BIBLIOGRAPHY *of* ENTOMOLOGY *of the* GRAND CANYON REGION

(INSECTS, ARACHNIDS, AND OTHER ARTHROPODS)

SECOND EDITION

EARLE E. SPAMER

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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 indiciates 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)

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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 Cruçes.—(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."]

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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)]

1916 19.4052 Potato crop brings goodly wealth to Michigan growers. *Pere Marquette Service* (Pere Marquette Railroad, Detroit), 2(7) (December): 6-7. [See p. 7, "Origin of the Potato

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 larvæ of *Megathymus* sp. was found boring in agave. *Sphinx coloradus* came to light at the top of the Canyon." (ENTIRE NOTE)]

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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.]

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1906 19.3596 A revision of the Nearctic Hemerobiidae. *American Entomological Society, Transactions*, 32(1): 21-51, Plates 3-5. [See *Hemerobius moestus* Banks, pp. 31-32, and *H. pacificus* Banks, p. 33; both including Grand Canyon.]

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Bestard, Margeaux

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Brown, F. Martin

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Brown, Nikolle L.

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1907 19.3653 A new buprestid enemy of *Pinus edulis*. (*Melanophila pini-edulis*, n. sp.) *Entomological Society of Washington, Proceedings* (Washington, D.C.), 9(1/4) (March/December): 117-118. [New species, based in part on "One female taken by Mr. E. A. Schwarz from pinyon (*Pinus edulis*) at Bright Angel Hotel (Grand Canyon P.O.), Arizona, on July 11, 1902." (p. 118)] [*Melanophila piniedulis*.]

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Northern Arizona University, Flagstaff, Arizona. [No imprint], p. 28. [Data based on studies of insect taxa.]

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1922 19.4079 Statement of Mr. E. E. Carter, Forest Service. *In:* U.S. House of Representatives, House Committee on Appropriations, Subcommittee, *Second Deficiency Appropriation Bill, 1923. Hearing before Subcommittee of House Committee on Appropriations : consisting of Messrs. Martin B. Madden (Chairman), Joseph G. Cannon, Daniel R. Anthony, Jr., Patrick H. Kelley, William R. Wood, Joseph W. Byrns, Thomas U. Sisson, and James A. Gallivan, in charge of deficiency appropriations : Sixty-seventh Congress, Fourth Session.* Washington, D.C.: U.S. Government Printing Office, pp. 53-63. [See "Insect Infestation in Grand Canyon National Park", p. 56. North Rim and Kaibab National Forest.]

Casey, Thomas L.

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1900 19.3610 Review of the American Corylophidae, Cryptophagidae, Tritomidae and Dermestidae, with other studies. *New York Entomological Society, Journal*, 8(2) (June): 51-172. [Grand Canyon collections noted for: *Cryptorhopalum pruddeni*, new species, p. 156; *Orphilus aequalis*, new species, p. 164.]

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,

described from "Arizona (Grand Canyon of the Colorado)"; *Zopherodes* also a new genus in this publication (p. 38).]

1908 19.6207 A revision of the tenebrionid subfamily Coniontinæ. *Washington Academy of Sciences, Proceedings* (Washington, D.C.), 10 (April 25): 51-166. [See *Discodemus brevipennis*, new species (p. 61); "Arizona (Grand Canyon of the Colorado),— T. Mitchell Prudden".]

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1918 19.3787 A review of the North American Bembidiinæ. *In:* Casey, Thomas L., *Memoirs on the Coleoptera. VIII. 1918.* Lancaster, Pennsylvania: New Era Printing Co., pp. 1-223. [See *Bembidion (Cyclolopha) occultum*, new subgenus, new species (p. 144), type specimen from "Grand Cañon of the Colorado", collected by T. Mitchell Prudden.] [A review of the North American Bembidiinae.]

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1975 19.428 Desert millipedes (Spirostreptidae, Spirostreptida) of the southwestern United States and adjacent Mexico. *Texas Tech University Museum, Occasional Papers*, (35), 12 pp.

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Chamberlin, Ralph V.

1940 19.4341 New American tarantulas of the family Avicolariidae. *University of Utah, Bulletin*, 30(13) (May 6), 39 pp. [See *Aphonopelma behlei*, new species, from Grand Canyon Village (pp. 26-27), and *A. phasmus*, new species, from Phantom Ranch, Grand Canyon (p. 28).]

1948 19.4376 On some American spiders of the family Erigonidae. *Entomological Society of America, Annals*, 41(4): 483-562. [Includes *Tapinocyba kesimba*, new species, from V.T. Ranch (VT Ranch), Kaibab Plateau.]

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

1993 19.5494 The Holarctic species of the *Mycetophila fungorum* (De Geer) group (Diptera: Mycetophilidae). *British Journal of Entomology and Natural History*, 6: 5-11. [See *Mycetophila neofungorum*, new species; "Holotype male USA, Arizona, Grand Canyon National Park (north rim), 15.vii.1954 (W. L. Downes, Natural History Museum, London)." (Brief taxonomic description only. Apparently a unique specimen.)]

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.

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2001 19.2905 Allozyme variation in interior Douglas-fir: association with growth and resistance to western spruce budworm herbivory. *Canadian Journal of Forest Research*, 31(1): 1691-1700. [Includes trees from near Jacob Lake, Arizona.]

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Cleland, Sophia; Hocutt, Gregory D.; Breitmeyer, Christopher M.; Markow, Therese A.; AND Pfeiler, Edward

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Cleveland, Danielle; Hinck, Jo Ellen; AND Lankton, Julia S.

2019 19.5983 Assessment of chronic low-dose elemental and radiological exposures of biota at the Kanab North uranium mine site in the Grand Canyon watershed. *Integrated Environmental Assessment and Management*, 15(1) (January): 112-125 + Supporting Information online, https://seta.onlinelibrary.wiley.com/doi/abs/10.1002/ieam.4095, 21 pp.

2021 19.6559 Elemental and radionuclide exposures and uptakes by small rodents, invertebrates, and vegetation at active and post-production uranium mines in the Grand Canyon watershed. *Chemosphere*, 263 (January): (127908) (https://doi.org/10.1016/j.chemosphere.2020.127908) + research data online (Chemical analyses and histopathology of organisms and plants collected from breccia pipe uranium mine sites in the Grand Canyon wateshed, 2015-2020, U.S. Geological Survey data release (https://doi.org/10.5066/P94OVQO9 [also as https://www.sciencebase.gov/catalog/item/5f40097182ce8df5b6cb4221]).

Cockerell, T. D. A. [Cockerell, Theodore Dru Alison]

1895 19.449 Additions to the list of U.S. Hymenoptera. *Canadian Entomologist*, 27 (April): 134. [Includes *Smicra divisa* Walker, collected at "Grand Canon, Arizona" by C. H. T. Townsend, July 8, 1892.]

1905 19.4540 New American bees. *Biological Society of Washington, Proceedings* (Washington, D.C.), 18: 177-184. [See p. 184, *Triepeolus hopkinsi*, new species; "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."] [A. D. Hopkins?]

1905 19.3564 *Diadasia* Patton: A genus of bees. *American Naturalist*, 39 (October): 741-745. [See distribution list, p. 745; includes *D. diminuta* Cresson from Grand Canyon.]

1912 19.3309 Some Coccidae from the Grand Cañon, Arizona. *Canadian Entomologist*, 44: 301.

Coelho, Joseph R.; Holliday, Charles W.; AND Hastings, Jon M.

2011 19.4268 The geographic distributions of cicada killers (*Sphecius*; Hymenoptera, Crabronidae) in the Americas. *Open Entomology Journal*, 5: 31-38. [In Grand Canyon and lower Colorado River regions includes *S. grandis* Say and *S. convallis* Patton.)

Cole, A. C., Jr.

1932 19.5199 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)]

1936 19.4415 Descriptions of seven new western ants. (Hymenop.: Formicidae.) *Entomological News* (Academy of Natural Sciences of Philadelphia, Entomological Section), 47 (May): 118-121. [See p. 120, *Myrmecocystus melliger* subsp. *semirufus* Emery var. *romainei*, new variety; "Described from a series of 54 workers taken by Miss Marjorie Romaine, at Cameron, Arizona."]

1937 19.6541 An annotated list of the ants of Arizona (Hymen.: Formicidae). *Entomological News*, 48 (April): 97-101, (May): 134-140.

1938 19.4419 Descriptions of new ants from the western United States. *American Midland Naturalist*, 20 (September): 368-373. [See *Myrmecocystus melliger* subsp. *semirufus* Emery, pp. 371-372; describing specimens collected 10 miles south of Cameron, Arizona.]

1956 19.4384 Observations of some members of the genus *Pheidole* in the southwestern United States with synonymy (Hymenoptera: Formicidae). *Tennessee Academy of Science, Journal*, 31(2) (April): 112-118. [See p. 113, *Pheidole pilifera artemisia* Cole, specimens collections include those from The Gap north of Cameron, "Kaibab National Forest, 25 mi. N. of Marble Canyon"; pp. 114-116, *Pheidole sitarches* complex, collections include those from "20 mi. S. of Marble Canyon", "27 mi. N. of Cameron".]

Cole, Gerald A.

1961 19.2144 Some calanoid copepods from Arizona with notes on congeneric occurrences of *Diaptomus* species. *Limnology and Oceanography*, 6(4) (October): 432-442.

Colton, Harold S.

1944 19.468 The anatomy of the female American lac insect, *Tachardiella larrea. Museum of Northern Arizona, Bulletin 21*, 24 pp.

Coquillett, D. W.

1902 19.3592 New acalyptrate Diptera from North America. *New York Entomological Society, Journal*, 10(4) (December): 177-191. [See *Trypeta varipennis*, new species, p. 180; "Bright Angel Hotel, brink of Grand Canyon".]

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

1929 19.482 Cricket notes. *Grand Canyon Nature Notes*, 3(12) (August 31): 4-5.

1994 19.499 Cricket notes. *In:* Lamb, Susan (ed.), *The best of Grand Canyon Nature Notes.* Grand Canyon, Arizona: Grand Canyon Natural History Association, pp. 79-80. [Reprinted from *Grand Canyon Nature Notes*, August, 1929.]

Crawford, C. S.; Bercovitz, K.; AND Warburg, M. R.

1987 19.509 Regional environments, life-history patterns and habitat use of spirostreptid millipedes in arid regions. *Linnean Society, Zoological Journal*, 89: 63-88.

Creighton, William S.

1930 19.3582 The New World species of the genus *Solenopsis* (Hymenop. Formicidae). *American Academy of Arts and Sciences, Proceedings*, 66(2) (December): 39-152. [See *S. (Solenopsis) xyloni* subsp. *aurea* (Wheeler), pp. 103-104, plate 3, figure 2. Includes note of activity observed near bottom of Bright Angel Trail.] [Ants.]

Cresson, Ezra T., Jr.

1919 19.4541 Dipterological notes and descriptions. *Academy of Natural Sciences of Philadelphia, Proceedings*, 71: 171-194. [See *Bombylius facialis*, new species, pp. 187-188, type male from "Rim of Grand Canyon, 7000 feet, alt., [*sic*] May 23, 1918, (F. M. Jones), [A.N.S.P. No. 6213]"; and see p. 190, *Callicera montensis* Snow, 1892, "One specimen, Grand Canyon, 7000 feet alt., May, (F. M. Jones)."] [Square brackets on catalogue number are part of quotation.]

Crews, Sarah C., AND Gillespie, Rosemary G.

2010 19.5172 Molecular systematics of *Selenops* spiders (Araneae: Selenopidae) from North and Central America: implications for Caribbean biogeography. *Linnean Society, Biological Journal*, 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, "*Selenops debils* 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 (http://onlinelibrary.wiley.com/store/10.1111/j.1095-8312.2010.01494.x/asset/supinfo/BIJ_1494_sm_Fig_2_HI.tif); it is not useful in locating individual localities.]

Currie, Rolla P.

1903 19.3196 The Odonata collected by Messrs. Schwarz and Barber in Arizona and New Mexico. *Entomological Society of Washington, Proceedings* (Washington, D.C.), 5(4): 298-304. [Includes collections by [H. S.] Barber made at Bright Angel Hotel and Indian Garden.] [E. A. Schwarz.]

Curtis, William M., AND Stock, Michael J.

1991 19.530 Invertebrate species associated with various vegetation and habitat types in the Colorado River corridor, Grand Canyon National Park. *In: Colorado River Investigations #9 : July/August, 1990* (supervised by Stanley S. Beus, Lawrence E. Stevens, and Frank B. Lojko). Flagstaff, Arizona: Northern Arizona University, *for* U.S. National Park Service, Grand Canyon National Park, pp. 141-149. [Insects.]

D

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 *Cockerellula* (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.

1917 19.3593 Sonoran cicadas collected by Harry H. Knight, Dr. Joseph Bequaert and others, with descriptions of new species. *New York Entomological Society, Journal*, 25(4) (December): 203-215. [See *Tibicen cinctifera* Uhler, p. 210; including Grand Canyon and Kaibab Plateau.]

1919 19.2944 Cicadas of the genus *Cacama*, with descriptions of several new species. *New York Entomological Society, Journal*, 27 (March): 68-79, Plate 13. [See *Cacama valvata* (Uhler), pp. 70-72, which notes examined species: "Grand Canyon, Ariz., sage bush [*sic*] country half way level in Canyon, June 5, 1915, male (B. B. Fulton), D's Coll. Grand Canyon, Ariz., Indian Garden, June 9, 1916, male (Geo. P. Engelhardt), D's Coll. The two males from the Grand Canyon are smaller than the others in my collection."] [*NOTE*: The running head for the article reads "Cicadas of the Genus Cicada."]

1920 19.3321 North American cicadas belonging to the genera *Platypedia* and *Melampsalta*. *New York Entomological Society, Journal*, 28(2) (June): 95-135, Plate 5. [See *Platypedia putnami* var. *lutea*, new variety, pp. 106-108, Plate 5, figure 4. Non-type material (not illustrated) includes specimens: "Moran's Point, Grand Canyon, June, 1901, two females, collection Am. Museum of natural History. Grand Canyon, June 16, 1907, 7,000 ft., male (H. A. Kaeber), collection Academy [of] Natural Sciences of Philadelphia."]

1921 19.3595 Records of cicadas from North America with descriptions of new species. *New York Entomological Society, Journal*, 29(1) (March): 1-16. [See *Tibicen apache*, new species, pp. 3-5, Plate 1, figures 4-6; including Grand Canyon. Only type material from Florence, Arizona, is illustrated.]

1921 19.3322 Cicadas of the genus *Cacama*, with descriptions of several new species. *In:* Davis, William T., *North American cicadas : a collection of papers published in the Journal of the New York Entomological Society from 1915 to 1921.* [Facsimile reprint of Davis

(1919, ITEM NO. 19.2944), *New York Entomological Society, Journal*, 27 (March): 68-79, Plate 13; retains original pagination. See p. 71.]

1921 19.3323 North American cicadas belonging to the genera *Platypedia* and *Melampsalta*. *In:* Davis, William T., *North American cicadas : a collection of papers published in the Journal of the New York Entomological Society from 1915 to 1921.* [Facsimile reprint of Davis (1920, ITEM NO. 19.3321), *New York Entomological Society, Journal*, 28(2) (June): 95-135, Plate 5; retains original pagination. See p. 108.]

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.]

1942 19.4513 Notes on cicadas with descriptions of new species. *New York Entomological Society, Journal*, 50 (June): 169-187. [Grand Canyon, see under "*Diceroprocta apache* and its varieties", pp. 172-174.]

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

2011 19.3903 Remote monitoring of tamarisk defoliation by the saltcedar leaf beetle [ABSTRACT]. *2011 Tamarisk Research Conference, February 16 and 17, Tucson, Arizona, Marriott University Park*.

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]

1930 19.6261 The North American beetles of the genus *Coccinella*. *U.S. National Museum, proceedings*, 80(Article 4)(2904), 32 pp. [See *Coccinella novemnotata* Herbst subspecies *degener* Casey. Localities noted in georaphic distribution include "Grand Canyon, Bright Angel".]

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)".]

1958 19.2093 Genetics of natural populations. XXVII. The genetic changes in populations of *Drosphila pseudoobscura* in the American Southwest. *Evolution*, 12(3) (September): 385-401.

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 1): 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. *inflata* Lindsay (p. 178), with paratypes noted from "Grand Canyon, Ariz."]

Drost, Charles A.

2005 19.2589 Biology of stream caves in Grand Canyon National Park [ABSTRACT]. *In: Eighth Biennial Conference of Research on the Colorado Plateau, du Bois Center, Northern Arizona University, 7-10 November 2005 : program and abstracts of presented papers and posters (version 2.0)*, p. 41.

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

1995 19.2878 *Invertebrate survey of Roaring Springs Cave, Grand Canyon National Park, September 1994.* [Flagstaff, Arizona: Northern Arizona University], *for* U.S. National Park Service, Denver Service Center, 13 pp. (Work Order 1443PX200094183.)

1997 19.572 Invertebrate community of Roaring Springs Cave, Grand Canyon National Park, Arizona. *Southwestern Naturalist*, 42(4): 497-500.

Dunford, James Christopher

2007 19.4351 *The genus* Speyeria *and the* Speyeria atlantis/Speyeria hesperis *complex: Species and subspecies accounts, systematics, and biogeography (Lepidoptera: Nymphalidae).* Doctoral dissertation, University of Florida, 245 pp. [See p. 93, account for *Speyeria hesperis schellbachi* Garth, 1949, holotype from Neal Spring, North Rim of Grand Canyon. (For original subspecies description, *S. atlantis schellbachi*, see Garth (1949, ITEM NO. 19.626).]

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

2005 19.2591 Consequences of the invasion of exotic saltcedar: An arthropod perspective [ABSTRACT]. *In: Eighth Biennial Conference of Research on the Colorado Plateau, du Bois Center, Northern Arizona University, 7-10 November 2005 : program and abstracts of presented papers and posters (version 2.0)*, p. 42.

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.)]

E

Ehrhorn, Edw. M.

1899 19.3983 Five new Coccidæ. *Canadian Entomologist*, 31(1) (January): 5-7. [Includes *Ripersia arizonensis*, new species, and *Dactylopius formicarii*, new species, both from "Thurber's Camp, Grand Canyon" (*i.e.*, Bright Angel Camp).] [Five new Coccidae.]

El-Haj, Suzanne, AND Ruvalcaba, Antonio

2021 19.6695 River connections—flowing rivers and monarch migration. *Boatman's Quarterly Review*, 34(4) (Winter 2021-2022): 14-17. [Monarch butterflies, *Danaus plexippus*.]

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

1992 19.585 Late Quaternary arthropods from the Colorado Plateau, Arizona and Utah. *Great Basin Naturalist*, 52(1): 59-67. [Insecta; see p. 63 and following.]

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

2002 19.2272 Spatial correlations of *Diceroprocta apache* and its host plants: Evidence for a negative impact from *Tamarix* invasion. *Ecological Entomology*, 27(1) (February): 16-24.

Emmel, Thomas C.

1969 19.4719 Taxonomy, distribution and biology of the genus *Cercyonis* (Styridae). I. Characteristics of the genus. *Lepidopterists' Society, Journal*, 23(3): 165-175. [Grand Canyon, see map, p. 167; *C. pegala damei*, pp. 169, 173.]

1987 19.4008 The John Adams Comstock Award, 1987; the man we honor, John S. Garth. *News of the Lepidopterists' Society*, (6) (November/December): 77-78, 80. [See p. 78, notice of Garth's work at Grand Canyon National Park, beginning 1946.]

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

1967 19.588 The biology of *Papilio indra kaibabensis* in the Grand Canyon. *Lepidopterists' Society, Journal*, 21(1) (February 21): 41-48.

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.]

F

Fairweather, Mary Louise [Fairweather, Mary Lou]

1990 19.597 Biological evaluation of pest conditions and potential hazard trees in two campgrounds on the Kaibab National Forest, Arizona. Albuquerque: *U.S. Forest Service, Southwestern Region, State and Private Forestry, Forest Pest Management, Forest Pest Management Report R-3 90-3*, 8 pp.

Fairweather, Mary Lou; McMillin, Joel; Rogers, Terry; Conklin, Dave; AND Fitzgibbon, Bobbe

2006 19.5174 Field guide to insects and diseases of Arizona and New Mexico forests. *U.S. Forest Service, Southwestern Region, Management Report MR-R3-16-3*, 271 pp.

Fall, H. C.

1905 19.3601 Revision of the Ptinidae of boreal America. *American Entomological Society, Transactions*, 31(2/3): 97-296, Plate 7. [See p. 217, *P. bistriatum* var. *arizonense*, new variety; p. 236, *C. grande*, new species; p. 244, *C. longulum*, new species; p. 250, *C. pingue*, new species; all including Grand Canyon.]

1909 19.3603 Revision of the species of *Diplotaxis* of the United States. *American Entomological Society, Transactions*, 35(1) (January): 1-97. [See p. 34, *D. conformis*, new species; including Grand Canyon.]

1910 19.3602 Miscellaneous notes and descriptions of North American Coleoptera. *American Entomological Society, Transactions*, 36(2): 89-197. [See p. 177, *Bruchus perplexus*, new species; including Grand Canyon.]

1912 19.3599 A review of the North American species of *Collops* (Col.). *New York Entomological Society, Journal*, 20(4) (December): 249-274. [See pp. 263-264, *C. bipunctatus* Say.]

1915 19.3391 A revision of the North American species of *Pachybrachys*. *American Entomological Society, Transactions*, 41(3) (September): 291-486. [See pp. 344-345, *P. arizonensis* Bowdich; pp. 447-449, *P. bivittatus* Say.]

Ferris, G. F.

1931 19.6139 The sucking lice. *Pacific Coast Entomological Society, Memoir 1*, 320 pp. [See p. 109, *Enderleinellus longiceps* Kellogg and Ferris; host and distribution notes include "from *Sciurus kaibabensis* from the Kaibab National Forest, Arizona" (ENTIRE NOTE)]

Fisher, W. S.

1942 19.3332 A revision of the North American species of buprestid beetles belonging to the tribe Chrysobothrini. *U.S. Department of Agriculture, Miscellaneous Publication 470*, 275 pp. [See pp. 37, 87, 91, 95, 111, 152, 172, 190.]

Foote, Richard H.; Blanc, F. L.; AND Norrbom, Allen L.

1993 19.608 *Handbook of the fruit flies (Diptera: Tephritidae) of America north of Mexico.* Ithaca (New York) and London: Comstock Publishing Associates, 571 pp.

Fox, William Henry

1917 19.3111 *Museums of the Brooklyn Institute of Arts and Sciences : report upon the conditions and progress of the museums for the year ending December 31, 1916.* Brooklyn, New York, New York: Brooklyn Institute of Arts and Sciences. [See "Department of Natural Science", under "Gifts", "Dr. R. Ottolengui. Insects from Grand Canyon, Arizona . . ."; and under "Collection and Exchange", "G. P. Engelhardt. Bat from Grand Canyon . . . Spermophile from Grand Canyon." (p. 50) No further elaboration.]

Fox, William J.

1893 19.4538 New species of fossorial Hymenoptera. *Canadian Entomologist*, 25(5) (May): 113-117. [See pp. 116-117, *Gorytes dentatus*, from "Grand Canyon, Arizona, '70 miles North of Flagstaff.' *(C. H. Tyler Townsend)."*]

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

1973 19.6448 Révision taxonomique des espèces Néarctiques du groupe *Fusca*, genre *Formica* (Formicidæ, 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 occidua* (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.

1963 19.4416 Type localities of the Megathymidae. *Journal of Research on the Lepidoptera*, 2(2): 137-141. [See p. 140, under *Agathymus* Freeman: "[*A.*] *alliae* (Stallings and Turner), 15 mi. W. Cameron, Arizona, along canyon of Little Colorado R., elev. 5000 ft." (ENTIRE NOTE)] [See also Stallings and Turner (1957, ITEM NO. 19.4417).]

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.]

Friedlander, Tim

1987 19.6153 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, "Garth's (1950) record of *A. leilia* from the Grand Canyon (Arizona) is also this subspecies of *A. celtis.*"; and see *Asterocampa leilia* (W. H. Edwards, 1874) (pp. 254-260), specifically p. 260, "The species reported as *A. leilia* from the Grand Canyon (Garth, 1950) are actually *A. celtis antonia* ('montis') (Reinthal, unpublished obs.)." (ENTIRE NOTES) See also distribution map, Plate 1 (p. 315). The references are to Garth (1950, ITEM NO. 19.627).]

Fritzinger, Carol (Fritz), AND Kennedy, Ted

2014 19.4239 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.]

Fulton, B. B.

1925 19.4313 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).]

Furniss, Malcolm M.

2007 19.5911 A history of forest entomology in the Intermountain and Rocky Mountain areas, 1901 to 1982. *U.S. Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-195*, 40 pp. [Includes Kaibab Plateau.]

Furniss, R. L., AND Carolin, V. M.

1977 19.3761 Western forest insects. *U.S. Forest Service, Miscellaneous Publication 1339*, 654 pp. [See p. 120, piñon needle scale, *Matsucoccus acalyptus* Herbert (McCambridge 1974); a "serious outbreak" noted at Grand Canyon National Park, *in passing*.]

G

Gadgil, P. D., AND Flint, T. N.

1983 19.5187 Assessment of the risk of introduction of exotic forest insects and diseases with imported tents. *New Zealand Journal of Forestry*, 28(1): 58-67. [Study performed by examining "45 tents accompanying incoming passengers at the Auckland International

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]

1965 19.625 A *Cuterebra* (Diptera: Cuterebridae) infestation in the Grand Canyon rattlesnake, *Crotalus viridis abyssus*, with a list of those recorded from other hosts. *Kansas Academy of Science, Transactions*, 67(4) (Winter 1964): 689-692. [Issue no. 4 published 17 February 1965.]

Garth, John S.

1949 19.626 Studies in Arizona Lepidoptera. I. A new subspecies of *Speyeria atlantis* (Edwards) from the Kaibab Plateau, Grand Canyon National Park. *Southern California Academy of Sciences, Bulletin*, 48(Part 1): 1-4. [*Speyeria atlantis schellbachi* Garth, male holotype and female allotype from Neal Spring, North Rim of Grand Canyon; 20 paratypes from various Kaibab localities.]

1950 19.627 Butterflies of Grand Canyon National Park. *Grand Canyon Natural History Association, Bulletin 11*, 52 pp.

Gelhaus, Jon K.

2005 19.6147 Systematics and biogeography of the desert crane fly subgenus *Tipula* (*Eremotipula*) Alexander (Diptera: Tipulidae). *American Entomological Society, Memoir 46*, 235 pp.

Gertsch, Willis J.

1933 19.6334 New genera and species of North American spiders. *American Museum Novitates*, (636), 28 pp. [See *Misumenops coloradensis*, new species (p. 17, figures 15 [p. 12], 46 [p. 24]); "Female paratypes from Grand Canyon (North Rim), Arizona, and Kanab, Utah."]

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

Canyon and Kaibab Plateau. 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)".]

1958 19.4742 The spider family Diguetidae. *American Museum Novitates*, (1904), 24 pp. [Includes female of *Diguetia canities* McCook, from Indian Garden, Grand Canyon.]

1960 19.4848 The *fulva* group of the spider genus *Steatoda* (Araneae, Theridiidae). *American Museum Novitates*, (1982), 48 pp. [See in particular *Steatoda variata*, new species (pp. 24-29 and figures 2 [p. 7, distribution map], 22-25 [p. 13], 34-44 [p. 17]), holotype male from The Gap, Arizona. Non-type records include "Twenty-five males north of The Gap . . . male, many females."]

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.

2005 19.2551 Inter- and intra-annual differences in the availability of drifting invertebrates near the Little Colorado River, Grand Canyon, AZ [ABSTRACT]. *In: Colorado River Ecosystem Science Symposium 2005. Abstracts. October 25-27, 2005, Fiesta Inn Resort, 2100 South Priest Drive, Tempe, AZ.* [Flagstaff, Arizona]: [U.S. Geological Survey, Grand Canyon Monitoring and Research Center], p. 42.

Gitt, Werner

2003 19.5790 [Dragonflies.] *From:* Grand Canyon; the plants and animals [SECTION]. *In:* Vail, Tom, *Grand Canyon : a different view.* Green Forest, Arkansas: Master Books, p. 81. [Creationist perspective.]

2018 19.5791 [Dragonflies.] *From:* Grand Canyon; the plants and animals [SECTION]. *In:* 湯姆 韦尔 [Vail, Tom], 大峡谷 ： 一个非凡的视野 [Dà xiágǔ : yīgè fēifán de shìyě] [Grand Canyon : an extraordinary vision]. Green Forest, Arkansas: Master Books, p. 81. [In

the translation of Vail's (2003) *Grand Canyon : a different view*.] [Creationist perspective.] [In Chinese.]

Glassbers, Jeffrey

2001 19.2040 *Butterflies through binoculars : the West : a field guide to the butterflies of western North America.* Oxford and New York: Oxford University Press, 374 pp.

Gould, Rowan W.

2011 19.3468 Endangered and Threatened wildlife and plants; petition to list Grand Canyon Cave Pseudoscorpion. *Federal Register*, 76(138) (July 19): 42654-42658. [*Archeolarca cavicola* Muchmore, 1981 (see ITEM NO. 19.5001)]

Graauw, Kristen de

2012 19.4623 *Tree-ring analysis of outbreak dynamics across an insect's entire range: The Pandora moth system.* 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.]

Graham, Timothy B. [Graham, Tim B.]

1986 19.651 *Plant-herbivore interactions: Grasses and grasshoppers in Grand Canyon National Park.* Doctoral dissertation, Utah State University, 155 pp.

Graham, Timothy B., AND Norton, Roy A.

1998 19.3469 Uncharismatic microfauna of the Colorado Plateau: Notes on distribution and ecology of an undescribed, pothole-dwelling Ameronothrooid (Acari: Ameronthridae) mite. *In:* Hill, L. M., and Koselak, J. J., *Learning from the land: Grand Staircase-Escalante National Monument Science Symposium proceedings, Southern Utah University, Cedar City, UT, November 4-5, 1997*. Salt Lake City: U.S. Bureau of Land Management, pp. 477-483. [Includes localities near Desert View, Grand Canyon.]

Grissell, E. E.

1983 19.4649 *Boharticus*, n. gen., with a review of *Rhopalicus* Foerster and *Dinotiscus* Ghesquiere (Hymenoptera: Pteromalidae). *Pan-Pacific Entomologist*, 59(1/4): 78-102. [New genus. See *Boharticus margaretae*, new species (pp. 86-87, Figures 2 (p. 81), 13 (p. 85), 17 (p. 85)); specifically, p. 87, citing paratype specimen (USNM) from "8 miles SW Peach Springs, 4500', 7 September 1964, C. W. O'Brien, ex *Juniperus*."]

H

Halbritter, Dale A.; Storer, Caroline G.; Kawahara, Akito Y.; AND Daniels, Jaret C.

2019 19.6486 Phylogeography and population genetics of pine butterflies: Sky islands increase genetic divergence. *Ecology and Evolution*, 9: 13889-13401 + Suplementary Information online, https://onlinelibrary.wiley.com/doi/full/10.1002/ece3.5793, (2, 7 pp.) + genetic data, code, alignments, and other output files: Dryad https://doi.org/10.5061/dryad.4mw6m906h. [Sampling sites include two on the Kaibab Plateau (pine white butterfly, *Neophasia menapia*).]

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

2003 19.5224 Review of the subgenus *Geron (Geron)* Meigen in the Nearctic region (Diptera: Bombyliidae: Toxophorinae). *Zootaxa*, (181): 1-72. [See *Geron prosopidis*, new species; paratypes include 11 taken at "S Rim Grand Canyon, 21-22.vii.1932 (R.H. Painter)".]

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

2016 19.5488 Taxonomic revision of the tarantula genus *Aphonopelma* Pocock, 1901 (Araneae, Mygalomorphae, Theraphosidae) within the United States. *ZooKeys*, 560: 1-340 [entire number].

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

2017 19.5679 The U.S. Geological Survey Flagstaff Science Campus; providing expertise on planetary science, ecology, water resources, geologic processes, and human interactions with the earth. *U.S. Geological Survey, Fact Sheet 2017-3051*, [2] pp. [See "Southwest Biological Science Center", p. [1], which includes photo, "capturing aquatic insects on the Colorado River".]

Harvey, Mark S., AND Wynne, J. Judson

2014 19.4593 Troglomorphic pseudoscorpions (Arachnida: Pseudoscorpiones) of northern Arizona, with the description of two new short-range endemic species. *Journal of Arachnology*, 42(3): 205-219. [Includes new species, *Hesperochernes bradybaughi* and *Tuberochernes cohni*, both from "PARA-1001 Cave", Grand Canyon-Parashant National Monument. Other taxonomic acts in this paper: "the genus *Archeolarca* Hoff and Clawson is newly synonymized with *Larca* Chamberlin, and the following species are transferred from *Archeolarca* to *Larca*, forming the new combinations *L. aalbui* (Muchmore 1984), *L. cavicola* (Muchmore 1981), *L. guadalupensis* (Muchmore 1981) and *L. welbourni* (Muchmore 1981)" (from the abstract).]

Hastriter, Michael W., AND Haas, Glenn E.

2005 19.5209 Bionomics and distribution of species of *Hystrichopsylla* in Arizona and New Mexico, with a description of *Hystrichopsylla dippiei obliqua*, n. ssp., (Siphonaptera: Hystrichopsyllidae). *Journal of Vector Ecology*, 30(2) (December): 251-262. [See *Hystrichopsylla dippiei truncata* Holland, 1957 (pp. 257-260), which includes examined material from various localities on Kaibab Plateau (p. 257, figure 3L [p. 258]).]

Hatten, James R.

2016 19.5147 A satellite model of southwestern willow flycatcher (*Empidonax traillii extimus*) breeding habitat and a simulation of potential effects of tamarisk leaf beetles (*Diorhabda* spp.), southwestern United States. *U.S. Geological Survey, Open-File Report 2016-1120*, 88 pp.

Haury, Loren R.

1981 19.4146 *Cladophora drift and planktonic crustaceans in the Colorado River: Lee's Ferry to Diamond Creek.* La Jolla, California: Scripps Institution of Oceanography, [1], 13, [11] pp.

1987 19.734 *Zooplankton of the Colorado River, Glen Canyon Dam to Diamond Creek.* 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.

1988 19.735 Zooplankton of the Colorado River, Glen Canyon Dam to Diamond Creek. *In:* U.S. Bureau of Reclamation, Glen Canyon Environmental Studies, *Glen Canyon Environmental Studies : executive summaries of technical reports : November 1988.* [No place]: Glen Canyon Environmental Studies, pp. 205-215.

Hauser, Martin, AND Irwin, Michael E.

2003 19.5498 The Nearctic genus *Ammonaios* Irwin and Lyneborg 1981 (Diptera: Therevidae). *Entomological Society of America, Annals*, 96(6): 738-765. [Includes *Ammonaios confusus*, new species; non-type material examined includes specimens from "11.3-14.5 km W Page", "32.2 km W Marble Canyon", and "Cameron".]

Haverty, Michael I., AND Nelson, Lori J.

2007 19.3075 *Reticlitermes* (Isoptera: Rhinotermitidae) in Arizona: Multiple cuticular hydrocarbon phenotypes indicate additional taxa. *Entomological Society of America, Annals*, 100(2): 206-221.

Haverty, Michael I.; Nelson, Lori J.; AND Forschler, Brian T.

1999 19.3837 New cuticular hydrocarbon phenotypes of *Reticulitermes* (Isoptera: Rhinotermitidae) from the United States. *Sociobiology*, 34(1): 1-21. [Includes collection localities: "North Rim, Grand Canyon" and "Hwy 89, 16km east of Jacob Lake".]

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.

1906 19.3399 Blood gills of *Simulium pictipes*. *American Naturalist*, 40 (December): 875-885. [See p. 876, reference to Townsend's observation of *Simulium* in Grand Canyon, *in passing*.]

Hebard, Morgan

1920 19.3757 A revision of the North American species of the genus *Myrmecophila* (Orthoptera; Gryllidae; Myrmecophilinae). *American Entomological Society, Transactions*, 46: 91-111. [See map, p. 97; *Myrmecophila manni* Schimmer, pp. 104-108; *M. nebrascensis* Lugger, pp. 108-111. Grand Canyon localities noted.]

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.

1989 19.4383 *Geomydoecus thomomyus* complex (Mallophaga: Trichodectidae) from pocket gophers of the *Thomomys talpoides* complex (Rodentia: Geomyidae) of the United States and Canada. *Entomological Society of America, Annals*, 82(3) (May): 286-297. [See *Geomydoecus craigi*, new species; non-type material noted from "N rim Grand Canyon" and "Jacobs Lake, Kaibab Plateau", from *T. t. kaibabensis* Goldman.]

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/asc.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

1933 19.753 Butterflies—try and get them. *Sierra Club Bulletin*, 18: 47-55. [See p. 55.]

Hofknecht, Greg William

1981 19.776 *Seasonal community dynamics of aquatic invertebrates in the Colorado River and its tributaries within Grand Canyon, Arizona.* Master's thesis, Northern Arizona University, 105 pp.

Holigay, Tanya

2003 19.2363 Why are the trees orange? *Nature Notes* (Grand Canyon National Park), 19(1) (Winter 2002-2003): 1-2. [Bark beetle infestation.]

Hopkins, A. D.

1909 19.3654 Practical information on the scolytid beetles of North American forests. I. Barkbeetles of the genus *Dendroctonus*. *U.S. Bureau of Entomology, Bulletin 83, Part I*, 169 pp. [Bark beetles.]

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. [*NOTE*: Acts of taxonomic nomenclature in this unpublished dissertation are not valid under the *International Code of Zoological Nomenclature*. See Hopkins (2014, ITEM NO. 19.4944) for nomenclatural acts in a validly published venue.]

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.

1963 19.5573 North American species in Group IX of *Ips* De Geer (Coleoptera : Scolytidae). *Canadian Entomologist*, 97 (April): 422-434. [See *Ips conjusus* (Leconte), 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.

1893 19.3589 The Galerucini of boreal America. *American Entomological Society, Transactions*, 20(2) (April/June): 57-136. [See *Luperus wickhami*, new species, pp. 114-115; from Peach Springs, Arizona.]

Hottes, F. C.

1956 19.2196 Two new species of *Cinara* from northern Arizona with illustrations of hitherto unfigured species and notes on *Schizolachnus flocculosa* (Williams) (Aphidae). *Biological Society of Washington, Proceedings* (Washington, D.C.), 69: 219-224.

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

1922 19.5905 Report of the Entomologist. *In: U.S. Department of Agriculture, Annual Report.* Washington, D.C.: U.S. Government Printing Office. [Seen as a separate. See under "Insects Affecting Forest Resources and Shade Trees"; specifically, "Grand Canyon-Kaibab Control Project", p. 24.]

1924 19.5906 Report of the Entomologist. *In: U.S. Department of Agriculture, Annual Report.* Washington, D.C.: U.S. Government Printing Office. [Seen as a separate. See under "Insects Affecting Forest Resources and Shade Trees"; specifically, "The Kaibab Control Project", p. 25.]

1925 19.5907 Report of the Entomologist. *In: U.S. Department of Agriculture, Annual Report.* Washington, D.C.: U.S. Government Printing Office. [Seen as a separate. See under "Investigation and Control of Western Bark Beetles"; specifically, "The Kaibab control project", p. 30.]

1926 19.5908 Report of the Entomologist. *In: U.S. Department of Agriculture, Annual Report.* Washington, D.C.: U.S. Government Printing Office. [Seen as a separate. See under "Investigations of Insects Affecting Forest and Shade Trees"; specifically, "The Kaibab National Forest and Grand Canyon National Park", p. 25.]

1927 19.5909 Report of the Entomologist. *In: U.S. Department of Agriculture, Annual Report.* Washington, D.C.: U.S. Government Printing Office. [Seen as a separate. See under "Investigations of Insects Affecting Forest and Shade Trees"; specifically, "Western Bark Beetles" (p. 25), with brief note of Kaibab National Forest.]

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

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

Hubbard, Clarence Andreson

1943 19.3395 The fleas of California; with checklists of the fleas of Oregon–Washington–British Columbia–Alaska–Idaho–Nevada–Arizona. *Pacific University Bulletin*, 39(8) (June): 1-12.

1947 19.791 *Fleas of western North America : their relation to the public health.* Copyright Iowa State College Press. [Facsimile reprinting 1968, New York and London, Hafner Publishing Co., 533 pp.]

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

2011 19.5226 Firewood transport by national and state park campers: A risk for native or exotic tree pest movement. *Arboriculture and Urban Forestry*, 37(3): 126-138. [Source area

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

Jamison, Levi R., AND Riper, Charles van, III

2012 19.3907 Population dynamics of the tamarisk leaf beetle (*Diorhabda carinulata*) within the Colorado River basin [ABSTRACT]. *2012 Tamarisk Coalition Symposium, February 15-17, Grand Junction, CO, Two Rivers Convention Center*.

2018 19.5819 Population dynamics of the northern tamarisk beetle (*Diorhabda carinulata*) in the Colorado River basin. *U.S. Geological Survey, Open-File Report 2018-1070*, 68 pp.

Jamison, Levi R.; Ament, Nate; AND Tate, Clark

2010 19.3901 Distribution and expansion of *Diorhabda carinulata* across the Colorado Plateau [ABSTRACT]. *2010 Tamarisk Symposium, January 12 and 13, Two Rivers Convention Center, Grand Junction, Colorado*.

Jamison, Levi R.; Riper, Charles van, III; AND Bean, Dan W.

2015 19.5114 The influence of *Tamarix ramosissima* defoliation on population movements of the northern tamarisk beetle (*Diorhabda carinulata*) within the Colorado Plateau. *In:* Huenneke, Laura F., Riper, Charles van, III, and Hays-Gilpin, Kelley A. (eds.), *The Colorado Plateau VI : science and management at the landscape scale.* Tucson: University of Arizona Press. (11th Biennial Conference of Research on the Colorado Plateau.)

Johannsen, Oskar Augustus

1903 19.3253 Aquatic nematocerous Diptera. *In:* Needham, James G., MacGillivray, Alex. D., Johannsen, O. A., and Davis, K. C., Aquatic insects in New York State. *New York State Museum, Bulletin 68* (Entomology, 18) [and concurrently, *University of the State of New York, Bulletin 295*], pp. 328-441. [See p. 387, *Simulium* sp. found on Hance Trail.]

Johnson, Elizabeth Joy

2001 19.4932 *The molecular evolution of the sex-ratio gene complex in* Drosophila persimilis*.* Master's thesis, University of Georgia, 37 pp. [Includes *D. pseudoobscura* strains from "Grand Canyon, AZ" and "North Rim, AZ" (pp. 29, 31, 32).]

Johnson, Matthew J.; Jamison, Levi; Ralston, Barbara E.; Makarick, Lori; AND Holmes, Jennifer

2012 19.4509 *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.]

Johnson, Matthew J.; Ralston, Barbara; Holmes, Jennifer A.; AND Calvo, Christopher

NO DATE 19.5992 *Task 4.5 final sampling/monitoring report : Arizona Water Protection Fund Grand; inventory of tamarisk leaf beetle and effects on riparian habitat in the Colorado, Verde, Salt and Tonto Rivers, 2011, 2012 and 2013.* Flagstaff, Arizona: Northern

Arizona University, Colorado Plateau Research Station; and U.S. Geological Survey, Southwest Biological Science Center, *for* Arizona Water Protection Fund, 102 pp. [Study area on Colorado River is between Glen Canyon Dam and Lees Ferry.]

Johnson, Matthew J.; Ralston, Barbara; Makarick, Lori; AND Holmes, Jennifer

2011 19.3905 Status and implications of tamarisk beetle (*Diorhabda carinulata*) along the Colorado River in Glen and Grand Canyons [ABSTRACT]. *2011 Tamarisk Research Conference, February 16 and 17, Tucson, Arizona, Marriott University Park*.

Johnson, Walter N.

1990 19.5290 A new subspecies of *Cicindela pusilla* Say from northern Arizona. *Cicindela*, 22(1) (March): 1-12. [*Cicindela pusilla kaibabensis*, from "8 miles north of Kaibab Lodge".]

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.

1985 19.839 New termite records for the Grand Canyon. *Southwestern Entomologist*, 10(2) (June): 137-138.

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.]

K

Kavanaugh, David H.

2008 19.2842 A new species of *Nebria* Latreille (Coleoptera: Carabidae: Nebriini) from the Grand Canyon, Arizona. *Carnegie Museum of Natural History, Annals*, 77(1) (July): 1-5.

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]

NO DATE 19.4406 *Citizen science—Quantifying food for the fishes of the Grand Canyon.* [AND] *Bugs, bugs, and more bugs! Common terrestrial insects caught in light traps.* U.S. Geological Survey, [2] pp. [2013?] [Fact sheet.]

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

2005 19.2543 Aquatic ecology: the role of organic matter and invertebrates. *In:* Gloss, Steven P., Lovich, Jeffrey E., and Melis, Theodore S. (eds.), The state of the Colorado River ecosystem in Grand Canyon; a report of the Grand Canyon Monitoring and Research Center, 1991-2004. *U.S. Geological Survey, Circular 1282*, pp. 87-102.

2005 19.2559 Aquatic ecology: the role of organic matter and invertebrates (chapter 5). *In: Colorado River Ecosystem Science Symposium 2005. Abstracts. October 25-27, 2005, Fiesta Inn Resort, 2100 South Priest Drive, Tempe, AZ.* [Flagstaff, Arizona]: [U.S. Geological Survey, Grand Canyon Monitoring and Research Center], p. 21. [Chapter 5 refers to ITEM NO. 19.2543.]

2005 19.2596 Aquatic ecology: the role of organic matter and invertebrates [ABSTRACT]. *In: Eighth Biennial Conference of Research on the Colorado Plateau, du Bois Center, Northern Arizona University, 7-10 November 2005 : program and abstracts of presented papers and posters (version 2.0)*, p. 55.

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.

2010 19.4607 The use of invertebrate drift in combination with flow food webs to evaluate the effects of a controlled flood on a tailwater trout population [ABSTRACT]. *In: Aquatic Sciences: Global Changes from the Center to the Edge : abstract book, 2010 Summer Meeting, Joint Meeting with ASLO and NABS, 6-11 June 2010, Santa Fe, NM, USA*, p. 124. [Colorado River below Glen Canyon Dam.] [Association for the Sciences of Limnology and Oceanography. North American Benthological Society.]

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

2022 19.6725 Little bugs, bid data, and Colorado River adaptive management: Preliminary findings from the ongoing bug flow experiment at Glen Canyon Dam. *Boatman's Quarterly Review*, 35(3) (Fall): 26-31.

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

2019 19.6285 Colorado River ecosystem responses to the 2018 Bug Flow experiment from Glen Canyon Dam [ABSTRACT]. *In: 15th Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region : theme: "Science and Solutions for Conserving the Southwest's Land, Water, Biodiversity and Cultures" : September 9-12, 2019, High Country Conference Center, Northern Arizona University, Flagstaff, Arizona*, p. 63.

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

2015 19.4862 Little bugs, big data, and Grand Canyon: light trapping by river rafters yields insights into Colorado River aquatic insect dynamics [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. 51.

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.

2016 19.4975 Flow management for hydropower extirpates aquatic insects, undermining river food webs. *BioScience*, 66(7): 561-575 + Supplemental Material online, 6 pp. [Includes Colorado River in Glen Canyon below Glen Canyon Dam.]

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.

2013 19.5435 High resolution sampling of insect emergence by citizen scientists leads to fundamental insights about the life history of aquatic insects in the Colorado River, Grand Canyon [ABSTRACT]. *In: 12th Biennial Conference of Science and Management on the Colorado Plateau, September 16-19, 2013, Northern Arizona University, Flagstaff, Arizona : program and abstracts of presented papers and posters.* [Flagstaff, Arizona: Northern Arizona University], pp. 79-80.

Kim, Ke Chung

1966 19.5289 The species of *Enderleinellus* (Anoplura, Hoplopleuridae) parisitic 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,

legend p. 998), 29 (p. 1001), 54-59 (p. 1005, legend p. 1004); types from "Kaibab National Forest, Arizona", specific locales not indicated but parasitic on *Sciurus kaibabensis* Merriam, thus Kaibab Plateau.]

King, Robert L.

1924 19.4361 Heteromorphic homologous chromosomes in three species of *Pseudotrimerotropis* (Orthoptera: Acrididae). *Journal of Morphology*, 38(1) (September): 19-63. [Includes Grand Canyon.]

Kloeppel, Heidi M., AND Stevens, Larry [Stevens, Lawrence E.]

2003 19.2433 Invertebrate pests in the Grand Canyon. *The Wild Thing* (Grand Canyon Wildlands Council Newsletter), (Fall): 12.

Kment, Petr; Carapezza, Attilio; AND Jindra, Zdeněk

2020 19.6488 Taxonomic catalogue of the family Ochteridae with description of *Ochterus papaceki* sp. nov. from Socotra Island and Tanzania (Hempitera: Heteroptera). *Acta Entomologica* (Musei Nationalis Pragae), 60(1): 23-64. [See *Ochterus barberi* 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 *O. rotudus* J. T. Polhemus & M. S. Polhemus (p. 46), which reidentifies Schell's (1943) *O. viridifrons* (specimens from Grand Canyon).] [The newly described species of Kment *et al.*'s paper is not pertinent to this bibliography.]

Knight, Harry H.

1921 19.4091 Monograph of the North American species of Deraeocoris (Heteroptera, Miridae). *Minnesota State Entomologist, 18th Report to the Governor*, pp. 77-210, Plate 8. [Published June 18, 1921.] [Grand Canyon specimens cited; see: *Deraeocoris (Camptobrochis) brevis* (Uhler), pp. 103-105; *D. fulvus*, new species (including paratypes from Grand Canyon), pp. 144-145; *D. bullatus*, new species (including holotype, allotype, and paratypes from Grand Canyon), pp. 147-148; *D. navajo*, new species (holotype from Grand Canyon), pp. 155-156); *D. fulvescens* (Reuter), pp. 167-169.]

1921 19.4092 Monograph of the North American species of Deraeocoris—Heteroptera Miridae. *University of Minnesota, Agricultural Experiment Station, Technical Bulletin 1*, pp. 77-210, Plate 8. [Published June 19, 1921. "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."]

1925 19.5495 Descriptions of thirty new species and two new genera of North American Miridae (Hemiptera). *Brooklyn Entomological Society, Bulletin*, 20(1) (February): 33-58. [See *Ceratocapsus clavicornis*, new species (pp. 47-48); holotype and allotype, "August 3, 1917, Grand View [Grandview], Grand Canyon, Arizona (H. H. Knight); author's collection"; also 30 paratypes "taken with the types on *Cowania mexicana*"; and a paratype from Williams, Arizona. Also see *Phytocoris mellarius*, new species (pp. 56-57); holotype and allotype, "August 3, 1917, Grand View [Grandview], Grand

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 (Hemip.: 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." *Parthenicus cowaniae*, new species (pp. 148-149, Figure 211 (p. 147); types from Grand View [Grandview], Grand Canyon, and Hermit Rim Road, Grand Canyon. *Pilophorus exiguus* 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 "[l]ater record" from "Grand Canyon", 1925. *Bolteria juniperi*, new species (pp. 202-203, Figure 253), paratype "near Grand Canyon, Arizona". *Phytocoris flaviatus*, 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.]

1954 19.6114 Aphid records from United States and Canada. *Brooklyn Entomological Society, Bulletin*, 49(2) (April): 47-48. [See p. 48, "*Aphis armoraceae* Cowen. Alate on *Sphaeralcea*, Marble Canyon, Arizona, June 16, 1949."]

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.

1947 19.5222 New Buprestidae with notes (Coleoptera). *Ohio Journal of Science*, 47(4) (July): 174-176. [See p. 176, *Buprestia prospera* Csy., regarded as a "valid species", which notes, "Specimens are at hand from Arizona: Williams and south rim of Grand Canyon . . . ." (ENTIRE NOTE)]

1957 19.4418 Three new species of *Aphricus* with a note on *Ctenicera* (Coleoptera: Elateridae). *Ohio Journal of Science*, 57(4) (July): 200-202. [See *Aphricus knowltoni*, new species, pp. 200-201; includes type material from Cameron, Arizona.]

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

2016 19.5189 Hydropower waves, insect eggs and citizen science: What's up with the aquatic food base in Grand Canyon? *Boatman's Quarterly Review*, 29(3) (Fall): 19-22.

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

2007 19.2861 New records of sucking lice (Phthiraptera: Anoplura) from the western United States. *Journal of Vector Ecology*, 32(2) (December): 366-370. [Includes records from Kaibab Plateau and other locales on the Arizona Strip.]

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.]

L

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.

1991 19.905 Macroinvertebrate studies in side canyon tributaries of the Grand Canyon. *In: Colorado River Investigations #10 : July/August, 1991* (supervised by Stanley S. Beus, Lawrence E. Stevens, and Frank B. Lojko). Northern Arizona University, *for* U.S. National Park Service, Grand Canyon National Park, pp. 73-90.

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

2007 19.3864 The biology and ecology of North American cave crickets. *Journal of Cave and Karst Studies*, 69(1) (April): 114-134. [See p. 114, reference, *in passing* and noting a web-based press release, about a new genus of rhaphidiphorid cave cricket from Grand Canyon-Parashant National Monument.]

Le Conte, John L.[1]

1876 19.6017 (WITH George H. Horn) The Rhynchophora of America, North of Mexico. *American Philosophical Society, Proceedings*, 15(96) (December): i-xvi, 1-442 [entire number]. [*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.]

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.)

1988 19.5507 The effects of steady versus fluctuating flows on aquatic macroinvertebrates in the Colorado River below Glen Canyon Dam, Arizona. *In:* U.S. Bureau of Reclamation, Glen Canyon Environmental Studies, *Glen Canyon Environmental Studies : executive summaries of technical reports : November 1988.* [No place]: Glen Canyon Environmental Studies, pp. 173-186.

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

1986 19.6476 Invertebrate drift in the Colorado River below Glen Canyon Dam: The effects of steady versus fluctuating discharges [ABSTRACT]. *Arizona-Nevada Academy of Science, Journal*, 21(1986 Proceedings Supplement) (April): 19.

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).]

Linder, Folke

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".

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.

1938 19.5235 New species of *Norvellina* (Homoptera, Cicadellidae). *Kansas Entomological Society, Journal*, 11(4) (October): 113-123. [See *Norvellina bicolorata* var. *inflata*, new variety (pp. 113-114), "numerous paratypes" from localities including "Grand Canyon, Ariz."]

Liu, Tong-Xian, AND Kosztarab, Michael

1987 19.5214 Two new species of *Chionaspis* (Homoptera: Coccoidea: Diaspididae) from North America. *Florida Entomologist*, 70(4) (December): 512-520. [See *Chionaspis gilli*, new species (pp. 516-519); paratype specimens include "On *Tamarix chinensis*, 5 on 4 slides, Grand Canyon National Park, Colorado River, Coconino Co., Arizona (AZ), VII-23-1984 collected by L. E. Stevens, deposited in USNM."]

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.]

Lynch, Ann M.; Anhold, John A.; McMillin, Joel D.; Dudley, Steve M.; Fitzgibbon, Roberta A.; AND Fairweather, Mary Lou

2008 19.4897 *Forest insect and disease activity on the Kaibab National Forest and Grand Canyon National Park, 1918-2006 : report for the Kaibab N.F./Regional Analysis Team.* Tucson, U.S. Forest Service, Rocky Mountain Research Station; and Flagstaff: U.S. Forest Service, Arizona Zone Office, *for* U.S. National Forest Service, Kaibab National Forest, 41 pp.

M

Mader, Detlef

2011 19.5572 Lunarzyklische 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

2010 19.3902 Planning for and living with the tamarisk beetle on the Colorado Plateau—a National Park Service perspective [ABSTRACT]. *2010 Tamarisk Symposium, January 12 and 13, Two Rivers Convention Center, Grand Junction, Colorado*.

Malloch, J. R.

1918 19.3390 Diptera from the south-western United States. Paper IV. Anthomyiidae. *American Entomological Society, Transactions*, 44(3) (September): 263-319, Plate 17. [See p. 316, *Hylemyia* sp. from "Bright Angel, Arizona, rim of Grand Cañon".]

Mangum, Fred A.

1990 19.950 *Aquatic ecosystem inventory, macroinvertebrate analysis, North Canyon Creek, Kaibab National Forest, 1990.* Provo, Utah: U.S. Forest Service, Intermountain Region, Aquatic Ecosystem Analysis Laboratory, Brigham Young University, 8 pp.

Mann, John

1969 19.6364 Cactus-feeding insects and mites. *U.S. National Museum, Bulletin 256*, 158 pp. [See *Chelindea 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 *O[puntia]. basilaris* at Lees Ferry and the Grand Canyon in northern Arizona probably represents this species." (p. 147) (ENTIRE NOTES)]

Massey, Calvin L.

1974 19.5566 Biology and taxonomy of nematode parasites and associates of bark beetles in the United States. *U.S. Forest Service, Agriculture Handbook 446*, 233 pp. [See *Parasitorhabditis gracilis*, new species, type locality "Grand Canyon", "[a]ssociated with *Pseudohylesinus grandis* Sw. in white fir", pp. 69, 70. See also in Table 1, which lists *Pseudohylesinus grandis* at Grand Canyon (p. 13).]

Matzkin, Luciano M.

2008 19.4326 The molecular basis of host adaptation in cactophilic drosophila: Molecular evolution of a glutathione *S*-transferase gene (*GstD1*) in *Drosophila majoavensis*. *Genetics*, 178 (February): 1073-1083. [Materials include 15 lines from the "Mojave population (7 from Grand Canyon and 8 from Anza-Borrego)".]

Mawdsley, Jonathan R.

2001 19.3982 Taxonomy, phylogeny, and biogeography of the genus *Asydates* Casey (Insecta: Coleoptera: Melyridae). *Insecta Mundi* (Center for Systemtic Entomology, Gainesville, Florida), 15(2) (June): 123-128.

McAtee, W. L.

1919 19.6126 Notes on Nearctic Heteroptera. *Brooklyn Entomological Society, Bulletin*, 14(1) (February): 8-15. [See *Chelinidea vittiger* var. *artuflava*, new variety (pp. 11-12); localities for non-type specimens examined include "Grand Cañon, Ariz., July 10 (U. S. N. M.)".]

1919 19.3594 Key to the Nearctic genera and species of Berytidae (Heteroptera). *New York Entomological Society, Journal*, 27(1) (March): 79-92. [See *Pronotacantha annulata* Uhler, p. 89; including Grand Canyon.]

McCleary, James A.

1955 19.2206 A gall midge infesting *Opuntia phaeacantha*. *Saguaroland Bulletin* (Desert Botanical Garden of Arizona, Phoenix), (June/July): 69-72.

McCullough, D. G., AND Wagner, M. R.

1987 19.2286 Influence of watering and trenching ponderosa pine on a pine sawfly. *Oecologia*, 71(3): 382-387.

McHugh, Charles W.; Kolb, Thomas E.; AND Wilson, Jill L.

2003 19.2860 Bark beetle attacks on ponderosa pine following fire in northern Arizona. *Environmental Entomology*, 32(3): 510-522.

McKee, Barbara H. *see also* Hastings, Barbara

1932 19.1021 Scorpion vs. tarantula. *Grand Canyon Nature Notes*, 7(1): 8-9.

1994 19.1028 Scorpion vs. tarantula. *In:* Lamb, Susan (ed.), *The best of Grand Canyon Nature Notes.* Grand Canyon, Arizona: Grand Canyon Natural History Association, pp. 83-84. [Reprinted from *Grand Canyon Nature Notes*, April, 1932.]

McKee, Edwin D.

1928 19.1034 The Polyphemus moth. *Grand Canyon Nature Notes*, 3(2) (July 31): cover, 4-5.

1929 19.1037 Odds and ends. *Grand Canyon Nature Notes*, 3(9) (May 31): 6. [Flammulated screech owl, eastern kingbird, spotted skunks, tent caterpillars, water ouzel nests.]

1929 19.1038 Heralds of summer. *Grand Canyon Nature Notes*, 3(10) (June 30): 6-7. [Birds, flowers, butterflies, insects.]

1929 19.1041 Hither and yon. *Grand Canyon Nature Notes*, 4(2) (October 31): 13-14. [Includes brief notes of American bald eagle in Hance Canyon, tarantulas on South Rim, and horned toad canibalism.]

1931 19.1053 Giant moths. *Grand Canyon Nature Notes*, 5(9) (July): 93-94. [See also errata, 6(1) (November): 14.]

1932 19.1067 Scorpion vs. centipede. *In:* Biological Briefs [SECTION]. *Grand Canyon Nature Notes*, 7(9) (December): 94.

1994 19.1096 The polyphemus moth. *In:* Lamb, Susan (ed.), *The best of Grand Canyon Nature Notes.* Grand Canyon, Arizona: Grand Canyon Natural History Association, p. 82. [Reprinted from *Grand Canyon Nature Notes*, July, 1928.]

1994 19.1097 The Papilio tribe of butterflies. *In:* Lamb, Susan (ed.), *The best of Grand Canyon Nature Notes.* Grand Canyon, Arizona: Grand Canyon Natural History Association, pp. 82-83. [Reprinted from *Grand Canyon Nature Notes*, July, 1927.]

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

1999 19.1112 Macroinvertebrate drift in the tailwater of a regulated river below Glen Canyon Dam, Arizona. *Southwestern Naturalist*, 44(2) (June): 205-210.

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

1997 19.1113 Effects of experimental flooding on periphyton and macroinvertebrates in the Glen Canyon Dam tailwater. *Glen Canyon Dam beach/habitat-building flow : abstracts and executive summaries, April 1997* [symposium convened by the Grand Canyon Monitoring and Research Center, Department of the Interior, Flagstaff, Arizona, April 8-10, 1997, Flagstaff]. [No imprint, convenor from separate proceedings volume], p. 27.

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

1997 19.1113 Effects of experimental flooding on periphyton and macroinvertebrates in the Glen Canyon Dam tailwater. *Glen Canyon Dam beach/habitat-building flow : abstracts and executive summaries, April 1997* [symposium convened by the Grand Canyon Monitoring and Research Center, Department of the Interior, Flagstaff, Arizona, April 8-10, 1997, Flagstaff]. [No imprint, convenor from separate proceedings volume], p. 27.

1997 19.1115 Effects of experimental flooding on periphyton, diatom epiphytes and macroinvertebrates in the tailwater of a regulated river. *American Fisheries Society, 127th Annual Meeting, "Fisheries at Interfaces: Habitats, Disciplines, Cultures", 24-28 August 1997, Monterey, California, Abstracts: L-Z*, pp. 20-21.

McKinney, Ted; Rogers, Roland S.; Ayers, Andrew D.; AND Persons, William R.

1996 19.1116 Effects of experimental flooding on algae, macroinvertebrates, rainbow trout and flannelmouth suckers in the Glen Canyon Dam tailwater. *In:* Arizona Game and Fish Department, *The effects of an experimental flood on the aquatic biota and their habitats in the Colorado River, Grand Canyon, Arizona.* Phoenix: Arizona Game and Fish Department, pp. 10-1 to 10-30.

McLain, Lauren K., AND Stevens, Lawrence E.

2000 19.1990 On jeweled wings. *Nature Notes* (Grand Canyon National Park), 16(1) (Summer): 8-10. [Butterflies.]

McMaster, Melissa A., AND Makarick, Lori

2011 19.3544 Northern tamarisk beetle update. *Boatman's Quarterly Review*, 24(4) (Winter 2011-2012): 24-26.

McMillin, Joel D., AND DeGomez, Tom E.

2008 19.6019 Arizona fivespined ips, *Ips lecontei* Swaine, in the southwestern United States. *Forest and Insect Disease Leaflet* (U.S. Department of Agriculture), (116), revised, 8 pp.

Mead, Pauline [Mead, Polly] *see also* Pattraw, Pauline Mead

1930 19.1125 Butterflies near the Colorado River in November. *Grand Canyon Nature Notes*, 5(1) (November 30): 2-3.

Metcalfe, Anya N.

2018 19.5948 *Aquatic insect distribution in the Colorado River basin.* Master's thesis, Northern Arizona University, 85 pp. [Study area is Upper Colorado River Basin, Grand Canyon, and upper portion of Lake Mead during 2015-2016.]

2020 19.6546 Science story; aquatic insects. *In:* Scott, Annie, and Snow, Eleanor, The 150th anniversary of the 1869 Powell Expedition; USGS participation in the Sesquicentennial Colorado River Exploring Expedition and reflections from the ~1,000-mile journey down the Green and Colorado Rivers. *U.S. Geological Survey, Circular 1475*, p. 42.

Metcalfe, Anya N., AND Kennedy, Theodore A.

2015 19.4869 Phenology and life history plasticity of the bivoltine angel lichen moth (Erebidae: *Cisthene angelus*) in Grand Canyon, AZ, US [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. 61.

Metcalfe, Anya N.; Kennedy, Ted [Kennedy, Theodore A.]**; AND Fritzinger, Carol "Fritz"**

2014 19.4620 Moth Mystery Hour. *Boatman's Quarterly Review*, 27(4) (Winter 2014-2015): 15-16. [Angel lichen moths, *Cisthene angelus*; light-trapping studies along Colorado River through Grand Canyon.]

Metcalfe, Anya N.; Kennedy, Theodore A.; Marks, Jane C.; AND Muehlbauer, Jeffrey D.

2019 19.6287 Gene flow among net-spinning caddisfly population in the Colorado River Basin [ABSTRACT]. *In: 15th Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region : theme: "Science and Solutions for Conserving the Southwest's Land, Water, Biodiversity and Cultures" : September 9-12, 2019, High Country Conference Center, Northern Arizona University, Flagstaff, Arizona*, pp. 78-79. [Upper Basin and Grand Canyon.]

Metcalfe, Anya N.; Kennedy, Theodore A.; AND Muehlbauer, Jeffrey D.

2016 19.5322 Phenology of the adult angel lichen moth (*Cisthene angelus*) in Grand Canyon, USA. *Southwestern Naturalist*, 61(3) (September): 233-240.

Metcalfe, Anya N.; Muehlbauer, Jeffrey D.; Kennedy, Ted [Kennedy Theodore A.]**; AND Ford, Morgan**

2019 19.6362 Bug flows: Don't count your midges until they hatch. *Boatman's Quarterly Review*, 32(4) (Winter 2019-2020): 8-11.

Michener, Charles D.

1939 19.2154 A revision of the genus *Ashmeadiella* (Hymen., Megachilidae). *American Midland Naturalist*, 22(1) (July): 1-84.

Miller, Abraham

2008 19.5236 *Phylogeography and geographical variation of behavioral and morphological characteristics in* Paruroctonus boreus*.* Doctoral dissertation, University of Texas at Arlington, 65 pp. [Northern scorpion.]

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

1973 19.3984 Seventh taxonomic study of North American mealybugs (Homoptera: Coccoidea: Pseudococcidae). *Hilgardia*, 41(17) (January): 489-542. [See *Cataenococcus formicarii* (Ehrhorn, n. comb., pp. 491-493; and *Cryptoripersia arizonensis* (Ehrhorn), pp. 499-500. Type material pertains to that described by Ehrhorn (1899, ITEM NO. 19.3983). The locality, "Thurber's Camp", Grand Canyon, as noted by Ehrhorn, is Bright Angel Camp.]

Miller, Russell B.

1981 19.2155 Hawkmoths and the geographic patterns of floral variation in *Aquilegia caerulea*. *Evolution*, 35(4) (July): 763-774. [Sampling sites include Kaibab Plateau.]

Millidge, A. F.

1981 19.4375 The erigonine spiders of North America. Part 4. The genus *Disembolus* Chamberlin and Ivie (Araneae: Linyphiidae). *Journal of Arachnology*, 9: 259-284. [See *Disembolus kesimbus* (Chamberlin), new combination, pp. 270-271, Figures 16, 17, 20 (p. 267), 55 (p. 273), 72 (p. 275), 94 (p. 278), Map 1D (p. 260).] [Chamberlin's type material from V.T. Ranch, Kaibab Plateau. Lectotype designated by Millidge.] [VT Ranch.]

Moldenke, Andrew R.

1970 19.5287 A revision of the Clytrinae of North America north of the Isthmus of Panama (Coleoptera: Chrysomelidae). Stanford, California: Stanford University, 310 pp. [Includes *Saxinis saucia kaibabiae*, new subspecies.]

Morris, Gail M.

2019 19.6288 Partnerships for monarch research in remote southwestern locations [ABSTRACT]. *In: 15th Biennial Conference of Science and Management for the Colorado Plateau and Southwest Region : theme: "Science and Solutions for Conserving the Southwest's Land, Water, Biodiversity and Cultures" : September 9-12, 2019, High Country Conference Center, Northern Arizona University, Flagstaff, Arizona*, p. 81. [Includes note that the "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."]

Morris, Gail M.; Kline, Christopher; AND Morris, Scott M.

2015 19.5002 Status of *Danaus plexippus* population in Arizona. *Lepidopterists' Society, Journal*, 69(2): 91-107. [Monarch butterflies. Includes Colorado River in Grand Canyon and lower Colorado River.]

Muchmore, William B.

1981 19.5001 Cavernicolous species of *Larca*, *Archeolarca*, and *Pseudogarypus* with notes on the genera, (Pseudoscorpionida, Gaypidae and Pseudogarypidae). *Journal of Arachnology*, 9(1): 47-60. [See *Archeolarca cavicola*, new species (pp. 55-56, Figures 11, 12 [p. 53]), holotype female from Cave of the Domes, Grand Canyon.]

N

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Nelson, C. Riley

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1894 19.3503 Report of the Experiment Station. *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: "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." (ENTIRE NOTES). Regarding the new *Garytes*, refer to William J. Fox, (1893, ITEM NO. 19.4538).]

Nichols, Stacy, AND Shannon, Joe

1998 19.1247 Spiders. *Boatman's Quarterly Review*, 11(2) (Spring): 17.

Nielson, M. W.

1965 19.3334 A revision of the genus *Cuerna* (Homoptera, Cicadellidae). *U.S. Department of Agriculture, Agricultural Research Service, Technical Bulletin 1318*, 48 pp. [See pp. 25, 36.]

Oberlin, Gaye E.; Shannon, Joseph P.; AND Blinn, Dean W.

1999 19.1252 Watershed influence on the macroinvertebrate fauna of ten major tributaries of the Colorado River through Grand Canyon, Arizona. *Southwestern Naturalist*, 44(1) (March): 17-30. [Paria River, Vasey's Paradise, Nankoweap Creek, Little Colorado

River, Bright Angel Creek, Tapeats Creek, Kanab Creek, Havasu Creek, Spring Canyon, and Diamond Creek.]

Osife, Maiya Laree

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.]

P

Pape, Robert B.

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2014 19.4500 Biology and ecology of Bat Cave, Grand Canyon National Park, Arizona. *Journal of Cave and Karst Studies*, 76(1) (April): cover, inside front cover, 1-13.

2016 19.5142 The importance of ants in cave ecology, with new records and behavioral observations of ants in Arizona caves. *International Journal of Speleology* (Union Internationale de Spéléologie), 45(3) (September): 185-205 + Appendix A, "List of an records from caves, record source, and record author-assigned ecological group", [14] pp. [Includes cave localities in Grand Canyon-Parashant National Monument.]

Pape, Robert B.; Thomas, Donald B.; AND Aalbu, Rolf L.

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Parker, Douglas L.

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Parker, Douglas L.; Graham, Donald P.; AND Schmeckpeper, Thomas C.

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1980 19.1295 Climatic change and the evolution of cave invertebrates in the Grand Canyon, Arizona. *NSS Bulletin* (National Speleological Society), 42(3): cover, contents page, 53-60.

Peck, Stewart B., AND Wynne, J. Judson

2013 19.4198 *Ptomaphagus parashant* Peck and Wynne, new species (Coleoptera: Leiodidae: Cholevinae: Ptomaphagini): the most troglomorphic cholevine beetle known from western North America. *The Coleopterists Bulletin*, 67(3): 309-317.

Pelletier, Stephen

2008 19.3861 Crickets, comets, petroglyphs; the role of basic research at AASCU institutions. *Public Purpose*, (April/May): 2-6. [American Association of State Colleges and Universities.] [See pp. 2-3, note, *in passing*, of J. Judson Wynne's discovery of a new genus of cave cricket from Grand Canyon-Parashant National Monument. Also note grayed-out full-page background image of cricket, without legend, p. 2.]

Pellmyr, Olle; Balcázar Lara, Manuel; Althoff, David M.; Segraves, Kari A.; AND Leebens-Mack, James

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.]

Peterson, Kathy

1982 19.1302 Interactions of harvester ants (*Pogonomymex*) and river recreationists. *In: Colorado River Investigations I : July/August 1982.* Flagstaff, Arizona: Northern Arizona University, and Museum of Northern Arizona, pp. 99-105.

Pfeiffer, Bryan

2007 19.2942 Size *doesn't* matter. *VES News* (Vermont Entomological Society Newsletter), (55) (Spring): 3. [Entomological notes from Grand Canyon hike; *Brephidium exile*, Western Pygmy-Blue butterfly, and caddisfly larvae.]

Pfeiler, E.; Reed, L. K.; AND Markow, T. A.

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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.

1996 19.4424 [Comment on "The Butterfly Wars" by Ted Williams in *Audubon* magazine.] *News of the Lepidopterists' Society*, 38(2) (April): 54. [Williams (1996), see ITEM NO. 19.4423.] [Includes brief note on Kaibab swallowtail and Grand Canyon.]

Pike, Chris, AND Ward, Steve

1987 19.1321 Further investigations on *Pogonomyrmex sp.* ants on Colorado River beaches in Grand Canyon National Park. *In:* Weiss, Gayle C. (ed.), *Colorado River Investigations V : July/August, 1986* (supervised by Stanley S. Beus and Steven W. Carothers). Flagstaff, Arizona: Northern Arizona University, *for* U.S. National Park Service, Grand Canyon National Park, pp. 138-174.

Pike, Chris; LaChat, Robert; AND Taylor, Cathy O'Rourke

1989 19.1322 Continued studies on the red harvester ant: density and foraging activities on human impacted, Colorado River beaches in Grand Canyon National Park, Summer 1989. *In: Colorado River Investigations VIII : July/August, 1989* (supervised by Stanley S. Beus, Lawrence E. Stevens, and Frank B. Lojko). Flagstaff, Arizona: Northern Arizona University, *for* U.S. National Park Service, Grand Canyon National Park, pp. 104-115.

Pitnick, Scott; Miller, Gary T.; Schneider, Karin; AND Markow, Therese A.

2003 19.4364 Ejaculate-female coevolution in *Drosophila mojavensis*. *Royal Society of London, Proceedings*, B, 270: 1507-1512. [Includes collection from Whitmore Canyon, Grand Canyon, Arizona.]

Platnick, Norman I., AND Shadab, Mohammad U.

1975 19.5583 A revision of the spider genera *Haplodrassus* and *Orodrassus* (Araneae, Gnaphosidae) in North America. *American Museum Novitates*, (2583), 40 pp.

Pogue, Michael G.

2004 19.4311 A new species of *Schinia* Hübner from riparian habitats in the Grand Canyon (Lepidoptera: Noctuidae: Heliothinae). *Zootaxa*, (788): 1-4. [*Schinia immaculata*; holotype from Colorado River Mile 23.0 Left.]

Pogue, Michael G., AND Harp, Charles E.

2004 19.4665 A review of the *Schinia tertia* (Grote) species complex (Lepidoptera: Noctuidae: Heliothinae). *Zootaxa*, (473): 1-32. [*Schinia tertia* (Grote), pp. 3-11, Grand Canyon material noted, p. 5; *S. albafascia* 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.]

Polhemus, John T., AND Polhemus, Martin S.

1976 19.1345 Aquatic and semiaquatic Heteroptera of the Grand Canyon (Insecta: Hemiptera). *Great Basin Naturalist*, 36(2) (June): 221-226.

Poppius, B. [Poppius, Bertil Robert]

1914 19.5135 Übersicht der *Pilophorus* Arten nebst beschreibung verwandter Gattungen (Hem. Het.). *Société Entomologique de Belgique, Annales*, 58: 237-254. [Includes: *Pilophorus americanus*, new species (p. 243), types from "Williams, Ar.!" and "Br't Angel, Ar!"; *Pilophorus exiguus*, new species (pp. 246-247), types from "Br't Angel, Ar!" 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.]

Prakash, Satya

1974 19.4300 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 *Drosophila pesudoobscura*. *Genetics*, 77 (August): 795-804. [Materials sample sites include "Grand Canyon (Arizona)" (no further precision).]

Pratt, Harry Davis

1945 19.2158 Taxonomic studies of Nearctic Cryptini (Ichneumonidae, Hymenoptera). *American Midland Naturalist*, 34(3) (November): 549-661.

Pujade Villar, Juli, AND Paretas Martínez, Jordi

2012 19.4329 A new species of woody tuberous oak galls from Mexico (Hymenoptera: Cynipidae) and notes with related species. Una nueva especie de agalla leñosa tuberosa en encinos de México (Hymenoptera: Cynipidae) y anotaciones sobre las especies relacionadas. *Dugesiana* (Universidad de Guadalajara, Centro de Estudios de Zoología, Sección de Entomología), 19(2) (December 21): 79-85. [See *Andricus wheeleri* (Beutenmüller, 1907), pp. 82-84; lectotype designated by Pujade-Villar and Paretas-Martínez, American Museum of Natural History collections with label "Caconino [*sic*] Forest, Grand Canyon, Ariz., May 1905, N.W. Wheeler coll."; paralectotypes from Coconino Forest. For Beutenmüller publication, see ITEM NO. 19.4065.] [In English, with bilingual title and abstract.]

Pyle, Robert Michael

1999 19.4094 *Chasing monarchs : migrating with the butterflies of passage.* Boston and New York: Houghton Mifflin Co., 307 pp. [See in Chapter 11, "Apache Gold", which includes Lees Ferry-Marble Canyon area; and pp. 228-235, Cibola National Wildlife Refuge.]

R

Ragenovich, Iral

1980 19.6683 Southwestern Region (R-3). *In:* Forest insect and disease conditions in the United States, 1978. *U.S. Forest Service, General Technical Report GTR-WO-19*, pp. 20-24. [See p. 20, under "Mountain pine beetle": "The infestation on the Kaibab National Forest, Ariz., declined to a low level. Activity continued on the adjoining Grand Canyon national Park, but losses were minimal. Mountain pine beetle attacked and killed relatively thrifty trees growing on the best sites in Arizona. no suppression or salvage programs were undertaken." (ENTIRE NOTE)]

Rehn, James A. G. [Rehn, James Abram Garfield]

1907 19.16811 Notes on Orthoptera from southern Arizona, with descriptions of new species. *Academy of Natural Sciences of Philadelphia, Proceedings*, 59(1) (January/March): 24-81. [See *Trimerotropis vinculata* Scudder (p. 45), which includes the note, "Several specimens of this common and widely distributed species from Grand Canyon of the Colorado (Skinner, July 11) are also in hand." (ENTIRE NOTE)]

1919 19.3325 Descriptions of new and critical notes upon previously known forms of North American Oedipodinae (Orthoptera; Acrididae); first paper. *American Entomological Society, Transactions*, 45: 229-255, Plates 26-28. [See *Mestobregma terricolor*, new species, pp. 242-247; female specimen from Grand Canyon noted, pp. 245 *note* 18, 246.]

1921 19.3633 Descriptions of new and critical notes upon previously known forms of North American Oedipodinae (Orthoptera; Acrididae); second paper. *American Entomological Society, Transactions*, 47(3): 171-197, plates. [See *Circotettix coconino*, new species, pp. 187-191, Plate 12, figures 19-21. Referred specimens include two from "Bright Angel, Grand Canyon of the Colorado".]

1954 19.1384 Of grasshoppers and their kin; the long, long trail of the specialist on a Spring survey. *Frontiers* (Academy of Natural Sciences of Philadelphia), 19(1) (October): 7-9.

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

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 california kaibabensis*, new subspecies, type from "Northwest escarpment slope of Kaibab Plateau" (pp. 250-254); *Morsea california dumicola* Rehn and Hebard, with remarks on Grand Canyon specimens (pp. 254-259).]

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

1908 19.1385 An orthopterological reconnoissance of the southwestern United States. Part I: Arizona. *Academy of Natural Sciences of Philadelphia, Proceedings*, 60: 365-402. [See pp. 365, 367-368, 370-371, 373-378, 386, 390-392, 396-398, 402.] [See also Rehn and Hebard (1912, ITEM NO. 19.1386) for lectotypifications of selected species.]

1909 19.6211 An orthopterological reconnoissance of the southwestern United States. Part III: California and Nevada. *Academy of Natural Sciences of Philadelphia, Proceedings*, 61(3) (October/December): 409-483. [See p. 409, *Trimerotropis inconspicua* Bruner, noting previous record at "Bright Angel, Grand Canyon".]

1912 19.1386 Fixation of single type (lectotypic) specimens of species of American Orthoptera. Section one. *Academy of Natural Sciences of Philadelphia, Proceedings*, 64: 60-128. [See: With reference to Scudder (1897, ITEM NO. 19.1446), *Melanoplus canonicus* (p. 85); with reference to Rehn and Hebard (1908, ITEM NO. 19.1385), *Parapomala perpallida* and *Amphitornus nanus* (p. 105); and with reference to Bruner (1904, ITEM NO. 19.372), *Syrbula modesta* (p. 110).]

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.

1953 19.5493 New muscoid Diptera from the western United States. *Pan-Pacific Entomologist*, 29(1) (January): 49-59. [See *Fabriciella evanida*, new species; includes male paratype from "S. Grand Canyon, Ariz., August 17, 1949 (P. R. Fitzgerald)".]

Reinick, William R.

1902 19.3806 [Feldman Collecting Social, November 20, 1901, Philadelphia.] *In:* Doings of Societies [SECTION]. *Entomological News* (Academy of Natural Sciences of Philadelphia,

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.

1974 19.5282 A revision of the bees of the genus *Andrena* of the western hemisphere; subgenus *Scaphandrena*. *American Entomological Society, Transactions*, 100(2) (June): 101-189. [See pp. 160-161, *Andrena (Scaphandrena) kaibabensis*, new species; holotype female and three female paratypes (at UCD) "collected on the North Rim of Grand Canyon National Park, June 21, 1949, by W. H. Lang. One female paratype (AMNH) was collected 20 miles south of Jacob Lake, Arizona, June 19, 1958, by W. J. and J. W. Gertsch."]

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.

1990 19.2119 Historical biogeography in North American arid regions: An approach using mitochondrial-DNA phylogeny in grasshopper mice (genus *Onychomys*). *Evolution*, 44(1) (February): 1-15.

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.

1978 19.4732 Comparative toxicity of insecticides to *Choristoneura* species (Lepidoptera: Tortricidae). *Canadian Entomologist*, 110 (April): 399-406. [Materials include live diapausing *C. conflictana* from North Rim of Grand Canyon.]

Robinson, Harold

1967 19.5947 New species of Dolichopodidae from the United States and Mexico (Diptera). *Entomological Society of Washington, Proceedings* (Washington, D.C.), 69(2) (June):

114-127. [Includes *Chrysotimus arizonicus*, new species (p. 125, figure 29 [p. 118]); holotype, allotype, and paratype from "Grand Canyon National Park (north rim)".]

Rosi-Marshall, Emma J.; Cross, Wyatt F.; Kennedy, Theodore A.; Kincaid, Dustin W.; AND Hall, Robert O., Jr.

2008 19.2760 Effects of the 2008 beach/habitat-building flow test on invertebrates downstream of Glen Canyon Dam [ABSTRACT]. *In: Colorado River Basin Science and Resource Management Symposium 2008. Coming together: Coordination of science and restoration activities for the Colorado River ecosystem : abstracts : November 18-20, 2008, Doubletree Resort Hotel, Scottsdale, Arizona.* [No imprint], pp. 33-34.

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.

2010 19.3202 Short-term effects of the 2008 high-flow experiment on macroinvertebrates in Colorado River below Glen Canyon Dam, Arizona. *U.S. Geological Survey, Open-File Report 2010-1031*, 28 pp.

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

2006 19.4915 Microsatellite variation among diverging populations of *Drosophila majavensis*. *Journal of Evolutionary Biology*, 19(5) (September): 1691-1700.

Ruiter, David E.

1999 19.1415 A new species and new synonym in the genus *Psychoronia* (Limnephilidae), with significant records for caddisflies (Trichoptera) from western North America. *Great Basin Naturalist*, 59(2): 160-168. [See pp. 164, 166.]

Ryckman, Raymond E.

1986 19.5492 The vertebrate hosts of the Triatominae of North and Central America and the West Indies (Hemiptera: Reduviidae: Triatominae). *Society of Vector Ecologists, Bulletin*, 11(2) (December): 221-241. [See *Paratriatoma hirsuta hirsuta* Barber, pp. 233-234, which notes collections from "Arizona in *Neotoma* lodges from the Phantom Ranch in the Grand Canyon, Coconino Co." (ENTIRE NOTE)]

S

Safford, Matt

2015 19.5945 *Invertebrate biodiversity surveys in Grand Canyon National Park : 2015 annual report.* U.S. National Park Service, Grand Canyon National Park, 13 pp.

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

1982 19.1424 Insect density and diversity on Colorado River beaches. Part II. Black light trapping. *In: Colorado River Investigations I : July/August 1982.* Flagstaff, Arizona: Northern Arizona University, and Museum of Northern Arizona, pp. 56-76.

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

1933 19.5068 [Tarantulas.] *In:* Miscellany. *Grand Canyon Nature Notes*, 8(8) (November):.

Schmid, John M.

2007 19.5911 Appendix B—John M. Schmid's recollections of forest insect research at the RM Station, 1963 to 1992. *In:* Furniss, Malcolm M., A history of forest entomology in the Intermountain and Rocky Mountain areas, 1901 to 1982. *U.S. Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-195*, pp. 26-30. [Includes Kaibab Plateau.]

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

1988 19.1431 The North Kaibab pandora moth outbreak, 1978-1984. *U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-153*, 18 pp.

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

1983 19.1432 Distribution of pandora moth egg masses and first stage larvae. *U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Research Note RM-432*, 4 pp.

Schmid, J. M.; Bennett, D. D.; Young, R. W.; Mata, S. A.; Andrews, M.; AND Mitchell, J. C.

1982 19.1433 Sampling larval populations of the pandora moth, *Coloradia pandora*, *Pinus ponderosa* infestation on the Kaibab Plateau near Jacob Lake, Arizona. *U.S. Forest Service, Rocky Mountain Forest Experiment Station, Research Note RM-421*, 5 pp.

Schmid, J. M.; Farrar, P. A.; AND Mitchell, J. C.

1982 19.1434 Distribution of pandora moth egg masses and pupae near Jacob Lake, Arizona. *Environmental Entomology*, 11(3) (June): 701-704.

Schmid, J. M.; Farrar, P. A.; AND Ragenovich, I.

1981 19.2288 Length of western tent caterpillar egg masses and diameter of their associated stems. *Great Basin Naturalist*, 41(4): 465-466.

Schmid, J. M.; Mitchell, J. C.; Carlin, K. D.; AND Wagner, M. R.

1984 19.2287 Insect damage, cone dimensions, and seed production in crown levels of ponderosa pine. *Great Basin Naturalist*, 44(4): 575-578.

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

1986 19.2302 Ponderosa pine conelet and cone mortality in central Arizona. *Great Basin Naturalist*, 46(3): 445-448. [Includes South Rim.]

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

1981 19.3447 Prescribed burning to increase mortality of pandora moth pupae. *U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Research Note RM-405*, 3 pp.

Schmidt, John

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1931 19.1453 An interesting bug. *Grand Canyon Nature Notes*, 5(7) (May): 64-65. [Cicadas at Grand Canyon village.]

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1931 19.5394 [*Eremocoris obscurus*.] *In:* Field Observations [SECTION]. *Grand Canyon Nature Notes*, 5(7) (May): 70.

1931 19.1454 [Lantern-fly.] *Grand Canyon Nature Notes*, 5(8) (June): 77.

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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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2014 19.4548 Has Pandora's Box been opened? A study on Pandora moths in northern Arizona [ABSTRACT]. *In: Northern Arizona University, 2014 Undergraduate Symposium Abstracts*. Flagstaff, Arizona: Northern Arizona University, p. 187.

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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" [Entomologiya russkoy literatury; Nabokov otkryl 20 vidov babochek i dal im nazvaniya] [Entomology of Russian literature; Nabokov discovered 20 species of butterflies and gave them names], which includes note of a butterfly from Grand Canyon, *Cyllopsis pertepida 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.]

T

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

2017 19.6513 A theoretical foundation for multi-scale regular vegetation patterns. *Nature* (London), 541 (January 19): 398-401 + Supplementary Information with online version of the paper, 32 pp. [Data in paper include "Arizona", without specific localitiy. Supplementary Information, p. 16, includes notice of the research by Sparavigna (2016, ITEM NO. 19.6511), which included the identification of ant activity in satellite imagery of Toroweap Valley, Grand Canyon.]

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

1986 19.1671 Further investigations on *Pogonomyrmex* ants on Colorado River beaches in Grand Canyon. *In:* House, Dorothy A. (ed.), *Colorado River Investigations IV : July/August, 1985* (supervised by Stanley S. Beus and Steven W. Carothers). Flagstaff, Arizona: Northern Arizona University, *for* U.S. National Park Service, Grand Canyon National Park, pp. 205-214.

Tilden, J. W.

1955 19.2216 A revision of *Tharsalea* Scud. (s. str.), with description of a new subspecies (Lepid., Lyc.). *Southern California Academy of Sciences, Bulletin*, 54(Part 2): 67-77. [s. str. = *sensu stricto* (identification in a narrow sense)]

1957 19.2921 Taxonomic history and distribution of *Ochlodes yuma* (Hesperiidae). *Lepidopterists' News*, 11(4/5): 151-152. [Includes Grand Canyon records.]

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

1928 19.5569 Bees of the genus *Perdita* Smith in the American Museum of Natural History (Hymenoptera). *American Museum Novitates*, (321), 13 pp. [See *Perdita wheeleri*, new species; holotype male from "Indian Gardens in the Grand Cañon, Arizona (W. M. Wheeler)" (pp. 5-7).]

1956 19.6612 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 II. *University of California, Publications in Entomology*, 11(5): 247-350. [Includes *Perdita opacella*, new species, a single female, holotype, from Marble Canyon, near Lee's Ferry, Arizona (collected by G. D. Butler, June 5, 1953, on *Stanleya*.]

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 polytropica polytropica*, 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.

1944 19.2127 Biological, taxonomic and faunistic studies in the shield-back katydids of the North American deserts. *American Midland Naturalist*, 31(2) (March): 257-328.

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)]

1937 19.6117 Arizona insect localities. *Brooklyn Entomological Society, Bulletin*, 32(5) (December): 187-194. [Regarding unsatisfactory data on collection labels. Includes "Bright Angel Creek" (p. 189), "Kaibab National Forest" (p. 191).]

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

1892 19.3219 [Southwest trip report.] *In:* Notes and News [SECTION]. *Entomological News* (Academy of Natural Sciences of Philadelphia, Entomological Section), 3(9) (November): 234. [Includes Hance Trail, Grand Canyon.]

1893 19.3095 A peculiar seed-like case-worm from the Grand Canyon. *American Naturalist*, 27 (February): 166-169. [See also an addendum, 27: 402 (ITEM NO. 19.3094).]

1893 19.1686 On a species of *Simulium* from the Grand Canon of the Colorado. *American Entomological Society, Transactions*, 20 (April): 45-48.

1893 19.3094 Further note on the tineid case-worm from the Grand Canyon. *American Naturalist*, 27 (April): 402. [Addendum to Townsend (1893, ITEM NO. 19.3095).]

1893 19.3344 *Schizura Ipomeæ* Doubl. *In:* Notes and News [SECTION]. *Entomological News* (Academy of Natural Sciences of Philadelphia, Entomological Section), 4(5) (May): 158. [Larva of *Schizura ipomeae* found on round-leafed leguminous tree, *Cercis occidentallis* Torr., on Hance Trail in Grand Canyon.]

1893 19.3217 A woolly leaf-gall on oak near Grand Canon. *American Naturalist*, 27 (October) (322): 905.

1893 19.3252 On the injurious and other locusts of New Mexico and Arizona. *Insect Life* (U.S. Department of Agriculture, Division of Entomology, Periodical Bulletin), 6(1) (November): 29-32.

1893 19.3661 Lycænid larva on Atriplex. *American Naturalist*, 27 (December): 1104-1105. [Specimens "from *Atriplex canescens*, 12 miles north of Cedar Ranch, Arizona, on the stage road from Flagstaff to the Grand Cañon."]

1893 19.3381 On the horse flies of New Mexico and Arizona. *Kansas Academy of Science, Transactions*, 13: 133-135. [Includes notice of specimens collected on Hance Trail.]

1893 19.1687 On a peculiar acalyptrate muscid found near Turkey Tanks, Arizona. *Kansas Academy of Science, Transactions*, 13 (October): 135-136.

1893 19.1688 Note on a scutellerid on native tobacco in Arizona. *Psyche*, 6 (November): 547-548. [*Corimelaena extensa* on *Nicotiana* at Cedar Ranch, between Flagstaff and the Grand Canyon.]

1894 19.1689 Notes on some South-Western Hemiptera. *Canadian Entomologist*, 26(11) (November): 312-316.

1895 19.1690 On the Coleoptera of New Mexico and Arizona, including biologic and other notes. *Canadian Entomologist*, 27: 39-51. [Cites numerous taxa from Grand Canyon.]

1895 19.3190 On the cabbage-shaped gall of *Cecidomyia salicisbrassicoides*, and its occupants. *Canadian Entomologist*, 27(8) (August): 205-207.

1896 19.1691 Notes on New Mexico and Arizona Hymenoptera. *Canadian Entomologist*, 28(4): 110-112(5) (March): 138-142. [Includes *Gorytes dentatus* Fox, new species (p. 139), and various previously recognized taxa, all from Hance Trail, Grand Canyon.]

1915 19.3569 New western and southwestern Muscoidea. *New York Entomological Society, Journal*, 23(4) (December): 216-234. [Item signed "Charles H. T. Townsend".] [See p. 234, *Microsciasma minuta*, new genus and new species, from Hance Trail, 1892.]

Triplehorn, Charles A.

1975 19.1697 A subgenus of *Eleodes* with three new cave-inhabiting species (Coleoptera: Tenebrionidae). *The Coleopterists Bulletin*, 29(1): 39-43. [New species from Grand Canyon.]

2002 19.4323 The role of serendipity in systematics. *American Entomologist*, 48(3) (Fall): 144-148. [Founders Memorial Lecture. See p. 147, remarks and photo pertaining to working at the Grand Canyon and review of the genus *Asidina* (see Triplehorn and Brown, 1971, ITEM NO. 19.4324).]

Triplehorn, Charles A., AND Brown, Kirby W.

1971 19.4324 A synopsis of the species of *Asidina* in the United States with description of a new species from Arizona (Coleoptera: Tenebrionidae). *The Coleopterists Bulletin*, 25(3): 73-86. [Includes *Asidina rugicollis*, new species, type material from South Rim of Grand Canyon [specific localities not published]. Also *A. parallela* (LeConte, 1851), specimens noted from Grand Canyon; *A. wickhami* (Horn, 1894), specmens noted from Hualapai Mountains, Peach Springs, and Valentine, Arizona.]

Troubridge, J. T., AND Crabo, L. G.

2002 19.5208 A review of the Nearctic species of *Hadena* Schrank, 1802 (Lepidoptera: Noctuidae) with descriptions of six new species. *Fabreries* (Association des Entomologistes Amateurs du Québec), 27(2) (December): 109-154 ("Section en français", pp. 135-145). [See *Hadena* (*Hadena*) *lafontainei*, new species (pp. 114-117, figures 3 [p. 146], 17 [p. 148], 33 [p. 153]); paratype material includes "2 ♀♀, Kaibab Plateau, nr. Jacob Lk., 8,300 ft [2,550 m], 18.VII.1980, D.C. Ferguson" (ENTIRE NOTE) (square

brackets are part of quotation). Near Jacob Lake.] [Principally in English, with an abbreviated section in French.]

Tuthill, L. D.

1939 19.4317 New species of Psyllidae from the western United States. *Iowa State College, Journal of Science*, 13(2) (January): 181-186. [Insects. See pp. 185-186, *Trioza rubra*, new species; paratype material includes male specimen from "Grand Canyon".]

U

Uhey, Derek A.; Hofstetter, Richard W.; Remke, Michael; Vissa, Sneha; AND Haubensak, Karen A.

2020 19.6509 Climate and vegetation structure shape ant communities along elevational gradients on the Colorado Plateau. *Ecology and Evolution*, 10: 8313-8322 + Supporting Information online, https://doi.org/10.1002/ece3.6538, 14 pp. [Twelve study sites north and west of Flagstaff, Arizona, include three localities on the Kaibab National Forest north of Grand Canyon National Park.]

U.S. Department of Justice, U.S. Attorney, San Jose, California

1995 19.6424 Butterfly smuggling case. Press release from: U.S. Department of Jutice, U.S. Attorney, San Jose, California, December 14, 1994. *News of the Lepidopterists' Society*, 1995(1) (March): 22-23. [Regarding the cases against Richard J. Skalski, Mark L. Grinnell, and Thomas W. Kral, for "conspiring to poach federally protected butterflies between 1983 and 1992 on federally protected lands . . . and conspiring to trade and traffick in protected wildlife . . . ." Includes Kaibab swallowtail butterflies from Grand Canyon National Park.]

U.S. Forest Service

1979 19.1717 *Western spruce budworm management, Kaibab National Forest and Grand Canyon National Park.* Albuquerque, New Mexico: U.S. Forest Service, 182 pp.

1980 19.1718 *Western spruce budworm management, Kaibab National Forest and Grand Canyon National Park.* Albuquerque, New Mexico: U.S. Forest Service, 35 pp.

1980 19.1719 *Pandora moth management plan, Kaibab National Forest, Arizona.* Albuquerque: U.S. Forest Service, 60 pp.

U.S. Forest Service, AND U.S. National Park Service

1981 19.1720 *Western spruce budworm management, Kaibab National Forest, Grand Canyon National Park, Arizona.* Albuquerque, New Mexico: U.S. Forest Service, 127 pp.

U.S. Forest Service, Southwestern Region

1979 19.5729 *Draft : Environmental Statement : western spruce budworm management : Kaibab National Forest, Grand Canyon National Park.* Albuquerque, New Mexico: U.S. Forest Service, Southwestern Region, SEPARATELY PAGINATED SECTIONS [171 pp. total]. (03-07-79-1.)

1999 19.4635 *Forest insect and disease conditions in the Southwestern Region, 1998.* U.S. Forest Service, Southwestern Region, 20 pp. (R3-99-01.) [Regarding Grand Canyon National Park and Kaibab National Forest, see "Mountain Pine Beetle", pp. 4-5, and "Western Spruce Budworm", pp. 7-8.]

U.S. Forest Service, Southwestern Region, Forest Health

2015 19.5173 Forest insect and disease conditions in the Southwestern Region, 2014. *U.S. Forest Service, Southwestern Region, Forest Health PR-R3-16-13*, 43 pp. [Includes Kaibab National Forest.]

U.S. Forest Service, Southwestern Region, Forestry and Forest Health

2012 19.6302 Forest insect and disease conditions in the Southwestern Region, 2011. *U.S. Forest Service, Southwestern Region, Forestry and Forest Health, PR-R3-16-8*, 43 pp.

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

1986 19.6474 The aquatic insects of Roaring Springs, Bright Angel, Garden and Pipe Creeks, Grand Canyon National Park [ABSTRACT]. *Arizona-Nevada Academy of Science, Journal*, 21(1986 Proceedings Supplement) (April): 17.

Usinger, Robert L.

1931 19.2219 A new species of *Platylygus* (Miridae, Hemiptera). *Pan-Pacific Entomologist*, 7(3) (January): 129-130. [*Platylygus vanduzeei*, new species. Holotype is "male, No. 2997, Mus. Calif. Acad. Sciences, collected by C. D. Duncan, June 17, 1921, at the Grand Canyon, Arizona"; allotype collected by Usinger, "female, No. 2998, Mus. Calif. Acad. Sciences, collected by the author in Grand Canyon National Park, Arizona, South Rim, June 29, 1930."]

1944 19.3978 The Triatominae of North and Central America and the West Indies and their public health significance. *Public Health Bulletin*, (288), 83 pp.

V

Van Duzee, E. P.

1935 19.1809 [Brief notice of E. C. Van Dyke's collecting trip to New Mexico via Grand Canyon.] *In:* Personals. *Pan-Pacific Entomologist*, 11(3): 134.

Van Duzee, M. C.

1927 19.5941 North American species of *Polymedon*. (Diptera Dolichopodidæ). *Entomological Society of America, Annals*, 20(1) (March): 123-126. [Includes *Polymedon dilaticosta* and *P. nitidus*, new species with type material from Bright Angel Trail, Grand Canyon.]

Vaurie, Patricia

1955 19.3980 A review of the North American genus *Amblycheila* (Coleoptera, Cicindelidae). *American Museum Novitates*, (1724), 26 pp.

Vernieu, William S.

2015 19.4832 Biological data for water in Lake Powell and from Glen Canyon Dam releases, Utah and Arizona, 1990-2009. *U.S. Geological Survey, Data Series 959*, 12 pp. [Principally Lake Powell, but includes two data stations below Glen Canyon Dam: "Glen Canyon Dam draft tubes" and "Colorado River at Lees Ferry". Summary of investigations of chlorophyll, phytoplankton, and zooplankton. With database description.]

W

Waltz, Amy E. M., AND Covington, W. Wallace

1999 19.3427 Butterfly richness and abundance increase in restored ponderosa pine ecosystem (Arizona). *Ecological Restoration*, 17(4): 244-246.

2001 19.3426 Butterfly response and successional change following ecosystem restoration. *In:* Vance, Regina K., Edminster, Carleton B., Covington, W. Wallace, and Blake, Julie A. (compilers), Ponderosa pine ecosystems restoration and conservation: steps toward stewardship; conference proceedings; Flagstaff, AZ, April 25-27, 2000. *U.S. Forest Service, Rocky Mountain Research Station, Proceedings RMRS-P-22*, pp. 88-94. [Study area between Mount Logan and Mount Trumbull, Arizona Strip.]

Wang, Daqing

2001 19.6588 *Systematics of the subterranean amphipod genus* Stygobromus *(Crangonyctidae) in western North America, with emphasis on species of the* hubbsi *group.* Doctoral dissertation, Old Dominion University (Norfolk, Virginia), 220 pp. [*NOTE*: New taxa described herein are not valid for the purposes of taxonomic nomenclature. Includes *Stygobromus blinni*, "new species" (pp. 20-24); see also distribution maps, pp. 198, 200. For formal publication of taxonomic acts, see Wang and Holsinger (2001, ITEM NO. 19.6589).]

Wang, Daqing, AND Holsinger, John R.

2001 19.6589 Systematics of the subterranean amphipod genus *Stygobromus* (Crangonyctidae) in western North America, with emphasis on species of the *hubbsi* group. *Amphipacifica* (Journal of Aquatic Systematic Biology), 3(2) (November 15): 39-147. [Includes *Stygobromus blinni*, new species (pp. 74-76, figure 21); female holotype and two female paratypes from "Roaring Springs Cave, on the north rim of the Grand Canyon near Bright Angel Trail and Bright Angel Creek" [*sic*] (p. 74), "about 1.6 km inside the cave" (p. 76); collected by Dean Blinn, 28 September 1994.]

Ward, J. V.; Zimmermann, H. J.; AND Cline, L. D.

1986 19.1819 Lotic zoobenthos of the Colorado system. *In:* Davies, Bryan R., and Walker, Keith F. (eds.), *The ecology of river systems.* Dordrecht, Boston, and Lancaster: Dr W. Junk Publishers, pp. 403-423. (*Monographiae Biologicae* [H. J. Dumont, series ed.], Volume 60.)

Ward, Stephen L., AND Lachat, Robert

1988 19.1820 Continued studies on the red harvester ant density and foraging activities on human impacted, Colorado River beaches in Grand Canyon National Park, 1987. *In: Colorado River Investigations VI : July/August, 1987* (supervised by Stanley S. Beus, Steven W. Carothers, and Frank B. Lojko). Flagstaff, Arizona: Northern Arizona University, *for* U.S. National Park Service, Grand Canyon National Park, pp. 44-59.

Waring, Gwendolyn L., AND Price, P. W.

1990 19.1825 Plant water stress and gall formation (Cecidomyiidae: *Asphondylia* spp.) on creosote bush. *Ecological Entomology*, 15(1): 87-95.

Washburn, Richard I., AND McGregor, Mark D.

1974 19.4498 White fir needle miner. *U.S. Forest Service, Forest Pest Leaflet 144*, 5 pp. [Notes Grand Canyon North Rim.]

Welbourn, W. Cal

1978 19.1840 Preliminary report on the cave fauna. *In: Cave resources of Horseshoe Mesa, Grand Canyon National Park.* Yellow Springs, Ohio: Cave Research Foundation, pp. 36-42. [Restricted distribution due to archaeological content.]

Welch, Craig

2010 19.3177 The butterfly sting; how a federal wildlife agent brought down one of the world's most notorious insect thieves. *High Country News*, 42(6) (April 12): 14-20. [*Papilio indra kaibabensis* and Grand Canyon, pp. 16, 18, 20. Regarding Hisayoshi Kojima.]

Weld, Lewis H.

1921 19.4539 American gallflies of the family Cynipidae producing subterranean galls on oak. *U.S. National Museum, Proceedings*, 59(2368): 187-246, Plates 28-37. [See *Disholcaspis lacuna*, new species (pp. 195-196, Plate 28, figure 2); non-type material noted from "Grand Canyon". See also unidentified collection "Weld No. 706" (pp. 190, 242), "old galls" collected from localities including "Grand Canyon".]

Wellard Kelly, Holly Ann

2010 19.4977 *Resource composition and macroinvertebrate resource consumption in the Colorado River below Glen Canyon Dam.* Master's thesis, Loyola University, 169 pp.

Wellard Kelly, Holly A.; Rosi-Marshall, Emma J.; Kennedy, Theodore A.; Hall, Robert O., Jr.; Cross, Wyatt F.; AND Baxter, Colden V.

2013 19.4675 Macroinvertebrate diets reflect tributary inputs and turbidity-driven changes in food availability in the Colorado River downstream of Glen Canyon Dam. *Freshwater Science*, 32(2): 397-410.

Wells, R. Spencer

1996 19.4373 Nucelotide variation at the *Gpdh* locus in the genus *Drosophila*. *Genetics*, 143: 375-384. [Fly stock material includes *D. pseudoobscura* obtained from genomic DNA "collected at Kaibab National Forest, Arizona."] [*Gpdh* locus, "encoding glycerol-3-phosphate dehydrogenase, E.C. 1.1.1.8".]

Wheeler, William Morton

1899 19.3763 New species of Dolichopodidæ from the United States. *California Academy of Sciences, Proceedings*, Series 3, Zoology, 2(1), 85 pp. [including 4 plates]. [See *Polymedon castus*, new species, pp. 6-8, Plate 1, figure 8. [New species based on a single female specimen "labeled 'Grand Cañon, Arizona,' from the collections of the University of Kansas." Collector not indicated.] [New species of Dolichopodidae from the United States.]

1905 19.3221 The North American ants of the genus *Liometopum*. *American Museum of Natural History, Bulletin*, 21: 321-333. [See pp. 325, 332.]

1906 19.1853 The ants of the Grand Cañon. *American Museum of Natural History, Bulletin*, 22: 329-345.

1908 19.4536 Honey ants, with a revision of the American Myrmecocysti. *American Museum of Natural History, Bulletin*, 24: 345-397. [See pp. 351-352, *Myrmecocystus melliger mendax*, new subspecies; non-type material noted from "Grand Cañon (Wheeler)".]

1908 19.1854 The ants of Texas, New Mexico and Arizona. (Part I.) *American Museum of Natural History, Bulletin*, 24: 399-485.

1913 19.4963 A revision of the ants of the genus *Formica* (Linné) Mayr. *Museum of Comparative Zoology, Bulletin*, 53(10): 379-565. [Grand Canyon, see: *F. fusca fusca* var. *argentea* Wheeler (pp. 501-503; examined material from "Coconino Forest, Grand Canyon, 7,000 ft.", p. 502); *F. fusca fusca* var. *gelida* Wheeler, new variety (pp. 505-507; non-type material from "Coconino Forest, Grand Canyon, 7,000 ft. (Wheeler)", p. 506); *F.*

rufibarbis var. *gnava* Buckley (pp. 518-521; examined material from "Indian Garden, Grand Canyon", p. 519); *F. (Proformica) neogagates neogagates* Emery (pp. 536-538; examined material from "Coconino Forest at the Grand Canyon", p. 538); *F. (Neoformica* Wheeler, new subgenus*) moki* Wheeler, 1906 (pp. 558-560; type material for species noted from "Bright Angel Trail, Grand Canyon, 5,500-7,000 ft." (p. 560).]

1914 19.5591 New and little known harvesting ants of the genus *Pogonomyrmex*. *Psyche*, (October): 149-157. [See *Pogonomyrmex californicus* Buckley subsp. *maricopa*, new subspecies (pp. 155-156). Paratype material includes "Grand Canyon (Wheeler)".]

1915 19.3630 Some additions to the North American ant-fauna. *American Museum of Natural History, Bulletin*, 34: 389-421. [See *Aphaenogaster texana* Emery, pp. 412-413. "A very similar form, but slightly darker in the worker phase and tending towards the variety [*A. t. furvescens*, new variety, p. 413 and following], was collected in the Indian Garden on the Bright Angel Trail in the Grand Cañon, Arizona." (ENTIRE NOTE) *A. t.* var. *furvescens* is described from Huachuca Mountains and Ramsay Canyon, Arizona. Also see *Camponotus acutirostris* Wheeler *clarigaster*, new variety, p. 420; "A single specimen taken at an altitude of about 3000 ft. on the Bright Angel Trail in the Grand Cañon, Arizona."]

1917 19.2791 The mountain ants of western North America. *American Academy of Arts and Sciences, Proceedings*, 52(8) (January): 457-569. [See pp. 501, 504, 521, 523, 526, 558-561.]

White, M. J. D.

1949 19.4362 A cytological survey of wild populations of *Trimerotropis* and *Circotettix*. (Orthoptera, Acrididae). I. The chromosomes of twelve species. *Genetics*, 34 (September): 537-563. [Includes *Trimerotropis* sp. from Kingman, Arizona. Also reference to individuals of *T. cyaneipennis* from Grand Canyon as studied by King (1924 [ITEM NO. 19.4361]).]

Whiting, Daniel P.; Paukert, Craig P.; Healy, Brian D.; AND Spurgeon, Jonathan J.

2014 19.4692 Macroinvertebrate prey availability and food web dynamics of nonnative trout in a Colorado River tributary, Grand Canyon. *Freshwater Science*, 33(3): 872-884. [Bright Angel Creek.]

Wickham, Henry Frederick

1893 19.3176 Some interesting colour-varieties in the genus *Crossidius*. *Canadian Entomologist*, 25(8) (August): 189-194, plate.

1899 19.3226 The habits of American Cicindelidae. *Davenport Academy of Natural Sciences, Proceedings*, 7: 206-228. [Includes *Cicindela rufiventris* var. *arizonae*, new variety (pp. 226-227), based on specimens from "Grand Canyon" and from specimens collected in 1892 by "Professor [C. H. Tyler] Townsend" [on Hance Trail] between "Hance's stone cabin, 2500 feet below the rim . . . quite to the bottom of the cañon".]

Wilcox, J.

1965 19.6039 New *Heteropogon* Loew, with a key to the species and the description of a new genus (Diptera: Asilidae). *Southern California Academy of Sciences, Bulletin*, 64(4): 207-

222. [See *Heteropogon stonei*, new species (pp. 220-222); specimens include one paratype female from "Grand Canyon, Arizona".]

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