

## Attachment #1

### Survey, Focus Group, and Interview Questions for the 2017 ICR on Non-Timber Forest Products (OMB 0596 – NEW)

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## INTRODUCTION

This list covers questions that may be asked in a survey, focus group, or interview. Each individual study will use a subset of these questions, not all. Question order will be determined for each individual study. Specific studies may propose a small number of additional questions needed for a particular NTFP inquiry, and subject to OIRA review in the hybrid generic approach.

Questions can be administered orally during an interview or focus group, or completed in a paper or online version. If administered face-to-face, the interviewer will walk respondents through the list of follow-up questions as appropriate. If administered online using a program like Qualtrics or Survey Monkey, the software will automatically guide respondents through the relevant follow-up questions.

## QUESTIONS FOR FORAGERS

### Foraging Experience

For about how many years have you been foraging? \_\_\_\_\_

How or from whom did you first learn about foraging? Select all that apply:

- Books
- Internet
- Friends
- Family
- Other foragers
- Foraging events (e.g., walks or workshops)
- Foraging Meetup group
- Other: \_\_\_\_\_

Where do you get information about foraging? Select all that apply:

- Books
- Internet
- Friends
- Family
- Other foragers
- Foraging events (e.g., walks or workshops)
- Foraging Meetup group
- Other: \_\_\_\_\_
- I don't seek out information about foraging

With whom do you forage? Please select all that apply.

- I usually forage alone
- Family members

- Friends
- Other foragers, whom I only see when foraging
- Professional foragers
- Other: \_\_\_\_\_

Do you forage with children under age 18?

- No
- Yes

Have you ever done any of the following in areas where you forage?

- Replant/spread seeds
- Clear brush/undergrowth
- Clear trees/shrubs
- Fertilize, water, or use other conventional landscaping techniques
- "Fence" areas
- Other (please specify):

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How did you learn to forage? (If it is from a family member, where were they born? What is that person's ethnic/regional identity?)

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Have you taught anyone else to forage? If so, how are you related to them?

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### **Foraged Species**

Please list up to XX plants or mushrooms that you forage for (either the common or scientific name is fine). For each species, please indicate which parts of the plant or mushroom you collect.

1. \_\_\_\_\_

Which part(s) do you collect? Please select all that apply.

- Whole Plant or Mushroom

- Berries/fruits
- Roots
- Leaves
- Branches
- Flowers
- Nuts
- Other: \_\_\_\_\_

[Repeat for Plant or Mushroom Species #2 through #XX]

[Alternatively, this question can be presented in table form as below.]

What plants or mushrooms do you forage for in a typical year? Please fill in the plant or mushroom names in the first column of the table below (common or scientific name) and check which part or parts you collect.

| Plant or Mushroom Name | Whole Plant or Mushroom  | Berries or Fruits        | Roots                    | Leaves                   | Branches                 | Flowers                  | Nuts                     | Other                    |
|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

|  |                         |         |       |        |          |         |      |       |
|--|-------------------------|---------|-------|--------|----------|---------|------|-------|
|  | Whole Plant or Mushroom | Berries | Roots | Leaves | Branches | Flowers | Nuts | Other |
|--|-------------------------|---------|-------|--------|----------|---------|------|-------|

[In some cases, a list of species of interest may be presented. Species shown here are an example. Lists will be customized for the location of each study.]

Please indicate which, if any of the following you forage by placing a check mark (or clicking the button) in the first column and then indicating which part or parts you forage by placing a check mark (clicking the button) in the appropriate box(es).

| ✓ | Common Name | Scientific Name        | Whole Plant or Mushroom | Berries | Roots | Leaves | Branches | Flowers | Nuts | Other |
|---|-------------|------------------------|-------------------------|---------|-------|--------|----------|---------|------|-------|
|   | Alaches     | <i>Anoda cristata</i>  |                         |         |       |        |          |         |      |       |
|   | Dandelion   | <i>Taraxacum sp.</i>   |                         |         |       |        |          |         |      |       |
|   | Gingko      | <i>Gingko biloba</i>   |                         |         |       |        |          |         |      |       |
|   | Mulberry    | <i>Morus sp.</i>       |                         |         |       |        |          |         |      |       |
|   | Plantain    | <i>Plantago sp.</i>    |                         |         |       |        |          |         |      |       |
|   | Purslane    | <i>Portulaca sp.</i>   |                         |         |       |        |          |         |      |       |
|   | Shadbush    | <i>Amelanchier sp.</i> |                         |         |       |        |          |         |      |       |

### Optional Follow-Up Questions Related to Each Foraged Species

How do you harvest this species? Please select all that apply.

- Hand pulling/picking
- Cutting/clipping
- Digging
- Other (please specify): \_\_\_\_\_
- Not sure

How do you use foraged materials? Please select all that apply.

- Art or craft material

- Beverage
- Cosmetic
- Floral use or market
- Food
- Medicine/health support
- Other: \_\_\_\_\_

When do you forage for this species? Please select all that apply.

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

During its season, how often do you forage for this species?

- Every day
- Several times per week
- Several times per month
- Occasionally
- Other: \_\_\_\_\_

About how much of this species do you collect on each outing? (Please see foraging quantity visual aids below for rough guidelines.)

- ½ cup
- 1 cup (½ pint)
- 2 cups (1 pint)
- 4 cups (1 quart)
- 8 cups (2 quarts or ½ gallon)
- More than 8 cups

*[This visual aid was developed by Johns Hopkins University public health researchers to support their analyses of exposure risk.]*

**1/2  
cup**



**1  
cup  
1/2  
pin  
t**



**2  
cup  
s  
1  
pin  
t**



**4  
cup  
s  
1  
qua  
rt**



**8  
cup  
s  
2  
qua  
rts  
1/2  
gall  
on**







How much of what you collect do you typically use yourself?

- All or almost all of it
- About three quarters
- About half
- About one quarter
- None of it

If not all of it, what do you do with the rest of it? Select all that apply:

- Shared or given as gifts
- Traded or bartered
- Sold
- Other: \_\_\_\_\_

If applicable, where or to whom do you sell it?

- Farmers market
- Restaurant
- Grocery or health food store
- Floral market
- Other: \_\_\_\_\_

### **Optional Follow-Up Questions Related to Consumption of Foraged Species**

How, if at all, do you prepare species that are consumed? Select all that apply:

- Washed
- Peeled
- Consumed raw
- Other preparation methods (please describe): \_\_\_\_\_
- Don't know (for example, because someone else prepares it)

About how often do you eat, drink, or otherwise consume this species during its foraging season?

- Every day
- Several times per week
- Several times per month
- Occasionally
- Other: \_\_\_\_\_

Do you dehydrate, can, or otherwise process this for use outside its foraging season?

- Yes
- No

If yes, please explain: \_\_\_\_\_

## Foraging Locations

*[These questions may be administered in person or online with the forager using a paper or electronic map to mark foraging locations.]*

How far from home do you typically go to forage?

- Within 1 mile
- 1-10 miles
- More than 10 miles
- Would rather not say

We'd like to ask about where you forage. We use this information to analyze potential risks associated with contaminated soil, and to collect data to guide efforts to make *[insert name of study location]* more bountiful and safer for foragers. We will not share specific location information with anyone outside the study team and we will not publish it in any materials.

Please tell us about locations where you frequently forage:

Name of Location: \_\_\_\_\_

Please identify the location on the map.

Please list the plant or mushroom species that you forage there.

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If you know, please describe the history of the land at this site. In other words, how was this land used in the past? Please provide details as far back in time as you can.

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Are you aware of any current or past potential sources of contamination at or next to this location?  
Please select all that apply and include any additional information you can in the table.

| ✓ | Source  | Approx. distance to foraging area | Uphill or downhill? | Current or past? | Notes |
|---|---|-----------------------------------|---------------------|------------------|-------|
|   | Automotive/body shop  |                                   |                     |                  |       |
|   | Building demolition   |                                   |                     |                  |       |
|   | Building fire   |                                   |                     |                  |       |
|   | Dry cleaners  |                                   |                     |                  |       |
|   | EPA Brownfield  |                                   |                     |                  |       |
|   | Factory (please describe what kind in the notes)              |                                   |                     |                  |       |
|   | Gas station   |                                   |                     |                  |       |
|   | Illegal dumping   |                                   |                     |                  |       |
|   | Parking lot   |                                   |                     |                  |       |
|   | Pesticide applications  |                                   |                     |                  |       |
|   | Railroad  |                                   |                     |                  |       |
|   | Road, small to medium (2 lanes or less in the same direction) |                                   |                     |                  |       |
|   | Road, major (more than 2 lanes in the same direction)         |                                   |                     |                  |       |
|   | Other:  |                                   |                     |                  |       |
|   | Other:  |                                   |                     |                  |       |
|   | Other:  |                                   |                     |                  |       |

Are there any locations that you did not feel comfortable marking on the map?

- No
- Yes

If yes: Would you be willing to share some information about those locations without revealing specifics?

- No
- Yes

If yes: How would you best describe the land at this location? Please select all that apply:

- Park
- Privately owned forest
- Publicly owner Forest
- Residential
- Industrial
- Sidewalk
- Roadside
- Other:

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If you know, please describe the history of the land at this site. In other words, how was this land used in the past? Please provide details as far back in time as you can.

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Are you aware of any current or past potential sources of contamination at or next to this location? Please select all that apply.

| ✓ | Source   | Approx. distance to foraging area | Uphill or downhill? | Current or past? | Notes |
|---|--|-----------------------------------|---------------------|------------------|-------|
|   | Automotive/body shop                             |                                   |                     |                  |       |
|   | Building demolition                              |                                   |                     |                  |       |
|   | Building fire                                    |                                   |                     |                  |       |
|   | Dry cleaners                                     |                                   |                     |                  |       |
|   | EPA Brownfield                                   |                                   |                     |                  |       |
|   | Factory (please describe what kind in the notes) |                                   |                     |                  |       |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  | Gas station                                    |  |  |  |  |
|  | Illegal dumping                                |  |  |  |  |
|  | Parking lot                                    |  |  |  |  |
|  | Pesticide applications                         |  |  |  |  |
|  | Railroad                                       |  |  |  |  |
|  | Road (2 lanes or less in the same direction)   |  |  |  |  |
|  | Road (more than 2 lanes in the same direction) |  |  |  |  |
|  | Other:   |  |  |  |  |
|  | Other:   |  |  |  |  |
|  | Other:   |  |  |  |  |

## Motivations for Foraging

What are the reasons why you forage? Please list the top 5 reasons why you forage and rate each one from 1 to 5, with 1 being only somewhat important and 5 being very important. You may use each number as often as you wish (that is, if two or more reasons are somewhat important, you may give them both a "1").

| Reason   | Importance (1, 2, 3, 4 or 5;<br>1 = somewhat important;<br>5 = very important) |
|----------|--|
| 1. _____ | _____  |
| 2. _____ | _____  |
| 3. _____ | _____  |
| 4. _____ | _____  |
| 5. _____ | _____  |

What does it mean for you to forage? Have there been any especially happy or meaningful times spent foraging that you would be willing to tell us about?

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## Knowledge of Foraging Regulations/Encounters with Land Owners or Land Managers

Do you know of local, state or federal laws or regulations that relate to foraging in any of the places where you forage?

- No
- Yes

If yes, please explain:

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When you have encountered land owners or land managers, have you spoken to them?

- No
- Yes

If yes, what was the nature of these interactions?

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When you have encountered land owners or land managers, have you talked to them about any regulations that might apply to foraging?

- No
- Yes

If yes, what was the nature of those conversations?

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Have you ever asked for permission to forage before doing so?

- No
- Yes

If yes, who did you ask and what was the response?

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As far as you know, what kinds of laws or rules apply to foraging in the places you forage, if any? How do those laws or rules affect you?

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Do you face any challenges or problems to foraging?

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How often have you encountered landowners or managers when you are out foraging? What are those experiences like, typically? Is there any occasion that particularly sticks out in your mind that you can tell us about? What happened?

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What suggestions do you have to address the problems, challenges, and special needs of foragers like you?

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Is there anything we haven't asked you about foraging that you would like to tell us about?

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## **Demographic Information**

We'd like to ask you some questions about where you live, your age, race, ethnicity, income, and level of education. This information helps us identify populations for whom certain foraged foods, foraging locations, or foraging in general are particularly important. This information also helps us design

outreach materials, for example, by translating them to the appropriate languages. If for any reason you don't feel comfortable answering any of these questions, you can decline to answer.

What is your zip code? \_\_\_\_\_

Would rather not say

In what country were you born? \_\_\_\_\_

Would rather not say

What language(s) are spoken in your home?

\_\_\_\_\_

Would rather not say

Do you consider yourself to be Hispanic, Latino, or of Spanish origin?

No

Yes

What race or races do you consider yourself to be? Select all that apply (*show list to respondent*):

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Pacific Islander

White

Other: \_\_\_\_\_

Don't know

Would rather not say

What year were you born? \_\_\_\_\_

Would rather not say

How do you identify your gender?

Male

Female

Other

Would rather not say

What is the highest level of education you have completed?



- Less than high school
- High school, GED, or equivalent
- Some college
- Associate's degree
- Bachelor's degree
- Graduate degree
- Other: \_\_\_\_\_
- Would rather not say

Are you currently a student?

- No
- Yes
- Would rather not say

What is your household's annual income?

- <\$20,000
- \$20,000-\$39,999
- \$40,000-\$59,999
- \$60,000-\$79,999
- \$80,000-\$99,999
- \$100,000-\$150,000
- Over \$150,000
- Would rather not say

## QUESTIONS FOR LAND MANAGERS

*[These questions can be administered orally during an interview or completed in a paper or online version. Again, this list is exhaustive, covering all questions that may be asked in a survey or interview. Each individual study may use any or all questions.]*

### Encounters with Foragers

We're working on an independent research project that looks at foraging for plants and mushrooms. We are interviewing individuals who practice this type of foraging in order to get a sense of the species that are foraged and why, who's doing the foraging, and where. We also want to learn about the perspectives and opinions of forest/park managers and other authorities in charge of maintaining lands that might serve as places where people forage. We have contacted you because you 1) work for or manage land where foraging has the potential to take place and/or 2) have knowledge about the laws and regulations that govern foraging/removal of forest products from parks and other managed green spaces.

Just to clarify, we're interested in people foraging from trees, other plants, and mushrooms located in forests, parks, or other green spaces. This includes collecting fruit, nuts, cones, leaves, bark, branches, and/or mushrooms for any use including for food, medicines, crafts, etc.

Have you seen or heard of people foraging plant products or mushrooms in any nearby parks, forests, or other green spaces?

- No
- Yes

If you have only *heard of* people foraging in forests, nearby parks or other green spaces, please describe what you have heard about this practice.

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If you have *observed* people foraging on the lands you manage, how many times or how often have you observed individuals foraging forest products in the parks/other areas that you manage?

- Only once or twice in my career
- Occasionally, but not every year
- Sometimes, once or twice a year
- Fairly often, once or twice a month in the foraging season
- Frequently, every week in the foraging season

What times/seasons during the year do you usually observe people foraging?

- Spring
- Summer
- Autumn
- Winter
- Other: \_\_\_\_\_
- Not sure

What types of things have you observed people collecting? Please list specific species if possible.

- Whole plants
- Plant parts (berries or other fruit, twigs/branches, bark, leaves, sap, seeds, roots, etc.)
- Fungi/mushrooms
- Specific species:

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- Not sure

Please list any specific species that you know are harvested.

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>>Or insert species pick list here << Please check species you know are harvested.

How do foragers harvest the products that you have observed them collecting?

- Hand pulling/picking
- Cutting/clipping
- Digging
- Other (please specify): \_\_\_\_\_
- Not sure

When you have observed foragers, have they generally been alone or with others?

- Alone
- Two or more people
- Sometimes alone, sometimes in a group
- Not sure

When you have encountered people foraging forest products, have you spoken with [any of] them?

- No
- Yes

If yes, what was the nature of these interactions?

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If you have spoken with any of the people you've observed foraging forest products, did any of them mention the way(s) in which they use the products that they forage? Do they use forest products for:

- Eating
- Medicinal purposes
- Craft materials
- Other (please specify):

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- Not sure

What reasons did they give for foraging, if any?

- To gather food
- To collect things to sell
- To collect things to barter or trade
- To fulfill cultural or family tradition
- To build community through group activity
- To obtain plants for transplanting
- To teach others about local species
- Other (please specify):

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- Not sure

Do you know of local, state or federal laws or regulations that relate to foraging on the land you manage or for which you are otherwise responsible?

- No
- Yes

If yes, please explain:

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When you have encountered foragers, have you talked to them about any regulations that might apply?

- No
- Yes

If yes, what was the nature of those conversations?

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Are permits required for foraging or gathering of Non-timber forest products from the land you manage?

- No
- Yes

If yes, what products require a permit?

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Are the people who gather or forage from the land you manage aware of the process to obtain a permit?

- No
- Yes
- Some are, some aren't

What do you think might be obstacles to getting required permission or permits?

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Has anyone ever asked for your permission to forage before doing so?

- No
- Yes

If yes, what did they ask to forage and what was your response?

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Does your [agency/site] require foragers to apply for a permit?

- No
- Yes

What is the process to get permission to forage on [insert name of the place, the Shawnee National Forest, for example]? On lands you manage or for which you are otherwise responsible, are there penalties for illegal foraging?

- No
- Yes

If yes, what are they?

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Have you noticed foragers doing any of the following to the areas in which they forage?

- Replanting/spreading seeds
- Clearing brush/undergrowth
- Clearing trees/shrubs
- Fertilizing, watering, or using other conventional landscaping techniques
- "Fencing" areas
- Other (please specify):

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Are there any regulations currently in place regarding these or other habitat modification practices?

- No
- Yes

If yes, please describe the regulations:

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Have there been any changes in the laws or regulations regarding habitat modifications or foraging on lands which you manage?

- No
- Yes

If yes, what was the nature of these changes and why did they come about?

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Do you have concerns about people foraging on the land you manage or for which you are otherwise responsible?

- No
- Yes

If yes, what are your concerns?

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Can you imagine any benefits from encouraging people to forage for plant products and mushrooms from the land you manage or for which you are otherwise responsible?

- No
- Yes

If yes, what sorts of benefits??

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Please share any additional thoughts you might have about foraging on the land you manage or for which you are otherwise responsible:

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## Additional Questions for Land Managers

The following questions concern demographic information and you should feel free to refrain from answering any of them. We appreciate your willingness to share.

What department or agency do you work for?

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What forest, park, site, or location do you primarily work in?

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What is the highest level of education you have completed?

- High school
- Two-year college degree
- Four-year college degree
- Professional degree
- Master's degree
- PhD

What is your degree or degrees in? (Please select all that apply)

- Forestry
- Wildlife Management
- Environmental Science or Studies
- Conservation Biology
- Natural Resource Management
- Public Policy
- Public Administration
- Planning
- Recreation
- Other: \_\_\_\_\_

## QUESTIONS AND SCALES RELATED TO ENVIRONMENTAL CONCERN, SELF & NATURE, SENSE OF PLACE, etc.

There are a number of widely used scales and questions that deepen our understanding of an individual or group's attitudes towards and beliefs about their place in the natural world as well as their attachment to certain places and activities. The information provided by these questions provides a broader context to understand foraging behavior. In turn, this deeper understanding will help improve outreach to different groups and individuals, and help frame policy and communication practices to better meet Forest Service goals and forest users' needs. Merely counting or listing activities is often insufficient to create meaningful management strategies – we need to know about the “why” behind actions and beliefs. These scales help us get to this deeper understanding.

Any given study conducted under this ICR could select one to three of the scales and questions below. No study would use all of them. The specific context and information needs of any given study will guide the selection of these scales. Each of these have been used extensively and are well established in the environmental social science literature. Therefore, they are considered reliable and valid measures of constructs such as place attachment, concepts of self in nature, etc. We are trying to make this research as applicable as possible in real-world situations while also advancing scientific understanding as per our mission.

These scales may be used with either target population: foragers and land managers. Each scale is described below, with citations included.

For a general discussion of research on environmental values, see:

Dietz, Thomas; Fitzgerald, Amy; and Shwom, Rachael. (2005). Environmental Values. *Annual Review of Environment and Resources*, Vol. 30: 335 -372.

The **Environmental Concern** scale assesses the degree to which people are concerned about environmental damage to themselves, other humans and the biological world at large.

Source: Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, 21(4), 327-339.

People often express concern about environmental problems, but some people differ as to which consequences concern them the most. For each statement below, please rate how concerned you are about the possible environmental consequences using a scale from 1 to 7. If you are not at all concerned, give it a rating of 1. If you are extremely concerned, give it a rating of 7. You can also choose any number between 1 and 7 for your answer.

I am concerned about environmental problems because of the consequences for:

\_\_\_\_\_ Plants



- \_\_\_\_\_ Me
- \_\_\_\_\_ People in my [country/state]
- \_\_\_\_\_ Marine life
- \_\_\_\_\_ My lifestyle
- \_\_\_\_\_ All people
- \_\_\_\_\_ Birds
- \_\_\_\_\_ My health
- \_\_\_\_\_ Children
- \_\_\_\_\_ Animals
- \_\_\_\_\_ My future
- \_\_\_\_\_ My children

The **Environmental Behavior** scale is a short scale intended to measure the extent to which individuals engage in environmental behavior.

Source: Dutcher, D., Finley, J., Luloff, A., & Johnson, J. (2007). Connectivity with nature as a measure of environmental values. *Environment and Behavior*, 39, 474-493.

Please indicate whether or not you have ever done any of the following

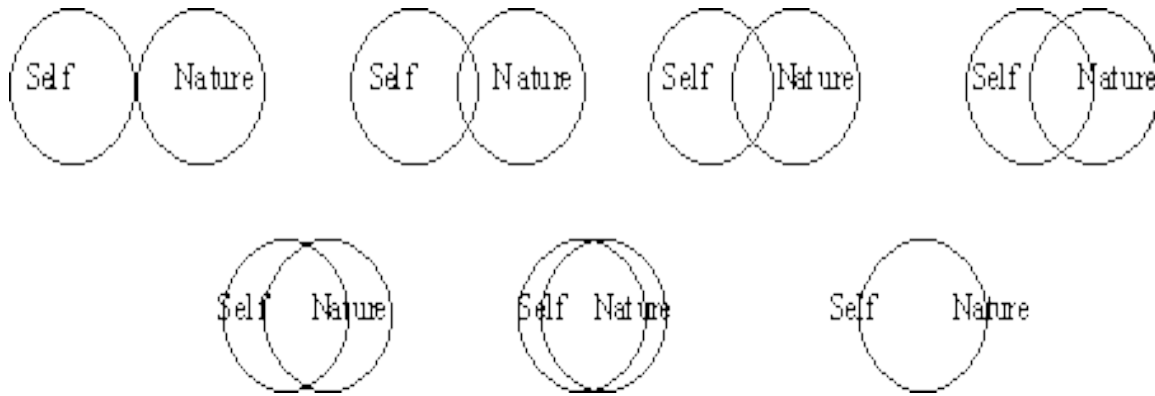
1. Contributed time or money to an environmental or wildlife conservation group? NO YES
2. Stopped buying a product because it caused environmental problems? NO YES
3. Attended a public hearing or meeting about the environment? NO YES
4. Contacted a government agency to get information or complain about an environmental problem?  
NO YES
5. Voted for or against a political candidate, in part, because of his or her position on the environment?  
NO YES
6. Changed your behavior in any way because of concern for the environment? NO YES

**Self and Nature.** This single item graphical scale was an adaptation of Aron, Aron, and Smollan's (1992) Inclusion of Other in Self (IOS) scale. This modification of the IOS is known as the Inclusion of

Nature in Self (INS) scale. This measure is used to measure the extent to which an individual includes nature within his or her cognitive representation of self.

Source: Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, 21, 327-339.

Please circle the picture below which best describes your relationship with the natural environment. How interconnected are you with nature?



**Psychological Distance/Construal Theory.** Time can be a critical factor in people's understanding of environmental issues, and people differ in how they think about and react to closer or more distant issues or outcomes. This scale assesses variations that may arise from closer or more distant psychological events. Source: Strathman, A., Gleicher, F., Boninger, D. S., & Edwards, C. S. (1994). The consideration of future consequences: Weighing immediate and distant outcomes of behavior. *Journal of Personality and Social Psychology*, 66(4), 742-752.

For each of the statements below, please indicate whether or not the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please write a "1" to the left of the question; if the statement is extremely characteristic of you (very much like you) please write a "5" next to the question. And, of course, use the numbers in the middle if you fall between the extremes.

1 = extremely uncharacteristic

2 = somewhat uncharacteristic

3 = uncertain

4 = somewhat characteristic

5 = extremely characteristic

\_\_\_\_\_ I consider how things might be in the future, and try to influence those things with my day to day behavior.

\_\_\_\_\_ Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.

\_\_\_\_\_ I only act to satisfy immediate concerns, figuring the future will take care of itself.

\_\_\_\_\_ My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.

\_\_\_\_\_ My convenience is a big factor in the decisions I make or the actions I take.

\_\_\_\_\_ I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.

\_\_\_\_\_ I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.

\_\_\_\_\_ I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.

\_\_\_\_\_ I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.

\_\_\_\_\_ I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.

\_\_\_\_\_ I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.

\_\_\_\_\_ Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.

**Limits to Action.** Land managers and planners often need to understand what limits people taking certain actions. These questions are tried and true in determining some of the barriers effecting behavior.

How much do the following factors limit your ability to [INSERT ACTION]? Please rate the following on a scale of 1 (Strongly Limits) to 5 (Doesn't At All Limit).

\_\_\_\_\_ 1. Lack of information or skills

\_\_\_\_\_ 2. Time required

\_\_\_\_\_ 3. Physical or health limitations

\_\_\_\_\_ 4. Cost

\_\_\_\_\_ 5. I like things the way they are

\_\_\_\_\_ 6. It isn't appropriate for my property

**Trust.** Research has shown that trust of a source of information is critical to its acceptance, and then to action based on that information. These questions help identify who are trusted sources of information about a given topic (in this case, foraging). They are drawn from the World Bank's Social Capital Initiative, Working Paper No. 24, *Understanding and Measuring Social Capital: A Synthesis of Findings and Recommendations from the Social Capital Initiative*. By Christiaan Grootaert and Thierry van Bastelaer. (<http://siteresources.worldbank.org/INTRANETSOCIALDEVELOPMENT/882042-1111750197177/20502279/SCI-WPS-24.pdf>; <http://siteresources.worldbank.org/INTSOCIALCAPITAL/Resources/Social-Capital-Assessment-Tool--SOCAT-/annex1.pdf> )

How much do you agree or disagree that the following are trustworthy sources of information about [INSERT ISSUE, such as, appropriate amount of a plant to harvest in the wild, or managing potential contamination in a wild plant]?

[Measure on a 5 point agreement scale including an "am not familiar" option. List appropriate people and organizations, always including family and friends, neighbors, local government options.]

1 = strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

\_\_\_\_\_ Close friends

\_\_\_\_\_ Acquaintances

\_\_\_\_\_ Close family members

\_\_\_\_\_ Distant family members

\_\_\_\_\_ Neighbors

\_\_\_\_\_ Others who share my interests or hobbies

\_\_\_\_\_ Local government officials

\_\_\_\_\_ Local nongovernmental organizations

[Etc. NOTE: this list may be generated from initial interview or focus group and therefore may include specific NGO, government office, or other organizations]

**Place attachment** has been shown to be an important influence for behavior and perceptions of acceptable actions for a given place. This scale elicits information about two primary aspects of place attachment, place dependence and place identity (see sub-headings below). A specific place name, like Central Park, will most often be substituted where the text says "[this place]."

Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest science*, 49(6), 830-840.

How much do you agree or disagree with the following statements? [A subset of the following would be used.]

Please write one of the following ratings on the blank before each statement:

1 = strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

## Place Dependence

\_\_\_\_\_ [This place] is the best place for what I like to do.

\_\_\_\_\_ No other place can compare to [this area/place].

\_\_\_\_\_ I identify strongly with [this place].

\_\_\_\_\_ I get more satisfaction out of visiting [this place] than from visiting any other place.

\_\_\_\_\_ I am very attached to [this place].

\_\_\_\_\_ Doing what I do at [this place] is more important to me than doing it in any other place.

\_\_\_\_\_ Visiting [this place] says a lot about who I am.

\_\_\_\_\_ I would not enjoy the things I do at [this place] as much at another site.

\_\_\_\_\_ [This place] means a lot to me.

\_\_\_\_\_ I wouldn't substitute any other area/place for doing the types of things I do at [this place].

\_\_\_\_\_ No other place can compare to [this place].

\_\_\_\_\_ I get more satisfaction out of visiting [this place] than from visiting any other.

\_\_\_\_\_ Doing what I do at [this place] is more important to me than doing it in any other place.

\_\_\_\_\_ I wouldn't substitute any other area for doing the types of things I do at [this place].

\_\_\_\_\_ This is the best place for what I like to do.

\_\_\_\_\_ No other place can compare to this area for what I like to do in my spare time.

\_\_\_\_\_ I can't imagine a better place for what I like to do.

\_\_\_\_\_ [This place] makes me feel like no other place can.

\_\_\_\_\_ This is my favorite place to go during my free time.

\_\_\_\_\_ The things I do at [this place] I would enjoy just as much at another site.

## Place Identity

\_\_\_\_\_ I feel like [this place] is a part of me.

\_\_\_\_\_ [This place] is very special to me.

\_\_\_\_\_ I feel like [this place] is a part of me.

\_\_\_\_\_ [This place] means a lot to me.

\_\_\_\_\_ I am very attached to [this place].

\_\_\_\_\_ I identify strongly with [this place].

\_\_\_\_\_ I think a lot about coming to [this place].

\_\_\_\_\_ [This place] is very special to me.

\_\_\_\_\_ [This place] says a lot about who I am.

\_\_\_\_\_ I would prefer to spend more time at [this place] here if I could.

\_\_\_\_\_ My use of [this place] allows others to see me as I would really like them to see me.

\_\_\_\_\_ I can relate [this place] to other parts of my life.

\_\_\_\_\_ Because of my lifestyle, [this place] is important to me.

\_\_\_\_\_ When I am at [this place], others see me the way I want them to see me.

\_\_\_\_\_ Visiting [this place] helps me attain the life I strive for.

\_\_\_\_\_ You can tell a lot about a person by whether they visit [this place].

\_\_\_\_\_ [This place] is for me.

\_\_\_\_\_ I use [this place] to help define and express who I am inside.

\_\_\_\_\_ A visit to [this place] is a bit like giving a gift to oneself.

\_\_\_\_\_ [This place] is my favorite place to go during my free time.

\_\_\_\_\_ [This place] plays a central role in my lifestyle.

\_\_\_\_\_ I find that a lot of my life is organized around [this place].

\_\_\_\_\_ One of the major reasons I now live where I do is that [this place] is nearby.

\_\_\_\_\_ I enjoy doing the types of things I do [here] more than in any other area.

\_\_\_\_\_ Most of my friends are in some way connected with my use of [this place].

\_\_\_\_\_ Coming to [this place] is one of the most enjoyable things I do.

\_\_\_\_\_ Coming to [this place] is one of the most satisfying things I do.

\_\_\_\_\_ I get greater satisfaction out of visiting [this place] than I do out of work.

Other VALUES, ATTITUDES, BELIEFS questions

In your opinion, what are the values you gained from visiting natural areas such as a [NPS SITE]?

|  | Strongly agree | Agree | Neutral | Disagree | Strongly Disagree |
|--|----------------|-------|---------|----------|-------------------|
| Spending a lot of time in natural settings (woods, mountains, desert, and lakes) makes me happy.   | 1              | 2     | 3       | 4        | 5                 |
| I think of myself as part of nature, not separate from it.   | 1              | 2     | 3       | 4        | 5                 |
| When I am upset or stressed, I can feel better by spending time outdoors “communing” with nature.  | 1              | 2     | 3       | 4        | 5                 |
| I believe that some of today’s social problems could be cured by returning to a more rural life-style in which people live in harmony with the land. | 1              | 2     | 3       | 4        | 5                 |
| I really enjoy camping and hiking outdoors.  | 1              | 2     | 3       | 4        | 5                 |
| Learning about the natural world should be an important part of every child’s upbringing.  | 1              | 2     | 3       | 4        | 5                 |
| Sometimes I feel like parts of nature—certain trees, or storms, or mountains—have a spirit of their own.   | 1              | 2     | 3       | 4        | 5                 |
| I would feel that an important part of my life was missing if I were Not able to get out and enjoy nature from time to time.                         | 1              | 2     | 3       | 4        | 5                 |
| I have never seen a work of art that is as beautiful as a work of nature, like a sunset or mountain range.   | 1              | 2     | 3       | 4        | 5                 |
| I have a lot in common with environmentalists as a group.  | 1              | 2     | 3       | 4        | 5                 |

**VALUES6**

Imagine that you could allocate 100 preference points to ensure that [NPS SITE] kept their existing values. You might assign 100 points to one value and zero to all the others, or assign 50 to one, 25 to another and 25 to yet another.

Please read through the list below and use the boxes to assign 100 value points any way you would like. The points you assign should total 100 points.

I value [NPS SITE] because:

1. I enjoy the scenery, sights, sounds, smells, etc

| Values Point |
|--------------|
|              |

|  |                   |
|--|-------------------|
| 2. it provides a variety of fish, wildlife, plant life, etc.   |                   |
| 3. it is a place for me to continue to pass down the wisdom, knowledge, traditions, and way of life of my ancestors                                  |                   |
| 4. it provides fisheries or tourism opportunities, such as outfitting and guiding.   |                   |
| 5. it allows future generations to know and experience the area as it is now.  |                   |
| 6. it has places and things of natural and human history that matter to me.  |                   |
| 7. in and of itself for its existence, no matter what I or others think about the [NPS SITE]   |                   |
| 8. we can learn about the environment through scientific observation or experimentation  |                   |
| 9. it helps preserve and protect clean air, soil, and water, and it protects lives and property from storms, sea level rise, and saltwater intrusion |                   |
| 10. it provides a place for my favorite outdoor recreation activities  |                   |
| 11. it is has sacred, religious, or spiritual meaning to me or because I feel reverence and respect for nature there                                 |                   |
| 12. it provides necessary food and supplies to sustain my life   |                   |
| 13. it makes me feel better physically and/or mentally   |                   |
| <b>TOTAL</b>   | <b>100 Points</b> |



## VALUES7

The following is a list of characteristics values associated recreational experiences. Please indicate how important each of the items listed below was to you as a reason to choose to visit the park today. (Select one number for each item.)

|   | Not at all Important | Slightly Important | Moderately Important | Very Important | Extremely Important | Don't know/not sure |
|---|----------------------|--------------------|----------------------|----------------|---------------------|---------------------|
| Remoteness  | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Solitude  | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Primitive recreation/few facilities                   | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Pristine natural environment                          | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Physically challenging/ demanding                     | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Unconfined recreation/free from rules and regulations | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Requiring self-reliance                               | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Fostering a sense of humility toward nature           | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Fostering connection with nature                      | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |
| Fostering spiritual connection                        | 1                    | 2                  | 3                    | 4              | 5                   | DK/NS               |