

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****Resistant patterns of *Enterobacter cloacae* and *Escherichia coli* from wildlife seabird populations in a Brazilian Archipelago****Autores** Oliveira, C.J.B.², Santos Filho, L.², Leon, C.M.C.G.², Lopes Júnior, W.D.², Sousa, F.G.C.², Pereira, J.A.², Santos, B.H.C.², Ferreira, V.L.¹, Serafini, P.P.³, Raso, T.F.¹**E-mail do primeiro autor:** celso_bruno_oliveira@yahoo.com.br**Instituição** ¹ FMVZ - USP - Faculdade de Medicina Veterinária e Zootecnia, USP (Av. Dr. Orlando Marques de Paiva, 87- São Paulo, 05508-270), ²UFPB-PB - Federal University of Paraíba, Areia, Paraíba (Universidade Federal da Paraíba, Areia, PB, 58397-000), ³Cemave - ICMBio - Ministério do Meio Ambiente, Cemave - ICMBio (CEMAVE, ICMBio, Santa Catarina)**Resumo:**

The aim of the present study was to investigate antimicrobial resistance traits in commensal *Enterobacter cloacae* and *Escherichia coli* from non-migratory wildlife seabird populations in the Fernando de Noronha Archipelago. *Escherichia coli* and *Enterobacter cloacae* were cultured from three seabirds species: White-tailed tropic bird (*Phaethon lepturus*), Red-billed tropic bird (*Phaethon aethereus*) and Audubon's shearwater (*Puffinus lherminieri*) and the minimum inhibitory concentration (MIC) was determined by microdilution test using a semi-automated system (Autoscan4, Siemens). *Enterobacter cloacae* isolates (n=9) were most resistant against cephalotin (100%), ampicillin (88%), ampicillin/sulbactam (77%), cefuroxim (66,6%), cefotaxime/clavulanate K (66,6%), aztreonam (44,4%) and nitrofurantoin (44%), ceftriaxone (22%), and piperacillin alone or associated with tazobactam (22%). Pan-susceptibility was observed for amikacin, ciprofloxacin, ertapenem, imipenem, gentamicin, meropenem, levofloxacin, trimethoprim-sulfamethoxazole, tetracycline, tobramycin, cefotetan, cefepime, cefotaxime, ceftazidime and tigecycline. Considering the *E. coli* isolates (n=10), all of them were resistant against cephalotin. Pan-susceptibility was observed against all other tested drugs. Although commensal *Enterobacter cloacae* isolates showed a higher antimicrobial resistance rate compared to *Escherichia coli* organisms from the investigated wildlife seabird populations, most of the observed resistance was associated with beta-lactams only. Factors linked to the high resistance of *Enterobacter cloacae*, especially possible intrinsic resistance against extended spectrum beta-lactams, such as piperacillin, must be investigated. This is important considering the seabird populations sampled in the present study are kept apart from humans and there are no reports of direct contact between these birds and domestic animals in the archipelago. Moreover, touristic visitation or even habitants are not allowed in some of the islands where the birds were captured. Therefore, further investigations towards the understanding of the mechanisms associated with the antimicrobial resistance in commensal *Enterobacter cloacae* species in the absence of antibiotic exposure could provide important information on the evolving and spreading of resistance amongst human and animal pathogens. Acknowledgements: Fapesp; CNPq; ICMBio; CEMAVE; Fire Department; PARNAMAR, APA and Administration of Fernando de Noronha.

Palavras-chaves: antimicrobial resistance, *Enterobacter cloacae*, *Escherichia coli*, wildlife birds**Agência Fomento:** CNPq, FAPESP