Journal of Threatened Taxa | www.threatenedtaxa.org | 26 July 2022 | 14(7): 21470–21472
ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)
https://doi.org/10.11609/jott.8058.14.7.21470-21472
#8058 | Received 17 June 2022 | Final received 13 June 2022 | Finally accepted 14 June 2022
OPEN ACCESS
NOTE

A new southern distribution record for Pacific Marten *Martes caurina*

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Martens in North America are forest-specialist mesocarnivores that are listed by the IUCN with an overall status of Least Concern (Helgen & Reid 2015), but they are often locally a species of conservation concern. Although all martens in North America were previously considered one species, recent advances in genetics show there are two distinct species of martens (Carr & Hicks 1997; Lucid et al. 2020; Schwartz et al. 2020): American Martens *Martes americana* and Pacific Martens *Martes caurina*. Pacific Martens inhabit North America from the Rocky Mountains to the West coast of the Pacific Ocean and from the boreal forests of southern British Columbia to the southern terminus of the Rocky Mountains in north-central New Mexico. Martens were historically limited by overharvest from the fur trade, but they are currently more threatened by habitat degradation and fragmentation (Helgen & Reid 2015).

Pacific Martens were likely never common in New Mexico, which is at the southern edge of their range (Image 1), but are now rare and classified as threatened in the state (Threatened and Endangered Species of New Mexico 2020). The New Mexico Department of Fish and Game has completed multiple surveys for martens in New Mexico since 1997. Pacific martens have been consistently found in the North Central mountains near Taos and Chama (Long et al. 2015), with martens seeming to be most abundant in Taos County (Long et al. 2015). It is unclear, however, if the surveys have clearly defined the southern boundary of the population, and individuals at the southern end of their range could be going undetected.

Here we report a recent Pacific Marten detection and explore its implications for the marten population in the Rocky Mountains. On 4 September 2020, during a hike in the Rocky Mountains north-east of Santa Fe, New Mexico, we observed a Pacific Marten at 35.835, -105.750 (Image 2).

This detection is farther south than any confirmed Pacific Marten sighting in the published literature since 1884 (Image 3). In 1884, two specimens were collected by L. Dyche in the Las Vegas Mountains; however, the exact locality information for these specimens is not known, and our observation could be anywhere from 0 to 15 km farther south (Durrant 1952) (Image 3).

It is unknown if this sighting represents the documentation of a population or just a lone individual. There have been unverified scat and tracks, which are notoriously difficult to identify accurately, in the same

Editor: Anonymity requested. **Date of publication:** 26 July 2022 (online & print)

Citation: Allen, M.L., B. Kenny, B. Crawford & M.J. Farmer (2022). A new southern distribution record for Pacific Marten *Martes caurina*. *Journal of Threatened Taxa* 14(7): 21470–21472. https://doi.org/10.11609/jott.8058.14.7.21470-21472

Funding: None.

Competing interests: The authors declare no competing interests.

Acknowledgements: We thank the Illinois Natural History Survey and the University of Illinois for their support.

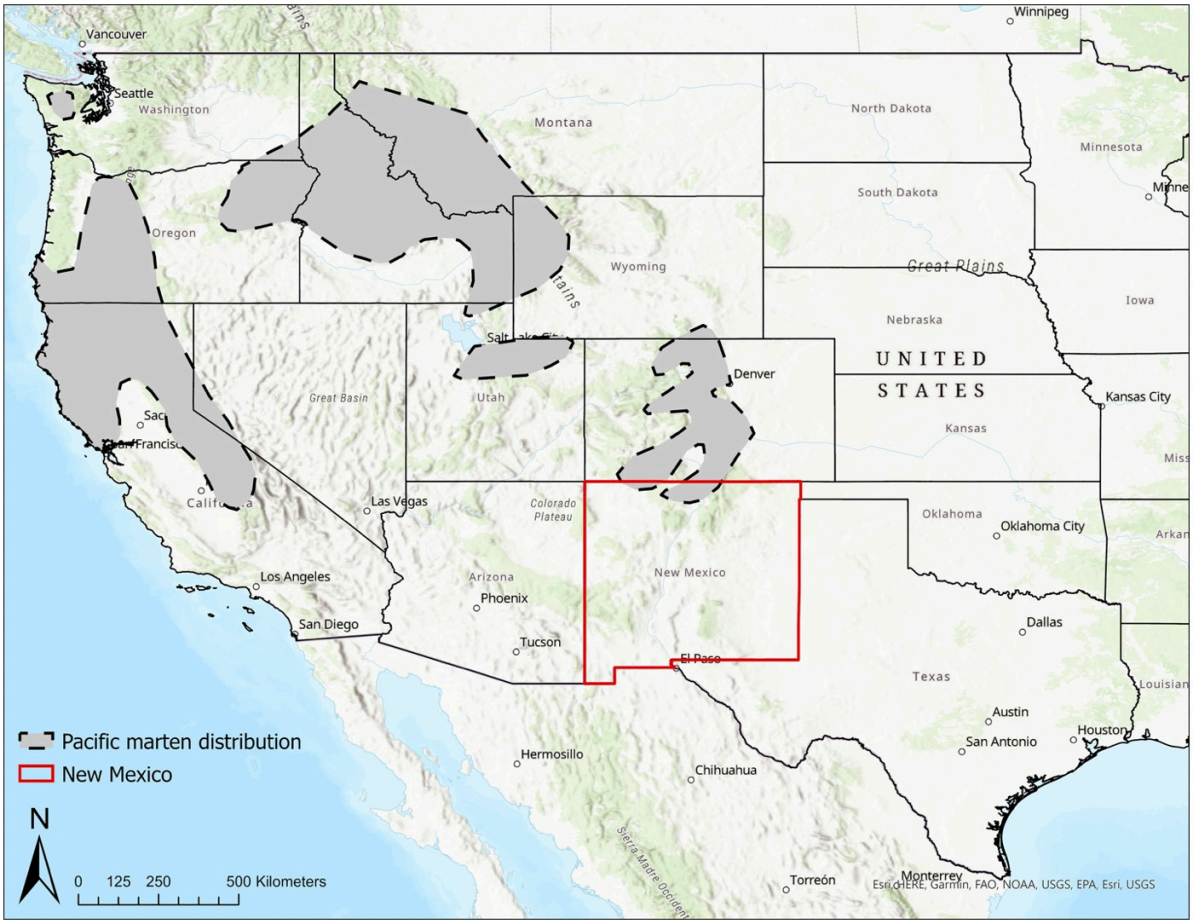

Image 1. The range map for Pacific Martens *Martes caurina* in the United States of America, with their range in New Mexico highlighted.

Image 2. Pacific Marten observed during a hike near Santa Fe, New Mexico. © B. Kenny.

general area (Long 2001; Long et al. 2015). Thus, it is possible Pacific Martens have been present in the area but have gone undetected, or that martens are expanding back into the southern extent of their historic range. It is unlikely that Pacific Martens will be found farther south as potential suitable habitat is limited to high elevation forests that are only found in the Rocky Mountains (Long 2001), which end nearby. In addition, as climate and land use change progresses, species ranges may also shift further north or higher in elevation to track climate,

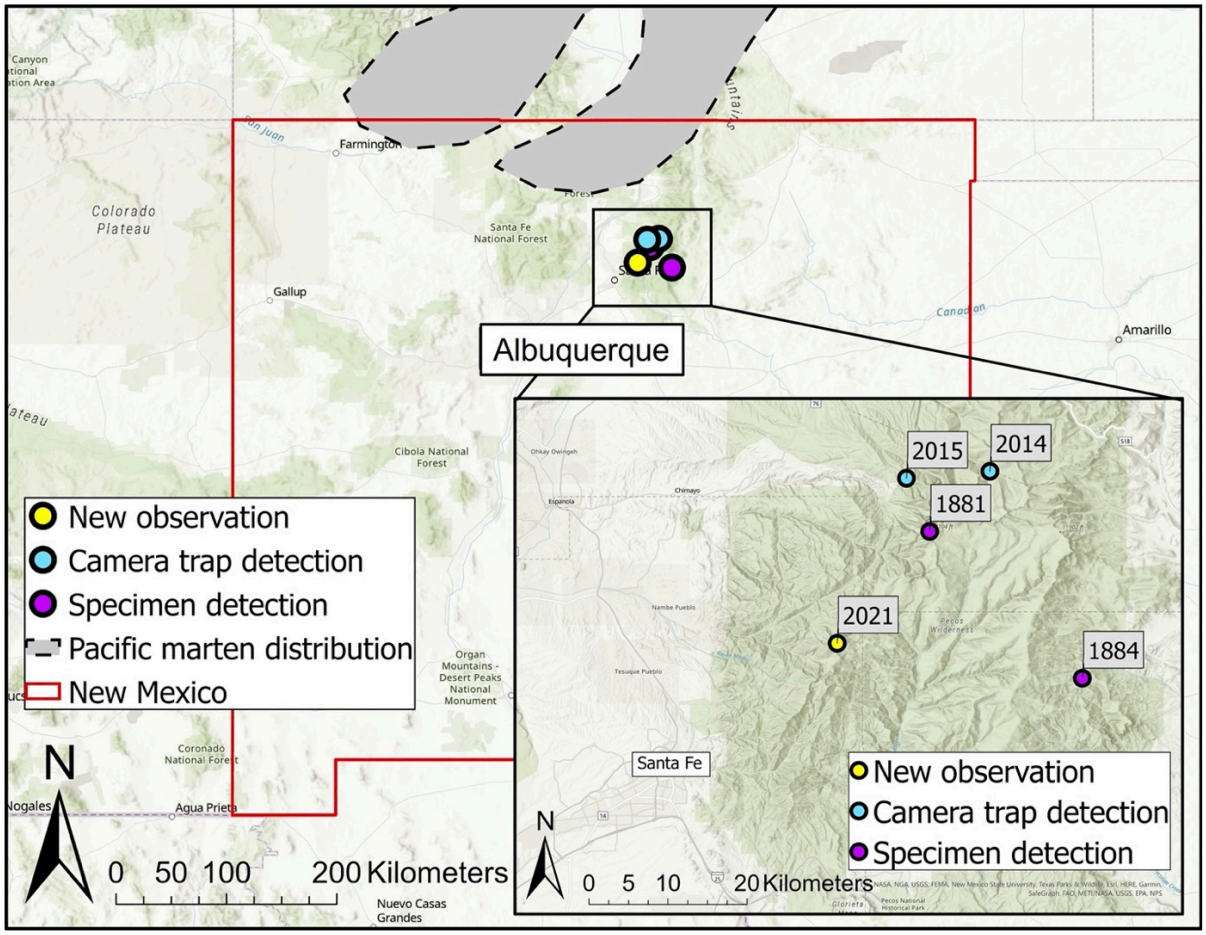

Image 3. A map showing the recent observation of a Pacific Marten in the Rocky Mountains of New Mexico. This observation is farther south than any documented observation since 1884, and other recent sightings are shown to put the observation in context.

weather, or structural features (e.g., complex forest) that they are adapted to (Martin et al. 2021). A systematic survey to determine the occupancy and abundance of martens in the southern limit of the population could be a valuable follow up study. Calls for public observations, including posting observations to sites readily available to scientists such as iNaturalist (www.inaturalist.org), could also be beneficial in determining locations in the rugged Rocky Mountains where Pacific Martens are either expanding or may have persisted.

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