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Variability of Wolbachia Infections among South-East Asia and South-Pacific Populations of the Butterfly Hypolimnas Bolina:

Evolutionary Causes and Consequences

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Wolbachia bacteria are found in over 20% of all insect species, as well as in other Arthropods and in Nematodes. Owing to their maternal inheritance, these intracellular symbionts have evolved a number of manipulative strategies to invade host populations, detrimental to males, but beneficial to females. These include Cytoplasmic Incompatibility (where Wolbachia causes embryo death in crosses between males and females of different infection status) and distortion of sex-ratio toward females. We will present results of a large scale comparative approach based on South-East Asia and South-Pacific populations of the butterfly *Hypolimnas bolina*, to illustrate the invasion dynamics of these elements, and their consequences on host reproductive biology. This study highlights the relevance of South-Pacific islands as natural laboratories to investigate evolutionary and ecological processes.

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