

Farfalle in

TorinoUrbana **Diversity** for **Bio**diversity



MY NOTEBOOK

"Farfalle in ToUr - Diversity for Biodiversity" (Urban Turin) is an innovative project of social inclusion and scientific observation born from the collaboration between the Department of Mental Health of the Asl of City of Turin, the Department of Life Science and Systems Biology of the University of Turin and the social cooperatives il Margine and La Rondine, with the contribution of proGlreg.

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Idea and design:

Anna Laura VENTRESCA

Layout and graphics:

Anna LA MARCA

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Farfalle in ToUr is a project that enhances the life of butterflies in the city, because their existence is affected by human life, excessive built space and overbuilding.

Green areas treated with chemicals do not make the plants they feed on grow and thus put a strain on their life cycle and lead to their drastic decrease in numbers.



So why not take care of the gardens, so that the butterflies come back to us?

Let's sow in our green spaces, flower beds, and terrace balcony pots the plants that are suitable for butterflies and create a path for them to travel every year from April to November.

In this booklet we will say a lot about biodiversity and what butterflies look like and how they live.

In fact, we want to involve you and your teachers in creating a garden that can become their home.

But first we want to explain to you why there is also the word Diversity in the title, just notice it.

It tells us about special people, who together with us and with you, participate, for a very important reason, in this project.

Let's find out about these people then, with the story of two friends, Valentina and Riccardo.



It is an opening project that proposes knowledge, of what is called mismanagement of suffering, better known as mental illness. Starting from a real urgency, such as the extinction and loneliness of butterflies, we have created the opportunity, to do all together something beautiful, exciting, and instructive, that brings all of us together in an exciting challenge, where the thing that matters, is not only to be able to bring back the butterflies, as much as to understand that all of us, are souls on a journey experimenting and learning to meet and know each other, letting time manage to do what our minds do not imagine is possible to do. That is, to take note that beyond everything, we are first and foremost people with the same rights and duties.

Yes, you got it right.

Valentina and Riccardo happened to feel different, to feel excluded from others, because of a disease that, instead of affecting the body, affects the mind. Their loneliness, their isolation, their pain was like that of butterflies. Being together with others to bring butterflies back was like being together with others to bring them too back to life among us.

Diversity and mental illness are important words, and perhaps a little scary if you don't know them. Let us discover together, then, a little more.

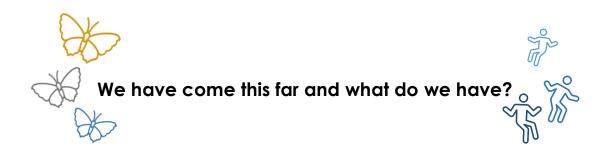
To grow up, a child needs to talk, play, fight, eat, sleep, study, read, with all the people around him. It is the bonds with the environment where one is born and grows up, such as the home of grandparents, little cousins, friends, the park, the swimming pool, the gym, the cinema, the theater, the school that help one to grow up.

In the journey of growing up, one meets many different people. There are women and men; young people, and children; blondes and brunettes, tall and short, thin and fat. There are people of different nationalities: Chinese and Africans; French and Russians, and then Americans, Arabs, Italians, and many more. You also meet sick people: those who cannot walk, those who cannot see, those who cannot hear, those who have kidney problems, heart problems, those who have high blood pressure, those who have difficulty understanding.

You got it: we want to talk to you in a special way about a diversity that is not seen: mental illness,

There are some people who have difficulty controlling their emotions. Emotions such as anger, happiness, sadness, fear, disgust, surprise. These are men and women who have trouble learning, listening, being with other people, so they suffer and cannot live normally. They are people whose behavior is bizarre, sometimes funny.

For example, they do not make eye contact, they prefer to be alone, they often wash their hands because they do not like to get dirty or do not want to be touched, sometimes, if interrupted in their repetition of things, they get angry, they tend to guess what a person means and give the wrong meaning to a gesture, a movement. They are often unable to recognize other people's feelings and resent criticism. For these reasons they do not leave home, are ashamed, have no friends, and are lonely and considered different.



On the one hand, the butterflies, who need a way back to live in the city; on the other hand, people who are considered different, of a particular diversity, mental illness, who need a way--they too! - to return to live with others, in that same city.

Don't you think the goal -make a road- is the same?

Well, Farfalle in ToUr brings together healthy and different (sick?) people so that together they can build a path for butterflies to live in the city. But, we have come to realize by now, their coming together also serves to fabricate the way for people who are considered and who consider themselves different to overcome fears and shame. With one important thing to remember. In tracing the path of butterflies, obstacles are clearly visible. They are fences, walls, entire buildings: what prevents flight.

But what, on the other hand, prevents the flight of our "different" friends?

In this case, nothing that can be seen.

Can one see those things that out of embarrassment we cannot tell our friends: our fears, or sadnesses, or sorrows?

No, yet even these become a wall, which isolates us and its bricks are even harder than those from which houses are made. This the effect that the sense of shame that causes the certainty of being - see? Back to the word from before! - "different."

And so getting to know each other, understanding each other and communicating are like bulldozers, our bulldozers, strong machines that open the path of the road that humans always need: the one that brings them close to one another, and makes them feel alive.

Well.

Now that we have introduced our companions, we want to have a chance to design and build a garden that can welcome butterflies back to the city during their flight from one place to another.

We would like to build a kind of toolbox, like the one that contains the screwdriver, hammer and nails.

But our toolbox will have to contain all the information we need to design this garden.

So let's go back to talking about something that seems difficult, but is not: biodiversity.

Biodiversity is the collection of animals, plants, and all organisms that live on our planet. All these living things create an important balance for life on Earth, including human life.

An ecosystem consists of a collection of living organisms and nonliving substances that inhabit a place, living together in harmony. For example, a lake or savanna.

WHY PROTECT BIODIVERSITY?

Human activities have endangered the balance of biodiversity by intensive use of all resources, such as mining, agriculture, and air pollution, causing the extinction of many animal and plant species.

Shall we give an example?

human life!

Climate change is endangering many animals, including bees and butterflies. Without these precious insects, not only would we cease to have honey, but the pollination process would also be damaged, with the disappearance of entire species of plants and the decrease of a good portion of varieties of fruits and vegetables: useful foods not only for us humans, but also for farm animals, which would have less forage available. The disappearance of a small insect species can jeopardize

According to the recent global report by IPBES (Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services), to date ecosystems have lost about 75 percent of the planet's original biodiversity.

You certainly begin to understand how important Biodiversity is for both humans and the life of the Planet and how it should be protected because it is the different forms of life. in balance with each other, that form the environment in which we live, including that of our city.

We gave the example earlier of the danger faced by bees.

Often on television there are news reports sounding the alarm about the extinction of certain animals such as tigers, elephants, or whales, but when we talk about the loss of biodiversity we have to consider the risk of disappearance of an animal species as the first consequence of a much larger problem, involving the entire ecosystem in which they live. And problems of this kind are already real, just think of the real threats faced by, for example, coral reefs in tropical seas or peatlands in Europe: threats that endanger all the life forms that dwell there.

So let's try to think together about what the components of ecosystems serve and what they offer humans:

- they provide food, fuel, building materials
- they purify air and water
- they decompose waste
- they stabilize and regulate the earth's climate
- they contribute to the pollination of plants, including
- those grown for food
- they control epidemics and diseases (how important does this seem to us important this is now!!)

Now that we've got some ideas, let's get back to our butterflies, or rather a butterfly born in Turin!

Let's get to know it closely, find out how it is born, grows and transforms. It is very important to know her, because our "lepidoptera" (what a funny name!) is a friend of biodiversity and works every day to defend it. She is in fact, like bees, a pollinator.

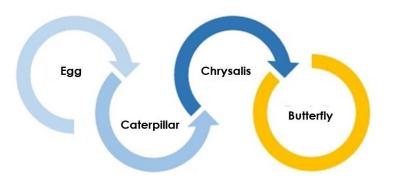
Let's find out all about it in the last pages of this booklet.

Story of a Turin butterfly

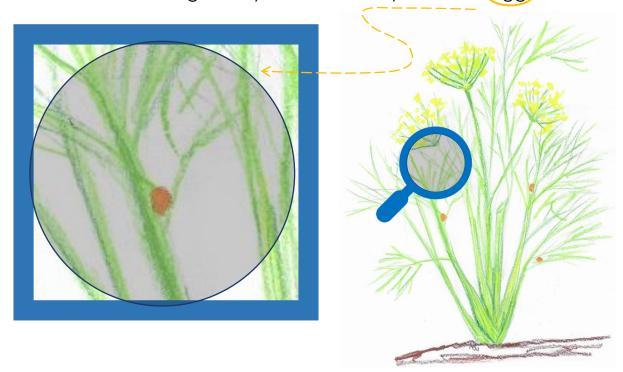
This is the story of the first butterfly born in Turin as part of the project. We tell you what we saw.

What a thrill!

I was born in Turin, in the San Paolo area, on Via Luserna di Rorà, where a group of special people prepared a small garden for me. Before becoming a butterfly, I went through three moments of transformation.



The orange dot you see on the plant is an egg,



In this stage of life I am not so beautiful.

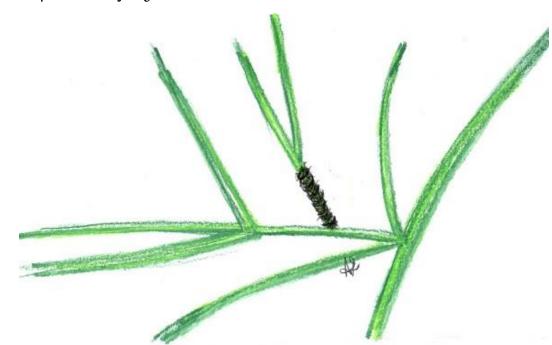
1 am hairy and black and 1 eat a lot. 1 am a caterpillar.

To survive I eat the egg shell and the leaves of the plant from which I was born.

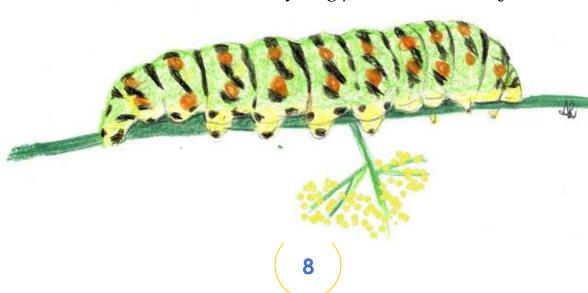
In the next stage I turn into a chrysalis.

When I reach a healthy weight, I no longer eat.

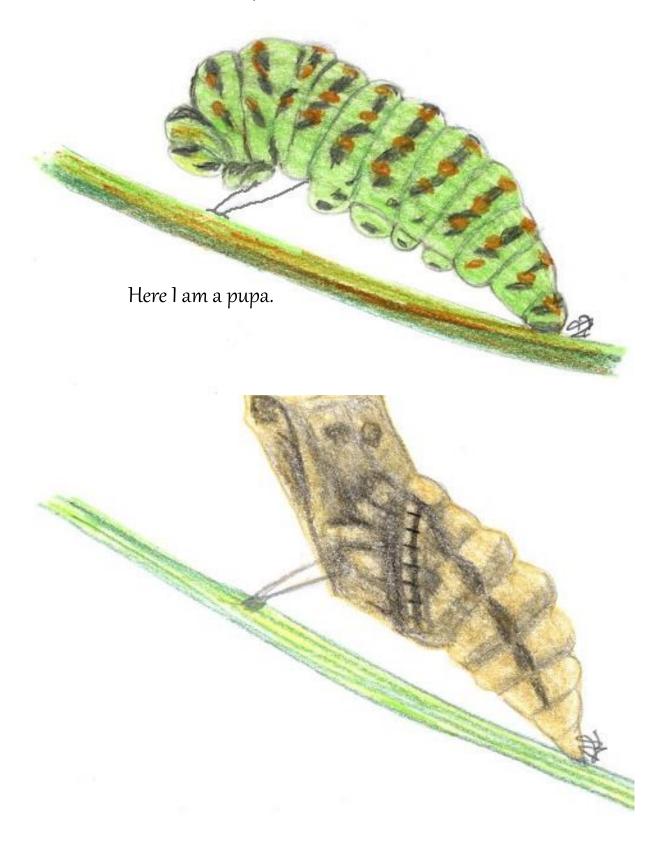
I look for a safe place, attach myself to a silk thread and protect myself in the cocoon.



What do I eat? Leaves, young plant tissues and inflorescences.



Here I am a chrysalis.



When the temperature is good, my lining breaks down and 1 am finally an adult butterfly!



Warning! At this stage I cannot fly yet.

I have to wait until my wings are dry.

1 am born!



My name is _____!

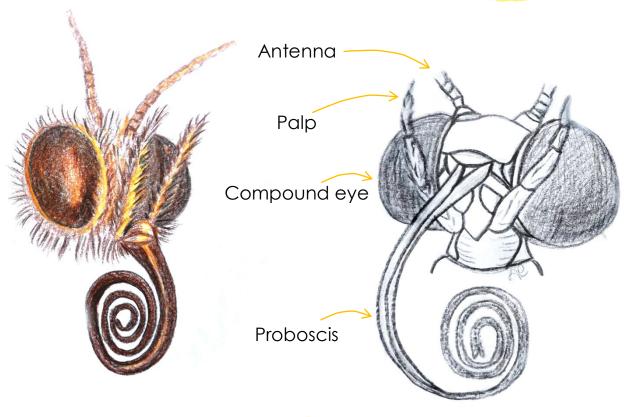
Anatomy of a butterfly

The first butterfly born in Turin as part of this project was a **Papilio Machaon!**

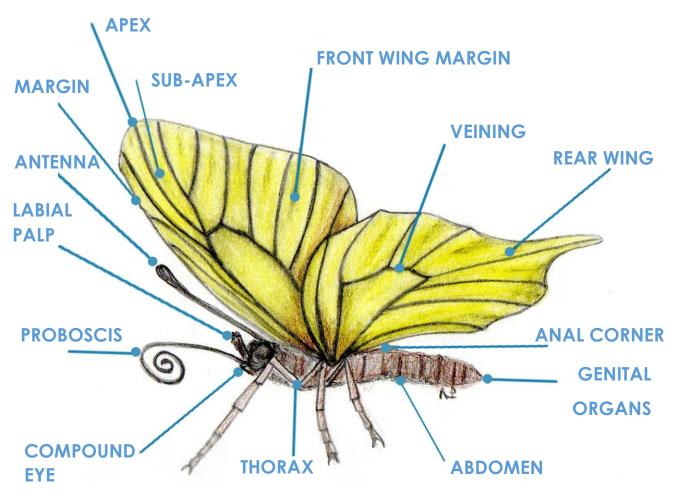
You've just read her story, but now we'll show you what she looks like.

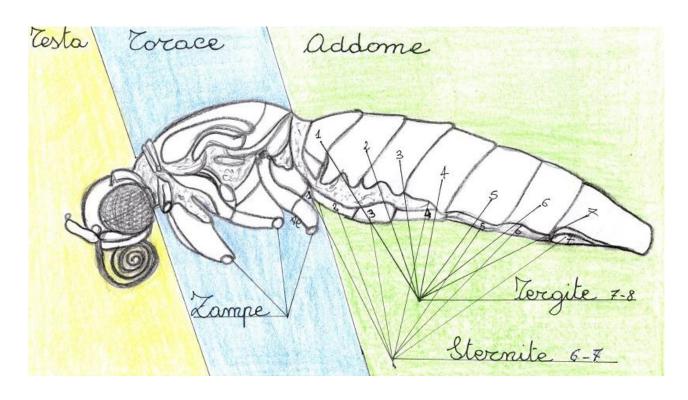


... This, however, is its **head**.



Let's look at it in more detail...





... And in all its **beauty**.



Fine.

The time has come to say goodbye, but not before we have thought about where, here in Turin, we could work together - we, you and our friends who, like butterflies, need to find places in the open spaces of our city where they can feel good together with others - to design our garden.

We thought of the Mirafiori district.

Why?

Because many factories have sprung up in this area of the city over time, and very large ones at that. Productions that involved the transformation of many materials such as iron, plastic and other chemicals, little of which protected the greenery, water, air and soil. All elements that - we now know - serve to maintain biodiversity in the ecosystem.

Is it now possible to try to transform an industrial area into a place where the quality of the environment is better thanks to gardens, vegetable gardens and other production activities that respect the environment and nature?

We believe so and leading scholars also suggest how to do it, pointing out seven solutions that can be tried and that have already been successful.

Here they are:

- 1. New regenerated soil
- 2. Urban farms and gardens
- 3. Aquaponics
- 4. Green walls and roofs
- 5. Accessible green corridors
- 6. Local environmental compensation processes
- 7. Biodiversity of pollinators

Do you recognise any of them? Of course!

Isn't the accessible Green Corridors the road we want to build for our butterflies? And when we talk about pollinator biodiversity, aren't we talking about them?

To work, then!

We are waiting for you!

This is an important project, because while factories have intoxicated the area with iron, plastic and other substances, no one has thought during that time to protect the greenery, water, air, soil, biodiversity and all the elements that make it possible to live in a healthy environment.

With the proGlreg project we want to return to build a liveable and healthy city for all. In putting the project into practice, seven seven Nature Based Solutions (NBS)-solutions: they are solutions that can be seen and known.



The Farfalle in ToUr project is part of the NBS Biodiversity of Pollinators.

Dear **Teachers**, this last page is for you,

and offers some more information on the partners promoting the project.

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ProGlreg stands for 'Productive Green Infrastructure for post-industrial urban regeneration'. The motto used is 'Nature for Renewal'.

ProGlreg promotes a working method called 'living lab', which consists of producing research and experiments on new ways of living in contact with the environment where all citizens can have their say. Hence activities promoted within a network that brings together universities, educational institutions and social facilities.

The proGlreg project, which is recognised by the Horizon programme and financed by the European Community, dedicates its work to the revitalisation of areas where there was industry. It is a project in Europe and China. Turin is one of the four cities chosen to work in.

Farfalle in ToUr is a project implemented thanks to:















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