Introduction.

LIVES

OF

EMINENT ZOOLOGISTS.

Introduction.

Remarks on the Estimation in which Natural History is held at the present Day, and on its Importance—Men are more conversant with Nature in uncivilized Life—The original State of Man, and his progressive Acquisition of Knowledge—General View of the Objects of Natural History: the Earth's Surface and Structure, the Ocean, the Atmosphere, Plants, and Animals—Definition of Mineralogy, Botany, and Zoology—Sketch of the Progress of Zoology: four Eras distinguished, as marked by the Names of Aristotle, Pliny, Linnæus, and Cuvier.

At no period in the progress of civilisation have the advantages to be derived from the study of nature been so highly appreciated as at the present day, when descriptions and representations of the various objects by which we are surrounded, or which have been observed in distant countries, are issuing from the press in a variety of forms calculated to attract the attention and to gratify the taste of almost every class of society. Only a few years ago, Natural History was held in some degree of contempt by the enlightened as well as by the ignorant; its cul-

tivators were considered as triflers, wasting their energies upon that which could profit nothing; and the information which it affords was looked upon as unworthy of the attention of persons fitted for intellectual pursuits. Now, it is raised in popular estimation to the highest dignity, and is pronounced to be a science capable of exercising the most splendid talents, and of affording pleasure to the most improved minds.

Of the several changes that have recently taken place in society this is not the least important. The diversified productions of Nature,—those objects, in the formation of which have been exercised unlimited wisdom and power,—are not now considered beneath the notice of the wisest of the sons of men. It still, however, remains to be perceived, that in the construction of the familiar fly that buzzes through our apartments, not less than in the frame of the mighty elephant,—in the simple blade of grass that springs from between the stones of the pavement, not less than in the knotted oak or the graceful palm,—in the small cube of salt, not less than in the granitic mountain or the volcanic cone,—there is something of a mysterious nature, the comprehension of which would be a much more glorious achievement than any that the human intellect has yet performed. The ship that carries the adventurous merchant over the great ocean is an object worthy of our admiration; but how complicated is its apparatus, compared with the fins of the most common fish! The balloon that floats calmly in the atmosphere,—what an unwieldy instrument is it, compared with those beautiful organs of Divine workmanship by which the swallow is conveyed

from the equatorial to the polar lands, or pursues its prey through the pathless air!

Man, in the early stages of his existence, is drawn by an instinctive power to observe and admire nature. The love of it, too, glows in the breast of every child. We have never, indeed, witnessed the actions of men in the infancy of society, and therefore cannot estimate the influence exercised upon them by external objects; for the savages whom the European, wandering over the globe in quest of gold or knowledge, finds in the deserts or in the remote isles of the ocean, are evidently degraded beings who have degenerated from a nobler stock. But the history and traditions of most of the tribes with which we are acquainted, and especially of those inhabiting the American continent, show that at some remote period they must have possessed more knowledge than they exhibited at our first acquaintance with them. Revelation, too, assures us that man was made perfect; and philosophy has not succeeded in forming a theory to account for the physical or moral diversities exhibited by our race, approaching in consistency to that which may be drawn from the pages of the Sacred Writings.

"Man," says Cuvier, "who was cast feeble and naked on the surface of the globe, seemed created for inevitable destruction. Evils assailed him on all sides; the remedies remained concealed from him, but he had been endowed with genius for discovering them. The first savages gathered in the woods some nutritious fruits, some wholesome roots, and thus satisfied their more urgent wants. The first shepherds perceived that the stars follow

a regular course, and were directed by them in their journeys over the plains of the desert. Such was the origin of the mathematical and physical sciences.

"When the genius of man had discovered that it could combat Nature by her own means, it no longer rested; it watched her incessantly, and continually wrested from her new conquests, each marked by some improvement in his condition. Then succeeded, without interruption, meditating minds, which, being the faithful depositaries of acquired knowledge, and continually occupied with connecting and giving a vivifying unity to its parts, have led us, in less than four thousand years, from the first attempts of those pastoral observers to the profound calculations of Newton and Laplace, and to the learned classifications of Linnæus and Jussieu. This precious inheritance, always augmenting, borne from Chaldea to Egypt, from Egypt to Greece, hidden during periods of misfortune and darkness, recovered in a happier age, unequally dispersed among the nations of Europe, has been every where followed by riches and power; the nations which have welcomed it have become the mistresses of the world, while those which have neglected it have fallen into feebleness and obscurity."

Had man, in his original state, been cast feeble and naked on the surface of the globe, he could not have survived a single week, with all the elements of nature combined against him. His first experiment on the tiger or the asp, even his first morsel of food, might have been fatal to him. He must have been formed perfect in knowledge; or, being formed in ignorance and feebleness, he must have been protected by a power capable of controlling

the influences of surrounding nature. But before we proceed to offer a few remarks on the origin and progress of zoological science, it seems expedient to mark the subjects to which the attention of the naturalist is directed.

If we cast our eyes around, and survey, in a comprehensive manner, the objects which exhibit themselves to our view, we may form some idea of the occupations of those individuals who devote themselves to the examination of nature. The surface of the globe presents in part a vast expanse of water bounded by the sinuosities of the shores, and in part an undulating succession of plains and mountains. It is enveloped with an aërial fluid, which extends to a considerable height, sometimes transparent, and sometimes obscured with masses of floating vapour.

The land is diversified by slopes of every degree of inclination,—extensive plains, depressions and hollows, ridges and protuberances of various forms; the highest, however, bearing a very insignificant proportion to the earth's diameter. The waters, which cover more than two-thirds of the globe, separate the land into unequal portions, dividing it into continents and islands. Tracts of elevated ground traverse these in various directions, constituting the elongated mountain-groups named chains; which, being intersected by valleys and containing the sources of numberless streams, slope towards the adjacent countries. Other portions of the surface consist of irregularly-grouped eminences, of inferior height, interspersed with corresponding valleys. Elevated platforms are sometimes met with, and the plains and slopes are not unfrequently diversified with hills. The depressed parts of mountainous

regions present great diversity of form, extent, and direction, and often exhibit basins or hollows, which are occasionally filled with water.

Descending into the plains, we find that they are seldom perfectly level, but are formed into slopes of small inclination and of various extent. The pampas of South America, for example, stretch from the base of the Andes to Buenos Ayres, over a space of 900 miles; and in Africa are vast expanses of nearly level land, where the traveller, day after day, sees the horizon preserving the same distance as he proceeds, and bounding an ocean of arid sand. Large flats are also found at great elevations above the sea, such as those of Tartary, Thibet, and Mexico.

Of the other inequalities of the land, the more remarkable are the cavities forming lakes, and the grooves occupied by the beds of rivers. The former are of all sizes, from several hundred miles in circumference down to very small dimensions, and occur in all situations,—between mountain-chains, like the Caspian,—in plains, like Onega,—and along the course of rivers, like those of Canada. The streams necessarily flow in the line which marks the greatest depression of the valleys; although, in some instances, towards their mouths, they occupy a higher level, their beds having been raised by the deposition of the debris carried down by the torrent.

The bottom of the ocean, being merely the continuation of the surface of the land, may be supposed to present inequalities of a similar nature, although, owing to the action of currents, they are probably not so distinctly marked. The transition from what is above to that which is under the water is not in general denoted by any striking phenomenon, ex-

cepting the not unfrequent occurrence of long ranges of cliffs, pebbly beaches, and accumulations of sand. When the coast is low and flat, the depth of the sea in its vicinity is usually small; whilst along a rocky and abrupt shore it generally presents a depression in some measure corresponding to the height of the land. The existence of submarine chains of mountains is established by the numerous shoals and rocks which are to be considered as their summits. On these, coral reefs and islands have been gradually raised by myriads of zoophytes.

The mighty mass of waters, which is collectively termed the sea, occupies, as has been already mentioned, more than two-thirds of the surface of the globe. Its chemical composition, its tides, its currents, and all the varied phenomena which it presents, afford subjects of highly-interesting research.

The atmosphere, in like manner, which envelopes the earth, supplies, in its ever-varying aspects, its motions, its electrical phenomena, and the influence which it exercises on animal and vegetable life, an object of investigation pregnant with curious and useful knowledge.

The mysterious agency of subterranean fire has elevated great masses of rocky matter in various parts of the globe. Earthquakes have effected extensive and remarkable changes upon its surface; the waters of the ocean have alternately worn away the shores and eked them out by depositions of sand and mud; the rivers have furrowed the land, and carried the debris of the higher regions to the valleys and plains; while air and moisture have exercised their decomposing influence upon the hardest substances. By the action of these powers the earth

has become a fit receptacle for the varied forms of animal and vegetable existence with which we see it so profusely stored.

The variable distribution of heat has produced a striking effect in modifying the earth's surface. The cold of the polar regions covers them at all seasons with an extensive deposite of snow and ice, the margins of which are periodically dissolved by the increasing warmth of summer, to be repaired during the succeeding winter. The numberless icebergs, originally formed on the land or in its vicinity, floating on the ocean, and drifted by winds and currents, often pass into more genial regions, producing occasional variations of temperature. The elevated ridges of mountains experience a similar degree of cold, and in all climates, even in the torrid zone, are covered towards their summits with perennial snow.

Limited as are our powers of examining the interior of the globe, we yet find in its crust indications of a power which, by operating so as to produce apparent confusion, has effected results highly beneficial to the beings by whom the earth has been peopled. The strata, at first regularly superimposed upon each other, and consisting of those diversified materials which are supplied by the disintegration of pre-existing rocks, have been broken up, and inclined in every possible degree, so as to form those depressions and elevations which we every where observe on the surface. These inequalities have been increased by the protrusion of masses from the more central regions, and the whole has been subjected to the agency of powerful currents of water, by means of which the angular cavities and projec-

tions have been smoothed or filled up. The consideration of these phenomena constitutes a distinct branch of natural science.

The mountains, rocks, and strata, are composed of ingredients which in themselves are worthy of examination, and capable of affording intense interest. The extremely-diversified forms which these substances assume, their various properties, their uses in the economy of nature, and the purposes to which they may be applied by man, render their investigation not less useful than pleasant.

A most extensive and delightful field of observation presents itself to us in the vegetable bodies with which the surface of the land, and even the depths of the ocean, are so profusely furnished. The various regions of the globe are not less characterized by the form and grouping of the plants which have been allotted to them, than by the comparative activity of their vegetating power. The wastes of Europe, covered by ling, heaths, rushes, and sedges, exhibit little change of aspect under the variations of temperature and the revolutions of the year; while the plains of Venezuela, which during the drought are covered with a layer of sand, and present only a few withered palms scattered along the margins of muddy pools, are converted in the rainy season into an ocean of luxuriant vegetation. In the equinoctial regions of the globe, palms, arborescent ferns, and a multitude of magnificent trees, intertwined with flowering lianas hanging in festoons, form themselves into impenetrable forests, whereas the frigid regions of the arctic circle hardly produce plants a foot in height. The solemn and stately pines of the north of Europe have a very different

aspect from the slender-twigged beeches and chestnuts of its temperate regions, or the laurels and fan-palms of its southern shores.

Viewed in relation to their productions, the gelid regions of the globe are not confined to the circumpolar zone, but extend along the summits of the lofty mountains, following the line of perennial snow, which rises from the level of the sea, in Greenland and Spitzbergen, to the height of 14,000 feet in the Andes. These steril tracts nourish only a few species of plants, although the individuals belonging to them are frequently numerous. In the valleys, and on the southern slopes, no sooner has the returning heat of summer melted the snow, than a beautiful carpeting of verdure, diversified by flowers of various tints, spreads over the soil, displaying an astonishing rapidity of development, while the rocks in many places appear covered with cryptogamic plants. Besides mosses, lichens, and other inferior tribes, multitudes of ferns make their appearance. Grasses and creeping dicotyledonous plants are fully matured; and a rich pasturage affords, during the warm season, abundant nourishment to herbivorous animals. Some trees of small size also appear here and there, or even form themselves into thickets and woods. But, in general, the vegetation of these dreary regions, placed on the limits of the habitable earth, is characterized by a paucity of species and a stunted growth.

Firs and pines, existing in vast numbers, and retaining a perpetual though gloomy verdure, characterize the transition from the frigid to the northern temperate zone. This last extends from the parallels of 50° to 40° north latitude, and in its southern borders, the beech, the lime, and the chestnut, mingle

with the trees peculiar to more southern regions. The meadows and pastures, especially those in the vicinity of the sea and in the mountain-valleys, are clothed with a brilliant verdure, which we in vain look for in the other sections of the globe.

The warm temperate zone, extending to 25°, presents in general a less beautiful vegetation; for although the heat is greater the humidity is less constant. But it is in the torrid latitudes that Nature displays all her magnificence. There the species of tribes, which in other climates are herbaceous, become shrubs, and the shrubs trees. Ferns rise into trunks equal to those of pines in the northern regions of Europe; balsams, gums, and resins, exude from the bark; aromatic fruits and flowers abound; and the savage, as he roams the woods, satisfies his hunger with the spontaneous offerings of the soil. Here also are all the climates of the globe, and almost all their productions united; for, while the plains are covered with the gorgeous vegetation of the tropics, the lofty mountains display the forms that occur in the colder regions, and the places intermediate in elevation all the graduated transitions from these to the warmest parallels.

The vegetation of the seas presents much less diversity than that of the land. It is less luxuriant, less elegant, less ornamented, and less productive of substances directly useful to man. There is also less distinction between marine plants of different latitudes; for the great currents of the ocean, and other causes, render its temperature more equable than that of the atmosphere.

The numerous and diversified forms which plants assume, their distribution over the globe, their

various qualities and uses, and their internal organization, are subjects which have long occupied the attention of observers. In their reproduction, growth, and maturation, phenomena are presented to us, which are well calculated to excite our admiration; and the curious and diversified apparatus of tubes and cells, in which are circulated the fluids derived from the atmosphere and the earth, although apparently more simple than that of the animal economy, affords a profound as well as an interesting subject of research.

All parts of the earth's surface, even the deep recesses of caves and mines, the snows of the polar and alpine regions, and the bottom of the sea, are more or less covered with plants. The same may be said respecting animals, which, being much more diversified in their forms and internal structure, and endowed with more wonderful faculties, lead the mind, by the contemplation of their mechanism and habits, to a nearer approach to the great Creator of all things.

From the gigantic elephant that roams among the splendid forests of the warmer regions of the earth, the unwieldy hippopotamus that plunges in the pools and marshes of the African wilds, and the timid and graceful giraffe that bounds over the sandy desert, down to the little dormouse that we find slumbering in its winter retreat, to the lemming that in congregated myriads overruns the fields of the North, or to the mole that burrows under our feet, we find an astonishing variety of beings, exhibiting forms, instincts, passions, and pursuits, which adapt them for the occupation of every part of the globe. The woods, the plains, the

mountains, and the sands of the sea, are replete with life. The waters, too, whether of the ocean or of the land, teem with animated beings. Scarcely is a particle of matter to be found that does not present inhabitants to our view; and a drop of ditch-water is a little world in itself, stored with inmates of corresponding magnitude.

The consideration of the anatomical structure and external conformation of the many thousands of living creatures that come under our view, would of itself occupy many volumes, were it presented in detail; and even the simplest outline in which it could be produced would require more space than can be devoted to it here. All departments of Nature are full of wonders; but this excels the rest in interest, and is proportionally more difficult to be studied; although men, contented with superficial knowledge, may fancy themselves masters of her secrets when they have merely learned to distinguish some hundreds of objects from each other.

Man, separated from all other animals by peculiarities of corporeal organization, not less than by those intellectual faculties which are not in any considerable degree participated by the other inhabitants of the globe, and who is capable of subsisting in every climate, from the arid regions of the torrid zone to the frozen confines of the poles, also belongs in some measure to the study of nature. But the consideration of man includes a multitude of subjects that do not properly belong to Natural History, in the limited sense in which we use the term. It might even be said that it embraces all human knowledge. Thus, the constitution of the human mind, and the structure of the human body, as well as its healthy

and morbid phenomena, together with the means of regulating the former and of counteracting the latter, may certainly be included in it.

Natural history, however, in its more limited acceptation, may be considered as comprehending the three great kingdoms of Nature,—the mineral, the vegetable, and the animal,—the sciences treating of which are named Mineralogy, Botany, and Zoology. The first of these departments of knowledge comprehends, along with the consideration of simple minerals, that of the masses produced by the aggregation of these substances, and the changes effected upon them by natural causes. Botany teaches us to distinguish and arrange the subjects of the vegetable kingdom, points out the forms and functions of their organs, investigates their internal structure, traces them in their distribution over the surface of the globe, and makes known the various properties which render them noxious or useful to us. Zoology treats of the various tribes of animals, marks their external forms, compares their various organs, describes their habits, discloses the laws which regulate their distribution over the continents and islands, arranges them into families according to principles deduced from their structure, and in general makes us acquainted with all that belongs to their history. Although it is unnecessary here to offer any extended remarks on the cultivation of the vast field which is thus opened up to us, yet, the science of animals being intimately connected with the Series of Lives which we propose to offer to the public, it may not be improper to give a short account of its origin and progress.

In the History of Zoology, four eras are marked by

the names of four great cultivators of that science. All knowledge of nature must have commenced in the observation of individuals, or in an intuitive perception of their properties bestowed upon the first man. We may suppose, however, that at some period not remote from the creation of the human race men were left to their own resources, when they were necessarily forced to examine the nature and qualities of plants and animals, as well as of all natural objects with which they came into contact. The son would learn from the father, and impart to his descendants a certain degree of knowledge acquired by observation. Where the art of writing was unknown, science would advance but slowly; and even where it was practised, the privilege would probably belong to individuals or families, so that the mass would still be left to their ordinary resources. Those who lived in the remote ages antecedent to the Christian era probably knew as much of natural history as the unlettered peasant of our own age and country. Whatever may have been the acquirements of the priests, the sole depositaries of science in ancient India, Chaldea, and Egypt, they perished amid the revolutions of empires. The Sacred Scriptures, however, show that Moses, who was learned in all the wisdom of the Egyptians, had bestowed considerable attention on the animal world; but as these writings were not intended for our instruction in natural knowledge, the observations which they contain on the subject have no reference to systematic arrangement. In short, whatever may have been the knowledge possessed by the subjects of the Pharaohs, or the Hebrews and Greeks of the earlier ages, we do not find that it had assumed

any definite form, or constituted a body of doctrine, until the time of Alexander the Great. At this epoch the illustrious Aristotle collected the observations of his predecessors; added to them those, more extensive and more important, which were made by himself; and, although deeply engaged in the study of other subjects, succeeded in collecting a mass of facts, and in eliciting from them general principles, the accuracy of many of which might surprise us, did we not reflect that, in this department at least, he followed the true method by which the physical sciences have in our times received so vast an augmentation. He, however, stands alone among the writers of remote antiquity in this field; for, if others followed in his steps, their works have been lost.

Among the Romans, by whom the sciences were carried from Greece to Western Europe, there must have been many naturalists of considerable attainments; but the only writer of that nation whose descriptions have come down to us is Pliny the Elder, who flourished under Vespasian. His books on natural history are compiled from the writings of others, and may be considered as a general collection of all that was known in his time. Although he must have possessed opportunities of observing the many rare animals that were brought from all parts of the world to Rome, it does not appear that, by original observation, he added much to the mass of facts; still he may be viewed as marking the second epoch in the history of zoology, more especially as his works supplied the materials out of which naturalists in later ages have constructed their systems. As to Ælian, a Greek writer, whose treatise was also a

compilation, his merits were much fewer, and his absurdities more numerous than those of his predecessor. Both were fond of the marvellous, but he was eminently addicted to falsehood.

During the long ages of barbarism that succeeded the destruction of the Roman empire all the sciences were lost. On the revival of learning some feeble efforts were made to rescue natural history from its degraded condition; and at the commencement of the sixteenth century appeared several works on fishes, by Paolo Giovio, Pierre Belon, Rondelet, and Salviani. Belon wrote on birds also, and his observations are remarkable considering the period at which he lived. Conrad Gesner, a physician of Zurich, in his History of Animals, presented a compilation, arranged in alphabetical order, of all that the ancients had left on the subject; and Aldrovandi, after the labour of sixty years, left behind him an immense work on natural history, comprising no less than fourteen folio volumes. In the seventeenth century, we find our own Ray and Willughby among the most successful students of nature. Besides these celebrated individuals, there were others, such as Jonston and Redi, who laboured in the field of zoology; but perhaps the most original authors of this period were Swammerdam and Reaumur, whose minute observations, in entomology especially, have not been excelled in accuracy by those of any subsequent writers. It was not, however, until the middle of the eighteenth century, that a new era was formed by the labours of Linnæus, who was the first to collect all the known productions of nature, to class them according to simple principles derived from the observation of

facts, and to invent a nomenclature at once efficient and comprehensive.

Since the time of that philosopher natural history in all its branches has been cultivated with extreme ardour. The writers of this period have been numerous beyond those of any former epoch; and as anatomical investigation was successfully applied to the study of zoology, while the objects known were immensely increased, it was soon found that the classifications of the great reformer of the science were in many respects deficient, and that he had frequently associated objects which have too little affinity to be grouped together in the same class or order. The Systema Naturæ, in place of forming a complete catalogue of all the objects of nature, "became," to use the words of an accomplished author, "a mere sketch of what was to be done afterwards. Even more recent naturalists touched with a timid hand upon the natural grouping of the highest branches of the science, and it was reserved for a mighty genius of our own time to open the path to us, and to smooth the difficulties of that path, by precisely determining the limits of the great divisions, by exactly defining the lesser groups, by placing them all according to the invariable characters of their internal structure, and by ridding them of the accumulations of synonymes and absurdities which ignorance, want of method, or fertility of imagination, had heaped upon them."* This "mighty genius," it is almost unnecessary to add, was the illustrious Cuvier, who, although by no means the only great, and possibly not even the

* Mrs R. Lee's Memoirs of Baron Cuvier, p. 51.

greatest zoologist of his time, may, if we are disposed to mark an epoch by a single name, be selected for that purpose. But even this celebrated writer has, in his Règne Animal, merely presented a sketch, leaving to others the task of completing the various departments. They who think otherwise forget that the generic and specific characters of the systematist, necessarily condensed, are very inadequate to convey any other than the most superficial knowledge of the diversified objects of nature.

These, then, were the men who progressively reared the structure of zoology. Aristotle was a universal genius; but with respect to natural history he is to be looked upon chiefly as a zoologist. Pliny was a collector of every thing known in his time, whether true or fabulous, that related to animals, minerals, and plants. Linnæus arranged all the objects of nature. He was perhaps greater as a zoologist than as a botanist, although, in the latter capacity, his labours have been more highly appreciated, because there have been more cultivators of the science of plants, of which the study requires less laborious investigation, and to many persons is more attractive. Lastly, Cuvier, an original genius, an acute observer, and an accurate reasoner, profiting by the accumulated knowledge of ages, remodelled the system of zoology, and, in his Règne Animal, arranged the series of animals according to principles elicited from the investigation of their structure and relations.

The present volume includes the lives of the more eminent zoologists, from Aristotle to Linnæus. Those who succeeded the latter will furnish ample materials for another.

It is scarcely necessary to remark, that these volumes may either be considered as complete in themselves, or as introductory to a general and particular description of the various tribes of animals. A work on this most extensive subject is a great desideratum in English literature,—not that books on this department of science are wanting, but because we have none that present a continuous view of the families and species of the different classes, at once intelligible to the student of nature, attractive to the general reader, and free from that meagreness of phraseology necessarily peculiar to the composers of systematic catalogues.

It is not now required of us to point out the advantages that might result from the establishment of natural history as a branch of popular education. These advantages have been repeatedly pressed on the notice of the public; and, although the system has not been as yet adopted, the time cannot be far distant when the elements of mineralogy, botany, and zoology shall be taught in our schools, along with those branches of knowledge which at present occupy the field, to the exclusion of others not less adapted for the improvement of the youthful mind. "To constitute such pursuits a prominent part of elementary education," says a popular writer, "would without doubt be erroneous: it is, however, certain that none are more eminently fitted to fill the minds of youth with admiration of the numerous contrivances and proofs of design afforded in every part of the creation, and to inspire them with exalted conceptions of the Supreme Being."* We are

* Quarterly Review, vol. xxxvi. p. 219.

of opinion, notwithstanding, that they ought to occupy a distinct place in elementary education, because they possess many important recommendations, of which those mentioned are certainly not the least. The study of nature may be pursued in any degree, as a relaxation from other studies, as a pleasing occupation invigorating alike to the mind and the body, or as a science capable of calling into action the noblest faculties of man, and of affording employment to intellects of even a higher order than any of those who have hitherto acquired distinction in the walks of literature. Natural history has already to boast of an Aristotle, a Ray, a Reaumur, a Linnæus, a Haller, a Hunter, and a Cuvier. What other science can rank abler men among its cultivators? And, as is remarked by one of the most eminent naturalists that this country has produced, the late president of the Linnæan Society, "How delightful and how consolatory it is, among the disappointments and anxieties of life, to observe science, like virtue, retaining its relish to the last!"