

# PLANT COMMUNITIES OF *SALVINIA NATANS* (L.) ALL. AND *TRAPA NATANS* L. IN EASTERN POLESYE

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The subprovince Eastern Polesye of province Polesye, which include Left-Bank of Dnieper in the borders of Byelorussia, Russia and Ukraine. In comparison with Northern and Southern Polesye the territory differs in more continental climate and less humidity, presence of loamy "islands" and also large anthropogenous loading.

With the purpose of development of strategy of protection of habitats of plants of wild flora, in especially disappearing and vulnerable, which are given in the list of Appendix I of "Convention on the Conservation of European Wildlife and Natural Habitats" (1979) the systematization of information about all known habitats of these species in natural regions of Europe is necessary. *Salvinia natans* (L.) All. and *Trapa natans* L. are the habitats of the Bern Convention plants. They rare for a region plant communities.

Communities of *Salvinia natans* (L.) All. are distributed in Caucasus, Western Siberia, Far East, Average Asia, Average and Eastern Europe, Northern America and Northern Africa, Himalayan and Japan-Chinese botany-geographical areas. On the territory of Eastern Polesye communities of *S. natans* is marked in flood-lands reservoirs of the rivers Dnieper, Desna, Sozh, Iput in territory of the following administrative areas.

Byelarus. Gomel region. Rechitsa, Gomel, Dobrush rayons.

Russia. Bryansk region. Djatkovo, Bryansk, Vygonichi, Trubchevsk rayons.

Ukraine. Sumy region. Seredina-Buda rayon (Desnyansko-Starogutskyi National Natural Park); Shostka rayon. Chernihiv region. Novgorod-Siverskyi, Korop, Sosnitsa, Mena, Borsna, Ripky, Chernihiv, Koselets rayons; Chernihiv town.

The descriptions of phytocenosis from *S. natans* share are represented on table.

Table. Floristic structure of the plant communities with *Salvinia natans* (L.) All. and *Trapa natans* L.

Number of plots	1	2	3	4	5	6	7	8	9	10
Cover (%)	55	35	85	90	70	75	90	95	10	65
<i>Lemna minor</i> L.	+	2	4	+	2	2	2	3	2	1
<i>Lemna trisulca</i> L.	2	+	2	+	+	1	+	2	1	.
<i>Salvinia natans</i> (L.) All.	4	2	4	.	2	2	2	+	1	5
<i>Spirodela polyrrhiza</i> (L.) Schleid.	2	2	2	+	2	4	2	2	1	1
<i>Trapa natans</i> L.	.	.	.	5	.	.	.	.	.	.
<i>Wolfia arrhiza</i> (L.) horkel ex Wimmer	.	.	.	4	4	4	5	5	1	1

Table. Floristic structure of the plant communities with *Salvinia natans* (L.) All. and *Trapa natans* L. (continuation)

Number of plots	11	12	13	14	15	16	17	18	19	20
Cover (%)	45	60	85	95	85	85	50	75	70	100
<i>Lemna gibba</i> L.	.	.	.	5	5	.	.	.	.	.
<i>Lemna minor</i> L.	1	1	4	.	2	2	+	+	1	.
<i>Lemna trisulca</i> L.	.	.	.	.	.	2	.	.	.	.
<i>Nuphar lutea</i> (L.) Smith	.	.	.	.	.	.	1	1	.	.
<i>Nymphaea alba</i> L.	.	.	.	.	.	.	2	+	.	.
<i>Nymphoides peltata</i> (S.G.Gmel.) O.Kuntze	.	.	.	.	.	.	4	4	.	.
<i>Salvinia natans</i> (L.) All.	4	5	1	.	.	4	1	.	5	.
<i>Spirodela polyrrhiza</i> (L.) Schleid.	1	2	2	.	.	+	.	+	+	.
<i>Trapa natans</i> L.	.	.	.	2	1	.	2	+	.	5
<i>Wolfia arrhiza</i> (L.) horkel ex Wimmer	1	1	4	.	.	.	.	.	.	.

Syntaxas: 1, 2, 6, 11, 12 *Salvinio-Spirodeletum polyrrhizae*; 3, 5, 7 – 10, 13, 16, 19 – *Lemno-Salvinietum natantis*; 14, 15 – *Lemnetum gibbae*; 4, 20 – *Trapetum natantis*; 17, 18 – *Nymphoidetum peltatae*.

Dates and locations of releves: 1-3 – 11.08.1995, land-reclamation canal "Mlynok"; 4 – 22.08.2001, Znob-Novgorjdske settlement, 5 – 7 – 04.09.2001, transformed former river-bed of Desna river (Chernihiv town); 8, 9 – 10.09.2002,

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channel of Bilous river (Chernihiv rayon), 10 – 12 - 10.09.2002, canal (Liskovitsa, Chernihiv town); 13 – 23.08.2003, land-reclamation canal “Mlynok”; 14, 15 – 29.08.2003, lake ‘Kozerogi’; 16 – 18.06.2006, flood-lands of Desna river (Sosnitsa rayon), 17– 18.08.2006, flood-lands of Desna river (Novgorod-Siverskyi rayon); 18 – 19.08.2006, channel of Desna river (Novgorod-Siverskyi rayon), 19 – 29.09.2006, – flood-lands of Sozh river (border of Ukraine and Byelorussia), 20 – 05.10.2006, Kiyv reservoir.

The syntaxas scheme of plant communities with participation of *S. natans* in Eastern Polesye is following:

**LEMNETEA MINORIS** R.Tx. 1955

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**Lemnion minoris** R.Tx. 1955

- **Salvinio-Spirodeletum** (polyrrhizae) Slavnic 1956
- **Lemno-Salvinietum natantis** Migan et R.Tx. 1960

**POTAMETEA** Klika in Klika et Novák 1941

POTAMETALIA W.Koch 1926

**Nymphaeion albae** Oberdorfer 1957

- **Nymphoidetum peltatae** Bellot 1951

The protection of *Salvinia natans* communities in Eastern Polesye protected areas: Russia (Landscape preserve “Budimirska pojma”), Ukraine (National Natural Parks “Desnyansko-Starogutskyi”; “Mezynskyi”; Regional lanscape park “Mizhrichenskyi”; memorials of nature “Trubin ake”, “Sviate Lake”, “Soloviove Lake”).

Communities of *Trapa natans* L. are distributed in Average, Eastern and Atlantic Europe, Mediterranean and Asia Minor botany-geographical areas. On the territory of Eastern Polesye *T. natans* is marked in flood-lands reservoirs of the rivers Dnieper, Desna, Sozh, Iput, Berezina in territory of the following administrative areas.

**Byelarus.** Gomel region. Rechitsa, and Znlobin rayons (between Chorne and Olba villiges); Gomel rayon (New Tereshkovichi, New Diatlovichi, Chonki villigers); Dobrush rayon; Gomel town (Ozerna Str.).

**Russia.** Bryansk region. Djatkovo, Bryansk, Vygonichi, Zlynka, Trubchevsk rayons.

**Ukraine.** Sumy region. Seredina-Buda rayon (Desnyansko-Starogutskyi National Natural Park, Znob-Novgorjdske settlemen). Chernihiv region. Novgorod-Siverskyi, Korop, Borsna (lake ‘Trubyn’), Chernihiv (lake ‘Kozerogi’), Koselets (Kiyv reservoir) rayons.

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The descriptions of phytocenosis from *T. natans* share are represented on table.  
The syntaxas scheme of *T. natans* communities in Eastern Polesye is following:

**LEMNETEA MINORIS** R.Tx. 1955

**LEMNETALIA MINORIS** R.Tx. 1955

**Lemnion minoris** R.Tx. 1955

- **Lemnetum gibbae** Mijawaki et J.Tx. 1960

**POTAMETEA** Klika in Klika et Novák 1941

**POTAMETALIA** W.Koch 1926

**Nymphaeion albae** Oberdorfer 1957

- **Trapetum natantis** Th.Müller et Görs 1960
- **Nymphoidetum peltatae** Bellot 1951/

The protection of *Trapa natans* communities in Eastern Polesye protected areas: Russia (Landscape preserve “Desna-Zherenski”), Ukraine (National Natural Parks “Desnyansko-Starogutskyi”; “Mezynskyi”; memorials of nature “Trubin Lake”, “Sviate Lake”, “Solovyiove Lake” “Vaden Lake”; “Kozerogi Lake”; botanical preserves “Obolonskyi”, “Putivskyi”).

Thus, communities of *Salvinia natans* and *Trapa natans* are precisely syntaxas determined. The protection of these communities in Eastern Polesye protected areas is quite sufficient. Their locations are supplied by protection with the greatest measure.