



Cytogenetic studies in Brazilian marine Sciaenidae and Sparidae fishes (Perciformes)

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ABSTRACT. Fishes from the families Sciaenidae and Sparidae, the former comprising coastal species associated with shallow waters on the continental shelf and the latter composed of typically marine species, are of significant economic value. Karyotypic data are available for about 20% of the total number of species in these groups. In the present study, cytogenetic analyses were carried out in three Sciaenidae species, *Menticirrhus americanus*, *Ophioscion punctatissimus* and *Pareques acuminatus*, as well as in the sparid fish, *Archosargus probatocephalus*, using conventional staining (Giemsa) and Ag-nucleolar organizer regions (NORs) and C-banding techniques. The diploid values (2n) and number of chromosome arms were equal to 48 in all species analyzed. NORs were located at pericentromeric positions, equivalent to large heterochromatic blocks, in *M. americanus* (1st pair), *O. punctatissimus* (10th pair), *P. acuminatus* (2nd pair), and *A. probatocephalus* (3rd pair). Heterochromatin was detected at the centromeric position in most chromosome pairs, being more conspicuous among Scianidae members. The remarkable karyotypic conservativeness detected in these species is similar to that observed in other perciform groups previously studied, regarding both the number of acrocentric chromosomes and NOR location. However, unusual events of heterochromatinization seem to have taken place along the karyotypic evolution of members of the family Sciaenidae. For the family Sparidae, distinct cytotypes between samples of Northeast Brazil and those previously analyzed on the southeastern coast were identified, suggesting that putative biogeographic barriers

could be present throughout both regions on South Atlantic coast.

Key words: Fish cytogenetics; Sciaenidae; Sparidae;
Chromosome stasis