

Lerone L., G.M. Carpaneto, A. Loy (2015). **Why camera traps fail to detect a semi-aquatic mammal? Activation devices as possible cause.** Wildlife Society Bulletin DOI: 10.1002/wsb.508

ABSTRACT

Camera-trapping represents a powerful tool in wildlife research, particularly when dealing with elusive and rare species such as otters (*Lutra* spp.). Nevertheless, detection problems arise when trying to detect otters with camera traps. We hypothesized that the temperature difference between the otter emerging from the water and the environment was too low to be detected by the standard passive infrared sensors (PIR). During June±September of 2010 and 2011 in the Sangro River basin in central Italy, we designed and tested a new pressure trigger and compared its effectiveness with that of the standard PIR. Results are encouraging and suggest that the new trigger could be able to detect otters and other semi-aquatic mammals.

KEY WORDS

camera-trapping, infrared sensor, *Lutra lutra*, semi-aquatic mammals, thermoregulation