Audouin’s gull, a potential vehicle of an extended spectrum beta-lactamase producing Salmonella Agona - DTU Orbit (12/08/2019)

Audouin’s gull, a potential vehicle of an extended spectrum beta-lactamase producing Salmonella Agona
The genome of a multidrug-resistant Salmonella Agona isolated from Larus audouinii (Audouin’s gull) in Spain was examined. The isolate showed high levels of resistance to different antimicrobials, including third generation cephalosporins and fluoroquinolones, which is a public health concern as those being used to treat severe salmonellosis in humans. Whole genome sequencing revealed the strain being multilocus sequence type ST13, and eight resistance genes (aadA2, aadB, bla(CTX-M-9), bla(DHA-1), qnrA1, tetA, sul1 and dfrA16) belonging to seven antimicrobial classes were confirmed, as well as the presence of two plasmids. Migratory Audouin’s gulls have the ability to cover long distances during annual movements. Therefore, they have the potential to disseminate multidrug-resistant Salmonella and resistance genes in the environment and over great geographic distances, contributing to the global dissemination of resistance genes.

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