

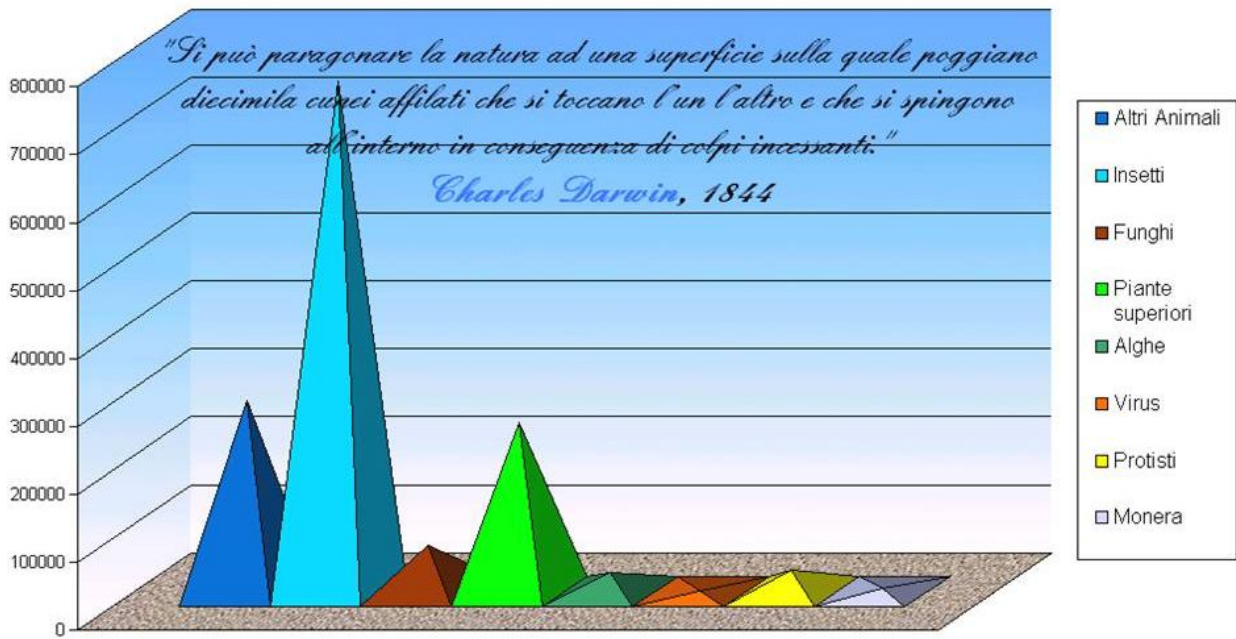


Il pluralismo divulgativo attraverso la biologia evoluzionistica

di Giorgio Narducci

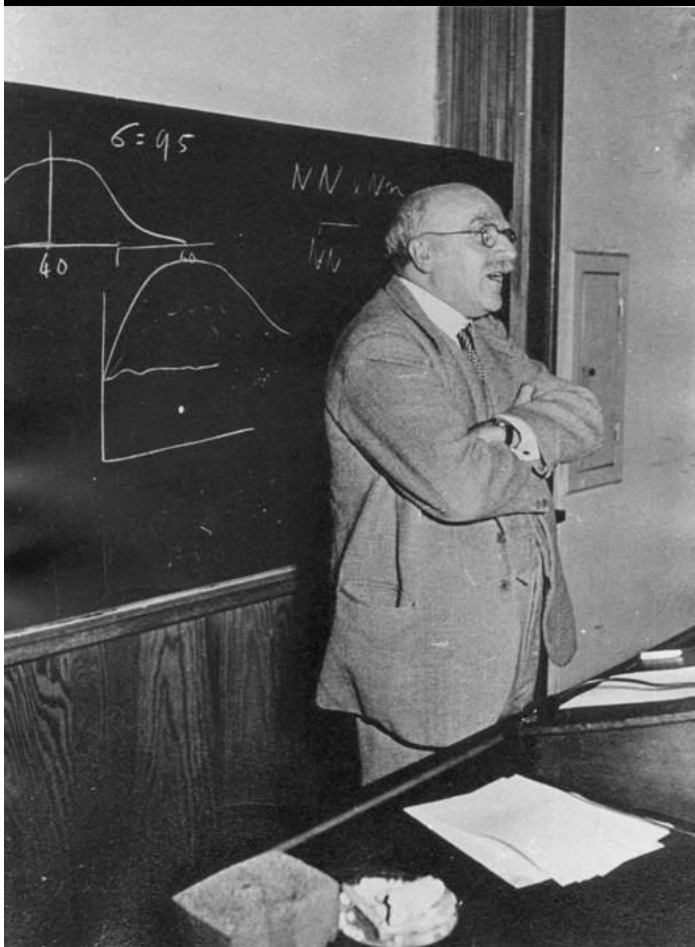


Biodiversità totale per numero di specie





"Go it Charlie!"

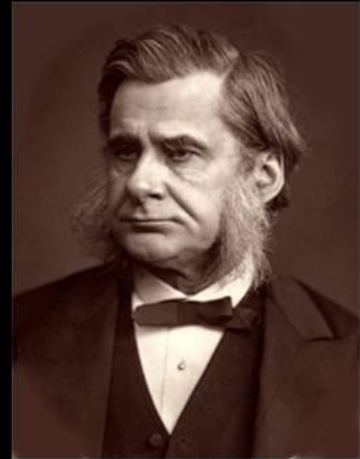
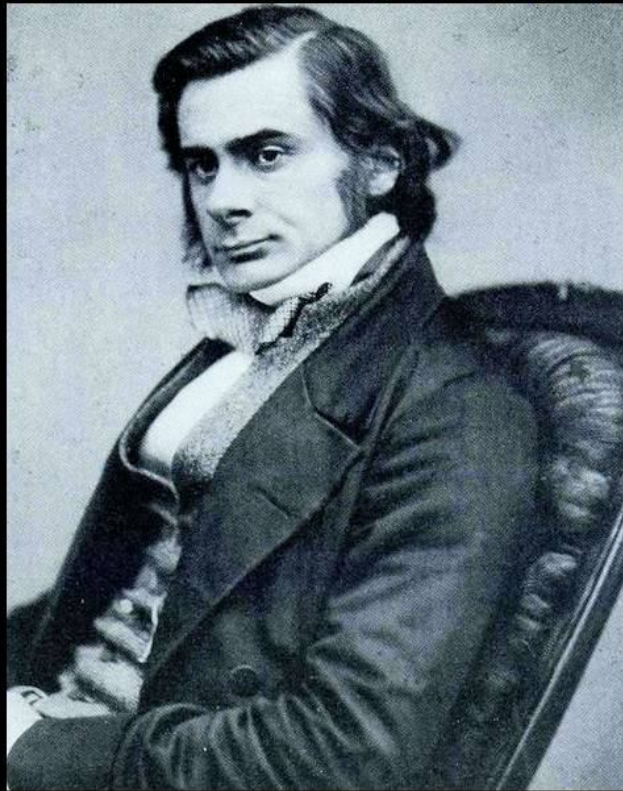


Si narra questo aneddoto su
J.B.S. Haldane,
raccontato da
G.E.Hutchinson :

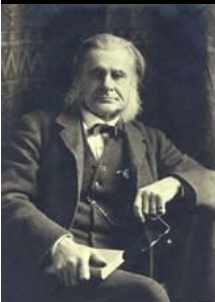
Haldane si trovava in
compagnia
di un gruppo di teologi.

Alla domanda, rivoltagli da
uno di loro, che cosa si
potesse concludere
sulla natura del Creatore
dallo studio della creazione,
avrebbe risposto:

*"Che aveva una
passione smodata
per i Coleotteri"*.



Thomas Henry Huxley
(1825-1895)



"He was the Paul of the scientific apostles"

"His aggressive humour"

"The lectures were not without humour, but it was not of the most kindly character"

"The chief impression was the intense love of the lecturer for honesty and truth, and this quality was characteristic of the way in which the facts and theories of the lectures were put before the students."

Feb. 13, 1903. T.P.'s WEEKLY. 435

PROFESSOR HUXLEY AS TEACHER.
By One of His Old Students.

Mr. Herbert Spencer is the sole surviving representative of a small body of men—John Stuart Mill, Charles Darwin, Herbert Spencer, Thomas Henry Huxley, John Tyndall—who raised science to a position of great dignity, forced it upon the attention of the average man, and did their country an inestimable benefit by assisting to promote its permanent incorporation in any enlightened school curriculum. Of these men Professor Huxley was, in especial particulars, the most remarkable. He was the Paul of the scientific apostles. His was, in his own words, "the humblest, though, perhaps, in the present state of science, not less useful object of preaching the good news of evolution to the scientific Gentiles."

At South Kensington.
It is common knowledge that Professor Huxley was for thirty-one years Professor of Biology at the old Royal School of Mines, now the Royal College of Science. In discussing the history of that remarkable institution, especially from the students' standpoint, and of the age that they did, has yet to be written. In my own opinion, it has had no more brilliant product than Mr. H. O. Wells, and one of my few satisfactorily realised prophecies was that of forecasting him his future greatness. We used to meet at the church at the York Gate, Regent's Park, and walk down to South Kensington together of a morning, and many pleasant memories one has of his rich, kindly humour. And Mr. Wells is the man to write the students' history of the school.

Punctual as the clock.
Professor Huxley lived at St. John's Wood, and drove every morning in a hansom cab across Hyde Park. He would reach South Kensington about 9.30 a.m., ascend by the lift, becoming rather irascible if kept waiting, to his room in the top outermost corner of the building. Exactly as the clock struck ten his door opened and he appeared in the laboratory. There was a legend that he kept his hand upon the door that he might open it at the stroke of the hour. The students were driven before him into the lecture room in the biological museum, where they had to sit on hard wooden benches listening to the great man on a slightly raised platform. In his latter days Professor Huxley, in figure, was tall and slight, and he stooped rather badly. His portrait, by his son-in-law, the Hon. John Collier, now in the National Portrait Gallery, is a most excellent representation of him at the period to which I refer.

As a lecturer.
I cannot say that the most skilled work out his lectures in a somewhat monotonous tone of voice, but they soon became very interesting, even fascinating. They were so full of information as an egg is full of meat, or as his own "Elements of Physiology." The chief impression was the intense love of the lecturer for honesty and truth, and this quality was characteristic of the way in which the facts and theories of the lectures were put before the students. At the same time, however, one had a conviction that the professor felt he was one of a distinct minority, and that he did not unduly depreciate his own credit for the possession of the great qualities indicated.

His aggressive humour.
The lectures were not without humour, but it was not of the most kindly character. Dickens almost always makes one feel kindly disposed towards the object at which he is poking fun, and towards himself; Huxley rendered his hearer inclined to be hot and angry for the implied slight upon poor human nature. He compared something—I forget what—to the mystery of how the apple got within the dumpling, which was quite beyond the comprehension of his illustrious Majesty George III. The optical illusion of the revolution of the upper part of the rotifer, which was brilliantly discovered by Faraday to be due to a wave of extrusion and retraction of successive tentacles, was compared with the owl, who, fascinated into following with its eye the skilful hunter who was circumnavigating the tree in order to get a convenient shot, continued doing so till it severed its head off its body and fell to the ground a decapitated corpse. The biological fact that in the human species size of brain, and therefore size of skull, are correlated with mental capacity, allowed the professor to refer to his painful experience of the contrary; while the almost typically perfect dentition of the pig and the process of chewing the cud, of which Professor Huxley gave a most amusing description—the greedy snatching of food, the after sinking into a recumbent position, the fixing of the eye of the ox upon some distant object, the sudden gulp, like a hitcock, the slow meditative re-chewing—gave opportunities of sly pokes at poor humanity.

Professor and students.
The power that Professor Huxley had of making difficult subjects intelligible, his strong common sense, his wide and deep learning, his intense love of truth—all enforced in clear and vigorous English—his high morality, gave him a wide circle of admirers. I have known many of the students that have been mentioned in the preceding paragraphs. Believing that I have all the precedents that I have known of, I mean to say that I have never known any other professor who could make a more interesting and instructive lecture than Professor Huxley's. I have never known any other professor who could make a more interesting and instructive lecture than Professor Huxley's. I have never known any other professor who could make a more interesting and instructive lecture than Professor Huxley's.

ruck of the students was one of profound respect, a little awe, but no personal affection. A year or two before Professor Huxley retired the Registrar of the School of Mines, an old General, gave up his post. The Registrar's unvarying courtesy and kindness had endeared him to all, and when his resignation was announced the students with one accord rushed together, and, in public meeting—at which my friend Professor Turner, Professor of Metallurgy at Birmingham University, if my memory serves me rightly, took a leading part—decided, with unanimous voice, to give the retiring General some slight testimonial of respect.

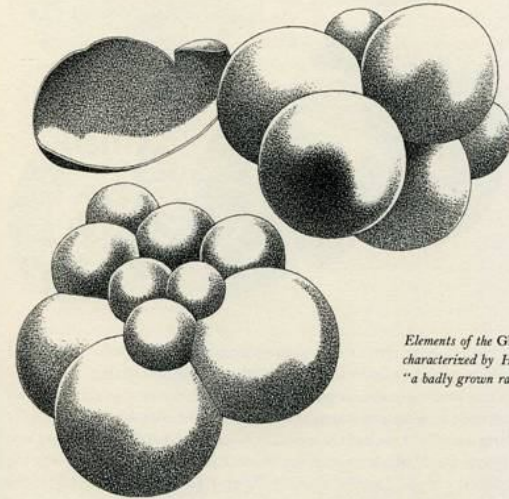
His retirement.
About a year later we heard that Professor Huxley was away from the school from loss of health, and that he was seeking it by Lake Como, oblivious of everything but Dante. He returned to South Kensington, but shortly afterwards finally retired, or, as one might say, glided away. A pension was awarded him, but not a student stirred to thank the great man for his services to education, or, indeed, for the benefits which Professor Huxley had been a principal agent in securing for the poor scholar. He was felt to be a being too lofty and too far removed—an opinion with which, I am inclined to think, the Professor sympathised—for the average student to dare to approach him. It is very possible that this state of affairs was due to shyness and sensitiveness. I have been assured that he was exceedingly beloved by those who knew him intimately.

His conscientiousness.
Professor Huxley was a very methodical man. I was once privileged to be shown round his room. It did not contain an inordinate number of books. In each of two window recesses was a table with a microscope—one for coarser work, one of higher powers—with a third table in the centre of the room for writing. The fact that impressed me most was a row of exercise books, each one marked at the back with red, in which Professor Huxley every year had written out the notes of his lectures. I was assured that the Professor would frequently go over the diagrams, or, indeed, carefully make a dissection to refresh and strengthen his memory.



Foraminifera
of the chalk.

However, the important points for us are that the living *Globigerina* are exclusively marine animals, the skeletons of which abound at the bottom of deep seas, and that there is not a shadow of reason for believing that the habits of the *Globigerina* of the chalk differed from those of the existing species. But if this be true, there is no escaping the conclusion that the chalk itself is the dried mud of an ancient deep sea.



Elements of the *Globigerina* ooze
characterized by Huxley as resembling
"a badly grown raspberry."

A practical example is his famous essay *On a piece of chalk*, first published in *Macmillan's Magazine* in London, 1868.

The piece reconstructs the geological history of Britain, from a simple piece of chalk and demonstrates science as "**organized common sense**".

"If a well were sunk at our feet in the midst of the city of Norwich, the diggers would very soon find themselves at work in that white substance almost too soft to be called rock, with which we are all familiar as "chalk."

Not only here, but over the whole country of Norfolk, the well-sinker might carry his shaft down many hundred feet without coming to the end of the chalk; and, on the sea-coast, where the waves have pared away the face of the land which breasts them, the scarp faces of the high cliffs are often wholly formed of the same material.

Northward, the chalk may be followed as far as Yorkshire; on the south coast it appears abruptly in the picturesque western bays of Dorset, and breaks into the Needles of the Isle of Wight; while on the shores of Kent it supplies that long [2] line of white cliffs to which England owes her name of Albion."



Ray Lankester

by Leslie Ward,
Vanity Fair 1905



Ray Lankester.

Extinct Animals

By
E. RAY LANKESTER, M.A., LL.D., F.R.S.
*Director of the Natural History Departments of the
British Museum; Correspondent of the Institute
of France*

WITH 218 ILLUSTRATIONS

LONDON
ARCHIBALD CONSTABLE & CO LTD
1905

PREFACE

THIS volume is a corrected shorthand report of the course of lectures adapted to a juvenile audience given by me during the Christmas holidays 1903-4 at the Royal Institution, London. The lantern slides which I used in the lectures have been converted into process blocks. Many of these were photographs specially prepared under my direction for the lectures, and are from specimens in the Natural History Museum. My desire was, as far as possible, to illustrate what I said by photographs taken from actual specimens. Some of these have come out fairly well as process-blocks. For several of the slides and figures I have to thank my friend and colleague Dr. Arthur Smith Woodward, Keeper of the Geological Department of the Museum, to whom I am greatly indebted for kind help in many ways in regard to these lectures. I have

PREFACE

also to thank other friends for the loan of lantern-slides and consequent process-blocks, viz., Mr. R. Lydekker, Dr. Bather, Dr. Andrews and Mr. Pyecraft of the British Museum, and Professor Sollas of Oxford. I am also indebted to the Trustees of the British Museum for permission to use several figures of extinct animals taken from the guide-books to the Natural History Museum, published by their order, to Messrs. Macmillan & Co., and to Mr. John Murray.

I trust that this volume will not be regarded as anything more ambitious than an attempt to excite in young people an interest in a most fascinating study, and that it will be understood that it does not profess to give more than a peep at the strange and wonderful history of extinct animals.

E. RAY LANKESTER.

1905.

EXTINCT ANIMALS

neck, but it is striped on the legs and haunches, instead of being spotted. The most decisive point about its relationship is found in the canines of the lower jaw which, although small in size, are bifid or bi-foliolate, as are those of the giraffe

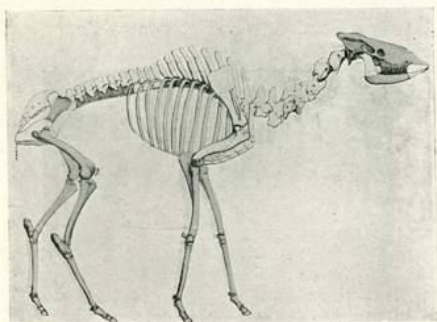


FIG. 114.—Restored skeleton of the giraffe-like animal *Helladotherium*, discovered in Miocene strata at Pikermi, near Athens, by M. Gaudry.

(see Fig. 111). Our specimen (Fig. 115) is about as big as a large stag; it has no horns, and is not adult. It is probably a female; the male, we now know, has a pair of horns (Fig. 116), and is extremely close, in the details of its skull, to the *Samotherium* (Fig. 113). Some fifteen speci-

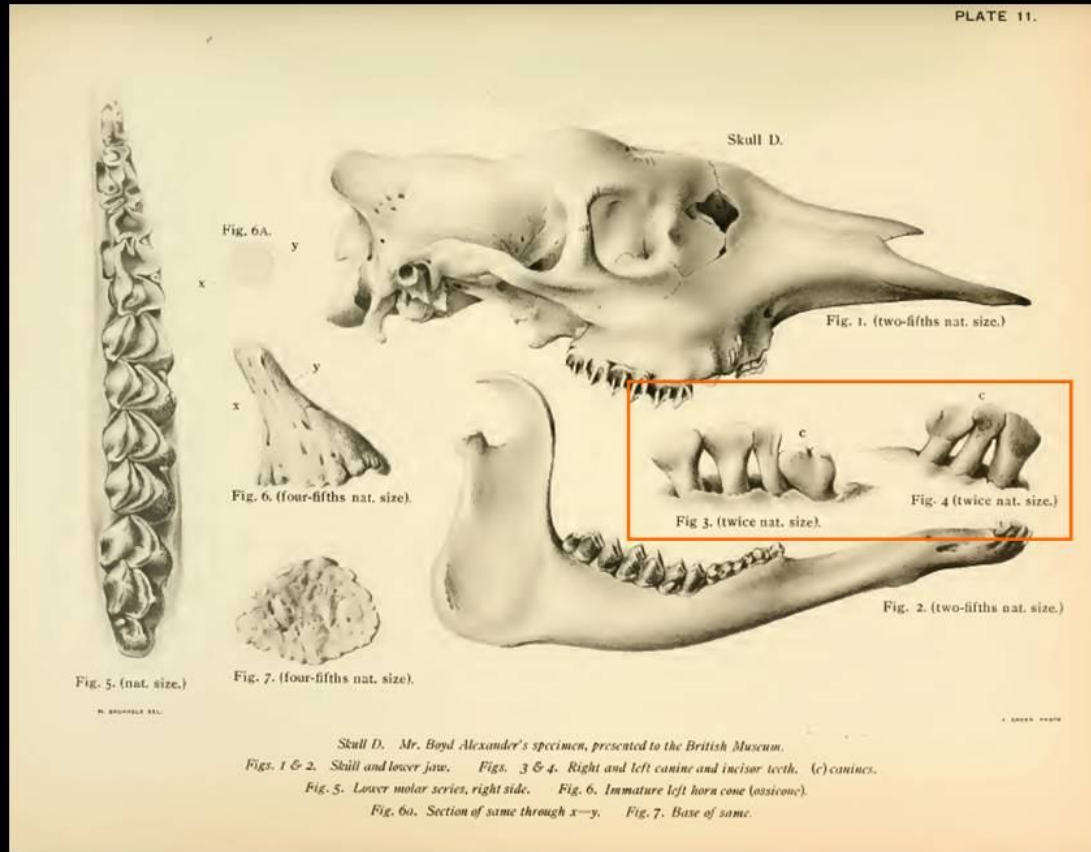
THE OKAPI

mens of this new and rare animal have been received in Europe since Sir Harry Johnston discovered it; it is probable that there are two species, a smaller and a larger, living both in the forests of the Congo in the centre of



FIG. 115.—Photograph of the specimen of the Okapi (*Okapia erichsoni*) obtained by Sir Harry Johnston near the Semliki river in Central Africa. The specimen is a female, not fully grown, and is of the size of a very large donkey.

Africa. As they live in these immense dark gloomy and damp forests they are very difficult to shoot or to catch, and moreover they are not abundant. The natives cut the striped skin into girdles and bands for ornament. Two of these were sent home by Sir Harry Johnston



*“Io scrivo questi saggi
 in primo luogo per soddisfare
 il mio desiderio
 di imparare e di capire
 quanto più è possibile sulla natura
 nel breve spazio di tempo concesso.”*



Da *Il sorriso del fenicottero*,
 S. J. Gould, 1987, edizione originale 1985