Supplement file S1

Using data on the ecological preferences of algae and cyanobacteria on a specific natural example for water bodies of the Arctic coast of Tiksi.

A bioindication as part of the diversity of algae and cyanobacteria analysis in the Lena Delta Nature Reserve was conducted [186]. Only diatoms were considered as most studied in the region, of which there are 413 taxa in the reserve (with definitions up to the genus—666 taxa). The species list was compared with the ecological database, and indicator species were identified for nine environmental parameters as well as the species-specific Index saprobity S and known pH-range (Table S2).

https://doi.org/10.70322/ecoldivers.2025.10003

Table S2. Ecological preferences of diatom species in waterbodies of the Lena Delta Nature Reserve.

Taxa	Hab	Temp	Oxy	Sal	pH	pH Range	D	Index S	Sap	Aut-Het	Tro
Acanthoceras zachariasii (Brun) Simonsen	P	-	st-str	i	ind	-	-	1.4	o-b	-	-
Achnanthes adnata Bory	B	-	-	mh	alf	-	-	2.0	b	-	me
Achnanthes atacamae Hustedt	-	-	-	-	-	-	-	-	-	-	-
Achnanthes ingratiformis Lange-Bertalot	B	-	-	-	-	8.00	-	-	-	-	-
Achnanthes koshovii Jasnitsky	B	-	-	-	-	-	-	-	-	-	-
Achnanthes sp.	-	-	-	-	-	-	-	-	-	-	-
Achnanthidium affine (Grunow) Czarnecki	B	-	str	i	alf	6.8–7.1	es	1.1	o	ate	-
Achnanthidium kranzii (Lange-Bertalot) Round & Bukhtiyarova	B	temp	str	hb	acf	6.8–8.1	-	1.5	o-b	ats	ot
Achnanthidium minutissimum (Kützing) Czarnecki	P-B	eterm	st-str	i	ind	4.3–9.2	es	0.95	b	ate	e
Achnanthidium minutissimum var. *jackii* (Rabenhorst) Lange-Bertalot	B	-	-	i	ind	-	-	-	o	-	-
Achnanthidium nodosum (Cleve) Tseplik & Chudaev	B	-	-	hb	acf	-	-	1.0	o	-	ot
Achnanthidium petersenii (Hustedt) C.E.Wetzel, L.Ector, D.M.Williams & I.Jüttner	B	-	str	hb	ind	6.9	-	0.2	o	ats	ot
Achnanthidium saprophilum (H.Kobayashi & Mayama) Round & Bukhtiyarova	B	temp	-	-	-	7.3–7.8	-	-	-	-	-
Achnanthidium sp.	-	-	-	-	-	-	-	-	-	-	-
Actinocyclus kuetzingii (A.W.F.Schmidt) Simonsen	P-B	-	-	eh	-	-	-	-	-	-	-
Adlafia sp.	-	-	-	-	-	-	-	-	-	-	-
Amphora copulata (Kützing) Schoeman & R.E.M.Archibald	B	temp	st-str	i	alf	7.7	es	1.5	o-b	ate	e
Amphora indistincta Levkov	-	-	-	-	-	-	-	-	-	-	-
Amphora ovalis (Kützing) Kützing	B	temp	st-str	i	alf	6.2–9.0	sx	1.5	b	ate	e
Amphora pediculus (Kützing) Grunow	B	temp	st	i	alf	6.9–8.9	es	1.7	b	ate	me
Amphora pseudosibirica Levkov & Pavlov	-	-	-	-	-	-	-	-	-	-	-
Amphora sp.	-	-	-	-	-	-	-	-	-	-	-
Amphorotia clevei (Grunow) D.M.Williams & G.Reid	B	-	-	hb	-	-	-	-	-	-	-
Aneumastus apiculatus (Østrup) Lange-Bertalot	P-B	-	str	i	ind	-	-	2.0	b	ats	me
Aneumastus tusculus (Ehrenberg) D.G.Mann & A.J.Stickle	P-B	-	st	i	alb	-	-	0.9	b	ate	o-e
Asterionella formosa Hassall	P	temp	st-str	i	alf	6.4–7.99	sx	1.35	b	ate	me
Aulacoseira alpigena (Grunow) Krammer	P-B	temp	st-str	i	alf	4.8–8.4	sp	0.8	x-b	ate	ot
Aulacoseira ambigua (Grunow) Simonsen	P	temp	st-str	i	alf	6.0–8.5	sp	1.7	b-o	ate	om
Aulacoseira distans (Ehrenberg) Simonsen	P-B	cool	str	i	acf	4.5–7.8	sp	0.4	o	ats	ot
Aulacoseira granulata (Ehrenberg) Simonsen f. granulata	P-B	temp	st-str	i	alf	5.8–9.4	es	2.0	b	ate	e
Aulacoseira granulata f. *curvata* (Hustedt) Simonsen	P-B	-	st-str	i	alf	-	-	2.0	b	ate	e
Aulacoseira islandica (O.Müller) Simonsen	P-B	cool	st-str	i	ind	8.0	es	2.0	b	ate	o-e
Aulacoseira italica (Ehrenberg) Simonsen var. italica	P-B	cool	st-str	i	ind	5.8–8.4	es	1.45	b	ate	me
Aulacoseira italica var. *curvata* (Pantocsek) L.Yang & Q.X.Wang	P	-	-	i	acf	-	es	-	-	-	-
Aulacoseira italica var. *tenuissima* (Grunow) Simonsen	P-B	cool	st-str	i	ind	7.0	es	1.3	b	ate	me
Aulacoseira lirata (Ehrenberg) R.Ross	P-B	temp	-	hb	acf	4.6–7.3	-	0.5	x-o	ate	-
Aulacoseira perglabra (Østrup) E.Y.Haworth	P-B	temp	-	hb	acf	4.76	-	1.0	o	ate	ot
Aulacoseira pfaffiana (Reinsch) Krammer	P-B	cool	str	hb	acf	-	-	0.3	x	ats	ot
Aulacoseira pusilla (F.Meister) A.Tuji & A.Houki	-	-	-	-	-	-	-	-	-	-	-
Aulacoseira scalaris (Grunow) Houk, Klee & Passauer	-	-	-	-	-	-	-	-	-	-	-
Aulacoseira subarctica (O.Müller) E.Y.Haworth	P	temp	st-str	i	alf	6.72–8.14	-	1.7	b-o	ats	om
Aulacoseira valida (Grunow) Krammer	P-B	-	-	i	alf	-	es	1.3	o	ate	om
Boreozonacola hustedtii Lange-Bertalot, Kulikovskiy & Witkowski	-	-	-	-	-	-	-	-	-	-	-

Brachysira brebissonii R.Ross	P-B	temp	st-str	hb	acf	4.6–7.8	sx	0.4	o	ats	ot
Brachysira calcicola Lange-Bertalot	B	-	-	-	-	-	-	1.0	o	-	-
Brachysira neoexilis Lange-Bertalot	B	-	-	-	acf	7.8	-	0.5	x-o	-	om
Brachysira procera Lange-Bertalot & Gerd Moser	B	-	-	-	acf	6.3–6.5	-	-	-	-	-
Brachysira styriaca (Grunow) R.Ross	B	temp	-	i	ind	6.45–7.26	es	1.0	o	-	ot
Caloneis arctica (Krasske) Lange-Bertalot & S.I.Genkal	-	-	-	-	-	-	-	-	-	-	-
Caloneis bacillum (Grunow) Cleve	B	temp	st-str	i	alf	6.8–8.4	es	1.3	b	ats	me
Caloneis holarctica Kulikovskiy, Lange-Bertalot & A.Witkowski	-	-	-	-	-	-	-	-	-	-	-
Caloneis silicula (Ehrenberg) Cleve var. Silicula	B	warm	st	i	ind	6.3–9.0	sp	1.3	o	ats	om
Caloneis silicula var. *elliptica* Mayer	-	-	-	-	-	-	-	-	-	-	-
Caloneis undosa Krammer	B	-	st-str	i	acf	-	-	1.0	o	ats	ot
Caloneis ventricosa F.Meister var. *truncatula* (Grunow) Meister	B	-	st-str	i	alf	-	-	1.3	b	ats	me
Caloneis westii (W.Smith) Hendey	B	-	-	mh	alf	-	-	-	-	ats	e
Campylodiscus hibernicus Ehrenberg	B	-	st	i	ind	-	es	2.0	b	ats	ot
Cavinula cocconeiformis (W.Gregory ex Greville) D.G.Mann & A.J.Stickle	P-B	temp	st-str	i	ind	6.57–7.5	es	0.4	x-o	ats	om
Cavinula jaernefeltii (Hustedt) D.G.Mann & A.J.Stickle	B	temp	str	i	acf	6.71–7.5	-	2.0	b	ats	om
Cavinula pseudoscutiformis (Hustedt) D.G.Mann & Stickle	P-B	temp	st-str	i	ind	6.2–8.4	sx	0.4	b	ats	me
Cavinula sp.	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros borealis Bailey	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros compressus Lauder	-	temp	-	eh	-	-	-	-	-	-	-
Chaetoceros debilis Cleve	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros decipiens Cleve	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros furcellatus Yendo	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros gracilis Pantocsek	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros mitra (Bailey) Cleve	P	-	-	i	-	-	-	-	-	-	-
Chaetoceros simplex Ostenfeld	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros socialis H.S.Lauder	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros subtilis Cleve	P-B	-	-	mh	alb	-	-	-	-	-	-
Chaetoceros teres Cleve	-	-	-	-	-	-	-	-	-	-	-
Chaetoceros wighamii Brightwell	P-B	-	-	mh	alb	-	-	-	-	-	-
Chamaepinnularia begeri (Krasske) Lange-Bertalot	B	temp	-	i	ind	6.35	-	1.0	o	ats	-
Chamaepinnularia circumborealis Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Chamaepinnularia krookiformis (Krammer) Lange-Bertalot & Krammer	B	-	-	hl	neu	-	-	1.0	o	-	-
Chamaepinnularia soehrensis (Krasske) Lange-Bertalot & Krammer	B	-	st-str	hb	acf	8.20	-	1.0	o	ats	ot
Chamaepinnularia sp.	-	-	-	-	-	-	-	-	-	-	-
Cocconeis lineata Ehrenberg	P-B	temp	st-str	i	alf	6.3–9.5	sx	1.2	b	ate	e
Cocconeis neodiminuta Krammer	P-B	temp	st-str	i	alf	7–9	sx	0.9	b	ats	me
Cocconeis pediculus Ehrenberg	B	temp	st-str	i	alf	6.9–8.6	sx	1.8	a-b	ate	me
Cocconeis placentula Ehrenberg var. *placentula*	P-B	temp	st-str	i	alf	5.5–9.0	es	1.35	o	ate	me
Cocconeis placentula var. *euglypta* (Ehrenberg) Cleve	P-B	temp	st-str	i	alf	5.5–9.0	sx	1.3	b	ate	om
Cocconeis sp.	-	-	-	-	-	-	-	-	-	-	-
Coscinodiscus curvatulus Grunow	P-B	-	-	eh	-	-	-	-	-	-	-
Cosmioneis pusilla (W.Smith) D.G.Mann & A.J.Stickle	P-B,aer	-	st-str	hl	ind	-	sp	1.8	o-a	ats	om
Craticula ambigua (Ehrenberg) D.G.Mann	B	temp	st	i	alf	5.5–8.0	es	2.3	b	-	me
Craticula halophila (Grunow) D.G.Mann	B	temp	st-str	mh	alf	7.2–8.9	es	3.0	a	ate	e
Craticula molestiformis (Hustedt) Mayama	B	temp	st	i	alf	6.8–8.4	-	3.6	a-p	hne	e
Ctenophora pulchella (Ralfs ex Kützing) D.M.Williams & Round	P-B,Ep	temp	st-str	mh	alf	6.5–8.8	sx	2.3	a	ate	e

Cyclostephanos dubius (Hustedt) Round	P-B	temp	st-str	hl	alf	5.7–9.5	es	2.0	a	ate	e
Cyclostephanos makarovae (S.I.Genkal) K.Schultz	-	-	-	-	-	-	-	-	-	-	-
Cyclotella atomus Hustedt	P-B	-	st-str	hl	alf	6.9–8.5	sp	2.5	b-a	ate	e
Cyclotella distinguenda Hustedt	P	-	str	hl	alf	8.2	-	1.3	o	-	om
Cyclotella meduanae H.Germain	-	-	-	-	-	-	-	-	-	-	-
Cyclotella melosiroides (Kirchner) Lemmermann	P	-	-	i	-	-	-	-	-	-	-
Cylindrotheca gracilis (Brébisson ex Kützing) Grunow	B	-	st	hl	ind	-	-	2.8	a-o	hne	e
Cymatopleura elliptica (Brébisson) W.Smith	P-B	temp	st-str	i	alf	5.7–8.5	-	1.4	b	ate	e
Cymatopleura nobilis Hantzsch	B	-	-	i	ind	-	-	1.7	b-o	hne	-
Cymatopleura solea var. *gracilis* Grunow	B	-	-	i	alf	-	-	-	-	-	-
Cymatopleura solea var. *vulgaris* Meister	B	-	-	i	ind	-	-	-	-	-	-
Cymbella affinis Kützing	B	temp	st-str	i	alf	6.3–9.5	sx	1.1	b	ats	e
Cymbella arctica (Lagerstedt) A.W.F.Schmidt	B	-	-	i	alf	8.30	-	1.0	o	-	ot
Cymbella australica (A.W.F.Schmidt) Cleve	B	-	-	i	ind	-	es	1.0	o	-	ot
Cymbella carassius Skvortzov	-	-	-	-	-	-	-	-	-	-	-
Cymbella cleve-eulerae Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbella cymbiformis C.Agardh	B	temp	st-str	i	alf	6.2–9.0	sx	2.0	b	ats	om
Cymbella hantzschiana Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbella helvetica Kützing	B	temp	st-str	i	ind	7.36–8.4	-	0.6	b	ats	me
Cymbella krammeri Bahls	-	-	-	-	-	-	-	-	-	-	-
Cymbella lanceolata C.Agardh	B	temp	st-str	i	alf	6.5–8.6	es	2.5	b-a	ate	e
Cymbella neocistula Krammer	B	-	-	i	ind	-	-	-	-	hne	-
Cymbella neogena (Grunow) Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbella proxima Reimer	B	-	-	i	alf	-	es	1.0	o	-	m
Cymbella stuxbergii (Cleve) Cleve	B	-	-	i	neu	-	-	1.0	o	-	ot
Cymbella subcistula Krammer	B	-	-	-	-	-	-	1.2	o	-	-
Cymbella tartuensis Molder	B	-	-	i	ind	-	-	-	-	-	-
Cymbella tumida (Brébisson) Van Heurck	B	temp	st-str	i	alf	6.8–9.5	sx	2.2	b	ats	me
Cymbella sp.	-	-	-	-	-	-	-	-	-	-	-
Cymbellafalsa diluviana (Krasske) Lange-Bertalot & Metzeltin	B	-	-	i	alf	7.95	-	1.0	o	-	ot
Cymbopleura amphicephala (Nägeli ex Kützing) Krammer	B	-	st-str	i	ind	4.6–8.2	-	-	-	-	-
Cymbopleura anglica (Lagerstedt) Krammer	B	-	-	hb	ind	-	sx	1.2	o	ats	om
Cymbopleura angustata var. *spitsbergensis* Krammer	B	-	str	i	ind	4.9–8.20	-	1.0	o	-	ot
Cymbopleura cuspidata (Kützing) Krammer	P-B	temp	st-str	i	alf	5.7–7.5	-	-	-	-	-
Cymbopleura designata (Krammer) Bahls	B	temp	st-str	i	alf	6.3–9.0	-	1.8	o-a	ats	m
Cymbopleura elliptica Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbopleura hybrida (Grunow ex Cleve) Krammer	P-B	-	-	i	ind	8.10	-	1.2	o	ats	-
Cymbopleura incertiformis Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbopleura naviculiformis (Auerswald ex Heiberg) Krammer	B	temp	st-str	i	ind	7.8–6.94	-	-	-	-	-
Cymbopleura neoheteropleura Krammer	B	-	-	hb	acf	-	es	1.2	o	ate	om
Cymbopleura oblongata var. *stenoraphe* Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbopleura stauroneiformis (Lagerstedt) Krammer	B	-	-	-	ind	-	-	1.0	o	ats	ot
Cymbopleura subanglica Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbopleura subapiculata Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbopleura subcuspidata (Krammer) Krammer	P-B	-	str	i	acf	-	sx	1.0	o	ats	om
Cymbopleura truncata Krammer	-	-	-	-	-	-	-	-	-	-	-
Cymbopleura tynnii (Krammer) Krammer	B	-	-	-	-	-	-	-	-	-	-
Cymbopleura sp.	-	-	-	-	-	-	-	-	-	-	-

Denticula elegans Kützing	P-B,aer	-	-	i	alf	7.3–9.0	-	-	-	-	-
Denticula tenuis Kützing	B	-	st-str	i	alf	7.42–8.0	-	-	-	-	-
Diatoma moniliformis (Kützing) D.M.Williams	P-B	temp	st-str	i	alf	8.0–8.5	-	0.4	x-o	-	-
Diatoma moniliformis subsp. *ovalis* (F.Fricke) Lange-Bertalot, Rumrich & G.Hofmann	B	-	st-str	i	alf	-	sx	1.4	o-b	-	-
Diatoma problematica Lange-Bertalot	B	-	-	-	-	-	-	1.3	o	-	om
Diatoma tenuis C.Agardh	P-B	temp	st-str	hl	alf	6.9–8.39	-	2.4	b-a	-	om
Diatoma vulgaris Bory	P-B	temp	st-str	i	alf	6.2–8.9	-	2.4	b-a	-	-
Diatomella balfouriana Greville	B	-	-	-	-	-	es	2.2	b	ate	me
Didymosphenia geminata (Lyngbye) Mart.Schmidt	B	-	st-str	i	ind	-	-	2.0	b	-	-
Didymosphenia siberica (Grunow) Mart.Schmidt	-	-	-	-	-	-	-	-	-	-	-
Diploneis boldtiana Cleve	B	-	st-str	i	ind	-	-	-	-	-	-
Diploneis didymus (Ehrenberg) Ehrenberg	B	-	-	mh	alf	-	-	-	-	-	-
Diploneis elliptica (Kützing) Cleve	B	temp	str	i	alf	8.2	es	-	-	-	-
Diploneis interrupta (Kützing) Cleve	B	-	-	mh	alf	-	-	-	-	-	-
Diploneis modica Hustedt	B	-	-	-	-	6.58	-	-	-	-	-
Diploneis oblongella (Nägeli ex Kützing) A.Cleve	B	-	st-str	i	ind	6.9–8.0	-	-	-	-	-
Diploneis oculata (Brébisson) Cleve	B	temp	st-str	i	alf	7.4–8.2	-	-	-	-	-
Diploneis ovalis (Hilse) Cleve	B	-	st-str	i	alf	6.5–9.0	-	0.9	x-b	ate	m
Diploneis parma Cleve	B	cool	-	i	alf	6.6–8.6	-	-	-	-	-
Diploneis smithii (Brébisson) Cleve var. smithii	B	-	-	mh	alf	-	-	-	-	-	-
Diploneis smithii var. *pumila* (Grunow) Hustedt	B	-	-	mh	alf	-	-	0.7	o-x	-	-
Diploneis subovalis Cleve	B	temp	st-str	hl	ind	-	-	-	-	-	-
Diploneis sp.	-	-	-	-	-	-	-	-	-	-	-
Discostella pseudostelligera (Hustedt) Houk & Klee	P	temp	st-str	i	ind	6.32–8.5	-	2.7	a-o	-	-
Discostella stelligera (Cleve & Grunow) Houk & Klee	P-B	temp	st-str	i	ind	5.1–9.0	-	-	-	-	-
Encyonema auerswaldii Rabenhorst	B	-	-	i	ind	-	-	-	-	-	-
Encyonema elginense (Krammer) D.G.Mann	B	temp	st-str	hb	acf	5.5–9.0	-	-	-	-	-
Encyonema fogedii Krammer	-	-	-	-	-	8.10	sx	1.5	o-b	ats	om
Encyonema gaeumannii (F.Meister) Krammer	B	temp	str	hb	acf	4.6–7.9	-	-	-	-	-
Encyonema groenlandica (Foged) Kulikovskiy & Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Encyonema lacustre (C.Agardh) Pantocsek	B	-	-	hl	ind	-	-	-	-	-	-
Encyonema lange-bertalotii Krammer	-	-	-	-	-	-	-	-	-	-	-
Encyonema latens (Krasske) D.G.Mann	B	-	-	-	-	7.8–8.0	-	1.0	o	ats	ot
Encyonema lunatum (W.Smith) Van Heurck	B	temp	-	-	ind	4.9–7.8	es	1.3	o	ats	e
Encyonema minutum (Hilse) D.G.Mann var. minutum	B	temp	st-str	i	ind	4.9–8.9	sx	1.5	o-b	ats	-
Encyonema minutum var. *hankensis* (Skvortzow et Meyer) Kharitonov	-	-	-	-	-	-	-	-	-	-	-
Encyonema neogracile Krammer	P-B	-	-	-	ind	6.4	-	-	-	hne	-
Encyonema perpusillum (A.Cleve) D.G.Mann	P-B	temp	str	hb	ind	6.1–6.16	-	-	-	-	-
Encyonema reichardtii (Krammer) D.G.Mann	B	temp	str	i	ind	7.6–7.8	-	1.0	o	ats	ot
Encyonema silesiacum (Bleisch) D.G.Mann	B	temp	st-str	i	ind	6.2–8.6	-	-	-	-	-
Encyonema ventricosum (C.Agardh) Grunow	B	-	st-str	i	ind	6.2–8.0	-	-	-	ate	-
Encyonema vulgare Krammer	B	-	-	-	-	-	-	-	o	ats	me
Encyonema sp.	-	-	-	-	-	-	-	-	-	-	-
Encyonopsis cesatiformis Krammer	-	-	-	-	-	-	-	-	-	-	-
Encyonopsis cesatii (Rabenhorst) Krammer	B	temp	str	i	ind	5.7–8.0	-	1.5	o-b	-	-
Encyonopsis perborealis Krammer	-	-	-	-	-	-	-	-	-	-	-
Entomoneis alata (Ehrenberg) Ehrenberg	P-B	-	st	mh	alf	-	-	2.5	b-a	-	-

Entomoneis ornata (Bailey) Reimer	B	-	st-str	i	alf	-	-	2.0	b	hne	-
Entomoneis paludosa (W.Smith) Reimer var. *paludosa*	B	-	-	hl	-	-	-	1.5	o-b	ats	om
Entomoneis paludosa var. *hyperborea* (Grunow) Czarnecki & D.C.Reinke	-	-	-	-	-	-	-	-	-	-	-
Envekadea sp.	-	-	-	-	-	-	-	-	-	-	-
Epithemia adnata (Kützing) Brébisson var. *adnata*	B	temp	st-str	i	alb	5.5–9.0	-	1.2	o	-	-
Epithemia adnata var. *saxonica* (Kützing) R.M.Patrick	B	temp	-	i	alf	4.8–9.0	-	1.2	o	-	-
Epithemia argus (Ehrenberg) Kützing	P-B	-	st-str	i	ind	-	sx	1.2	o	ats	me
Epithemia parallela (Grunow) Ruck & Nakov	B	-	str	i	alf	-	-	1.0	o	-	-
Epithemia porcellus Kützing	B	-	-	i	alf	-	-	-	-	-	-
Epithemia sorex Kützing	B	temp	st-str	i	alf	5.0–9.0	-	-	-	-	-
Epithemia turgida (Ehrenberg) Kützing	B	temp	st-str	i	alf	5.0–9.0	-	1.1	-	-	-
Eucampia zodiacus Ehrenberg	-	-	-	hl	-	-	-	-	-	-	-
Eucocconeis alpestris (Brun) Lange-Bertalot	B	temp	str	hb	ind	6.35–7.09	-	-	-	-	-
Eucocconeis austriaca (Hustedt) Lange-Bertalot	B	-	-	i	alf	-	-	0.2	x	ats	ot
Eucocconeis depressa (Cleve) Lange-Bertalot	B	-	-	hb	acf	-	-	1.0	o	-	ot
Eucocconeis diluviana (Hustedt) Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Eucocconeis flexella (Kützing) F.Meister	B	temp	str	mh	ind	7.13–8.10	-	-	-	-	-
Eucocconeis laevis (Østrup) Lange-Bertalot	B	-	str	hb	neu	7.90	sx	0.2	x	ats	ot
Eucocconeis leptostriata Lange-Bertalot apud H.Lange-Bertalot & S.I.Genkal	B	-	-	i	neu	-	sx	-	-	ate	-
Eucocconeis quadratarea (Østrup) Lange-Bertalot	B	-	-	i	acf	-	-	1.0	o	-	-
Eunotia ambivalens Lange-Bertalot & Tagliaventi	B	-	-	i	acf	-	-	3.9	b-p	-	-
Eunotia arcubus var. *bidens* (Grunow) Lange-Bertalot	B	-	-	i	alf	-	sx	1.0	o	-	ot
Eunotia arcus Ehrenberg	B	temp	st-str	i	acf	5.8–6.95	sx	0.4	x-o	ats	ot
Eunotia bidens Ehrenberg	P-B,aer	cool	st-str	hb	acf	-	-	1.0	o	-	ot
Eunotia bidentula W.Smith	B	-	st-str	i	acf	4.66–7.0	-	0.4	x-o	ats	om
Eunotia bigibba Kützing	B	-	str	i	acf	4.6–5.0	-	0.4	x-o	-	ot
Eunotia bigibboidea Lange-Bertalot & Witkowski	-	-	-	-	-	-	-	-	-	-	-
Eunotia bilunaris (Ehrenberg) Schaarschmidt	B	temp	st-str	i	acf	5.0–7.8	-	-	-	-	-
Eunotia boreoalpina Lange-Bertalot & Nörpel-Schempp	B	-	-	hb	-	-	-	-	-	-	-
Eunotia boreotenuis Nörpel-Schempp & Lange-Bertalot	B	-	-	hb	-	-	-	1.0	o	-	ot
Eunotia botuliformis F.Wild, Nörpel & Lange-Bertalot	B	-	-	hb	acf	-	-	1.0	o	-	ot
Eunotia cantonatii Lange-Bertalot & Tagliaventi	-	-	-	-	-	-	-	-	-	-	-
Eunotia chelonia Nörpel-Schempp, Lange-Bertalot & Metzeltin	B	-	-	i	acf	-	-	-	-	-	-
Eunotia curtagrunowii Nörpel-Schempp & Lange-Bertalot	P-B	-	-	hb	acf	-	-	0.4	x-o	ats	ot
Eunotia elegans Østrup	P-B	-	st-str	hb	acf	6.3	-	0.2	x	ats	ot
Eunotia eurycephala (Grunow) Nörpel-Schempp & Lange-Bertalot	B	-	-	i	-	-	-	-	-	-	-
Eunotia ewa Lange-Bertalot & Witkowski	-	-	-	-	-	-	-	-	-	-	-
Eunotia exigua (Brébisson ex Kützing) Rabenhorst	P-B,aer	temp	st-str	hb	acb	3.4–8.0	-	1.0	o	-	ot
Eunotia faba Ehrenberg	B	temp	st-str	-	alf	5.38–7.0	-	-	o	ats	ot
Eunotia flexuosa (Brébisson ex Kützing) Kützing	B	temp	st-str	i	acf	4.5–7.8	-	0.4	x-o	-	-
Eunotia formica Ehrenberg	B	-	st-str	i	acf	-	-	0.8	x-b	ats	om
Eunotia fureyae Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Eunotia genuflexa Nörpel-Schempp	-	-	-	-	-	-	-	-	-	-	-
Eunotia groenlandica Nörpel-Schempp & Lange-Bertalot	B	-	st-str	hb	acf	3.80	-	0.6	o-x	-	-
Eunotia incisa W.Smith ex W.Gregory	P-B	temp	st-str	i	acf	4.5–7.0	-	-	o	ats	om
Eunotia islandica Østrup	B	-	-	i	acf	-	-	0.4	x-o	-	ot
Eunotia julma Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-

Eunotia major (W.Smith) Rabenhorst	B	-	st-str	hb	acf	6.7	-	1.0	o	-	-
Eunotia meisteri Hustedt	P-B	-	str	i	acf	4.5–7.2	-	0.4	x-o	ats	-
Eunotia minor (Kützing) Grunow	B	temp	st-str	hb	acf	4.5–8.2	-	-	-	-	-
Eunotia monnieri Lange-Bertalot & Tagliaventi	-	-	-	-	-	-	-	-	-	-	-
Eunotia monodon Ehrenberg	B	-	st-str	hb	acf	7.3	es	0.4	x-o	ats	ot
Eunotia mucophila (Lange-Bertalot, Nörpel-Schempp & Alles) Lange-Bertalot	P-B	temp	st-str	hb	acf	5.25–6.4	-	-	-	-	-
Eunotia naegelii Migula	P-B	temp	str	hb	acf	4.5–6.0	sx	0.5	x-o	ate	ot
Eunotia neocompacta var. *vixcompacta* Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Eunotia parallela Ehrenberg	P-B	-	str	i	acf	-	-	1.0	o	-	-
Eunotia paralleladubia Lange-Bertalot & S.Mayama	-	-	-	-	-	-	-	-	-	-	-
Eunotia parapraerupta Lange-Bertalot & Metzeltin	-	-	-	-	-	-	-	-	-	-	-
Eunotia praerupta Ehrenberg	P-B	cool	st-str	hb	acf	6.68–8.0	-	0.3	x	-	-
Eunotia pseudogroenlandica Lange-Bertalot & Tagliaventi	-	-	-	-	-	-	-	-	-	-	-
Eunotia pseudopapilio Lange-Bertalot & M.Nörpel-Schempp	B	-	st-str	hb	acf	-	sx	0.4	x-o	ats	om
Eunotia rhomboidea Hustedt	B	temp	str	hb	acf	4.84–6.4	-	1.0	o	-	-
Eunotia scandiorussica Kulikovskiy, Lange-Bertalot, Genkal & Witkowski	-	-	-	-	-	-	-	-	-	-	-
Eunotia semicircularis (Ehrenberg) Lange-Bertalot & Metzeltin	-	-	-	-	-	-	-	-	-	-	-
Eunotia septentrionalis Østrup	P-B	-	str	hb	acf	4.5–7.5	-	1.0	o	-	ot
Eunotia subarcuatoides Alles, Nörpel & Lange-Bertalot	B	-	str	hb	acb	6.7	-	0.4	x-o	-	-
Eunotia subherkiniensis Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Eunotia triodon Ehrenberg	B	temp	-	hb	acf	6.33	-	1.0	o	-	ot
Eunotia ursamaioris Lange-Bertalot & Nörpel-Schempp	B	-	-	hb	-	-	-	1.0	o	-	ot
Eunotia valida Hustedt	P-B	-	-	hb	acf	-	-	1.0	o	-	ot
Eunotia sp.	-	-	-	-	-	-	-	-	-	-	-
Fallacia crassicostata Lange-Bertalot & Werum	-	-	-	-	-	-	-	-	-	-	-
Fallacia pygmaea (Kützing) Stickle & D.G.Mann	P-B	-	st-str	mh	alf	7.4–9.1	-	-	-	ats	-
Fallacia sp.	-	-	-	-	-	-	-	-	-	-	-
Fragilaria amphicephaloides Lange-Bertalot	B	-	-	i	alf	6.76	-	1.1	o	-	-
Fragilaria aquaplus Lange-Bertalot & S.Ulrich	-	-	-	-	-	-	-	-	-	-	-
Fragilaria capucina Desmazières	P-B	temp	st-str	i	ind	6.4–8.9	-	-	-	-	-
Fragilaria crotonensis Kitton	P-B	temp	st-str	i	alf	5.7–8.9	-	-	-	-	-
Fragilaria goulardii var. *telezkoensis* (Poretzky) Kharitonov	-	-	-	-	-	-	-	-	-	-	-
Fragilaria radians (Kützing) D.M.Williams & Round	P-B	warm	st-str	i	alf	7.0–7.5	-	-	-	-	-
Fragilaria rumpens (Kützing) G.W.F.Carlson	P-B	eterm	st-str	i	ind	6.5–8.8	-	2.0	b	ats	e
Fragilaria saxoplanctonica Lange-Bertalot & S.Ulrich	-	-	-	-	-	-	-	-	-	-	-
Fragilaria striatula Lyngbye	P-B	-	-	eh	-	-	-	-	-	-	-
Fragilaria vaucheriae (Kützing) J.B.Petersen	P-B,Ep	temp	st-str	i	alf	6.5–8.8	-	-	-	-	-
Fragilaria sp.	-	-	-	i	-	4.9–7.8	es	-	-	hne	-
Fragilariforma bicapitata (A.Mayer) D.M.Williams & Round	P-B	-	st-str	hb	ind	-	-	-	-	-	-
Fragilariforma constricta (Ehrenberg) D.M.Williams & Round	B	-	str	hb	acf	4.6–7.0	-	1.3	o	ats	m
Fragilariforma mesolepta (Rabenhorst) Kharitonov	P-B	-	st-str	i	alf	6.3–9.0	-	1.0	o	-	ot
Fragilariforma nitzschioides (Grunow) Lange-Bertalot	B	-	-	i	ind	-	sx	1.9	o-a	ats	me
Fragilariforma virescens (Ralfs) D.M.Williams & Round	P-B	temp	st-str	hb	ind	4.6–8.2	-	1.0	o	-	ot
Fragilariopsis oceanica (Cleve) Hasle	P	-	-	eh	-	-	-	-	-	-	-
Frustulia crassinervia (Brébisson ex W.Smith) Lange-Bertalot & Krammer	B	-	str	hb	acf	4.7–7.2	sx	0.5	x-o	ats	ot
Frustulia erifuga Lange-Bertalot & Krammer	B	temp	str	hb	acf	5.85–6.49	-	-	o	ats	e
Frustulia krammeri Lange-Bertalot & Metzeltin	B	-	-	-	acf	-	-	-	-	-	e

Frustulia saxonica Rabenhorst	B	temp	st-str	hb	acf	4.5–7.2	-	-	-	ate	-
Frustulia vulgaris (Thwaites) De Toni	P-B	temp	st-str	i	alf	5.7–8.2	-	1.0	o	-	-
Geissleria davydovae Genkal et Yaruschina	-	-	-	-	-	-	-	-	-	-	-
Genkalia digituloides (Lange-Bertalot) Lange-Bertalot & Kulikovskiy	-	-	-	-	-	-	-	-	-	-	-
Gololobovia obliqua (W.Gregory) Kulikovskiy, Glushchenko & Kociolek	-	-	-	-	-	-	-	-	-	-	-
Gomphoneis eriensis (Grunow) Skvortzov & K.I.Meyer	B	-	-	hb	-	-	-	0.3	x	ate	ot
Gomphoneis quadripunctata (Østrup) P.Dawson ex R.Ross & P.A.Sims	B	-	-	i	ind	-	-	-	-	-	-
Gomphoneis septa (F.Moghadam) Kociolek, Stoermer & Bahls	B	-	-	-	-	-	-	-	-	-	-
Gomphonella olivacea (Hornemann) Rabenhorst	B	temp	st-str	i	alf	6.5–8.8	-	2.3	b	ate	om
Gomphonema acuminatum Ehrenberg	B	temp	st-str	i	ind	6.3–9.5	-	0.8	x-b	-	-
Gomphonema angustatum (Kützing) Rabenhorst	B	temp	st-str	i	ind	5.7–9.0	-	1.0	o	-	-
Gomphonema angusticephalum E.Reichardt & Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Gomphonema angustum C.Agardh	B	-	st-str	i	ind	8.17–8.2	-	-	-	-	-
Gomphonema brebissonii Kützing	B	-	st	i	ind	-	-	-	-	-	m
Gomphonema capitatum Ehrenberg	B	temp	st	i	alf	6.9–8.9	-	1.2	o	-	om
Gomphonema coronatum Ehrenberg	B	-	st	i	ind	7.33	-	-	-	-	-
Gomphonema gracile Ehrenberg	B	temp	st-str	i	alf	6.4–8.6	-	-	-	-	-
Gomphonema hebridense W.Gregory	B	-	-	-	acf	6.1	-	1.0	o	-	-
Gomphonema helveticum Brun	B	-	-	i	ind	-	-	-	-	-	-
Gomphonema italicum Kützing	-	-	-	-	-	-	-	-	-	-	-
Gomphonema lagenula Kützing	B	-	-	-	-	-	-	-	b	ate	e
Gomphonema lagerheimii A.Cleve	B	-	str	hb	acf	-	-	-	-	-	m
Gomphonema laticollum E.Reichardt	-	-	-	-	-	-	-	1.0	o	ats	ot
Gomphonema longiceps f. *suecicum* (Grunow) Hustedt	-	-	-	-	-	-	-	-	-	-	-
Gomphonema microcapitatum Kulikovskiy, Kociolek & Solak	-	-	-	-	-	-	-	-	-	-	-
Gomphonema micropus Kützing	B	temp	st-str	i	ind	6.6–8.3	-	1.1	-	-	-
Gomphonema mihoi Levkov	-	-	-	-	-	-	-	-	-	-	-
Gomphonema minutum f. *pachypus* Lange-Bertalot & E.Reichardt	-	-	-	-	-	-	-	-	-	-	-
Gomphonema montanum (Schumann) Grunow	B	-	str	i	ind	-	-	-	-	ate	-
Gomphonema olivaceoides Hustedt	B	-	str	hb	ind	-	-	1.0	o	-	-
Gomphonema parvulum (Kützing) Kützing	B	temp	st-str	i	ind	4.5–8.6	-	0.7	o-x	ats	ot
Gomphonema productum (Grunow) Lange-Bertalot & E.Reichardt	B	-	str	i	ind	-	-	1.0	o	-	-
Gomphonema pseudacuminatum Kulikovskiy, Kociolek & Solak	-	-	-	-	-	-	-	-	-	-	-
Gomphonema pumilum (Grunow) E.Reichardt & Lange-Bertalot	B	temp	-	i	alf	6.6–8.4	-	-	-	-	-
Gomphonema subclavatum (Grunow) Grunow	B	-	str	i	ind	-	-	1.0	o	-	ot
Gomphonema tergestinum (Grunow) Fricke	B	-	str	i	ind	-	-	1.0	o	-	-
Gomphonema truncatum Ehrenberg	B	temp	st-str	i	ind	7.19	-	2.0	b	-	-
Gomphonema ventricosum W.Gregory	B	cool	str	i	ind	-	-	1.0	o	-	-
Gomphonema sp.	B	-	-	i	-	5.7–7.8	sx	-	-	-	-
Gomphosphenia vallei Beauger, C.E.Wetzel, Allain & Ector	-	-	-	-	-	-	-	-	-	-	-
Gomphosphenia sp.	B	-	-	-	-	-	-	-	-	-	-
Gyrosigma acuminatum (Kützing) Rabenhorst var. *acuminatum*	B	temp	st-str	i	alf	6.3–9.5	-	-	-	-	-
Gyrosigma acuminatum var. *gallicum* (Grunow) Cleve	B	-	st-str	hl	alf	-	-	-	-	-	-
Gyrosigma attenuatum (Kützing) Rabenhorst	P-B	temp	st-str	i	alf	6.9–8.5	-	-	-	-	-
Gyrosigma balticum (Ehrenberg) Rabenhorst	B	temp	st	mh	alb	-	-	-	-	-	-
Gyrosigma peisonis (Grunow) Hustedt	B	-	st-str	mh	alf	-	sp	2.0	b	ate	e
Gyrosigma strigilis (W.Smith) J.W.Griffin & Henfrey	B	-	-	mh	alb	-	es	-	-	hne	-
Gyrosigma sp.	B	-	-	-	-	-	-	-	-	-	-
Halamphora hassiaca (Krammer & S.Strecker) Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-

Halamphora veneta (Kützing) Levkov	B	temp	st-str	hl	alf	7.4–8.4	-	-	-	-	-
Handmannia antiqua (W.Smith) Kociolek et Khursevich	P-B	temp	-	hb	acf	7.25–7.27	-	1.2	o	-	-
Handmannia comta (Ehrenberg) Kociolek et Khursevich emend. Genkal	P	temp	st	i	alf	6.0–7.8	-	-	-	-	-
Hannaea arcus (Ehrenberg) R.M.Patrick	B	temp	str	i	alf	5.7–7.5	-	-	-	-	-
Hannaea inaequidentata (Lagerstedt) Genkal & Kharitonov	P-B	-	-	hb	neu	-	-	-	-	-	-
Hantzschia amphioxys (Ehrenberg) Grunow f. *amphioxys*	B,aer	temp	st-str	i	ind	6.3–9.5	-	3.0	a	-	me
Hantzschia amphioxys f. *capitata* O.Müller	B	-	st-str	I	ind	-	es	1.9	a	ate	o-e
Hantzschia virgata var. *capitellata* Hustedt	B	-	-	hl	-	-	-	2.0	b	-	m
Hantzschia sp.	B	-	-	-	-	-	-	-	-	-	-
Hemiaulus hauckii Grunow ex Van Heurck	-	-	-	-	-	-	-	-	-	-	-
Hippodonta capitata (Ehrenberg) Lange-Bertalot, Metzeltin & Witkowski	B	temp	st-str	hl	alf	6.6–9.5	-	-	a-b	-	me
Hippodonta hungarica (Grunow) Lange-Bertalot, Metzeltin & Witkowski	B	-	st-str	hl	alf	6.9–8.6	-	-	-	-	-
Humidophila brekkaensis (J.B.Petersen) R.L.Lowe, Kociolek, J.R.Johansen, Van de Vijver, Lange-Bertalot & Krammer et Kopalova	B	-	aer	mh	alf	-	-	-	-	-	-
Humidophila gallica (W.Smith) Lowe, Kociolek, Q.You, Q.Wang & Stepanek	B	-	st-str	i	ind	7.60	es	0.7	o-x	ate	om
Humidophila perpusilla (Grunow) R.L.Lowe, Kociolek, J.R.Johansen, Van de Vijver, Lange-Bertalot & Kopalová	B	warm	st-str	I	ind	-	-	-	-	-	-
Humidophila schmassmannii (Hustedt) Buczkó & Wojtal	B	cool	-	-	acf	-	sp	0.7	o-x	ats	om
Humidophila sp.	-	-	-	-	-	-	-	-	-	-	-
Hygropetra balfouriana (Grunow ex Cleve) Krammer & Lange-Bertalot	B,aer	temp	-	i	ind	6.89–7.60	-	-	-	-	ot
Iconella bifrons (Ehrenberg) Ruck & Nakov	P-B	-	st	i	ind	-	-	1.7	b-o	ats	e
Iconella biseriata (Brébisson) Ruck & Nakov	P-B	temp	st-str	i	alf	7–9	es	1.0	o	-	m
Iconella curvula (W.Smith) Ruck & Nakov	B	-	str	hb	acf	-	-	2.0	b	-	me
Iconella linearis (W.Smith) Ruck & Nakov	P-B	-	st-str	i	ind	4.6–9.0	-	-	-	-	-
Iconella nervosa (A.W.F.Schmidt) C.Cocquyt & R.Jahn	B	-	st	i	alf	6.9–7.0	es	0.5	x-o	ats	om
Iconella spiralis (Kützing) E.C.Ruck & T.Nakov	B	-	str	i	alf	-	-	1.1	o	-	-
Iconella splendida (Ehrenberg) Ruck & Nakov	P-B	-	st-str	i	alf	-	-	-	-	-	-
Iconella tenera (W.Gregory) Ruck & Nakov	P-B	temp	st	i	alf	5.7–7.5	-	0.2	x	ats	ot
Karayevia laterostrata (Hustedt) Bukhtiyarova	B	temp	st-str	hb	ind	6.89–8.1	-	-	-	-	-
Kobayasiella parasubtilissima (H.Kobayasi & T.Nagumo) Lange-Bertalot	B	temp	str	hb	acb	5.41	-	1.5	o-b	-	-
Kobayasiella subtilissima (Cleve) Lange-Bertalot	B	temp	st-str	i	acb	4.6–7.0	-	1.6	b-o	ats	me
Lacustriella lacustris (W.Gregory) Lange-Bertalot & Kulikovskiy	B	-	-	hb	ind	-	-	-	-	-	e
Lemnicola hungarica (Grunow) Round & Basson	P-B	-	st-str	i	alf	6.7- 8.2	-	0.8	x-b	-	-
Leptocylindrus danicus Cleve	-	-	-	-	-	-	-	-	-	-	-
Lindavia costata (Loginova, Lupikina & Khursevich) Nakov, Guillory, Julius, Theriot & Alverson	-	-	-	-	-	-	-	-	-	-	-
Mayamaea agrestis (Hustedt) Lange-Bertalot	B	-	-	i	ind	7.2	es	2.6	a-o	hce	he
Mayamaea disjuncta (Hustedt) J.Y. Li & Y.Z.Qi	B	-	str	i	ind	7.5	sp	3.0	a	ate	he
Mayamaea permitis (Hustedt) K.Bruder & Medlin	B	temp	st	i	alf	6.5–8.9	-	0.7	o-x	-	-
Melosira lineata var. *subangularis* (Grunow) Aboal	P-B	cool	-	mh	alf	6.3–9.1	-	2.0	b	-	-
Melosira moniliformis (Link) C.Agardh	P-B	eterm	str	mh	alf	-	-	2.0	b	-	-
Melosira normanii Arnott ex Van Heurck	-	-	-	-	-	-	-	-	-	-	-
Melosira undulata (Ehrenberg) Kützing	P-B	-	-	i	ind	-	-	2.8	a-o	-	-
Melosira varians C.Agardh	P-B	temp	st-str	hl	ind	5–9	-	2.4	b-a	-	-
Meridion circulare (Greville) C.Agardh	P-B	temp	st-str	i	ind	6.6–8.3	-	-	-	-	-
Navicula angusta Grunow	B	-	st-str	i	ind	7.6–8.2	-	1.0	o	-	-
Navicula antonii Lange-Bertalot	B	temp	-	oh	alf	7.5–8.5	es	-	-	-	-
Navicula bottnica Grunow	B	-	-	mh	alf	-	sx	2.1	b	ate	e
Navicula capitatoradiata H.Germain ex Gasse	P-B	temp	st-str	mh	alf	7.6–8.1	-	-	-	-	-

Navicula chiarae Lange-Bertalot & Genkal	-	-	-	-	-	8.30	-	-	-	hce	-
Navicula cincta (Ehrenberg) Ralfs	B	temp	st-str	hl	alf	6.9–8.4	-	-	-	-	-
Navicula cryptocephala Kützing var. *cryptocephala*	P-B	temp	st-str	i	ind	6.5–8.4	-	2.4	b-a	-	-
Navicula cryptocephala var. *lata* Poretzky & Anisimova	B	-	-	i	-	-	-	-	-	-	-
Navicula cryptotenella Lange-Bertalot	P-B	temp	st-str	i	ind	6.5–8.7	-	-	-	-	-
Navicula cryptotenelloides Lange-Bertalot	B	-	-	oh	alf	7.9–8.19	-	1.0	o	-	-
Navicula digitoconvergens Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Navicula digitoradiata (W.Gregory) Ralfs	B	-	-	i	alf	-	-	-	-	-	-
Navicula gottlandica Grunow	P-B	-	-	hl	alf	-	es	2.5	b-a	ate	e
Navicula granii (Jørgensen) Gran	-	-	-	-	-	-	-	-	-	-	-
Navicula hasta Pantocsek	B	-	-	-	ind	-	-	-	-	-	-
Navicula kariana Grunow	-	warm	-	i	-	-	-	-	-	-	-
Navicula lanceolata var. *tenuirostris* Skvortzov	B	-	-	i	alf	-	-	1.0	o	-	-
Navicula laterostrata Hustedt	P-B	-	str	i	alf	7.1–7.9	-	1.1	o	-	-
Navicula margalithii Lange-Bertalot	B	-	-	hl	alf	-	-	-	-	-	-
Navicula mediocostata E.Reichardt	B	-	-	oh	alf	-	es	3.0	a	ate	e
Navicula menisculus Schumann	P-B	-	st-str	hl	alf	6.7–7.6	-	-	o	ats	e
Navicula notha J.H.Wallace	B	-	str	i	acf	6.3–7.5	-	-	-	-	-
Navicula phyllepta Kützing	B	-	-	hl	-	-	-	-	-	-	-
Navicula phylleptosoma Lange-Bertalot	B	-	-	mh	alf	7.7	-	-	-	-	-
Navicula pusilla var. *jacutica* Kisseleva	B	-	-	hl	ind	-	-	-	-	-	-
Navicula radiosa Kützing	B	temp	st-str	i	ind	5–9	sx	-	-	-	-
Navicula reinhardtii (Grunow) Grunow var. *reinhardtii*	-	-	-	-	-	-	-	-	-	-	-
Navicula reinhardtii var. *elliptica* Héribaud	-	-	-	-	-	-	-	-	-	-	-
Navicula rhynchocephala Kützing	B	temp	st-str	hl	alf	6.4–9.5	-	1.3	o	-	-
Navicula rhynchotella Lange-Bertalot	B	-	-	hl	alf	-	-	-	-	-	-
Navicula rostellata Kützing	B	-	st-str	i	alf	7.7–8.6	-	0.7	o-x	ate	ot
Navicula rotaeana (Rabenhorst) Grunow	P-B	-	st	i	ind	-	-	-	-	-	-
Navicula slesvicensis Grunow	P-B	-	st-str	hl	alf	-	-	-	-	-	-
Navicula streckerae Lange-Bertalot & Witkowski	-	-	-	-	-	-	-	-	-	-	-
Navicula striolata (Grunow) Lange-Bertalot	B	-	-	i	alb	-	-	-	-	-	-
Navicula tripunctata (O.F.Müller) Bory	P-B	temp	st-str	i	alf	7.0–8.6	es	-	-	-	e
Navicula trivialis Lange-Bertalot	B	temp	st-str	i	alf	7.2–8.1	es	-	-	-	-
Navicula venerablis Hohn & Hellerman	-	-	-	-	-	-	-	-	-	-	-
Navicula viridula (Kützing) Ehrenberg	B	-	st-str	hl	alf	7.5–8.0	-	-	-	-	-
Navicula viridulacalcis Lange-Bertalot	B	-	-	-	-	-	-	-	-	-	-
Navicula vulpina Kützing	B	temp	st-str	i	ind	7.52–8.30	-	-	-	-	-
Navicula wygaschii Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Navicula sp.	-	-	-	-	-	-	-	-	-	-	-
Naviculadicta sp.	-	-	-	-	-	-	-	-	-	-	-
Navigeia paludosa (Hustedt) Bukhtiyarova	B	-	str	i	ind	8.11	sx	-	-	-	-
Navigeia thingvallae (Østrup) Bukhtiyarova	B	-	-	-	-	-	-	-	-	-	-
Neidiopsis wulffii (J.B.Petersen) Lange-Bertalot	-	-	-	-	-	7.80	-	-	-	ats	ot
Neidium affine (Ehrenberg) Pfitzer	B	temp	st-str	i	ind	4.5–7.8	-	-	-	-	-
Neidium ampliatum (Ehrenberg) Krammer	B	temp	st	i	ind	5.2–8.6	-	-	-	-	-
Neidium bisulcatum (Lagerstedt) Cleve	B	-	st-str	i	ind	4.9–7.0	-	1.0	o	-	-
Neidium dubium (Ehenberg) Cleve	B	-	str	i	alf	-	-	-	-	-	-
Neidium hercynicum Ant.Mayer	B	-	-	i	acf	-	-	-	-	-	-
Neidium hitchcockii (Ehrenberg) Cleve	P-B	-	st	I	ind	-	es	0.6	o-x	ats	ot

Neidium iridis (Ehrenberg) Cleve var. *iridis*	B	temp	st-str	hb	ind	5.1–8.9	-	-	-	-	-
Neidium iridis var. *diminutum* (Pantocsek) Wislouch & Kolbe	B	-	-	i	ind	-	-	1.0	o	-	-
Neidium productum (W.Smith) Cleve	P-B	temp	st-str	i	ind	-	-	-	-	-	-
Neidium sp.	B	-	-	-	-	4.6–6.9	-	-	-	-	-
Nitzschia acicularis (Kützing) W.Smith	P-B	temp	st	i	alf	6.8–8.1	es	1.4	o-b	ats	om
Nitzschia acidoclinata Lange-Bertalot	B	temp	str	hb	ind	6.5–8.0	-	3.6	a-b	ate	e
Nitzschia acuta Hantzsch	P-B	-	st-str	i	alf	-	-	-	-	-	-
Nitzschia alpina Hustedt	P-B	temp	str	i	acf	7.39	-	1.0	o	-	-
Nitzschia aquaea Wisłouch & V.S.Poretzky		-	-	hb	-	-	es	2.1	b	ate	e
Nitzschia brevissima Grunow	B	-	st-str	hl	alf	6.5–8.0	-	-	-	-	-
Nitzschia capitellata Hustedt var. *capitellata*	B	temp	-	i	ind	6.9–8.6	-	3.6	a-b	-	o-e
Nitzschia capitellata var. *tenuirostris* (Grunow) Bukhtiyarova	P-B	-	-	i	alf	7.0–8.2	-	1.0	o	-	-
Nitzschia commutatoides Lange-Bertalot	-	-	-	hl	-	-	-	-	-	-	-
Nitzschia denticula Grunow	B	-	-	mh	alf	8.0	-	-	-	-	-
Nitzschia dissipata (Kützing) Rabenhorst var. *dissipata*	B	temp	st-str	i	alf	6.5–8.5	sx	1.4	o-b	-	-
Nitzschia flexoides Geitler	B	-	-	-	-	-	-	1.5	o-b	-	-
Nitzschia fonticola (Grunow) Grunow	P-B	temp	st-str	i	alf	6.0–8.9	-	3.6	a-b	hne	-
Nitzschia frigida Grunow	-	-	-	-	-	-	-	-	-	-	-
Nitzschia frustulum (Kützing) Grunow	P-B	temp	st-str	hl	alf	6.7–8.8	es	2.7	a-o	-	-
Nitzschia graciliformis Lange-Bertalot & Simonsen	B	-	-	i	alf	-	es	1.0	o	-	-
Nitzschia gracilis Hantzsch	P-B	temp	st-str	i	ind	5.51–8.25	-	-	-	-	-
Nitzschia homburgiensis Lange-Bertalot	B	-	st-str	i	alf	-	-	-	-	-	-
Nitzschia inconspicua Grunow	B	temp	st-str	hl	alf	6.7–8.9	-	-	-	-	-
Nitzschia intermedia Hantzsch ex Cleve & Grunow	P-B	temp	-	i	ind	6.6–8.1	-	-	-	-	-
Nitzschia linearis W.Smith	B	temp	-	i	alf	7.1–8.1	es	1.7	b-o	ate	me
Nitzschia longissima (Brébisson) Ralfs	-	-	-	mh	alf	-	-	-	-	-	-
Nitzschia media Hantzsch	-	-	-	-	-	-	-	-	-	-	-
Nitzschia palea (Kützing) W.Smith	P-B	temp	st-str	i	ind	4.5–8.8	-	2.0	b	-	-
Nitzschia paleacea (Grunow) Grunow	P-B	temp	st-str	i	alf	6.8–8.9	es	2.0	b	ate	o-e
Nitzschia perminuta Grunow	P-B	temp	str	hl	alf	5.79–8.0	-	-	-	-	-
Nitzschia recta Hantzsch ex Rabenhorst	B	temp	st-str	i	alf	6–9	-	1.0	o	-	-
Nitzschia rosenstockii Lange-Bertalot	B	-	-	hl	-	-	-	-	-	-	-
Nitzschia sigma (Kützing) W.Smith	B	temp	st-str	mh	alf	6.9–8.2	-	-	-	-	-
Nitzschia sublinearis Hustedt	P-B	-	-	i	alf	-	-	-	-	-	-
Nitzschia umbonata (Ehrenberg) Lange-Bertalot	P-B	-	st-str	i	ind	7.2–8.2	sp	2.0	b	hne	me
Nitzschia vermicularis (Kützing) Hantzsch	P-B	temp	st-str	i	alf	7.23	-	-	-	-	-
Nitzschia sp.	-	-	-	-	-	-	-	-	-	-	-
Nupela impexiformis (Lange-Bertalot) Lange-Bertalot	B	-	-	-	ind	6.8–7.3	sx	0.5	x-o	ats	ot
Nupela neogracillima Kulikovskiy & Lange-Bertalot	P-B	-	-	i	ind	-	-	-	-	-	ot
Nupela silvahercynia (Lange-Bertalot) Lange-Bertalot	B	-	-	i	-	-	-	-	-	-	-
Nupela tenuicephala (Hustedt) Lange-Bertalot	B	-	-	-	acf	-	es	-	-	-	-
Odontidium anceps (Ehrenberg) Ralfs	P-B	cool	st-str	hb	ind	7.8–8.2	-	-	-	-	-
Odontidium hyemale (Roth) Kützing	P-B	cool	st-str	hb	ind	6.5–7.5	-	-	-	-	-
Odontidium mesodon (Ehrenberg) Kützing	B	cool	st-str	hb	ind	6.6–8.3	-	0.9	x-b	-	-
Opephora mutabilis Sabbe & Wyverman	B	-	-	eh	alf	-	-	-	-	-	-
Pantocsekiella costei (J.C.Druart & F.Straub) K.T.Kiss & E.Ács	-	-	-	-	-	-	-	-	-	-	-
Pantocsekiella kuetzingiana (Thwaites) K.T.Kiss & E.Ács	B	temp	st-str	hl	ind	6.6–8.3	es	3.6	a-b	-	e
Pantocsekiella ocellata (Pantocsek) K.T.Kiss & Ács	P-B	cool	st-str	hl	alf	6.61–8.18	-	0.9	x-b	-	ot
Paraplaconeis placentula (Ehrenberg) Kulikovskiy & Lange-Bertalot	B	temp	st-str	i	alf	7.3–8.4	-	2.0	b	-	ot

Pauliella taeniata (Grunow) Round & Basson	P-B	-	-	eh	alf	-	-	2.0	b	-	-
Pinnularia acoricola Hustedt	B	-	st-str	i	acf	-	-	-	-	-	-
Pinnularia ammerensis Kulikovskiy, Lange-Bertalot & Metzeltin	-	-	-	-	-	-	-	-	-	-	-
Pinnularia anglica Krammer	B	-	-	-	acf	-	es	2.3	b	-	e
Pinnularia angustarea Kulikovskiy, Lange-Bertalot, A.Witkovski & N.I.Dorofeyuk	-	-	-	-	-	-	-	-	-	-	-
Pinnularia biceps W.Gregory	B	temp	str	i	acf	5.1–7.2	es	0.3	x	ats	om
Pinnularia brebissonii (Kützing) Rabenhorst var. brebissonii	B	temp	st-str	i	ind	-	-	1.0	o	-	-
Pinnularia bottnica Krammer	B	-	-	hl	-	-	-	-	-	-	-
Pinnularia brandelii Cleve	B	-	-	hb	acf	-	-	-	-	-	-
Pinnularia brevicostata Cleve	P-B	cool	st-str	i	ind	-	-	-	-	-	-
Pinnularia bullacostae Krammer & Lange-Bertalot	-	-	-	-	-	-	-	-	-	-	-
Pinnularia canadensis Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia cardinaliculus Cleve	-	-	-	-	-	-	-	-	-	-	-
Pinnularia cuneola E.Reichardt	-	-	-	-	-	-	-	-	-	-	-
Pinnularia decrescens (Grunow) Krammer	B	-	str	hb	ind	-	-	-	-	-	-
Pinnularia divergens var. *sublinearis* Cleve	-	-	-	-	-	-	-	-	-	-	-
Pinnularia divergens W.Smith	B	-	st	hb	ind	-	-	-	-	-	-
Pinnularia eifeliana (Krammer) Krammer	B	-	-	-	-	-	-	1.0	o	-	-
Pinnularia gentilis (Donkin) Cleve	B	-	st-str	i	ind	-	-	-	-	-	-
Pinnularia grunowii Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia halophila Krammer	B	-	-	hl	-	-	-	0.2	x	ats	om
Pinnularia intermedia (Lagerstedt) Cleve	P-B	cool	st-str	i	ind	-	-	1.0	o	-	-
Pinnularia krammeri Metzeltin	-	-	-	-	-	-	-	-	-	-	-
Pinnularia lagerstedtii (Cleve) A.Cleve	B	-	aer	hb	ind	-	-	-	-	-	-
Pinnularia lailaensis Foged	-	-	-	-	-	-	-	-	-	-	-
Pinnularia lata (Brébisson) W.Smith	P-B	-	str	i	acf	-	-	0.3	x	-	-
Pinnularia macilenta Ehrenberg	B	-	-	-	-	-	-	0.9	x-b	-	-
Pinnularia media (Krammer) Kulikovskiy, Lange-Bertalot & Metzeltin	B	-	-	-	-	-	-	0.6	o-x	ate	me
Pinnularia mesogongyla Ehrenberg	B	-	st	i	ind	-	sx	0.2	o	ats	ot
Pinnularia mesolepta (Ehrenberg) W.Smith	P-B	temp	st-str	i	ind	6.9–7.1	-	-	-	-	ot
Pinnularia microstauron (Ehrenberg) Cleve var. *microstauron*	P-B	temp	st-str	i	ind	4.5–8.7	-	0.3	x	ats	ot
Pinnularia microstauron var. *rostrata* Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia neohalophila Kulikovskiy, Genkal & Mikheeva	-	-	-	-	-	-	-	-	-	-	-
Pinnularia neomajor Krammer	B	-	-	i	ind	-	-	-	-	-	-
Pinnularia nodosa (Ehrenberg) W.Smith var. *nodosa*	B	temp	str	i	ind	6.79	-	0.4	x-o	-	-
Pinnularia nodosa var. *percapitata* Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia nodosa var. *robusta* (Foged) Krammer	B	-	-	-	-	-	-	0.4	x-o	ats	ot
Pinnularia notabilis Krammer	B	-	-	-	-	-	-	0.6	o-x	-	-
Pinnularia oriunda Krammer	B	-	-	i	neu	-	-	1.0	o	ats	ot
Pinnularia oriundiformis Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia parvulissima Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia permicrostauron Krammer & Metzeltin	-	-	-	-	-	-	-	-	-	-	-
Pinnularia pluvianiformis Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia quadratarea (A.W.F.Schmidt) Cleve	B	-	-	ph	-	-	-	0.3	x	-	-
Pinnularia rhombarea Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia rupestris Hantzsch	B	temp	str	i	acf	5.39	-	-	-	-	-
Pinnularia septentrionalis Krammer	B	-	-	i	ind	-	-	1.0	o	-	om
Pinnularia similiformis Krammer	B	-	-	-	acf	-	-	1.0	o	-	ot

Pinnularia spitsbergensis Cleve	B	-	-	hb	ind	-	-	-	-	ats	ot
Pinnularia stricta Hustedt	-	-	-	-	-	-	-	-	-	-	-
Pinnularia subanglica Krammer	-	-	-	-	-	-	-	-	-	-	-
Pinnularia subrostrata (A.Cleve) A.Cleve	B	-	-	hb	acf	-	-	1.0	o	-	-
Pinnularia subrupestris Krammer	B	-	-	hb	acf	-	-	0.4	x-o	-	-
Pinnularia subundulata Østrup	B	-	-	-	acf	-	-	0.3	x	-	ot
Pinnularia sudetica Hilse	B	-	st-str	i	acf	-	-	1.0	o	-	-
Pinnularia undula (Schumann) Krammer	B	-	-	i	ind	-	-	1.0	o	-	-
Pinnularia viridis (Nitzsch) Ehrenberg	P-B	temp	st-str	i	ind	5.24–7.1	-	0.9	x-b	-	ot
Pinnularia sp.	-	-	-	-	-	4.5–7.8	-	-	-	-	-
Placogeia similis (Krasske) Bukhtiyarova	B	-	-	i	ind	-	-	-	-	-	e
Placoneis amphibola (Cleve) E.J.Cox	B	cool	st-str	i	ind	-	-	-	-	-	-
Placoneis clementioides (Hustedt) E.J.Cox	B	-	-	i	alf	-	-	-	-	-	-
Placoneis dicephala (Ehrenberg) Mereschkowsky	B	-	-	i	ind	-	es	2.0	b	ate	me
Placoneis elginensis (W.Gregory) E.J.Cox	P-B	-	st-str	i	alf	7.0–8.2	-	-	-	-	-
Placoneis exigua (W.Gregory) Mereschkovsky	B	-	str	i	ind	-	es	1.4	o-b	-	-
Placoneis gastrum (Ehrenberg) Mereschkowsky	B	-	st-str	i	ind	-	-	-	-	-	-
Placoneis interglacialis (Hustedt) E.J.Cox	B	-	-	i	ind	-	-	2.0	b	-	-
Placoneis opportuna (Hustedt) Chudaev & Gololobova	B	-	-	-	-	-	es	-	-	-	-
Placoneis placentula var. *rostrata* (Mayer) N.A.Andresen, Stoermer & R.G.Kreis, Jr.	B	-	-	i	alf	-	-	-	-	-	-
Placoneis sp.	-	-	-	-	-	-	-	-	-	-	-
Planothidium delicatulum (Kützing) Round & Bukhtiyarova	P-B	-	st-str	mh	alb	6.6–8.5	-	1.0	o	ats	ot
Planothidium haynaldii (Schaarschmidt) Lange-Bertalot	B	-	st-str	i	alf	-	-	1.0	o	hne	om
Planothidium lanceolatum (Brébisson ex Kützing) Lange-Bertalot	P-B	temp	st-str	i	alf	6.4–9.0	sx	1.0	o	ats	om
Planothidium straubianum C.E.Wetzel, Van de Vijver & L.Ector	B	-	str	i	alf	8.0	-	-	a	ats	e
Planothidium sp.	-	-	-	-	-	-	-	-	-	-	-
Pleurosigma delicatulum W.Smith	B	-	-	mh	-	-	-	-	-	-	-
Pleurosigma elongatum W.Smith	P-B	-	-	mh	alf	-	-	-	-	-	-
Praestephanos triporus (Genkal & G.V.Kuzmin) A.Tuji & J.-S.Ki	P	-	-	i	alf	-	-	-	-	-	-
Prestauroneis crucicula (W.Smith) Genkal & Yarushina	B	-	-	mh	ind	-	-	0.2	x	-	-
Psammothidium petersenii (Hastedt) Round et Bukhiyarova	-	-	-	-	-	-	-	-	-	-	-
Psammothidium bioretii (H.Germain) Bukhtiyarova & Round	B	-	str	i	ind	6.08–7.9	-	0.7	o-x	ats	ot
Psammothidium chlidanos (M.H.Hohn & Hellerman) Lange-Bertalot	B	-	-	hb	acf	7.1–7.9	-	1.0	o	-	ot
Psammothidium daonense (Lange-Bertalot) Lange-Bertalot	B	temp	str	hb	ind	6.6–8.2	-	-	o	ats	ot
Psammothidium helveticum (Hustedt) Bukhtiyarova & Round	B	temp	st-str	hb	alf	6.0–7.4	es	2.4	b-a	ate	m
Psammothidium kryophilum (J.B.Petersen) E.Reichardt	P-B	-	str	i	ind	8.10	sx	0.5	x-o	ats	ot
Psammothidium levanderi (Hustedt) Bukhtiyarova & Round	B	temp	str	i	ind	6.6–8.4	sx	2.0	b	ats	om
Psammothidium marginulatum (Grunow) Bukhtiyarova & Round	B	temp	st-str	hb	acf	4.6–7.9	sx	0.2	x	ats	ot
Psammothidium rechtense (Leclercq) Lange-Bertalot	B	-	str	hb	alf	-	-	1.0	o	ats	ot
Psammothidium rossii (Hustedt) Bukhtiyarova & Round	B	-	str	hb	ind	-	-	1.0	o	ats	ot
Psammothidium scoticum (R.J.Flower & V.J.Jones) Bukhtiyarova & Round	B	temp	-	-	-	6.42	-	-	-	-	-
Psammothidium subatomoides (Hustedt) Bukhtiyarova & Round	P-B	temp	str	hb	acf	6.4–8.01	sx	2.0	b	ats	me
Psammothidium subsalsum (J.B.Petersen) Kulikowskiy, Witkowski & Pliński	B	-	-	-	-	-	-	-	-	-	-
Psammothidium ventrale (Krasske) Bukhtiyarova & Round	B	-	str	hb	acf	7.45	-	2.0	b	ats	om
Psammothidium sp.	-	-	-	-	-	-	-	-	-	-	-
Pseudostaurosira brevistriata (Grunow) D.M.Williams & Round	P-B	temp	st-str	i	alf	5.2–8.4	-	2.0	b	ate	-
Pseudostaurosira parasitica (W.Smith) E.Morales	P-B	temp	st-str	i	alf	6.41–8.22	-	1.0	o	ate	ot
Pulchellophycus obsitus (Hustedt) Edlund & M.J.Wynne	-	-	-	-	-	-	-	-	-	-	-

Pulchellophycus sp.	-	-	-	-	-	-	-	-	-	-	-
Reimeria sinuata (W.Gregory) Kociolek & Stoermer	P-B,aer	temp	st-str	i	ind	6.6–8.9	-	-	-	-	-
Rexlowea parasemen (Lange-Bertalot) Kulikoviskiy, Kociolek & Genkal	B	-	-	i	ind	-	es	-	-	-	-
Rhizosolenia hebetata f. semispina (Hensen) Gran	P	cool	-	eh	-	-	-	-	-	-	-
Rhizosolenia hebetata J.W.Bailey	P	cool	-	eh	-	-	-	-	-	-	-
Rhoicosphenia abbreviata (C.Agardh) Lange-Bertalot	B	temp	st-str	i	alf	6.5–8.6	es	1.9	o-a	ate	me
Rhopalodia gibba (Ehrenberg) O.Müller var. *gibba*	P-B	temp	st-str	i	alf	6.2–9.0	es	1.4	x-o	ate	om
Rhopalodia gibba var. *ventricosa* (Kützing) H.Peragallo & M.Peragallo	B	temp	-	i	alf	6.2–9.0	es	1.4	o-b	hne	-
Roperia praetesselata H.J.Schrader	-	-	-	-	-	-	-	-	-	-	-
Rossithidium kreigeri (Krasske) Bahls	B	-	-	hb	-	-	sx	1.0	o	-	ot
Sellaphora absoluta (Hustedt) Wetzel, Ector, Van de Vijver, Compère & D.G.Mann	B	-	str	i	ind	-	es	1.0	o	ats	m
Sellaphora bacillum (Ehrenberg) D.G.Mann	B	-	st-str	i	alf	7–9	sx	1.5	o-b	ats	me
Sellaphora difficillima (Hustedt) C.E.Wetzel, L.Ector & D.G.Mann	B	temp	str	hb	acf	7.8	-	1.0	o	ate	om
Sellaphora insolita (É.Manguin ex Kociolek & B.de Reviers) P.B.Hamilton & D.Antoniades	-	-	-	-	-	-	-	-	-	-	-
Sellaphora laevissima (Kützing) D.G.Mann	B	-	st-str	i	ind	5.7–8.1	-	2.0	b	ats	om
Sellaphora parapupula Lange-Bertalot	B	-	st	i	ind	6.5–7.6	-	1.0	o	ate	m
Sellaphora pupula (Kützing) Mereschkovsky	B	eterm	st-str	hl	ind	5.2–9.0	sx	1.9	o-a	ate	me
Sellaphora rectangularis (W.Gregory) Lange-Bertalot & Metzeltin	B	temp	st-str	hl	ind	6.5–9.0	sx	1.9	o-a	ate	me
Sellaphora vitabunda (Hustedt) D.G.Mann	B	-	-	i	alf	8.06	es	1.0	o	ats	om
Sellaphora sp.	B	-	-	-	-	-	-	-	-	-	-
Simonsenia delognei (Grunow) Lange-Bertalot	B	temp	str	oh	alf	7.5–8.1	-	3.0	a	hne	e
Skabitschewskia oestrupii (A.Cleve) Kuliskovskiy & Lange-Bertalot	B	-	str	i	ind	7.6	-	1.0	o	ats	om
Skabitschewskia peragalloi (Brun & Héribaud) Kuliskovskiy & Lange-Bertalot	B	-	str	i	ind	8.20	sx	0.4	x-o	ats	om
Skeletonema subsalsum (A.Cleve) Bethge	P	-	-	i	ind	-	-	2.3	b	-	me
Stauroneis amphicephala Kützing	P-B	temp	st-str	i	ind	4.8–8.2	sx	1.3	o	ats	om
Stauroneis anceps Ehrenberg f. anceps	P-B	temp	st-str	i	ind	4.8–8.2	sx	1.3	o	ats	om
Stauroneis anceps f. linearis Rabenhorst	B	-	st-str	i	alf	-	-	-	-	-	-
Stauroneis gracilior E.Reichardt	B	-	-	-	-	-	-	-	-	-	-
Stauroneis gracilis Ehrenberg	B	-	-	I	ind	5.3	-	-	o	-	-
Stauroneis guslyakovii Genkal & Yarushina	-	-	-	-	-	-	-	-	-	-	-
Stauroneis phoenicenteron (Nitzsch) Ehrenberg	P-B	temp	st-str	i	ind	6.01–8.5	-	-	-	-	-
Stauroneis reichardtii Lange-Bertalot, Cavacini, Tagliaventi & Alfinito	P-B	temp	st-str	i	ind	4.8–8.2	sx	1.3	o	ats	om
Stauroneis schulzii Jousé	B	-	-	i	alf	-	-	-	-	ats	-
Stauroneis siberica (Grunow) Lange-Bertalot & Krammer	B	-	-	i	alf	-	-	-	-	-	-
Stauroneis smithii Grunow var. karelica Wislouch & Kolbe	B	cool	-	i	-	-	-	1.0	o	-	ot
Stauroneis smithii Grunow var. smithii	P-B	-	st-str	i	alf	-	-	1.0	o	-	om
Stauroneis sp.	B	-	-	-	-	-	-	1.5	o-b	ate	o-e
Staurosira construens Ehrenberg	P-B	temp	st-str	i	alf	5.5–9.0	-	1.0	o	-	-
Staurosira sviridae Kulikovskiy, Genkal & Mikheeva	-	-	-	-	-	-	-	-	-	-	-
Staurosirella lanceolata (Hustedt) E.A.Morales, C.Wetzel & L.Ector	-	-	-	-	-	-	-	-	-	-	-
Staurosirella lapponica (Grunow) D.M.Williams & Round	P-B	temp	st-str	i	ind	7.24–8.2	-	1.1	o	ate	ot
Staurosirella pinnata (Ehrenberg) D.M.Williams & Round	P-B	temp	st-str	hl	alf	6.2–9.3	es	1.1	o	ats	om
Stenopterobia heribaudii (Playfair) Playfair	P-B	-	st	-	-	-	-	0.4	x-o	-	-
Stephanocyclus meneghinianus (Kützing) Kulikovskiy, Genkal & Kociolek = Cyclotella meneghiniana Kützing	P-B	temp	st-str	hl	alf	5.5–9.0	sp	2.8	a	hne	e
Stephanodiscus binderanus (Kützing) Krieger	P	-	-	hl	ind	-	es	1.5	o-b	ate	me

Stephanodiscus hantzschii Grunow	P	temp	-	i	-	8.0–8.5	-	-	-	-	-
Stephanodiscus hashiensis H.Tanaka	-	-	-	-	-	-	-	-	-	-	-
Stephanodiscus minutulus (Kützing) Cleve & Möller	P	temp	st-str	i	alb	6.5–9.0	es	3.6	a-o	hne	he
Stephanodiscus neoastraea Håkansson & Hickel emend. Casper, Scheffler et Augsten	P	temp	st-str	i	alb	5.5–9.0	es	-	-	-	-
Surirella angusta Kützing	P-B	temp	st-str	i	alf	6.9–8.9	-	-	-	-	-
Surirella brebissonii Krammer & Lange-Bertalot	B	temp	st-str	hl	alf	7.2–8.4	-	0.5	x-o	-	-
Surirella capronii var. *hankensis* Skvortzov	-	-	-	-	-	-	-	-	-	-	-
Surirella conifera Skvortzov	-	-	-	-	-	-	-	-	-	-	-
Surirella crumena Brébisson ex Kützing	B	-	st-str	hl	alf	-	-	-	-	-	-
Surirella didyma Kützing	B	-	-	i	alf	-	-	-	-	-	-
Surirella elegans Ehrenberg	P-B	-	str	i	alf	-	-	1.0	o	-	om
Surirella hibernica (W.Smith) D.Kapustin & O.Kryvosheia	P-B	-	st-str	i	alf	-	-	-	-	-	-
Surirella librile (Ehrenberg) Ehrenberg	P-B	temp	st-str	i	alf	8.0	-	-	-	hne	-
Surirella minuta Brébisson ex Kützing	B	temp	st-str	i	alf	6.9–8.6	-	-	-	-	-
Surirella ovalis Brébisson	P-B	-	st-str	mh	alf	-	es	1.7	b-o	-	-
Surirella roba Leclercq	B	-	str	i	acf	-	-	-	-	-	-
Surirella sp.	B	-	-	mh	-	-	es	1.85	o-a	hne	-
Synedra actinastroides (Lemmermann) Lemmermann	-	-	-	-	-	-	-	-	-	-	-
Tabellaria fenestrata (Lyngbye) Kützing	P-B	-	st-str	i	ind	6.2	-	1.9	o-a	-	-
Tabellaria flocculosa (Roth) Kützing	P-B	eterm	st-str	i	acf	4.5–8.0	-	3.0	a	-	-
Tabularia parva (Kützing) D.M.Williams & Round	-	-	-	mh	alf	-	-	-	-	-	-
Tabularia tabulata (C.Agardh) Snoeijs	B	-	-	mh	alf	-	-	-	-	-	-
Tetracyclus glans (Ehrenberg) F.W.Mills	P-B	temp	-	i	acf	6.95	-	1.0	x-o	-	ot
Tetracyclus rupestris (Kützing) Grunow	P-B	cool	aer	i	acf	-	-	0.8	x-b	-	ot
Thalassionema nitzschioides (Grunow) Mereschkowsky	P	-	-	eh	-	-	-	-	-	-	-
Thalassiosira baltica (Grunow) Ostenfeld	P-B	cool	-	mh	-	-	-	-	-	-	-
Thalassiosira bramaputrae (Ehrenberg) Håkansson & Locker	P-B	-	st-str	hl	alf	-	sp	1.4	o-b	ate	m
Thalassiosira decipiens (Grunow ex Van Heurck) Jørgensen	P-B	cool	-	eh	-	-	-	-	-	-	-
Thalassiosira gravida Cleve	P	cool	-	eh	alf	-	es	2.0	b	-	-
Thalassiosira hyalina (Grunow) Gran	-	warm	-	eh	-	-	-	-	-	-	-
Thalassiosira leptopus (Grunow) Hasle & G.Fryxell	P-B	cool	-	eh	alf	-	-	2.0	b	-	-
Thalassiosira nordenskioeldii Cleve	P	eterm	-	eh	-	-	-	-	-	-	-
Thalassiosira pseudonana Hasle & Heimdal	P	temp	st-str	hl	alf	7.4–8.0	-	2.4	b-a	hne	he
Thalassiosira sp.	B	-	-	-	-	-	-	-	-	-	-
Tryblionella angustata W.Smith var. *angustata*	P-B	temp	st	i	alf	6.86–7.7	sx	1.5	o-b	ats	e
Tryblionella angustata var. *acuta* (Grunow) Bukhtiyarova	P-B	-	-	i	alf	-	-	2.0	b	-	m
Tryblionella calida (Grunow) D.G.Mann	P-B	-	-	hl	-	7.8–8.2	-	2.6	a-o	-	e
Tryblionella debilis Arnott ex O'Meara	P-B	temp	st-str,aer	i	alf	6.9–8.3	es	2.6	a-o	ate	e
Tryblionella hantzschiana Grunow	B	-	st-str	hl	alf	-	-	2.6	a-o	ate	e
Tryblionella gracilis var. *ambigua* (Grunow) Bukhtiyarova	B	-	-	hl	-	-	-	2.0	b	-	-
Tryblionella hungarica (Grunow) Frenguelli	P-B	-	st-str	mh	alf	7.0–7.8	sp	2.9	a	ate	e
Tryblionella littoralis (Grunow) D.G.Mann	B	-	st-str	eh	alf	-	es	2.6	a-o	ats	e
Ulnaria acus (Kützing) Aboal	P-B	warm	st-str	i	alf	6.8–8.0	es	1.85	o-a	ate	me
Ulnaria amphirhynchus (Ehrenberg) Compère & Bukhtiyarova	P-B	-	-	i	alf	-	es	2.0	b	hne	om
Ulnaria biceps (Kützing) Compère	P-B	temp	-	i	alf	5–9	-	1.9	o-a	-	om
Ulnaria capitata (Ehrenberg) Compère	P-B	-	st-str	i	alf	-	es	2.0	b	ats	e
Ulnaria contracta (Østrup) E.A.Morales & M.L.Vis	B	-	-	i	alf	6.3–9	es	2.4	b-a	hne	-
Ulnaria danica (Kützing) Compère & Bukhtiyarova	P-B	temp	-	i	alf	6.5–9.0	es	1.7	b-o	hne	om

Ulnaria delicatissima var. *angustissima* (Grunow) Aboal & P.C.Silva	P-B	-	-	i	alf	8.0	es	1.7	b-o	-	om
Ulnaria ulna (Nitzsch) Compère	P-B	temp	st-str	i	alf	5.0–9.5	es	2.4	b-a	ate	e
Ulnaria sp.	-	-	-	-	-	-	-	-	-	-	-
Urosolenia eriensis (H.L.Smith) Round & R.M.Crawford	P-B	-	str	hl	acf	7.93	-	0.5	x-o	ats	om
Urosolenia longiseta (O.Zacharias) Edlund & Stoermer	P	-	str	i	acf	-	-	0.9	x-b	ats	me

Distribution of the indicator numbers in ecological categories with abbreviated names of ecological groups can be seen in Figure S1. Benthic and planktonic-benthic inhabitants prevail (Figure S1a). Temperate species and indicators of moderately oxygenated waters prevailed strongly (Figure S1b,c). Indicators of the low salinity group of indifferents (i) prevail in the studied area on the seacoast (Figure S1d). Indicators of water pH distribution show the prevalence of groups of alkaliphiles and neutral waters (Figure S1e). According to Watanabe, organic pollution indicators were demonstrated by clear waters with the sx and es groups in Figure S1f. Water quality was defined in relation to the species-specific saprobity index (S), categorized into classes 1–5. Figure S1g shows the prevalence of indicators for organically unpolluted waters in classes 2 and 3. Between nutrition type indicators, the autotrophs (ats and ate) strongly prevail (Figure S1h). Trophic state indicators distribution was irregular, with two peaks in oligotrophic and eutrophic groups (ot and e) that reflected the impact on aquatic ecosystems, increasing some of the lakes' trophicity (Figure S1i).

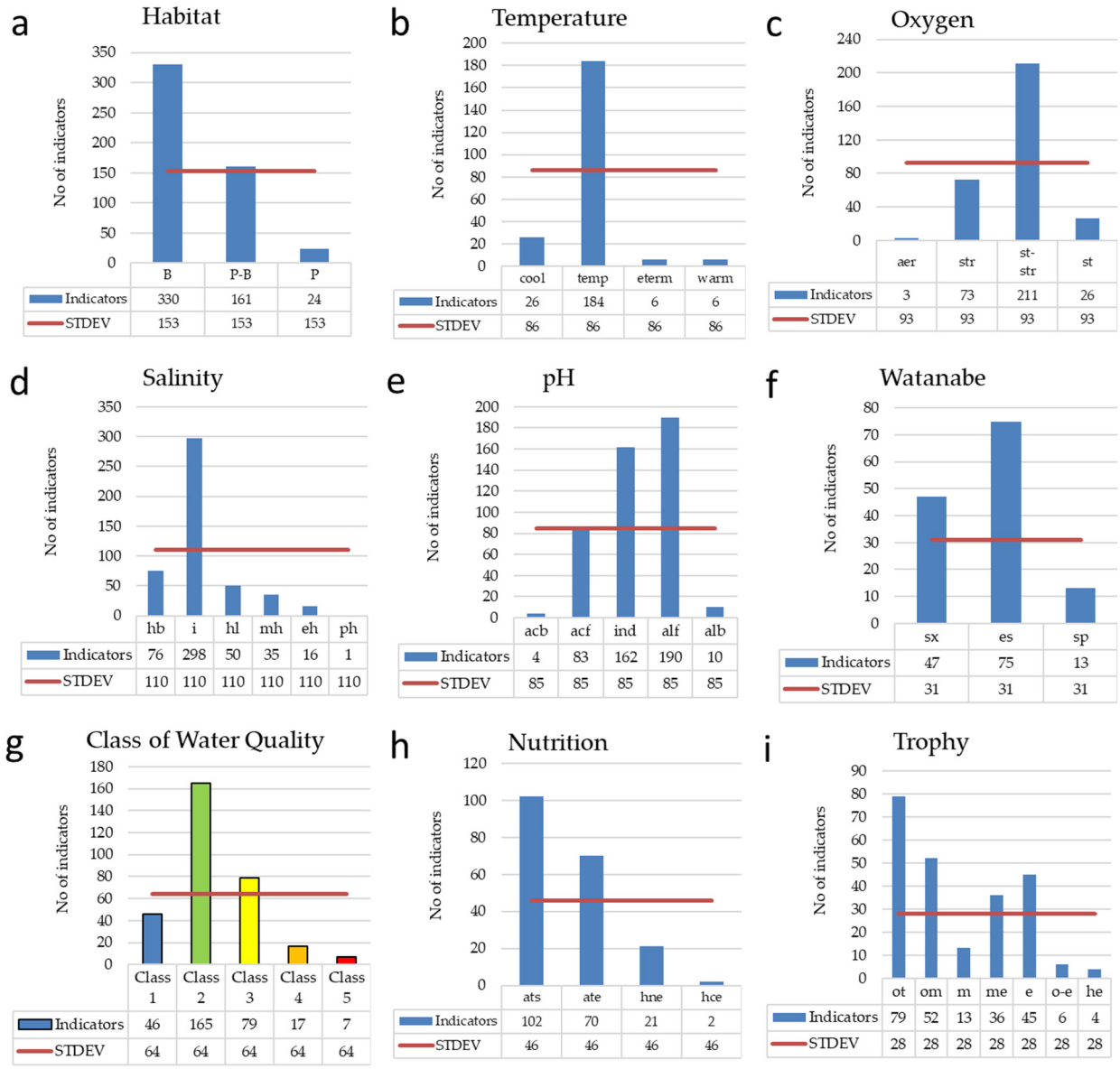

Figure S1. Distribution of species-indicators of the waterbodies in the entire Lena Delta Nature Reserve over ecological groups. The ecological groups order on the axis x follows to the related environmental indicator increasing. (**a**) Habitat (P—planktonic, P-B—plankto-benthic, B—benthic). (**b**) Temperature preferences (cool—cool-water, temp—temperate, eterm—eurythermic, warm—warm-water). (**c**) Oxygen and streaming (st—standing water, str—streaming

water, st-str—low streaming water, aer—aerophiles). (**d**) Salinity ecological groups (hb—oligohalobes-halophobes, i—oligohalobes-indifferent, hl—halophiles; mh—mesohalobes, eh—euhalobes, ph—polyhalobes). (**e**) pH preferences groups (pH) (alb—alkalibiontes; alf—alkaliphiles, ind—indifferent; acf—acidophiles; acb—acidobiontes). (**f**) Organic pollution indicators according to Watanabe: sx—saproxenes; es—eurysaprobes; sp—saprophiles. (**g**) Class 1-5 of organic pollution indicators according to species-specific Index saprobity of Sládeček. (**h**) Nutrition type as nitrogen uptake metabolism: ats—nitrogen-autotrophic taxa, tolerating very small concentrations of organically bound nitrogen; ate—nitrogen-autotrophic taxa, tolerating elevated concentrations of organically bound nitrogen; hne—facultative nitro-gen-heterotrophic taxa, needing periodically elevated concentrations of organically bound nitrogen; hce—obligate nitrogen-heterotrophic taxa, needing continuously elevated concentrations of organically bound nitrogen. (**i**) Trophic state indicators: (ot—oli-gotraphentic; om—oligomesotraphentic; m—mesotraphentic; me—mesoeutraphentic; e—eutraphentic; he—hypereutraphentic; o-e—oligo- to eutraphentic (hypereutraphentic)).

Detailed distribution of species indicators over ecological categories is represented in Table S3. The indicator characteristics show a certain response of the species composition of diatoms to changes in salinity, pH, and organic pollution. Bioindicator analysis shows that the diatoms identified in the Lena Delta Nature Reserve were mainly benthic autotrophs, preferring temperate, moderately oxygenated, low-salinity, low-alkalinity, clear waters of class 2. They characterized two trophic types of waterbodies—oligotrophic and eutrophic.

Data of Tables S2 and S3 can be used for comparative analysis and statistics because it is the characteristic of the Lena Delta Nature Reserve diversity of algae and cyanobacteria that survive in the entire environment.

Table S3. Distribution of species indicators over ecological groups in the waterbodies of the Lena Delta Nature Reserve. Abbreviation of ecological groups as in Figure S1. Abbreviation of ecological groups as in Figure S1.

Ecological Group	No. of Indicators
Habitat	
B	330
P-B	161
P	24
Temperature	
cool	26
temp	184
eterm	6
warm	6
Oxygen	
aer	3
str	73
st-str	211
st	26
Salinity	
hb	76
i	298
hl	50
mh	35
eh	16
ph	1
Water pH	
acb	4
acf	83
ind	162
alf	190
alb	10
Saprobity Watanabe	
sx	47
es	75
sp	13

Nutrition type	
ats	102
ate	70
hne	21
hce	2
Trophic state	
ot	79
om	52
m	13
me	36
e	45
o-e	6
he	4
Class of Water Quality	
Class 1	46
Class 2	165
Class 3	79
Class 4	17
Class 5	7