Trimmer. The distinction between the Post-Glacial Mundesley River-bed and the older Forest Bed Series was first perceived by Mr. Gunn.² His collection of fossil mammalia, and especially the specimens of Elephant, proved of much service to Falconer and Leith Adams; the former remarks that "The interest and value of his collection are only equalled by the liberality with which he makes it available for the ends of science. I need only say in illustration that he has placed all the specimens in his possession at my disposal for this essay, even to be sawn up for sections, if necessary, or for any other use to which they could be turned." 3

Mr. Gunn's enthusiasm may be well realized when it is remembered that (in 1888) when 87 years of age, he attended the London meeting of the International Geological Congress, and subsequently paid a visit to St. Erth, in Cornwall, to examine the Pliocene Beds that have been discovered in that neighbourhood.

Notwithstanding his devotion to geology, Mr. Gunn, while rector of Irstead, was very energetic in the pursuit of his clerical duties, and filled the position of Rural Dean.

In 1869, after forty years' service in the Church, he resigned his preferment, and ultimately quitted the ministry. This he did because he became convinced that he could no longer conscientiously preach some of the doctrines of the Church of England. In his published letter to his parishioners, he remarks: "It was a hard wrench for me to part from the place of my birth, the scenes of childhood, and of a mature and happy life; from a charming spot where almost every tree and shrub had been planted by myself; and, above all, from parishioners between whom and myself there ever had subsisted a most cordial feeling of good will."

Mr. Gunn died May 28th, 1890, and was buried at the Rosary, Norwich.

WILLIAM SWEETLAND DALLAS, F.L.S.

BORN 31st JANUARY, 1824; DIED 29th MAY, 1890.

It is with deep regret we have to record the death of Mr. W. S. Dallas, the able and accomplished Assistant-Secretary of the Geological Society of London; a man universally esteemed and beloved by all, and one whose loss to science it will be difficult to supply.

William Sweetland Dallas was the youngest son of Mr. William Dallas, belonging to an ancient Scottish family, an East India Merchant and a Member of Lloyds', who died in 1842.

Born in Islington, January 31st, 1824, he early evinced a love of Natural History, and when only a boy made collections of Insects with his elder brother in the fields of Hampstead, Highgate, and

Hornsey.

¹ See J. H. Blake, Geol. Yarmouth and Lowestoft (Geol. Surv.), p. 28.

Lyell, Antiq. Man, Fourth Edition, p. 267.
 Quart. Journ. Geol. Soc. vol. xxi. p. 299. See also E. T. Newton, Vertebrata · of the Forest Bed Series, 1882,

He was educated at University College School, where he attained a thorough grounding in Classics, in which he afterwards displayed so great a proficiency. In later years he devoted himself to the mastering of French, German, and Italian, with marked success; and still later, to the acquisition of a knowledge of Danish, Swedish, and Norwegian.

His father failed when William was only twelve years of age, and his elder brothers, John and James Dallas, had both to abandon their prospect of a profession and enter business houses in the City. William, on his leaving school, was also taken into Mr. Milne's office; but City life was so very distasteful to him, that he relinquished it and commenced to study in the old Reading-Room of the British Museum. Here his strong passion for the pursuit of Entomology was allowed to dominate all else for a time, and so eager was the young naturalist to possess a library of his own, that he not only copied out large parts of various descriptive works on his favourite science, but even went so far as to transcribe in neat handwriting the whole text of J. Chris. Fabricius's "Entomologia Systematica" (Tome I. to IV. 8vo. Hafniæ, 1792)—a work of 2677 pages octavo—to each generic description of which he added a coloured figure of the type-species, copied from a specimen, or from some other work.

His devotion to Natural History, and especially to the collecting and preserving of Insects, attracted young Dallas to the Insect-room at the British Museum, where, in the late Dr. John Edward Gray,

F.R.S., he found a warm friend and supporter.

In 1847 he commenced to contribute original papers to the Entomological Society of London, which duly appeared in its Trans-

actions from that year to 1853.

In 1849 Mr. W. S. Dallas was elected a Fellow of the Linnæan Society, and in the year following he married Miss Frances Esther Price, youngest child of Liscombe Price, Esq., of London and Abergavenny (one of the lawyers employed in the trial of Queen Caroline).

From 1850 to 1852 Mr. Dallas was engaged in preparing Lists

of the Hemipterous Insects in the British Museum.

Immediately on the erection of the Crystal Palace, Sydenham, Mr. Dallas was engaged by the Committee to arrange the Natural History collections in that building.

From 1854 to the end of 1855 Mr. Dallas contributed 28 chapters on Zoology to Orr's "Circle of the Sciences." These were afterwards reprinted as a separate work, in 1856, entitled "A Natural History of the Animal Kingdom."

In 1857 he completed his "Elements of Entomology; an Outline of the Natural History and Classification of British Insects," 8vo. pp. 424, published by Van Voorst.

In 1858, on the resignation of Mr. Edward Charlesworth, F.G.S.,

¹ Of W. S. Dallas's brothers, only the second, Elmslie W. Dallas, appears to have taken up a scientific career. He settled in Edinburgh, and became an artist of some repute, was author of a work on Mathematics, and was elected a Fellow of the Royal Society of Edinburgh.

Mr. W. S. Dallas was appointed Curator of the Yorkshire Philosophical Society's Museum in York, a post which had been, at an earlier date, filled by the late Professor Phillips, F.R.S. (of Oxford). Here he resided with his family, now numbering four sons and two

daughters, until the close of 1868.

His life at York, apart from the Museum, was taken up largely with writing for the "Westminster Review," and the preparation of translations of papers for the "Annals" and the "Philosophical Magazine." Mr. Dallas also served, for some years, as one of the staff engaged in the preparation of the "Zoological Record." He was Hon. Sec. of the Yorkshire Naturalists' Club from 1859 to 1869; and, through his friendship with Mr. George Tate, of Alnwick, he was appointed to give a course of lectures each summer to the school maintained by His Grace the Duke of Northumberland in Alnwick; these lectures were most popular and were always attended by their Graces and the neighbouring families.

On the retirement of Mr. H. M. Jenkins, F.G.S., M. Dallas was elected Assistant-Secretary to the Geological Society of London, an office which he held, greatly to the benefit of the Society, until his

death in May last.

Mr. Dallas was Editor of the "Annals and Magazine of Natural History" from 1868 to 1890; he was also Editor of the "Popular Science Review" from 1877 to 1880.

Paralysis, of which he had had premonitory symptoms, terminated his laborious life on the morning of 29th May, in his 67th year.

In taking a retrospect of Mr. W. S. Dallas's useful but arduous career, one is astonished at the vast amount of important work achieved by him and the small share of recognition which it fell to his lot to receive. But a glance at the nature of that work will suffice to show that by far the largest and most laborious part was occupied by him either as a Curator, an Editor, a Journalist, or as a Translator, in all of which capacities—however well the duties may have been performed—the $\kappa \hat{\nu} \delta cos$ is but small.

Mr. Dallas was moreover a man of very retiring habits, yet he enjoyed the warm friendship and regard of John Edward Gray, of Charles Darwin, of Sir Charles Lyell, Prof. Sir Richard Owen, of Geo. R. Waterhouse, of Huxley, S. P. Woodward, Bates and Wallace, T. Rupert Jones, and many other of the older naturalists. He frequently acted as collaborateur to Darwin, and indexed his works for him with that loving care which only strong personal attachment could have brought to the task. The writer well remembers the words of Prof. Huxley when commending him to the Council of the Geological Society for the post which he held till his death: "Mr. Dallas is one of the hardest workers that I know." To those who knew him intimately Mr. Dallas will also be remembered for the gentleness and amiability of his disposition, his rare modesty, and for his uniform courtesy to all.

Works, papers, and translations, by William Sweetland Dallas, F.L.S.

A List of the Hemipterous Insects in the Collection of the British Museum. Part i, pp. 368, 11 plates. 1851. Part ii. pp. 369-590, pl. 12-15. 1852.

336

"A Natural History of the Animal Kingdom, being a Systematic and Popular Description of the Habits, Structure and Classification of Animals from the Lowest to the Highest Forms, arranged according to their Organization." London, 1856. 8vo. pp. 818, and 374 woodcuts (originally issued as a series of articles in Orr's "Circle of the Sciences," where it appeared in 28 parts, from 1854 to 1855).

Elements of Entomology: an Outline of the Natural History and Classification of British Insects. London, 1857. 8vo. pp. 424. (Van Voorst.)

Sketch of the Genus Pacilocoris, belonging to the Hemipterous Family Scutellerida. Entomological Society's Transactions, v. 1847-9, pp. 100-109.

Notice of some Hemipterous Insects from Boutan (in the Collection of the Hon. East India Company), with Descriptions of the New Species. Entom. Soc. Trans. v. 1847-1849, pp. 186-194.

A new Hemipterous Insect from Boutan (East Indies), forming the Type of a New Genus (1849). Entom. Soc. Trans. i. 1850-51, pp. 1-3.

Notice of some Hemiptera from Boutan (Hon. East India Company) [1849]. Entom. Soc. Trans. i. 1850-51, pp. 4-11.

Note on the British Species belonging to the genus Acanthosoma, Curt. Entom. Soc. Trans. i. 1850-51, pp. 109-114.

Description of a new Hemipterous Insect forming the Type of a New Genus (Atelides centrolineatus). Annals and Mag. Nat. Hist. x. 1852, pp. 359 and 436.

Descriptions of some New Species of Hemipterous Insects belonging to the Tribe Scutata. Entom. Soc. Trans. ii. 1852-53, pp. 6-17.

Description of a New Species of the Genus *Dinidor*, belonging to the Hemiptera scutata. Entom. Soc. Trans. ii. 1852-53, pp. 18-19.

On the Feathers of *Dinornis robustus*, Owen, Ann. and Mag. Nat. Hist. xvi. 1865, pp. 66-69. Ann. Sci. Nat. iv. 1865 (Zool.), p. 292. Zool. Soc. Proc. 1865, pp. 265-268.

On the Occurrence of *Tinnunculus cenchris* in Britain. Ann, and Mag. Nat. Hist. ii. 1868, pp. 75-76.

Translator of C. T. von Siebold's work on a true Parthenogenesis in Moths and Bees. 8vo. London, 1857.

Translator of Prof. O. Heer's "Primæval World of Switzerland," in two vols. pp. 742; with 500 illustrations. (Longmans & Co., 1876).

Translator of "Facts and Arguments for Darwin," by Fritz Müller. 8vo. pp. 144. London, 1869. (J. Murray.)

Author of the articles Rodentia, Chiroptera, Insectivora, Hymenoptera, Neuroptera, Diptera, Aphaniptera, Rhynchota, Orthoptera, Thysanura, Myriopoda, Arachnida, in Cassell's Natural History. 1882.

Translator of vol. v. of Humboldt's Cosmos, 1858. 8vo. pp. 500. (Bohn's Scientific Series.)

Translated the foreign articles for the "Chemical Gazette" (1852-59), for the "Philosophical Magazine," for the "Reader," and for the "Annals and Magazine of Natural History" (1852-90).

Numerous reviews and articles in the "Westminster Review."

Translator of Buchner's "Man, Past and Present," and Nitzsch's "Pterylography."

H. W.

SIR W. W. SMYTH, M.A., F.R.S.

It is with deep regret we record the death, from heart-disease, of Sir Warington W. Smyth, M.A., F.R.S., Foreign Secretary of the Geological Society of London; which occurred at his residence, 5, Inverness Terrace, on Thursday, the 19th June. An Obituary Notice will be given next month.