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MUSEUM OF ZOOLOGY, UNIVERSITY OF MICHIGAN, NO. 205

A PROLEGOMENON TO THE SYSTEMATICS OF SOUTH AMERICAN
COTTONTAIL RABBITS (MAMMALIA, LAGOMORPHA, LEPORIDAE:
SYLVILAGUS): DESIGNATION OF A NEOTYPE FOR *S. BRASILIENSIS*
(LINNAEUS, 1758), AND RESTORATION OF *S. ANDINUS* (THOMAS, 1897)
AND *S. TAPETILLUS* THOMAS, 1913

Appendix I

Probable current ranges, derived using MaxEnt ecological modeling based on museum specimen data, of taxa currently subsumed as subspecies within *Sylvilagus brasiliensis* and *S. gabbi*, as well as *S. dicei*, with projections of ranges by the year 2100 under climate change scenarios A1B and A2 of the Special Report on Emissions of the Intergovernmental Panel on Climate Change (IPCC 2007).

Table A1— Probable current ranges, derived using MaxEnt ecological modeling based on museum specimen data, of taxa currently subsumed as subspecies within *Sylvilagus brasiliensis* and *S. gabbi*, as well as *S. dicei*, with projections of ranges by the year 2100 under climate change scenarios A1B and A2 of the Special Report on Emissions of the Intergovernmental Panel on Climate Change (IPCC 2007).

| Taxon | Current range (Km ²) | A1B predicted range (Km ²) | A2 predicted range (Km ²) | A1B total loss/gain (Km ²) | A1B % loss/gain | A2 total loss/gain (Km ²) | A2 % loss/gain |
|------------------------------|----------------------------------|--|---------------------------------------|--|-----------------|---------------------------------------|----------------|
| <i>apollinaris</i> | 104,279 | 88,704 | 116,665 | -15,575 | -15 | 12,386 | 12 |
| <i>canarius</i> | 13,783 | 3,100 | 1,033 | -10,683 | -78 | -12,750 | -93 |
| <i>capsalis</i> | 385,307 | 338,996 | 343,785 | -46,311 | -12 | -41,522 | -11 |
| <i>chilae</i> | 62,349 | 16,531 | 23,769 | -45,818 | -73 | -38,580 | -62 |
| <i>chotanus</i> | 2,754 | 0 | 0 | -2,754 | -100 | -2,754 | -100 |
| <i>defilippi</i> | 326,703 | 55,089 | 54,400 | -271,615 | -83 | -272,303 | -83 |
| <i>fulvescens</i> | 47,254 | 51,118 | 8,952 | 3,863 | 8 | -38,303 | -81 |
| <i>gibsoni</i> | 541,936 | 401,179 | 38,831 | -140,757 | -26 | -503,106 | -93 |
| <i>inca</i> | 34,581 | 23,187 | 0 | -11,393 | -33 | -34,581 | -100 |
| <i>meridensis</i> | 325,443 | 45,748 | 87,450 | -279,695 | -86 | -237,992 | -73 |
| <i>minensis</i> | 6,717,628 | 3,528,368 | 5,575,776 | -3,189,259 | -47 | -1,141,852 | -17 |
| <i>nicefori</i> | 254,918 | 145,078 | 119,508 | -109,840 | -43 | -135,410 | -53 |
| <i>paraguensis</i> | 863,204 | 38,549 | 5,758 | -824,656 | -96 | -857,447 | -99 |
| <i>peruanus</i> | 34,893 | 0 | 0 | -34,893 | -100 | -34,893 | -100 |
| <i>sanctaemartae</i> | 103,275 | 500,104 | 388,973 | 396,829 | 384 | 285,699 | 277 |
| <i>surdaster</i> | 77,865 | 34,453 | 23,071 | -43,413 | -56 | -54,795 | -70 |
| Total <i>S. brasiliensis</i> | 9,896,172 | 5,270,203 | 6,787,970 | -4,625,968 | -47 | -3,108,202 | -31 |
| <i>gabbi gabbi</i> | 183,148 | 139,405 | 88,174 | -43,743 | -24 | -94,974 | -52 |
| <i>gabbi messorius</i> | 388,267 | 517,026 | 653,794 | 128,759 | 33 | 265,527 | 68 |
| <i>gabbi truei</i> | 197,990 | 54,443 | 25,891 | -143,548 | -73 | -172,100 | -87 |
| Total <i>S. gabbi</i> | 769,405 | 710,874 | 767,859 | -58,531 | -8 | -1,546 | 0 |
| <i>S. dicei</i> | 89,950 | 201,756 | 196,728 | 111,806 | 124 | 106,778 | 119 |

Figure A1— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *Sylvilagus brasiliensis apollinaris*. Type locality is marked by the star symbol.

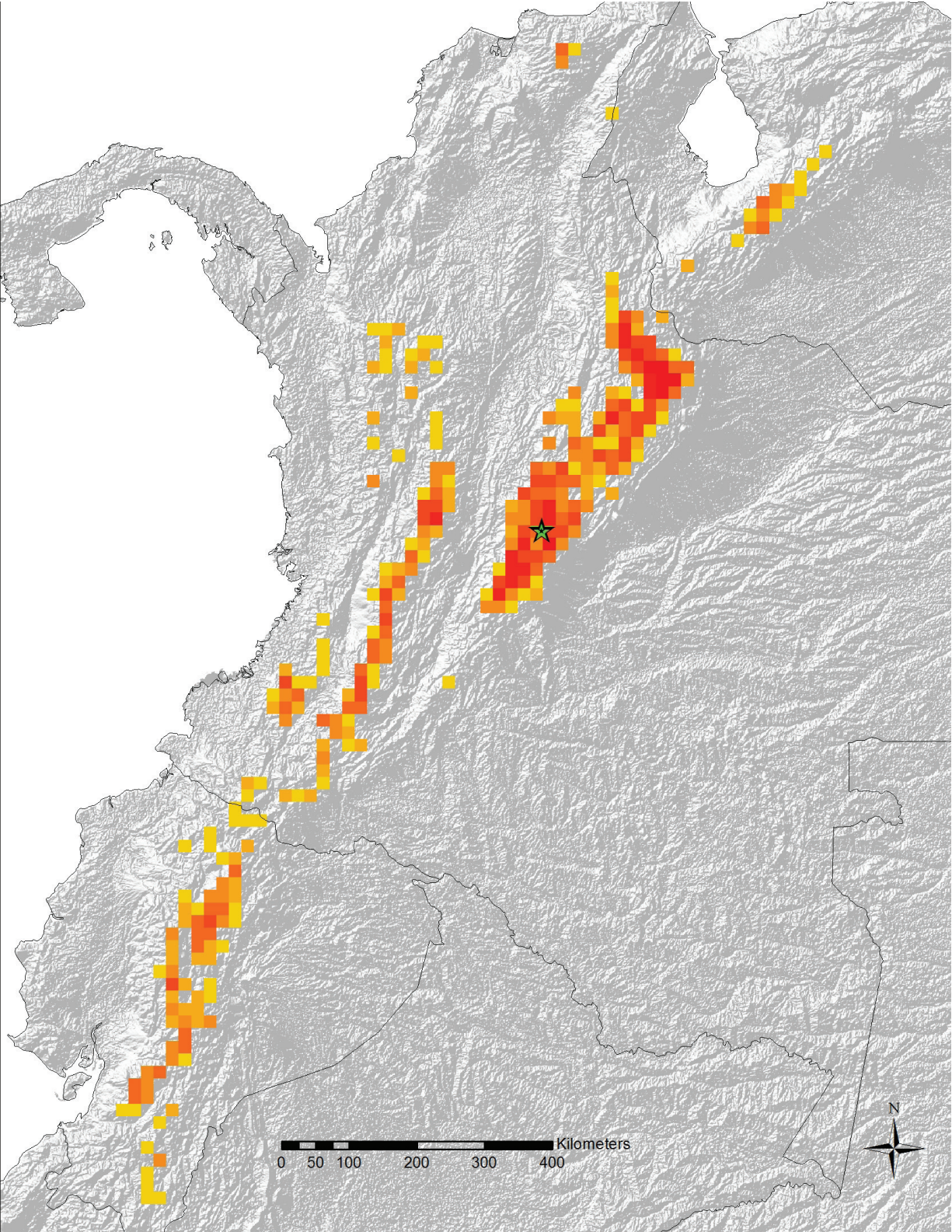


Figure A2— Probable projected ranges by the year 2100, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. apollinaris*, under climate change scenarios A1B (left) and A2 (right) of the Special Report on Emissions of the Intergovernmental Panel on Climate Change (IPCC 2007). Yellow and red mark areas of increasing probability of distribution, overlain on the current distribution, shown in green. Accordingly, green areas that are visible show areas where the taxon has been extirpated.

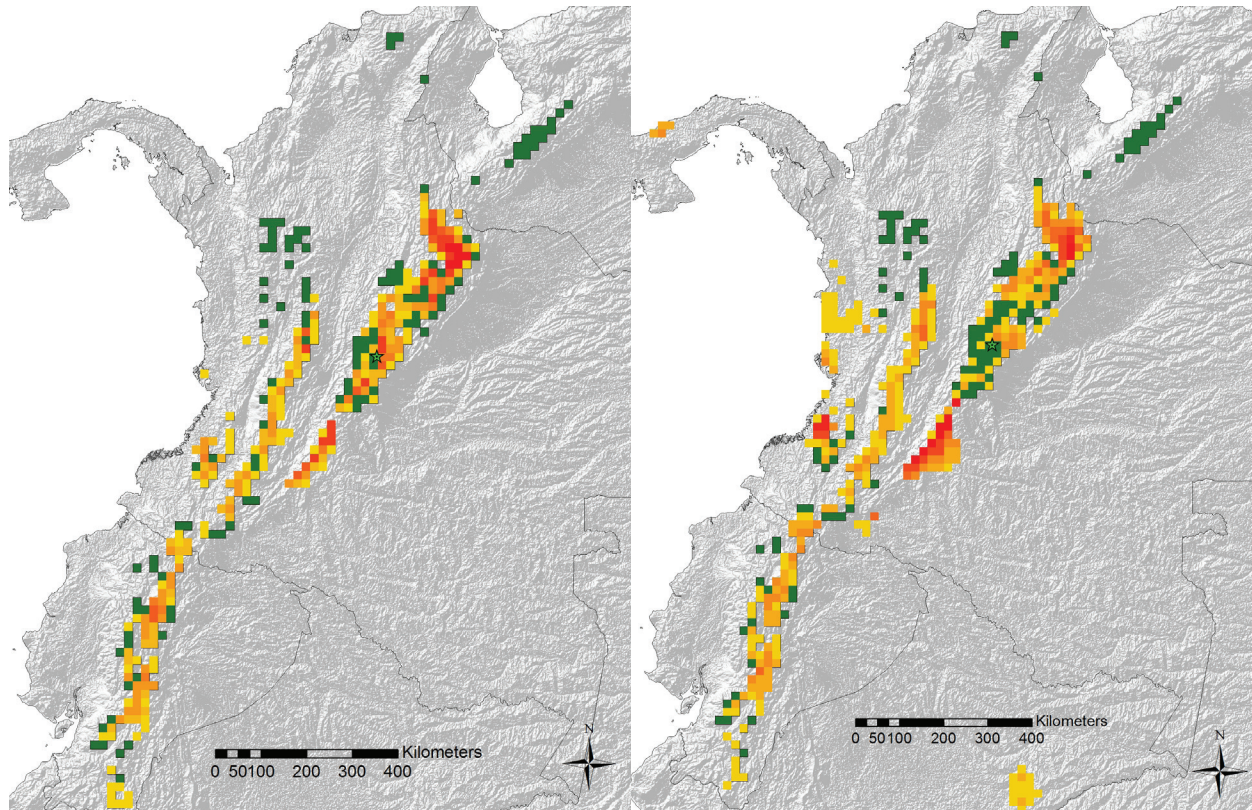


Figure A3— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. canarius*, from SE Ecuador.

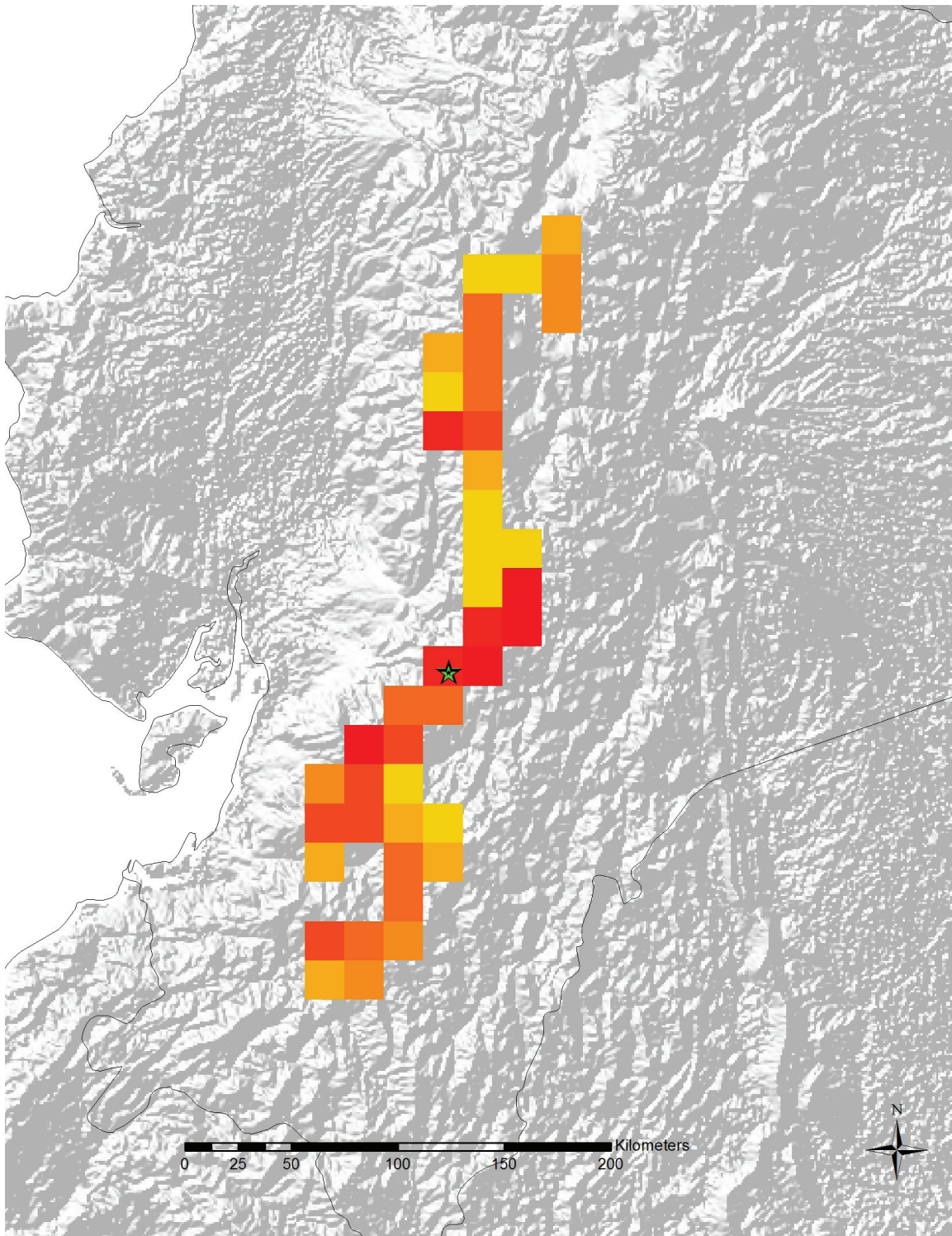


Figure A4— Probable projected ranges by the year 2100 of *S. b. canarius*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

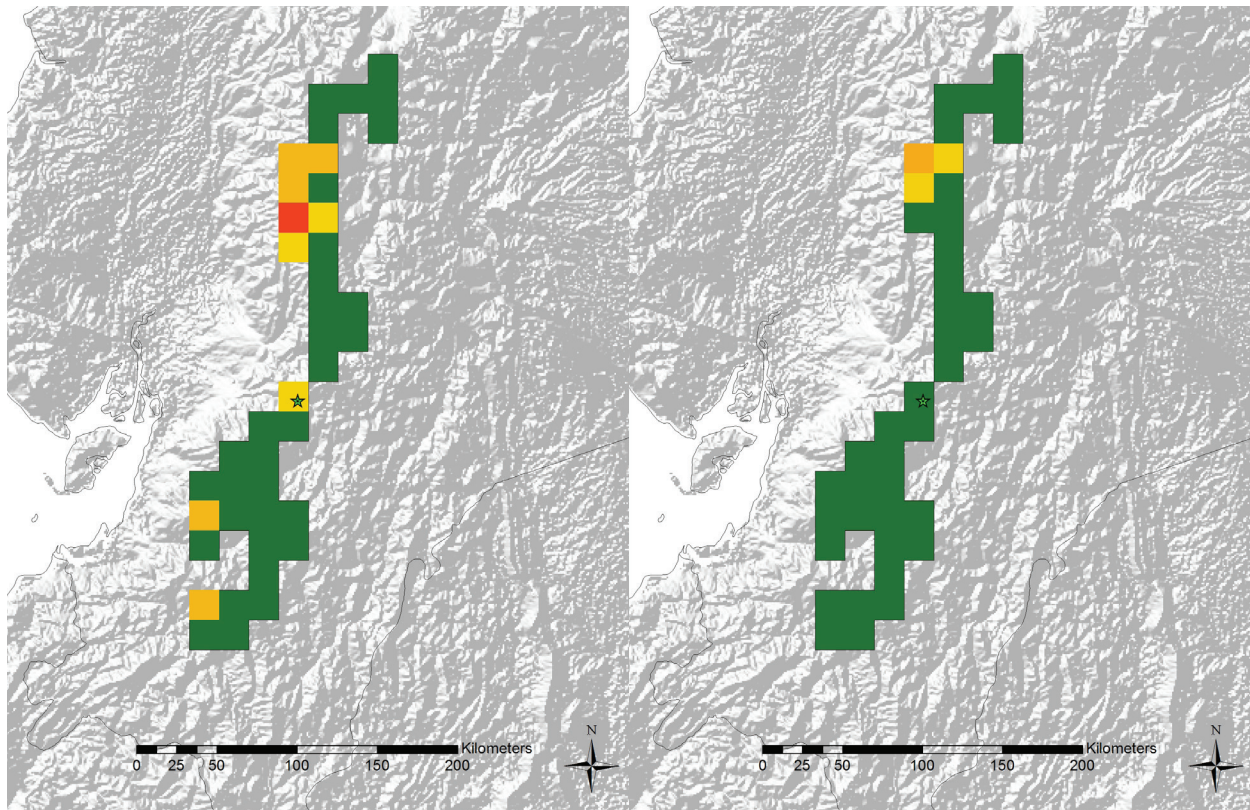


Figure A5— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. capsalis*.

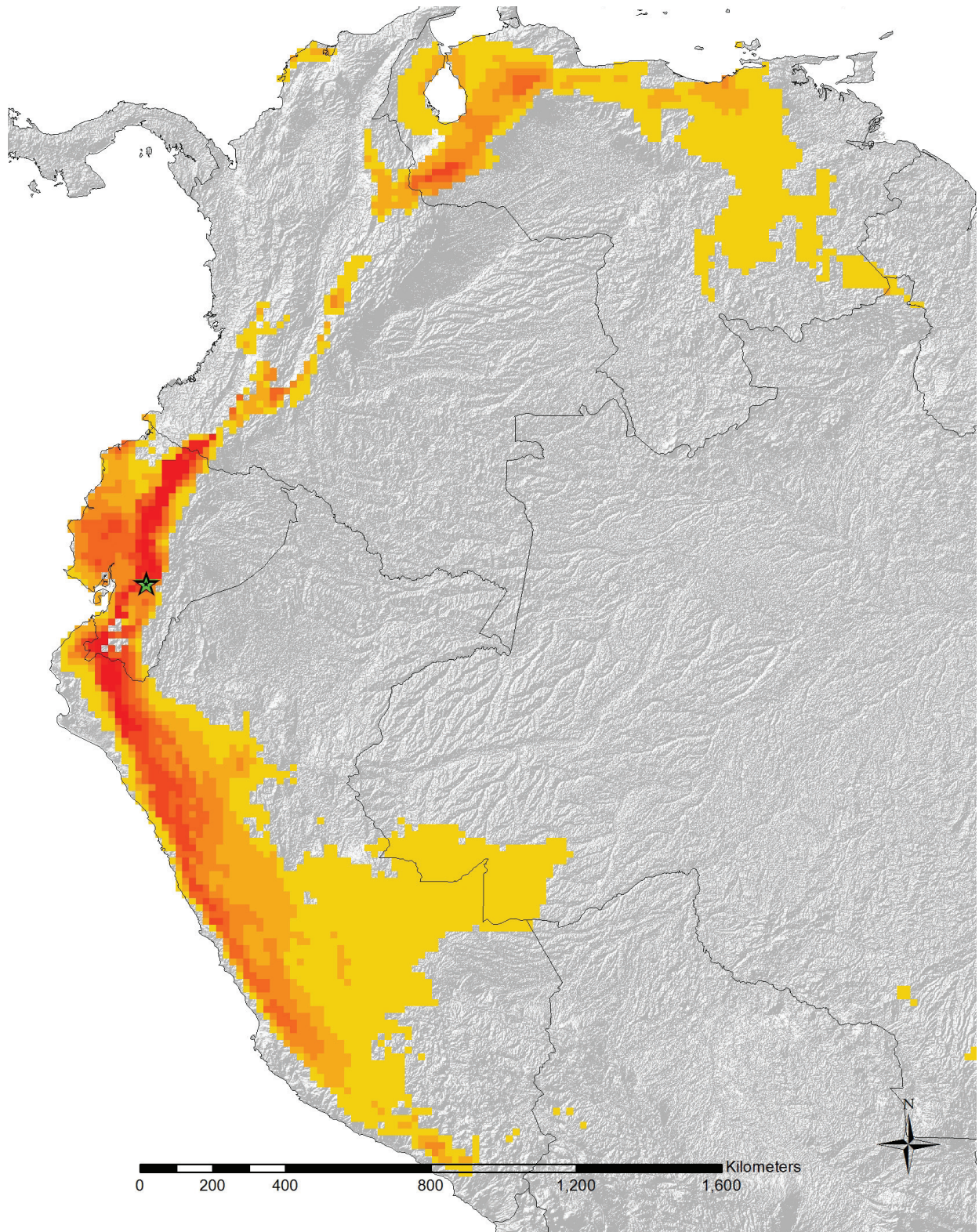


Figure A6— Probable projected ranges by the year 2100 of *S. b. capsalis*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

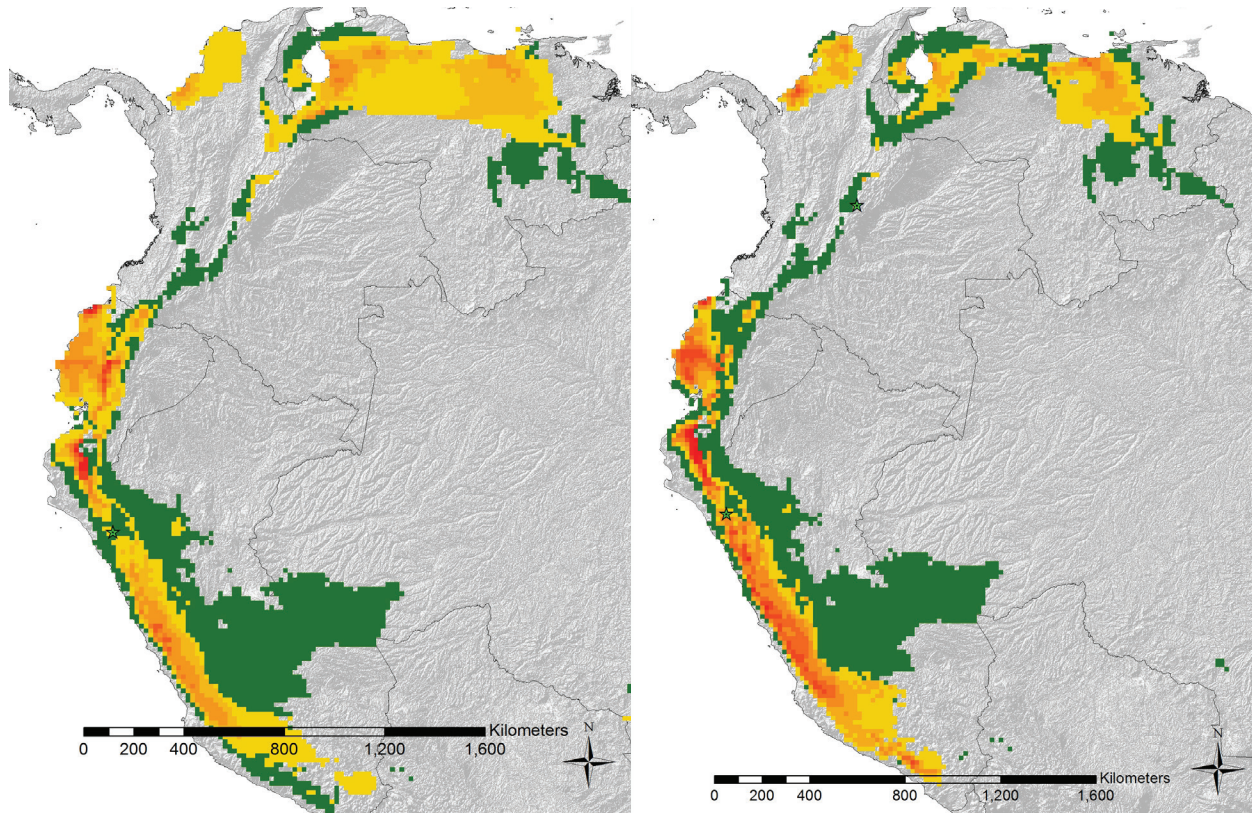


Figure A7— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. chillae*.

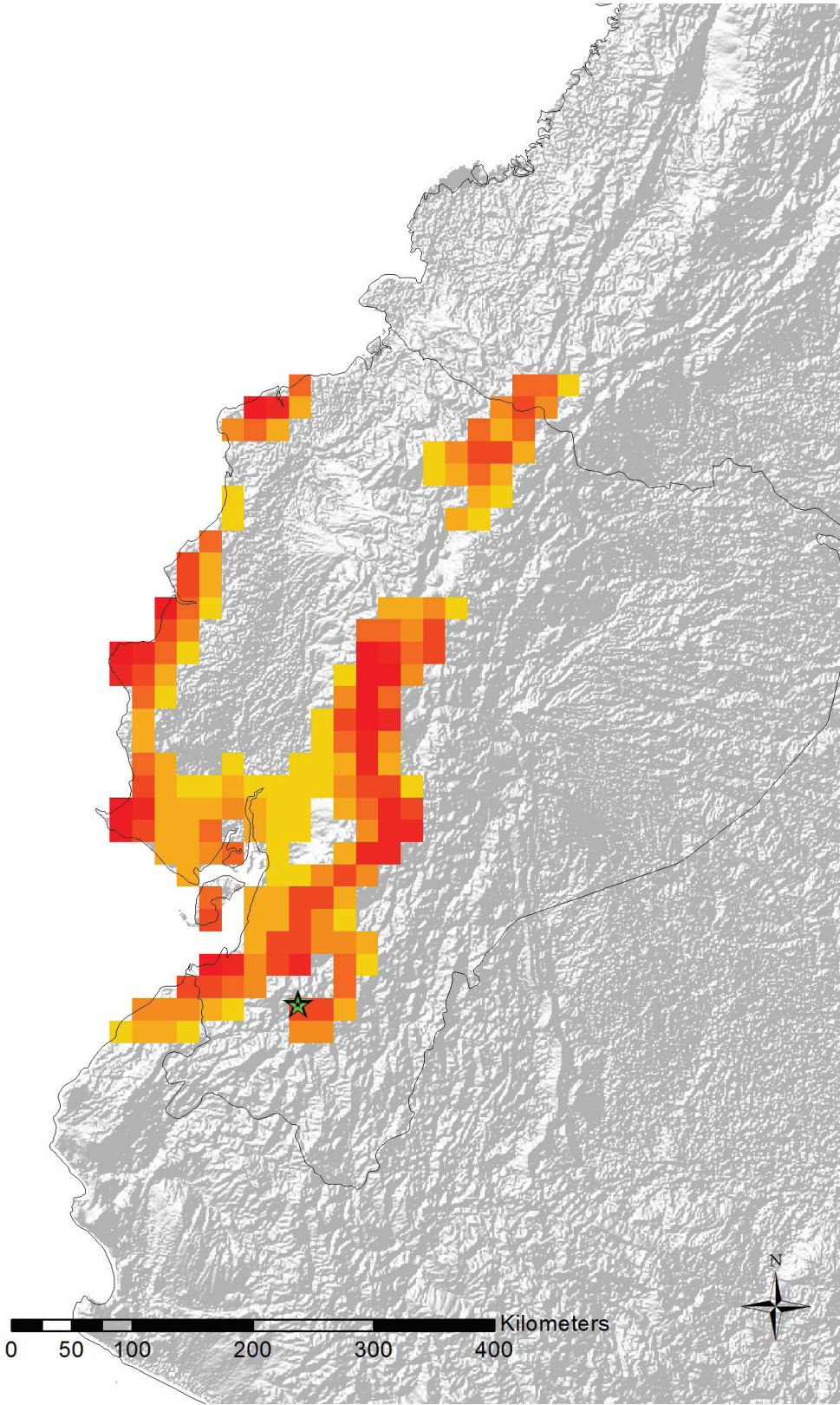


Figure A8— Probable projected ranges by the year 2100 of *S. b. chillae*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

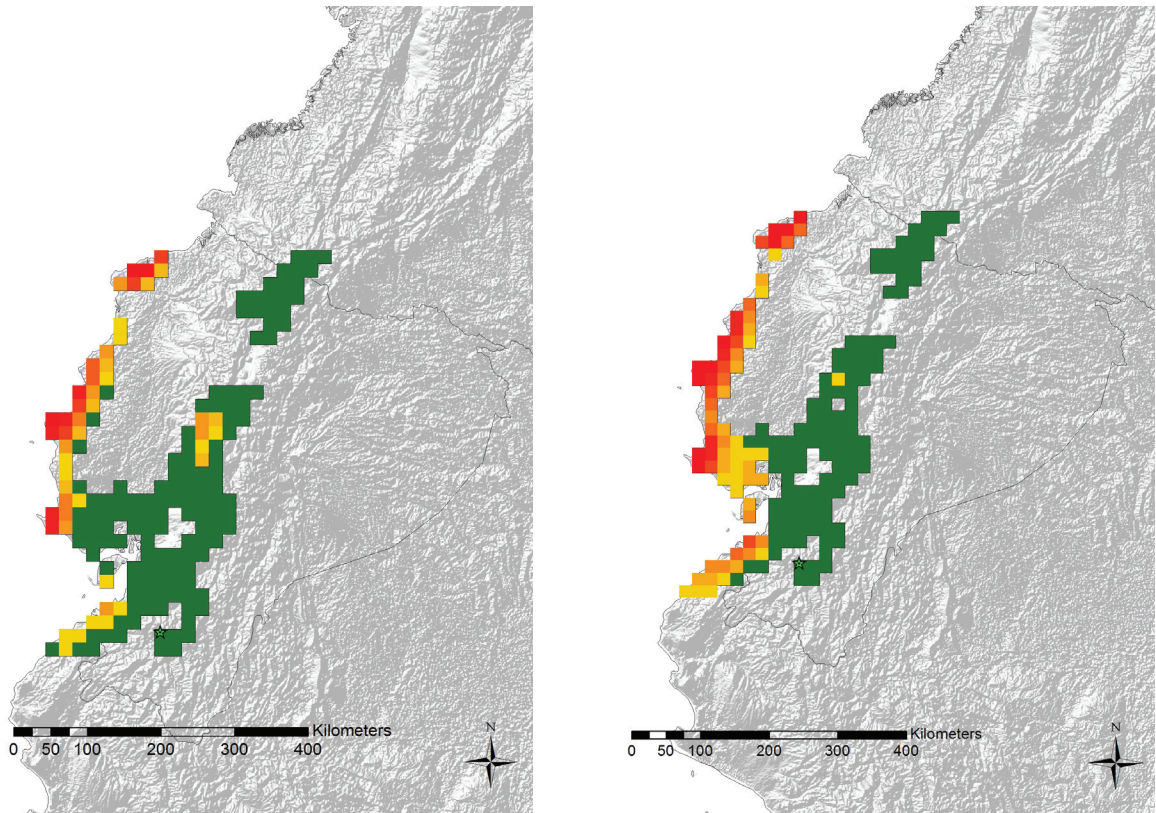


Figure A9— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. chotanus*. The taxon is projected to be extinct under the two climate change scenarios used herein, hence no figure is shown for projected distribution.

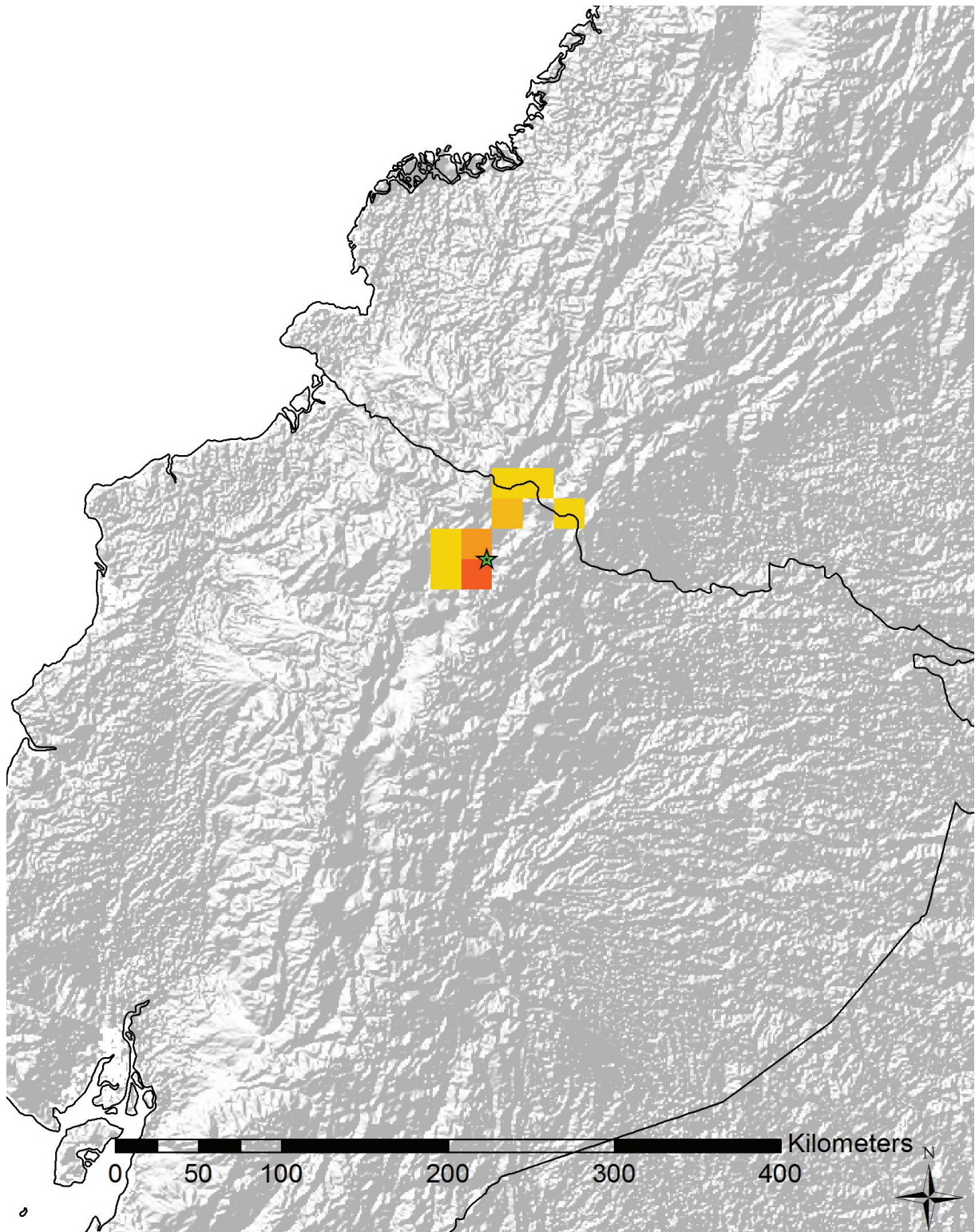


Figure A10— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. defilippi*.

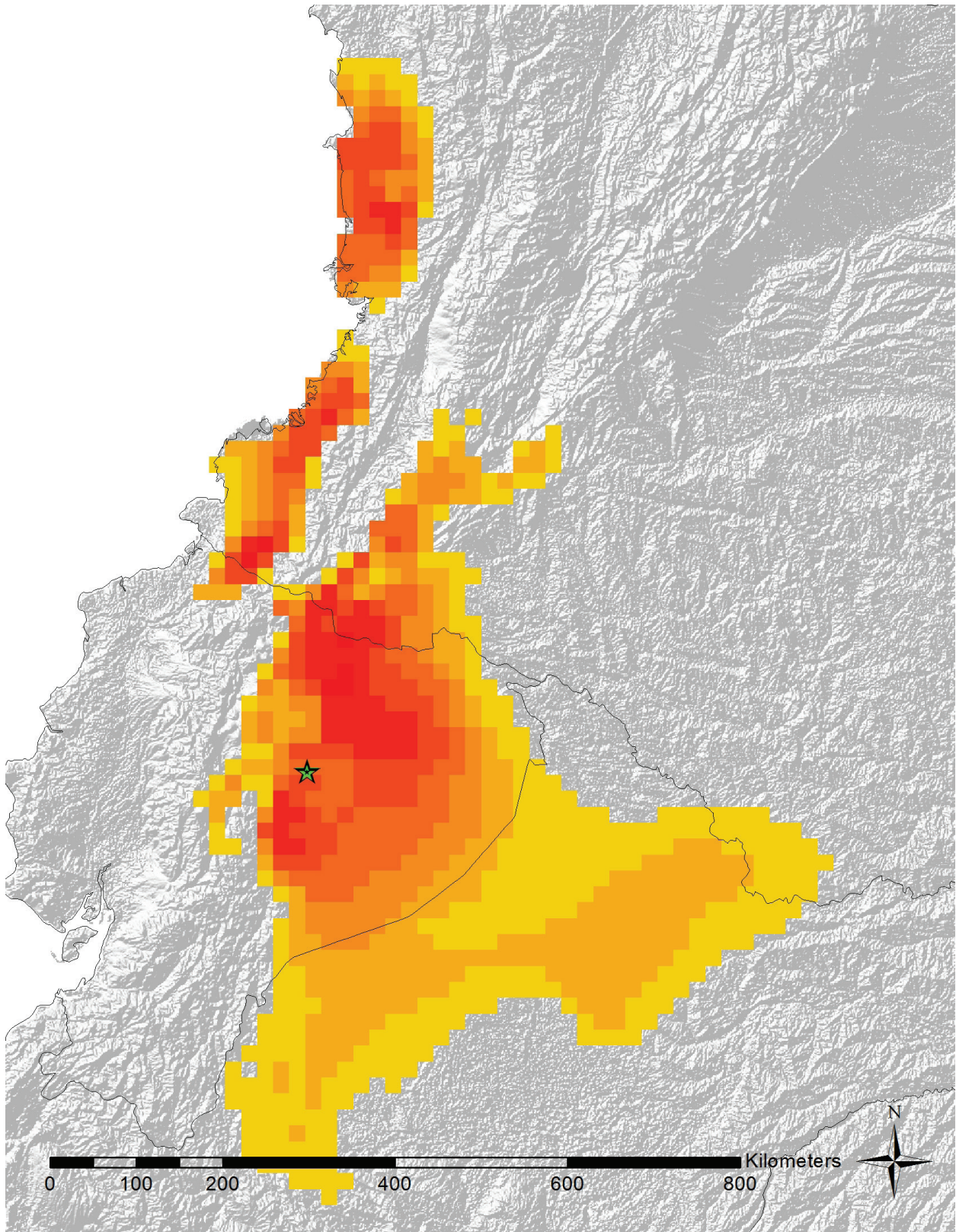


Figure A11— Probable projected ranges by the year 2100 of *S. b. defilippi*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

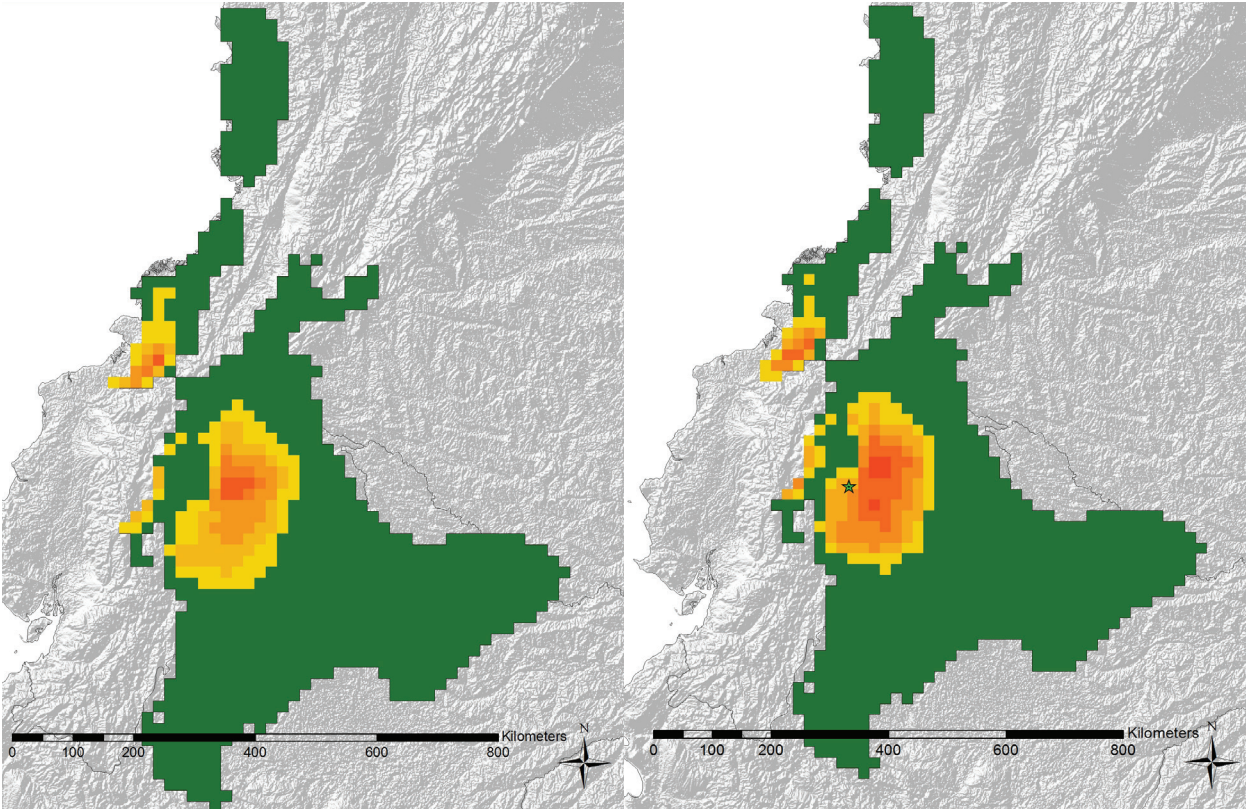


Figure A12— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. fulvescens*.

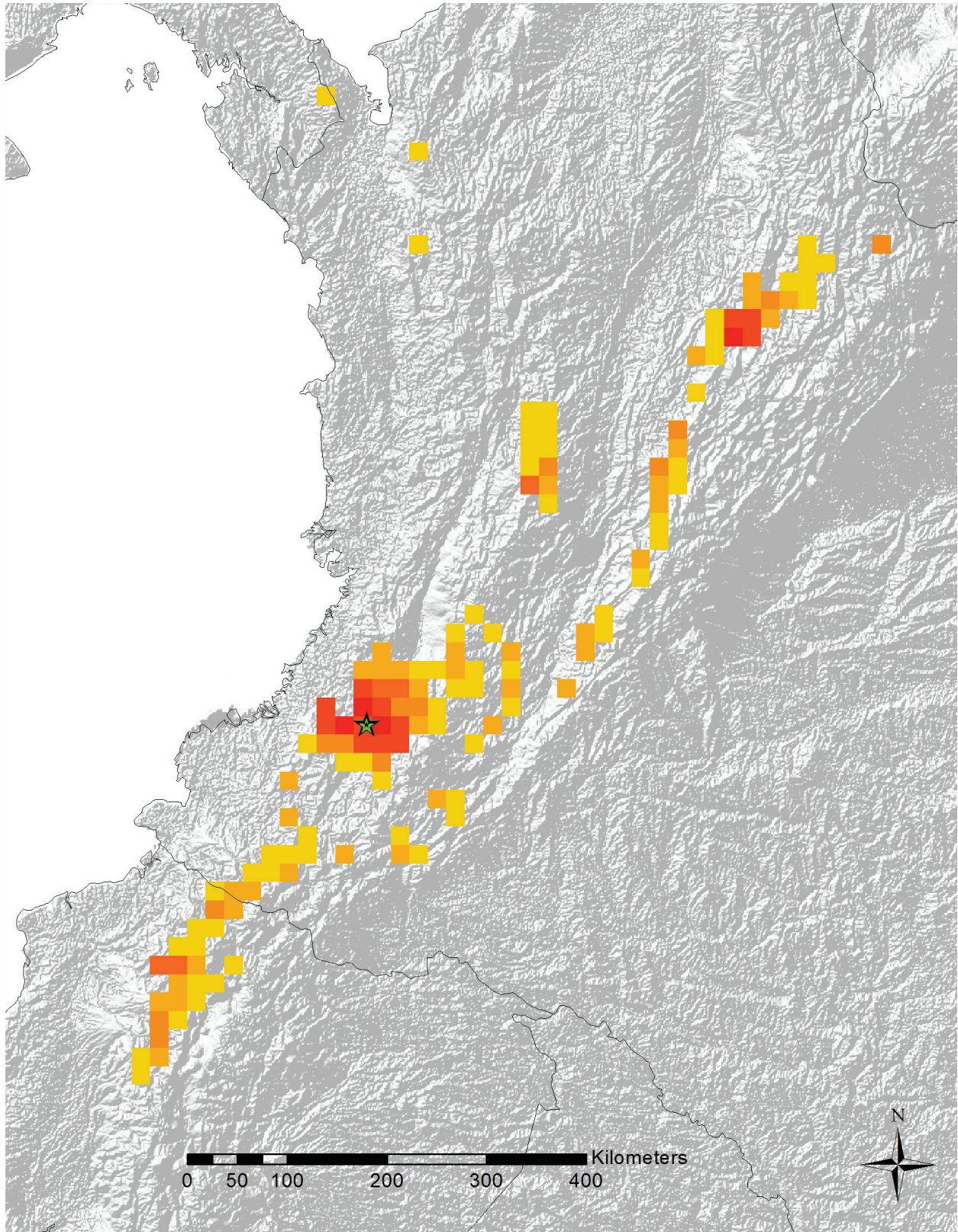


Figure A13— Probable projected ranges by the year 2100 of *S. b. fulvescens*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

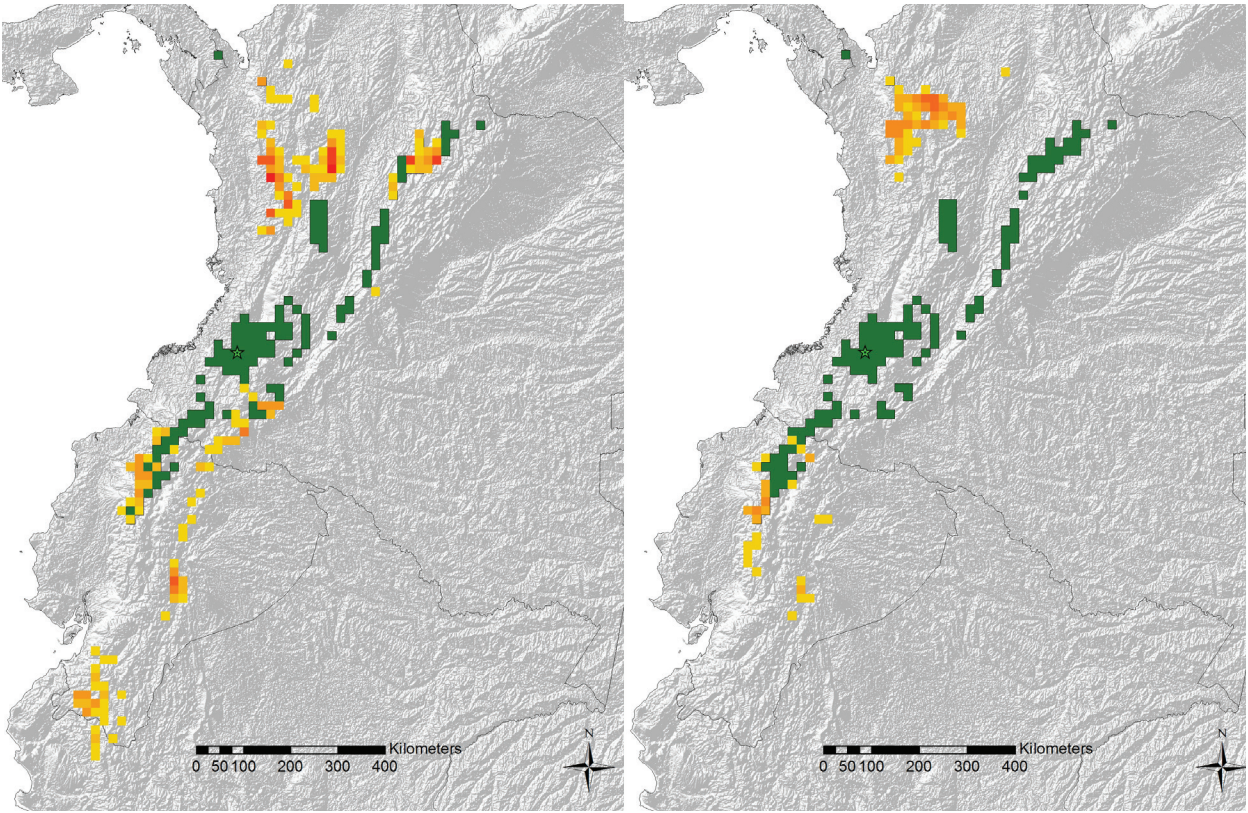


Figure A14— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. gibsoni*.

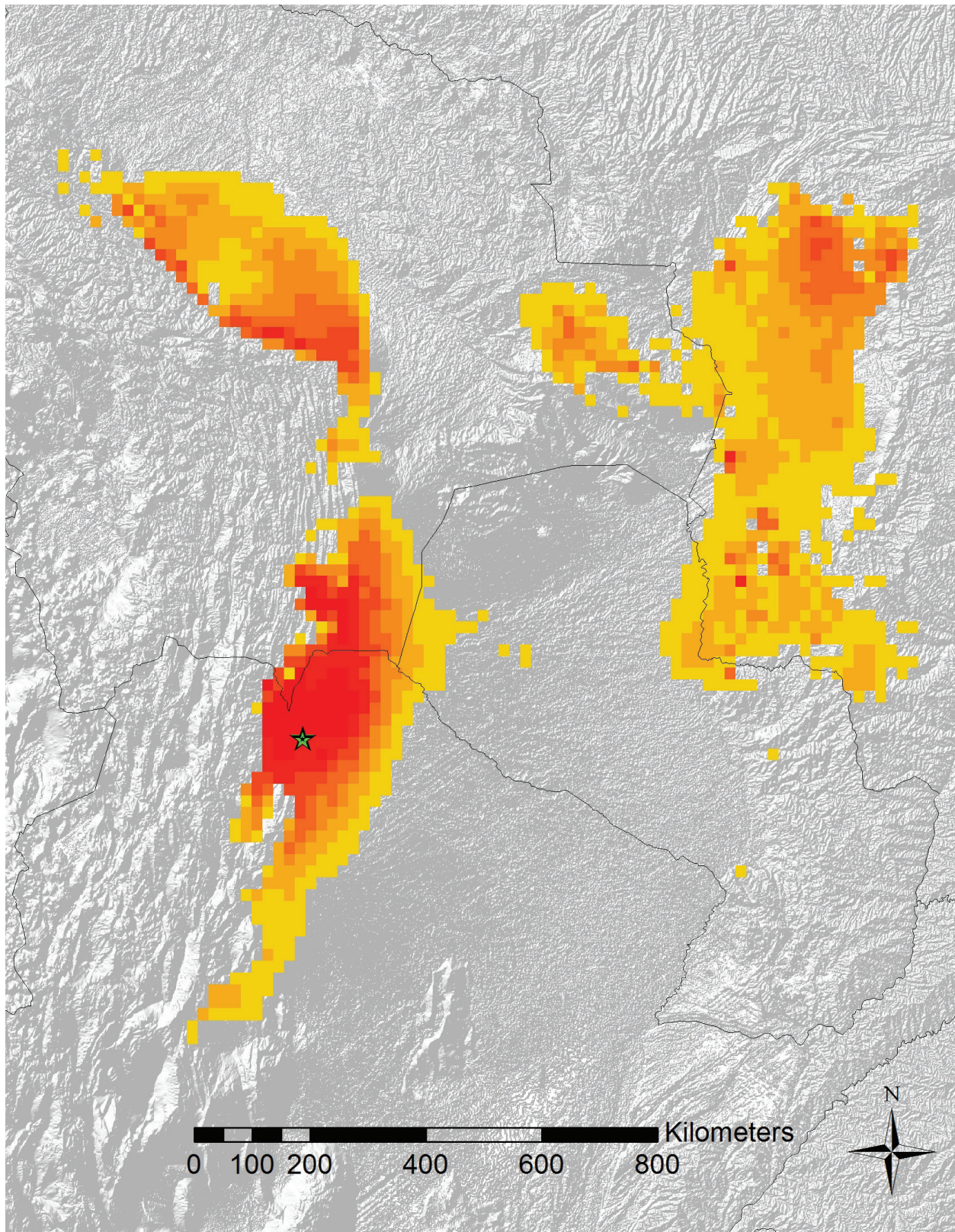


Figure A15— Probable projected ranges by the year 2100 of *S. b. gibsoni*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

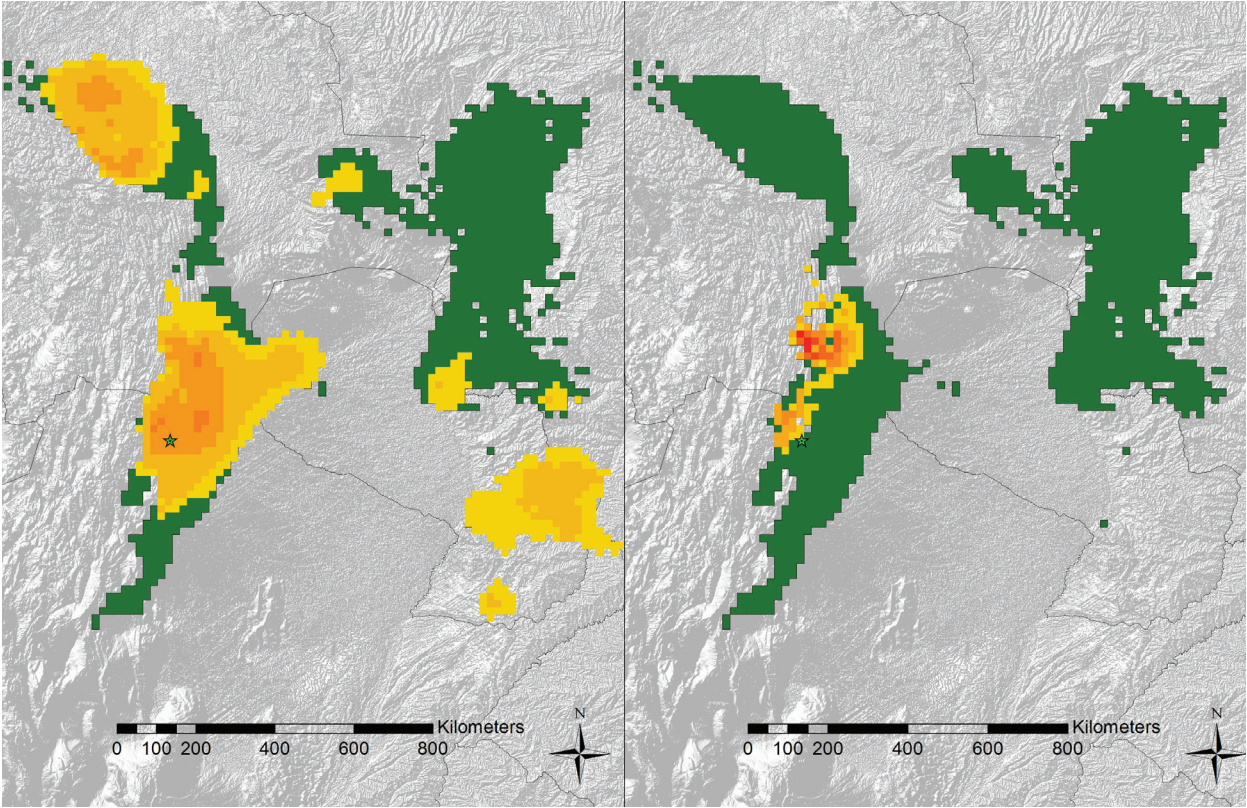


Figure A16— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. inca*, in Peru and Bolivia.

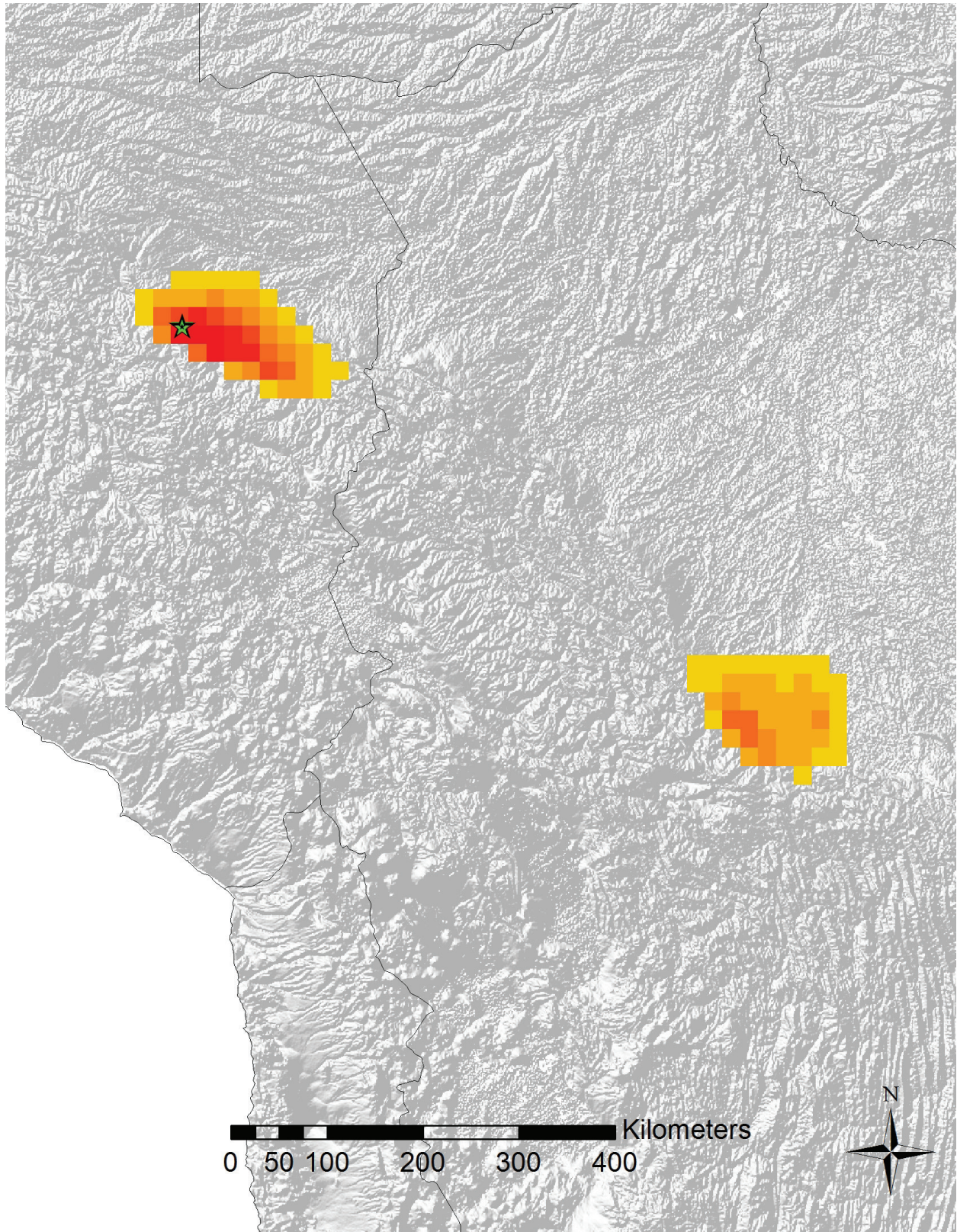


Figure A17— Probable projected ranges by the year 2100 of *S. b. inca*, under climate change scenarios A1B (left) and A2 (right). Note that under scenario A2, *S. b. inca* is extinct by 2100. Colors as in Fig. A2.

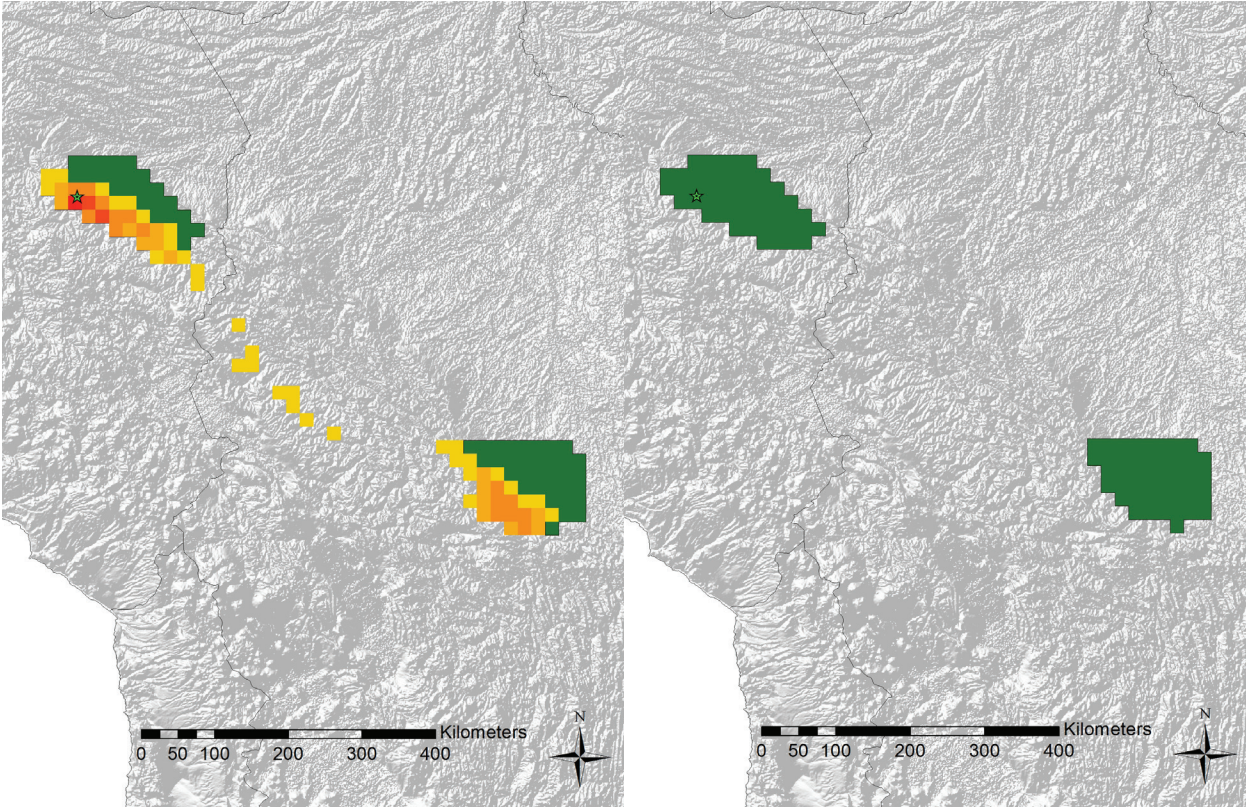


Figure A18— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. meridensis*.

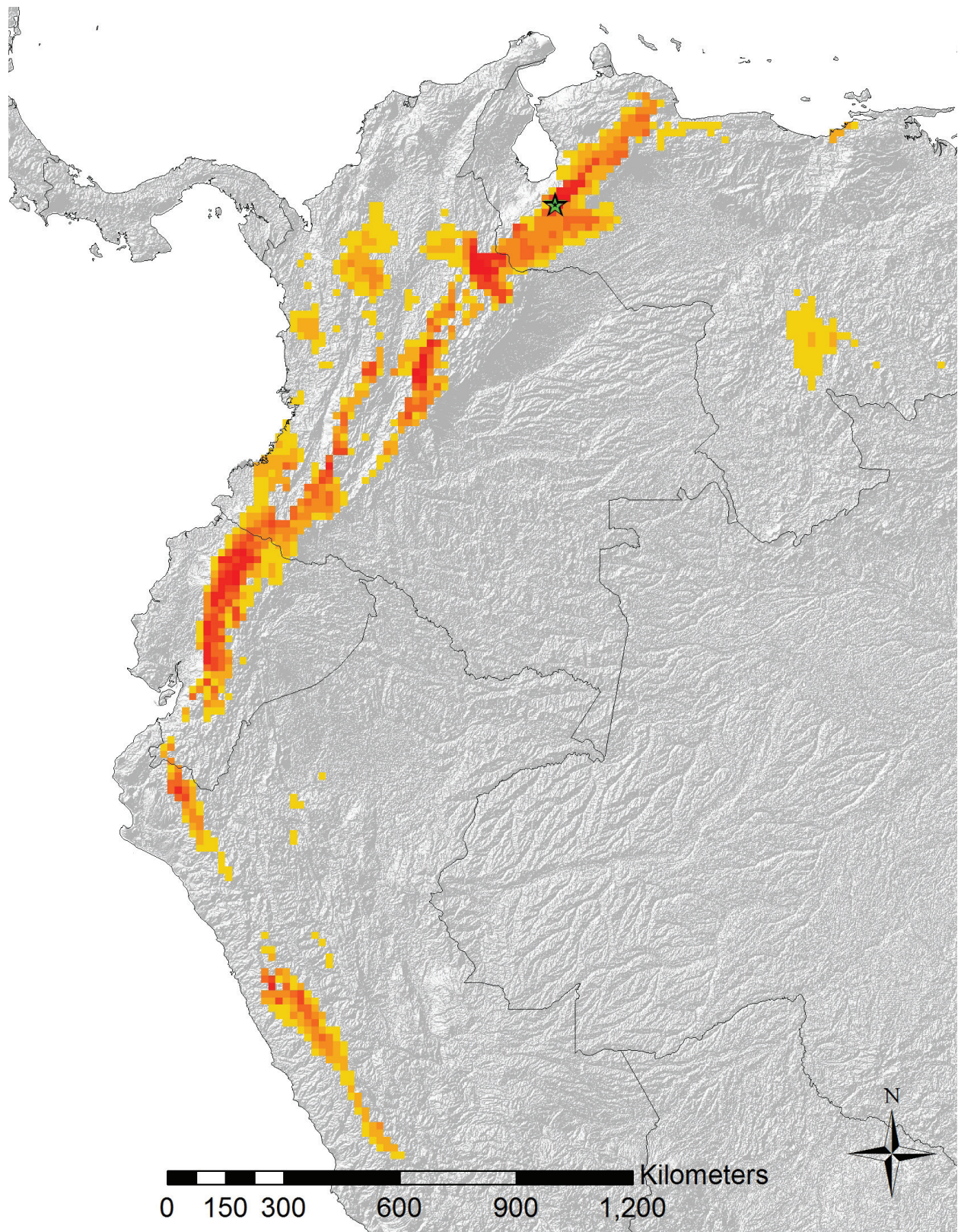


Figure A19— Probable projected ranges by the year 2100 of *S. b. meridensis*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

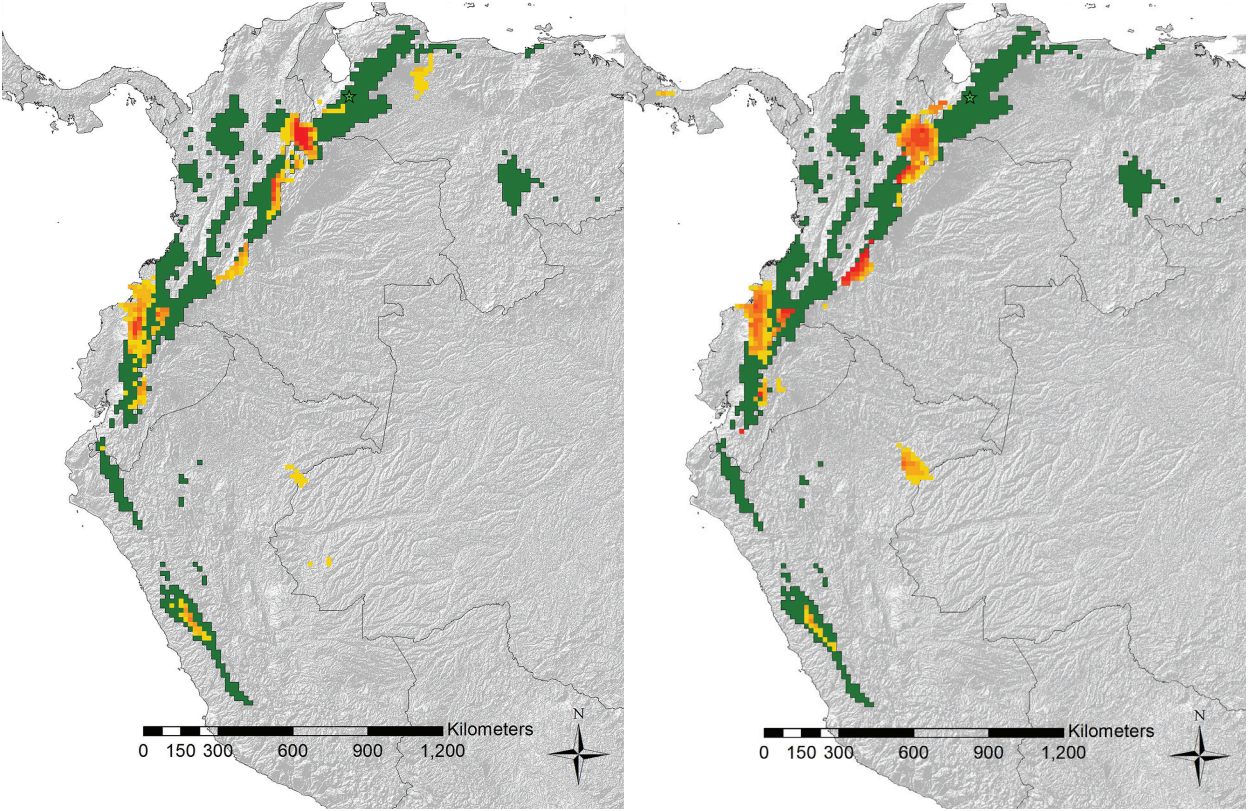


Figure A20— Hypothesis of probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. minensis*.

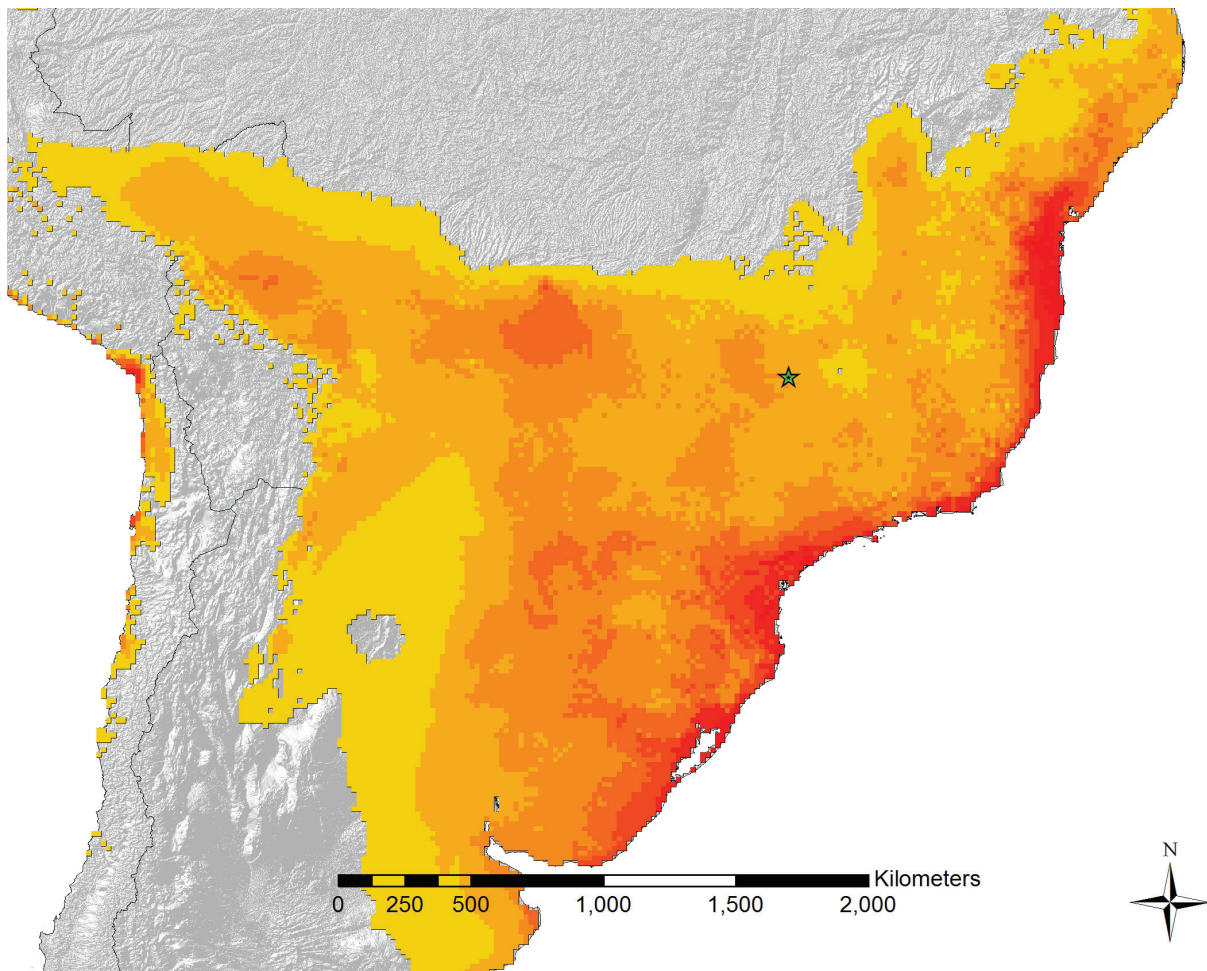


Figure A21— Probable projected ranges by the year 2100 of *S. b. minensis*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

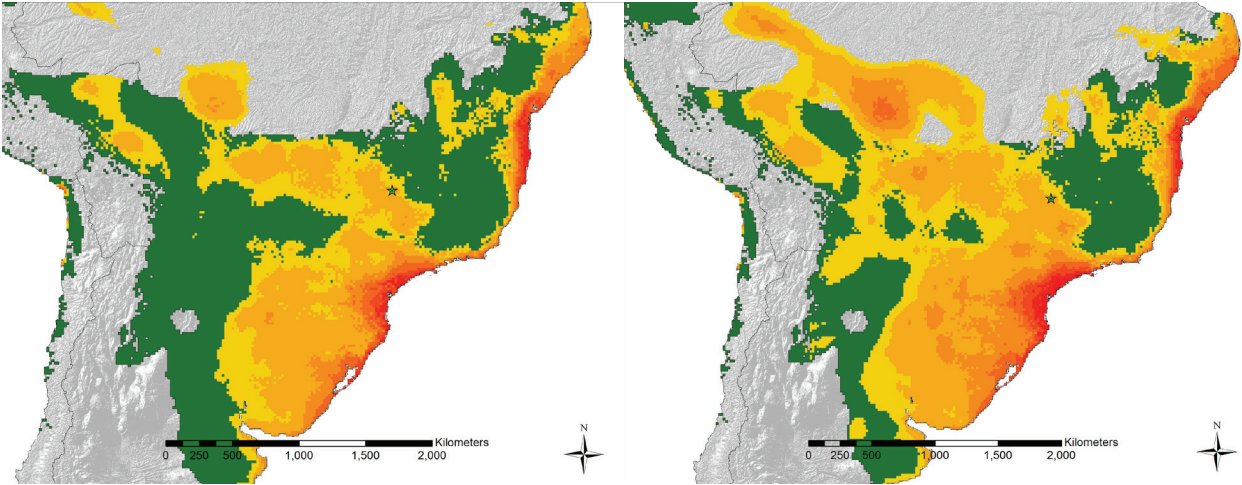


Figure A22— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. nicefori*.

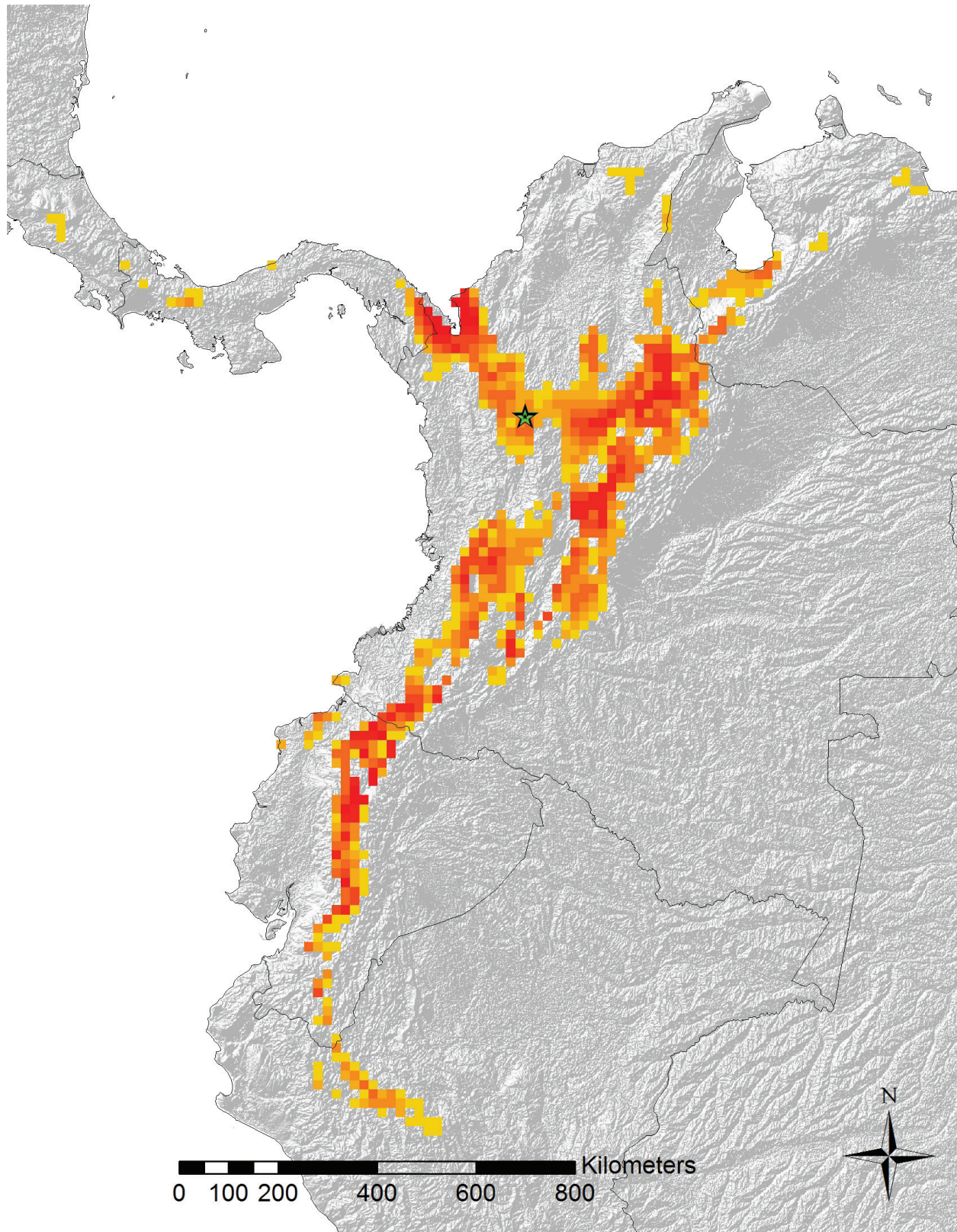


Figure A23— Probable projected ranges by the year 2100 of *S. b. nicefori*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

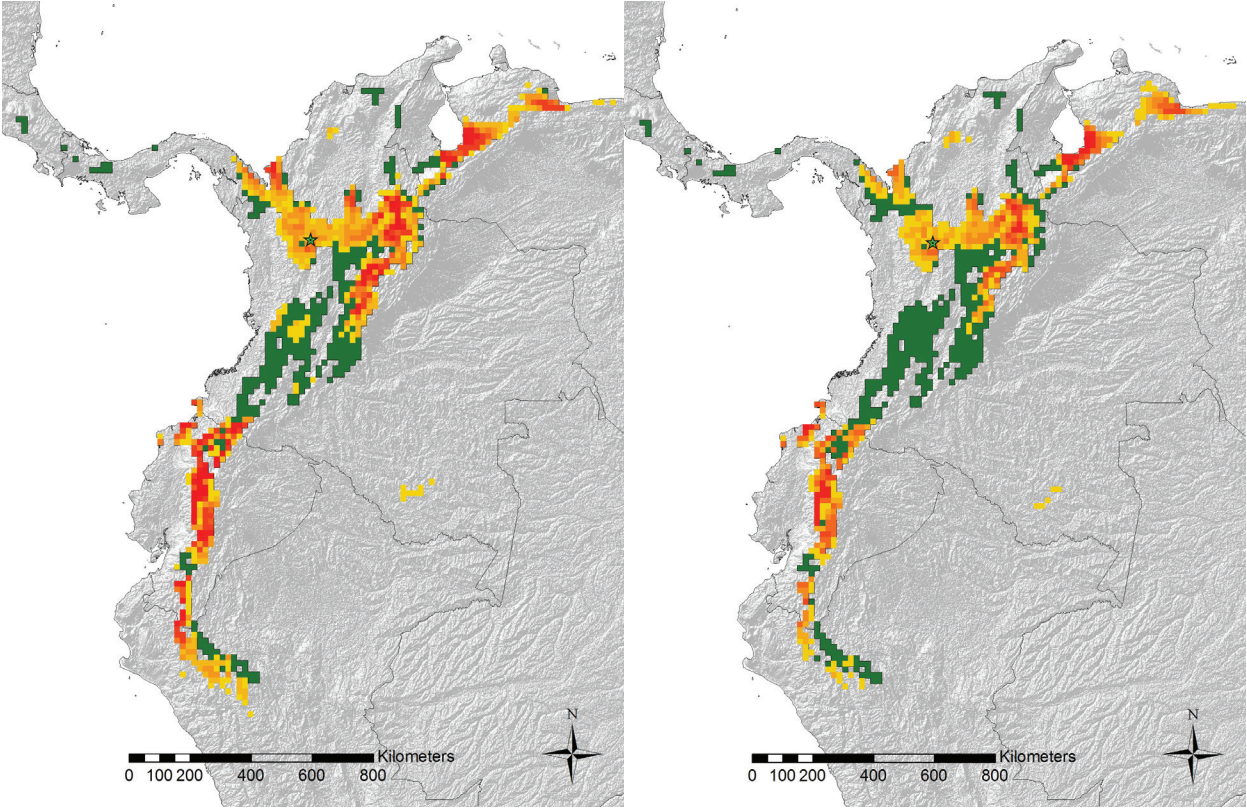


Figure A24— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. paraguensis*.

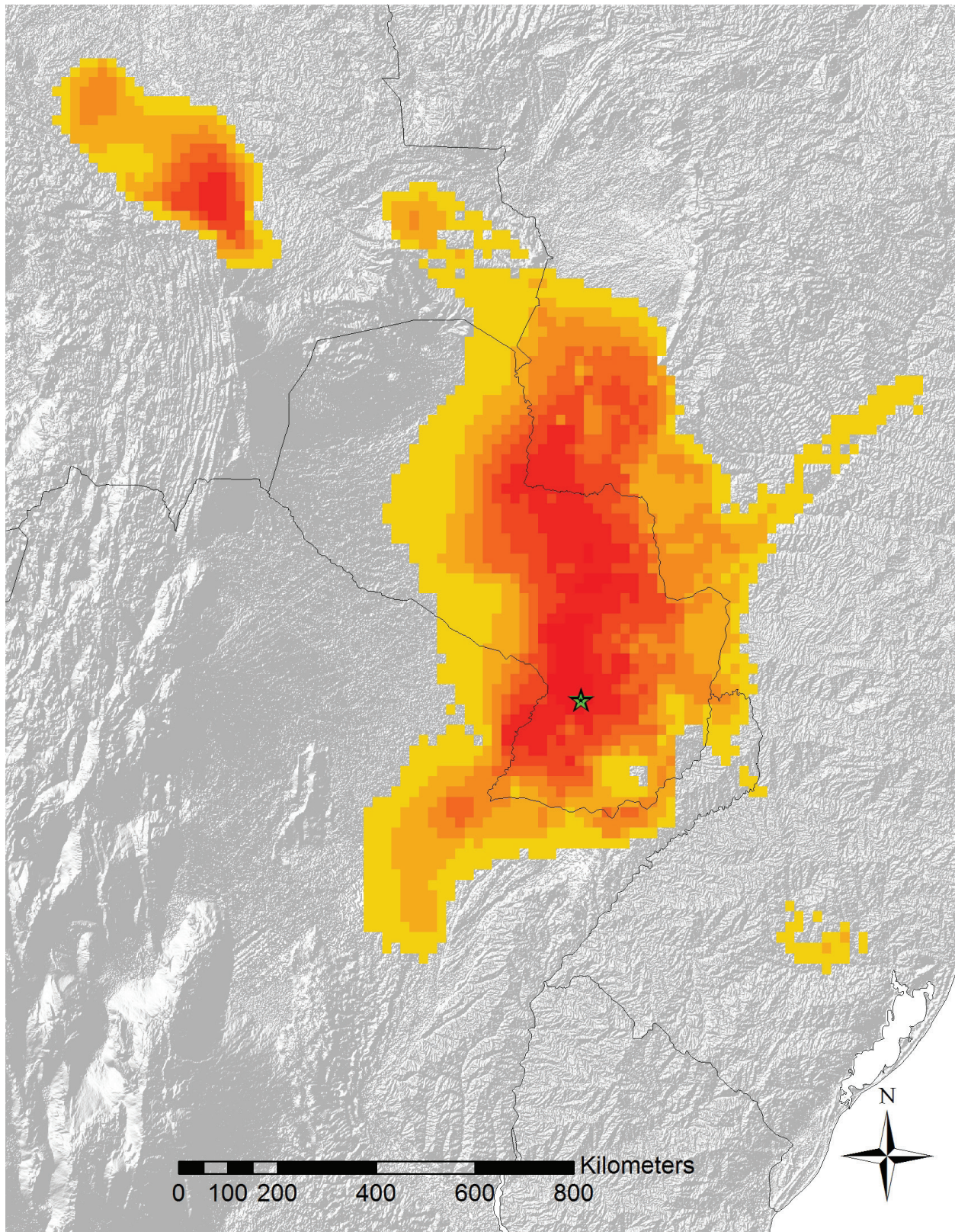


Figure A25— Probable projected ranges by the year 2100 of *S. b. paraguensis*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

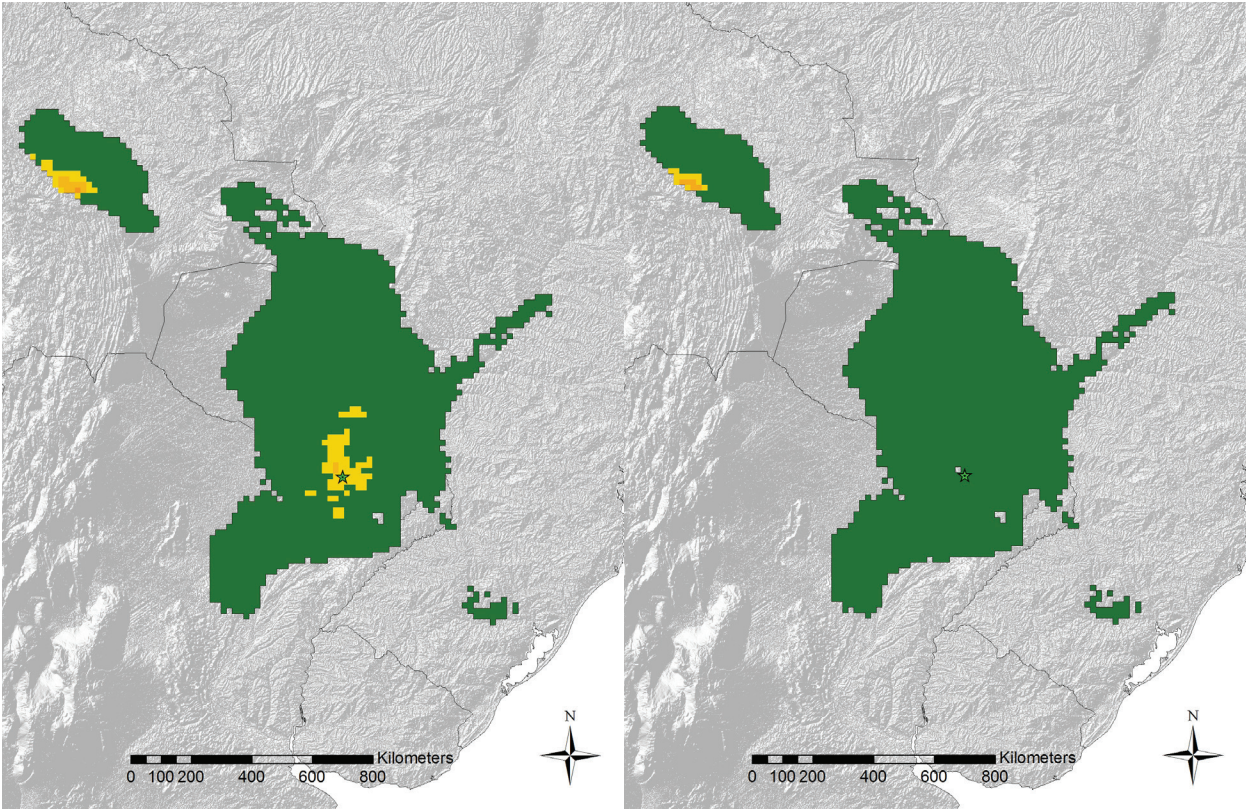


Figure A26— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. peruanus*. This taxon is extinct under both climate change scenarios, hence no projected ranges are shown.

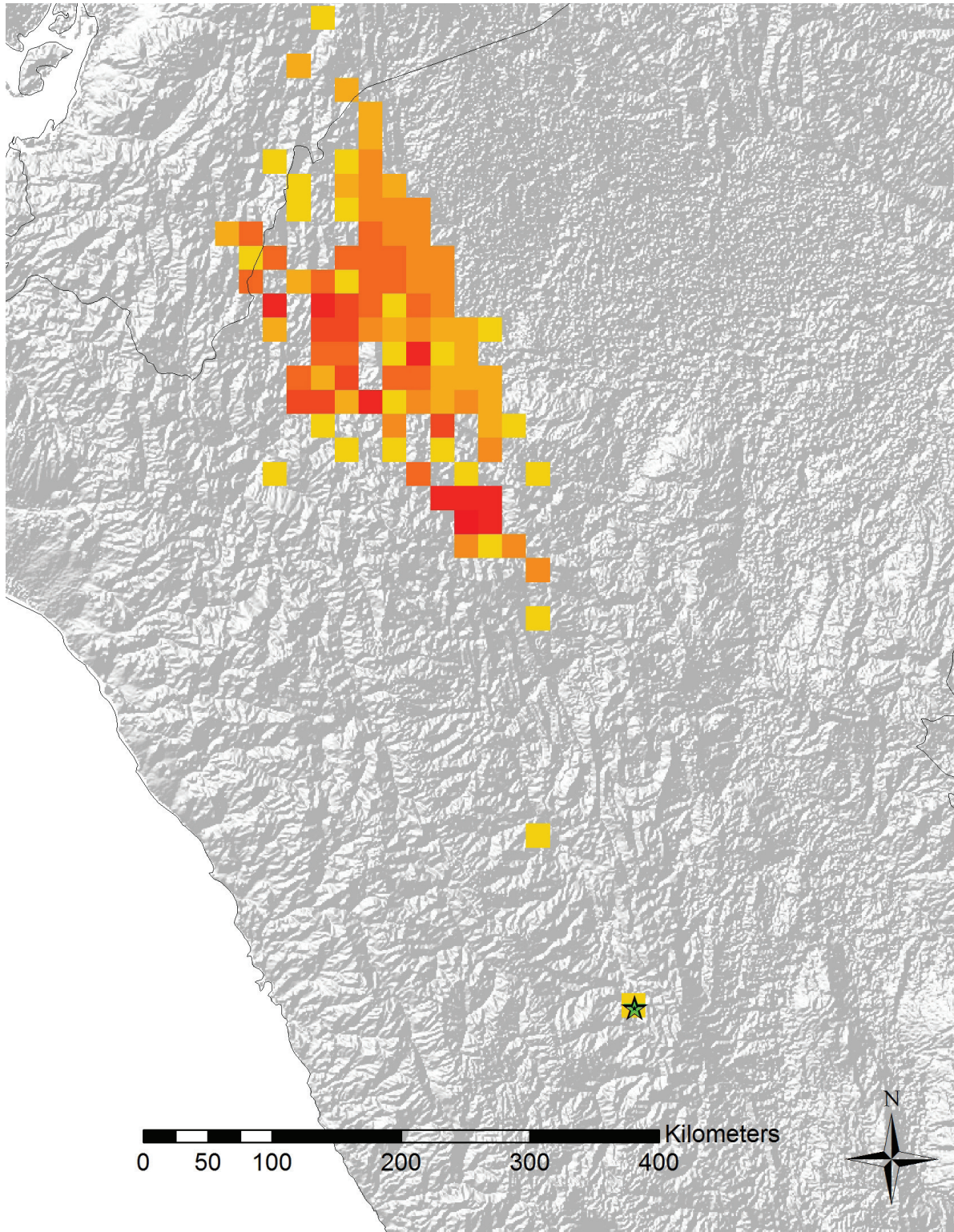


Figure A27— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. sanctaemartae*.

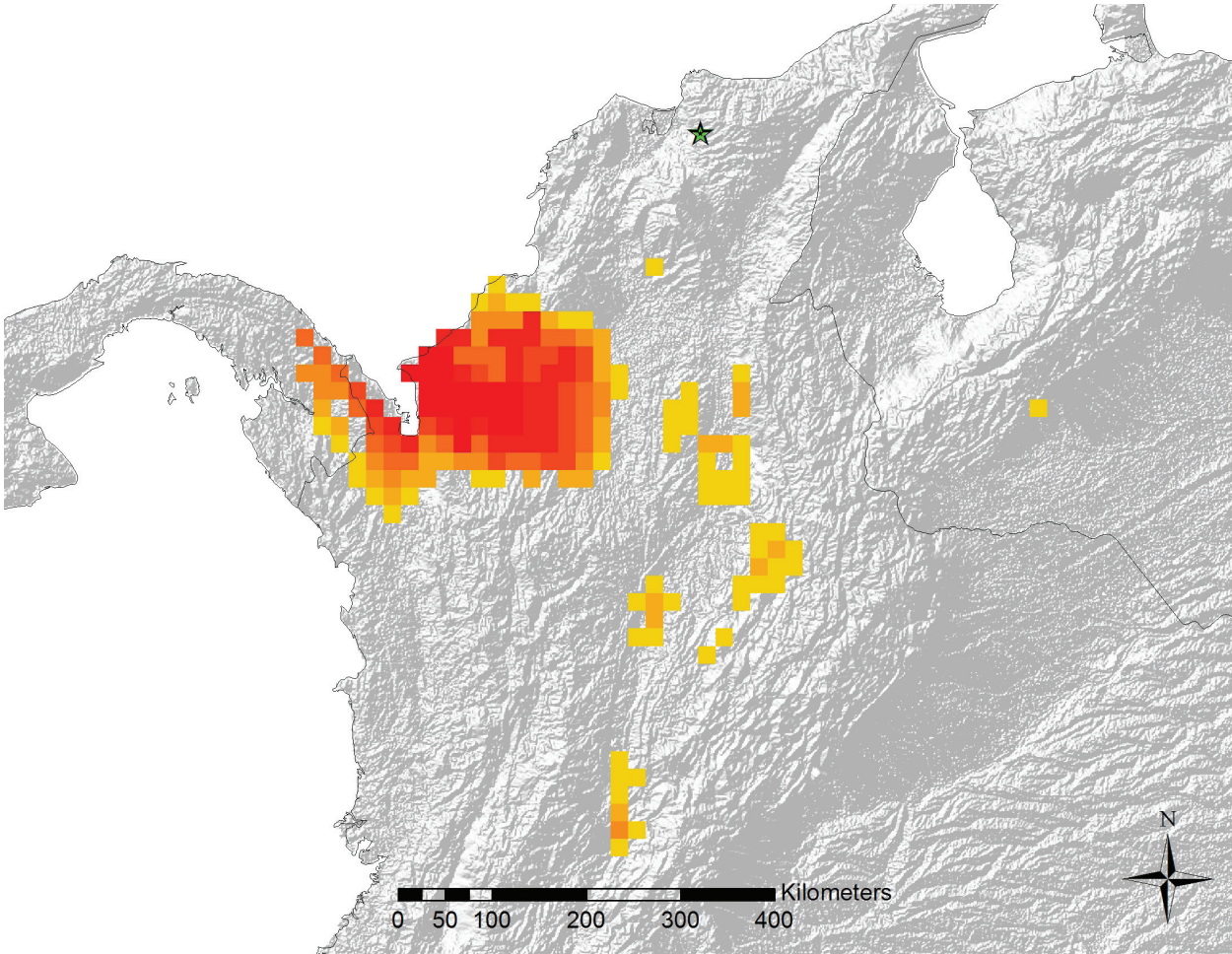


Figure A28— Probable projected ranges by the year 2100 of *S. b. sanctamaertae*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

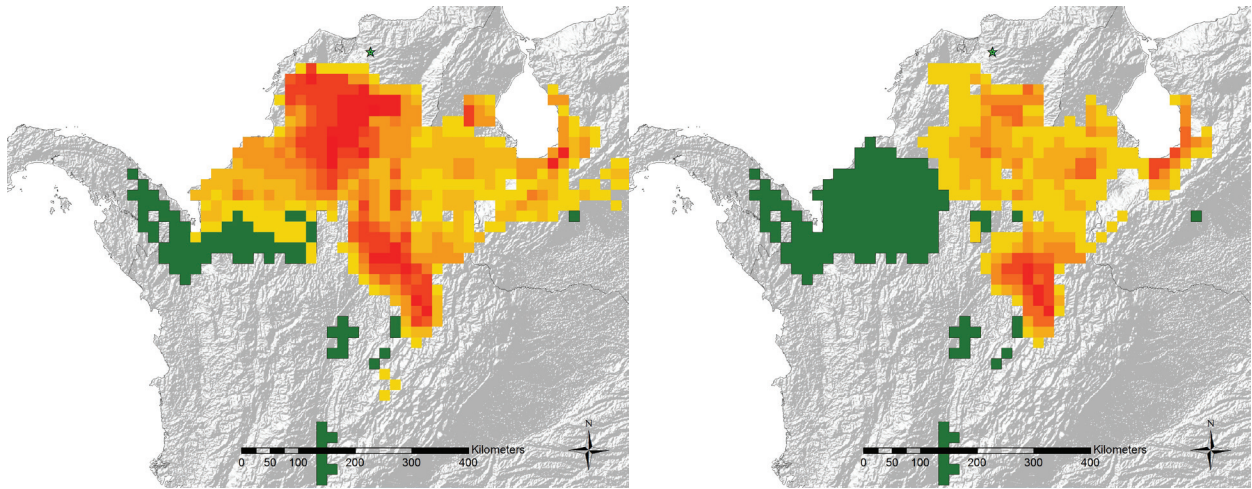


Figure A29— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. b. surdaster*.

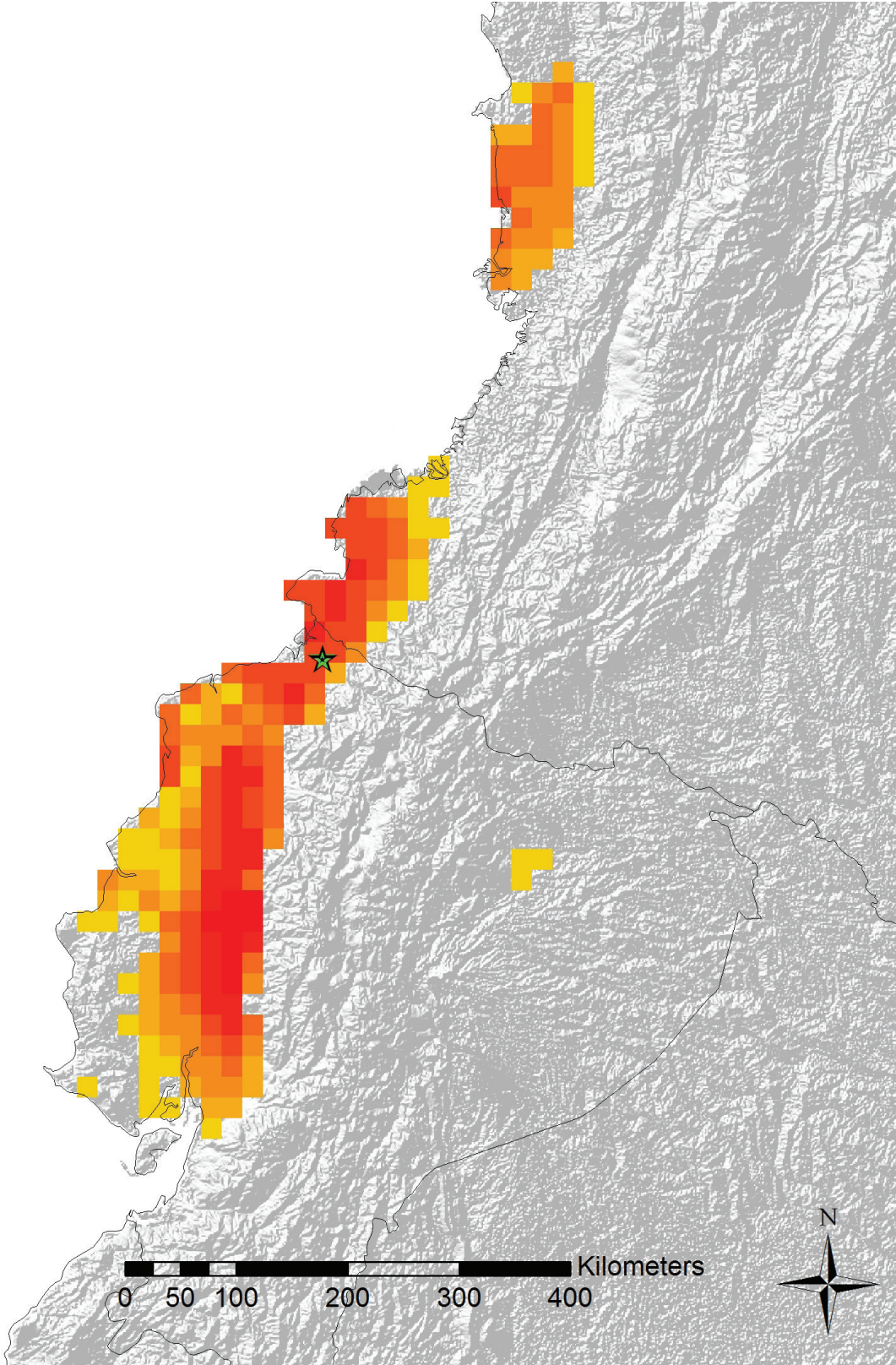


Figure A30— Probable projected ranges by the year 2100 of *S. b. surdaster*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

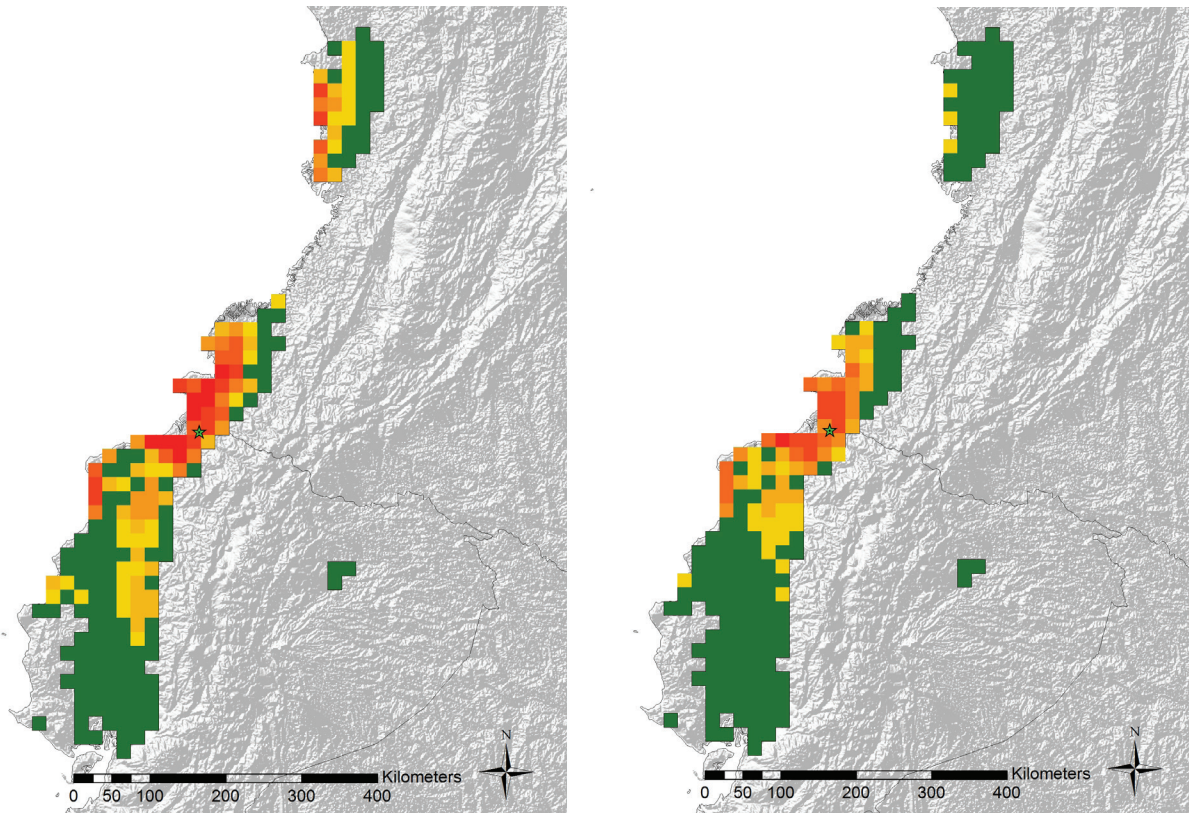


Figure A31— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. gabbi gabbi*.

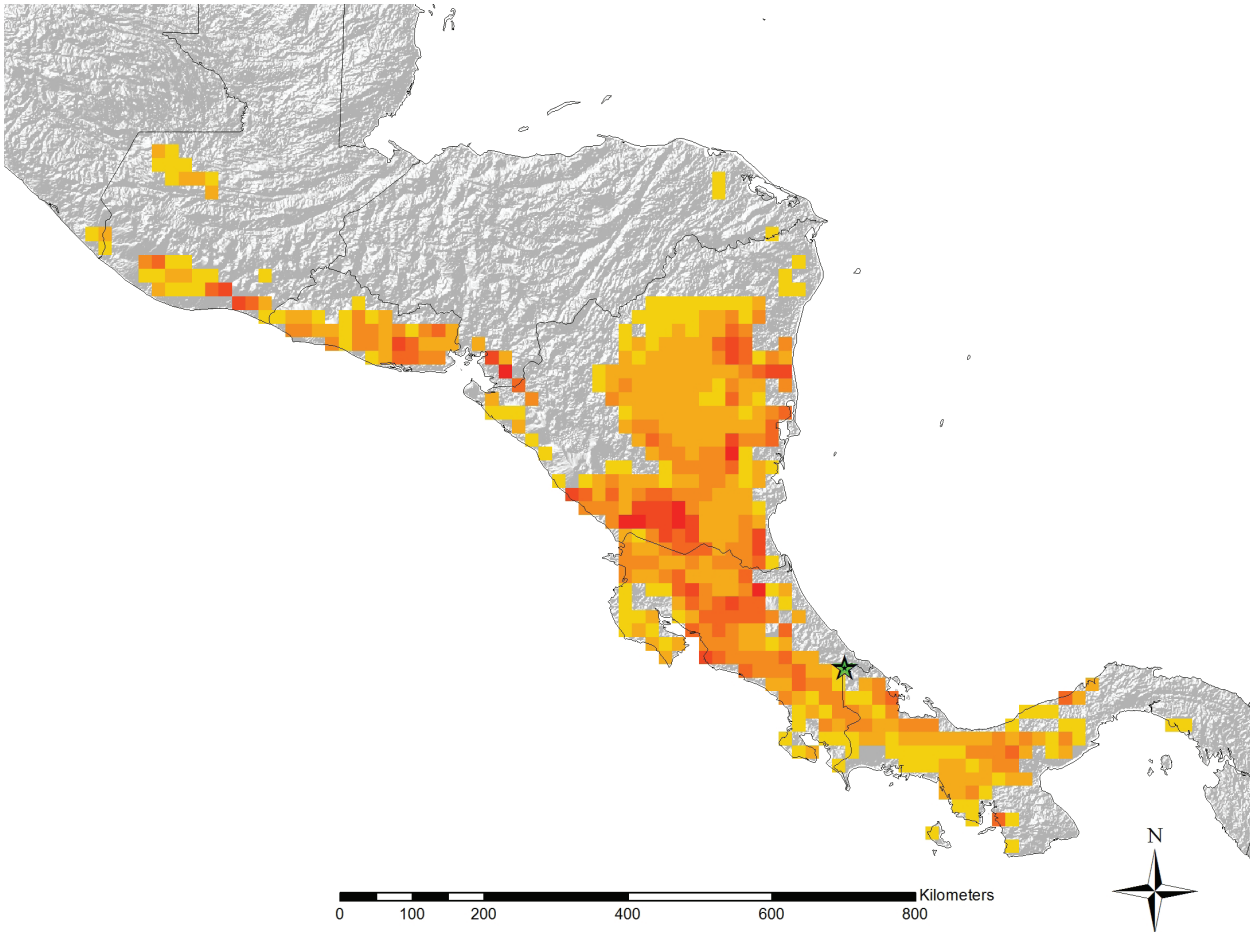


Figure A32— Probable projected ranges by the year 2100 of *S. g. gabbi*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

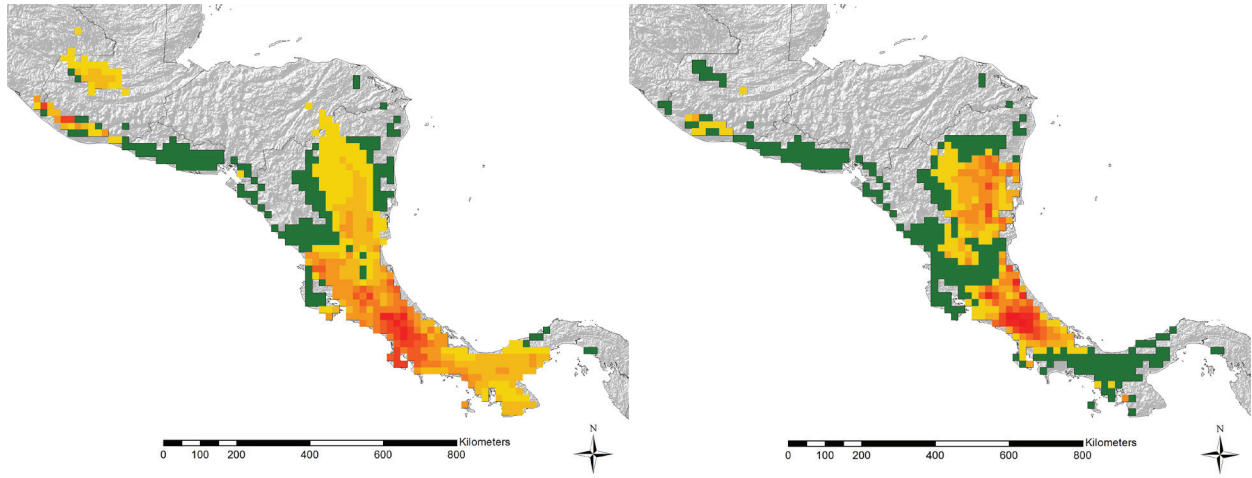


Figure A33— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. g. messorius*.

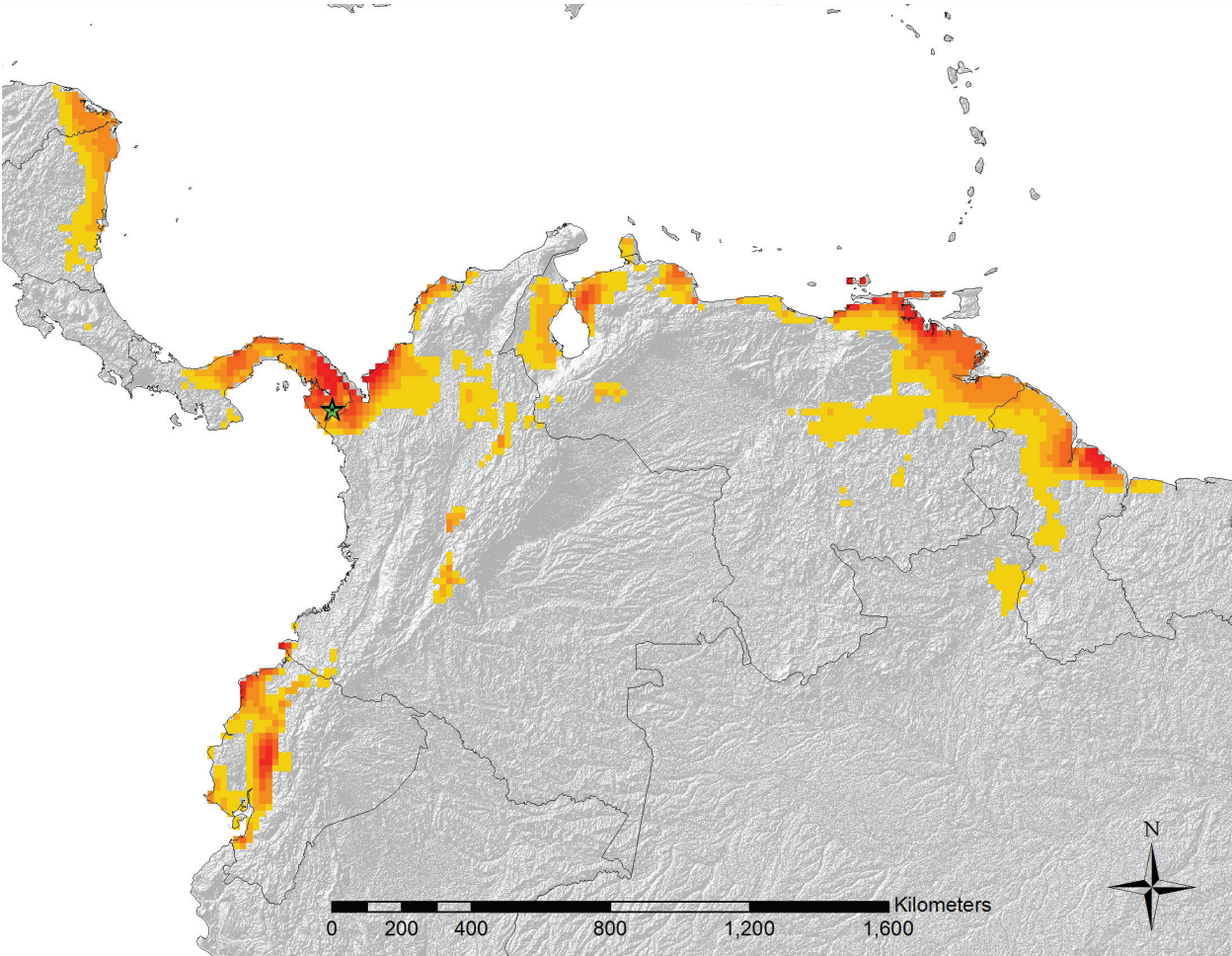


Figure A34— Probable projected ranges by the year 2100 of *S. g. messorius*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

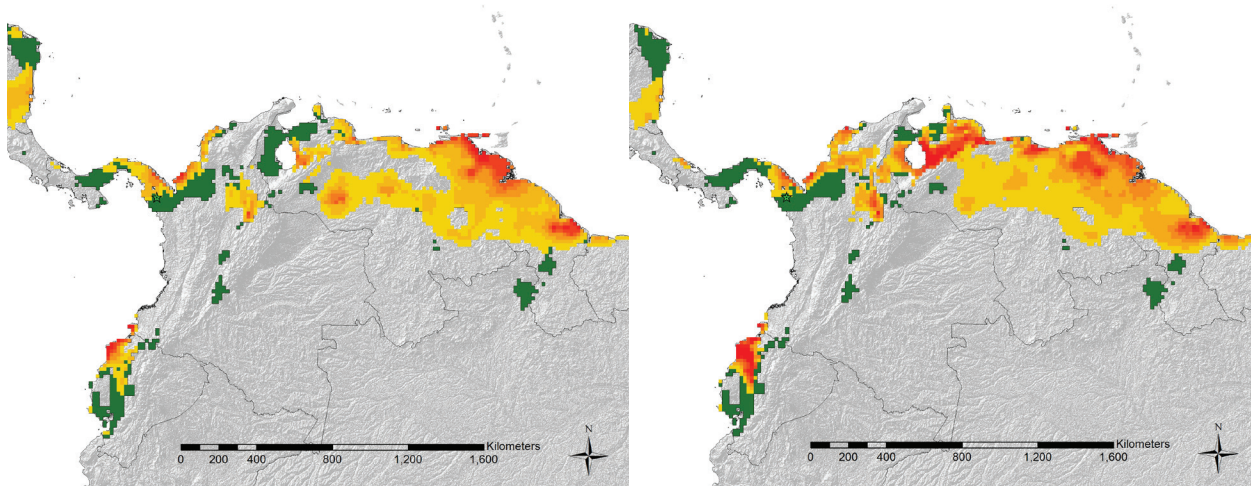


Figure A35— Probable current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. g. truei*.

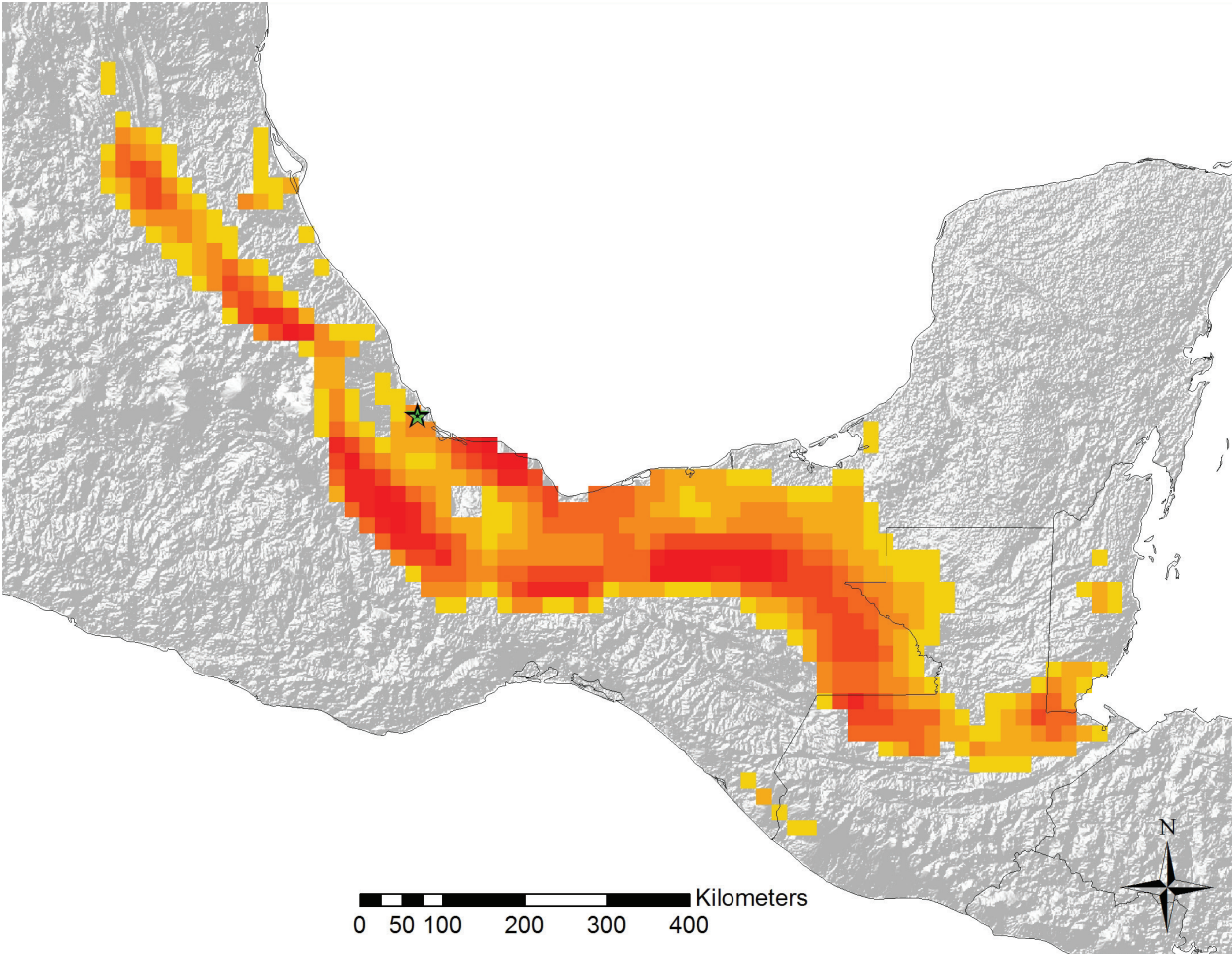


Figure A36— Probable projected ranges by the year 2100 of *S. g. truei*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

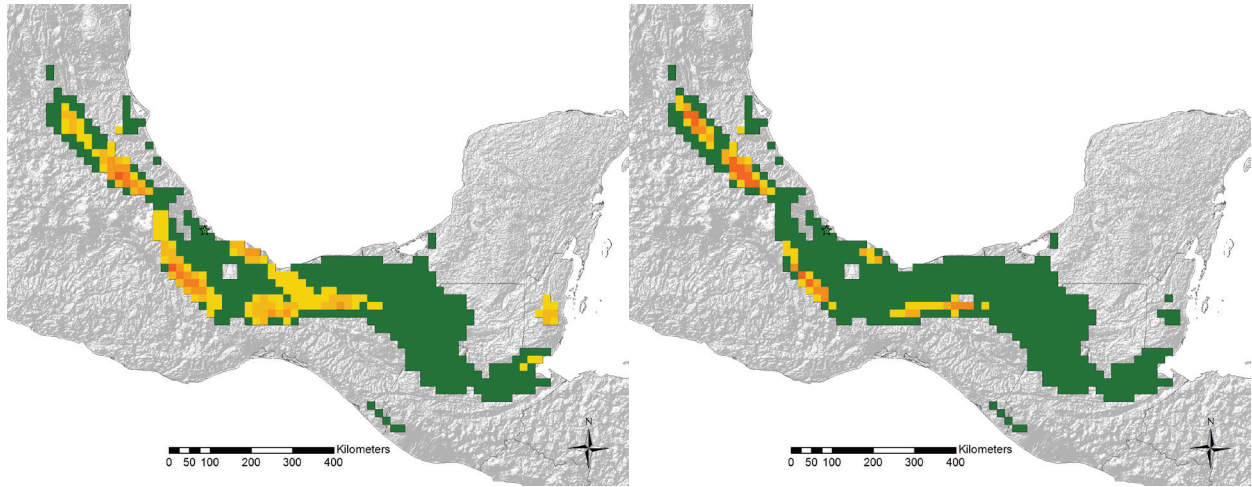


Figure A37— Potential current range, derived using MaxEnt ecological modeling based on museum specimen data, of *S. dicei*. In actuality, *S. dicei* is known to be restricted to elevations above 1000 m in Costa Rica and immediately adjacent Panamá, and increasing in population abundance above 1600 m.

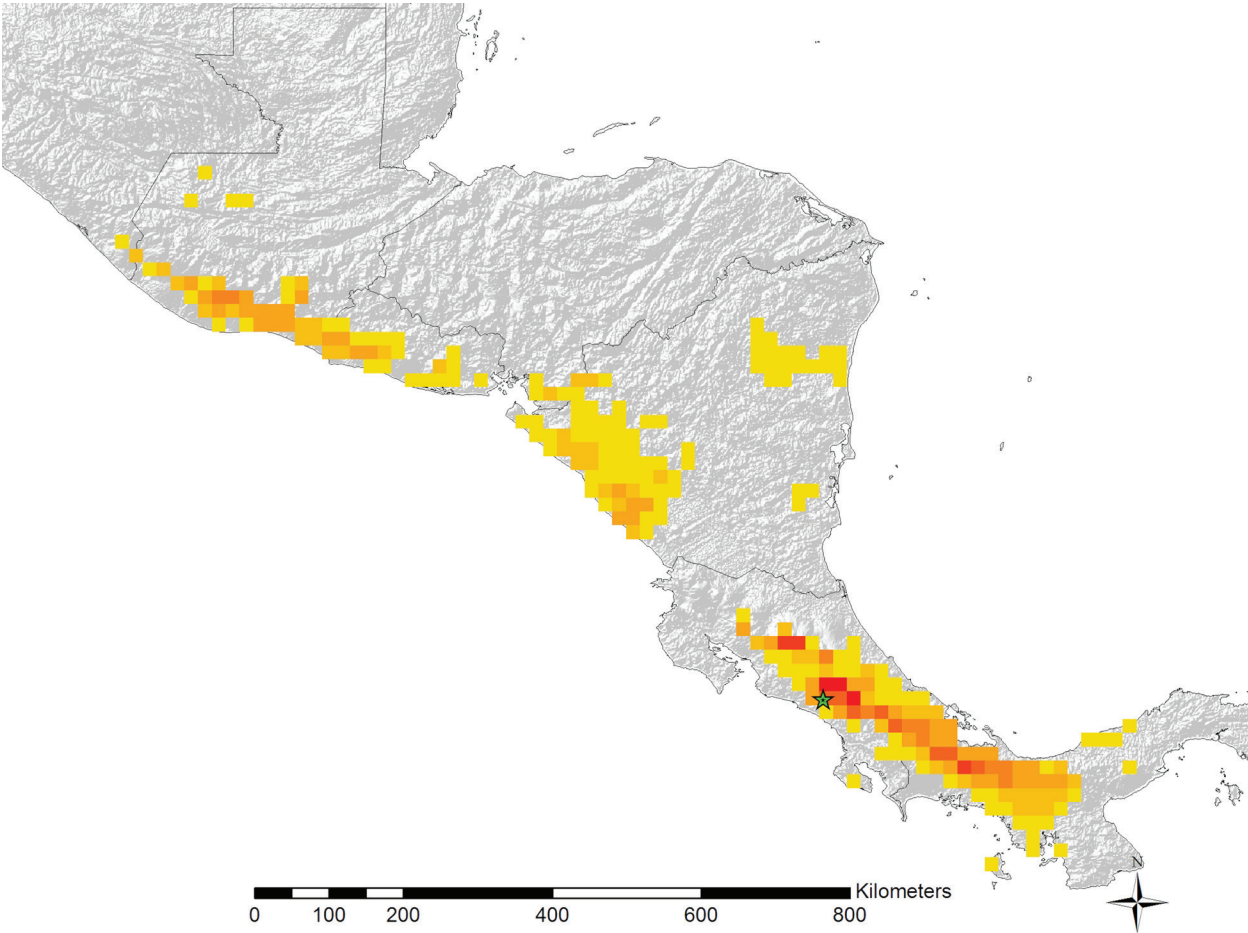


Figure A38— Probable projected ranges by the year 2100 of *S. dicei*, under climate change scenarios A1B (left) and A2 (right). Colors as in Fig. A2.

