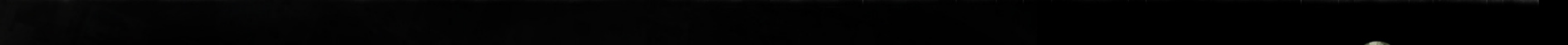



TREE	Small Leaved Lime <i>Tilia Cordata</i>	Silver Birch <i>Betula Pendula</i>	Horse Chestnut <i>Aesculus Hippocastanum</i>	Silver Birch <i>Betula Pendula</i>	Colorado Spruce <i>Picea Pungens</i>	Siberian Peashrub <i>Caragana Arborescens</i>	False Acacia <i>Robinia Pseudoacacia</i>	Norway Maple <i>Acer Platanodes</i>	Japanese Cherry <i>Cerasus Serrata</i>	Wild Crab <i>Malus Sylvestris</i>
BUSCH			Deutzia Rough <i>Deutzia Scabra Thunb</i>	Common Snowberry <i>Symphoricarpos</i>	Asian Black Pine <i>Pinus Nigra</i>	Rockspray Cotoneaster <i>Cotoneaster Horizontalis</i>	True Lavender <i>Lavandula Angustifolia</i>	Spring Crocus <i>Crocus Vernus</i>	Butterfly Bush <i>Buddleia Daxill</i>	Heather <i>Calluna Vulgaris</i>
PERENNIALS										



-  Pergola
-  Fruit Tree
-  Deciduous Shrub
-  Fountain
-  Conifers Tree
-  1. Beehives
-  Flower Meadow
-  Conifers Shrub
-  2. House for useful ins
-  Honey Meadow
-  Main Footpath
-  3. Education Square
-  Deciduous Tree
-  Secondary Footpath

SQUARE OF ARTISTS



Country/City: Poland
 University/School: Kielce University of Technology
 Academic year: 2017/2018
 Title of the project: Resilient Landscape(Wildness in Urban Landscape)
 Authors: Klaudia Nabel, Jakub Stolarek, Hubert Bujak





PERFORMATIVE NATURE

Barcelona International Landscape Architecture Biennial

September 2018 **Barcelona**

SCHOOL PRIZE

X International Landscape Architecture Biennial

Máster d'Arquitectura del Paisatge -DUOT - UPC
ETSAB- Escola Tècnica Superior
d'Arquitectura de Barcelona
Avenida Diagonal, 649 piso 5
08028 Barcelona-Spain

TECHNICAL DOSSIER

Title of the project Resilient Landscape (Wildness in Urban Landscape)
Authors Klaudia Nabel, Jakub Stolarek, Hubert Bujak
Title of the course Architecture
Academic year 2017/2018
Teaching Staff Magdalena Wojnowska - Heciak
Department/Section/Program of belonging

.....
University/School Kielce University of Technology

Written statement, short description of the project in English, no more than 250 words

The aim of the project is to introduce beneficial insects, especially bees, into the city space. Bees appeared on the ground 100 million years ago and have survived to this day which indicates their ability to adapt and develop.

One important reason why we should protect insects is the economic aspect. It is estimated that 1/3 of the total food in the world depends on the work of pollinating insects. Their work is valued at hundreds of millions of dollars a year. Over the years, the problem of extinction of beneficial insects is increasing.

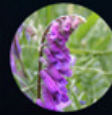
The main insect protection point has been developed throughout the city. It is located in the city center in order to integrate man with wild nature. We also indicated 2 potential points where it is possible to continue our idea. The project includes the creation of flower, honey meadows and fruit orchards in the area of the existing park in Kielce. The assumption of the project is to preserve the existing greenery and planting tall trees, shrubs and perennials. Crowding of trees protects lower melliferous plants from leaching nectars and pollen through the rain. Other design assumptions include the introduction of bee hives and homes for beneficial insects to the downtown park.

The project proposes a solution to the problem of the lack of insects useful in the city space and shows how important they are needed for the survival of the human species.

For further information
Máster d'Arquitectura del Paisatge -DUOT - UPC

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Contact via email at: biennial.paisatge@upc.edu
Consult the web page <http://landscape.coac.net/>

FLOWER MEADOW



Bird Vetch
Vicia Cracca



Bristly Hawkbit
Leontodon Hispidus



Large Yellow Vetch
Vicia Grandiflora



Wig Knapweed
Centaurea Phrygia



Multiflowered Buttercup
Ranunculus Polyanthemus



Queen Lace
Daucus carota



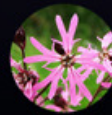
Great burnet
Sanguisorba Officinalis



Common Hedgenettle
Stachys Officinalis



Pyrethrum Ordinary
Leucanthemum Vulgare



Ragged Robin
Lychnis Flos Cuculi



Brown Knapweed
Centaurea Jacea



Tall Buttercup
Ranunculus Acris Flower



Yarrow
Achillea Millefolium



Bird's Foot Trefoil
Lotus Pedunculatus



Field Scabious
Knautia Arvensis

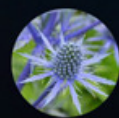


Goats Beard
Tragopogon Pratensis

AN EXAMPLE OF HOUSES FOR BENEFICIAL INSECTS



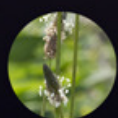
HONEY MEADOW



Blue Eryngo
Eryngium Planum



Sainfoin
Onobrychis Vicifolia



Narrow Leaf Plantain
Plantago Lanceolata



Sweet William
Dianthus Barbatus Flowers



Dutch Clover
Trifolium repens



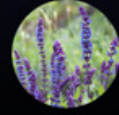
Viper's Bugloss
Echium Vulgare



Purple Loosestrife
Lythrum Salicaria



Greater Knapweed
Centaurea scabiosa



Woodland Sage
Salvia Nemorosa



Crown Vetch
Securigera Varia



Perennial Flax
Linum perenne



Red Clover
Trifolium pratense



Glandar Globe Thistle
Echinops sphaerocephalus



Meadow Clary
Salvia Pratensis



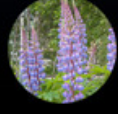
High Mallow
Malva Sylvestris



Yellow Sweet Clover
Mellilotus Officinalis



Oregano
Origanum Vulgare



Large Leaved Lupine
Lupinus Polyphyllus



LOCALIZATION

WORLD



EUROPE



POLAND



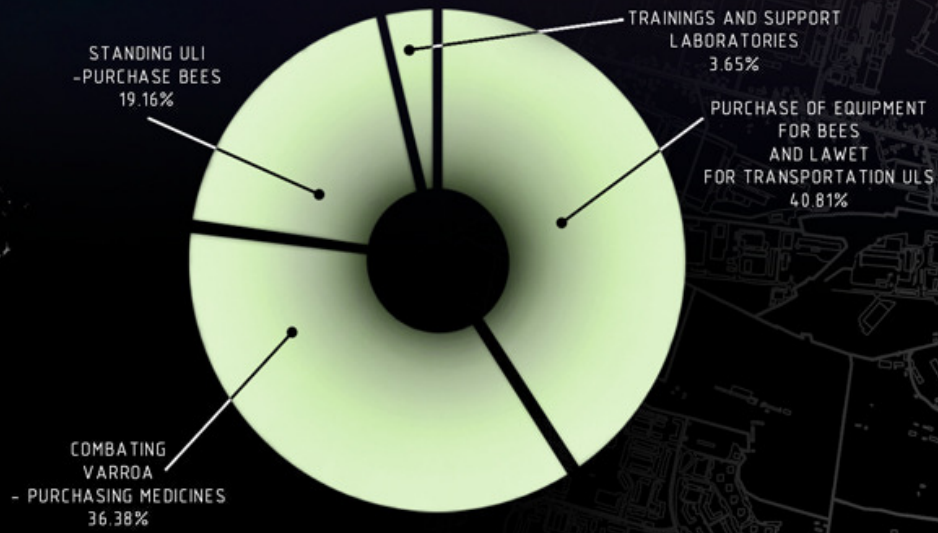
SWIETOKRZYSKIE PROVINCE



CITY KIELCE



EXPENDITURE FROM THE NATIONAL BEARING PROGRAM FOR BEES FROM 2013 TO 2017
SOURCE: DEVELOPING A NICE ON THE BASIS OF DATA FROM THE AGRICULTURAL MARKET AGENCY



- GROUNDS FOR THE KIELCE VALLEY
- THE SQUARE OF ARTISTS
- BOTANIC GARDEN

60,000+

The number of honey bees in an average hive

80,000

How many kilometers a hive of honey bees travels for one pound of honey

12,000

The beats per minute of each honey bee's four wings

225,000

The approximate number of flowers visited by a hive each day.

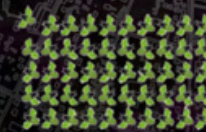
1/12 The number of teaspoons of honey every honey bee will collect in her lifetime



Estimated **1/3** of food is pollination dependent



Contribute **£ 400** million to the economy



Contains **50,000** bees



Pollinates **4,000 m²** fruit trees

10



Can travel over **5 miles**



Can carry a **1/4** of body weight in pollen



Can fly over **15 mph**



Make avg **14kg** of honey

