



## INDICATOR: Awareness of Biodiversity and its importance to human health

**Strategic Direction:** Empower People

**Target:** 2. By 2025, the capacity for people to conserve biodiversity is increased, and by 2030 people are taking action to protect and care for biodiversity in their daily lives.

**Theme:** Conservation Response – Education and Awareness

**Previous versions:**

- [Awareness of Biodiversity and its importance to human health - 2016](#)
- [Awareness of Biodiversity and its importance to human health - 2020](#)

### Background Information

Biodiversity underpins human health as an essential life-support system (Maselle et al. 2021). The most recent biodiversity barometer report found that awareness of biodiversity had been rising steadily but accelerated after 2020 (UEBT 2022). Understanding the importance of biodiversity to our lives and to our health is also increasing. Humans live within nature – we are part of biodiversity, and our health is very closely linked to the health of our environment (OBC 2023).

Clean air and water, climate regulation, provision of pollinators for food production, access to outdoor recreational opportunities, and medicinal compounds are just a few of the ways that biodiversity influences human health and well-being.

People are more likely to take actions to conserve biodiversity if they understand the concept and its importance to their lives and feel a connection to nature (Simaika and Samways 2010; Hughes et al. 2018). Since the 2011 Ontario Biodiversity Strategy (OBS), Ontarians' awareness of biodiversity has steadily increased. The Ontario Biodiversity Council set out key actions early-on to communicate to the public the relevance of biodiversity and the need to protect and enhance it, along with the ecosystem services essential for human health and well-being. The latest OBS 2023-2030, looks to build off that work and continue to develop and share information about how biodiversity is linked to human health, climate change and the economy.

In the first OBS, target 2 related specifically to Ontarians' understanding of biodiversity and its importance to human health, so the Ontario Biodiversity Council commissioned telephone surveys in 2014 to report on this target. The questions focused on understanding issues related to knowledge and awareness of biodiversity issues. That same survey was conducted again in 2016, and 2020, showing steadily increasing knowledge and awareness about biodiversity. In 2024, questions were added to better understand Ontarians' connection to nature and willingness to protect and conserve it.

This indicator presents the results from the Biodiversity Awareness Surveys, conducted in October 2014, October 2016, January 2020, and May 2024.



**Data Analysis**

Data about Ontarians’ understanding of biodiversity were collected as part of a phone survey done on behalf of the Ontario Biodiversity Council by ECO Environmental Communication Options and Oracle Poll Research in October 2014 (ECO 2014) and again by Oracle Poll Research in October 2016, January 2020, and May 2024 (Oracle Poll Research 2016, 2020, 2024). Respondents were asked questions related to biodiversity – 10 questions in 2014, 2016 and 2020. Additional questions were included in the 2024 survey – 17 total questions.

This indicator uses data from four of the survey’s questions related to Ontarians’ understanding of the term biodiversity and its relationship to their health and well-being, and compares results over time. Additionally, results from the some of the new questions were included to provide a baseline of information of Ontarians’ connection to nature, impacts to it, and their willingness to take action.

In 2014 and 2016 the poll was administered to 1,000 people aged 18 years or older. In 2020 and 2024 the poll was administered to 1,500 people 18 years of age or older. The margin of error for the 2020 and 2024 samples of 1,500 people is ±2.5%, 19/20 times.

Results from the Ontario survey are also reviewed against data collected for select countries around the world for comparative purposes.

**Results**

**Trend:** Improvement      **Data Confidence:** High      **Geographic Extent:** Provincial

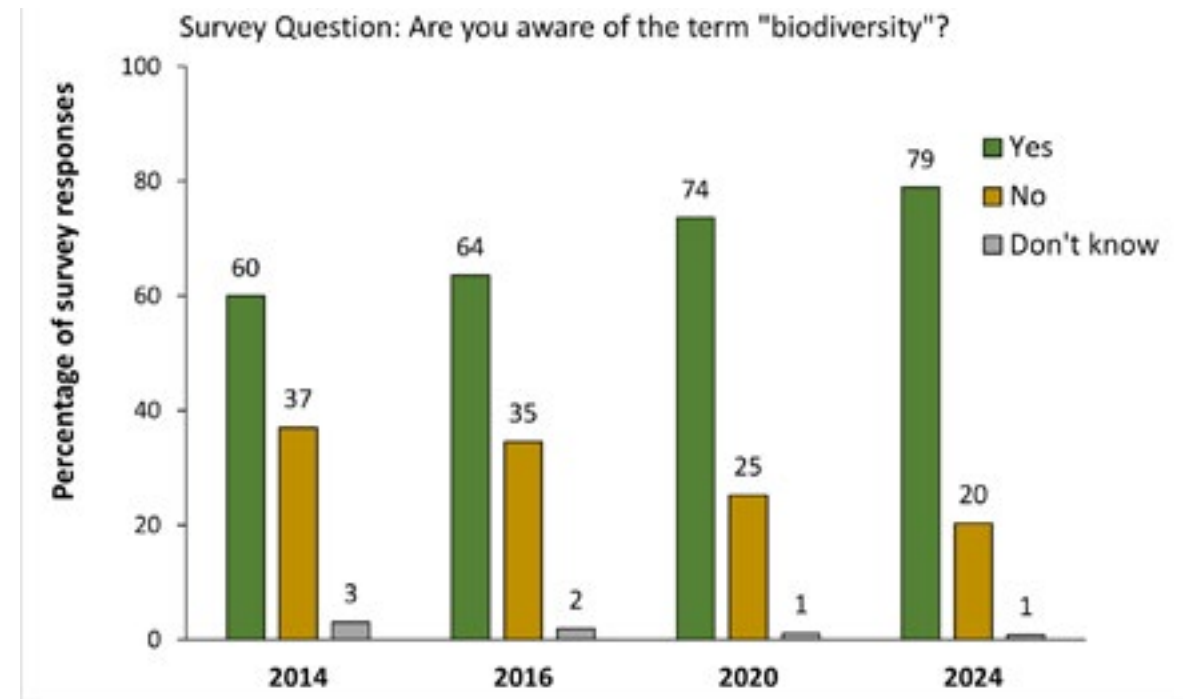


Figure 1. Biodiversity awareness survey responses, by percentage, to the question ‘Are you aware of the term biodiversity?’ in 2014, 2016 (n = 1,000/yr.), 2020 and 2024 (n = 1,500).

Table 1. 2020 and 2024 Ontario biodiversity awareness levels compared to awareness levels reported between in 2022 for select countries around the world. (data from Union for Ethical BioTrade and OraclePoll 2024).

Country	Percent awareness in 2022
Brazil	97
China	94
France	94
United Kingdom	87
United States of America	72
Denmark	76
Ontario	74 (in 2020) 79 (in 2024)

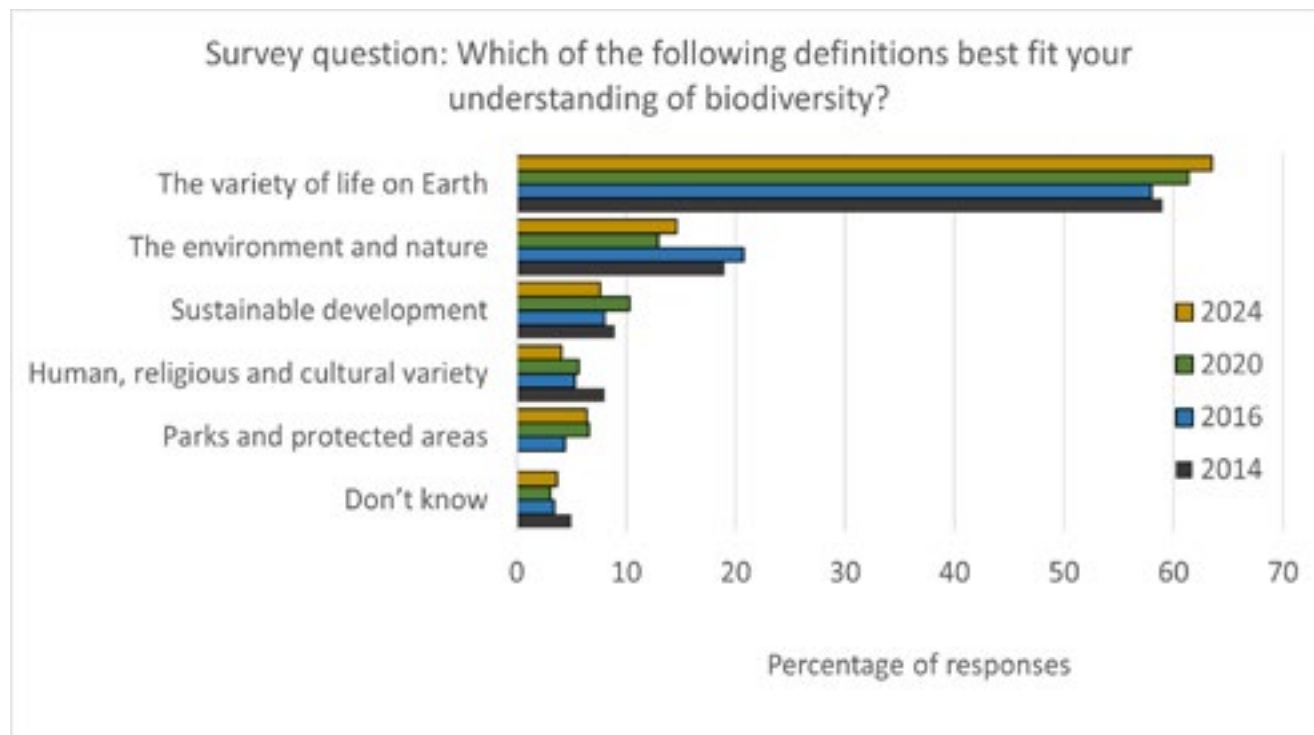


Figure 2. Survey respondents' definitions of biodiversity in 2014 (n = 598), 2016 (n = 636), 2020 (n = 1,105), and 2024 (n=1184). Only respondents that were aware of the term biodiversity were asked this question. The Parks and protected areas option was added in 2016.

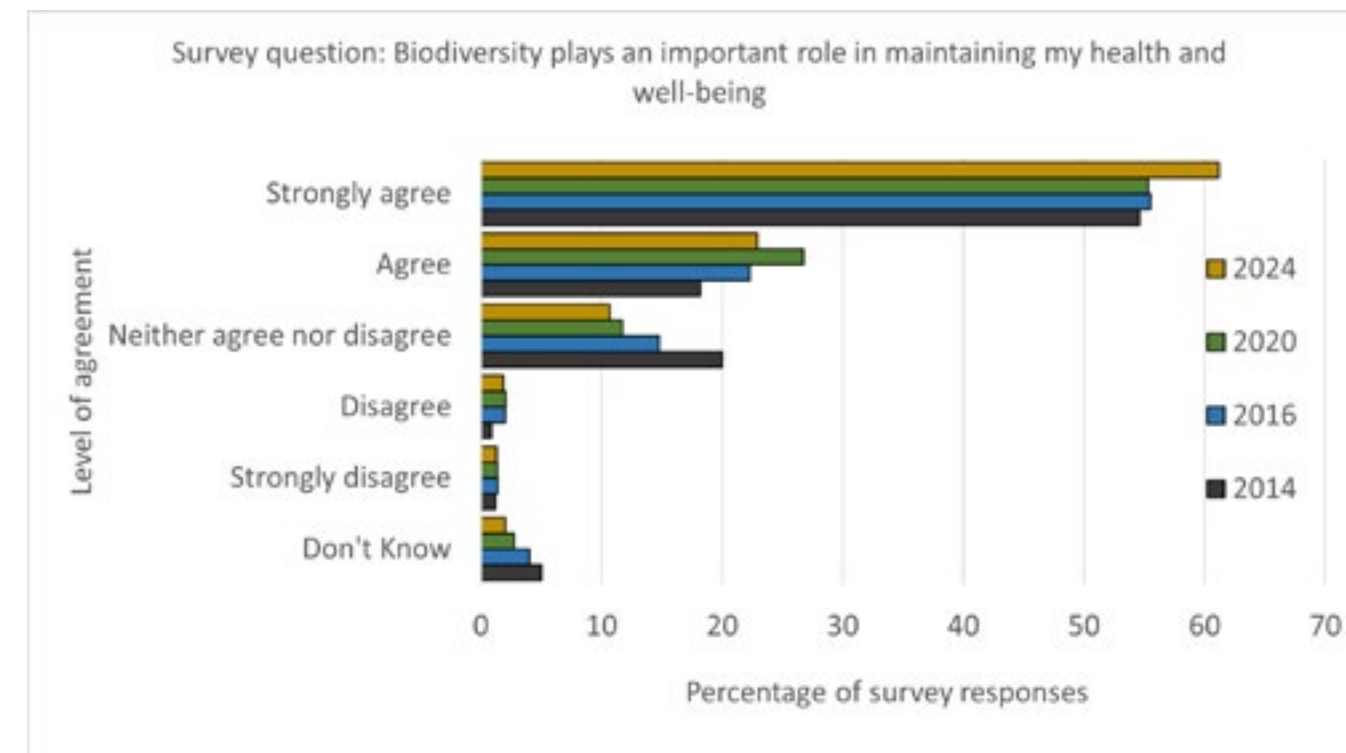


Figure 3. Percentage of survey responses to the statement, 'Biodiversity plays an important role in maintaining my health and well-being' in 2014, 2016 (n = 1,000/yr.), 2020 and 2024 (n = 1,500).

Survey question: In your opinion, what aspect of biodiversity has the greatest impact on your health?

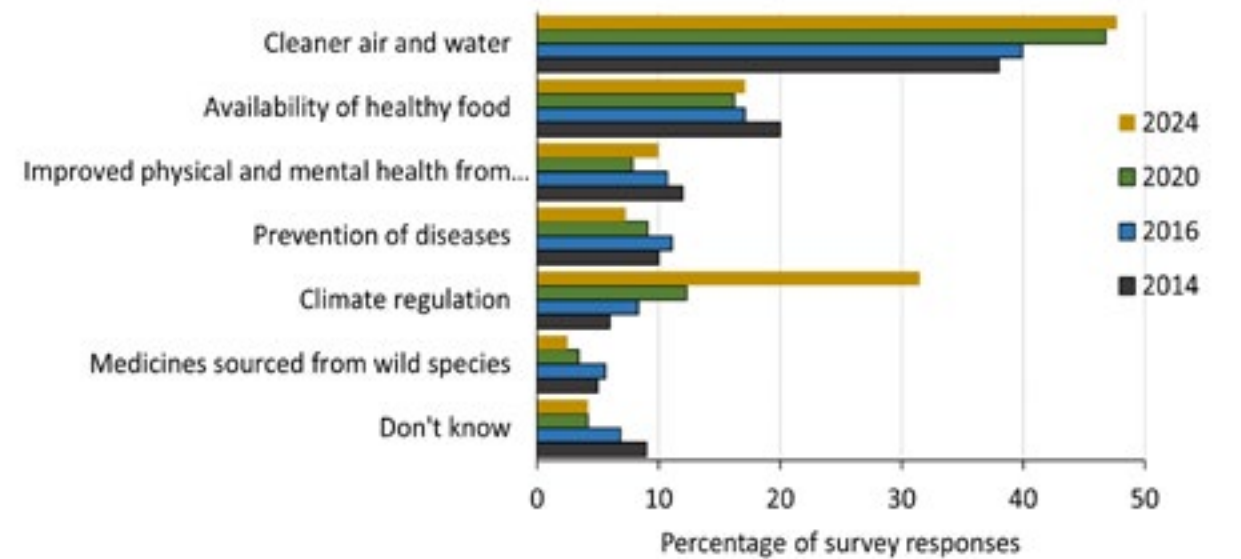


Figure 4. Percentage of survey participants' responses regarding which aspect of biodiversity has the greatest impact on their health in 2014, 2016 (n = 1,000/yr.), 2020 and 2024 (n = 1,500).

The new survey questions added to the 2024 survey dug deeper into Ontarians understanding of the threats to biodiversity, whether they feel it is important to restore and protect biodiversity and their own willingness to act to sustainably use and conserve it.

Table 2. Percentage of survey participants' (n=1500) responses when asked to rate their level of agreement with the statements below. The numbers combine to total agree (4-agree and 5- strongly agree) as well as total disagree ( 1- strongly disagree and 2- disagree).

Question	Total disagree	Neutral	Total agree	Unsure
Large scale habitat loss is one of the major causes of climate change.	7	12	78	2
Investing in the large-scale restoration of habitats is an important part of the solution to mitigating greenhouse gas impacts.	5	11	80	3
Investing in large-scale protection & restoration of habitat (biodiversity) helps protect from the impacts of climate change.	3	9	86	2
Ontario should invest in the protection, restoration, and sustainable use of biodiversity for climate, human-health/ safety & economic benefits	2	8	88	2
I would be willing to pay more for biodiversity friendly products.	13	9	71	7



Survey question: Ontario should invest in the protection, restoration, and sustainable use of biodiversity for climate, human health and safety and economic benefits.

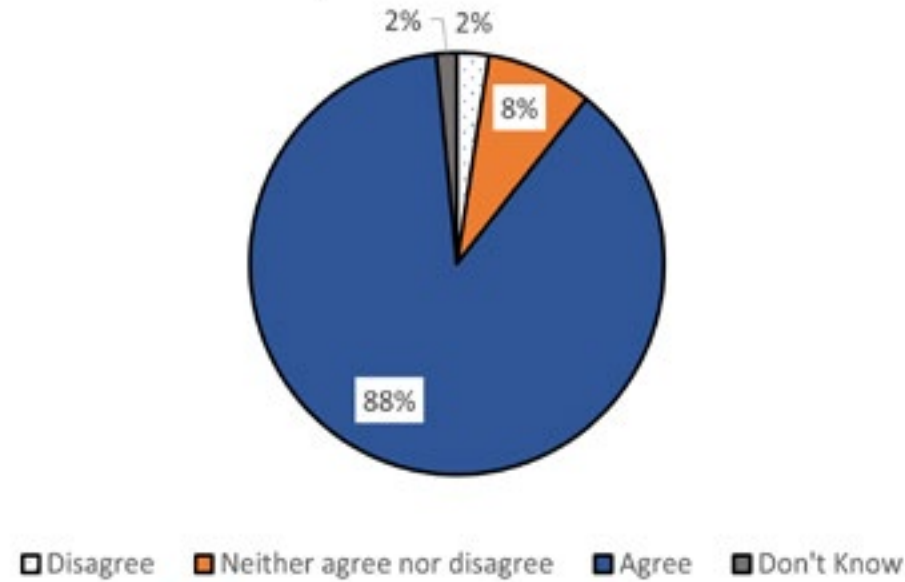


Figure 5. Percentage of 2024, survey participants' responses regarding whether they support government commitments to conserve land and sea by 2030 (n = 1,500).

Survey question: I support further government commitments to protecting or conserving 30% of land and sea in Canada by the year 2030

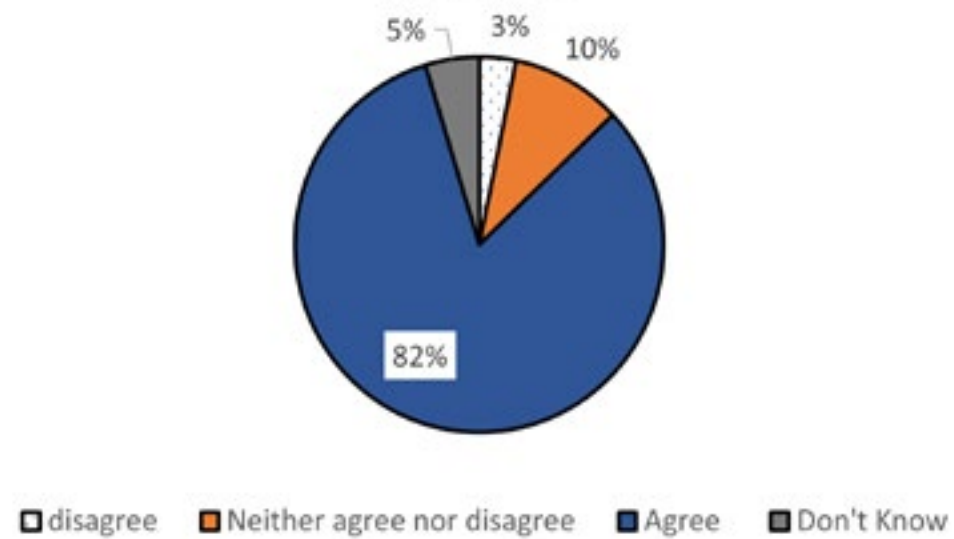


Figure 6. Percentage of survey participants' responses regarding whether they think Ontario should invest in protection, restoration and sustainable use of biodiversity (n = 1,500).



Survey question: Would you be willing to volunteer for biodiversity stewardship or guardianship events

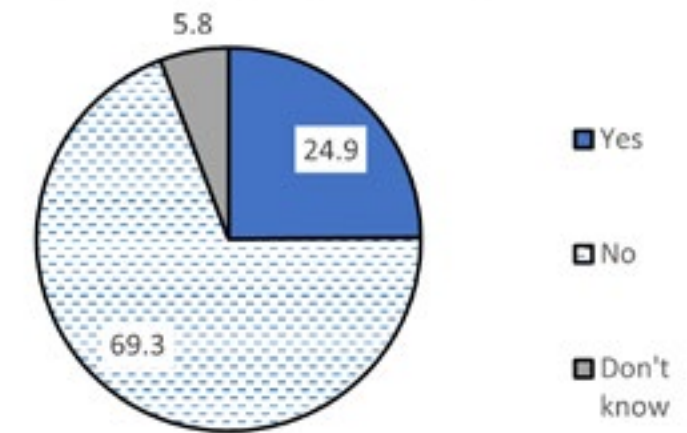


Figure 7. Percentage of survey participants' responses regarding whether they would be willing to volunteer for biodiversity events (n = 1,500).

Survey question: How frequently do you connect with nature through nature-based activities?

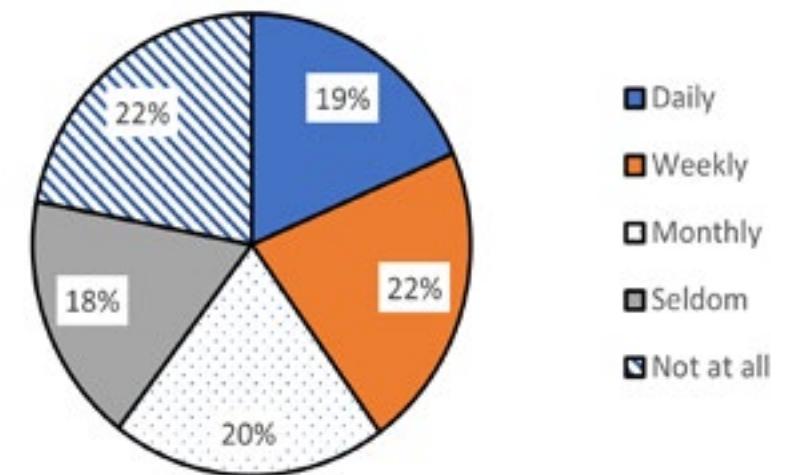


Figure 8. The frequency that people connect with nature through nature-based activities such as birdwatching, hiking, hunting or camping (n=1500).



## Status

- In 2024, 79% of respondents were aware of the term biodiversity, representing a 19% increase over 2014.
- The most recent results also showed that 84% of respondents agreed with the statement that biodiversity plays an important role in maintaining their health and well-being (i.e., 23% agreed and 61% strongly agreed), representing a 11% increase over 2014.
- In 2024, cleaner air and water was chosen as the aspect of biodiversity with the greatest impact on human health at 40%, down from the 2020 results (47%). Climate regulation more than doubled its mentions to be the second highest mention at 26% — representing a 20% increase since 2014. Availability of healthy food was selected by 14%, improved physical & mental health at 8%, and prevention of diseases at 6% of respondents.
- The survey results show that Ontarians' awareness about biodiversity and its importance to their health have reached the 50% target outlined in the original Ontario's Biodiversity Strategy, 2011.
- The goal to empower people was set out in the OBS 2023-2030 and though Ontarians understand biodiversity and its link to human health, they are less willing to volunteer for biodiversity or guardianship events. Twenty-five percent said yes, 69% said no, and 6% were unsure. The most willing to volunteer (40%) were those in the younger age category (18–24-year-olds).
- Ontarians did agree that the government should invest in biodiversity protection, however findings were lower when asked about their willingness to pay for more biodiversity friendly products, with 71% agreeing. Lower earners having the most compressed agreement score (59%).
- Finally, Ontarians do agree that there should be investment in biodiversity restoration and protection (88%). While 82% of Ontarians support the Canadian government's commitment to protecting or conserving 30% of land and sea in Canada by the year 2030. Further investigation is needed to better understand the barriers that affect willingness to act/invest e.g., cost of living, apathy, etc.

## Links

**Related Targets:** N/A

**Related Themes:** N/A

## Web Links

Union for Ethical BioTrade <http://ethicalbiotrade.org/>

Canadian federal, provincial and territorial working group on biodiversity <http://www.biodivcanada.ca>

## Links

Convention on Biological Diversity (CBD). 2010. United Nations. [Available at: <http://cbd.int/2010/biodiversity/>].

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Oracle Poll Research. 2016. Biodiversity 2016 Report. Ontario Biodiversity Council, Peterborough, ON.

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Union for Ethical BioTrade. 2019. UEBT Biodiversity Barometer 2019 – Special Edition Asia. [Available at: <http://www.biodiversitybarometer.org/s/UEBT-Biodiversity-Barometer-2019.pdf>].

## Citation

Ontario Biodiversity Council. 2024. State of Ontario's Biodiversity [web application]. Ontario Biodiversity Council, Peterborough, Ontario. [Available at: <http://ontariobiodiversitycouncil.ca/sobr> (Updated: November 7, 2024)]