

## First Report of Chromosome Analysis of Two Siganid Fishes (Perciformes, Siganidae)

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### ABSTRACT

*This is the first report of chromosome analysis in the white-spotted rabbitfish (*Siganus canalicutus*) and the orange-spotted spinefoot (*S. gattatus*) from the Andaman Sea, Thailand. Kidney cell samples were taken from three male and three female fishes. The mitotic chromosome preparation was created through direct engineering on kidney cells. Conventional and Ag-NOR staining techniques were applied so as to stain the chromosomes. The results showed that the diploid chromosome number of both *S. canalicutus* and *S. gattatus* was  $2n=48$ , that the fundamental number (NF) was 50 in *S. canalicutus* and 54 in *S. gattatus*. Among the chromosomes present, both acrocentric and telocentric ones were identified as 2- 46 and 6- 42 respectively. No heteromorphic chromosomes were observed which could be considered as sex-chromosomes. After Ag- NORs banding technique, a single pair of nucleolar organiser regions/ NORs was observed on the short arm telomeric region of large acrocentric chromosome Pair 1 in both species. The karyotype formulas could be deduced as:*

$$S. canalicutus \ 2n \ (48) = L^a_2 + L^t_{22} + M^t_{16} + S^t_8$$

$$S. gattatus \ 2n \ (48) = L^a_4 + L^t_{18} + M^a_2 + M^t_{22} + S^t_2$$

**Keywords:** *Siganus canalicutus*, *Siganus gattatus*, Karyotype, Chromosome