

ord 1048

Column E Explanation

This form is intended as an aid to completing the Column E Explanation. It is not an official form and its use is voluntary. Names, addresses, protocol, veterinary care programs, and the like are not required as part of an explanation. A Column E Explanation must be written so as to be understood by lay person as well as scientists.

1. Registration Number: 92-R-0005 1048
2. Number: 51 animals in Column E
3. Species (common name) Pacific Shrew, Trowbridge Shrew.
4. Explain the procedure producing pain and /or distress.

Trapping is a procedure that causes potential pain and/or distress. Shrews have a high metabolic rate and are widely known to have high mortality when captured. We have classified 30% of expected shrew captures in Category E because we expect a high mortality rate of shrews due to their high metabolic rate and low reported survival in live traps (estimated 30%; although McCay and Komoroski [2004] reported 68% mortality, that study used a different trapping protocol and no in-trap provision of food). Traps are baited with a mix of oatmeal, peanut butter and molasses to provide adequate food for overnight confinement (Wilson 2010). Meal worms are also added to the Sherman traps to try to reduce shrew mortality. Traps include a rain shroud on the outside and poly-fiber batting material inside to facilitate comfort and increase insulation (Sikes and Gannon 2011). Traps are placed under logs or at the base of trees to minimize exposure to inclement weather.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For federally mandated testing, see Item 6 below).

The investigator's primary goal is to determine if annual variation in the abundance of small mammals is correlated with vital rates (annual survival and number of young produced) of northern spotted owls. This is one of the least understood relationships that has the potential to influence spotted owl population trends, and has been identified as an important research need (Anthony et al. 2006, Forsman et al. in press). Shrews are captured in trapping grids that generate estimates for small mammal abundance. By including food items and nesting material in the traps and placing traps in areas to reduce the effects from inclement weather, the investigator hopes to improve survival rates from those that have been published.

6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113:102):

Agency NA CFR NA

JAN - 9 2013
Obtained by Rise for Animals.

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1. Registration Number: 92-R-0005 1048
2. Number 62 of animals used in this study.
3. Species (common name) Pacific Shrew, Trowbridge Shrew of animals used in the study.
4. Explain the procedure producing pain and/or distress.

Trapping is the procedure that will cause potential pain and/or distress. Shrews have a high metabolic rate and are widely known to have high mortality when captured. We have classified 30% of expected shrew captures into category E because we expect high mortality rates (estimated 30%; although McCay and Komoroski [2004] reported 68% mortality, that study used a different trapping protocol and no provision of food) of shrews due to their high metabolic rate and low reported survival in live traps. Traps are baited with a mix of oatmeal, peanut butter and molasses to provide adequate food for overnight confinement (Wilson 2010). A meal worm will be added to Sherman traps to try to reduce shrew mortality. Traps will include a rain shroud on the outside and poly fiber batting material inside to facilitate comfort and increase insulation (Sikes and Gannon 2011). Traps will be placed under logs or at the base of trees to minimize exposure to inclement weather.

5. Provide scientific justification why pain and/or distress could not be relieved. State methods or means used to determine that pain and/or distress relief would interfere with test results. (For Federally mandated testing, see Item 6 below)

Our primary goal is to determine if annual variation in the abundance of small mammals is correlated with vital rates (annual survival and number of young produced) of northern spotted owls. This is one of the least understood relationships that has the potential to influence spotted owl population trends, and has been identified as an important research need (Anthony et al. 2006, Forsman et al. *in press*). In trapping grids to generate estimates for small mammal abundance, it is expected that shrews will be captured. By placing food items, nesting material, and placement in areas to reduce effects from cold weather, we believe we can positively improve survival rates from those that have been published.

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6. What, if any, federal regulations require this procedure? Cite the agency, the code of Federal Regulations (CFR) title number and the specific section number (e.g., APHIS, 9 CFR 113:102):

Agency _____ CFR _____