Science evolves and is perfected by the patient and critical labors of generations of investigators; and scientific progress is marked by an unending series of publications. To this fact, indeed, is due the perennial interest of the History of Science. School succeeds school in the evolution of opinion, and generalizations current in one decade are almost outmoded in the next—a result inevitable as long as our "truths" are relative. The history of scientific progress offers a confusing, kaleidoscopic succession of viewpoints associated with personalities. Some of these protagonists of outworn points of view are, like Paracelsus, of heroic proportions, and will be remembered as long as men shall study Science; others are so lacking in the qualities that grip the human imagination that they are forgotten even during their utterance. Perhaps it is true, as Edith Wharton says in her *Vesalius in Zante*, that men should be content simply to know that, by their labors, they although unknown hold up the temple of Truth,

> Though men, agape at dome and pinnacles,  
> Guess not, the whole must crumble like a dream  
> But for that buried labor underneath.

Yet I must confess that, for my part, this forgetfulness of early workers seems ingratitude; and the greatest joy is to unearth these men of early science, trace the sources of their inspiration, and learn the full extent of their labors, in order to assess aright our obligation to them. For many of these early workers in the field of Science lived lives of full devotion to the truth as they knew it; and to a generation sorely in need of moral inspiration, their deeds for Science bear a brave message.

America in her pioneer period has produced her full quota of naturalists: picturesque and ardent, luxuriant and
genuine—the Audubons, the Bartons, the Bartrams, the de Schweinitzses, the LeContes, the Haydens, the Ravenels, the Shumards, and the Winchells, to name but a few. In frontier "colleges" barely emerged from the logs that formed their first homes, worked and taught such men as Constantine Samuel Rafinesque, Gerard Troost, Charles Wright, Alexander Winchell, and Robert Kennicott. Anyone who glances over Meisel's fine work on American natural history before the Civil War (or, better still, George Brown Goode's admirable essays on the Beginnings of Natural History in America), will be amazed at the scientific activity of naturalists on our Frontier, north and south. Beginning with the earliest settlement of America, and continuing with accelerated momentum up to the passing of the Frontier, we find this frontier the meeting-point of ardent naturalists, intent on wresting from Nature the secrets of animal- and plant-distribution. No naturalist of the present day can gain an adequate idea of the data of his own field without insight into the history of scientific exploration of the frontier and the progressive generalizations arrived at by closet naturalists through study of materials got by such scientific explorers.

Texas has an almost unique place in the history of scientific exploration. This is probably owing to a number of singular coincidences. First, the opening of the country to unrestricted immigration and colonization nearly coincided with two waves of forced emigration from European countries after unsuccessful social revolutions; and these revolutionnaires were frequently men of strong scientific bent and interest (like the Engelmanns, Hilgards, Lindheimer, Friedrichs, and Bunsens, who came to Belleville, Illinois, after the *Hamburger Putsch* of 1833), and brought with them the viewpoints of a thousand-year-old European culture. Then, secondly, these men came into Texas in a period that was pregnant with all sorts of possibilities of advance in scientific fields. Merz, in his monumental four-volume work, *The History of European Thought in the Nineteenth Century*, has shown brilliantly how ready the century was for scientific progress. It was in 1844
that Darwin made his first long formulation of the theory of the Origin of Species; and while his classic pronouncement did not appear until 1859, his activity from 1844 to 1859 was indicative of the working ferment in men's minds. The necessity of a Boundary Survey at the end of the Mexican War, and after the conclusion of the Gadsden Purchase, also made it possible to explore the country under government auspices during the 'fifties; and the various Pacific Railroad Surveys, conducted during the same decade by the War Department of the United States, also included in their personnel men of science and scientific collectors who have added to the sum-total of our knowledge of the fauna and flora of Texas. The personal ambitions and animosities of warring botanists and paleontologists also contributed to the activity of naturalists and scientific collectors on the Texan frontier. All of these factors contributed to make Texas a sort of Promised Land for the naturalist. Then, again, the contiguity of Texas to Mexico, land classically-explored by Baron Alexander von Humboldt and Aimé Bonpland (with great access of riches to the scientific museums of the world), gave point to further investigations in the former Mexican Provinces of the North. As a result of all these factors, in the period covered in this paper, one hundred twenty-two collectors, explorers, and men of science are known to have come into the state for the purpose of studying our fauna and flora. To this almost unbelievable number should be added a putative score of others who presumably have eluded even my most careful and unwearying researches of the past eight years. Nor have I included in this list a group of eight leading men of science (Lester F. Ward and E. D. Cope, among the number) who came to Texas in early September, 1877, on a short reconnaissance at the conclusion of the Nashville Meeting of the American Association for the Advancement of Science.

In the list below are included brief indication of the labors in Texas of these naturalists; short references to biographical and other printed sources (many of them to my own papers) are also given. I have also included the names of three naturalists who have been previously (but mis-
takenly) described as having worked in Texas. I have indicated my own manuscript materials when these are still the chief sources of information. Thirty-two names are marked with an asterisk; it is my intention to publish extended biographical studies of all of these men, similar to those that appeared in "The Naturalists of the Frontier" (Southwest Review, 1929-33).

I hope that this annotated list of naturalists may be of service to men of science, especially taxonomists, throughout the world, who may be interested in itineraries and type-localities for species; and the fullest coöperation will be extended to all such students by the present writer. Finally, I hope that this compilation may be the means of interesting young students in these early frontier naturalists, so that they may be induced to delve into their lives and works, and come to sense something of the affection and even reverence felt for many of them by one naturalist on a modern frontier of another sort: an affection that has made eight years of constant search and study in following their footsteps in Texas and their deeds for science, a light and pleasant task.

PARTIAL LIST OF COLLECTORS AND EXPLORERS

*AUDUBON, John James (1780-1851) The great ornithologist came to Texas in the spring of 1837, exploring Galveston Bay and Buffalo Bayou as far as Houston. He was accompanied by his son and Edward Harris. (Southwest Review 16: 108-35, 1930.)

AUDUBON, John Woodhouse (1812-62) Besides the 1837 trip to Texas with his father, J. W. Audubon collected mammals, etc., extensively in all of Texas during several months of 1845-46; and returned finally to Texas, in March, 1849, for a brief transit of the "Valley" at Brownsville en route California.

BEHR, Ottomar von (1810-56) Member of a niedersaechsisches noble family dating from the twelfth century, von Behr came to Texas about 1846, later settling at Sisterdale. Kinsman of the distinguished California entomologist and physician, Dr. Hans Hermann Behr (1818-1904.) Worked in meteorology and natural history. (Bios 5:148-50, 1934.)

*BELFRAGE, Gustaf Wilhelm (1834-82) Swedish entomologist; came to Texas in 1867; worked chiefly in McLennan, Bosque (and perhaps Williamson) Counties. E. T. Cresson's Hymenoptera Texana (1872) was based largely on his collections of Hymenoptera. (Southwest Review 14:381-98; Entomol. News 44:127-32, 1933; Field & Laboratory 1: 47-50, 1933.)

*BERLANDIER, Jean Louis (1805-51) Swiss naturalist; came to Mexico in 1826; explored for plants and animals in Texas, 1828-34. (Southwest Review 18:431-59, 1933.)

BIGELOW, Artemas (1818-78) Collected plants in Texas, 1839.

*BIGELOW, Dr. John Milton (1804-78) In 1850-53, Botanist of the U. S. & Mexican Boundary Survey under Bartlett; in the fall of 1853, Bigelow accompanied Captain Whipple along the Thirty-fifth Parallel (Pacific Railroad Surveys), thus collecting along the Canadian River in Northwest Texas. His valuable reports appeared in the fourth volume of the Pacific Railroad Reports.

*BLAKE, William Phipps (1828-1910) Geologist on one of the Pacific Railroad Surveys (Williamson's). He was charged also with the study and preparation for publication of Marcou's specimens and notes on the geology of the Whipple Survey. Later, he made studies of the Big Wichita and Brazos Rivers. Still later, he was professor of geology in the University of California.

*BOLL, Jacob (1828-80) Swiss naturalist and entomologist. His collections in all fields of natural history in Texas are of the greatest importance. He came to Texas in 1869. (Southwest Review 14:184-98, 1929; Amer. Midl. Nat. 8:435-52, 1929.)

BUCKLEY, Samuel Botsford (1809-83) Twice State Geologist of Texas; he also published on the botany of Texas, and on North American ants. Came to Texas in 1859. His work was uneven in quality, and frequently was of little value. (Southwest Review 16:133/4, 1930.)

BUNSEN, Gustav (?1805-36) Came to Texas in 1836, from Belleville; he was killed (with most of Grant's men) on the Agua Dulce, about 26 miles west of San Patricio, March 2, 1836. The brother of the famous German-American educator, Georg Bunsen, he was well-trained in the sciences. (Geiser Papers.)

BURLESON, Richard Byrd (1822-79) Came to Texas in 1855; Professor of Natural Sciences, Baylor University, 1857-61; idem, Waco University, 1861-79. In 1874 he joined Buckley's second Texas Geological Survey, and took part in his Report of 1876.


CARTER, B. F. ( ) Collected mollusca casually in Texas; sent some to the Smithsonian Institution (1859).

*CLARK, John Henry (?1830- ?) Naturalist, Surveyor; native of Anne Arundel Co., Md., a former student of Spencer F. Baird at Dickinson College. Clark served as Zoologist and Assistant Computer under Colonel J. D. Graham, U. S. & Mexican Boundary Survey (1850-55), at the same time, in part, that Charles Wright was Botanist. With Arthur Schott, Clark made very fine zoological collections; those of the vertebrates contained perhaps a hundred new species. (Dall, Spencer Fullerton Baird, 1915, passim; see also Bull. 194, U. S. Geological Survey, 1902, pp. 14ff.)

CONSTANT, Louis ( ) A Berliner who collected protista in Texas for Professor Christian Gottfried Ehrenberg. About 1844-46,

*COUCH, Lieut. Darius Nash (1822-97) In 1853-54, he made an expedition into Northern Mexico and Southern Texas; he brought back to the Smithsonian Institution the fine Berlandier Collections and manuscripts; subsequently he was for a time on duty at the Smithsonian Institution. (ACAB; DAB; Dall, Spencer Fullerton Baird, 1915, passim.)

CRAWFORD, Dr. Samuel Wylie (1829-92) Army surgeon, attached for a time to Fort Clark (present Brackettville). He sent to the Smithsonian Institution (1853-57), for use in the Pacific Railroad Reports, large collections of vertebrates from the vicinity of Fort Clark and Las Moras Springs. He lived in Texas from 1851-60.

*CRESSON, Ezra Townsend (1838-1926) During the year 1859, this (later) distinguished entomologist lived at New Braunfels, Comal County, and made insect and other collections. (Trans. Amer. Entomol. Soc. 52:ix [suppl.])

DEAN, G. W. ( - ) Collected at Galveston (1853) reptiles for the Smithsonian Institution.

DIEFFENDERFER, Dr. W. L. ( - ) Surgeon and Naturalist with Captain Pope's Expedition (1854). Collected plants, birds, and small mammals. Torrey & Gray published on his plant-collections in Pacific Railroad Reports, vol. II.

DOUGLAS, David (1798-1834) Audubon & Bachman (1856) in Quadrupeds . . . , 1:290, suggest, mistakenly, that Douglas collected in Texas. DRUMMOND was the first collector sent by Sir William J. Hooker to Texas. This note is inserted to correct the error of Audubon & Bachman.


*DRUMMOND, Thomas (?1790-1835) Scottish botanical collector; did distinguished botanical and zoological collecting in Texas 1833-34), chiefly in the Old Austin Colony, and on Galveston Island. (Pop. Sci. Mo. 74:48-49, 1909; Southwest Review 15:478-512, 1930.)

EMORY, William Hemsley (1811-87) After the Mexican War (1851) he was assigned as Chief Astronomer for running the boundary between California and Mexico; in 1854, he was appointed Commissioner and Astronomer for running the boundary under the Gadsden Treaty. He collected mammals along the Rio Grande for the Smithsonian Institution (1853).

ERNST, Friedrich ( - ) Came to Texas in 1831, founding Industry, Austin County. Former head-gardener of the Grand Duke of Oldenburg, Ernst was the first able botanist and horticulturist in the colony of Texas. (Bios 5:142, 1934.)

ERVENDBERG, Ludwig Cachand (1809-767) From 1839 to 1855, Ervendberg was actively interested in scientific, experimental agriculture at “New Wied”, near New Braunfels, Comal County. He collected plants for Asa Gray at New Braunfels, and (after 1855) near Tantoyuca, Vera Cruz, Mexico. (Bios 5:144, 1934; Geiser Papers.)

FENDLER, Augustus (1813-83) Later, a most distinguished botanical collector for Asa Gray, Fendler came to Houston in 1839, and
lived there in obscurity for a year. (Pop. Sci. Mo., 73:240-43, 1908.)

FOARD, Dr. Andrew Jackson (d. 1867) Army surgeon at Fort Davis; he sent mammals from that locality to the Smithsonian Institution (1858). He also sent large collections of Texas vertebrates for the Pacific Railroad Reports (vol. IX.)

FORCKE, August (1814-189-) Came to Texas in 1846, with Prince Solms' colony, as official apothecary at New Braunfels. He had had German university training in the sciences. (Bios 5:145, 1934; Brown, Indian Wars and Pioneers of Texas, 189-, 694-95.)

*FORSEY, Caleb Goldsmith (1812-81) Engineer, Naturalist; collected mollusks, etc., for naturalists in Philadelphia, and for the Smithsonian Institution. He published (1853-79) a series of papers, chiefly on the geology and hydrography of Louisiana, on the physics of the Mississippi River, and on the geology of the Mississippi Delta. (ACAB; Geiser Papers.)

FRIEDRICH, Otto (1800-80) Lepidopterist and Naturalist, living in the hills near present Gruene, north of New Braunfels. Came to Texas [second time] in 1850. (Southwest Review 17:444-45, 1932.)

FROEBEL, Dr. Julius (1805-93) Noted German revolutionary, mineralogist, physiographer, and economist, nephew of the famous Professor Froebel. Came to Texas about 1855. (See his Aus Amerika: Erfahrungen, Reisen, und Studien [2 vols, 1857-58]. Collected materials in Texas for the Smithsonian Institution.

GANTT, Dr. W. H. ( ) Sent samples of infusorial earth, and birds' eggs and nests from Union Hill, Washington County (three miles north of present Burton), to the Smithsonian Institution 1857-59.)

GIRAUD, Jacob Post, Jr. (1811-70) Published (1841) a folio paper of 16 leaves (8 plates) entitled, "A Description of Sixteen New Species of North American Birds . . . collected in Texas in 1838". I have not seen this; but from the fact that but three of Giraud's "species" have ever been collected in Texan territory, I surmise that Giraud did not himself collect them. The types of these "species" were presented to the Smithsonian Institution in 1867.

HALDEMAN, Lieut. Horace (d. 1883) While in service at Fort Martin Scott (Fredericksburg) and Fort Gates (present Gatesville) in the late 'forties and early 'fifties, Haldeman sent numerous insects and other objects of natural history to his father [see below.] Three new species of Hymenoptera, one new species of Hemiptera, and two new species of Coleoptera, all collected at Fort Gates, were described by the later in Stansbury's (1853) report on the Great Salt Lake Region.

HALDEMAN, Samuel Stehman (1812-80) My friend, Dr. F. F. Bibby, of the Texas Agricultural Experiment Station, believes that the elder Haldeman collected insects in Liberty and Hardin Counties. Of this I am not at present certain; but in a letter to Spencer F. Baird (Dec. 3, 1847), Haldeman suggests that he is contemplating a collecting trip to the Southwest during the summer of 1848.

HALL, Elihu (1822-82) One of the organizers of the Illinois Natural History Society at Bloomington (1858); and in 1862 plant-collector in the mountains of Colorado with Dr. C. C. Parry and J. P. Harbour, Hall collected 861 species of plants in East Texas in 1872. Asa Gray distributed these to subscribers. (Botanical Gazette 9:59-62, 1884.)
HANCOCK, John (1824-93) Settled in Texas, 1847; became Attorney-General, and later established military telegraph around the frontier of Texas; interested in mineralogy, and presented to U. S. National Museum (1880) a collection of minerals from Texas and Arizona.

HARRIS, Edward (1799-1863) Came to Texas with the Audubons in 1837. He collected birds and birds' eggs, principally. (Cassinia 6:1-5, 1902; Southwest Review 16:108-35, 1930.)

HAYES, Dr. S. ( - ) An army surgeon (?), he collected in the neighborhood of Fort Belknap alcoholic materials, bird-skins, and mammals for the Smithsonian Institution (1859.)

HEATON, L. D. ( - ) Collected Texas reptiles for the Smithsonian Institution (1870.)

HEERMAN, Dr. Adolphus L. (1818-65) In 1853, he collected birds in Texas as he was traversing the state to join Far-Western expeditions connected with the Pacific Railroad Surveys. (Cassinia 11:1-6, 1907.) He died in San Antonio.

HEILIGBRODT, Ludolph (1847-1911) A store-clerk in Serbin, Texas, Heiligbrodt fell in with the published works of Hermann Burmeister. These stimulated him to collect insects; he later became (for forty years) first janitor, then teacher in the schools of Bastrop, Texas. Cresson's Hymenoptera Texana (1872) used his collections. (Geiser Papers.)

HERFF, Dr. Ferdinand Karl von (1820-1912) Studied at Bonn, Berlin, and Giessen. At Berlin, was student of Johannes Mueller; and at Giessen studied with Professor Justus von Liebig. He took his M. D. at Giessen (1842); came to Texas in 1847 with the Darmstaeder Kolonie (Bettina, near present Castell). During his days at Bonn, Herff became interested in botany; planned early in his Texas career to explore botanically the Rocky Mountains and California, with Duke Paul of Wuerttemberg. Practiced medicine in San Antonio, 1849-1908; the most distinguished surgeon in the Southwest. (Geiser Papers.)

HUFF, William (-) About 1835-45, Huff collected large numbers of Pleistocene mammals in the vicinity of San Felipe, Austin County. (Southwest Review 16:132, 1930.)

ISAAC, J. C. (-), from Ilges Ranch, Wyoming. He worked as fossil collector for Edward Drinker Cope in the Bad Lands of South Dakota (1876); in the winter and spring of 1877/8, J. C. Isaac and Jacob Boll collected together for Cope in the Wichita country of Northwest Texas. (Osborn, Cope: Master Naturalist, 1931, passim; Sternberg, Life of a Fossil Hunter, 1909, passim; Geiser Papers.)

JAMES, Dr. Edwin (1797-1861) While Surgeon on Long's Second Expedition (1820), James collected plants and fossils along the Canadian River in "Panhandle" Texas. (Pop. Sci. Mo., 75:497-98, 1908.)

JENNEY, Walter P. (-) Worked (1874) on the geology of Western Texas near the Thirty-second Parallel. Between 1874 and 1889, he published five geological papers.

JEWETT, Col Ezekiel [B.?] (1791-1877) Sent Texas reptiles to the Smithsonian Institution (1857.) (American Naturalist 11:505, 1877; Amer. Jour. Science (3) 14:80, 1877.)
KALTEYER, Friedrich (1817-ante 1890) Studied at Mayence and Giessen; at the latter place with the famous chemist, Justus von Liebig, then just beginning to turn his attention to animal- and plant-chemistry. Came to Texas in 1846; for a time physician at Boerne; lived at San Antonio as apothecary for many years. An intimate friend of Dr. Ferdinand Herff. (Geiser Papers.)

KELLOGG, Dr. Albert (1813-87) Professor W. L. Jepson (DAB, "Albert Kellogg") states that Kellogg came to Texas with the elder Audubon. This would have been in 1837. My evidence, to me conclusive, seems to show that not in 1837, 1845/6, or 1849 (all possible dates) did Kellogg accompany any of the Audubons to Texas. The statement, based by Jepson on Edward L. Greene's published sketch of Kellogg, seems thus to be in error.

KELLOGG, F. (-) of Wheelock, Robertson County, who in the early 'sixties sent birds' eggs and Tertiary shells to the Smithsonian Institution.

*KENNERLY, Dr. Caleb Burwell Rowan (1830-1861) From 1854 to 1857, Kennerly collected all sorts of materials for the U. S. & Mexican Boundary Survey. He was a former student of Spencer F. Baird at Dickinson College. (Dall, Spencer Fullerton Baird, 1913, passim; Geiser Papers.)


KING, Dr. William Shakespeare (d. 1895) Army surgeon in Texas; sent mammals to the Smithsonian Institution (1859 and earlier), and these were used in working up the reports in Volumes VIII-X of the Pacific Railroad Reports.

KIRBY-SMITH, Captain Edmund (1824-93) On the Texas military frontier (1852-58), he collected plants for the U. S. & Mexican Boundary Survey while in command of its military escort (1852-55.)

KLAPPENBACH, Georg (-) Amateur geologist and paleontologist with remarkable collection of fossils; New Braunfels 1846+; former Buergermeister at Anklam, near Stettin. (Bio 5: 144, 1934.)

LANGENHEIM, Wilhelm (-) Amateur geologist and collector, also of New Braunfels; came to Texas in 1830, and participated in the Revolution. Later he went back to Germany and did not return to Texas until 1846. (Roemer, Texas, 1849; 196ff; Geiser Papers.)


LECLERC, Dr. Frédéric (-) French physician, graduate of the Faculty in Paris, and later connected with medical school and hospital at Tours, Leclerc first described the famous San Felipe deposits of Pleistocene mammals, which he saw in the summer of 1838. He published his "Texas et sa Révolution" in the Revue de deux Mondes, in 1840; and later in the year had it reprinted in book-form. (Geiser Papers.)

*LINCECUM, Dr. Gideon (1793-1874) Naturalist resident in Long Point, Washington County, 1848-74. His most noted observations were made on the Agricultural Ant. (Southwest Review 15:93-111, 1930.)

*McCOOK, Rev. Henry Christopher (1837-1911) In 1876 he studied the Agricultural Ant near Barton's Spring, Austin; his book based on this study, "The Natural History of the Agricultural Ant of Texas", was published in 1879.

McCLELLAN, George Brinton (1826-85) Collected alcoholic material for Baird and Girard, while connected with Marcy's Exploration of the Red River (1852); see letter reprinted in Dall, Spencer Fullerton Baird, 1915, 282-83.

McELDERRY, Dr. Henry (d. 1898) Served as Surgeon in the late 'sixties with troops on the Upper Brazos (Double Mountain Fork.) Sent fossils to the Smithsonian Institution (1870.)

*MARCOU, Jules (1824-98) Did extremely careful work on the geology of the Whipple Survey in "Panhandle" Texas (1852-53). He was a world-famous geologist who, through misunderstanding with Jefferson Davis, then Secretary of War, was deprived of his notes and specimens; and another was assigned to write his report. American prestige in Europe suffered seriously by this episode.

MARCY, Captain Randolph Barnes (1812-87) Reported briefly on mammals collected during his (1852) Red River exploration, in the printed account of the expedition (1854, pp. 300-01; see also Dall, Spencer Fullerton Baird, 1915, 283.) He also made an exploration (1854) of the sources of the Big Wichita and Brazos Rivers (report published 1856.)

MARNOCCH, Gabriel William ( - ) Came to Texas probably in the late 'sixties, settling on Helotes Creek, northwest of San Antonio. He was natural-history collector for E. D. Cope (1877+) (See Cope, The Zoological Position of Texas, 1880, passim; Osborn, Cope: Master Naturalist, 1931, 235-40, passim.)

MARSHALL, Lieut. Louis Henry (d. 1891) of the Third Infantry; he collected fishes, reptiles, and insects on Pope's (1854) Expedition through Northwest Texas. (See Pacific Railroad Reports, vol.III.)

MERRILL, Dr. James Cushing (1858-1902) Army Surgeon, ornithologist; for twenty years in Western and Southwestern army posts. Sent birds, insects, mammals, fishes from Texas to the U. S. National Museum. See his "Notes on the Ornithology of Southern Texas", (Proc. U.S.N.M. 1:118-73, 1878.)

MEUSEBACH, Baron Ottfried Hans von (1812-97) Came to German Texas in 1845 as Commissioner-General of Prince Solm's colony; excellently trained in the sciences, he actively explored the mineral resources of German Texas, and facilitated the explorations of von Roemer, Lindheimer, and others. (Southwest Review 15: 256, 1930; Bios 5:144-45, 1934.)

*MITCHELL, Joseph Daniel (1848-1922) A gifted amateur student of Texas mollusks, insects and reptiles. Lived in Victoria. His activity commenced about 1876 or 1878. He was our first native Texas naturalist. (Geiser Papers.)

MOELLHAUSEN, Heinrich Balduin (1825-1905) In 1853-54, he was Topographer and Artist of Whipple's Survey along the Thirty-fifth Parallel; the birds collected by Möllhausen and Dr. C. B. R. Kennerly on this survey were described by Spencer F. Baird in the Pacific Railroad Reports, vols. III and IV.
MONTEIL, Nicolas Antoine (1771-1833) Reported in Appleton's Cyclopaedia of American Biography, vol. 4, p. 365, 1888, as having worked at the Champ d'Asile in 1817. My own investigations, together with those of Dr. John Hendley Barnhart of twenty years ago, compel me to say that this is one of a score of "scientific" hoaxes found in that Cyclopaedia. (See Field & Laboratory 3: 11-12, 1934.)


MOORE, Dr. Francis M., Jr. (d. 1864) Surgeon, Texas Army, 1836; Editor, Telegraph and Texas Register (Houston), 1837-57; State Geologist of Texas, 1860; author "Map and Description of Texas", [145 pp. 18 mo., Philadelphia, 1840; 2nd ed., 1844]; also newspaper articles on Texas natural history. (Geiser Papers.)

MOSS, Theodore F. ( - ) Appointed Geologist of Bartlett's Advance Party on the U. S. & Mexican Boundary Survey. I have been unable to find more concerning Moss; Darton lists no publications by him, and Dr. R. T. Hill does not mention him in his (1887) historical account of geological work done in Texas.

*MUNSON, Thomas Volney (1843-1913) Came to Denison, Texas, in 1876, and there did all of the horticultural investigation on the grape that made him famous. (See Dict. Amer. Biogr., "T. V. Munson")

*NEHRLING, Henry (1853-1929) Studied the birds of Texas, at Houston and at Fedor (Lee County), 1879-82; published his observations in his Das Nordamerikanische Vogelwelt, 1891.

*OLMSTED, Frederick Law (1822.-1903) Later distinguished horticulturist and landscape architect; toured Texas on horseback in 1854-55, and published (1857) his famous A Journey Through Texas.

PARKER, William B. ( - ) In the fall of 1854, he accompanied Captain Marcy through Northern Texas to the sources of the Big Wichita and the Brazos; a popular book (xii+242 pp.) on his travels was published in Philadelphia, 1856.


PEASE, Capt. Walter B. (d. 1882) Sent Lepidoptera from Texas to the Smithsonian Institution (1866).

*PITCHER, Dr. Zina (1797-1852) Collected fossils and plants in Texas along the Red River, opposite Fort Towson (1833.) The fossils were sent to Dr. S. G. Morton of Philadelphia, who described them in his (1834) synopsis of Cretaceous fossils of the United States. Pitcher later became "The Father of the Medical School of the University of Michigan".

POSELGER, Dr. ———— ( - ) [?son of the celebrated Berliner mathematician, Friedrich Theodor Poselger (1771-1838)?] In the interval 1850-56, Poselger collected plants for the U. S. & Mexican Boundary Survey on the Lower Rio Grande; he also collected near Corpus Christi. He sent his cacti to Dr. David Dietrich, custodian of the herbarium at Jena. Poselger described
some varieties of cacti, which Engelman in his ‘Cacti of the U. S. & Mexican Boundary Survey’ recognizes.

PLUMMER, Capt. Joseph Bennett (1820-62) Collected birds, reptiles, and fossils in Texas for the Smithsonian Institution (1859.)

*RAVENEL, Henry William (1814-87) In 1869, Ravenel was sent to Texas by the U. S. government to investigate a disease of cattle there prevalent. At this time he collected fungi extensively in East Texas, and M. C. Cooke, I believe, published on his collections in 1878. Ravenel also collected for the Smithsonian Institution (1869) mollusks and alcoholic material in East Texas.

REINHARDT, Louis (1833-190-) A boy of thirteen in the Gewerbeschule at Darmstadt, Reinhardt was sent out with the Darmstädter Kolonie to botanize in Texas. (See Texas Hist. Assn. Quart. 3:33-40, 1899.)

REMER, Dr. Wilhelm (?1802-?1860) Of a famous Breslau family of scientists; he came to Texas in the German immigration in 1845. (Bios 5:150-51, 1934.)

*REVERCHON, Julien (1837-1905) Came to Dallas from Lyons, France, in 1856; explored for plants extensively in North and Northwest Texas; also (in the late 'seventies) along the old army road from Fort Belknap to Fort Inge. (Southwest Review 14:331-42, 1929.)

RIDDELL, John Leonard (1807-65) Student under Amos Eaton at the Rensselaer School, Troy; Professor of Chemistry in the Medical College of Louisiana (1836-65); inventor of the binocular microscope. Investigated geology and botany of the Trinity country, Texas, in April/May, 1839. (See Silliman's Journal 37:211-17, 1839.)

RIDDELL, William P. ( - ) Brother of preceding; in 1858-60, he was Chemist and Assistant Geologist of the Texas Geological Surveys under Shumard and Moore.

*ROESSLER, Anthony R. ( - ) Young, well-trained (?in Vienna?), ambitious, an excellent cartographer, he published a number of geological contributions (1868-76); but his best work was done on the mapping of Texas. (R. T. Hill, Bull. 45, U. S. Geological Survey, 1887.)

*ROEMER, Karl Ferdinand von (1818-91) In 1845-47, this great German geologist spent eighteen months in Texas, and published as a result, two books and six papers on his findings. (Southwest Review 17:421-60, 1932.)

SCHLOTTMANN, Dr. Adolphus (?1873) Native of Hamburg with medical education gained in Germany; came to Texas in 1853; physician and apothecary at Round Top, 1853-73. Collected insects; sent collection to Smithsonian Institution from Fayette County (1872).

*SCHOTT, Arthur (1814-75) In 1853-55, Schott was first Assistant Surveyor under Major Emory on the U. S. & Mexican Boundary Survey. He collected many Orthoptera and Coleoptera later described by Dr. J. L. LeConte. He also surveyed the Rio Grande from Eagle Pass to the mouth of the Pecos; was Artist of the Survey, and made the many topographical sketches and colored ethnological plates. He published six geological papers on the country (1855-66.) With John H. Clark he made splendid collections of animals for the Survey; and collections of fossils and minerals in the Rio Grande valley. (Geiser Papers.)
SENNETT, George B. (1840-1900) Made, during the years 1877-78, trips of some two months each to collect birds along the Lower Rio Grande in Texas; and made a third, longer trip in 1882. He published his results.

SHARP, Dr. Redfield ( - ) An army surgeon, he sent specimens of insects and reptiles in alcohol from San Antonio to the Smithsonian Institution (1866).

SHINN, James (1807-96) Famous horticulturist, who went from (?Houston?), Texas to California, in 1855. He became one of the most expert and influential horticulturists in California. (See Bailey's Cyclopaedia of Horticulture, art. "Horticulturists").

*SHUMARD, Dr. Benjamin Franklin (1820-69). Published some 21 geological papers (1852-73); sent reptiles and fishes to the Smithsonian Institution (1853); State Geologist of Texas (1858-60.)

*SHUMARD, Dr. George Getz (1825-67) Geologist and Naturalist on various expeditions in the Red River region of Northern Texas, 1852-60. He was Assistant State Geologist on the Texas Survey under his brother, 1858-60. He published five papers on Texas geology, most of them between 1852 and 1856.

SIEMERING, August ( - ) From 1849-55, made extensive collections of plants of the Upper Guadalupe, near Sisterdale. A highly intelligent man with German university training in the sciences; he later became editor of the San Antonio Zeitung. (Bios 5:147, 1934.)

SMITH, William P. ( - ) English zoological collector, sent to Texas in 1841 by Edward Smith Stanley, 13th Earl of Derby, to collect specimens for his museum and menagerie at Knowsley near Liverpool. Corresponded also with Audubon & Bachman (Quadrupeds . . . , 1:238, 1856.)

STRAUCH, Adolph (1822-83) Horticulturist and landscape architect; he came to Galveston in 1851 from London, after a period of training at Kew. Later he removed to Cincinnati. (See Bailey Cyclopaedia of Horticulture, art. "Horticulturists").

SWEITZER, Jacob Bowman (d. 1888) Collected fishes at Fort Brown, and sent (1880) specimens to the Smithsonian Institution.

SWIFT, Dr. Ebenezer (1819-85) He was in charge of Fort Chadbourne, ca. 1853-56, and sent a large collection of vertebrates from that locality to the Smithsonian Institution. (Pacific Railroad Reports, vol. IX.)

TAYLOR, N. A. ( - ) Amateur geologist in Texas in the 'seventies and 'eighties; published geological articles of interest in Birke's Almanac (1880, 1881) and in Texas newspapers. With H. F. McDaniel he published (1878) "The Coming Empire", a book containing valuable geological data. (R. T. Hill, ut supra, 1887.)

THOMAS, Major George Henry (1816-70) During his sojourn in Texas (1855-60), Thomas sent skins of mammals and alcoholic specimens from Fort Mason to the Smithsonian Institution.

THURBER, Dr. George (1821-90) In 1850-53, he was Botanist under J. R. Bartlett on the U. S. & Mexican Boundary Survey.

TRECUL, Dr. Auguste Adolphe Lucien ( - ) In 1849 he visited Texas on his scientific mission to North America to study and collect farinaceous-rooted plants used for food by the Indians. Wright met him at Castroville in November. His unpublished
reports are in the archives of the Museum of Natural History in Paris. (Geiser Papers.)

**TUERPE, Albert ( - )** Sent samples of "mud eel", *Siren lacertina*, from Texas to the Smithsonian Institution (1880).

**VEATCH, Dr. John Allen ( )** Native of Kentucky, came to Texas about 1836; amateur botanist and surveyor in Vehlein's Grant (ca. 1837-45); went to California; explored in Lower California, and his plants were described by Albert Kellogg. (See: Proc. Calif. Acad. Sci. 2:15-37, 1859; also Amer. Jour. Sci. (2) 26: 288-95; 1858; also Hesperian, or Western Monthly Mag. 3:529-34; Geiser Papers.)

**VAN VLIET, Capt. Stewart** (1815-1901) During the years 1848-57 (stationed part of the time at Brownsville), he collected fishes, reptiles and mammals at Brownsville and Brazos Santiago for the Smithsonian Institution and the naturalists of the Boundary Survey. (Dall, Spencer Fullerton Baird, 1915, 244, 284.)

**WEBB, Dr. Thomas Hopkins** (1801-66) Made important zoological collections, especially of fishes, reptiles, and insects, while connected (1850-53) with the U. S. & Mexican Boundary Survey. (Geiser Papers.)

**WIEDEMANN, Dr. Eduard** (?)1800-44) Estonian naturalist, Assistant Surgeon, Texas Army in the early 'forties; collected for museums in Saint Petersburg (1838-44). Bios 5:143-44, 1934.

**WISLIZENUS, Adolphus** (1810-89) Collected plants in the vicinity of El Paso in late summer of 1846. Published a book on his travels from St. Louis to Chihuahua via Santa Fé and El Paso (1848.)


**WOODHOUSE, Dr. Samuel Washington** (1821-1903) In 1850 was member of Sitgreave's Survey through "Panhandle" Texas; he published on birds and mammals; no new species are in his Texas collections. Torrey described his plants. (Cassinia 8:1-5, 1904.)

**WREDE, Capt. Friedrich Wilhelm von** (d. 1845) In Eastern and Central Texas, von Wrede collected for German naturalists intermittently (1839-45). He was not a naturalist in the technical sense, but with Gymnasium training in the sciences. (Bios 5:142, 1934.)


**WUERDEMAN, Gustavus Wilhelm** (1817-59) While connected with the U. S. Coast Survey, Wuerdemann collected and sent to the Smithsonian Institution (1853/4) reptiles, fishes and invertebrates from Brazos Santiago, Texas (among them, ten new species of marine fishes); fishes, reptiles and invertebrates in alcohol from Aransas Bay, together with skins of birds and mammals. Wuerdemann was (1853) in charge of five parties making hourly tide observations on the Texas coast from the entrance of Matagorda Bay to the mouth of the Rio Grande. (Geiser Papers.)

**WUERTTEMBERG, Duke Paul Wilhelm of** (1797-1860) Visited the German settlements in Texas (April and May, 1855) while on his Third Journey to the Americas. Duke Paul, who possessed an excellent scientific training, was the means of bringing to the United States on this journey, such authentic men of science as
Heinrich Balduin Möllhausen and the Hungarian, Janos Xantus de Csiktapolcza (1825-94), whose magnificent natural history collections sent to the Smithsonian Institution while he was connected with the Coast Survey, are still the wonder of museum administrators. (Bios 5:147, 1934.)

YOUNG, Mrs. Maude Jeannie (1826-82) A teacher of botany in Houston (ca. 1865+), she published her "Familiar Lessons in Botany, with Flora of Texas", in 1873. She also wrote a number of graceful essays and verses. (See Texas Technological Coll. Bulletin 7:28-53, 1931.)

The Second Part of this brief summary of scientific workers in Texas, 1880-1920, will be published as soon as the materials, already voluminous, are deemed reasonably complete.