Erratum

Estimating 30-year change in coastal old-growth habitat for a forest-nesting seabird in British Columbia, Canada

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- In Table 3, for Model 3, the total for the Loss (ha) column should be 768519
- In each of the Abstract and Conclusions (first paragraph), two sentences should be changed to rectify an error in the range of values for the estimate of net habitat change. The corrected sections are given in full below, with the changed text underlined.

ABSTRACT: The marbled murrelet *Brachyramphus marmoratus* is an old-growth dependent species that nests in North American coastal forests. Canadian populations and occurrence data are limited; however concern over loss of nesting habitat in coastal British Columbia led to an assessment of 'threatened' by the Committee on the Status of Endangered Wildlife in Canada, and subsequent listing under the Canadian Species at Risk Act. Information on the availability and patterns of change in nesting habitat is essential for making land-use decisions and for monitoring the conservation status of this wide-ranging seabird. We estimated potential marbled murrelet nesting habitat for the coast of British Columbia at 2 points in time, 1978 and 2008, and quantified habitat loss and modelled habitat recruitment over this 30 yr time period, a key time frame for the assessment of the conservation status of this high-profile species. We implemented 3 predictive habitat suitability models for the province of British Columbia, ranging from exclusive to more inclusive models. Based on the intermediate habitat model scenario, including corrections using aspatial harvest records, we estimated that 20.6 to 24.2% of potential marbled murrelet nesting habitat was lost to forest harvest and fire from 1978 to 2008. If modelled habitat recruitment is considered, then net change in potential nesting habitat is 18.5 to 22.2% loss. Our estimates of potential murrelet habitat and subsequent habitat loss and change are influenced by numerous sources of uncertainty, such as actual suitability of forest stands for breeding murrelets and known deficiencies in the forest harvest spatial datasets. However, the results presented here provide the first range of province-wide habitat change possibilities and are consistent with previous regional analyses of potential marbled murrelet habitat loss in British Columbia.

CONCLUSIONS

Based on our intermediate habitat model, along with the aspatial adjustment included, we estimate that 20.6 to 24.2% of potential marbled murrelet nesting habitat has been lost to forest harvest and fire from 1978 to 2008. If modelled recruitment is considered, then net change in potential nesting habitat would be 18.5 to 22.2% loss. The potential marbled murrelet nesting habitat models and our resulting disturbance and change estimates presented here are intended to support strategic land use decisions and monitoring of the status of this wide-ranging species (CMMRT 2003, Steventon et al. 2003, Burger & Waterhouse 2009, Waterhouse et al. 2010). Given the paucity of data on population trends of marbled murrelets in British Columbia, these 30 yr changes in terrestrial habitat data are particularly informative for re-occurring assessments of the conservation status of this high-profile species in Canada (COSEWIC 2000).