Eco-Health Relationship Browser

A growing body of evidence demonstrates that ecosystems can provide protection from natural and man-made hazards, and promote healthful behaviors. This EnviroAtlas tool demonstrates the scientific evidence for linkages between human health and the benefits provided by Nature, or ecosystem services. While not exhaustive, the information illustrated in this Browser is based on an extensive literature review and highlights statistically significant, plausible associations. The tool is interactive and designed to invite exploration of the services that ecosystems provide and how those services affect human health and well-being.

COMPONENTS	FEATURES
Ecosystems	Forests Wetlands Drylands Agro-Ecosystems Urban Ecosystems
Ecosystem Services	Air Quality Water Quality Heat Hazard Mitigation Water Hazard Mitigation Recreation & Physical Activity Aesthetics & Engagement with Nature
Health Outcomes	ADHD, Aggression, Anxiety, Arthritis, Asthma, Birth Outcomes, Bronchitis, Cancer, Cardiovascular Diseases, Cognitive Function, Confusion, COPD, Depression, Diabetes, Fatigue, Gastrointestinal Illness, Happiness, Healing, Heat Stroke, High Blood Pressure, Hospital Admissions, Inflammation, Kidney Malfunction, Longevity, Low Birth Weight, Mental Health, Migraine, Miscarriage, Mortality, Obesity, Pre-Term Birth, PTSD, Respiratory Symptoms, Self Esteem, Social and Community Ties, Stress, Thyroid Dysfunction, Vulnerable Populations

Eco-Health Relationship Browser components and features (as of 9/19)


Photo: Steve Hillebrand, USFWS

How can I use this information?

The Eco-Health Relationship Browser can be used as a reference to inform decisions on issues such as climate adaptation and environmental justice. It can facilitate planning and implementation of public health interventions, and indicate where there may be additive societal benefits to an investment in green infrastructure. The Eco-Health Relationship Browser adds interpretative information when used in conjunction with the EnviroAtlas interactive map. It can also serve as a teaching tool (for example, https://www.epa.gov/enviroatlas/connecting-ecosystems-and-human-health), and as a resource for environmental health research.

How does this Browser function?

Designed to encourage exploration, this Browser interactively displays the linkages between selected ecosystems, ecosystem services, and health outcomes. The user can click on topic "bubbles" on the default display, or select topics using the drop-down menu, and navigate through the relational links that appear. A description of the selected topic is detailed in the right sidebar, with references.

When the user clicks the "*i*" linkage between two topics, a pop-up box appears with a summary of the published evidence; this includes specific studies that investigated the

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selected association. An online bibliography contains citations for all references, with abstracts and web links if publicly available.

Browser development and limitations

The information in this Browser is based on a systematic literature review of peer-reviewed journal articles published through 2015 (periodic updates are performed). Most research to date linking human health to health-promotional ecosystem services (as opposed to protective or buffering ecosystem services) is associative rather than causal. Articles focusing on linkages between human health and the built environment (e.g., neighborhood connectivity, land use mix) are not included as they fall outside of the project parameters.

The Eco-Health Relationship Browser can be accessed through the EnviroAtlas website; the content may also be saved in plain text format. For specific questions about this tool, please contact the EnviroAtlas Team.

Acknowledgements

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Publication

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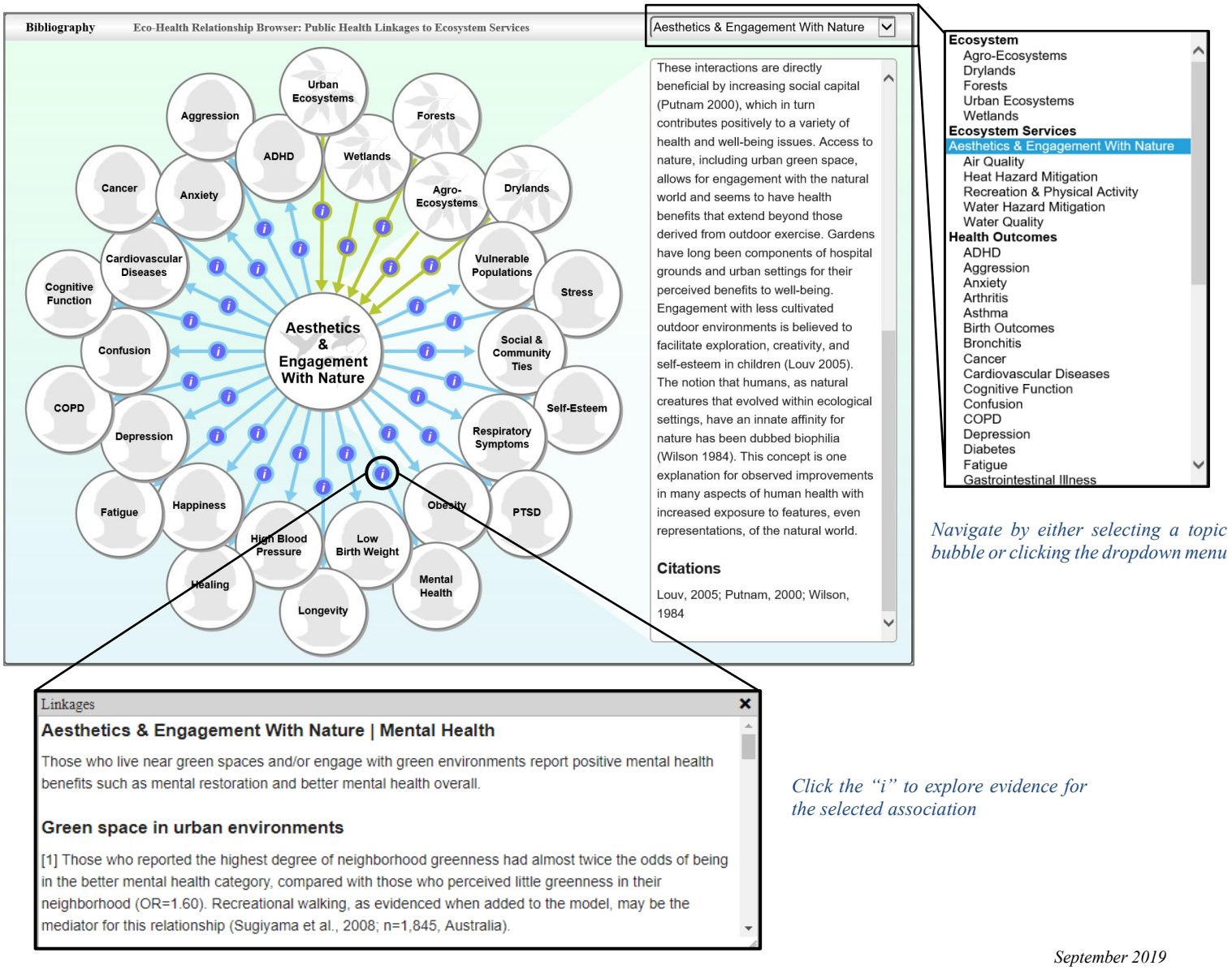
Screen capture showing the Browser components and sidebar description



Navigate by either selecting a topic bubble or clicking the dropdown menu

Click the "i" to explore evidence for the selected association

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