



Forestazione

Biodiversità urbana e capitale naturale: approcci, strumenti e il contributo del National Biodiversity Future Center

Massimo Labra, Scientific Director of National Biodiversity Future Center

Città metropolitana di Milano, 24 giugno 2026



Founded in September



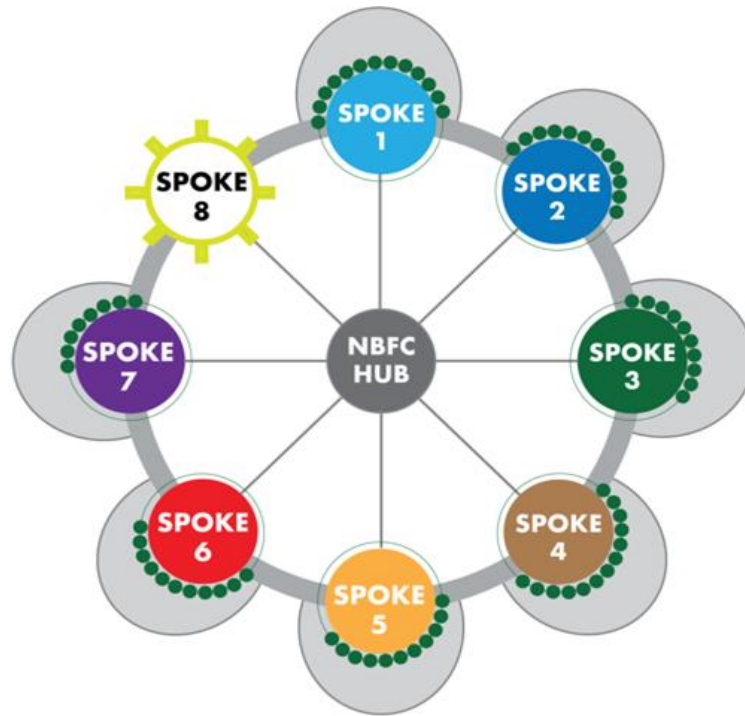
**NATIONAL
BIODIVERSITY
FUTURE CENTER**

The general objectives are:

- understanding and addressing direct drivers for biodiversity decline at marine, terrestrial and urban levels
- valorizing biodiversity to make it a central element for social, environmental and economical sustainable development



- **Funding: 320 million euros**
- **Partners: 48**
- **Staff: >2000 researchers**
- **Study areas: sea, land, and urban**
- **Strategy: applied and targeted research and technology transfer**



Spoke 1

Conservation and Monitoring of marine biodiversity



Spoke 2

Restoration and Valorization of marine Biodiversity



Spoke 3

Conservation and Monitoring of land biodiversity



Spoke 4

Restoration and Valorization of land Biodiversity



Spoke 5

Urban Biodiversity: planning and monitoring



Spoke 6

Biodiversity and human well being



Spoke 7

Biodiversity outreach



Spoke 8

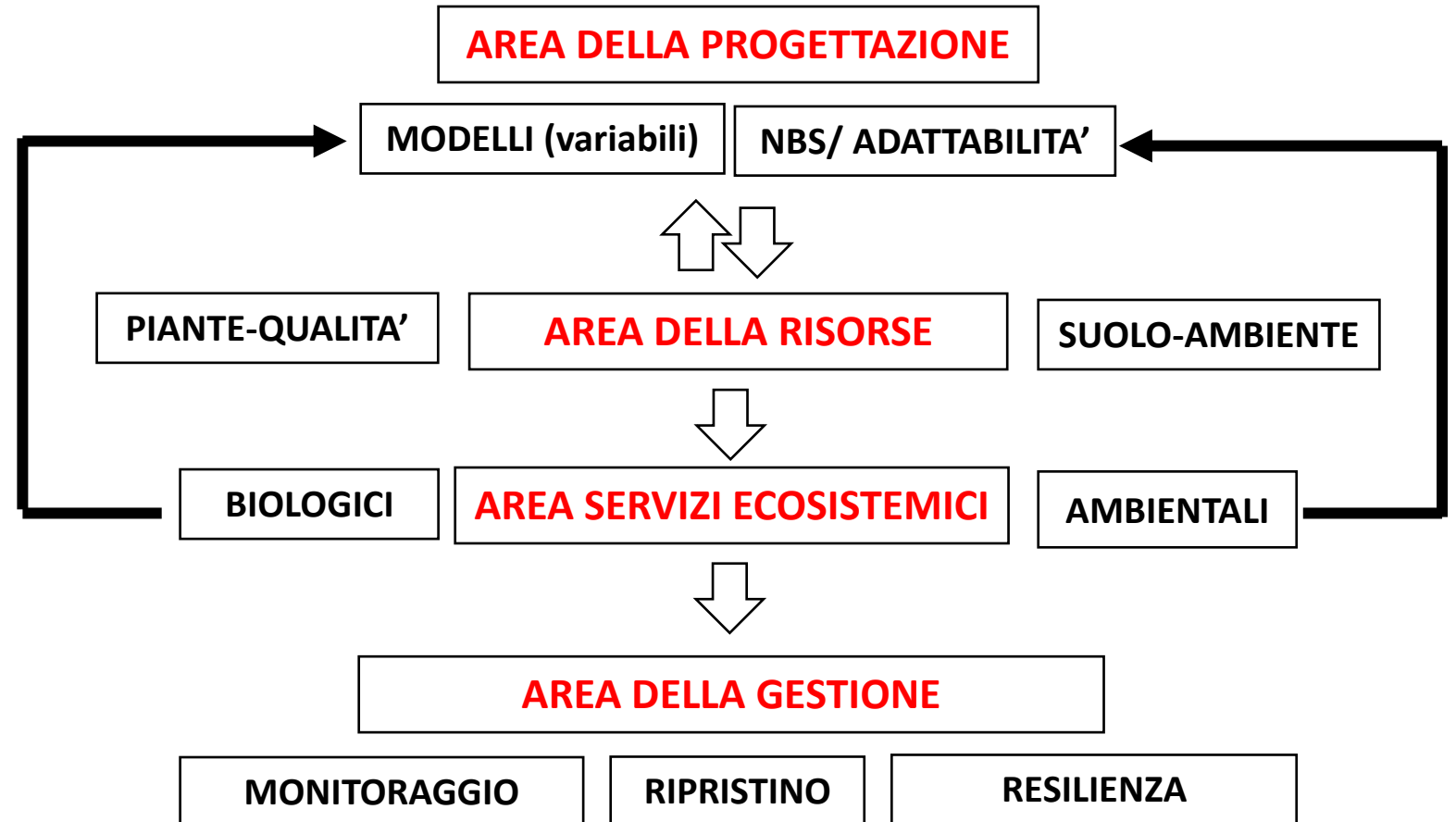
Biodiversity innovation



MISSION

- Conoscere e valorizzare le risorse della città (ambiente e biodiversità);
- Pianificazione integrata e sostenibile;
- Supportare la biodiversità funzionale e la complessità biologica;
- Gestire, ripristinare e valorizzare la biodiversità.

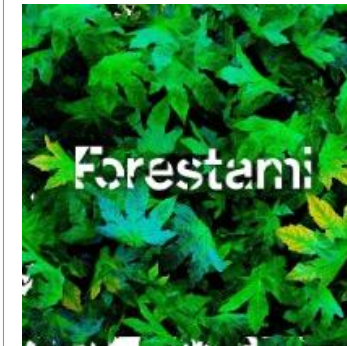
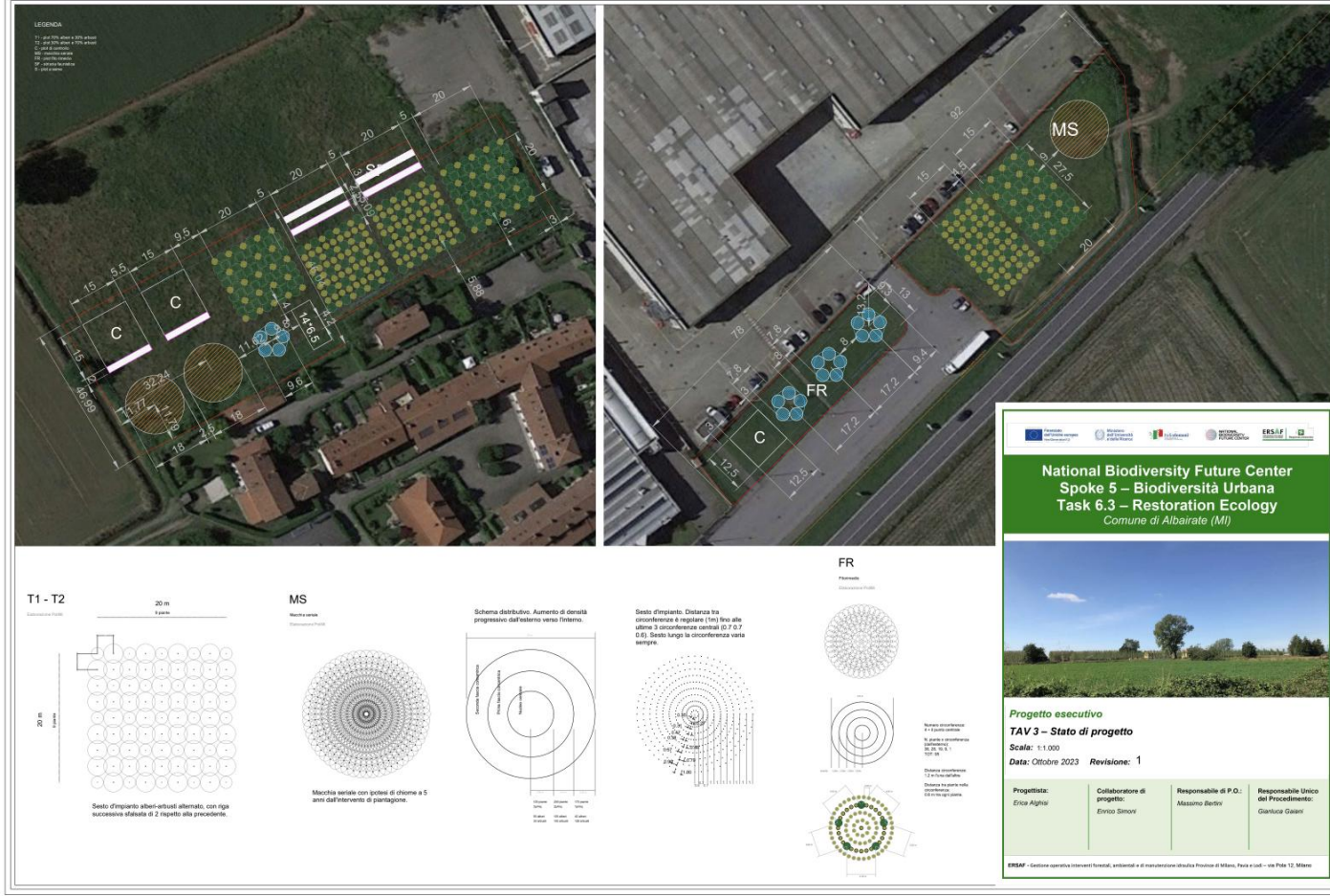
WORKFLOW



AFFORESTAZIONE: MODELLI



AFFORESTAZIONE: 3 siti a Milano, 1 Firenze, 1 Campobasso, 2 Roma





Go to Urban Forestry & Urban Greening on ScienceDirect

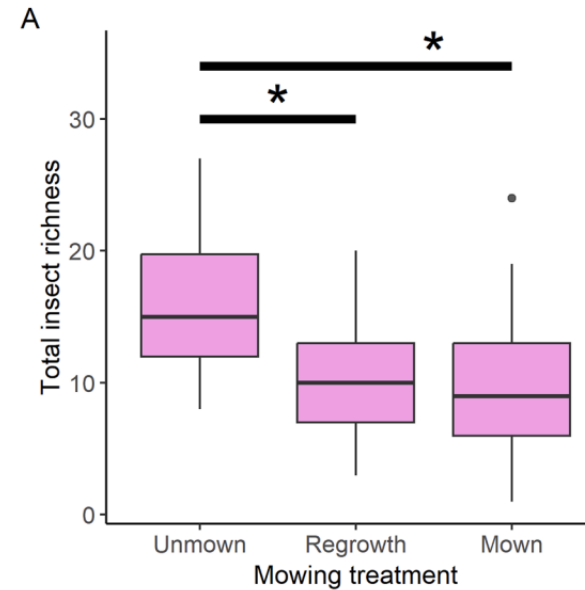
January 2025, 128650



Urban Forestry & Urban Greening

Lawn management promoting tall herbs, flowering species and urban park attributes enhance insect biodiversity in urban green areas

Paolo Biella ^a, Sara Borghesan ^a, Beatrice Colombo ^{a,b}, Andrea Galimberti ^{a,b}, Lorenzo Guzzetti ^{a,b}, Davide Maggioni ^{a,b}, Emiliano Pioltelli ^{a,b}, Fausto Ramazzotti ^{a,b}, Rosa Ranalli ^{a,b}, Nicola Tommasi ^{a,b}, Massimo Labra ^{a,b}



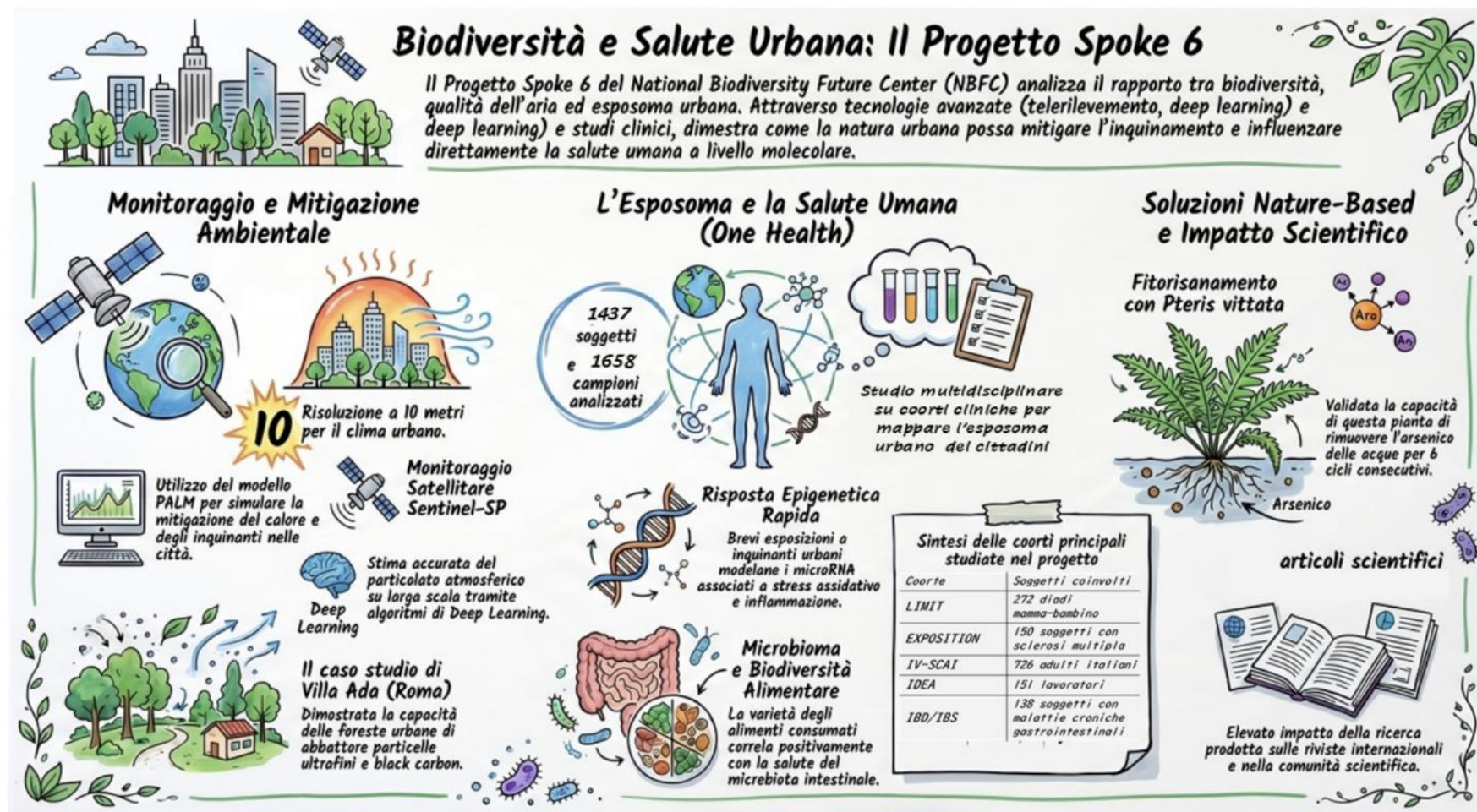
- Gli sfalci differenziali hanno mostrato: più individui, più specie e comunità di insetti più ricche.
- La ricchezza di specie floreali diversifica anche le specie di insetti presenti
- La vegetazione arborea a nuclei e non a filari favorire la biodiversità degli impollinatori



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VIVERE IN ARMONIA CON
LA NATURA

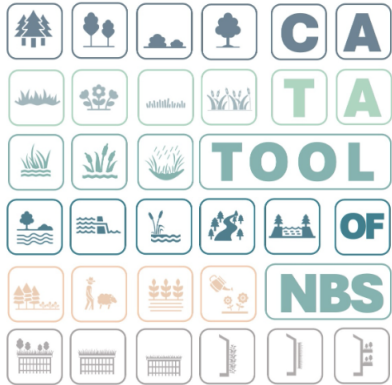
PLANETARY HEALTH



PollinAid: a Web Tool to Support the Design of Nature-Based Solutions for Pollinators Safeguard



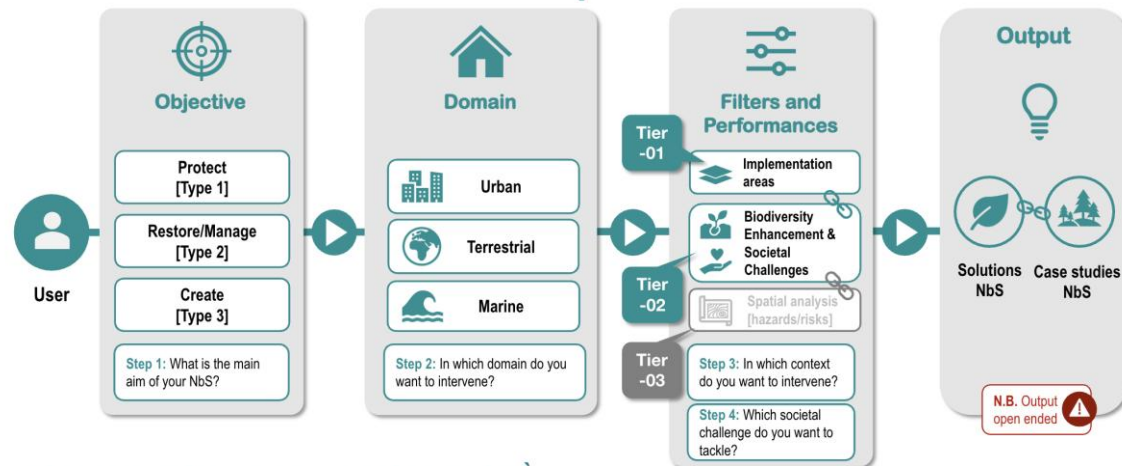
GLI STRUMENTI DI NBFC



NbS CataTool: Decision Support System for the uptake of Mediterranean Nature-based Solutions

© Giulio Hasanaj for NBFC

NbS Selection Tool



Vegetation as a Tool for Air Quality Improvement

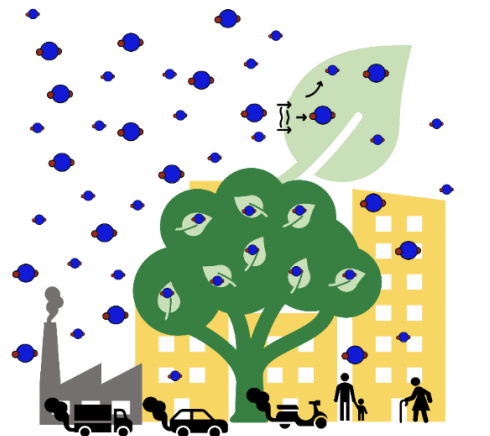
Particulate matter (PM_{10})



Ozone (O_3)



Nitrogen dioxide (NO_2)





Urban Forestry & Urban Greening

Volume 105, March 2025, 128682



Review article

Biodiversity-friendly practices to support urban nature across ecosystem levels in green areas at different scales

Paolo Biella ^a, Luciano Bani ^{b,c}, Enrico Caprio ^{b,d}, Francesca Cochis ^{b,d}, Olivia Dondina ^{b,c},
Valentina Fiorilli ^{b,e}, Andrea Genre ^{b,e}, Rodolfo Gentili ^{b,c}, Valerio Orioli ^{b,c}, Rosa Ranalli ^{a,b},
Pietro Tirozzi ^c, Massimo Labra ^{a,b}

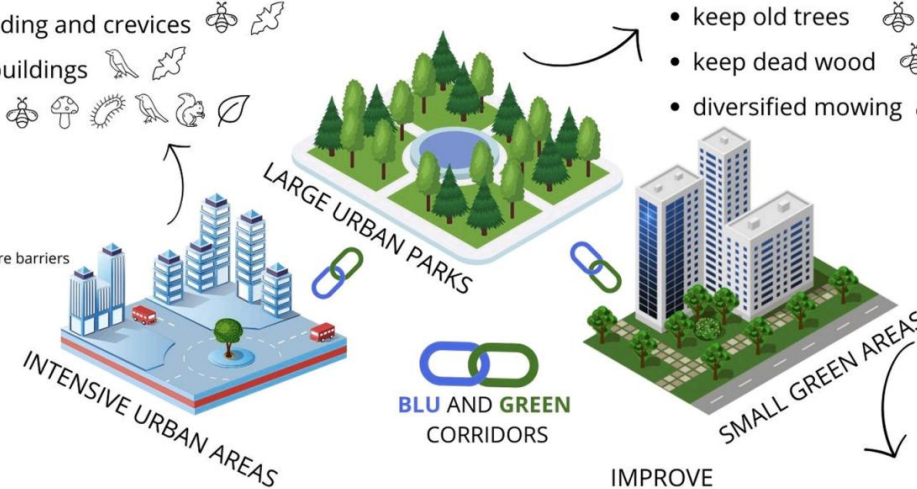
AMELIORATION OF URBAN LANDSCAPE FOR MULTI-TAXA BIODIVERSITY

PROVIDE

- cracks in building and crevices
- walls of old buildings
- green roofs

INCREASE OF:

- sound and temperature barriers
- biological corridors
- trophic resources
- soil microbiota
- nesting site
- biodiversity



MANAGE

- provide multi-layer canopy
- keep old trees
- keep dead wood
- diversified mowing

IMPROVE

- soil amelioration
- provide native plants
- provide nesting site

Oltre 180 contesti dimostrano che la biodiversità urbana deve essere progettata a livello ecosistemico

- La fase di 'insediamento' non può prevedere solo la messa a dimora di piante ma deve individuare rifugi, nidi...
- Equilibrare risorse trofiche: nettare-polline, semi, frutti, prede, ecc.
- Molteplicità ecosistemica: Integrare interventi che favoriscano contemporaneamente più gruppi biologici e le loro interazioni ecologiche (impollinazione, dispersione dei semi, relazioni pianta-microrganismi, catene trofiche).



Il Piano urbano della natura si afferma come nuovo strumento strategico europeo per integrare la biodiversità nella pianificazione urbana e rafforzare la resilienza climatica delle città.

Forestami



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Contatti:



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DI RIPRESA E RESILIENZA



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE



**Città
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di Milano**