

RADIO TELEMETRY FOR INDIANA BATS IN NEW JERSEY

If one or more Indiana bats are captured during survey efforts, the following radio telemetry protocols may apply. Radio telemetry provides vital data regarding roosting habitat and could provide information on home range and foraging behavior for use during the Endangered Species Act (ESA) Section 7 consultation process. In particular, this information would provide valuable insight into the selection of appropriate avoidance and minimization techniques and assist the applicant and/or the Federal action agency in satisfying their requirements under the ESA.

The following protocols apply to all radio telemetry efforts:

1. A qualified biologist who is experienced in handling Indiana bats and attaching radio transmitters shall attach radio transmitters to all (> 6.0 grams) Indiana bats captured at each site. During summer months, if multiple Indiana bats are captured, preference will be given to attaching transmitters to suitable weight female bats.
2. The radio transmitter and adhesive shall not weigh more than 10% of a bat's total body weight. However, in all cases, the lightest transmitters capable of accomplishing the required task should be used, especially with pregnant females and newly volant juveniles.
3. Radio telemetry equipment (*e.g.*, receivers, antennas, and transmitters) will all utilize the same frequency range and must be coordinated with the New Jersey Division of Fish and Wildlife to ensure that frequency to be used will not interfere with other ongoing radio telemetry projects.
4. The qualified biologist or technician must track all radio-tagged bats to their diurnal roosts for at least 5 consecutive days and must conduct a minimum of two evening emergence counts at each identified roost tree during that period. If radio telemetry shows roost trees exist in areas that are off of the project area, the adjacent landowner(s) must be contacted and the landowner(s) must grant access to those areas prior to conducting these activities. If access is denied, roost tree locations should be determined using triangulation. Persons conducting radio telemetry work should never trespass during radio telemetry work. If a radio tagged bat is not relocated after release, then the survey report should contain a map highlighting all of the roads/areas that surveyors used when searching for the missing bat.
5. Daily radio telemetry searches for roost trees must be conducted during daylight hours and must be conducted until the bat(s) is located or for at least 4 hours each day.

Qualified biologists are encouraged to continue radio tracking efforts, on a voluntarily basis, for the life of each transmitter. This will generate better data related to Indiana bat roosting behavior on the project site and will further assist applicants and the U.S. Fish and Wildlife Service in assessing project impacts and in developing conservation measures.