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Nota di contenuto	Preface Section 1 Mosquito Biology, Ecology and Vector-Parasite Interactions Chapter 1 Mosquito Excito-Repellency: Effects on Behavior and the Development of Insecticide Resistance by Yamili J. Contreras-Perera, Abdiel Martin-Park, Henry Puerta-Guardo, Azael Che-Mendoza, Silvia Perez-Carrillo, Iram Pablo Rodriguez-Sanchez, Pablo Manrique-Saide and Adriana Flores-Suarez Chapter 2 Vector- Parasite Interactions and Malaria Transmission by Nekpen Erhunse and Victor Okomayin Chapter 3 Systems Biology Approaches towards Immunity against Plasmodium by Himangshu Patgiri, Ankita Khataniar, Pitimoni Boro, Sushmita Baishnab and Sanchaita Rajkhowa Chapter 4 Role of Mosquito Microbiome in Insecticide Resistance by Sahar Fazal, Rabbiah Manzoor Malik, Ahmad Zafar Baig, Narjis Khatoon, Huma Aslam, Aiza Zafar and Muneeba Ishtiaq Chapter 5 Influence of Climatic Factors on the Abundance and Profusion of Mosquitoes in Eastern Province, Saudi Arabia by Assad Al-Thukair, Yasin Jemal and Alexis Nzila Section 2 Mosquito Control and New Technologies Chapter 6 Vector Control Strategies by Wilber Gomez-Vargas and Giovani Esteban Zapata-Usuga Chapter 7 Different Strategies for Mosquito Control: Challenges and Alternatives by Taruna Kaura, Neha Sylvia Walter, Upninder Kaur and Rakesh Sehgal Chapter 8 The Potential for Wolbachia-Based Mosquito Biocontrol Strategies in Africa

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	by Femi Ayoade and Tosin S. Ogunbiyi Chapter 9 Community Engagement and Social Assessment for Wolbachia-Based Suppression of Natural Populations of Aedes aegypti: The Mexican Experience by Josue Villegas-Chim, Abdiel Martin-Park, Henry Puerta-Guardo, Maria Eugenia Toledo-Romani, Norma Pavia-Ruz, Yamili Contreras-Perera, Silvia Perez-Carrillo, Azael Che-Mendoza, Jorge Palacio-Vargas, Fabian Correa-Morales, Hector Gomez-Dantes and Pablo Manrique-Saide Chapter 10 Low-Cost Materials for Do-It-Yourself (DIY) Installation of House Screening against Aedes aegypti by Josue Herrera-Bojorquez, Josue Villegas-Chim, Daniel Adrian, Azael Che-Mendoza, Juan Navarrete-Carballo, Anuar Medina-Barreiro, Miguel Xcaer, Hugo Delfin-Gonzalez, Norma Pavia-Ruz, Henry Puerta-Guardo, Maria Eugenia Toledo-Romani, Hector Gomez-Dantes, Gonzalo Vazquez- Prokopec and Pablo Manrique-Saide Chapter 11 Effect of the Mass Distribution of ITNs in an Endemic Area with a High Entomological Index, the Case of Bandundu-City, Kwilu, DRC by Emery Metelo-Matubi, Josue Zanga, Victoire Nsabatien, Aime Mbala, Solange Ngamukie, Fiacre Agossa, El Hadji Amadou Niang, Jean Maniania-Nguya-Kalenga and Mulenda Basimike Chapter 12 Mosquito Population Modification for Malaria Control by Rebeca Carballar-Lejarazu, Taylor Tushar, Thai Binh Pham and Anthony James Chapter 13 Bacterial Silver Nanoparticles: Method, Mechanism of Synthesis and Application in Mosquito Control by Jeyaraj John Wilson, Thangamariyappan Harimuralikrishnaa, Ponnirul Ponmanickam and Muthumadasamy Ponseetha Lakshmi Chapter 14 Role of CRISPR Technology in Gene Editing of Emerging and Re-emerging Vector Borne Disease by Kaushal Kumar Mahto, Pooja Prasad, Mohan Kumar, Harshita Dubey and Amar Ranjan.
Sommario/riassunto	With around 3,500 species identified so far, mosquitoes can be found in virtually every environment and continent around the globe. Blood- feeding biters (e.g., Anopheles, Culex, Aedes, Ochlerotatus, and Mansonia) are among the most influential vectors for harboring and transmitting mosquito-borne diseases (MBDs) such as Zika, Japanese encephalitis, West Nile fever, dengue fever, yellow fever, and malaria, among other diseases. More than 700 million human infections and 725,000 deaths occur every year. Mosquitoes are increasing in number worldwide, yet there are still no effective vaccines or prevention strategies. Thus, traditional vector control strategies remain the most common ways to combat these diseases. Despite this, MBDs linger as one of the major challenges for public health and vector control programs at both global and local levels. This book provides a comprehensive overview of MBDs and vector control strategies.