Growing and Improving: (developing) Recommendations for Chesapeake Bay SAV Watchers

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CBP SAV Workgroup

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Photo: CBNERR-VA/Erin Shields

About Me

- Frederick, MD

- 2020 graduate – Juniata College

- Background with participatory/citizen/community science orgs

- 2nd year MA student at Virginia Institute of Marine Science

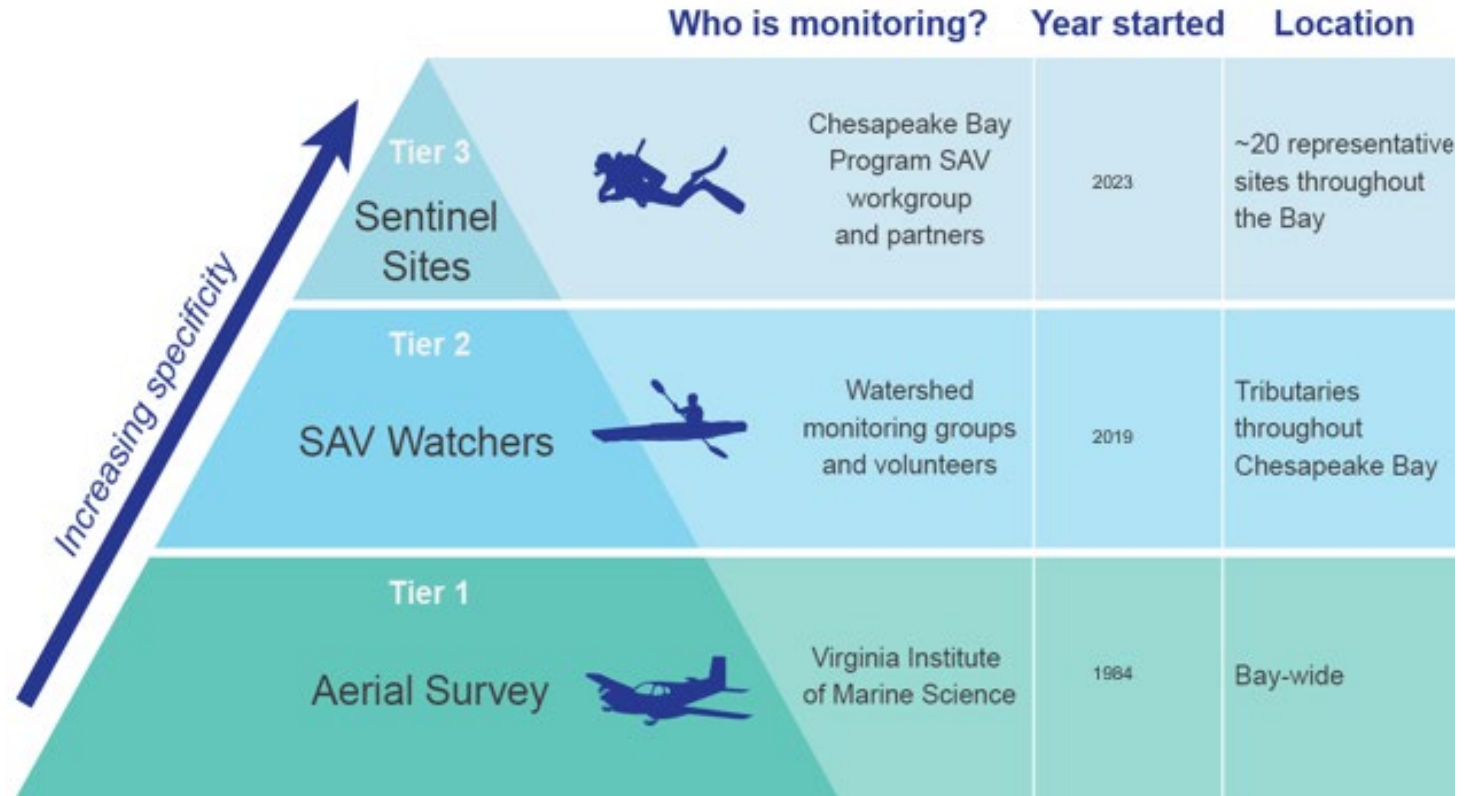- Chesapeake Bay National Estuarine Research Reserve in VA

A project was seeded...

SAV Watchers Overview

→ Provide volunteer scientists with an engaging and educational experience with SAV while also generating useful data for Bay scientists and managers.

→ Uses "train-the-trainer"

	Who is monitoring?	Year started	Location
Tier 3 Sentinel Sites	Chesapeake Bay Program SAV workgroup and partners	2023	~20 representative sites throughout the Bay
Tier 2 SAV Watchers	Watershed monitoring groups and volunteers	2019	Tributaries throughout Chesapeake Bay
Tier 1 Aerial Survey	Virginia Institute of Marine Science	1984	Bay-wide

Increasing specificity

Program Evaluation: Main Questions

1) What is the scientific literacy of SAV Watcher trainers and volunteers?

2) What is the effectiveness of the program, including successes and areas for improvement?

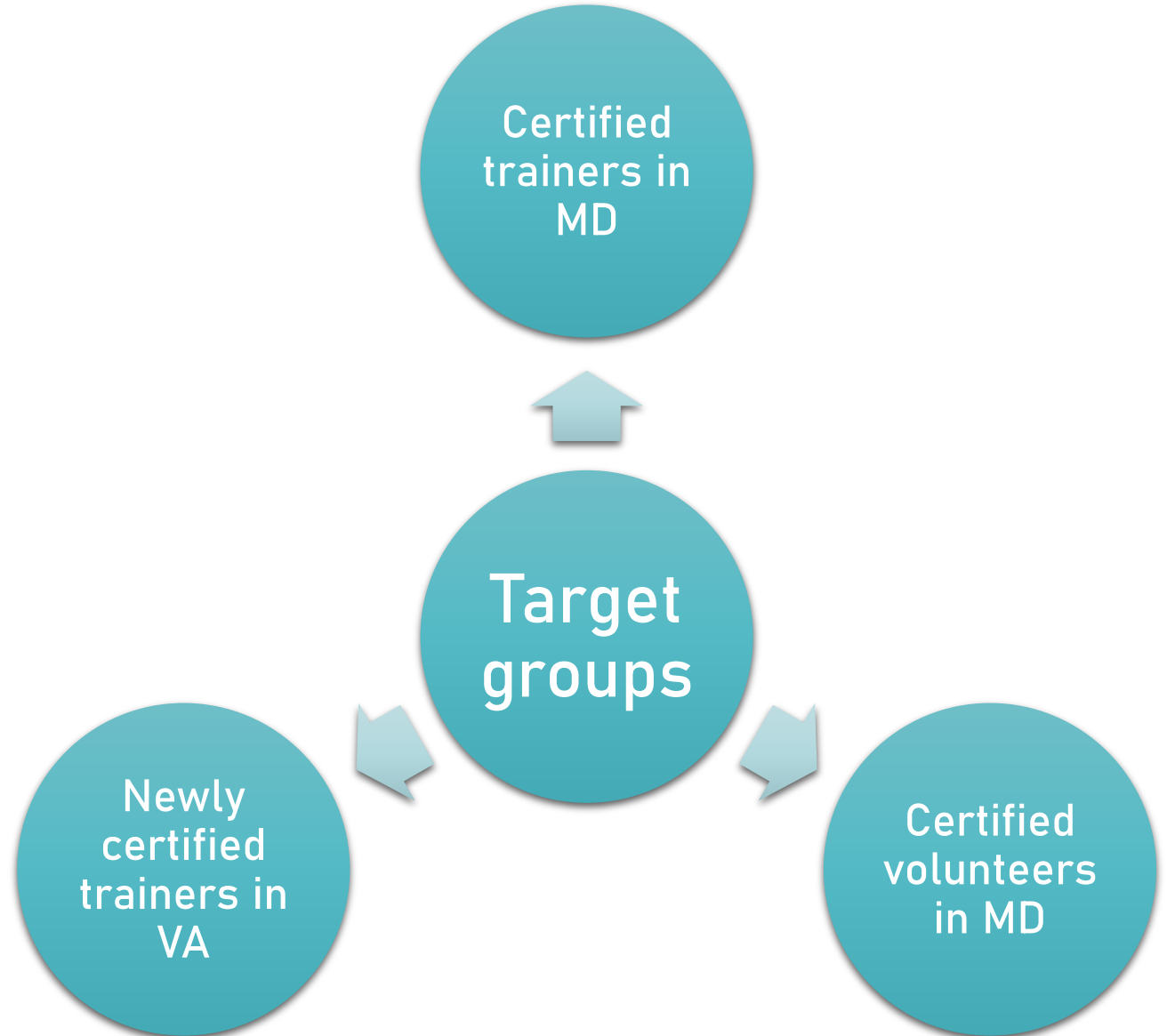3) What are the anticipated challenges of expansion into VA?

Photo: SAV Watchers

Learn & Observe

This is to certify that

Stephanie Letourneau

has successfully completed the

Chesapeake Bay SAV Watchers

Volunteer Monitor Trainer Certification course on

8.30.2024
(date of completion)

VIMS
~
The Nature Conservancy
(name of watershed group or riverkeeper)

J. Brooke Landry
Chair, Chesapeake Bay Program's
SAV Workgroup

Methods: Focus on Human Perspectives

Mixed methods:
- ✓ Surveys
- ✓ Focus groups/group interviews

Certified trainers in MD

Target groups

Newly certified trainers in VA

Certified volunteers in MD

The Case for Human Perspectives

- Must revisit program goals – with ALL partners – to ensure:
  - ✓ Expectations met
  - ✓ Meaningful interactions
  - ✓ Effective engagement

- For program expansion/building, it maximizes:
  - ✓ Community support
  - ✓ Engagement
  - ✓ Overall scientific benefit

Planning   Monitoring

Evaluation

(Shirk et al., 2012; Webster et al. 2021)

Surveys

- Question development based on:
  - Other program evaluations and literature
  - Previous SAV Watchers questions
  - Observation of a trainer's course
- Validation of survey instruments (4 – 5 reviewers)
- Three content areas:
  - Background
  - Scientific literacy (analyzing volunteers' scientific observation skills)
  - Program evaluation
- Administered online via Qualtrics (Dec – Jan)
- Analysis as appropriate in R

Photo: CBNERR-VA/Erin Shields

(Bernard, 2018)

Focus Groups/ Group Interviews

Photo: CBNERR-VA/Erin Shields

- Questions, structure, and approach informed by survey results

- 5-8 people per group

- Facilitated via Zoom (Jan – Feb)

- Recorded digitally and transcribed with Otter.ai

- Thematic coding will be done with an inductive approach in MaxQDA
  - Coding → "free flowing text into a set of nominal variables"
  - Inductive approach → themes emerge from text

(Bernard, 2018)

Additional Strategies

- Assessment rubric → describing project impacts

  - Adapted by Bonney et al. 2009 from a framework for evaluating impacts of informal science education projects

  - Focused on participatory science to compare outcomes

- Interview with program coordinator

- Use network and experiences to gauge groups and identify how data gaps could be filled

Products

1. Evaluation report with suggestions for improvement

2. General framework for other volunteer monitoring programs to evaluate their own efforts

3. Written strategy for expansion into Virginia

Photo by Will Parson/Chesapeake Bay Program

Thank you! Questions?

Special thanks to…

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