

Terrestrial Gastropods of Riverside County, California

By David L. Magney¹
29 February 2012

Introduction

Terrestrial gastropods consist of snails (shelled) and slugs (unshelled) that occupy a wide range of habitats throughout California, and elsewhere. They range in size from a few millimeters to several centimeters. The native species, and many of the nonnative species, are quite secretive and nocturnal, and most hibernate when it is too hot or too cold, so they can be hard to find. That is, except for the common pest species in your vegetable garden.

This list of terrestrial gastropods of Riverside County is a compilation of mollusk taxa (Phylum Mollusca; Class Gastropoda) and known occurrence information, based on currently available information on their taxonomy and distribution. It is intended to be used by researchers, regulators, and biologists to better understand the distribution and sensitivity of this interesting but much ignored group of invertebrates that are found within the political boundaries of the County of Riverside, California.

Methods

This list is based primarily on the compilation of terrestrial snails and slugs of California by Roth and Sadeghain (2003²). It is supported by information about specific species occurrences through specimens deposited at the Santa Barbara Museum of Natural History (SBMNH) and accessed through the Museum's online database of mollusks³, supplemented by voucher specimen data from the California Academy of Sciences (CAS) and Los Angeles County Museum of Natural History (LACM) online database.

Each and every species (including subspecies and varieties) has been assigned a rarity ranking by NatureServe⁴, the successor of the Natural Heritage system, which established natural diversity databases in each and every state of the United States, including the California Department of Fish and Game's Natural Diversity Database (CNDDDB). NatureServe assigns a Global ranking, consisting of five basic rarity levels, 1 through 5, with 1 representing the rarest rank category and 5 representing the commonest rank category. This listing for species in Riverside County includes those Global rankings assigned by NatureServe.

The rarity rankings are defined in Table 1, California Natural Diversity Database Element Ranking System.

¹ David Magney, David Magney Environmental Consulting, P.O. Box 1346, Ojai, CA 93024; 805/646-6045; www.magney.org

² Taxonomy follows Roth, Barry, and Patricia S. Sadeghian. 2003. Checklist of the Land Snails and Slugs of California. (*Santa Barbara Museum of Natural History Contributions in Science* No. 3.) Santa Barbara, California.

³ Distribution data obtained from Roth & Sadeghain 2003 (see footnote 2) and Santa Barbara Museum of Natural History online mollusk database (<http://www.sbcollections.org/>):

⁴ Rarity Rankings obtained from NatureServe Explorer, <http://www.natureserve.org/explorer/>, August 2009.

Terrestrial Gastropods of Riverside County, California

Table 1. California Natural Diversity Database Element Ranking System

Global Ranking (G)	
G1	Less than 6 viable element occurrences (pops for species), OR less than 1,000 individuals, OR <809.4 hectares (ha) (2,000 acres [ac]). Critically Imperiled
G2	6 to 20 element occurrences OR 809.4 to 4,047 ha (2,000 to 10,000 ac). Imperiled
G3	21 to 100 element occurrences OR 3,000 to 10,000 individuals OR 4,047 to 20,235 ha (10,000 to 50,000 ac). Vulnerable
G4	Apparently secure; rank lower than G3, factors exist to cause some concern (i.e. there is some threat, or somewhat narrow habitat). Apparently Secure
G5	Population, or stand, demonstrably secure to ineradicable due to being commonly found in the world. Secure
GH	All sites are historic ; the element has not been seen for at least 20 years, but suitable habitat still exists.
GX	All sites are extirpated ; this element is extinct in the wild.
GXC	Extinct in the wild; exists in cultivation.
G1Q	The element is very rare, but there is a taxonomic question associated with it.
<p>Subspecies Level: Subspecies receive a T-rank attached to the G-rank. With the subspecies, the G-rank reflects the condition of the entire <u>species</u>, whereas the T-rank reflects the global situation of just the <u>subspecies</u> or <u>variety</u>. For example: <i>Chorizanthe robusta</i> var. <i>hartwegii</i> is ranked G2T1. The G-rank refers to the whole species range (<i>Chorizanthe robusta</i>), whereas the T-rank refers only to the global condition of the variety (var. <i>hartwegii</i>).</p>	
State Ranking (S)	
S1	Less than 6 element occurrences OR less than 1,000 individuals OR less than 809.4 ha (2,000 ac). S1.1 = very threatened S1.2 = threatened S1.3 = no current threats known
S2	6 to 20 element occurrences OR 3,000 individuals OR 809.4 to 4,047 ha (2,000 to 10,000 ac). S2.1 = very threatened S2.2 = threatened S2.3 = no current threats known..
S3	21 to 100 element occurrences OR 3,000 to 10,000 individuals OR 4,047 to 20,235 ha (10,000 to 50,000 ac). S3.1 = very threatened S3.2 = threatened S3.3 = no current threats known
S4	Apparently secure within California; this rank is clearly lower than S3 but factors exist to cause some concern (i.e., there is some threat, or somewhat narrow habitat). NO THREAT RANK.
S5	Demonstrably secure to ineradicable in California. NO THREAT RANK.
SH	All California sites are historic ; the element has not been seen for at least 20 years, but suitable habitat still exists.
SX	All California sites are extirpated ; this element is extinct in the wild.
Notes	
<p>1. Other considerations used when ranking a species or natural community include the pattern of distribution of the element on the landscape, fragmentation of the population/stands, and historical extent as compared to its modern range. It is important to take an aerial view when ranking sensitive elements rather than simply counting element occurrences.</p>	
<p>2. Uncertainty about the rank of an element is expressed in two major ways: by expressing the rank as a range of values (e.g. S2S3 means the rank is somewhere between S2 and S3), and by adding a ? to the rank (e.g. S2?). This represents more certainty than S2S3, but less than S2.</p>	

Terrestrial Gastropods of Riverside County, California

The five basic rankings are summarized below:

- G1/S1 = Critically Imperiled
- G2/S2 = Imperiled
- G3/S3 = Vulnerable
- G4/S4 = Apparently Secure
- G5/S5 = Secure

Similar ranks are assigned for each state, with the CNDDDB having the responsibility of determining the rankings within California. Since the CNDDDB has yet to assign ranks for most species of mollusks, this paper makes recommendations for each native taxon for CNDDDB consideration, based on the known distribution and population size. Population size is generally estimated by each taxon's range and known occurrences.

This list indicates all California counties that each taxon is known from, some of which are supported by voucher specimens at one or more museums, based primarily on the collection at SBMNH.

The author requests any occurrences not listed below to be submitted in an effort to obtain the most complete distribution and range data as possible. Any errors or omissions are the responsibility of the author.

Note: Actual distribution will be much less than depicted by this county presence listing, and abundance levels within a county is not implied; rather, this is only a simple occurrence listing by county, for most cases.

Mollusks of Riverside County

Below are lists of terrestrial mollusks (snails and slugs) known to occur in Riverside County, California, listed alphabetically by scientific name (genus and species, then subspecies).

Distribution (atlas) maps are provided for some species on the author's website through the Sespe Institute (<http://www.sespeinstitute.com/>). Additional California county distribution atlas maps are created and posted periodically.

List of Native Taxa

A total of 27 species (including subspecific ranks) of native terrestrial snails and slugs are known to occur in Riverside County.

- Cahuillus indioensis cathedralis* (Willett 1830) (Helminthoglytidae family)
- Cahuillus indioensis indioensis* (Yates 1890) (Helminthoglytidae family)
- Cahuillus indioensis wolcottianus* (Bartsch 1903) (Helminthoglytidae family)
- Cahuillus indioensis xerophilus* (Berry 1922) (Helminthoglytidae family)
- Catinella vermeta* Say 1829 (Succineidae family)
- Chamaearionta aquaealbae* (Berry 1922) (Heminthoglyptidae family)
- Eremarionta brunnea* (Willett 1935) (Helminthoglytidae family)
- Eremarionta immaculata* (Willett 1937) (Helminthoglytidae family)
- Eremarionta millepalmarum* (Berry 1930) (Helminthoglytidae family)
- Eremarionta morongoana* (Berry 1929) (Helminthoglytidae family)

Terrestrial Gastropods of Riverside County, California

Eremarionta orocopia (Willett 1939) (Helminthoglytidae family)
Eremarionta rowelli chuckwallana (Willett 1935) (Helminthoglytidae family)
Eremarionta rowelli granitensis (Willett 1935) (Helminthoglytidae family)
Eremarionta rowelli mccoiana (Willett 1935) (Helminthoglytidae family)
Gastracopta pellucida (Pfeiffer 1841) (Vertiginidae family)
Glyptostoma newberryanum minus Pilsbry 1939 (Megomphicidae family)
Hawaiiia minuscula (A. Binney 1841) (Pristilomatidae family)
Helminthoglypta tudiculata angelena Berry 1938 (Helminthoglytidae family)
Helminthoglypta tudiculata imperforata Pilsbry 1939 (Helminthoglytidae family)
Helminthoglypta tudiculata subdola (Hemphill 1890) (Helminthoglytidae family)
Helminthoglypta tudiculata tudiculata (A. Binney 1843) (Helminthoglytidae family)
Oxyloma retusum (Lea 1834) (Succineidae family)
Oxyloma sillimani (Bland 1865) (Succineidae family)
Punctum californicum Pilsbry 1898 (Punctidae family)
Sonorelix rixfordi Pilsbry 1919 (Helminthoglytidae family)
Striatura pugetensis (Dall 1895) (Gastropodontidae family)
Zonitoides arboreus Say 1816 (Gastropodontidae family)

List of Nonnative Taxa

Below is a simple list of all nonnative (alien) terrestrial mollusks known to occur in Riverside County, without details or other information.

- **Arion intermedius* Normand 1852 (Arionidae family)
- **Eobania vermiculata* (Helicidae family)
- **Euglandina rosea* (Spiraxidae family)
- **Helix aspersa* (Helicidae family)
- **Lehmannia valentiana* (Agriolimacidae family)
- **Rumina decollata* (Subulinidae family)

Catalogue of Native Species

Below is a detail list of all native terrestrial mollusks known to occur in Los Angeles County. This catalogue includes each taxon's complete scientific name, family affiliation, common name, rarity ranking, and distribution. Photographs of the taxa are provided, when available. Those California county records supported by voucher specimens deposited at the Santa Barbara Museum of Natural History (SBMNH) and posted on that institution's online database are included as well, as well as from the LACM and CAS museum collections.

Cahuillus indioensis cathedralis Willett 1830 (Helminthoglytidae family)

[*Micrarionta indioensis cathedralis* Willett 1930]

Cathedral Desert snail

photos

Rarity Ranking: G2G3, recommended ranking: G1T1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Coachella Valley, Palm Springs, small canyon in hills 3 mi E of (7-Feb-1930 SBMNH 120378)

Terrestrial Gastropods of Riverside County, California

- San Jacinto Mountains, Cathedral Canyon, 1st small canyon S of, in small rockslides along canyon tributary (2-Nov-1956 SBMNH 72425)
- San Jacinto Mountains, Cathedral Canyon, canyon near, leading up to S side of Murray Hill in slide at bottom of lowest dry waterfall (28-Feb-1962 SBMNH 74295) at foot of “aspe” in rockslide (28-Feb-1962 SBMNH 74399)
- San Jacinto Mountains, Cathedral Canyon, head of canyon below falls, in rock slides (*G. & O. Willett sn 8-Feb-1930* LACM Holotype!, CAS) (2-Nov-1956 SBMNH 72422)
- Santa Rosa Mountains, near mouth of Bradley Canyon on S side (SBMNH 106495)
- Santa Rosa Mountains, near mouth of Eagle Canyon on N side (19-Mar-1927 SBMNH 106291)
- Santa Rosa Mountains, S wall of Eagle Canyon at 1st narrows, just below 2nd tributary (*S.S. Berry sn 4-Nov-1930* SBMNH 107190)
- Santa Rosa Mountains, W side of Eagle Canyon, near mouth (*S.S. Berry sn 4-Nov-1930* CAS, SBMNH 107189)

Cahuillus indioensis indioensis Yates 1890 (Helminthoglytidae family)

[*Helix carpenteri* var. *indioensis* Yates 1890, *Micrarionta callinepius* Berry 1930]

Coachella Desertsnailed

photos

Rarity Ranking: G2G3, recommended ranking: G1T1/S1

Distribution: Southern California (narrow endemic).

- Riverside County
 - Coachella Valley, Indian Wells, SE of at head of cove (2-Apr-1920 SBMNH 104887)
 - Coachella Valley, Indio, “Fish Traps” SW of (Oct-1926 SBMNH 120377)
 - Coachella Valley, Lake Cahuilla, “Fish Traps”, W of Mecca (SBMNH 142576, 142577)
 - Coachella Valley, Lake Cahuilla, “Fish Traps”, W of Valerie Jean, under rocks (2-Nov-1956 SBMNH 72419, 24-Nov-1972 SBMNH 76034)
 - Santa Rosa Mountains, Carrizo Creek, tributary of Dead Indian Creek, in rockslide 0.1 mi up creek from SR74 bridge H56-186 (26-Mar-1961 SBMNH 74199)
 - Santa Rosa Mountains, E side of Point Happy near La Quinta Hotel (21-Dec-1927 SBMNH 106440)
 - Santa Rosa Mountains, La Quinta Mountain (1-Mar-1962 SBMNH 74358)
- San Diego County
 - Borrego Valley, 1st canyon N of Palm Canyon (Mar-1940 SBMNH 109397)
 - Santa Rosa Mountains, W slope of Villager Peak 2 mi E of Clark’s Well (*G. Willett sn nd* CAS)
- Baja California del Norte, Mexico
 - Sierra Juarez, E side in Carrizo Canyon ¼ mi above forks at N exposure of left fork (29-Nov-1957 SBMNH 126117)
 - Sierra Juarez, unnamed canyon ~10 mi S of Guadalupe Canyon (Aug-1985 SBMNH 126241)

Cahuillus indioensis wolcottianus Bartsch 1903 (Helminthoglytidae family)

[*Sonorella wolcottiana* Bartsch 1903, *Sonorella wolcottiana* Bartsch 1904]

Wolcott’s Coachella Desertsnailed

photos

Rarity Ranking: G2G3, recommended ranking: G1T1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - “S side of creek”, 0.25 mi below falls among boulders (2-Mar-1962 SBMNH 74371)
 - Coachella Valley, 2 mi E of Palm Springs (*G.D. Hanna sn Jan-1921* CAS)
 - Coachella Valley, alluvial fan below mouth of Chino Canyon (22-Dec-1924 SBMNH 106052)
 - Coachella Valley, Palm Springs (18-Mar-1919 SBMNH 103203)
 - Coachella Valley, Palm Springs, near (22-Dec-1924 SBMNH 1723)
 - San Jacinto Mountains, Andreas Canyon, 0.5 mi N of, on W side of canyon under large rocks (2-Dec-1956 SBMNH 72464, 25-Nov-1961 SBMNH 74252)
 - San Jacinto Mountains, Andreas Canyon, near mouth of (8-Nov-1936 SBMNH 108461)
 - San Jacinto Mountains, Chino Canyon, near Palm Springs, on a rocky hillside under rocks (*L. Baptista sn 6-May-1967* CAS)

Terrestrial Gastropods of Riverside County, California

- San Jacinto Mountains, Palm Canyon, E slope above junction w/Little Palm Creek (2-Apr-1920 SBMNH 104885)
- San Jacinto Mountains, Palm Canyon, near Palm Springs, under rocks (*A.G. Smith sn 26-Dec-1966* CAS, SBMNH 14055)
- San Jacinto Mountains, Snow Creek Canyon, slope W of entrance to (3-Apr-1920 SBMNH 104886)
- San Jacinto Mountains, Snow Creek, mountainside W of bridge over Snow Creek wash (SBMNH 120376)
- San Jacinto Mountains, Tahquiz Canyon, 0.25 mi above, on N side 1 mi up from Palm Springs (1-Apr-1985 SBMNH 142579),
- San Jacinto Mountains, Tahquiz Canyon, talus slope near Springs Canyon (SBMNH 142580)
- San Diego County
 - Borrego Valley, Palm Canyon, W side of Borrego Valley (4-Apr-1929 SBMNH 109403)

Cahuillus indioensis xerophilus (Berry 1922) (Helminthoglytidae family)

[*Micrarionta xerophila* Berry 1922]

Coachella Desertsnail

photos

Rarity Ranking: G2G3, recommended ranking: G1T1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Coachella Valley, 5 mi NW of Indian Wells & S of Thousand Palms (*G. Willett sn nd* CAS)
 - Coachella Valley, 5 mi W of Indian Wells [Palm Desert] (SBMNH 2087)
 - Coachella Valley, along Route 66/SR111 [Ocean to Ocean Highway] 5 mi W of Indian Well [Palm Desert] in crevices & under stones at 400-600 ft (*A.G. Smith & S.S. Berry sn 2-Apr-1920* CAS Paratype!)
 - Coachella Valley, Palm Springs, near (SBMNH 142602)
 - Coachella Valley, rockslide off SR111 5 mi SE of Cathedral Canyon Road [Rancho Mirage/Palm Desert] (2-Nov-1956 SBMNH 72426)
 - Santa Rosa Mountains, 6 mi W of Indian Wells [Palm Desert] (23-Dec-1924 SBMNH 2086, 106053)
 - Santa Rosa Mountains, Deep Canyon in 1st narrows above 2nd group of palms (4-Nov-1930 SBMNH 107192)
 - Santa Rosa Mountains, Deep Canyon, above 1st waterfall in canyon W of (4-Nov-1930 SBMNH 107191)
 - Santa Rosa Mountains, Deep Canyon, on rock near promontory W of (20-Feb-1927 SBMNH 106453)
 - Santa Rosa Mountains, in canyons S of Palm Springs (SBMNH 142582, 142603)
 - Santa Rosa Mountains, Indian Wells, 1 mi S of (SBMNH 106448)

Catinella vermeta (Say 1829) (Succineidae family)

[*Mediappendix vermeta* Say, *Succinea vermeta* Bland]

Suboval Ambersnail

photos

Rarity Ranking: G5, recommended ranking: S5

Distribution: Canada: Alberta, British Columbia, New Brunswick, Newfoundland, Nova Scotia, Ontario, Quebec; United States: Alabama, Arizona, California, Florida, Georgia, Iowa, Idaho, Illinois, Kansas, Kentucky, Louisiana, Montana, Maryland, Maine, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Utah, Virginia, Vermont, Washington, Wisconsin, and West Virginia.

- Alameda County
- Calaveras County
- Contra Costa County
- Fresno County

Terrestrial Gastropods of Riverside County, California

- Kern County
- Lake County
- Los Angeles County
 - San Clemente Island
- Modoc County
- Nevada County
- Riverside County
- San Diego County
- San Francisco County
- San Luis Obispo County
- San Mateo County
- Siskiyou County
- Sonoma County
- Trinity County
- Tulare County
- Ventura County
 - San Nicolas Island

Chamaearionta aquaealbae (Berry 1922) (Helminthoglytidae family)

[*Micrarionta aquae-albae* Berry 1922]

Whitewater Desert snail

photos

Rarity Ranking: G1, recommended ranking: G1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - San Bernardino Mountains, in gulch on E side of Whitewater Canyon near first bend to W among loose leaves & mold under *Rhus* at 1,800 ft (A.G. Smith & S.S. Berry sn 1-Apr-1920 CAS Paratype!)
- San Bernardino County
 - San Bernardino Mountains, Whitewater Canyon?

Eremarionta brunnea (Willett 1935) (Helminthoglytidae family)

[*Micrarionta brunnea* Willett 1935]

Chuckwalla Spring Desert snail

photos

Rarity Ranking: G1, recommended ranking: G1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Little Chuckwalla Mountains, near Chuckwalla Spring (G. & O. Willett sn 21-Feb-1935 LAMC Holotype!, CAS Paratype!)

Eremarionta immaculata (Willett 1937) (Helminthoglytidae family)

[*Micrarionta immaculata* Willett 1937, *Eremarionta rowelli immaculata*]

White Desert snail

photos

Rarity Ranking: G1/S1 (CNDDDB 2011)

Distribution: Southern California (narrow endemic)

- Riverside County
 - Riverside Mountains, E side 7 mi S of Vidal (G. & O. Willett sn 24-Mar-1937 LACM Holotype!, CAS, SBMNH 142575)
 - Riverside Mountains, E side 9.2 mi S of Vidal RR crossing along US95 in ravine well up the mountain (26-Jan-1958 SBMNH 72913)

Terrestrial Gastropods of Riverside County, California

Eremarionta millepalmarum (Berry 1930) (Helminthoglytidae family)

[*Micrarionta mille-palmarum* Berry 1930]

Thousand Palms Desertsnail

[photos](#)

Rarity Ranking: G1/S1 (CNDDDB 2011)

Distribution: Southern California (narrow endemic)

- Riverside County
 - Coachella Valley, Thousand Palms (*S.S. Berry & L.G. Ingles sn Aug-1920* CAS, *S.S. Berry & L.G. Ingles sn 17-Mar-1928* CAS, SBMNH 109311)
 - Little San Bernardino Mountains, in rockslides along Blythe Road NE of Thousand Palms (29-Dec-1931 SBMNH 107364)
 - Little San Bernardino Mountains, Thousand Palms Canyon on hillside next to creek at palm grove (2-Dec-1956 SBMNH 72429) Type Locality!
 - Little San Bernardino Mountains, Thousand Palms Canyon on N slope of 2nd hill E of lowest palm grove (18-Mar-1928 SBMNH 106504)
 - Mecca Hills, Shavers Well in nearby rockslides (5-Apr-1958 SBMNH 73015)

Eremarionta morongoana (Berry 1929) (Helminthoglytidae family)

[*Micrarionta morongoana* Berry 1929]

Morongo Desertsnail

[photos](#)

Rarity Ranking: G1G3/S1 (CNDDDB 2011), recommended ranking: G1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Little San Bernardino Mountains, Morongo Canyon 0.6 mi above mouth of canyon under rocks in slide on W side (2-Nov-1956 SBMNH 72420), mouth of Morongo Canyon (Sep-1930 SBMNH 142583)

Eremarionta orocopia (Willett 1939) (Helminthoglytidae family)

[*Micrarionta orocopia* Willett 1939]

Orocopia Desertsnail

[photos](#)

Rarity Ranking: G1, recommended ranking: G1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Orocopia Mountains, 1.8 mi up a canyon from canal 12.5 mi W of SR195 canal crossing, in rockslide (17-Mar-1963 SBMNH 74454)
 - Orocopia Mountains, E side of canyon on S slope directly N of Dos Palmas Spring in rockslide (3-Mar-1946 SBMNH 142585)
 - Orocopia Mountains, S side, 2.5 mi N of Dos Palmas, rock slide on side of canyon (*G. & O.A. Willett sn 1-Jan-1939* LACM Holotype!, CAS), rockslides in canyon (29-Mar-1959 SBMNH 73274)
 - Orocopia Mountains, SE extremity of (27-Nov-1929 SBMNH 142584, 27-Dec-1929 SBMNH 142586)

Eremarionta rowelli chuckwallana (Willett 1935) (Helminthoglytidae family)

[*Micrarionta chuckwallana* Willett 1935]

Chuckwalla Desertsnail

[photos](#)

Rarity Ranking: G3G4, recommended ranking: G1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Chuckwalla Mountains, Corn Springs 1 mi S of (*G. Willett sn 6-Feb-1935* LACM Holotype! CAS), W side of canyon in rockslide (12-Feb-1931 SBMNH 74181)
 - Chuckwalla Mountains, Corn Springs 1-2 mi SSE of (6-Apr-1958 SBMNH 73014)
 - Chuckwalla Mountains, Corn Springs 3 mi S of (12-Feb-1961 SBMNH 74182)

Terrestrial Gastropods of Riverside County, California

Eremarionta rowelli granitensis (Willett 1935) (Helminthoglytidae family)

[*Micrarionta granitensis* Willett 1935]

Granite Mountains Desertsnaail

[photos](#)

Rarity Ranking: G3G4, recommended ranking: G1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Granite Mountains, NW end of, 1 mi SE of road from Desert Center to Rice, rock slides on mountain slopes (*G. & O.A. Willett sn 5-Mar-1935* LACM Holotype!, CAS)
 - Granite Mountains, N end of, near power line (14-Dec-1946 SBMNH 128013)

Eremarionta rowelli mccoiana (Willett 1935) (Helminthoglytidae family)

[*Micrarionta mccoiana* Willett 1935]

California McCoy Snail

[photos](#)

Rarity Ranking: G1T1/S1 (CNDDDB 2011)

Distribution: Southern California (narrow endemic)

- Riverside County
 - McCoy Mountains, near McCoy Well in deep rockslide on slope above large gully (*G. Willett sn 6-Mar-1935* LACM Holotype!, CAS, 10-Feb-1957 SBMNH 72574, 128014)

Gastrocopta pellucida (Pfeiffer 1841) (Vertiginidae family)

[*Pupa pellucida* Pfeiffer 1841]

Slim Snaggletooth Snail

[photos](#)

Rarity Ranking: G5, recommended ranking: G5/S1

Distribution: Southern California, eastern Nevada (Elko County), and Arizona (Cochise and Yavapai Counties) eastward to Florida, Atlantic Coast north to New Jersey; Central America; West Indies; Revillagigedos Islands, Mexico.

- Inyo County
- Riverside County

Glyptostoma newberryanum minus Pilsbry 1939 (Megomphicidae family)

Small San Diego Chestnut

[photos](#)

Rarity Ranking: G2, recommended ranking: G1T1/S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Riverside, mountains W of (24-Feb-1908 SBMNH 34357 Paratype!)
- San Bernardino County

Hawaiiia minuscula (A. Binney 1841) (Pristilomatidae family)

[*Helix minuscula* A. Binney 1841]

Minute Gem Snail

[photos](#)

Rarity Ranking: G5, recommended ranking: S4

Distribution: North America from Alaska and Newfoundland south to Central America and the Antilles; California.

- Alameda County
- Los Angeles County
- Monterey County
- Napa County
- Riverside County
- San Bernardino County

Terrestrial Gastropods of Riverside County, California

- San Diego County
- San Mateo County
- Santa Clara County

Helminthoglypta tudiculata angelena Berry 1938 (Helminthoglytidae family)
Southern California Shoulderband Snail



Rarity Ranking: G2G3, recommended ranking: G1T1/S1

Distribution: California (narrow endemic)

- Los Angeles County
 - Berry Canyon, Hill Top Quarry (SBMNH 142819, Nov-1938)
 - Cerritos (SBMNH 142820)
 - Palos Verdes Peninsula, Deadman's Island, San Pedro (Sep-1910 SBMNH 102742)
 - Palos Verdes Peninsula, Dominguez Point, under Opuntia (SBMNH 345397)
 - Palos Verdes Peninsula, San Pedro on bank of Harbor Freeway Northbound between Figueroa St. & Channel St. off John S. Gibbson Rd. (SBMNH 142813)
- Riverside County
 - Box Springs Mountain, large ravine on NE side of, 33.9329986572, -117.289001465 (26-Nov-1938 SBMNH 108859)
 - Moreno Hills, Tremont Peak (4-Jan-1930 SBMNH 142815)
- San Bernardino County
 - Reche Canyon, at base of draw on NW slope of N outlier of Blue Mountain (28-Dec-1940 SBMNH 109648)
 - Redlands (Jan-1950 SBMNH 142812)
 - San Timoteo Canyon, lower end of on NE side, 34.0166664124, -117.199996948 (*L.G. Ingles TYX 43848* SBMNH 34220/CAS 65928, 1-Feb-1928; SBMNH 34219 Holotype!, Jan-1928, CAS Paratype!)

Helminthoglypta tudiculata imperforata Pilsbry 1939 (Helminthoglytidae family)
Southern California Shoulderband Snail



Rarity Ranking: G2G3, recommended ranking: G1T1/S1

Distribution: Southern California (narrow endemic)

- Los Angeles County
 - Los Angeles Basin, Arroyo Seco, Southwest Museum (10-Feb-1919 SBMNH 27830)
 - San Gabriel Valley, Puddingstone Canyon, S of Glendora, 34.081943512, -117.798057556 (6-Mar-1928 SBMNH 108737)
- Riverside County
 - Lancaster Valley, Sage, near Sage Road on hillside just back of store, under boards and rubbish at edge of chaparral, 33.5820007324, -116.930999756 (22-Feb-1942 SBMNH 110591)

Terrestrial Gastropods of Riverside County, California

- San Bernardino County
 - Ontario Valley, Ontario (Upland), Mountain Ave. & 20th St., under stone pile, 34.1333351135, -117.666664124 (Nov-1908 SBMNH 102671)
 - Ontario Valley, Ontario, in orange grove, 34.0499992371, -117.650001526 (SBMNH 35280, 1908, *R.H. Tremper sn nd* CAS, 1908 SBMNH 35280 Paratype!)
 - San Bernardino Mountains, East Highlands, ravine back of, 34.0999984741, -117.099998474 (18-Apr-1938 SBMNH 142823)
 - San Gabriel Mountains, Frankish Canyon, S slope of Frankish Peak, 34.2999992371, -117.900001526 (1-Apr-1908 SBMNH 102676)
 - San Gabriel Mountains, San Antonio Canyon, mouth of, 34.0999984741, -117.599998474 (30-May-1918 SBMNH 27893)

Helminthoglypta tudiculata subdola (Hemphill 1890) (Helminthoglytidae family)

[*Helix tudiculata* var. *subdola* Hemphill 1890, *Epiphragmophora tudiculata rufiterrae* Berry 1916]

Southern California Shoulderband Snail

photos

Rarity Ranking: G2G3, recommended ranking: G1/S1

Distribution: California (narrow endemic)

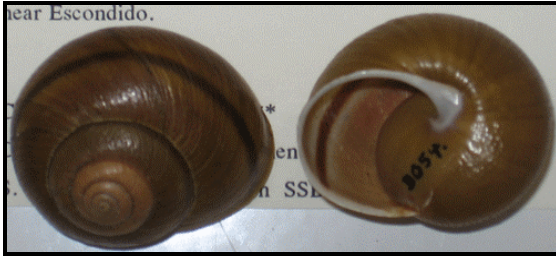
- Riverside County
 - Aguanga, hill w/large granite boulders & outcrops 3 mi N of (SBMNH 106553)
 - Box Springs Mountain, S slope (27-Feb-1921 SBMNH 105049)
 - Crafton Hills, N edge along S side of SR38 1 mi W of Bryant St. (24-Aug-1985 SBMNH 142831)
 - Perris Valley, Eucalyptus grove at Newport & Bradley Roads (21-Jul-1950 SBMNH 142818)
 - Perris Valley, Perris (SBMNH 102674)
 - San Bernardino Mountains, Whitewater Canyon, gulch on E side, 4 mi from mouth of canyon (SBMNH 142883)
 - San Bernardino Mountains, Whitewater Canyon, gulch on E side, near first bend to W (1-Apr-1920 SBMNH 104893, 9-Mar-1930 SBMNH 107438)
 - San Bernardino Mountains, Whitewater Canyon, on W side (SBMNH 142884)
 - San Bernardino Mountains, Whitewater Canyon, on W side in gulch ¼ mi above palms 9-Mar-1930 (SBMNH 108736)
 - San Jacinto Valley, N of San Jacinto along Potrero Creek 3 mi up from highway under *Populus* logs (23-Feb-1929 SBMNH 106870)
 - Soboda Hot Springs, riverbed near (Feb-1937 SBMNH 142830)
- San Bernardino County
 - Redlands, Col. Greene Residence (1911 SBMNH 102727)
 - Redlands, orange grove in Summit Ave. district (1924 SBMNH 106398)
 - San Bernardino Mountains, City Creek Canyon (29-Dec-1917 SBMNH 103510)
 - San Bernardino Mountains, Cold Water Canyon (26-May-1918 SBMNH 27749)
 - San Bernardino Mountains, Cold Water Canyon above Arrowhead Springs (26-May-1918 SBMNH 103991)
 - San Bernardino Mountains, East Highlands, ravine back of, under loose *Platanus racemosa* leaves (18-Apr-1938 SBMNH 108763)
 - San Bernardino Mountains, Mentone, 0.5 mi N of (29-Oct-1927 SBMNH 106340)
 - San Bernardino Mountains, Morton Canyon, ¼ mi up at base of large *Platanus racemosa* in leaf mold (19-Feb-1940 SBMNH 109596)
 - San Bernardino, greenhouse (Nov-1908 SBMNH 102675)

Terrestrial Gastropods of Riverside County, California

Helminthoglypta tudiculata tudiculata (A. Binney 1843) (Helminthoglytidae family)

[*Helix tudiculata* A. Binney 1843, *Helix tudiculata* var. *binneyi* Hemphill in W.G. Binney 1890]

Southern California Shoulderband Snail



Rarity Ranking: G2G3, recommended ranking: G2/S2

Distribution: Southern California and northwestern Baja California, Mexico (narrow endemic)

- Orange County
 - Anaheim (SBMNH 14035), orange orchard E of [likely extirpated] (Jan-1927 SBMNH 106482)
 - Santa Ana Mountains, Silverado Canyon (1931 SBMNH 10708)
 - Santa Ana Mountains, Trabuco Canyon (1929 SBMNH 27896)
- Riverside County
 - Corona (Oct-1937 SBMNH 108655)
 - Lake Elsinore, canyon S of (22-Mar-1928 SBMNH 142811)
 - Moreno Valley, Box Springs Grade (Feb-1938 SBMNH 142810)
 - Temecula Valley, tributary of Temecula Creek along Warner Ranch Road 11 mi E of Temecula under logs & brush (12-Feb-1928 SBMNH 106481)
- San Diego County
 - Black Mountain, N of Ramona (Sep-1940 SBMNH 112241)
 - Cuyamaca Mountains, Oakzanita, near Descanso (1929 SBMNH 27752)
 - Dye Mountain, W slope, Boulder Creek 12 mi W of Julian [along Old Julian Highway] (15-Jul-1928 SBMNH 106676)
 - Merriam Mountains, Moosa Canyon, "E of Escondido" (SBMNH 103054)
 - Oceanside (1907 SBMNH 102677)
 - Olympus Mountain, Pala Grade, between Temecula & Pala (14-May-1926 SBMNH 106149)
 - Otay Valley, near Otay Dam (1929 SBMNH 27882)
 - Otay Valley, Otay Canyon (1889 SBMNH 142809)
 - Palomar Mountain, Cuca Grade above Rincon (2-Jun-1940 SBMNH 1718, 102816)
 - San Diego River, bed of (1909 SBMNH 142817)
 - San Diego, at "The old San Diego Dam" (*D.D. Chivers sn 11-Feb-1974* CAS)
 - San Diego, Pavilion Park (11-Apr-1911 SBMNH 67824, 102724)
 - San Juan Creek (1928 SBMNH 27748)
 - Santa Ysabel Creek, San Pasqual Grade [SR78] between San Pasqual & Ramona (14-May-1926 SBMNH 106150)
- Baja California del Norte, Mexico
 - Cabo Conett, N of, 5 mi N of Johnson's Ranch in rock slide at base of mountain W of road (18-Dec-1927 SBMNH 106433)
 - Punta Banda (17-Dec-1927 SBMNH 106432), Kenyon-Williams Experiment Station 2B (1946 SBMNH 113319)
 - Santo Tomas, mountainside 4 mi SE of (6-Feb-1929 SBMNH 106869)

Oxyloma retusum (Lea 1834) (Succineidae family)

[*Succinea retusa* Lea 1834]

Blunt Ambersnail

Rarity Ranking: G5, recommended ranking: S1

Terrestrial Gastropods of Riverside County, California

Distribution: British Columbia; northern United States from Montana to New Hampshire, Kansas, California.

- Riverside County

Oxyloma sillimani (Bland 1865) (Succineidae family)

[*Succinea sillimani* Bland 1865]

Humboldt Ambersnail



Rarity Ranking: G2, recommended ranking: S2

Distribution: eastern Washington, Nevada, California

- Los Angeles County
- Riverside County
 - San Timoteo Canyon, El Casco [Lake] (W.F. Chase 3249 SBMNH)
- San Benito County
- Santa Clara County

Punctum californicum Pilsbry 1898 (Punctidae family)

California Ribbed Spot

photos

Rarity Ranking: G5N5, recommended ranking: S5

Distribution: Montana, South Dakota, south to Arizona and southern California

- Alameda County
- Amador County
- Calaveras County
- Del Norte County
- El Dorado County
 - American River, 2.5 mi N of Cool along SR49 1.2 mi S of American River bridge (13-May-1969 SBMNH 75134)
- Fresno County
- Humboldt County
- Inyo County
- Los Angeles County
 - San Gabriel Mountains, Monrovia Canyon between campground & falls, under fallen bark of dead tree (16-Feb-1958 SBMNH 72921)
- Marin County
- Mariposa County
- Mendocino County
- Modoc County
- Mono County
 - Sierra Nevada, Lee Vining Creek in litter of *Populus tremuloides* (17-Aug-1985 SBMNH 77552)
- Monterey County
- Nevada County
- Placer County
- Plumas County
 - Sierra Nevada, on long grade above Nelson's Point (13-Aug-1912 SBMNH 103919)
- Riverside County

Terrestrial Gastropods of Riverside County, California

- San Bernardino Mountains, Hathaway Canyon near Banning (29-Dec-1921 SBMNH 105207)
- San Benito County
- San Bernardino County
 - San Bernardino Mountains, Cienaga near Bluff Lake (Aug-1908 SBMNH 103918)
 - San Bernardino Mountains, Mill Creek Canyon (23-Jul-1910 SBMNH 144383)
 - San Bernardino Mountains, Mountain Home Canyon above Harvey's Ranch (8-Apr-1915 SBMNH 103588)
 - San Bernardino Mountains, Upper North Fork Vivian Creek (4-Jul-1922 SBMNH 105546)
 - San Bernardino Mountains, Vivian Creek at Blue Jay Camp (29-Sep-1918 SBMNH 104025)
- San Diego County
 - Cuyamaca Mountains, North Peak at Engineer Road 2.4 mi from Julian-Cuyamaca Highway in leaf mold along Azalea Creek (11-Oct-1983 SBMNH 77318)
 - Warner Springs, 1 mi NW along SR79 in woodrat nest below highway (23-Nov-1972 SBMNH 76079)
- San Francisco County
- San Mateo County
- Siskiyou County
- Trinity County
- Tulare County
 - Sequoia National Park, meadow near Paradise Campground in Giant Forest (Sep-1960 SBMNH 8070)
- Tuolumne County
- Ventura County

Sonorelix rixfordi Pilsbry 1919 (Helminthoglytidae family)

[*Micrarionta rixfordi* Pilsbry 1919, *Micrarionta aetotis* Berry 1928, *Micrarionta depressispira* Berry 1928]

Joshua Tree Desertsnail

photos

Rarity Ranking: G1, recommended ranking: S1

Distribution: Southern California (narrow endemic)

- Riverside County
 - Cottonwood Mountains, Lost Palms Canyon, N of Shavers Summit [Chiriaco Summit], under rock near *Washingtonia filifera* (unknown sn 6-Apr-1958 SBMNH 73013)
 - Eagle Mountains, cave in rocky hill near road leading S from Pinto Basin [Joshua Tree National Park] (unknown sn 27-Dec-1927 SBMNH 106447)
 - Eagle Mountains, NW promontory (*E. C. Jaeger* sn 26-Nov-1927 CAS Paratype!)
 - Eagle Mountains, SE extremity of Eagle Mountain, NW of Desert Center (unknown sn 5-Jan-1930 SBMNH 107075)
 - Eagle Mountains, W side of Palm Canyon near forks (unknown sn 23-Dec-1927 SBMNH 106444)
 - Little San Bernardino Mountains, Live Oak Tank, Joshua Tree National Park (unknown sn 31-Jan-1936 SBMNH 108420)
 - Yucca Valley, 10 mi W of Twentynine Palms among rocks at foot of mountains (*E. Rixford* sn Mar-1919 CAS Paratype!, SBMNH 35288)
- San Bernardino County
 - Little San Bernardino Mountains, Joshua Tree National Park, in ravine 3 mi from junction of Utah Trail from Twentynine Palms & Twentynine Palms Highway/SR62 (unknown sn 18-Jul-1964 SBMNH 74659)
 - Little San Bernardino Mountains, Joshua Tree National Park, Keys Ranch/Desert Queen Ranch (unknown sn 31-Jan-1936 SBMNH 108419)
 - Little San Bernardino Mountains, Joshua Tree National Park, W side of road from Twentynine Palms to White Tank 3 mi S of junction w/29 Palms-Yucca Valley Rd./SR62, in rocks (unknown sn 12-Jan-1957 SBMNH 72569)
 - Little San Bernardino Mountains, slope W of large canyon 4 mi W of Twentynine Palms (unknown sn 12-Nov-1928 SBMNH 106722)

Terrestrial Gastropods of Riverside County, California

- Quail Springs, 7 mi down creek from (*unknown sn 29-Jan-1936* SBMNH 108418)
- Yucca Valley on cliff near road 8-10 mi W of Twentynine Palms (*unknown sn 28-Dec-1927* SBMNH 106441)
- Yucca Valley, mountain slope W of Twentynine Palms (*unknown sn 1928* SBMNH 108778)

Striatura pugentensis (Dall 1895) (Gastropodontidae family)

[*Patulastra ? (Punctum?) pugentensis* Dall 1895]

Northwest Striate

Rarity Ranking: G5, recommended ranking: S5

Distribution: Pacific Coast from British Columbia, Canada, to Isla Guadalupe, Baja California, Mexico; Montana; Hawaiian Islands.

- Alameda County
- Butte County
- Colusa County
- Contra Costa County
- Del Norte County
- El Dorado County
- Humboldt County
- Lake County
- Los Angeles County
 - Santa Catalina Island, 0.5 mi S of Catalina Harbor entrance in rock slide on The Isthmus (*G.D. Hanna sn Sep-1933* CAS)
 - Santa Catalina Island, feeder canyon to W of Bull Rush Canyon along creek bottom in leaf litter (*unknown sn 25-Feb-1979* SBMNH 141961)
 - Santa Catalina Island, halfway up canyon from Goat Harbor between two ridges in *Quercus tomentella* leaf litter (*unknown sn 28-Feb-1979* SBMNH 141964)
 - Santa Catalina Island, NW of East Peak along firebreak on S-facing slope in litter under *Rhus integrifolia* (*unknown sn 5-Apr-1980* SBMNH 141954)
 - Santa Catalina Island, on NE-facing slope up canyon from Parsons Landing under *Opuntia* (*unknown sn 7-Apr-1980* SBMNH 141953)
 - Santa Catalina Island, SE-facing slope under *Pentagramma triangularis* (*unknown sn 5-Apr-1980* SBMNH 141955)
 - Santa Catalina Island, slope above Middle Creek under rocks (*unknown sn 26-Feb-1979* SBMNH 141963)
- Marin County
- Mariposa County
- Mendocino County
- Monterey County
- Napa County
- Orange County
- Placer County
- Riverside County
- San Benito County
- San Bernardino County
- San Diego County
- San Francisco County
- San Luis Obispo County
- San Mateo County
- Santa Barbara County
 - Santa Cruz Island, Campo Raton about halfway up middle fork under *Heteromeles arbutifolia* (*Hochberg sn 27-Mar-1983* SBMNH 141672)

Terrestrial Gastropods of Riverside County, California

- Santa Cruz Island, Cueva Valdez Canyon in leaf litter (*Hochberg sn Feb-1977* SBMNH 141674)
- Santa Cruz Island, E of Loma Pelona in leaf litter & downed logs under *Quercus* (*Hochberg sn 26-Mar-1983* SBMNH 141673)
- Santa Cruz Island, Prisoners Harbor cemetery in leaf litter (*unknown sn 14-Feb-1977* SBMNH 141675)
- Santa Clara County
- Santa Cruz County
- Shasta County
- Siskiyou County
- Sonoma County
- Trinity County
- Tulare County
- Tuolumne County
- Ventura County
 - Ojai Valley, Lake Casitas 1.1 mi along N of milemarker 6.75 in leafmold under *Juglans californica* (*unknown sn 2-Jul-1989* SBMNH 140003)

Zonitoides arboreus (Say 1816) (Gastrodontidae family)

[*Helix arboreus* Say 1816]

Quick Gloss [Snail]



Rarity Ranking: G5, recommended ranking: S5

Distribution: Widespread in North and Central America, from N Canada to Costa Rica; West Indies; California, Oregon.

- Alameda County
- Alpine County
- Butte County
- Calaveras County
- El Dorado County
- Fresno County
- Inyo County
- Kern County
- Lake County
- Los Angeles County
 - Playa del Ray [Pleistocene], in Palos Verdes Sand at Lincoln Ave. 2 mi NE of Playa del Rey S of sewer outfall (*G. Willett sn 1-Jan-1936* LACM)
 - Santa Catalina Island
- Madera County
- Mariposa County
- Mendocino County
- Merced County
- Modoc County
- Nevada County
 - Boca Spring, under rock & wood beside spring at 5,840 ft (*E.J. Kools EJ-58* CAS 112138, 26-Aug-1997)
- Placer County
- Plumas County

Terrestrial Gastropods of Riverside County, California

- Riverside County
- Sacramento County
- San Bernardino County
- San Diego County
- San Francisco County
- San Luis Obispo County
- Santa Barbara County
- Santa Clara County
- Shasta County
- Sierra County
 - Cherokee Creek, at Forest Road 35 (*E.J. Kools EJ-40* CAS 111402, 21-Aug-1997, CAS)
 - Independence Creek, 1.2 mil from junction of Independence Creek Rd. & Jackson Meadow Rd. at 6,440 ft (*E.J. Kools EJ-47* CAS 111419, 22-Aug-1997, CAS)
 - Smithneck Creek, 8.2 mi SE of Loyalton along Smithneck Rd. under rock & wood 30 ft from creek (*E.J. Kools EJ-55* CAS 157471, 25-Aug-1997)
- Siskiyou County
- Tehama County
- Trinity County
- Tuolumne County
- Ventura County
- Yuba County