

An Experimental Approach to Investigating Effects of Artificial Light at Night on Free-Ranging Animals: Implementation, Results, and Directions for Future Research

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Citation

Grunst, M.L., Grunst, A.S., Pinxten, R., Eens, G., Eens, M. An Experimental Approach to Investigating Effects of Artificial Light at Night on Free-Ranging Animals: Implementation, Results, and Directions for Future Research. *J. Vis. Exp.* (180), e63381, doi:10.3791/63381 (2022).

Date Published

February 2, 2022

DOI

10.3791/63381

URL

jove.com/video/63381

Materials

Name	Company	Catalog Number	Comments
Broad spectrum; 15 mm x 5 mm; LED headlight	RANEX; Gilze; Nederlands	6000.217	A similar model could also be used
Battery	BYD	R1210A-C	Fe-battery 12 V 120 Wh (lithium iron phosphate battery)
Dark green paint			Optional. To color nest boxes/ electronic enclosures
Electrical tape			For electronics
Homemade timer system	Amazon	YP109A 12V	A similar model could also be used
Infrared camera	Koberts-Goods, Melsungen, DE	205-IR-L	Mini camera; a similar model could also be used
Light level meter	ISO-Tech ILM; Corby; UK	1335	To calibrate light intensity
Mini DVR video recorder	Pakatak, Essex, UK	MD-101	Surveillance DVR Recorder Mini SD Car DVR with 32 GB
Passive integrated transponder (PIT) tags	Eccel Technology Ltd, Aylesbury, UK	EM4102	125 Kh; Provides unique electronic ID
Radio frequency identification (RFID) Reader	Trovan, Aalten, Netherlands	GR-250	To scan PIT tags and determine bird identity
Resistor	RS Components		Value depending on voltage battery and illumination
SD card	SanDisk		64 GB or larger
SongMeter	Wildlife Acoustics; Maynard, MA		Optional. Provides a means of monitoring vocalizations outside of nest boxes
TFT Color LED Portable Test Monitor	Walmart		Allows verification that the camera is on and recording the image correctly

Wood			To construct nest boxes/electronic enclosures
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