

## A CHECKLIST OF CHROMOSOME NUMBERS OF SOUTH ASIAN REPTILES

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**ABSTRACT.-** The chromosome numbers of 119 species of reptiles that occur in the south Asian region are listed. The inventory includes three crocodiles, 13 turtles, 54 lizards and 49 snakes. This represents about a fourth of the known species of the subcontinent. Cytogenetic information in many cases offers clues to the detection of cryptic species overlooked by morphological taxonomists.

**KEY WORDS.-** Chromosome numbers, karyotype, reptiles, taxonomy, south Asia.

### INTRODUCTION

The chromosome numbers of 119 species of reptiles known to occur in southern Asia, are presented. The inventory includes three crocodiles, 13 turtles, 54 lizards and 49 snakes. Several of these derive from studies conducted on extralimital populations. In some of these and other cases, genetic differences provide clues to the existence of biological and evolutionary cryptic species that have been overlooked by morphological taxonomy. Examples of widespread nominal species with possible karyological variation include: *Bronchocela cristatella*, whose diploid number (2n) has been given as 48 by Moody (1980) in Olmo (1986; see below) and 34 by Solleder and Schmid (1988) and *Xenochrophis piscator*, whose 2n karyotypic count is 40, and 42, according to Sharma and Nakhasi (1980) as well as 42 according to DeSmet (1978).

In many such instances, because the provenance of the specimen karyologically investigated was not mentioned, it is unclear whether these reflect karyotypic differentiation among different populations, or actually show chromosome polymorphism within single populations.

In summary, about three-fourths of the reptile species occurring in the Indian region lack karyological data. The situation is similar to that

of the region's amphibian fauna, for which 85 per cent of taxa lack similar genetic database (Prakash, 1997).

### CROCODYLIA CROCODYLIDAE

#### *Crocodylus palustris* Lesson, 1831:

Karyotype: 2n = 30 (Cohen and Gans, 1970; Prakash and Sinha, 1995; Singh et al., 1968: from India).

Remarks: Analyses of mitochondrial and ribosomal DNA of *Crocodylus kimbula* by Densmore and White (1991) support the argument for a specific status for the Sri Lankan population, which is occasionally regarded as a subspecies of *C. palustris*.

#### *Crocodylus porosus* Schneider, 1801:

Karyotype: 2n = 34 (Chavananikul et al., 1994: from Thailand; Cohen and Gans, 1970; Gorman, 1973).

### GAVIALIIDAE

#### *Gavialis gangeticus* (Gmelin, 1789):

Karyotype: 2n = 32 (Cohen and Gans, 1970; Prakash and Sinha, 1995; Singh et al., 1968: from India).