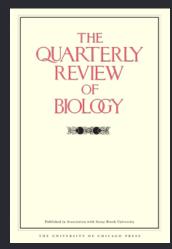
DETAILS

RELATIONS

<<

1

0



The Quarterly Review of Biology Volume 87, Issue 4

December 2012

Pages 287-424

ARTICLE

A Symbiotic View of Life: We Have Never Been Individuals

Symbiotic View of Life

View article page

Scott F. Gilbert, Jan Sapp and Alfred I. Tauber

77 CITE

Copyright © 2012 by The University of Chicago Press. All rights reserved.

https://doi.org/10.1086/668166 🔀

University of Chicago Press Publisher

ISSN 0033-5770

elSSN 1539-7718

Print December 2012

325 - 341 Pages

Abstract

ABSTRACT











VOLUME 87, No. 4

THE QUARTERLY REVIEW OF BIOLOGY

DECEMBER 2012



A SYMBIOTIC VIEW OF LIFE: WE HAVE NEVER BEEN **INDIVIDUALS**

SCOTT F. GILBERT

Department of Biology, Swarthmore College Swarthmore, Pennsylvania 19081 USA Biotechnology Institute, University of Helsinki 00014 Helsinki, Finland

E-MAIL: SGILBER1@SWARTHMORE.EDU

JAN SAPP

Department of Biology, York University Toronto, Ontario M3J 1P3 Canada

E-MAIL: JSAPP@YORKU.CA

Alfred I. Tauber

Department of Philosophy, Boston University Boston, Massachusetts 02215 USA

E-MAIL: AIT@BU.EDU

KEYWORDS symbionts, symbiosis, individuality, evolution, holobiont

ABSTRACT

The notion of the "biological individual" is crucial to studies of genetics, immunology, evolution, development, anatomy, and physiology. Each of these biological subdisciplines has a specific conception of individuality, which has historically provided conceptual contexts for integrating newly

