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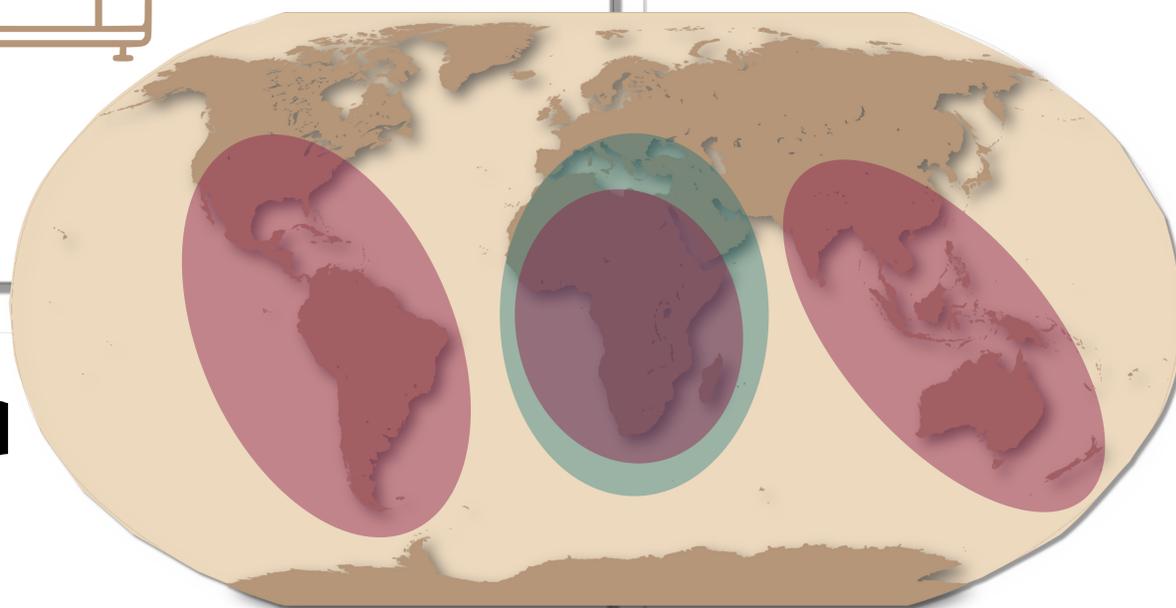
EXPRESSION MAP OF OLFACTORY AND GUSTATORY RECEPTORS IN THE MOTHS *SPODOPTERA LITTORALIS* AND *S. FRUGIPERDA*

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Spodoptera littoralis and *Spodoptera frugiperda* are major crop pests that pose a threat to ecosystems and the global economy. Their invasive success could be intimately linked to their polyphagous nature. It has been found that olfactory and gustatory receptors play an important role in host detection and mate finding. Recent genomic studies identified a massive expansion of GRs in both species and other polyphagous species. Thus, ORs/GRs represent a potential for the development of new ways of biocontrol. Here, we conducted a broad transcriptomic study to generate a map of expression for both chemosensory gene families in the following tissues of both species at two different life stages: palps, antennae, gut, and legs from larvae and palps, antennae, legs, proboscis from adults. By combining the results of the phylogenetic analysis of both gene families and the differential expression results between the tissues, we will be able to identify the most promising candidates for functional analysis.



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