# Indigenous Epistemologies for Land Tellings, Restoration, and Change.

Glen Canyon Monitoring and Research Center and Reclamation Annual Meeting

January 12, 2022

Dr. Doreen E. Martinez, Associate Professor Colorado State University



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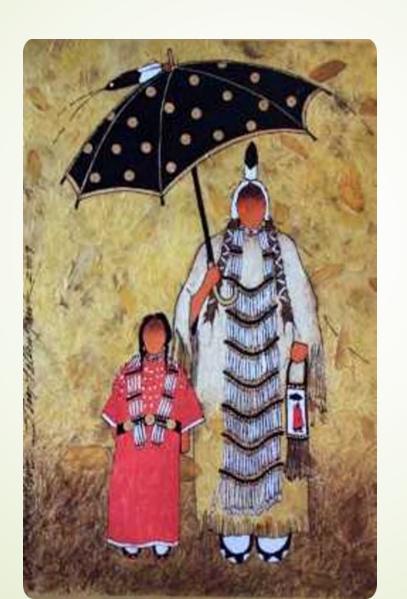
### New research reveals spatial alignment between grizzly bear genetic groups and Indigenous language families in coastal British Columbia

Released on August 3, 2021



Photo by Michelle Valberg.

# ancient Indigenous consciousness



\* discusses a process of knowing that honors and integrates the past; embeds reciprocity of the present and encapsulates a responsibility to the future.

# Land Tellings for Restoration and Change

- Indigenous Epistemologies
  - Seeing
  - Being-with (relatives and responsibilities; dirty theory)
- Natural Reason and Natural Law
  - Land as Pedagogy: learn from and learn with

- Deep logic and deep co-existence
  - Snow

# Indigenous Consciousness: Ancient Being-With

However, I argue that Indigenous consciousness expands and adds to these oppositional ideologies because it recognizes and acknowledges a consciousness that existed prior to "dominant ideologies."



# Indigenous Beliefs

\* Because everything in the [I]ndigenous world is interrelated ... All forces, both animate and inanimate, must be taken into account in order... to remain in good health -physically, emotionally, socially and spiritually (Lobo and Talbot 1998:366).

# Indigenous Ways of Knowing

- \* exploring how knowledge and knowledge expectations (also known as science) are practiced.
  - \* in content; listening to the wind
  - \* in process (move the plant)
  - \* promote system changes and ultimately overall systems health for people, places and animals

#### 'We come from the stars': How Indigenous peoples are taking back astronomy













Astronomers turn to teaching Indigenous star stories from around the world



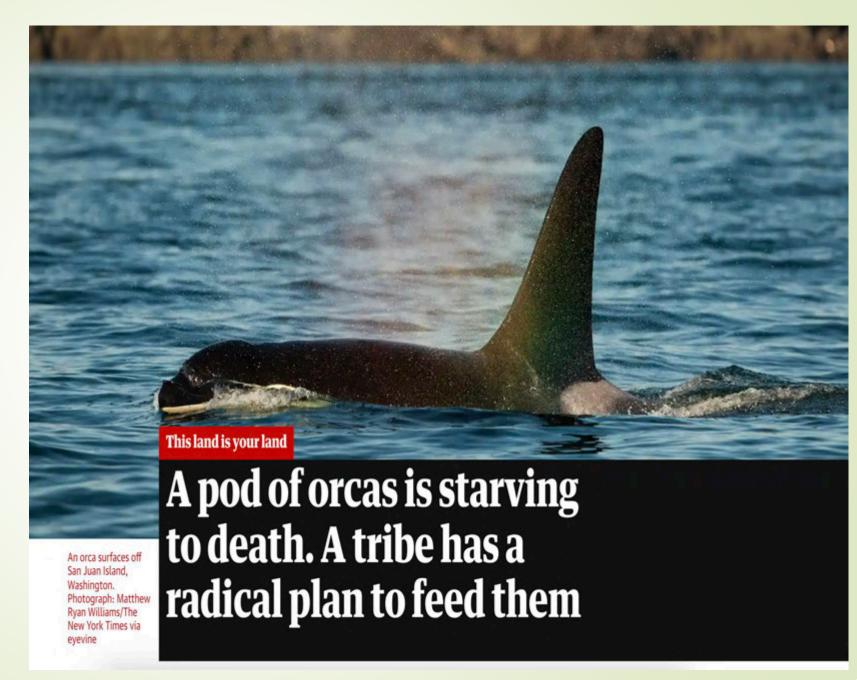
Nicole Mortillaro · CBC News · Posted: Mar 30, 2019 4:00 AM ET | Last Updated: March 30, 2019



The northern lights shine over Wood Buffalo National Park during the Thebacha and Wood Buffalo Astronomical Society's Dark-Sky Festival. (Nicole Mortillaro/CBC)

Deep coexistence Seeks knowings for stewardship

Principles
and
Practices of
Indigeneity
aka Being
Radical



## Radical Indigeneity: Multiplying Knowledges, Serving the Collective

- Tellings
  - Who are your knowers?
  - Where is knowing offered?
    - Land tellings (land is more than land)
- Change as adaptation as natural, necessary
- Exponential realities





#### SCIENCE

# Why Scientists Are Starting to Care About Cultures That Talk to Whales

Arctic people have been communicating with cetaceans for centuries. The rest of the world is finally listening in

Krista Langlois, Hakai Magazine

April 6, 2018



"Tattooed Whale, 2016" by Tim Pitsiulak. Screen-print on Arches Cover Black. Reproduced with the permission of Dorset Fine Arts

# From the Himalayas to the Arctic, traditional herders are sharing knowledge to cope with a changing climate

Yak, reindeer and entire ways of life in the "Third Pole" and Scandinavia face new threats in a warming world. Gloria Dickie reports.



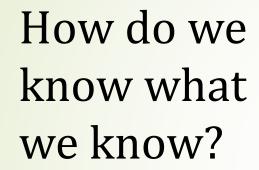


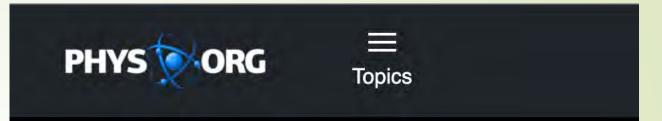
#### Native Knowledge: What Ecologists Are Learning from

Indigenous People

From Alaska to Australia, scientists are turning to the knowledge of traditional people for a deeper understanding of the natural world. What they are learning is helping them discover more about everything from melting Arctic ice, to protecting fish stocks, to controlling wildfires.

BY JIM ROBBINS · APRIL 26, 2018





D FEBRUARY 27, 2019

# Indigenous knowledge key to a successful ecosystem restoration

by Autonomous University of Barcelona



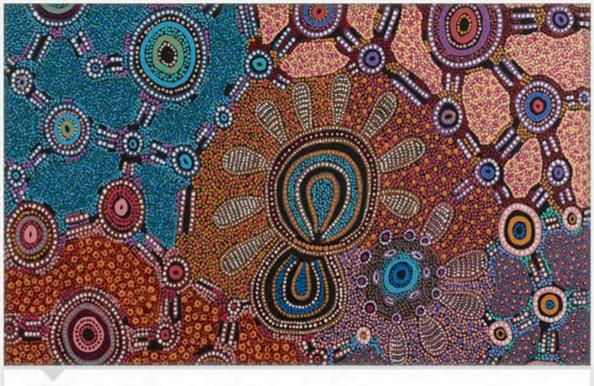
Credit: CC0 Public Domain

Ecological restoration projects actively involving indigenous peoples and local communities are more successful. This is the

Knowing through Seeing through Being-With

19 OCT 2018 - 4:24PM

#### The resonances between Indigenous art and images captured by microscopes

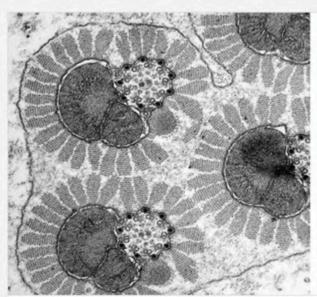


IMAGE

A new exhibition pairs paintings by Indigenous Australian artists with microscopic images captured by scientists. The parallels are intriguing.

#### Birnoo country (artist Gordon Barney) and white ochre

The overlapping plates of the ochre mineral are reminiscent of the rows of hills in Gordon's country.





Moth Sperm and Witchetty Grub Dreaming.

#### Witchetty grub dreaming (artist Jennifer Napaljarri Lewis) and moth sperm

Jennifer's painting shows women collecting witchetty grubs. These can be eaten at all stages of their life cycles. Without the structures shown in the micrograph, sperm wouldn't function and moths' life cycle would be broken.



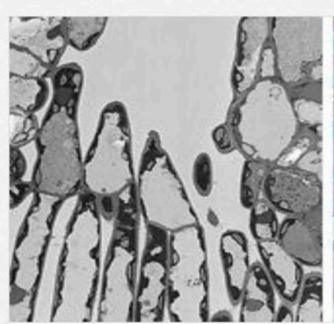


Ribosomes and Janganpa Jukurrpa.

Source: University of Sydney/Warlukurlangu Artists of Yuendumu

#### Sandhills dreaming (artist Vanessa Nampijinpa Brown) and atoms in quartz

The crystal structure revealed in the micrograph is fundamental to the sand making up the sandhills that Vanessa paints in her story.

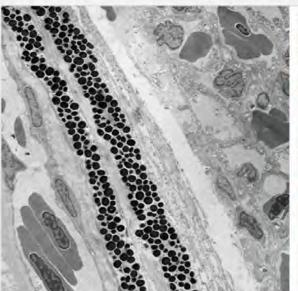




Gum Leaf and Gathering Bush Tucker.

#### Gathering bush tucker (artist Kerry Madawyn McCarthy) and gum leaf cells

The cells in this gum leaf are reminiscent of the rocks and coastal landscape of Kerry's painting. Her people move through the landscape to collect food just as carbon dioxide moves through the leaf spaces to cells, where it is converted to food for the plant.





Fish Eye - Blood Flow and Dry River Bed.

## Feed the Curious: the Great Mystery



Southern theory – "Our interest as researchers is to maximize the wealth of materials that are drawn into the analysis and explanation. It is also our interest to multiply, rather than slim down, the theoretical ideas that we have to work with. ... that includes multiplying the local sources of our thinking." Connell

# Land Knowings, Lessons and Truths: Generalizable, Specific, and Necessary

- Agriculture
  - Agriculture heritage
  - Land practices
- Acre
- Salmon

**11.** Comparison of the root system of prairie grass vs agricultural. The removal of these root systems is what lead to the dust bowl when drought arrived.



## **Knowings** and Adaptation

- Personhood Status
  - values and beliefs
- Rights of Nature

Firehawks

- Food Sovereignty
- Land mitigation and restoration

# Innovative bill protects Whanganui River with legal personhood

Home » Get Involved » Features » Innovative bill protects Whanganui River with legal personhood

Originally published: 28 March 2017

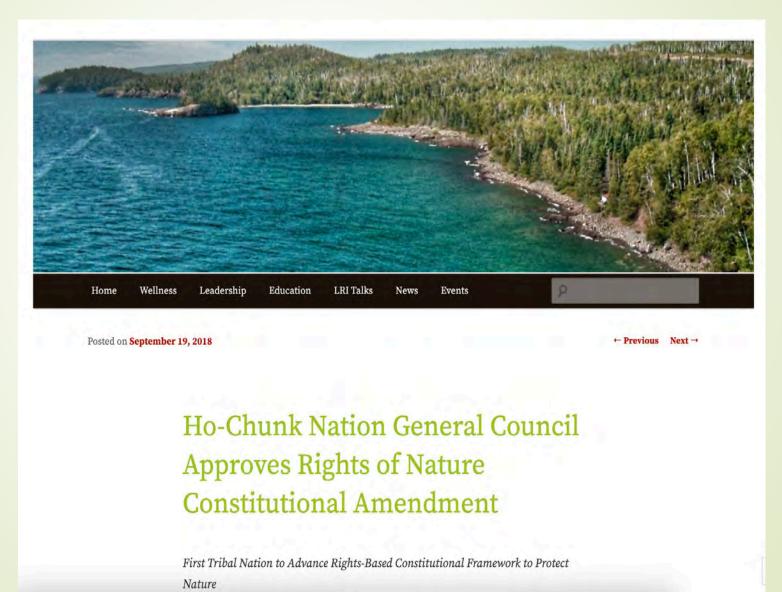
Last updated: 28 March 2017

Earlier this month, Parliament passed a historic bill to recognise the special relationship between the Whanganui River and Whanganui iwi. It will also provide for the river's long-term protection and restoration by making it a person in the eyes of the law.



River flowing through the Whanganui National Park

# Adaptation and Change



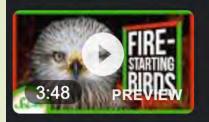
# Australian 'firehawks' use fire to catch prey

By Julia John

Posted on February 9, 2018



A raptor flies approaches the burning savanna in Australia's Northern Territory. ©Bob Gosford



#### Firehawks: Nature's Arsonists

YouTube · SciShow Oct 19, 2019

#### Cool Green Science Smarter By Nature

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BIRDS & BIRDING

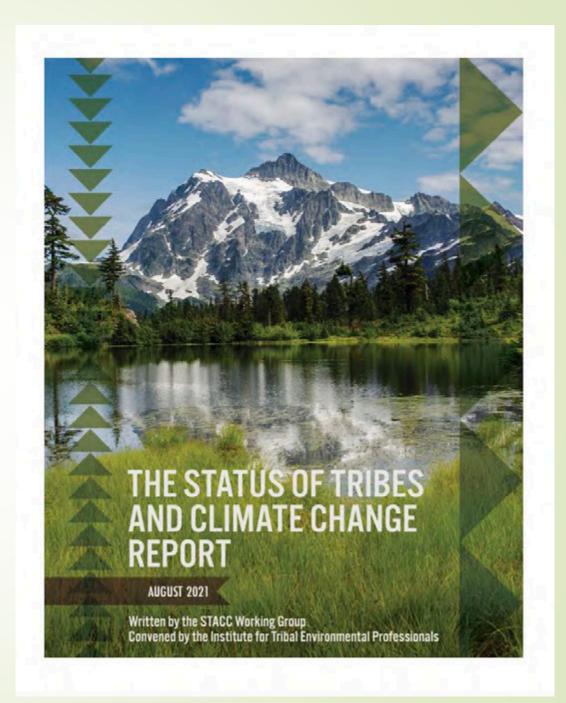
#### Australian "Firehawk" Raptors Intentionally Spread Wildfires

BY JUSTINE E. HAUSHEER

JANUARY 12, 2018 | Follow Justine



Knowings and Adaptation: Humility, Generosity and Respect



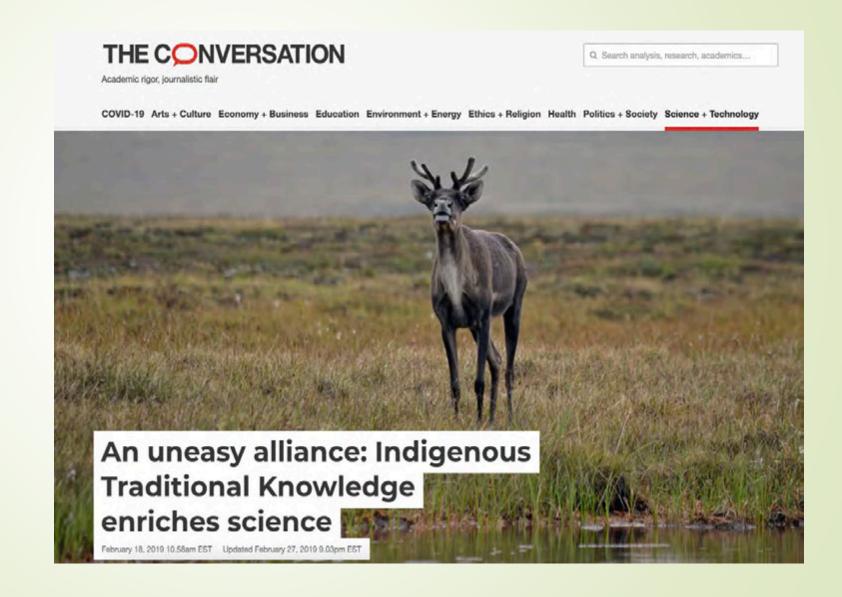
# Knowings and Adaptation: Humility, Generosity and Respect

# Indigenous Peoples launch self-determined agenda at IUCN World Conservation Congress

Marseille, France, 03 September 2021 (IUCN) – IUCN's Indigenous Peoples Member Organisations today called for the recognition of Indigenous peoples' rights and governance over their lands and resources. The call is part of a global agenda of Indigenous priorities for conservation action that was presented during the IUCN World Summit of Indigenous Peoples and Nature, held at the IUCN World Conservation Congress in Marseille.



## Avoid knowledge extraction



# Questions?

