

# Seagulls harbor antibiotic resistant bacteria

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Analysis of seagull droppings has revealed that one in ten carry 'superbug' bacteria, resistant to the last-resort antibiotic Vancomycin. Researchers writing in BioMed central's open access journal *Proteome Science* investigated 57 migratory seagull samples recovered from an island off the coast of Portugal.

Gilberto Igrejas from the University of Trás-os-Montes and Alto Douro, Portugal, worked with a team of researchers to carry out the study. He said, "We used a novel technique called proteomics to detect the maximum number of bacterial proteins which are thought to be connected in some, as yet unknown, way to [antibiotic resistance](#). Our comprehensive description of the proteins that we found may provide new targets for development of antimicrobial agents. This knowledge may also help to identify new biomarkers of antibiotic resistance and virulence factors".

The seagulls studied (*Larus cachinnans*) are migratory birds that can be found across Europe, including the South East of England. They are opportunistic marine feeders, and will readily eat the food sources provided by humans, especially garbage. It is thought that they may represent one way that antibiotic resistance genes can be spread from place to place. According to Igrejas, "Migrating birds that fly and travel long distance can act as transporters, or as reservoirs, of antibiotic resistant [bacteria](#) and may consequently have a significant epidemiological role in the dissemination of resistance".

**More information:** Proteomic characterization of vanA-containing

Enterococcus recovered from Seagulls at the Berlengas Nature Reserve,  
W Portugal

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Torres, Rui Vitorino, Pedro Domingues and Gilberto Igrejas *Proteome  
Science* (in press)

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