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### **TRADITIONAL SLASH AND BURN MILPA AGRICULTURE IN MESOAMERICA AND IT EFFECT ON POLLINATORS AND THEIR POLLINATION SERVICES**

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#### **ABSTRACT**

The Yucatán Peninsula of Mexico has a >4000 year history of traditional slash-and-burn agriculture, termed 'milpa' that may adversely affect ecosystem services such as pollination, which are required for successful crop yields. Yet, this traditional tropical agriculture milpa is also practiced in other areas of Central America as in Guatemala. In the present study I review different studies and analyse the effect that this traditional practice has on pollinators in the region and how the pollination service is affected. In México I analyse pollinator visiting Habanero chilli (*Capsicum chinense*). In Guatemala pollinator visiting pumpkins (*Cucurbita pepo*) crops and turnip (*Brasica rapa*). I observed that low-intensity traditional slash-and-burn (milpa) agriculture provides small generalist species as *Lasioglossum* spp., *Partamona bilineata* and other stingless bees for successful fruit production of habanero chilli, pumpkins and Turnip; fallow land, Mayan gardens and pasture derived from milpa practices therefore need to be valued as important habitats for these and related ground-nesting bee species. Additionally, floral resource availability provided by heterogeneous areas within these traditional practices are positive related with the abundance and richness of these pollinator and indirectly related to the production of fruits. Suggesting that the existence of traditional practices can benefit the richness of bees and the provision of pollination services in the Mesoamerican region.