Fatty acid profiles in alligator (*Caiman yacare*) meat from animals raised in the wild or in captivity

J. Vicente-Neto[1,2], M.T. Santana[2], M.C. Bressan[2,3], P.B. Faria[2], E.C. Rodrigues[2], M. Kloster[1], S.B.P. Ferrão[2], P.L. Andrade[2], J.O. Vieira[2], L.T. Gama[3]

[1]*Instituto Federal de Educação, Ciência e Tecnologia de Mato Grosso - Cáceres –Brazil.*

[2] *Universidade Federal de Lavras, C.p.37, 37200-000, Lavras – Minas Gerais – Brazil.*

[3]*Instituto Nacional de Recursos Biológicos, Fonte Boa, Santarém, 2005-048, Portugal* mcbressan1@hotmail.com

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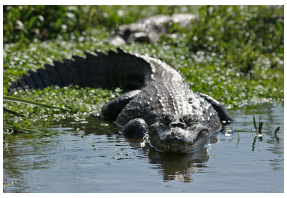
Session_09

INTRODUCTION

- The economically sustainable exploitation of wild animals on authorized farms is a tool for biodiversity conservation
- The yacare inhabits Bolivia, Paraguay, northeast Argentina, southwest Brazil and northwest Uruguay
- The demand for yacare meat is increasing, and a promising export market exists for exotic meats
- Yacare meat has good acceptability, but its lipid profile has not been studied

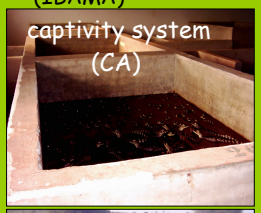
OBJECTIVES

- Determine the fatty acid profile of the tail and neck cut of yacare of zoocriadouro or wild life



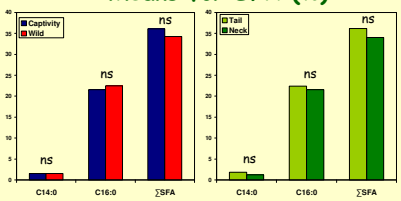
MATERIAL & METHODS

- 12 alligators raised in the wild (n=6) or in captivity (n=6)
- All experimental methods were approved by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA)
- Samples were collected (24 h) in tail and neck cuts
- Fatty acids (FA) were extracted, saponified and the methyl esters were determined by gas chromatography (capillary column 30 m) and identified using standard PUFA 2 (Sigma-Aldrich).



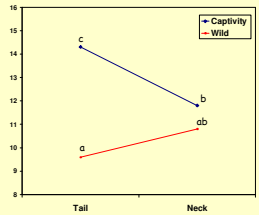
RESULTS

Means for SFA (%)



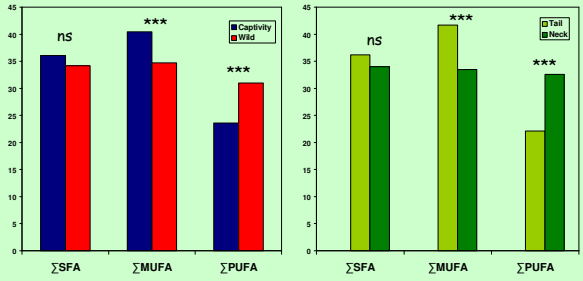
The 14:0 and 16:0 (atherogenic SFA) were **similar** between treatments.

Means for C18:0 by system-cut



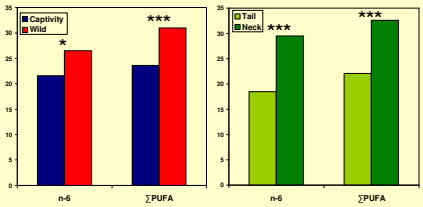
Yacare from captivity had a higher amount of **C18:0** in the tail, possibly due to higher ability for elongation.

Sums of Fatty Acids (%)



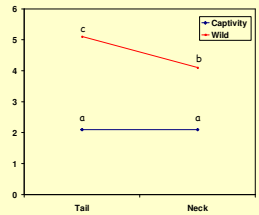
Higher amouts of **ΣPUFA** in wild animals and neck cut

Means for PUFA (%)



High amount of *n*-6 and PUFA in wild animals and neck cut

Means for *n*-3 by system-cut



High amount of *n*-3 in wild yacare, possibly due to higher intake of *n*-3 in diets in wild conditions

CONCLUSIONS

Meat from alligators raised in the wild is richer in *n*-3 FA and total PUFA.

Regardless of the raising system, the neck cut is healthier for consumers

UFLA Universidade Federal de Lavras

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FAPEMIG Fundação de Amparo à Pesquisa do Estado de Minas Gerais

CNPq Conselho Nacional de Desenvolvimento Científico e Tecnológico