

## Supplementary material

### Spatially explicit capture–recapture analysis of bobcat (*Lynx rufus*) density: implications for mesocarnivore monitoring

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**Table S1. Capture histories for all four study sites**

ID, individual identifier; occasion, day of capture from start of survey; detector, camera station identifier,  
FHE = Fort Hood East study area, FHW = Fort Hood West study area, FHSE = Fort Hood South East  
study area, FHS = Fort Hood South study area

| Study site | ID | Occasion | Detector |
|------------|----|----------|----------|
| FHE        | 1  | 46       | 26       |
| FHE        | 1  | 47       | 28       |
| FHE        | 1  | 84       | 28       |
| FHE        | 1  | 64       | 31       |
| FHE        | 1  | 73       | 32       |
| FHE        | 1  | 85       | 34       |
| FHE        | 1  | 84       | 35       |
| FHE        | 1  | 84       | 38       |
| FHE        | 1  | 48       | 40       |
| FHE        | 1  | 79       | 40       |
| FHE        | 2  | 59       | 22       |
| FHE        | 2  | 62       | 22       |
| FHE        | 2  | 76       | 22       |
| FHE        | 2  | 46       | 23       |
| FHE        | 2  | 53       | 23       |
| FHE        | 2  | 73       | 26       |
| FHE        | 3  | 30       | 17       |
| FHE        | 3  | 47       | 21       |
| FHE        | 3  | 75       | 21       |
| FHE        | 3  | 84       | 21       |
| FHE        | 4  | 3        | 1        |
| FHE        | 4  | 20       | 2        |
| FHE        | 4  | 24       | 2        |

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|     |    |    |    |
|-----|----|----|----|
| FHE | 4  | 35 | 2  |
| FHE | 4  | 20 | 17 |
| FHE | 4  | 16 | 18 |
| FHE | 4  | 12 | 20 |
| FHE | 4  | 14 | 20 |
| FHE | 4  | 29 | 20 |
| FHE | 4  | 55 | 22 |
| FHE | 4  | 47 | 25 |
| FHE | 4  | 48 | 27 |
| FHE | 4  | 51 | 34 |
| FHE | 4  | 51 | 35 |
| FHE | 5  | 7  | 3  |
| FHE | 5  | 41 | 3  |
| FHE | 5  | 39 | 5  |
| FHE | 5  | 11 | 11 |
| FHE | 5  | 19 | 14 |
| FHE | 5  | 26 | 14 |
| FHE | 6  | 84 | 31 |
| FHE | 7  | 18 | 8  |
| FHE | 7  | 28 | 8  |
| FHE | 7  | 29 | 8  |
| FHE | 7  | 20 | 9  |
| FHE | 8  | 19 | 15 |
| FHE | 8  | 27 | 15 |
| FHE | 8  | 29 | 15 |
| FHE | 8  | 62 | 26 |
| FHE | 8  | 68 | 26 |
| FHE | 8  | 76 | 28 |
| FHE | 8  | 74 | 40 |
| FHE | 8  | 83 | 40 |
| FHE | 9  | 19 | 15 |
| FHE | 10 | 58 | 36 |
| FHE | 11 | 73 | 26 |
| FHE | 11 | 53 | 31 |
| FHE | 11 | 55 | 31 |
| FHE | 11 | 86 | 31 |
| FHE | 11 | 66 | 35 |
| FHE | 11 | 54 | 36 |
| FHE | 11 | 57 | 40 |
| FHE | 11 | 66 | 40 |
| FHE | 12 | 31 | 15 |
| FHE | 12 | 17 | 16 |
| FHE | 12 | 61 | 26 |
| FHE | 12 | 60 | 28 |
| FHE | 12 | 54 | 31 |
| FHE | 12 | 48 | 34 |
| FHE | 13 | 8  | 19 |
| FHE | 13 | 23 | 19 |
| FHE | 13 | 32 | 19 |
| FHE | 13 | 37 | 19 |
| FHE | 13 | 82 | 21 |
| FHE | 14 | 71 | 22 |
| FHE | 14 | 85 | 22 |
| FHE | 14 | 65 | 24 |
| FHW | 1  | 13 | 19 |
| FHW | 2  | 1  | 2  |

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|     |    |    |    |
|-----|----|----|----|
| FHW | 2  | 11 | 2  |
| FHW | 2  | 13 | 8  |
| FHW | 2  | 33 | 6  |
| FHW | 2  | 35 | 16 |
| FHW | 2  | 38 | 9  |
| FHW | 2  | 39 | 7  |
| FHW | 2  | 44 | 13 |
| FHW | 2  | 46 | 12 |
| FHW | 3  | 68 | 31 |
| FHW | 3  | 68 | 32 |
| FHW | 4  | 82 | 34 |
| FHW | 4  | 94 | 36 |
| FHW | 5  | 16 | 16 |
| FHW | 5  | 17 | 16 |
| FHW | 6  | 9  | 7  |
| FHW | 6  | 25 | 14 |
| FHW | 6  | 35 | 7  |
| FHW | 6  | 43 | 15 |
| FHW | 6  | 44 | 4  |
| FHW | 7  | 55 | 33 |
| FHW | 7  | 68 | 31 |
| FHW | 7  | 69 | 31 |
| FHW | 7  | 84 | 29 |
| FHW | 7  | 92 | 31 |
| FHW | 7  | 99 | 33 |
| FHW | 8  | 4  | 19 |
| FHW | 8  | 6  | 18 |
| FHW | 8  | 17 | 14 |
| FHW | 8  | 28 | 20 |
| FHW | 8  | 33 | 19 |
| FHW | 8  | 38 | 19 |
| FHW | 9  | 7  | 20 |
| FHW | 9  | 15 | 17 |
| FHW | 9  | 26 | 20 |
| FHW | 9  | 26 | 19 |
| FHW | 9  | 26 | 16 |
| FHW | 9  | 31 | 14 |
| FHW | 9  | 37 | 16 |
| FHW | 9  | 44 | 14 |
| FHW | 9  | 48 | 16 |
| FHW | 9  | 69 | 40 |
| FHW | 9  | 75 | 39 |
| FHW | 9  | 78 | 40 |
| FHW | 9  | 84 | 25 |
| FHW | 9  | 88 | 25 |
| FHW | 9  | 90 | 25 |
| FHW | 9  | 94 | 25 |
| FHW | 10 | 51 | 22 |
| FHW | 10 | 98 | 21 |
| FHW | 11 | 53 | 22 |
| FHW | 11 | 59 | 31 |
| FHW | 11 | 65 | 23 |
| FHW | 11 | 73 | 22 |
| FHW | 11 | 79 | 21 |
| FHW | 11 | 88 | 21 |
| FHW | 11 | 88 | 28 |

|      |    |    |    |
|------|----|----|----|
| FHW  | 12 | 61 | 40 |
| FHW  | 13 | 13 | 8  |
| FHW  | 13 | 26 | 15 |
| FHW  | 13 | 29 | 15 |
| FHW  | 13 | 32 | 8  |
| FHW  | 13 | 44 | 8  |
| FHW  | 13 | 46 | 12 |
| FHW  | 13 | 47 | 8  |
| FHW  | 13 | 48 | 8  |
| FHW  | 14 | 20 | 20 |
| FHW  | 15 | 96 | 38 |
| FHW  | 15 | 98 | 38 |
| FHSE | 1  | 59 | 27 |
| FHSE | 1  | 58 | 30 |
| FHSE | 1  | 85 | 36 |
| FHSE | 1  | 65 | 37 |
| FHSE | 1  | 88 | 38 |
| FHSE | 1  | 73 | 39 |
| FHSE | 1  | 71 | 40 |
| FHSE | 2  | 76 | 29 |
| FHSE | 2  | 96 | 29 |
| FHSE | 2  | 99 | 33 |
| FHSE | 2  | 58 | 34 |
| FHSE | 2  | 71 | 34 |
| FHSE | 2  | 85 | 34 |
| FHSE | 2  | 65 | 35 |
| FHSE | 3  | 61 | 30 |
| FHSE | 3  | 95 | 30 |
| FHSE | 3  | 92 | 32 |
| FHSE | 3  | 92 | 33 |
| FHSE | 4  | 6  | 8  |
| FHSE | 4  | 4  | 10 |
| FHSE | 4  | 41 | 12 |
| FHSE | 4  | 45 | 13 |
| FHSE | 4  | 40 | 15 |
| FHSE | 4  | 46 | 17 |
| FHSE | 4  | 48 | 17 |
| FHSE | 4  | 49 | 17 |
| FHSE | 4  | 50 | 17 |
| FHSE | 5  | 6  | 1  |
| FHSE | 5  | 7  | 1  |
| FHSE | 5  | 43 | 9  |
| FHSE | 6  | 19 | 1  |
| FHSE | 6  | 48 | 1  |
| FHSE | 6  | 30 | 7  |
| FHSE | 6  | 37 | 7  |
| FHSE | 6  | 44 | 7  |
| FHSE | 6  | 2  | 8  |
| FHSE | 6  | 31 | 8  |
| FHSE | 6  | 47 | 8  |
| FHSE | 6  | 39 | 9  |
| FHSE | 6  | 42 | 10 |
| FHSE | 6  | 6  | 11 |
| FHSE | 6  | 3  | 15 |
| FHSE | 6  | 5  | 15 |
| FHSE | 6  | 39 | 15 |

|      |    |     |    |
|------|----|-----|----|
| FHSE | 6  | 46  | 16 |
| FHSE | 7  | 60  | 30 |
| FHSE | 7  | 55  | 36 |
| FHSE | 7  | 85  | 36 |
| FHSE | 7  | 67  | 40 |
| FHSE | 8  | 58  | 40 |
| FHSE | 8  | 67  | 40 |
| FHSE | 9  | 22  | 4  |
| FHSE | 9  | 43  | 4  |
| FHSE | 9  | 48  | 5  |
| FHSE | 9  | 8   | 18 |
| FHSE | 9  | 13  | 19 |
| FHSE | 9  | 22  | 19 |
| FHSE | 10 | 62  | 36 |
| FHSE | 10 | 67  | 37 |
| FHSE | 10 | 101 | 37 |
| FHSE | 10 | 72  | 38 |
| FHSE | 10 | 65  | 40 |
| FHSE | 10 | 89  | 40 |
| FHSE | 11 | 88  | 26 |
| FHSE | 11 | 81  | 26 |
| FHSE | 11 | 58  | 30 |
| FHSE | 11 | 74  | 30 |
| FHSE | 11 | 75  | 30 |
| FHSE | 11 | 61  | 30 |
| FHSE | 11 | 81  | 30 |
| FHSE | 12 | 75  | 29 |
| FHSE | 13 | 99  | 21 |
| FHSE | 14 | 7   | 19 |
| FHSE | 14 | 61  | 22 |
| FHSE | 14 | 75  | 22 |
| FHSE | 14 | 82  | 22 |
| FHSE | 15 | 58  | 23 |
| FHSE | 15 | 87  | 23 |
| FHSE | 15 | 51  | 24 |
| FHSE | 15 | 85  | 27 |
| FHSE | 16 | 22  | 2  |
| FHSE | 17 | 2   | 3  |
| FHSE | 17 | 47  | 3  |
| FHSE | 17 | 22  | 4  |
| FHSE | 17 | 41  | 4  |
| FHSE | 17 | 10  | 5  |
| FHSE | 17 | 16  | 5  |
| FHSE | 17 | 36  | 5  |
| FHSE | 17 | 42  | 5  |
| FHSE | 17 | 48  | 5  |
| FHSE | 17 | 9   | 11 |
| FHSE | 17 | 7   | 19 |
| FHSE | 17 | 52  | 22 |
| FHS  | 1  | 13  | 18 |
| FHS  | 2  | 16  | 11 |
| FHS  | 2  | 30  | 13 |
| FHS  | 2  | 7   | 17 |
| FHS  | 3  | 34  | 12 |
| FHS  | 3  | 8   | 13 |
| FHS  | 3  | 19  | 13 |

|     |   |    |    |
|-----|---|----|----|
| FHS | 3 | 23 | 13 |
| FHS | 3 | 50 | 13 |
| FHS | 3 | 30 | 20 |
| FHS | 4 | 51 | 20 |
| FHS | 5 | 4  | 2  |

**Fig. S1.** (Left) Plot of estimated density (y-axis, in individuals per hectare) versus buffer size (x-axis) for the best-fitting multi-session SECR model, showing an asymptote around 3500 m. We used a buffer of 5000 m for our analysis. (Right) Capture probability as a function of distance from the centre of a home range for the best-fitting SECR model. Note that capture probability is near 0 at the edge of the buffer.

