



DemEcol22

Democratic participation and Ecology: Project to develop European consciousness and democratic behaviour in a sustainable environment



Erasmus+





Beeodiversity

The role of bees







BIODIVERSITY





What is biodiversity?



Biological variety – from humans to organisms we know little about...



Why is it important? - basic needs, crucial services



Biodiversity is not distributed evenly on Earth



Bees and pollinators





Different types of pollinators

- Wind
- Water
- Other animals



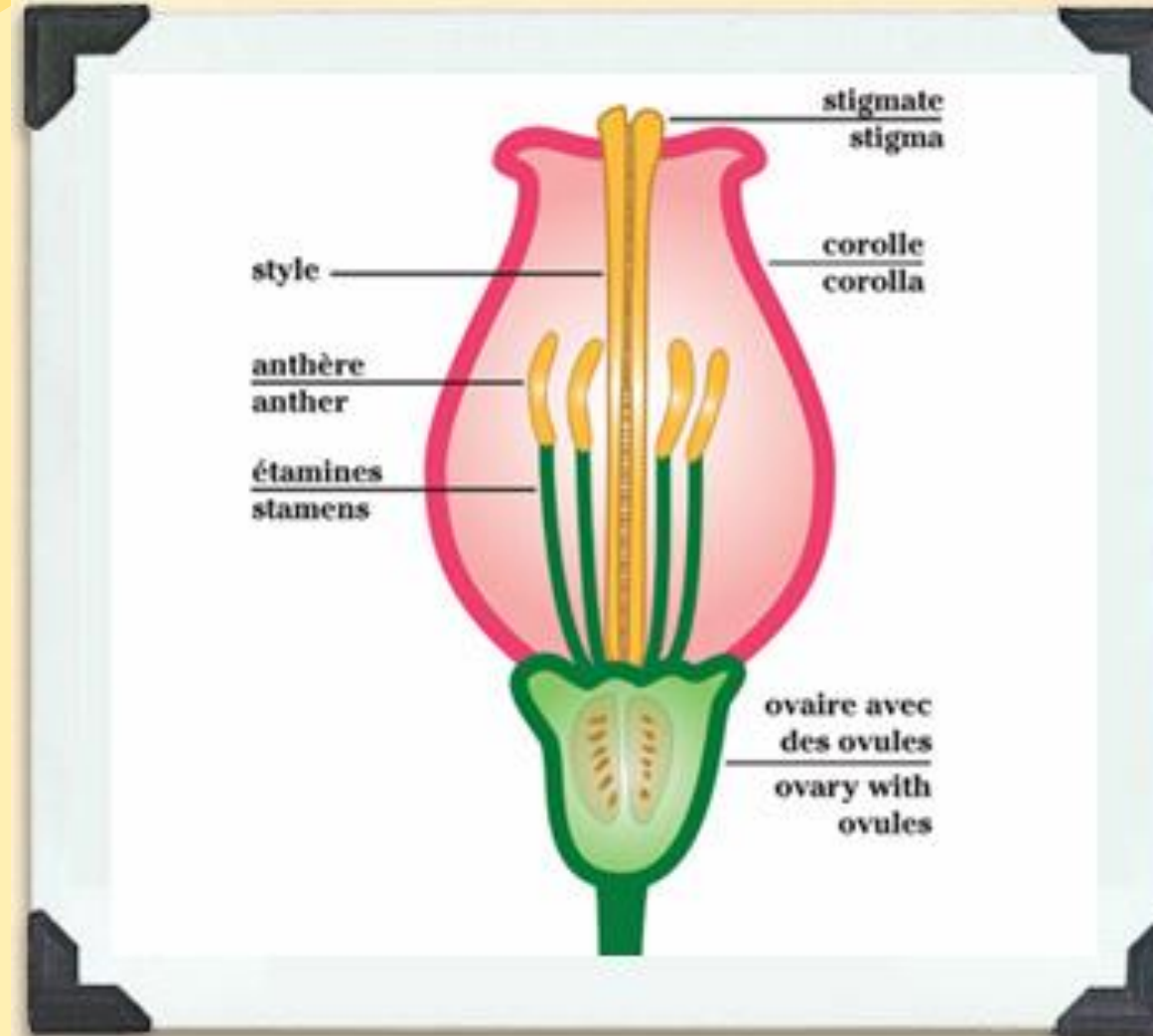
How bees pollinate plants?

- From one flower to another



How do plants attract bees?

- With vivid scents and colors





WHO ARE POLLINATORS?



Insects

AND



Birds



Rodents



Reptiles



Squirrels



Monkeys



...and even
people pollinate

In Europe, pollinators are:



Butterflies



Beetles



Bees



Hoverflies



Moths



Wasps



Bees, the greatest pollinators

2,000 wild species in Europe

Europe hosts **10%**
of the world's bees species



Apis mellifera (or western honeybee):

- The best-known bee species
- Managed by beekeepers for honey production and other beehive products

Pollination is the transfer of pollen (male gametes) between the male and female parts of flowers to enable plants to reproduce.

Other means of pollination:



Self-pollination



Wind-pollination

Sources:
European Commission
European Red List
United Nations



europarl.eu



What would happen if
bees went extinct?



ON THE VERGE OF EXTINCTION

IN EUROPE



About a third

of bee and butterfly
populations are declining



About 20%

of threatened bee species
are endemic*

10%

of bee and butterfly
species are
endangered**

* species being unique to a defined geographic location

** estimates

WHY ARE POLLINATORS DECLINING?



Land use change
and loss of habitats



Environmental pollution



Climate change



Intensive agricultural management
and pesticides use



Invasive alien species
and diseases

Sources:
European Commission
European Red List
United Nations



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WHAT WOULD HAPPEN?

1/2

the amount of
fruits and
vegetables won't be
able to grow

"A world without
bees could struggle
to sustain the global
human population
of 7 billion" -BBC

World
Famine &
Malnutrition

PRICES WOULD GO UP

ECONOMY WOULD GO DOWN

THE MAJOR EFFECTS ON OUR LIVES

CLOTHING

Without cotton, we'd be dependant on synthetic fabrics which along with the economy drop will become very expensive



ALIMENTATION

With both many plants and dairy foods disappearing, our diets will change a lot.

HEALTH +

Many drugs are plant based such as most painkillers which are based off of opium poppies

Plants that will go extinct



Coffee beans



Sunflowers



Strawberries



Cocoa beans



Apples



Avocados



Almonds



Pumpkins



Lemons



Peaches



Blueberries



Mangoes



WITH BEES



WITHOUT BEES



E u f o r
t h e b e e s



- 
- **EU Pollinators Initiative**
 - **Neonicotinoids are being banned for the harm they cause to bees.**
 - **Study on the loss of honeybee colonies - 3.3 million euros**
 - **Fipronil measures**

What can WE
do for bees to
bee?





WHAT CAN YOU DO TO HELP?

while we can make a difference, spread the word on what's happening to bees and what will happen if they go extinct.

- Stop the use of pesticides and other chemicals
- Grow flowers and food in your garden
- Support local beekeepers

Saving bees
means saving us.





Counterfeiting of honey

With or without bees



Thank you for your attention

May the force bee with you!



Sources



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