

Pôster (Painel)**Evento Submissão: XXI Congresso Latino Americano de Microbiologia - ALAM****AREA: Microbiologia Veterinária - Divisão H****SUB-AREA: Métodos de Diagnóstico microbiológico e sensibilidade aos antimicrobianos****Methicillin resistance of staphylococci from endangered seabird populations in the Fernando the Noronha Archipelago****Autores** Oliveira, C.J.B. ¹, Lopes Júnior, W.D. ¹, Leon, C.M.C.G. ¹, Sousa, F.G.C. ¹, Serafini, P.P. ², Ferreira, V.L. ³, Raso, T.F. ³**E-mail do primeiro autor:** celso_bruno_oliveira@yahoo.com.br**Instituição** ¹ UFPB, PB - Universidade Federal da Paraíba, PB (UFPB, Areia, PB), ² CEMAVE, ICMBio - Ministério do Meio Ambiente, ICMBio, CEMAE (CEMAVE, ICMBio, Santa Catarina), ³ FMVZ, USP - Faculdade de Medicina Veterinária e Zootecnia, USP (Av. Prof. Dr. Orlando Marques de Paiva, 87 - São Paulo)**Resumo:**

Studying antimicrobial resistance in wildlife represents a unique opportunity to understand the origin and spread of resistance determinants amongst microbial pathogens of veterinary and public health significance. The aim of this study was to investigate methicillin resistance in *Staphylococcus* spp. from non-migratory wildlife seabird populations living in the Fernando de Noronha Archipelago. Cloacal and oral swabs were collected from seabirds (n=18) from three different species: White-tailed tropic bird (*Phaethon lepturus*), Red-billed tropic bird (*Phaethon aethereus*) and Audubon's shearwater (*Puffinus lherminieri*). Samples were enriched in methicillin-supplemented BHI broth and streaked onto blood agar and mannitol-salt agar. *Staphylococci* isolates were confirmed biochemically and the minimum inhibitory concentration (MIC) was determined by microdilution test using a semi-automated system (Autoscan 4, Siemens). Out of the 18 sampled animals, 29 *staphylococci* organisms were isolated from 15 birds. Four *Staphylococci* species were detected: *S. sciuri* (11 birds); *S. intermedius* (3 birds), *S. saprophyticus* (1 bird), and *S. haemolyticus* (1 bird). Isolates were most resistant against ampicillin (100%), amoxicillin/clavulanate K (96.5%), ceftriaxone (96.5%) and oxacillin (86.2%). Pan susceptibility was observed for ampicillin/sulbactam, ciprofloxacin and nitrofurantoin, gentamicin, levofloxacin, linezolid, moxifloxacin, synergid, tetracycline, trimethoprim-sulfamethoxazole, and vancomycin. The detection of *staphylococci* isolates highly resistant against antimicrobials, especially beta-lactams, is noteworthy considering the investigated seabird species have virtually no contact with humans or domestic animals and, therefore, no antimicrobial selection pressures over those populations is expected. Those non-migratory birds live in an archipelago with strict conservations laws. Visitation of tourists or even habitants are not allowed in some of the islands where the birds were captured. In this sense, the present findings suggest that coagulase negative *staphylococci* could be natural reservoirs for methicillin resistance determinants. Further investigations about possible intrinsic mechanisms of resistance including *staphylococcal* cassette chromosome *mec* (SCC*mec*) characterization are required to test this hypothesis. Acknowledgements: Fapesp; CNPq; ICMBio; CEMAVE; Fire Department; PARNAMAR, APA and Administration of Fernando de Noronha.

Palavras-chaves: Coagulase negative *staphylococci*, intrinsic resistance, *mecA*, MRSA, wild birds**Agência Fomento:** CNPq, FAPESP