BIBLIOGRAPHY of ENTOMOLOGY of the GRAND CANYON REGION (INSECTS, ARACHNIDS, AND OTHER ARTHROPODS)

SECOND EDITION

EARLE E. SPAMER
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(INSECTS, ARACHNIDS, AND OTHER ARTHROPODS)

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GRAND CANYON AND LOWER COLORADO RIVER REGIONS
IN THE UNITED STATES AND MEXICO
VOLUME 1: INTRODUCTION AND BIBLIOGRAPHY

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PREFACE

THE CITATIONS LISTED HERE have been extracted from Volume 1 of THE GRAND CANON, a far
more expansive bibliography of the Grand Canyon and lower Colorado River regions of
southwestern North America. (THE GRAND CANON is a series of publications accessible online
at https://ravensperch.org.) This bibliography on entomology complements other biologically
focused bibliographies that have been prepared for the Grand Canyon region (also accessible
on the Raven’s Perch Media website).

These listed publications are specifically about entomological and related taxa or topics that
address them. Items that are not organismally focused studies, or that do not specially
mention entomological topics—for example, more broadly focused ecological investigations
or studies of environmental concerns—do not appear in this special bibliography. For
citations that relate to broader ecological and environmental matters, which otherwise are
about the environments of this region, consult the much more comprehensive listings in Part
19 of THE GRAND CANON, Volume 1).

Each citation here includes an Item number (for example, 19.4217; the prefix “19.” indicates
that it is from Part 19 of the much larger bibliography, THE GRAND CANON, Volume 1; and
similarly the prefix “11.” that indicates it is from that part). They serve as serial numbers
only, which uniquely identify citations throughout THE GRAND CANON. Numbers are assigned
as citations are acquired for the bibliography, thus they do not follow in order.

See https://ravensperch.org for everything pertaining to the complete Grand Canyon–Lower
Colorado River bibliography.
**BIBLIOGRAPHY OF ENTOMOLOGY OF THE GRAND CANYON REGION (INSECTS, ARACHNIDS, AND OTHER ARTHROPODS)**

**ANONYMOUS**

1892 19.3272  Personal notes. *Psyche*, 6 (July) (195): 292-293. [Includes notice of embarkation of C. H. Tyler Townsend "on a field trip by wagon from [Las Cruces] to the Grand Cañon of the Colorado via Flagstaff" where they will also meet another party under Prof. Toumey.]


1893 19.3691  Proceedings of the New Mexico Society for the Advancement of Science. *In: Proceedings of Scientific Societies [SECTION]. American Naturalist*, 27 (March): 310-312. [See “Meeting of November 2, 1892, at La Cruces.—(No. 1.)”, pp. 310-311, summary of a paper by [C. H. Tyler] Townsend, “A partial comparison of the insect fauna of the Grand Cañon with that of the San Francisco Mountain in Arizona”; and which also notes (p. 311), "Specimens of insects were exhibited ... and many photographs and views of the cañon region were shown.” And see repeated under "(No. 3)" (p. 311): “Quite a number of specimens of the insect fauna of Grand Cañon and the San Francisco Mountains of Arizona were exhibited by Professor Townsend, besides some photographs taken during the trip.”]


1913 19.5136  [Note.] *In: [Meeting of] February 2nd, 1911; entomological program. Hawaiian Entomological Society, Proceedings, 2 [for 1911-1912] (5) (July): 191. ["Mr. Swezey exhibited a collection of insects taken at the Grand Canyon, Arizona, while on a visit to that place.” (ENTIRE NOTE)]

Bug": "The late C. C. James, of Canada, who was as highly regarded in scientific agriculture in Canada as Uncle James Wilson in the United States, held to a novel theory as to the origin of the potato bug. [¶] This pest, according to Prof. James, was none other than the Colorado beetle, which is indigenous to the Grand Canon of the Colorado. It first reached the Detroit river in 1877, and his belief was that it had traced the footsteps of the Forty-Niners eastward. It is a known fact that potatoes can be reproduced from the peel providing that there is an eye in it. Now, Mr. James, held that the Forty-Niners in their march across the continent had left a trace of these, which the Colorado beetle followed. It took them from 1849 to 1877 to reach Michigan. “(ENTIRE NOTE) Surely a confused rendition.

1917  19.6125  Proceedings of the Brooklyn Entomological Society.  *Brooklyn Entomological Society, Bulletin*, 12(2) (April): 45-47. [See "Meeting of November 16" (p. 46), which notes: "The scientific programme was Mr. G. P. Englehardt’s account of his visit to the Grand Canyon of Arizona, between June 6 and 10. After an illuminating description of the natural features he noted as interesting captures in the canyon of *Cicindela arizonæ*, rather common along a small stream on the Bright Angel trail; *Zopherus gracilis*, *Hetærina vulnerata*, abundant in Indian Garden, as well as *Notonecta mexicana*; *Memythrus cupressi* was found on willow, in the same place, and the larvae of *Megathyrmus* sp. was found boring in agave. *Sphinx coloradus* came to light at the top of the Canyon." (ENTIRE NOTE)]


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<td>Avramenko, N. O., AND Zatsaritsina, Yu. V.</td>
<td>2015</td>
<td>19.6610</td>
<td>Нові види тварин, які були відкриті в 2014 році [Novi vydy tvaryn, yaki buly vidkryti в 2014 rotsi] [New species of animals that were discovered in 2014] [ABSTRACT]. In: Матеріали науково-практичної конференції викладачів, аспірантів та студентів Сумського НАУ (20-24 квітня 2015 р.). Том II. [Materialy naukovo-praktychnoyi konferentsiyi vykladachiv, aspirantiv ta studentiv Sum's'koho NAU (20-24 kvitnya 2015 r.). Tom II.] [Proceedings of the scientific-practical conference of teachers, graduate students and students of Sumy NAU (April 20-24, 2015). Volume II.] Суми: Національного Аграрного Університету [Sumy: Natsional'noho Ahrarnoho Universytetu] [Sumy, Ukraine: National Agrarian University], p. 54. [Includes: &quot;Hesperochernes bradybaughi або лжескорпіони . . . виявили в одній з печер в штаті Аризона, на території, що охороняється Parashant, на північному краю Великого Каньйону.&quot; (Translated here: Hesperochernes bradybaughi or false scorpions [pseudoscorpions] . . . found in one of the caves in Arizona, in the Parashant protected area, on the northern edge of the Grand Canyon.) This refers to Harvey and Wynne (2014, ITEM NO. 19.4593), but omits Tuberochernes cohni that is also described therein as new; that work was performed on the Grand Canyon-Parashant National Monument, Arizona.] [In Ukrainian.]</td>
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BIBLIOGRAPHY OF ENTOMOLOGY OF THE GRAND CANYON REGION
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Baker, Carl F.


1895 19.3192 Preliminary studies in Siphonaptera.—V. Genus Pulex (Division III.) Canadian Entomologist, 27(6) (June): 162-164. [See p. 164.]


Ball, E. D.

1933 19.6063 The genus Myndus Stal in North America (Homoptera Fulgoridae). Washington Academy of Sciences, Journal (Washington, D.C.), 23(10) (October 15): 478-484. [Myndus Stål.] [See p. 482, Myndus yuccandus, new species, from a yucca at "Grand Canyon Bridge, Ariz." (Navajo Bridge).] [NOTE: Kramer (1979, ITEM NO. 19.6062) examined the type material from "Grand Canyon, Arizona", noting that "The information published with the original description is slightly different from that on the labels of the holotype; this is probably due to a lapsus by Ball. The previously published locality was given as 'Grand Canyon Bridge' and the date of collection '30 August 1930'. One paratype male with same data. Both are in the collection of the USNM." It is feasible that Ball’s published information is correct. Not resolved here.]

1935 19.4452 Some new Issidae, with notes on others—(Homoptera–Fulgoridae). Brooklyn Entomological Society, Bulletin, 30(2) (April): 37-41. [See p. 38, "Hysteropterum cornutum var. utahnum" Ball n. var. [new variety]", from "near the Grand Canyon" (likely North Rim).]

1937 19.6118 Some new Fulgoridae from the western United States. Brooklyn Entomological Society, Bulletin, 32(5) (December): 171-183. [See Yucanda miniata, new species (p. 175); holotype, allotype, and four paratypes "from a small shrub that looks like a dwarf mesquite, at the Grand Canyon Bridge, Arizona". See also Arida nodosa, new species (pp. 176-177; types from Tucson Mountains but distribution noted "from Yuma to Tucson and north to the Grand Canyon Bridge".]. [Navajo Bridge.]
Ball, E. D., and Beamer, R. H.

1939 19.5233   A revision of the genus Athysanella and some related genera (Homoptera-Cicadellidae). University of Kansas, Science Bulletin, 26(1) (October 1): 5-82 (including Plates 1-12). [See: Athysanella fredonia, new species (pp. 12-13), holotype from Fredonia, Arizona; paratypes from localities including "Grand Canyon, Ariz." Athysanella globosa, new species (pp. 18-19), holotype from "Grand Canyon, Ariz." Athysanella (Gladionura) casa, new species (p. 48), paratypes from localities including "Grand Canyon, Ariz." Refer also to Plates 1, 2, 7, 9, 11.]

Ball, E. D.; Tinkham, E. R.; Flock, Robert; and Vorhies, C. T.


Banks, Nathan

1902 19.3659   A list of spiders collected in Arizona by Messrs. Schwarz and Barber during the summer of 1901. U.S. National Museum, Proceedings, 25: 211-221, Plate 7. [Reports various species from "Bright Angel" and "Colorado Cañon". None of the new species described are from Grand Canyon. A large number of specimens in this paper are from Williams, Arizona.]


Barber, H. G. [Barber, Harry Gardner]


Barnes, William, and Benjamin, F. H.

1926 19.5123   Notes on diurnal Lepidoptera, with additions and corrections to the recent "List of Diurnal Lepidoptera". Southern California Academy of Sciences, Bulletin, 25(3) (September/December): 88-98. [Includes Coenonympha fureae, new species, type locality "Grand Canyon, Ariz." (p. 90); and Cercyonis damei, new species, type locality "Grand Canyon, Ariz." (p. 90).]

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## Bibliography of Entomology of the Grand Canyon Region (Insects, Arachnids, and Other Arthropods)

### Barr, William F.

1972 | 19.4322 | New species of North American *Acmaeodera* (Coleoptera: Buprestidae). *Museu Boçage, Archivos* (Lisboa), Series 2, 2(7): 145-201. [See *Acmaeodera pletura*, new species, pp. 164-166, Figure 12 (p. 199); “Additional paratypes” from North and South Rims of Grand Canyon (among other locales).]

### Bauer, David L.


### Baxter, Colden V.

2020 | 19.6581 | [Remarks.] In: 追悼〜中野繁氏を偲ぶ: バハカリフォルニア沖海難事故から20年 [Tsuitō ~ Nakano Shige-shi o shinobu: Bahakariforunia oki kainan jiko kara 20-nen] [Mourning—In memory of Mr. Shigeru Nakano: 20 years after the marine accident off the coast of Baja California]. 一般社団法人日本生態学会ニュースレター [Ecological Society of Japan, Newsletter], 2020(5) (May): 6-7. [Includes remark (p. 7, translated here), “In the last few months, I have been able to publish several treatises that follow Mr. Nakano’s footsteps... including a study that revealed the fact that aquatic insects, fish, and their interactions determine the circulation and fate of mercury between the Colorado River in the Grand Canyon and its banks.”] [Author’s name is given in Japanese orthography: コールデン・V・バックスター.] [In Japanese.]

### Baxter, Colden V.; Rosi-Marshall, Emma J.; Cross, Wyatt F.; Kennedy, Theodore A.; Wellard, Holly A.; Hall, Robert O.; AND Yard, Michael D.


### Beamer, L. D., AND Beamer, R. H.


### Beamer, R. H.


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**Beck, D. Elden**


**Bedford, Ashton; Sankey, Temuulen T.; Sankey, Joel B.; Durning, Laura E.; AND Ralston, Barbara E.**


**Bedford, Ashton; Sankey, Temuulen T.; Sankey, Joel B.; Durning, Laura E.; Ralston, Barbara E.; AND Bransky, Nathaniel D.**


**Behan, Jeff**


**Belk, Denton**


**Belk, Denton, AND Fugate, Michael**

2000 19.1980 Two new *Branchinecta* (Crustacea: Anostraca) from the southwestern United States. *Southwestern Naturalist*, 45(2) (June): 111-117. [Includes *Branchinecta kaibabensis*, new species (pp. 115-117, figures 2b (p. 114), 3a-e (p. 116); type locality in “A natural pool 0.6 km east of Arizona Highway 67 just northeast of Forest Road 213 in the Kaibab National Forest”].
Benesh, Bernard

1946  19.6358  A systematic revision of the Holarctic genus *Platycerus* Geoffroy (Coleoptera: Lucanidae). *American Entomological Society, Transactions*, 72(3) (September): 139-202. [See *Platycerus marginalis* Casey, pp. 172-175, Plates 4, 6 (key on p. 200); distributional notes include “Kaibab Forest, VII, (V. M. Tanner)” (ENTIRE NOTE).] [NOTE: Although the ranger district on the Kaibab forest is not indicated, Vasco M. Tanner worked principally in Utah with explorations also on the Kaibab Plateau.]

Bennett, Dayle D.


Bennett, Dayle D.; Schmid, J. M.; Mata, S. A.; AND Edminster, C. B.


Bequaert, Joseph C.


1940  19.6112  Notes on the distribution of *Pseudomasaris* and on the foodplants of the Masaridinae and Gayellinae (Hymenoptera, Vespidae). *Brooklyn Entomological Society, Bulletin*, 35(2) (April): 37-45. [Under distribution *P. vespidoides* Cresson (p. 37), only new localities are listed, including: “southern rim of Grand Canyon, 1 ♂ (Margaret L. Cook)”.]

Bertholf, Judy Kay


Bestard, Margeaux

2020  19.6506  [Photo without legend. Very large moth on person’s hand along Colorado River.] *Boatman’s Quarterly Review*, 33(3) (Fall): 43.
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<td>Binford, Greta J.; Callahan, Melissa S.; Bodner, Melissa R.; Rynerson, Melody R.; Berea Núñez, Pablo; Ellison, Christopher E.; AND Duncan, Rebecca P.</td>
<td>2008</td>
<td>19.5144</td>
<td>Phylogenetic relationships of <em>Loxosceles</em> and <em>Sicarius</em> spiders are consistent with Western Gondwanan vicariance. <em>Molecular Phylogenetics and Evolution</em>, 49: 538-553. [Taxon inclusion of individual genes (Table 1, p. 541) lists <em>Loxosceles kaiba</em>, from &quot;USA: Grand Canyon NP, AZ&quot;. (No further text note.)]</td>
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<tr>
<td>Blackman, M. W. [Blackman, Maulsby Willett]</td>
<td>1928</td>
<td>19.6421</td>
<td>The genus <em>Pityophthorus</em> Eichh. in North America: A revisional study of the Pityophthorini, with descriptions of two new genera and seventy-one new species. <em>New York State College of Forestry at Syracuse University, Technical Publication 25 / New York State College of Forestry at Syracuse University, Bulletin 3-b</em>, 212 pp. [Includes <em>Pityophthorus grandis</em>, new species; holotype from Kaibab National Forest, Arizona.]</td>
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<td>Blinn, Dean W., AND Ruiter, David E.</td>
<td>2006</td>
<td>19.2873</td>
<td>Tolerance values of stream caddisflies (Trichoptera) in the lower Colorado River basin, USA. <em>Southwestern Naturalist</em>, 51(3) (September): 326-337.</td>
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Tribute to Paul W. Oman. *Great Basin Naturalist Memoirs*, (12): 18-42. [Grand Canyon noted: *Athysanella globosa* Ball and Beamer (p. 23), *A. fredonia* Ball and Beamer (pp. 29-30).]

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<td>Bromley, Stanley W.</td>
<td>1940</td>
<td>19.6113</td>
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Northern Arizona University, Flagstaff, Arizona. [No imprint], p. 28. [Data based on studies of insect taxa.]

Carlisle, Daren M.; Wolock, David M.; Konrad, Christopher P.; McCabe, Gregory J.; Eng, Ken; Grantham, Theodore E.; AND Mahler, Barbara


Carothers, Steven W.; Johnson, R. Roy; AND Kingsley, Kenneth J.


Carothers, Tanner


Carter, E. E.


Casey, Thomas L.


1907 19.4409 Notes on Chalcolepidius and the Zopherini. Canadian Entomologist, 39(2) (February): 29-46. [See p. 41, Zopherodes lugubris, new species, and Z. pruddeni, new species,
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**Caudell, A. N., AND Hebard, Morgan**

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**Causey, N. B.**

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**Center for Biological Diversity**

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<td>2015</td>
<td>19.4834</td>
<td><em>Before the Secretary of the Interior: Emergency petition to list the Arizona wetsalts tiger beetle (Cicindela haemorrhagica arizonae) and the MacDougal’s yellowtops (Flaveria macdougalli) as Endangered or Threatened under the Endangered Species Act.</em> [No place]: Center for Biological Diversity, [4], 20 pp. [Grand Canyon region. Includes riparian concerns relating to groundwater discharge.][1]</td>
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**Chamberlin, Ralph V.**

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Chamberlin, Ralph V., AND Ivie, Wilton

1942  19.4378  A hundred new species of American spiders. *University of Utah, Bulletin*, 32(13) (June 30) [Biological Series, 7(1)], 117 pp. [See Oecobius parvus, new species, from Virgin River narrows (p. 13); Neoantistea coconino, new species, from "Kaibab Forest, Arizona" [coordinates indicate area of South Rim of Grand Canyon] (pp. 28-29, Plate 6, figures 59, 60); Linyphantes ephedrus, new species, localities include Virgin River narrows (pp. 46-47, Plate 10, figures 104-107); Metepeira arizonica, new species, localities include Virgin River narrows (p. 69, Plate 14, figures 182-184; Plate 15, figures 185-187).]

Chandler, Peter


Chavez, J. L., AND Stevens, Lawrence E.

2015  19.4845  Assassin bug (Hemiptera: Reduviidae) diversity and biogeography in the Colorado River Basin, with an emphasis on the Colorado Plateau ecoregion, southwest USA [ABSTRACT]. In: 13th Biennial Conference of Science and Management on the Colorado Plateau and Southwest Region, October 5-8, 2015, Northern Arizona University, High Country Conference Center: oral and poster abstracts, p. 18.

Chen, Chang

1999  19.5248  Genetical and molecular systematic study on the genus Montagnea Fr., a desert adapted Gasteromycete. Master's thesis, Virginia Polytechnic Institute and State University, 74 pp. [Specimens examined for the study include Montagnea arenaria (DC) Zeller, with included material from "Coconino County, Jacob Lake, House Rock Valley, July 26, 1955, Coll. H. E. Ahles. HEA9515 (MICH)" (p. 14).]

Chen, Zhong; Clancy, Karen M.; AND Kolb, Thomas E.


Chen, Zhong; Kolb, Thomas E.; Clancy, Karen M.; Hipkins, Valerie D.; AND DeWald, Laura E.


Clarke, J. F. Gates

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<td>2021</td>
<td>Elemental and radionuclide exposures and uptakes by small rodents, invertebrates, and vegetation at active and post-production uranium mines in the Grand Canyon watershed. <em>Chemosphere</em>, 263 (January): (127908) [<a href="https://doi.org/10.1016/j.chemosphere.2020.127908">https://doi.org/10.1016/j.chemosphere.2020.127908</a>] + research data online [Chemical analyses and histopathology of organisms and plants collected from breccia pipe uranium mine sites in the Grand Canyon watershed, 2015-2020, U.S. Geological Survey data release <a href="https://doi.org/10.5066/P94OVQ09">https://doi.org/10.5066/P94OVQ09</a> [also as <a href="https://www.sciencebase.gov/catalog/item/5f40097182ce8df5b6cb4221">https://www.sciencebase.gov/catalog/item/5f40097182ce8df5b6cb4221</a>].</td>
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<td>1905</td>
<td>New American bees. <em>Biological Society of Washington, Proceedings</em> (Washington, D.C.), 18: 177-184. [See p. 184, <em>Triepeolus hopkinsi</em>, new species; &quot;Grand Canyon of the Colorado, Arizona, August 3, 1904. (Webb). Received from Mr. Viereck, to whom it has been returned. It is named after professor Hopkins, who sent it to Mr. Viereck, and who has done good work in the region of the Grand Canyon.&quot; [A. D. Hopkins?]</td>
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| Cole, A. C., Jr. | 1932 | The relation of the ant, *Pogonomyrmex occidentalis* Cr., to its habitat. *Ohio Journal of Science*, 32(2) (March): 133-146. ["I have observed it at the following specific
localities: * * * Arizona.—Grand Canyon, Williams, Cameron and Lee’s Ferry.” (pp. 133, 134) [ENTIRE NOTE])


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**Cole, Gerald A.**


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**Colton, Harold S.**


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**Coquillett, D. W.**


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**Count, E. W. [Count, Earl W.]**


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**Crawford, C. S.; Bercovitz, K.; and Warburg, M. R.**

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<td>Crews, Sarah C., AND Gillespie, Rosemary G.</td>
<td>2010</td>
<td>19.5172</td>
<td>Molecular systematics of <em>Selenops</em> spiders (Araneae: Selenopidae) from North and Central America: implications for Caribbean biogeography. <em>Linnean Society, Biological Journal</em>, 101: 288-322 + Supporting Information online. [See “Appendix. Collecting localities and voucher numbers of all animals used in this study. Locality numbers refer to numbers in the Supporting Information (Figs[.] S1 and S2).” See p. 319, locality 165, “<em>Selenops debilis</em> gp. species 1. USA: Arizona, Coconino Co., Monument Trail, flat near archaeological site, 36°25.309′N, 112°27.483′W” [North Rim, off of Bill Hall Trail]. No separate text mention. The map referred to in the Supporting Information, Figure 2-HI, only displays the generalized location of localities 159-169 on a low-resolution satellite-photo map of southwestern North America (<a href="http://onlinelibrary.wiley.com/store/10.1111/j.1095-8312.2010.01494.x/asset/supinfo/BIJ_1494_sm_Fig_2_HI.tif">http://onlinelibrary.wiley.com/store/10.1111/j.1095-8312.2010.01494.x/asset/supinfo/BIJ_1494_sm_Fig_2_HI.tif</a>); it is not useful in locating individual localities.]</td>
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</table>
Dajoz, Roger

1985  19.5279  Répartition géographique et abondance des espèces du genre Triplax Herbst (Coléoptères, Erotylidae). *L'Entomologiste* (Revue d'amateurs) (Paris), 41(3) (June): 133-141. [Kaibab Plateau, see p. 140 and data plotted in Figure 1 (p. 137, legend p. 136).]  [In French.]

Danforth, Bryan N.

1996  19.6613  Phylogenetic analysis and taxonomic revision of the *Perdita* subgenera *Macrotera*, *Macroteropsis*, *Macroterella* and *Cockerelliula* (*Hymenopera: Andrenidae*). *University of Kansas, Science Bulletin*, 55(16) (November 1): 635-692. [See throughout, but particularly *Perdita* (*Macroterella*) *opacella* Timberlake (pp. 668-669, figures 27c [p. 664], 34 [p. 669], 35 [distribution map, p. 670]; the holotype, a single female from Marble Canyon near Lee's Ferry, is noted.]

Davis, William T.


1939 19.5125 New cicadas from North America and the West Indies. New York Entomological Society, Journal, (December): 287-302. [Volume is enumerated “XLXII” (sic).] [See new record for Arizona, Okanagana fumipennis Davis (pp. 297-298), based on "a single colony of fumipennis 35 miles north of Williams, Coconino County, Arizona, on the Grand Canyon road", collected by Mr. and Mrs. John L. Sperry, June 21, 1937.]


DeLong, Dwight M.

1964 19.5497 A monographic study of the North American species of the genus Ballana (Homoptera: Cicadellidae). Ohio Journal of Science, 64(5) (September): 305-370. [See Ballana balsa, new species (pp. 319, 327, 339, 356); paratypes include 11 from "Grand Canyon, Arizona, July 28, 1936, R. H. Beamer"].

Dennison, Philip E.; Coates, Austin; Hultine, Kevin; Nagler, Pamela; AND Glenn, Ed


Deuser, Curtis E.

2011 19.4957 The Colorado River: A narrow ribbon of green—some are weeds and the beetles are coming! [ABSTRACT]. In: Rethinking Protected Areas in a Changing World: The George Wright Society Conference on Parks, Protected Areas and Cultural Sites, March 14-18, 2011, New Orleans, Louisiana: abstracts. [No place]: George Wright Society, p. 120.

Dobzhansky, Th. [Dobzhansky, Theodosius]


1937 19.3986 Further data on the variation of the Y chromosome in Drosophila pseudoobscura. Genetics, 22 (May): 340-346. [Data include those from specimens collected in lower Colorado River region and Grand Canyon, "Type V (Race A)".]

Doering, Kathleen C.

1939 19.5234 A contribution to the taxonomy of the subfamily Isiinae in America North of Mexico (Fulgoridae, Homoptera). *University of Kansas, Science Bulletin*, 26(2) (October): 83-167 (including Plates 13-22). [See *Bruchomorpha bunni*, new species pp. 119-121, Plate 20, figure 3, Plate 21, figure 15, Plate 22, figures 4, 4a, holotype from “Grand Canyon, Arizona”; *Novellina bicolorata var. inducta* Lindsay (p. 178), with paratypes noted from “Grand Canyon, Ariz.”]

Drost, Charles A.


Drost, Charles A., AND Blinn, Dean W.


Dunford, James Christopher


Durst, Scott L.; Theimer, Tad C.; Paxton, Eben H.; Sogge, Mark K.; AND Waskeiwicz, Marlyse C.


Dyar, Harrison G.

1925 19.6655 Some new American moths (Lepidoptera). *Insecutor Inscitiae Menstruus* (Washington, D.C.), 13(1/3) (January/March): 1-19. [See *Olyca subumbrella*, new species (p. 14), which notes for non-type material: “...I have taken larvae on the rim of the Grand Canyon, 7,000 feet, Arizona.” (ENTIRE NOTE) (Type material from New Mexico and Texas.)]
Ehrhorn, Edw. M.


El-Haj, Suzanne, AND Ruvalcaba, Antonio


Elias, Scott A.; Mead, Jim I.; AND Agenbroad, Larry D.


Ellingson, Aaron R., AND Andersen, Douglas C.


Emmel, Thomas C.


Emmel, Thomas C., AND Emmel, John F.


Engelhard, Michael, AND Kaspar, Thomas

2008 19.2745 Butterflies. *In*: 3 poached treasures. *Backpacker*, 37(6) (August): 50. [Includes note of *Papilio indra kaibabensis* swallowtail butterfly, rare species from Grand Canyon sought by poachers. Text and photo credits noted in binding margin of page.]
<table>
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<th><strong>BIBLIOGRAPHY OF ENTOMOLOGY OF THE GRAND CANYON REGION (INSECTS, ARACHNIDS, AND OTHER ARTHROPODS)</strong></th>
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<tr>
<td><strong>Fairweather, Mary Louise [Fairweather, Mary Lou]</strong></td>
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<td><strong>Fairweather, Mary Lou; McMillin, Joel; Rogers, Terry; Conklin, Dave; AND Fitzgibbon, Bobbe</strong></td>
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<td><strong>Fall, H. C.</strong></td>
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<td><strong>Ferris, G. F.</strong></td>
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<td>1931 19.6139</td>
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<td><strong>Fisher, W. S.</strong></td>
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Foote, Richard H.; Blanc, F. L.; and Norrbom, Allen L.


Fox, William Henry


Fox, William J.


Francoeur, A. [Francoeur, André] [Francoeur, André]

1973 19.6448 Révision taxonomique des espèces Néarctiques du groupe Fusca, genre Formica (Formicidae, Hymenoptera). Société Entomologique du Québec, Mémoires / Entomological Society of Québec, Memoirs, (3), 316 pp. [Ants.] [See Formica altipetens (pp. 52-60), distribution of published and material examined includes “Kaibab Nat. Forest” and “North Rim, Grand Canyon” (p. 58), distribution map (p. 59); Formica neoclara (pp. 84-94), “North Rim, Grand Canyon” (p. 91, but apparently not shown on distribution map, p. 93); Formica argentea (pp. 141-152), “Bright Angel Trail et Coconino Forest dans la région du Grand Canyon” (p. 149) and text note of specimens examined from Grand Canyon (p. 148), distribution map (p. 151); Formica neorufibarbis (pp. 215-228), “North Rim, Grand Canyon” (p. 225), distribution map (p. 227); Formica gnava (pp. 238-245), “Indian Gardens . . . et Bright Angel Trail dans le Grand Canyon” (p. 244), distribution map (p. 207); Formica occidenta (pp. 254-259), “Bright Angel Trail dans le Grand Canyon” (p. 257), distribution map (p. 160). (Some distribution maps combine multiple species, thus maps may be separate from the species descriptions.)] [In French.]

Freeman, H. A.


Freytag, Paul H.

1962 19.4137 A new species of Idiocerus from the Southwest and a review of the related species (Homoptera: Cicadellidae). Ohio Journal of Science, 62(5) (September): 244-252. [See I. dolosus Ball, pp. 245-246, Plate 1, which includes listing of Grand Canyon specimens.]
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Item No.</th>
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<tr>
<td>Friedlander, Tim</td>
<td>1987</td>
<td>19.6153</td>
<td>Taxonomy, phylogeny and biogeography of Asterocampa Röber 1916 (Lepidoptera, Nymphalidae, Apaturinae). Journal of Research on the Lepidoptera, 25(4) (Winter 1986 [1987]: 215-338 (pagination includes Plates 1-22) [date of publication 31 December 1987]. [See Asterocampa celtis antonia (W. H. Edwards, 1878) (pp. 243-254), specifically p. 252, &quot;Garth's (1950) record of A. leilia from the Grand Canyon (Arizona) is also this subspecies of A. celtis.&quot;, and see Asterocampa leilia (W. H. Edwards, 1874) (pp. 254-260), specifically p. 260, &quot;The species reported as A. leilia from the Grand Canyon (Garth, 1950) are actually A. celtis antonia ('montis') (Reinthal, unpublished obs.).&quot;] See also distribution map, Plate 1 (p. 315). The references are to Garth (1950, Item No. 19.627).]</td>
</tr>
<tr>
<td>Fritzinger, Carol (Fritz), and Kennedy, Ted</td>
<td>2014</td>
<td>19.4239</td>
<td>FLY-CO news. Boatman’s Quarterly Review, 27(1) (Spring): 8-9. [Insect survey along Colorado River in Grand Canyon. Item also includes derivation of FLY-CO name for Grand Canyon Monitoring and Research Center foodbase lab.]</td>
</tr>
<tr>
<td>Fulton, B. B.</td>
<td>1925</td>
<td>19.4313</td>
<td>Physiological variation in the snowy tree-cricket, Oecanthus niveus De Greer. Entomological Society of America, Annals, 18: 363-383. [Grand Canyon, see pp. 377 (physiological observations relating to humidity), 378 (geographic distribution).]</td>
</tr>
<tr>
<td>Furniss, R. L., and Carolin, V. M.</td>
<td>1977</td>
<td>19.3761</td>
<td>Western forest insects. U.S. Forest Service, Miscellaneous Publication 1339, 654 pp. [See p. 120, piñon needle scale, Matsucoccus acalyptus Herbert (McCambridge 1974); a &quot;serious outbreak&quot; noted at Grand Canyon National Park, in passing.]</td>
</tr>
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</table>
Airport from 3 to 9 December, 1981" (p. 58). See data in Appendix 1 (p. 66), which includes tent from “USA/Grand Canyon”. Another tent from “USA/Arizona”.

Garrigues, Roy M. [Garrigues, Roy McEndree, III]

Garth, John S.


Gelhaus, Jon K.

Gertsch, Willis J.

1933 19.6335 Diagnoses of new American spiders. *American Museum Novitates*, (637), 14 pp. [See Figure 11 (p. 8), "* Allocosa noctuabunda* Montgomery, Palpus", which is not otherwise mentioned in this text. However, Gertsch (1934, ITEM NO. 19.6336), erects the new species *A. mokiensis* based on this figure, the holotype of which is there noted as from Indian Gardens, Grand Canyon.]

1934 19.6336 Notes on American Lycosidae. *American Museum Novitates*, (693), 25 pp. [See *Arctosa mokiensis*, new species (p. 8); "Male holotype from Indian Gardens, Grand Canyon, Arizona, May 26, 1905." [In synonymy is A. *noctuabanda* as figured by Gertsch (1933, ITEM NO. 19.6335), p. 8, figure 11, which there is a species not otherwise mentioned.]

1934 19.6140 Further notes on American spiders. *American Museum Novitates*, (726), 26 pp. [See *Phidippus kaibabensis*, new species; "Male holotype from the Kaibab forest, near the north rim of the Grand Canyon, Arizona, July 8, 1931 (Gertsch)." (pp. 14-15, Figure 18 [p. 17]).]

1935 19.2190 Spiders from the southwestern United States, with descriptions of new species. *American Museum Novitates*, (792), 31 pp. [Collections include taxa from the Grand
None of the species described as new are from the area covered by this bibliography.

1939 19.6337 A revision of the typical crab-spiders (Misumeninae) of America North of Mexico. *American Museum of Natural History, Bulletin*, 76(Article 7): 277-442. ("This paper is part of a dissertation presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy at the University of Minnesota.") [See *Misumenops oblongus* (Keyserling) (pp. 319-321), records include "Indian Gardens, Grand Canyon, July 24, 1934, female (Lutz); *M. dubius* (Keyserling) (pp. 325-326), records include "Phantom Ranch, Grand Canyon, July 26, 1934, female (F. E. Lutz); *M. coloradensis* Gertsch, records include "Kaibab forest, July 11, 1931, two females (Gertsch); *Xysticus apachecus* Gertsch (pp. 356-357), records include "north rim of the Grand Canyon, July 7, 1932, male and four females (Gertsch); *X. locuples* Keyserling (pp. 357-358), records include "Bright Angel Point, Grand Canyon, July 19 (Banks, 1902)."

1946 19.6338 Notes on American spiders of the family Dictynidae. *American Museum Novitates*, (1319), 21 pp. [See *Mallos eutypus* Chamberlin and Gertsch (p. 8), records include "Phantom Ranch, Grand Canyon, July 26, 1934, females (F. E. Lutz)."


Gertsch, Willis J., AND Ennik, Franklin

1983 19.5009 The spider genus *Loxosceles* in North America, Central America, and the West Indies (Araneae, Loxoscelidae). *American Museum of Natural History, Bulletin*, 175 (Article 3): 264-360. [See *Loxosceles kaiba*, new species, p. 303, Map 4 (p. 295), Figures 110-113 (p. 299), Figure 133 (p. 300). [The specific epithet, *kaiba* [sic], is named "for Kaibab Plateau on north face of Grand Canyon" (p. 303). Holotype male, and female and immature specimens "from Thunder Cave" (Thunder River Cave). Also referred material from Cameron Cave, Grand Canyon National Park.]

Giauque, Courtney; Yard, Michael D.; AND Coggins, Lewis G.


Gitt, Werner


2018 19.5791 [Dragonflies.] *From: Grand Canyon; the plants and animals [SECTION]. In: 汤姆·韦尔 [Vail, Tom], 大峡谷 : 一个非凡的视野 [Dà xiáguǎ : yīgè fēnlán de shíyě] [Grand Canyon : an extraordinary vision]. Green Forest, Arkansas: Master Books*, p. 81. [In
<table>
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<th>Year</th>
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<th>Title</th>
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<tr>
<td>Graauw, Kristen de</td>
<td>2012</td>
<td>19.4623</td>
<td>Tree-ring analysis of outbreak dynamics across an insect’s entire range: The Pandora moth system.</td>
<td>Master’s thesis, Indiana State University, Terre Haute, 92 pp. [Study site locations include Jacob Lake, Ten X Campground, and Forest Service Road 22, all in Kaibab National Forest units.]</td>
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</tbody>
</table>
Halbritter, Dale A.; Storer, Caroline G.; Kawahara, Akito Y.; AND Daniels, Jaret C.


Hall, Jack C., AND Evenhuis, Neal L.


Hamilton, Chris A.; Hendrixson, Brent E.; AND Bond, Jason E.


Hansman, Heather

2019 19.6055 Re-engineering the Colorado River. Can dam releases that mimic natural flows restore the Grand Canyon ecosystem? *Scientific American*, 320(2) (February): 64-69. [Principal focus of article is on aquatic insect fauna along the Colorado River through Grand Canyon.]

Haradon, Richard M.

1985 19.5230 New groups and species belonging to the nominate subgenus *Pauroctonus* (Scorpiones, Vaejovidae). *Journal of Arachnology*, 13: 19-42. [See *Pauroctonus boreus* (Girard) (pp. 24-27); specifically, note of the holotype of *Vejovis aquilonalis* Stahnke from a locality south of Grand Canyon.]

Hart, Robert J.; Vaughan, R. Greg; McDougall, Kristin; Wojtowicz, Todd; AND Thenkenbail, Prasad


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<tr>
<td>Hansman, Heather</td>
<td>2019</td>
<td>19.6055</td>
<td>Re-engineering the Colorado River. Can dam releases that mimic natural flows restore the Grand Canyon ecosystem? <em>Scientific American</em>, 320(2) (February): 64-69. [Principal focus of article is on aquatic insect fauna along the Colorado River through Grand Canyon.]</td>
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<td>Haradon, Richard M.</td>
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<td>New groups and species belonging to the nominate subgenus <em>Pauroctonus</em> (Scorpiones, Vaejovidae). <em>Journal of Arachnology</em>, 13: 19-42. [See <em>Pauroctonus boreus</em> (Girard) (pp. 24-27); specifically, note of the holotype of <em>Vejovis aquilonalis</em> Stahnke from a locality south of Grand Canyon.]</td>
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<td>Hastriter, Michael W., and Haas, Glenn E.</td>
<td>2005</td>
<td>19.5209</td>
<td>Bionomics and distribution of species of <em>Hystrichopsylla</em> in Arizona and New Mexico, with a description of <em>Hystrichopsylla dippiei obliqua</em>, n. ssp., (Siphonaptera: <em>Hystrichopsyllidae</em>). <em>Journal of Vector Ecology</em>, 30(2) (December): 251-262. [See <em>Hystrichopsylla dippiei truncata</em> Holland, 1957 (pp. 257-260), which includes examined material from various localities on Kaibab Plateau (p. 257, figure 3L [p. 258]).]</td>
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<td></td>
<td>1987</td>
<td>19.734</td>
<td><em>Zooplankton of the Colorado River, Glen Canyon Dam to Diamond Creek</em>. La Jolla, California: Scripps Institute of Oceanography, for U.S. Bureau of Reclamation, Upper Colorado Region, Glen Canyon Environmental Studies, Salt Lake City, 59 pp.</td>
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**Hayward, C. Lynn**

1932 | 19.6107 | The paper wasps of Utah; including a description of a new variety of *Polistes canadensis* Linn. *Utah Academy of Sciences, Proceedings*, 9: 85-101 (pagination includes Plate 9). [Based on the author’s Master’s thesis, Brigham Young University, 1931.] [Includes *Polistes canadensis* var. *kaibabensis*, new variety; known certainly only from the type locality, Point Sublime, North Rim of Grand Canyon, with note also of “a very typical specimen” from El Tovar, South Rim of Grand Canyon.] [See also Snelling (1974, Item No. 19.6108.).] |

**Headlee, Thomas J.**


**Hebard, Morgan**


**Helfer, R. G.**

1939 | 19.4923 | Dominance modifiers of scute in *Drosophila pseudoobscura*. *Genetics*, 24 (March): 278-301. [Strains include “Grand Canyon-3”.] |

**Hellenthal, Ronald A., AND Price, Roger D.**

Henry, Brianna L.; Croteau, Marie-Noele; Walters, David M.; and Cain, Daniel J.  
2017  19.5844  Bioaccumulation dynamics and transfer of uranium across metamorphosis in the mayfly Neocloeon triangulifer [ABSTRACT]. In: 14th Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region, September 11-14, 2017, High Country Conference Center, Northern Arizona University, Flagstaff, Arizona. [No imprint], p. 71. [Studies of material gathered along the Colorado River (locations not identified), as a model for understanding uranium mining impacts in the Grand Canyon region.]

Henry, Brianna L.; Croteau, Marie-Noele; Walters, David M.; Miller, Janet L.; Cain, Daniel J.; and Fuller, Christopher C.  
2020  19.6560  Uranium bioaccumulation dynamics in the mayfly Neocloeon triangulifer and application to site-specific prediction. Environmental Science and Technology, 54(18): 11313-11321 + Supplemental Information online (https://pubs.acs.org/doi/10.1021/acs.est.0c03372), 7 pp. [“... mayfly U concentrations were predicted using the water chemistry and U measured in periphyton from springs in Grand Canyon...” (from the abstract).]

Henry, Thomas J.  
2015  19.5496  Revision of the ceratocapsine Renodaeus group: Marinonicoris, Pilophoropsis, Renodaeus, and Zanchisme, with descriptions of four new genera (Heteroptera, Miridae, Orthotylinae). ZooKeys, 490: 1-156 [entire number]. [See Ceratocapsidea fusiformis (Van Duzee), new combination (pp. 32-39, 43, 129) (Ceratocapsidea, new genus). Ceratocapsus clavicornis Knight is placed in synonymy; type material examined, from Grand Canyon (see Knight, 1925, ITEM NO. 19.5495).]

Hermann, Frederick J., and Leese, B. M.  
1956  19.2097  A grass (Munroa squarrosa) apparently cultivated by ants. American Midland Naturalist, 56(2) (October): 506-507. [Locality noted as “about 18 miles east of Jacob Lake”.]

Hespenheide, Henry A.  
2003  19.2856  New Lechriops species for the United States (Coleoptera: Curculionidae: Conoderinae). The Coleopterists Bulletin, 57(3): 345-352. [NOTE: The new taxa described are extralimital to this bibliography; biogeographical discussions are pertinent.]

Hewes, Laurence Ilsley  

Hofknecht, Greg William  
### Holigay, Tanya


### Hopkins, A. D.


### Hopkins, Heidi

2014 19.5742  *Phylogenetic revision of the genus Arenivaga (Rehn) (Blattodea: Corydiidae), with descriptions of new species, a key to the males, and an investigation of its ecological niche*. Doctoral dissertation, University of New Mexico, 467 pp.  


2014 19.4944  *A review of the genus Arenivaga (Rehn) (Blattodea, Corydiidae), with descriptions of new species and key to the males of the genus*. Sofia, Bulgaria; and Moscow, Russia: Pensoft Publishers, 256 pp.  

(ZooKeys, 384: 1-256 (Special Issue).)  

[Includes new species from Grand Canyon: *Arenivago grandiscanyonensis* (pp. 108-111), holotype from Colorado River Mile 211.5 Right; *A. impensa* (pp. 138-141), paratypes from Grand Canyon localities; *A. pagana* (pp. 177, 180-182), holotype from Colorado River Mile 202.5 Left.]

### Hopping, G. R.


[See *Ips conjusus* (Lecenthe), pp. 425-429, which includes specimens examined from “Grand Canyon” (p. 428); *Ips lecontei* Swaine, pp. 433-434, which includes specimens examined from “Grand Canyon N. P.” (p. 434).]

### Horn, George H.


[See *Luperus wickhami*, new species, pp. 114-115; from Peach Springs, Arizona.]

### Hottes, F. C.

### Howard, L. O. [Howard, Leland O.]

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### Howard, Leland O.; Dyar, Harrison G.; AND Knab, Frederick

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<tr>
<td>1915</td>
<td>19.3254</td>
<td>The mosquitoes of North and Central America and the West Indies. Volume Three; Systematic description (in two parts); Part I. <em>Carnegie Institution of Washington, Publication 159, Volume 3</em>, 523 pp. [See under <em>Culiseta incidens</em> (pp. 478-483), Grand Canyon specimens cited, p. 482.]</td>
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### Hubbard, Clarence Anderson

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### Jacobi, W. R.; Goodrich, B. A.; AND Cleaver, C. M.

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localities studied include Grand Canyon National Park and Lake Mead National Recreation Area.]

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<tr>
<td>Johnson, Matthew J.; Jamison, Levi; Ralston, Barbara E.; Makarick, Lori; AND Holmes, Jennifer</td>
<td>2012</td>
<td>19.4509</td>
<td>2011 monitoring tamarisk foliage removal by the introduced tamarisk leaf beetle (Diorhabda carinulata), and its effects on avian habitat parameters along the Colorado River in Grand Canyon National Park, Arizona. [No place]: U.S. National Park Service; in cooperation with Northern Arizona University, 71 pp. [Date given on p. iv.]</td>
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Johnson, Matthew J.; Ralston, Barbara; Makarick, Lori; and Holmes, Jennifer


Johnson, Walter N.


Johnston, M. Andrew

2019 19.6338 Phylogenetic revision of the psammophilic *Trogloderus* Leconte (Coleoptera: Tenebrionidae), with biogeographic implications for the Intermountain Region. *PeerJ*, 7: e8039, doi:10.7717/peerj.8039, 45 pp. + Supplemental Information online. [See *Trogloderus skillmani*, new species (pp. 24-26), holotype from “USA: AZ: Mohave Co./6m [miles] E Colorado City/Rosy Canyon Road/1.5 m S UT state line”; 920 paratypes listed in Supplemental Information. See *Trogloderus warneri*, new species (pp. 30-31), 237 paratypes listed in Supplemental Information, including specimens from localities within the region covered by this bibliography. No specimens in this study are from the Grand Canyon.]

Johnston, M. Andrew; Fleming, David; Franz, Nico M.; and Smith, Aaron D.

2015 19.5231 Amphidorini LeConte (Coleoptera: Tenebrionidae) of Arizona: Keys and species accounts. In: Thomas, Donald B., Smith, Aaron D., and Aalbu, Rolf L. (eds.), A tribute to Honorary Member Dr. Charles A. Triplehorn. *Coleopterists Society, Monograph 14*, pp. 27-54. [See *Eleodes (Caverneleodes) leptoscelis* Triplehorn (p. 48, figure 9B (p. 38), from Cave of the Domes, Grand Canyon; and *Embaphion glabrum* Blaisdell (p. 52, figure 2A (p. 30), with note of favorable localities on the Arizona Strip.]

Jones, Susan C.


2004 19.6024 New inland records of *Incisitermes minor* (Isoptera: Kalotermitidae) along the Colorado River. *Sociobiology*, 43(3): 565-572. [In Colorado and Utah, but also notes earlier such collections in northern Arizona.]
Kavanaugh, David H.


Keen, F. P.

1952 19.4574 Insect enemies of western forests. *U.S. Department of Agriculture, Miscellaneous Publication 273*, revised, 280 pp. [See Figure 62 (p. 14) and Figure 106 (p. 232), illustrating Black Hills beetle damage and control in Kaibab National Forest, Arizona. No text notes of Kaibab forest.]

Kennedy, Theodore A. [Kennedy, Ted]


Kennedy, Theodore A., AND Gloss, Steven P.


Kennedy, Theodore A.; Cross, Wyatt F.; Baxter, Colden V.; Donner, Kevin C.; Rosi-Marshall, Emma J.; Hall, Robert O., Jr.; Behn, Kathrine; Kincaid, Dustin; AND Copp, A.

Kennedy, Theodore A.; Metcalfe, Anya; Deemer, Bridget R.; Ford, Morgan; Szydlo, Cheyenne; Yackulic, Charles; AND Muehlbauer, Jeffrey


Kennedy, Theodore A.; Muehlbauer, Jeffrey D.; AND Rogowski, David L.


Kennedy, Theodore A.; Muehlbauer, Jeffrey D.; Yackulic, Charles B.; Lytle, David A.; Kortenhoeven, Eric W.; AND Metcalfe, Anya N.


Kennedy, Theodore A.; Muehlbauer, Jeffrey D.; Yackulic, Charles B.; Lytle, David A.; Miller, Scott W.; Dibble, Kimberly L.; Kortenhoeven, Eric W.; Metcalfe, Anya N.; AND Baxter, Colden V.


Kennedy, Theodore A.; Yackulic, Charles B.; Cross, Wyatt F.; Grams, Paul E.; Yard, Michael D.; AND Copp, Adam J.

2014 19.4444 The relation between invertebrate drift and two primary controls, discharge and benthic densities, in a large regulated river. *Freshwater Biology*, 59(3) (March): 557-572 + supporting data online (Figures S1, S2), doi:10.1111/fwb.12285/suppinfo, 2 pp. [Colorado River below Glen Canyon Dam.]

Kennedy, Theodore A.; Yackulic, Charles B.; Muehlbauer, Jeffrey D.; Kortenhoeven, Eric; AND Copp, Adam J.


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1966 19.5289 The species of *Enderleinellus* (Anoplura, Hoplopleuridae) paristic on the Sciurini and Tamiasciurini. *Journal of Parasitology*, 52(5) (October): 988-1024. [See *Enderleinellus kaibabensis*, new species (pp. 1000-1002, 1022; figures 12 (p. 999,
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<tr>
<td>Kment, Petr; Carapezza, Attilio; AND Jindra, Zdeněk</td>
<td>2020</td>
<td>19.6488</td>
<td>Taxonomic catalogue of the family Ochteridae with description of <em>Ochterus papaceki</em> sp. nov. from Socotra Island and Tanzania (Hemiptera: Heteroptera). <em>Acta Entomologica</em> (Musei Nationalis Pragae), 60(1): 23-64. [See <em>Ochterus barberi</em> Schell (p. 35), with rectification of holotype as lectotype; the species was erected in Schell’s (1943, ITEM NO. 19.6155) January installment, with types (from Grand Canyon) designated in the April installment, for which Schell’s holotype from Grand Canyon is redesignated a lectotype. See also <em>O. rotudus</em> J. T. Polhemus &amp; M. S. Polhemus (p. 46), which reidentifies Schell’s (1943) <em>O. viridifrons</em> (specimens from Grand Canyon).] [The newly described species of Kment et al.’s paper is not pertinent to this bibliography.]</td>
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<td>Knight, Harry H.</td>
<td>1921</td>
<td>19.4091</td>
<td>Monograph of the North American species of Deraeocoris (Heteroptera, Miridae). <em>Minnesota State Entomologist, 18th Report to the Governor</em>, pp. 77-210, Plate 8. [Published June 18, 1921.] [Grand Canyon specimens cited; see: <em>Deraeocoris (Camptobrochis) brevis</em> (Uhler), pp. 103-105; <em>D. fulvus</em> new species (including paratypes from Grand Canyon), pp. 144-145; <em>D. bullatus</em> new species (including holotype, allotype, and paratypes from Grand Canyon), pp. 147-148; <em>D. navajo</em>, new species (holotype from Grand Canyon), pp. 155-156); <em>D. fulvescens</em> (Reuter), pp. 167-169.]</td>
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<td>1921</td>
<td>19.4092</td>
<td>Monograph of the North American species of Deraeocoris—Heteroptera Miridae. <em>University of Minnesota, Agricultural Experiment Station, Technical Bulletin 1</em>, pp. 77-210, Plate 8. [Published June 19, 1921. &quot;This article appeared originally in the Eighteenth Report of the Minnesota State Entomologist, published June 18, 1921. In order to avoid confusion in citation, the original pagination is retained in this bulletin.&quot; ]</td>
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<td>1925</td>
<td>19.5495</td>
<td>Descriptions of thirty new species and two new genera of North American Miridae (Hemiptera). <em>Brooklyn Entomological Society, Bulletin</em>, 20(1) (February): 33-58. [See <em>Ceratocapsus clavicornis</em>, new species (pp. 47-48); holotype and allotype, &quot;August 3, 1917, Grand View [Grandview], Grand Canyon, Arizona (H. H. Knight); author’s collection&quot;; also 30 paratypes &quot;taken with the types on Cowania mexicana&quot;; and a paratype from Williams, Arizona. Also see <em>Phytocoris mellarius</em>, new species (pp. 56-57); holotype and allotype, &quot;August 3, 1917, Grand View [Grandview], Grand Canyon, Arizona (H. H. Knight).&quot;&quot;]</td>
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Canyon, Arizona (H. H. Knight); author's collection”; also nine paratypes "taken with the types. This species was probably collected on some conifer although I do not find the remarks in my notes.”]

1926 19.6124 Descriptions of seven new species of Pilophorus (Hemiptera, Miridae). *Brooklyn Entomological Society, Bulletin*, 21(1/2) (February/April): 18-26. [See Pilophorus strobicola, new species (p. 19); localities of non-type study specimens include “Grand Canyon, Arizona”. See also P. fuscipennis, new species (pp. 23-24); paratype material includes "♂ ♀, Aug. 3, 1917, Grand View [Grandview], Grand Canyon, Arizona (H. H. Knight)".]

1928 19.6120 New species of Phytocoris from North America (Hemiptera, Miridae). *Brooklyn Entomological Society, Bulletin*, 23(1) (February): 28-46. [See Phytocoris hesperius, new species; paratype specimens include "2♂ 1♀ Aug. 2, 1917, at top of Bright Angel trail, Grand Canyon (H. H. Knight)".]

1929 19.6068 Descriptions of five new species of Plagiognathus from North America (Hemiptera, Miridae). *Entomological News (Academy of Natural Sciences of Philadelphia, Entomological Section)*, 40 (March): 69-74. [See p. 73, Plagiognathus tenellus, new species; holotype, allotype, and 12 paratypes from "top of Bright Angel trail, Grand Canyon, Arizona (H. H. Knight); author's collection."]

1934 19.6123 Phytocoris Fallen—twelve new species from the western United States (Hemiptera, Miridae). *Brooklyn Entomological Society, Bulletin*, 29(1) (February): 1-16. [See Phytocoris varius, new species (pp. 9-11); "Holotype: ♀ September 6, 1931, Grand Canyon (H. H. Knight); author's collection. Allotype: ♂, taken with the type. Paratypes: ♀, 3♀, taken with the types by beating on large cedar trees (Juniperus sp.) which were found growing behind the cabin camp located at the entrance gate of the Grand Canyon National Park." Also paratypes from Durango, Colorado and Chiricahua Mountains, Arizona.]

1968 19.5134 Taxonomic review: Miridae of the Nevada Test Site and the western United States. *Brigham Young University, Science Bulletin* (Biological Series), 9(3), 282 pp. [See: Lepidopsallus ovatus Knight, 1926 (p. 51), with the cursory note, "This species was described from Tucson, Arizona, and I have other specimens from Grand View [Grandview], Grand Canyon, and Williams." Deraeocoris bullatus Knight, 1921 (p.82), with the cursory note, "The species bullatus was described from specimens taken on cliff rose, Cowania mexicana, at Grand View, Grand Canyon, Arizona, in 1917." Largidea rubida (Uhler, 1904) (p. 84), with the cursory note, "I have collected it on pines, Pinus, in Colorado and at Grand View, Grand Canyon, Arizona." Parnecicus cowaniæ, new species (pp. 148-149, Figure 211 (p. 147); types from Grand View [Grandview], Grand Canyon, and Hermit Rim Road, Grand Canyon. Pilophorus exigius Poppius, 1914 (p. 168), with the cursory note, "Described from Bright Angel Trail, Grand Canyon, Arizona" (see Poppius, 1914, ITEM NO. 19.5135), with a "[[later record from "Grand Canyon”, 1925. Bolteria juniperi, new species (pp. 202-203, Figure 253), paratype "near Grand Canyon, Arizona". Phytocoris flavius, new species (p. 241, Figure 297 (p. 242), holotype "above Bright Angel Trail, Grand Canyon, Arizona".]

Knowlton, George F. 1946 19.6119 Chermidae notes. *Brooklyn Entomological Society, Bulletin*, 41(2) (April): 61. [Includes Chermes cooleyi Gillette on Douglas fir, Pineus coloradensis (Gillette) on western yellow pine, and Pineus similis (Gillette) on Pinus flexilis; all noted from "Kaibab Forest, Arizona", which based on other localities listed in this brief item, in Utah to the north, pertains to Kaibab Plateau.]
BIBLIOGRAPHY OF ENTOMOLOGY OF THE GRAND CANYON REGION
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1958 19.6122  Tingidae are biters.  *Brooklyn Entomological Society, Bulletin*, 53(3) (June): 73.  [Regarding "irritating bites" when "Corythucha morrilli Osb. & D. tingid bugs were swept from rabbit brush, Chrysothamnus nauseosus".  Localites noted include several in southern Utah and at Fredonia, Arizona.]

Knull, Josef N.


Ko, Katherine, AND Pilkington, Lonnie

2018 19.5964  Citizen science along the river—dragonfly mercury project.  *Boatman’s Quarterly Review*, 31(3) (Fall): 8-10.

Kortenhoeven, Eric; Muehlbauer, Jeff; AND Kennedy, Ted


Kramer, James P.

1979 19.6062  Taxonomic study of the planthopper genus *Myndus* in the Americas (Homoptera: Fulgoroidea: Cixiidae).  *American Entomological Society, Transactions*, 105 (September): 301-389.  [See *Myndus yuccandus* Ball (p. 328, Figures 54-56 [p. 327, legend (p. 326) indicates illustrations from paratype]), type material examined from "Grand Canyon, Arizona." Kramer notes: "Holotype male, Grand Canyon, Arizona, 4 August 1930, E.D. Ball.  The information published with the original description is slightly different from that on the labels of the holotype; this is probably due to a lapsus by Ball.  The previously published locality was given as ‘Grand Canyon Bridge’ and the date of collection ‘30 August 1930’.  One paratype male with same data.  Both are in the collection of the USNM." (no further specifics) Refers to Ball (1933, ITEM NO. 19.6063.)]  [NOTE: "Grand Canyon Bridge" is certainly Navajo Bridge, and it is feasible that this is the correct locality and date.  Not resolved here.]

Kucera, James R.; Durden, Lance A.; AND Kim, Ke Chung

Kuhnt, P., AND Reineck, G.

1908  19.6189  Aus den Sitzungen. I. Deutsche Entomologische Zeitschrift, 1908(2) (March 1): 282-293. [See p. 28: "Horn zeigt eine Amblychila-Larve (wahrscheinlich A. Schwarzi: Peach Spring, Arizona: Ch. Fuchs) von 28 mm Länge, die sich von den G. Hornschen Angaben (Tr. Am. Ent. Soc. 1876) vor allem durch das Vorhandensein von jederseits 2 Augen unterscheidet." It is not clear to which paper by George H. Horn in the 1876 Transactions of the American Entomological Society is referred; Peach Spring (Peach Springs) is not noted in any of them. However, "The Sexual Characters of North American Cicindelidæ with Notes on Some Groups of Cicindela" (pp. 232-240, Plate I) includes Amblychila Say (pp. 233-234). Plate I in this volume is not called out in any paper therein; it does, however, include "Fig. 18.—Hind trochanter and last ventral ♂ and ♀ of Amblychila." Thus it is to this paper that Kuhnt and Reineck seem to have referred, although the absence of specific information as noted by them is a matter not resolved here. The specific epithet, schwarzi, pertains to A. schwarzi Walther Hermann Horn, 1903. The genus is correctly Amblycheila Say, 1830; Amblychila is an unjustified emendation by Agassiz, 1846.] [In German.]

LaBerge, Wallace E.

1967  19.6173  A revision of the bees of the genus Andrena of the western hemisphere. Part I. Callandrena. (Hymenoptera: Andrenidae). University of Nebraska State Museum, Bulletin, 7 (October): 1-318. [See: Andrena (Callandrena) helianthi Robertson, 1891 (pp. 94-101), locality records (within the boundaries of this bibliography) include only "Fredonia", in Arizona (p. 100, no further details); A. (C.) pecosana Cockerell, 1913 (pp. 112-117), locality records include "UTAH: Kaibab Forest" (p. 116, no further details; the distribution map [p. 116] plots a dot perhaps at the area of Kanab, Utah, thus perhaps a misregistration for the Kaibab Plateau), A. (C.) utahensis, new species (pp. 258-260, Figures 292-296 [p. 314]), paratypes include 5 females and 1 male from "Grand Canyon", collected by G. E. Bohart, June 5, 1940.]

Lauman, G. W. "Pat"; Schulz, James G.; Thomas, James A.; AND Willis, Daryl H.


Lavoie, Kathleen H.; Helf, Kurt L.; AND Poulson, Thomas L.

Le Conte, John L.¹

[NOTE: Cited here with question. Le Conte (p. 364) named the new species Tomicus confusus based on three specimens from "Southern California and Arizona"; no further information relating to the type localities is known. Swain (1924, ITEM NO. 19.6018) selected Le Conte's "California" specimen, in the Agassiz Museum, Harvard University, as the type for Ips confusus (Le Conte); he selected the "Arizona specimen" as the holotype of Ips lecontei, new species. Inasmuch as the genus represents forest beetles, it is not likely that the California specimen came from a locality pertaining to the lower Colorado River region as defined in this bibliography (thus neither Le Conte nor Swain are cited in Part 11, Section 1). However, the genus is widely distributed, including the Grand Canyon region and higher elevations of Arizona, and although it is less likely that Le Conte's specimen is from the immediate Grand Canyon region, both Le Conte's and Swain's papers are cited here conditionally.]

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Leibfried, William C., AND Blinn, Dean W.

1986 19.916 The effects of steady versus fluctuating flows on aquatic macroinvertebrates in the Colorado River below Glen Canyon Dam, Arizona. [No place]: Glen Canyon Environmental Studies, for Arizona Game and Fish Department, Phoenix, 58 pp. (Contract no. 6400042 Extension.) (Glen Canyon Environmental Studies Report B-8.)


Leibfried, William C.; Usher, Howell D.; AND Blinn, Dean W.


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Leng, Charles W.

1902 19.3409 Revision to the Cicindelidae of Boreal America. American Entomological Society, Transactions, 28(2): 93-194. [See C. rufiventris Dej. var. arizonae Wickham, p. 178: "Canon of the Colorado River, in Arizona. July. Collected by Prof. Townsend on sandy places or along paths by a stream going down a side canon from Hance's Stone Cabin (2500 feet above the river and 2500 feet below the rim) to the level of the Colorado River." See Wickham (1899, ITEM NO. 19.3226).]

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1952 19.4807 Contributions to the morphology and taxonomy of the Branchiopoda Notostraca, with special reference to the North American species. U.S. National Museum, Proceedings, 102(3291), 69 pp., 7 plates. [See Apus longicaudatus LeConte (p. 53 and following);

¹ Often published as “LeConte” or “Leconte” but the author’s own usage is “Le Conte”.

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cited localities, with USNM specimen lot numbers, include (p. 65) "Red Horse Tank, Grand Canyon"; "natural tank, south rim of the Grand Canyon"; and "Haulpai [sic] Indian Reservation."

Lindsay, Dale R.

Liu, Tong-Xian, AND Kosztarab, Michael

Loomis, Richard B., AND Welbourn, W. C., Jr.
1969 19.6776 A new species of *Hannemania* (Acarina, Trombiculidae) from *Bufo punctatus* of western North America, with comments on *Hannemania hylae* (Ewing). *Southern California Academy of Sciences, Bulletin*, 68(3): 161-169. [See *Hannemania bufonis*, new species (pp. 161-164, fig. 1); types from Whitewater Canyon, Riverside County, California, but specimens examined include "Arizona, Mohave Co.: Grand Canyon National Mon., Toroweap Valley, 25 April 1943 (17)."

Lutz, Frank E.
1934 19.938 From low to high. *Grand Canyon Nature Notes*, 9(7) (October): 327-329. [Insect collecting at mouth of Bright Angel Creek, Indian Garden, and Supai. A general article without specifics.]

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Mader, Detlef

2011 19.5572 Lunarzykliache Populationsdynamik des Mosel-Apollo (Parnassius apollo vinningensis) und anderer Insekten im Moseltal zwischen Koblenz und Trier (Deutschland). Selenocyclical population dynamics of the Moselle Apollo (Parnassius apollo vinningensis) and other insects in the Moselle Valley between Koblenz and Trier (Germany). Galathea (Kreises Nürnberger Entomologen, Berichte), (Supplement 21), 279 pp., 4 plates. [See in section 10, “Bedeutung von Apollo faltern in meiner entomologischen Forschung und in meiner akademischen Laufbahn” (p. 193 and following); specifically, section 10.4, “Östlicher Tiger-Schwalbenschwanz (Papilio glaucus)”, pp. 197-199, which discusses occurrences of P. glaucus Linnaeus at Grand Canyon.] [In German, with bilingual title.]

Makarick, Lori J.; Dow, Talise; and Kolegas, Stacy

2010 19.3122 Tamarisk beetle found within Grand Canyon National Park. Canyon Views (Grand Canyon Association), 16(1) (Spring): 3-4. [First author’s name misspelled Mackarick.]

Makarick, Lori J.; Moran, Mary; and Naumann, Tamara


Malloch, J. R.


Mangum, Fred A.


Mann, John

1969 19.6364 Cactus-feeding insects and mites. U.S. National Museum, Bulletin 256, 158 pp. [See Chelindaea vittiger Uhler (pp. 131-133), ”general occurrences” (p. 132) include Lees Ferry, Arizona; Cactylopius confusus Cockerell (pp. 147-148), ”Material found on the low-growing Opuntia. basilaris at Lees ferry and the Grand Canyon in northern Arizona probably represents this species.” (p. 147) (ENTIRE NOTES)]
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<td>Massey, Calvin L.</td>
<td>1974</td>
<td>19.5566</td>
<td>Biology and taxonomy of nematode parasites and associates of bark beetles in the United States.</td>
<td><em>U.S. Forest Service, Agriculture Handbook</em> 446, 233 pp.</td>
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<td>[See <em>Parasitorhabditis gracilis</em>, new species, type locality &quot;Grand Canyon&quot;, &quot;[a]ssociated with <em>Pseudohylesinus grandis</em> Sw. in white fir&quot;, pp. 69, 70. See also in Table 1, which lists <em>Pseudohylesinus grandis</em> at Grand Canyon (p. 13).]</td>
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<td>Matzkin, Luciano M.</td>
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<td>19.4326</td>
<td>The molecular basis of host adaptation in cactophilic drosophila: Molecular evolution of a glutathione S-transferase gene (GstD1) in <em>Drosophila majoavensis</em>.</td>
<td><em>Genetics</em>, 178 (February): 1073-1083. [Materials include 15 lines from the &quot;Mojave population (7 from Grand Canyon and 8 from Anza-Borrego)&quot;.].</td>
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<td>McAtee, W. L.</td>
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<td>Notes on Nearctic Heteroptera.</td>
<td><em>Brooklyn Entomological Society, Bulletin</em>, 14(1) (February): 8-15. [See <em>Chelinidea vittiger</em> var. artiiflava, new variety (pp. 11-12); localities for non-type specimens examined include &quot;Grand Cañon, Ariz., July 10 (U. S. N. M.)&quot;]</td>
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### McKee, Edwin D.


### McKinney, Ted; Ayers, Andrew D.; AND Rogers, Roland S.


### McKinney, Ted; Rogers, Roland S.; AND Ayers, Andrew D.


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Michener, Charles D.


Miller, Abraham


Miller, Douglass R., and McKenzie, Howard L.


Miller, Russell B.

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<td>Morris, Gail M.</td>
<td>2019</td>
<td>19.6288</td>
<td>Partnerships for monarch research in remote southwestern locations [ABSTRACT]. <em>In: 15th Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region : theme: &quot;Science and Solutions for Conserving the Southwest’s Land, Water, Biodiversity and Cultures&quot; : September 9-12, 2019, High Country Conference Center, Northern Arizona University, Flagstaff, Arizona</em>, p. 81. [Includes note that the &quot;Southwest Monarch Study is researching the breeding habitats and tagging monarchs at Grand Canyon National Park South Rim, North Rim and throughout the Colorado River corridor.”]</td>
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<td>Nabokov, Vladimir</td>
<td>1942</td>
<td>19.2212</td>
<td>Some new or little known Nearctic <em>Neonympha</em> (Lepidoptera: Satyridae). <em>Psyche</em>, 49(3)/4 (September/December): 61-80. [Includes <em>Cyloopsis pertepida dorothea</em>, new species, from Grand Canyon.]</td>
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<td>1894</td>
<td>19.3503</td>
<td>Report of the Experiment Station.</td>
<td>New Mexico College of Agriculture and Mechanic Arts, Agricultural Experiment Station, 4th Annual Report of the Board of Regents, 1892-93. [See pp. 14-15: &quot;From the middle of June, 1892, to the middle of August, the Entomologist [T. D. A. Cockerell] was away on a field-trip to the Grand Cañon of the Colorado. During this trip very many insects were collected and many observations recorded, but the results have only in part been worked up and published. * * * A new Garytes from the Grand Cañon has also been described by Mr. Fox.&quot; (ENTIRE NOTES). Regarding the new Garytes, refer to William J. Fox, (1893, ITEM NO. 19.4538).]</td>
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2013  19.6537  Microbiology and soundscape project. *Southern Paiute-Parashant Bulletin* (U.S. Bureau of Land Management and U.S. National Park Service, Grand Canyon-Parashant National Monument), 1 (July): 8. [NOTE: As noticed on p. 1, Osife is the author of the entirety of this inaugural issue. The microbiology project pertains to studies in cave environments of basalt flows in remote areas of the national monument, including Nampaweap. The soundscape project is not mentioned in the text.]

Pape, Robert B.  


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2005 19.3963 Phylogeny and life history evolution of Prodoxus yucca moths (Lepidoptera: Prodoxidae). Systematic Entomology, doi:10.1111/j.1365-3113.2005.00301.x, 20 pp. [Includes Prodoxus gypsicolor Pellmyr, new species, pp. 5-8, Fig. 1R (type from California), with note (p. 7), “Specimens reared by OP from A[gave]. utahensis at Tuweep, Grand Canyon National Park . . . may belong to this species.” (no further remarks) Article includes other regional occurrences of other species.]

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Philip, Cornelius B.

1936  19.6116  Notes on certain males of North American horseflies (Tabanidae).  Brooklyn Entomological Society, Bulletin, 31(5) (December): 189-197.  [See p. 191: "T. dorsifer Wlk. [Tabanus dorsifer Walker, 1860] Allotype ♂ * * * Grand Canyon, Ariz., Phantom Ranch, about 2500′; July 26, 1934; F. E. Lutz."  NOTE (from p. 189): "A number of apparently undescribed, or inadequately characterized males, have accumulated over a period of years and it appears opportune to make their descriptions available at this time.  In order that initial descriptions of the opposite sex subsequent to the original specific establishment may be associated with a definite specimen, carefully preserved, for later reference and correction if need be, Mutkowsky’s original conception when he proposed the term ‘allotype,’ is adhered to rather than the subsequent interpretation reflected in Banks and Caudell’s ‘Rules of Nomenclature’ of an allotype as a ‘paratype of the opposite sex.’"]

Philip, Kenelm W.


Pike, Chris, and Ward, Steve


Pike, Chris; LaChat, Robert; and Taylor, Cathy O’Rourke

**BIBLIOGRAPHY OF ENTOMOLOGY OF THE GRAND CANYON REGION**
**(INSECTS, ARACHNIDS, AND OTHER ARTHROPODS)**

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<td>2004</td>
<td>19.4665</td>
<td>A review of the <em>Schinia tertia</em> (Grote) species complex (Lepidoptera: Noctuidae: Heliothinae). <em>Zootaxa</em>, (473): 1-32. [<em>Schinia tertia</em> (Grote), pp. 3-11, Grand Canyon material noted, p. 5; <em>S. albafascia</em> Smith, revised status, pp. 11-15, Grand Canyon material noted, p. 12. See also distribution maps for these species, pp. 30, 31. Illustrated material does not include Grand Canyon specimens.]</td>
</tr>
<tr>
<td>Poppius, B. [Poppius, Bertil Robert]</td>
<td>1914</td>
<td>19.5135</td>
<td>Übersicht der <em>Pilophorus</em> Arten nebst beschreibung verwandter Gattungen (Hem. Het.). <em>Société Entomologique de Belgique, Annales</em>, 58: 237-254. [Includes: <em>Pilophorus americanus</em>, new species (p. 243), types from &quot;Williams, Ar.!&quot; and &quot;Br't Angel, Ar!&quot;; <em>Pilophorus exigus</em>, new species (pp. 246-247), types from &quot;Br't Angel, Ar!&quot;. The localities thus cited are Williams, Arizona, and Bright Angel Trail (Grand Canyon). Of parenthetical note are several more species recorded in this paper from Williams and Flagstaff, Arizona.] [In German.]</td>
</tr>
<tr>
<td>Prakash, Satya</td>
<td>1974</td>
<td>19.4300</td>
<td>Gene differences between the sex ratio and standard gene arrangements of the X chromosome and linkage disequilibrium between loci in the standard gene arrangement of the X chromosome in <em>Drosophila pseudoobscura</em>. <em>Genetics</em>, 77 (August): 795-804. [Materials sample sites include &quot;Grand Canyon (Arizona)&quot; (no further precision).]</td>
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<td>Author</td>
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<tr>
<td>Pujade Villar, Juli, and Paretas Martinez, Jordi</td>
<td>2012</td>
<td>19.4329</td>
<td>A new species of woody tuberous oak galls from Mexico (Hymenoptera: Cynipidae) and notes with related species. Una nueva especie de agalla leñososa tuberosa en encinos de México (Hymenoptera: Cynipidae) y anotaciones sobre las especies relacionadas.</td>
</tr>
<tr>
<td>Rehn, James A. G.</td>
<td>1907</td>
<td>19.16811</td>
<td>Notes on Orthoptera from southern Arizona, with descriptions of new species.</td>
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### Bibliography of Entomology of the Grand Canyon Region (Insects, Arachnids, and Other Arthropods)

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**Rehn, James A. G., AND Grant, Harold J., Jr.**

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| 1958 | 19.5288 | A revision of the genus *Morsea* (Orthoptera; Acridoidea; Eumastacidae). *American Entomological Society, Transactions*, 84(3/4) (September/December): 217-259. [See *Morsea californica piute*, new subspecies; includes typical (but non-type) material from northwestern Arizona, and notes on atypical material from Fredonia, Arizona (pp. 239-250); *Morsea californica kaibabensis*, new subspecies, type from "Northwest escarpment slope of Kaibab Plateau" (pp. 250-254); *Morsea californica dumicola* Rehn and Hebard, with remarks on Grand Canyon specimens (pp. 254-259).]

**Rehn, James A. G., AND Hebard, Morgan**

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| 1914 | 19.6212 | Studies in American Tettigoniidae (Orthoptera) I and II. *American Entomological Society, Transactions*, 40(4) (December): 271-344, 9 plates. [See *Scudderia furcata furcifera* Scudder (pp. 304-307, Plate 10, figure 20); specimens examined include (p. 307) one female in the Hebard collection, collected July 11, 1892, "Grand Canyon of the Colorado, Arizona".]

**Reinhard, H. J.**

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**Reinick, William R.**

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<th>Year</th>
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Entomological Section), 13(1) (January): 24-26. [NOTE: Running head in this issue gives date,"Jan. '92."] [See p. 25: "Mr. [E. A.] Schwarz spoke of the abundance of dragonflies in Arizona around the water which was obtained from artesian wells, and wherever there was a little pool of water it teemed with insect life. He stated that at the top of the Grand Canon the fauna was boreal and ended abruptly at the brink; at the bottom were large forests and a great deal of vegetation existed and the fauna was tropical. The dragonflies seemed to be the only insects flying from the bottom to the top of the canon, which is about forty miles wide and one mile deep." (ENTIRE NOTE, sic)] [NOTE: Collections were made by H. S. Barber on the South Rim by Bright Angel Hotel and at Indian Garden only; for details see Rolla P. Currie (1903, ITEM NO. 19.3196).]

Ribble, D. W.


Richmond, Al

2015 19.4829 Visit with Emma Williams, GCHS scholarship winner, at the University of Arizona Tree Ring Lab. The Bulletin (Grand Canyon Historical Society), 19(3) (May/June): 2. [Informational notice only, with two photos including, "Emma and Rich with a Grand Canyon Ponderosa core that shows the cause of the demise . . . bark beetles." (ellipsis is part of legend)]

Riddle, Brett R., AND Honeycutt, Rodney L.


Riesenberg, Mindy

2020 19.6515 Bringing monarch butterflies back from the brink. Canyon Views (Grand Canyon Conservancy), 27(2) (Fall/Winter): 18-21.

Robertson, Jacqueline L.; Gillette, Nancy L.; Lucas, Barbara A.; Russell, Robert M.; AND Savin, N. E.


Robinson, Harold


Rosi-Marshall, Emma J.; Kennedy, Theodore A.; Kincaid, Dustin W.; Cross, Wyatt F.; Wellard Kelly, Holly A.; Behn, Kathrine A.; White, Tyler; Hall, Robert O., Jr.; AND Baxter, Colden V.


Ross, C. L., AND Markow, T. A.


Ruiter, David E.


Ryckman, Raymond E.


Safford, Matt

Sanderson, M.; Usher, H. D.; Leibfried, B.; AND Byars, B.

Scarborough, Aubrey G.; Stevens, Lawrence E.; AND Nelson, C. Riley
2012 19.3767  The albibarbis-complex of Efferia Coquillett, 1910 from the Grand Canyon region, southwestern U.S.A., with three new species and new distribution records (Diptera: Asilidae). Pan-Pacific Entomologist, 88(1) (January): 58-86. [Of the three new species, only one, Efferia tapeats (pp. 75-78), is based on type material from within the area embraced by this bibliography; the holotype was taken at Clear Creek, Grand Canyon. Other material for this species and others in this paper are recorded from the region covered by this bibliography.]

Schell, Dorothydean Viets
1943 19.6155  The Ochteridae (Hemiptera) of the western hemisphere. Kansas Entomological Society, Journal, 16(1) (January): 29-36, (2) (April): 37-47. [See Ochterus viridifrons (Champion, 1901) (pp. 27-38 [note straddling of two dates, January and April]), notes briefly (p. 38), “One female specimen from the United States National Museum, bearing a Grand Canyon, Arizona label, appears to be viridifrons, but an examination of the male genitalia would be necessary for accurate determination.” See also Ochterus barberi, new species (pp. 41-42), holotype male in U.S. National Museum, from “Colorado Canyon, Arizona”, two paratypes in American Museum of Natural History, “collected at Grand Canyon, Arizona” (allotype and 61 additional paratypes from Arizona localities extralimital to the region covered by this bibliography). No further collecting data published.] [See also Kment et al. (2020, ITEM NO. 19.6488) regarding the type of O. barberi and Schell’s identification of O. viridifrons.]

Schellbach, Louis, III

Schmid, John M.

Schmid, J. M., AND Bennett, D. D.

Schmid, J. M.; Bennett, D. D.; AND Andrews, M.


Schmid, J. M.; Mitchell, J. C.; AND Mata, S. A.


Schmid, J. M.; Thomas, L.; AND Rogers, T. J.


Schmidt, John

2003 19.5582 Twenty five years of forest insect research and related events. The Founders’ Award Address / La Presentación del premio Fundador. In: Steed, Brytten (compiler), Proceedings of the 1st Joint Meeting of the 12th National Symposium on Forest Parasites and the 54th Western Forest Insect work Conference (WFIWC) / Memorias de la Primera Reunión Conjunta XII Simposio Nacional de Parasitología Forestal y 54a Conferencia de Entomología Forestal de Oeste: Guadalajara, México, Noviembre 3-6, 2003: Enhancing our Partnerships: Fomentando Nuestra Colaboración. [No place]: Western Forest Insect Work Conference; and México, Secretaría Medio Ambiente y Recursos Naturales, Comisión Nacional Forestal, pp. 4-8. [See p. 6, remarks on work on the Kaibab Plateau in 1982 and 1983.]

Schmidt, Laurie J.

2010 19.3790 Chewed out. An invasive plant called tamarisk has been killing off cottonwoods and destroying river habitat for decades. Now park rangers are hoping a beetle can turn the tide. *National Parks*, 84(1) (Winter): 20-21.

66
Schuh, Randall T.
2001  19.6067  Revision of New World Plagiognathus Fieber, with comments on the Palearctic fauna and the description of a new genus (Heteroptera: Miridae: Phylinae). *American Museum of Natural History, Bulletin* 226, 267 pp. [See *Plagiognathus longipennis* (Uhler) (pp. 151-155), specimens examined include "N. Rim Grand Canyon, Pt. Imperial, August 1, 1967, D. C. Rentz, 2♂, 1♀ (UCB)."; *P. tenellus* Knight (p. 229), specimens examined include "Grand Canyon, top of Bright Angel Trail, August 2, 1917, H. H. Knight, paratypes: 2♂, 2♀ (USNM); holotype male (USNM).", Figure 13 (p. 105, legend on p. 264, "tenellus (paratype male: Arizona: Coconino Co.: Grand Canyon)").]

Scott, James A.


["Stenchospecies" = superspecies concept.]

Scudder, Samuel Hubbard
1878  19.1971  Notice of the butterflies collected by Dr. Edward Palmer in the arid regions of southern Utah and northern Arizona during the summer of 1877. *U.S. Geological and Geographical Survey of the Territories, Bulletin*, 4: 253-258. [Includes various species described from Mount Trumbull and Mokiak Pass, among which are the following new species: *Neominois dionysus* (p. 254), localities include Mount Trumbull; *Synchloe thoosa* (p. 257), holotype female from Mokiak Pass; and a new species of *Thanaos* (pp. 257-258) yet to be described on a single female from Mount Trumbull.]


Searl, Clyde C.

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**Segraves, Kari A., and Pellmyr, Olle**

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<th>Year</th>
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**Selleck, S. Shane**

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<th>Year</th>
<th>Citation</th>
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Shannon, Joseph P.; Blinn, Dean W.; Stevens, Lawrence E.; and Macauley, Jeanette


Shaw, F. R.

1951 19.6115 Some new Mycetophilidae from the western United States. Brooklyn Entomological Society, Bulletin, 46(3) (June): 65-70. [See Mycetophila denningi, new species (p. 67, Plate 3, Figure 4 (p.69)); "Described from one male [holotype] collected by D. G. Denning at Grand Canyon, Arizona on June 18, 1949."

Shear, William A. [Shear, Bill]


Shear, William A.; Taylor, Steven J.; Wynne, J. Judson; and Krejca, Jean K.


Shelley, Rowland M.


Shelley, Rowland M., and Richart, Casey H.


Shelley, Rowland M., and Stevens, Lawrence E.

Shields, Oakley


Sinclair, B. J.


Sissom, W. David, and Francke, Oscar F.


Skinner, Henry

1907 19.3354  (RECORER) [Meeting of Entomological Section, Academy of Natural Sciences of Philadelphia, January 24, 1907.] *Entomological News* (Academy of Natural Sciences of Philadelphia, Entomological Section), 18(6) (June): 266.  [Includes note: "Dr. Calvert exhibited Argia moesta Hagen, found at Grand Canyon, Nuevo Laredo and Lake Chapala, Mexico, etc., and described the differences in both sexes in the specimens from these various localities. These differences were illustrated by averages. The question of the specific identity or difference in the forms was raised.” (ENTIRE NOTE) See also paper by Philip P. Calvert, “An Entomological Journey in Mexico, with Special Reference to Odonata”, 18(6) (June): 231-237 [ITEM NO. 2.14950], wherein his itinerary included “July 29-Aug. 3 [1906]. At Grand Canyon of the Colorado River, Arizona.” without further remark on Grand Canyon in that paper.]

Smiley, Robert L., and Moser, John C.


Smith, Marion R.


credited to Wheeler) and note of Wheeler’s observation of “a small colony beneath a stone in the Kohonino Forest on the rim of the Grand Canyon” (p. 102.).

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<th>Author</th>
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<tr>
<td><strong>Snyder, T. E.</strong></td>
<td>1923</td>
<td>19.4077</td>
<td>Forest insect investigations.</td>
<td><em>U.S. Department of Agriculture, Bureau of Entomology, Monthly Letter</em>, (109) (May): 2-3. [See p. 2: “W. D. Edmonston and George Hofer are at present on the Kaibab National Forest and Grand Canyon National Park, where control work is being conducted in cooperation with the Forest Service of this Department and the National Park Service of the Interior Department against the Black Hills beetle, Dendroctonus ponderosae Hopk.” (ENTIRE NOTE)]</td>
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<td></td>
<td>1923</td>
<td>19.4078</td>
<td>Forest insect investigations.</td>
<td><em>U.S. Department of Agriculture, Bureau of Entomology, Monthly Letter</em>, (112) (August): 2-3. [See p. 3: “Mr. Edmonston and Mr. Hofer are camped at Bright Angel, on the north rim of the Grand Canyon, engaged in an examination of the 17,000 acres treated last season. The purpose of this survey is to determine the results of last season’s work and to formulate plans for next season.” (ENTIRE NOTE)]</td>
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<td><strong>Sojourner, Mary</strong></td>
<td>1997</td>
<td>19.6091</td>
<td>Fire ants.</td>
<td><em>Canyon Echo</em> (Sierra Club, Grand Canyon Chapter), 33(3) (April): 6. [Regarding an encounter at Lower National camp.]</td>
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<td>Author(s)</td>
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<tr>
<td>Sokoloff, Alexander</td>
<td>1959</td>
<td>19.4685</td>
<td>Studies of quantitative characters in <em>D. pseudoobscura</em>. <em>Drosophila Information Service</em> (University of Oregon, Department of Biology), (33) (November): 162-165. [Data derived from “material collected at the Grand Canyon”; live-collected.]</td>
<td></td>
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<tr>
<td>Sokoloff, Alexander</td>
<td>1965</td>
<td>19.4686</td>
<td>A possible maternal effect on quantitative characters of <em>D. pseudoobscura</em>. <em>Drosophila Information Service</em> (University of Oregon, Department of Biology), (40) (January): 90-92. [Data derived from specimens gathered at “Grand Canyon, Arizona”.]</td>
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<td>Sourakov, Andrei</td>
<td>1995</td>
<td>19.4720</td>
<td>Systematics, evolutionary biology and population genetics of the <em>Cercyonis pegala</em> group (Lepidoptera: Nymphalidae: Satyrinae). <em>Holarctic Lepidoptera</em>, 2(1): 1-20. [Grand Canyon, see <em>Cercyonis pegala damei</em> (Barnes and Benjamin), also synonymized as <em>C. sthenele damei</em>, pp. 6-8, 13.]</td>
<td></td>
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<tr>
<td>Sparavigna, Amelia Carolina</td>
<td>2016</td>
<td>19.6511</td>
<td>Patterned vegetation created by red harvester ants and evidenced in satellite images. <em>HAL archives-ouvertes</em>, ID: hal-02189240, [<a href="https://hal.archives-ouvertes.fr/hal-012892040">https://hal.archives-ouvertes.fr/hal-012892040</a>], [6] pp. [Includes Toroweap Valley, Grand Canyon.]</td>
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</table>
Speas, David W., AND Dresser, Thomas J., Jr.


Stahnke, Herbert L.


1945 19.4171 Scorpions of the genus Hadrurus Thorell. American Museum Novitates, (1298), 9 pp. [See Hadrurus spadix Stahnke, pp. 4-5; locality records include Grand Canyon.]

Stallings, Don B., AND Turner, J. R.

1957 19.4417 Four new species of Megathymus (Lepidoptera, Rhopalocera, Megathymidae). Entomological News (Academy of Natural Sciences of Philadelphia, Entomological Section), 68(1) (January): 1-16. [See Megathymus alliae, new species, pp. 1-5, Plate 1; "Described from 62 specimens (35 males and 27 females) collected 15 miles west of Cameron, Ariz., along the canyon of the Little Colorado River, elevation 5000 ft."]

Stehr, Frederick W., AND Cook, Edwin F.


Stephens, S. Sky; Romero, Sheryl A.; AND Krist, Frank J.

2022 19.6786 (COMPILERS) Major forest insect and disease conditions in the United States 2020. U.S. Forest Service, State and Private Forestry, FS-1202, 26 pp. [See “Spruce Beetle Dendroctonus rufipennis” (pp. 7-8), “A small but notable increase in spruce mortality was also observed in Grand Canyon National Park, north of the rim on the Kaibab Plateau.”; "Mountain Pine Beetle Dendroctonus ponderosae" (pp. 19-20), "Observed tree mortality was limited to a few scattered single trees n high elevation stands on south and southwestern facing slopes in northern Arizona on the Kaibab National Forest and Coconino National Forest."; "Western Spruce Budworm Choristoneura freemani" (pp. 23-24), "In Arizona, defoliation by the WSBW continued to be observed on the Kaibab Plateau around Pleasant Valley and De Motte Park.”]

Stevens, Lawrence Edward [Stevens, Larry]


**Stevens, Lawrence E., AND Bailowitz, Richard A.**


**Stevens, Larry [Stevens, Lawrence E.], AND Burke, Kelly**


**Stevens, Lawrence E., AND Huber, R. L.**

Biogeography of tiger beetles (Cicindelidae) in the Grand Canyon ecoregion, Arizona and Utah. *Cicindela*, 35: 41-64.

**Stevens, Lawrence E., AND Ledbetter, Jeri D.**


**Stevens, Lawrence E., AND Menke, Arnold S.**

Stevens, Lawrence E., AND Petterson, Jim


Stevens, Lawrence E., AND Polhemus, John T.


Stevens, Larry [Stevens, Lawrence E.], AND Steiner, Warren

2013  19.4320  The Tenebrionidae of Arizona: An invitation to help develop a preliminary list [ABSTRACT]. In: Third International Tenebrionoidea Symposium, Wednesday, August 7 and Thursday, August 8, 2013, Arizona State University, Life Science Center, LSE 244, Tempe, AZ, p. [2].

Stevens, Lawrence E.; Bailowitz, Richard A.; AND Danforth, Douglas


Stevens, Lawrence E.; Pitts, James P.; Wasbauer, Marius; AND Zimmerman, J.


Stevens, Lawrence E.; Ramberg, Frank B.; AND Darsie, Richard F., Jr.


Stevens, Lawrence E.; Sublette, James E.; Shannon, Joseph P.


Stonedahl, Gary M., AND Schwartz, Michael D.


Stumpf, Stacy E.

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**Sturdevant, Glen E.**


**Sublette, James E.; Stevens, Lawrence E.; AND Shannon, Joseph P.**


**Sugarman, Barbara**


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2 Numerous items in early issues of *Grand Canyon Nature Notes* have been attributed without author (cited as “Anonymous” by convention in this bibliography). However, beginning with Vol. 1, no. 12 (May 31, 1927), the masthead on p. 1 lists G. E. Sturdevant as a by-line (not editor) for entire issues; thus citations herein have been emended where necessary. Issue by-lines ceased with Sturdevant’s death; the final issue with it was Vol. 3, no. 7 (January 15, 1929).
Svinarenko, Igor [Свинаренко, Игорь]

1999  19.4069  Бабочка и смерть [Babochka i smert']. [Butterfly and death].  Власть [Vlast'] [Power] (Moskva), (16)(317) (April 27): [unpaginated]. [See illustrated sidebar, "Энтомология русской литературы; Набоков открыл 20 видов бабочек и дал им названия" [Entomology of Russian literature; Nabokov discovered 20 species of butterflies and gave them names], which includes note of a butterfly from Grand Canyon, Cyllopsis pereępida dorothea (see Nabokov, 1942, ITEM NO. 19.2212).] [In Russian.]

Swain, J. M.

1924  19.6018  The allies of Ips confusus Lec. in western America; Family Ipidae, Coleoptera.  Canadian Entomologist, 56(3) (March): 69-72. [NOTE: Cited here with question. Le Conte (1876, ITEM NO. 19.6017), p. 364, named the new species Tomicus confusus based on three specimens from "Southern California and Arizona"; no further information relating to the type localities is known. Swain (pp. 69-70) selected Le Conte’s “California” specimen, in the Agassiz Museum, Harvard University, as the type for Ips confusus (Le Conte); he selected the "Arizona specimen" as the holotype of Ips lecontei, new species. Inasmuch as the genus represents forest beetles, it is not likely that the California specimen came from a locality pertaining to the lower Colorado River region as defined in this bibliography (thus neither Le Conte nor Swain are cited in Part 11, Section 1). However, the genus is widely distributed, including the Grand Canyon region and higher elevations of Arizona, and although it is less likely that Le Conte’s specimen is from the immediate Grand Canyon region, both Le Conte’s and Swain’s papers are cited here conditionally.]

Tarnita, Corina E.; Bonachela, Juan A.; Sheffer, Efrat; Guyton, Jennifer A.; Coverdale, Tyler C.; Long, Ryan A.; AND Pringle, Robert M.


Temple, Bill

2000  19.5355  Orchid and sightseeing tour of the West Coast of USA.  The Hardy Orchid Society Newsletter (Stour Provost, Dorset, United Kingdom), (18) (October): 5-7. [See p. 6, brief remarks of having visited South Rim of Grand Canyon, and on North Rim "we saw Goodyera oblongifolia again and Weidemeyer’s Admiral butterfly" (ENTIRE NOTE).]
Thomas, Scott, AND Lindquist, Dave


Tilden, J. W.


Timberlake, P. H. [Timberlake, Philip H.]


1962 19.5570 A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific coast (Hymenoptera, Apoidea); Part V. *University of California, Publications in Entomology*, 28(1), 123 pp. [including 13 plates]. [See *Perdita wheeleri* Timberlake (p. 32, figures 755, 756 [p. 112], 856 [p. 121]), from Grand Canyon [see Timberlake (1928, ITEM NO. 19.5569)]; *Perdita inornata*, new species (pp. 49-50, figures 787, 788 [p. 115], 872 [p. 122]), paratypes “4 females, 14 males, South Rim of the Grand Canyon, July 26, 1934 (H. E. and M. A. Evans); 1 male, Grand Canyon, July 28, 1949 (W. H. Lange)”; *Perdita dasylirii* Cockerell (pp. 55-57, figures 793, 794 [p. 116], 875 [p. 122], material examined includes “1 female, Grand Canyon, June 11, 1931 (F. E Lutz)”); *Perdita polytropa polytropa*, new species and new subspecies (pp. 57-59, figures 795, 796 [p. 116], 876 [p. 122]), type material from California, additional material examined includes “6 males, 52 miles below Lee’s Ferry, Colorado River, Grand Canyon, on Acacia, June 6, 1953, and 18 females, 2 males, 179.2 miles below Lee’s Ferry, on barrel cactus, June 11 (G. D. Butler)”.]

1968 19.6611 A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific coast (Hymenoptera, Apoidea); Part VII (including index to Parts I to VII). *University of California, Publications in Entomology*, (49), 196 pp. [See *Perdita opacella* Timberlake (pp. 8-9), which notes, “This has been known from one female from the Grand Canyon, rizona, but a small series of both sexes has been collected at flowers of Cleome southwest of Moab, Utah.” (p. 8); *P. depressa*, new species (pp. 48-50, plate figures 1217, 1218 [p. 167], 1312 [p. 175]), paratypes include “1 female, Supai, 3,500 feet, Havasu Canyon, Grand Canyon National Park,
Coconino Co., Arizona, Aug. 2, 1934 (F. C. Lutz).” (p. 50); *P. subfasciata* Cockerell (p. 107), new records include "Mohave Co.: many of both sexes, 7 miles west of Peach Springs, on *Gutierrezia lucida*, Sept. 28, 1964 (Timberlake and Papp)."

**Tinkham, Ernest R.**


**Torre Bueno, J. R. de la** [Torre Bueno, José Rollin de la]

1905 19.3598 The genus *Notonecta* in North America north of Mexico. *New York Entomological Society, Journal*, 13(3) (September): 143-167, Plate 7. [See *Notonecta mexicana* Amyot and Serville, pp. 158-159; specifically, p. 159: "In the U. S. National Museum and Heidemann collections the specimens from Colorado Cañon, Hot Springs and Catalina Mts., Arizona, are var. *hades*, and above the average size and with more prominent eyes." (ENTIRE NOTE)]


**Townsend, C. H. Tyler** [Townsend, Charles Haskins Tyler]


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<tr>
<td>1895</td>
<td>19.1690</td>
<td>On the Coleoptera of New Mexico and Arizona, including biologic and other notes. <em>Canadian Entomologist</em>, 27: 39-51. [Cites numerous taxa from Grand Canyon.]</td>
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<td>1896</td>
<td>19.1691</td>
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### Usher, Howell D.; Leibfried, William C.; Blinn, Dean W.; AND Carothers, Steven W.

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### Van Duzee, E. P.

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<table>
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<td>Wang, Daqing</td>
<td>2001</td>
<td>19.6588</td>
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