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CALIFORNIA'S OAK HABITAT FOR ENDANGERED, THREATENED, AND CANDIDATE SPECIES

California Oaks newsletters can be downloaded from: <https://californiaoaks.org/newsletters/>

1. The Spring-Summer 2021 issue (<https://californiaoaks.org/wp-content/uploads/2021/05/Spring-Summer2021NewsletterDigitized.pdf>) includes the report on oak habitat for endangered, threatened, and candidate species. We realized that Humboldt marten (*Martes caurina humboldtensis*) should be included in the list after reading this passage in a conservation assessment: *Hardwoods, specifically tanoak and chinquapin, are important species for providing den and rest sites as well as mast for prey species. The reduction of hardwoods below their natural levels of abundance represents a degradation of habitat.*¹

The listing of plants in Table 2 on page 4 erroneously adds an “s” to *Cirsium fontinale* var. *fontinales* (fountain thistle).

2. The Fall-Winter 2021 issue reports on oaks and groundwater recharge: <https://californiaoaks.org/wp-content/uploads/2021/10/Fall-Winter-2021-Newsletter-Reduced-Size-1.pdf>.

3. The Spring-Summer 2022 issue (<https://californiaoaks.org/wp-content/uploads/2022/10/Oaks-SpringSummer2022-reduced-size.pdf>) includes oak woodland and oak-forested mapping data for eight *Quercus* species and tanoak (*Notholithocarpus densiflorus*).

The graphic with information on listed and extirpated species from page of 12 the *Prairie, Oaks and People conservation business plan* can be downloaded from:

https://cascadiaprairieoak.org/wp-content/uploads/2017/11/Oak_Plan2017_v100517.pdf

Footnotes from the presentation:

¹ Mensing S, “The history of oak woodlands in California, Part II: The Native American and historic period,” *California Geographer*, Vol 46, California Geographical Society, Arcata, CA, 2006. 1-31.

² Gaman, T. *An Inventory of Carbon and California Oaks*. California Oak Foundation, Oakland, CA, 2008. The report is downloadable from: <https://californiaoaks.org/resources/>.

³ Gaman, T, et al., “California’s Oaks in the 21st century: using Gradient Nearest Neighbor to map oak woodlands and forests.” In review. 2022 California Oak Symposium Proceedings.

⁴ O’Geen, AT, et al., “Research connects soil hydrology and stream water chemistry in California oak woodlands,” *California Agriculture*, Volume 64(2), April-June 2010. 78-84.

⁵ Allen, MF, “How Oaks Respond to Water Limitation,” presented at the Seventh California Oak Symposium: Managing Oak Woodlands in a Dynamic World, US Forest Service, Pacific Southwest Research Station, held in Visalia, CA November 2014.

¹ Slauson, Keith M.; Schmidt, Gregory A.; Zielinski, William J.; Detrich, Phillip J.; Callas, Richard L.; Thrailkill, James; Devlin-Craig, Brenda; Early, Desiree A.; Hamm, Keith A.; Schmidt, Kristin N.; Transou, Amber; West, Christopher J. 2019. *A conservation assessment and strategy for the Humboldt marten in California and Oregon*. Gen. Tech. Rep. PSW-GTR-260. Arcata, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 121.

⁶ Meadows, R, “Oaks—Research and outreach to prevent oak woodland loss.” *California Agriculture*, Volume 61(1), January-March 2007. 7-10.

⁷ Great grey owl was not listed as oak dependent in the California Habitat Wildlife Relationship database. A research article documents 30% of nests in oak trees: Wu, JX, et al., “Diversity of great gray owl nest sites and nesting habitats in California.” *The Journal of Wildlife Management* 79(6):937-947; 2015, SOI: 10.1002/jwmg.910.

⁸ See footnote 1 at the bottom of page 1 of these notes.

⁹ Hamilton H, Smyth LR, Young BE, et al., “Increasing taxonomic diversity and spatial resolution clarifies opportunities for protecting US imperiled species,” *Ecological Applications* 2022:e2534. doi.org/10.1002/eap.2534

(The Areas of Unprotected Biodiversity Importance overlay uses mapping data from <https://esajournals.onlinelibrary.wiley.com/doi/10.1002/eap.2534> Copyright © 2022, NatureServe, 2550 South Clark Street, Suite 930, Arlington VA 22202, USA. All Rights Reserved.)

¹⁰ Griffin, JR, et al. 1972. *The Distribution of Forest Trees in California*. USDA Forest Service Research Paper PSW-82. Berkeley, CA.

¹¹ Vorster P, et al. *From the Sierra to the Sea—The Ecological History of the Bay-Delta Watershed*, The Bay Institute, 1998, 2-30.

GIS maps for the publication were produced by GreenInfo Network. The wetlands were mapped by 19th-century surveyors, and the riparian zone and other floodplain habitat were determined indirectly from soil surveys and geologic maps. For additional information on creation of the map, see *From the Sierra to the Sea*, A8–9.

¹² The historical land cover map of the San Joaquin basin was created by Scott Phillips of the Endangered Species Restoration Program, California State University, Stanislaus.

Stay connected! Reach out with questions, or for more information: Angela Moskow, 510-763-0282, amoskow@californiaoaks.org

Consider joining California Oaks Coalition (<https://californiaoaks.org/coalition/>), if you represent a non-profit organization that has a focus on California’s native oaks.