



Let's go
to discover
soil biodiversity

Soil: a precious
resource to discover
and to protect



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The Italian Soil Science Society, jointly to the University of Palermo, the European Society for Soil Conservation and the Nebrodi Natural Park (the largest Regional Park in Sicily, Italy), organized the World Soil Day (WSD) celebration in December 2019, involving more than 500 schoolchildren in a 'soil contest'. In that occasion the special guest of the World Soil Day celebration was Montserrat Díaz Raviña (IIAG-CSIC, President of the Biology Section of the Spanish Society of Soil Science, SECS), promoter and coordinator of the comic Project "Living in the Soil", which was translated to Italian "Vivere nel suolo".

Children (10-12 years old) participating to the contest "Living in the soil: The World Soil Day", guided by teachers, prepared assignment-works, based on the comic "Living in the soil", that were exhibited during the WSD celebration. In addition, one of the teams, formed by seven children and three teachers from the Comprehensive Institute of Capizzi-Cesarò (Sicily, Italy), produced a nice handmade booklet, in comic format, for Montserrat as a gift for enabling them to discover the soil. Montserrat Díaz Raviña suggested to share this excellent and innovative booklet in order to use it as a didactic resource to spread the knowledge on soil biodiversity among young students of the same age (10-12 years) at a national and international level.

The Institute Dean and the teachers unanimously supported this idea. Carmelo Dazzi (European Society for Soil Conservation) and Giuseppe Lo Papa (Italian Soil Science Society, who also prepared the pdf) translated the booklet from Italian into English.

The edition of this booklet was possible thanks to the collaboration of the Agrobiological Research Institute of Galicia of the Spanish National Research Council (IIAG-CSIC, Spain), Spanish Society of Soil Science (SECS), Nebrodi Natural Park, Italian Society of Pedology (SIPe), Italian Society of Soil Science (SISS) and European Society for Soil Conservation (ESSC).

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Script and Illustrations: Maria Lorena Acquavite, Mirko Carone, Sofia Famiani, Giorgia Miraglia, Lorena Parasiliti, Gaetano Sciammacca and Daria Valu

Documentation and scientific advice: Gaetana B. Foti, Donatella Romano and Giuseppa Gusmano

English translation: Carmelo Dazzi and Giuseppe Lo Papa (Palermo University)

Adaptation: Giuseppe Lo Papa, Carmelo Dazzi and Montserrat Díaz Raviña

Scientific promoters: Montserrat Díaz Raviña (IIAG-CSIC), Carmelo Dazzi and Giuseppe Lo Papa

Financing support: IIAG-CSIC, SECS, Nebrodi Natural Park, SIPe, SISS and ESSC

Coordination: Montserrat Díaz Raviña (IIAG-CSIC)

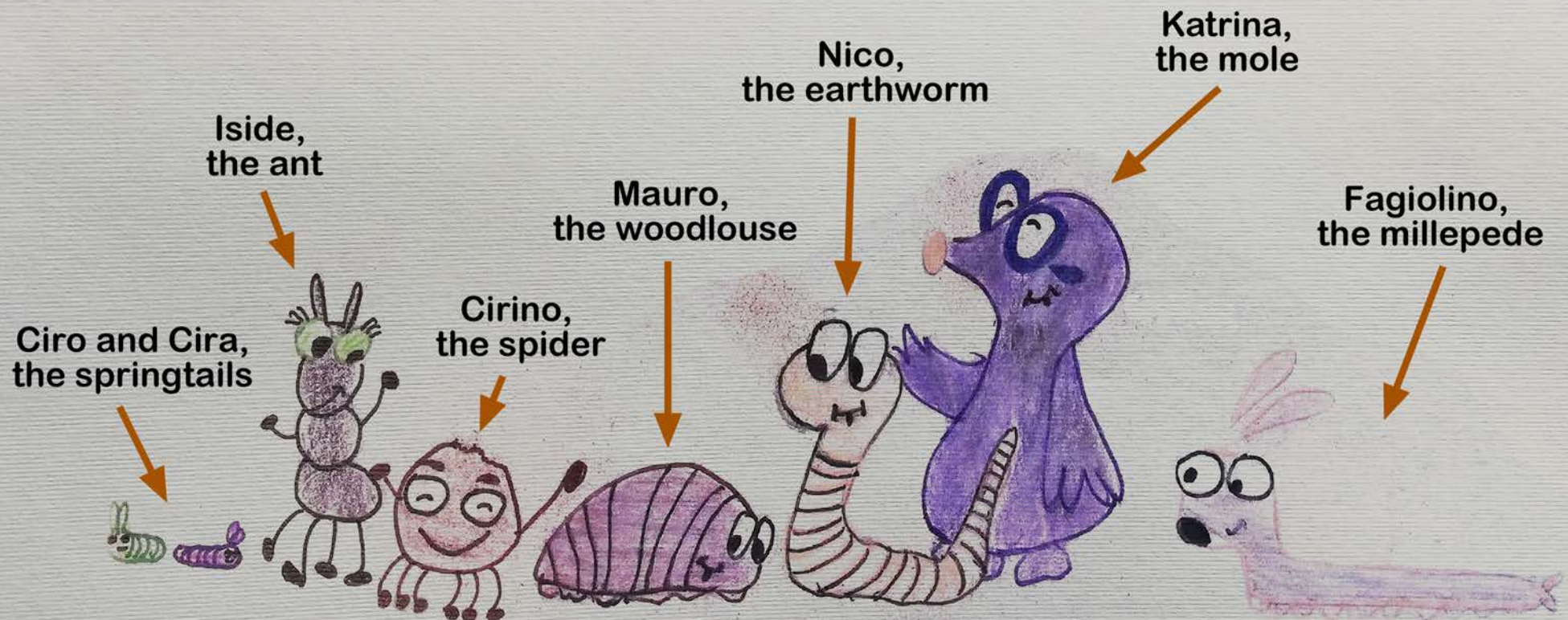
Edit: Andavira Editora S.L.

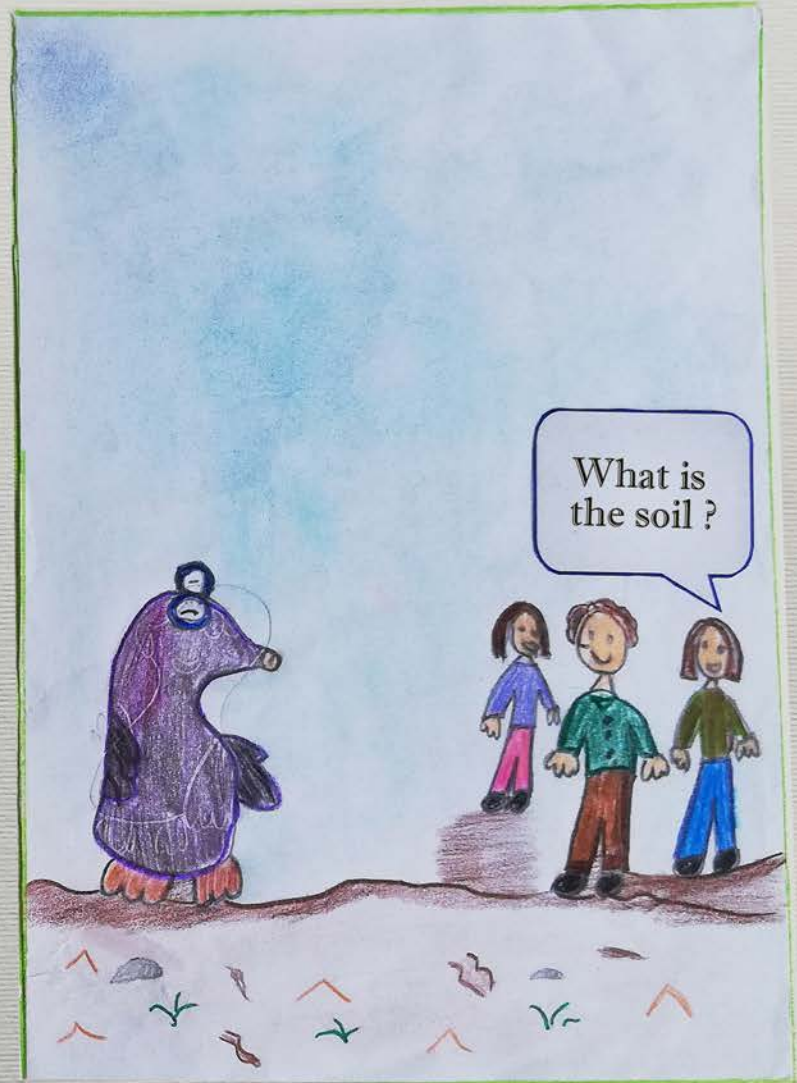
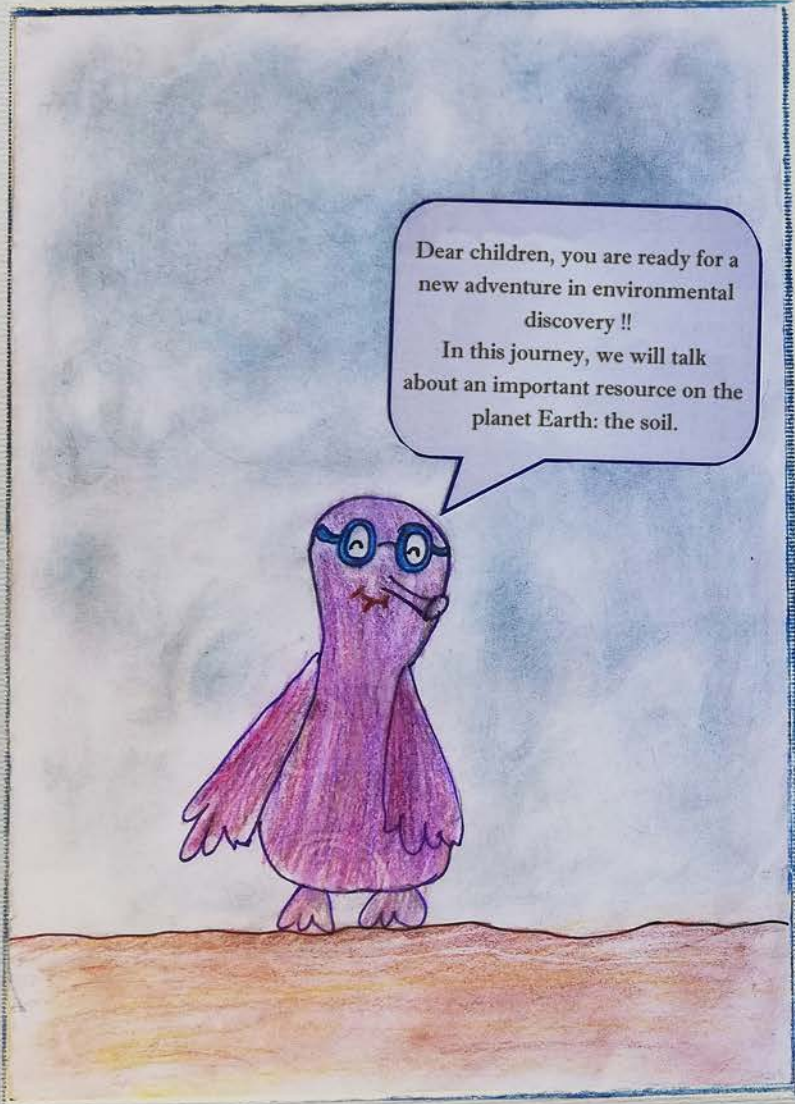
ISBN: 978-84-123245-2-5



Soil is a world full of life: discovering its secrets and meeting its inhabitants is an amazing and captivating adventure. This journey begins with the funny story of some children that one day, meet casually, Katrina, the naughty mole who accompanies them on an interesting journey at the discovery of the soil resource, in order to know, love and protect it.

These are the friends that will
drive us to discovery the soil biodiversity







To understand soil we
must look under our feet.
Soil lies on the surface
of the Earth

What !!
The surface???



Yes. Exactly where
we walk and run



Really?



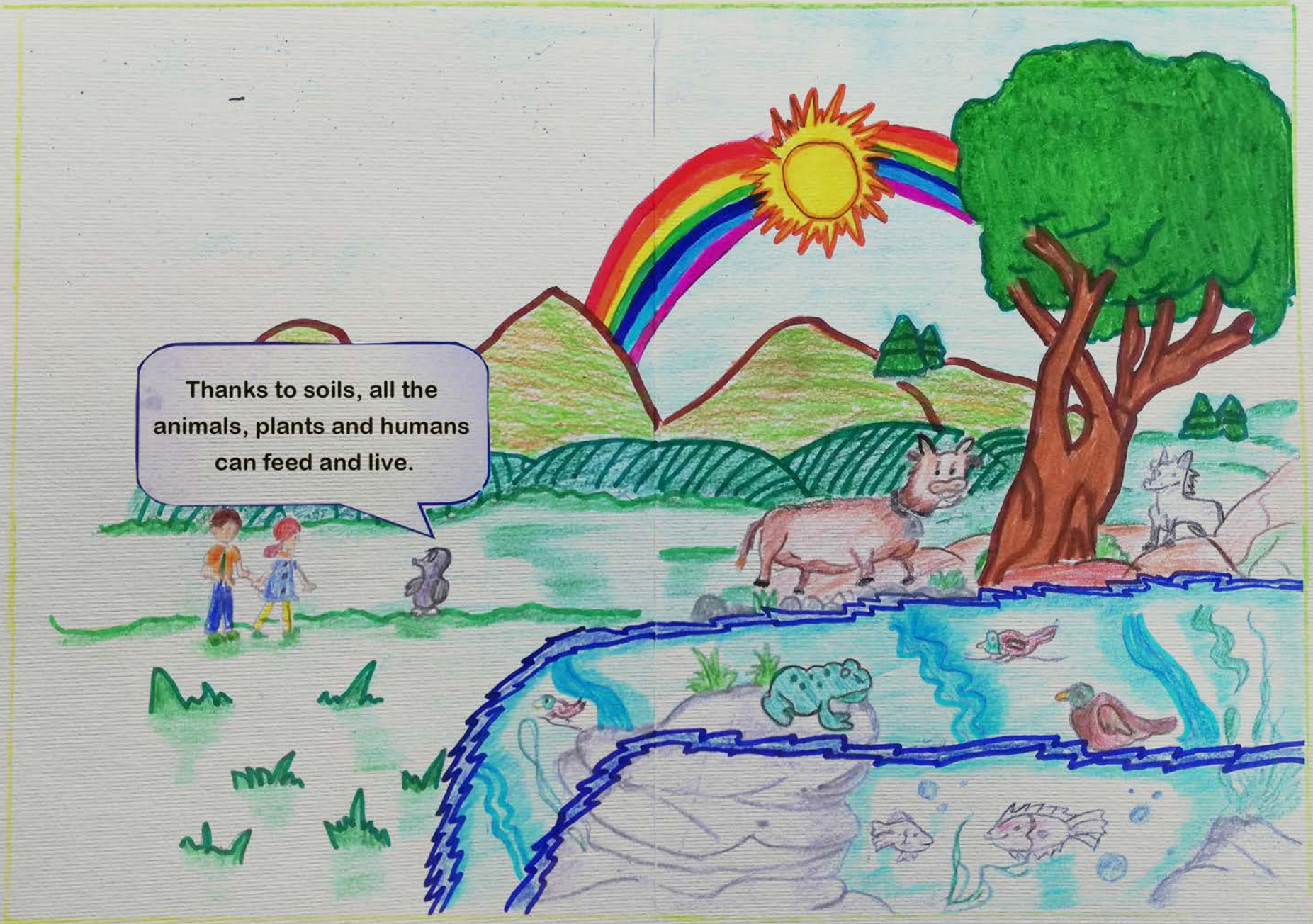
Let's start this
marvellous adventure!!!
Hurrayyyyyyy!!!



Dear children, the
soil is the protecting
skin of our planet and
without it, the Earth
will be ruined
in a short time

Then the soil is a
precious resource
to be known and
protected.

Thanks to soils, all the animals, plants and humans can feed and live.



Let's explore it!
WOW. It is
wonderful !!

Come along with
me. I let you explore
in to the soil





Soil is made up of overlapping layers.
The litter is made up of leaves, twigs and bark fragments. Humus comes out from decomposition of plant and animal tissues, moulds and bacteria.
Mineral layers are made up of rock fragments, sand, clay and salts.

Therefore, soil performs many functions!!!





Who are these little organisms?

They all are very important because they transform and improve the composition of the soil, making it more fertile.

I introduce some of them: the dancing mole Katrina, the springtails, Ciro and Cira, the industrious ant Iside, the pretty spider Cirino, the greedy woodlouse Mauro, the singing millepede Fagiolino, the joker earthworm Nico....



Nico the jooker
what a funny guy....
What are you playing???

Hey, friends!!!. Welcome to our playground.
Let's have fun walking through our tunnels
dug into the soft and wet soil. Look how well
I glide in it!
What great fun being an earthworm and
slipping like that.
Wow!!! It seems moving on a roller
coaster. Here the soil is soft, so I can
move everywhere. I feel like being figure
skating, ... Come on!! Get rithm!!

Look at here how compact the is soil instead. On the other hand, there is a lot of food... GNAM, GNAMMMM!!



Nico, would you like to come with us to have fun on the soil surface?



What? All right, I accept the invitation. Let's go!



Heeeeeelp!!!
I feel dying in this
dry environment.

SOS SOIL !

Suddenly a voice said, "NOT be afraid kids", I am the Soil and I am willing to speak to you.

The time has come for me to speak and please listen, **HELP ME!!!!**
If you can, I need to breathe because things have been bad for a long time.

Just think, humans use me at their desire and everywhere I am not respected. Everyone cannot give up to mistreat me, to pollute and abandon wastes without shame.....I'm really bad.

"POOR ME!" How they have transformed me! But once I was fully appreciated.

Farmers loved me and sowed with the plow without hurting me and besides, they did not use herbicides and pesticides.

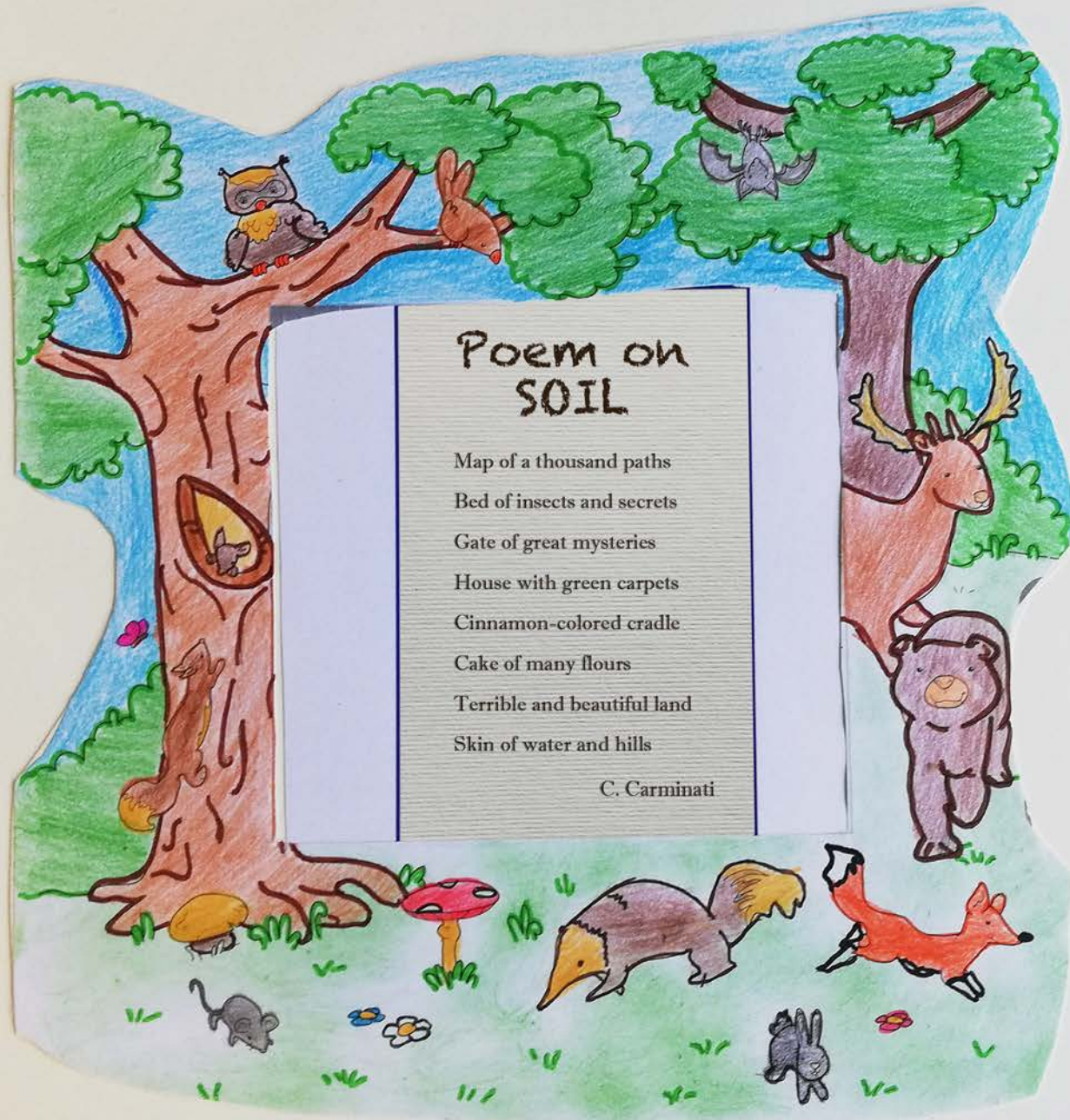
And today I am ploughed until the bad weather does have flooded me: landslides and floods. No faults of mine. Oh globalised man, how many more times have you exploited me for your crazy profits?

And despite the prohibitions imposed by law, the disaster continues over time, abandoning all kinds of poisons above and inside me. **HOW MUCH I'M SUFFERING MY DEAR FRIENDS!!!**

I am the god blessed soil that everyone needs. Stop abuses!!
Stop pollution!! Stop sealing me by housing!!
Besides, desertification move forward and suffocate me!! Poor forest!! You have hosted every living being and now humans attack and burn you. Without you I cannot shelter from the bad weather.

Now that I have spoken on my sufferings, I want to tell to the world:

HELP ME to SAVE the PLANET!



Poem on SOIL

Map of a thousand paths
Bed of insects and secrets
Gate of great mysteries
House with green carpets
Cinnamon-colored cradle
Cake of many flours
Terrible and beautiful land
Skin of water and hills

C. Carminati