

## Abstract

The colubrids genus *Platyceps* has been included in several phylogenetic studies of the family Colubridae, however the phylogenetic relationships between its species still remain unresolved. The major problem is an insufficient coverage of species in genetic analyses. In this study, I analyse 90 specimens of fourteen *Platyceps* species to shed more light on the evolutionary history of the genus. Some of the species have never been included in such a genetic analysis before. The phylogeny is based on a combination of four mitochondrial (12S rRNA, cytb, COI, ND4) and two nuclear (cmos, NT3) markers. My results confirm the genus as monophyletic and divide it into three major clades – the Indian clade (*P. bholanathi*, *P. gracilis*, *P. ladacensis*, *P. ventromaculatus* a *P. sp\_central\_asia*), the West Asian clade (*P. karelini*, *P. rogersi*, *P. saharicus* a *P. rhodorachis*) and the Dispersive clade (*P. plinii*, *P. josephi*, *P. florulentus*, *P. taylori*, *P. najadum*, *P. collaris*, *P. elegantissimus*, *P. manseri*, *P. sinai*, *P. variabilis*). According to the results, the phylogenetic positions of several species differ considerably compared to previously published studies. The species *Platyceps thomasi* appears to be just a colour morph variation of *Platyceps variabilis*. *Platyceps variabilis manseri*, on the other hand, emerges as a distinct species. *Platyceps atayevi* and *Platyceps schmidtleri* were recently promoted to species instead of subspecies of *Platyceps najadum*. My results do not support this statement. Last such change applies to *Platyceps insulanus*, this species was included in phylogenetic analyse for the first time and is genetically identical to *Platyceps rhodorachis*. The status and distribution of *Platyceps rhodorachis* differs substantially from what we used to think. According to my results, only specimens from southern Iran, eastern Turkey, Astola Island, United Arab Emirates, Oman, Yemen, Djibouti and Somaliland belong to this species. Specimens from northern Iran, Turkmenistan, Uzbekistan, Kyrgyzstan and Afghanistan belong to another species which I was not able to identify only by morphological features. My results also show that there are just two species in Pakistan instead of five nowadays recognized. These species were determined as *Platyceps ventromaculatus* and *Platyceps ladacensis* according to their morphological features. The time of the *Platyceps* crown divergence is estimated to 19 million years ago, but the geographical origin of the genus could not be determined. Species from the West Asian clade originated in Asia from where they dispersed through the Arabian Peninsula to Africa. The origin of the species *P. najadum*, *P. collaris*, *P. elegantissimus*, *P. manseri*, *P. sinai* and *P.*

*variabilis* lies in the Levant, from where they spread to Europe in the west and the Arabian Peninsula in the southeast.

**Key words:** *Platyceps*, phylogeny, biogeography, snakes