



HOKKAIDO UNIVERSITY

Title	A local case report of dispersal characteristics in two male raccoons (<i>Procyon lotor</i>) in Oita Prefecture, Japan, revealed using Geographic Information System
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Supplementary Material

Figure S1.

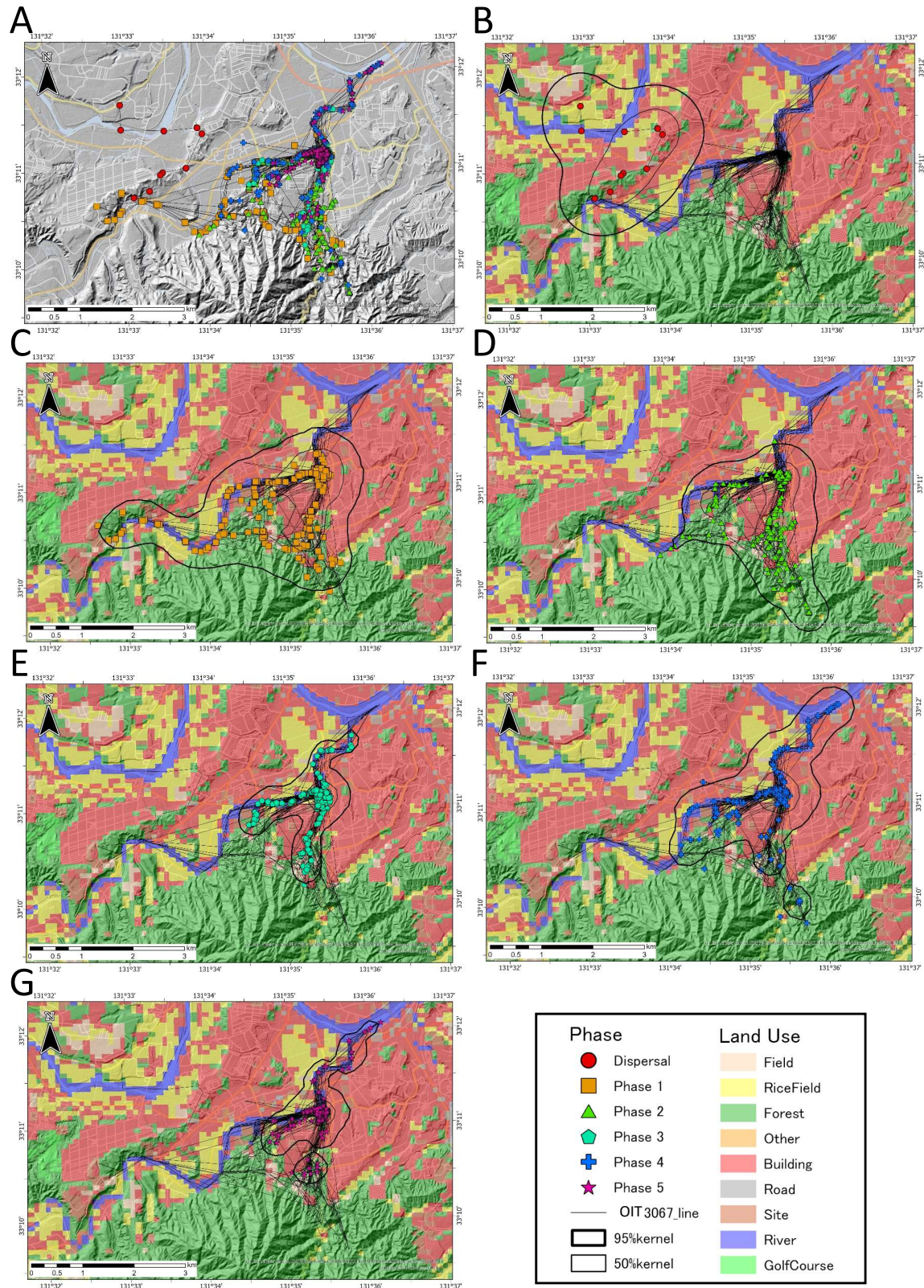


Fig. S1. Location data points of raccoon OIT3067 in Oita Prefecture, Japan, displayed on a grayscale topographic map with a colored land-use patch background. A: All points (1st Jan. – 2nd June. 2021), B: Dispersal Phase (1st – 2nd Jan. 2021), C: Phase 1 (2nd Jan. – 2nd Feb. 2021), D: Phase 2 (2nd Feb. – 2nd Mar. 2021), E: Phase 3 (2nd Mar. – 2nd Apr. 2021), F: Phase 4 (2nd Apr. – 2nd May 2021), G: Phase 5 (2nd May – 2nd Jun. 2021). Dark and thin lines in B–G represent home ranges calculated using 95% and 50% fixed kernel methods, respectively.

Supplementary Material

Figure S2.

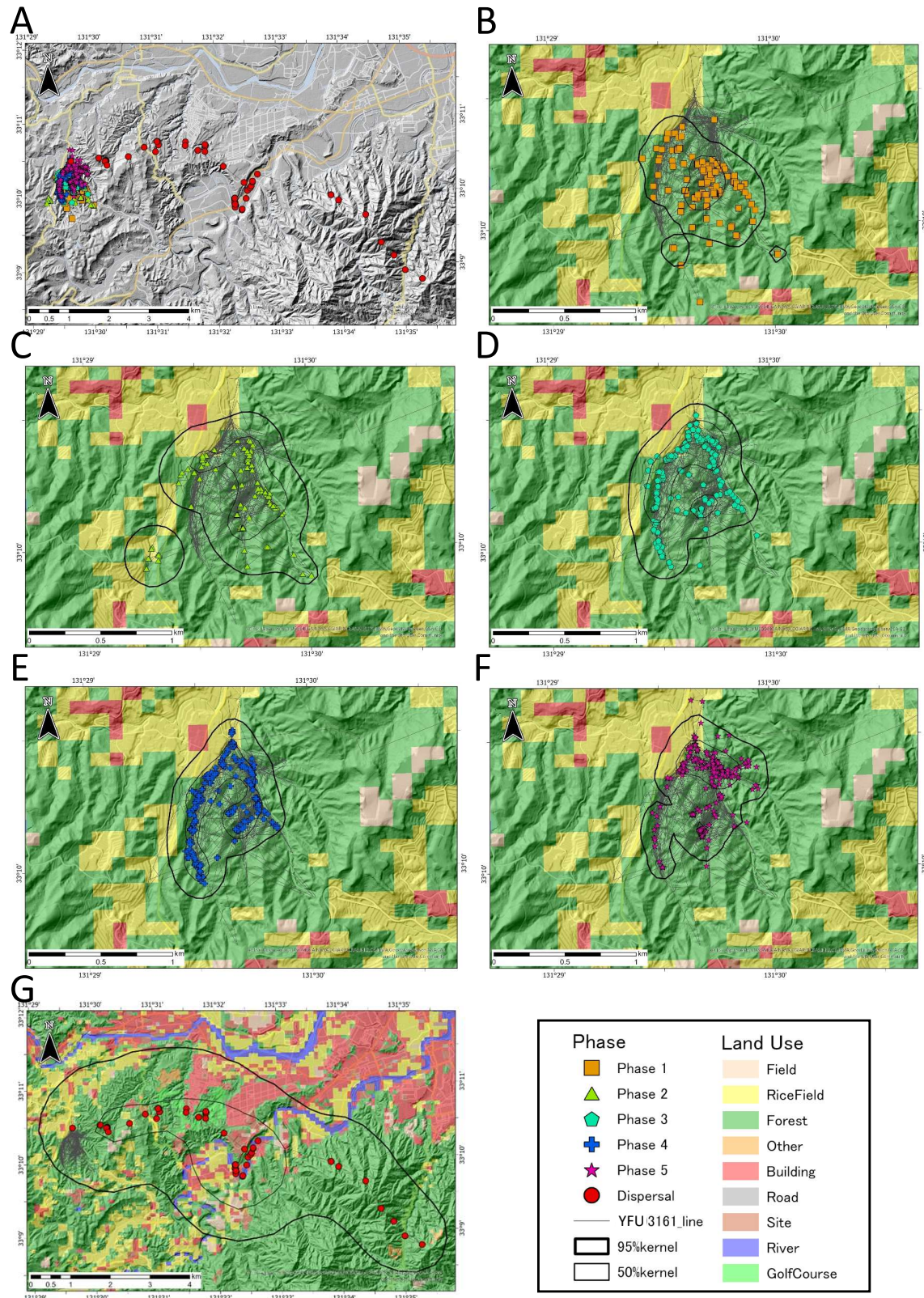


Fig. S2. Location data points of raccoon YFU3161 in Oita Prefecture, Japan, displayed on a grayscale topographic map with a colored land-use patch background. A: All points (22nd Dec. 2021 – 29th May 2022), B: Phase 1 (22nd Dec. 2021 – 21st Jan. 2022), C: Phase 2 (22nd Jan. – 21st Feb. 2022), D: Phase 3 (22nd Feb. – 21st Mar. 2022), E: Phase 4 (22nd Mar. – 21st Apr. 2022), F: Phase 5 (22nd Apr. – 21st May. 2022), G: Dispersal Phase (22nd – 29th May 2022). Dark and thin lines in B–G represent home ranges calculated using 95% and 50% fixed kernel methods, respectively.

Supplementary Material

Table S1.

Table S1. Standard residuals in proportion of land use in each phase.

(A) OIT3067

	Dispersal	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
Building	-0.140	-3.520**	3.033**	-0.153	0.020	0.775
Site	-0.455	-2.101*	-4.510**	-0.244	3.000**	4.030**
Rivers and lakes	-0.211	2.243*	-3.025**	-0.297	3.042**	-2.045*
Forest	-0.449	0.221	3.540**	1.110	-3.184**	-1.677
RiceField	0.297	2.101*	2.181*	-1.596	-1.214	-1.425
Field	1.448	0.644	-1.604	0.097	-0.946	1.535

(B) YFU3161

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Dispasal
Building	-2.248*	-1.492	-0.173	-0.473	3.417**	0.303
Site	-1.017	-0.839	-1.036	-1.183	-1.200	9.555**
Rivers and lakes	-0.719	-0.593	-0.733	-0.836	-0.848	6.756**
Forest	2.107*	0.341	0.602	-0.381	-1.066	-2.237*
RiceField	-3.419**	-1.075	-2.165*	1.767	3.000**	1.582
Field	-2.559**	2.149*	0.842	0.719	-2.356*	3.215**

The positive values indicate that the observed value is larger than the expected one, and the negative values indicate the opposite.

*Cells that have a standard residual whose absolute value is larger than 1.96 was considered as significant ($P < 0.05$).

**Cells that have a standard residual whose absolute value is larger than 2.58 was considered as strongly significant ($P < 0.01$).