Range. October 2020.



**Photo 32.** Ashmunella macromphala, excavated talus with ash and burned organic matter; burned shells were located here. Cooke's Peak, Cooke's Range. October 2020.



**Photo 33.** Ashmunella macromphala, representative shells. Cooke's Peak, Cooke's Range. June 2020.



**Photo 34.** Castle Dome Wash, north-facing slope where *Sonorella hatchitana flora* shells were found. Florida Mountains. June 2020.



**Photo 35.** Castle Dome Wash, north-facing slope, where *Sonorella hatchitana flora* shells were found. Florida Mountains. June 2020.



**Photo 36.** Mount Baldy (in background), northwest-facing slope, where *Sonorella hatchitana flora* shells were found. Florida Mountains. June 2020.



**Photo 37.** Sonorella hatchitana flora, representative shells. Florida Mountains. June 2020.



**Photo 38.** Howell's Ridge, northern limestone escarpment (along base of cliff) surveyed for *Holospira metcalfi* (none found), Little Hatchet Mountains. November 2020.



**Photo 39.** Howell's Ridge, northern limestone escarpment surveyed for *Holospira metcalfi* (none found), Little Hatchet Mountains. November 2020.



**Photo 40.** Howell's Ridge, northern limestone escarpment surveyed for *Holospira metcalfi* (live individuals found), Little Hatchet Mountains. October 2020.



**Photo 41.** Howell's Ridge, northern limestone escarpment surveyed for *Holospira metcalfei*; live individual found attached to limestone rock, Little Hatchet Mountains. October 2020.



**Photo 42.** Howell's Ridge, northern limestone escarpment surveyed for *Holospira metcalfei*; live individuals found loose, under limestone rock, Little Hatchet Mountains. October 2020.



**Photo 43.** Thompson Canyon, Big Hatchet Mountains. Limestone escarpment (overview) where *Holospira crossei* was found. June 2020.



**Photo 44.** Thompson Canyon., Big Hatchet Mountains. Limestone escarpment where *Holospira crossei* was found. June 2020.



**Photo 45.** Thompson Canyon, Big Hatchet Mountains. Limestone escarpment where *Holospira crossei* was found. June 2020.



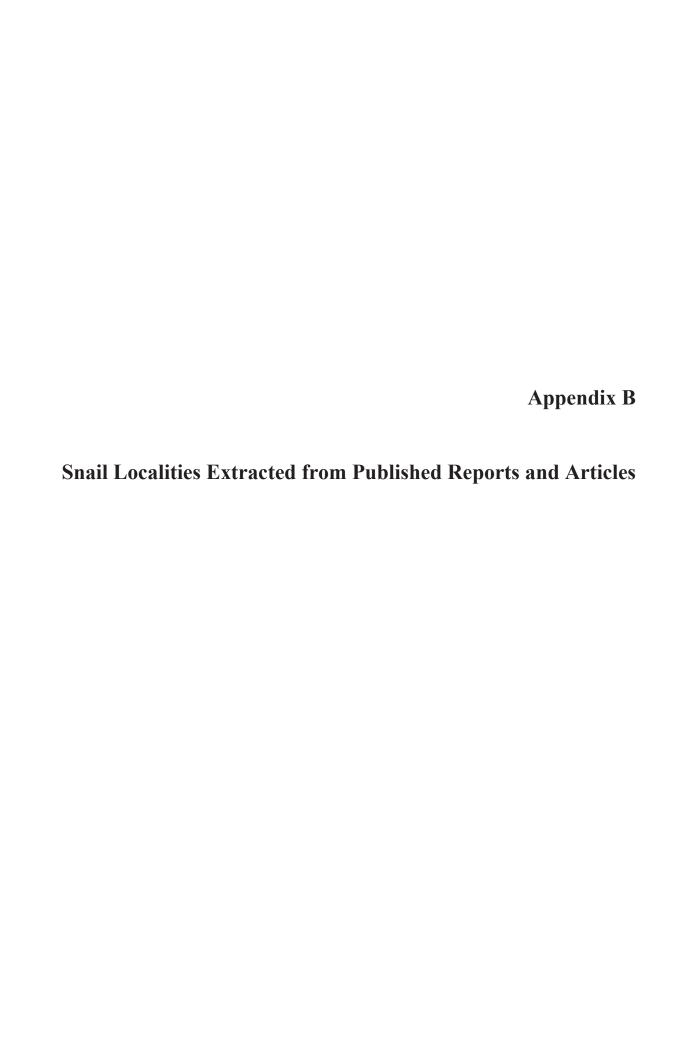
**Photo 46.** Thompson Cyn., Big Hatchet Mtns. Limestone escarpment with rocks at base where *Holospira crossei* was found underneath. June 2020.



**Photo 47.** *Holospira crossei*, representative shells (recent and weathered) found along limestone escarpment, Thompson Canyon, Big Hatchet Mountains. June 2020.



**Photo 48.** *Holospira crossei*, representative shells found along limestone escarpment, Thompson Canyon, Big Hatchet Mountains. June 2020.



Appendix B. Snail Localities Extracted from Published Reports and Articles

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainney's [sic] Canyon	North exposure under massive Limestone cliffs		11/21/1987
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, limestone ridge located ca. 0.4 mile at 330E WNW [sic] of Big Hatchet Peak	(0.1 mile south of center section) [sic]	ca. 6800	9/18/2002
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, limestone ridge located ca. 0.4 mile at 330E WNW [sic] of Big Hatchet Peak	(0.1 mile south of center section) [sic]	ca. 6800	9/18/2002
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	southwestern wall of Chaney Canyon, "V-shaped" drainage, ca. 0.5 mile west of Big Hatchet Peak		6500	3/26/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	southwestern wall of Chaney Canyon, westernmost end of prominent limestone ridge, ca. 0.5 mile west of Big Hatchet Peak		ca. 6990	3/27/2003

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	southwestern wall of Chaney Canyon, prominent limestone ridge, ca. 0.5 mile west of Big Hatchet Peak		6785	3/27/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	southwestern wall of Chaney Canyon, "V-shaped drainage below prominent limestone ridge, ca. 0.6 mile west of Big Hatchet Peak		6350- 6600	3/27/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.25 mile north and 0.30 mile west of Big Hatchet Peak		ca. 6660	9/23/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	southwest wall of Chaney Canyon, ca. 0.2 mile north and 0.5 mile west of Big Hatchet Peak		ca. 6830- 7012	9/24/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.08 mile north and 0.28 mile west of Big Hatchet Peak		ca. 7330	9/24/2003
Ashmunella	hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.08 mile north and 0.28 mile west of Big Hatchet Peak		ca. 7330	9/24/2003
Ashmunella	macromphala	LUNA	Cookes Range	Lang 2000	northeast slope of Cooke's Peak		ca. 7630	5/21/1998
Ashmunella	macromphala	LUNA	Cookes Range	Lang 2000	OK Canyon, north-east-facing scree slope		6070	5/11/2000
Ashmunella	macromphala	LUNA	Cookes Range	Lang 2000	northeast slope of Cooke's Peak		ca. 7600	5/12/2000

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Ashmunella	macromphala	LUNA	Cookes Range	Metcalf and Smartt 1997	We collected the snails on the very steep northern slope of the peakat the edge of 2 huge rock slides,		about 6,900- 7,000	
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6490	9/22/2001
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.2 mile westsouthwest of the northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600	9/22/2001
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870	9/22/2001
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870	9/22/2001
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600	5/21/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6400- 6600	5/22/2002

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6590 ft	8/27/2002
Ashmunella	mearnsii	Mountains  located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain  on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6590 ft	8/27/2002				
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon ca. 0.7 mile east of Big Hatchet Peak		ca. 7500 ft	8/28/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 033E ENE [sic] of Big Hatchet Peak		ca. 6910	9/17/2002
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, Daniels Mountain north slope near peak	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2022	between 6400- 6800 ft	
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of Thompson Canyon, unnamed peak located ca. 0.7 mile south of Big Hatchet Peak, west- facing limestone ridge		ca. 7380	9/8/2003

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of the range, west- facing ridgeline located ca. 0.3 mile south of Big Hatchet Peak		ca. 7950	9/9/2003
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, Daniels Mountain north slope near peak	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2022	between ca. 6200- 6600	9/10/2003
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.23 mile north of Big Hatchet Peak		ca. 7000	9/23/2003
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.13 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Ashmunella	mearnsii	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Ashmunella	mearnsii x hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.25 mile north and 0.30 mile west of Big Hatchet Peak		ca. 6660	9/23/2003
Ashmunella	mearnsii x hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.13 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Ashmunella	mearnsii x hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Ashmunella	mearnsii x hebardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Ashmunella	mearnsii x herbardi	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Ashmunella	sp.	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Ashmunella	sp.	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.13 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Ashmunella	sp.	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Ashmunella	sp.	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Ashmunella	sp.	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Ashmunella	walkeri	LUNA	Florida Mountains	Pilsbry and Ferris 1905	in a rock talus near the top of the mountain, at an elevation of probably about 6,500 feet.		ca. 6500	
Ashmunella	walkeri	LUNA	Florida Mountains	Metcalf and Smartt 1997	We have taken it in a small elongate spill of limestone talus on the northwestern slope of Baldy Peak			
Cionella	lubrica	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Cionella	lubrica	LUNA	Cookes Range	Lang 2000	northeast slope of Cooke's Peak		ca. 7630	5/21/1998
Cionella	lubrica	LUNA	Cookes Range	Lang 2000	northeast slope of Cooke's Peak		ca. 7600	5/12/2000
Discus	whiteyi	Sierra	Black Range	Lang 2000	ca. 0.3 air mile south of Dreadnaught Mine (Oliver's Mine at Rounderville).			9/26/1999
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, west slope of northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6630	9/22/2001
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.2 mile westsouthwest of the northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600	9/22/2001
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2005	South slope of Big Hatchet Peak ca. 0.6 mile south of Big Hatchet Peak		ca. 7450	9/23/2001

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Gastrocopta	ashmuni	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600 ft	5/21/2002
Gastrocopta	dalliana	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, west slope of northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6630	9/22/2001
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.2 mile westsouthwest of the northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600	9/22/2001
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2005	South slope of Big Hatchet Peak ca.  0.6 mile south of Big Hatchet Peak		ca. 7450	9/23/2001
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Gastrocopta	pellucida	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600 ft	5/21/2002
Gastrocopta	pilsbryana	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Gastrocopta	pilsbryana	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, west slope of northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6630	9/22/2001
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.2 mile westsouthwest of the northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600	9/22/2001
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600 ft	5/21/2002
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6590 ft	8/27/2002
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of the range, west- facing ridgeline located ca. 0.4 mile south of Big Hatchet Peak		ca. 7800	9/9/2003
Glyphyalinia	indentata	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Glyphyalinia	indentata	Sierra	Black Range	Lang 2000	ca. 0.3 air mile south of Dreadnaught Mine (Oliver's Mine at Rounderville).			9/26/1999
Glyphyalinia	indentata	LUNA	Cookes Range	Lang 2000	northeast slope of Cooke's Peak		ca. 7630	5/21/1998
Glyphyalinia	indentata	LUNA	Cookes Range	Lang 2000	northeast-facing scree slope located ca. 1.75 air miles ENE of Cooke's Peak		ca. 6070	5/11/2000
Hawaiia	miniscula	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Hawaiia	miniscula	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Hawaiia	miniscula	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Hawaiia	minuscula	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001
Hawaiia	minuscula	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Heliodiscus	singleyanus	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Heliodiscus	singleyanus	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Heliodiscus	singleyanus	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6490	9/22/2001
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, west slope of northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6630	9/22/2001
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.2 mile westsouthwest of the northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600	9/22/2001
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	South slope of Big Hatchet Peak ca.  0.6 mile south of Big Hatchet Peak		ca. 7450	9/23/2001
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870	9/22/2001
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600 ft	5/21/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6590 ft	8/27/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6590 ft	8/27/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon ca. 0.7 mile east of Big Hatchet Peak		ca. 7500 ft	8/28/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 033E ENE [sic] of Big Hatchet Peak		ca. 6910	9/17/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, limestone ridge located ca. 0.4 mile at 330E WNW [sic] of Big Hatchet Peak	(0.1 mile south of center section) [sic]	ca. 6800 ft	9/18/2002
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of Thompson Canyon, unnamed peak located ca. 0.7 mile south of Big Hatchet Peak, west- facing limestone ridge		ca. 7380	9/8/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of the range, west- facing ridgeline located ca. 0.3 mile south of Big Hatchet Peak		ca. 7950	9/9/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of the range, west- facing ridgeline located ca. 0.4 mile south of Big Hatchet Peak		ca. 7800	9/9/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.25 mile north and 0.30 mile west of Big Hatchet Peak		ca. 6660	9/23/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.23 mile north of Big Hatchet Peak		ca. 7000	9/23/2003

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.13 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	southwest wall of Chaney Canyon, ca. 0.2 mile north and 0.5 mile west of Big Hatchet Peak		ca. 6830- 7012	9/24/2003
Holospira	crossei	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.08 mile north and 0.28 mile west of Big Hatchet Peak		ca. 7330	9/24/2003
Holospira	metcalfi	Hidalgo	Little Hatchet Mountains	Metcalf and Smartt 1997	Howells Ridge	Known only from the north face of Howells Ridge at the base of massive cliffs		
Holospira	metcalfi	Hidalgo	Little Hatchet Mountains	Metcalf and Smartt 1997	Howells Ridge	Known only from the north face of Howells Ridge at the base of massive cliffs		
Holospira	metcalfi	Hidalgo	Little Hatchet Mountains	Metcalf and Smartt 1997	Little Hatchet Mountains [E. of Hatchita Peak]	Known only from the north face of Howells Ridge at the base of massive cliffs		

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Holospira	metcalfi	Hidalgo	Little Hatchet Mountains	Metcalf and Smartt 1997	Little Hatchet Mountains [Howells Ridge]	Known only from the north face of Howells Ridge at the base of massive cliffs		
Holospira	spp.	LUNA	Florida Mountains	Pilsbry and Ferris 1917	No specific localties	Most generally distributed, limestone, hot slopes		
None	found	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
None		LUNA	Cookes Range	Lang 2000	west-northwest facing scree slope located ca. 0.67 air miles ENE of Cooke's Peak		ca. 6600	
None		LUNA	Cookes Range	Lang 2000	east-northeast facing scree slope located ca. 1.1 air miles ESE of Cooke's Peak, .		ca. 6560	
None		Dona Ana	Dona Ana Mtns	Lang 2000	unnamed mountain located immediately ENE of Dona Ana Peak		ca. 5600	9/12/1996
None		Dona Ana	Dona Ana Mtns	Lang 2000	Dona Ana Peak, 5735 elevation		5735	8/18/2000
Oreohelix	pilsbryi	Sierra	Black Range	Lang 2000	ca. 0.3 air mile south of Dreadnaught Mine (Oliver's Mine at Rounderville).			9/26/1999
Pupilla	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Pupilla	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Pupilla	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Pupilla	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Pupilla	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Radiocentrum	ferrissi	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Radiocentrum	ferrissi	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 033E ENE [sic] of Big Hatchet Peak		ca. 6910	9/17/2002
Radiocentrum	ferrissi	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, Daniels Mountain north slope near peak	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2021	between 6400- 6800 ft	
Radiocentrum	ferrissi?	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002
Radiocentrum	ferrissi?	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Radiocentrum	ferrissi?	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870	9/22/2001
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870	9/22/2001
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600 ft	5/21/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6400- 6600 ft	5/22/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6590 ft	8/27/2002

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon ca. 0.7 mile east of Big Hatchet Peak		ca. 7500 ft	8/28/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 033E ENE [sic] of Big Hatchet Peak		ca. 6910	9/17/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, limestone ridge located ca. 0.4 mile at 330E WNW [sic] of Big Hatchet Peak	(0.1 mile south of center section) [sic]	ca. 6800 ft	9/18/2002
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, Daniels Mountain north slope near peak	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	between 6400- 6800 ft	
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southwestern wall of Chaney Canyon, "V-shaped" drainage, ca. 0.5 mile west of Big Hatchet Peak		6500 ft	3/26/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, Daniels Mountain north slope near peak	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2022	between ca. 6200- 6600	9/10/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.25 mile north and 0.30 mile west of Big Hatchet Peak		ca. 6660	9/23/2003

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.23 mile north of Big Hatchet Peak		ca. 7000	9/23/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.13 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	southwest wall of Chaney Canyon, ca. 0.2 mile north and 0.5 mile west of Big Hatchet Peak		ca. 6830- 7012	9/24/2003
Radiocentrum	hachetanum	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.08 mile north and 0.28 mile west of Big Hatchet Peak		ca. 7330	9/24/2003
Radiocentrum	sp.	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of "Daniel's Peak" on Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	between 6400- 6600 ft	8/27/2002
Radiocentrum	sp.*	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6490	9/22/2001
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Metcalf and Smartt 1997	on a hill about 1 1/8 miles south southeast of Big Hatchet Peak (Pils sta. 7)		about 7400 to 7500	see orig.
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870	9/22/2001

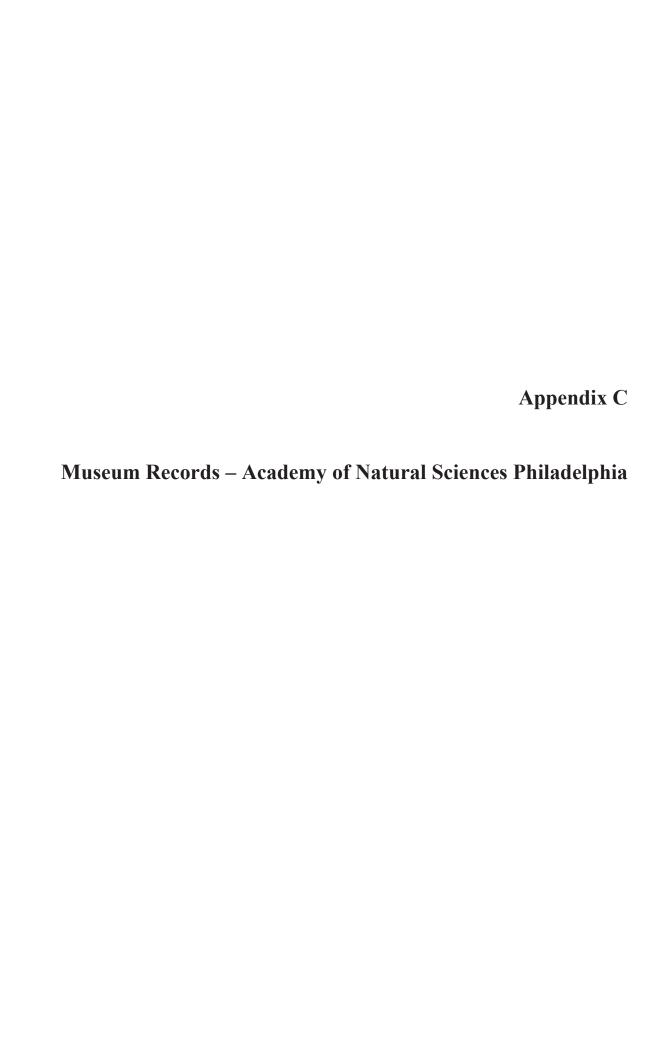
Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon, ca. 0.4 mile east of Big Hatchet Peak		ca. 7870 ft	8/28/2002
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	southern ridge line of Chaney Canyon ca. 0.7 mile east of Big Hatchet Peak		ca. 7500 ft	8/28/2002
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 030E ENE [sic] of Big Hatchet Peak		ca. 6700 ft	9/17/2002
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 033E ENE [sic] of Big Hatchet Peak		ca. 6910	9/17/2002
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of the range, west- facing ridgeline located ca. 0.3 mile south of Big Hatchet Peak		ca. 7950	9/9/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	western limit of the range, west- facing ridgeline located ca. 0.4 mile south of Big Hatchet Peak		ca. 7800	9/9/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.25 mile north and 0.30 mile west of Big Hatchet Peak		ca. 6660	9/23/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.20 mile north and 0.18 mile west of Big Hatchet Peak		ca. 6730	9/22/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.23 mile north of Big Hatchet Peak		ca. 7000	9/23/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.13 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.09 mile west of Big Hatchet Peak		ca. 6800	9/23/2003
Sonorella	hachitana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, ca. 0.10 mile north and 0.08 mile west of Big Hatchet Peak		ca. 6820	9/23/2003
Sonorella	hachitana florida	LUNA	Florida Mountains	Metcalf and Smartt 1997	No specific localties	Calcareous rocks occur in the Florida Mountains, from Baldy Peak in the central part of the range, southward		
Sonorella	hachitana florida	LUNA	Florida Mountains	Miller 1967	in the northwest end of the Florida Mountains, in a canyon just south of Capitol Dome	on north facing slopes below large cliffs on the south side of the canyon.	at an elevation of 5900 feet	7/16/1966
Sonorella	hachitana florida	LUNA	Florida Mountains	Miller 1967	in the northwest end of the Florida Mountains, in a canyon just south of Capitol Dome	on north facing slopes below large cliffs on the south side of the canyon.	at an elevation of 5900 feet	7/16/1966
Sonorella	hachitana florida	LUNA	Florida Mountains	Miller 1967	in the northwest end of the Florida Mountains, in a canyon just south of Capitol Dome	on north facing slopes below large cliffs on the south side of the canyon.	at an elevation of 5900 feet	7/16/1966
Sonorella	hachitana florida	LUNA	Florida Mountains	Pilsbry and Ferris 1917				
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Lang 2000	north slope of Dona Ana Peak		ca. 5600- 5800	9/12/1996
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Lang 2000	east slope of Dona Ana Peak ca. 0.2 air mile southeast of Dona Ana Peak		5735	8/18/2000

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Lang 2000	Dona Ana Peak		5835	8/18/2000
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Metcalf and Smartt 1997	northwestern slope of Dona Ana Peak		5263	
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Sullivan 1997	Dona Ana Peak, northern most peak, N exposure			
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Sullivan 1997	Dona Ana Peak, northern most peak, N exposure			
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Sullivan 1997	Dona Ana Peak, northern most peak, N exposure			
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Sullivan 1997	Dona Ana Peak, northern most peak, N exposure			
Sonorella	todseni	Dona Ana	Dona Ana Mtns	Sullivan 1997	Dona Ana Peak, northern most peak, N exposure			
Striatura	meridionalis	LUNA	Cookes Range	Lang 2000	northeast slope of Cooke's Peak		ca. 7630	5/21/1998
Thysanophora	hornii	Hidalgo	Big Hatchet Mountains	Lang 2000	ENE facing canyon wall located ca. 1.61 air miles ENE of Big Hatchet Peak	ca. 5100-6000	ca. 5100- 6000	5/8/1997
Thysanophora	hornii	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Thysanophora	hornii	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon, easternmost limestone scarp located immediately south of Thompson Canyon (ca. 1.5 air miles north of Sheridan Wells)		ca. 6400	5/10/1997
Thysanophora	hornii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, north slope of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6190	9/22/2001

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Thysanophora	hornii	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, west slope of northernmost peak of Daniels Mountain [sic]	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6630	9/22/2001
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hacheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6820	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6800	5/22/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2000	Sheridan Canyon east-facing basalt scarp located ca. 1.0 air mile south and ca. 1.5 air miles west of Sheridan Wells	one peak south of Pilsbry's [1915] Site #3	ca. 6400	5/9/1997
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2005	Thompson Canyon, unnamed peak located ca. 0.3 mile westsouthwest of the northernmost peak of Daniels Mountain	Daniels Mountain [sic] is not on current maps; named in Pilsbry (1915) and identified with confidence in 2020	ca. 6600 ft	5/21/2002
Vallonia	perspectiva	Hidalgo	Big Hatchet Mountains	Lang 2005	south wall of Chaney Canyon at a point located ca. 0.5 mile at 033E ENE [sic] of Big Hatchet Peak		ca. 6910	9/17/2002
Vallonia	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak		ca. 8170	9/23/2001
Vallonia	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2005	Big Hatchet Peak at eastern limit of summit		ca. 8360 ft	8/28/2002

Genus	species	County	Mountain Range	Source	Locality/Site (Primary)	Locality Information (Secondary)	Elevation (ft)	Collection Date
Vallonia	sonorana	Hidalgo	Big Hatchet Mountains	Lang 2005	Chaney Canyon, limestone ridge located ca. 0.4 mile at 330E WNW [sic] of Big Hatchet Peak	(0.1 mile south of center section) [sic]	ca. 6800 ft	9/18/2002
Vertigo	gouldii	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6725	5/22/1997
Vertigo	gouldii	Hidalgo	Big Hatchet Mountains	Lang 2000	Chainey [sic] Canyon	Northwest slope of Hatcheta Grande (Big Hatchet Peak)	ca. 6808	5/22/1997
Zonitoides	arboreus	Sierra	Black Range	Lang 2000	ca. 0.3 air mile south of Dreadnaught Mine (Oliver's Mine at Rounderville).			9/26/1999



Appendix C. Museum Records – Academy of Natural Sciences Philadelphia.

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	altissima	ANSP	73558	Summit of Sierra Blanca		Townsend, C. H.	
Polygyridae	Ashmunella	ashmuni	ANSP	73576	Jemez Mountains near Bland		Ashmun, E. H.	1898
Polygyridae	Ashmunella	ashmuni	ANSP	73599	Bland		Ashmun, E. H.	
Polygyridae	Ashmunella	ashmuni	ANSP	128604	Northwest of Santa Fe			
Polygyridae	Ashmunella	ashmuni	ANSP	131336	In bottom of canyon, 35 miles NW of Santa Fe, Rita de las Frijales Canyon		Clark, J. B.	1922
Polygyridae	Ashmunella	ashmuni	ANSP	311211	Hillside above Jemez Sulfur Springs, Jemez Mountains	Sandoval	Walton, M. L.	1956
Polygyridae	Ashmunella	ashmuni	ANSP	346969	Jemez Mountains, 7.9 miles west of Los Alamos	Sandoval	Walton, M. L.	1956
Polygyridae	Ashmunella	ashmuni	ANSP	346981	Sulphur Springs, hillside above Jemez, Jemez Mountains	Sandoval	Walton, M. L.	1956
Polygyridae	Ashmunella	binneyi	ANSP	115355	Silver Creek, above station 6, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	binneyi	ANSP	115356	Head Bull Top Creek, west of Grays Cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	binneyi	ANSP	115751	Cabin just above box of Silver Creek, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	binneyi	ANSP	115763	Spring Creek, tributary of Iron Creek, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	carlsbadensis	ANSP	158815	Dark Canyon., South West of Carlsbad		Howard, E. B.	1932
Polygyridae	Ashmunella	carlsbadensis	ANSP	158816	Dark Canyon, SW of Carlsbad	Eddy	Howard, E. B.	1932
Polygyridae	Ashmunella	carlsbadensis	ANSP	391717	Carlsbad Cavern National Park	Eddy	Webb, G.	1966
Polygyridae	Ashmunella	cockerelli	ANSP	45318	1/4 mile above Spade's Cabin, in ravine about 1 mile south of Grays, Black Range		Pilsbry, H. A.	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115320	West side, north peak of Sawyer, 500 feet below summit, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115321	Aspens, south side Silver Creek about box, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115322	Gulch south of Greys cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115323	North side Silver about box, Black Range		Pilsbry & Ferriss	1915

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	cockerelli	ANSP	115324	Tributary of Silver Creek, north of Grays cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115325	Right side Silver Creek below box, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115326	Silver Creek just above Grays cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115327	Tributary of Silver Creek, near Station 10, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115339	Ravine next to Grand Central Mine, Black Range	Grant	Pilsbry, H. A. & Ferriss, J. H.	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115341	Second ravine from Grand Central Mine, towards Sawyer Peak, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115748	Gulch next north of Grand Central Mine, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115749	Silver Creek below box, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	cockerelli	ANSP	115750	Ravine west of trail to Grand Central Mine, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	danielsi	ANSP	111950	South fork, Whitewater Creek, Cave Spring Canyon, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	danielsi	ANSP	111951	South fork, Whitewater Creek, Cave Spring Canyon	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	danielsi	ANSP	111952	South fork, Whitewater Creek, Cave Spring Canyon, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	danielsi	ANSP	111953	South fork, Whitewater Creek, Cave Spring Canyon, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	danielsi	ANSP	111954	South fork, Whitewater Creek, Cave Spring Canyon, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	danielsi	ANSP	111955	South fork, Whitewater Creek, Cave Spring Canyon, Mogollon Mountains	Socorro	Ferriss & Daniels	1914

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	danielsi	ANSP	391718	Circa 6 miles east of Glenwood, west slope of Mogollon Mountains, Little Whitewater Creek	Socorro	Webb, G.	1966
Polygyridae	Ashmunella	ferrissi	ANSP	166948	3 RiverCanyon, 1/4 to 1/2 miles above old corrals		Pilsbry, H. A.	1922
Polygyridae	Ashmunella	harrisi	ANSP	340724	San Andres Mts		Metcalf, A. L.	1975
Polygyridae	Ashmunella	harrisi	ANSP	340725	San Andres Mts		Metcalf, A. L.	1975
Polygyridae	Ashmunella	hawleyi	ANSP	325526	Scarps below Tortuga Geomorphic surfaces, 1/8 NE of U.S. Highway 85 & 2.3 miles SE of Garfield, Dona Ana Coubty		Metcalf, A.	1972
Polygyridae	Ashmunella	hawleyi	ANSP	325527	Scarps below Tortuga Geomorphic surfaces, 1/8 NE of U.S. Highway 85 & 2.3 miles SE of Garfield, Dona Ana		Metcalf, A.	1972
Polygyridae	Ashmunella	hebardi	ANSP	131409	Big Hatchet Mountains, northwest face, Hacheta Grand Peak		Hebard, M.	1922
Polygyridae	Ashmunella	hebbardi	ANSP	131339	Northwest face, Hachita Grande Peak		Hebard, M.	1922
Polygyridae	Ashmunella	jamesensis	ANSP	325531	Quarry cut 3 miles west of Mayhill, 7 miles west James Canyon campground on north side of U.S. Highway 82 opp. N.M. State Highway Dept facility	Otero	Metcalf, A.	1971
Polygyridae	Ashmunella	kochi	ANSP	97640	Black Mountains, S end of San Andreas Range	Doña Ana	Koch, W. E.	
Polygyridae	Ashmunella	kochi	ANSP	159055	South Fork, ca. 50 mi. West of Carlsbad		Howard, E. B.	1932
Polygyridae	Ashmunella	kochi	ANSP	164659	Pine Springs, Canyon above the Walter Grove Ranch House, Guadalupe Mountains		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164660	Pine Springs, Canyon above the Walter Grove Ranch House, Guadalupe Mountains		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164661	Canyon above the Walter Grove Ranch House, Pine Springs, Guadalupe Mountains	Chaves/Otero	Pilsbry, H. & Ferriss, J.	1922
Polygyridae	Ashmunella	kochi	ANSP	164662	Guadalupe Mountains, east of Orange		Pilsbry, H. A. & Ferris, J. H.	1922

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	kochi	ANSP	164663	Guadalupe Mountains, east of Orange, north slope of Canyon, Summit of PX Trail		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164664	Guadalupe Mountains, east of Orange		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164665	Guadalupe Mountains, head of Canyon, south of PX Trail		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164666	Guadalupe Mountains, south branch of Canyon, west from highest peak, east of Orange		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164667	Guadalupe Mountains, north facing slope, deep canyon south of summit of PX Trail, east of Orange		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	164668	Ropers Spring about 10 miles north of Burlcas (?) Spring, San Andreas Mountains		Pilsbry, H. A. & Ferris, J. H.	1922
Polygyridae	Ashmunella	kochi	ANSP	347090	Upper part of ravine, San Andreas Mountain, San Andreas Peak, 7/8 mile ESE of Ropes Spring	Dona Ana	Metcalf, A.	1970
Polygyridae	Ashmunella	mearnsi	ANSP	112284	Thomson Mountain, Big Hachet Mountains		Pilsbry	1910
Polygyridae	Ashmunella	mearnsi	ANSP	112285	Big Hachet Mountains		Pilsbry	1910
Polygyridae	Ashmunella	mearnsi	ANSP	112286	Southeast side, Big Hachet Mountains		Pilsbry	1910
Polygyridae	Ashmunella	mearnsi	ANSP	112287	Big Hachet Mountains		Pilsbry	1910
Polygyridae	Ashmunella	mearnsi	ANSP	112288	Big Hachet Mountains		Pilsbry	1910
Polygyridae	Ashmunella	mearnsi	ANSP	347004	Hachita Grande Mountains, Daniels Mountain	Hidalgo	Walton, M. L.	1910
Polygyridae	Ashmunella	mendax	ANSP	115328	Around Wrights cabin near head of Iron Canyon, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115329	About 20 minutes walk down mountain east of camp on Sawyer saddle, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115330	Garden of Stephen Reay, Kingston	Sierra	Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115331	Gallinas creek below station 1, Black Range		Pilsbry & Ferriss	1915

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	mendax	ANSP	115332	Black Canyon, 1 mile above Diamond Bar Ranch house, Black Range		Pilsbry & Ferriss	
Polygyridae	Ashmunella	mendax	ANSP	115333	About 3 1/2 miles west of Animas Ranger cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115334	Gallinas Creek, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115335	Gallinas Canyon, 4 miles above Pryor's upper cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115336	Holdens Spring, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115337	Southwest side Hillsboro Peak, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115338	West of Animas Ranger cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115340	Northeast side Sawyer below camp, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	115754	Iron Creek above confluence of Spring Creek, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	mendax	ANSP	347071	1.6 miles west of Summit near highway 180, tributary to Iron Creek, Black Range	Sierra	Walton, M. L.	1951
Polygyridae	Ashmunella	mendax	ANSP	347118	middle Percha River 0.7 mile east of Kingston, Black Range	Sierra	Walton, M. L.	1951
Polygyridae	Ashmunella	mogollonensis	ANSP	79530	West fork of Gila River, near Mogollon Peek		Wooton, E. O.	1900
Polygyridae	Ashmunella	mogollonensis	ANSP	111956	Above Mogollon City, Silver Creek, Mogollon Mountains	Catron	Ferriss, J. H.	1914
Polygyridae	Ashmunella	mogollonensis	ANSP	111962	Little Turkey Creek	Socorro		
Polygyridae	Ashmunella	mogollonensis	ANSP	111966				
Polygyridae	Ashmunella	mogollonensis	ANSP	111967	[no specific locality]	Socorro		
Polygyridae	Ashmunella	mogollonensis	ANSP	347643	Mogollon Mountains, 6.9 miles east from Highway 260	Catron	Walton, M. L.	1951
Polygyridae	Ashmunella	organensis	ANSP	165909	Above Dripping Spring, Organ Mountains		Pilsbry & Ferris	1922
Polygyridae	Ashmunella	organensis	ANSP	165910	Northeast Br. Dripping Spring Canyon, Organ Mountains		Pilsbry & Ferris	1922
Polygyridae	Ashmunella	pseudodonta	ANSP	73589	White Oaks		Ashmun, E. H.	
Polygyridae	Ashmunella	pseudodonta	ANSP	74556	Capitan Mountains		Ashmun, E. H.	

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	pseudodonta	ANSP	79529	Capitan Mts		Ashmun, E. H.	
Polygyridae	Ashmunella	rhyssa	ANSP	73556	Eagle Creek White Mountains		Townsend, C. H.	1898
Polygyridae	Ashmunella	rhyssa	ANSP	73557	Eagle Creek White Mountains		Townsend, C. H.	1898
Polygyridae	Ashmunella	rhyssa	ANSP	73561	Sierra Blanca		Ashmun, E. H.	
Polygyridae	Ashmunella	rhyssa	ANSP	73575	Sierra Blanca		Ashmun, E. H.	
Polygyridae	Ashmunella	rhyssa	ANSP	73577	Sierra Blanca		Ashmun, E. H.	
Polygyridae	Ashmunella	rhyssa	ANSP	77869	Cloudcroft, Sacramento Mountains	Otero	Wooton, E. O.	
Polygyridae	Ashmunella	rhyssa	ANSP	83272	Sacramento Mountains, N.M. in Canon, 14 mi. from Algorda		Ferriss, J. H.	1902
Polygyridae	Ashmunella	rhyssa	ANSP	83340	High rolls, Sacramento Mountains	Otero	Viereck, H. L. & Rehn, J. A. G.	1902
Polygyridae	Ashmunella	rhyssa	ANSP	83345	James Canyon, Cloudcraft, Sacramento Mountains	Otero	Rehn, J. & Viereck, H.	1902
Polygyridae	Ashmunella	rhyssa	ANSP	89201	James Canon, Clouderoft		Viereck, H. L.	
Polygyridae	Ashmunella	rhyssa	ANSP	98090	Sacremento Mountain		Ferriss, J. H.	1905
Polygyridae	Ashmunella	rhyssa	ANSP	113056	Lower slopes of White Mountains above head of Rudoso, Aspen belt		Townsend, C. H. T.	1904
Polygyridae	Ashmunella	rhyssa	ANSP	165911	Three Rivers Canyon, 1 mile above ANSP 165914, Mescalero Apache Res., Sierra Blanca Mountains	Otero	Pilsbry, H. A.	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165912	Alamo Canyon	Otero	Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165913	3 River Canyon, 1/2 mile above dam, Sierra Blanca Mountains	Otero	Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165914	3 River Canyon, 1/3 mile above grove	Otero	Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165915	3 River Canyon, (1 mile above 218)		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165916	3 River Canyon, south side in Aspin Grove, (above 219)		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165918	3 River Canyon, north branch		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	165919	3 River Canyon, north branch		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	rhyssa	ANSP	166077	Sierra Blanca			
Polygyridae	Ashmunella	rhyssa	ANSP	166078	Sierra Blanca,	Lincoln		
Polygyridae	Ashmunella	rhyssa	ANSP	226715	Cloudcroft, Sacramento Mountains		Orcutt, C. R.	1926
Polygyridae	Ashmunella	rhyssa	ANSP	302023	2 mi. E of Cloudcrift	Otero	Walton, M. L.	1953

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	rhyssa	ANSP	311212	1.3 miles north of Ruidoso, turn west up Cedar Creek for 3.2 miles, Sierra Blanco Mountains	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	rhyssa	ANSP	311213	Up Eagle Creek, 3.2 miles from Alto, Sierra Blanca Mountains	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	rhyssa	ANSP	338000	Western slope of Sierra Blanca			
Polygyridae	Ashmunella	rhyssa	ANSP	345915	2 miles E of Cloudcroft	Otero	Walton, M. L.	1953
Polygyridae	Ashmunella	rhyssa	ANSP	346804	2 miles east of Cloudcroft, Otero, Sacramento Mountains	Otero	Baldwin, G.	1972
Polygyridae	Ashmunella	rhyssa	ANSP	346971	Sierra Blanca Mountains, 1.5 miles west up Eagle Creek from Alto, 5.6 miles north of Ruedosa	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	rhyssa	ANSP	347105	2 miles E of Cloudcroft	Otero	Walton, M. L.	1953
Polygyridae	Ashmunella	rhyssa	ANSP	347105	Eagle Creek, 3.2 miles from Alto, Sierra Blanco Mountains	Lincoln	Walton, M. L.	1955
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Polygyridae	Ashmunella	rhyssa	ANSP	347649	1.3 miles north of Ruidoso, 3.2 Miles NW of Cedar Creek, Sierra Blanca Mountains	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	rhyssa	ANSP					
Polygyridae	Ashmunella	rileyensis	ANSP	319120	(Northeast mountain) Mount Riley	Dona Ana	Metcalf, A. L.	1970
Polygyridae	Ashmunella	rileyensis	ANSP	319121	(Southwest mountain) Mount Riley,	Dona Ana	Metcalf, A. L.	1970
Polygyridae	Ashmunella	rileyensis	ANSP	319122	(Northeast mountain) Mount Riley	Dona Ana	Metcalf, A. L.	1970
Polygyridae	Ashmunella	ruidosana	ANSP	325522	Village of Ruidosa Downa, cut on side of U.S. Highway 70	Lincoln	Metcalf, A.	1970
Polygyridae	Ashmunella	ruidosana	ANSP	325524	Village of Ruidoso Downs, on south side of US. Highway 70 at top of gravel quarry	Lincoln	Metcalf, A.	1970
Polygyridae	Ashmunella	ruidosana	ANSP	325530	Village of Ruidoso Downs, cut on south side of U.S. Highway 70	Lincoln	Metcalf, A.	1970
Polygyridae	Ashmunella	ruidosana	ANSP	325534	5 miles Ne of eastern village limits of Ruidoso Downs in cut on east side of U.S. Highway 70	Lincoln	Metcalf, A.	1971
Polygyridae	Ashmunella	sp.	ANSP	83346	James Canon, Clouderoft, Sacramento Mountains	Otero	Rehn, J. A. G. & Vie	reck, H. L.

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	tegillum	ANSP	325521	Cut on SW side of road from Penasco to Agua Chiquita Canyon, 4 miles SW of its junction with PenascoCanyon Road	Otero	Metcalf, A.	1971
Polygyridae	Ashmunella	tegillum	ANSP	325525	Cut on NE side of Sacramento Canyon Road, 5 miles SE of its junction with road from Cloudcroft to Sacramento Peak Observatory	Otero	Metcalf, A.	1970
Polygyridae	Ashmunella	tegillum	ANSP	325528	Quarry cuts north side of Agua Chiquita Canyon Road, 65 miles east of center of village, Sacramento	Otero	Metcalf, A.	1971
Polygyridae	Ashmunella	tegillum	ANSP	325533	Quarry cut on north side of Agua Chiquita Canyon Road, 65 miles east of center of village of Sacramento	Otero	Metcalf, A.	1971
Polygyridae	Ashmunella	tetrodon	ANSP	111924	Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111925	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111926	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111927	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111928	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111929	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111930	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111931	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111932	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111933	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
olygyridae	Ashmunella	tetrodon	ANSP	111935	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111936	Dry Creek	Socorro		
Polygyridae	Ashmunella	tetrodon	ANSP	111938	Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111939	Mogollon Mountains, Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111940	Mogollon Mountains, Dry Creek	Socorro	Ferriss & Daniels	1914

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	tetrodon	ANSP	111941	Mogollon Mountains, Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111942	Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111944	Mogollon Mountains, Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111945	Mogollon Mountains, Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111946	Mogollon Mountains, Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111947	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111948	Dry Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	111949	Dry Creek	Socorro	Ferriss & Daniels	1914
Polygyridae	Ashmunella	tetrodon	ANSP	112921	South end of San Mateo Range	Socorro	Ferriss, J. H.	1915
Polygyridae	Ashmunella	tetrodon	ANSP	112924	North and west sides Morgan Creek, Black Range		Ferriss, J. H.	
Polygyridae	Ashmunella	tetrodon	ANSP	115342	Near head of Morgan Creek, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115343	Trail north from Mimbres Lake, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115344	1 1/2 miles south of Black Canyon, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115345	Midway between Animas & McKnight cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115346	Below box of McKnights, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115347	Head of Morgan Creek, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115348	Raey's Garden, Kingston		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115348	Black Canyon, about 3 miles below Reeds		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115350	Hillside 2 miles south of McKnights cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115351	About 3 1/2 miles west of Animas Ranger Cabin		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115352	Hills south of Reeds ranch, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115353	Slide 1 mile south of McKnights Cabin, Black Range		Pilsbry & Ferriss	1915

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	tetrodon	ANSP	115354	Trail 2-3 miles north of Animas Ranger Cabin, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115357	San Mateo Mountains		Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115358	San Mateo Mountains		Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115360	San Mateo Mountains		Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115747	Holdens Spring, head of Las Animas Canyon, Black Range		Pilsbry & Ferriss	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115752	Slides on south side of Cave Creek, Black Range, between mouth an trail Hillsboro		Ferriss, J. H.	1915
Polygyridae	Ashmunella	tetrodon	ANSP	115753	Slides on south side of Cave Creek, Black Range		Ferriss, J. H.	
Polygyridae	Ashmunella	thomsoniana	ANSP	58113	Santa Fe Canon			
Polygyridae	Ashmunella	thomsoniana	ANSP	58114	Santa Fe Canyon			
Polygyridae	Ashmunella	thomsoniana	ANSP	76789	Upper Sapello Canyon, Beulah	San Miguel	Porter, W.	1899
Polygyridae	Ashmunella	thomsoniana	ANSP	76790	Santa Fe Canon near Santa Fe		Ashmun, E. H.	1899
Polygyridae	Ashmunella	thomsoniana	ANSP	77870	Monument Rock, Santa Fe Canyon		Cockerell, T. & Porter, W.	1899
Polygyridae	Ashmunella	thomsoniana	ANSP	80749	Cooper's Mill near Rowe		Cooper, M.	
Polygyridae	Ashmunella	thomsoniana	ANSP	80750	Las Vegas Hot Springs		Cooper, M.	
Polygyridae	Ashmunella	thomsoniana	ANSP	81983	Sapello Canyon	San Miguel	Skinner, H.	1901
Polygyridae	Ashmunella	thomsoniana	ANSP	82551	Canon, Diablo	0	Cooper, M.	
Polygyridae	Ashmunella	thomsoniana	ANSP	82552	Las Vegas			
Polygyridae	Ashmunella	thomsoniana	ANSP	83946	Las Vegas, Hot Springs		May Cooper	1900
Polygyridae	Ashmunella	thomsoniana	ANSP	84209	Valle Ranch, Pecos		Cockerell, J. D. A.	
Polygyridae	Ashmunella	thomsoniana	ANSP	84293	Las Vegas, Hot Springs			
Polygyridae	Ashmunella	thomsoniana	ANSP	84294	Manzanares Valley, near Rowe			
Polygyridae	Ashmunella	thomsoniana	ANSP	84295	Canon Diablo, near Rowe			
Polygyridae	Ashmunella	thomsoniana	ANSP	85099	Pecos	San Miguel	Cockerell, T. D. A.	1903
Polygyridae	Ashmunella	thomsoniana	ANSP	130919	Pecos Canyon	San Miguel	Ferriss, J. H.	1922
Polygyridae	Ashmunella	thomsoniana	ANSP	130921	1 mile above Pecos Canyon, 1st bridge above Santa Fe Railroad Tracks	San Miguel	Ferriss, J. H.	1922
Polygyridae	Ashmunella	thomsoniana	ANSP	157690	Pecos Canyon		Ferriss, J. H.	1922
Polygyridae	Ashmunella	thomsoniana	ANSP	311216	Santa Fe Canyon, 1/4 mile above end of road	San Miguel	Walton, M. L.	1951
Polygyridae	Ashmunella	thomsoniana	ANSP	338216	1-4 miles above 1st bridge above Santa Fe Railroad Tracks, Pecos Canyon		Ferris, J. H.	1922

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	thomsoniana	ANSP	346966	7.1 miles above Pecos, Dalton Canyon Tributary to Pecos Canyon	San Miguel	Walton, M. L.	1951
Polygyridae	Ashmunella	thomsoniana	ANSP	346967	11 miles from Pecos, Up Pecos Canyon	San Miguel	Walton, M. L.	1951
Polygyridae	Ashmunella	thomsoniana	ANSP	347006	Pecos Canyon, 3.8 miles above Pecos	San Miguel	Walton, M. L.	1951
Polygyridae	Ashmunella	thomsoniana	ANSP	348133	Santa Fe Canyon, 1/4 mile above gate, NE of Santa Fe	Santa Fe	Walton, M. L.	1951
Polygyridae	Ashmunella	thomsoniana	ANSP	358262	Upper Sapello Canyon, Beulah	San Miguel	Porter, W.	1899
Polygyridae	Ashmunella	todseni	ANSP	340726	Organ Mountains		Metcalf & Smartt	1975
olygyridae	Ashmunella	todseni	ANSP	340727	Organ Mountains  Organ Mountains		Metcalf & Smartt	1975
Polygyridae	Ashmunella	townsendi	ANSP	91345	Sierra Blanca		Townsend, C. H. T.	1373
Polygyridae	Ashmunella	townsendi	ANSP	92756	nr. Nogal Peak		Phillips, F. J.	+
Polygyridae	Ashmunella	townsendi	ANSP	113057	Sierra Blanca, abova Rudoso		Townsend, C. H. T.	1904
Polygyridae	Ashmunella	townsendi	ANSP	128014	Crop of (Meleagris g. merrianus) Wild Turkey near head of Corlizo CreekMescalero Indian Reservation	Otero	Huber, W.	1920
Polygyridae	Ashmunella	townsendi	ANSP	148825	Sierra Blanca Peak	Lincoln	Huber, W.	1929
Polygyridae	Ashmunella	townsendi	ANSP	165920	Water Canyon, west flank Nogal Peak		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165921	Water Canyon, above 232		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165922	Nogales Peak		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165923	Nogales Peak		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165924	Water Canyon, west flank, Nogal Peak		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165925	Water Canyon, west flank, (above 251) Nogal Peak		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165926	Canyon southwest of Nogal Peak		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165927	Canyon southwest of Nogal Peak, above 20 fork		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165928	Canyon southwest of Nogal Peak, above Sta 227		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	165929	Canyon nortwest of Nogal Peak, Station228		Pilsbry, H. A. & Ferris	1922
Polygyridae	Ashmunella	townsendi	ANSP	166064	Water Canyon, west flank, Nogal Peak		Ferris, J. F. & Pilsbry, H. A.	
Polygyridae	Ashmunella	townsendi	ANSP	166262	Canyon southwest of Nogal Peak(above Station 227)		Pilsbry, H. A.	1922

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Polygyridae	Ashmunella	townsendi	ANSP	302020	4.7 E of Lincoln	Lincoln	Walton, M. L. & Greggg, W. O.	1951
Polygyridae	Ashmunella	townsendi	ANSP	345916	Rio Bonita, 4.7 miles east of Lincoln	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	townsendi	ANSP	346824	4.7 miles E of Lincoln, S bank Rio Bonita	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	townsendi	ANSP	347015	5.5 miles W of Lincoln, Highway 380, S bank Rio Bonita	Lincoln	Walton, M. L.	1951
Polygyridae	Ashmunella	tularosana	ANSP	325529	Cut on east side of Tularosa Canyon Road, 6 miles west of Firman Canyon Road junction & 1.4 miles North of Rd to Mescalero Apache Industrial Park	Otero	Metcalf, A.	1968
Polygyridae	Ashmunella	tularosana	ANSP	325535	Cut on east side of Tularosa Canyon Road, 6 miles south of junction with Firman Canyon Road, 1.4 miles north of road to Mascalero Apache Industrial Park	Otero	Metcalf, A.	1968
Polygyridae Polygyridae	Ashmunella Ashmunella	walkeri walkeri	ANSP ANSP	87101 112289	Florida Mountains Florida Mountains	Luna	Ferriss, J. H. Pilsbry & Ferriss	1904
Polygyridae	Ashmunella	walkeri	ANSP	328565	Floris Mountains			
Urocoptidae	Holospira	animasensis	ANSP	410278	11 air km SE of Animas	Hidalgo	Worthington, R. D.	1998
Urocoptidae	Holospira	bilamellata	ANSP	65740	Big Hatchet Mountain	Grant	Mearns, E. A.	
Urocoptidae	Holospira	bilamellata	ANSP	112265	Teocalli Peak, Big Hachet Mountains		Pilsbry, H. A.	1910
Urocoptidae	Holospira	bilamellata	ANSP	112266	East of Teocalli Peak, Hachita Mountains		Pilsbry, H. A.	1910
Urocoptidae	Holospira	bilamellata	ANSP	112267	Big Hachet Mountains		Pilsbry, H. A.	1910
Urocoptidae	Holospira	bilamellata	ANSP	112268	Cliff opposite mouth of Sheridan Canyon, Big Hatchet Mountains		Pilsbry, H. A.	1910
Urocoptidae	Holospira	bilamellata	ANSP	112269	South side Thomson [Daniels] Mountain near summit, Big Hachet Mountains		Pilsbry, H. A. & Daniels, L. E.	1910
Urocoptidae	Holospira	bilamellata	ANSP	112270	East side Thomson Mountain, Pinon zone, Hachita Mountains		Pilsbry	1910
Urocoptidae	Holospira	bilamellata	ANSP	112271	East side slope of Hachita Grande, Big Hachet Mountains		Pilsbry	1910
Urocoptidae	Holospira	bilamellata	ANSP	112272	Big Hachet Mountains		Pilsbry, H. A.	1910
o. ocoptique	Holospiia	Sdifficilata	71131	114414	5.6	1	1 11301 9, 11. 74.	1310

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Urocoptidae	Holospira	bilamellata	ANSP	112274	Top of Hachita Grande Mountain		Mearns, E. A.	
Urocoptidae	Holospira	bilamellata	ANSP	298102	Big Hatchet		Pilsbry	1910
Urocoptidae	Holospira	bilamellata	ANSP	331261	Big Hachet Mountains		Pilsbry	1910
Urocoptidae	Holospira	bilamellata	ANSP	347650	Hacheta Grande Mountain	Hidalgo	P. F. D.	1910
Urocoptidae	Holospira	cockerelli	ANSP	115268	Little Palomas limestone mountain, 2 miles north of Black Bobs ranch	Sierra	Ferriss, J. H.	
Urocoptidae	Holospira	cockerelli	ANSP	115269	Big Palomas Creek, Hermosa	Sierra	Ferriss, J. H.	
Urocoptidae	Holospira	cockerelli	ANSP	115270	Next mountain below station 55, Big Palomas Creek, Hermosa	Sierra	Ferriss, J. H.	
Urocoptidae	Holospira	cockerelli	ANSP	115271	About 6 miles southeast of Chloride, Cuchuilla Mountains	Sierra	Ferriss, J. H.	
Urocoptidae	Holospira	cockerelli	ANSP	115272	South side peak, Cuchilla Mountains	Sierra	Ferriss, J. H.	
Urocoptidae	Holospira	cockerelli	ANSP	115273	Sams Canyon, 4 miles south of Chloride		Ferriss, J. H.	
Urocoptidae	Holospira	cockerelli	ANSP	115553	Limestone mountain 2 miles north of Bobs ranch, Little Palomas Creek		Ferriss, J. H. & Pilsbry, H.	1915
Urocoptidae	Holospira	crossei	ANSP	65738	Big Hatchet Mountain	Grant	Mearns, E. A.	
Urocoptidae	Holospira	crossei	ANSP	112273	Summit, Hachita Grande Mountain		Pilsbry	1910
Urocoptidae	Holospira	crossei	ANSP	131340	Northwest face, Hachita Grande Peak		Hebard, M.	1922
Jrocoptidae	Holospira	crossei	ANSP	144498	Big Hachet Mountains		Pilsbry, H. A.	1919
Urocoptidae	Holospira	montivaga	ANSP	157897	Eastern slope of Guadalupe Mountains near south end, above Walter Glover's ranch, Pine Spring Canyon		Pilsbry, H. A. & Ferriss, J. H.	1922
Urocoptidae	Holospira	montivaga	ANSP	254988	Butte in canyon 2 mi. S of PX trail, E of Orange, Guadalupe Mts		Pilsbry, H. A.	1922
Urocoptidae	Holospira	regis	ANSP	89208	Near Kingston	Sierra	Metcalfe, O. B.	
Urocoptidae	Holospira	roemeri	ANSP	83337	Alamo Canon, Alamogordo, Sacramento Mountains	Otero	Viereck, H. L. & Rehn, J. A. G.	1902
Urocoptidae	Holospira	roemeri	ANSP	83338	Alamo Canon, Alamogordo, Sacramento Mountains	Otero	Viereck, H. L. & Rehn, J. A. G.	1902

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Urocoptidae	Holospira	roemeri	ANSP	158160	P.X. trail up Guadalupe Mountains, E of Orange		Pilsbry, H. A. & Ferriss, J.	1922
Urocoptidae	Holospira	roemeri	ANSP	175849	S. branch of canyon running W. of high peak, Guadalupe Mountains, East of Orange,		Pilsbry, H. A.	
Urocoptidae	Holospira	roemeri	ANSP	175945	Guadalupe Mountains, E. of Orange,		Pilsbry, H. A.	
Urocoptidae	Holospira	roemeri	ANSP	176113	"Park" at head of P.X. Trail, E. of Orange, Stony hill, east side,		Pilsbry & Ferriss	
Urocoptidae	Holospira	roemeri	ANSP	176114	Nr. end of Sacramento Range, About 20 mi. S. of Alamogordo,		Pilsbry & Ferriss	
Urocoptidae	Holospira	roemeri	ANSP	176115	Burke's Spring, N. Slope, San Andraes Mountains, N. of Las Cruces, Near Jornada Range,		Pilsbry & Ferriss	
Urocoptidae	Holospira	roemeri	ANSP	176117	Head of Canyon, S. of top of P.X. Trail, E. of Orange		Pilsbry & Ferriss	
Urocoptidae	Holospira	roemeri	ANSP	176118	Ropes Spring, San Andraes			1922
Urocoptidae	Holospira	roemeri	ANSP	176121	Pine Spring Canyon, near Gateway,		Pilsbry & Ferriss	
Urocoptidae	Holospira	roemeri	ANSP	176122	Alamo Canyon, Sacramento Mountains,		Pilsbry & Ferriss	
			Oreohelicida	Oreohelicida				Oreohelicida
Oreohelicidae	Oreohelicidae	Oreohelicidae	е	е	Oreohelicidae	Oreohelicidae	Oreohelicidae	е
Oreohelicidae	Oreohelix	barbata	ANSP	119566	Cave Spring Canyon, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
	Oreohelix	barbata	ANSP	119576	Day Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Oreohelicidae	Oreohelix	concentrata	ANSP	65742	Hacita - Grande Mountain			
Oreohelicidae	Oreohelix	litoralis	ANSP	354156	Wave-cut cliff area along former shore of Pluvial Lake San Agustin	Catron	Crews, C. & Metcalf, A.	1980
Oreohelicidae								
Oreohelicidae	Oreohelix	metcalfei	ANSP	10941	Mountains near Kingston	Sierra	Metcalfe, O. B.	
Oreohelicidae	Oreohelix	metcalfei	ANSP	45317	Silver Creek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae	Oreohelix	metcalfei	ANSP	103243	Florida Mountains, above spring		Pilsbry & Ferriss	1906
Oreohelicidae	Oreohelix	metcalfei	ANSP	112899	Spring Creek, Black Range		Pilsbry & Ferriss	
Oreohelicidae	Oreohelix	metcalfei	ANSP	112917	Coachillo Mountains		Ferriss, J. H.	1915
	Oreohelix	metcalfei	ANSP	112922	Next peek below station 55, near Hermosa, Black Range		Ferriss, J. H.	
Oreohelicidae Oreohelicidae	Oreohelix	metcalfei	ANSP	115260	Hermosa		Ferriss, J. H.	1915

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Oreohelicidae	Oreohelix	metcalfei	ANSP	115261	Hermosa	Socorro	Ferriss, J. H.	1915
Over the Parish	Oreohelix	metcalfei	ANSP	115262	Down mountain, southeast from camp, Sawyer Peek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae Oreohelicidae	Oreohelix	metcalfei	ANSP	115263	Cuchillo Mountains		Ferriss, J. H.	1915
Oreonelicidae	Oreohelix	metcalfei	ANSP	115205	Swarts and Spade cabin, about 1/4 mile above Spade's cabin, about 1 mile south of Gray's	cahin	Pilsbry, H. A.	1915
	Oreonenx	metcaner	ANSF	113312	Black Range	Cabiii,	Filsuly, II. A.	1913
Oreohelicidae								
	Oreohelix	metcalfei	ANSP	115313	Ravine north of Grand Central, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	metcalfei	ANSP	115314	Grand Central Mine, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	metcalfei	ANSP	115315	Silver Creek, north side near Grays cabin, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
Orconclicidae	Oreohelix	metcalfei	ANSP	115316	Gulch south of Greys cabin, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae			1					
	Oreohelix	metcalfei	ANSP	115317	Immediately below box of Silver Creek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae							,	
	Oreohelix	metcalfei	ANSP	115318	West side of north Peak of Sawyer, 500 feet from summit, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	metcalfei	ANSP	115319	Iron Creek above mouth of Spring Creek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	metcalfei	ANSP	115546	Sams Canyon about 6 miles south of Chloride		Ferriss, J. H.	1915
Oreohelicidae								
Oreohelicidae	Oreohelix	metcalfei	ANSP	115755	Silver Creek above box, Black Range		Pilsbry & Ferriss	1915
	Oreohelix	metcalfei	ANSP	115756	Second gulch north of Grand Central Mine		Pilsbry & Ferriss	1915
Oreohelicidae	0 1 11	. 15 .	44400				Bill 0.5 i	1015
Oue elections	Oreohelix	metcalfei	ANSP	115757	East of camp on Sawyer Peek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae	Oreohelix	metcalfei	ANSP	115758	Iron Creek above mouth of Spring Creek		Pilsbry & Ferriss	1915
Oreohelicidae	Oreonenz	metcaner	ANSI	113736	Holl creek above mouth of spring creek		1 lisbry & Terriss	1515
Oreohelicidae	Oreohelix	metcalfei	ANSP	115759	Near Hermosa	Sierra	Ferriss, J. H.	1915
Oreohelicidae	Oreohelix	metcalfei	ANSP	115760	Cuchilla Mountains	Sierra	Ferriss, J. H.	1915
	Oreohelix	metcalfei	ANSP	166172	South Peak of Tres Hermanos Mountains	Luna	Pilsbry, H. A.	1935
Oreohelicidae								
	Oreohelix	metcalfei	ANSP	345805	West of summit on US 180, small creek tributary to Iron Creek, Black Range	Grant	Walton, M. L.	1951
Oreohelicidae								

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
	Oreohelix	metcalfei	ANSP	346996	Black Range, 2.5 miles west of Summit, Highway 180, creek tributary to Iron Creek	Sierra	Walton, M. L.	1951
Oreohelicidae								
Oreohelicidae	Oreohelix	metcalfei	ANSP					
	Oreohelix	oterana	ANSP	352829	N wall of James Canyon, borrow pit on north side of U.S. Highway 82, opposite New Mexico State Highway Department buildings	Otero	Metcalf, A. L.	1970
Oreohelicidae								
	Oreohelix	oterana	ANSP	352830	Exposure in cut on east side of Tularosa Canyon road, 0.97 kms south of Firman Canyon road, Tularosa Canyon	Otero	Metcalf, A. L.	1968
Oreohelicidae								
	Oreohelix	oterana	ANSP	352831	South wall of TULAROSA CANYON, cut on south side of road bordering shopping center and park on south, immediately east of mouth of Graveyard Canyon. 0.75 kms west of St. Joseph's Mission Church. Tularosa Canyon, Mescalero	Otero	Metcalf, A. L.	1971
Oreohelicidae								
Oreonelicidae	Oreohelix	pilsbryi	ANSP	112918	Oliver's mine on Mineral Creek, 5-6 miles above Chloride	Sierra	Ferriss, J. H.	
	Orconciix	phoblyt	711451	112510	oliver 3 mile on willerar creek, 3 o miles above chiomae	Sicira	1 (11133, 3. 11.	
Oreohelicidae								
Oreohelicidae	Oreohelix	socorroensis	ANSP	58128	Vegva Mountains	Socono		
Oreohelicidae	Oreohelix	socorroensis	ANSP	158166	Magdalena	Socorro	Ferriss, J. H.	1922
	Oreohelix	sp.	ANSP	347648	Large Fill Quarry, north side Highway 82, opposite New Mexico Highway Dept. Station, Route 14E	Otero		
Oreohelicidae								
	Oreohelix	sp.	ANSP	422224	Three Rivers Canyon about 1/4-1/2 miles above old corral, Sierra Blanca		Pilsbry, H. A. & Ferriss, J. H.	1922
Oreohelicidae								
Oreohelicidae	Oreohelix	strigosa	ANSP	1908	[No specific locality]		S.	
Oreohelicidae	Oreohelix	strigosa	ANSP	10942	Big Spring, 5 miles east of Zuni		Conard, H. S.	
Oreohelicidae	Oreohelix	strigosa	ANSP	73597	Red River		Ashmun, E. H.	
Oreohelicidae	Oreohelix	strigosa	ANSP	84296	Canon Diablo, near Rowe			
Oreohelicidae	Oreohelix	strigosa	ANSP	85100	Pecos			
Oreohelicidae	Oreohelix	strigosa	ANSP	91097	Pecos Canon		Cockerell, T. D. A.	
Oreohelicidae	Oreohelix	strigosa	ANSP	92755	nr. Nogal Peak		Phillips, F. J.	

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
	Oreohelix	strigosa	ANSP	130920	Pecos Canyon, 1st bridge above Santa Fe Railroad Track		Ferriss, J. & Chace	
Oreohelicidae								
Oreohelicidae	Oreohelix	strigosa	ANSP	149981	Picacho	Lincoln	Huber, W.	1929
Oreohelicidae	Oreohelix	strigosa	ANSP	156440	Cimarrone Creek, Folsom	Union	Howard, E. B.	1931
Oreohelicidae	Oreohelix	strigosa	ANSP	158165	Pecos Canyon		Ferriss, J. H.	1922
Oreohelicidae	Oreohelix	strigosa	ANSP	165937	Canyon southwest of Nogal Peak	Lincoln	Pilsbry & Ferris	
Oreohelicidae	Oreohelix	strigosa	ANSP	165938	Water Canyon, west flank Nogal Peak	Lincoln	Pilsbry & Ferris	
Oreohelicidae	Oreohelix	strigosa	ANSP	165939	Water Canyon, west flank Nogal Peak	Lincoln	Pilsbry & Ferris	
Oreohelicidae	Oreohelix	strigosa	ANSP	165940	Water Canyon, west flank Nogal Peak	Lincoln	Pilsbry & Ferriss	1922
Oreohelicidae	Oreohelix	strigosa	ANSP	165941	Canyonsouthewest of Nogal Peak	Lincoln	Pilsbry & Ferris	
Oreohelicidae	Oreohelix	strigosa	ANSP	165942	Water Canyon, west flank Nogal Peak		Pilsbry & Ferris	
	Oreohelix	strigosa	ANSP	166901	Canyon south of Cottonwood Spring Canyon east of Oscuro, Sierra Blanca		Pilsbry, H. A. & Ferris	ss, J. H.
Oreohelicidae								
Oreohelicidae	Oreohelix	strigosa	ANSP	168338	Rio Aripa	San Miguel	Rotger, B.	
Oreohelicidae	Oreohelix	strigosa	ANSP	171201	Cabusto Creek, Carson National Forest	Taos	Bull, M.	
Oreohelicidae	Oreohelix	strigosa	ANSP	347097	Dalton Canyon tributary, 7.1 miles up from Pecos	San Miguel	Walton, M. L.	1951
Oreohelicidae	Oreohelix	strigosa	ANSP	347100	Pecos Canyon, 3.8 miles above Pecos	San Miguel	Walton, M. L.	1951
Oreohelicidae	Oreohelix	strigosa	ANSP	347645	Dalton Picnic Ground, 6.9 miles up Pecos Canyon	San Miguel	Walton, M. L.	1951
Oreohelicidae	Oreohelix	strigosa	ANSP	450480	Water Canyon, west flank Nogal Peak	Lincoln	Pilsbry & Ferriss	1922
Oreohelicidae	Oreohelix	subrudis	ANSP	112900	Spring Creek, Black Range			
Oreohelicidae	Oreohelix	subrudis	ANSP	112919	San Mateo Range.		Ferriss, J. H.	
Oreohelicidae	Oreohelix	subrudis	ANSP	112920	San Mateo Range.		Ferriss, J. H.	
Oreohelicidae	Oreohelix	subrudis	ANSP	115156	Silver Creek, Black Range		Pilsbry	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115277	San Mateo Mountains		Ferriss	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115278	San Mateo Mountains		Ferriss	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115279	San Mateo Mountains		Ferriss	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115280	South side Silver Creek box, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115281	Silver Creek above box, Black Range		Pilsbry & Ferriss	1915
o. concliciade	Oreohelix	subrudis	ANSP	115282	Silver Creek above Mitchell Grays cabin, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
Oreohelicidae	Oreohelix	subrudis	ANSP	115283	Silver Creek near Mitchell Grays cabin, Black Range		Pilsbry & Ferriss	1915
	Oreohelix	subrudis	ANSP	115284	Around Wrights cabin near head Iron Canyon, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae	0		ANGR	445305	West idea foodbased Secretary Seed Blad Bases		Bileles O Facilia	4045
	Oreohelix	subrudis	ANSP	115285	West side of north peak, Sawyer, Iron Creek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
Oreohelicidae	Oreohelix	subrudis	ANSP	115286	Black Range		Pilsbry & Ferriss	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115287	Affluent of Spring Creek from north, Black Range		Pilsbry & Ferriss	1915
	Oreohelix	subrudis	ANSP	115288	Branch of Animas Creek, about 3 miles north of cabinBlack Range		Pilsbry & Ferriss	1915
Oreohelicidae								
Oreohelicidae	Oreohelix	subrudis	ANSP	115290	Garden of Stephen River, Kingston		Pilsbry & Ferriss	1915
Oreohelicidae	Oreohelix	subrudis	ANSP	115291	1 mile west of Animas Cabin, Black Range		Pilsbry & Ferriss	1915
	Oreohelix	subrudis	ANSP	115292	Between McKnights cabin & the lake on shoulder of Membres Peak, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	subrudis	ANSP	115293	1 mile south of McKnights cabin, quartzite slide facing south, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	subrudis	ANSP	115302	South side Morgan Canyon, 1/4 mile below Station 44, Black Range		Ferriss, J. H.	1915
Oreohelicidae								
Oreohelicidae	Oreohelix	subrudis	ANSP	115303	Silver Creek, Black Range		Pilsbry	1915
	Oreohelix	subrudis	ANSP	115304	8 miles north of McKnights cabin, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	subrudis	ANSP	115305	Camp in Spring at gateway of Mountains, San Mateo Mountains	Socorro		
Oreohelicidae								
	Oreohelix	subrudis	ANSP	115306	Hillside above Holden's Spring, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae	0 1 1		*****	115007			011 05	1015
	Oreohelix	subrudis	ANSP	115307	Canyon west from McKnight's cabin, below box, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
Oreohelicidae	Oreohelix	subrudis	ANSP	115308	Head of Morgan Creek, Black Range		Pilsbry & Ferriss	1915
	Oreohelix	subrudis	ANSP	115309	Diamond Creek about halfway to base of mountain		Ferriss	1915
Oreohelicidae								

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
	Oreohelix	subrudis	ANSP	115310	Near and north of Grays cabin, Mr. Strohns Mine, Silver Creek, Black Range		Pilsbry & Ferriss	
)reohelicidae								
reonelicidae	Oreohelix	subrudis	ANSP	115311	Right side Silver Creek, below box, Black Range		Pilsbry & Ferriss	
Preohelicidae	Greenenz	Sabradis	7.1.01	113011	ingite state street electry select sorty static range		1 11351 7 6 1 6 1 1135	
	Oreohelix	subrudis	ANSP	115668	Willow Creek, Mogollon Mountains		Ferriss & Daniels	1914
Oreohelicidae								
	Oreohelix	subrudis	ANSP	115669	Willow Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	1914
Dreohelicidae	Oreohelix	subrudis	ANSP	119152	East side slide back of field, San Francisco River, Mogollon Mountains		Ferriss & Daniels	
	Oreonenx	Subruuis	ANSF	119132	Last side side back of field, sail Francisco River, Mogolion Modificants		remiss & Dameis	
Dreohelicidae								
	Oreohelix	subrudis	ANSP	119153	Lisa Mountain, Lisa Creek 20 miles north of Alma	Socorro	Ferriss & Daniels	
Dreohelicidae								
2 la . l' . ! d	Oreohelix	subrudis	ANSP	119176	Silver Creek, Mogollon Mountains		Ferriss & Daniels	
Dreohelicidae	Oreohelix	subrudis	ANSP	119177	Bursam Road, 16 miles from Mogollon, 3 miles from Willow Creek		Ferriss & Daniels	
	Oreonenx	Subruuis	ANSF	1191//	Bulsani Road, 10 miles from Mogorion, 3 miles from Willow Creek		reiriss & Dailleis	
Oreohelicidae								
	Oreohelix	subrudis	ANSP	119366	Silver Creek, Woodyard site, Mogollon Range		Ferriss & Daniels	
Oreohelicidae								
	Oreohelix	subrudis	ANSP	119367	Willow Creek 1 1/2 miles above Gordon's Ranch, Mogollon Mountains		Ferriss & Daniels	
Oreohelicidae								
Dieonelicidae	Oreohelix	subrudis	ANSP	119368	Willow Creek, Mogollon Mountains	Socorro	Ferriss & Daniels	
Oreohelicidae								
	Oreohelix	subrudis	ANSP	119369	Willow Creek, 2 miles below Gordon's Ranch, Mogollon Mountains		Ferriss & Daniels	
Oreohelicidae								
	Oreohelix	subrudis	ANSP	119372	Bursam Road at spring at crest of Mogollon Mountains		Ferriss & Daniels	
Oreohelicidae								
Dreohelicidae	Oreohelix	subrudis	ANSP	119374	[No specific locality]		Ferriss & Daniels	
	Oreohelix	subrudis	ANSP	119497	East side Blue River north of Saw Mill		Ferriss, J. H. & Daniels	
Oreohelicidae								
	Oreohelix	subrudis	ANSP	119498	Bursam Road, Mogollon Mountains, (East of Mogollon)	Socorro	Ferriss, J. H. & Daniels	
Oroobolisids =								
Oreohelicidae Oreohelicidae	Oreohelix	subrudis	ANSP	+				
Dreohelicidae	Oreohelix	subrudis	ANSP	+				
	Oreohelix	swopei	ANSP	112894	About 1 1/2 miles south of Black Canyon ranger station		Pilsbry & Ferriss	1915
					, -			
Dreohelicidae								
	Oreohelix	swopei	ANSP	112896	Morgan Creek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
	Oreohelix	swopei	ANSP	112901	Black Canyon, 4 miles below Reed's Ranch, Black Range		Ferriss, J. H.	1915
O b . l'. · d								
Oreohelicidae	Oreohelix	swopei	ANSP	112923	North and west sides Morgan Creek, Black Range		Ferriss, J. H.	1915
	Orconciix	Swoper	711431	112323	Note: and west sides worgan creek, black hange		1 (11133, 3. 11.	1313
Oreohelicidae								
	Oreohelix	swopei	ANSP	112925	North and west sides Morgan Creek, Black Range		Ferriss, J. H.	1915
Oreohelicidae	Oreohelix	swonoi	ANSP	115264	Diamond Creek, 3 miles below peak of range, Black Range		Ferriss, J. H.	1915
	Oreoneiix	swopei	ANSP	115264	Diamond Creek, 5 miles below peak of range, black kange		remss, J. n.	1915
Oreohelicidae								
	Oreohelix	swopei	ANSP	115265	Head of Morgan Creek, Black Range		Pilsbry & Ferriss	1915
Oreohelicidae								
	Oreohelix	swopei	ANSP	115266	Diamond Creek, about halfway up the mountain, Black Range		Pilsbry & Ferriss	1915
Ozoskaliaidaa								
Oreohelicidae	Oreohelix	swopei	ANSP	115267	South side Morgan Creek, 1/4 mile below Station 44, Black Range		Ferriss, J. H.	1915
	Orconciix	Swoper	711431	113207	South Side Morgan Creek, 1,4 mile below Station 44, black hange		1 (11133, 3. 11.	1313
Oreohelicidae								
	Oreohelix	swopei	ANSP	347092	Highway 180, 1.6 miles west of Summit, Black Range, Iron Creek	Sierra	Walton, M. L.	1951
Oreohelicidae	Oznahaliu		ANCD	70520	Las Husakus Canan, Candia Maustaina nang Albumusanus		Filio A4	
	Oreohelix	yavapai	ANSP	79528	Las Huastus Canon, Sandia Mountains near Albuquerque		Ellis, M.	
Oreohelicidae								
	Oreohelix	yavapai	ANSP	80700	Beulah, in the Sapello Canyon	San Miguel	Cockerell, T. D. A. &	1901
Oreohelicidae							W. P.	
Oreohelicidae	Oreohelix	yavapai	ANSP	84283	Las Huartes Canyon	Bernalillo	Cooper, M.	
	Oreohelix	yavapai	ANSP	84297	Canyon Diablo, near Rowe	San Miguel	Cooper, M.	
Oreohelicidae	Oreohelix	yavapai	ANSP	91098	A few miles above Valle Ranch, Pecos Canyon		Grabham, M.	1903
Oreohelicidae	Oreonenx	yavapai	ANSF	31038	A few filles above valle karicii, recos cariyofi		Grabitatti, ivi.	1903
conclicione	Oreohelix	yavapai	ANSP	91423	near top highest peak, Sandia Mountains		Barber, C. M.	1901
Oreohelicidae		, ,					,	
	Oreohelix	yavapai	ANSP	91424	near top highest peak, Sandia Mountains		Barber, C. M.	
Oreohelicidae				0550				
Oreohelicidae	Oreohelix	yavapai	ANSP	95521 103242	Arroyo Pecos, Las Vegas		Dilahar 9 Famile	1000
Oreohelicidae Oreohelicidae	Oreohelix Oreohelix	yavapai yavapai	ANSP ANSP	103242	Grants Golden	Santa Fe	Pilsbry & Ferriss Ferriss, J. & Chace	1906
Oreohelicidae	Oreohelix	yavapai	ANSP	158164	Golden	Janta FE	Ferriss, J. & Chace	+
Orconelicidae	Oreohelix	yavapai	ANSP	158167	North side Sandia Mountains		Ferriss, J. H.	1922
Oreohelicidae		,						1
	Oreohelix	yavapai	ANSP	167507	Alamo Canyon, Sacramento Mountains		Pilsbry, H. A.	1922
Oreohelicidae								

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
	Oreohelix	yavapai	ANSP	347116	Sandia Mountain Road, 6.6 miles south of Placitas	Bernalillo	Walton, M. L.	1957
Oreohelicidae								
	Radiocentru m	caballoensis	ANSP	332307	Caballo Mts, hill slope colluvium at mouth of canyon on W side of Brushy Mt., 3 miles NE of prominent fluoride mine on W face of Mt	Sierra	Metcalf, A. L.	1973
Na a la ali ai da a								
reohelicidae	Radiocentru m	caballoensis	ANSP	332308	Caballo Mountains, ~2 miles SSE of Caballo Reservoir Damn, east of mining area	Sierra	Metcalf, A. L.	1973
)reohelicidae								
	Radiocentru m	confragosus	ANSP	332309	0.3 miles WSW of west side of ruins of Georgetown on south wall of Willow Springs Canyon	Grant	Metcalf, A. L.	1973
Oreohelicidae								
	Radiocentru m	confragosus	ANSP	332310	0.3 miles WSW of west side of ruins of Georgetown on south wall of Willow Springs Canyon	Grant	Metcalf, A. L.	1973
Oreohelicidae								
	Radiocentru m	confragosus	ANSP	332311	Northwest of intersection of N.M. Highway 90 and road east to San Lorenzo, at base of escarpment flanking Mimbres Valley on west	Grant	Metcalf, A. L.	1973
Oreohelicidae								
	Radiocentru m	ferrissi	ANSP	112275	Cliffs opposite mouth Sheridan Canyon, Big Hachet Mountains		Pilsbry, H. A.	1910
)reohelicidae )reohelicidae	Radiocentru m	ferrissi	ANSP	112276	Big Hachet Mountains		Pilsbry, H. A. & Daniels, L. E.	1910
reohelicidae	Radiocentru	ferrissi	ANSP	112277	Hacheta Mountains		Pilsbry, H. A.	1910
	Radiocentru	ferrissi	ANSP	112278	Teocalli Butte, Big Hachet Mountains		Pilsbry	1910
Preohelicidae	Radiocentru	ferrissi	ANSP	112279	Hachita Grande		Pilsbry, H. A.	1910
Preohelicidae	m Radiocentru m	ferrissi	ANSP	325523	From hillslope colluvial dep., 8 miles north of Howells Well; Howell Ridge, Little Hatchet Mountains	Grant	Metcalf, A.	1972
Oreohelicidae								
Oreohelicidae	Radiocentru m	hachetana	ANSP	112280	Big Hachet Mountains		Pilsbry & Daniels	1910
Dreohelicidae	Radiocentru	hachetana	ANSP	112281	Hacheta Mountains		Pilsbry, H. A.	1910

Family	Genus	Species	Museum Acronym	Catalogue No.	Locality	County	Collector	Year Collected
	m							
Oreohelicidae	Radiocentru m	hachetana	ANSP	112282	Summit of Hacheta Grande Mountains		Pilsbry, H. A.	1910
Oreohelicidae	Radiocentru m	hachetana	ANSP	112283	Daniels Mountain, Big Hachet Mountains		Pilsbry, H. A.	1910
Oreohelicidae	Radiocentru m	hachetana	ANSP	131338	Northwest face, Hachita Grande Peak		Hebard, M.	1922
Helminthoglyptida e	Sonorella	animasensis	ANSP	166153	Animas Range above Black Bill Spring, Black Range Mountains	Hidalgo	Pilsbry, H. & Harvey, C.	1935
Helminthoglyptida e	Sonorella	animasensis	ANSP	347229	Black Bill Canyon, Animas Peak, Black Bill Spring	Hidalgo	Miller, W. B. & W. N. M.	1967
Helminthoglyptida e	Sonorella	hachitana	ANSP	65743	Hacita - Grande Mountain		Mearns	
Helminthoglyptida e	Sonorella	hachitana	ANSP	71413	Filmore Canon, Organ Mountains	Dona Ana	Townsend, C. H. T.	1897
Helminthoglyptida	Sonorella	hachitana	ANSP	71677	Big Hatchet Mountains			
Helminthoglyptida e	Sonorella	hachitana	ANSP	86496	Northern end of range, near Deming, Florida Mountains	Luna	Ferriss, J. H.	1904
Helminthoglyptida e	Sonorella	hachitana	ANSP	87078	Florida Mountains		Ferriss, J. H.	1904
Helminthoglyptida e	Sonorella	hachitana	ANSP	89709	Florida Mountains, near Deming		Ferriss, J. H.	1904
Helminthoglyptida e	Sonorella	hachitana	ANSP	94513	Skull Canyon, Peloncillo Mountains	Hidalgo	Ferriss, J. H.	1907
Helminthoglyptida	Sonorella	hachitana	ANSP	103098	Big Hatchet Mountains	Hidalgo	Pilsbry, H. A. & Daniels	1910
Helminthoglyptida e	Sonorella	hachitana	ANSP	112083	Top of Big Hachet Mountain		Pilsbry	1910
Helminthoglyptida	Sonorella	hachitana	ANSP	112084	Big Hachet Mountains (in ravine)		Pilsbry	1910
Helminthoglyptida	Sonorella	hachitana	ANSP	112085	Big Hachet Mountains,		Pilsbry	1910
Helminthoglyptida !	Sonorella	hachitana	ANSP	112086	Big Hachet Mountains,		Pilsbry	1910
Helminthoglyptida e	Sonorella	hachitana	ANSP	112087	Spring Canyon, Florida Mountains		Pilsbry, H. A. & Ferriss	, J. H.
Helminthoglyptida e	Sonorella	hachitana	ANSP	130925	Tops of two peaks of Carrizollilo Mountains		Mearns	
Helminthoglyptida e	Sonorella	hachitana	ANSP	165931	Dripping Spring, Organ Mountains		Pilsbry & Ferris	1922
Helminthoglyptida	Sonorella	hachitana	ANSP	165932	Dripping Spring, Organ Mountains		Pilsbry & Ferris	
Helminthoglyptida	Sonorella	hachitana	ANSP	165933	Dripping Spring, Organ Mountains		Pilsbry & Ferris	

Family	Genus	Species	Museum	Catalogue	Locality	County	Collector	Year
			Acronym	No.				Collected
Helminthoglyptida e	Sonorella	hachitana	ANSP	165934	Ropes Spring	Dona Ana	Pilsbry & Ferris	
Helminthoglyptida e	Sonorella	hachitana	ANSP	165935	About 1000 feet below summit, above Dripping Spring, Organ Mountains	Dona Ana	Pilsbry, H. & J. Ferriss	1922
Helminthoglyptida e	Sonorella	hachitana	ANSP	165936	Above Dripping Spring, Organ Mountains		Pilsbry & Ferris	
Helminthoglyptida e	Sonorella	hachitana	ANSP	338816	Florida Mountains		Pilsbry, H. A. & Ferriss, J. H.	1906
Helminthoglyptida e	Sonorella	hachitana	ANSP	347192	North branch Western Canyon, Hachita Grande Mountains	Hidalgo	H. M. & C. N.	1960
Helminthoglyptida e	Sonorella	hachitana	ANSP	347195	Organ Mountains, Dripping Springs	Dona Ana	Pilsbry & Fry	1922
Helminthoglyptida e	Sonorella	hachitana	ANSP	359960	Skull Canyon, Peloncillo Mountains	Hidalgo	Ferriss, J. H.	1907
Helminthoglyptida e	Sonorella	hachitana	ANSP					
Helminthoglyptida e	Sonorella	hachitana	ANSP					
Helminthoglyptida e	Sonorella	odorata	ANSP	119035	Bear Wallow, Santa Catalina		Ferriss, J. H.	
Helminthoglyptida e	Sonorella	strongiana	ANSP	325532	8 miles north of Howells Wells, Howell Ridge, Little Hatchet Mountains	Grant	Metcalf & Smartt, R.	1972
Helminthoglyptida e	Sonorella	todseni	ANSP	338228	Dona Ana Mountains northwest slope of Dona Ana Peak	Dona Ana	Metcalf, A. L.	1972

**Appendix D** 

**Museum Records – University of Texas at El Paso** 

## Appendix D. Museum Records – University of Texas at El Paso

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella animasensis	UTEP	14105	Gray Ranch, North face of Animas Mountain, (Herraduna)		Hidalgo County	Brian K. Lang	8/16/1995
Polygyridae	Ashmunella animasensis	UTEP	14116	Gray Ranch, North face of Animas Mountain, (Herraduna)		Hidalgo County	Brian K. Lang	8/16/1995
Polygyridae	Ashmunella animasensis	UTEP	14120	Gray Ranch, North face of Animas Mountain, (Herraduna)		Hidalgo County	Brian K. Lang	8/16/1995
Polygyridae	Ashmunella animasensis	UTEP	2355	Animas Mountains, N side of Animas Peak, along sides of canyon tributary to Indian Creek	in talus	Hidalgo County	Artie L. Metcalf	11/24/1971
Polygyridae	Ashmunella ashmuni	UTEP	9307	NW, outlying ls. mt. of Alamo Heuco Mountains ("U-bar cave mt.)	talus accumulation on N. slope of mt.	Hidalgo County	Artie L. Metcalf	14-Mar-85
Polygyridae	Ashmunella auriculata	UTEP	14239	N side of Organ Needle		Dona Ana County	Richard D. Worthington	10/14/1995
Polygyridae	Ashmunella auriculata	UTEP	14558	Southern Organ Mts., upper Beasley Canyon (UTM:N 3571628, E 354259)		Dona Ana County	A. J. Knoll, Richard Juarez	10/21/2000
Polygyridae	Ashmunella auriculata	UTEP	14559	Southern Organ Mts., upper Beasley Canyon (UTM:N 3571765, E 354202)		Dona Ana County	A. J. Knoll, Richard Juarez	10/21/2000
Polygyridae	Ashmunella auriculata	UTEP	14560	Fillmore Canyon		Dona Ana County	A. J. Knoll, Richard Juarez	10/6/2000
Polygyridae	Ashmunella auriculata	UTEP	2599	Organ Mountains, NE slope of middle, tallest peak of Rabbit Ears	from prominent talus accumulation	Dona Ana County	Artie L. Metcalf	3/11/1972
Polygyridae	Ashmunella auriculata	UTEP	3224	Organ Mountains, Fillmore Canyon, N side, ca. 0.2 miles E of Fillmore Spring, along steep-walled canyon entering Fillmore Canyon from NE	In rhyolitic talus	Dona Ana County	Artie L. Metcalf	10/7/1972
Polygyridae	Ashmunella auriculata	UTEP	3221	Organ Mountains, Baylor Peak, SW slope, along arroyo tributary to Baylor Canyon	In rhyolitic talus	Dona Ana County	Artie L. Metcalf	10/8/1972
Polygyridae	Ashmunella auriculata	UTEP	3227	Organ Mountains, Fillmore Canyon, S wall, 0.25 miles SE of Fillmore Spring	In rhyolite talus on steep wall of canyon below small round cave higher up on canyon wall	Dona Ana County	Artie L. Metcalf	10/7/1972
Polygyridae	Ashmunella auriculata	UTEP	4473	Organ Mountains, Indian Hollow Canyon, upper end, below (E of) Organ Needle	In maple and Gambel oak forest	Dona Ana County	Artie L. Metcalf	5/4/1975
Polygyridae	Ashmunella auriculata	UTEP	288	Organ Mountains, East slope of mountains, just below "The Needles		Dona Ana County	Artie L. Metcalf	2/18/1967
Polygyridae	Ashmunella auriculata	UTEP	299	Organ Mountains, Fillmore Canyon		Dona Ana County	Artie L. Metcalf	11/25/1966
Polygyridae	Ashmunella auriculata	UTEP	1132	Organ Mountains, at narrowed part of "The Narrows" on W-facing slope	under rock talus	Dona Ana County	Artie L. Metcalf	11/1/1969
Polygyridae	Ashmunella auriculata	UTEP	4475	Organ Mountains, Baylor Peak, W side	rhyolitic talus	Dona Ana County	Artie L. Metcalf	5/11/1975
Polygyridae	Ashmunella auriculata	UTEP	5053	Organ Mountains, ca. 1 mile E-ENE of Mine House Spring, W face of Needles		Dona Ana County	Artie L. Metcalf	7/13/1974
Polygyridae	Ashmunella auriculata	UTEP	5087	Organ Mountains, Baylor Peak, N slope, top of Blair Canyon	Found in large talus with Gambel Oak and Plelea [sic, ?]	Dona Ana County	Thomas K. Todsen	7/11/1976

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella auriculata	UTEP	1244	Organ Mountains, canyon on E side of Needles, next canyon N of Indian Hollow Canyon complex		Dona Ana County	unknown	6/3/1970
Polygyridae	Ashmunella auriculata	UTEP	8222	Organ Mountains, W slope of Baylor Peak	ignaeous talus	Dona Ana County	Artie L. Metcalf	13-Oct-79
Polygyridae	Ashmunella auriculata	UTEP	13158	Organ Mountains, N side of Organ Needle		Dona Ana County	Richard D. Worthington, Jan Bohuslavek	14-Oct-95
Polygyridae	Ashmunella caballoensis	UTEP	3342	Caballo Mountains, W face of Brush Mountain, in canyon 0.25 miles NNE of Flourite Mine		Sierra County	Artie L. Metcalf	4/1/1973
Polygyridae	Ashmunella caballoensis	UTEP	3355	Caballo Mountains, W face of Brush Mountain, in canyon 0.25 miles NNE of Flourite Mine		Sierra County	Artie L. Metcalf	4/1/1973
Polygyridae	Ashmunella caballoensis	UTEP	3627	Caballo Mountains, W side, along walls of canyon above windmill and stock tank (on Upham USGS 15' Topo Quad, 1 cm. NW of "B" in VABM 7335 [delta] Cedar)	colluvium	Sierra County	Artie L. Metcalf	9/9/1973
Polygyridae	Ashmunella caballoensis	UTEP	3632	Caballo Mountains, SW part, ca. 3 miles SSE of Caballo Dam in mining area, ca. 100 ft below massive limestone rimrock at top of cuesta, E of mines	colluvium on step slope	Sierra County	Artie L. Metcalf	9/10/1973
Polygyridae	Ashmunella caballoensis	UTEP	3645	Caballo Mountains, W side, S wall of canyon above windmill and stock tank, 0.1 miles up canyon from mouth (on Upham USGS 15' Topo Quad, 1 cm. NW of "B" in VABM 7335 [delta] Cedar)		Sierra County	Artie L. Metcalf	9/8/1973
Polygyridae	Ashmunella caballoensis	UTEP	3659	Caballo Mountains, W side, as above (UTEP 3643-54), except along wall on road to mine, S of mouth of canyon		Sierra County	Artie L. Metcalf	9/8/1973
Polygyridae	Ashmunella caballoensis	UTEP	3679	Caballo Mountains, S side of Brushy Mountain, 0.125 miles lower in NE branch of Apache Canyon than UTEP 3672-78, near mine on north wall	In Pleistocene colluvium near mine	Sierra County	Artie L. Metcalf	4/27/1974
Polygyridae	Ashmunella caballoensis	UTEP	3968	Caballo Mountains, W face of Brushy Mountain, canyon immediately N of priminent mine where S fork of canyon arises		Sierra County	Artie L. Metcalf	7/8/1974
Polygyridae	Ashmunella caballoensis	UTEP	4292	Caballo Mountains, NW face of Brushy Peak, 1.2 miles S and 0.1 miles W of SW Corner		Sierra County	Artie L. Metcalf	7/8/1974
Polygyridae	Ashmunella cockerelli	UTEP	14254	Black Range, above and to E of Royal John Mine in canyon that runs past mining buildings, lower down	wooded canyon	Grant County	Artie L. Metcalf	5/19/1987
Polygyridae	Ashmunella harrisi	UTEP	4413	San Andres Mountains, Goat Mountain, E side		Dona Ana County	Artie L. Metcalf	4/11/1975

	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella harrisi	UTEP	3143	San Andres Mountains, Goat Mountain, E side, on S-facing wall of main canyon draining Goat Mountain to east	in talus of mixed limestone and igneous stones	Dona Ana County	Artie L. Metcalf	9/9/1972
Polygyridae	Ashmunella harrisi	UTEP	3139	San Andres Mountains, Goat Mountain, E side, on N-facing wall of main canyon draining Goat Mountain to east	in limestone talus under high limestone cliffs	Dona Ana County	Artie L. Metcalf	9/9/1972
Polygyridae	Ashmunella harrisi	UTEP	3208	San Andres Mountains, Black Mountain, N slope, Bear Canyon, S wall	In igneous talus	Dona Ana County	Artie L. Metcalf	11/4/1972
Polygyridae	Ashmunella harrisi, Ashmunella pasonis	UTEP	950	San Andres Mountains		Dona Ana County	Arthur H. Harris	1951 or 1952
Polygyridae	Ashmunella harrisi, Ashmunella pasonis	UTEP	15090	San Andres Mountains, Black Mountain, N slope, Bear Canyon, S wall	In igneous talus	Dona Ana County	Artie L. Metcalf	11/4/1972
Polygyridae	Ashmunella hawleyi	UTEP	2595	No specific locality recorded	Tortugas Alluvium	Dona Ana County	Artie L. Metcalf	xxxx/xx/xx
Polygyridae	Ashmunella hawleyi	UTEP	2596	Robledo Mountains, base of mountains on W side of Rio Grande	Tortugas Alluvium	Dona Ana County	Artie L. Metcalf	xxxx/xx/xx
Polygyridae	Ashmunella hawleyi	UTEP	6275	W side of Rio Grande at foot of Robledo Mountains	Tortugas alluvium (basal part)	Dona Ana County	Artie L. Metcalf	5/31/1965
Polygyridae	Ashmunella kochii	UTEP	4477	San Andres Mountains, Black Brushy Mountain, N part		Dona Ana County	Artie L. Metcalf	5/10/1975
Polygyridae	Ashmunella kochii	UTEP	2336	San Andres Mountains, Salt Canyon, S side, 0.34 mile E of Main Road	hillslope colluvium	Dona Ana County	Artie L. Metcalf	10/13/1971
Polygyridae	Ashmunella kochii	UTEP	4480	San Andres Mountains, Black Brushy Mountain, N part		Dona Ana County	Artie L. Metcalf	5/10/1975
Polygyridae	Ashmunella kochii	UTEP	1539	San Andres Mountains, 0.75-0.875 miles ESE of Ropes Springs and directly below San Andres Peak in upper parts of two ravines		Dona Ana County	Artie L. Metcalf	6/23/1970
Polygyridae	Ashmunella kochii	UTEP	5367	San Andres Mountains, NW part of Goat Mountain, along canyon leading N into Little San Nicholas Canyon, in area of below cliffs, on NE side of canyon.	travertine and talus below cliffs in ancient, indurated Pleistocene deposits	Dona Ana County	Artie L. Metcalf	3/6/1977
Polygyridae	Ashmunella kochii	UTEP	5358	San Andres Mountains, NW part of Goat Mountain, along canyon leading north into Little San Nicholas Canyon, on E canyon wall at level of arroyo	friable, brownish Holocene sediments	Dona Ana County	Artie L. Metcalf	3/6/1977
Polygyridae	Ashmunella kochii	UTEP	5361	San Andres Mountains, NW part of Goat Mountain, along canyon leading north into Little San Nicholas Canyon, on W canyon wall.	Pleistocene fill	Dona Ana County	Artie L. Metcalf	3/6/1977
Polygyridae	Ashmunella kochii	UTEP	5362	San Andres Mountains, NW part of Goat Mountain, along canyon leading north into Little San Nicholas Canyon, below 75 ft falls and bend in canyon.		Dona Ana County	Artie L. Metcalf	3/6/1977

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella kochii	UTEP	5446	San Andres Mountains, below cliffs on SE side of Little San Nicholas Cayon		Dona Ana County	Artie L. Metcalf	5/8/1977
Polygyridae	Ashmunella kochii	UTEP	5452	San Andres Mountains, S wall of Ash Canyon, seemingly from fossil deposits		Dona Ana County	Artie L. Metcalf	5/8/1977
Polygyridae	Ashmunella macromphala	UTEP	14204	N slope of Cooke's Peak		Luna County	Artie L. Metcalf	5/21/1998
Polygyridae	Ashmunella macromphala	UTEP	3635	Cookes Range, along upper road along hillside in abandoned town of Cook, at head of prominent gulley heading NE in center of town	colluvium below limestone cliffs	Luna County	Artie L. Metcalf	9/22/1973
Polygyridae	Ashmunella mearnsii	UTEP	13509	2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	N slope of talus	Hidalgo County	Richard D. Worthington	6/15/1996
Polygyridae	Ashmunella mearnsii	UTEP	13528	Big Hatchet Mts, 2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	S slope of N wall, shallow limestone colluvium	Hidalgo County	Richard D. Worthington	6/15/1996
Polygyridae	Ashmunella mearnsii	UTEP	13780	2.5 air mi. NNW of North Hatchet Peak	mostly N and NE limestone slopes, surface finds, shallow talus, and under rocks	Hidalgo County	Richard D. Worthington	4/19/1997
Polygyridae	Ashmunella mearnsii	UTEP	13948	2.5 air mi. NNE from top of Big Hatchet Peak at base of cliff overlooking upper part of Mescal Canyon	base of cliffs, surface finds from eroding colluvium and small sample of dirt that was shallow, NE exposure	Hidalgo County	Richard D. Worthington	4/18/1998
Polygyridae	Ashmunella mearnsii	UTEP	14230	North Hatchet Peak	N slope and below massive cliffs	Hidalgo County	Richard D. Worthington	10/28/1998
Polygyridae	Ashmunella mearnsii	UTEP	1142	Hachita Grande Mountains, NE side of Daniels Mountain		Hidalgo County	Henry A. Pilsbry	no date given
Polygyridae	Ashmunella mearnsii	UTEP	2360	Howell's Ridge, ca. 4 miles due W of Old Hachita, near Howell's Ridge Cave, under cliffs on N-facing slope of ridge		Grant County	Arthur H. Harris, Richard D. Worthington, Edward M. Wingo	11/23/1971
Polygyridae	Ashmunella mearnsii	UTEP	3867	Little Hatchet Mountains, Howell's Ridge, Howell's Ridge Cave	in fill	Grant County	Richard D. Worthington	1973/xx/xx
Polygyridae	Ashmunella mearnsii	UTEP	3873	Little Hatchet Mountains, Howell's Ridge, Howell's Ridge Cave	in fill	Grant County	Richard D. Worthington	1973/xx/xx
Polygyridae	Ashmunella mearnsii	UTEP	9270	Alamo Hueco Mountains; U-Bar cave, ca. 2.5 miles N of U-Bar Ranch Headquarters. Grid No. M-261	near Arctalus femur	Hidalgo County	Arthur H. Harris	17-May-84
Polygyridae	Ashmunella mearnsii	UTEP	9304	NW, outlying ls. mt. of Alamo Heuco Mountains ("U-bar cave mt.)	talus accumulation on N. slope of mt.	Hidalgo County	Artie L. Metcalf	14-Mar-85
Polygyridae	Ashmunella mearnsii	UTEP	7046	Big Hatchet Mountains, at base of cliffs on NE face of North Hatchet Peak		Hidalgo County	Artie L. Metcalf	21-Apr-79
Polygyridae	Ashmunella mearnsii	UTEP	7048	Hatchet Mountains - colluvium along arroyo below cliffs on NE face of North Hatchet Peak,	Pleistocene fossils older, reddish colluvium	Hidalgo County	Artie L. Metcalf	21-Apr-79
Polygyridae	Ashmunella mearnsii	UTEP	7055	Hatchet Mountains - colluvium along arroyo below cliffs on NE face of North Hatchet Peak,	Younger, brownish colluvium (Holocene or Pleistocene)	Hidalgo County	Artie L. Metcalf	21-Apr-79

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella mearnsii	UTEP	14950	N side of Big Hatchet Peak		Hidalgo County	Brian K. Lang	unknown
Polygyridae	Ashmunella mendax	UTEP	14295	Black Range, along Gallinas Canyon, 0.2 Km W of corner at 36-42 and 2-34	talus on NW-facing wall of canyon	Grant County	Artie L. Metcalf	10/14/1999
Polygyridae	Ashmunella mendax	UTEP	14198	Black Range, along Gallinas Canyon At the end of camper's road running southwest from NW Hwy 152 (0.2 Km W of Corner at 36-42 and 2.34 N)		Grant County	Artie L. Metcalf	10/14/1999
Polygyridae	Ashmunella mendax	UTEP	14199	Along NM Hwy. 152, at 29-mile marker sign, in Iron Creek Canyon, between highway and Creek, 0.6 mi. up-canyon east from entrance to Iron Creek Campground (0.25 Km W and 0.4 Km S of 36-45/2-39)	S- facing wall, in area of limestone outcrop	Grant County	Artie L. Metcalf	10/14/1999
Polygyridae	Ashmunella mendax	UTEP	2385	Black Range, North Percha Creek Canyon, 0.3 miles beyond ALM 1326 [= UTEP 2384] and end of road, beyond narrows in canyon, where it marks a sharp turn to north	Found in talus on slope of south canyon wall	Sierra County	Artie L. Metcalf	11/6/1971
Polygyridae	Ashmunella mendax	UTEP	1190	Black Range, 0.4 miles W of Iron Creek Recreation Area along New Mexico Highway 90		Grant County	Artie L. Metcalf	6/9/1967
Polygyridae	Ashmunella mendax	UTEP	1550	Black Range, Iron Creek Canyon, below western-most hairpin curve, immediately NE of "M" in "BM 7754"		Grant County	Artie L. Metcalf	7/9/1970
Polygyridae	Ashmunella mendax	UTEP	1560	Black Range, E side of crest, on Crest Trail ca. one mile S of Emory Pass		Sierra County	Artie L. Metcalf	7/9/1970
Polygyridae	Ashmunella mendax	UTEP	1571	Black Range, Crest trail on E side of Crest, ca. 1.25 miles S of Emory Pass		Sierra County	Artie L. Metcalf	7/9/1970
Polygyridae	Ashmunella mendax	UTEP	1976	Black Range, along tributary of Mimbres, on NM Highway 90, ca. 6 miles W Kingston	along stream	Grant County	Artie L. Metcalf	10/28/1962
Polygyridae	Ashmunella mendax	UTEP	2381	Black Range, road cuts along road on E side of Carbonate Creek	hillslope colluvium	Sierra County	Artie L. Metcalf	11/6/1971
Polygyridae	Ashmunella mendax	UTEP	3496	Gallinas Canyon (E wall), ca. 100 yards N of its crossing by State Highway 90	talus	Grant County	Artie L. Metcalf	5/20/1973
Polygyridae	Ashmunella mendax	UTEP	3497	At confluence of Iron and Gallinas Creeks, where crossed by State Highway 90	talus	Grant County	Artie L. Metcalf	5/20/1973
Polygyridae	Ashmunella mendax	UTEP	1977	Gallina Creek Canyon where crossed by NM Highway 90		Grant County	Lowell T. Ederhoff	1970-10
Polygyridae	Ashmunella mendax	UTEP	1334	Black Range, Gallina Canyon on New Mexico highway 90		Grant County	unknown	no date given
Polygyridae	Ashmunella mendax	UTEP	2708	Black Range, 0.5 miles W of Kingston		Sierra County	unknown	5/7/1972
Polygyridae	Ashmunella mendax	UTEP	4465	Black Range, 0.25 miles SE and 100-200 ft below Emory Pass, at first "U" switchback on road to Kingston		Sierra County	Richard D. Worthington	5/28/1975

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Polygyridae	Ashmunella mendax	UTEP	13154	Black Range along N Percha Creek and miles NNW (by air) of Kingston		Sierra County	Richard D. Worthington, Jan Bohuslavek	1 Oct. 1995
Polygyridae	Ashmunella mogollonensis	UTEP	502	Mogollon Mountains, Little Creek Box, ca. 4-5 miles W of Gila Hot Springs (Campbell Ranch)		Grant County	Artie L. Metcalf	9/10/1967
Polygyridae	Ashmunella mogollonensis	UTEP	8543	Gila River Canyon, ca. 1 mile upstream from mouth of Sycamore, near N-facing slope Mogollon Mountains		Grant County	Richard A. Smartt	26-Sep-81
Polygyridae	Ashmunella organensis	UTEP	2337	San Andres Mountains, Salt Canyon, S side, 0.34 mile E of Main Road	hillslope colluvium	Dona Ana County	Artie L. Metcalf	10/13/1971
Polygyridae	Ashmunella organensis	UTEP	3667	Organ Mountains, Ice Canyon, on upper slopes of canyon entering main branch of Ice Canyon from S	in narrow slides of rhyolitic talus on grassy slopes and in groves of Gambel's Oak	Dona Ana County	Artie L. Metcalf	4/12/1974
Polygyridae	Ashmunella organensis	UTEP	3669	Organ Mountains, Rock Springs Canyon, W-facing wall	rhyolitic talus	Dona Ana County	Artie L. Metcalf	4/14/1974
Polygyridae	Ashmunella organensis	UTEP	311	Organ Mountains, W side, Fillmore Canyon, in canyon just above Rock House Spring	under Gambel Oak	Dona Ana County	Artie L. Metcalf	9/16/1967
Polygyridae	Ashmunella organensis	UTEP	312	Organ Mountains, W side, Fillmore Canyon, 0.25 miles SE of Rock House Spring, slide on E. wall of canyon		Dona Ana County	Artie L. Metcalf	9/16/1967
Polygyridae	Ashmunella organensis	UTEP	315	Organ Mountains, Organ Peak, N side		Dona Ana County	Artie L. Metcalf	9/17/1967
Polygyridae	Ashmunella organensis	UTEP	316	Organ Mountains, Organ Peak, N side	collection consists of snails crawling about in Gambel Oak	Dona Ana County	Artie L. Metcalf	9/17/1967
Polygyridae	Ashmunella organensis	UTEP	2672	Organ Mountains, Southern Organ Mountains, Boulder Canyon, W wall, ca. 0.1 mile N of pass between Boulder and Finley Canyons	Found in rhyolite talus on E- facing slope below masive rhyolite cliffs	Dona Ana County	Artie L. Metcalf	4/28/1972
Polygyridae	Ashmunella organensis	UTEP	2674	Organ Mountains, Soledad Canyon, North (S-facing) wall	Found in rhyolite talus below massive rounded peaks	Dona Ana County	Artie L. Metcalf	4/29/1972
Polygyridae	Ashmunella organensis	UTEP	3460	Organ Mountains, Finley Canyon head	·	Dona Ana County	Artie L. Metcalf	4/28/1972
Polygyridae	Ashmunella organensis	UTEP	3640	Organ Mountains, Ice Canyon, N wall, on 7.5' Quadrangle map, 0.2 miles N of "B" in "Boyd Canyon"	talus	Dona Ana County	Artie L. Metcalf	3/22/1974
Polygyridae	Ashmunella organensis	UTEP	5062	Organ Mountains, Finley Canyon, upper end, on N-facing wall at end of road, opposite mouth of Long Canyon		Dona Ana County	Artie L. Metcalf	8/27/1974
Polygyridae	Ashmunella organensis	UTEP	2527	Organ Mountains, Southern Organ Mountains, Long Canyon, ca. 0.25 miles from its mouth	talus	Dona Ana County	Richard A. Smartt	1/15/1972
Polygyridae	Ashmunella organensis	UTEP	2397	Organ Mountains, Finley Canyon, N-facing wall just east of end of road, opposite entrance to Long Canyon	specimens from rhyolite talus	Dona Ana County	Artie L. Metcalf	Collection dates 15 Jan 1972 & 3 Dec 1971

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella organensis	UTEP	2398	Organ Mountains, Finley Canyon, S-facing wall, 0.1 miles W of Long Canyon entrance	collected from rhyolite talus	Dona Ana County	Artie L. Metcalf	Collection dates 15 Jan 1972 & 3 Dec 1971
Polygyridae	Ashmunella organensis	UTEP	2399	Organ Mountains, Finley Canyon, NW-facing wall just N of cave	collected from rhyolite talus	Dona Ana County	Artie L. Metcalf	Collection dates 15 Jan 1972 & 3 Dec 1971
Polygyridae	Ashmunella organensis	UTEP	14840	Organ Mountains, NE portion of Chimney Rock Canyon Bowl	Bowl in talus slide NE portion of Canyon/Bowl. Series of talus slide with W/ Southwest aspect	Dona Ana County	Justin Hobert	16-Mar-06
Polygyridae	Ashmunella organensis	UTEP	14841	Organ Mountains, Soledad Canyon Complex, W side of North Canyon	in large rhyolitic talus bowl with northeast aspect	Dona Ana County	Justin Hobert	7-Apr-06
Polygyridae	Ashmunella pasonis	UTEP	3162	San Andres Mountains, Box canyon entering Lost Man Canyon from south	From limestone talus spills on west-facing wall of box canyon, undermassive limestone cliffs. This locality is NM-160 in Metcalf and Smartt (1997).	Dona Ana County	Artie L. Metcalf	9/23/1972
Polygyridae	Ashmunella pasonis	UTEP	3172	San Andres Mountains, box canyon entering Dead Man Canyon from S, from W and NW-facing walls of the box canyon	In limestone talus spills under massive cliffs	Dona Ana County	Artie L. Metcalf	9/24/1972
Polygyridae	Ashmunella pasonis	UTEP	3212	San Andres Mountains, Bear Canyon, S wall, below massive limestone cliffs	In limestone talus	Dona Ana County	Artie L. Metcalf	11/4/1972
Polygyridae	Ashmunella pasonis	UTEP	3217	San Andres Mountains, steep sided canyon running northeastward into Bear Canyon, below cliffs on E-facing wall, ca. 10 miles SSE of domelike rock feature	in limestone talus at base of cliffs	Dona Ana County	Artie L. Metcalf	11/4/1972
Polygyridae	Ashmunella pasonis	UTEP	3219	San Andres Mountains, Bear Canyon arroyo, S side at base of cliffs	In limestone talus at base of cliffs, slightly above level of arroyo	Dona Ana County	Artie L. Metcalf	11/4/1972
Polygyridae	Ashmunella pasonis	UTEP	4613	San Andres Mountains, Black Mountain, S side, in canyon below prominent talus accumulation	Shells from under talus	Dona Ana County	Artie L. Metcalf	11/8/1975
Polygyridae	Ashmunella pasonis	UTEP	5088	San Andres Mountains, North flank of mountain between Gardiner and San Andres peaks, above and below cave in cliff on E-facing wall of broad canyon leading north into Mayberry Canyon		Dona Ana County	Artie L. Metcalf	4/24/1976
Polygyridae	Ashmunella pasonis	UTEP	5092	San Andres Mountains, canyon entering Mayberry Canyon from S, W-facing wall under prominent cliff		Dona Ana County	Artie L. Metcalf	4/24/1976
Polygyridae	Ashmunella pasonis	UTEP	2332	San Andres Mountains, slope N of road at head of South Branch of Little San Nicholas Canyon		Dona Ana County	Artie L. Metcalf	10/13/1971
Polygyridae	Ashmunella pasonis	UTEP	3168	San Andres Mountains, Box canyon entering Lost Man Canyon from south		Dona Ana County	Artie L. Metcalf	9/23/1972

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Polygyridae	Ashmunella pasonis	UTEP	5090	San Andres Mountains, North flank of mountain between Gardiner and San Andres peaks, above and below cave in cliff on E-facing wall of broad canyon leading north into Mayberry Canyon		Dona Ana County	Artie L. Metcalf	4/24/1976
Polygyridae	Ashmunella pasonis	UTEP	3170	San Andres Mountains, Lost Man Canyon, S (north-facing) wall		Dona Ana County	Thomas K. Todsen	9/23/1972
Polygyridae	Ashmunella pasonis	UTEP	4607	San Andres Mountains, Black Mountain, S side in canyon	Late Wisconsinan or Holocene hillslope colluvium	Dona Ana County	Artie L. Metcalf	11/8/1975
Polygyridae	Ashmunella pasonis, Ashmunella kochii	UTEP	5037	San Andres Mountains, San Andres Peak, NW part, on NE-facing wall of canyon entering San Andres Canyon from S and SE	·	Dona Ana County	Artie L. Metcalf	4/24/1976
Polygyridae	Ashmunella pasonis, Ashmunella kochii	UTEP	5069	San Andres Mountains, NE part of San Andres Peak, in prominent "bowl" observable from the NE		Dona Ana County	Artie L. Metcalf	10/19/1976
Polygyridae	Ashmunella rileyensis	UTEP	13689	Mt. Riley, NW side of main mountain	one meter deep in buried talus exposed in arroyo cut; (igneous talus)	Dona Ana County	Richard D. Worthington	1/25/1997
Polygyridae	Ashmunella rileyensis	UTEP	1144	Mount Riley, SE side	talus	Dona Ana County	unknown	no date given
Polygyridae	Ashmunella rileyensis	UTEP	1212	Mount Riley, E side, ca. 2/3 miles of way to top	talus about center	Dona Ana County	Artie L. Metcalf	2/7/1970
Polygyridae	Ashmunella rileyensis	UTEP	1213	Mount Riley, W peak, NW part	talus slope very salient from north	Dona Ana County	Artie L. Metcalf	3/6/1970
Polygyridae	Ashmunella rileyensis	UTEP	1214	Mount Riley, W peak	north part talus slope, very salient from north	Dona Ana County	Artie L. Metcalf	3/7/1970
Polygyridae	Ashmunella rileyensis	UTEP	1215	Mount Riley, W peak along N-facing arroyo	exposed Pleistocene colluvium	Dona Ana County	Artie L. Metcalf	3/7/1970
Polygyridae	Ashmunella rileyensis	UTEP	1227	Mount Riley, at head of SW-trending canyon in NW part of eastern peak	talus	Dona Ana County	Artie L. Metcalf	4/11/1970
Polygyridae	Ashmunella salinasensis	UTEP	3144	On east side of arroyo from Indian Spring, where crossed by road from Rhodes Canyon Range Camp to Ladybug and Salinas Peaks	Pleistocene colluvial-alluvial deposit	Sierra County	Artie L. Metcalf	9/10/1972
Polygyridae	Ashmunella salinasensis	UTEP	3202	San Andres Mountains, Salinas Peak, N slope, E fork of canyon E of Indian Divide	In igneous talus filling valley	Sierra County	Artie L. Metcalf	10/15/1972
Polygyridae	Ashmunella tetrodon	UTEP	14331	Rain Creek Canyon Ca. 0.5 mi. above where Forest Trail 189 enters canyon		Grant County	Artie L. Metcalf	4/26/2000
Polygyridae	Ashmunella todseni	UTEP	14242	Maple Canyon	prominent talus	Dona Ana County	A. J. Knoll	10/24/1999
Polygyridae	Ashmunella todseni	UTEP	4744	Organ Mountains, Texas Canyon, upper middle branch, SW of uppermost mines		Dona Ana County	Artie L. Metcalf	9/28/1975
Polygyridae	Ashmunella todseni	UTEP	4746	Organ Mountains, South Branch of Texas Canyon, in "bowl" marked by tall ponderosal pines under massive high cliffs to south		Dona Ana County	Artie L. Metcalf	9/28/1975

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Polygyridae	Ashmunella todseni	UTEP	4476	Organ Mountains, Maple Canyon, E branch, E side	talus	Dona Ana County	Artie L. Metcalf	5/24/1975
Polygyridae	Ashmunella todseni	UTEP	8236	Organ Mountains, Maple Canyon		Dona Ana County	Artie L. Metcalf	18-Oct-80
Polygyridae	Ashmunella walkeri	UTEP	13808	Baldy Peak, N side	N side below top of limestone ledge	Luna County	Richard D. Worthington	9/1/1997
Polygyridae	Ashmunella walkeri	UTEP	13926	0.1 air mi. E from top of Gym Peak, N slope	N slope and base of tall limestone cliff	Luna County	Richard D. Worthington	9/7/1997
Polygyridae	Ashmunella walkeri	UTEP	13991	0.2 mi. N from the top of Gym Peak	steep N slope; limestone outcrops- 1 m. deep in buried talus	Luna County	Richard D. Worthington	4/6/1997
Polygyridae	Ashmunella walkeri	UTEP	13994	Baldy Peak, N side	N side below top, on limestone ledge	Luna County	Richard D. Worthington	9/1/1997
Polygyridae	Ashmunella walkeri	UTEP	13995	0.1 mi. ESE top of Gym Peak	shaded and protected site at base of limestone cliffs	Luna County	Richard D. Worthington	9/7/1997
Polygyridae	Ashmunella walkeri	UTEP	14012	0.2 mi. N from the top of Gym Peak, N slope	steep N slope, with limestone outcrops	Luna County	Richard D. Worthington	4/6/1997
Polygyridae	Ashmunella walkeri	UTEP	1199	Florida Mountains, Baldy Peak, base on N side	under shrubs	Luna County	Artie L. Metcalf	1/25/1970
Urocoptidae	Holospira bilamellata	UTEP	9305	NW, outlying ls. mt. of Alamo Heuco Mountains ("U-bar cave mt.)	talus accumulation on N. slope of mt.	Hidalgo County	Artie L. Metcalf	14-Mar-85
Urocoptidae	Holospira bilamellata	UTEP	7045	Big Hatchet Mountains, at base of cliffs on NE face of North Hatchet Peak		Hidalgo County	Artie L. Metcalf	21-Apr-79
Urocoptidae	Holospira cockerelli	UTEP	13560	0.3 mile East of the junction of Mineral and Carbonate Canyons, 3.3 air miles North of Kingston	N slope, Is., wooded with ponerosa pine, juniper, oak, etc.	Sierra County	Richard D. Worthington	6/9/1996
Urocoptidae	Holospira cockerelli	UTEP	13723	2.5 air miles West of Hok Ranch Headquarters	limestone outcrops	Sierra County	David G. Mikesic	8/6/1997
Urocoptidae	Holospira cockerelli	UTEP	13727	About 0.7 km South and 4.2 km West of the Hok Ranch House		Sierra County	Brian K. Lang	9/11/1997
Urocoptidae	Holospira cockerelli	UTEP	13733	Southern part of Cuchillo Range on East slope, 0.3 Km North of highest peak	limestone outcrop on East slope, litter/soil	Sierra County	Brian K. Lang	9/11/1997
Urocoptidae	Holospira cockerelli	UTEP	13728	Highest Peak, central portion of Cuchillo Range	Litter/soil	Sierra County	Brian K. Lang	9/11/1997
Urocoptidae	Holospira cockerelli	UTEP	13731	West slope of Cuchillo Range, ca. 0.25 Km West of highest peak	Litter/soil	Sierra County	Brian K. Lang	9/11/1997
Urocoptidae	Holospira cockerelli	UTEP	13737	Unnamed canyon, ca. 0.3 km South and _ km West of Hok Ranch House	limestone outcrop, litter/soil	Sierra County	Brian K. Lang	9/11/1997
Urocoptidae	Holospira cockerelli	UTEP	5438	Black Range, Palomas Canyon, on S wall, just W of prominent bend of canyon to north	limestone talus, ca. 50 ft elevation above road	Sierra County	Artie L. Metcalf, Richard A. Smartt	4/30/1977
Urocoptidae	Holospira cockerelli	UTEP	5429	Black Range, Palomas Creek Canyon, on S wall opposite mouth of Wagonbed Canyhon, 0.6 miles NE of Hermosa Ranch Building		Sierra County	Artie L. Metcalf, Richard A. Smartt	4/30/1977

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Urocoptidae	Holospira cockerelli	UTEP	13379	Black Range, 2 miles NNE (by air) of Kingston in Sawpit Canyon, base of and on the cliffs S of Forest Road 157 (N slope)	limestone	Sierra County	Richard D. Worthington	18-Feb-96
Urocoptidae	Holospira crossei	UTEP	13508	2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	N slope of talus	Hidalgo County	Richard D. Worthington	6/15/1996
Urocoptidae	Holospira crossei	UTEP	13534	Big Hatchet Mts, 2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	S slope of N wall, shallow limestone colluvium	Hidalgo County	Richard D. Worthington	6/15/1996
Urocoptidae	Holospira crossei	UTEP	13779	2.5 air mi. NNW of North Hatchet Peak	mostly N and NE limestone slopes, surface finds, shallow talus, and under rocks	Hidalgo County	Richard D. Worthington	4/19/1997
Urocoptidae	Holospira crossei	UTEP	13918	3.5 air mi. N top of Big Hatchet Peak	E side and base of limestone cliff	Hidalgo County	Richard D. Worthington	4/4/1998
Urocoptidae	Holospira crossei	UTEP	7052	Hatchet Mountains - colluvium along arroyo below cliffs on NE face of North Hatchet Peak,	Pleistocene fossils older, reddish colluvium	Hidalgo County	Artie L. Metcalf	21-Apr-79
Urocoptidae	Holospira crossei	UTEP	7056	Hatchet Mountains - colluvium along arroyo below cliffs on NE face of North Hatchet Peak,	Younger, brownish colluvium (Holocene or Pleistocene)	Hidalgo County	Artie L. Metcalf	21-Apr-79
Urocoptidae	Holospira metcalfi	UTEP	13696	0.7 air mi. ENE of top of Hatchet Peak, N slope below limestone outcrops	N slope below limestone outcrops	Hidalgo County	Richard D. Worthington	1/19/1997
Urocoptidae	Holospira metcalfi	UTEP	13829	West end of Howells Ridge, 2 air mi. E of Playas	N side and base of limestone cliff	Grant County	Richard D. Worthington	8/16/1997
Urocoptidae	Holospira metcalfi	UTEP	13703	0.7 air mi. ENE of top of Hatchet Peak, N slope arroyo cut	N slope arroyo cut; in colluvium- fossil site 4 mi deep in colluvium	Hidalgo County	Richard D. Worthington	1/19/1997
Urocoptidae	Holospira metcalfi	UTEP	2358	Howell's Ridge, ca. 4 miles due W of Old Hachita, near Howell's Ridge Cave, under cliffs on N-facing slope of ridge		Grant County	Arthur H. Harris, Richard D. Worthington, Edward M. Wingo	11/23/1971
Urocoptidae	Holospira metcalfi	UTEP	2615	Howell's Ridge, below cliffs immediately SE of prominent gap in Ridge, from hillslope mantle on S side of gap		Grant County	Artie L. Metcalf	3/19/1972
Urocoptidae	Holospira metcalfi	UTEP	2616	Howell's Ridge, below cliffs immediately SE of prominent gap in Ridge, living under cliffs on S side of gap		Grant County	Artie L. Metcalf	3/19/1972
Urocoptidae	Holospira metcalfi	UTEP	2624	Howell's Ridge, 0.75 miles SW of Smuggler's Gap below massive cliffs		Grant County	Artie L. Metcalf	3/18/1972
Urocoptidae	Holospira metcalfi	UTEP	2631	Howell's Ridge, 0.8 miles N of Howell's Well below massive cliffs	along slope from hill-slope mantle colluvium	Grant County	Artie L. Metcalf	3/19/1972
Urocoptidae	Holospira metcalfi	UTEP	3869	Little Hatchet Mountains, Howell's Ridge, Howell's Ridge Cave	in fill	Grant County	Richard D. Worthington	1973/xx/xx
Urocoptidae	Holospira metcalfi	UTEP	13293	Little Hatchet Mountains, Howell's Ridge (NW end of a middle part of the ridge at a pass)	ls. outcrops facing NNE, collected from surface and under rocks	Grant County	Richard D. Worthington	2-Dec-95
Urocoptidae	Holospira roemeri	UTEP	3140	San Andres Mountains, Goat Mountain, E side, on N-facing wall of main canyon draining Goat Mountain to east	in limestone talus under high limestone cliffs	Dona Ana County	Artie L. Metcalf	9/9/1972

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Urocoptidae	Holospira roemeri	UTEP	3174	San Andres Mountains, box canyon entering Dead Man Canyon from S, from W and NW-facing walls of the box canyon	In limestone talus spills under massive cliffs	Dona Ana County	Artie L. Metcalf	9/24/1972
Urocoptidae	Holospira roemeri	UTEP	3213	San Andres Mountains, Bear Canyon, S wall, below massive limestone cliffs	In limestone talus	Dona Ana County	Artie L. Metcalf	11/4/1972
Urocoptidae	Holospira roemeri	UTEP	3218	San Andres Mountains, steep sided canyon running northeastward into Bear Canyon, below cliffs on E-facing wall, ca. 10 miles SSE of domelike rock feature	in limestone talus at base of cliffs	Dona Ana County	Artie L. Metcalf	11/4/1972
Urocoptidae	Holospira roemeri	UTEP	3220	San Andres Mountains, Bear Canyon arroyo, S side at base of cliffs	In limestone talus at base of cliffs, slightly above level of arroyo	Dona Ana County	Artie L. Metcalf	11/4/1972
Urocoptidae	Holospira roemeri	UTEP	4414	San Andres Mountains, Goat Mountain, E side		Dona Ana County	Artie L. Metcalf	4/11/1975
Urocoptidae	Holospira roemeri	UTEP	4478	San Andres Mountains, Black Brushy Mountain, N part		Dona Ana County	Artie L. Metcalf	5/10/1975
Urocoptidae	Holospira roemeri	UTEP	4612	San Andres Mountains, Black Mountain, S side, in canyon below prominent talus accumulation	Shells from under talus	Dona Ana County	Artie L. Metcalf	11/8/1975
Urocoptidae	Holospira roemeri	UTEP	4616	San Andres Mountains, Loman Canyon, S side under cliffs		Dona Ana County	Artie L. Metcalf	11/8/1975
Urocoptidae	Holospira roemeri	UTEP	5089	San Andres Mountains, North flank of mountain between Gardiner and San Andres peaks, above and below cave in cliff on E-facing wall of broad canyon leading north into Mayberry Canyon		Dona Ana County	Artie L. Metcalf	4/24/1976
Urocoptidae	Holospira roemeri	UTEP	951	San Andres Mountains		Dona Ana County	Arthur H. Harris	1951 or 1952
Urocoptidae	Holospira roemeri	UTEP	1533	San Andres Mountains, 0.75-0.875 miles ESE of Ropes Springs and directly below San Andres Peak in upper parts of two ravines		Dona Ana County	Artie L. Metcalf	6/23/1970
Urocoptidae	Holospira roemeri	UTEP	2334	San Andres Mountains, ca. 1 mile N of Refuge Headquarters, S side of road	talus	Dona Ana County	Artie L. Metcalf	10/13/1971
Urocoptidae	Holospira roemeri	UTEP	3155	San Andres Mountains, Rhodes Canyon, S wall (N-facing), 0.5 miles E of Granite Gap	In limestone talus and under stones	Sierra County	Artie L. Metcalf	9/10/1972
Urocoptidae	Holospira roemeri	UTEP	3160	San Andres Mountains, Ash Canyon, S wall (N-facing)	In limestone talus	Sierra County	Artie L. Metcalf	9/23/1971
Urocoptidae	Holospira roemeri	UTEP	3171	San Andres Mountains, Lost Man Canyon, S (north-facing) wall		Dona Ana County	Thomas K. Todsen	9/23/1972
Urocoptidae	Holospira roemeri	UTEP	4481	San Andres Mountains, 0.25 miles S of State Highway 52 (= Rhodes Canyon Road) in N-trending canyon		Sierra County	Artie L. Metcalf	3/24/1973
Urocoptidae	Holospira roemeri	UTEP	4611	San Andres Mountains, Black Mountain, S side in canyon	Late Wisconsinan or Holocene hillslope colluvium	Dona Ana County	Artie L. Metcalf	11/8/1975

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Urocoptidae	Holospira roemeri	UTEP	5359	San Andres Mountains, NW part of Goat Mountain, along canyon leading north into Little San Nicholas Canyon, on E canyon wall at level of arroyo	friable, brownish Holocene sediments	Dona Ana County	Artie L. Metcalf	3/6/1977
Urocoptidae	Holospira roemeri	UTEP	5447	San Andres Mountains, below cliffs on SE side of Little San Nicholas Cayon		Dona Ana County	Artie L. Metcalf	5/8/1977
Urocoptidae	Holospira roemeri	UTEP	5454	San Andres Mountains, S wall of Ash Canyon, as above [UTEP 5452-53], but modern from wall and floodplain of creek		Dona Ana County	Artie L. Metcalf	5/8/1977
Oreohelicidae	Oreohelix barbata	UTEP	14335	Rain Creek Canyon Ca. 0.5 mi. above where Forest Trail 189 enters canyon		Grant County	Artie L. Metcalf	4/26/2000
Oreohelicidae	Oreohelix caballoensis	UTEP	3672	Caballo Mountains, S side of Brushy Mountain, along upper part of NE branch of Apache Canyon, just below a small N-S trending "park" surrounded by uppermost cliffs of mountain	slope colluvium	Sierra County	Artie L. Metcalf	4/27/1974
Oreohelicidae	Oreohelix caballoensis	UTEP	3967	Caballo Mountains, W face of Brushy Mountain, canyon immediately N of priminent mine where S fork of canyon arises		Sierra County	Artie L. Metcalf	7/8/1974
Oreohelicidae	Oreohelix caballoensis	UTEP	3628	Caballo Mountains, W side, along walls of canyon above windmill and stock tank (on Upham USGS 15' Topo Quad, 1 cm. NW of "B" in VABM 7335 [delta] Cedar)	colluvium	Sierra County	Artie L. Metcalf	9/9/1973
Oreohelicidae	Oreohelix caballoensis	UTEP	3343	Caballo Mountains, W face of Brush Mountain, in canyon 0.25 miles NNE of Flourite Mine		Sierra County	Artie L. Metcalf	4/1/1973
Oreohelicidae	Oreohelix caballoensis	UTEP	3631	Caballo Mountains, SW part, ca. 3 miles SSE of Caballo Dam in mining area, ca. 100 ft below massive limestone rimrock at top of cuesta, E of mines	colluvium on step slope	Sierra County	Artie L. Metcalf	9/10/1973
Oreohelicidae	Oreohelix caballoensis	UTEP	3647	Caballo Mountains, W side, S wall of canyon above windmill and stock tank, 0.1 miles up canyon from mouth (on Upham USGS 15' Topo Quad, 1 cm. NW of "B" in VABM 7335 [delta] Cedar)		Sierra County	Artie L. Metcalf	9/8/1973
Oreohelicidae	Oreohelix caballoensis	UTEP	3658	Caballo Mountains, W side, as above (UTEP 3643-54), except along wall on road to mine, S of mouth of canyon		Sierra County	Artie L. Metcalf	9/8/1973
Oreohelicidae	Oreohelix confragosa	UTEP	2634	Pinos Altos Mountains, 0.5 miles S of Georgetown	cliff of Silurian limestone	Grant County	Richard D. Worthington	2/27/1972
Oreohelicidae	Oreohelix confragosa	UTEP	3494	On N side of State Highway 90, at foot of hill ca. 2 miles W of San Lorenzo, on NW side of paved road leading to Mimbres Valley	colluvium	Grant County	Artie L. Metcalf	5/20/1973

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Oreohelicidae	Oreohelix confragosa	UTEP	3495	Georgetown, SW edge, along canyon entering from W and 0.2 miles W of road through Georgetown	below Silurian cliffs	Grant County	Artie L. Metcalf	5/20/1973
Oreohelicidae	Oreohelix cuchillensis	UTEP	10070	N end of Sierra Cuchilla, NW-facing slope, upper end of short canyon, ca. 0.1 miles E of a mine	under and among limestone ledges	Sierra County	Artie L. Metcalf	26-Oct-85
Oreohelicidae	Oreohelix cuchillensis	UTEP	10072	N end of Cuchillo Mountains, hillslope just S of Vindicator Mine	hillslope colluvium	Sierra County	Artie L. Metcalf	26-Oct-85
Oreohelicidae	Oreohelix ferrissi	UTEP	2613	Howell's Ridge, below cliffs immediately SE of prominent gap in Ridge, from hillslope mantle on S side of gap		Grant County	Artie L. Metcalf	3/19/1972
Oreohelicidae	Oreohelix ferrissi	UTEP	2622	Howell's Ridge, 0.75 miles SW of Smuggler's Gap below massive cliffs		Grant County	Artie L. Metcalf	3/18/1972
Oreohelicidae	Oreohelix ferrissi	UTEP	2533	Howell's Ridge: ca. 4 miles due W of Old Hachita, from cave to W end of ridge	Specimen taken in leaf mould under stones and shrubs	Grant County	Richard A. Smartt, Artie L. Metcalf	11/12/1971
Oreohelicidae	Oreohelix ferrissi	UTEP	5757	Big Hatchet Mountains, Mine Canyon		Hidalgo County	Ronald D. Simpson	7/10/1977
Oreohelicidae	Oreohelix florida	UTEP	13557	Apache Hills, 6 air mi. SE of Hachita, ca. 0.7 mi. E of Chapo Mine	N side of a limestone hill	Hidalgo County	Richard D. Worthington	8/17/1996
Oreohelicidae	Oreohelix florida	UTEP	13454	0.3 air mile E from the top of Baldy Peak, old prospect near top of ridge on South slope	near top of ridge on S slope; solution fissure cleared of fill dirt; stratigraphy and age unknown; limestone substrate	Luna County	Richard D. Worthington	5/5/1996
Oreohelicidae	Oreohelix florida	UTEP	13815	Baldy Peak, N side	N side below top of limestone ledge	Luna County	Richard D. Worthington	9/1/1997
Oreohelicidae	Oreohelix florida	UTEP	13725	Baldy Peak, N side	in limestone talus	Luna County	Kimberly Score	7/31/1997
Oreohelicidae	Oreohelix florida	UTEP	13992	0.2 mi. N from the top of Gym Peak	steep N slope; limestone outcrops- 1 m. deep in buried talus	Luna County	Richard D. Worthington	4/6/1997
Oreohelicidae	Oreohelix florida	UTEP	3634	Cookes Range, along upper road along hillside in abandoned town of Cook, at head of prominent gulley heading NE in center of town	colluvium below limestone cliffs	Luna County	Artie L. Metcalf	9/22/1973
Oreohelicidae	Oreohelix florida	UTEP	6875	Florida Mountains, cave on Baldy Peak	cave deposits	Luna County	Richard D. Worthington, Arthur H. Harris, Richard A. Smartt	June, 1978
Oreohelicidae	Oreohelix metcalfei	UTEP	13558	Just East of FSR 157, crest between Sawpit and Carbonate Canyons, 2.7. air miles N of Kingston		Sierra County	Richard D. Worthington	6/9/1996
Oreohelicidae	Oreohelix metcalfei	UTEP	13559	0.3 mile East of the junction of Mineral and Carbonate Canyons, 3.3 air miles North of Kingston	N slope, Is., wooded with ponerosa pine, juniper, oak, etc.	Sierra County	Richard D. Worthington	6/9/1996
Oreohelicidae	Oreohelix metcalfei	UTEP	13724	2.5 air miles West of Hok Ranch Headquarters	limestone outcrops	Sierra County	David G. Mikesic	8/6/1997

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Oreohelicidae	Oreohelix metcalfei	UTEP	13753	East side of crest above Vindicator mine, aspect of slope 26i¿½ ENE	Pinon/Juniper woodland; under rocks, some mossy; bedrock limestone	Sierra County	Artie L. Metcalf	9/12/1997
Oreohelicidae	Oreohelix metcalfei	UTEP	13734	Southern part of Cuchillo Range on East slope, 0.3 Km North of highest peak	limestone outcrop on East slope, litter/soil	Sierra County	Brian K. Lang	9/11/1997
Oreohelicidae	Oreohelix metcalfei	UTEP	13742	West slope of northern Cuchillo Range, ca. 0.2 Km South of Vindicator Mine		Sierra County	Brian K. Lang	9/11/1997
Oreohelicidae	Oreohelix metcalfei	UTEP	13747	Environs of Vindicator Mine	Pinon/Juniper Woodland; along limestone outcrop on West-facing slope	Sierra County	Artie L. Metcalf	9/12/1997
Oreohelicidae	Oreohelix metcalfei	UTEP	14201	Along NM Hwy. 152, at 29-mile marker sign, in Iron Creek Canyon, between highway and Creek, 0.6 mi. up-canyon east from entrance to Iron Creek Campground (0.25 Km W and 0.4 Km S of 36-45/2-39)	S- facing wall, in area of limestone outcrop	Grant County	Artie L. Metcalf	10/14/1999
Oreohelicidae	Oreohelix metcalfei	UTEP	2642	Tres Hermanas Mountains, immediately S of mine that is WSW of Lindy Ann Mine	arroyo bank sediments	Luna County	Artie L. Metcalf	3/30/1972
Oreohelicidae	Oreohelix metcalfei	UTEP	1561	Black Range, E side of crest, on Crest Trail ca. one mile S of Emory Pass		Sierra County	Artie L. Metcalf	7/9/1970
Oreohelicidae	Oreohelix metcalfei	UTEP	1572	Middle Percha Creek, SE side and highway 90 (northeast side of rectangular, 6200 feet hill)	whitish sediments at base of limestone cliff	Sierra County	Artie L. Metcalf	7/9/1970
Oreohelicidae	Oreohelix metcalfei	UTEP	2380	West of road leading to North Percha Creek, ca. 0.8 miles N of State Highway 180	hillslope	Sierra County	Artie L. Metcalf	11/6/1971
Oreohelicidae	Oreohelix metcalfei	UTEP	2382	Black Range, road cuts along road on E side of Carbonate Creek	hillslope colluvium	Sierra County	Artie L. Metcalf	11/6/1971
Oreohelicidae	Oreohelix metcalfei	UTEP	2384	Black Range, North Percha Creek Canyon, near end of road where it crosses creek near mine on S canyon wall, ca. 0.65 miles W of house and junction with road to Dunm Canyon	Found under Gambel Oak leaves on rocky slope of South wall	Sierra County	Artie L. Metcalf	11/6/1971
Oreohelicidae	Oreohelix metcalfei	UTEP	2400	Black Range, South Percha Creek		Sierra County	Thomas K. Todsen	11/14/1971
Oreohelicidae	Oreohelix metcalfei	UTEP	1201	Florida Mountains, Baldy Peak, base on N side	under shrubs	Luna County	Artie L. Metcalf	1/25/1970
Oreohelicidae	Oreohelix metcalfei	UTEP	5437	Black Range, Palomas Canyon, on S wall, just W of prominent bend of canyon to north	limestone talus, ca. 50 ft elevation above road	Sierra County	Artie L. Metcalf, Richard A. Smartt	4/30/1977
Oreohelicidae	Oreohelix metcalfei	UTEP	5431	Black Range, Palomas Canyon, on N wall, below prominent cave (near house, built in cave)		Sierra County	Artie L. Metcalf, Richard A. Smartt	4/30/1977
Oreohelicidae	Oreohelix metcalfei	UTEP	13070	Black Range along New Mexico Highway 152, 0.7 miles NE of Iron Creek Campground		Grant County	Artie L. Metcalf	24-Sep-94
Oreohelicidae	Oreohelix metcalfei	UTEP	13375	Black Range, 2 miles NNE (by air) of Kingston in Sawpit Canyon, base of and on the cliffs S of Forest Road 157 (N slope)	limestone	Sierra County	Richard D. Worthington	18-Feb-96

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Oreohelicidae	Oreohelix socorroensis	UTEP	2338	San Andres Mountains, Salt Canyon, S side, 0.34 mile E of Main Road	hillslope colluvium	Dona Ana County	Artie L. Metcalf	10/13/1971
Oreohelicidae	Oreohelix socorroensis	UTEP	3161	San Andres Mountains, Ash Canyon, S wall (N-facing)		Sierra County	Artie L. Metcalf	9/23/1971
Oreohelicidae	Oreohelix socorroensis	UTEP	4479	San Andres Mountains, Black Brushy Mountain, N part		Dona Ana County	Artie L. Metcalf	5/10/1975
Oreohelicidae	Oreohelix socorroensis	UTEP	5371	San Andres Mountains, NW part of Goat Mountain, along canyon leading N into Little San Nicholas Canyon, in area of below cliffs, on NE side of canyon.	travertine and talus below cliffs in ancient, indurated Pleistocene deposits	Dona Ana County	Artie L. Metcalf	3/6/1977
Oreohelicidae	Oreohelix socorroensis	UTEP	5453	San Andres Mountains, S wall of Ash Canyon, seemingly from fossil deposits		Dona Ana County	Artie L. Metcalf	5/8/1977
Oreohelicidae	Oreohelix subrudis	UTEP	14200	Along NM Hwy. 152, at 29-mile marker sign, in Iron Creek Canyon, between highway and Creek, 0.6 mi. up-canyon east from entrance to Iron Creek Campground (0.25 Km W and 0.4 Km S of 36-45/2-39)	S- facing wall, in area of limestone outcrop	Grant County	Artie L. Metcalf	10/14/1999
Oreohelicidae	Oreohelix subrudis	UTEP	501	Mogollon Mountains, Little Creek Box, ca. 4-5 miles W of Gila Hot Springs (Campbell Ranch)		Grant County	Artie L. Metcalf	9/10/1967
Oreohelicidae	Oreohelix subrudis	UTEP	1191	Black Range, 0.4 miles W of Iron Creek Recreation Area along New Mexico Highway 90		Grant County	Artie L. Metcalf	6/9/1967
Oreohelicidae	Oreohelix subrudis	UTEP	1344	Pinos Altos Mountains, Signal Peak, ca. 5 miles NNE of Pinos Altos or ca. 2 miles SE of Redstone		Grant County	Artie L. Metcalf	9/9/1967
Oreohelicidae	Oreohelix subrudis	UTEP	1562	Black Range, E side of crest, on Crest Trail ca. one mile S of Emory Pass		Sierra County	Artie L. Metcalf	7/9/1970
Oreohelicidae	Oreohelix subrudis	UTEP	1573	New Mexico highway 27 on NW side of Apache Hill, exactly one mile NE of intersection with road leading west to Berenda Creek, in cuts along highway	slope-wash mantle	Sierra County	Artie L. Metcalf	7/9/1970
Oreohelicidae	Oreohelix subrudis	UTEP	2383	Black Range, road cuts along road on E side of Carbonate Creek	hillslope colluvium	Sierra County	Artie L. Metcalf	11/6/1971
Oreohelicidae	Oreohelix subrudis	UTEP	9310	hillside of Mississippian Ls., just NE of Lake Valley		Sierra County	Thomas Todson	19-Nov-84
Oreohelicidae	Oreohelix subrudis	UTEP	9760	Pinos Altos Mountains, on NW-facing canyon wall of Cherry Creek, alongside New Mexico Highway 25	in igneous rock talus	Grant County	Artie L. Metcalf	13-May-83
Oreohelicidae	Oreohelix subrudis	UTEP	13408	Black Range, foothills, 1.4 miles N (by air) of Lake Valky on N side of Apache Hill, washing out in shallow arroyo below limestone cliff		Sierra County	Richard D. Worthington	30-Mar-96
Oreohelicidae	Oreohelix subrudis	UTEP	8481	N. side of Apache Hill, Lake Valley., Nunn Member, Lake Valley	talus debris of Nunn Member, Lake Valley	Sierra County	Ronald D. Simpson	12-Apr-81
Oreohelicidae	Radiocentrum ferrissi	UTEP	13510	2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	N slope of talus	Hidalgo County	Richard D. Worthington	6/15/1996

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Oreohelicidae	Radiocentrum ferrissi	UTEP	13530	Big Hatchet Mts, 2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	S slope of N wall, shallow limestone colluvium	Hidalgo County	Richard D. Worthington	6/15/1996
Oreohelicidae	Radiocentrum ferrissi	UTEP	13699	0.7 air mi. ENE of top of Hatchet Peak, N slope arroyo cut	N slope arroyo cut; in colluvium- fossil site 4 mi deep in colluvium	Hidalgo County	Richard D. Worthington	1/19/1997
Oreohelicidae	Radiocentrum ferrissi	UTEP	13777	2.5 air mi. NNW of North Hatchet Peak	mostly N and NE limestone slopes, surface finds, shallow talus, and under rocks	Hidalgo County	Richard D. Worthington	4/19/1997
Oreohelicidae	Radiocentrum ferrissi	UTEP	14002	2.5 air mi. NNW of North Hatchet Peak	on N and NE-facing limestone slopes; surface finds, shallow talus, under rocks	Hidalgo County	Richard D. Worthington	4/19/1997
Oreohelicidae	Radiocentrum ferrissi	UTEP	13947	2.5 air mi. NNE from top of Big Hatchet Peak at base of cliff overlooking upper part of Mescal Canyon	base of cliffs, surface finds from eroding colluvium and small sample of dirt that was shallow, NE exposure	Hidalgo County	Richard D. Worthington	4/18/1998
Oreohelicidae	Radiocentrum ferrissi	UTEP	9283	Alamo Hueco Mountains, from U-Bar Cave	spoil pile	Hidalgo County	Arthur H. Harris	Jun-84
Oreohelicidae	Radiocentrum ferrissi	UTEP	9284	Alamo Hueco Mountains, slope, ca. 1/4 distance from bottom of slope below cave surface	probably colluvium	Hidalgo County	Arthur H. Harris	28-Dec-84
Oreohelicidae	Radiocentrum ferrissi	UTEP	7047	Big Hatchet Mountains, at base of cliffs on NE face of North Hatchet Peak		Hidalgo County	Artie L. Metcalf	21-Apr-79
Oreohelicidae	Radiocentrum hachetanum	UTEP	13529	Big Hatchet Mts, 2 air mi. NNE from top of Big Hatchet Peak; back of canyon at cliffs	S slope of N wall, shallow limestone colluvium	Hidalgo County	Richard D. Worthington	6/15/1996
Oreohelicidae	Radiocentrum hachetanum	UTEP	13946	2.5 air mi. NNE from top of Big Hatchet Peak at base of cliff overlooking upper part of Mescal Canyon	base of cliffs, surface finds from eroding colluvium and small sample of dirt that was shallow, NE exposure	Hidalgo County	Richard D. Worthington	4/18/1998
Oreohelicidae	Radiocentrum hachetanum	UTEP	7051	Hatchet Mountains - colluvium along arroyo below cliffs on NE face of North Hatchet Peak,	Pleistocene fossils older, reddish colluvium	Hidalgo County	Artie L. Metcalf	21-Apr-79
Oreohelicidae	Radiocentrum hachetanum	UTEP	7057	Hatchet Mountains - colluvium along arroyo below cliffs on NE face of North Hatchet Peak,	Younger, brownish colluvium (Holocene or Pleistocene)	Hidalgo County	Artie L. Metcalf	21-Apr-79
Oreohelicidae	Radiocentrum hachetanum	UTEP	14951	Big Hatchet Mountains, Thompson Canyon, N slope of Daniels Mountains		Hidalgo County	Brian K. Lang	22-Sep-01
Oreohelicidae	Radiocentrum hachetanum	UTEP	14952	Big Hatchet Mountains, Thompson Canyon, N slope of Daniels Mountains		Hidalgo County	Brian K. Lang	22-Sep-01
Oreohelicidae	Radiocentrum hachetanum	UTEP	14953	Big Hatchet Mountains, Thompson Canyon, unnamed park located 0.3 miles W (by air) of "Daniels Mountain."		Hidalgo County	Brian K. Lang	21-May-02
Helminthoglyptidae	Sonorella animasensis	UTEP	14073	Gray Ranch, Indian Creek Canyon, Animas Mountain		Hidalgo County	Brian K. Lang	6/18/1995
Helminthoglyptidae	Sonorella animasensis	UTEP	14074	Gray Ranch, Indian Creek Canyon, Animas Mountain		Hidalgo County	Brian K. Lang	8/15/1995
Helminthoglyptidae	Sonorella animasensis	UTEP	14083	Gray Ranch, Indian Creek Canyon, Animas Mountain		Hidalgo County	Brian K. Lang	8/15/1995

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Helminthoglyptidae	Sonorella animasensis	UTEP	14089	Gray Ranch, Indian Creek Canyon, Animas Mountain		Hidalgo County	Brian K. Lang	8/15/1995
Helminthoglyptidae	Sonorella animasensis	UTEP	2353	Animas Mountains, Indian Creek Canyon, on NE side of Animas Peak		Hidalgo County	Artie L. Metcalf	11/23/1971
Helminthoglyptidae	Sonorella animasensis	UTEP	2354	Animas Mountains, N side of Animas Peak, along sides of canyon tributary to Indian Creek	in talus	Hidalgo County	Artie L. Metcalf	11/24/1971
Helminthoglyptidae	Sonorella animasensis	UTEP	2356	Animas Mountains, W or NW side of Animas Peak		Hidalgo County	Peter Mandell	11/24/1971
Helminthoglyptidae	Sonorella animasensis	UTEP	3255	Animas Mountains, Indian Creek Canyon		Hidalgo County	Thomas K. Todsen	1972/09/xx
Helminthoglyptidae	Sonorella hachitana	UTEP	13698	0.7 air mi. ENE of top of Hatchet Peak, N slope arroyo cut	N slope arroyo cut; in colluvium- fossil site 4 mi deep in colluvium	Hidalgo County	Richard D. Worthington	1/19/1997
Helminthoglyptidae	Sonorella hachitana	UTEP	13695	0.7 air mi. ENE of top of Hatchet Peak, N slope below limestone outcrops	N slope below limestone outcrops	Hidalgo County	Richard D. Worthington	1/19/1997
Helminthoglyptidae	Sonorella hachitana	UTEP	13827	West end of Howells Ridge, 2 air mi. E of Playas	N side and base of limestone cliff	Grant County	Richard D. Worthington	8/16/1997
Helminthoglyptidae	Sonorella hachitana	UTEP	13996	Playas Peak on N side	igneous substrate	Grant County	Richard D. Worthington	8/30/1997
Helminthoglyptidae	Sonorella hachitana	UTEP	14043	2 air mi. S from top of Playas Peak on N slope	North slope of igneous (??) cliff	Grant County	Richard D. Worthington	2/28/1998
Helminthoglyptidae	Sonorella hachitana	UTEP	13993	Hachita Peak, Canyon draining N side	igneous outcrops	Hidalgo County	Richard D. Worthington	5/3/1997
Helminthoglyptidae	Sonorella hachitana	UTEP	165	Florida Mountains, N end of range, 0.5 miles S of dome-like scarp fronting on Deming Ranchette Area		Luna County	Artie L. Metcalf	12/3/1967
Helminthoglyptidae	Sonorella hachitana	UTEP	3886	Big Hatchet Mountains, 0.25 mile SSW of Big Hatchet Peak, on west slope		Hidalgo County	John C. Bokich	11/25/1973
Helminthoglyptidae	Sonorella hachitana	UTEP	1245	Organ Mountains, canyon on E side of Needles, next canyon N of Indian Hollow Canyon complex		Dona Ana County	unknown	6/3/1970
Helminthoglyptidae	Sonorella hachitana	UTEP	4646	Florida Mountains, Mahoney Park, SE part of park		Luna County	William H. Reid	11/22/1975
Helminthoglyptidae	Sonorella hachitana	UTEP	5936	Florida Mountains, ca. 1 mile E of Old Mahoney Mine on N slope at base of granite cliff	In Mountain Mahogany-Uniper- Pinyon Pine association	Luna County	Richard D. Worthington	3/11/1978
Helminthoglyptidae	Sonorella metcalfi	UTEP	2718	Organ Mountains, Southern Organ Mountains, ca. 0.2 mi. SSE of center of Section; NW-facing slope below rhyolite cliffs		Dona Ana County	Artie L. Metcalf	4/22/1972
Helminthoglyptidae	Sonorella orientis	UTEP	2600	Organ Mountains, NE slope of middle, tallest peak of Rabbit Ears	from prominent talus accumulation	Dona Ana County	Artie L. Metcalf	3/11/1972
Helminthoglyptidae	Sonorella orientis	UTEP	3228	Organ Mountains, Fillmore Canyon, S wall, 0.25 miles SE of Fillmore Spring	In rhyolite talus on steep wall of canyon below small round cave higher up on canyon wall	Dona Ana County	Artie L. Metcalf	10/7/1972

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Helminthoglyptidae	Sonorella orientis	UTEP	3668	Organ Mountains, Ice Canyon, on upper slopes of canyon entering main branch of Ice Canyon from S	in narrow slides of rhyolitic talus on grassy slopes and in groves of Gambel's Oak	Dona Ana County	Artie L. Metcalf	4/12/1974
Helminthoglyptidae	Sonorella orientis	UTEP	4474	Organ Mountains, Indian Hollow Canyon, upper end, below (E of) Organ Needle	In maple and Gambel oak forest	Dona Ana County	Artie L. Metcalf	5/4/1975
Helminthoglyptidae	Sonorella orientis	UTEP	4747	Organ Mountains, South Branch of Texas Canyon, in "bowl" marked by tall ponderosal pines under massive high cliffs to south		Dona Ana County	Artie L. Metcalf	9/28/1975
Helminthoglyptidae	Sonorella orientis	UTEP	5035	Organ Mountains, Rock Springs Canyon, W-facing wall	rhyolitic talus	Dona Ana County	Artie L. Metcalf	4/14/1974
Helminthoglyptidae	Sonorella orientis	UTEP	5048	Organ Mountains, Sugarloaf Peak, W side	Monzonitic talus	Dona Ana County	Artie L. Metcalf	4/21/1974
Helminthoglyptidae	Sonorella orientis	UTEP	289	Organ Mountains, East slope of mountains, just below "The Needles		Dona Ana County	Artie L. Metcalf	2/18/1967
Helminthoglyptidae	Sonorella orientis	UTEP	300	Organ Mountains, Fillmore Canyon		Dona Ana County	Artie L. Metcalf	11/25/1966
Helminthoglyptidae	Sonorella orientis	UTEP	301	Organ Mountains, Fillmore Canyon		Dona Ana County	Artie L. Metcalf	11/25/1966
Helminthoglyptidae	Sonorella orientis	UTEP	305	Organ Mountains, W side, Fillmore Canyon, in canyon just above Rock House Spring	under Gambel Oak	Dona Ana County	Artie L. Metcalf	9/16/1967
Helminthoglyptidae	Sonorella orientis	UTEP	318	Organ Mountains, Dripping Springs Canyon, ca. 0.25 miles E of impoundment on W side of Baldy Peak		Dona Ana County	Artie L. Metcalf	6/10/1968
Helminthoglyptidae	Sonorella orientis	UTEP	326	Organ Mountains, W side, Ice Canyon		Dona Ana County	Artie L. Metcalf	6/7/1966
Helminthoglyptidae	Sonorella orientis	UTEP	1133	Organ Mountains, at narrowed part of "The Narrows" on W-facing slope	under rock talus	Dona Ana County	Artie L. Metcalf	11/1/1969
Helminthoglyptidae	Sonorella orientis	UTEP	1537	San Andres Mountains, 0.75-0.875 miles ESE of Ropes Springs and directly below San Andres Peak in upper parts of two ravines		Dona Ana County	Artie L. Metcalf	6/23/1970
Helminthoglyptidae	Sonorella orientis	UTEP	2403	Organ Mountains, Southern Organ Mountains, ca. 1 mile N of Pena Blanca, on W-facing slope	Found in coarse talus	Dona Ana County	Artie L. Metcalf	12/10/1971
Helminthoglyptidae	Sonorella orientis	UTEP	2525	E of Pena Blanca		Dona Ana County	Artie L. Metcalf	1/15/1972
Helminthoglyptidae	Sonorella orientis	UTEP	2526	Organ Mountains, Southern Organ Mountains, Long Canyon, ca. 0.25 miles from its mouth	talus	Dona Ana County	Richard A. Smartt	1/15/1972
Helminthoglyptidae	Sonorella orientis	UTEP	2673	Organ Mountains, Southern Organ Mountains, Boulder Canyon, W wall, ca. 0.1 mile N of pass between Boulder and Finley Canyons	Found in rhyolite talus on E- facing slope below masive rhyolite cliffs	Dona Ana County	Artie L. Metcalf	4/28/1972
Helminthoglyptidae	Sonorella orientis	UTEP	3145	San Andres Mountains, Salinas Peak, SW slope, Indian Divide, SW side	In igneous talus	Sierra County	Artie L. Metcalf	9/10/1972

Family	Genus_species	Museum Acronym	Catalogue No.	Locality (Primary)	Locality (Secondary)	County	Collector	Year Collected
Helminthoglyptidae	Sonorella orientis	UTEP	3156	San Andres Mountains, Ash Canyon, S wall (N-facing)	In limestone talus	Sierra County	Artie L. Metcalf	9/23/1971
Helminthoglyptidae	Sonorella orientis	UTEP	3191	San Andres Mountains, Salinas Peak, N slope, in elongate (igneous) talus spills on SW-facing wall of canyon that heads E of Indian Divide, NW below road from Salinas Mine area to Silvertop Mountain	igneous talus	Sierra County	Artie L. Metcalf	10/14/1972
Helminthoglyptidae	Sonorella orientis	UTEP	3461	Organ Mountains, Finley Canyon head		Dona Ana County	Artie L. Metcalf	4/28/1972
Helminthoglyptidae	Sonorella orientis	UTEP	3462	Organ Mountains, Southern Organ Mountains, at base of cliffs on S wall of Achenback Canyon, along narrow path that skirts high (ephemeral) waterfall at mouth of canyon	Probably[sic] from crevices in rhyolite rocks	Dona Ana County	Artie L. Metcalf	4/29/1972
Helminthoglyptidae	Sonorella orientis	UTEP	3641	Organ Mountains, Ice Canyon, N wall, on 7.5' Quadrangle map, 0.2 miles N of "B" in "Boyd Canyon"	talus	Dona Ana County	Artie L. Metcalf	3/22/1974
Helminthoglyptidae	Sonorella orientis	UTEP	5052	Organ Mountains, ca. 1 mile E-ENE of Mine House Spring, W face of Needles		Dona Ana County	Artie L. Metcalf	7/13/1974
Helminthoglyptidae	Sonorella orientis	UTEP	8340	S end of Organ Mountains, in Long Canyon Box		Dona Ana County	Thomas Todson	2-Jan-81
Helminthoglyptidae	Sonorella orientis	UTEP	8235	Organ Mountains, Maple Canyon		Dona Ana County	Artie L. Metcalf	18-Oct-80
Helminthoglyptidae	Sonorella orientis	UTEP	8214	Organ Mountains, Rock Springs Canyon	W-facing slope of canyon below rhyolitic cliffs	Dona Ana County	Artie L. Metcalf	11-Oct-80
Helminthoglyptidae	Sonorella orientis	UTEP	13359	Organ Mountains, S end of mountains, 2.6 miles NNE (by air) from top of Pena Blanca	below igneous cliffs on N slope	Dona Ana County	Richard D. Worthington	14-Jan-96
Helminthoglyptidae	Sonorella orientis	UTEP	14843	Organ Mountains, Soledad Canyon Complex. Dorsey Canyon	in rhyolitic talus at bottom of cn. + upper 2 branches of canyon	Dona Ana County	Justin Hobert	13-Apr-06
Helminthoglyptidae	Sonorella todseni	UTEP	164	Dona Ana Mountains, Dona Ana Peak		Dona Ana County	Artie L. Metcalf	10/1/1967
Helminthoglyptidae	Sonorella todseni	UTEP	2809	Dona Ana Mountains, Dona Ana Peak, NW slope		Dona Ana County	unknown	6/24/1972