

Figure 1. Map of the study area considered in the habitat and viability modeling for southwestern wolves.

Figure 2. Ranking of habitat in terms of wolf fecundity rate as used in viability modeling for southwestern wolves. Fecundity rate was modeled as a function of vegetation type, greenness (a satellite-imagery derived metric associated with plant productivity), and slope.

Figure 3. Ranking of habitat in terms of wolf survival rate as used in viability modeling for southwestern wolves. Survival rate was modeled as an inverse function of human population and roads.

Figure 4. Cattle density in the southwestern U.S. and northern Mexico.

Figure 5. Potential distribution and demography of wolves as predicted by the PATCH model in the southwestern U.S. and northern Mexico under landscape scenario A - current conditions, with wolf mortality risk based on roads and census data. Only those areas with a predicted probability of occupancy of greater than 50% are shown.

Figure 6. Potential distribution and demography of wolves as predicted by the PATCH model in the southwestern U.S. and northern Mexico under landscape scenario B - current conditions, with wolf mortality risk based on roads, census, and livestock density data. Only those areas with a predicted probability of occupancy of greater than 50% are shown.

Figure 7. Potential distribution and demography of wolves as predicted by the PATCH model in the southwestern U.S. and northern Mexico under landscape scenario C - human population as of 2025, with increased road development on private lands only, with wolf mortality risk based on roads and census data. Only those areas with a predicted probability of occupancy of greater than 50% are shown.

Figure 8. Potential distribution and demography of wolves as predicted by the PATCH model in the southwestern U.S. and northern Mexico under landscape scenario D - human population as of 2025, with increased road development on both private and unprotected public lands, with wolf mortality risk based on roads and census data. Only those areas with a predicted probability of occupancy of greater than 50% are shown.

Figure 9. Composite of figures 5-8 shown for comparison of 4 scenarios of potential distribution and demography of wolves as predicted by the PATCH model in the southwestern U.S. and northern Mexico. Scenarios are as labeled A through D.

Figure 10. Results of sensitivity analysis for U.S. wolf mortality risk parameters. Potential distribution and demography of wolves is shown as predicted by the PATCH model in the southwestern U.S. and northern Mexico under landscape scenario A, but with mortality risk reduced proportionately by 25% in the U.S. (A), or increased proportionately by 25% in the U.S..

Figure 11. Results of sensitivity analysis for the influence of Mexican populations on U.S. population estimates. Potential distribution and demography of wolves is shown as predicted by the PATCH model in the southwestern U.S. under (A) landscape scenario A, and (B) landscape scenario D, but with a reflecting barrier to dispersal at the U.S./Mexico border and no wolves in Mexico.

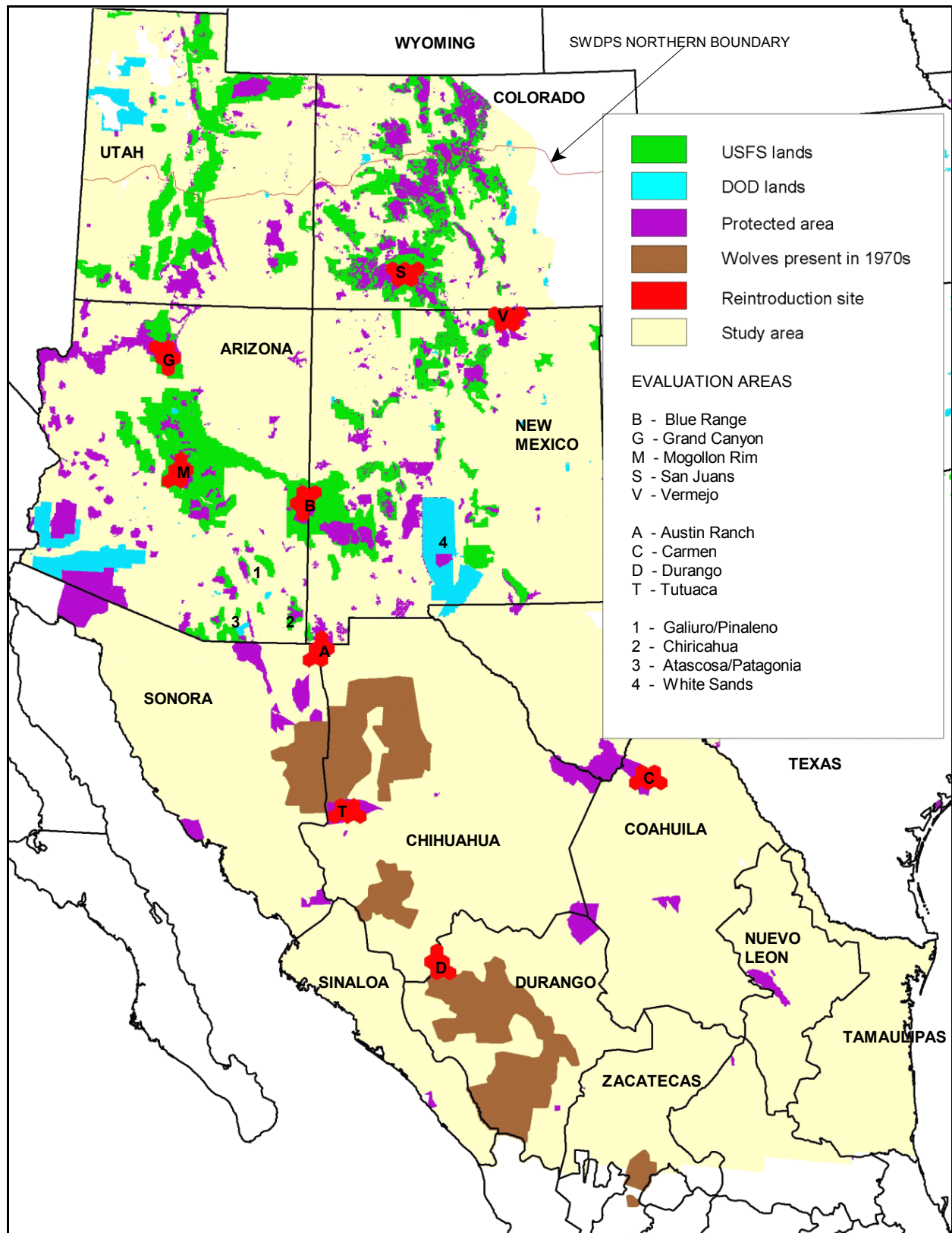


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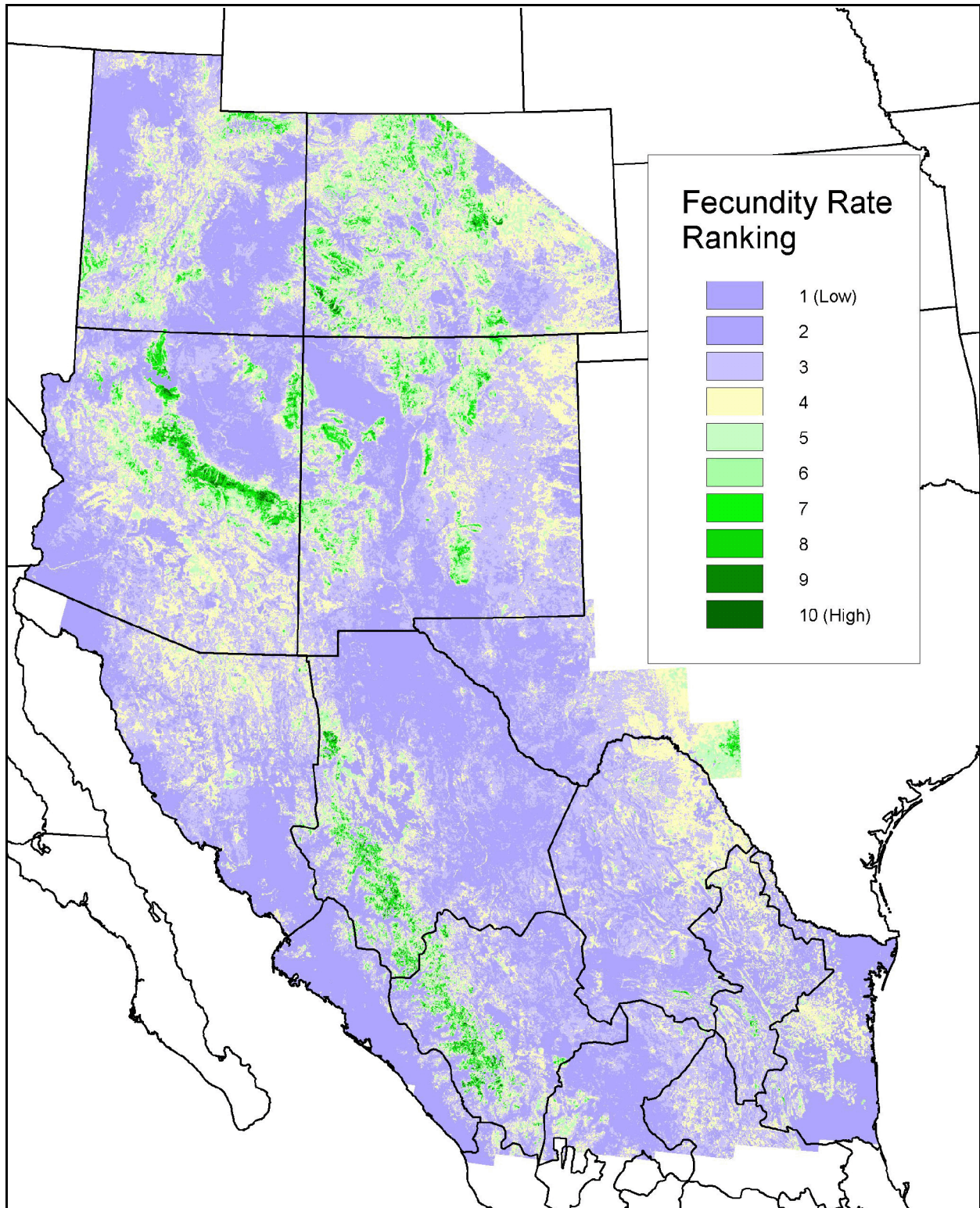


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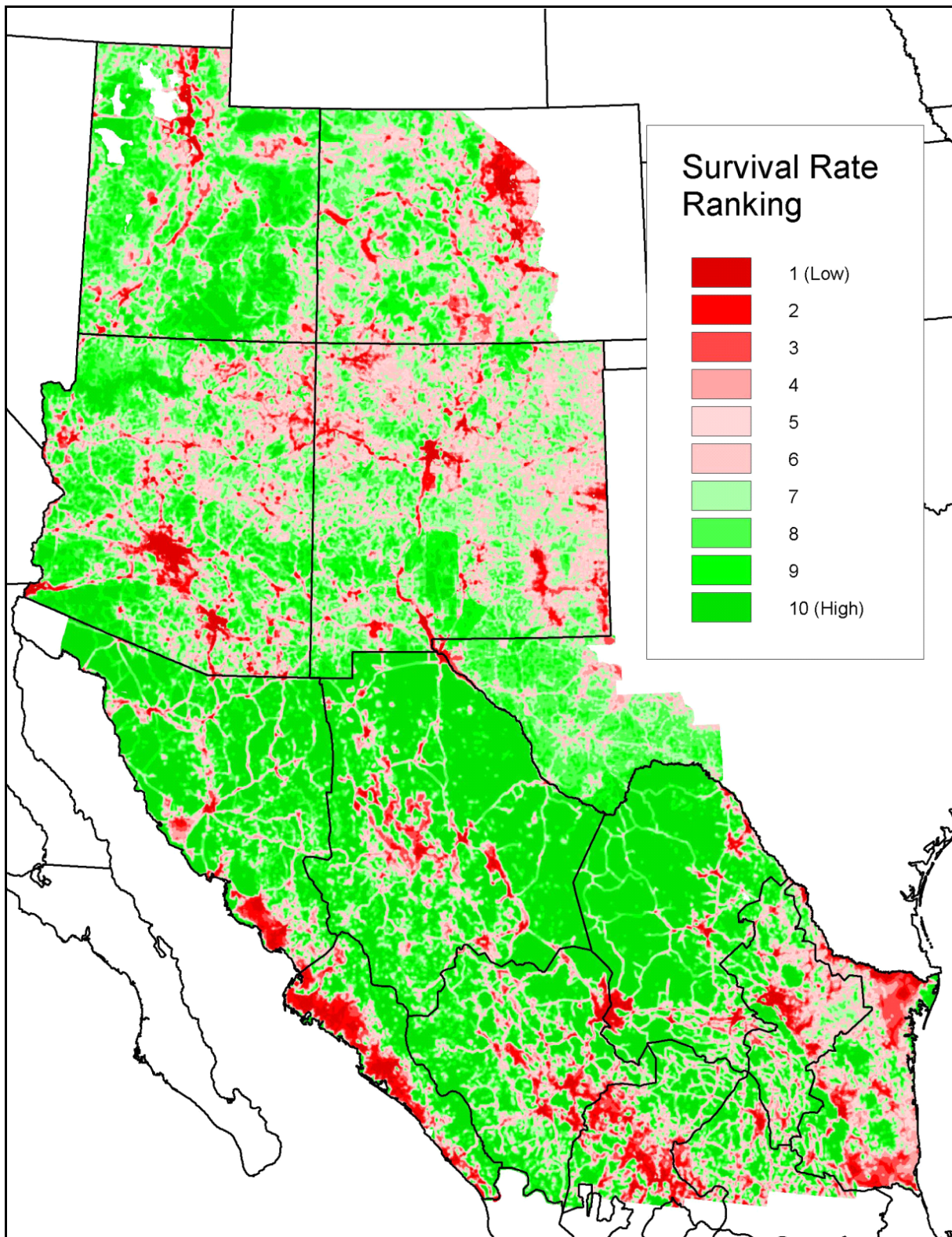


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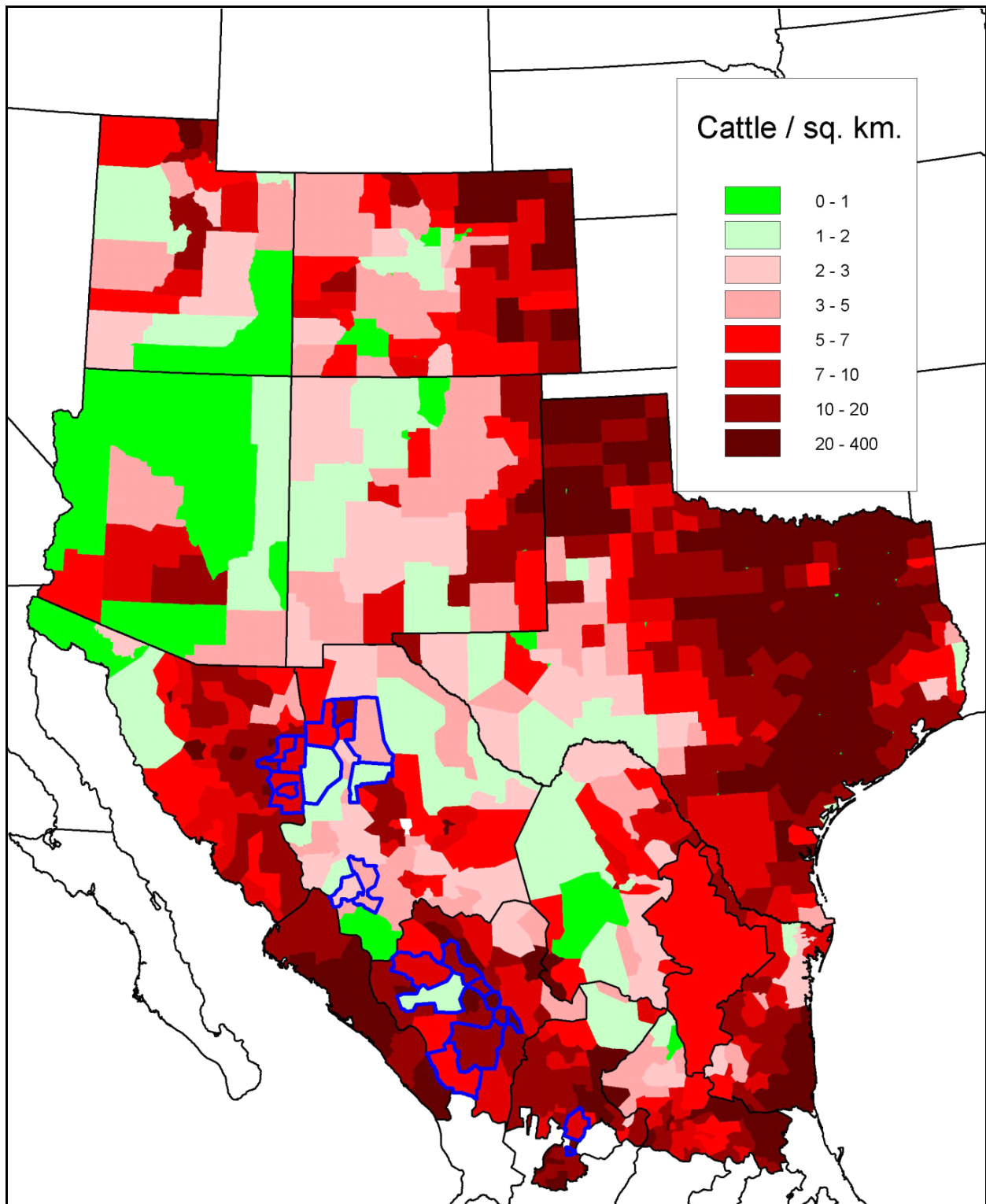


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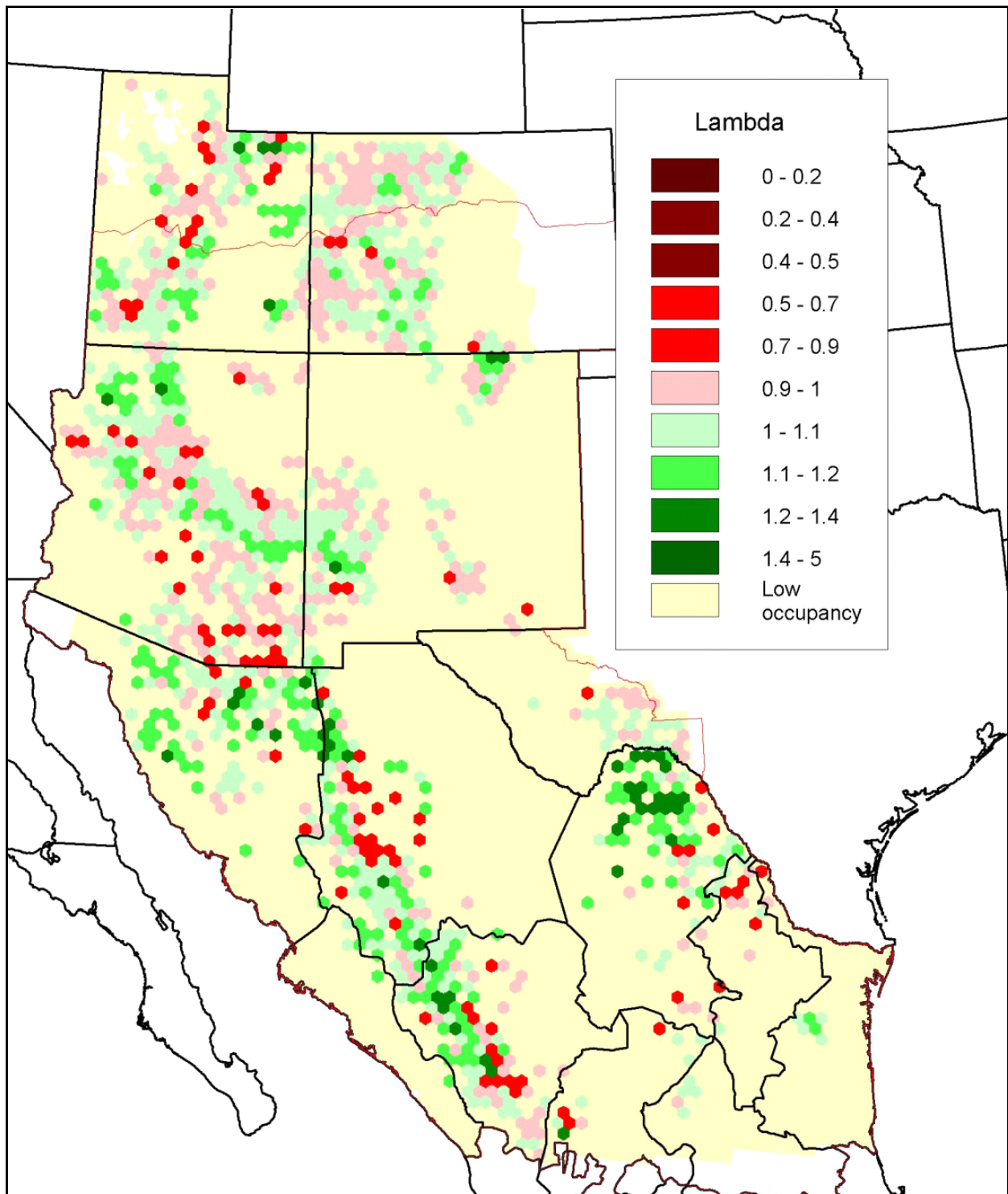


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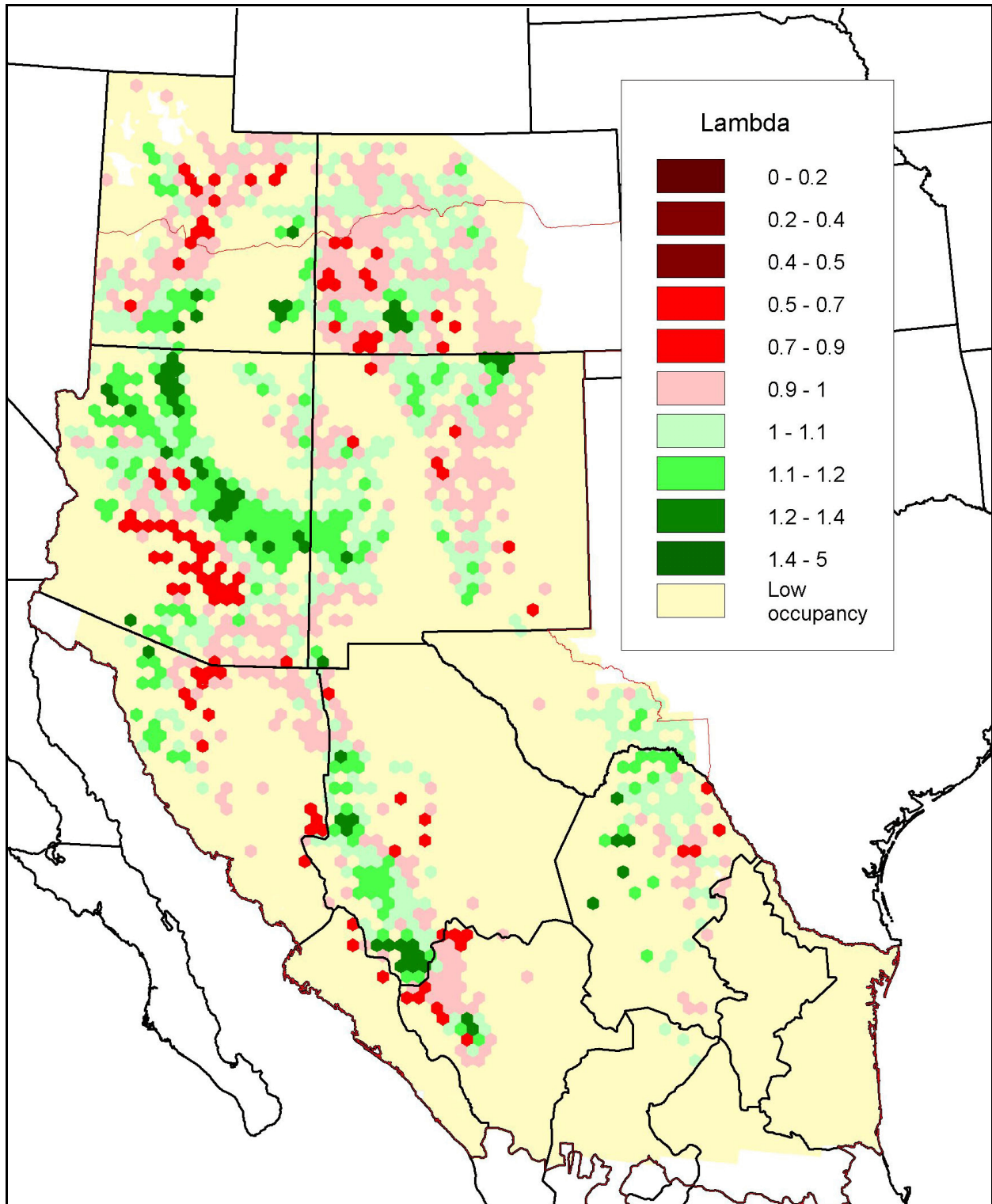


Figure 6. Potential distribution and demography of wolves as predicted by the PATCH model in the southwestern U.S. and northern Mexico under landscape scenario B - current conditions, with wolf mortality risk based on roads, census, and livestock density data. Only those areas with a predicted probability of occupancy of greater than 50% are shown.



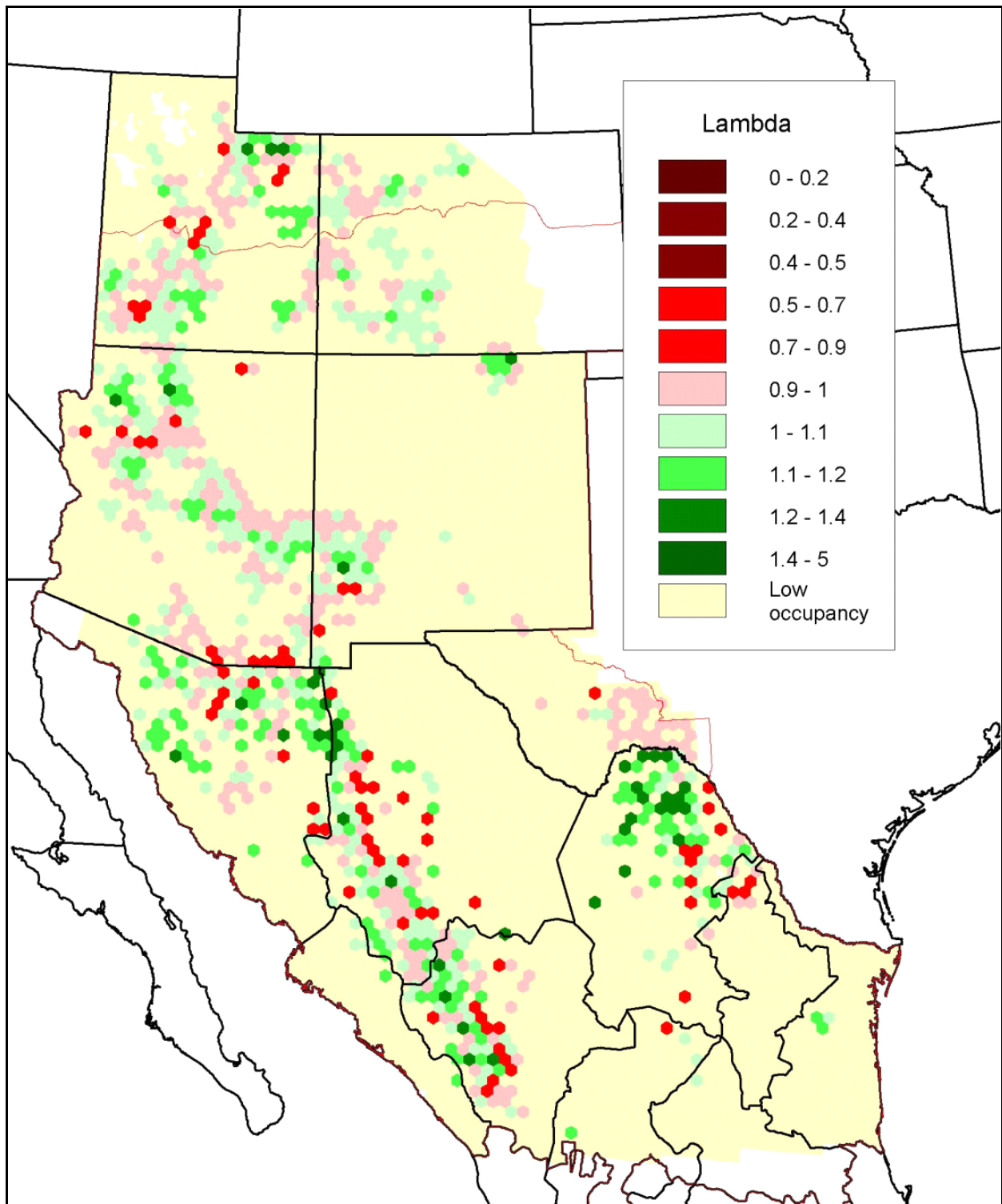


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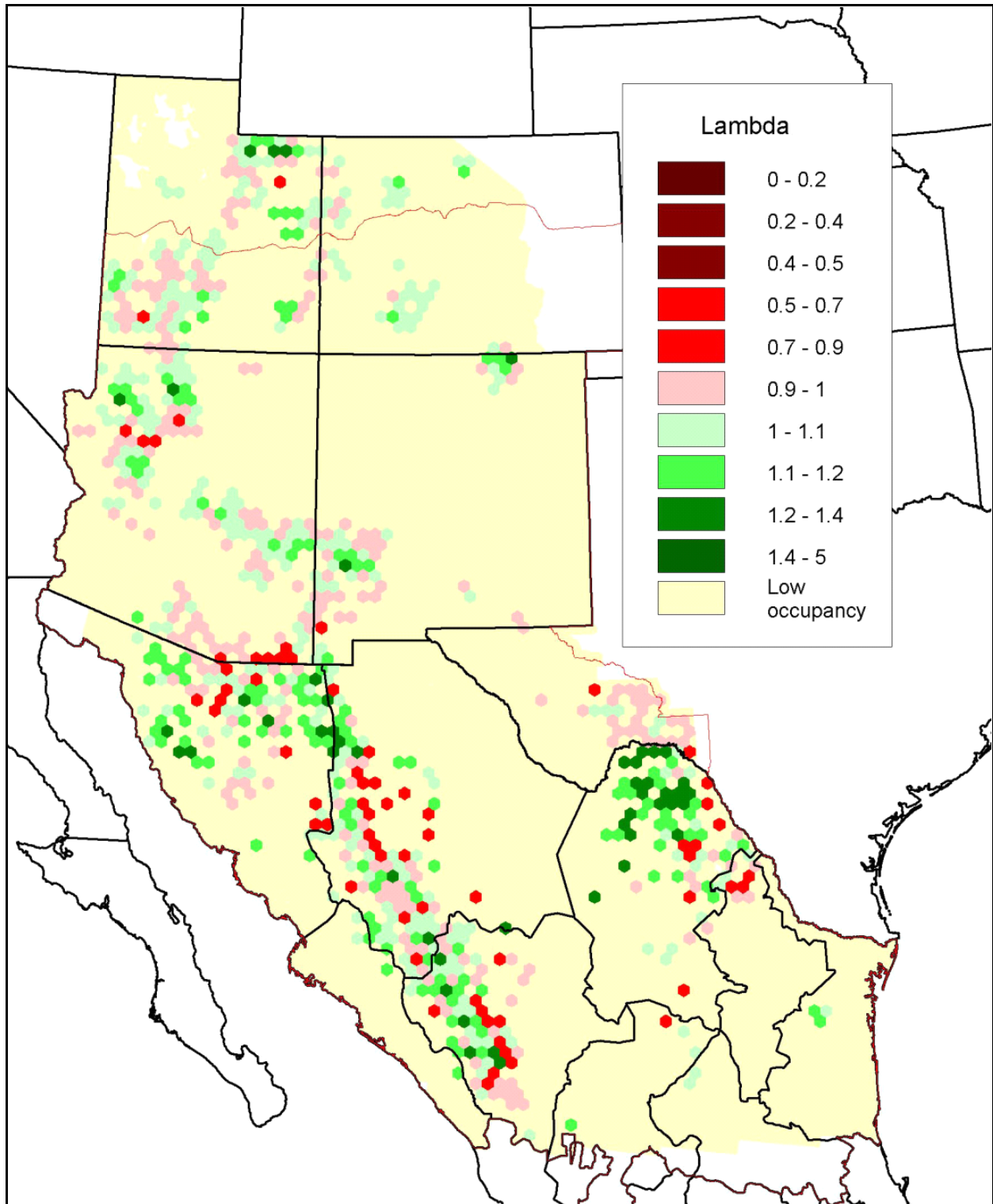


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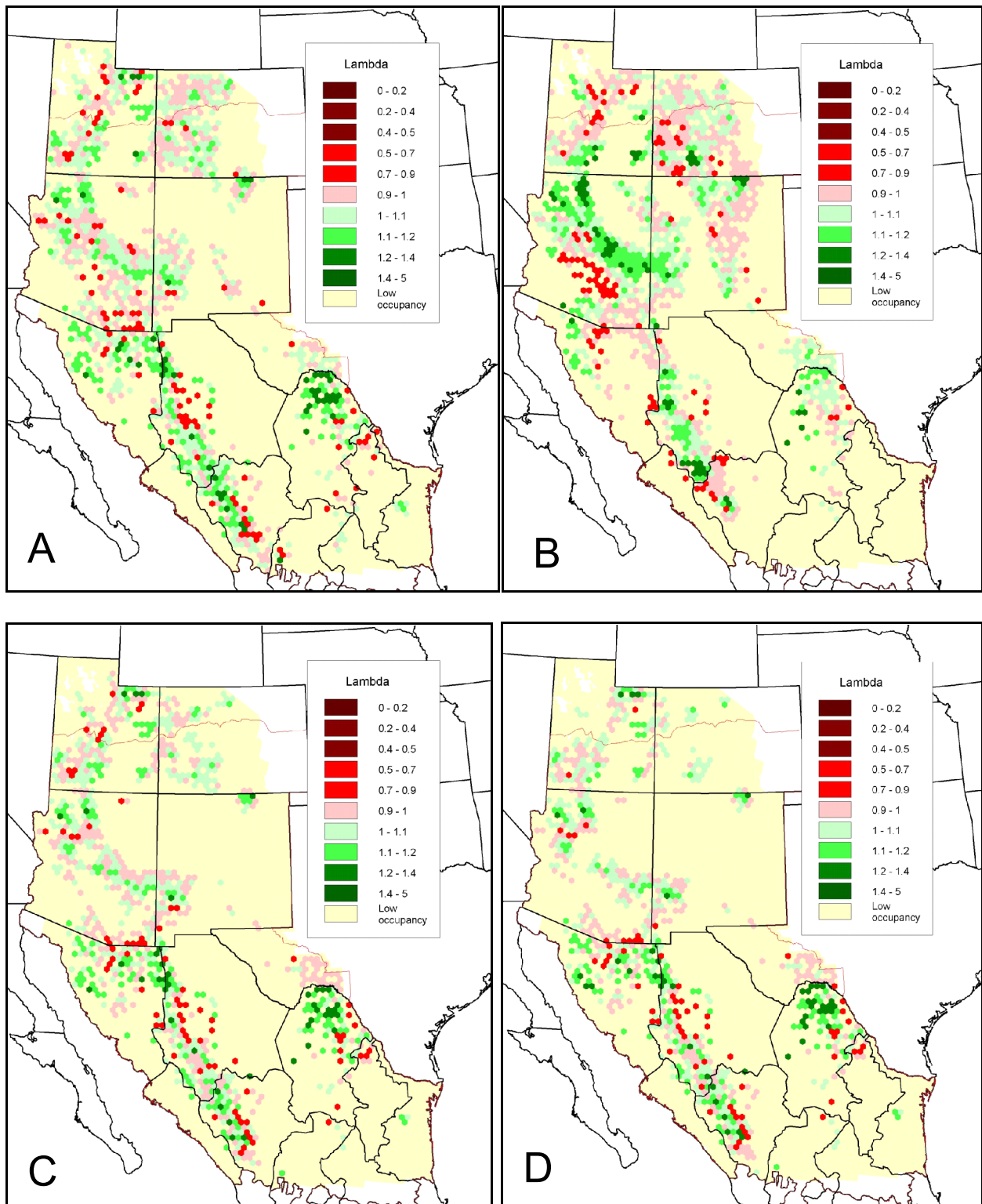


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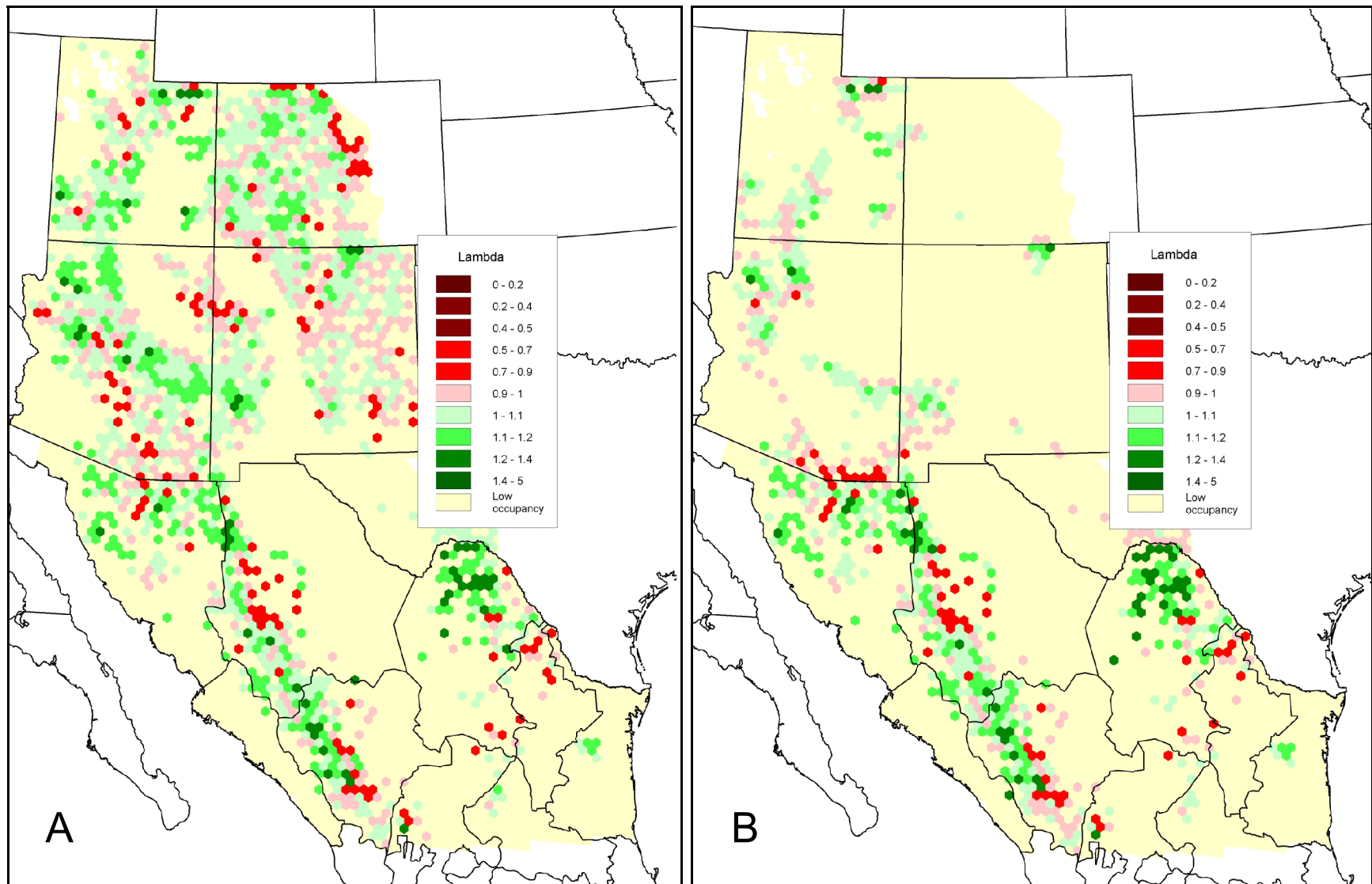


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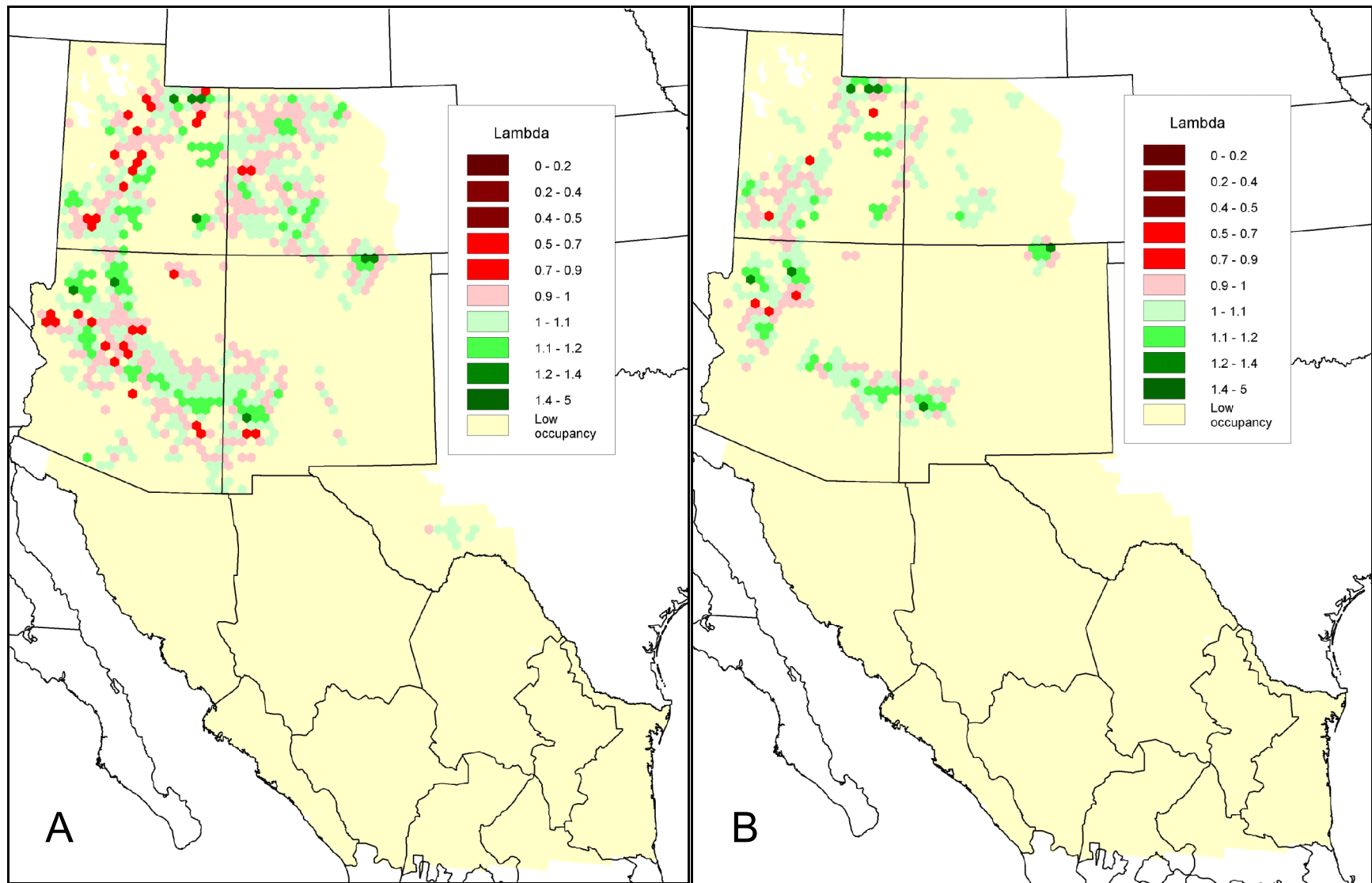


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