

# Davian Behavior (Necrophilia) Observed in the Mourning Dove in the Sierra Nevada Foothills, California

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The phenomenon of copulation with the corpse of a conspecific was first referred to as “Davian behavior” by Dickerman (1960) when he reported its occurrence in thirteen-lined ground squirrels (*Ictidomys tridecemlineatus*). The term was coined in reference to a limerick about a necrophiliac minor named Dave. This unusual behavior has been documented in several vertebrates, including a variety of mammals, reptiles, amphibians, and birds (de Mattos Brito et al. 2012).

Avian species previously reported to exhibit Davian behavior include Gentoo Penguins (*Pygoscelis papua*) (Bagshawe 1938); Rock Pigeons (*Columba livia*) (Slavid and Taylor 1987); Mallards (*Anas platyrhynchos*) (Lehner 1988), (Moeliker 2001); Snow Geese (*Anser caerulescens*) (Gauthier and Tardif 1991); Cliff Swallows (*Petrochelidon pyrrhonota*) (Brown 1998), Bank Swallows (*Riparia riparia*), Black Grouse x Western Capercaillie hybrid (*Tetrao tetrix* x *T. urogallus*) (Dale 2001); Barn Swallows (*Hirundo rustica*), Adélie Penguins (*Pygoscelis adeliae*), Gray-backed Sparrow-larks (*Eremopterix verticalis*), Stark’s Larks (*Spizocorys starki*) (Russell et al. 2012), and Red Collared-doves (*Streptopelia tranquebarica*) (Cheong 2017). However, we know of no documentation of this behavior occurring in the Mourning Doves (*Zenaida macroura*), and a thorough review of the biology of this species makes no mention of such (Otis et al. 2008). Here, we present the first documented occurrence of Davian behavior in Mourning Doves.

This instance of Davian behavior in Mourning Doves occurred at a ranch in the Sierra Nevada Foothills in central California. The ranch is situated in the Bailey Flats area near the Town of Raymond in Madera County. Around 9:00 a.m. on 8 July 2017, a dead Mourning Dove was noticed underneath a safflower seed bird feeder. Other Mourning Doves as well as other species of birds were seen feeding on the ground nearby. Later that day at 3:10 p.m., a male Mourning Dove approached the corpse, and, after a few nudges with its bill, proceeded to rapidly peck around the thorax at an estimated rate of 5-10 times/second (Figure 1). This pecking behavior seemingly was comparable to that described of males during normal courtship behavior when females

cease to move when followed by males (Otis et al. 2008). Following about one minute of sustained pecking, the male then mounted the corpse and proceeded to engage in copulatory movements with it, specifically in the region where it had been pecking (Figure 2). One hour later the corpse was taken away by a scavenger. The corpse was in direct sun at mid-day, and the air temperature peaked at 42.5°C (108.6°F) at 5:00 p.m.



Figure 1. Male Mourning Dove pecking at the corpse of a deceased dove. Rapid pecking occurred immediately prior to mounting and copulation by the male.  
*Photo by Bill Ralph*

It has been proposed that the underlying mechanism of Davian behavior in animals is the absence of proper recognition by males during mate search (Pearl et al. 2005, Costa et al. 2010). Meshaka (1996) suggested that this behavior may result in reduced reproductive success of males, particularly when associated with misdirected behavior in response to unnatural conditions, such as an artificially elevated body temperature of a road-kill animal (Dickerman 1960, Costa et al. 2010). The corpse of the Mourning Dove we observed sustained prolonged exposure to direct sunlight in very hot conditions that surely would have resulted in an artificially elevated temperature. Detailed studies and controlled experiments are necessary to further understand the mechanisms, triggers, and consequences of Davian behavior (de Mattos Brito et al. 2012).



Figure 2. Male Mourning Dove engaged in copulation with the corpse of an deceased dove. This is the first documentation of Davian behavior in Mourning Doves. *Photo by Bill Ralph*

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#### LITERATURE CITED

Bagshawe, T.W. 1938. Notes on the habits of the Gentoo and Ringed or Antarctic Penguins. The Transactions of the Zoological Society of London 24:209.

Brown, C.R. 1998. Swallow summer. University of Nebraska Press. Lincoln, Nebraska.

Cheong, T.G. 2017. First observation of necrophilia (sex with the dead) in the Red Turtle Dove. Singapore Bird Group website, <https://singaporebirdgroup.wordpress.com/2017/01/04/first-observation-of-necrophilia-sex-with-the-dead-in-the-red-turtle-dove/> [accessed July, 2017].

Costa, H.C., E.T. Silva, P.S. Campos, M.P.C. Oliveira, A.V. Nunes, and P.S. Santos. 2010. The corpse bride: A case of Davian behavior in the green ameiva (*Ameiva ameiva*) in southeastern Brazil. Herpetology Notes 3:79-83.

Dale, S. 2001. Necrophilic behaviour, corpses as nuclei of resting flock formation, and road-kills of Sand Martins *Riparia riparia*. Ardea 89:545-547.

de Mattos Brito, L.B., I.R. Joventino, S.C. Ribeiro, and P. Cascon. 2012. Necrophiliac behavior in the "cururu" toad, *Rhinella jimi* Steuvax, 2002, (Anura, Bufonidae) from Northeastern Brazil. North-Western Journal of Zoology 8:365-366.

Dickerman, R.W. 1960. "Davian behavior complex" in ground squirrels. Journal of Mammalogy 41:403.

Gauthier, G., and J. Tardif. 1991. Female feeding and male vigilance during nesting in Greater Snow Geese. The Condor 93:701-711.

Lehner, P.N. 1988. Avian Davian behavior. Wilson Bulletin 100:293-294.

Meshaka, W.E., Jr. 1996. Anuran Davian behavior: A Darwinian dilemma. Florida Scientist 59:74-75.

Moeliker, C.W. 2001. The first case of homosexual necrophilia in the mallard *Anas platyrhynchos* (Aves: Anatidae). Deinsea-Annual of the Natural History Museum Rotterdam 8:243-247.

Otis, D.L., J.H. Schulz, D. Miller, R.E. Mirarchi, and T.S. Baskett. 2008. Mourning Dove (*Zenaida macroura*), in The Birds of North America Online (A. Poole, Ed.), no. 117. Ithaca: Cornell Lab of Ornithology [accessed Aug 2017].

Pearl, C.A., M.P. Hayes, and R. Haycock. 2005. Observations of interspecific amplexus between western North American ranid frogs and the introduced American bullfrog (*Rana catesbeiana*) and a hypothesis concerning breeding interference. American Midland Naturalist 154:126-134.

Russell, D.G.D., W.J.L. Sladen, and D.G. Ainley. 2012. Dr. George Murray Levick (1876-1956): Unpublished notes on the sexual habits of the Adélie Penguin. Polar Record 48:1.

Slavid, E., and J. Taylor. 1987. Feral Rock Dove displaying to and attempting to copulate with corpse of another. British Birds 8:497.

Mourning Dove (*Zenaida macroura*). 6 May 2016. Sacramento Co., California.

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