On the karyotype of *Cyprinion tenuiradius* Heckel, 1849 (Pisces: Cyprinidae) from the Southwest of Iran

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Abstract. The karyotype of an endemic Iranian fish, *Cyprinion tenuiradius* Heckel, 1849, has been investigated by examining metaphase chromosome spreads obtained from gill epithelial and kidney cells. The diploid chromosome number is 2n=50. The karyotypes consist of 13 metacentric, 5 submetacentric and 7 subtelocentric chromosome pairs. The arm number is NF=86. Sex chromosomes are cytologically indistinguishable in this species. The chromosome number in this fish is the same as in many other cyprinid fishes, confirming the conservative character of this feature in the family.

Kurzfassung. Der Karyotyp von *Cyprinion tenuiradius* Heckel, 1849, einer im Iran endemischen Fischart, wurde anhand von Metaphase-Chromosomen untersucht, die aus den Epithelzellen der Kiemen sowie aus der Niere gewonnen wurden. Die Zahl der diploiden Chromosomen beträgt 2n=50. Der Karyotyp besteht aus 13 metazentrischen, 5 submetazentrischen und 7 subtelozentrischen Chromosomenpaaren. Die Anzahl der Arme beträgt NF=86. Geschlechtschromosomen sind bei dieser Art zytologisch nicht unterscheidbar. Die Chromosomenzahl ist identisch mit der bei vielen anderen cypriniden Fischen und bestätigt so den konservativen Charakter dieses Merkmals.

Key words. *Cyprinion tenuiradius,* karyotype, chromosome, idiogram, Iran, Middle East.

Introduction

The genus *Cyprinion* is represented in Iran by five named species (COAD 1995): *Cyprinion macrostomum* Heckel, 1843, *C. milesi* (Day, 1880), *C. kais* Heckel, 1843, *C. tenuiradius* Heckel, 1849, and *C. watsoni* (Day, 1872), but their taxonomic positions have yet to be fully resolved. Two of them, *C. tenuiradius* and *C. watsoni*, occur in Fars Province, southwestern Iran. *C. tenuiradius* is confined to the Gulf and Lake Maharlu basins (BIANCO & BANARESCU 1982). Both species have been studied mainly on the basis of their morphology, and they are generally poorly known. The application of non-morphological methods such as cytogenetic studies provides a complementary data resource for a more accurate and precise assessment of the taxonomic position of these fishes. The application of such studies has received considerable attention in recent years (GALETTI et al. 2000, OZOUF-COSTAZ & FORESTI 1992). About 1,300 freshwater and saltwater fish species have been cytogenetically reviewed (DEMIROK & ÜNLÜ 2001), which is less than 5% of the 27,000 described fish species. The increasing importance of chromosomal studies on fish and the lack of karyological information on Iranian fish have encouraged us to make the first cytogenetic analysis of *C. tenuiradius* from southwestern Iran.

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