# Some naive and tentative attempts at introducing Indigenous perspectives into my Biology teaching



Paul Grogan
Dept. of Biology

E-mail: groganp@queensu.ca

## Positionality

## Specific Teaching Practices to help promote Indigenization - Equity, Diversity, Inclusion, Accessibility and Anti-racism (I-EDIAA)

(Version 1.1, February 2023)

#### Introduction

#### Acknowledgements

- Faculty, teaching staff and graduate students of the Queen's Department of Biology
- Dr. Yasmine Djerbal (Educational Developer Anti-racism and Inclusion, Queen's Centre for Teaching and Learning)
- Dr. Maria Aristizabal (Faculty member, Dept. of Biology)
- Yunyi Chen (Educational Developer in Global Engagement), Queen's Centre for Teaching and Learning)
- Monica Garvie (Ph.D. student, Dept. of Biology; Educational Development Associate, Queen's Centre for Teaching and Learning)
- Alice Johnston (Ph.D. student, Faculty of Education) Promoscience project leader
- Emma Britton McCallum (Education and Learning, Queen's Human Rights & Equity Office)
- Zoe Kane (Ph.D. student, Dept. of Biology with a special interest in Accessibility)

## Specific Teaching Practices to help promote Indigenization - Equity, Diversity, Inclusion, Accessibility and Anti-racism (I-EDIAA)

(Version 1.1, February 2023)

#### Practices for:

- Broadly introducing the principles of I-EDIAA (14#)
- Highlighting Indigenization (14#)
- Highlighting Equity(3#)
- Highlighting Diversity (7#)
- Highlighting Inclusion (7#)
- Highlighting Accessibility (1#)
- Highlighting Anti-racism (2#)

#### Resources (6 pages):

- References cited above and some extras
- Specific Indigenous topic resources
- General I-EDIAA resources
- General I-EDIAA training resources

## Practices for broadly introducing the principles of I-EDIAA (14#)

- (1) "Curricular diversification involves questioning, disrupting, and challenging dominant western-centric knowledges, pedagogies, intellectual traditions, and ways of knowing, to include Indigenous, global, non-western, anti-racist, decolonial, and feminist perspectives." (PICRDI recommendation #16)
- (3) Approach coverage of I-EDIAA in your course from a mutual learning perspective.
- (9) Consider the role and requirements of your Teaching Assistants in addressing I-EDIAA principles.
- (10) "No language is neutral" (Maracle, 2020). Take opportunities to highlight the critical importance of the particular words we choose to use in our teaching and learning.
- (14) Talk it up! Our civilisation's progress on I-EDIAA is a very positive advance that contrasts with widespread concerns about negatives.

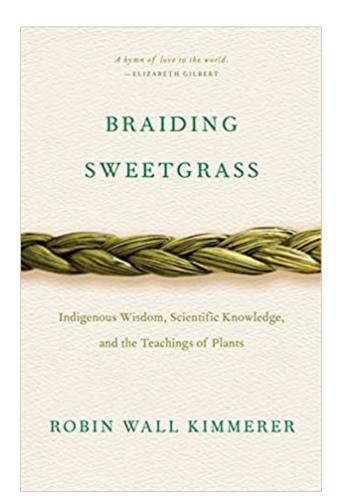
## Practices for highlighting Indigenization (14#)

- (1) Land acknowledgement
- (6) Explore the use and misuse of Indigenous Knowledge/Traditional Ecological Knowledge (TEK) in science.
- (9) Where appropriate in ecology/environmental science courses, highlight the <u>distinct</u> inter-relationship and respect-based perspectives that Indigenous groups have with the land and water, and all the organisms that live in those habitats.
- (13) Consider introducing yourself and your students to the **Thanksgiving Address** entitled "The Words Before All Else"
- (14) Consider attempting to include some coverage of non-science based 'ways of knowing'

### The Biology of Sustainability (BIOL 510)

2022 course subtitle:

Maybe our greatest need now is not more knowledge but more wisdom



### Course question

Interconnectedness and impermanence: Is enhanced deep awareness of these fundamental biological principles the ultimate key to significantly advancing our species toward more sustainable living?



### Learning outcomes

By the end of this course, the student should be able to:

- 1. Explain the term 'ways of knowing' from Indigenous, Western Science and Arts perspectives, and outline their historical roots and interconnections
- 2. Describe the 17 **United Nations Sustainable Development Goals** and their unique significance, and evaluate them in the context of Indigenous values
- 3. Discuss and critique the strengths and weaknesses of each of the core sustainability-related arguments proposed in Robin Kimmerer's book *Braiding Sweetgrass*
- 4. Formulate clear, original, challenging, and concise thematic questions from course reading materials that are likely to lead to focussed and intellectually-probing seminar group discussions, student-led seminar topics, and short essays
- 5. Lead a stimulating, informative and creative **seminar interpreting selected material from Robin Kimmerer's book Braiding Sweetgrass** in the context of this course's focal question about interconnectedness and impermanence (see above)
- 6. Develop and present a cohesive, original, synthesis final essay on the potential value of incorporating the concepts of interconnectedness and impermanence to promote more sustainable living across our society
- 7. Use the learning achieved in this course to **develop lasting personal solutions** for coping with, and constructively responding to, the major environmental and social sustainability issues of the 21<sup>st</sup> century.

### The particular learning potential of the Arts



The Scream – Kent Monkman's depiction of the Canadian residential school system







## BIOL 200 - Biodiversity: What's a species worth? According to what value system? *Manoomin* –



### Wild rice

- Zizania aquatica the only cereal grain that is native to Canada (widespread in north eastern N. America)
- A 'slow' crop; of profound indigenous cultural significance (e.g. Anishinaabeg)
- *Manoomin* production severely diminished by colonial water management practices to control lake levels and to promote recreation, water-skiing etc.

#### **Humans <---> Nature**

Separation/Independence <----> Relationships/Interconnectedness

Individualism <----> Community

Ownership <----> Gift

Commodification/Legality <----> Sharing/Reciprocity



- See Manoomin: Resurgence of Indigenous Food Sovereignty within the Kawartha Lakes Region http://nourishingontario.ca/black-duck-wild-rice-a-case-study/
- And for broader context see Kimmerer, R. 2013. Braiding Sweetgrass





# Some naive and tentative attempts at introducing Indigenous perspectives into my Biology teaching



Paul Grogan
Dept. of Biology

E-mail: groganp@queensu.ca

## From Paula Anderson and James Whetung: http://nourishingontario.ca/black-duck-wild-rice-a-case-study/

According to James, the revitalization of his community's relationship with manoomin is particularly significant as the "manoomin itself is culture" and embodies the knowledge of how to revitalize Anishinaabeg identity, culture and community.

"The wild rice speaks, it speaks softly, yet it wants to be heard. It will speak and you will become aware. The more the seeds grow together, the more they form a large community and their strength is in their voices and as they grow in numbers they are more audible to mainstream society. It has a lot to teach us about culture and about society... as it is a society and it is a diverse society. There are many strains of wild rice, there are many levels of creation living in the rice, all with different needs and wants and so to me wild rice is a reflection of us as a people. And many of the things that have happened to wild rice have happened to us, and when I say us I don't just mean Nishnaabe. I mean all people on the land, it has happened to us all, we've forgotten, we have become weak and scattered in our need and want for community."