UNIVERSIDADE FEDERAL DE VIÇOSA

Karyotype of Leporinus steindachneri Eigenmann 1907 (Characiformes: Anostomidae)

WALKER, N.J.; SILVA, P.C.; TRAVENZOLI, N.M.; DERGAM, J.A.
Molecular Systematics Laboratory, “Beagle”, Animal Biology Department, Federal University of Viçosa (UFV), CEP 36571-000

INTRODUCTION

The genus *Leporinus* contains the highest number of species in the family Anostomidae, but is also one of the least studied of this family. Due to its morphological characteristics such as a body short in height and uncompressed, anal fins with less than 10 branched rays and a non-keeled posterior ventral region of the pelvic fins, this genus is considered a natural group of wide distribution with 87 valid species. *Leporinus steindachneri*, a species belonging to the genus Leporinus, was described in 1907 by Eigenmann, being in the type locality Arassuahy, tributary Rio Jequitinhonha in Minas Gerais, Brazil. There are currently no published scientific works about any characteristic of *L. steindachneri*, and the phylogenetic relationship of this species within its genus has not been well studied.

METHODOLOGY

Karyotypical studies are excellent tools to better understand the true evolutionary history of a group, especially when combined with other methods such as morphology, biogeography, molecular genetics and behavior. In this work, karyotypic studies were performed on two *L. steindachneri* specimens, one male and one female. Both specimens were captured in Juiz de Fora Lake, in the Rio Doce basin, in Pinga D’agua municipality in Minas Gerais state, Brazil.

RESULTS AND DISCUSSION

The samples presented a diploid number equal to 2n = 54 chromosomes, with the formula 11m + 14sm + 2st (figure 1). These results indicate that there is a conservation of the number of chromosomes in the genus *Leporinus*. The presence of subtelocentric chromosomes found in *L. steindachneri* differs from karyotypes described in other species belonging to Leporinus, strongly indicating a lack of stability in the chromosomal formula of this genus.

CONCLUSIONS

This is a preliminary study, being necessary more studies including other techniques such as C-banding, NOR and assays using the FISH approach.

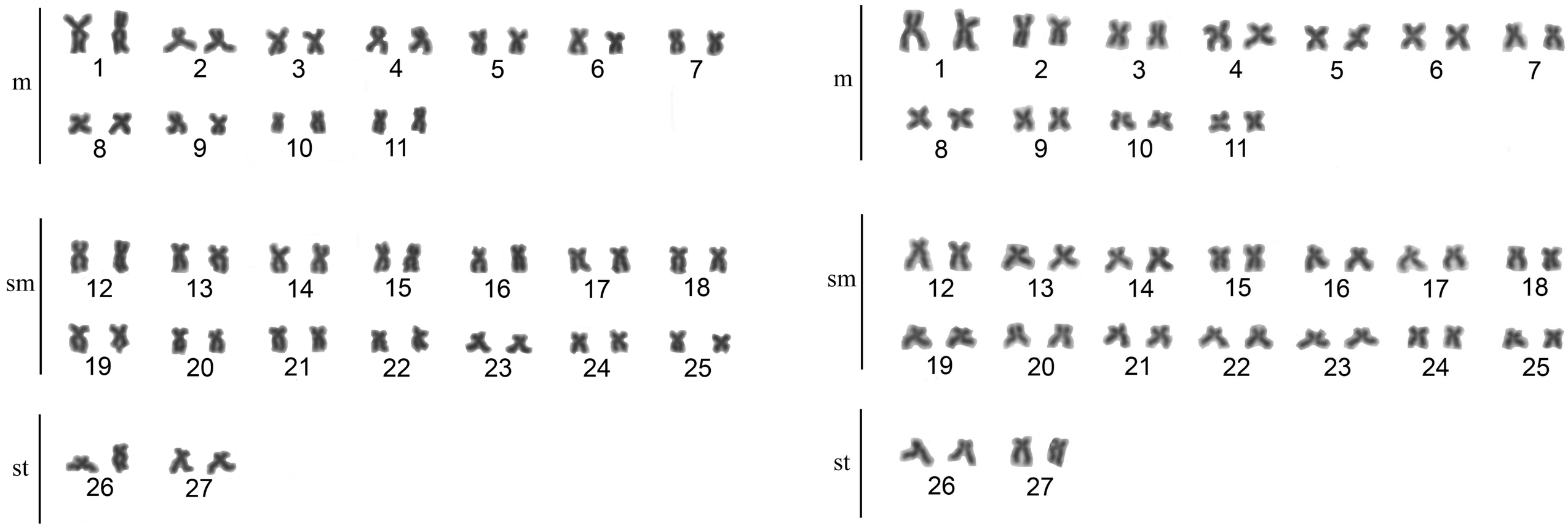

Figure1: Karyotypes of male (left) and female (right) *L. Steindachneri*, using Giemsa technique.