Rising Rooted

Exploring Opportunities for Reactivating Traditional Environmental Knowledge to Increase Plant Awareness

Hannah Reid Ford
Ethnobiology PhD Student, University of Kent
hlr31@kent.ac.uk
www.linkedin.com/in/hlreid/

ABOUT ME

Education

- Emory University | BA in Environmental Studies and Journalism
- University College London | MSc Environment, Science & Society
- University of Kent | PhD Ethnobiology (ongoing)

Professional

- Senior Policy Advisor (Environment & Resiliency), Ministry of Sustainability & Climate Resiliency

Personal Projects

- Bush Girl Medicine blog and social media pages

WHAT IS ETHNOBIOLOGY?

- The scientific study of relationships between people and plants, animals and environments from the distant past to the present.
- Ethnobotany was formally recognised as an academic discipline in 1895 and ethnobiology in 1935.
- In its initial stages, the focus of ethnobiology was to document plant and animal uses that might prove beneficial to Western countries.
- In an era of global environmental change, the focus of ethnobiology needs to be contributing towards solutions for complex challenges stemming from human-environmental impact.

“Our data are relevant and essential to solving large scale environmental and cultural problems because, as stated by Rozzi (1999), problems of human-environmental impact cannot be solved unless the values of people in contemporary societies change, and values do not change unless experiences change. The clearest path to initiating such progress is through direct encounter with plants, animals, environments and the outdoors, Earth - if ethnobiology is nothing else, it comprises a record of such encounters from many times and places.”

- Steve Wolverton

Ethnobiology 5: Interdisciplinarity in an Era of Rapid Environmental Change

‘The Islands Time Forgot’

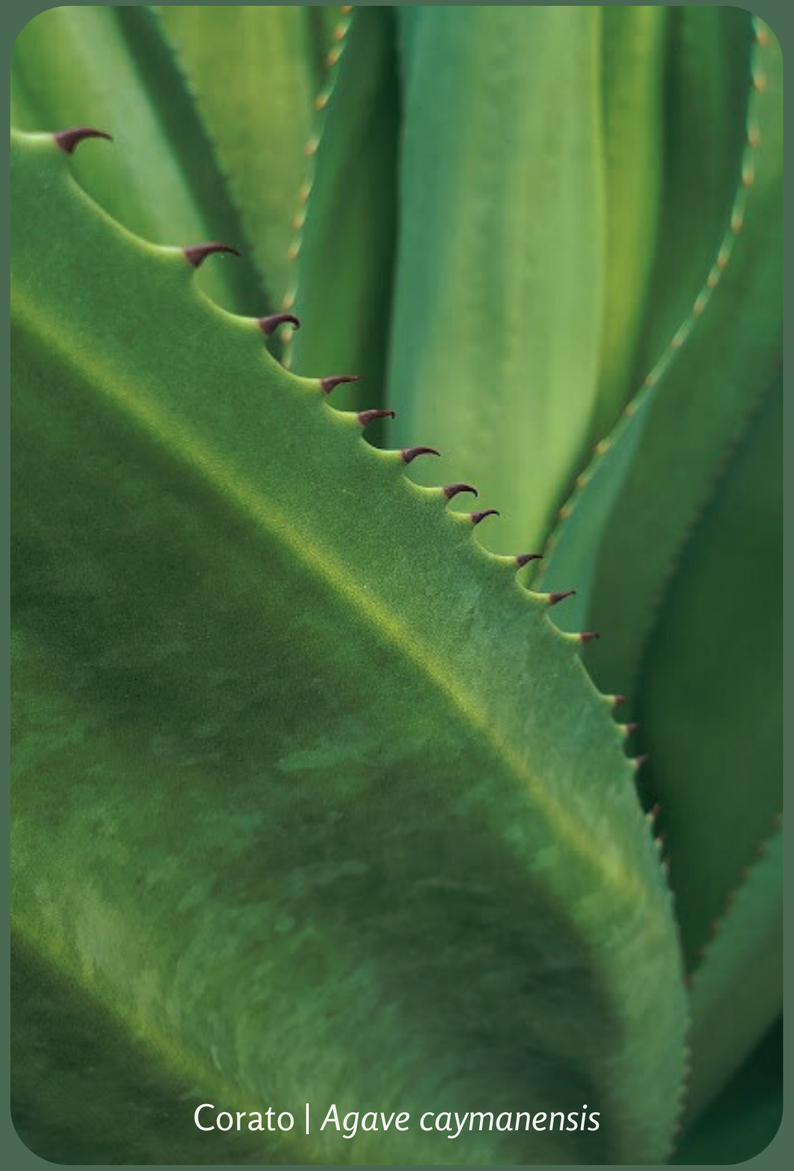
Source: National Archives UK

ABOUT THE CAYMAN ISLANDS

- The Cayman Islands consists of three islands: Grand Cayman, Cayman Brac and Little Cayman.
- The three islands combined have a land area of just over 260 square kilometres.
- Beginning in the 18th century, the islands were settled by a diverse mix of slaves, sailors, soldiers, planters and privateers.
- Up until recently, the Cayman Islands was considered among the most remote, unchanging and unknown of the United Kingdom’s Overseas Territories.

A REPOSITORY OF REMARKABLE BIODIVERSITY

- Collectively, the 14 UKOTs contain 95% of the biodiversity for which the UK is legally responsible under the Convention on Biological Diversity.
- The Cayman Islands is the third most biodiverse UKOT with over 3,000 documented native species.
- It is estimated that there may be as many as 70,000 additional native species in the UKOTs yet to be documented.
- New records and new species continue to be discovered in the Cayman Islands.



Corato | *Agave caymanensis*

Source: National Archives UK

Source: Oxford Expedition Club

‘Mostly Right Folklore’

TRADITIONAL ENVIRONMENTAL KNOWLEDGE

- Knowledge, beliefs, traditions, practices, institutions, and worldviews developed and sustained through repeated anthropocentric encounters with the natural environment by a specific people in a specific place.
- TEK is increasingly understood in terms that reject the binary ‘plentitude and loss’ model.
- TEK is dynamic, adaptive, communal, experiential and anti-essentialist.

Ironwood | *Chionanthus caymanensis*

‘TOO RAPID! IT’S MOVING TOO FAST!’

- The Cayman Islands has undergone rapid social, economic, technological and geopolitical change over the past 60 years.
- Cayman’s population has increased by 739% since 1960.
- Despite the historic importance of TEK to the survival of early Caymanians, modern residents of the Cayman Islands are almost entirely reliant on imported food, fuel and goods.

Source: National Archives UK

“They were blessed with wisdom. I don't think we come up to it today. And why we don't come up to it, is because we don't have to. We don't have to. In them days, even if you want it, you couldn't get, if it was currency. Because it was not here to get. [...] Because there is a saying that we were founded upon the seas. Well, this was founded upon the rock, also. We lived from the ocean, and the land. That's how we survived.
That's how we came to where we is.”

- Tidyman C. Ebanks

Cayman Islands National Archive
Oral History Collection

An Era of ‘Plant Blindness’

Can you name five plants you have used or interacted with today?

THE INABILITY TO ‘SEE’ PLANTS

- Around the world, distance between people and plants has resulted in an inability to ‘see’ plants.
- First defined in the literature by Wandersee and Schussler in 1998 as ‘plant blindness’, and recently proposed to be renamed as ‘plant awareness disparity’ in order to avoid unintended, ableist connotations.
- Though plant blindness may have biological bases, it is not an inevitability.
- Cultural factors play a decisive role in whether persons are aware of plants.

Plants make up the majority of life on Earth and are foundational to life-giving and sustaining processes upon which humanity depends.

It is not possible to address the triple planetary crisis of climate change, pollution and biodiversity loss without increasing awareness, understanding and appreciation of plants.

Rising Rooted

BIOCULTURAL DIVERSITY IN PERIL

- Though they contribute the least to global environmental change, small islands like the Cayman Islands are both disproportionately vulnerable and home to a disproportionately large amount of global biodiversity.
- Efforts to facilitate sustainable development, to build resiliency to climate change, and to sustain biocultural diversity require the development of interventions that increase plant awareness while restoring culturally based connections between humans and the natural world.

Source: National Archives UK

THE RENEWED IMPORTANCE OF PAST WISDOMS

- The continued importance of plants to human survival has not lessened.
- Plants continue to be powerful allies for the wellbeing of people everywhere.
- By embodying the centralism of nature within human perception, TEK offers a unique pathway for cultivating connections between people and nature to revitalise biocultural diversity, in particular through increasing awareness, understanding and appreciation of plants.

MY RESEARCH AIMS

- My research aims to explore opportunities for reactivating TEK as a method for cultivating connections between people and plants.
- Three phases:
    i. Archival research and interviews on Caymanian traditional environmental knowledge.
    ii. Digital survey on environmental knowledge and plant awareness.
    iii. Design and test an intervention to increase environmental knowledge and plant awareness.

This first phase of the study aims to gather and preserve information about the traditional uses of plants in the Cayman Islands. Do you know someone who might be interested in taking part in this study?

If you know an older Caymanian who may have first-hand knowledge of traditional plant uses, please let me know!

Researcher Contact Details:
Hannah Reid Ford
hlr31@kent.ac.uk
(345) 928-2215

Source: National Archives UK

SOURCES

- Achurra, A. (2022). Plant blindness: A focus on its biological basis. *Frontiers In Education, 7,* 1-6. https://doi.org/10.3389/feduc.2022.963448
- Aswani, S., Lemahieu, A. & Sauer, W. H. H. (2018). Global trends of local ecological knowledge and future implications. *Plos ONE, 13(4),* 1-19. https://doi.org/10.1371/journal.pone.0195440
- Amprazis, A. & Papadopoulou, P. (2020) Plant blindness: a faddish research interest or a substantive impediment to achieve sustainable development goals?, *Environmental Education Research, 26:8*, 1065-1087, https://doi.org/10.1080/13504622.2020.1768225
- Balas, B. & Momsen, J. L. (2014). Attention "Blinks" Differently for Plants and Animals. *CBE—Life Sciences Education, 13,* 437-443. https://doi.org/10.1187/cbe.14-05-0080
- Balding, M. & Williams, K. (2016). Plant blindness and the implications for plant conservation. *Conservation Biology, 30(6),* 1192-1199. https://doi.org/10.1111/cobi.12738
- Carr, A. (1955). *The Windward Road.* Alfred A. Knopf.
- Churchyard, T., Eaton, M. A., Harvey, S., Hall, J., Millett, J., Cuthbert, R. J., Stringer, C. & Vickery, J. A. (2016). The biodiversity of the United Kingdom's Overseas Territories: a stock take of species occurrence and assessment of key knowledge gaps. *Biodiversity Conservation, 25,* 1677-1694. https://doi.org/10.1007/s10531-016-1149-z
- Craton, M. (2003). *Founded upon the Seas: A History of the Cayman Islands and Their People.* Ian Randle Publishers.
- DoE director continues to fight misinformation. (2024, January 30). Cayman News Service. Retrieved February 18, 2024, from https://caymannewsservice.com/2024/01/doe-director-continues-to-fight-misinformation/
- Ebanks, T. C. (1990, October 6). *Interview by C. Winker.* [Tape recording]. Cayman Islands Memory Bank (TCEBANK4.EE), Cayman Islands National Archives, Grand Cayman, Cayman Islands.
- Economics & Statistics Office (ESO). (2022). *2021 Population and Housing Census Report.* https://www.eso.ky/2021-population-and-housing-census-report.html
- Economics & Statistics Office (ESO). (2023). *The Cayman Islands' Compendium of Statistics 2022.* https://www.eso.ky/UserFiles/right_page_docums//files/uploads/the_cayman_islands_compendium_of_statist-18.pdf
- Gomez-Baggethun, E., Corbere, E. & Reyes-Garcia, V. (2013). Traditional Ecological Knowledge and Global Environmental Change: Research findings and policy implications. *Ecology & Society, 18(4),* 1-12. https://www.ecologyandsociety.org/vol18/iss4/art72/
- Hunn, E. (2007). Ethnobiology in Four Phases. *Journal of Ethnobiology, 27(1),* 1-10. https://doi.org/10.2993/0278-0771(2007)27[1:EIFP]2.0.CO;2
- Jose, S. B., Chih-Hang, W. & Kamoun, S. (2019). Opinion: Overcoming plant blindness in science, education, and society. *Plants, People, Planet, 1(3),* 1-4. https://doi.org/10.1002/ppp3.51
- Kimmerer, R. W. (2002). Weaving Traditional Ecological Knowledge into Biological Education: A Call to Action. *BioScience, 52(5),* 432-438. https://doi.org/10.1641/0006-3568(2002)052[0432:WTEKIB]2.0.CO;2
- Kumar, A., Kumar, S., Komal, Ramichery, N. & Singh, P. (2021). Role of Traditional Ethnobotanical Knowledge and Indigenous Communities in Achieving Sustainable Development Goals. *Sustainability, 13,* 1-14. https://doi.org/10.3390/su13063062
- Lewis-Jones, K. E. (2016). Introduction: People and Plants. *Environment and Society: Advances in Research.* https://doi.org/10.3167/ares.2016.070101
- Maloney, J. (1950, April). The Islands Time Forgot. *Saturday Evening Post,* 40-41. Retrieved January 18, 2022, from https://archive.org/details/sim_saturday-evening-post_1950-04-08_222_41/mode/2up?view=theater
- Nazarea, V. D. (2006). Local Knowledge and Memory in Biodiversity Conservation. *Annual Review of Anthropology, 35,* 317-335. https://doi.org/10.1146/annurev.anthro.35.081705.123252
- Parsley, K. (2020). Plant awareness disparity: A case for renaming plant blindness. *Plants, People, Planet, 2(6),* 598-601. https://doi.org/10.1002/ppp3.10153
- Rigney, A. (2005). Plenitude, scarcity and the circulation of cultural memory. *Journal of European Studies, 35(1),* 11-28. https://doi.org/10.1177/0047244105051158
- Reaka-Kudla, M. L., Wilson, D. E & Wilson, E. O. (1997). *Biodiversity III: Understanding and Protecting Our Biological Resources.* John Henry Press.
- Robinson, S. (2020). Climate change adaptation in SIDS: A systematic review of the literature pre and post the IPCC Fifth Assessment Report. *WIREs Climate Change, 11(4),* 1-21. https://doi.org/10.1002/wcc.653
- Sanders, D. (2019). Editorial: Standing in the shadows of plants. *Plants, People, Planet, 1(3),* 130-138. https://doi.org/10.1002/ppp3.10059
- Sainsbury, W. (1889). June 12. *Calendar of State Papers, Colonial Series, America and West Indies, 1669-1674,* 226. Retrieved February 21, 2022, from https://archive.org/stream/colonialrecordsco7greauoft#page/n9/mode/2up
- Stagg, B. & Dillon, J. (2022). Plant awareness is linked to plant relevance: A review of educational and ethnobiological literature (1998-2020). *Plants, People, Planet, 4(6),* 579-592. https://doi.org/10.1002/ppp3.10323
- Thomas, H., Ougham, H. & Sanders, D. (2020). Plant blindness and sustainability. *International Journal of Sustainability in Higher Education, 23(1),* 41-57. https://doi.org/10.1108/IJSHE-09-2020-0335
- Wandersee, J. H. & Schussler, E. E. (1999). Preventing Plant Blindness. *The American Biology Teacher, 16(2),* 82-86. https://doi.org/10.2307/4450624
- Wandersee, J. H. & Schussler, E. E. (2001). Toward a Theory of Plant Blindness. *Plant Science Bulletin, 47(1),* 2-9. Retrieved 11 September 2022, from https://www.scribd.com/document/458870321/Toward-a-Theory-of-Plant-Blindness-WANDERSEE-SCHUSSLER-2001-pdf
- Wolverton, S. (2013). Ethnobiology 5: Interdisciplinarity in an Era of Rapid Environmental Change. *Ethnobiology Letters, 4,* 21-25. https://doi.org/10.14237/ebl.4.2013.11