

U.S. FISH AND WILDLIFE SERVICE
BEACH MOUSE TRAPPING PROTOCOLS
2020 - UPDATE

GENERAL INFORMATION APPLYING TO ALL TRAPPING EFFORTS:

Live-trapping exposes small animals to several risks that could cause injury, mortality, loss of young, cold or heat stress, and predation. All captured animals, regardless if they are the target of the trapping event, must be retained under humane conditions and the effect on their natural behavior must be minimized.

Live-trapping also effects habitat by damaging vegetation, creating paths, fragmenting habitat, and compacting soils. Consequently, efforts should be made to avoid such impacts by using as few people as are necessary, minimizing trampling and cutting vegetation, and not driving on naturally vegetated areas. The individual specified in the U.S. Fish and Wildlife Service (USFWS) Recovery Permit (permittee) is ultimately responsible for all activities of any individual who is operating under the authority of this permit. Only qualified individuals (i.e., with previous beach mouse trapping experience and approved by the local beach mouse USFWS recovery biologist) specifically named in the permit may conduct permitted activities in the absence of the permittee. Therefore, all participants should read and review all sections of this permit carefully before conducting any activities pursuant to the permit. Acceptance of this permit serves as evidence that the permittee and its authorized agents understand and agree to abide by the terms of this permit and all sections of Title 50 code of Federal Regulations, Parts 13 and 17, pertinent to issued permits. Failure to do so can result in permit revocation. Section 11 of the Endangered Species Act of 1973, as amended, also provides for civil and criminal penalties for failure to comply with permit conditions.

Pre-planning:

1. Initiate discussions with the local USFWS beach mouse recovery biologist (contacts identified below) if any deviations from these protocols are anticipated.
2. As necessary, coordinate with local sea turtle and shorebird conservation experts to understand whether those species may be nesting in the area where you are working. Ensure beach mouse trapping efforts are consistent with conservation efforts for those species.
3. Using NOAA National Weather Service point forecasts (forecast.weather.gov), identify predicted low temperatures for the trapping period, as well as any additional threat of heavy rain or severe weather. Also identify moon phase (timeanddate.com). Be aware that mouse activity may be influenced by moon phase.
4. Initiate discussions with local USFWS beach mouse recovery biologist if temperatures are forecasted to be below 55 degrees.

5. If minimum overnight temperatures are forecasted to reach 50 or below, no full night trapping may occur. However, trapping may occur if all traps will be checked and closed before temperatures fall to 50 or below.
6. Full night trapping is prohibited with Gulf coast beach mouse subspecies. On the Atlantic coast, full night trapping may occur for no more than three consecutive nights in the same location.
7. Identify any additional complications or hazards to trapping (e.g., access issues, government shutdowns, launches (southeastern beach mouse), tropical storms, extreme tides, high surf conditions, fire ants, prescribed fires) and modify plans accordingly. Do not conduct trapping if there is a potential of needing to risk human or animal safety in order to check traps in the manner required below. Furthermore, do not plan to set more traps than you can properly and safely check in the time described in these protocols (most pertinent on the Atlantic Coast where you are limited to two hours).
8. Avoid impacts to coastal habitat by planning for the minimum number of vehicles and people to participate in the trapping session. Consider travel routes (in vehicles and on foot) that minimize impacts to vegetation.

Deploying and setting traps:

1. Sherman or similar live traps (preferably 2 x 2.5 x 6.5"; no larger than 3 x 4 x 12") may be used, and shall be placed so that captured animals will not be subjected to extremes in temperature, predation, flooding, or other hazards.
2. All traps should be individually numbered to ensure no traps are skipped or left in the field. Each trap location must be marked with a pin flag or flagging tape, and GPS data must be collected for each trap location. These three methods, at minimum, must be in place to locate each trap in case of loss.
3. When trapping in areas accessible to the public and not a secured area with limited access, traps must be labeled. Labels must include identification of ownership, LIVE TRAP FOR SMALL MAMMALS - DO NOT TOUCH, and agency name/ contact information.
4. Bait should consist of sunflower seeds (shells on). Non-seed baits, such as peanut butter, readily attract ants and mammalian predators and must not be used.
5. Set the trap with the base in a stable position. Clear and adjust treadles as needed to safely capture mice. A delayed trigger can result in injury.
6. If spotted skunks, raccoons, or similar predators are expected to be abundant and a nuisance in the trapping area, predator excluders must be used so captured beach mice are not subject to predation. This is particularly important on the Atlantic Coast, where spotted skunks are prevalent, including Brevard County, where excluders are required in all cases.
7. Nesting material (preferably nestlets or cotton batting) is required at all times, despite temperatures, to provide comfort and reduce anxiety of captured animals.
8. Low temperatures must be closely monitored during each trapping sessions. Continue discussions with USFWS beach mouse recovery biologist if temperatures are forecasted

to be below 55 degrees, using NOAA National Weather Service point forecasts (forecast.weather.gov). Additional nesting material and bait, and other modifications may be required. If minimum overnight temperatures are forecasted to reach 50 or below, no full night trapping may occur. However, trapping may occur if all traps will be checked before temperatures fall to 50 or below.

9. Dunes are easily damaged by foot and vehicular traffic. Use the minimum number of people necessary to reduce unnecessary traffic. Do not drive any vehicles on vegetated dunes or other areas with native vegetation.
10. Do not deploy more traps than you can safely check in the manner required below.
11. Do not leave traps out between trapping periods.

Checking traps:

1. Dunes are easily damaged by foot and vehicular traffic. Use the minimum number of people necessary to reduce unnecessary traffic. Do not drive any vehicles on vegetated dunes or other areas with native vegetation.
2. All traps must be checked (and closed) by 30 minutes (Gulf coast subspecies) or two hours (Atlantic coast subspecies) after sunrise. For Atlantic Coast subspecies, checking should begin no later than civil dawn (the beginning of civil twilight) (i.e., personnel should be arrived at trapping site and checking first traps, at minimum). (Timeanddate.com can be used to determine sunrise and civil twilight at locations and dates where trapping will occur.)
3. Confirm every trap has been located, visually inspected, and closed when empty. The entire interior of each trap, including behind nestlets or cotton batting, must be visually inspected before closing to assure no small mammals or other animals are inadvertently left in the trap.
4. Process mice while sitting or kneeling on the ground. This minimizes injuries to mice from being dropped or escaping.
5. Handling shall not exceed ten minutes after the trap is checked.
6. Captured mice must be released at the point of capture (generally within 3 m (9 ft) of capture) unless a specific study plan has been submitted and approved in your current permit conditions.
7. Mice shall be released at ground level in protected habitat (i.e., do not release in open sand; release next to vegetation). Make sure all personnel remain stationary and aware of the mouse's location upon release, to avoid accidental trampling or crushing.
8. All events involving cold stressed, lethargic, or injured mice should be reported to USFWS beach mouse recovery biologist within 24 hours. Any serious situations, particularly mortalities or when mice may be removed from capture sites, contact USFWS beach mouse recovery biologist immediately (or the morning following the event if checking traps at night). Based on consultation with these offices, a decision will be made as to whether any of the authorized activities can continue. Decisions will also be made concerning the deposition of sick, injured, or deceased mice. The permittee may

be required to employ remedial measures to eliminate future mortality/injury events. The final decision on remedial measures rests with the USFWS.

9. Any non-native species captured during beach mouse trapping must be euthanized humanely. Consult USFWS beach mouse recovery biologist for approved methods.

Sick or injured wildlife:

1. Upon locating a dead, injured, or sick beach mouse, or any other Threatened and Endangered Species, under circumstances not addressed in this authorization, initial notification must be made by the next workday to the local USFWS Field Office identified below.
2. Care should be taken in handling sick, injured, or dead specimens to ensure effective treatment or to preserve biological materials for later analysis. In conjunction with the care of sick or injured endangered or threatened species, and the preservation of biological materials from a dead animal, the permittee should take responsible steps to ensure that the site is not unnecessarily disturbed.

Reporting:

1. Site description and trapping data must be recorded. The site description must include project location, habitat on the project area and adjacent lands, and trapping design relative to habitat distribution. Daily trapping data must include number of beach mice captured per day, non-target species captured, weather conditions, lost or missing traps, and moon phase. If demographic data are being collected, sex, age, and reproductive status of beach mice must also be reported.
2. For purposes of monitoring compliance and administration of the terms and conditions of this permit, contact the U.S. Fish and Wildlife Service Permit Coordinator, 1875 Century Boulevard, Suite 200, Atlanta, Georgia 30345-3301; Telephone: 404/679-4176.
3. Copies of annual reports, all published data and reports from the research authorized herein shall also be sent to the local USFWS recovery biologist.

USFWS Beach Mouse Contacts:

Alabama beach mice:

1208 Main Street,
Daphne, Alabama 36526
Telephone: 251-441-5181

**Perdido Key, Choctawhatchee,
and St. Andrew beach mice:**

1601 Balboa Avenue,
Panama City, Florida, 32405
Telephone: 850-769-0552

**Anastasia Island and
Southeastern beach mice:**

7915 Baymeadows Way, Suite 200,
Jacksonville, Florida 32256-7517
Telephone: 904-731-3336

Southeastern beach mice:

1339 20th Street,
Vero Beach, Florida 32960-3559
Telephone: 772-562-3909

REGULATORY SURVEYS FOR PRESENCE:

1. Surveys must include the entire dune system within the project area and, if permission can be obtained, adjacent lands with beach mouse habitat. Trapping areas must include

all suitable habitat types such as: frontal dunes, secondary dunes, scrub dunes, and dry flats behind dune systems, regardless of distance from the beach.

2. Regulatory surveys for presence are not applicable in the Florida panhandle; contact FWS beach mouse recovery biologist. In Alabama and the Atlantic Coast, presence of beach mice can be documented by the capture of a single individual, but to determine absence (for regulatory purposes), efforts will require multiple trapping periods. In that respect, a trapping period must be completed in Fall, Winter, and Spring and in all dune habitats for at least two consecutive years and may be suspended if mice are captured. Specific trapping plans must be submitted to the appropriate field office for review, at least 30 days prior to the first trapping event.
 - a) Moon phase should be recorded for all trapping events on all beach mouse species. Trapping must not be conducted from 7 days before to 7 days after a full moon.
 - b) Trapping must be conducted along linear transects with live-traps spaced at 10-15 meter intervals. Linear transects should be parallel to the frontal dune system, and at least one transect should be placed in each habitat type.
 - c) Transects must extend the full length of each habitat type except where long blocks of habitat are involved (less than or equal to 2,640 feet or 750 meters). In those cases, the habitat may be covered by several noncontiguous transects.
 - d) Two traps per trapping station are desirable but one trap per station is acceptable.
 - e) Traps must be operated for five nights per trapping session but may be suspended if a beach mouse is caught. At least three nights of trapping should be consecutive.
3. Captured mice must be released immediately at the point of capture (generally within 3 m (9 ft) of capture) unless a specific study plan has been submitted and approved in your current permit conditions.
4. Site description and trapping data must be recorded. The site description must include project location, habitat on the project area and adjacent lands, and trapping design relative to habitat distribution. Daily trapping data must include number of beach mice captured per day, non-target species captured, weather conditions, lost or missing traps, and moon phase. If population data are being collected, sex, age, and reproductive status of beach mice must also be reported. All information must be submitted to the local U.S. Fish and Wildlife Service Office.

REGARDING RESEARCH AND RECOVERY EFFORTS:

1. The following must be recorded for all trapping conducted: site location (on a map as well as a description) or GPS location (latitude/longitude or UTM), date, moon phase, lost or missing traps, predation or mortality events and number and type of species captured.
2. Captured mice must be released immediately at the point of capture (generally within 3 m (9 ft) of capture) unless a specific study plan has been submitted and approved in your current permit conditions.

3. Only fully qualified and trained personnel should attempt to attach ear-tags or collect genetic samples, unless they are under direct supervision of an on-site, qualified permit holder.
4. Beach mice should not be ear-tagged unless a specific study plan has been submitted and approved in the current permit conditions.
5. Juvenile/subadult mice under 10 grams should not be ear-tagged unless a specific study plan has been submitted and approved in the current permit conditions.
6. Tissue, blood, hair, or other genetic samples should not be collected unless a specific study plan has been submitted and approved in the current permit conditions.
7. Snipping a few mm of tissue from the edge of the ear (Ear snipping) is the current preferred method of obtaining tissue samples for genetic analysis; toe clipping and tail snips are no longer acceptable.
8. Radio-telemetry and moving mice beyond the point of capture require additional permitting and these actions are not included in these protocols.