

# Sargo Amarelo, a traditionally recognized hybrid between two species of Brazilian reef fishes

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Hybridization has been described in several families of coral reef fishes (Montanari et al. 2012), including grunts (genus *Haemulon*) (Rocha et al. 2008). Here, we report the presence of a hybrid between two species of *Anisotremus* grunts, the porkfish, *A. virginicus*, and the black margate, *A. surinamensis*, from Cabo Frio, Rio de Janeiro (23°S, 42°W). Interestingly, *A. virginicus* and *A. surinamensis* are not sister species (Bernardi et al. 2008), but both are common in that region.

On 1 December 2012, while collecting fish tissues for molecular studies at a local spearfishing tournament, we observed one individual that showed typical morphological and coloration characteristics of both *A. virginicus* (gold lines along the body), and *A. surinamensis* (large bronze

body). DNA sequencing of that individual following published protocols (Tavera et al. 2012) showed that the mitochondrial cytochrome oxidase 1 (CO1) was identical to *A. virginicus*, and the nuclear RAG2 gene displayed heterozygous peaks at all 6 fixed nucleotide positions that differ between *A. virginicus* and *A. surinamensis* (Fig. 1) (GenBank accession numbers KC844035–KC844036). These results are consistent with an F1 cross between these two species, with *A. virginicus* as a maternal lineage and the presence of *A. surinamensis* in its paternal ancestry. Such hybrids are not uncommon in the subtropical reefs of the southeastern region of Brazil, where fishermen recognize the fish as a hybrid by its local name Sargo Amarelo ("yellow grunt").

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**Fig. 1** Sargo Amarelo, a hybrid of *Anisotremus virginicus* × *A. surinamensis* from southeastern Brazil. *Top right* the variable nucleotide positions at the RAG 2 locus of *A. surinamensis* (ASU, *top*), *A. virginicus* (AVI, *bottom*), and the heterozygous positions of the hybrid Sargo Amarelo (“*amarelo*”, *middle*)



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