

RECENT INFORMATION ABOUT *CHARETEA FRAGILIS* COMMUNITIES IN SLOVAKIA

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Hamuliakovo, seepage channel (*Chara fragilis*), 8. 8. 2001, photo: O'ahel'ová

Species composition and diversity

– dominant macroscopic green macroalgae (stoneworts); aquatic macrophyte, marsh or fen species (see table; only species with occurrence in more than 3 relevés are shown)
– submerged, species-poor stands; mean number of species less than 5 (min. 1 and max. 12)

Charetea fragilis Fukarek ex Krausch 1964

Nitelletalia flexilis Krause 1969

Nitellion syncarpae-tenuissimae Krause 1969

¹*Nitelletum mucronatae* Tomaszewicz ex Hrivnák et al. 2001

²*Nitelletum syncarpae* Corillion 1957

Charetalia hispidae Sauer ex Krausch 1964

Charion fragilis Krausch 1964

³*Charetum fragilis* Fijalkowski 1960

⁴*Charetum hispidae* Corillion 1957

⁵*Nitellopsidetum obtusae* Dambská 1961

⁶*Charetum contrariae* Corillion 1957

⁷*Charetum tomentosae* Corillion 1957

Charion vulgaris (Krause et Lang 1977) Krause 1981

⁸*Charetum vulgaris* Corillion 1957

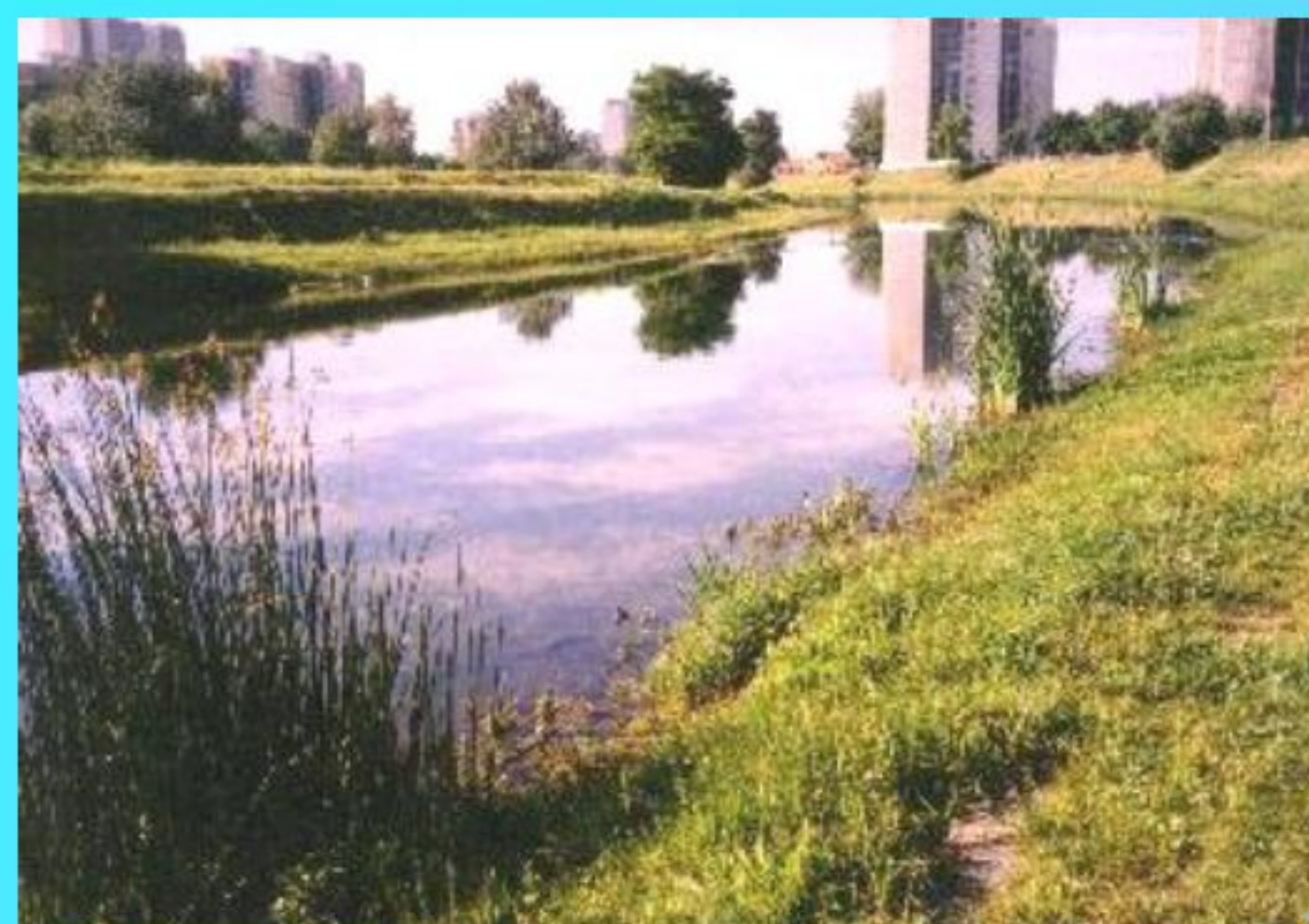
Relevé number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Community	1	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	5	6	6	8	8	8	8	8	8	8	8	8
Number of taxa	3	4	3	7	5	3	4	6	12	9	5	4	6	2	2	2	1	4	3	7	2	5	4	12	5	5	4	5
<i>Nitellion syncarpae-tenuissimae</i>																												
<i>Nitella mucronata</i>	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Nitella syncarpa</i>	.	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Charion fragilis</i>																												
<i>Chara fragilis</i>	.	.	5	4	5	5	4	4	5	5	3	4	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Chara hispida</i>	5	4	5	5	.	.	.	.	.	.	.	.	.	.	.
<i>Nitellopsis obtusa</i>	1	5	.	.	.	.	.	.	.	.	.	.	.
<i>Chara contraria</i>	5	.	.	.	.	.	.	.	.	.	.	.
<i>Chara tomentosae</i>	5	.	.	.	.	.	.	.	.	.	.
<i>Charion vulgaris</i>																												
<i>Chara vulgaris</i>	5	5	5	5	5	5	4	5	5	5
Aquatic macrophytes (<i>Lemnetea</i>, <i>Potametea</i>)																												
<i>Potamogeton pectinatus</i>	.	1	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Potamogeton pusillus</i> agg.	.	.	m	1	.	.	.	.	.	.	.	.	a	a	.	.	.	1	.	.	.	.	.	.	.	.	.	.
<i>Lemna minor</i>	.	.	m	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Batrachium trichophyllum</i>	.	.	.	3	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Najas marina</i>	a	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Zannichellia palustris</i>	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Myriophyllum spicatum</i>	1	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Marsh species (<i>Phragmito-Magnocaricetea</i>)																												
<i>Typha latifolia</i>	r	.	.	.	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Butomus umbellatus</i>
<i>Eleocharis palustris</i> agg.
<i>Alisma plantago-aquatica</i>	r	.	.	a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Veronica anagallis-aquatica</i>	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Other species																												
<i>Alopecurus aequalis</i>	.	.	.	1	.	.	.	.	.	.	.	a	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Agrostis stolonifera</i>	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Juncus articulatus</i>
<i>Equisetum palustre</i>	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Veronica beccabunga</i>



Rich fen, Nature reserve Rakšianske rašelinisko, 23. 7. 2004, photo: Hrivnák

Ecology

– stoneworts are poor competitors with narrow ecological tolerance
– occurrence in rivers, channels, river oxbows, gravel or sand ditches, fen pools and reservoirs
– shallow to relatively deep, mesotrophic to eutrophic waters, neutral to alkaline, conductivity more than 350 $\mu\text{S}\cdot\text{cm}^{-1}$ at 20 °C



Chrovátske rameno (river oxbow) in Petržalka (Bratislava) – Locality of *Nitella syncarpa*

Distribution and diversity of communities in Slovakia

– 8 plant communities in 3 alliances
– occurrence mainly in lowlands and basins or submountainous belts (see map)

Nature reserve Suché doly, fen pool with *Chara fragilis*, 2003, photo: Blanár



Nová Maša, Water reservoirs Sosninka (*Chara vulgaris*), 2005, photo: Blanár

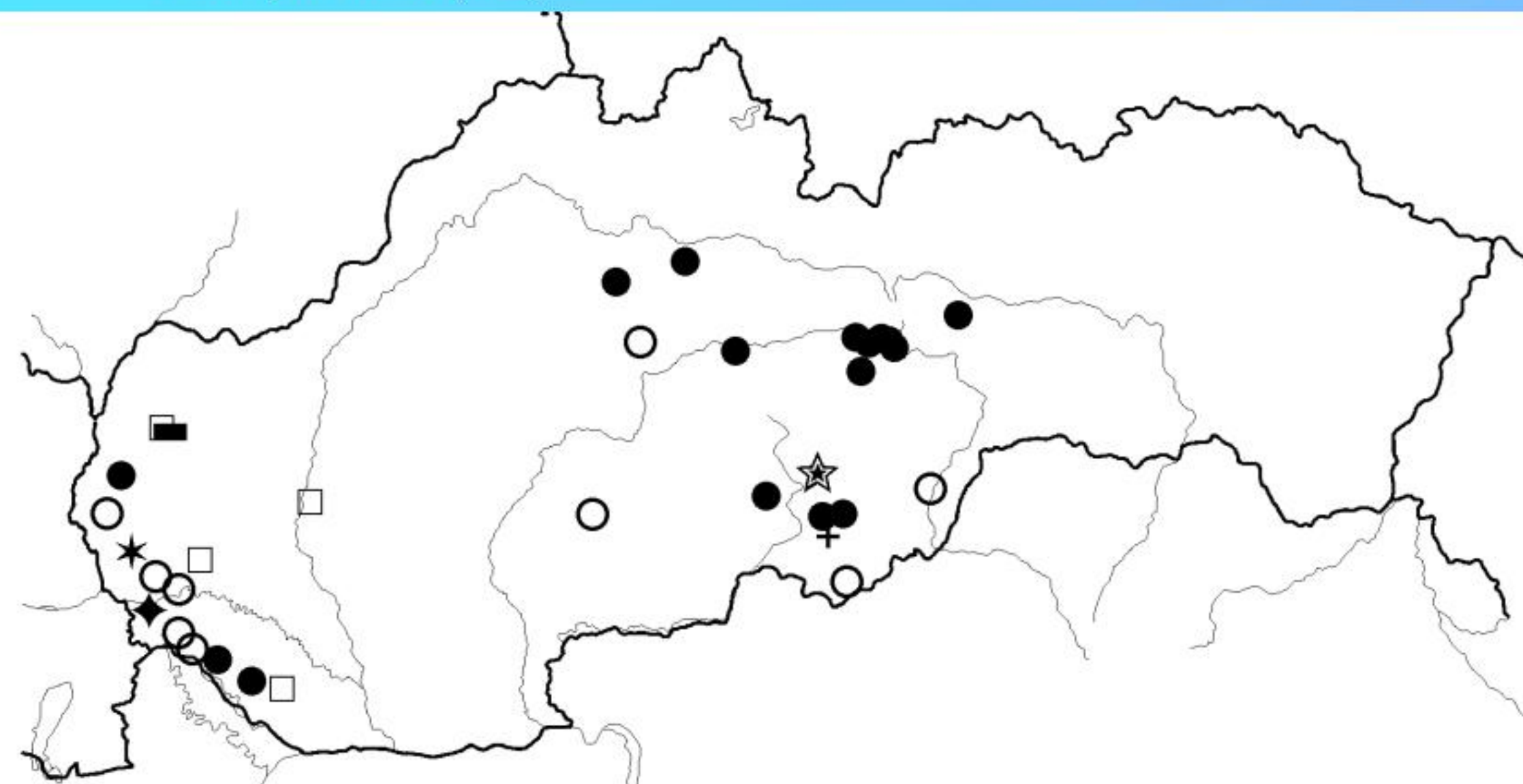


Fig. 1 Distribution map of the *Charetea fragilis* plant communities in Slovakia (Legend: ☆ *Nitelletum mucronatae*, ◆ *Nitelletum syncarpae*, ○ *Charetum fragilis*, □ *Charetum hispidae*, ■ *Nitellopsidetum obtusae*, * *Charetum contrariae*, + *Charetum tomentosae*, ● *Charetum vulgaris*).

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Stone-pit Nová Maša, shallow water with *Chara vulgaris*, 2005, photo: Blanár

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