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**Olszewska-Guizzo, Agnieszka, Andreucci, Maria Beatrice, Beute, Femke, de Vries, Sjerp, Glanville, Julie, Keune, Hans, Lammel, Annamaria, Livoreil, Barbara, Marselle, Melissa R., O'Brien, Liz, Russo, Alessio ORCID logoORCID: <https://orcid.org/0000-0002-0073-7243>, Remmen, Roy and Davies, Zoe (2019) Types and Components of Urban Blue Spaces that have a Positive Impact on Mental Health and Well-being: A Systematic Review. In: 16th International Conference on Urban Health People Oriented Urbanisation: Transforming Cities for Health and Well-Being, 4-8 November 2019, Xiamen, China.**

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# EKLIPSE

Knowledge & Learning Mechanism  
on Biodiversity & Ecosystem Services

## Types and components of urban blue spaces that have a positive impact on mental health and well-being: *a systematic review*



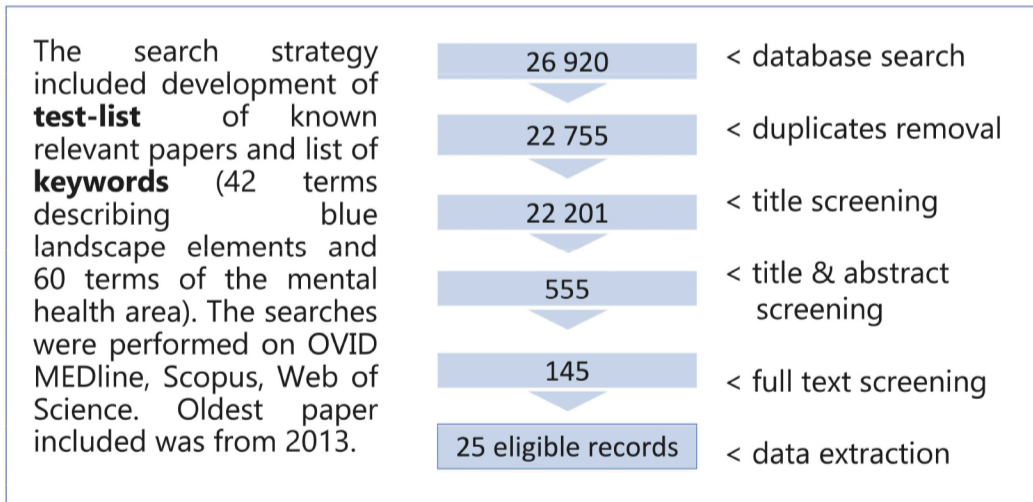
### EXPERT WORKING GROUP

1. Agnieszka Olszewska-Guizzo (presenting) - NeuroLandscape, Poland; National University of Singapore, Singapore
2. Maria B. Andreucci - Sapienza University of Rome, Italy
3. Femke Beute - LightGreen Wellbeing, The Netherlands; University of Groningen The Netherlands
4. Sjerp de Vries - Wageningen University & Research, The Netherlands
5. Julie Glanville - York Health Economics Consortium, University of York
6. Hans Keune - University of Antwerp, Belgium
7. Annamaria Lammel - Université Paris 8 Vincennes-Saint-Denis, France
8. Barbara Livoreil - Fondation pour la Recherche sur la Biodiversité, France
9. Melissa Marselle - German Centre for Integrative Biodiversity Research, Germany
10. Liz O'Brien - Forest Research, UK
11. Alessio Russo - University of Gloucestershire, UK
12. Roy Remmen - University of Antwerp, Belgium
13. Zoe G. Davies - DICE, University of Kent, UK

The EKLIPSE Expert Working Group was formed in 2017 to answer a request concerning green and blue spaces from the French Ministry for the Environment in a form of a **systematic review**. WHO Europe has co-financed this review and we present the highlights below.

The future work will include publication of results for the blue space, completion of the systematic review for the green space, and publication. Further steps will focus on providing **guidelines** for practitioners (landscape and urban planners) to inform the public policy.

### THE SEARCH



### PRELIMINARY OUTCOMES:



#### • **Sea/coast** (15 studies=5E+6CS+4Q)

CS studies looked at the benefits of the sea from three perspectives: having a **sea view**, **proximity** to the sea, and **beach attendance**. Majority of E studies, contrasted the exposure to the sea with urban environment. Two studies looked at the effects of walking along the beach and the rest at the effects of videos or VR of the beach. Sea/coast exposure across study types was associated with **better mood**, **heart function** and **relaxation**. Beneficial effects of the coast were reported for both exposure types (walking and viewing sea).

#### • **Inland water** (7 studies= 1E+4CS+2Q)

Studies looked at either a **canal or river**, or percentage of **freshwater or saltwater**. No studies investigated the mountain creeks, waterfalls, or lakes. The CS studies found little benefits of inland water for mental health. Only one E study investigated effects of inland water on wellbeing - no differences in mood and cortisol levels were found between walking along a canal, green or urban area. However, the **recovery experience** was greater after walking along the canal than after walking in an urban area. Beneficial effects of inland waters were less pronounced than the beneficial effects of exposure to the sea.

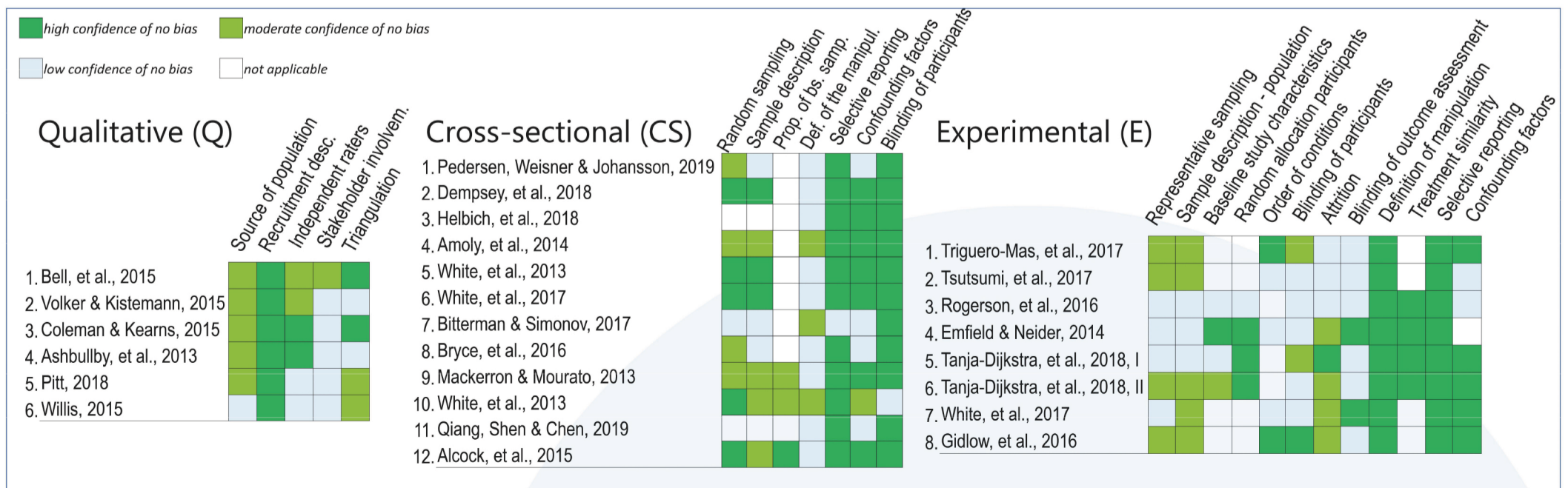
#### • **Activities and environment quality**

Some Q studies focused only on the positive effects of the blue space pointing at their importance for **physical activity**, **social cohesion**, **wellbeing** and opportunities for **contemplation**. Importantly, only few CS and E studies looked at activities performed or the affordance of these environments. Effects need to be corroborated in countries other than UK.

#### • **Mental Health outcomes:**

Most consistent beneficial effects of blue space were found on **affect** and less consistent on **other mental health** problems. Studies looking at general mental health problems investigated the relation between the amount of freshwater or coast in the proximity of the residence with incidence of mental health problems. These outcomes signal a need for more fine-grained analyses.

### CRITICAL APPRAISAL of STUDIES



Developing a mechanism for supporting better decisions on our environment based on the best available knowledge



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secretariat@eklipse-mechanism.eu  
www.eklipse-mechanism.eu  
eklipse-mechanism.eu/forum\_home



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