

Interactive comment on “A spatial database of wildfires in the United States, 1992–2011” by K. C. Short

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I thank the reviewer for his/her feedback.

Specific Comments

Page 307, line 20: I propose expanding on the statement as follows: “Precision to eight decimal places was retained, when available, for the sake of consistency with the source information. However, both the accuracy and precision of the location estimates are generally much lower than that implied by the stored coordinate information, which, for example, may have been calculated from a PLSS section centroid.”

Page 319, section 2.3: I view the suggestion as an excellent follow-on to this initial

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publication. Comparisons of fire activity patterns indicated by the FPA FOD (and other published data sources) to satellite-based fire detection products like those analyzed by Giglio et al. (2010) and Hawbaker et al. (2013), for example, should be very enlightening indeed.

Page 323, line 22. As posed, this question is essentially impossible to answer given that the only location information required for each record included in the FPA FOD is a point location – not a perimeter that can be used to estimate burned area across fuel types (although MTBS perimeters do exist for many of the large fires and are identified by the MTBS ID in the database). While it is possible to calculate the percentage of mapped fire locations in the FOD that intersect pixels mapped by LANDFIRE as non-burnable, there would be no straightforward way to interpret the number. Points could map in non-burnable fuel types due to errors/imprecision in fire locations, errors in LANDFIRE data, or the 30-meter resolution of LANDFIRE data. We may also find fires mapping in non-burnable pixels if the area was burnable at the time of the reported fire, but not in 2008, which is the currency of the conditions that the LANDFIRE fuel data in Figure 2 are intended to represent. In lieu of providing an answer to the question or some variant of it, I propose inserting a statement in the manuscript indicating that the LANDFIRE burnable-land graphic is intended simply to help users understand, at a glance, why there are some obvious “bald spots” in the point coverage. Specifically, I propose to edit the caption for Figure 2 so that it will read in the revised manuscript as follows:

“Locations of (A) all wildfire records in the conterminous US included in the FPA FOD, 1992–2011, and (B) land mapped as burnable wildland surface-fuel types in the 30-meter resolution LANDFIRE Refresh 2008 dataset (LF_1.1.0b; see Ryan and Opperman, 2013). Points depicting the locations of fires are not to scale. Areas with few or no fires represented in the dataset may have afforded little viable data for inclusion in the FPA FOD, or, alternatively, may be areas with little or no burnable landcover. Non-burnable fuel types are those with “insufficient wildland fuel to carry wildland fire

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under any condition,” and include urban or suburban development, agricultural land maintained in a non-burnable condition, snow/ice, open water, and bare ground (Scott and Burgan, 2005).

Technical Corrections

Page 299, line 4: The recommended change will be made in the revised manuscript.

Page 304, line 4: The recommended change will be made in the revised manuscript.

Page 308, line 1, etc.: I have used the term “cross-walk” to refer to the process of mapping and transforming values entered for data elements in the source datasets, like agency and unit names, to their synonyms in the data standard (e.g., NWCG Unit Identifier Standard) adopted for the target dataset (i.e., the FPA FOD). This use of the term is consistent with Baca’s (2008) definition of a cross-walk as “the semantic mapping of fields or data elements in one data standard to fields or data elements in another standard that has a similar function or meaning,” as well as that of St. Pierre and LaPlant (1998), who contend that “a complete or fully specified crosswalk consists of both a semantic mapping and a [data] conversion specification.”

Page 311, line 28: The recommended change will be made in the revised manuscript.

Page 319, line 11: Yes, and that is a better term. I will replace “rolled up” with “compiled” in the revised manuscript.

References

Baca, M.: Introduction to metadata 3.0, Getty Publications, Los Angeles, CA, USA, available at: http://www.getty.edu/research/publications/electronic_publications/intrometadata/index.html, 2008.

Giglio, L., Randerson, J. T., van der Werf, G. R., Kasibhatla, P. S., Collatz, G. J., Morton, D. C., and DeFries, R. S.: Assessing variability and long-term trends in

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burned area by merging multiple satellite fire products, *Biogeosciences*, 7, 1171-1186, www.biogeosciences.net/7/1171/2010/, 2010.

Hawbaker, T. J., V. C. Radeloff, S. I. Stewart, R. B. Hammer, N. S. Keuler, and M. K. Clayton. 2013. Human and biophysical influences on fire occurrence in the United States. *Ecological Applications*, 23(3):565-582.

St. Pierre, M., and LaPlant, W. P.: Issues in crosswalking content metadata standards, National Information Standards Organization white paper, available at: http://www.niso.org/publications/white_papers/crosswalk/, 1998.

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