Advancing Inclusion for Disabled Wildlife Viewers: Findings from Virginia Tech

Freya McGregor, Emily Sinkular, and Ashley Dayer

Welcome!

Freya McGregor, OTR, ADAC, CIG
Research Associate
Project Co-PI

Emily Sinkular
PhD Student

Ashley Dayer, PhD
Associate Professor
Project PI

Inclusion for disabled wildlife viewers: A literature review

By Freya McGregor, Emily Sinkular and Ashley Dayer,
Dayer Human Dimensions Lab, Virginia Tech






DAYER HUMAN DIMENSIONS LAB

FISH AND WILDLIFE CONSERVATION VIRGINIA TECH

U.S. FISH & WILDLIFE SERVICE

WILDLIFE & SPORT FISH RESTORATION

ASSOCIATION of FISH & WILDLIFE AGENCIES

SCAN ME

Literature Review now available!

Today's presentation

What is Wildlife Viewing?

"Closely observing, feeding, and photographing wildlife; visiting parks or natural areas to observe, feed, or photograph wildlife; and maintaining plantings and natural areas for the benefit of wildlife."

(U.S. DOI et al. 2018)

How common is disability in the U.S.?

1 in 4
Americans have a disability.

(Centers for Disease Control, 2020)

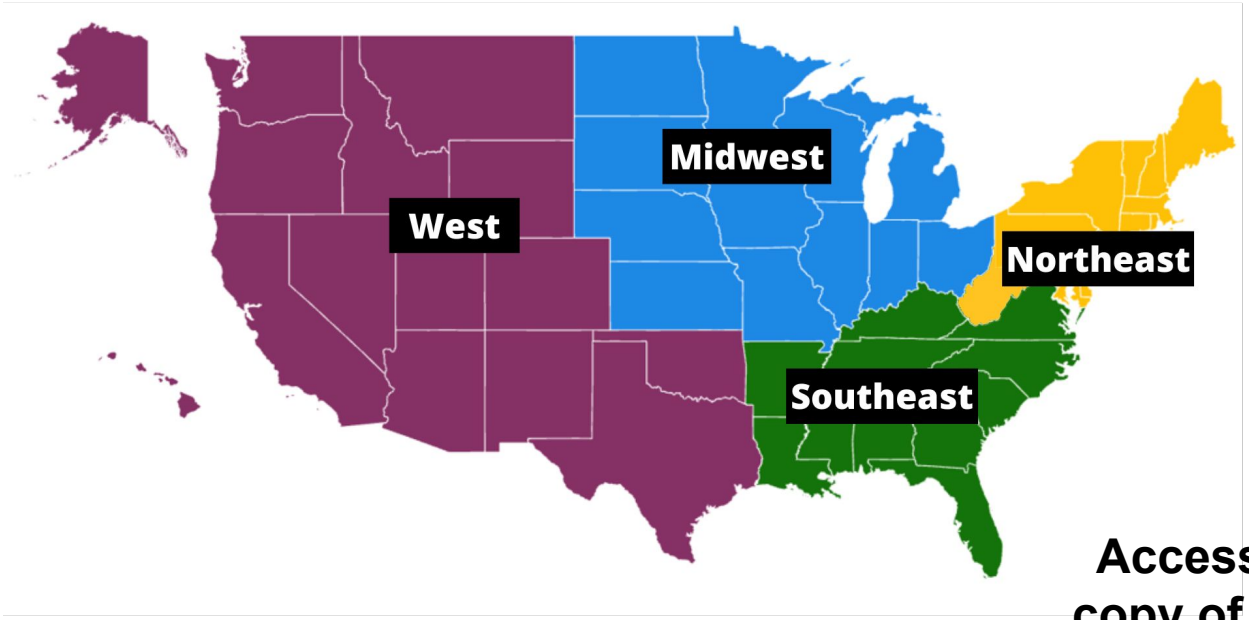
1 in 50
Americans have a diagnosed mental health condition.

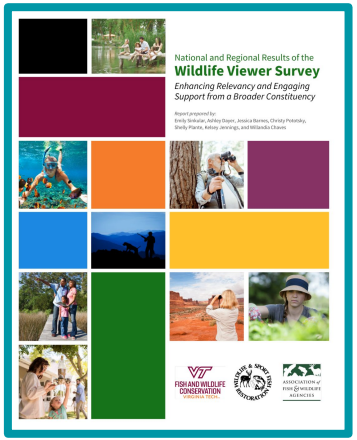
(Mental Health America, 2022)

Wildlife viewers with disabilities

Nationwide survey of wildlife viewers

4,030 total respondents





Access a copy of the report here!

(Sinkular et al., 2022)

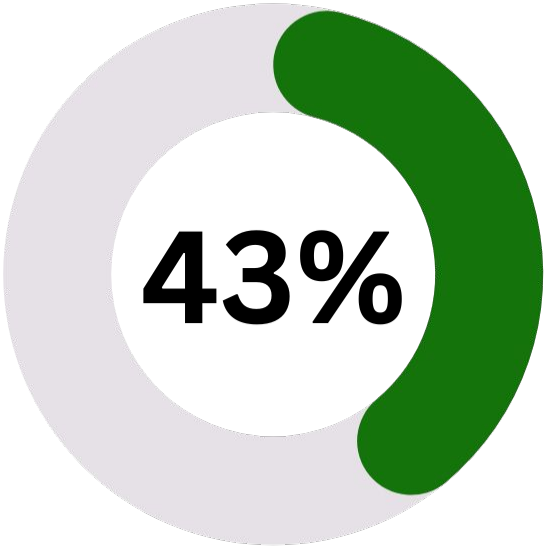
How many wildlife viewers experience accessibility challenges?

Of wildlife viewers reported having *somewhat*, *quite a bit*, or *a great deal* of accessibility challenges when wildlife viewing.

n = 1,556

(Sinkular et al., 2022)

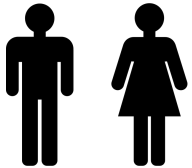
What about hunters and anglers?



Of hunter-angler-viewers reported having *somewhat*, *quite a bit*, or *a great deal* of accessibility challenges when wildlife viewing.

(Sinkular et al., 2022)

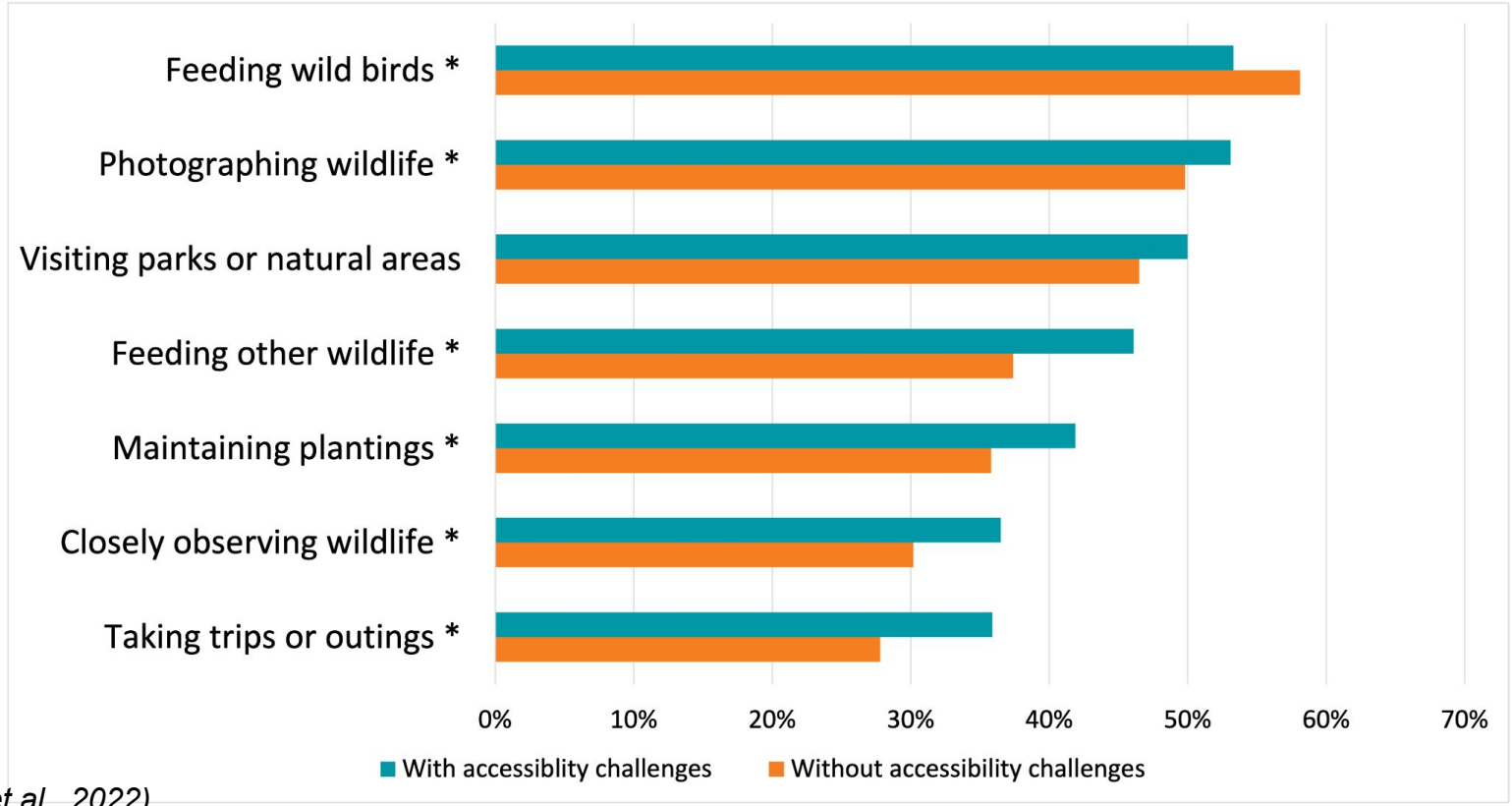
Who are wildlife viewers with disabilities?

With accessibility challenges		Without accessibility challenges
46 ± 18 years old		**54** ± 18 years old *
23% BIPOC		**13%** BIPOC *
60% Men **39%** Women **0.6%** Non-binary		**57%** Men **42%** Women **0.6%** Non-binary

* $p < .05$

(Sinkular et al., 2022)

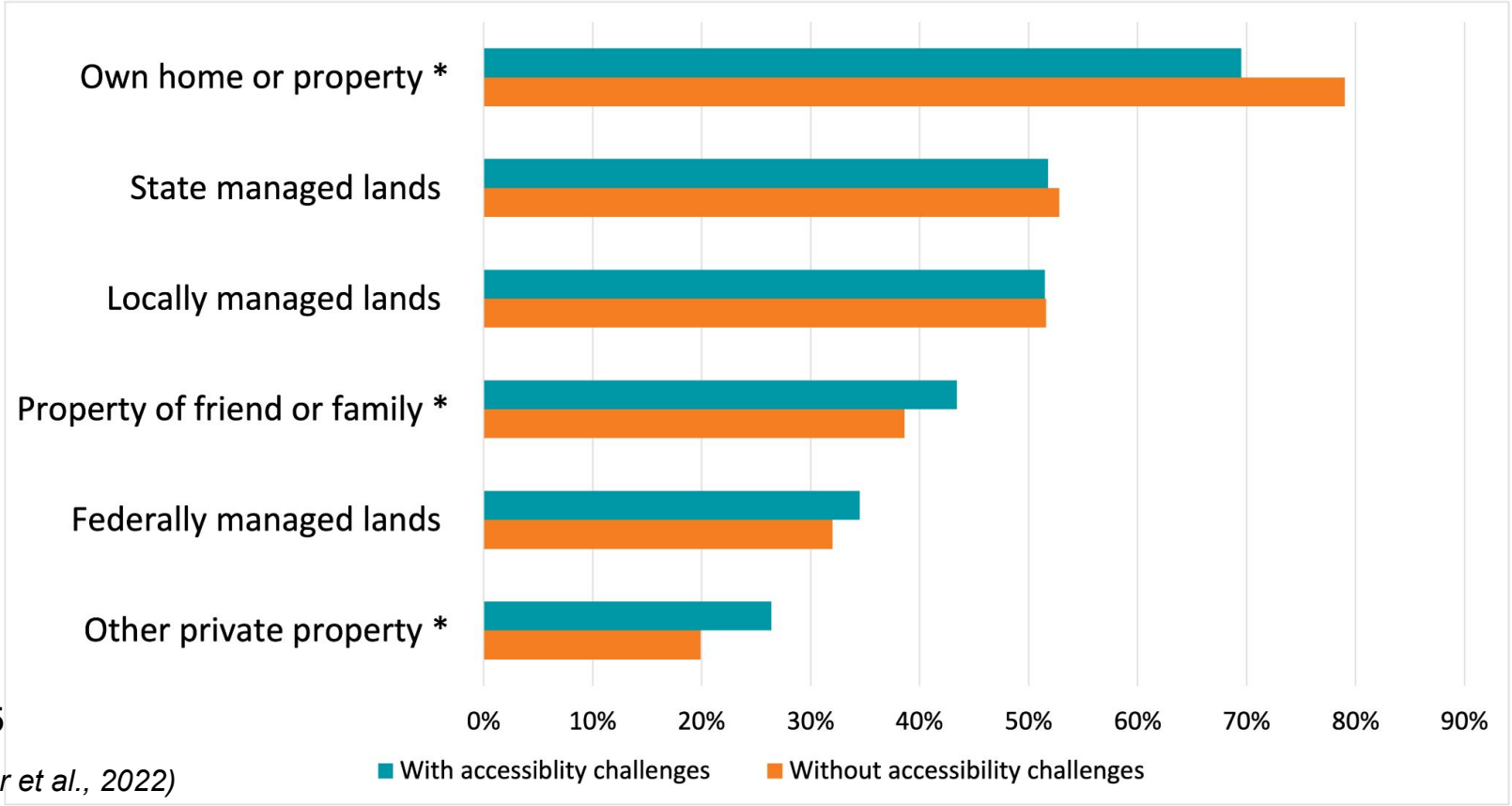
Participation in wildlife viewing



* p < .05

(Sinkular et al., 2022)

Wildlife viewing locations



* $p < .05$

(Sinkular et al., 2022)

Models of disability used by disabled birders

Study: What models of disability do disabled birders invoke when talking about their facilitators to birding?

n = 148

(Sinkular, Dayer, McGregor & Karns, 2024)

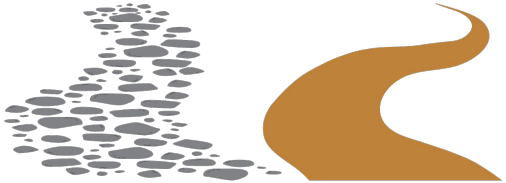
Defining models of disability

> **a set of guiding assumptions, concerns, and propositions… human-made tools for understanding and human-made guidelines for action**

(Smart, 2001)

Models of disability

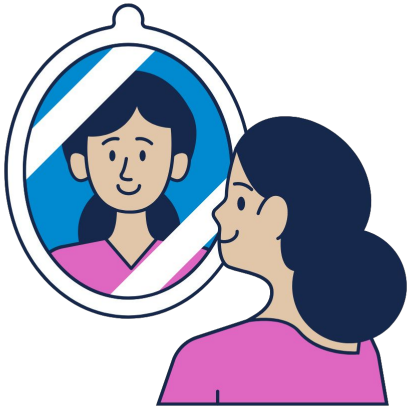
Medical Model



Geographic Model

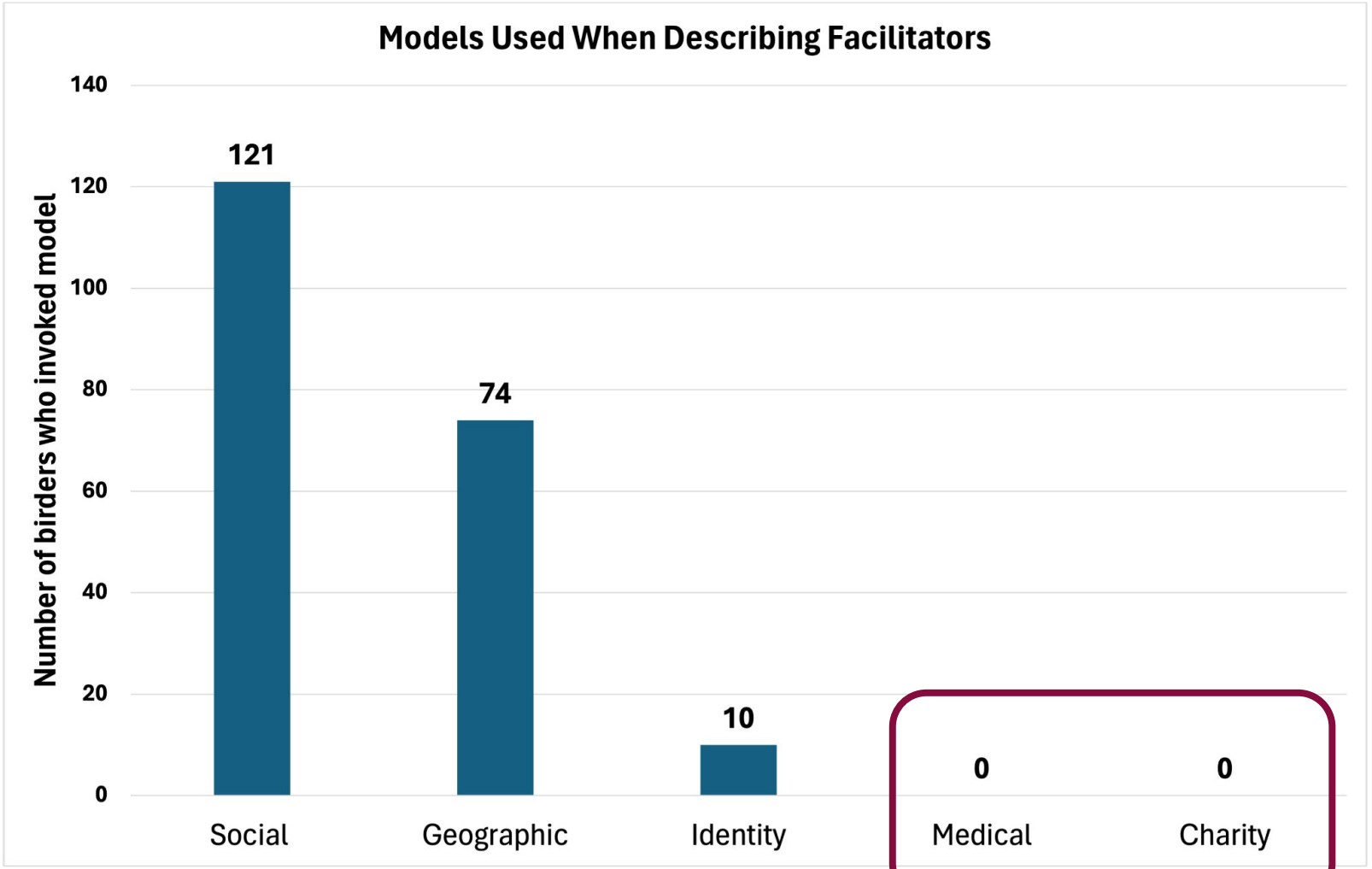
Social Model

Charity Model



Identity Model

(Johnston, 1996; Retief & Letšosa, 2018; Smart, 2001; Zajadacz, 2015)


Models Used When Describing Facilitators
Number of birders who invoked model
140
120
100
80
60
40
20
0
121
74
10
0
0
Social
Geographic
Identity
Medical
Charity

“Bird trips geared to specific disabilities would be helpful especially if the leader is knowledgeable about limitations.”

Social Model

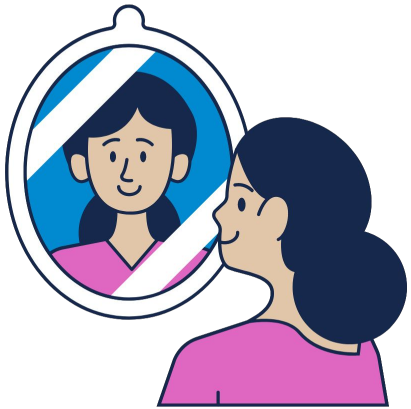
(Sinkular et al., 2024)

“How about a **trail designated for "big sit" birders**, where an accessible path or boardwalk leads to a quiet area (how nice if included a **bench** for those not using wheelchairs) near a good birding spot (off the main trail), where one could **stay for a while** and simply observe the birds?”

Geographic Model

(Sinkular et al., 2024)

“Normalizing the idea that disabilities can be invisible and that younger people may have disabilities. Normalizing not "pitying" people with disabilities.”



Identity

(Sinkular et al., 2024)

Takeaways from this study

→ Use the social and geographic models to resonate with birders with disabilities.

→ Need to change attitudes, awareness, and physical designs of birding locations to increase accessibility and inclusion.

(Sinkular et al., 2024)

Photo: Scott Sinkular.

Using a strengths-based approach to birding with a disability

Disability

Historically viewed through a deficit-based lens.

- Medical model of disability aims to ‘fix’ something that is ‘broken’.
- It’s even embedded in our everyday language!
  - “Tim suffers from cerebral palsy.”
  - “Diane is confined to a wheelchair.”
  - “Jose lost the use of his legs.”

(Gill et al., 2016; Mitter et al., 2019; World Health Organization, 2023.)

Strengths-based approach

- We all have different strengths and weaknesses.
- Rather than focusing on remediating deficits, what if we leaned into our strengths?
  - Less exhausting
  - More empowering

(Dunn, 2017; Marks, 1996; Oliver, 2013.)

Using a strengths-based approach is not:

- **Toxic positivity:** Pressure to minimize reality and be unrealistically optimistic regardless of the situation.
- **Inspiration porn:** Viewing people with disabilities as “inspiring” just for doing everyday things.

(Anxiety & Depression Association of America, 2022; Young, 2014.)

Respondents

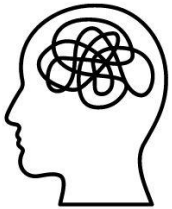
n=148

Mobility disability: 55%

Chronic illness: 30%

Hearing disability: 12%

Neuro-divergent: 7%



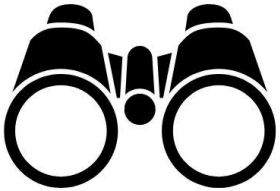
Mental illness: 7%

Visual disability: 5%

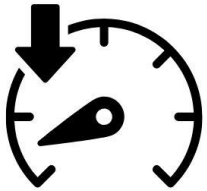
Neurological or brain injury: 5%

(McGregor, Dayer & Sinkular, in preparation.)

Most common styles of birding

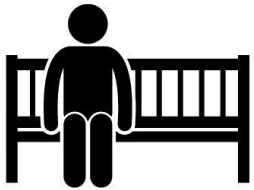


Visual experiences
(36 respondents)



Slowing down
(28 respondents)

Stationary birding
(24 respondents)



Seated
experiences
(23 respondents)

Birding
with others
(23 respondents)

Mindful
birding
(18 respondents)

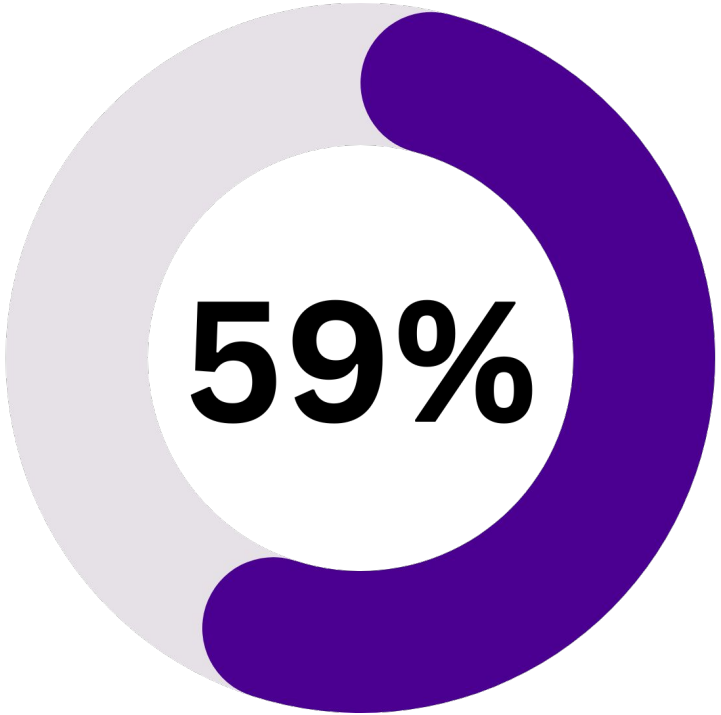
Listening
experiences
(17 respondents)

(McGregor, Dayer & Sinkular, in preparation.)

“Some people notice positives to having different abilities and experiences than others. For example, if they have to walk more slowly than others, they may see birds that others have rushed past and missed. Please tell us about any positives you’ve noticed because of your differences to other birders.”

(McGregor, Dayer & Sinkular, in preparation.)

Results



Of respondents (n=87) reported positives to birding differently to others

(McGregor, Dayer & Sinkular, in preparation.)

Notices more details

(31 respondents)

“Because I don't hear well, I've become a much better visual birder. I am more prone to noticing visual cues of a bird's presence – habitat, nest types, material they might use, food sources, etc than some of my birding friends with good hearing.”

(McGregor, Dayer & Sinkular, in preparation.)

“My hearing is extremely sensitive. I can pick up and identify birds by sounds most people don't seem to hear. I'm especially good at picking up hummingbird buzzing.”

(McGregor, Dayer & Sinkular, in preparation.)

Notices more birds

(22 respondents)

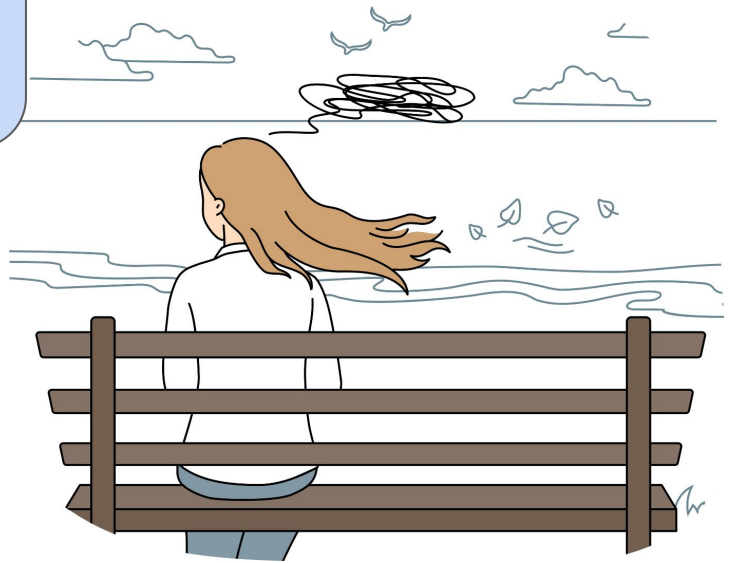
“Having to stop and take breaks means I spend time settled down and catch more birds.”

(McGregor, Dayer & Sinkular, in preparation.)

Adapting birding style/s

(19 respondents)

"My chronic illness has taught me to be very patient and remain still and quiet for longer periods of time."



(McGregor, Dayer & Sinkular, in preparation.)

Interpersonal connection

(11 respondents)

"I get to interact with usually really enjoyable people as I ask for help with an ID if my brain fog is acting up."

(McGregor, Dayer & Sinkular, in preparation.)

Gratitude for birding

(7 respondents)

"Being grateful for ANY birds I see, even very common ones, since I can't get out to see them much."

(McGregor, Dayer & Sinkular, in preparation.)

Adaptive equipment as a facilitator

(6 respondents)

"My power [wheel]chair has a very long range so I can bird for a very long time without getting fatigued!"

"Sitting in a chair with a neck rest, I can look up into trees a bit easier than most people standing or walking."

(McGregor, Dayer & Sinkular, in preparation.)

Health and wellness benefits

(2 respondents)

"My disability is what inspired me to start birding, because it is a quiet and slow task. I find them [birds] joyful and can forget about my grief over my illness."

(McGregor, Dayer & Sinkular, in preparation.)

Takeaways

- Reframe disability using a strengths-based approach.
  → What might a participant gain from wildlife viewing?
- Offer programs that support various styles of wildlife viewing.
  - Allow participants to choose what works for them.

(McGregor, Dayer & Sinkular, in preparation.)

Barriers to wildlife viewing with a disability

Wildlife viewers with accessibility challenges (n= 1,556) were more limited by all surveyed barriers.

Most limiting barriers

Distance to viewing locations
(76%)

Own or other's accessibility challenges
(76%)

Cost
(70%)

Wildlife viewers with accessibility challenges were more limited by a lack of:

- Wildlife viewing skills
- Wildlife viewing equipment
- Transportation to wildlife viewing locations
- People who support viewing
- People to go viewing with
- Organized viewing opportunities
- Free time
- Facilities at wildlife viewing locations

(Sinkular et al., 2022)

Wildlife viewers with accessibility challenges were more limited by:

- Accessibility challenges
- Safety concerns
- Not knowing where to go wildlife viewing

(Sinkular et al., 2022)

The same sample of birders with disabilities (n= 148) who found positives to birding differently than others were asked more about the barriers they experience while birding.

(McGregor & Dayer, in preparation.)

Difficulty navigating the trail (62%)

"I have a chronic illness that affects how much I can do/how far I can travel and for how long. If the trail is uneven, muddy, in a slope of any sort or does not have places to stop… I consider it inaccessible to me."

(McGregor & Dayer, in preparation.)

Getting information ahead of time about the trail's accessibility (60%)

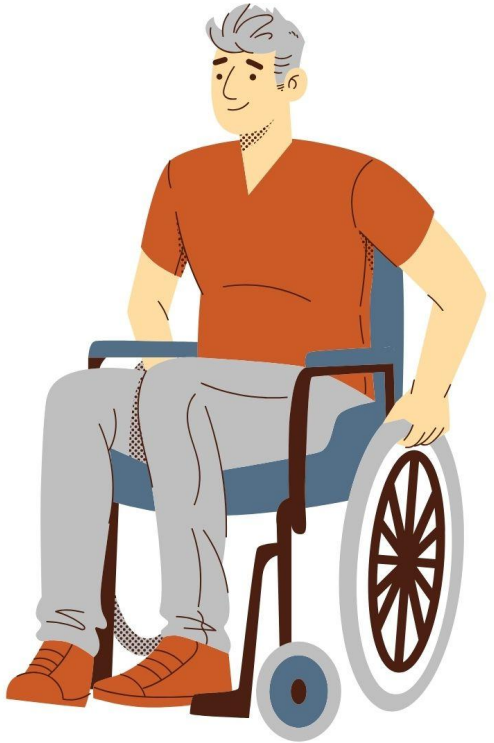
"Websites for parks and trails seldom have accessibility information. When I call, often the person gives poor or wrong information."

"Limited information about trail accessibility causes me to keep returning to tried and true trails and avoid exploring new sites."

(McGregor & Dayer, in preparation.)

Accessing the trailhead (including parking availability) (48%)

"Sometimes parking is strictly for cars and not for wheelchair vans with ramps. I've also been to places that are completely doable for my chair but the parking lot has one step up to the boardwalk entrance and therefore I'm cut off from the whole preserve!"



(McGregor & Dayer, in preparation.)

Access to bathrooms (48%)

“Everyone needs to pee, including people who use wheelchairs.”

“If I don't have bathroom access, I have to limit liquid intake and risk dehydration, or more likely, not go at all.”

(McGregor & Dayer, in preparation.)

Access to regular rest stops (like benches) (47%)

"It's important for there to be benches, and for their locations to be clear, so we can plan our energy expenditure and breaks."

"There are rarely benches to sit, so I have to choose to cut my trip short or injure myself by continuing."

(McGregor & Dayer, in preparation.)

Supporting inclusive wildlife viewing

Facilitators to wildlife viewing

Access to more places to view wildlife

(41% of wildlife viewers accessibility challenges)

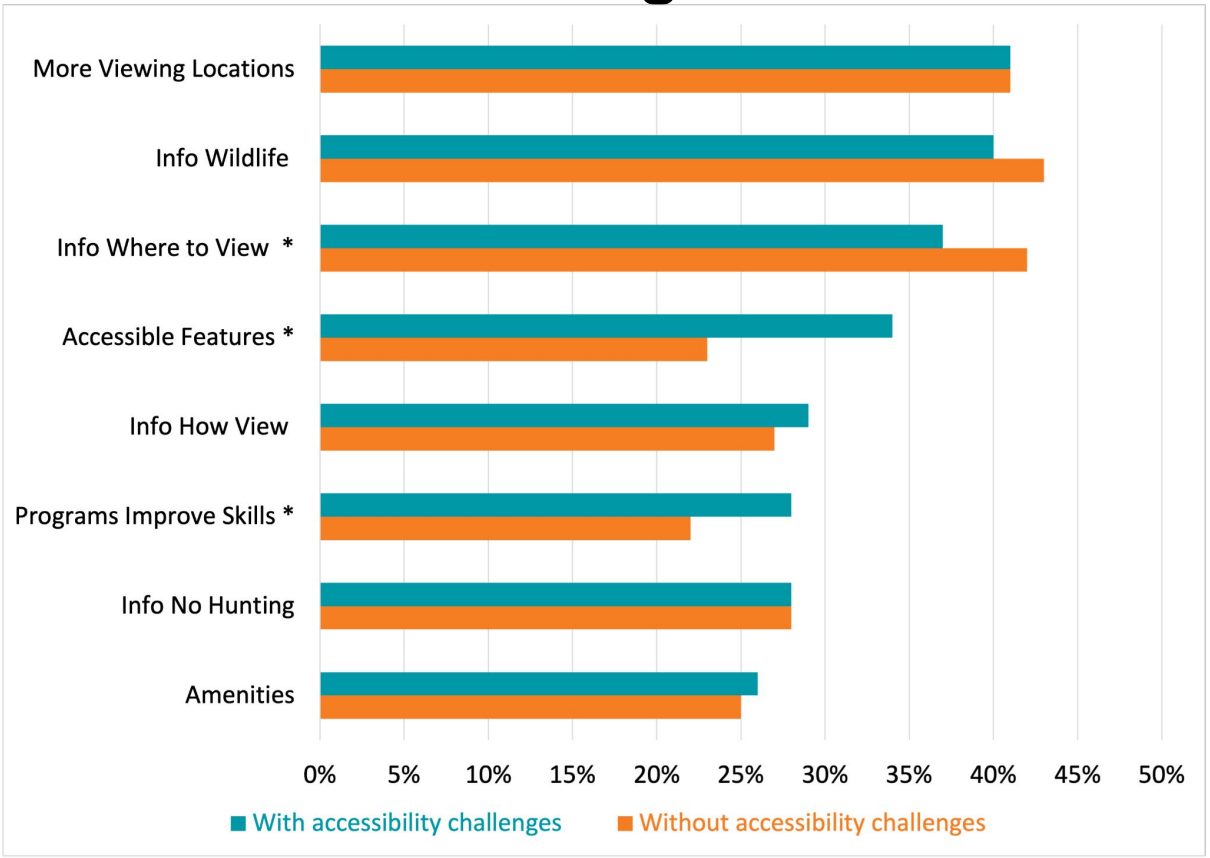
More info about wildlife in state

(40% of wildlife viewers accessibility challenges)

More info about where to see wildlife

(37% of wildlife viewers accessibility challenges)

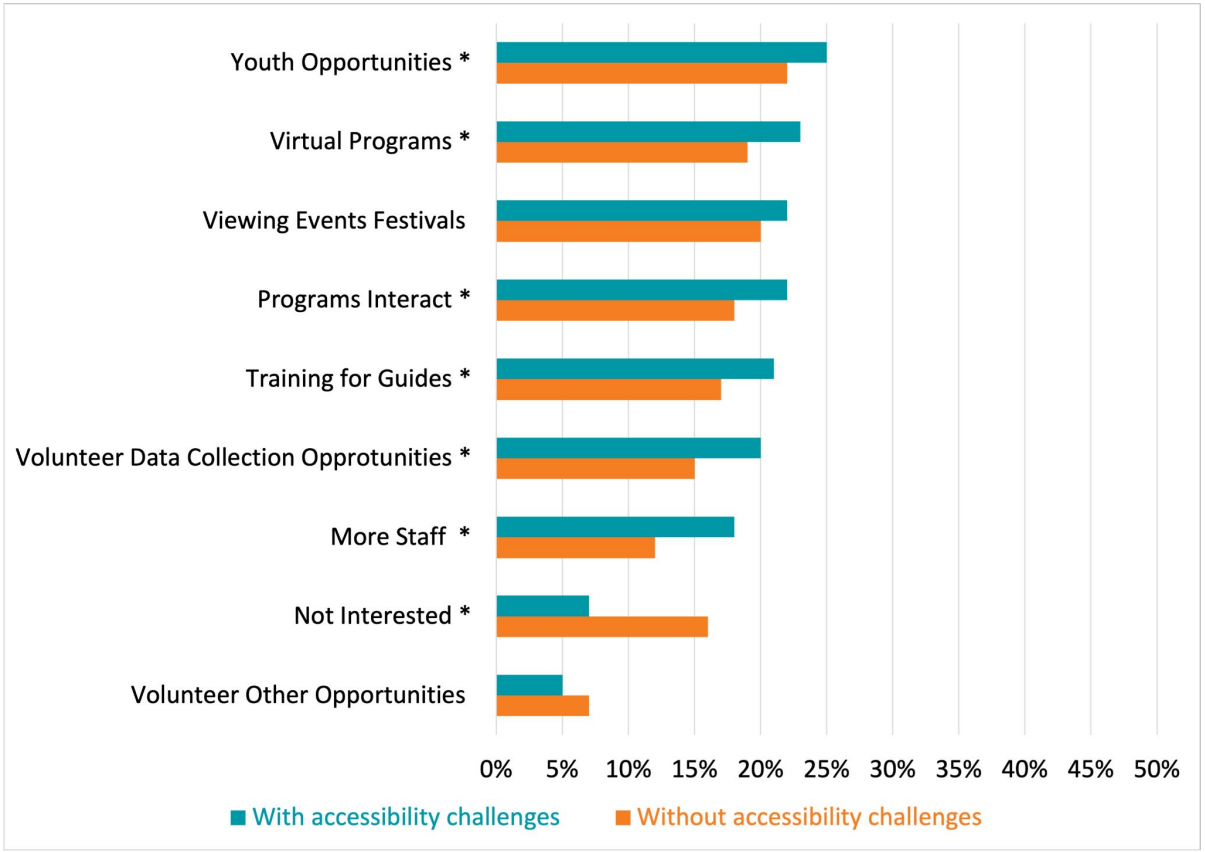
Facilitators to wildlife viewing



* p < .05

(Sinkular et al., 2022)

Facilitators to wildlife viewing



* $p < .05$

(Sinkular et al., 2022)

The same sample of birders with disabilities (n= 148) who found positives to birding differently than others were asked about the factors that impact their choice to go birding.

(McGregor & Dayer, in preparation.)

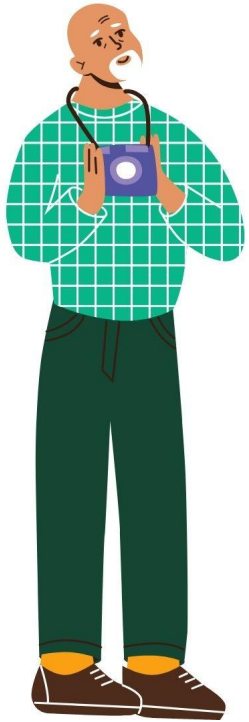
I can access information about the trail in advance (72%)

“If it is listed as accessible what does that mean? Are trails paved or what material is used for them. Are bathrooms available and WC [wheelchair] accessible?”

“It's fabulous when centers post photos of their parking areas, buildings, trailheads, etc., which can offer a lot of valuable info.”

(McGregor & Dayer, in preparation.)

I am not singled out because of my abilities or differences (unless there is a good reason for it) (39%)



“I find that people generally don't understand the challenges that I face, even if they think they do. That makes it uncomfortable when I'm singled out knowing that the person doing it likely doesn't understand and will make assumptions based on that false understanding.”

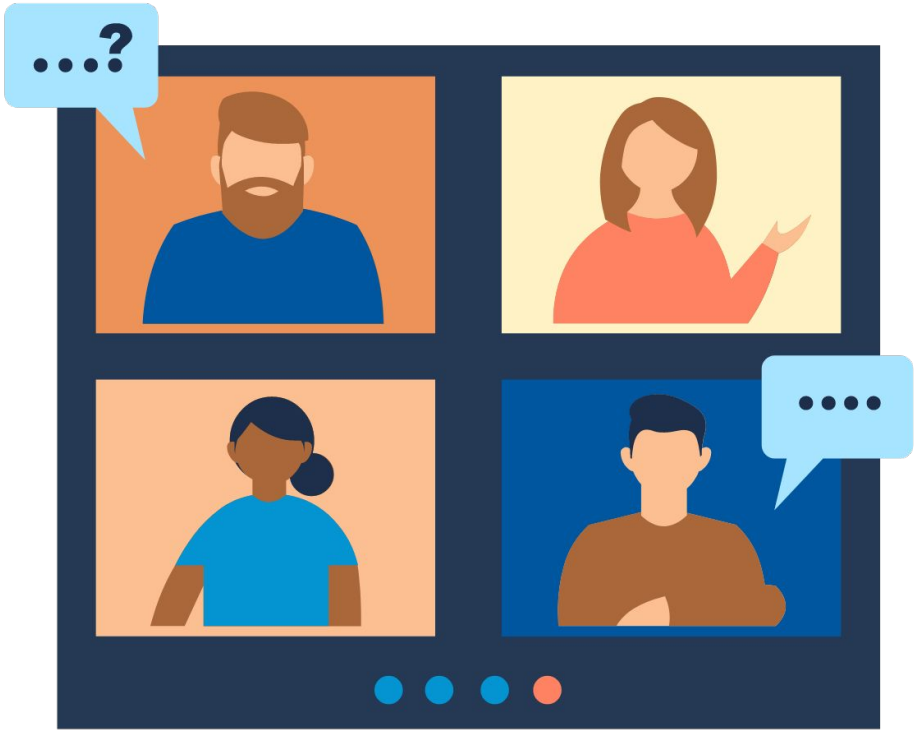
(McGregor & Dayer, in preparation.)

I am part of a group that includes other people who also have accessibility challenges (30%)

"Being in a group with others who share my condition or other challenges would be helpful because I feel we'd have a better understanding of each other's needs and how to help."

(McGregor & Dayer, in preparation.)

Ongoing research project: Findings this winter



Thank you for joining us today!

Please take a short feedback survey!

Thank you to our survey participants, Steering Committee, and Shelly Plante.

Want more information?
viewing.fishwild.vt.edu/inclusion

Questions?

- Freya: freyamcgregor@vt.edu
- Emily: sinkular@vt.edu
- Ashley: dayer@vt.edu

This project was funded by the U.S. Fish and Wildlife Service's Multistate Conservation Grant Program (grant #F24AP00315), which is jointly managed by the Association of Fish and Wildlife Agencies and the U.S. Fish and Wildlife Service's Wildlife and Sport Fish Restoration Program.

References

Centers for Disease Control and Prevention (2023). CDC: 1 in 4 US adults live with a disability. Retrieved from https://www.cdc.gov/media/releases/2018/p0816-disability.html

Dunn, W. (2017). Strengths-based approaches: What if even the 'bad' things are good? *British Journal of Occupational Therapy*, 80(7), 395-396. https://doi.org/10.1177/0308022617702660

Gill, C. J., Mukherjee, S. S., Garland-Thomson, R., & Mukherjee, D. (2016). Disability stigma in rehabilitation. *Pm & R : The Journal of Injury, Function, and Rehabilitation*, *8*(10), 997–1003. https://doi.org/10.1016/j.pmrj.2016.08.028

Johnston, M. (1996). Models of disability. *Physiotherapy Theory and Practice*, *12*(3), 131–141. https://doi.org/10.3109/09593989609036429

Marks, D. (1996). Models of disability. *Disability and Rehabilitation*, 19(3), 85-91.

Mitter, N., Ali, A. & Scior, KI. (2019). Stigma experienced by families of individuals with intellectual disabilities and autism: A systematic review. *Research in Developmental Disabilities*, 89, 10-21. https://doi.org/10.1016/j.ridd.2019.03.001.

Oliver, M. (2013). The social model of disability: Thirty years on. Disability and Society, 28(7), 1024-1026. https://doi.org/10.1080/09687599.2013.818773

Retief, M., & Letšosa, R. (2018). Models of disability: A brief overview. *HTS Teologiese Studies / Theological Studies*, *74*(1). https://doi.org/10.4102/hts.v74i1.4738

Reynolds, G. (September 23, 2022). *Toxic Positivity.* Anxiety and Depression Association of America. https://adaa.org/learn-from-us/from-the-experts/blog-posts/consumer/toxic-positivity

Sinkular, E. N., Dayer, A. A., Barnes, J. C., Pototsky, P. C., Plante, S., Jennings, K. K., & Chaves, W. (2022). *National and regional results of the wildlife viewer survey: Enhancing relevancy and engaging support from a broader constituency* [Report]. Virginia Tech. https://vtechworks.lib.vt.edu/handle/10919/111539

Sinkular, E. N., Dayer, A. A., McGregor, F. A., & Karns, M. J. (2024). Accessible birding in the United States: Constraints to and facilitators of birding with disabilities. *Human Dimensions of Wildlife*, 1–17. https://doi.org/10.1080/10871209.2024.2325157

Smart, J. (2001). *Disability, society, and the individual*. PRO-ED. https://repository.library.georgetown.edu/handle/10822/940811

U.S. Department of the Interior, & U.S. Fish and Wildlife Service. (2023). *2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. U.S. Fish and Wildlife Service. https://digitalmedia.fws.gov/digital/collection/document/id/2321/rec/1

World Health Organization (2023, March 7). *Disability*. Retrieved September 12, 2023 from https://www.who.int/news-room/fact-sheets/detail/disability-and-health

Young, S. (2014). *I am not your inspiration, thank you very much*. Ted Talk. https://youtu.be/8K9Gg164Bsw?feature=shared

Zajadacz, A. (2014). Accessibility of tourism space from a geographical perspective. *Turyzm*, *24*(1), 45–50.