

## A LIST OF PHYTOPLANKTON IN KUESSAARE BAY (GULF OF RIGA, BALTIC SEA)

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**Abstract.** A list containing 262 phytoplankton taxa is presented. Microalgae were encountered during ecological studies of the phytoplankton community in Kuressaare Bay in 1992–94. Data on frequency and seasonal distribution are included. The phytoplankton community in Kuressaare Bay consists mainly of freshwater and brackish water species. Benthic species are common in phytoplankton samples.

**Key words:** phytoplankton, Kuressaare Bay (Gulf of Riga, Baltic Sea), list.

### INTRODUCTION

The Baltic Sea is the largest brackish water area in the world. Based on the hydrological regime it is divided into seven main sub-basins (Baltic..., 1986). Kuressaare Bay belongs according to the Baltic Marine Environment Protection Commission to the Baltic sub-basin 'The Gulf of Riga' (Baltic..., 1990).

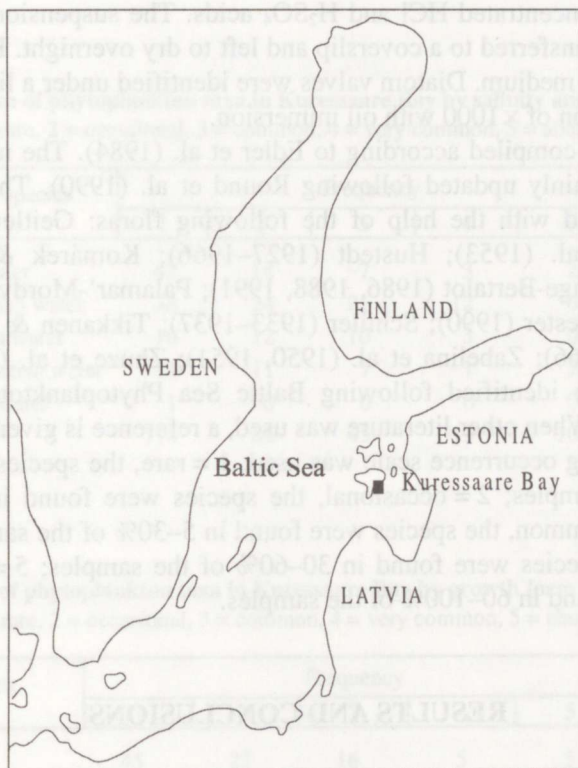
Previous studies of algal flora in Kuressaare Bay go back to at least a century. The very first records were made in connection with the research of mud, benthic diatom, and bottom macrophytes by Eichwald (1847, 1852), Goebel (1854), Weisse (1861), Gobi (1877), and Artsikhovskij (1905). However, there is a paucity of earlier phytoplankton data from Kuressaare Bay. Records of single species were made by Riikoja (1928, 1929) and Skuja (1929). The first complete phytoplankton study from Kuressaare Bay was published by Piirsoo (1979).

This present list is a result of phytoplankton research conducted in connection with ecological studies in 1992–94. Kuressaare Bay functioned as a recipient

of a large amount of untreated domestic and food industry sewage coming from the town of Kuressaare up to autumn 1991, when a sewage treatment plant was launched. At present the bay is classified as an anthropogenic eutrophied area (HELCOM, 1991).

## STUDY AREA

Kuressaare Bay is located on the southern coast of Saaremaa Island, off the western coast of Estonia (Fig.). The bay is small, semi-enclosed, and progressively shallowing, mean depth 3.6 m, maximum 7 m. Two rivers fall into the bay: Nasva and Põduste. The average surface water temperature is in summer 15–16°C. During mild winters no ice forms but in moderate and cold winters the bay is covered with a permanent ice cover. The average water salinity is 5–7‰ in the bay (Järvekülg, 1979).



Location map.

The bottom of the study area is mainly covered with soft, nutrient rich sediments and submerged vegetation is rich. The bottom is periodically anaerobic (Järvekülg, 1979; Trei, 1982, 1984). Before the sewage treatment plant was launched, the nutrient load to Kuressaare Bay was 100 t nitrogen and 10 t phosphorus per year (HELCOM, 1991).

## MATERIAL AND METHODS

The list was compiled from a phytoplankton data set containing 340 quantitative and qualitative samples collected from June to October, 1992–94. The samples were taken with the 1 l Mayer bottle from a depth of 1 m and with a phytoplankton net (mesh size 70  $\mu\text{m}$ ) from the entire column of water from ten sites of the study area. The phytoplankton samples were preserved with acid Lugol's solution. The samples were identified with a light microscope (Zeiss Jena) at a magnification of  $\times 608$ .

Permanent diatom preparations were made. The collected materials were cleaned with concentrated HCl and  $\text{H}_2\text{SO}_4$  acids. The suspension of the diatom frustules was transferred to a coverslip and left to dry overnight. Hyrax was used as the mounting medium. Diatom valves were identified under a light microscope at a magnification of  $\times 1000$  with oil immersion.

The list was compiled according to Edler et al. (1984). The nomenclature of diatoms was mainly updated following Round et al. (1990). The species were mainly identified with the help of the following floras: Geitler (1930–1932); Gollerbakh et al. (1953); Hustedt (1927–1966); Komárek & Fott (1983); Krammer & Lange-Bertalot (1986, 1988, 1991); Palamar'-Mordvintseva (1982); Popovský & Pfiester (1990); Schiller (1933–1937); Tikkanen & Willén (1992); Uherkovich (1966); Zabelina et al. (1950, 1951); Zhuze et al. (1949). Cryptomonadales were identified following Baltic Sea Phytoplankton Identification Sheets (1992). When other literature was used, a reference is given in the list.

The following occurrence scale was used: 1 = rare, the species were found in 0–1% of the samples; 2 = occasional, the species were found in 1–5% of the samples; 3 = common, the species were found in 5–30% of the samples; 4 = very common, the species were found in 30–60% of the samples; 5 = abundant, the species were found in 60–100% of the samples.

## RESULTS AND CONCLUSIONS

A total of 262 taxa were identified. The list is given in the Appendix. The list of species contains also heterotrophic dinoflagellates like *Katodinium glaucum*, *Ebria tripartita*, *Protoperidinium bipes*, and some others because they were important members in the phytoplankton community of Kuressaare Bay.

The microalgal community in Kuressaare Bay is very similar to that in other coastal waters in West Estonia, for example in Matsalu Bay (Piiirsoo, 1986; Vilbaste, 1982), Pärnu Bay (Piiirsoo, 1979; Simm & Randveer, 1985; Tenson, 1995), Haapsalu Bay (Piiirsoo, 1979; Vilbaste, 1992), and in the Strait of Väike Väin (Kukk & Trei, 1994). Moreover, many species that occur in Kuressaare Bay occur also in the Gulf of Finland (Niemi & Ray, 1975, 1977; Randveer, 1994; Randveer & Viik, 1994) and at the eastern coast of Sweden (Snoeijs, 1989).

The relationships between the number of species, frequency, and salinity preference are shown in Tables 1 and 2. Salinity preference was obtained from literature. In the phytoplankton community of Kuressaare Bay freshwater or brackish and freshwater species (*c.* 70%) predominate. The remaining species (*c.* 30%) are brackish or marine and brackish-water species. Ten most frequent species were: *Snowella lacustris*, *Katodinium rotundatum*, *Pyramimonas* sp., *Plagioselmis* cf. *prolonga*, *Achnanthes delicatula*, *Cocconeis placentula*, *Nitzschia microcephala*, *Staurosira construens* var. *venter*, *Tabularia fasciculata*, and *Monoraphidium contortum*. Obligate marine species were hardly found.

Table 1

**Distribution of phytoplankton taxa in Kuressaare Bay by salinity and frequency**

(1 = rare, 2 = occasional, 3 = common, 4 = very common, 5 = abundant)

Occurrence of species	Frequency					Total
	1	2	3	4	5	
Mainly in fresh water	43	18	7	3	2	73 (29%)
In fresh and brackish water	38	24	21	12	6	101 (40%)
Mainly in brackish water	18	12	10	3	0	43 (17%)
In marine and brackish water	14	11	7	1	2	35 (14%)
Mainly in marine water	1	0	0	0	0	1 (0.3%)
Total	114	65	45	19	10	253 (100%)

Table 2

**Distribution of phytoplankton taxa in Kuressaare Bay by growth form and frequency**

(1 = rare, 2 = occasional, 3 = common, 4 = very common, 5 = abundant)

Growth form	Frequency					Total
	1	2	3	4	5	
Pelagic	45	27	16	5	5	98 (38%)
Pelagic and benthic	16	8	5	2	0	31 (12%)
Benthic	52	32	24	11	5	124 (49%)
Total	113	67	45	18	10	253 (100%)

The benthic influence is obvious in the list (Table 2). About half (49%) of the phytoplankton taxa are benthic and only 38% are real planktonic species. Among the benthic forms epiphytic, epipelagic, and epilithic microalgae predominate. Epipsammic forms, except *Achnanthes delicatula*, are quite rare.

The phytoplankton community of Kuressaare Bay is a typical coastal plankton community of the Baltic Sea. Because of the shallowness, semi-enclosed position, and relatively strong freshwater influence in the Bay low salinity brackish-water species dominate and benthic species are common in phytoplankton samples.

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Frequency: 1 = rare, 2 = occasional, 3 = common, 4 = very common, 5 = abundant

\* too little information available

? uncertain

Taxon	Frequency	Main month(s)
<b>CYANOPHYTA</b>		
<b>Cyanophyceae</b>		
<b>CHROOCOCCALES</b>		
<i>Aphanothece</i> Nägeli		
<i>clathrata</i> W. & G. S. West	1	July
cf. <i>minutissima</i> (W. West) Komárková-Legnerová & Cronberg	1	July
<i>stagnina</i> (Sprengel) Boye-Petersen & Geitler <sup>a</sup>	1	July
<i>Chroococcus</i> Nägeli		
<i>aphanocapsoides</i> Skuja <sup>b</sup>	1	July
<i>cohaerens</i> (Brébisson) Nägeli	1	July
<i>limneticus</i> Lemmermann	2	July
<i>microscopicus</i> Komárková-Legnerová & Cronberg <sup>a</sup>	1	July
<i>minutus</i> (Kützing) Nägeli	1	July
<i>turgidus</i> (Kützing) Nägeli	2	June–August
<i>Coelosphaerium</i> Nägeli		
<i>kuetzingianum</i> Nägeli	3	July
<i>minutissimum</i> Lemmermann	1	July
<i>Gomphosphaeria</i> Kützing		
<i>aponina</i> Kützing	1	August
<i>Merismopedia</i> Meyen		
<i>glauca</i> (Ehrenberg) Nägeli	2	August
<i>punctata</i> Meyen	3	August
<i>warmingiana</i> Lagerheim	3	July–August
<i>Microcystis</i> Kützing		
<i>aeruginosa</i> Kützing	1	July
<i>reinboldii</i> (Richter) Forti	1	September
<i>wesenbergii</i> (Komárek) Komárek	2	August
<i>Snowella</i> Elenkin		
<i>lacustris</i> (Chodat) Komárek & Hindák	5	July
cf. <i>septentrionalis</i> Komárek & Hindák	1	July
<i>Synechocystis</i> Sauvageau		
<i>sallensis</i> Skuja <sup>c</sup>	1	July
<i>Woronichinia</i> Elenkin		
<i>compacta</i> (Lemmermann) Komárek & Hindák	1	July
<i>naegeliana</i> (Unger) Elenkin	1	July

Taxonomic references: <sup>a</sup> Komárková-Legnerová & Cronberg, 1994;

<sup>b</sup> Skuja, 1964;

<sup>c</sup> Skuja, 1929.



## NOSTOCALES

<i>Anabaena</i> Bory ex Bornet & Flahault		
<i>baltica</i> J. Schmidt	1	June
<i>lemmermannii</i> P. Richter	2	July
<i>oscillarioides</i> Bory	1	July
<i>spiroides</i> Klebahn	2	June–July
<i>torulosa</i> (Carmichel) Lagerheim	1	July
<i>Aphanizomenon</i> Morren ex Bornet & Flahault		
<i>flos-aquae</i> (L.) Ralfs	4	June–July
<i>Limnothrix</i> Meffert		
<i>planctonica</i> (Woloszynska) Meffert	1	June
<i>Lyngbya</i> C. A. Agardh ex Gomont		
<i>aestuarii</i> (Mertens) Liebmann	2	June–August
<i>epiphytica</i> Hieronymus	2	July
<i>kuetzingiana</i> (Kützing) Kirchner	1	?October
<i>kuetzingii</i> Schmidle	2	July–August
<i>Nodularia</i> Mertens ex Bornet & Flahault		
<i>harveyana</i> (Thwaites) Thuret	1	July
<i>spumigena</i> Mertens	2	July
<i>Oscillatoria</i> Vaucher ex Gomont		
<i>bornetii</i> (Zukal) Forti	1	June–August
<i>chlorina</i> (Kützing) Gomont	1	July
<i>princeps</i> Vaucher	1	July
<i>limosa</i> C. A. Agardh	2	July
<i>Phormidium</i> Kützing ex Gomont		
<i>tenue</i> (C. A. Agardh) Anagnostidis & Komárek	1	July
<i>Planktolynghya</i> Anagnostidis & Komárek		
<i>subtilis</i> (W. West) Anagnostidis & Komárek	1	July
<i>Planktothrix</i> Anagnostidis & Komárek		
<i>agardhii</i> (Gomont) Anagnostidis & Komárek	2	July
<i>Pseudanabaena</i> Lauterborn		
<i>limnetica</i> (Lemmermann) Komárek	2	June–August
<i>Schizothrix</i> sp.	1	June–July
<i>Spirulina</i> Turpin ex Gomont		
<i>maior</i> Kützing	1	June

## CRYPTOPHYTA

### Cryptophyceae

### CRYPTOMONADALES

<i>Chroomonas</i> Hansgirg		
<i>baltica</i> (Büttner) Carter	*	*
<i>Hemiselmis</i> Parke		
cf. <i>virescens</i> Droop	*	*
<i>Plagioselmis</i> Butcher		
cf. <i>prolonga</i> Butcher	5	August
<i>Rhodomonas</i> Karsten		
<i>marina</i> (Dangeard) Lemmermann	*	*
<i>salina</i> (Wislouch) Hill & Wetherbee	*	*
<i>Theleaulax</i>		
<i>acuta</i> (Butcher) Hill	*	*

<i>amphioxeia</i> (Conrad) Hill	*	*
<i>Cryptomonas</i> spp.	*	*
<b>DINOPHYTA</b>		
<b>Dinophyceae</b>		
<b>PROROCENTRALES</b>		
<i>Prorocentrum</i> Ehrenberg		
<i>cassubicum</i> (Woloszyńska) Dodge	1	July
sp. L = 36.8–42.3 µm; l = 25–33.1 µm	2	July–August
<b>DINOPHYSALES</b>		
<i>Dinophysis</i> Ehrenberg		
<i>acuminata</i> Claparède & Lachmann	3	July
<i>baltica</i> (Paulsen) Kofoid & Skogsberg	1	July
<i>norvegica</i> Claparède & Lachmann	2	July
<i>rotundata</i> Claparède & Lachmann	1	July
<b>GYMNODINIALES</b>		
<i>Amphidinium</i> Claparède & Lachmann		
<i>crassum</i> Lohmann	1	July
<i>Gymnodinium</i> Stein		
<i>simplex</i> (Lohmann) Kofoid & Swezy	2	July
<i>Gyrodinium</i> Kofoid & Swezy		
<i>fissum</i> (Levander) Kofoid & Swezy	1	July
<i>Katodinium</i> Fott		
<i>glaucum</i> (Lebour) Loeblich	1	July–August
<i>rotundatum</i> (Lohmann) Fott	5	August
<b>PERIDINIALES</b>		
<i>Alexandrium</i>		
cf. <i>ostenfeldii</i> (Paulsen) Balech & Tangen	2	July
<i>Glenodinium</i> Ehrenberg		
<i>foliaceum</i> Stein	3	September–October
<i>Gonyaulax</i> Diesing		
<i>triacantha</i> Jörgensen	2	July
<i>Heterocapsa</i> Stein		
<i>triquetra</i> (Ehrenberg) Stein	2	July
<i>Protoperidinium</i> Bergh		
<i>bipes</i> (Paulsen) Balech	3	August
<i>brevipes</i> (Paulsen) Balech	3	August
<i>granii</i> (Ostenfeld) Balech	1	August
<b>EBRIALES</b>		
<i>Ebria</i> Bogert		
<i>tripartita</i> (Schumann) Lemmermann	3	July
<b>PRYMNESIOPHYTA</b>		
<b>Prymnesiophyceae</b>		
<b>PRYMNESIALES</b>		
<i>Chrysochromulina</i> sp.	*	*

## CHRYSOPHYTA

### Chrysophyceae

#### OCHROMONADALES

<i>Dinobryon</i> Ehrenberg		
<i>acuminatum</i> Ruttner	1	July
<i>sertularia</i> Ehrenberg	1	October
<i>sociale</i> Ehrenberg	1	July

#### Diatomophyceae

#### CENTRALES

<i>Aulacoseira</i> Thwaites		
<i>granulata</i> Ehrenberg (Simonsen) var. <i>granulata</i>	1	July
<i>italica</i> (Ehrenberg) Simonsen var. <i>italica</i>	1	July
<i>Chaetoceros</i> Ehrenberg		
<i>ceratosporus</i> Ostensfeld	1	July–August
<i>danicus</i> Cleve	2	August
<i>gracilis</i> Schütt	1	July
<i>holsaticus</i> Schütt	2	August
<i>muelleri</i> Lemmermann	2	July
<i>simplex</i> Ostensfeld	2	August
<i>subtilis</i> Cleve	1	August
<i>wighamii</i> Brightwell	3	August
<i>Coscinodiscus</i> Ehrenberg		
<i>granii</i> Gough	3	August–September
<i>Cyclostephanos</i> sp.	*	*
<i>Cyclotella</i> Kützing		
<i>meneghiniana</i> Kützing	4	August–September
<i>radiosa</i> (Grunow) Lemmermann	2	August
<i>Melosira</i> C. A. Agardh		
<i>lineata</i> (Dillwyn) C. A. Agardh	2	September–October
<i>moniliformis</i> (O. F. Müller) C. A. Agardh	3	July–August
<i>nummuloides</i> (Dillwyn) C. A. Agardh	3	July–August
<i>varians</i> C. A. Agardh	1	August
<i>Skeletonema</i> Greville		
<i>costatum</i> (Greville) Cleve	2	July
<i>Stephanodiscus</i> Ehrenberg		
<i>hantzschii</i> Grunow	2	August
<i>Thalassiosira</i> Cleve		
<i>baltica</i> (Grunow) Ostensfeld	2	August–September
<i>levanderi</i> van Goor	3	October
cf. <i>pseudonana</i> Hasle & Heimdal	3	September–October

#### PENNALES

<i>Achnantes</i> Bory		
<i>conspicua</i> A. Mayer	2	August
<i>delicatula</i> (Kützing) Grunow	5	July–August
<i>exigua</i> Grunow	1	July
<i>lanceolata</i> (Brébisson) Grunow	1	September
– var. <i>elliptica</i> Cleve	1	July

– var. <i>rostrata</i> (Oestrup) Hustedt	3	August
<i>thermalis</i> (Rabenhorst) Schönfeldt	3	July
<i>minutissima</i> Kützing	4	August–September
<i>taeniata</i> Grunow	2	October
<i>Amphora</i> Ehrenberg		
<i>coffeaeformis</i> (C. A. Agardh) Kützing	4	July–September
<i>copulata</i> (Kützing) Schoeman & Archibald	3	July–August
cf. <i>delicatissima</i> Krasske	*	*
<i>ovalis</i> Kützing	2	August
<i>pediculus</i> (Kützing) Grunow	3	September
<i>Aneunastus</i> Mann & Stickle		
<i>tusculus</i> (Ehrenberg) Mann & Stickle	1	August
<i>Anomoeneis</i> Pfitzer		
<i>sphaerophora</i> (Ehrenberg) Pfitzer	2	June
<i>Bacillaria</i> Gmelin		
<i>paxillifer</i> (O. F. Müller) Hendey	3	October
<i>Campylodiscus</i> Ehrenberg		
<i>bicostatus</i> W. Smith	1	August
<i>clypeus</i> Ehrenberg	3	August
<i>echeneis</i> Ehrenberg	1	October
<i>Cavinula</i> Mann & Stickle		
<i>lacustris</i> (Gregory) D. G. Mann & A. J. Stickle	1	October
<i>Cocconeis</i> Ehrenberg		
<i>disculus</i> (Schumann) Cleve	1	October
<i>pediculus</i> Ehrenberg	4	August–September
<i>placentula</i> Ehrenberg var. <i>placentula</i>	5	August
– var. <i>euglypta</i> (Ehrenberg) Cleve	4	August–September
<i>scutellum</i> Ehrenberg	4	August–October
<i>Ctenophora</i> (A. Grunow) D. M. Williams & F. E. Round		
<i>pulchella</i> (Ralfs ex Kützing) Williams & Round	4	July
<i>Cylindrotheca</i> Rabenhorst		
<i>closterium</i> (Ehrenberg) Reiman & Lewin	3	September–October
<i>Cymbella</i> C. A. Agardh		
<i>pusilla</i> Grunow	1	August
<i>Diatoma</i> De Candolle		
<i>hyemalis</i> (Roth) Heiberg	1	August
<i>tenuis</i> C. A. Agardh	4	August
<i>moniliformis</i> Kützing	2	August
<i>vulgaris</i> Bory	2	August
– var. <i>ovalis</i> (Fricke) Hustedt	1	August
<i>Diploneis</i> Ehrenberg		
<i>didyma</i> (Ehrenberg) Ehrenberg	2	October
<i>elliptica</i> (Kützing) Cleve	1	August
<i>interrupta</i> (Kützing) Cleve	2	July–August
<i>ovalis</i> (Hilse) Cleve	1	August
<i>smithii</i> (Brébisson) Cleve	1	August
<i>Encyonema</i> Kützing		
<i>perpusillum</i> (A. Cleve) D. G. Mann	1	September
<i>prostratum</i> (Berkeley) Kützing	1	September
<i>elginense</i> (Krammer) D. G. Mann	2	September
<i>Entomoneis</i> Ehrenberg		

<i>alata</i> Ehrenberg	1	August
<i>paludosa</i> (W. Smith) Reimer	2	August–October
<i>Epithemia</i> Brébisson		
<i>adnata</i> (Kützing) Brébisson	3	August
<i>sorex</i> Kützing	4	July–October
<i>turgida</i> (Ehrenberg) Kützing	4	October
<i>Fallacia</i> Stickle & Round		
<i>cryptolyra</i> (Brockmann) A. J. Stickle & D. G. Mann	1	July
<i>pygmaea</i> (Kützing) A. J. Stickle & D. G. Mann	3	September–October
<i>Fragilaria</i> Lyngbye		
<i>construens</i> (Ehrenberg) Grunow var. <i>subsalina</i> Hustedt	3	August–September
<i>inflata</i> cf. var. <i>istvanffy</i> (Pantocsek) Hustedt	1	August
<i>Fragilariforma</i> Williams & Round		
<i>virescens</i> (Ralfs) Williams & Round	2	September
<i>Gomphonema</i> C. A. Agardh		
<i>acuminatum</i> var. <i>coronata</i> (Ehrenberg) W. Smith	2	August–September
<i>lanceolatum</i> Ehrenberg	1	September
<i>olivaceum</i> (Hornemann) Brébisson	3	August–September
<i>truncatum</i> Ehrenberg	2	October
<i>Gomphonemopsis</i> Medlin		
<i>exigua</i> (Kützing) Medlin	3	August–October
<i>Grammatophora</i> Ehrenberg		
<i>oceanica</i> Ehrenberg	2	August–September
<i>Gyrosigma</i> Hassall		
<i>acuminatum</i> (Kützing) Rabenhorst	1	August
<i>attenuatum</i> (Kützing) Rabenhorst	2	July
<i>balticum</i> (Ehrenberg) Rabenhorst	1	August
<i>Licmophora</i> sp.	3	August
<i>Lyrella</i> Karajeva		
<i>lyra</i> (Ehrenberg) Karajeva	1	August
<i>Martyana</i> Round		
<i>atomus</i> (Hustedt) Snoeijis	3	August
<i>Mastogloia</i> Thwaites		
<i>pumila</i> (Cleve & Möller) Cleve	3	July
<i>smithii</i> Thwaites	3	July
<i>Navicula</i> Bory		
cf. <i>arenaria</i> Donkin	*	*
<i>capitata</i> (Ehrenberg) var. <i>hungarica</i> (Grunow) Ross	3	July
<i>cryptocephala</i> Kützing	3	September–October
<i>cryptotenella</i> Lange-Bertalot	2	August
<i>digitoradiata</i> (Gregory) Ralfs	4	July–August
<i>duerrenbergiana</i> Hustedt	1	August
<i>erifuga</i> Lange-Bertalot	1	August
<i>flanatica</i> Grunow	2	August–September
<i>gregaria</i> Donkin	1	August
<i>lanceolata</i> (C. A. Agardh) Ehrenberg	2	August–September
<i>menisculus</i> Schumann	3	August
<i>meniscus</i> Schumann	1	August
<i>peregrina</i> (Ehrenberg) Kützing	1	August
cf. <i>perminuta</i> Grunow	*	*
<i>phyllepta</i> Kützing	2	August–September

<i>radiosa</i> Kützing	3	August–September
<i>rhynchocephala</i> Kützing	3	August–October
<i>salinarum</i> Grunow	1	September
<i>tripunctata</i> (O. F. Müller) Bory	1	September
<i>Neidium</i> Pfitzer		
<i>dubium</i> (Ehrenberg) Cleve	1	August
<i>Nitzschia</i> Hassall		
<i>acicularis</i> (Kützing) W. Smith	4	September
cf. <i>capitellata</i> Hustedt	*	*
<i>dissipata</i> (Kützing) Grunow	1	July–September
<i>dubia</i> W. Smith	2	July
<i>frigida</i> Grunow	1	October
<i>frustulum</i> (Kützing) Grunow	3	August
<i>gracilis</i> Hantzsch	3	July–September
<i>microcephala</i> Grunow	5	July–August
<i>palea</i> (Kützing) W. Smith	2	October
<i>paleacea</i> (Grunow) Grunow	2	August
<i>vermicularis</i> (Kützing) Grunow	1	August
<i>Opephora</i> Petit		
<i>olsenii</i> Möller	4	August
<i>Petroneis</i> A. J. Stickle & D. G. Mann		
<i>humerosa</i> (Brébisson) A. J. Stickle & D. G. Mann	1	August
<i>Placoneis</i> C. Mereschkowsky		
<i>placentula</i> (Ehrenberg) Heinzerling	1	August
<i>Plagiotropis</i> E. Pfitzer		
<i>lepidoptera</i> (Gregory) Kuntze	2	August
<i>Pleurosigma</i> W. Smith		
<i>elongatum</i> W. Smith	3	October
<i>Pseudostaurosira</i> (Grunow) D. M. Williams & F. E. Round		
<i>brevistriata</i> (Grunow) Williams & Round	2	September
<i>Rhoicosthenia</i> Grunow		
<i>curvata</i> (Kützing) Grunow	3	August–September
<i>Rhopalodia</i> O. Müller		
<i>gibba</i> (Ehrenberg) O. Müller	1	August
<i>gibberula</i> (Ehrenberg) O. Müller	2	August–September
<i>musculus</i> (Kützing) O. Müller	2	August–September
<i>Stauroneis</i> Ehrenberg		
cf. <i>thermicola</i> (Petersen) Lund	2	August
<i>phoenicenteron</i> (Nitzsch) Ehrenberg	1	August–September
<i>smithii</i> Grunow	2	July
<i>spicula</i> Hickie	3	September–October
<i>Staurosira</i> Ehrenberg		
<i>construens</i> (Ehrenberg) Williams & Round	1	June
– var. <i>venter</i> (Ehrenberg) Hamilton	5	July–August
<i>Staurosirella</i> Williams & Round		
<i>lapponica</i> (Grunow) Williams & Round	2	July
<i>Surirella</i> Turpin		
<i>angustata</i> Kützing	2	August–September
<i>baltica</i> Schumann	1	August
<i>brebissonii</i> Krammer & Lange-Bertalot	2	September
<i>minuta</i> Brébisson	3	July

<i>striatula</i> Turpin	1	October
<i>Synedra</i> Ehrenberg		
<i>ulna</i> (Nitzsch) Ehrenberg	2	August
<i>Tabellaria</i> Ehrenberg		
<i>fenestrata</i> (Lyngbye) Kützing	1	August–September
<i>flocculosa</i> (Roth) Kützing	1	September
<i>Tabularia</i> (Kützing) D. M. Williams & F. E. Round		
<i>fasciculata</i> (C. A. Agardh) Williams & Round	5	August
<i>tabulata</i> (C. A. Agardh) Snoeijs	4	August
<i>waernii</i> Snoeijs	1	September
<i>Tryblionella</i> Smith		
<i>apiculata</i> Gregory	2	August
<i>punctata</i> W. Smith	1	October

## EUGLENOPHYTA

### Euglenophyceae

#### EUGLENALES

<i>Euglena</i> sp.	2	June
<i>Eutreptiella</i> sp.	4	June

## CHLOROPHYTA

### Prasinophyceae

#### PYRAMIMONADALES

<i>Pyramimonas</i> sp.	5	June–September
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### Chlorophyceae

#### CHLOROCOCCALES

<i>Botryococcus</i> Kützing		
<i>braunii</i> Kützing	1	July
<i>Coelastrum</i> Nägeli		
<i>microporum</i> Nägeli	1	October
<i>Crucigenia</i> Morren		
<i>quadrata</i> Morren	1	July
<i>tetrapedia</i> (Kirchner) W. & G. S. West	1	July
<i>Dictyosphaerium</i> Nägeli		
<i>ehrenbergianum</i> Nägeli	1	July
<i>elongatum</i> Hindák	1	July
cf. <i>tetrachotomum</i> Printz	1	July
<i>Monoraphidium</i> Komárková-Legnerová		
<i>contortum</i> (Thuret) Komárková-Legnerová	5	June–August
<i>Oocystis</i> Nägeli		
<i>borgei</i> Snow	3	June–July
<i>lacustris</i> Chodat	4	June–July
<i>parva</i> W. & G. S. West	1	July
<i>submarina</i> Lagerheim	3	June–July
<i>Pediastrum</i> Meyen		
<i>boryanum</i> (Turpin) Meneghini var. <i>boryanum</i>	2	September
– var. <i>brevicorne</i> A. Braun	1	October

– var. <i>cornutum</i> (Raciborski) Sulek	1	September
<i>integrum</i> Nägeli	2	October
<i>kawraiskyi</i> Schmidle	1	July
<i>Scenedesmus</i> Meyen		
<i>acutus</i> Meyen	1	July
<i>armatus</i> Chodat	1	July
<i>bicaudatus</i> (Hansgirg) Chodat	3	August–September
<i>ecornis</i> (Ralfs) Chodat var. <i>ecornis</i>	4	June
<i>intermedius</i> Chodat	1	July
– var. <i>bicaudatus</i> Hortobágyi	1	August
<i>opoliensis</i> P. Richter	4	July–September
<i>spinosus</i> Chodat	1	July–August
<i>subspicatus</i> Chodat	1	July
<i>Tetraëdron</i> Kützing		
<i>caudatum</i> (Corda) Hansgirg	2	August
<i>minimum</i> (A. Braun) Hansgirg	3	July–August

#### ULOTRICHALES

<i>Planktonema</i> Schmidle		
<i>lauterbornii</i> Schmidle	1	July–August

#### ZYGNEMATALES

<i>Closterium</i> sp.	1	June
<i>Cosmarium</i> Corda		
<i>granatum</i> Brébisson	2	August–September
<i>phaseolus</i> Brébisson	1	July

## KURESSAARE LAHE FÜTOPLANKTONI LIIKIDE NIMEKIRI

Tiiu TREI

Kuressaare lahe fütoplanktonist on määratud 262 taksonit mikrovetikaid. Lahe väikese sügavuse, poolsuletud asendi ja magevee suhteliselt tugeva mõju tõttu domineerivad seal mageveeliigid ja vähest soolsust eelistavad riimveeliigid. 49% lahe fütoplanktonis esinevatest liikidest on bentilised ja ainult 38% on planktilised mikrovetikad. Nimekiri sisaldab informatsiooni liikide esinemis-sageduse ja sesoonse jaotumuse kohta.