

**BIOGEN: A SPECULATION  
ON THE ORIGIN AND  
NATURE OF LIFE, PP. 7-65**

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**ELLIOTT COUES**

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NATURE OF LIFE, PP. 7-65**



# BIOGEN

*A SPECULATION ON THE*

## ORIGIN AND NATURE OF LIFE

By PROFESSOR ELLIOTT COUES

MEMBER OF THE NATIONAL ACADEMY OF SCIENCES; OF  
THE AMERICAN PHILOSOPHICAL SOCIETY; OF THE PHILOSOPHICAL  
AND BIOLOGICAL SOCIETIES OF WASHINGTON; ETC., ETC.

**Second Edition**

"As thou art fitted to receive it, so shall the light be given thee"

THE DEMON OF DARWIN



BOSTON  
ESTES AND LAURIAT

1884

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TO

WILLIAM B. TAYLOR,

LATELY PRESIDENT OF THE PHILOSOPHICAL SOCIETY OF WASHINGTON,  
LEARNED IN SCIENCE, WISE IN PHILOSOPHY,  
FAITHFUL IN ALL LIFE'S RELATIONS,

*This Volume is Inscribed*

WITH RESPECT AND FRIENDSHIP

BY

THE AUTHOR.



C. 9-17-29 H. E. M.





*Ukay*  
*Miles*  
2-12-29  
19167



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"The most general truth, not admitting of inclusion in any other, does not admit of interpretation. Of necessity therefore, explanation must eventually bring us down to the inexplicable. The deepest truth we can get at must be unaccountable."

H. SPENCER.

"He who supposes, therefore, 'that the information of the senses is 'adequate (with the aid of mathematical reasoning) to explain phenomena of *all kinds*,' who refuses to admit 'that there are physical operations which are and ever will be incomprehensible by us,' betrays a very imperfect idea — no less of the impassable limitations of finite intellect, than of the fathomless profundity of Nature's system. He who thinks that by formally repudiating the mysterious, and confidently discarding the unknown, he thereby abolishes or in the slightest degree diminishes his insuperable ignorance of the ultimate, — but imitates the ostrich, and deludes himself."

W. B. TAYLOR.





## P R E F A C E.

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**I**N the spring of 1882 I was honored by an invitation, which I did not feel at liberty to disregard, from the President of the Philosophical Society of Washington, to address that learned body upon the general problem of Life — Whence, What, How, and Why.

The fascination of these questions, perpetually asked and unanswered, is due to the fact, that we know them to be unanswerable, yet feel that they will be answered somewhere, somehow, sometime, by every human being, each for himself.

The situation at the Philosophical Society I was given to understand to be this: The retiring President had in his last address discussed biology, contending that a certain "vital principle" caused Life, or was at any rate necessary for the purposes of Living. This would seem to be a reasonable proposition; but it had been regarded as more or less unphilosophical or unscientific, because the Society had not succeeded in finding out what the vital principle was, or indeed, where to find it at all. Mathematics had failed to find it at any point in the known dimensions of space. Physics