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THE LIFE AND WORKS OF EDWARD PAYSON VAN DUZEE¹

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Edward Payson Van Duzee was born at Number 36, East 22nd Street, New York City on April 6, 1861. Perhaps his greatest inspiration during his early years came from his father, William Sanford Van Duzee, a man of remarkable and varied talents and ability, who was a missionary to the Hawaiian Islands with one of the first expeditions in 1837. W. S. Van Duzee was later a dentist, a teacher and a builder and evidently maintained an active interest in scientific work throughout his life. Of his large family, only two sons, Millard C. (Pan-Pac. Ent., 10:90-96, portrait) and Edward P., followed scientific work. In 1861 the elder Van Duzee, whose home was in Buffalo, New York, was engaged as a building contractor in New York City. Within a week after the birth of Edward, the firing on Fort Sumpter initiated the Civil War and necessitated the closing out of building operations and the return of the Van Duzee family to their Buffalo home. Concerning this period, E. P. Van Duzee has written as follows²:

"My father as soon as he could close up his business in New York returned with his family to his home in Buffalo, and that city and its suburbs was my home for more than fifty years. Before transferring his business activities from Buffalo to New York father had purchased from James Fitz of Brooklyn a large acromatic refracting telescope, having an eighteen inch objective, that Mr. Fitz had constructed for the University of Virginia and which had been left on his hands through the stress of war conditions then prevailing in Virginia. This instrument is listed in the 8th edition of the Encyclopedia Britannica as one of the three largest refracting telescopes then made. On securing this large instrument father sold his smaller one to Hobart College and erected a three-story addition to his home, with the necessary equipment for the equatorial mounting of his large instrument. On the floor below the observatory he had five large rooms in which he installed the really extensive natural history collections he had accumulated

¹ Read before the 162nd meeting of the Pacific Coast Entomological Society on September 21, 1940.

² From a short autobiographical sketch of Edward Payson Van Duzee, typed in January, 1940.

through many years of active scientific work. The largest room was devoted to father's special interest, the birds, of which a representative of each species was mounted in a box having a background finished somewhat after the fashion of the habitat groups now so popular in museums. Other rooms contained collections in mineralogy, conchology and miscellaneous subjects. Some of this material he had accumulated while a missionary in the Hawaiian Islands and in travels about the country, and some he had obtained by purchase.

These collections and the observatory were open to the public free on certain days each month and father's place became the rendezvous for those in Buffalo who were interested in Natural History, and it was in these rooms that a few of the more earnest workers in natural science met together and decided to organize the Buffalo Society of Natural Science.

Such was the environment in which my boyhood days were spent and it formed, not only in me but also in my older brother, Millard C. Van Duzee, a deep-seated love of nature and a strong collecting diathesis which neither of us ever outgrew. This love of nature was still further strengthened by an intimate association with nature on father's farm at Lancaster, ten miles east of Buffalo where our summers were spent. There we ran wild in the fields and woods, often accompanying father on his hunting trips for birds and for other objects for his collection. Our education was largely obtained at private schools or under private tutors, but our real scientific training came from actual contact with nature under able guidance, and from the study of nature in father's large collections. Much of my early work was done in botany and geology and a little later in astronomy. In the latter study I devoted myself largely to work in the observatory, making nightly observations with the telescope, recording sun spots and keeping meteorological records. It was also during this period my duty to preside at the telescope when classes in astronomy were visiting the observatory, and to explain to the students the objects at which they were looking. During all this time, however, my real interest was gradually turning toward entomology under the guidance of Mr. Augustus R. Grote, then the director of the Buffalo Society of Natural Science, and the leading authority on American moths. Mr. Grote encouraged my brother and me to sugar for moths, taught us how to prepare and spread our specimens and helped us by making the determinations of our captures. Millard and I spent many happy days with him. He would exhibit with enthusiasm some of the new or rare Noctuids he had just received from Belfrage, Behrens, or others of his numerous correspondents, and explain to us the characters distinguishing the new species from allied forms. On one of these visits Mr. Grote advised me to take up the study of some group of insects, and recommended the Hemiptera."

In 1883 William Sanford Van Duzee died and his two entomologically inclined sons set out on the course of their life work. Millard carried on as a building contractor while Edward took some special laboratory work from March to July at Yale University under Prof. A. E. Verrill. Here he met and worked with S. W. Williston, one of the leading dipterists of the country. In March of 1885, through Henry A. Ward, an old friend of his father, E. P. Van Duzee became assistant librarian of the Grosvenor Library of Buffalo. This was exclusively a research library and hence provided ideal surroundings for the scientific work which was to occupy most of his waking hours during the next half century. With a medium power monocular microscope and his collection within reach, much of his early work on the Homoptera was done while not actually cataloguing and dispensing books at his desk. Other work was done evenings and Sundays in the house which he built at 17 Putnam Street. Here, by his first wife, Julia, were born his son, Edward Heath, who still resides in Buffalo, and his daughter, Mabel, now assistant professor of English at the University of Colorado. During these years, in addition to his work on the Hemiptera, Mr. Van Duzee collected generally, publishing lists of the Lepidoptera and of the dragonflies of Buffalo and vicinity. After ten years he was advanced to head librarian, which position he held for an additional 18 years. During these 28 years he acquired a knowledge of books and bibliographical methods which made him one of the foremost Hemiptera bibliographers of his time. Moreover, on yearly trips to library conventions and while purchasing books for the Grosvenor Library, he was able to visit the entomologists at the U. S. National Museum and, on at least two occasions in 1885 and 1888, a fellow librarian and the foremost hemipterologist of America, Philip Reese Uhler of Baltimore. Dr. Uhler was a constant source of inspiration through correspondence and must have welcomed such able assistance because of his own failing eyesight.

The first twenty-five years of Mr. Van Duzee's work covered one of the most productive periods in the history of hemipterology. Following upon the foundations laid by the greatest hemipterist of all time, Carolus Stål, came such men as E. Bergroth, G. C. Champion, W. L. Distant, O. H. Heidemann, Geza Horvath, G. W. Kirkaldy, A. L. Montandon, L. Lethierry, B. R. Poppius, and O. M. Reuter. All of these men are now

dead, but Mr. Van Duzee actually belonged to their era and his copious letter files, now a part of the historical files of the California Academy of Sciences, contain his regular correspondence with these men.

Although pursuing a full time librarian's job Mr. Van Duzee kept constant contact with the field through week-end trips, even during the winter when he often went out in search of hibernating forms around Buffalo or at his father's farm at Lancaster. This was a fortunate pastime for one confined so largely to clerical work and no doubt contributed to his long life of vigorous activity which never flagged to the very end. Several longer trips were taken during these years of residence in the East and have since become well-known as the type localities of many of his new species. The more important of these trips were to Muskoka Lake, Ontario, Canada, in 1888; Michigan in 1891; Georgia in 1899; Colorado in 1900 and in 1903; the Adirondack Mountains, New York, and to New Jersey in 1902; Ohio in 1905; the Island of Jamaica in 1906; Florida in 1908; the White Mountains of New Hampshire and to Massachusetts in 1909; and to Ottawa and Quebec, Canada, in 1912.

Soon after the turn of the century the long and arduous task of writing his catalogue of the Hemiptera was begun. This work went on for about ten years, occupying an increasing amount of his time. The excellent library facilities of the Eastern United States were all available to supplement his own very complete library so the resulting catalogue proved to be an exhaustive treatise and a model or standard of excellence for such bibliographical work. While still collecting information, verifying citations (he personally checked each separate reference in the final manuscript), and untangling the perplexing problems of synonymy, the Grosvenor Library had been moved to larger quarters and increased to a staff of about fourteen. It is small wonder, under the circumstances, that a nervous condition developed in 1912 which threatened his health and caused him to sever his connections in Buffalo and move West. After a brief visit with his old friend, E. D. Ball in Colorado, he continued on to San Diego where he visited with Mr. J. L. Rose of Alpine. Here he soon recuperated and spent six months collecting Hemiptera in this very nearly virgin field. The results of this work were published in the Transactions of the San Diego Society of Natural History. In 1913 he obtained a position in the library of the

Scripps Institution of Oceanography at La Jolla, which position he held through 1914. During this period he was able to resume work on his catalogue and completed a rough draft of the final work. With no apparent prospect of its immediate publication he drew up a check list containing only the names, original references, and distribution. This was published by the New York Entomological Society and served to validate the many higher group names proposed for the first time.

Through Prof. W. E. Ritter, then director of Scripps Institution, Prof. C. W. Woodworth, head of the division of entomology of the University of California, offered Mr. Van Duzee a position as instructor in entomology at the University of California. The position was accepted in August, 1914, and Mr. Van Duzee immediately applied himself to two tasks, the completion of his catalogue and the building up of the collection of insects at the University. The material which he collected still forms the basis of the University's insect collection, while his catalogue of 916 pages was accepted by the University of California Press. This monumental work appeared not only as Volume 2 of the University of California Publications in Entomology but also as one of the Semicentennial Publications of the University, with a few copies specially bound in this latter series. Teaching never appealed to Mr. Van Duzee and his activities along this line were limited to field instruction, particularly with the entomological field class of the University of California Summer School which was held at Fallen Leaf Lake in the high Sierra from June 21 to July 31, 1915, under the direction of Dr. E. C. Van Dyke. A report of the many new species collected on this trip and several other important studies on the Hemiptera were published at this time in Volume 1 of the University of California publications in entomology. Mr. Van Duzee lived on Woolsey Street during his early days at the University. After his second marriage he remained for a time in Berkeley and then moved to San Francisco.

In the decade since the great fire and earthquake of 1906, the California Academy of Sciences had been gradually rebuilding its collections and library. The large insect collections of former years, built up by curators Herman Behr (1862-1867 and 1881-1904), Richard H. Stretch (1868-1880), and E. C. Van Dyke (1904-1916), were completely destroyed but for 300 specimens of type material saved by the courageous action of Miss Alice East-

wood, curator in botany. This material included the types of the Coleoptera, Hymenoptera, and Hemiptera from the early expeditions to Lower California. With this upon which to build, Dr. Van Dyke carried on for the next ten years in conjunction with his medical practice. Material accumulated during this time included the Grundell collection of about 3,000 specimens, the W. S. Wright collection of about 2,000 specimens, the fine series of insects taken by F. X. Williams on the Academy's expedition to the Galapagos Islands, numbering about 4,000 specimens, the material taken by Mr. Joseph Slevin, mostly in Arizona, by Dr. Thompson in the Orient, and by Dr. Van Dyke from extensive field work throughout the west coast. In all, this material was estimated by Mr. Van Duzee at about 30,000 specimens, a very substantial start toward rebuilding what had been the finest collection of insects in the West.

On June 1, 1916, Mr. Van Duzee accepted the positions of librarian and curator of entomology at the California Academy of Sciences. The latter position was open because Dr. Van Dyke had just taken up teaching and systematic work at the University of California. Mr. Van Duzee held the position of assistant librarian of the Academy for eleven years until a full time librarian was employed. For the first seven years he resided on Ninth Avenue in San Francisco near the Academy. Here it was possible to work evenings and in this he was helped by his wife, Mrs. Helen Van Duzee, who assisted him in the library and made a collection of spiders while he was devoting his energies to the Hemiptera. Later they moved to Mill Valley where they built a cabin and lived for one year and then moved to 1212 Fountain Street, Alameda, where the family home is still located.

During Mr. Van Duzee's twenty-four years at the Academy, starting at the age of 55 years, he built another monument to his lifetime of industry and entomological zeal. With the hearty cooperation of the entomologists of the west, the collections grew from 30,000 specimens to well over one million mounted specimens. Five thousand holotypes and allotypes of new species were accumulated and, of even greater importance, this vast amount of material was prepared beautifully and with meticulous care. The best modern technique for handling pinned material was employed with an improved type of unit tray system, glass tops and bottoms on the Lepidoptera cases, and endless details

which make the Academy collection one of the neatest and best cared for collections in the world today. It should be emphasized that all of this was accomplished with relatively limited funds and assistance, so that much of the routine fell upon Mr. Van Duzee and the volunteer help of such faithful friends of the Academy as F. E. Blaisdell and E. C. Van Dyke. The favorable conditions at the Academy attracted many large collections which were obtained either by gift or purchase. The largest of these are listed below in the order in which they were received.

SPECIMENS

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|--|---------|
| E. J. Newcomer collection of Lepidoptera, 1917..... | 1,737 |
| R. H. Stretch collection of moths (Loan from the University of California) 1923..... | 3,146 |
| E. C. Van Dyke collection of Coleoptera, 1924..... | 200,000 |
| H. M. Holbrook collection of butterflies, 1924..... | 500 |
| E. P. Van Duzee collection of Hemiptera, 1924..... | 35,184 |
| F. E. Blaisdell collection of Coleoptera, 1925..... | 125,000 |
| J. C. Huguein collection of Lepidoptera, 1925..... | 1,870 |
| Albert Koebele collection of insects (purchase), 1925..... | 100,000 |
| L. S. Slevin collection of Coleoptera, 1927..... | 30,300 |
| C. L. Fox collection of Hymenoptera, 1928..... | 16,700 |
| J. O. Martin collection of Coleoptera, 1928 | 12,000 |
| Norman R. Gunn collection of Lepidoptera, 1932..... | 3,300 |
| M. C. Van Duzee collection of Diptera, 1934..... | 29,500 |
| Adalbert Fenyès collection of Coleoptera, 1937 (purchase) | 100,000 |
| William Hovanitz collection of Lepidoptera, 1939..... | 3,000 |
| Graham Heid collection of butterflies, 1939..... | 4,000 |
| E. G. Linsley collection of Cerambycidae, 1939..... | 50,000 |
| F. C. Hadden collection of Philippine Coleoptera, 1939..... | 200,000 |

In addition to these large collections which were received as units, a vast amount of material was collected by Mr. Van Duzee and members of his staff while Dr. Van Dyke and Dr. Blaisdell continued to add to their already large collections, contributing fifteen thousand or more insects each year. During these years Mr. Van Duzee made extensive trips to the San Jacinto Mountains in 1917; Siskiyou County in 1918; Huntington Lake in 1919; Washington State and Vancouver Island in 1920; the Gulf of California in 1921; Utah in 1922; Southern California in 1923; Arizona in 1924; Truckee, California, and Nevada in 1927; Fort Collins, Chicago, Buffalo, Ithaca, New York City,

Boston, Philadelphia, Washington, D. C., Pittsburg, Urbana, Decatur, and Ames, on a trip to attend the Fourth International Congress of Entomology at Ithaca in 1928; and the Owens Valley in 1929. Only shorter trips were taken during the next decade because of the failing health of Mrs. Van Duzee's mother, who required constant attention and care. These short trips took him again to many of his former collecting places in California but much of this travel was incidental to the business of administering the large collections in his care and soliciting new material.

Other material accumulated at the academy includes a fine entomological library, obtained by judicious purchases and recently augmented by the donation of Dr. Van Dyke's excellent library consisting of 1,000 volumes and 1,000 separates, bulletins, etc., on the Coleoptera and general entomology and Dr. Isabel McCracken's library, which is particularly strong in the Hymenoptera.

Members of the Pacific Coast Entomological Society had long felt the need for a special entomological journal devoted to western entomology and had actually planned such a journal to be called the "Pacific Coast Entomologist." However, the uncertainty of conditions during the first World War made the venture inadvisable at that time. In 1924 the project was carried through, due to the vision and faith of E. P. Van Duzee, E. C. Van Dyke, F. E. Blaisdell, E. O. Essig, G. F. Ferris, R. A. Doane, Grant Wallace, W. W. Henderson and J. C. Chamberlin. The bulk of the work fell upon the shoulders of Mr. Van Duzee as editor, and Dr. Blaisdell as treasurer, but the entire Publication Committee contributed in no small measure to finance the new venture. To Mr. Van Duzee goes a large part of the credit for the style and standard of excellence which he built up while acting as editor during the first fourteen years of existence of the *Pan-Pacific Entomologist*. Few people realize the sacrifices of his own research which Mr. Van Duzee made while building this journal up to its present respected position among the entomological journals of the world. Continuing through the year 1938, he never relaxed his editorial vigilance and only turned the work over to others when the pressure of routine duties and failing health forced him to do so.

In the latter part of May, 1940, Mr. Van Duzee, accompanied by his wife, drove to Los Angeles where he was occupied with

Academy business. While enroute to a collecting place in the Coachella Valley, he was suddenly taken ill and decided to return to his home in Alameda. A trained nurse was employed to accompany them as far as Fresno. Here, after a night's rest, Mr. Van Duzee's condition was considerably improved so the nurse was permitted to return to Los Angeles while Mrs. Van Duzee drove her husband home. The following day he entered the Alameda Hospital for observation and rest. Having been informed by his physician that he would be unable to return to his work and being so concerned about the future of the Academy, he called his assistant, E. S. Ross, to his bedside and discussed with him at length the problems having to do with the care of the insect collections. Although appearing to respond immediately with hospital care, he died suddenly on the next day, June 2. Funeral services were held Wednesday, June 5, 1940, at 3:00 o'clock p. m. at the Mausoleum Chapel at Mountain View Cemetery, Oakland, in which cemetery he was buried. His funeral was attended by a large group of his entomological friends from all parts of the state.

The regular July meeting of the California Academy of Sciences was devoted to a commemoration of the life and work of Mr. Van Duzee. The meeting was held in the entomological laboratories of the Academy on Wednesday afternoon, July 10, at 4:00 p. m. Short commemorative and appreciative addresses were delivered by E. C. Van Dyke, E. O. Essig, W. B. Herms, R. C. Miller, and F. M. MacFarland.

Mr. Van Duzee will long be remembered for his industry and devotion to the causes for which he worked. Throughout his life are scattered landmarks which will stand as his everlasting monuments. He was a link between the older generation of nineteenth century hemipterists and our present-day workers. At the time of his death he was dean of the hemipterists of the world, succeeding to that exalted place upon the death of his friend and correspondent, the eminent Hungarian hemipterist, Dr. Geza Horvath.

Prominent as a member and loyal in his support of scientific societies and journals, Mr. Van Duzee was or had been a member of the following societies: American Entomological Society, American Association of Economic Entomologists, American Museum of Natural History, Brooklyn Entomological Society, Buffalo Historical Society, Buffalo Society of Natural Sciences,

Cambridge Entomological Club, Ecological Society of America, Entomological Society of Ontario, Kansas Entomological Society, National Geographic Society, Philadelphia Academy of Natural Sciences, Southern California Academy of Sciences, and Western Society of Naturalists. He was a fellow of the American Association for the Advancement of Science, a patron of the California Academy of Sciences, a fellow and charter member of the Entomological Society of America and vice-president in 1934, an honored member of the Pacific Coast Entomological Society and a fellow of the San Diego Society of Natural History.

During his lifetime Mr. Van Duzee accumulated several separate collections. His Lepidoptera, mostly from Buffalo and vicinity, are now part of the collection of the Buffalo Society of Natural History. The Coleoptera collected in Florida and Jamaica went to his friend H. F. Wickham and thence to the United States National Museum. An extensive collection of Hemiptera, 'including a full series of his types up to that time,'³ was sold to Iowa State College in 1897. A large general collection was accumulated for the University of California during the years 1914-1915. Finally his collection of Hemiptera in 1925, including about 30,000 specimens, was given to the California Academy of Sciences and was augmented by approximately 100,000 insects of all orders collected subsequently in general field work by him for that institution. A considerable collection of land shells was likewise accumulated, including some interesting species collected by his father in Hawaii in 1837. This collection is a part of the undistributed estate at present.

In recognition of his extensive field work while pioneering in little explored territory, a large number of species and two genera have been named in honor of Mr. Van Duzee. Seventy-seven of these are listed at the end of this paper.

Mr. Van Duzee published a total of 250 papers, comprising 2821 pages, in the fifty-five years between 1885 and 1940. During this period there were only four years at scattered intervals when no papers appeared from his pen. In general, these papers are descriptions of new species, extensive faunal lists, and short notes. A few are monographic treatments of particular groups for North America whereas the check list and catalogue are monumental bibliographical works. In these works he described a total of 895 new species, subspecies, or varieties, 47 new

³ Osborn, Herbert. 1937. *Fragments of Entomological History*, p. 297.

genera or subgenera, 12 new names for species, subspecies or varieties, 5 new names for genera, and 33 higher group names, these last consisting largely of new names for old subfamily or tribal concepts in order to bring the nomenclature of the higher groups of Hemiptera into conformity with that of other orders.

A list of all of the names proposed by E. P. Van Duzee is given at the end of this work. The names have been arranged systematically according to the arrangement in his catalogue (1917) for higher groups and alphabetically for genera and species. All names are given in their original form and combination. The number immediately following the name and preceding the colon refers to the bibliographical reference in the complete Van Duzee bibliography at the end of this work, while the number following the colon refers to the page on which the name was proposed. A valuable list of the "Types of genera established by the author" up to 1909 is given in the *Canadian Entomologist*, 41:380-384.

Biographical notes, pictures, and death notices of E. P. Van Duzee have appeared in several places as listed below.

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SOME GENERA AND SPECIES NAMED IN HONOR OF
E. P. VAN DUZEE

GENERA

Vanduzea Goding.

Vanduzeeina Schouteden.

SPECIES

Arachnida

Sassacus vanduzeei Chamberlin. *Chelanops vanduzeei* J. C.
Chamberlin.

Orthoptera

Glematodes vanduzeei Hebard *Esselenia vanduzeei* Hebard.

Hemiptera

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| <i>Acalypta vanduzeei</i> Drake. | <i>Liburnia vanduzeei</i> (Crawford). |
| <i>Aradus duzei</i> Bergroth. | <i>Lygus vanduzeei</i> Knight. |
| <i>Aradus vanduzei</i> Heidemann. | <i>Macrotylus vanduzeei</i> Knight. |
| <i>Chlorotettix vanduzei</i> Baker. | <i>Melanostictus vanduzeei</i> Reuter. |
| <i>Cinara vanduzei</i> (Swain). | <i>Mezira vanduzeei</i> Usinger. |
| <i>Cyclokara vanduzei</i> (Ball). | <i>Micronecta vanduzeei</i> Kirkaldy. |
| <i>Cyrtolobus vanduzei</i> (Goding). | <i>Nabis vanduzeei</i> (Kirkaldy). |
| <i>Deræocoris vanduzeei</i> Knight. | <i>Okanagana vanduzeei</i> Distant. |
| <i>Deltocephalus vanduzei</i> Gillette and Ball. | <i>Phlepsius vanduzei</i> Ball. |
| <i>Dorycephalus vanduzei</i> Osborn and Ball. | <i>Phytocoris vanduzeei</i> Reuter. |
| <i>Eutettix vanduzei</i> Gillette and Baker. | <i>Pilophorus vanduzeei</i> Knight. |
| <i>Gargaphia vanduzeei</i> Gibson. | <i>Platylygus vanduzeei</i> Usinger. |
| <i>Geocoris duzei</i> Montandon. | <i>Platypedia vanduzeei</i> Davis. |
| <i>Idiocerus duzei</i> Provancher. | <i>Pycnoderes vanduzeei</i> Reuter. |
| <i>Lamproscytus vanduzeei</i> Reuter. | <i>Rhinocapsus vanduzeei</i> Uhler. |
| | <i>Scolops vanduzei</i> Ball. |
| | <i>Typhlocyba vanduzei</i> (Gillette). |
| | <i>Xerophlœa vanduzeei</i> Lawson. |

Coleoptera

| | |
|--|---|
| <i>Acmæodera vanduzeei</i> Van Dyke | <i>Listrus vanduzeei</i> Blaisdell. |
| <i>Adetus vanduzeei</i> Linsley. | <i>Neoclytus vanduzeei</i> Van Dyke. |
| <i>Cylindrocopturus vanduzeei</i> Van Dyke. | <i>Stenopodinus vanduzeei</i> Blais- dell. |
| <i>Dasytastes vanduzeei</i> Blaisdell. | <i>Stenoptochus vanduzeei</i> Van Dyke. |
| <i>Eleodes vanduzeei</i> Blaisdell. | <i>Trichochrous vanduzeei</i> Blais- dell. |
| <i>Eusaltus vanduzeei</i> Blaisdell. | |

Lepidoptera

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|--|---|
| <i>Gelechia vanduzeei</i> Keifer. | <i>Melitæa palla whitneyi</i> ab. <i>van-</i> <i>duzei</i> Gunder. |
| <i>Graptolitha vanduzeei</i> Barnes. | <i>Pero vanduzeeata</i> Wright. |
| <i>Lycæna editha</i> ab. <i>vanduzeei</i> Gunder. | <i>Xylomyges vanduzeei</i> Barnes and Benjamin. |

Hymenoptera

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|---|--|
| <i>Andrena vanduzeei</i> Linsley. | <i>Megachile vanduzeei</i> Cockerell. |
| <i>Anthidium p. vanduzeei</i> Cockerell. | <i>Melissodes catalinensis van-</i> <i>duzei</i> Cockerell. |
| <i>Centris vanduzeei</i> Cockerell. | <i>Nomia howardi vanduzeei</i> Cockerell. |
| <i>Ceratina arizonensis vanduzeei</i> Cockerell. | <i>Oreopasites vanduzeei</i> Cockerell. |
| <i>Halictus vanduzeei</i> Sandhouse and Cockerell. | <i>Osmia vanduzeei</i> Sandhouse. |
| | <i>Perdita vanduzeei</i> Cockerell. |

Diptera

- | | |
|--|---------------------------------------|
| <i>Ablautus vanduzeei</i> Wilcox. | <i>Pegomyia vanduzeei</i> Malloch. |
| <i>Amphicosmus vanduzeei</i> Cole. | <i>Pipiza vanduzeei</i> Curran. |
| <i>Cyrtopogon vanduzeei</i> Wilcox and Martin. | <i>Sapromyza vanduzeei</i> Cresson. |
| <i>Euparyphus vanduzeei</i> James. | <i>Thereva vanduzeei</i> Cole. |
| <i>Lissoteles vanduzeei</i> Cole. | <i>Ulomorpha vanduzeei</i> Alexander. |
| <i>Nannocyrtopogon vanduzeei</i> Wilcox and Martin. | <i>Villa vanduzeei</i> Cole. |

SPECIES, GENERA AND HIGHER GROUP NAMES PROPOSED BY
E. P. VAN DUZEE³

HETEROPTERA

Plataspidae

- Brachyplatys nitidiceps*,
250:178.

Scutelleridae

- | | |
|--|--|
| <i>Coleotichus adamsoni</i> , 199:177. | <i>Phimodera corrugata</i> , 45:16. |
| <i>Eurygaster carinatus</i> , 45:18. | <i>Vanduzeeina californica</i> , 108:391. |
| <i>Homæmus variegatus</i> , 72:3. | <i>borealis</i> , 108:392. |
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