

LIST OF ODONATA OF THE CHANDIGARH UNION TERRITORY AND OF THE CHANDIGARH SHIWALIK OUTCROPS, INDIA

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Abstract — 57 spp. are listed, and the bibliography on the regional fauna is presented. *Megaleses major* (Sel.), *Onychogomphus saundersi duaricus* (F.) and *Anax immaculifrons* Ramb. were not reported earlier from Chandigarh.

Introduction

Chandigarh, a Union Territory as well as a joint capital of Punjab and Haryana, presents an abundant variety of dragonfly habitats. The recent modernization of the city has not caused any apparent threat to the dragonfly breeding sites. Consequently, dragonflies thrive even within the urban limits quite prodigiously.

Earlier the Odonata of Chandigarh, and/or Punjab-Haryana in general, have been explored by FRASER (1933-1936), KALLA & NATH (1971), GANDHI (1973), PRASAD & KUMAR (1978a, 1978b), YADAV (1979), HAN-DA & BATRA (1980), HAN-DA & KOCH-HAR (1980, 1981), and by KUMAR & PRASAD (1981). Most species were reported

from places within the urban area; there are hardly any records from the outcrops of the densely forested Shiwalik Hills, some 35 km from the heart of the city of Chandigarh.

The author made dragonfly collections (April/May, 1975; July/August, 1978) at Rose Garden (R), Rock Garden or Sukhna Lake (S), Pinjore Garden or Yadvindra Garden (P), Botanic Garden of the Punjab University (B) and in the Shiwalik outcrops near Kalka (O). Excepting Kalka, all other localities are within the city territory of Chandigarh. The present list is probably the first inventory of the odonate fauna of the outer Chandigarh Shiwaliks.

Altogether 57 species are listed here, three of which (asterisked) are new for the fauna of Chandigarh. Collecting data, however, could be presented only for those species which were collected by the author himself, and which are preserved in his collection. Species whose collection data are not stated in this list, are preserved in the collections of the Zoology Department, Chandigarh University. It may be

stressed that though the list seems pretty large, it is quite certain that more thorough surveys will bring up more species, particularly so in the Shiwalik Hills.

List of species

Platycnemididae: *Copera marginipes* (Ramb.) (1 ♂, 1 ♀; 8-IV-1975; O).

Protoneuridae: *Caconeura autumnalis* Fraser (1 ♂, 1 ♀; 8-IV-1975; O).

Coenagrionidae: *Pseudagrion rubriceps* Sel. (2 ♂, 15-IV-1975; R; — 2 ♂, 1 ♀, 3-VIII-1978; P); — *P. decorum* (Ramb.) (2 ♂, 2 ♀, 8-IV-1975; S); — *P. bengalense* Laidl. (1 ♂, 8-IV-1975; S); — *P. spencei* Fraser (1 ♂, 9-IV-1975; S); — *Ceragrion coromandelianum* (Fabr.) (2 ♂, 1 ♀, 10-IV-1975; B; — 3 ♂, 1 ♀, 28-VII-1978; S); — *C. cerinorubellum* (Br.) (1 ♂, 10-IV-1975; B); — *Enallagma parvum* Sel. (1 ♂, 8-IV-1975; P); — *Agriocnemis pygmaea* (Ramb.) (5 ♂, 25-VII-1978; S); — *Ischnura forcipata* Morton (1 ♂, 1 ♀, 10-IV-1975; B); — *I. delicata* (Hag.) (5 ♂, 11-IV-1975; B; — 2 ♂, 2-V-1975; R); — *I. senegalensis* (Ramb.) (1 ♂, 1-V-1975; S); — *I. inarmata* Calv.; — *Rhodischnura nursei* (Morton) (1 ♂, 2 ♀, 10-IV-1974; S).

Lestidae: *Indolestes cyanea* (Sel.); — *Lestes umbrina* (Sel.); — *L. viridula* Ramb.; — *L. malabarica* Fraser.

Synlestidae: *Megalestes major* Sel.* (1 ♂, 5-V-1975; O).

Euphaeidae: *Anisopleura lestoides* Sel. (3 ♂, 15-IV-1975; O).

Chlorocyphidae: *Rhinocypha unimaculata* Sel. (5 ♂, 1 ♀, 25-VII-1978; O); — *R. trifasciata* Sel. (3 ♂, 1 ♀, 25-VII-1978; O).

Calopterygidae: *Neurobasis c. chinensis* (L.) (1 ♂, 25-VII-1978; O).

Gomphidae: *Ictinogomphus rapax* (Ramb.); — *Mesogomphus l. lineatus* (Sel.) (1 ♂, 23-VII-1978; O); — *Onychogomphus saundersi duaricus* Fraser* (2 ♂, 25-VII-1978; O).

Aeshnidae: *Anax parthenope* (Sel.); — *A. immaculifrons* Ramb.* (1 ♂, 4-VIII-1978; O); — *Hemianax ephippiger* (Burm.).

Libellulidae: *Brachydiplax sobrina* (Ramb.) (1 ♂, 14-IV-1975; S); — *Acisoma v. panorpoides* Ramb. (1 ♂, 14-IV-1975; S); — *Orithetrum pruinatum neglectum* (Ramb.) (2 ♂, 1 ♀, 12-IV-1975; R); — *O. sabina* (Dru.) (1 ♂, 12-IV-1975; R); — *O. t. triangulare* (Sel.) (2 ♂,

12-IV-1975; R); — *O. chrysostigma luzonicum* (Br.); — *O. japonicum internum* McLachl.; — *O. glaucum* (Br.) (4 ♂, 14-IV-1975; P); — *O. b. brunneum* (Fonsc.) (1 ♂, 14-IV-1975; P); — *O. taeniolum* (Schneider) (2 ♂, 14-IV-1975; P; — 1 ♂, 28-VII-1978; O); — *Sympetrum commixtum* (Sel.) (4 ♂, 5-IV-1975; O); — *Diplacodes lefebvrei* (Ramb.); — *D. nebulosa* (Fabr.) (2 ♂, 5-V-1975; R); — *D. trivialis* (Ramb.) (3 ♂, 5-V-1975; R); — *Palpopleura s. sexmaculata* (Fabr.) (2 ♂, 4-VIII-1978; S); — *Rhyothemis v. variegata* (L.); — *Tritthemis festiva* (Fabr.) (6 ♂, 4-IV-1975; S); — *T. aurora* (Burm.) (2 ♂, 10-IV-1975; R); — *T. pallidinervis* (Kirby) (2 ♂, 4-IV-1975; S); — *Tramea virginia* (Ramb.); — *Bradinyopyga geminata* (Ramb.) (6 ♂, 11-IV-1975; B); — *Neurothemis fluctuans* (Fabr.); — *Crocothemis servilia* (Dru.) (4 ♂, 2 ♀, 10-IV-1975; B); — *C. erythraea* (Brullé); — *Brachythemis contaminata* (Fabr.) (1 ♂, 4-V-1975; S); — *Lathrecista a. asiatica* (Fabr.); — *Pantala flavescens* (Fabr.) (1 ♂, 10-VII-1978; B).

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