
Monitoring of a white stork population in Valladolid (Spain) in the vicinity of Cellular Phone Base Stations was carried out, with the objective of detecting possible effects. The total productivity, in the nests located within 200 meters of antennae, was 0.86 ± 0.16. For those located further than 300m, the result was practically doubled, with an average of 1.6 ± 0.14. Very significant differences among the total productivity were found (*U* = 240; *p* = 0.001, Mann-Whitney test). In partial productivity, an average of 1.44 ± 0.16 was obtained for the first group (within 200m of antennae) and of 1.65 ± 0.13 for the second (further than 300m of antennae), respectively. The difference between both groups of nests in this case were not statistically significant (*U* = 216; *P* = 0.26, Mann-Whitney Test U). Twelve nests (40%) located within 200m of antennae never had chicks, while only one (3.3%) located further than 300m had no chicks. The electric field intensity was higher on nests within 200m (2.36 ± 0.82V/m) than on nests further than 300m (0.53 ± 0.82V/m). Interesting behavioral observations of the white stork nesting sites located within 100m of one or several cell site antennae were carried out. These results are compatible with the possibility that microwaves are interfering with the reproduction of white storks and would corroborate the results of laboratory research by other authors.