

This survey is confidential. Only aggregate data will be presented in reports or papers generated from this study. Please click [HERE](#) if you wish to view the consent form.

Do you agree to participate in this study?

- Yes
- No

Have you ever seen mangle in your state?

- Yes
- No
- I am unsure

Have you ever had to deal with wildlife affected by mangle as part of your employment in your agency?

- Yes
- No
- I am unsure

Is mange **currently** a population level issue in the following wildlife species in your state?

	Yes	Maybe	No
Coyote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black Bear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you believe that mange **will become** a population level issue in the following wildlife in your state?

	Yes	Maybe	No
Coyote	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fox	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black Bear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

As a biologist, how concerned are you about the **population level effects** mange may have in your state for:

	Not Concerned	Slightly Concerned	Moderately Concerned	Concerned	Very Concerned
Coyotes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not Concerned	Slightly Concerned	Moderately Concerned	Concerned	Very Concerned
Foxes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Black bears	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Agency Management of Mange

What actions does your agency currently take to deal with mange in wildlife? (Select all that apply)

- Cull/dispatch severely affected wildlife.
- Monitor/record cases of mange in wildlife.
- Treat severely affected wildlife.
- Take no action.
- Other (Please explain)

What species are you currently targeting when dealing with mange? (Select all that apply)

- Coyote
- Fox
- Black Bear
- Other (Please explain)



**Severe**



**Moderate**



**Mild**

Do you agree or disagree that your agency should deal with mange in wildlife by:

	Strongly <b>Agree</b>	Agree	Neither Agree nor Disagree	Disagree	Strongly <b>Disagree</b>
Culling/dispatching severely affected wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Culling/dispatching moderately affected wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Culling/dispatching mildly affected wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Treating severely affected wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Treating moderately affected wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Treating mildly affected wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring and recording cases of mange in wildlife.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly <b>Agree</b>	Agree	Neither Agree nor Disagree	Disagree	Strongly <b>Disagree</b>
Taking no action.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which species do you believe should be targeted when dealing with mange? (Select all that apply)

- Coyote
- Fox
- Black Bear
- Other (Please explain)

## Jurisdictional Barriers

Do you agree or disagree that the following issues are constraints to successfully dealing with wildlife mange in your state?

	Strongly <b>Agree</b>	Agree	Neither Agree nor Disagree	Disagree	Strongly <b>Disagree</b>
Amount of funding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Number of agency personnel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly <b>Agree</b>	Agree	Neither Agree nor Disagree	Disagree	Strongly <b>Disagree</b>
Protocols / reporting structure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of knowledge by agency personnel about how to deal with mangle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

In your opinion, what outcome qualifies as “successful management of wildlife mangle”?

- No mangle on the landscape.
- Mangle is present in a subset of wildlife with no population level affects.
- Mangle is present in wildlife, but the public and hunters are aware, accepting of agency actions, and engaged in the management of mangle (i.e., by reporting).
- Other (Please explain)

## Education and Outreach

How does your agency currently engage the public regarding mangle in wildlife? (Select all that apply)

- Press-releases

- Dedicated website information page
- Hunter education
- Social media
- I don't know.
- None of the above
- Other (Please explain)

What information have you provided to the public regarding mange in wildlife? (Select all that apply)

- What it is (i.e., mite that causes hair loss).
- What animals it affects (i.e., mostly foxes, coyotes, black bears, squirrels, rabbits).
- What outcomes to expect with mange infestation (i.e., long-term infection, recovery, or death).
- How to report mange in wildlife.
- How to keep pets and/or livestock safe from mange.
- How to keep people safe from mange.
- I don't know.
- Other (Please explain)

Do you believe that informational messaging about mange has been consistent in your state?

- Yes
- No
- I am unsure

Which groups in your state do you think need to be better educated about mange and how to respond to it (i.e., the appropriate actions to take)? (Select all that apply)

- Hunters
- Rural/agricultural landowners
- Residential homeowners/renters
- Wildlife rehabilitators
- State wildlife agency personnel
- Pet owners
- Non-agency veterinarians
- Public health officials
- None of the above

Do you believe that if people are given facts about mange that they will change their behavior about mange in wildlife?

- Yes
- No
- Somewhat

I don't know

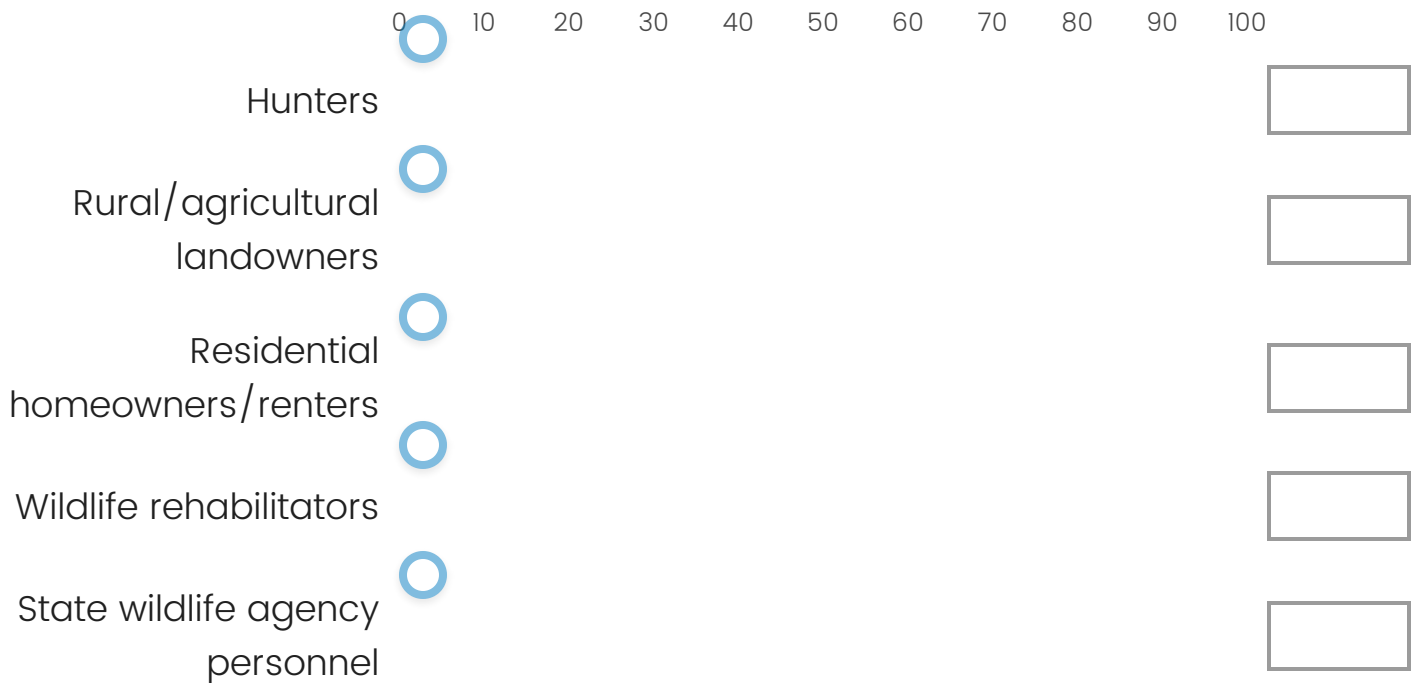
## Public Expectations, Knowledge, and Actions

What do you believe the public expects your agency to do to in response to mange in wildlife populations? (Select all that apply)

- Treat **all** wildlife with mange using veterinary drugs / pharmaceutical medications.
- Treat **only charismatic** animals (e.g., black bears with mange) with veterinary drugs / pharmaceutical medications.
- Treat **only visibly mangy** animals (i.e., wildlife in public facing areas) with veterinary drugs / pharmaceutical medications.
- Capture, treat, and hold wildlife in captivity until mange is completely resolved then release these “healthy” animals back into the wild.
- Relocate “sick” and mangy animals away from public facing areas.
- Dispatch / euthanize animals that are severely affected by mange.
- None of the above.
- I don't know.
- Other (please explain)

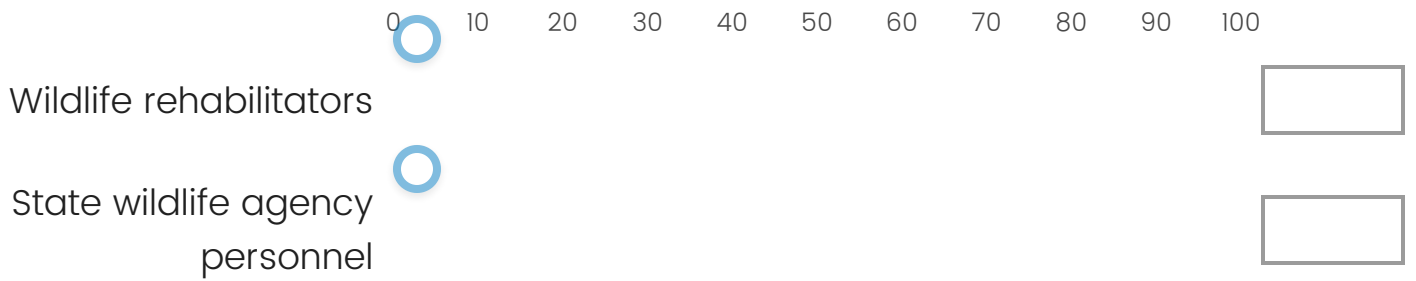
In your opinion, what **percentage** of the following stakeholder groups are **aware** of mange in wildlife (i.e.,

they have heard about it, but are not knowledgeable about manage)? *If you believe it's ZERO please click "0".*

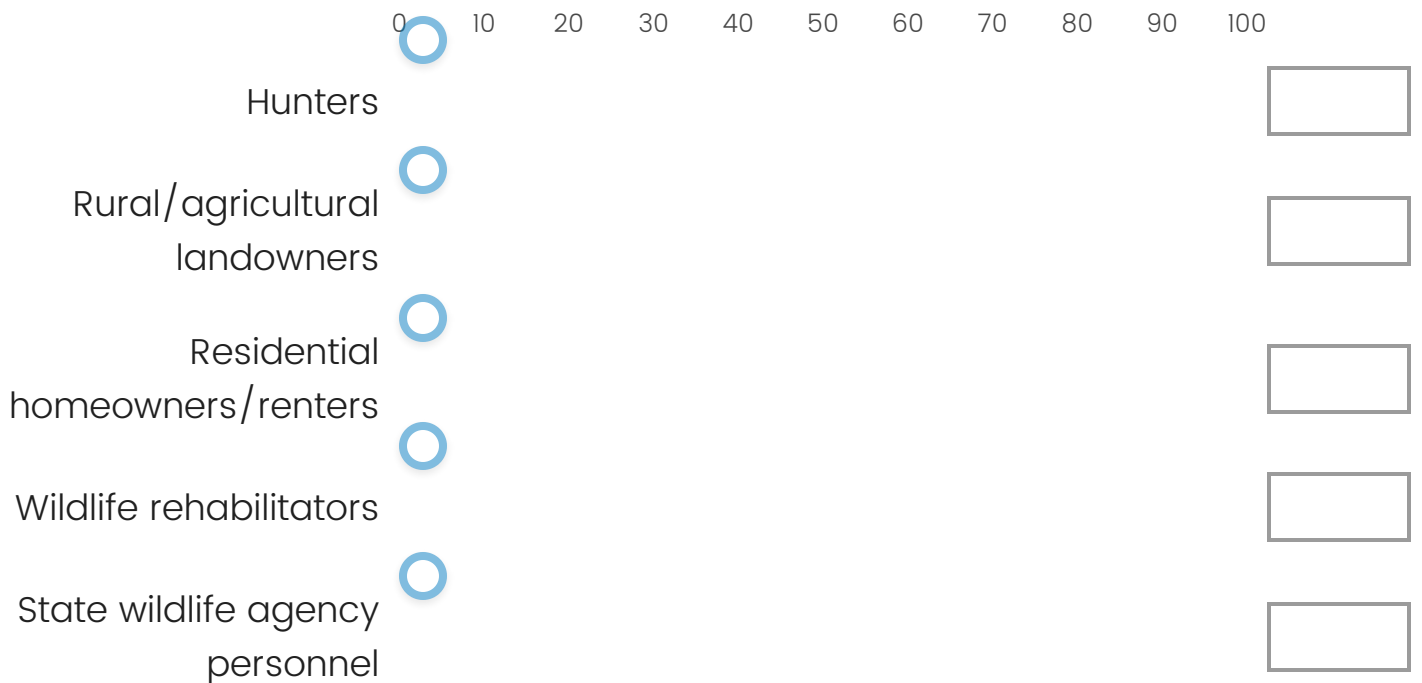


In your opinion, what **percentage** of the following stakeholder groups are able to **accurately identify** manage in wildlife? *If you believe it's ZERO please click "0".*





In your opinion, what **percentage** of the following stakeholder groups **report** mange in wildlife? *If you believe it's ZERO please click "0".*



To the best of your knowledge, to whom do people report wildlife mange cases in your state? (Select all that apply)

- Your agency.
- Local police department.
- Local animal shelter
- Local veterinarians.
- Local wildlife rehabilitators.
- Pest control.
- They don't report mange cases.
- Other (please explain)

What of the following actions do you **want** people to take regarding mange in wildlife?

	Yes	Sometimes	No	Unsure
Report cases to the wildlife agency.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Treat wildlife themselves.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Post pictures on social media.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capture and take affected wildlife to shelters/animal control/veterinary clinics/rehabilitators.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ignore wildlife with mange.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dispatch animals affected by mange WITH permission of the agency.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Yes

Sometimes

No

Unsure

Dispatch animals affected by mange WITHOUT permission of the agency.

Other (Please explain)

What reporting options for mange, if any, are available in your state? (Select all that apply)

- Telephone hot-line.
- In-person appointment.
- Website form.
- Agency email
- None
- Other (Please explain)

How does your agency use the mange case data reported to your agency? (Select all that apply)

- Accumulate a long-term data set.
- Annual case reports to agency senior management.
- To direct management action(s).

- We analyze the data with academic partners (e.g., to investigate manage treatment and survival).
- We do not use the data at this time.
- I don't know.
- Other (Please explain)

## Demographics

Which state do you work in?

How long have you worked in your current state institution?

- Less than 1 year
- 1 to 5 years
- 6 to 10 years
- More than 10 years

What is your current job title?

- Wildlife Biologist
- Wildlife Veterinarian

- Wildlife Research Technician
- Other (Please explain)

What is your gender identity?

- Male
- Female
- Non-binary
- Prefer not to disclose
- Not listed (please specify below):

## Feedback questions

Optional question: What information would be most useful to you to include in future surveys of the general public and hunters that has not been covered above?

Optional question: Do you have any further thoughts or

comments to add?

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