Simple field studies of many plants in South Africa show that if one observes bushes or individual flowers carefully it is possible to determine compass directions from plants and their flowers. To illustrate the principle an excellent subject is the family Proteaceae, where each “flower” head is in fact an inflorescence containing many flowers. Careful observation of an inflorescence will show that flowers open differentially with those on the warm side of the inflorescence opening first. The same happens to bushes covered with many simple flowers: the first to open are those on the warm side. Because most of South Africa is south of the Tropic of Capricorn, the pole-facing or north-facing side of a bush or inflorescence is the side that receives the most direct sunlight. Since the sun is hotter after midday the northwestern side is the hottest. However, the exact position of the plant in the landscape is also important, for example a bush may be shaded thus altering the “hot-spot”. But despite all these complications, flowering bushes or inflorescences do act as crude compasses. Remember this when you are next lost in the mountains or veld. Careful observation of your friendly flowering plants could be your salvation!

Leucospermum obellioides with flowers opening on the northern side of the inflorescence. The red dial on the compass points to the north.

The inflorescence or flowerhead of Leucospermum camocarpodendron with flowers opening on the side of the inflorescence that receives the most direct sunlight: the northern side.

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