### Accepted Manuscript

Title: Metaorganisms in extreme environments: do microbes play a role in organismal adaptation?

Authors: Corinna Bang, Tal Dagan, Peter Deines, Nicole Dubilier, Wolfgang J. Duschl, Sebastian Fraune, Ute Hentschel, Heribert Hirt, Nils Hülter, Tim Lachnit, Devani Picazo, Lucia Pita, Claudia Pogoreutz, Nils Rädecker, Maged M. Saad, Ruth A. Schmitz, Hinrich Schulenburg, Christian R. Voolstra, Nancy Weiland-Bräuer, Maren Ziegler, Thomas C.G. Bosch

PII: S0944-2006(18)30019-9

DOI: https://doi.org/10.1016/j.zool.2018.02.004

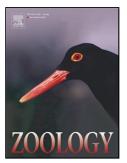
Reference: ZOOL 25633

To appear in:

Received date: 6-2-2018 Revised date: 8-2-2018 Accepted date: 12-2-2018

Please cite this article as: Bang, Corinna, Dagan, Tal, Deines, Peter, Dubilier, Nicole, Duschl, Wolfgang J., Fraune, Sebastian, Hentschel, Ute, Hirt, Heribert, Hülter, Nils, Lachnit, Tim, Picazo, Devani, Pita, Lucia, Pogoreutz, Claudia, Rädecker, Nils, Saad, Maged M., Schmitz, Ruth A., Schulenburg, Hinrich, Voolstra, Christian R., Weiland-Bräuer, Nancy, Ziegler, Maren, Bosch, Thomas C.G., Metaorganisms in extreme environments: do microbes play a role in organismal adaptation?.Zoology https://doi.org/10.1016/j.zool.2018.02.004

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



**Zoology, Invited Perspectives** 

Metaorganisms in extreme environments: do microbes

play a role in organismal adaptation?

Corinna Bang<sup>1</sup>, Tal Dagan<sup>1</sup>, Peter Deines<sup>2</sup>, Nicole Dubilier<sup>3</sup>, Wolfgang J. Duschl<sup>4</sup>, Sebastian Fraune<sup>2</sup>, Ute Hentschel<sup>5</sup>, Heribert Hirt<sup>6</sup>, Nils Hülter<sup>1</sup>, Tim Lachnit<sup>2</sup>, Devani Picazo<sup>1</sup>, Lucia Pita<sup>5</sup>, Claudia Pogoreutz<sup>7</sup>, Nils Rädecker<sup>7</sup>, Maged M. Saad<sup>6</sup>, Ruth A. Schmitz<sup>1</sup>, Hinrich Schulenburg<sup>2</sup>, Christian R. Voolstra<sup>7</sup>, Nancy Weiland-Bräuer<sup>1</sup>,

Maren Ziegler<sup>7</sup>, Thomas C.G. Bosch<sup>2,\*</sup>

<sup>1</sup>Institute of General Microbiology, Kiel University, Am Botanischen Garten 1-9, 24118 Kiel,

Germany

<sup>2</sup> Zoological Institute, Kiel University, Am Botanischen Garten 1-9, 24118 Kiel, Germany

<sup>3</sup>Max Planck Institute for Marine Microbiology, Celsiusstraße 1, 28359 Bremen, Germany

<sup>4</sup>Institute of Theoretical Physics and Astrophysics, Kiel University, Leibnizstraße 15, 24098

Kiel, Germany

<sup>5</sup>GEOMAR Helmholtz Centre for Ocean Research, Wischhofstraße 1-3, 24148 Kiel, Germany

<sup>6</sup> Center for Desert Agriculture, Division of Biological and Environmental Science and

Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal

23955-6900, Saudi Arabia

<sup>7</sup>Red Sea Research Center, Division of Biological and Environmental Science and

Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal

23955-6900, Saudi Arabia

\* Corresponding author.

e-mail address: tbosch@zoologie.uni-kiel.de

## **Highlights**

From protists to humans, all animals and plants are inhabited by microbial organisms, ultimately forming a metaorganism.

The mechanisms controlling the interactions within a metaorganism are as yet poorly understood.

Some of the open issues in interspecies interaction are outlined and discussed.

#### Download English Version:

# https://daneshyari.com/en/article/8626981

Download Persian Version:

https://daneshyari.com/article/8626981

<u>Daneshyari.com</u>