



Shorebird Practitioner Inquiry - Summary Report

Awareness, use, and recommendations for further development of the Guidance and Best Practices (BP) for Coordinated Predation Management to Benefit Temperate Breeding Shorebirds in the Atlantic Flyway

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I. Background

As part of an effort to quantify use and better direct future Atlantic Flyway Shorebird Initiative (AFSI) partner efforts to improve the National Fish and Wildlife Foundation (NFWF) funded [*“Guidance and Best Practices \(BP\) for Coordinated Predation Management to Benefit Temperate Breeding Shorebirds in the Atlantic Flyway”*](#) (Guidance and BPs) document, we solicited input from 89 shorebird managers and biologists. These shorebird practitioners represented a geographical and organizational cross-section of shorebird practitioners in the United States and Canadian portions of the Atlantic Flyway. Inquiries were sent out on October 15, 2019 and respondents were provided over three weeks to respond.

II. Respondent Information

Organizational Representation

Forty-two of 89 people (47.2%) we contacted completed our inquiry. Over half of the respondents were from state and federal agencies, roughly reflecting the proportion of organizations we contacted.

Table 1. Number of people contacted from each organization and response rate.

Organization	Contacted	Replied	Response Rate
Federal Agency	36	15	41.7%
State or Provincial Agency	26	12	46.2%
NGO	18	11	61.1%
University	8	3	37.5%
Other	1	1	100%

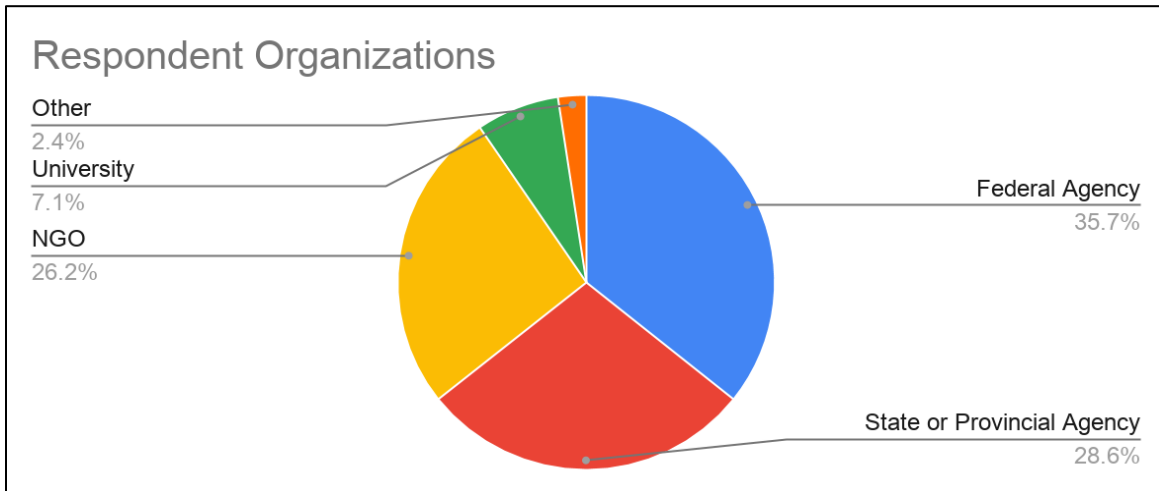


Figure 1. Percent of respondents that work for each organization.

Geographic Representation

The eastern US regions were evenly represented, with only a handful of replies from Atlantic Canada. The responses were representative of geography of individuals contacted.

Table 2. Number of people contacted from each region and response rate.

Location	Contacted	Replied	Response Rate
Atlantic Canada	6	3	50%
Northeast US	33	14	42.4%
Mid-Atlantic US	25	12	48%
Southeast US	22	11	50%
Other	3	2	66.7%

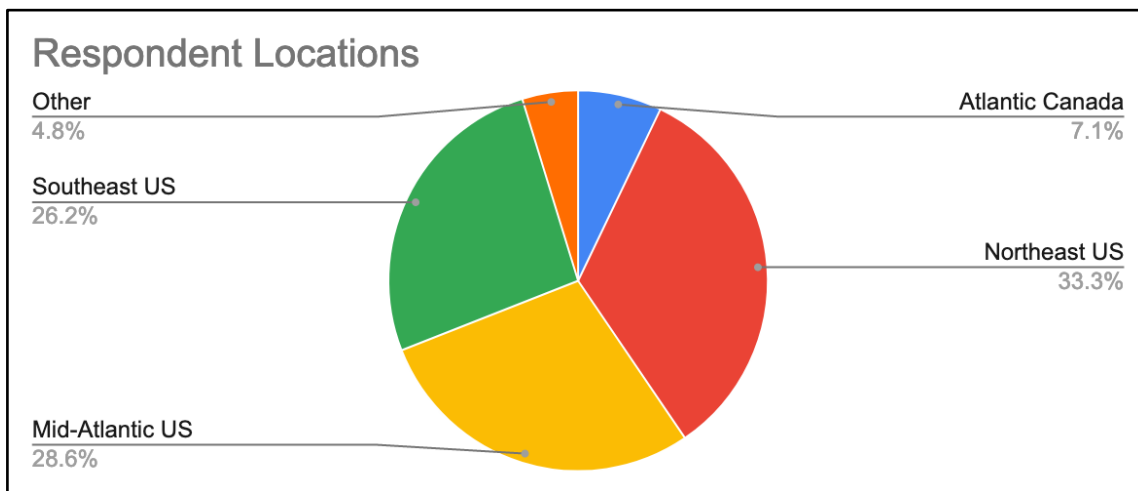


Figure 2. Percent of respondents from each region.

Shorebird Management Experience

Nearly 3/4 of the respondents (73.8%; n=31) were actively managing or had previously managed predation to benefit shorebirds at one or more sites.

Involvement in Creation of Predation Management Guidance & BPs Document

Nearly 1/2 (45.2%; n=19) of respondents indicated that they had played one or more roles in the creation of the Guidance & BPs document; contributions included:

- conducting or contributing to affiliated demonstration projects (MA, RI, NC, SC, GA FL), summarized in the document (19.0% ; n=8),
- authorship of Guidance and BPs document (4.8% ; n=2),
- helping to develop the original NFWF funding proposal (2.4% ; n=1),
- reviewing the Guidance and BPs document (23.8% ; n=10), and
- contributing an appendix (2.4% ; n=1).

Three additional respondents (7.1%) were uncertain if they contributed, but assumed they had.

III. Awareness of Guidance & BP Document

85.7% (n=36) of respondents were aware the Predation Management Guidance & BPs document existed prior to receiving the inquiry, and 64.3% (n=27) were aware that the document could be found online.

IV. Use of Guidance & BP Document

Document Use

28.6% (n=12) of respondents indicated they have used the document to guide their management decisions. While we did not specifically ask, three additional people indicated via comments that they intend to use the document at a later date. On average, respondents used 3-4 sections each. The most commonly used section was BP8: Monitoring, measuring, and reporting effectiveness, followed by BP2: Identifying strategies, triggers, and priorities for lethal and nonlethal management.

Table 3. Breakdown of which sections respondents used to guide management decisions. Each respondent was encouraged to select as many sections as applicable.

Guidance and BPs Section	# Respondents Used to Guide Management Decisions
BP8: Monitoring, measuring, and reporting effectiveness	9
BP2: Identifying strategies, triggers, and priorities for lethal and nonlethal management	7
BP6: Community engagement, outreach, and communications	6
BP3: Methodological considerations for lethal predation management	5

BP5: Timing of predation management and unintended secondary impacts	5
BP1: Identifying beneficiary species and predators for management	4
Supplemental Material - Demonstration Sites	3
BP4: Methodological considerations for nonlethal predation management	2
BP7: Laws, regulations, land access, and permits	2
BP9: Coordination of management and funding across agencies and at multiple scales	2
Supplemental Material - Database of Interview Responses	1

Reasons For Not Using the Guidance and BPs Document

The most commonly provided reasons for not using the document in management were:

- 1) already having another plan or best practices in place to guide management (n=8), and
- 2) lack of time (n=7).

Other cited reasons included:

- not doing predator control at their site(s) (n=3),
- no direct responsibility for managing a site(s) (n=2),
- a different agency in charge of predator control (n=2),
- lack of funding (n=1),
- lack of support from their agency or supervisors (n=1), and
- failure of the document to address their management needs (n=1).

None of these respondents indicated that they had difficulty locating or using the document.

V. Priorities for Further Development of Guidance & BP Topics

Respondents that indicated they had used the document (n=12) were subsequently asked to list up to five topics related to a particular Best Practice that they believed were high priority for additional work/development. All of the respondents (n=12) listed at least one area for improvement. 58.3% of respondents (n=7) indicated a willingness to help develop additional guidance and coordination for one or more sections of the document.

The most requested topic for improvement was Establishment of meaningful triggers and thresholds for initiating/ceasing predation management (BP 2).

Table 4. List of topics that respondents identified as a “highest priority” for additional development/work, and topics for which respondents would be interested in helping “develop additional guidance and coordination”. Respondents were asked to pick no more than their top five topics, but no limit was placed on how many sections they could offer to help improve.

Predation Management Topic (related Guidance and BPs Section)	Highest Priority For Additional Development/Work	Offered to Help Develop Additional Guidance/Coordination
Establishment of meaningful triggers and thresholds for initiating/ceasing predation management (BP 2)	9	3
Improved understanding of unintended secondary impacts (BP 5)	7	4
Coordinated data collection protocols and databases (productivity and predation monitoring, management effectiveness/success metrics) across sites (BP 8)	7	5
Guidance on camera-based nest monitoring (BP 1)	5	5
Guidance on most effective seasonal timing for conducting predation management activities (BP 5)	5	2
Guidance on predator identification in the field (tracks/sign; prey carcasses; BP 1)	3	3
Decision-making guidance for site and species prioritization (BP2)	3	0
Forums for better understanding and implementing nonlethal predator control (BP 4)	3	2
Consistent, more effective communication strategies and outreach tools for public engagement (BP 6)	3	1
Pursuit of coordinated funding opportunities across projects (BP 9)	3	4
Forums for better understanding and implementing lethal control methods (BP 3)	2	1
Development of outreach campaigns to reduce attraction of predators (i.e., proper disposal of trash and other waste; BP 6)	2	3
Better coordination across local/regional management efforts to increase management efficiency and effectiveness (BP 9)	2	3
Guidance on telemetry of chicks and/or predators (BP 1)	1	1
Forums for better understanding regulatory and permitting requirements (BP 7)	0	1

VI. Interest in a Forum to Facilitate Future Use of Guidance and BPs

Respondents that had used the Guidance and BPs document (n=12) were asked whether they had an interest in participating in a forum to facilitate future coordination, communication, and funding opportunities related to the Predation Management Guidance and BPs. 83.3% (n=10) responded that they did have an interest. These respondents provided contact information, and we will reach out to them when an AFSI Predation Management Committee is initiated in the first half of 2020.

VII. Additional Feedback on Guidance & BP Document

Respondents that had used the document (n=12) were asked whether they had any additional feedback they wanted to provide on the Guidance and BPs. We received the following feedback from four of these 12 individuals. Comments are summarized below:

- The document is well written and useful. It has supported management decisions and messaging
- State wildlife agencies should adapt their regulations on hunting and trapping to better support predator control. Is there a way for the management community work through relevant agencies to adapt them?
- The inquiry should be repeated at the end of 2020 because the document was released after most predation management planning for the 2019 field season was already completed.
- Other state-related efforts to coordinate predation management and flesh out more specific best practices are currently under development, which would likely dovetail nicely with future efforts related to the Guidance and BPs document

VIII. Conclusions and Next Steps

Information obtained in this shorebird practitioner inquiry provides a valuable assessment for evaluating whether managers and other practitioners are currently aware of the Guidance and BPs, and to what degree they are being used. Since the Guidance and BPs was released after the commencement of field seasons in many locations (see comment in section VII. Above), and the inquiry was circulated only a few months after the public release of the Guidance and BPs, it is unsurprising that slightly fewer than 30% of respondents indicated that they had used the document in their management. In future years, inquiry responses can be used as a baseline to track whether the Guidance and BPs are gradually finding their way into management practices (and if not, why). Therefore some version of the inquiry should be repeated periodically, as one commenter suggested.

Another benefit of the inquiry was to increase awareness among practitioners of how the Guidance and BPs could be accessed for use. While over 85% of respondents said they were aware of document, over 35% said they were not aware that it was available online. The inquiry directed participants to the web access.

Moving forward, Guidance and BP authors and other AFSI partners can use the information obtained in several ways:

- Identify and take action on topics of interest that need additional collaborative work: While information generated by this inquiry represents only a subset of all managers involved with predation management for shorebirds on the North American Atlantic coast, it elucidates topics that shorebird practitioners have identified as a “highest priority” for additional development/work. It also identifies some individuals who would be interested in helping to undertake future actions to take on some of this work. The list provided in Table 4 will be used during upcoming meetings of shorebird practitioners (e.g., Piping Plover - Least Tern Workshop) as a starting place for identifying priority actions that could be addressed through future collaborative funding proposals.
- Initiate a predation management Guidance and BPs forum: Most respondents indicated that they would be interested in participating in a forum to facilitate future coordination, communication, and funding opportunities related to the Predation Management Guidance and BPs. Calls will be organized in future months by the AFSI Habitat Working Group’s Predation Management Committee to initiate this forum.
- Promote a common understanding of the utility of the Guidance and BPs: Inquiry responses may be used to help clarify misconceptions about the document and clarify how it could be used to supplement existing management activities. For example, eight respondents indicated that they had not used the Guidance and BPs because they already had another plan or best practices in place to guide their management. The purpose of the Guidance and BPs is not to supplant existing management practices, but rather to provide new perspectives and useful information that could make them more efficient, effective, and coordinated. Moving forward, Guidance and BP authors and other users can emphasize how the Guidance and BPs have benefitted their work, as well as identify how the document could be improved.

IX. Acknowledgements

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The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government.

Appendix. Inquiry Questions

The inquiry sent to respondents consisted of the following questions, divided into discrete sections. Answers to key questions (Section 1, Q1 and Section 2, Q1) determined whether the respondent was sent to a new section, or the inquiry was terminated.

SECTION 0

Q1: What kind of organization do you work for?

A: Federal Agency

A: State or Provincial Agency

A: NGO

A: University

A: Other (fill in)

Q2: Where do you work?

A: Atlantic Canada

A: Northeast US

A: Mid-Atlantic US

A: Southeast US

A: Other (fill in)

Q3: Did you have a role in the creation of the Predation Management Guidance & BP document?
Check all that apply.

A: I did not contribute

A: Demo Project

A: Guidance & BPs author

A: Helped develop NFWF proposal

A: Reviewed the document

A: Other (fill in)

Q4: Do you now or have you actively managed a site(s) for predation to benefit shorebirds?

A: Yes

A: No

(continue to section 1)

SECTION 1

Q1: Prior to responding to this inquiry, were you aware of the Predation Management Guidance & BP document?

A: Yes --- continue to next question, then section 2

A: No --- continue to next question, then STOP inquiry

Q2: Were you aware that the Predation Management Guidance & BP document can be found on the AFSI website (atlanticflywayshorebirds.org)?

A: Yes

A: No

A: Haven't heard of AFSI until now

SECTION 2

Q1: Have you used the document to guide management decisions?

A: Yes, I have used the Predation Management Guidance & BP --- Go to section 3

A: No, I have not used the Predation Management Guidance & BP --- Go to section 4

SECTION 3

Q1: Which of the following Predation Management Guidance and BP sections have you used to guide management decisions?

A: BP1: Identifying beneficiary species and predators for management

A: BP2: Identifying strategies, triggers, and priorities for lethal and nonlethal management

A: BP3: Methodological considerations for lethal predation management

A: BP4: Methodological considerations for nonlethal predation management

A: BP5: Timing of predation management and unintended secondary impacts

A: BP6: Community engagement, outreach, and communications

A: BP7: Laws, regulations, land access, and permits

A: BP8: Monitoring, measuring, and reporting effectiveness

A: BP9: Coordination of management and funding across agencies and at multiple scales

A: Supplemental Material - Database of Interview Responses

A: Supplemental Material - Demonstration Sites

A: other (Fill in the blank)

Q2: Please identify which of the following BP-related management topics are the highest priority for additional development/work? Please check NO MORE THAN YOUR TOP 5..

A: I do not feel further development/work is necessary on any topic

A: Guidance on camera-based nest monitoring (BP 1)

A: Guidance on telemetry of chicks and/or predators (BP 1)

A: Guidance on predator identification in the field (tracks/sign; prey carcasses; BP 1)

A: Establishment of meaningful triggers and thresholds for initiating/ceasing predation management (BP 2)

A: Decision-making guidance for site and species prioritization (BP2)

A: Forums for better understanding and implementing lethal control methods (BP 3)

A: Forums for better understanding and implementing nonlethal predator control (BP 4)

A: Guidance on most effective seasonal timing for conducting predation management activities (BP 5)

A: Improved understanding of unintended secondary impacts (BP 5)

A: Consistent, more effective communication strategies and outreach tools for public engagement (BP 6)

A: Development of outreach campaigns to reduce attraction of predators (i.e., proper disposal of trash and other waste; BP 6)

A: Forums for better understanding regulatory and permitting requirements (BP 7)

A: Coordinated data collection protocols and databases (productivity and predation monitoring, management effectiveness/success metrics) across sites (BP 8)

A: Better coordination across local/regional management efforts to increase management efficiency and effectiveness (BP 9)

A: Pursuit of coordinated funding opportunities across projects (BP 9)

A: Other (fill in the blank)

Q3: Would you be interested in helping develop additional guidance and coordination for the following BP-related management topics ? Check all that apply.

A: I am not interested

A: Guidance on camera-based nest monitoring (BP 1)

A: Guidance on telemetry of chicks and/or predators (BP 1)

A: Guidance on predator identification in the field (tracks/sign; prey carcasses; BP 1)

A: Establishment of meaningful triggers and thresholds for initiating/ceasing predation management (BP 2)

A: Decision-making guidance for site and species prioritization (BP2)

A: Forums for better understanding and implementing lethal control methods (BP 3)

A: Forums for better understanding and implementing nonlethal predator control (BP 4)

A: Guidance on most effective seasonal timing for conducting predation management activities (BP 5)

A: Improved understanding of unintended secondary impacts (BP 5)

A: Consistent, more effective communication strategies and outreach tools for public engagement (BP 6)

A: Development of outreach campaigns to reduce attraction of predators (i.e., proper disposal of trash and other waste; BP 6)

A: Forums for better understanding regulatory and permitting requirements (BP 7)

A: Coordinated data collection protocols and databases (productivity and predation monitoring, management effectiveness/success metrics) across sites (BP 8)

A: Better coordination across local/regional management efforts to increase management efficiency and effectiveness (BP 9)

A: Pursuit of coordinated funding opportunities across projects (BP 9)

A: Other (fill in the blank)

Q4: (optional) If you indicated that you would be interested in helping further develop the Predation Management Guidance & BP and/or related management topics, please list your email address below.

A: (short answer)

Q5: Are you interested in participating in a forum to facilitate coordination, communication, and funding opportunities relating to the Predation Management Guidance & BP document?

A: Yes

A: No

A: Maybe

Q6: (optional) If you wish to participate in the forum, please list your name and email address below.

A: (short answer)

Q7: (optional) Do you have any additional feedback on the document?

A: (long answer)

STOP

SECTION 4

Q: Why haven't you used the Predation Management Guidance & BP document? (select all that apply)

A: I couldn't locate the final draft

A: I couldn't figure out how to use it

A: I haven't had time to use it

A: No support from my agency/supervisors to use it

A: It did not address my management needs

A: Not compatible with current management methods used

A: Other (fill in)

Q: Please briefly explain your answers

A: (long answer)

STOP