

Horton et al 2011_Biol Let

Humpback whale seasonal migrations, spanning greater than 6500 km of open ocean, demonstrate remarkable navigational precision despite following spatially and temporally distinct migration routes. Satellite-monitored radio tag-derived humpback whale migration tracks in both the South Atlantic and South Pacific include constant course segments of greater than 200 km, each spanning several days of continuous movement. The whales studied here maintain these directed movements, often with better than 18 precision, despite the effects of variable seasurface currents. Such remarkable directional precision is difficult to explain by established models of directional orientation, suggesting that alternative compass mechanisms should be explored.