

PEER EDITED

NOTES

RECENT OBSERVATION OF KIT FOX (*VULPES MACROTIS*) OUTSIDE OF ITS
KNOWN RANGE IN OREGON

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Abstract.—Here we report on an observation of a Kit Fox (*Vulpes macrotis*) outside of its known range, near Ontario, Oregon.

Key Words.—distribution; Great Basin Desert; roadkill

On 15 February 2017, we collected an apparent vehicle-caused mortality of a male Kit Fox (*Vulpes macrotis*) on Interstate Highway 84 in eastern Oregon, USA (Fig. 1). The specimen was located on the highway near the crossing of the Snake River and the border with Idaho (UTM zone 11T 0504666, 4872846; datum: NAD 83). We used a 3-mm biopsy punch to collect an ear-tissue sample from the carcass to confirm species identification as Kit Fox using DNA (Benjamin Sacks, pers. comm.). We also extracted a tooth for determining age, and based on cementum annuli analysis (Matson's Laboratory, Manhattan, Montana), this individual was 2 y old.

Historically, Kit Foxes ranged from southeastern Oregon and southwestern Idaho south through the deserts and semi-arid regions of California, Nevada, Arizona, and New Mexico, into northcentral Mexico (McGrew 1979). The current distribution is somewhat unknown, although in Oregon, recent research (Milburn and Hiller 2013; Vesely, D. 2015. Conservation assessment of the Kit Fox in Southeast Oregon. Oregon Wildlife Institute, Corvallis, Oregon, USA. <https://www.fs.fed.us/r6/sfpnw/issssp/documents3/ca-ma-kit-fox-in-oregon-2015-08-508.pdf>. [Accessed 20 April 2018]; Eckrich et al. 2018) has confirmed the species presence in southeastern Harney and southwestern Malheur counties, west and southwest of Burns Junction in southeastern Oregon (Fig. 2). Prior to those studies, the most recent confirmed detections occurred in 1993 (Keister 1994). An unusual past record indicated an individual present in Klamath County (Laughlin and Cooper 1973). Recent (1992–2012) observations in Idaho are generally restricted to the southwestern portion of the state (Idaho Department of Fish and Game. 2016. Idaho Fish and Wildlife Information System, Species Diversity Database, Idaho Natural Heritage Data. <https://idfg.idaho.gov/species/taxa/17479>. [Accessed 3 May 2018]; Fig. 2). Recent harvest records from Nevada confirm presence in all

northern-tier counties (Russell Woolstenhulme, unpubl. data). Our recent observation was located about 175 km from the known recent (2012–2015) detections in Oregon, and about 110 km from nearest recent detection in Idaho. We cannot determine whether the individual kit fox described here was a wild or a captive individual, a dispersing individual, or a potential indication of range expansion. We recommend additional efforts, however, to study the distribution and ecology of this species in Oregon (and elsewhere) because the Kit Fox is a species of conservation concern in Oregon (e.g., Vesely 2015. *op. cit.*; <http://www.oregonconservationstrategy.org/>).

LITERATURE CITED

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FIGURE 1. Kit Fox (*Vulpes macrotis*) mortality found near Ontario, Oregon, about 110 km from the nearest recent known detection of the species. (Photographed by Philip Milburn).

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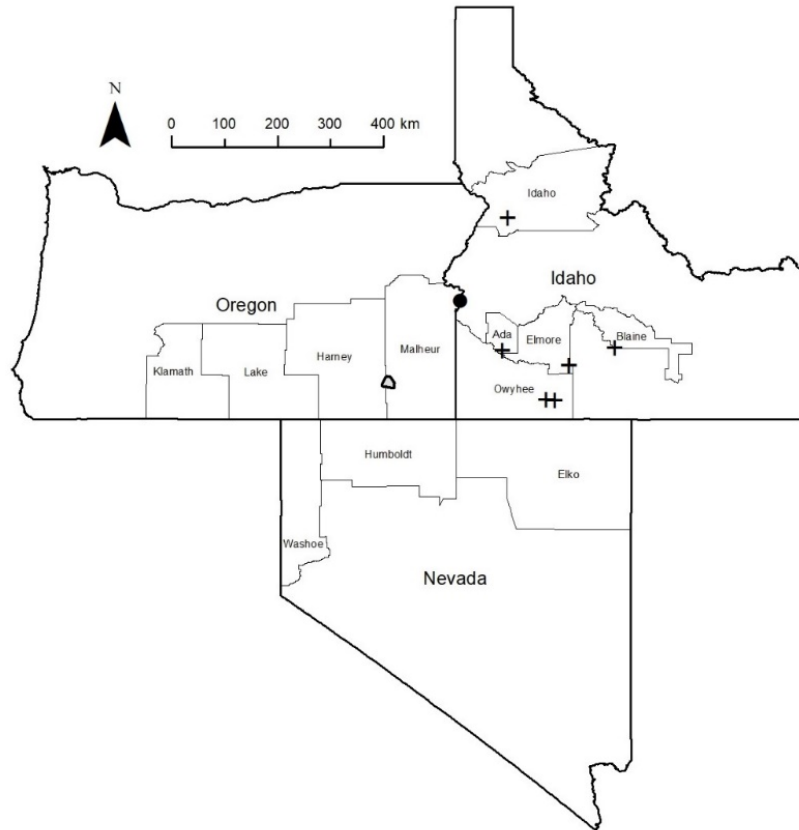


FIGURE 2. Recent detections of Kit Foxes (*Vulpes macrotis*) in Idaho (1992–2012), Nevada (northern-tier counties based on harvest data), and Oregon (gray polygon = 2012–2015, closed circle = 2017), USA.