

Contents

Part I Understanding the Basis of Symbiotic Associations

- 1 Symbiotic Associations: All About Chemistry** 3
Re-Young Yu and William F. Martin

Part II Associations Between Microbes

- 2 Phage Conversion and the Role of Bacteriophage and Host Functions
in Regulation of Diphtheria Toxin Production by *Corynebacterium
diphtheriae*** 15
Sheryl L.W. Zajdowicz and Randall K. Holmes
- 3 Syntrophic Growth of *Symbiobacterium* in Association with
Free-Living Bacteria** 47
Kenji Ueda and Teruhiko Beppu

Part III Associations Between Microbes and Plants

- 4 The Mechanism of Symbiotic Nitrogen Fixation** 69
Barney A. Geddes and Ivan J. Oresnik

Part IV Associations Between Microbes and Animals

- 5 Antimicrobials and the Natural Biology of a Bacterial-Nematode
Symbiosis** 101
Swati Singh and Steven Forst
- 6 The Role of Symbionts in the Evolution of Termites and Their
Rise to Ecological Dominance in the Tropics** 121
David E. Bignell
- 7 Diverse Bacteriophage Roles in an Aphid-Bacterial Defensive
Mutualism** 173
Stephanie R. Weldon and Kerry M. Oliver

8	Symbiotic <i>Streptomyces</i> Provide Antifungal Defense in Solitary Wasps	207
	Martin Kaltenpoth	
9	<i>Watersipora subtorquata</i> and the Possible Role of Its Associated Microbes: An Attempt to Explain the Extraordinary Invasion Success of This Marine Bryozoan Species	239
	Antje Lauer	
10	Animal–<i>Symbiodinium</i> Symbioses: Foundations of Coral Reef Ecosystems	269
	Nathan L. Kirk and Virginia M. Weis	
11	Fiat Lux: The Squid–<i>Vibrio</i> Association as a Model for Understanding Host–Microbe Associations	295
	Spencer V. Nyholm	

The Mechanistic Benefits of Microbial Symbionts

Hurst, C.J. (Ed.)

2016, XII, 315 p. 47 illus., 24 illus. in color., Hardcover

ISBN: 978-3-319-28066-0