Silvester Diggles - a Queensland naturalist one hundred years ago. Qd. Nat. 17:15-25.

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C. T. WHITE MEMORIAL LECTURE FOR 1962

SILVESTER DIGGLES - A QUEENSLAND NATURALIST ONE HUNDRED YEARS AGO

By ELIZABETH N. MARKS

A hundred years ago a Brisbane lad was developing a great interest in insects and birds, under the guidance of two older naturalists, Silvester Diggles and Charles Coxen [1, 2]. That lad, Rowland Illidge, became one of the most highly regarded amateur entomologists in Australia and was a foundation member of our club in 1906. The last Easter camp that he attended was to Russell I. in 1927. For me that camp is memorable. As a small girl, it was my first Easter with the Club; it was my first meeting with an entomologist (Mr. Illidge) in the field with his net; and it was the first time that I clearly remember Cyril White, who with his family camped beside us. C. T. White, a great scientist, for 42 years gave his energies unstintingly to our club. He was a true naturalist, loving the bush, and his great pleasure was to share his knowledge of it with others. Young and old, we all loved him and felt the loss of a personal friend when he died.

Just another such indefatigable and beloved naturalist was Silvester Diggles. My account of him is derived mainly from archival sources [3-7] and his own publications, and is based on other authors [1, 8-12] only where quoted, though I have drawn on others [1, 11, 12] for notes on his contemporaries. His name is often incorrectly spelt Sylvester; this is corrected in quotations where necessary.

THE COLONIST

English Background

Silvester Diggles (Pl. I) was born on 24 Jan. 1817, the eldest son of Edward Holt Diggles, ironmonger of Castle St., Liverpool and his wife Elizabeth, née Silvester. It is clear from his writings that he was well educated. At 17 he visited Scotland, for a pencil sketch of Jedburgh Abbey is signed and dated 1834. He made delicate miniature copies in oils of Old Masters and a professional card "Mr. S. Diggles—Miniature Painter" probably dates from this period. On 22 May 1839 he married Eliza Bradley, 3 years his senior, daughter of John Bradley, classical tutor and lecturer in Natural Philosophy (i.e. physics), of Windsor, Liverpool; one of her brothers became a rural dean and another a surgeon. Three children were born to them, Eliza Robina in Birkenhead in 1840, Robert Silvester in Higher Transmere in 1842, and Fanny Louisa in Birkenhead in 1845.

The voyage to Australia

Diggles and his family sailed from Liverpool on 1 June, 1853 in the sailing bark "Willem Ernst", 500 tons. The first class cabin passage for 5 cost £85 (the sailing ticket lists them by name and age with the note "Five souls equal to 3½ Statute adults"). They reached Sydney in November. Silvester wrote in 1874 "Competition drove me away, and I never regret the day, and certainly would never return to **stay**."

On the voyage out he commenced a sketch book [3] with pencil drawings of shipboard and coastal scenes. In pastel or watercolour he illustrated medusae, a Portugese Man-o-war and **Velella** (which suggests that he or a fellow passenger had a tow net), and made a beautiful series of watercolours of heads, and sometimes also feet, of albatrosses, petrels and terns that were captured (Pls. II, III). Their scientific names, descriptive notes, and measurements are written beside them. The first medusa was drawn "near Lisbon, 21st June". There are sketches of Trinidad I. and Martin Vas rocks in the S. Atlantic, and of St. Paul's I. in the Indian Ocean. By 17 Oct. they were in Lat. 39°. 39′, Long. 116°. 56′, south of Cape Leeuwin, where Silvester drew a petrel "while yet alive". They were in Bass Strait on 4 Nov. when he sketched medusae and rocky islets. Mathews [10] gives more details of this part of the sketch book.

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A Year in Sydney

There is little information on this period. Diggles "had the charge of Mr. W. I. Johnson's tuning business". He presented the skin of the petrel caught on 17 Oct. to the Australian Museum. Mr. Wall, Curator of the Museum, showed him great kindness. He made friends with Mr. Moore of the Botanical Gardens. He headed a page of his sketch book "Australian Bombyces" with detailed pencil drawings and descriptions of two moths, the first being "Lasiocampa Tricolor Female 3 spe. in Mr. McLey's (i.e. William Sharp MacLeay's) collection. Sydney 1854", and also sketched "St. Stephen's Penrith Ch. Aug. 1854" and "Banks of Nepean". From the tone of later letters to the actor-entomologist Henry Edwards, it seems likely they met when both resided in Sydney.

Settling in Brisbane

In Nov. 1854, the family sailed for Brisbane. There are pencil sketches of the coast, including Mt. Warning, and Glass Houses, Moreton Bay. Bartley [13] recorded:—"One day a pretty little schooner, the 'Souvenir', arrived, and landed passengers and cargo, from Sydney, at my wharf. One of these was Silvester Diggles, with his family. He looked very 'tumbled' and wretched after the voyage, which had been stormy, and so I walked him into the store, drew out a spile, and handed him a big tumbler of Marrian's ale, a good reviver after sea sickness. I found he was an artist, a musician, and an expert in birds, reptiles and insects".

Diggles made a delightful pencil sketch of the North Brisbane Hotel with an aboriginal woman walking by it. (It faced Queen St., between Edward and Albert Sts. on the present site of Woolworths; perhaps they stayed there on arrival.) On 1 Dec. he was pianist at a Grand Evening Concert at Ipswich; Albina Birkett wrote on her programme "First time I saw Mr. Diggles". On 5 Dec. he sketched Dundalli, an aboriginal hanged for murder in a gruesome public ceremony on the site of our G.P.O. On 13 Jan. 1855 he drew a marine animal "going to Moreton Bay" and a medusa on 16 Jan. Bartley [14] relates "Silvester Diggles and a clerk of Harris's, named Kerfoot, were in 1855 each with a double-barrelled gun across Breakfast Creek beyond where Bowen Bridge now is, and up near the present Eildon Hill, when fifty blacks came up to them, not armed with spears, but who took up stones in such a threatening manner that the guns, which had been brought out to shoot birds for stuffing, were levelled at the mob, who took the hint and did not 'operate'."

We should remember that in 1853 the population of Brisbane was 2000; it had grown to 6000 by 1859; by 1876 it was 31,000. Bartley [13] says that from about 1855 to 1860, Diggles was one of a standing jury of 4 for all civil cases tried in Brisbane. In 1856 Bartley persuaded him to play for the Brisbane Bachelors Ball.

Family Affairs

Diggles lived at Wharf St., Kangaroo Point from 1857 until his death [10]. His house now belongs to Peters' Slip. He purchased it through a building society over 4 or 5 years, and told his uncle Robert Diggles, London Manager of the Bank of Egypt, who in 1871 sent him £100 (because "of all my relations I think you are (almost) the only one who has not at some time or other applied to me for assistance") that he had owned it for the last 9 years and would use some of the gift on painting and new shingling for it.

Diggles' wife, Eliza, died on 8 Aug. 1857 after a long and painful illness borne with great fortitude. On 26 Jan. 1858 he married at Kangaroo Point Albina Birkett, aged 39, daughter of John and Sarah Birkett of Barnby-in-the-Willows, Nottinghamshire. Her mother's sister was married to Isaac Pitman, the founder of "Phonography" or shorthand, and some early family letters to her are in shorthand. A letter of Oct. 1852 wishes her a pleasant voyage, so presumably she arrived in Australia in 1853. Her brother Richard lived in Sydney for many years. A steamer ticket indicates that she came to Queensland in Aug. 1854; she was probably governess to an Ipswich family. In Oct. 1857 the Bachelors of Ipswich invited her to a Picnic on board the steamer "Brisbane". One wonders if Silvester Diggles attended it.

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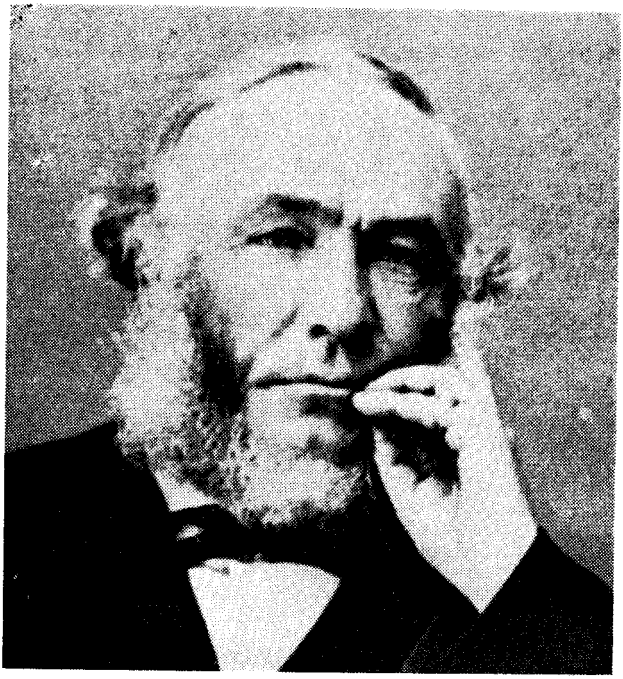
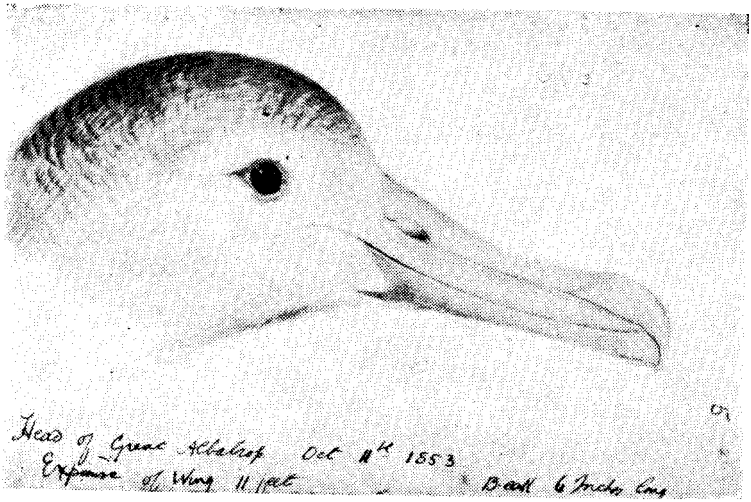


I. SILVESTER DIGGLES



II. PAGE FROM SILVESTER DIGGLES' SKETCH BOOK

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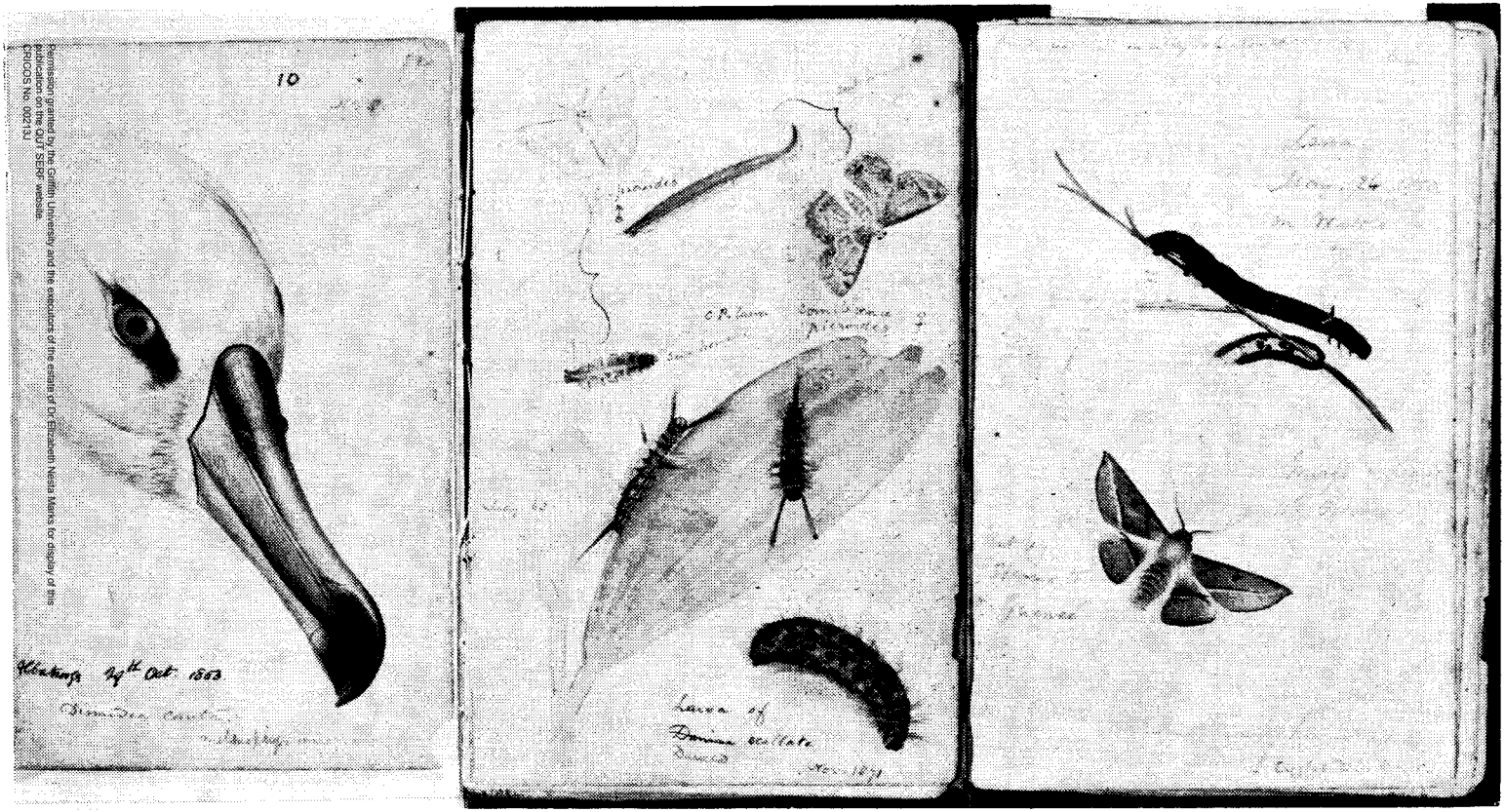

III. PAGES FROM SILVESTER DIGGLES' SKETCH BOOK (Original page length 7 inches).

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Silvester and Albina had a happy home. He wrote "my good wife is everything that should be" and "thinks no end of me, and would not change her lot with anyone in Brisbane. At least so I hear". The 16 years following their marriage were his most productive. They had two sons, Edward Silvester born in 1859, and George Silvester in 1862. Soon after George's birth, Silvester's son, Robert, died at Amby Downs, Mount Abundance. Diggles treasured an insect specimen found where the boy had put it by for his father. Robina, an invalid, lived at home and helped in the house. Fanny became a governess and at Bowen in 1872 collected beetles for her father; she married a musician, E. A. Strahan, and died in 1917. Edward in 1874 had a trip to Bowen where he collected beetles for his father, who wrote "he is a dear lover of entomology". He went to work that year with a lithographer; he married in 1885 and died in 1893. George, who worked in the Post Office for many years, did not marry till he was nearly 50; he died in 1943; his widow and his son generously made available much of the material on which this account is based.

Professional Activities

Diggles taught art and music. Shortly after he arrived in Brisbane he joined the teaching staff of the Rev. Thomas Mowbray's Grammar School in the Lytton Road (site of Mowbray Park) [15]. He was drawing master at the Brisbane Grammar School 1869-70 [16]. He was teaching drawing at All Hallows School in 1870, and the school made payments to him from 1874-77; possibly some were for tuning [17]. He also taught at home, telling Beck in 1873 "As I was giving a music lesson this morning, your box of insects arrived".

His main business which he conducted from his home, was as a tuner of pianos and harmoniums; he also hired out pianos, repaired musical instruments, and acted as an agent in their purchase for country clients. Twice yearly, in December and June, he went on a "tuning excursion" to Toowoomba. He told a Dalby client in 1871 that he would have the Piano-Forte "forwarded by Wednesday's Steamer" (the railway line to the Darling Downs then commenced at Ipswich). In 1872 Diggles wrote "by years of perseverance (I) have at length obtained a good position, and an excellent reputation as tuner, in which business I have a large practice both in town and country" and "without working **hard**, I can and do earn a comfortable livelyhood".

He also sold paintings and drawings (some of his drawings are in the Queensland Art Gallery) and was awarded a guinea prize for "Best picture by a Colonial Artist".

A Busy Citizen

Diggles helped found the Brisbane Choral Society in 1859, which he conducted, and the Brisbane Philharmonic Society in 1862, for which he was organist. In 1874 he was a tenor in the Brisbane Musical Union. Amongst voluntary and professional activities he played solo or duets, or as accompanist at concerts and social evenings; was conductor of music for the Wickham Terrace Presbyterian congregation; and organist of St. Mary's, Kangaroo Point. In a day of outspoken critics, his performances never received anything but praise [16].

Diggles had been a member of the New Jerusalem Church since 1846, and in 1874 wrote that he had held office as leader in Brisbane for some years; he found great comfort in his faith. He was also a Mason, served on the Committee of the School of Arts 1863-70, perhaps earlier, and on one occasion helped judge musical instruments at the Brisbane Exhibition.

THE NATURALIST

The Queensland Philosophical Society

The inaugural meeting of Queensland's first scientific institution (referred to hereafter as Q.P.S.) was held on 1 March 1859, but no details of it have been found [18, 19]. On Diggles' copy of a newspaper obituary of Dr. F. J. Barton, which states "Dr. Barton was also one of the chief promoters—and, if we

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mistake not, the founder—of the Queensland Philosophical Society", the last 7 words are underlined and in the margin is written "Dr. McKern and S. Diggles". On an obituary of Diggles beside the statement that he "was an old and respected member of the Queensland Philosophical Society" is the marginal note "Founders 1858. Dr. Mackern, 'Sovereign Hotel', from 4 George St., Hanover Square, London, Mr. Frederick J. Barton Surgeon Brisbane, and Silvester Diggles". The year should be 1859; Professor D. Gordon tells me that Dr. Mackern was surgeon-superintendent of the immigrant ship "British Empire" which arrived in Brisbane 9 Feb. 1859; these ships usually stayed in port only a few weeks. Dr. Mackern is not mentioned in the Society's surviving records. Whether the meeting of these 3 was the inaugural meeting, or whether they decided to form a Society, and then called an inaugural meeting I do not know. Dr. Barton, Diggles' "personal and almost intimate friend", was House-Surgeon of the Brisbane Hospital and a keen meteorologist; he died in 1863. Diggles was elected to the first council of the Q.P.S. in 1862, serving on it as councillor till 1868, and as curator 1869-77. He attended meetings very regularly up to 1876 and frequently took the chair.

The following is a record, principally from the minutes, of papers read by Diggles to the Q.P.S. on the dates noted. Those marked * were published in the Society's Transactions, and/or in the local press; press accounts of others may exist. Colliver [20] lists his papers in the Transactions.

1859 ?	The microscope and its application to insect structure.
1861 ?	Remarks on the Infusoria.
9 June 1863	On the use of Insects to Man.*
19 Sep. 1864	Thoughts suggested by the Theory of Mr. Darwin.*
1865	On the Microscopic Scales of Insects.
4 Dec. 1865	Note on butterflies and host plants included in J. Cockle's Presidential Address.*
9 Feb. 1871	On Introduction of Insects.*
22 Feb. 1872	A short Account of the Trip to Cape Sidmouth and Back in the Governor Blackall S.S."*
25 April 1872	On the probable Utility of the fur of the Flying Fox for felting purposes in hat manufacture.
6 Nov. 1873	Paper describing 2 new birds brought by Mr. J. T. Cockerell from the north.*
26 Feb. 1874	Paper on "Habits of the Menura alberti" and on 4 new Australian Birds* (read pro forma 29 Jan.).
28 May 1874	Short notice of two birds new to the Australian Fauna.*
20 May 1875	"On a new species of Harrier"*.
7 July 1876	"A few remarks on a new species of finch shot at Normanton."
4 Aug. 1876	A note "New and Rare Specimens of Australian Birds."*

Diggles was also a frequent exhibitor. In 1871 he showed jarra wood riddled by teredo from the bottom of the steamer "Francis Cadell"; his paper on Flying Fox Fur was followed by microscopic examination of specimens; he often showed drawings or specimens of insects and birds. In Sept. 1876 he gave notice of a paper on "the necessity of securing specimens of the fauna of Australia and Oceania, several of our birds such as the owl parrot, the emeu and others would in time disappear". Illness probably prevented presentation of this.

Diggles' taste in reading ran "in the scientific direction"; his borrowings from the Q.P.S. were varied and his library included books on astronomy and the popular science journal "The Intellectual Observer".

The Museum

In 1862 the Q.P.S. "specifically directed its attention to the formation of a nucleus of a museum of natural science." Mack [21] says the Queensland Museum was founded in 1855; in the early records studied, I have found no reference to a museum prior to that established by the Q.P.S. Charles Coxen, Vice-president of the Q.P.S., is regarded as the principal founder. Member of Parliament and later Crown Lands Commissioner, brother-in-law of John Gould (with and for whom he had collected birds), he was a skilled taxidermist and a keen conchologist. Diggles wrote of him as "our worthy and very experienced Ornithologist" and "our excellent V.P."

In 1863 the Q.P.S. purchased two cabinets of insects which Diggles undertook to arrange and supplemented with many specimens of his own. At various times he presented insects, birds and snakes, ores and "flints" to the museum. He wrote in 1871 "the curatorship in great part devolves upon me".

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A letter from Diggles in the "Courier" of 28 March 1871 signed "An old Brisbaneite" said that the Q.P.S. is "ready at any time to hand over its collections for the use of the public whenever a building or rooms suitable for their proper display shall be provided". He urged that "The various animals of Australia should form an important feature." On 6 April Diggles reported to the Q.P.S. that he had a conversation with the Hon. W. H. Walsh, Minister for Public Works, concerning an unapplied vote in the 1870 session of £100 towards the establishment of a museum and Free Library. On 19 April a deputation from the Society, Coxen, Diggles, and J. Bancroft, waited on the minister. The outcome was the formation of a Government Geological Museum, to which when its scope widened the Q.P.S. transferred its collections.

Diggles wrote in 1871 "my Foreign Insects I intend by and by to present to the Museum" and in 1872, that when the Museum was established "I intend to add largely to the collection from my numerous duplicates (of insects)." At this period he received a number of bird specimens for "our nascent Museum" from F. G. Waterhouse. On 11 Sept. 1875 Diggles urged in the "Courier" that the most suitable site for the new museum building was in the Botanic Gardens "Where so fit a place for the study of botany and its kindred sciences ? In the museum, the herbarium, and in the garden its analogues in a living state". A "Courier" leader supported his proposal but it was not adopted. In 1877 he suggested to Henry Kent, Charters Towers, to send birds and fossils to the Museum, and in 1878 wrote to the paper suggesting Gerard Krefft as curator of the new museum.

Astronomy

A popular member of the Q.P.S. and a great friend of Diggles was Captain Henry O'Reilly, who settled in Brisbane in 1864 as agent for the A.S.N. Co. He had a private astronomical observatory at his home, "Toonarbin", on the heights of Hill End, where he died in 1877. Diggles had his own 3 inch telescope with which "in our beautiful sky I can easily divide Alpha Centauri and see distinctly the 5th star". When Uncle Robert's £100 arrived, he ordered from London a finder and steadying rod for it, as well as parts for his microscope.

An expedition to Cape Sidmouth was organised to observe the total eclipse of the sun on 12 Dec. 1871. The Queensland Government made available its steamer the "Governor Blackall", then in Sydney, reserving the right to send a representative. O'Reilly was asked, but could not go. He recommended Diggles "as one likely to be useful in various ways, chiefly as artist and naturalist, I think, adding that I was also accustomed to the use of the telescope, having been in the habit of assisting him in his own observations for some time past". Silvester was duly appointed, though he had suggested that Walter Hill the botanist would be more suitable. He had 2½ days in Sydney before the ship sailed in 27 Nov. He visited Mr. Moore at the Botanical Gardens. At the Museum, "I was heartily welcomed by Mr. Krefft, the Curator, whom I had corresponded with for years but had never seen personally. He insisted on my remaining with him while in Sydney . . . he was most kind and attentive, affording me useful information on various subjects connected with natural history". Diggles spent "many a pleasant hour" in the Museum Library with works on Ornithology and Entomology "hitherto only known to me by report". "Mr. Masters the assistant curator. . . shewed me the various collections. I longed for the time when we should have a similar library and a similar museum established among us in Brisbane."

Diggles had as his objects "the delineation of the corona and chromosphere in their true colors" and "to collect all the new insects I could meet with". The collecting proved disappointing. The ship reached Island No. 6 in the Claremont Group, off Cape Sidmouth on 6 Dec. and the next 5 days were spent mounting the instruments. The Sydney party placed a 2 inch telescope at Diggles' disposal. "As the time for the totality approached the rain, which had been threatening, came down, and we then saw that no observation was possible". Everything was packed up and aboard by dusk and they reached Brisbane on 20 Dec.

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Diggles reported to the Q.P.S. that from the great number of sharks about the island he felt "convinced that a good trade might be carried on in the oil which the livers furnish in large quantities." He sent parasites from them to Krefft. He saw there the rare egret, **Demigretta Greyi**, for the first time, and took a sketch of it (now among the original plates for his Ornithology [22]). Off Bowen the ship came into discolored patches in the sea, and he found the water filled with small particles which the microscope showed to possess an organization similar to marine algae. He found the company "all agreeable" and "enjoyed himself amazingly". Perhaps the illustrated official report that he submitted still exists.

Brisbane Ornithologists

In Brisbane in the early '60s Diggles found himself one of a group of able ornithologists among whom Charles Coxen was regarded as their chief authority.

Henry Charles Rawnsley, a member of the Q.P.S. and a first-class surveyor in the Crown Lands Department, observed and collected birds and insects in remote areas and at his property "Witton" (present site of Nudgee Junior College, Indooroopilly), where he preserved several acres of rainforest; he died in 1872. Diggles wrote of him as "one who could have communicated many interesting facts to Natural History".

Eli Waller (sometimes called Walker) was engaged by the Australian Museum as bird-stuffer (at £2 a week) on 7 Feb. 1857; he was listed as "Assistant" in 1858, and resigned in Dec. 1859 [23]. In the 60's he had a taxidermist's shop in Edward St., Brisbane. Diggles wrote of his "large and valuable collection" and his "scientific and extensive practical knowledge of the birds of Australia, and energy and perseverance as a collector". Waller discovered the first known bower of the Regent Bird at Eagle Farm which Coxen described and Diggles figured. It is worth remembering that at this period, besides the many museums and ornithologists wanting specimens for scientific study, glass cases of stuffed birds were popular household decorations, and feathers were also much in demand for ladies' hats.

John T. Cockerell was a master mariner, but followed varied occupations; Brisbane was his headquarters in the 60's and 70's, and his main occupation seems to have been as a professional bird collector. Diggles wrote "He gets up his skins in a style which I have never seen surpassed and is moderate in his charges". Cockerell had his own schooner and visited Cape York and Aru Islands; his son James F. Cockerell also collected with and for him. J. T. Cockerell now has a bad reputation as one who did not scruple to misstate the localities from which his specimens came; Diggles was a victim of this but probably never realised it.

The only comprehensive book on Australian birds then available was Gould's "The Birds of Australia", price 100 guineas. Diggles wrote that Coxen had a few parts of it. In 1865 the letterpress, without plates, was published as Gould's "Handbook to the Birds of Australia". One can imagine Diggles' friends admiring his beautiful paintings of birds, asking him to make sketches for them (he did some for Coxen to send to Gould), and exclaiming on the need for a popular illustrated bird book; probably too, urging him to produce one, and offering their full support. With the varied talents and interests of this group at his disposal, it would be a challenging prospect.

The Ornithology of Australia

Silvester now embarked on the plan of illustrating the whole of the birds of Australia, as far as possible in natural size. His earliest dated drawing is of **Menura superba**, 29 Oct. 1863 [22]. He commenced to publish in Brisbane "The Ornithology of Australia", issued to subscribers in parts at 10/- each, each part of 6 lithographed plates, imperial quarto size, hand coloured, with accompanying concise descriptions, notes on habits, distribution, etc. Since this work is well documented [1, 9, 10,12] and space is limited I will deal briefly with it. Mathews [10] dates publication of the 21 parts issued as 1866-70; 224 birds were illustrated in these. A handsomely bound copy

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of the first 15 parts was presented by the Government to Prince Alfred when he visited Queensland. The Melbourne Intercolonial Exhibition of 1866-7 awarded the work a bronze medal.

The Ornithology was both Diggles' triumph and his tragedy. His triumph because he completed the 325 plates, illustrating about 600 birds, and the text [22]. His tragedy because a financial crisis in the colonies reduced the number of subscribers so that "it would have been ruinous to continue"; despite every endeavour he was unable to obtain financial backing to recommence publication and, bitterly disappointed, "bound up my plates the labor of 12 years"; the worry affected his health. Fine as the published plates are, they cannot properly indicate the beauty of the originals; possibly his manuscript contains information not recorded elsewhere on distribution or habits of species 100 years ago.

From his drawings it is obvious Diggles knew many of his birds in life. He had only a small collection of skins, and most were lent by his Brisbane friends. He maintained a cordial correspondence with other ornithologists who lent specimens and supplied notes, among them G. Krefft and E. P. Ramsay in Sydney, S. White, F. G. Waterhouse and J. L. Stapleton in South Australia. Silvester was never dogmatic, but was prepared to argue on identifications. The published notes are a compilation of all the information available from observations by himself, his friends and correspondents, Gould and the explorers. He urged protection of the Laughing Jackass because it eats snakes, and though he did not himself accept Darwin's theory of evolution, drew attention to some evidence in favour of it.

Whittell [12] lists Diggles' ornithological publications. Most, if not all, the new species he described are now regarded as synonyms, principally because J. T. Cockerell told him specimens were from North Queensland which in fact were from Aru Is.

Entomology

Silvester's contribution to Australian entomology was probably greater than to ornithology though, being indirect, it is not well known.

A. J. Turner called him "the pioneer entomologist of Queensland". His particular interest was in Lepidoptera and Coleoptera, and his object was to advance knowledge of the Australian fauna by getting species described and named. He did not attempt this himself. I have elsewhere [24] detailed some of his entomological activities.

Melton [15] recalled that when a lad, he frequently met Diggles on the Annerley ridges in quest of natural history specimens. Diggles when he saw a butterfly with a fleet wing often handed his net to the boy with a request to capture it. A Saturday afternoon tramp with him through the bush between Woolloongabba and Annerley or through the vine scrubs at Fairfield was an intellectual treat. An 1871 "Queenslander" leader, which took Diggles to task for suggesting introduction of beautiful butterflies, said "in agility with the net upon a pole he is equalled only by those chiefs of survey parties who follow the absorbing pursuit in the retirement of the bush—charging time for it of course." (Undoubtedly a dig at Rawnsley.) Silvester wrote of collecting at Eagle Farm flats, the 3 mile scrub, and Helidon, and of "our grand haul of **Cyria australis** on Banksias at German Station" (i.e. Nundah). Some of his most interesting beetles he found on floating wood when the Brisbane River was in flood. Miss Nell Brown says that her mother, Mrs. D. L. Brown (a daughter of Diggles' "intimate friend" George Wight), spoke of his visits to the Browns' property "Langley Bank" (in the vicinity of Murray St., Wilston) where he came to tune the piano and spend the rest of the day "bug-hunting".

Silvester now used his sketch book for drawings of Lepidopterous larvae in water colour, life-size, the brush work exquisitely fine (Pl. III). The earliest is "Larva of **Choerocampa Oldenlandia**, on Grape vine, March 4, 1855" and the last "Sphinx June 8.75". This was apparently a working notebook, for he reared the larvae, sometimes noted that he had sent the adult "home", and later wrote in the identification. Larvae of 51 species are

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illustrated (1 or 2 may be repeats) and 23 of them named. Most of this was done from 1858 on. A more comprehensive sketch-book may still exist, and would be of great interest. Diggles wrote in Sept. 1871 "I am busy figuring all the Lepidoptera I am acquainted with the life history of. Larva, pupa, cocoon and perfect insect, both sexes among the usual food plant". He asked Higgins, in Feb. 1873, to "send me a shell or pot of aluminium as silver does not stand." He had "figured a number of interesting varieties of Antherea, the most variable thing I know". A correspondent of Spencer Browne [25] in the 1920's wrote "Quite recently I saw a book of drawings in watercolour, 126 specimens of Queensland butterflies and moths . . . painted by Silvester Diggles and Miss Rowena Birkett" showing "The caterpillar and male and female of the species with the foliage on which they feed". Rowena, Albina's niece became Mrs. W. H. D. Cumming; perhaps her descendants still have the book. She was helping Silvester by June 1876 when he wrote that they were together figuring an Atlas Moth belonging to the museum.

Diggles also was interested in beetle life-histories and wrote in 1873 concerning **Schizorhina** "The genus I believe (judging from **S. marginepennis** and **australis**, whose cocoons I possess) construct an oval cocoon of clay—that of **S. mar.** is black, **australis** is buff colored. I suppose this fact must be known to naturalists but I have never met with it."

Diggles published little on entomology. Dr. A. R. Brimblecombe says his 1863 paper "On the Use of Insects to Man" contains the first reference to scale insects in Queensland. In March 1863 in a letter to the "Queensland Guardian" signed "Entomologist" he answered questions on a current plague of grass-destroying caterpillars. He was interested in the question of native insects feeding on introduced plants. The "Courier" report of his paper in 1871 "On Introduction of Insects" contains the first record of the Wanderer Butterfly in Australia [26], and he gave its acclimatisation as an illustration of the practicability of introducing insects to control the various foreign plants overrunning the country. He must thus have been one of the earliest to suggest biological control of weeds in Australia.

Australian Entomological Friends and Correspondents

Silvester mentions in his letters two Brisbane entomologists. H. C. Rawnsley lent Diggles specimens for figuring, including Buprestids collected in his garden, and a **Carabus** from Pimpama; he exchanged insects with Waterhouse; his insect collection went to D. McConnel who bought his Witton estate. W. H. Miskin, a solicitor, was Official Assignee in Brisbane, he joined the Q.P.S. in 1869. Diggles wrote of him as "an enthusiastic collector", and they exchanged specimens. When Diggles received some special gold insect pins from his brother-in-law (to whom he had sent colourful bird skins for a show case), he shared them with Miskin, Rawnsley and Masters.

To those who collected for him in distant parts of Queensland Silvester wrote enthusiastically of their finds, giving identifications where he could, and often including descriptive notes and sketches of species of which further specimens were desired; hints on methods of collection, preservation, mounting and packing; and details of habits, habitats, and food plants of different genera which show how well he knew his insects in the field. He often used nettle-tree wood in boxes as a substitute for cork.

R. C. Beck, Yulerbilla, Lower Condamine, a relative of Dr. Barton, began sending beetles in 1871. Answering his query where beetles go during the day, Silvester mentioned "I have often got them out of Piano Fortes!" He identified the Australian Jabiru from Beck's description of a bird seen in his district after heavy rain about Dec. 1872. Among insects received from Beck were undescribed Cetonids. In return Diggles sent him coloured sketches of some of his insects, and parts of the Ornithology. J. H. Nicholson, National School, Springsure, sent a new **Stigmodera**; R. B. Sheridan, P. M., Cardwell and his son exchanged butterflies; C. Francis, C.P.S., Normanton, and H. Kent, Charters Towers, sent beetles. One of his most successful "pupils" was Augustus Simson, Salisbury Plains, near Bowen. Diggles told him "I should like to be acquainted with the range of any given insect. If

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any that I send should be found with you please intimate it". Among those Simson sent was a new **Repsimus**. Later Diggles advised him to obtain a Coddington lens and said "I little thought you were going so thoroughly into the study and fancy you will soon leave me in the background".

In the other Colonies, Diggles corresponded and exchanged specimens with J. Odewahn, Gawler Town, F. G. Waterhouse, Adelaide, J. Ridley Walker, Hobart, and Charles French, Melbourne. His most extensive correspondence was with George Masters, Sydney. Masters in 1871-4 brought out in parts a "Catalogue of the Described Coleoptera of Australia". Diggles made himself an unofficial Queensland agent for it. He sent Masters many specimens for naming. Diggles began figuring in colour one or more of each genus of beetles in the catalogue, when necessary borrowing specimens for the purpose. In 1872 he told Masters "I have already finished upwards of 120 figures. The small ones go in the margin or in any blank places on the page, and the larger ones on blank paper with which I interleave the letterpress" and "as my copy will be of some importance I intend to have it very well bound." What became of this volume is unknown; it would be of great interest to discover it. W. MacLeay of Sydney described 2 of Diggles' beetles, perhaps received through Masters. In 1876 F. H. du Boulay, a professional collector, persuaded Diggles to sell about a dozen treasured specimens; the deal was satisfactory to neither party and Diggles told him "money must not for the future mark our transactions" and "special gifts from friends I do not deem subjects suitable for exchange".

Overseas Entomological Correspondents

Mr. I. F. B. Common tells me "Diggles must have sent a large number of Lepidoptera to Francis Walker at the British Museum between the years 1857 and 1866. His name frequently occurs in Walker's "List of the Lepidopterous Insects in the British Museum", Vols. 13-35, and the original material of quite a few well known moths was received by Walker from "Mr. Diggles coll." ". In a fairly random sample of 50 of Walker's species of moths, he found Diggles was responsible for the original material of 11 species. Dr. M. J. Mackerras notes that Walker described cockroaches sent by Diggles.

Later Silvester sent material through E. Higgins who had a "Natural History Agency Office" in London. Diggles mentions receiving a lot of insects from Higgins "as payment of the balance of an account which had been running for years between Stevens (his predecessor) and myself." He sent only rare species and unnamed specimens to these agents, and they apparently sent them on to the appropriate authorities. Stevens sent some to Guenée. In exchange Diggles received foreign specimens, pins, pamphlets etc., apparently no money was involved. Diggles wrote to Higgins in 1874 "What about the names of the very rare specimens in which Mr. Pascoe takes so great an interest. I sent them particularly for the names, first taking care to make a good figure with number attached so as to recognise it again. Please do not fail me in this respect. If I could be perfectly satisfied that my wishes in this respect were attended to, I would even rob my own cabinet of its best things. It suits my purpose to get you to do this for me because you always are liberal in returns, whereas Mr. MacLeay who would be glad no doubt to do the needful for me would probably expect the specimen to be presented to him."

Diggles corresponded with the English lepidopterist W. C. Hewitson, whom he treated with considerable deference, but with whom he was prepared to argue where his local knowledge of a species justified it. Hewitson offered to identify wings or sketches. Regarding sketches of 4 species of which he had only 1 or 2 specimens, Diggles wrote "Should any of these be required by you for the purpose of being figured I will send them . . . and if you will forward me a plate and description will even be willing that you should keep them, as they would be of much greater importance in your hands than in mine." Rev. Hamlet Clark sent Diggles reprints of his beetle papers and Henry Edwards, the actor-entomologist of California Theatre, San Francisco, exchanged specimens with him.

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The Insect Collection

Silvester had a large cabinet which cost £50, with folding doors, and glass-covered drawers, one tier of Coleoptera and one Lepidoptera, classified and named. He wrote in 1873 that he thought his cabinet "stands A.1 in Queensland". He asked for specimens "not too small", and declined other orders for "want of room". By 1873 he cared but little "for foreign things". Among beetles he particularly liked Buprestidae, Cetonidae and Carabidae, and amongst Lepidoptera his collection included most of the known species of Australian **Ornithoptera** and **Papilio**, all the known Pierids, and many others. In 1878 he was awarded a silver medal for a collection of beetles by the National Agricultural and Industrial Association of Queensland. His collection was exhibited by the Queensland Government at the Sydney International Exhibition in 1880, and posthumously at the Melbourne International Exhibition in 1881 where it was awarded a bronze medal.

In 1879 Diggles offered his Cabinet Collection to the Board of Trustees of the Queensland Museum for £250; the offer was declined and in June it was advertised for sale to the public, "being now in ill-health he is obliged to dispose of it". In Oct. Albina wrote to enlist French's help in selling it. In July 1880 she unavailingly offered it to the Queensland Museum trustees for £100. Musgrave [11] says that Diggles' Lepidoptera went to Illidge, and ultimately to the South Australian Museum. Albina in 1886 wrote "Mr. French realized more for my cabinet of insects than he purchased them for, and divided the profits with me". Presumably French bought the Coleoptera, but it is unknown to whom he sold them.

Friends in Need

In Sept. 1874 Silvester received a letter from his brother George, in England, who had lost his job. He replied, sending a pamphlet "How for a £10 note I can get you and yours out here", and wrote with justifiable pride and enthusiasm for his adopted country "I have never wanted since I came, and never borrowed 6d. of anybody. I have paid my way, am out of debt, need cringe to nobody being respected by the very highest from the Governor downwards. At the same time, I am known as the first tuner in Queensland, and realise charges which no other can get and am well known as the author of the Australian Ornithology. Here you would live a much more independent life than in old England . . . Did you ever dream of being your own Landlord ? Come here and realise it." He mentioned also "All through life I have never been able to save much in the shape of hard cash". In June 1875 he received George's reply that he needed £61 to meet his liabilities. Silvester could not send this and consulted Capt. O'Reilly who at once advanced £65 saying "your word is sufficient security", but Diggles insisted on a legal arrangement. An address "George Diggles, A.S.N. Camp, Brisbane" indicates that George did immigrate.

Diggles in his reply to George in June 1875 says "a firm from Sydney has set up in my trade . . . drawing away some of my customers. Even petty annoyances have . . . a tendency to promote a state of unrest or anxiety which my medical adviser says is very undesirable . . . Another and absorbing anxiety is the neglect I have suffered in regard to the work on Ornithology." In June 1876 he wrote "My memory is not good . . . I have been by no means well for some time past. A slight paralytic affliction deprived me for some time of the use of my left arm and leg, but I am thankful to say I am now able to get about a little." In Aug. 1877, in very shaky writing, he told Ramsay "I have been too unwell for some time to pay much attention to business".

In Sept. 1877 the musicians of Brisbane gave a Grand Benefit concert for Diggles which raised £116. "The gratuitous services of all the performers and the generous support of the Brisbane public prove much more than words could testify the appreciation in which the man and his labors are held here . . . He may be truly termed the "father of music" in Brisbane." In Dec. 1877 E. McDonnell sent Diggles "an Electric Machine as a token of sympathy in your affliction" to "an old Tutor of myself and poor wife". Contemporary

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and succeeding scientists showed their appreciation of Diggles by naming species after him; at least 1 bird and 9 species and 1 genus of insects were so named.

A Happy Fellowship

On 22 March 1880 Diggles "went to sleep, calmly and peacefully . . . the befitting termination of such a calm, peaceful, kindly and innocent life . . . To know him was to respect and esteem him . . . A keen, careful, and indefatigable observer of nature, yet so modest and communicative withal, that, next to the intense pleasure of securing some rare or curious bird or insect prize, his greatest enjoyment seemed to be in telling some appreciative listener all about it." Though we present day naturalists have not the good fortune to know Silvester Diggles we too can respect and esteem him. We can picture the young Rowland Illidge, like Melton, enjoying a bush ramble with him, and can feel ourselves part of a warm, continuing fellowship of Queensland naturalists, Diggles, Coxen, Illidge, C. T. White, and their friends, our older members happily still with us, and carrying on to the enthusiastic youngsters who come on our outings today.

Acknowledgements

I am grateful to the late Mrs. George Diggles, Mr. K. G. S. Diggles, the Librarians of the National Library of Australia, Canberra and the Mitchell Library, Sydney, Mr. J. S. P. Ramsay, and the Royal Society of Queensland for access to documents, to Mr. A. H. Chisholm for advice, and to the many others who have helped me.

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