

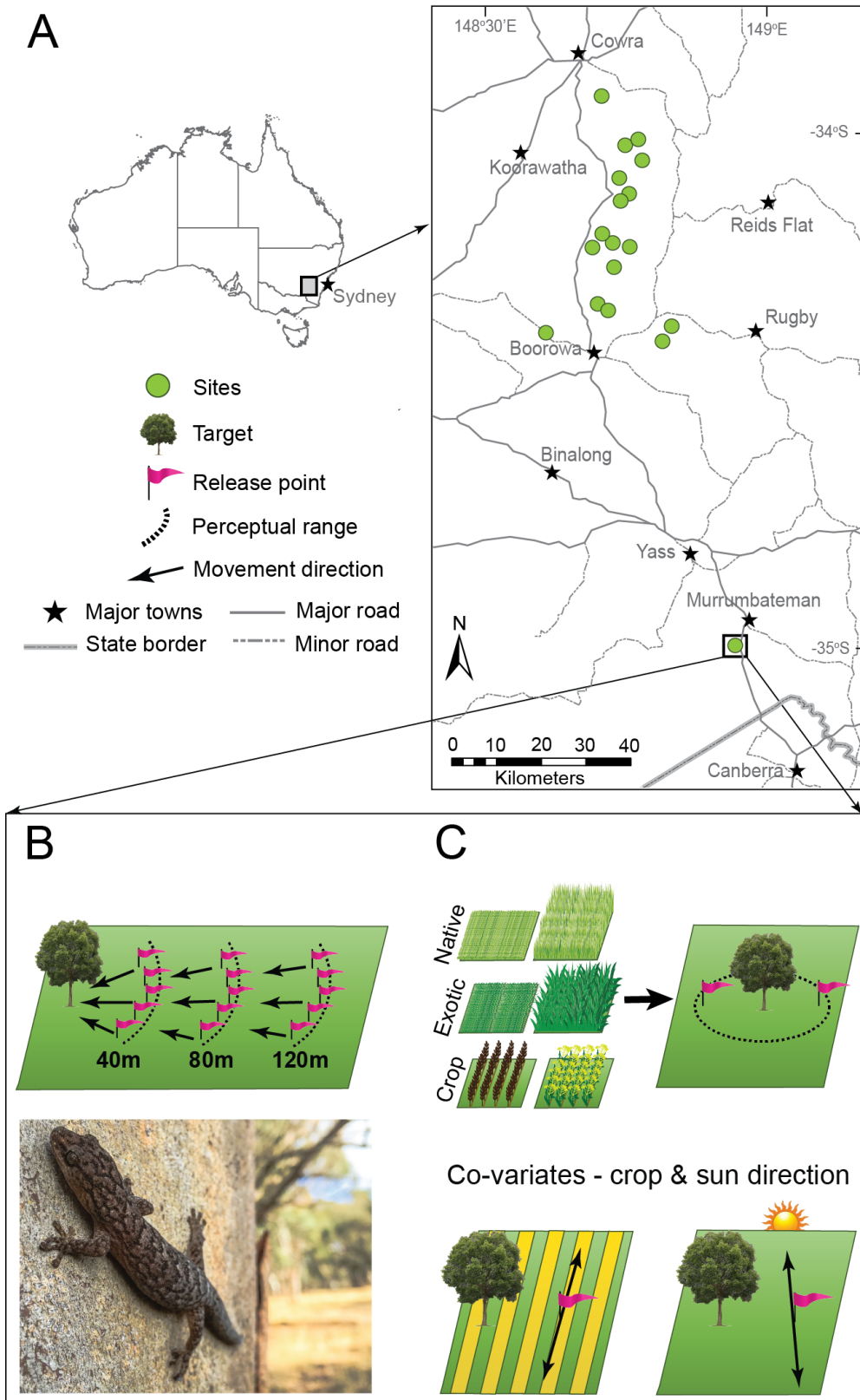
1 **FIGURE CAPTIONS**

2 **Fig. 1: Study area and experimental design of the movement study.** (A) Location of sites.
3 (B) Design used to identify the perceptual range for *C. marmoratus* (pictured). (C) Design
4 used to identify influence of type and structure of the 6 matrix treatments (short native,
5 long native, short exotic, long exotic, wheat crop, canola crop) on movement when released
6 within their perceptual range (Question 1) and to test co-variate cues (crop-sowing and sun
7 direction) influencing *C. marmoratus* movement (Question 2).

8 **Fig. 2: Movement directions for *C. marmoratus* released into matrix treatments within**
9 **perceived range of the target tree.** Angular orientations by matrix type and structure (a-f)
10 and axial (bi-directional) orientations relative to covariate crop sowing direction (g-h),
11 where: (a) short native, (b) long native, (c) short exotic, (d) long exotic pastures, (e, g) wheat
12 and (f, h) canola crops. Blue points around the circle represents the mean direction of an
13 individual path relative to the release point (center cross-hairs); the zero represents the tree
14 direction, the line represents the mean vector of each group of individuals and the circular
15 arc represents the 95% confidence interval limits of significant (black solid) or insignificant
16 (red dotted) orientations. *Christinus marmoratus* oriented towards the tree in short pasture
17 of either type as well as along crop plantation rows, but did not in long pasture or any crop
18 type.

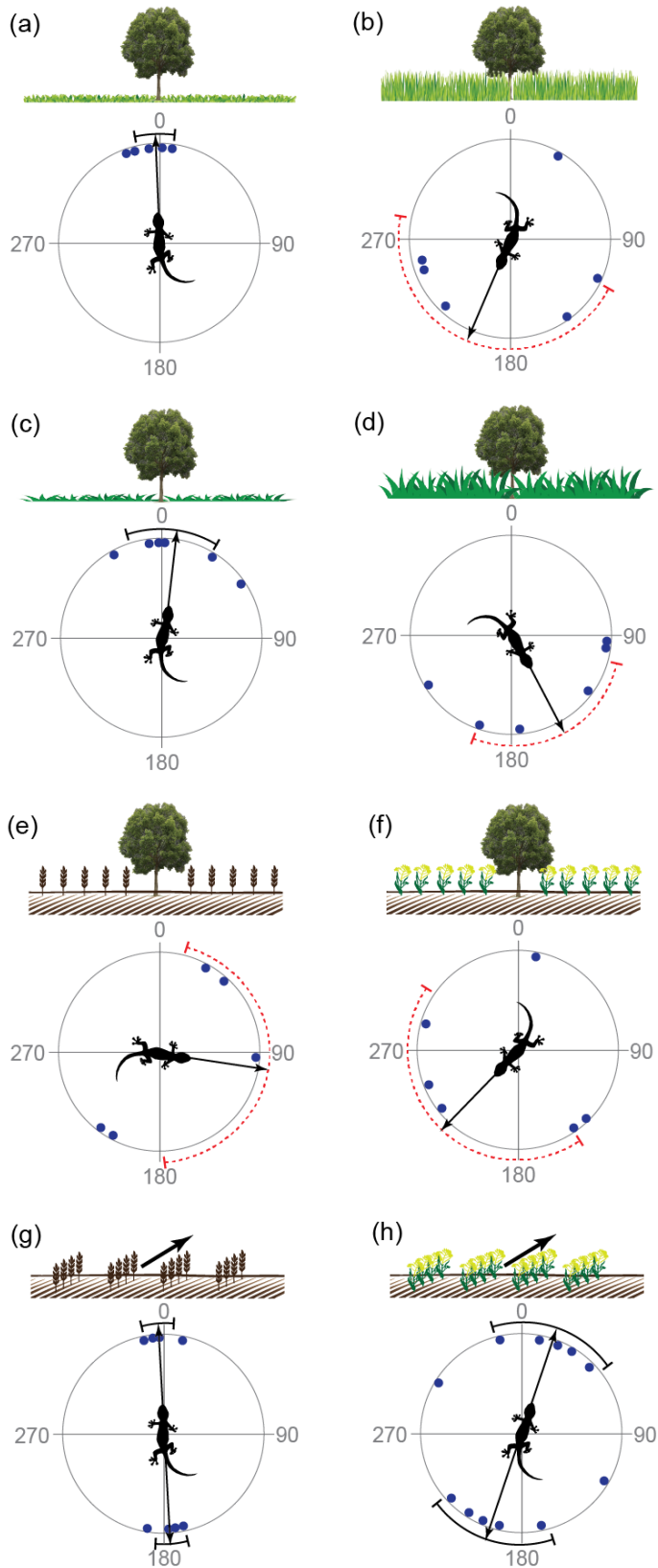
19 **Fig. 3: A representative example of the tracks observed within different matrix**
20 **environments.** (a) Short native pasture, (b) long native pasture, (c) short exotic pasture, (d)
21 long exotic pasture, (e) wheat, and (f) canola crop.

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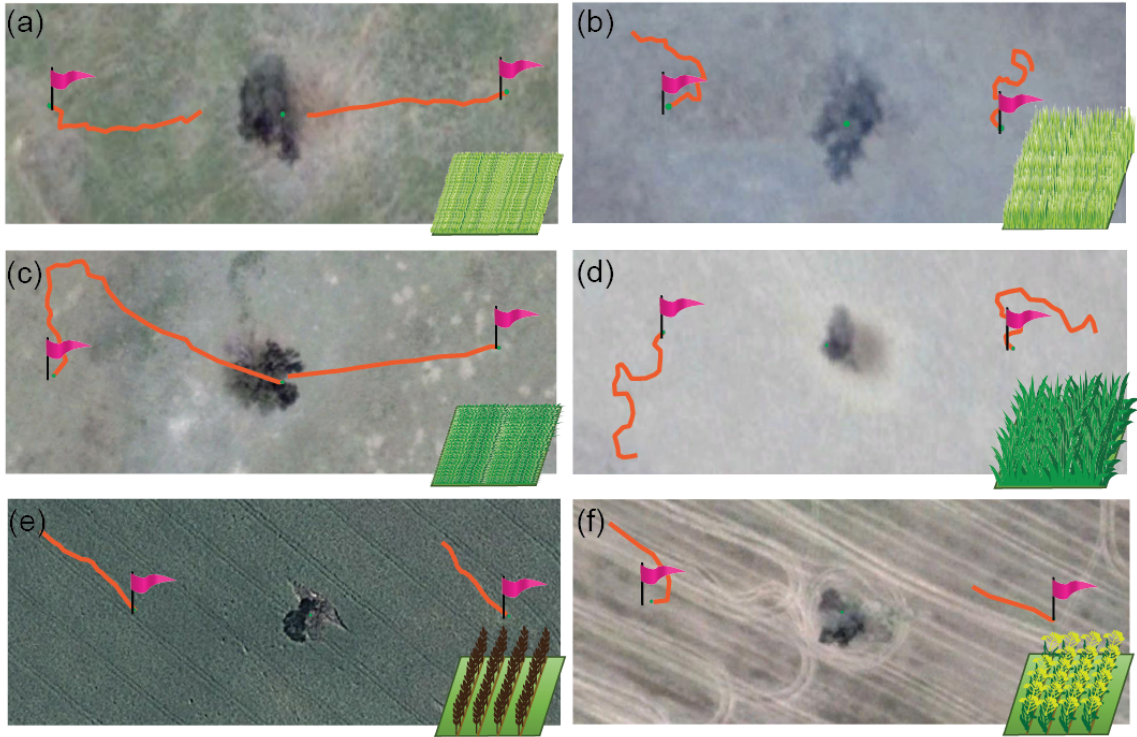
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25 Fig. 1.



26

27 Fig. 2.



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29 Fig. 3.