

Ecological Seminar



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Threats for Pollination Systems ensuring Sustainable Food Production in Cameroon (Central Africa)

It is progressively recognized that a sustainable future must build on an agriculture recognizing the importance of ecosystem services. Pollination is one of many ecosystem services important for food production.

Agriculture, including meat production, is the backbone of Cameroon's economy, employing 70% of its workforce while providing 42% of GDP and 30% of its export. Cameroon has been a powerhouse of pollination research in Central Africa for decades. However, pollinators and their role in ensuring crop yields is not yet sufficiently incorporated into agricultural practice, largely because of ignorance of stakeholders and decision makers, but also as a result of an increasingly industrialized agriculture.

Cameroon is a highly diverse country with five agroecological zones and respective diversity of pollinators and pollination systems. As in many other African countries, conservation and sustainable use of pollinator systems is a major challenge, also since nowadays the agroecosystems are drastically changing due to the high pressure to produce food to meet the increasing demand. As in many parts of nowadays world, honey bees being both important as pollinators and for rural economy are under particular threat.

Therefore, priority areas for research on pollination services and their conservation and sustainable use include: i) quantification and documentation of pollination deficits and finding measures to address them; ii) socio-economic valuation of pollinator-friendly practices; iii) assessment of lethal and sublethal effects of farming methods, such as pesticide use, habitat destruction; iv) identification of habitat management practices that enhance synergies between pollinator lifecycles and crop growing patterns; and v) policy analysis in relation to drivers and trends in pollination services and management. These research areas are more or less valid for all Sub-Sahara Africa.

In Cameroon, as in other African countries, extensive work remains to be done to bring our understanding of pollination in line with that in the developed countries. Yet an improved understanding of pollination can make a substantial contribution to one of the key sectors of African economies, agriculture, thus yielding multiple benefits.



M. Diekmann, M. Nielsen, M. Reich, M. Rohlfs