


IBA
International
Blackcurrant
Association

Angers, 7 June 2018

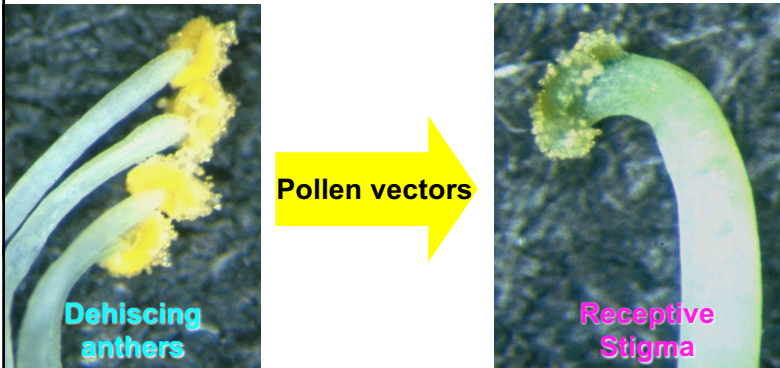
**Pollination ecology
of black currant**
Ribes nigrum

VAISSIÈRE, Bernard E.
INRA
UR406 Abeilles & Environnement
Avignon, FRANCE



INRA
SCIENCE & IMPACT

Pollination :
The transfer of pollen from the producing anthers
to the receptive stigma...

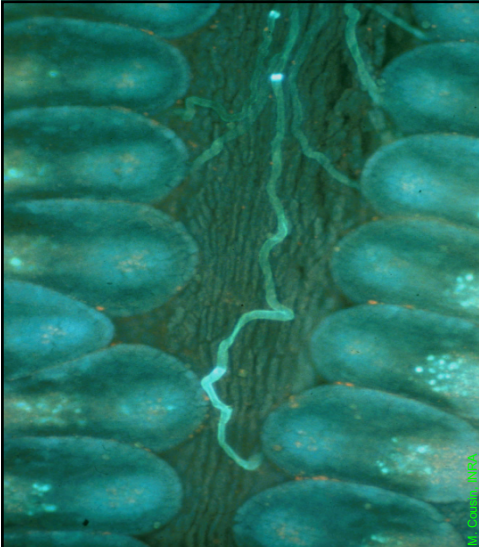


Dehiscing anthers

Pollen vectors

Receptive Stigma

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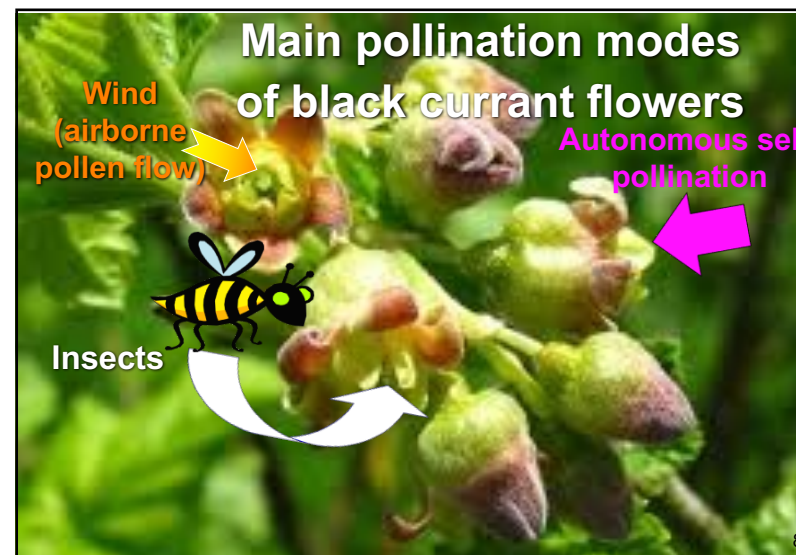
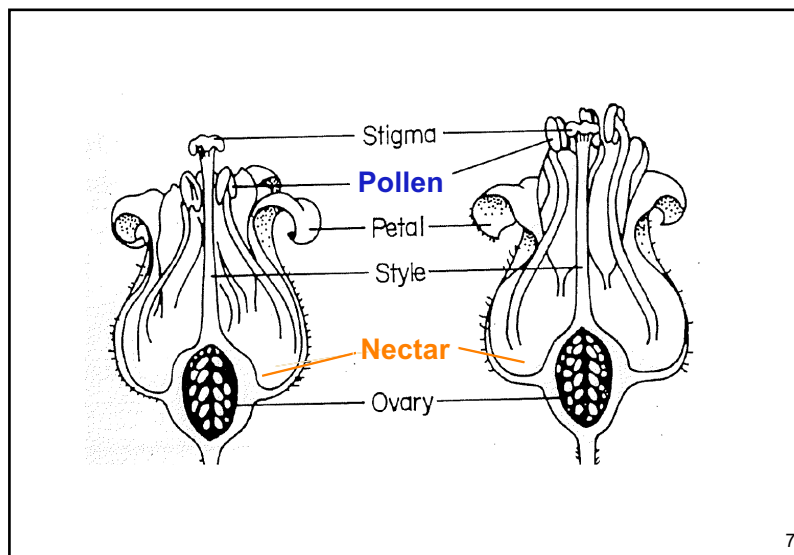
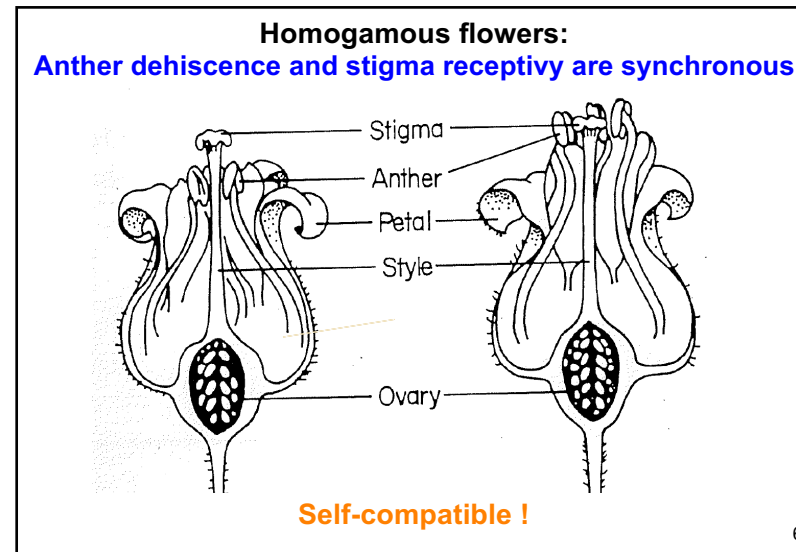
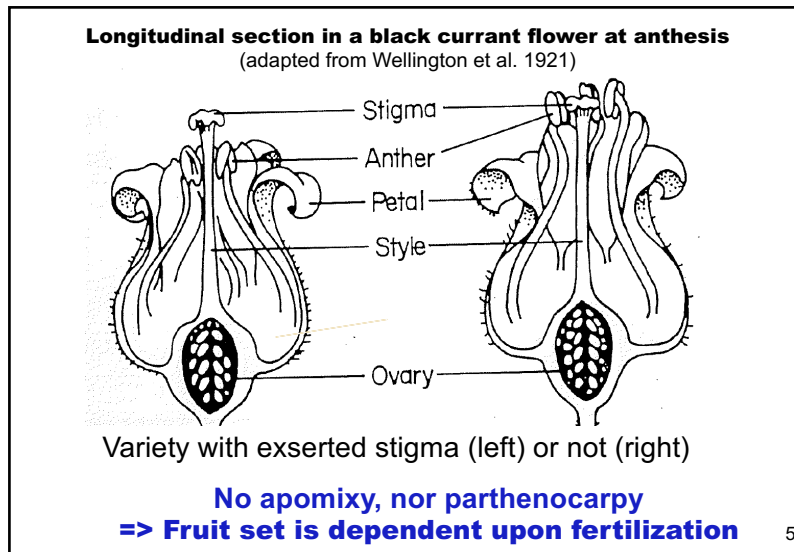


and the
issuing of
pollen tubes
to bring
male gametes
to the
ovules

3

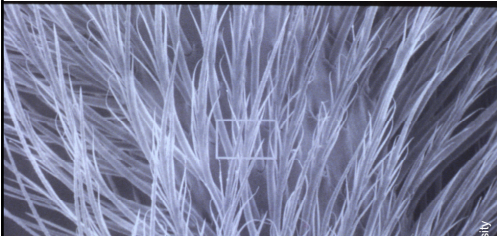
**Pollination is a
prior step to
fertilization
...
and therefore to
the sexual
reproduction of
flowering plants**

4





1. Morphology



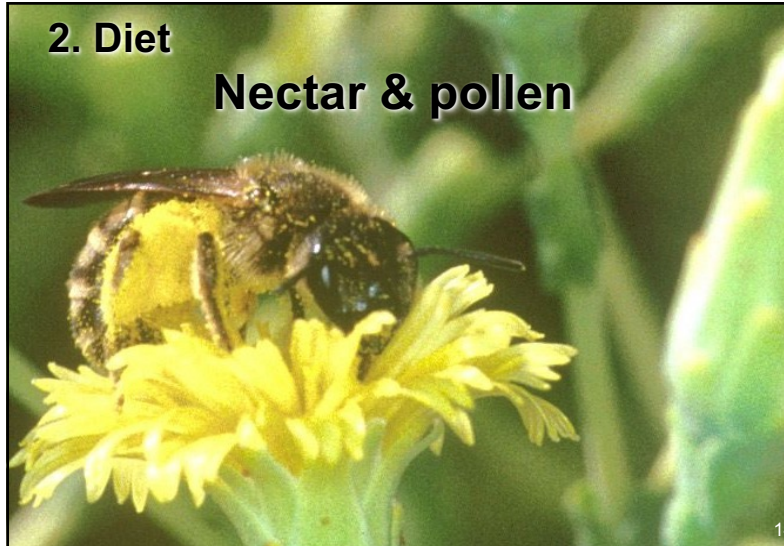
Bee (Anthophila) ≈ branched hairs

Agapostemon angelicus
(Halictidae)

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2. Diet

Nectar & pollen



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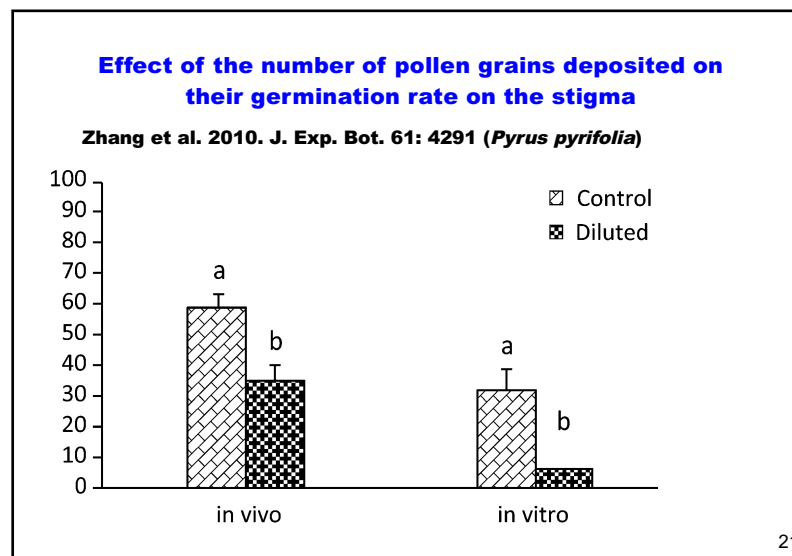
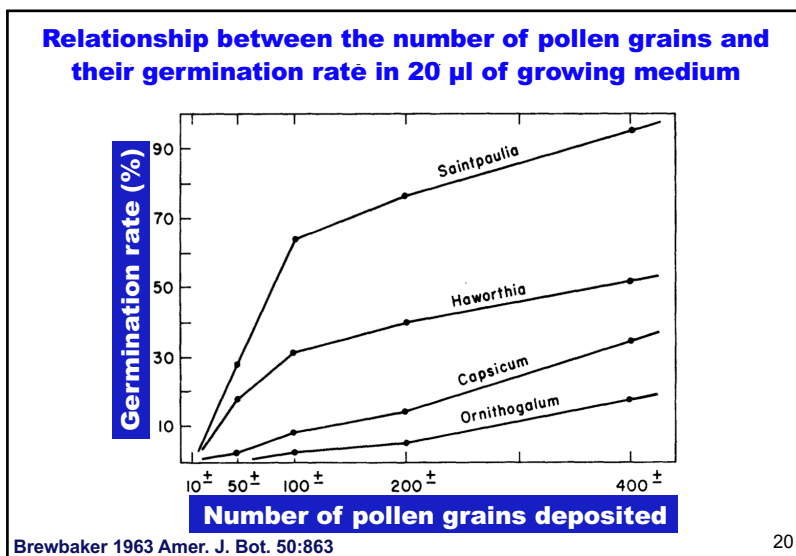
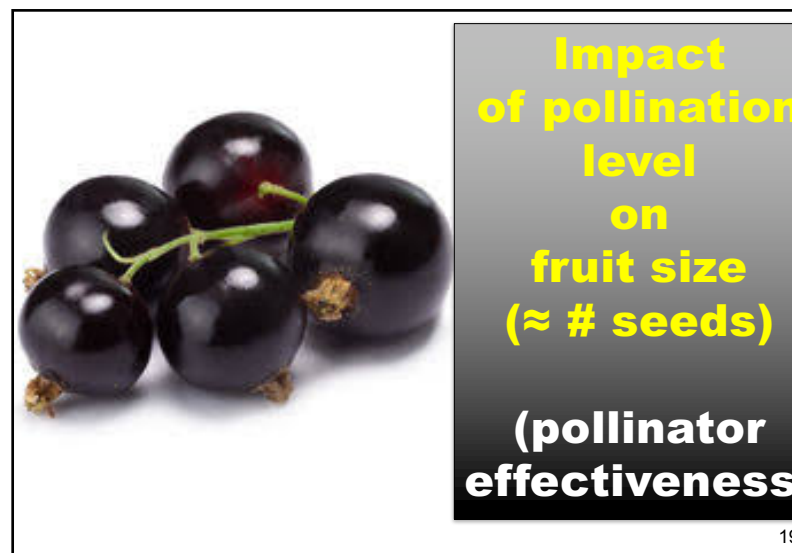
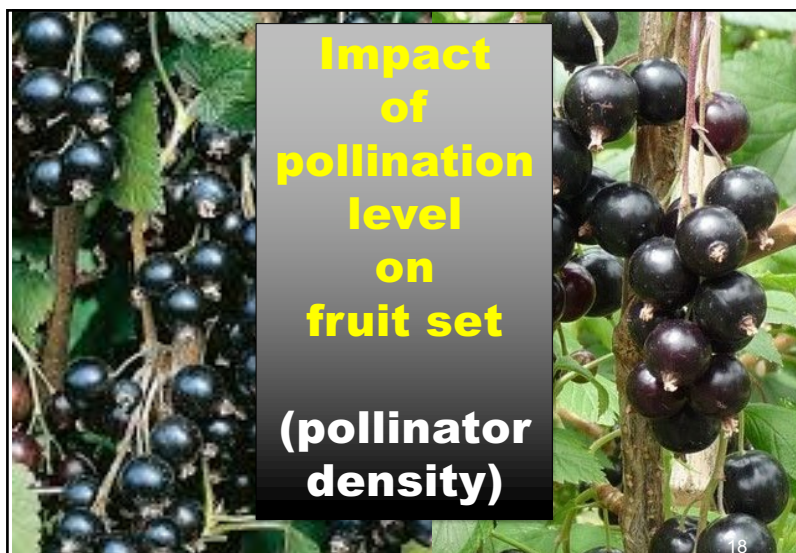


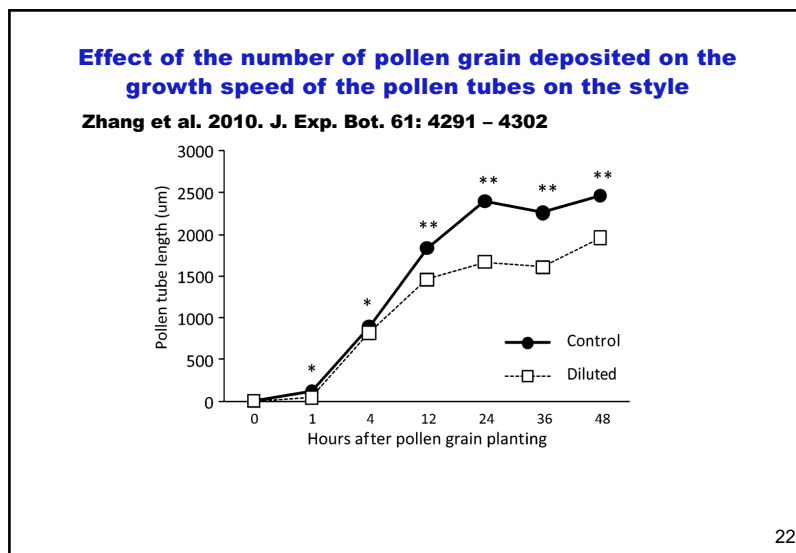
3. Constancy to a plant species during a foraging trip

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4. Transported pollen remains viable for several hours (days)

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Which bees to pollinate black currant flowers?

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Other wild bees ?

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Scienceexpress Report

EMBARGOED UNTIL 2:00 PM US ET THURSDAY, 28 FEBRUARY 2013

Wild Pollinators Enhance Fruit Set of Crops Regardless of Honey Bee Abundance

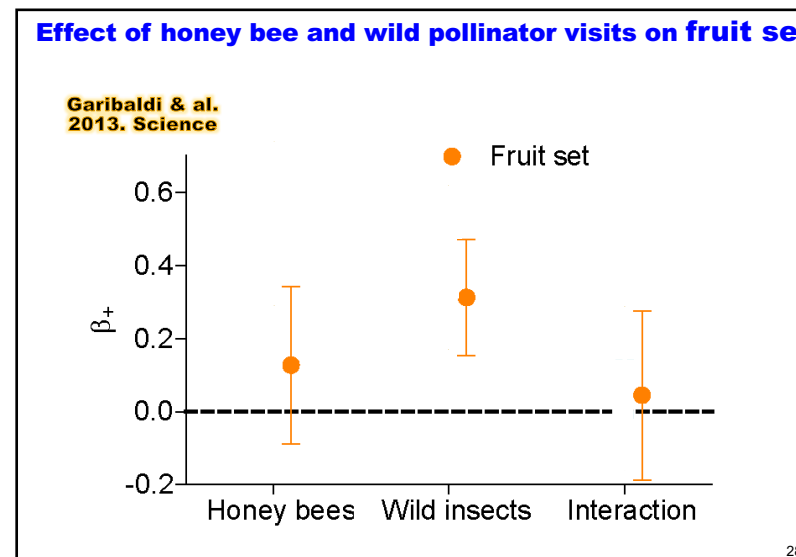
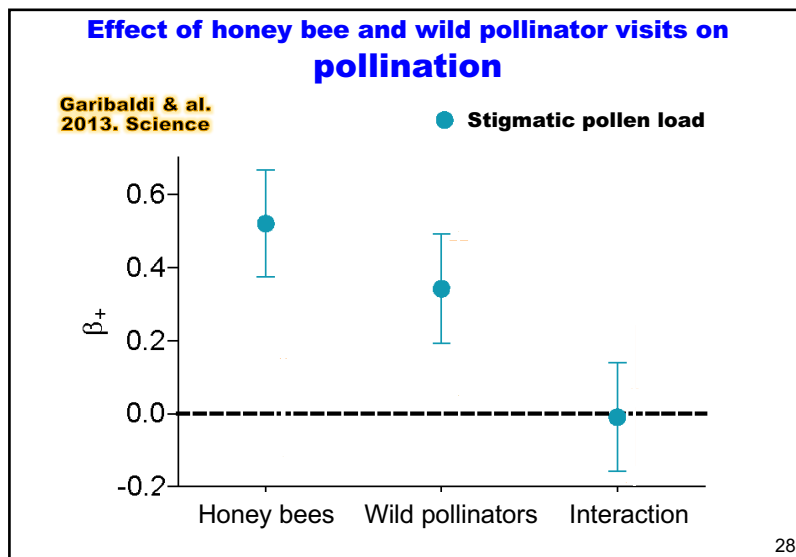
Lucas Garibaldi,^{1*} Ingolf Steffan-Dewenter,² Rachael M. Freese,³ Marcelo A. Alzen,⁴ ...

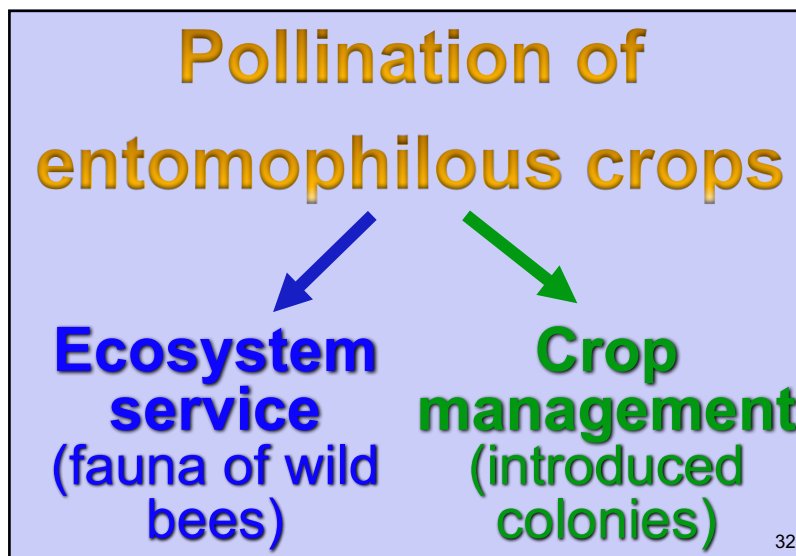
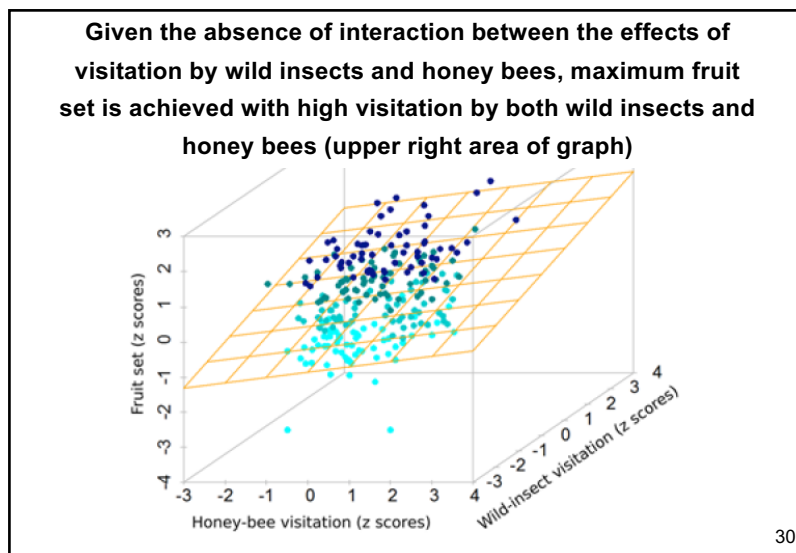
Importance of wild pollinators

Diversity and abundance of wild-insect pollinators in agricultural landscapes. Whether such diversity is mitigated by managed pollinators such as honey bees is unclear. We tested for positive associations of fruit set with wild-insect visits to flowers in 41 crop systems worldwide, and thus clearly demonstrate their agricultural value. In contrast, fruit set increased significantly with visitation by honey bees in only 14% of the systems surveyed. Overall, wild insects pollinate more effectively, because they increase in their visitation to flowers in response to an increase in the abundance of honey bees. In the wild, honey bees do not compete with wild pollinators for fruit set in the same way as they do in managed systems. We suggest that rather than integrated management of both honey bees and diverse wild-insect assemblages will enhance global crop yields.

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A la découverte des fleurs butinées par les abeilles...

Bombus terrestris

David GENOUD

ACCUEIL FLORABELLES ABEILLES ET FLEURS OBSERVATIONS CONTRIBUER

Biodiversité Pollinisation Plantes Agriculture

Rechercher Abeilles

INRA

MINISTÈRE DE L'ÉCOLOGIE, DU DÉVELOPPEMENT DURABLE ET DE L'ÉNERGIE

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