METHODS:
The collation of movement data on African vultures was coordinated by Corinne Kendall, Ralph Bijl, Rob Davies, Ara Monadjem with assistance from Lutter Rahman. Movement data from satellite / GPS tracking were provided for 228 tagged African vultures of eight species representing > 6 million kms traveled by African vultures. The tagged individuals comprised 69 Egyptian Vultures (2,450,833 km traveled), 53 White-backed Vultures (973,062 km), 36 Cape Vultures (1,195,490 km), 22 Ruppell’s Vultures (432,174 km), 20 Hooded Vultures (324,584 km), 16 Lappet-faced Vultures (255,300 km), 10 Griffon Vultures (493,926 km), and 2 White-headed Vultures (17,045 km). These data were received as georeferenced points (altitude and longitude in decimal degrees WGS84). We projected the points into Web Mercator Auxiliary Sphere projection to check against online background mapping from Bing in ArcGIS. Then all point datasets were processed into tracklogs using ArcGIS Tracking Analyst Tools extension: Make Tracking Layer and Add Tracking Intervals to Line. By comparing distance with duration of these lines we created a speed field and we were able to identify and filter out invalid travel lines for each bird (speeds > 100kph and abnormally straight flight lines over very large distances). After cleaning these data, we performed a line density analysis which for each 1 km2 grid cell summed all tracklines within a 20 km radius to reveal areas of intensive use. Data were still highly concentrated for long-duration recordings of birds not moving very far so we also took logarithms of the results to be able to clearly discern sporadic movements from concentration areas.

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