

**Medical/biological Study (observational study)****Possible Effects of Electromagnetic Fields from Phone Masts on a Population of White Stork (*Ciconia ciconia*)**

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**Aim of study (according to author)**

To monitor of a white stork population in Valladolid (Spain) in the vicinity of cellular phone base stations with the objective of detecting possible effects.

**Background/further details:**

60 nests were monitored. Nests were separated in two categories: Nests located within 200 m of one or several antennae and nests located further than 300 m.

**Endpoint**

- effects on reproductive ability: breeding success

**Exposure**

General category: BTS/base station, GSM, microwaves

<b>Field characteristics</b>	<b>Parameters</b>
900 - 1800 MHz pulsed (PW) exposure duration: continuous during all phases of breeding	electric field strength: 2.36 V/m mean value (nests within 200 m) electric field strength: 0.53 V/m mean value (nests farther than 300 m)

Exposed system:

animal (species/strain): White stork (*Ciconia ciconia*)

whole body exposure

**Methods**

Endpoint/Measurement parameters/Methodology

- effects on reproductive ability: breeding success (total productivity/number of young by each couple, including nests with 0 chicks; partial productivity/number of young by each couple, excluding nests with 0 chicks) (telescope observation)

investigation on living organism

investigated organ system: reproductive system

time of investigation: during exposure

**Main outcome of study (according to author)**

The total productivity in the nests located within 200 meters of antennae, was  $0.86 \pm 0.16$  and the partial productivity was  $1.44 \pm 0.16$ . For those located further than 300 m, the total productivity was practically doubled, with an average of  $1.6 \pm 0.14$ . Partial productivity was  $1.65 \pm 0.13$ .

Twelve nests (40%) located within 200 m of antennae never had chicks, while only one located further than 300 m had no chicks.

(Study character: medical/biological study, observational study, full/main study)

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