

## CONTRIBUTION TO THE KNOWLEDGE OF THE ODONATE FAUNA OF TRANSYLVANIA, ROMANIA

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**Abstract** – 30 spp., collected in 1997, 1998 and 2001 from 17 localities in northern- (Szaplonca R. catchment) and eastern Transylvania (Székely land), are brought on record.

### Introduction

The results of my dragonfly collecting, carried out in Transylvania, Romania in 1997, 1998 and 2001, are summarized. The odonate fauna was studied in the catchment area of the Szaplonca (Săpînța) stream (a tributary of the river Tisza in northern Transylvania), in the framework of a project on its ecological conditions. Some records, mostly from Székely land (eastern Transylvania), are also mentioned.

Not much information is available on the Odonata of Transylvania. In an earlier paper (HUBER, 2000) I listed 26 species from the catchment area of the Romanian section of the Szamos (Someș) river. UJHELYI (1957) listed 35 species

from 32 Transylvanian localities, and CIRDEI & BULIMAR (1965) mentioned 58 species to occur in this region.

### Material and methods

Adults and larvae were collected and preserved in 70% ethyl alcohol, exuviae were stored separately. For identification, the keys and descriptions of ASKEW (1988), BENEDEK (1965), CARCHINI (1983), and STEIMANN (1984) were used.

### Collecting sites

- (1) Jilerescu bog (Tinovul Jilerescu) – *Sphagnum* bog in the catchment of the Szaplonca (Săpînța) stream (alt. ca 800 m).
- (2) Vraticele bog (Tinovul Vraticele) – *Sphagnum* bog in the catchment of the Szaplonca (Săpînța) stream.
- (3) Mireș stream – It drains the western part of

the Szaplonca catchment area. Larvae were collected in a slow-flowing, sitly section of the stream.

- (4) Pond Dumitru – *Sphagnum* bog in a volcanic crater in the Szaplonca catchment (alt. ca 1200 m).
- (5) Ojtoz (Oituz) stream – Small forest stream at the Ojtoz gorges in Székely land.
- (6) Szent-Anna Lake (Lacul Sf. Ana) – Deep lake in a volcanic crater in Székely land, with some marsh vegetation and *Sphagnum* along the shore.
- (7) Mohoš bog (Tinovul Mohoš) – *Sphagnum* bog near the Szent Anna Lake in Székely land.
- (8) Olt River at Balánbánya (Bălan) – Rapid stream in Székely land, with branches of stagnant water, supporting a dense vegetation (*Myosotis*).
- (9) Pond near the Olt R. at Balánbánya (Bălan) – Small man-made pond close to the river, no macrophyte vegetation.
- (10) Olt River at Csíkszentsimon (Sînsimion) – Small, slow river, with *Salix* and weeds.
- (11) Olt River at Csíkcsicsó (Ciceu) – Small slow river, mostly weed vegetation.
- (12) “Rétyi-nyír” at Réty (Reci) – Marsh area in Székely land, with a *Salix* bog, and a natural pond with *Nymphaea alba*.
- (13) Pond in a small stream near Dálnok (Dálnic) – Man-made pond, with some marsh vegetation (*Typha*) in Székely land.
- (14) Vargyas (Virghis) stream at Vargyas (Virghis) – Small rapid tributary of the Olt R. in Székely land, with stony bed in some sections; *Salix* along the shore.
- (15) Gyilkos-tó (Lacu Rosu) – A lake formed in the 19<sup>th</sup> century probably as a consequence of a landslide, which closed the bed of some streams and their water formed the lake. Some marsh vegetation appeared along the shore.
- (16) Pond in the Szénafüvek (Fanatele Clujului) near Kolozsvár (Cluj) – Small natural pond with dense macrovegetation in a protected steppe meadow.
- (17) Sebes-Körös (Crișul Repede) River at Nagysebes (Valea Drăganului) – Small rapid river with stony bed; *Salix* and wet meadows on the banks.

## Records

Out of the 30 species, 24 were collected as adults, 9 as larvae and 7 as exuviae.

- *Calopteryx splendens* (Harr.) – (10): adult, 2-VIII-1997, frequent; – (11): adult, 2-VIII-1997, frequent; – (14): some adults, 3-VIII-1997.
- *Calopteryx virgo* (L.) – (10): larva, 2-VIII-1997; – (11): 1 ♂: 2-VIII-1997; – (14): 1 adult, 3-VIII-1997; 2 larvae, 3-VIII-1997; – (16): 2 larvae, 15-X-1996.
- *Chalcolestes viridis* (Vander L.) – (12): adults, 29-VII-1997.
- *Lestes barbarus* (Fabr.) – (13): 1 ♀, 28-VII-1997.
- *Lestes dryas* Kirby – (13): 1 ♂, 28-VII-1997.
- *Lestes sponsa* (Hans.) – (10): 1 ♀, 2-VIII-1997; – (12): adults, 29-VII-1997; – (13): 1 ♂, 28-VII-1997.
- *Lestes virens* (Charp.) – (12): adults, 29-VII-1997.
- *Coenagrion hastulatum* (Charp.) – (4): 5 ♂, 1 ♀, 19-VI-1997; – (6): 1 ♂, 1-VIII-1997; 1 ♂, 1 ♀, 1 exuviae, 2-VI-2001; – (7): adults, 1-VIII-1997.
- *Coenagrion ornatum* (Sel.) – (1): 1 ♂, 18-VI-1997.
- *Coenagrion puella* (L.) – (1): 1 ♂: 18-VI-1997; – (12): adults, 29-VII-1997; – (13): adults, 28-VII-1997; – (16): adults, 30-V-1998.
- *Coenagrion scitulum* (Ramb.) – (1): 1 ♂, 18-VI-1997; – (12): 1 ♂, 29-VII-1997.
- *Erythromma viridulum* (Charp.) – (12): adults, 29-VII-1997.
- *Ischnura pumilio* (Charp.) – (13): 2 ♂, 28-VII-1997.
- *Pyrrhosoma nymphula* (Sulz.) – (8): 1 ♂, 2-VIII-1997; – (15): 2 exuviae, 3-VI-2001.
- *Platycnemis pennipes* (Pall.) – (16): 2 larvae, 15-X-1996.
- *Aeshna affinis* (Vander L.) – (12): 1 ♂, 29-VII-1997.
- *Aeshna cyanea* (Müll.) – (6) 1 ♂, 1 ♀ larva, 1-VIII-1997; – (7): adults, 9 ♂, 4 ♀ exuviae, 1-VIII-1997; – (9): 1 ♂ larva, 2-VIII-1997; – (10): 1 ♀ larva, 2-VIII-1997; – (13): adults, 28-VII-1997.
- *Aeshna juncea* (L.) – (4): 1 ♀, 2 exuviae, 19-VI-1997; – (6): 1 ♀, 1-VIII-1997; – (7): adults, 1-VIII-1997; – (8): 1 ♀, 2-VIII-1997.

- *Gomphus vulgatissimus* (L.) – (14): 2 larvae, 3-VIII-1997.
- *Onychogomphus forcipatus* (L.) – (17): 1 larva, 15-XI-1996.
- *Ophiogomphus cecilia* (Fourcroy) – (14): 1 larva, 3-VIII-1997.
- *Cordulegaster bidentata* Sel. – (5): 1 ♂, 31-VII-1997.
- *Somatochlora metallica* (Vander L.) – (2): 2 adults, 17-VI-1997.
- *Libellula depressa* (L.) – (1): 1 exuvia, 18-VI-1997; – (2): adults, 17-VI-1997; – (3): 2 larvae, 18-VI-1997; – (13): 2 ♂, 28-VII-1997; – (16): adults, 30-V-1998.
- *Libellula quadrimaculata* L. – (4): 1 ♂, 1 exuvia, 19-VI-1997; – (6): 2 ♂, 1 larva, 1-VIII-1997; 12 exuviae, 2-VI-2001; – (7): adults, 1-VIII-1997; 1 exuvia, 2-VI-2001
- *Leucorrhinia dubia* (Vander L.) – (4): adults, 18 exuviae, 19-VI-1997; – (6): 1 exuvia, 2-VI-2001; – (7): adults, 1 exuvia, 1-VIII-1997; 8 exuviae, 2-VI-2001.
- *Orthetrum albistylum* (Sel.) – (13): 1 larva: 28-VII-1997.
- *Orthetrum cancellatum* (L.) – (6): adults, 1-VIII-1997.
- *Sympetrum danae* (Sulz.) – (6) 1 ♂, 1 ♀, 1-VIII-1997.
- *Sympetrum sanguineum* (Müll.) – (12): adults, 29-VII-1997; – (13): adults, 28-VII-1997.

#### Discussion

UJHELYI (1955) mentioned data from 3 of my localities: 4 species from the Szent-Anna Lake, 3 species from „Rétyi-nyír” and 4 species from

„Gyilkos-tó”. CIRDEI & BULIMAR (1965) list data from only 2 of my localities: 1 species from Szaplonca and 9 species from „Gyilkos-tó”. This paper adds 6 species to the fauna of Szent-Anna Lake (*Coenagrion hastulatum*, *Aeshna cyanea*, *A. juncea*, *Orthetrum cancellatum*, *Sympetrum danae*, *Leucorrhinia dubia*), 5 species to „Rétyi-nyír” (*Chalcolestes viridis*, *Lestes sponsa*, *Coenagrion scitulum*, *C. puella*, *Erythromma viridulum*) and 9 new species to the Szaplonca region (*Coenagrion hastulatum*, *C. ornatum*, *C. puella*, *C. scitulum*, *Aeshna juncea*, *Somatochlora metallica*, *Libellula depressa*, *L. quadrimaculata*, *Leucorrhinia dubia*).

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