

Standard Operating Procedure

Diatom taxonomic identification and enumeration

Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division of Water

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1. TITLE PAGE AND APPROVAL PAGE

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2. REVISION CONTROL PAGE

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3. TABLE OF CONTENTS

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4. PROCEDURES

4a. Scope and Applicability

This SOP describes methods for enumerating and identifying of diatoms in algae samples (periphyton or phytoplankton), as well as general operations of the Division of Water (DOW) Biology Laboratory as they pertain to diatom analyses. Procedures are performed by the Monitoring Section of the Water Quality Branch (WQB). Most samples come from bioassessment programs in WQB, and have been collected using the methods outlined in the SOP “Collection methods for benthic algae in wadeable streams”², but the procedures listed below are applicable to samples collected using any collection method. Samples should have been processed following the SOP “Preparing and processing algae samples for taxonomic analysis of diatoms”³ or another similar method that produces a high quality permanent mount of cleaned diatoms. Routine samples are usually not quantitative (i.e. there is not a known sample area to which sample results will be extrapolated), but procedures are given for quantitative samples. Finalized results of these procedure typically are entered in the WQB’s Ecological Data Application System (EDAS).

This SOP covers enumeration procedures, identification resources, vouchering guidelines, equipment requirements, QAQC procedures, and data/records management during the course of analysis up to the point where data are ready for entry into EDAS. The SOP “EDAS data entry and biological data management”⁴ details the procedures for entry of final results into EDAS, and the calculation of metrics and indices. The Diatom Bioassessment Index (DBI) is commonly derived from data results. This index, and its development and application are described in “Methods for Assessing Biological Integrity of Surface Waters in Kentucky, February 2008, Revision 3”¹, Section 6A3.1.

Analyses of non-diatom algae are not routinely performed, but procedures for analyzing samples for taxonomic identification of non-diatom algae can be found in the SOP “Methods for Assessing Biological Integrity of Surface Waters in Kentucky, February 2008, Revision 3”¹, Section 6A.2.4.2.1.

The general enumeration methods described here follow guidelines in the manual “Rapid bioassessment protocols for use in streams and wadeable rivers, section 6.1.3.2”⁵.

4b. Summary of Method

A library of taxonomic literature and documents is maintained in the laboratory, as well as a digital image voucher database of taxa. A taxa list is maintained and updated regularly. The taxa list and voucher images are reviewed regularly to ensure accuracy and consistency with current taxonomic concepts.

Specific analysis procedures will vary by project, but the most common type is a 1000 valve count with rare taxa scan. The permanent slide is viewed with a high quality compound microscope under 1000x magnification. Diatoms are identified at the lowest practical taxonomic level (species or variety). A scan for taxa is performed by recording all taxa observed until 5 minutes has passed with no new taxa encountered. Next, a defined count is performed by identifying and enumerating individual diatom valves until a 1000 valves have been recorded. Data are recorded onto a bench sheet, or into a computer based entry form. For quantitative periphyton samples, the scanned area of the fixed count is tracked for later extrapolation of diatom areal density.

4c. Definitions and Acronyms

Acronyms:

DEP Department for Environmental Protection

DOW Division of Water

MSDS Material Safety Data Sheets

WQB Water Quality Branch

4d. Health & Safety

Procedures are performed in a laboratory that contains hazardous chemicals. Material Safety Data Sheets (MSDS) for all chemicals are maintained in the DOW biological laboratory for reference. All accidents must be reported to the Monitoring Section Supervisor. For life threatening emergencies and chemical spills, call 9-911 from any phone in the DOW laboratory.

Specific Hazards:

Glass: Glassware, coverglass, and microscope slides should be handled with care. Broken glassware, used coverglass, and microscope slides do not go into the regular trash, but must be disposed of in a secure and sturdy container before taking to the dumpster.

Immersion oil: Immersion oil can irritate skin and eyes. Wash skin thoroughly. In case of eye contact, remove contact lenses and flush with plenty of water.

Toluene: Toluene is used to prepare the slide mounting medium (Naphrax™), but the toluene is vaporized during slide preparation. Finished slides may contain residual toluene if the mounting medium is sticky. Reheat on a hotplate to finish hardening.

4e. Cautions

Handle the microscope and camera with extreme care. Consult instructions in the microscope manual for proper operation and maintenance. Improper use can damage the microscope and lenses. Improper operation will result in reduced ability to properly identify specimens and capture effective voucher images.

Never clean microscope lenses or any surfaces of microscope optical parts with anything other than lens paper.

4f. Interferences

Uneven dispersal and clumping: Uneven dispersal and clumping of diatoms in the slide mount will reduce the accuracy of quantitative enumeration, and make identifications difficult. If dispersal is excessively uneven or there are numerous clumps, remake the slide. If there is an occasional small clump in a scan transect field, skip the field and move to the next field.

Excessively dense or sparse slides: Overly dense coverage of diatoms on the slide interferes with accurate counting. Overly sparse slides increase counting time and interfere with the rare species scan. A 1000x field of view should contain 5-20 diatom frustules. If the sample has large amounts of sediment, sparser density may be necessary in order to clearly see valves.

Taxonomic errors: Scan the slide before beginning, review taxonomic guides, past taxa lists from similar sites, and image archives, to resolve questions regarding the common taxa present.

4g. Personnel Qualifications / Responsibilities

Procedures must be performed by personnel with special expertise in diatom identification. Personnel should have a basic understanding of laboratory safety. Personnel performing these procedures are responsible for fully understanding safety and quality assurance procedures.

4h. Equipment and Supplies

Laboratory facilities*

*laboratory facilities listed are present in the DOW Biological Laboratory; comparable facilities should be available when following this procedure in order to ensure comparable quality

Nikon Eclipse E600 research microscope, with the following features:

- Nomarski differential interference contrast (DIC) optics
- 20x and 40x lenses (for locating specimens and focusing condenser)
- 100x DIC oil immersion lens, with 1.3 NA (for identifications)
- stage vernier
- ocular micrometer (calibrated)

SPOT Insight 4MP Firewire Color Mosaic digital camera system
PC with firewire card and ethernet connection to DOW network servers and printers
stage micrometer (for calibrating ocular micrometer and camera view)
library of taxonomic literature and guides (Appendix A)
taxa list of accepted taxon names. (Appendix B)
voucher image database

Procedure equipment and supplies

laboratory wipes (e.g., Kimwipes™)
microscope lens paper
bench sheet (example, Appendix C) or computer-based counting application
permanent marker
timer
diatom sample tracking log⁴
project/study plan

4i. Step by Step Procedure

Note on counting procedures: The “1000 valves plus rare taxa scan” procedure is required for the calculation of the Diatom Bioassessment Index (DBI).

Note on data recording: use of a computer based counting application is preferred over recording by hand on a bench sheet. Use of a counting application minimizes transcription and summing errors, and eliminates manual data entry of the final results. Different counting applications are being tried by WQB. Full details will be including in future revisions of this SOP.

4i1. KYDOW diatom taxa list

(This section will be expanded to include a description of the KDOW diatom taxa list)

Diatom data entered into EDAS must use the KDOW diatom taxa list. New taxa to be added to the taxa list must be accompanied by the following information: Full taxonomic name, author, original reference, reference used for identification, voucher images, notes on how it differs from other similar taxa or the original author’s diagnosis.

4i2. Documenting taxa with digital images and marked specimens

(This section will be expanded with specific procedures related to documenting taxa with voucher images and marked specimens.)

Images are currently stored as greyscale TIFF files on the a DOW network server by genus, with filenames in the following form:
TaxonCode_StationID_CollectionDate_SequenceNumber

A catalog of marked specimens is planned.

4i3. Before beginning

- 1) Locate the sample on the sample tracking log, and verify against slide label.
- 2) Check project plan for analysis type.
- 3) Record sample information (Station, location, date, replicate number) on bench sheet or enter into count program.
- 4) Examine slide under 400x for even dispersal and density of diatom valves.

4i4. Performing the taxa scan

- 1) working in transects from the bottom of the coverglass toward the top, record each new taxon encountered on the bench sheet, but do not tally valves; set a 5 minute timer each time a new taxon is encountered
- 2) continue until 5 minutes are passed without a new being taxon encountered

4i5. Performing the fixed count

- 1) establish a starting transect by moving to the right edge of the coverglass (left side of view) and positioning the starting field along this edge in the upper third of the coverglass; record the vernier reading (vertical scale) on the bench sheet.
- 2) identify each valve in the field of view; record and tally on the bench sheet; then move to the next field of view to continue (see notes below in this section)
- 3) continue until 1000 valves have been tallied; start new transects as needed to reach 1000 valves
- 4) finish the count by completing a field of view

Notes

- broken valves: count the valve if there is more than 1/2 of the valve present and the central area is intact,
- valves that extend beyond the counting field: count if it extends more than 1/2 into the field
- clumps: for occasional small clumps where valves cannot be sorted out, continue to the next field of view; note the number of cases where fields were passed over due to clumps on the bench sheets
- unidentifiable specimens: if the genus can be determined, enter as one of “unidentified” taxon names (e.g. Achnanthis sp. (1) unidentified); when the count is complete transfer to the most likely taxon if possible, or leave as unidentified
- new taxa: clearly identify any taxa not already in the taxa list; these will have to be added before data can be uploaded to EDAS; new taxa must be well documented with voucher images
- unknown new taxa: the naming convention for new unknown taxa is Genus sp. x KYDOW YYY, where “x” is a unique sequence number for unknown species in that genus and “YYY” are the initials of the analyst; these must be well documented with voucher images

4i6. Verifying the analysis and updating the sample tracking log

- 1) Record total valves counted and the total number of taxa on the bench sheet.
- 2) Review taxa list for recording errors, tally summing errors, and legibility.
- 3) Initial and date the bench sheet (“Verified Complete”).
- 4) Mark the slide label with the completion date and the analyst initials
- 5) Open sample tracking log and record AnalysisMethod, AnalysisDate, AnalysisBy, and AnalysisComments.

4i7. Preparing counting program raw counts for EDAS upload.

Note: if a paper bench sheet is used to record counts, skip these steps. Scan bench sheet for multiple entries of the same taxon and sum the counts if necessary. Check for new taxa and add (see

(this section reserved for later use – instructions for preparing and formatting counting program output to be transferred to EDAS)

4j. Data and Records Management

All documents, electronic data, and slides are retained indefinitely. Storage, organization, and location are listed below. DOW network servers are backed up and archived regularly.

Document, data, or item	storage and organization	location
bench sheets	physical files, by program year	WQB program files
sample tracking logs	Site visit and sample tracking system	\epdatadep\Programmatic_data\Biological_Data\WQB_B VSTS
voucher images	electronic files, by genus name	\epdatadep\Programmatic_data\Biological_Data\Diatoms\DiatomImageArchive
counting program raw count data	electronic (.xml or .txt) files	\epdatadep\Programmatic_data\Biological_Data\Diatoms\DiatomCountProgramDataAchive
diatom slides	slide archive, by program year	DOW biology laboratory
finalized results	EDAS, by station, date, replicate	\epdatadep\Programmatic_data\Biological_Data\EDAS

5. QUALITY CONTROL AND QUALITY ASSURANCE

Duplicate Counts

An estimate of error associated with the enumeration procedures can be derived from duplicate counts. Duplicate counts are recommended for 5% of project counts, or as otherwise specified in project plans. To perform the duplicate count, the entire count

procedure is repeated on another set of transects or fields and the results of the 2 counts are compared using percent community similarity PS_c ⁵:

$$PS_c = \sum_{i=1}^s \min(a_i, b_i)$$

where: a_i = percentage of species i in count A

b_i = percentage of species i in count B

If the same analysts performs the QC count, it serves as a measure of precision for the procedure itself, as well as a check on the consistency of the analyst. If there are multiple analysts, QC counts should be performed by another analyst, and the result also will incorporate analyst differences.

For both same-analyst and different-analyst QC counts, the percent similarity should be >75%. QC counts with <75% similarity should be investigated as to the source of the error by comparing taxa and abundances, and examining slide quality. If inconsistent identifications are the probable issue, resolve the disagreement, correct the error and examine other project counts for similar errors. If slide quality is the probable issue (e.g., uneven, too dense, too sparse), remake the slide and examine other project slides for similar quality problems. Document issues and their resolution in the sample tracking log.

Verification of Sample Taxa Lists

If there is only one analyst, and an outside expert reviewer can be arranged, project slides (5% in a project) should be sent for verification of the common taxa – those with relative abundance of 3% or more⁵. The bench sheet or counting program output, with common taxa marked, should be sent along with the slide. The reviewer will check off each identification that can be verified and will sign the bench sheet to document the verification. The analyst will resolve disagreements in taxonomic identifications with the reviewer, make any necessary corrections, and document the process on the sample tracking log.

Taxonomic voucher verification

At minimum, voucher images or marked specimens should periodically be reviewed by outside taxonomic experts, especially in regards to problematic taxa groups. Reviewers should submit a written verification of the identifications. WQB's diatom voucher image database and marked specimen catalog is under development, but will contain a place to record outside verifications.

Data Verification Summary

The table below summarizes data quality verification steps involved in this SOP. These steps are imbedded in the step-by-step procedures, section 4i. These steps ensure that the slide is of appropriate quality, that the sample's identity is maintained, and the results generated are accurate and complete. Problems and issues must be documented on tracking logs and unresolved issues must be entered into the sample tracking system. In addition to verification steps, all cautions and interferences listed in sections 4e and 4f of this SOP should be observed in order to ensure quality products.

When	Inputs	Element Verified	Verification Records
before beginning	sample tracking log; study plan; slide	sample information; analysis type; slide quality	n/a
at completion	bench sheet or output	completeness	bench sheet; sample tracking log, slide label

6. REFERENCES

1. Kentucky Division of Water, 2008. Methods for Assessing Biological Integrity of Surface Waters in Kentucky, February 2008, Revision 3. Energy and Environment Cabinet, Department for Environmental Protection, Division of Water. Frankfort, KY.
2. Kentucky Division of Water, 2009. Collection methods for benthic algae in wadeable streams, Revision 1.0. Energy and Environment Cabinet, Department for Environmental Protection, Division of Water. Frankfort, KY.
3. Kentucky Division of Water, 2009. Preparing and processing algae samples for taxonomic analysis of diatoms.doc, Revision 1.0. Energy and Environment Cabinet, Department for Environmental Protection, Division of Water. Frankfort, KY.
4. Kentucky Division of Water, 2009. EDAS data entry and biological data management, Revision 1.0. Energy and Environment Cabinet, Department for Environmental Protection, Division of Water. Frankfort, KY.
5. Barbour, M.T., J. Gerritsen, B.D. Snyder, and J. B. Stribling. 1999. Rapid bioassessment protocols for use in streams and wadeable rivers: periphyton, benthic macroinvertebrates, and fish, second edition. EPA 841-B-99-002. U.S. Environmental Protection Agency; Office of Water, Washington, D.C.

7. ATTACHMENTS/CHECKLISTS AND APPENDICES

Appendix A: diatom taxonomy reference library listing

Appendix B: diatom taxa list

Appendix C: diatom analysis bench sheet example

APPENDIX A: DIATOM TAXONOMY REFERENCE LIBRARY LISTING

Diatom Taxonomic References (currently in process of being updated 2/18/09)

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Camburn, K.E., R.L. Lowe, and D.L. Stoneburner. 1978. The haptobenthic diatom flora of Long Branch Creek, South Carolina. *Nova Hed.* 30:149-279.

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Cooper, J.M., and J.L. Wilhm. 1975. Spatial and temporal variability in productivity, species diversity, and pigment diversity of periphyton in a stream receiving domestic and oil refinery effluents. *SW Nat.* 19:413-428.

Czarnecki, D.B., and D.W. Blinn. 1978. Diatoms of the Colorado River in Grand Canyon National Park and vicinity. (Diatoms of Southwestern USA II). *Biblio. Phyc.* 38. J. Cramer. Berlin, Germany.

Hohn, M.H., and J. Hellerman. 1963. The taxonomy and structure of diatom populations from three North American rivers using three sampling methods. *Trans. Am. Microsc. Soc.* 82:250-329.

Hustedt, F. 1927-1966. Die kieselalgen in Rabenhorst's Kryptogamen-flora von Deutsch. Ost. Und der Schw. VII. Leipzig, W. Germany.

Hustedt, F. 1930. Bacillariophyta (Diatomeae) in Pascher, A. (ed). *Die suswasser flora Mitteleuropas.* (The freshwater flora of middle Europe). Gustav Fischer Verlag, Jena, Germany.

Jarrett, G.L., and J.M. King. 1989. The diatom flora (Bacillariophyceae) of Lake Barkley. U.S. Army Corps of Engineers; Nashville Dist.; #DACW62-84-C-0085.

Krammer, K., and H. Lange-Bertalot. 1986-1991. *Susswasserflora von Mitteleuropa.* Band 2. Parts 1-5. Bacillariophyceae. Gustav Fischer Verlag. Stuttgart, Germany.

Lange-Bertalot, H. 1980. New species, combinations and synonyms in the genus *Nitzschia*. *Bacillaria* 3:41-77.

Lange-Bertalot, H., and R. Simonsen. 1978. A taxonomic revision of the *Nitzschia lanceolatae* Grunow: 2. European and related extra-European freshwater and brackish water taxa. *Bacillaria* 1:11-111.

Patrick, R. 1975. The diatoms of the United States, exclusive of Alaska and Hawaii.

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Patrick, R., and C. W. Reimer. 1966. The Diatoms of the United States, exclusive of Alaska and Hawaii. Monograph No. 13. Acad. Nat. Sci. Phila., Philadelphia, PA.

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Round, F.E., R.M. Crawford, and D.G. Mann. 1990. The diatoms: the biology and morphology of the genera. Cambridge Univ. Press, Cambridge, England.

Simonsen, R. 1987. Atlas and catalogue of the diatom types of Friedrich Hustedt. Vol. 1-3. J. Cramer. Berlin, Germany.

Wujek, D.E., and R.F. Rupp. 1980. Diatoms of the Tittabawassee River, MI. Biblio. Phyc. 50:1-100.

APPENDIX B: DIATOM TAXA LIST

KDOW Diatom Taxa List Update 2/18/09

Genus	Species	Authority	Code	FormerNameinEDAS
Achnanthes	coarctata	(Brébisson) Grunow	ACHCOA	Achnanthes coarctata
Achnanthes	curtissima	Carter	ACHCUR	Achnanthes curtissima
Achnanthes	exigua var. elliptica	Hustedt	ACHEXIE LL	Achnanthes exigua var. elliptica
Achnanthes	inflata	(Kützing) Grunow	ACHINF	Achnanthes inflata
Achnanthes	pinnata	Hustedt	ACHPIN	Achnanthes pinnata
Achnanthes	sp. (1) unidentified	n/a	ACHSP1	Achnanthes sp. (1) unidentified
Achnanthes	sp. (2) unidentified	n/a	ACHSP2	Achnanthes sp. (2) unidentified
Achnanthes	spp. (undifferentiated)	n/a	ACHSPP	Achnanthes spp. (undifferentiated)
Achnanthes	subhudsonis var. krauselli	(Cholnoky) Cholnoky	ACHSUB KRA	Achnanthes subhudsonis v. krauselli
Achnanthes	wellsiae	Reimer	ACHWEL	Achnanthes wellsiae
Achnanthes	ziegleri	Lange-Bertalot	ACHZIE	Achnanthes ziegleri
Achnanthidium	Achnanthidium	(Grunow) Czarnecki	ACDAFF	Achnanthidium affine
Achnanthidium	alpestre	(Lowe et Kociolek) Lowe et Kociolek	ACDALP	Achnanthidium alpestre
Achnanthidium	atomus	(Hustedt) Monnier, Lange-Bertalot & Ector	ACDATO	Achnanthidium atomus
Achnanthidium	cf. gracillimum NAWQA	n/a	ACDGRC	Achnanthidium cf. gracillimum NAWQA
Achnanthidium	deflexum	(Reimer) Kingston	ACDDEF	Achnanthidium deflexum
Achnanthidium	eutrophilum	(Lange-Bertalot) Lange-Bertalot	ACDEUT	Achnanthidium eutrophilum
Achnanthidium	exiguum	(Grunow) Czarnecki	ACDEXI	Achnanthidium exiguum
Achnanthidium	exiguum var. constrictum	(Grunow) Andresen, Stoermer et Kreis	ACDEXIC ON	Achnanthidium exiguum var. constrictum
Achnanthidium	microcephalum	Kützing	ACDMIC	Achnanthidium microcephalum
Achnanthidium	minutissimum	(Kützing) Czarnecki	ACDMIN	Achnanthidium minutissimum
Achnanthidium	reimeri	(Camburn) Potapova et Ponader	ACDREI	Achnanthidium reimeri
Achnanthidium	rivulare	Potapova et Ponader	ACDRIV	Achnanthidium rivulare
Achnanthidium	saprophila	(Kobayasi et Mayama) Round et Bukhtiyarova	ACDSAP	Achnanthidium saprophila
Achnanthidium	sp. (1) unidentified	n/a	ACDSP1	Achnanthidium sp. (1) unidentified

Genus	Species	Authority	Code	FormerNameinEDAS
Achnantheidium	sp. 1 KYDOW LAP		ACDSP1L AP	Achnantheidium sp. 1 KYDOW LAP
Achnantheidium	sp. 2 KYDOW LAP		ACDSP2L AP	Achnantheidium sp. 2 KYDOW LAP
Actinocyclus	normanii	(Gregory) Hustedt	ACTNOR	Actinocyclus normanii
Adlafia	bryophila	(Petersen) Lange-Bertalot	ADLBRY	Adlafia bryophila
Adlafia	minuscula	(Grunow) Lange-Bertalot	ADLMIN	Adlafia minuscula
Adlafia	minuscula var. muralis	(Grunow) Lange-Bertalot	ADLMINM UR	Adlafia minuscula var. muralis
Amphipleura	pellucida	(Kützing) Kützing	APLPEL	Amphipleura pellucida
Amphora	bullatoides	Hohn et Hellermann	AMPBUL	Amphora bullatoides
Amphora	copulata	(Kützing) Schoeman et Archibald	AMPCOP	Amphora copulata
Amphora	montana	Krasske	AMPMON	Amphora montana
Amphora	normanii	Rabenhorst	AMPNOR	Amphora normanii
Amphora	ovalis	(Kützing) Kützing	AMPOVA	Amphora ovalis
Amphora	pediculus	(Kützing) Grunow	AMPPED	Amphora pediculus
Amphora	sabiniana	Reimer	AMPSAB	Amphora sabiniana
Amphora	sp. (1) unidentified	n/a	AMPSP	Amphora sp. (1) unidentified
Amphora	veneta	Kützing	AMPVEN	Amphora veneta
Aneumastus	tusculus	(Ehrenberg) Mann et Stickle	ANETUS	Aneumastus tusculus
Asterionella	formosa	Hassal	ASTFOR	Asterionella formosa
Aulacoseira	alpigena	(Grunow) Krammer	AULALP	Aulacoseira alpigena
Aulacoseira	ambigua	(Grunow) Simonsen	AULAMB	Aulacoseira ambigua
Aulacoseira	distans	(Ehrenberg) Simonsen	AULDIS	Aulacoseira distans
Aulacoseira	granulata	(Ehrenberg) Simonsen	AULGRA	Aulacoseira granulata
Aulacoseira	granulata var. angustissima	(Müller) Simonsen	AULGRA ANG	Aulacoseira granulata var. angustissima
Aulacoseira	italica	(Ehrenberg) Simonsen	AULITA	Aulacoseira italica
Aulacoseira	sp. (1) unidentified	n/a	AULSP1	Aulacoseira sp. (1) unidentified
Bacillaria	paradoxa	Gmelin	BACPAR	Bacillaria paradoxa
Brachysira	brebissonii	Ross	BRABRE	Brachysira brebissonii

Genus	Species	Authority	Code	FormerNameinEDAS
Brachysira	microcephala	(Grunow) Compère	BRAMIC	Brachysira microcephala
Brachysira	serians var. acuta	(Hustedt) Hamilton	BRASER ACU	Brachysira serians var. acuta
Brachysira	vitrea	(Grunow) Ross	BRAVIT	Brachysira vitrea + Brachysira microcephala
Caloneis	amphisbaena	(Bory) Cleve	CALAMP	Caloneis amphisbaena
Caloneis	bacillaris var. thermalis	(Grunow) Cleve	CALBACT HE	Caloneis bacillaris var. thermalis
Caloneis	bacillum	(Grunow) Cleve	CALBAC	Caloneis bacillum
Caloneis	branderi	(Hustedt) Krammer	CALBRA	Caloneis branderi
Caloneis	budensis	(Grunow) Krammer	CALBUD	Caloneis budensis
Caloneis	hyalina	Hustedt	CALHYA	Caloneis hyalina
Caloneis	lewisii	Patrick	CALLEW	Caloneis lewisii
Caloneis	lewisii var. inflata	(Schulz) Patrick	CALLEWI NF	Caloneis lewisii var. inflata
Caloneis	limosa	(Kützing) Patrick	CALLIM	Caloneis limosa
Caloneis	silicula	(Ehrenberg) Cleve	CALSIL	Caloneis silicula
Caloneis	sp. (1) unidentified	n/a	CALSP1	Caloneis sp. (1) unidentified
Caloneis	spp.	n/a	CALSP1	Caloneis spp.
Caloneis	undulata	(Gregory) Krammer	CALUND	Caloneis undulata
Caloneis	ventricosa var. alpina	Patrick	CALVEN ALP	Caloneis ventricosa var. alpina
Caloneis	ventricosa var. minuta	(Grunow) Mills	CALVEN MIN	Caloneis ventricosa var. minuta
Caloneis	ventricosa var. subundulata	(Grunow) Patrick	CALVEN SUB	Caloneis ventricosa var. subundulata
Caloneis	ventricosa var. truncatula	(Grunow) Meister	CALVENT RU	Caloneis ventricosa var. truncatula
Campylodiscus	hibernicus	Ehrenberg	CAMHIB	Campylodiscus hibernicus
Capartogramma	crucicula	(Grunow ex Cleve) Ross	CAPCRU	Capartogramma crucicula
Cavinula	cocconeiformis	(Gregory ex Greville) Mann et Stickle	CAVCOC	Cavinula cocconeiformis
Cavinula	lacustris	(Gregory) Mann et Stickle	CAVLAC	Cavinula lacustris

Genus	Species	Authority	Code	FormerNameinEDAS
Cavinula	lapidosa	(Krasske) Lange-Bertalot	CAVLAP	Cavinula lapidosa
Cavinula	scutelloides	(Smith) Lange-Bertalot et Metzeltin	CAVSCU	Cavinula scutelloides
Chamaepinnularia	evanida	(Hustedt) Lange-Bertalot	CHMEVA	Chamaepinnularia evanida
Chamaepinnularia	mediocris	(Krasske) Lange-Bertalot	CHMMED	Chamaepinnularia mediocris
Chamaepinnularia	soehrensis	(Krasske) Lange-Bertalot et Krammer	CHMSOE	Chamaepinnularia soehrensis
Chamaepinnularia	soehrensis var. hassiaca	(Krasske) Lange-Bertalot	CHMSOE HAS	Chamaepinnularia soehrensis var. hassiaca
Cocconeis	pediculus	Ehrenberg	COCPED	Cocconeis pediculus
Cocconeis	placentula	Ehrenberg	COCPLA	Cocconeis placentula + varieties
Cocconeis	placentula var. euglypta	(Ehrenberg) Grunow	COCPLA EUG	Cocconeis placentula + varieties
Cocconeis	placentula var. lineata	(Ehrenberg) Van Heurck	COCPLA LIN	Cocconeis placentula + varieties
Craticula	accomoda	(Hustedt) Mann	CRAACC	Craticula accomoda
Craticula	citrus	(Krasske) Reichardt	CRACIT	Craticula citrus
Craticula	cuspidata	(Kützing) Mann	CRACUS	Craticula cuspidata
Craticula	halophila	(Grunow) Mann	CRAHAL	Craticula halophila
Craticula	halophiliodes	(Hustedt) Lange-Bertalot	CRAHLD	Craticula halophiliodes
Craticula	minusculoides	(Hustedt) Lange-Bertalot	CRAMIN	Craticula minusculoides
Craticula	molestiformis	(Hustedt) Lange-Bertalot	CRAMOL	Craticula molestiformis
Craticula	submolesta	(Hustedt) Lange-Bertalot	CRASML	Craticula submolesta
Craticula	vixvisibilis	(Hustedt) Lange-Bertalot	CRAVIX	Craticula vixvisibilis
Ctenophora	pulchella	(Ralfs ex Kützing) Williams et Round	CTEPUL	Ctenophora pulchella
Ctenophora	pulchella var. lacerata	(Hustedt) Bukhtiyarova	CTEPULL AC	Ctenophora pulchella var. lacerata
Cyclostephanos	dubius	(Frick) Round	CYCDUB	Cyclostephanos dubius
Cyclostephanos	invisitatus	(Hohn et Hellerman) Theriot, Stoermer et Häkansson	CSTINV	Cyclostephanos invisitatus
Cyclostephanos	tholiformis	Stoermer, Häkansson et Theriot	CSTTHO	Cyclostephanos tholiformis
Cyclotella	atomus	Hustedt	CYCATO	Cyclotella atomus
Cyclotella	meneghiniana	Kützing	CYCMEN	Cyclotella meneghiniana
Cyclotella	ocellata	Pantocsek	CYCOCE	Cyclotella ocellata

Genus	Species	Authority	Code	FormerNameinEDAS
Cyclotella	sp. (1) unidentified	n/a	CYCSP1	Cyclotella sp. (1) unidentified
Cyclotella	spp.	n/a	CYCSP	Cyclotella spp.
Cyclotella	striata	(Kützing) Grunow	CYCSTR	Cyclotella striata
Cyclotella	striata var. ambigua	(Grunow) Grunow	CYCSTR AMB	Cyclotella striata var. ambigua
Cylindrotheca	gracilis	(Brébisson) Grunow	CYLGRA	Cylindrotheca gracilis
Cymatopleura	elliptica	(Brébisson) Smith	CYPELL	Cymatopleura elliptica
Cymatopleura	elliptica var. hibernica	(Smith) Van Heurck	CYPELLH IB	Cymatopleura elliptica var. hibernica
Cymatopleura	elliptica var. nobilis	(Hantzsch) Hustedt	CYPELLN OB	Cymatopleura elliptica var. nobilis
Cymatopleura	solea	(Brébisson) Smith	CYPSOL	Cymatopleura solea
Cymatopleura	solea var. apiculata	(Smith) Ralfs	CYPSOL API	Cymatopleura solea var. apiculata
Cymbella	aequalis	Smith	CYMAEQ	Cymbella aequalis
Cymbella	affinis	Kützing	CYMAFF	Cymbella affinis
Cymbella	amphicephala	Nägeli ex Kützing	CYMAMP	Cymbella amphicephala
Cymbella	amphioxys	(Kützing) Cleve	CYMAMX	Cymbella amphioxys
Cymbella	aspera	(Ehrenberg) Peragallo	CYMASP	Cymbella aspera
Cymbella	cistula	(Ehrenberg) Kirchner	CYMCIS	Cymbella cistula
Cymbella	cuspidata	Kützing	CYMCUS	Cymbella cuspidata
Cymbella	cymbiformis	Agardh	CYMCYM	Cymbella cymbiformis
Cymbella	cymbiformis var. nonpunctata	Fontell	CYMCYM NON	Cymbella cymbiformis var. nonpunctata
Cymbella	delicatula	Kützing	CYMDEL	Cymbella delicatula
Cymbella	ehrenbergii	Kützing	CYMEHR	Cymbella ehrenbergii
Cymbella	hauckii	Van Heurck	CYMHOU	Cymbella hauckii
Cymbella	hustedtii	Krasske	CYMHUS	Cymbella hustedtii
Cymbella	hybrida	Grunow ex Cleve	CYMHYB	Cymbella hybrida
Cymbella	incerta	(Grunow) Cleve	CYMINC	Cymbella incerta
Cymbella	laevis	Nägeli ex Kützing	CYMLAE	Cymbella laevis
Cymbella	lanceolata	(Agardh) Agardh	CYMLAN	Cymbella lanceolata

Genus	Species	Authority	Code	FormerNameinEDAS
Cymbella	leptoceros	(Ehrenberg) Kützing	CYMLEP	Cymbella leptoceros
Cymbella	mesiana	Cholnoky	CYMMES	Cymbella mesiana
Cymbella	mexicana	(Ehrenberg) Cleve	CYMMEX	Cymbella mexicana
Cymbella	minuta var. pseudogracilis	(Cholnoky) Reimer	CYMMIN PSE	Cymbella minuta var. pseudogracilis
Cymbella	naviculiformis	Auerswald ex Héribaud	CYMNAV	Cymbella naviculiformis
Cymbella	pusilla	Grunow	CYMPUS	Cymbella pusilla
Cymbella	simonsenii	Krammer	CYMSIM	Cymbella simonsenii
Cymbella	sp. (1) unidentified	n/a	CYMSP1	Cymbella sp. (1) unidentified
Cymbella	spp.	n/a	CYMSP1	Cymbella spp.
Cymbella	subaequalis	Grunow	CYMSUB	Cymbella subaequalis
Cymbella	subcuspidata	Krammer	CYMSBC	Cymbella subcuspidata
Cymbella	tumida	(Brébisson ex Kützing) Van Heurck	CYMTUM	Cymbella tumida
Cymbella	tumidula	Grunow ex Schmidt	CYMTMD	Cymbella tumidula
Cymbella	turgidula	Grunow	CYMTUR	Cymbella turgidula
Decussata	placenta	(Ehrenberg) Lange-Bertalot et Metzeltin	DECPLA	Decussata placenta
Denticula	elegans	Kützing	DENELE	Denticula elegans
Denticula	kuetzingii	Grunow	DENKUE	Denticula kuetzingii
Denticula	spp.	n/a	DENSPP	Denticula spp.
Denticula	tenuis	Kützing	DENTEN	Denticula tenuis
Diadismis	confervacea	Kützing	DDSCON	Diadismis confervacea
Diadismis	contenta	(Grunow ex Van Heurck) Mann	DDSCNT	Diadismis contenta
Diadismis	peregrina	W. Smith	DDSPER	Diadismis peregrina
Diatoma	hyemalis	(Roth) Heiberg	DIAHYE	Diatoma hyemalis
Diatoma	mesodon	(Ehrenberg) Kützing	DIAMES	Diatoma mesodon
Diatoma	moniliformis	Kützing	DIAMON	Diatoma moniliformis
Diatoma	tenuis	Agardh	DIATEN	Diatoma tenuis
Diatoma	vulgaris	Bory	DIAVUL	Diatoma vulgaris
Diploneis	boldtiana	Cleve	DIPBOL	Diploneis boldtiana
Diploneis	elliptica	(Kützing) Cleve	DIPELL	Diploneis elliptica
Diploneis	finnica	(Ehrenberg) Cleve	DIPFIN	Diploneis finnica

Genus	Species	Authority	Code	FormerNameinEDAS
Diploneis	marginestriata	Hustedt	DIPMAR	Diploneis marginestriata
Diploneis	oblongella	(Näegeli ex Kützing) Ross	DIPOBL	Diploneis oblongella
Diploneis	oculata	(Brébisson) Cleve	DIPOCU	Diploneis oculata
Diploneis	parma	Cleve	DIPPAR	Diploneis parma
Diploneis	petersenii	Hustedt	DIPPET	Diploneis petersenii
Diploneis	pseudovalis	Hustedt	DIPPSO	Diploneis pseudovalis
Diploneis	puella	(Schumann) Cleve	DIPPUE	Diploneis puella
Diploneis	smithii var. dilatata	(Peragallo) Boyer	DIPSMIDI L	Diploneis smithii var. dilatata
Diploneis	smithii var. pumila	(Grunow) Hustedt	DIPSMIP UM	Diploneis smithii v. pumila
Diploneis	sp. (1) unidentified	n/a	DIPSP1	Diploneis sp. (1) unidentified
Diploneis	spp.	n/a	DIPSP	Diploneis spp.
Diploneis	subovalis	Cleve	DIPSUB	Diploneis subovalis
Discostella	pseudostelligera	(Hustedt) Houk et Klee	DSCPST	Discostella pseudostelligera
Discostella	stelligera	(Hustedt) Houk et Klee	DSCSTE	Discostella stelligera
Encyonema	auerswaldii	Rabenhorst	ENCAUE	Encyonema auerswaldii
Encyonema	hebridicum	Grunow ex Cleve	ENCHEB	Encyonema hebridicum
Encyonema	lunatum	(Smith) Van Heurck	ENCLUN	Encyonema lunatum
Encyonema	minutum	(Hilse) Mann	ENCMIN	Encyonema minutum
Encyonema	muelleri	(Hustedt) Mann	ENCMUE	Encyonema muelleri
Encyonema	perpussilum	(Cleve) Mann	ENCPER	Encyonema perpussilum
Encyonema	prostratum	(Berkeley) Kützing	ENCPRO	Encyonema prostratum
Encyonema	reichardtii	(Krammer) Mann	ENCREI	Encyonema reichardtii
Encyonema	silesiacum	(Bleisch) Mann	ENCSIL	Encyonema silesiacum
Encyonema	triangulum	(Ehrenberg) Kützing	ENCTRI	Encyonema triangulum
Encyonopsis	cesatii	(Rabhenhorst) Krammer	ENPCES	Encyonopsis cesatii
Encyonopsis	falaisensis	(Grunow) Krammer	ENPFAL	Encyonopsis falaisensis
Encyonopsis	krammeri	Reichardt	ENPKRA	Encyonopsis krammeri
Encyonopsis	microcephala	(Grunow) Krammer	ENPMIC	Encyonopsis microcephala
Encyonopsis	minuta	Krammer et Reichardt	ENPMIN	Encyonopsis minuta

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Encyonopsis	subminuta	Krammer et Reichardt	ENPSUB	Encyonopsis subminuta
Entomoneis	alata	(Ehrenberg) Ehrenberg	ENTALA	Entomoneis alata
Entomoneis	ornata	(Bailey) Reimer	ENTORN	Entomoneis ornata
Entomoneis	paludosa	(Smith) Reimer	ENTPAL	Entomoneis paludosa
Epithemia	adnata	(Kützing) Brébisson	EPIADN	Epithemia adnata
Epithemia	adnata var. saxonica	(Kützing) R.M. Patrick	EPIADNS AX	Epithemia adnata var. saxonica
Epithemia	argus	(Ehrenberg) Kützing	EPIARG	Epithemia argus
Epithemia	argus var. protracta	Mayer	EPIARGP RO	Epithemia argus var. protracta
Epithemia	frickei	Krammer	EPIFRI	Epithemia frickei
Epithemia	goeppertiana	Hilse	EPIGOE	Epithemia goeppertiana
Epithemia	sorex	Kützing	EPISOR	Epithemia sorex
Epithemia	sp. (1) unidentified	n/a	EPISP1	Epithemia sp. (1) unidentified
Epithemia	spp.	n/a	EPISPP	Epithemia spp.
Epithemia	turgida	(Ehrenberg) Kützing	EPITUR	Epithemia turgida
Epithemia	turgida var. granulata	(Ehrenberg) Hustedt	EPITURG RA	Epithemia turgida var. granulata
Eucoconeis	flexella	(Kützing) Cleve	EUCFLE	Eucoconeis flexella
Eucoconeis	lapponica var. ninckei	(Guermeur et Manguin) M. B. Edlund	EUCLAP NIN	Eucoconeis lapponica v. ninckei
Eunotia	arculus	Lange-Bertalot et Nörpel	EUNARL	Eunotia arculus
Eunotia	arcus	Ehrenberg	EUNARC	Eunotia arcus
Eunotia	arcus var. bidens	Grunow	EUNARC BID	Eunotia arcus var. bidens
Eunotia	bilunaris	Smith	EUNBIL	Eunotia bilunaris
Eunotia	elegans	Östrup	EUNELE	Eunotia elegans
Eunotia	exigua	(Brébisson ex Kützing) Rabenhorst	EUNEXI	Eunotia exigua
Eunotia	exigua var. tridentula	Östrup	EUNEXIT RI	Eunotia exigua var. tridentula
Eunotia	flexuosa	Brébisson ex Kützing	EUNFLE	Eunotia flexuosa
Eunotia	formica	Ehrenberg	EUNFOR	Eunotia formica

Genus	Species	Authority	Code	FormerNameinEDAS
Eunotia	glacialis	Meister	EUNGLA	Eunotia glacialis
Eunotia	implicata	Nörpel, Lange-Bertalot et Alles	EUNIMP	Eunotia implicata
Eunotia	incisa	Smith ex Gregory	EUNINC	Eunotia incisa
Eunotia	intermedia	(Krasske ex Hustedt) Nörpel et Lange-Bertalot	EUNINT	Eunotia intermedia
Eunotia	maior	(Smith) Rabenhorst	EUNMAI	Eunotia maior
Eunotia	minor	(Kützing) Grunow	EUNMIN	Eunotia minor
Eunotia	musciola var. perminuta	(Grunow) Patrick	EUNPRM	Eunotia perminuta
Eunotia	musciola var. tridentula	Nörpel et Lange-Bertalot	EUNMUS TRI	Eunotia musciola var. tridentula
Eunotia	naegelii	Migula	EUNNAE	Eunotia naegelii
Eunotia	paludosa var. trinacria	(Krasske) Nörpel	EUNPALT RI	Eunotia paludosa var. trinacria
Eunotia	pectinalis	(Müller) Rabenhorst	EUNPEC	Eunotia pectinalis
Eunotia	pectinalis var. undulata	(Ralfs) Rabenhorst	EUNPEC UND	Eunotia pectinalis var. undulata
Eunotia	perpusilla	Grunow	EUNPER	Eunotia perpusilla
Eunotia	praerupta	Ehrenberg	EUNPRA	Eunotia praerupta
Eunotia	rhomboidea	Hustedt	EUNRHO	Eunotia rhomboidea
Eunotia	septentrionalis	Östrup	EUNSEP	Eunotia septentrionalis
Eunotia	serra var. diadema	(Ehrenberg) Patrick	EUNSER DIA	Eunotia serra var. diadema
Eunotia	serra var. tetraodon	Nörpel	EUNSER TET	Eunotia serra var. tetraodon
Eunotia	sp. (1) unidentified	n/a	EUNSP1	Eunotia sp. (1) unidentified
Eunotia	sp. (2) unidentified	n/a	EUNSP2	Eunotia sp. (2) unidentified
Eunotia	spp.	n/a	EUNSP	Eunotia spp.
Eunotia	subarcuatoides	Aller, Nörpel et Lange-Bertalot	EUNSUB	Eunotia subarcuatoides
Eunotia	sudetica	Müller	EUNSUD	Eunotia sudetica
Eunotia	tenella	(Grunow) Cleve	EUNTEN	Eunotia tenella
Eunotia	triodon	Ehrenberg	EUNTRI	Eunotia triodon
Eunotia	valida	Hustedt	EUNVAL	Eunotia valida

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Eunotia	vanheurckii	Patrick	EUNVAN	Eunotia vanheurckii
Fallacia	auriculata	(Hustedt) Mann	FALAUT	Fallacia auriculata
Fallacia	insociabilis	(Krasske) Stickle et Mann	FALINS	Fallacia insociabilis
Fallacia	lenzii	(Hustedt) Lange-Bertalot	FALLEN	Fallacia lenzii
Fallacia	monoculata	(Hustedt) Mann	FALMON	Fallacia monoculata
Fallacia	omissa	(Hustedt) Mann	FALOMI	Fallacia omissa
Fallacia	pygmaea	(Kützing) Stickle et Mann	FALPYG	Fallacia pygmaea
Fallacia	subhamulata	(Grunow) Mann	FALSUB	Fallacia subhamulata
Fallacia	tenera	(Hustedt) Mann	FALTEN	Fallacia tenera
Fistulifera	pelliculosa	(Brébisson ex Kützing) Lange-Bertalot	FISPEL	Fistulifera pelliculosa
Fistulifera	saprophila	(Lange-Bertalot et Bonik) Lange-Bertalot	FISSAP	Fistulifera saprophila
Fragilaria	amphicephala	(Kützing) Lange-Bertalot	FRAAMP	Fragilaria amphicephala
Fragilaria	capucina	Desmazières	FRACAP	Fragilaria capucina
Fragilaria	capucina var. fragilarioides	(Grunow) Ludwig et Flores	FRACAP FRA	Fragilaria capucina v. fragilarioides
Fragilaria	capucina var. gracilis	(Östrup) Hustedt	FRACAP GRA	Fragilaria capucina var. gracilis
Fragilaria	capucina var. mesolepta	Rabenhorst	FRACAP MES	Fragilaria capucina var. mesolepta
Fragilaria	capucina var. perminuta	(Grunow) Lange-Bertalot	FRACAP PER	Fragilaria capucina var. perminuta
Fragilaria	crotonensis	Kitton	FRACRO	Fragilaria crotonensis
Fragilaria	famelica	(Kützing) Lange-Bertalot	FRAFAM	Fragilaria famelica
Fragilaria	radians	(Kützing) Petersen	FRARAD	Fragilaria radians
Fragilaria	sepes	Ehrenberg	FRASEP	Fragilaria sepes
Fragilaria	sp. (1) unidentified	n/a	FRASP1	Fragilaria sp. (1) unidentified
Fragilaria	spp.	n/a	FRASPP	Fragilaria spp.
Fragilaria	vaucheriae	(Kützing) Petersen	FRAVAU	Fragilaria vaucheriae
Fragilariforma	virescens	(Ralfs) Williams et Round	FRAVIR	Fragilariforma virescens
Frustulia	amphipleuroides	(Grunow) Cleve-Euler	FRUAMP	Frustulia amphipleuroides
Frustulia	asymmetrica	(Cleve) Hustedt	FRUASS	Frustulia asymmetrica

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Frustulia	crassinervia	(Brebisson) Lange-Bertalot et Krammer	FRUCRA	Frustulia crassinervia
Frustulia	krammeri	Lange-Bertalot et Metzeltin	FRUKRA	Frustulia krammeri
Frustulia	rhomboides var. capitata	(Mayer) Patrick	FRURHO CAP	Frustulia rhomboides var. capitata
Frustulia	saxonica	Rabenhorst	FRUSAX	Frustulia saxonica
Frustulia	vulgaris	(Thwaites) deToni	FRUVUL	Frustulia vulgaris
Frustulia	weinholdii	Hustedt	FRUWEI	Frustulia weinholdii
Geissleria	acceptata	(Hustedt) Lange-Bertalot et Metzeltin	GEIACC	Geissleria acceptata
Geissleria	aikenensis	(Patrick) Torgan et Olivera	GEIAIK	Geissleria aikenensis
Geissleria	decussis	(Hustedt) Lange-Bertalot et Metzeltin	GEIDEC	Geissleria decussis
Geissleria	ignota	(Krasske) Lange-Bertalot et Metzeltin	GEIIGN	Geissleria ignota
Geissleria	kriegeri	(Krasske) Lange-Bertalot	GEIKRI	Geissleria kriegeri
Geissleria	paludosa	(Hustedt) Lange-Bertalot et Metzeltin	GEIPAL	Geissleria paludosa
Geissleria	schoenfeldii	(Hustedt) Lange-Bertalot et Metzeltin	GEISCH	Geissleria schoenfeldii
Gomphoneis	herculeana	(Ehrenberg) Cleve	GMSHER	Gomphoneis herculeana
Gomphoneis	herculeana var. robusta	(Grunow) Cleve	GMSHER ROB	Gomphoneis herculeana var. robusta
Gomphoneis	minuta	Kociolek et Stoermer	GMSMIN	Gomphoneis minuta
Gomphonema	acuminatum	Ehrenberg	GOMACU	Gomphonema acuminatum
Gomphonema	acuminatum var. elongatum	Smith	GOMACU ELO	Gomphonema acuminatum var. elongatum
Gomphonema	acuminatum var. pusilla	Grunow	GOMACU PUS	Gomphonema acuminatum var. pusilla
Gomphonema	affine	Kützing	GOMAFF	Gomphonema affine
Gomphonema	americobtusatum	Reichardt et Lange-Bertalot	GOMAME	Gomphonema americobtusatum
Gomphonema	angustatum	(Kützing) Rabenhorst	GOMANG	Gomphonema angustatum + G micropus + G innocens
Gomphonema	apuncto	Wallace	GOMAPU	Gomphonema apuncto
Gomphonema	augur	Ehrenberg	GOMAUG	Gomphonema augur
Gomphonema	cf. micropus KYDOW LAP		GOMMIC LAP	Gomphonema cf. micropus KYDOW LAP

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Gomphonema	cf. subclavatum KYDOW	n/a	GOMSUB _CF	Gomphonema cf. subclavatum KYDOW
Gomphonema	cf. subclavatum var. mexicanum KYDOW	n/a	GOMSUB MCF	Gomphonema cf. subclavatum v. mexicanum KYDOW
Gomphonema	christenseni	Lowe et Kociolek	GOMCHR	Gomphonema christenseni
Gomphonema	dichotomum	Kützing	GOMDIC	Gomphonema dichotomum
Gomphonema	drutelingense	Reichardt	GOMDRU	Gomphonema drutelingense
Gomphonema	entolejum	Östrup	GOMENT	Gomphonema entolejum
Gomphonema	gibba	Wallace	GOMGIB	Gomphonema gibba
Gomphonema	gracile	Ehrenberg emend Van Heurck	GOMGRA	Gomphonema gracile
Gomphonema	innocens	Reichardt	GOMINN	Gomphonema innocens
Gomphonema	intricatum	Kützing	GOMINT	Gomphonema intricatum
Gomphonema	intricatum var. pulvinatum	(A.Braun) Grunow	GOMINT PUL	Gomphonema intricatum var. pulvinatum
Gomphonema	kobayasii	Kociolek et Kingston	GOMKOB	Gomphonema kobayasii
Gomphonema	lagenula	Kützing	GOMLAG	Gomphonema lagenula
Gomphonema	longilineare	Reichardt	GOMLON	Gomphonema longilineare
Gomphonema	manubrium	Fricke	GOMMAN	Gomphonema manubrium
Gomphonema	mehleri	Camburn	GOMMEH	Gomphonema mehleri
Gomphonema	mexicanum	Grunow ex Van Heurck	GOMMEX	Gomphonema mexicanum KYDOW
Gomphonema	micropus	Kützing	GOMMIC	Gomphonema micropus
Gomphonema	minutum	(Agardh) Agardh	GOMMIN	Gomphonema minutum
Gomphonema	olivaceoides	Hustedt	GOMOLD	Gomphonema olivaceoides
Gomphonema	olivaceoides var. denestriata	Foged	GOMOLI DEN	Gomphonema olivaceoides v. denestriata
Gomphonema	olivaceoides var. hutchinsoniana	Patrick	GOMOLI HUT	Gomphonema olivaceoides v. hutchinsoniana
Gomphonema	olivaceum	(Lyngbye) Kützing	GOMOLI	Gomphonema olivaceum
Gomphonema	pala	Reichardt	GOMPAL	Gomphonema pala
Gomphonema	parvulus	(Lange-Bertalot et Reichardt) Lange-Bertalot et Reichardt	GOMPVL	Gomphonema parvulus
Gomphonema	parvulum	(Kützing) Kützing	GOMPAR	Gomphonema parvulum + complex

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Gomphonema	parvulum fo. saprophilum	Lange-Bertalot et Reichardt	GOMPAR SAP	Gomphonema parvulum fo. saprophilum
Gomphonema	patrickii	Kociolek et Stoermer	GOMPAT	Gomphonema patrickii
Gomphonema	productum	(Grunow) Lange-Bertalot et Reichardt	GOMPRO	Gomphonema productum
Gomphonema	pumilum	(Grunow) Reichardt et Lange-Bertalot	GOMPUM	Gomphonema pumilum + varieties + G kobayasii
Gomphonema	reimeri	Kociolek et Kingston	GOMREI	Gomphonema reimeri
Gomphonema	rhombicum	Fricke	GOMRHO	Gomphonema rhombicum
Gomphonema	sarcophagus	Gregory	GOMSAR	Gomphonema sarcophagus
Gomphonema	sp. (1) unidentified	n/a	GOMSP1	Gomphonema sp. (1) unidentified
Gomphonema	sp. (2) unidentified	n/a	GOMSP2	Gomphonema sp. (2) unidentified
Gomphonema	sp. 1 KYDOW LAP	n/a	GOMSP1 LAP	Gomphonema sp. 1 KYDOW LAP
Gomphonema	sphaerophorum	Ehrenberg	GOMSPH	Gomphonema sphaerophorum
Gomphonema	spp.	n/a	GOMSP	Gomphonema spp.
Gomphonema	tergestinum	(Grunow) Fricke	GOMTER	Gomphonema tergestinum
Gomphonema	truncatum	Ehrenberg	GOMTRU	Gomphonema truncatum
Gomphonema	truncatum var. capitatum	(Ehrenberg) Patrick	GOMTRU CAP	Gomphonema truncatum var. capitatum
Gomphonema	truncatum var. turgidum	(Ehrenberg) Patrick	GOMTRU TUR	Gomphonema truncatum var. turgidum
Gomphonema	turris	Ehrenberg	GOMTUR	Gomphonema turris
Gomphonema	utae	Lange-Bertalot et Reichardt	GOMUTA	Gomphonema utae
Gomphosphenia	lingulatiformis	(Lange-Bertalot et Reichardt) Lange-Bertalot	GMALIN	Gomphosphenia lingulatiformis
Gyrosigma	acuminatum	(Kützing) Rabenhorst	GYRACU	Gyrosigma acuminatum
Gyrosigma	attenuatum	(Kützing) Rabenhorst	GYRATT	Gyrosigma attenuatum
Gyrosigma	distortum	(Smith) Griffith et Henfrey	GYRDIS	Gyrosigma distortum
Gyrosigma	exilis	(Grunow) Reimer	GYREXI	Gyrosigma exilis
Gyrosigma	eximium	(Thwaites) Boyer	GYREXM	Gyrosigma eximium
Gyrosigma	nodiferum	(Grunow) Reimer	GYRNOD	Gyrosigma nodiferum
Gyrosigma	obscurum	(Smith) Griffith et Henfrey	GYROBS	Gyrosigma obscurum
Gyrosigma	obtusatum	(Sullivant et Wormley) Boyer	GYROBT	Gyrosigma obtusatum

Genus	Species	Authority	Code	FormerNameinEDAS
Gyrosigma	reimeri	Sterrenburg	GYRREI	Gyrosigma reimeri
Gyrosigma	scalproides	(Rabenhorst) Cleve	GYRSCA	Gyrosigma scalproides
Gyrosigma	sciotense	(Sullivan et Wormley) Cleve	GYRSCI	Gyrosigma sciotense
Gyrosigma	sp. (1) unidentified	n/a	GYRSP1	Gyrosigma sp. (1) unidentified
Gyrosigma	spencerii	(Smith) Griffith et Henfrey	GYRSPE	Gyrosigma spencerii
Gyrosigma	spencerii var. curvula	(Grunow) Reimer	GYRSPE CUR	Gyrosigma spencerii var. curvula
Gyrosigma	spp.	n/a	GYRSPP	Gyrosigma spp.
Gyrosigma	wormleyi	(Sullivan) Boyer	GYRWOR	Gyrosigma wormleyi
Hantzschia	amphioxys	(Ehrenberg) Grunow	HANAMP	Hantzschia amphioxys
Hantzschia	elongata	(Hantzsch) Grunow	HANELO	Hantzschia elongata
Hippodonta	capitata	(Ehrenberg) Lange-Bertalot, Metzeltin et Witkowski	HIPCAP	Hippodonta capitata
Hippodonta	hungarica	(Grunow) Lange-Bertalot, Metzeltin et Witkowski	HIPHUN	Hippodonta hungarica
Hippodonta	luneburgensis	(Grunow) Lange-Bertalot, Metzeltin et Witkowski	HIPLUN	Hippodonta luneburgensis
Karayevia	clevei	(Grunow) Bukhtiyarova	KARCLE	Karayevia clevei
Karayevia	clevei var. rostrata	(Hustedt) Bukhtiyarova	KARCLE ROS	Karayevia clevei var. rostrata
Karayevia	ploenensis	(Hustedt) Bukhtiyarova	KARPLO	Karayevia ploenensis
Kobayasiella	subtilissima	(Cleve) Lange-Bertalot	KOBSUB	Kobayasiella subtilissima
Lemnicola	hungarica	(Grunow) Round et Basson	LEMHUN	Lemnicola hungarica
Luticola	binodis	(Hustedt) M.B. Edlund	LUTBIN	Luticola binodis
Luticola	goeppertiana	(Bleisch) Mann	LUTGOE	Luticola goeppertiana
Luticola	mutica	(Kützing) Mann	LUTMUT	Luticola mutica
Luticola	muticopsis	(Van Heurck) Mann	LUTMTC	Luticola muticopsis
Luticola	nivalis	(Ehrenberg) Mann	LUTNIV	Luticola nivalis
Luticola	cohnii	(Hilse) Mann	LUTCOH	Luticola cohnii
Luticola	saxophila	W. Bock ex Hustedt) D.G. Mann	LUTSAX	Luticola saxophila
Luticola	stigma	(Patrick) Johansen	LUTSTI	Luticola stigma
Luticola	undulata	(Hilse) Mann	LUTUND	Luticola undulata
Luticola	ventricosa	(Kützing) Mann	LUTVEN	Luticola ventricosa

Genus	Species	Authority	Code	FormerNameinEDAS
Mastogloia	smithii	Thwaites	MASSMI	Mastogloia smithii
Mayamaea	agrestis	(Hustedt) Lange-Bertalot	MAYAGR	Mayamaea agrestis
Mayamaea	atomus	(Kützing) Lange-Bertalot	MAYATO	Mayamaea atomus + Fisulifera spp.
Mayamaea	atomus var. permitis	(Hustedt) Lange-Bertalot	MAYATO PER	Mayamaea atomus var. permitis
Melosira	varians	Agardh	MELVAR	Melosira varians
Meridion	circulare	(Greville) Agardh	MERCIR	Meridion circulare
Meridion	circulare var. constricta	(Ralfs) Van Heurck	MERCIR CON	Meridion circulare var. constricta
Microcostatus	krasskei	(Hustedt) Johansen et Sray	MICCRA	Microcostatus krasskei
Microcostatus	maceria	(Schimanski) Lange-Bertalot	MICMAC	Microcostatus maceria
Navicula	absoluta	Hustedt	NAVABS	Navicula absoluta
Navicula	amphiceropsis	Lange-Bertalot et Rumrich	NAVAMP	Navicula amphiceropsis
Navicula	angusta	Grunow	NAVANG	Navicula angusta
Navicula	antonii	Lange-Bertalot	NAVANT	Navicula antonii
Navicula	arctotenelloides	Lange-Bertalot et Metzeltin	NAVARC	Navicula arctotenelloides
Navicula	arvensis	Hustedt	NAVARV	Navicula arvensis + other small forms
Navicula	bacilloides	Hustedt	NAVBCD	Navicula bacilloides
Navicula	bicephala	Hustedt	NAVVIC	Navicula bicephala
Navicula	canalis	Patrick	NAVCAN	Navicula canalis
Navicula	capitatoradiata	Germain	NAVCPR	Navicula capitatoradiata
Navicula	cari	Ehrenberg	NAVCARI	Navicula cari
Navicula	caterva	Hohn et Hellermann	NAVCAT	Navicula caterva
Navicula	cincta	(Ehrenberg) Ralfs	NAVCIN	Navicula cincta
Navicula	cincta var. rostrata	Reimer	NAVCINR OS	Navicula cincta v. rostrata
Navicula	constans var. symmetrica	Hustedt	NAVCON SYM	Navicula constans var. symmetrica
Navicula	contenta var. biceps	(Arnott) Van Heurck	NAVCON BIC	Navicula contenta var. biceps
Navicula	cryptocephala	Kützing	NAVCRY	Navicula cryptocephala
Navicula	cryptotenella	Lange-Bertalot ex Krammer et Lange-Bertalot	NAVCRT	Navicula cryptotenella

Genus	Species	Authority	Code	FormerNameinEDAS
Navicula	dibola	Hohn	NAVDIB	Navicula dibola
Navicula	difficillima	Hustedt	NAVDIF	Navicula difficillima
Navicula	difficillimoides	Hustedt	NAVDFM	Navicula difficillimoides
Navicula	elginensis var. rostrata	(Mayer) Patrick	NAVELG ROS	Navicula elginensis var. rostrata
Navicula	erifuga	Lange-Bertalot	NAVERI	Navicula erifuga
Navicula	exigua var. capitata	Patrick	NAVEXIC AP	Navicula exigua var. capitata
Navicula	exigua var. signata	Hustedt	NAVEXISI G	Navicula exigua var. signata
Navicula	festiva	Krasske	NAVRES	Navicula festiva
Navicula	fracta	Hustedt	NAVFRA	Navicula fracta
Navicula	germainii	Wallace	NAVGER	Navicula germainii
Navicula	gibbosa	Hustedt	NAVGIN	Navicula gibbosa
Navicula	gottlandica	Lange-Bertalot	NAVLOT	Navicula trivialis
Navicula	gregaria	Donkin	NAVGRE	Navicula gregaria
Navicula	gysingensis	Foged	NAVGYG	Navicula gysingensis
Navicula	hambergii	Hustedt	NAVHAM	Navicula hambergii
Navicula	hasta	Pantocsek	NAVHAS	Navicula hasta
Navicula	helensis	Schulz	NAVHEL	Navicula helensis
Navicula	ingenua	Hustedt	NAVING	Navicula ingenua
Navicula	integra	(Smith) Ralfs	NAVINT	Navicula integra
Navicula	kotschyi	Grunow	NAVKOT	Navicula kotschyi
Navicula	lanceolata	(Agardh) Ehrenberg	NAVLAN	Navicula lanceolata + N avenacea + N trivialis
Navicula	lateropunctata	Wallace	NAVLAP	Navicula lateropunctata
Navicula	laterorostrata	Hustedt	NAVLAT	Navicula laterorostrata
Navicula	leistikowii	Lange-Bertalot	NAVLEI	Navicula leistikowii
Navicula	libonensis	Schoeman	NAVLIB	Navicula libonensis
Navicula	lundii	Reichardt	NAVLND	Navicula lundii
Navicula	menisculus	Schumann	NAVMEN	Navicula antonii + Navicula menisculus

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Navicula	menisculus var. obtusa	Hustedt	NAVMEN OBT	Navicula menisculus v. obtusa
Navicula	microcari	Lange-Bertalot	NAVMCC	Navicula mirocari
Navicula	minima	Grunow	NAVMIN	Navicula minima
Navicula	notha	Wallace	NAVNOT	Navicula notha
Navicula	parablis	Hohn et Hellermann	NAVPAR	Navicula parablis
Navicula	perminuta	Grunow	NAVPRM	Navicula perminuta
Navicula	perpusilla	Grunow	NAVPER	Navicula perpusilla
Navicula	phyllepta	Kützing	NAVPHY	Navicula phyllepta
Navicula	pseudoarvensis	Hustedt	NAVPCA	Navicula pseudoarvensis
Navicula	pseudolanceolata	Lange-Bertalot	NAVPSA	Navicula pseudolanceolata
Navicula	pseudoreinhardtii	Patrick	NAVPSR	Navicula pseudoreinhardtii
Navicula	pseudotenelloides	Krasske	NAVPTA	Navicula pseudotenelloides
Navicula	pseudoventralis	Hustedt	NAVPCV	Navicula pseudoventralis
Navicula	radiosa	Kützing	NAVRAD	Navicula radiosa
Navicula	radiosafallax	Lange-Bertalot	NAVRAX	Navicula radiosafallax
Navicula	recens	Lange-Bertalot	NAVREC	Navicula recens
Navicula	reichardtiana	Lange-Bertalot	NAVREI	Navicula reichardtiana
Navicula	rynchocephala	Kützing	NAVRHY	Navicula rynchocephala
Navicula	rostellata	Kützing	NAVROS	Navicula rostellata
Navicula	salinarum	Grunow	NAVSAL	Navicula salinarum
Navicula	sanctaerucis	Östrup	NAVSAN	Navicula sanctaerucis
Navicula	schadei	Krasske	NAVSCD	Navicula shadei
Navicula	schmassmannii	Hustedt	NAVSCM	Navicula schmassmannii
Navicula	schroeteri var. escambia	Patrick	NAVSCS ESC	Navicula schroeteri var. escambia
Navicula	secreta var. apiculata	Patrick	NAVSEC API	Navicula secreta var. apiculata
Navicula	seminulum var. hustedtii	Patrick	NAVSEM HUS	Navicula seminulum var. hustedtii
Navicula	sp. (1) unidentified	n/a	NAVSP1	Navicula sp. (1) unidentified

Genus	Species	Authority	Code	FormerNameinEDAS
Navicula	sp. (2) unidentified	n/a	NAVSP2	Navicula sp. (2) unidentified
Navicula	sp. (3) unidentified	n/a	NAVSP3	Navicula sp. (3) unidentified
Navicula	sp. (4) unidentified	n/a	NAVSP4	Navicula sp. (4) unidentified
Navicula	sp. 1 KYDOW LAP	n/a	NAVSP1L AP	Navicula sp. 1 KYDOW LAP
Navicula	spp.	n/a	NAVSP	Navicula spp.
Navicula	stroemii	Hustedt	NAVSTR	Navicula stroemii
Navicula	subatomoides	Hustedt	NAVSPA	Navicula subatomoides
Navicula	subminuscula	Manguin	NAVSUB	Navicula subminuscula
Navicula	subrotundata	Hustedt	NAVSR	Navicula subrotundata
Navicula	symmetrica	Patrick	NAVSYM	Navicula symmetrica
Navicula	tantula	Hustedt	NAVTA	Navicula tantula
Navicula	tenelloides	Hustedt	NAVTE	Navicula tenelloides + related forms
Navicula	tridentula	Krasske	NAVTRD	Navicula tridentula
Navicula	tripunctata	(Müller) Bory	NAVTRI	Navicula tripunctata
Navicula	trivialis	Lange-Bertalot	NAVTRV	Navicula trivialis
Navicula	trivialis var. oligotrappenta	Lange-Bertalot et Hofmann	NAVTRV OLI	Navicula trivialis v. oligotrappenta
Navicula	upsaliensis	(Grunow) Peragallo	NAVUPS	Navicula upsaliensis
Navicula	venerabilis	Hohn et Hellerman	NAVVB	Navicula venerabilis
Navicula	veneta	Kützing	NAVVEN	Navicula veneta
Navicula	ventralis	Krasske	NAVVT	Navicula ventralis
Navicula	vilaplanii	(Lange-Bertalot et Sabater) Lange-Bertalot et Sabater	NAVVL	Navicula vilaplanii
Navicula	viridula	(Kützing) Kützing emend. Van Heurck	NAVVR	Navicula viridula (+ similar forms?)
Navicula	viridulacalcis	(Hustedt) Lange-Bertalot	NAVVD	Navicula viridulacalcis
Neidium	affine	(Ehrenberg) Pfitzer	NEIAFF	Neidium affine
Neidium	affine var. amphirhynchus	(Ehrenberg) Cleve	NEIAFFA MP	Neidium affine var. amphirhynchus
Neidium	affine var. longiceps	(Gregory) Cleve	NEIAFFL ON	Neidium affine var. longiceps

Genus	Species	Authority	Code	FormerNameinEDAS
Neidium	affine var. undulatum	(Grunow) Cleve	NEIAFFU ND	Neidium affine var. undulatum
Neidium	alpinum	Hustedt	NEIALP	Neidium alpinum
Neidium	amphigomphus	(Ehrenberg) Pfitzer	NEIAGM	Neidium amphigomphus
Neidium	ampliatum	(Ehrenberg) Krammer	NEIAMP	Neidium ampliatum
Neidium	apiculatum	Reimer	NEIAPI	Neidium apiculatum
Neidium	binodeformis	Krammer	NEIBFR	Neidium binodeformis
Neidium	bisulcatum	(Lagerstedt) Cleve	NEIBIS	Neidium bisulcatum
Neidium	bisulcatum var. baicalense	(Skvortzow et Meyer) Reimer	NEIBISBA I	Neidium bisulcatum var. baicalense
Neidium	densestriatum	(Östrup) Krammer	NEIDEN	Neidium densestriatum
Neidium	dubium	(Ehrenberg) Cleve	NEIDUB	Neidium dubium
Neidium	dubium fo. constrictum	Hustedt	NEIDUBC ON	Neidium dubium f. constrictum
Neidium	hercynicum	Mayer	NEIHRC	Neidium hercynicum
Neidium	hercynicum var. subrostratum	Wallace	NEIHRCS UB	Neidium hercynicum var. subrostratum
Neidium	iridis	(Ehrenberg) Cleve	NEIIRI	Neidium iridis
Neidium	javanicum	Hustedt	NEIJAV	Neidium javanicum
Neidium	productum	(Smith) Cleve	NEIPRO	Neidium productum
Neidium	sp. (1) unidentified	n/a	NEISP1	Neidium sp. (1) unidentified
Neidium	spp.	n/a	NEISPP	Neidium spp.
Nitzschia	abridia	Camburn	NITABR	Nitzschia abridia
Nitzschia	acicularioides	Hustedt	NITACD	Nitzschia acicularioides
Nitzschia	acicularis	(Kützing) Smith	NITACI	Nitzschia acicularis
Nitzschia	acidoclinata	Lange-Bertalot	NITACL	Nitzschia acidoclinata
Nitzschia	acula	(Kützing) Hantzsch	NITACU	Nitzschia acula
Nitzschia	adapta	Hustedt	NITADA	Nitzschia adapta
Nitzschia	agnita	Hustedt	NITAGN	Nitzschia agnita
Nitzschia	amphibia	Grunow	NITAMP	Nitzschia amphibia
Nitzschia	amphibia fo. frauenfeldii	(Grunow) Lange-Bertalot	NITAMPF RA	Nitzschia amphibia fo. frauenfeldii

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Nitzschia	amphibioides	Hustedt	NITAPD	Nitzschia amphibioides
Nitzschia	angustata	(Smith) Grunow	NITANG	Nitzschia angustata
Nitzschia	angustata var. acuta	Grunow	NITANGA CU	Nitzschia angustata var. acuta
Nitzschia	angustatula	Lange-Bertalot	NITANL	Nitzschia angustatula
Nitzschia	archibaldii	Lange-Bertalot	NITARC	Nitzschia archibaldii
Nitzschia	aurariae	Cholnoky	NITAU	Nitzschia aurariae
Nitzschia	biacrula	Hohn et Hellermann	NITBIA	Nitzschia biacrula
Nitzschia	bita	Hohn et Hellermann	NITBIT	Nitzschia bita
Nitzschia	bremensis	Hustedt	NITBRM	Nitzschia bremensis
Nitzschia	brevissima	Grunow ex Van Heurck	NITBRE	Nitzschia brevissima
Nitzschia	capitellata	Hustedt	NITCAP	Nitzschia capitellata
Nitzschia	clausii	Hantzsch	NITCLA	Nitzschia clausii
Nitzschia	communis	Rabenhorst	NITCOM	Nitzschia communis
Nitzschia	communis var. hyalina	Lund	NITCOM HYA	Nitzschia communis v. hyalina
Nitzschia	compressa var. balatonis	(Grunow) Lange-Bertalot	NITCOMB AL	Nitzschia compressa var. balatonis
Nitzschia	compressa var. vexans	(Grunow) Lange-Bertalot	NITCOMV EX	Nitzschia compressa var. vexans
Nitzschia	dissipata	(Kützing) Grunow	NITDIS	Nitzschia dissipata
Nitzschia	dissipata var. media	(Hantzsch) Grunow	NITDISM ED	Nitzschia dissipata var. media
Nitzschia	dissipata var. undulata	Sovereign	NITDISU ND	Nitzschia dissipata v. undulata
Nitzschia	draveillensis	Coste et Ricard	NITDRA	Nitzschia draveillensis
Nitzschia	dubia	Smith	NITDUB	Nitzschia dubia
Nitzschia	elegantula	Grunow	NITELE	Nitzschia elegantula
Nitzschia	filiformis	(Smith) Van Heurck	NITFIL	Nitzschia filiformis
Nitzschia	filiformis var. conferta	(Reichardt) Lange-Bertalot	NITFILCO N	Nitzschia filiformis v. conferta
Nitzschia	flexa	Schumann	NITFLE	Nitzschia flexa

Genus	Species	Authority	Code	FormerNameinEDAS
Nitzschia	fonticola	Grunow	NITFON	Nitzschia fonticola + related Nitzschias
Nitzschia	fonticola var. pelagica	Hustedt	NITFONP EL	Nitzschia fonticola var. pelagica
Nitzschia	frustulum	(Kützing) Grunow	NITFRU	Nitzschia frustulum + related Nitzschias
Nitzschia	gandersheimiensis	Krasske	NITGAN	Nitzschia gandersheimiensis
Nitzschia	gracilis	Hantzsch ex Rabenhorst	NITGRA	Nitzschia gracilis
Nitzschia	gracilis var. minor	Skabitshevsky ex Proschkina-Lavrenko	NITGRAM IN	Nitzschia gracilis v. minor
Nitzschia	gracilliformis	Lange-Bertalot et Simonsen	NITGFS	Nitzschia gracilliformis
Nitzschia	hantzschiana	Rabenhorst	NITHAN	Nitzschia hantzschiana
Nitzschia	heufferiana	Grunow	NITHEU	Nitzschia heufferiana
Nitzschia	homburgienis	Lange-Bertalot	NITHOM	Nitzschia hamburgienis
Nitzschia	inconspicua	Grunow	NITINC	Nitzschia inconspicua
Nitzschia	intermedia	Hantzsch ex Cleve et Grunow	NITINT	Nitzschia intermedia
Nitzschia	lacuum	Lange-Bertalot	NITLCU	Nitzschia lacuum
Nitzschia	liebethruthii	Rabenhorst	NITLIE	Nitzschia liebethruthii
Nitzschia	linearis	(Agardh ex Smith) Smith	NITLIN	Nitzschia linearis
Nitzschia	linearis var. tenuis	(Smith) Grunow ex Cleve et Grunow	NITLINTE N	Nitzschia linearis var. tenuis
Nitzschia	lorenziana	Grunow	NITLOR	Nitzschia lorenziana
Nitzschia	lorenziana var. subtilis	Grunow ex Cleve et Grunow	NITLORS UB	Nitzschia lorenziana var. subtilis
Nitzschia	microcephala	Grunow	NITMIC	Nitzschia microcephala
Nitzschia	nana	Grunow ex Van Heurck	NITNAN	Nitzschia nana
Nitzschia	Nitzschia sp. 1 KYDOW LAP		NITSP1L AP	Nitzschia sp. 1 KYDOW LAP
Nitzschia	obtusa	Smith	NITOBT	Nitzschia obtusa
Nitzschia	obtusa var. scalpelliformis	Grunow ex Cleve et Möller	NITOBTS CA	Nitzschia obtusa v. scalpelliformis
Nitzschia	obtusa var.kurziana	Rabenhorst	NITOBTK UR	Nitzschia obtusa v.kurziana

Genus	Species	Authority	Code	FormerNameinEDAS
Nitzschia	palea	(Kützing) Smith	NITPAL	Nitzschia palea
Nitzschia	palea var. debilis	(Kützing) Grunow	NITPDE	Nitzschia palea var. debilis
Nitzschia	palea var. tenuirostris	Grunow	NITPTE	Nitzschia palea var. tenuirostris
Nitzschia	paleacea	Grunow ex Van Heurck	NITPLC	Nitzschia paleacea
Nitzschia	parvula	Smith	NITPAR	Nitzschia parvula
Nitzschia	perminuta	(Grunow) Peragallo	NITPER	Nitzschia perminuta
Nitzschia	pumila	Hustedt	NITPUM	Nitzschia pumila
Nitzschia	pusilla	Grunow	NITPUS	Nitzschia pusilla
Nitzschia	radicula	Hustedt	NITRAD	Nitzschia radicula
Nitzschia	rautenbachiae	Cholnoky	NITRAU	Nitzschia rautenbachiae
Nitzschia	recta	Hantzsch ex Rabenhorst	NITREC	Nitzschia recta
Nitzschia	reversa	Smith	NITREV	Nitzschia reversa
Nitzschia	romana	Grunow	NITROM	Nitzschia romana
Nitzschia	rostellata	Hustedt	NITROS	Nitzschia rostellata
Nitzschia	sigma	(Kützing) Smith	NITSIG	Nitzschia sigma
Nitzschia	sigmoidea	(Nitzsch) Ehrenberg	NITSGO	Nitzschia sigmoidea
Nitzschia	siliqua	Archibald	NITSIL	Nitzschia siliqua
Nitzschia	sinuata var. delognei	(Grunow) Lange-Bertalot	NITSIND EL	Nitzschia sinuata v. delognei
Nitzschia	sinuata var. tabellaria	(Grunow) Grunow	NITSINTA B	Nitzschia sinuata var. tabellaria
Nitzschia	sociabilis	Hustedt	NITSOC	Nitzschia sociabilis
Nitzschia	solita	Hustedt	NITSOL	Nitzschia solita
Nitzschia	sp.	n/a	NITSP	Nitzschia spp.
Nitzschia	sp. (1) unidentified	n/a	NITSP1	Nitzschia sp. (1) unidentified
Nitzschia	sp. (2) unidentified	n/a	NITSP2	Nitzschia sp. (2) unidentified
Nitzschia	sp. (3) unidentified	n/a	NITSP3	Nitzschia sp. (3) unidentified
Nitzschia	sp. (4) unidentified	n/a	NITSP4	Nitzschia sp. (4) unidentified
Nitzschia	spp.	n/a	NITSP	Nitzschia spp.
Nitzschia	stricta	n/a	NITSTR	Nitzschia stricta
Nitzschia	subacicularis	Hustedt	NITSBA	Nitzschia subacicularis

Genus	Species	Authority	Code	FormerNameinEDAS
Nitzschia	sublinearis	Hustedt	NITSBL	Nitzschia sublinearis
Nitzschia	subtilis	Hustedt	NITSBT	Nitzschia subtilis
Nitzschia	supralitorea	Lange-Bertalot	NITSUP	Nitzschia supralitorea
Nitzschia	terrestris	(Petersen) Hustedt	NITTER	Nitzschia terrestris
Nitzschia	thermalis	Kützing	NITTHE	Nitzschia thermalis
Nitzschia	tropica	Hustedt	NITTRO	Nitzschia tropica
Nitzschia	tubicola	Hustedt	NITTUB	Nitzschia tubicola
Nitzschia	umbonata	Lange-Bertalot	NITUMB	Nitzschia umbonata
Nitzschia	valdestriata	Aleem et Hustedt	NITVAL	Nitzschia valdestriata
Nitzschia	vermicularis	(Kützing) Hantzsch ex Rabenhorst	NITVER	Nitzschia vermicularis
Nitzschia	vitrea	Norman	NITVIT	Nitzschia vitrea
NO	DIATOMS	n/a	NODIATOM	NO DIATOMS
Nupela	lapidosa	(Krasske) Lange-Bertalot	NUPLAP	Nupela lapidosa
Nupela	sp. (1) unidentified	n/a	NUPSP1	Nupela sp. (1) unidentified
Orthoseira	roseana	(Rabhenhorst) O'Meara	ORTROS	Orthoseira roseana
Parlibellus	protracta	(Grunow) Witkowski, Lange-Bertalot et Metzeltin	PARPRO	Parlibellus protracta
Pinnularia	abaujensis	(Pantocsek) Ross	PINABA	Pinnularia abaujensis
Pinnularia	abaujensis var. linearis	(Hustedt) Patrick	PINABALIN	Pinnularia abaujensis var. linearis
Pinnularia	abaujensis var. rostrata	(Patrick) Patrick	PINABAROS	Pinnularia abaujensis var. rostrata
Pinnularia	abaujensis var. subundulata	(Mayer ex Hustedt) Patrick	PINABASUB	Pinnularia abaujensis v. subundulata
Pinnularia	acoricola	Hustedt	PINACO	Pinnularia acoricola
Pinnularia	acrosphaeria	(Brébisson) Smith	PINACR	Pinnularia acrosphaeria
Pinnularia	acrosphaeria var. turgidula	Grunow ex Cleve	PINACRTUR	Pinnularia acrosphaeria var. turgidula
Pinnularia	appendiculata	(Agardh) Cleve	PINAPP	Pinnularia appendiculata
Pinnularia	biceps	Gregory	PINBIC	Pinnularia biceps
Pinnularia	borealis	Ehrenberg	PINBOR	Pinnularia borealis

Genus	Species	Authority	Code	FormerNameinEDAS
Pinnularia	borealis var. rectangularis	Carlson	PINBORR EC	Pinnularia borealis var. rectangularis
Pinnularia	braunii	(Grunow) Cleve	PINBRA	Pinnularia braunii
Pinnularia	braunii var. amphicephala	(Mayer) Hustedt	PINBRAA MP	Pinnularia braunii var. amphicephala
Pinnularia	brebissonii	(Kützing) Rabenhorst	PINBRE	Pinnularia brebissonii
Pinnularia	divergens	Smith	PINDIV	Pinnularia divergens
Pinnularia	divergentissima	(Grunow) Cleve	PINDVT	Pinnularia divergentissima
Pinnularia	formica	(Ehrenberg) Patrick	PINFOR	Pinnularia formica
Pinnularia	intermedia	(Lagerstedt) Cleve	PININT	Pinnularia intermedia
Pinnularia	legumen	(Ehrenberg) Ehrenberg	PINLEG	Pinnularia legumen
Pinnularia	lundii	Hustedt	PINLUN	Pinnularia lundii
Pinnularia	maior	(Kützing) Rabenhorst	PINMAI	Pinnularia maior
Pinnularia	mesogongyla	Ehrenberg	PINMSG	Pinnularia mesogongyla
Pinnularia	mesolepta	(Ehrenberg) Smith	PINMSL	Pinnularia mesolepta
Pinnularia	microstauron	(Ehrenberg) Cleve	PINMIC	Pinnularia microstauron
Pinnularia	nodosa	(Ehrenberg) Smith	PINNOD	Pinnularia nodosa
Pinnularia	obscura	Krasske	PINOBS	Pinnularia obscura
Pinnularia	sp. (1) unidentified	n/a	PINSP1	Pinnularia sp. (1) unidentified
Pinnularia	spp.	n/a	PINSP	Pinnularia spp.
Pinnularia	stomatophora	(Grunow) Cleve	PINSTO	Pinnularia stomatophora
Pinnularia	subcapitata	Gregory	PINSUB	Pinnularia subcapitata
Pinnularia	subcapitata var. paucistriata	(Grunow) Cleve	PINSUBP AU	Pinnularia subcapitata var. paucistriata
Pinnularia	termitina	(Ehrenberg) Patrick	PINTER	Pinnularia termitina
Pinnularia	viridis	(Nitzsch) Ehrenberg	PINVIR	Pinnularia viridis
Pinnularia	viridis var. minor	Cleve	PINVIRMI N	Pinnularia viridis var. minor
Placoneis	clementis	(Grunow) Cox	PLCCLE	Placoneis clementis
Placoneis	clementoides	(Hustedt) Cox	PLCCLM	Placoneis clementoides
Placoneis	elginensis	(Gregory) Cox	PLCELG	Placoneis elginensis

Genus	Species	Authority	Code	FormerNameinEDAS
Placoneis	exigua	(Gregory) Mereschkowsky	PLCEXI	Placoneis exigua
Placoneis	gastrum	(Ehrenberg) Mereschkowsky	PLCGAS	Placoneis gastrum
Placoneis	neglecta	(Krasske) Lowe	PLCNEG	Placoneis neglecta
Placoneis	placentula	(Ehrenberg) Hienzerling	PLCPLA	Placoneis placentula
Placoneis	pseudoanglica	(Lange-Bertalot) Cox	PLCPAN	Placoneis pseudoanglica
Plagiotropis	lepidoptera	(Gregory) Kuntze	PLGLEP	Plagiotropis lepidoptera
Plagiotropis	lepidoptera var. proboscidea	(Cleve) Reimer	PLGLEP RO	Plagiotropis lepidoptera v. proboscidea
Planothidium	apiculatum	(Patrick) Lange-Bertalot	PLAAPI	Planothidium apiculatum
Planothidium	biporum	(Hohn et Hellerman) Lange-Bertalot	PLABIP	Planothidium biporum
Planothidium	dauai	(Foged) Lange-Bertalot	PLADAU	Planothidium dauai
Planothidium	delicatulum	(Hohn et Hellerman) Lange-Bertalot	PLADEL	Planothidium delicatulum
Planothidium	dubium	(Grunow) Round et Bukhtiyarova	PLADUB	Planothidium dubium
Planothidium	frequentissimum	(Lange-Bertalot) Lange-Bertalot	PLAFRE	Planothidium frequentissimum
Planothidium	hauckianum	(Grunow) Round et Bukhtiyarova	PLAHAU	Planothidium hauckianum
Planothidium	haynaldii	(Schaarschmidt) Lange-Bertalot	PLAHAY	Planothidium haynaldii
Planothidium	lanceolatum	(Brébisson ex Kützing) F.E. Round et L. Bukhtiyarova	PLALAN	Planothidium lanceolatum
Planothidium	robustum	(Hustedt) Lange-Bertalot	PLAROB	Planothidium robustum
Planothidium	rostratum	(Östrup) Lange-Bertalot	PLAROS	Planothidium rostratum
Planothidium	stewartii	(Patrick) Lange-Bertalot	PLASTE	Planothidium stewartii
Platessa	conspicua	(Mayer) Lange-Bertalot	PLTCON	Platessa conspicua
Platessa	hustedtii	(Krasske) Lange-Bertalot	PLTHUS	Platessa hustedtii
Pleurosigma	delicatulum	Smith	PLSDEL	Pleurosigma delicatulum
Pleurosira	laevis	(Ehrenberg) Compère	PLELAE	Pleurosira laevis
Psammothidium	altaicum	Bukhtiyarova	PSAALT	Psammothidium altaicum
Psammothidium	bioretii	(Germain) Bukhtiyarova et Round	PSABIO	Psammothidium bioretii
Psammothidium	chlidanos	(Hohn et Hellerman) Lange-Bertalot	PSACHL	Psammothidium chlidanos
Psammothidium	grischunum fo. daonensis	(Lange-Bertalot ex Lange-Bertalot et Krammer) Bukhtiyarova et Round	PSAGRID AO	Psammothidium grischunum fo. daonensis
Psammothidium	helveticum	(Hustedt) Bukhtiyarova et Round	PSAHEL	Psammothidium helveticum

Genus	Species	Authority	Code	FormerNameinEDAS
Psammothidium	lauenburgianum	(Hustedt) Bukhtiyarova et Round	PSALAU	Psammothidium lauenburgianum
Psammothidium	marginulatum	(Grunow) Bukhtiyarova et Round	PSAMAR	Psammothidium marginulatum
Psammothidium	scoticum	(Flower et Jones) Bukhtiyarova et Round	PSASCO	Psammothidium scoticum
Psammothidium	subatomoides	(Hustedt) Bukhtiyarova et Round	PSASUB	Psammothidium subatomoides
Pseudostaurosira	brevistriata	(Grunow) Williams et Round	PSEBRE	Pseudostaurosira brevistriata
Pseudostaurosira	parasitica	(Smith) Morales	PSSPAR	Pseudostaurosira parasitica
Pseudostaurosira	parasitica var. subconstricta	(Grunow) Morales	PSSPAR SUB	Pseudostaurosira parasitica v. subconstricta
Pseudostaurosira	trainorii	Morales	PSETRA	Pseudostaurosira trainorii
Puncticulata	bodanica	(Grunow in Schneider) Håkansson	PUNBOD	Puncticulata bodanica
Puncticulata	radiosa	(Lemmermann) Håkansson	PUNRAD	Puncticulata radiosa
Reimeria	sinuata	(Gregory) Kociolek et Stoermer	REISIN	Reimeria sinuata
Rhoicosphenia	abbreviata	(Agardh) Lange-Bertalot	RHCABB	Rhoicosphenia abbreviata
Rhopalodia	brebissonii	Krammer	RHOBRE	Rhopalodia brebissonii
Rhopalodia	gibba	(Ehrenberg) Müller	RHOGIB	Rhopalodia gibba
Rhopalodia	gibba var. ventricosa	(Kützing) Peragallo et Peragallo	RHOGIBV EN	Rhopalodia gibba var. ventricosa
Rhopalodia	gibberula var. vanheurckii	Müller	RHOGIBV AN	Rhopalodia gibberula var. vanheurckii
Rhopalodia	musculus	(Kützing) Müller	RHOMUS	Rhopalodia musculus
Rhopalodia	sp. (1) unidentified	n/a	RHOSP1	Rhopalodia sp. (1) unidentified
Rossithidium	linearis	(Smith) Round et Bukhtiyarova	ROSLIN	Rossithidium linearis
Rossithidium	pusillum	(Grunow) Round et Bukhtiyarova	ROSPUS	Rossithidium pusillum
Sellaphora	bacillum	(Ehrenberg) Mann	SELBAC	Sellaphora bacillum
Sellaphora	hustedtii	(Krasske) Lange-Bertalot	SELHUS	Sellaphora hustedtii
Sellaphora	laevissima	(Kützing) Mann	SELHAE	Sellaphora laevissima
Sellaphora	mutata	(Krasske) Lange-Bertalot	SELMUT	Sellaphora mutata
Sellaphora	pupula	(Kützing) Mereschkowsky	SELPUP	Sellaphora pupula
Sellaphora	pupula var. capitata	Skvortzov et Mayer	SELPUP CAP	Sellaphora pupula var. capitata
Sellaphora	pupula var. elliptica	(Hustedt) Bukhtiyarova	SELPUP ELL	Sellaphora pupula var. elliptica

Genus	Species	Authority	Code	FormerNameinEDAS
Sellaphora	pupula var. rectangularis	(Gregory) Lange-Bertalot et Metzeltin	SELPUP REC	Sellaphora pupula var. rectangularis
Sellaphora	rostrata	(Hustedt) Johansen	SELROS	Sellaphora rostrata
Sellaphora	seminulum	(Grunow) Mann	SELSEM	Sellaphora seminulum
Sellaphora	sp. 1 KYDOW LAP	n/a	SELSP1L AP	Sellaphora sp. 1 KYDOW LAP
Simonsenia	delognei	(Grunow) Lange-Bertalot	SIMDEL	Simonsenia delognei
Skeletonema	potomos	(Weber) Hasle	SKEPOT	Skeletonema potomos
Stauroneis	agrestis	Petersen	STAAGR	Stauroneis agrestis
Stauroneis	alabamae	Heiden	STAALA	Stauroneis alabamae
Stauroneis	anceps	Ehrenberg	STAANC	Stauroneis anceps
Stauroneis	anceps fo. americana	Reimer	STAANC GRA	Stauroneis anceps fo. americana
Stauroneis	anceps fo. gracilis	Rabenhorst	STAANC AME	Stauroneis anceps f. gracilis
Stauroneis	anceps fo. linearis	(Ehrenberg) Hustedt	STAANCL IN	Stauroneis anceps for. linearis
Stauroneis	borrichii	(Petersen) Lund	STABOR	Stauroneis borrichii
Stauroneis	kriegeri	Patrick	STAKRI	Stauroneis kriegeri
Stauroneis	legumen	(Ehrenberg) Kützing	STALEG	Stauroneis legumen
Stauroneis	livingstonii	Reimer	STALIV	Stauroneis livingstonii
Stauroneis	nana	Hustedt	STANAN	Stauroneis nana
Stauroneis	obtusa	Lagerstedt	STAOBT	Stauroneis obtusa
Stauroneis	phoenicenteron	(Nitzsch) Ehrenberg	STAPHO	Stauroneis phoenicenteron
Stauroneis	phoenicenteron fo. gracilis	(Ehrenberg) Hustedt	STAPHO GRA	Stauroneis phoenicenteron fo. gracilis
Stauroneis	smithii	Grunow	STASMI	Stauroneis smithii
Stauroneis	smithii var. incisa	Pantocsek	STASMI NC	Stauroneis smithii var. incisa
Stauroneis	smithii var. sagitta	(Cleve) Hustedt	STASMIS AG	Stauroneis smithii var. sagitta
Stauroneis	sp. (1) unidentified	n/a	STASP1	Stauroneis sp. (1) unidentified

Genus	Species	Authority	Code	FormerNameinEDAS
Stauroneis	spp.	n/a	STASPP	Stauroneis spp.
Stauroneis	thermicola	(Petersen) Lund	STATHE	Stauroneis thermicola
Staurosira	construens	Ehrenberg	STACON	Staurosira construens
Staurosira	construens var. binodis	(Ehrenberg) Hamilton	STACON BIN	Staurosira construens var. binodis
Staurosira	construens var. venter	(Ehrenberg) Hamilton	STACON VEN	Staurosira construens var. venter
Staurosirella	lapponica	(Grunow) Williams et Round	STLLAP	Staurosirella lapponica
Staurosirella	leptostauron	(Ehrenberg) Williams et Round	STALEP	Staurosirella leptostauron
Staurosirella	pinnata	(Ehrenberg) Williams et Round	STLPIN	Staurosirella pinnata
Stenopteroberia	delicatissima	(Lewis) Brébisson	STNDEL	Stenopteroberia delicatissima
Stephanodiscus	alpinus	Hustedt	STEALP	Stephanodiscus alpinus
Stephanodiscus	hantzschii	Grunow	STEHAN	Stephanodiscus hantzschii
Stephanodiscus	hantzschii fo. tenuis	(Hustedt) Håkansson et Stoermer	STEHAN TEN	Stephanodiscus hantzschii fo. tenuis
Stephanodiscus	minutulus	(Kützing) Cleve et Möller	STEMIN	Stephanodiscus minutulus
Stephanodiscus	niagarae	Ehrenberg	STENIA	Stephanodiscus niagarae
Stephanodiscus	sp. (1) unidentified	n/a	STESP1	Stephanodiscus sp. (1) unidentified
Stephanodiscus	subtilis	(Van Goor) A. Cleve	STESUB	Stephanodiscus subtilis
Stephanodiscus	vestibulus	Håkansson, Theriot et Stoermer	STEVES	Stephanodiscus vestibulus
Surirella	agmatilis	Camburn	SURAGM	Surirella agmatilis
Surirella	angusta	Kützing	SURANG	Surirella angusta
Surirella	bifrons	Ehrenberg	SURBIF	Surirella bifrons
Surirella	biseriata	Brébisson	SURBIS	Surirella biseriata
Surirella	bohemica	Maly	SURBOH	Surirella bohemica
Surirella	brebissoni	Krammer et Lange-Bertalot	SURBRE	Surirella brebissoni
Surirella	brebissonii var. kuetzingii	Krammer et Lange-Bertalot	SURBRE KUE	Surirella brebissonii var. kuetzingii
Surirella	elegans	Ehrenberg	SURELE	Surirella elegans
Surirella	gracilis	(Smith) Grunow	SURGRA	Surirella gracilis
Surirella	guatimalensis	Ehrenberg	SURGUA	Surirella guatimalensis

Genus	Species	Authority	Code	FormerNameinEDAS
Surirella	helvetica	Brun	SURHEL	Surirella helvetica
Surirella	linearis	Smith	SURLIN	Surirella linearis
Surirella	minuta	Brébisson	SURMIN	Surirella minuta
Surirella	ovalis	Brébisson	SUROVL	Surirella ovalis
Surirella	ovata	Kützing	SUROVT	Surirella ovata
Surirella	ovata var. africana	Cholnoky	SUROVT AFR	Surirella ovata var. africana
Surirella	ovata var. pinnata	(Smith) Brun	SUROVT PIN	Surirella ovata var. pinnata
Surirella	roba	Leclercq	SURROB	Surirella roba
Surirella	robusta	Ehrenberg	SURRBS	Surirella robusta
Surirella	robusta fo. lata	Hustedt	SURRBS LAT	Surirella robusta f. lata
Surirella	sp. (1) unidentified	n/a	SURSP1	Surirella sp. (1) unidentified
Surirella	splendida	(Ehrenberg) Kützing	SURSPL	Surirella splendida
Surirella	spp.	n/a	SURSP1	Surirella spp.
Surirella	stalagma	Hohn et Hellermann	SURSTA	Surirella stalagma
Surirella	subsalsa	Smith	SURSUB	Surirella subsalsa
Surirella	suecica	Grunow ex Van Heurck	SURSUE	Surirella suecica
Surirella	tenera	Gregory	SURTEN	Surirella tenera
Surirella	tenera var. nervosa	Schmidt	SURTEN NER	Surirella tenera var. nervosa
Synedra	acus	Kützing	SYNACU	Synedra acus
Synedra	capitata	Ehrenberg	SYNCAP	Synedra capitata
Synedra	delicatissima	Smith	SYNDEL	Synedra delicatissima
Synedra	filiformis	Grunow	SYNFIL	Synedra filiformis
Synedra	filiformis var. exilis	Cleve-Euler	SYNFILE XI	Synedra filiformis var. exilis
Synedra	rumpens	Kützing	SYNRUM	Fragilaria capucina "complex"
Synedra	rumpens var. scotica	Grunow	SYNRUM SCO	Synedra rumpens var. scotica
Synedra	socia	Wallace	SYNSOC	Synedra socia

Genus	Species	Authority	Code	FormerNameinEDAS
Synedra	sp. (1) unidentified	n/a	SYNSP1	Synedra sp. (1) unidentified
Synedra	sp. 1 KYDOW LAP		SYNSP1L AP	Synedra sp. 1 KYDOW LAP
Synedra	spp.	n/a	SYNSPP	Synedra spp.
Synedra	ulna	(Nitzsch) Ehrenberg	SYNULN	Synedra ulna
Synedra	ulna var. amphirhynchus	(Ehrenberg) Grunow	SYNULN AMP	Synedra ulna var. amphirhynchus
Synedra	ulna var. contracta	Östrup	SYNULN CON	Synedra ulna var. contracta
Synedra	ulna var. danica	(Kützing) Van Heurck	SYNULN DAN	Synedra ulna var. danica
Synedra	ulna var. oxyrhynchus	(Kützing) Van Heurck	SYNULN OXY	Synedra ulna var. oxyrhynchus
Synedra	ulna var. oxyrhynchus fo. mediocontracta	(Fonti) Hustedt	SYNULN OXM	Synedra ulna v. oxyrhynchus f. mediocontracta
Synedra	ulna var. ramesi	(Héribaude) Hustedt	SYNULN RAM	Synedra ulna var. ramesi
Tabellaria	fenestrata	(Lyngbye) Kützing	TABFEN	Tabellaria fenestrata
Tabellaria	flocculosa	(Roth) Kützing	TABFLO	Tabellaria flocculosa
Tabularia	fasciculata	(Agardh) Williams et Round	TBUFAS	Tabularia fasciculata
Tabularia	tabulata	(Agardh) Snoeijjs	TBUTAB	Tabularia tabulata
Tetracyclus	glans	(Ehrenberg) Mills	TETGLA	Tetracyclus glans
Tetracyclus	rupestris	Ralfs	TETRUP	Tetracyclus rupestris
Thalassiosira	weissflogii	(Grunow) Fryxell et Hasle	THAWEI	Thalassiosira weissflogii
Tryblionella	apiculata	Gregory	TRYAPI	Tryblionella apiculata
Tryblionella	calida	(Grunow ex Cleve et Grunow) Mann	TRYCAL	Tryblionella calida
Tryblionella	circumsuta	(Bailey) Ralfs	TRYCIR	Tryblionella circumsuta
Tryblionella	coarctata	(Grunow) Mann	TRYCOA	Tryblionella coarctata
Tryblionella	compressa	(Bailey) Poulin	TRYCOM	Tryblionella compressa
Tryblionella	debilis	Arnott	TRYDEB	Tryblionella debilis
Tryblionella	gracilis	Smith	TRYGRA	Tryblionella gracilis
Tryblionella	hungarica	(Grunow) Mann	TRYHUN	Tryblionella hungarica

Genus	Species	Authority	Code	FormerNameinEDAS
Tryblionella	levidensis	Smith	TRYLEV	Tryblionella levidensis
Tryblionella	littoralis	(Grunow) Mann	TRYLIT	Tryblionella littoralis
Tryblionella	salinarum	(Grunow) Pantocsek	TRYSAL	Tryblionella salinarum
Tryblionella	victoriae	Grunow	TRYVIC	Tryblionella victoriae

APPENDIX C: DIATOM ANALYSIS BENCH SHEET EXAMPLE

DIATOM BENCH SHEET (CONT'D)

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DOW Station ID Number:	Stream Name:	Collection Date:	
Taxa Name	Tally	# Counted	