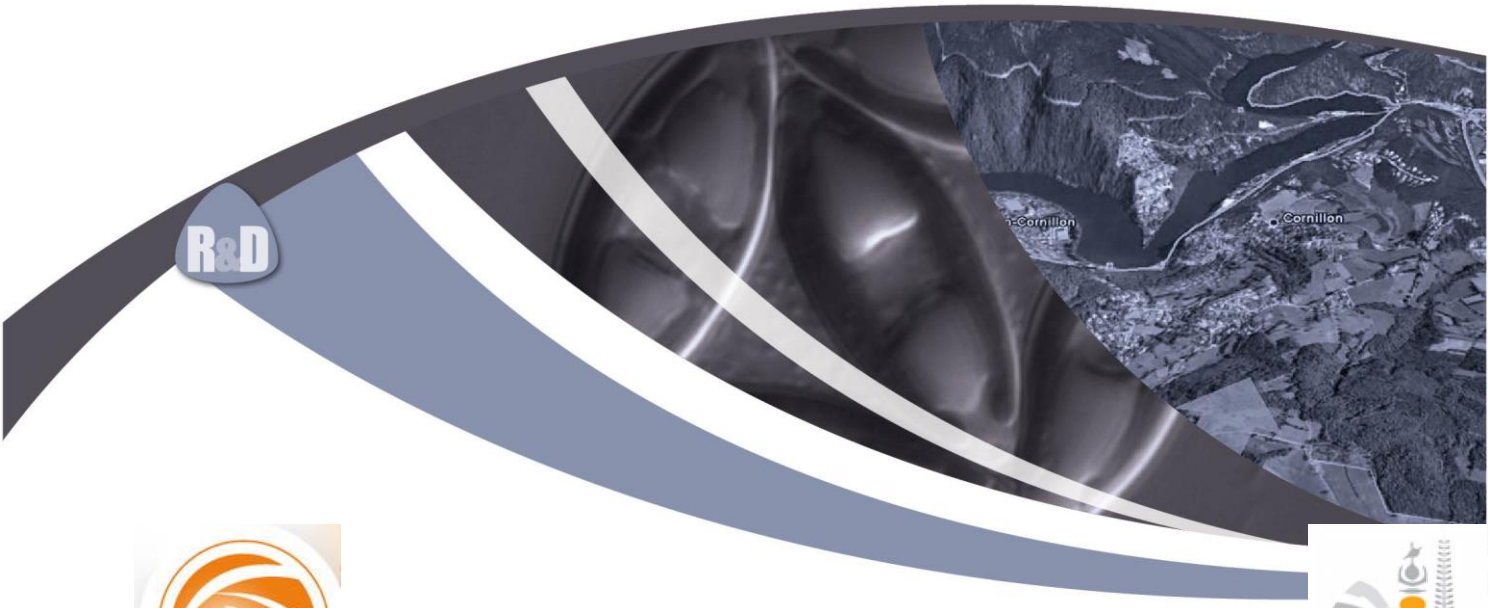
Diatomées des rivières de Nouvelle-Calédonie : Conception d'un atlas taxinomique et d'un indice de bio-évaluation de la qualité écologique des cours d'eau à partir des diatomées benthiques. Guide Iconographique, Volume 2 Planches synthétiques

J. Marquié, E. Lefrançois, Sébastien Boutry, Michel Coste, François Delmas



DIATOMÉES DES RIVIÈRES DE NOUVELLE-CALÉDONIE

CONCEPTION D'UN ATLAS TAXINOMIQUE ET D'UN INDICE DE BIO-EVALUATION DE LA QUALITE ECOLOGIQUE DES COURS D'EAU A PARTIR DES DIATOMEES BENTHIQUES

Guide iconographique – Volume 2 – Planches synthétiques

Décembre 2016

Aménagement, environnement & Développement durable
Hydrobiologie
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Milieux littoraux et marins
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Marquié, J. [1], Lefrançois, E. [1], Boutry, S. [2], Coste, M. [2], Delmas, F. [2] (2016). Diatomées des rivières de Nouvelle-Calédonie - Conception d'un atlas taxinomique et d'un indice de bio-évaluation de la qualité écologique des cours d'eau à partir des diatomées benthiques. Guide Iconographique, Volume 2. (56 pages)

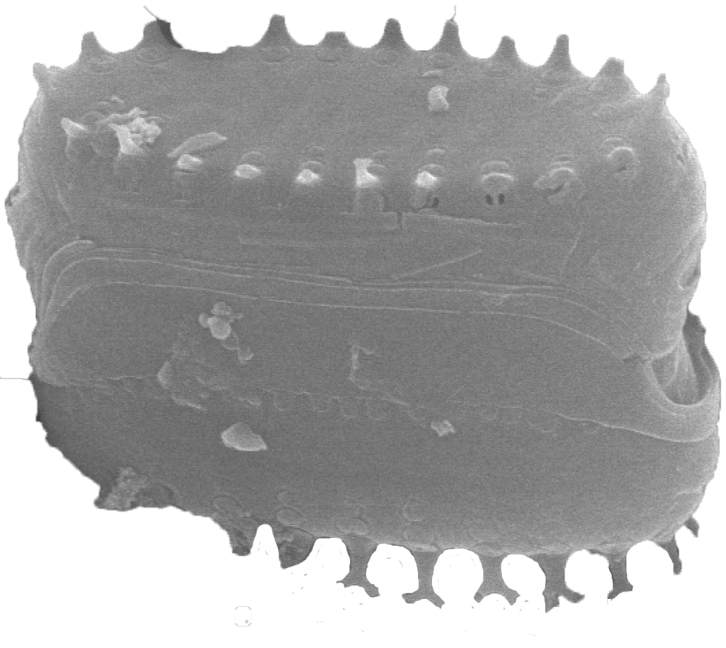
[1] : Asconit Consultants
[2] : Irstea – Unité de Recherche "Ecosystèmes aquatiques et changements globaux" (EABX), Equipe "Contaminants Anthropiques et Réponses des Milieux Aquatiques" (CARMA)

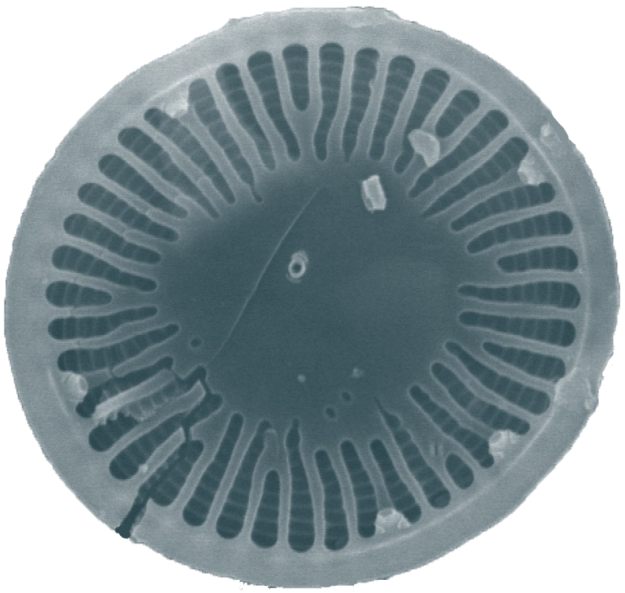
INTRODUCTION

Le présent guide iconographique est destiné à permettre l'identifiifation fiable des taxons indiciels, qui sont donc pris en compte dans le calcul de la note indicielle. Fort de l'expérience des programmes conduits aux Antilles et à la Réunion, il est composé de 2 volumes : le premier volume décrit chaque taxon individuellement et le second compile des illustrations de taxons morphologiquement proches afin de faciliter leur identification en routine.

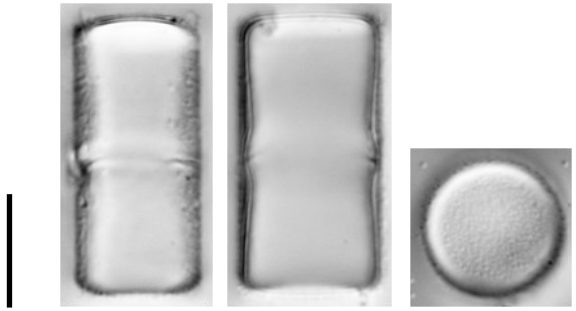
SOMMAIRE

CENTROPHYCIDÉES, ARAPHIDÉES & BRACHYRAPHIDÉES

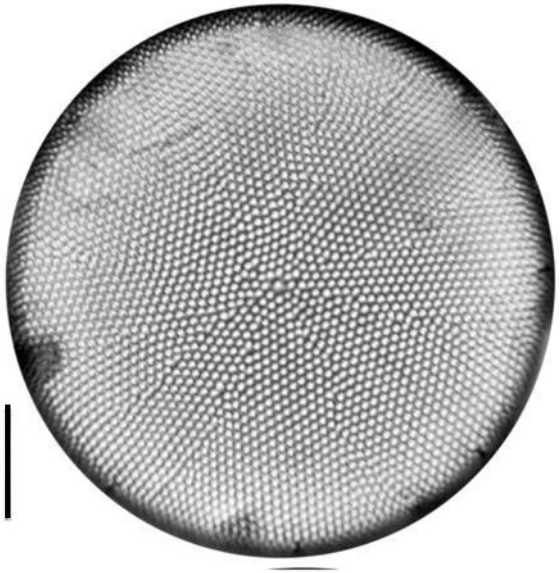




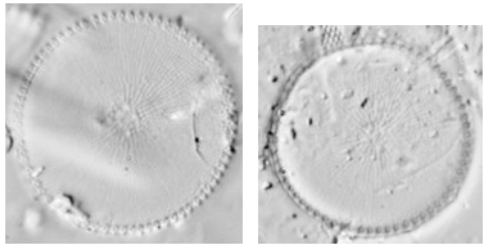
Genres *Melosira - Actinocyclus - Conticribra - Aulacoseira*



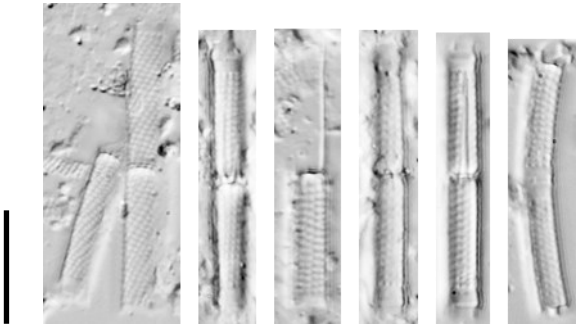
Melosira varians (MVAR)



Actinocyclus tropicus (ATPI)

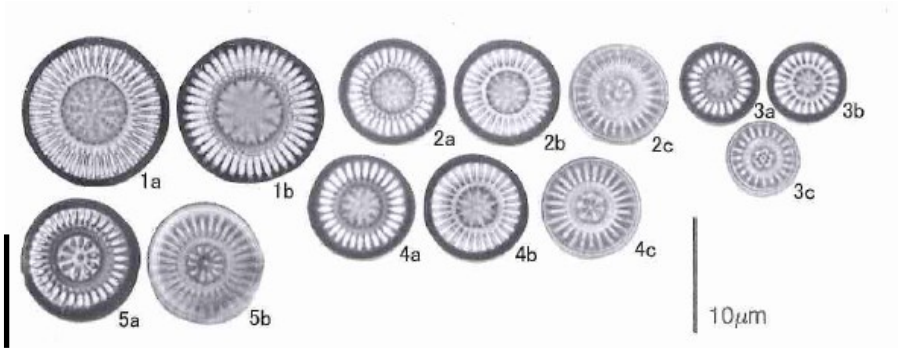


Conticribra weissflogii (CTWE)



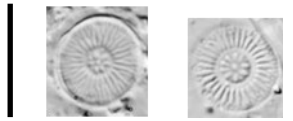
Aulacoseira granulata var. *angustissima* (AUGA)

Genres *Discostella - Cyclotella*

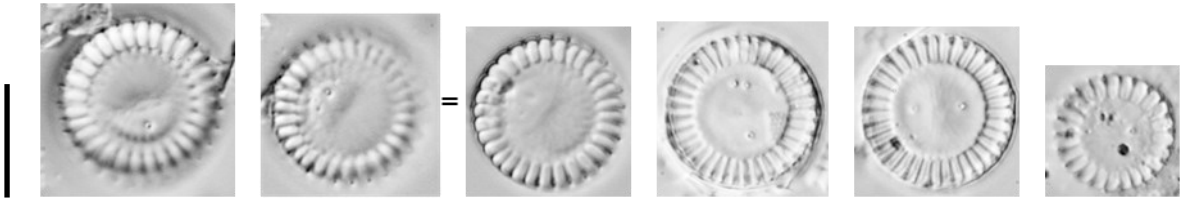


Discostella stelligera car. Tenuis (DSTT)

Extrait : Tanaka, H. (2007). Taxonomic studies of the genera *Cyclotella* (Kützing) Brébisson, *Discostella* Houk et Klee, and *Puncticulata* Håkanson in the family *Stephanodiscaceae* Glezer et Makarova (Bacilariophyta) in Japan. Bibliotheca Diatomologica 53: 1-205

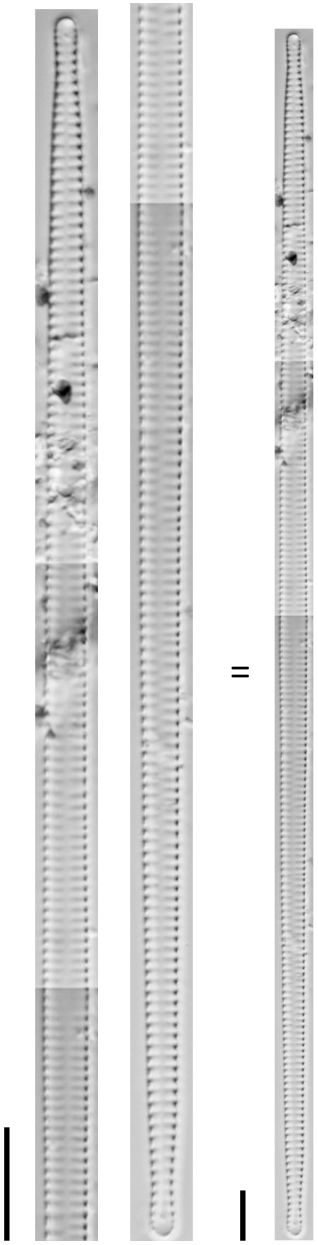


Discostella pseudostelligera
(DPSG)

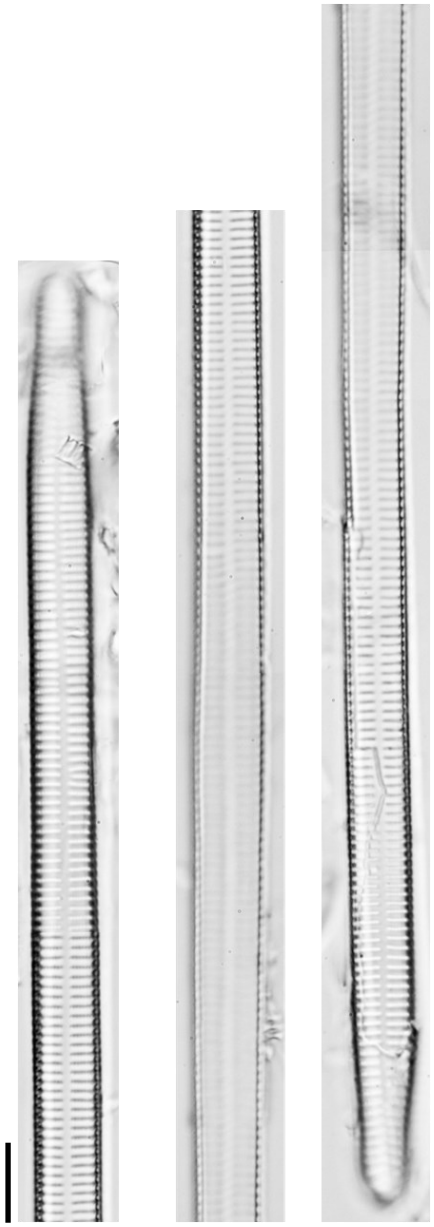


Cyclotella meneghiniana (CMEN)

Genres *Ulnaria - Fragilaria*



Ulnaria lanceolata (ULAN)



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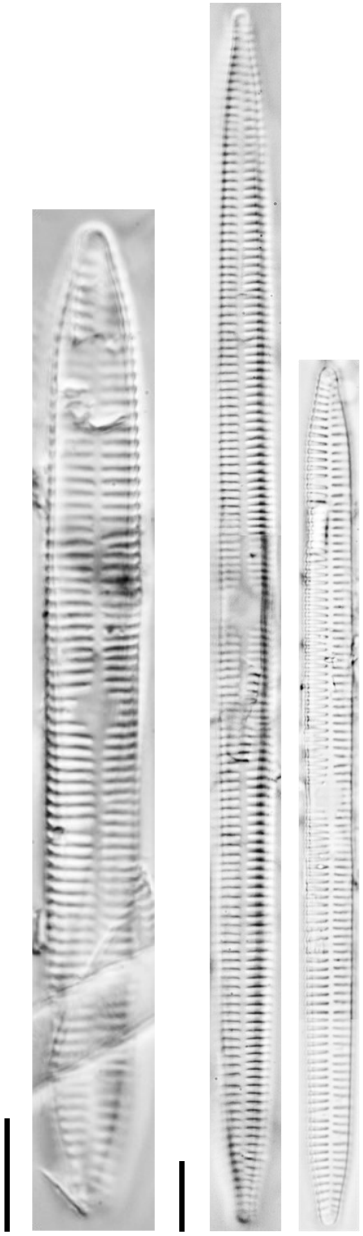
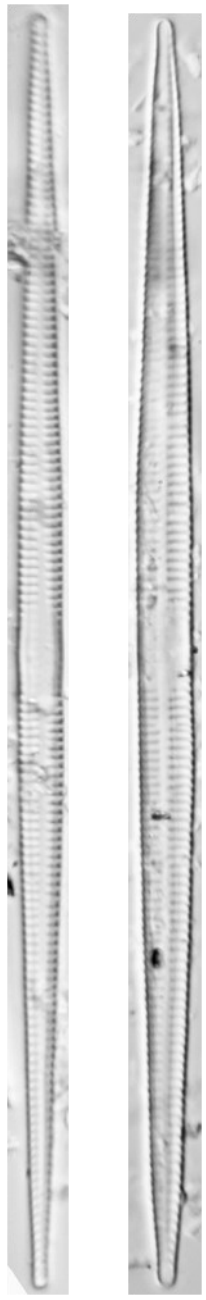
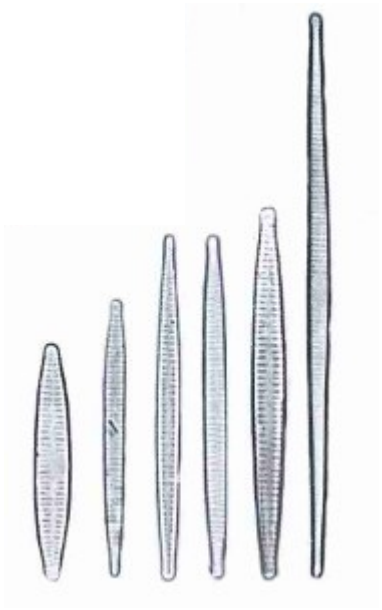


Ulnaria ulna (UULN)



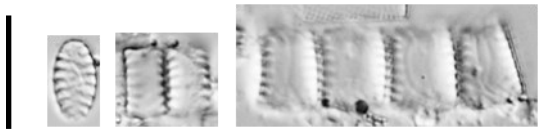
Fragilaria tenera (FTEN)

Genre *Fragilaria*



Fragilaria gracilis (FGRA)

Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



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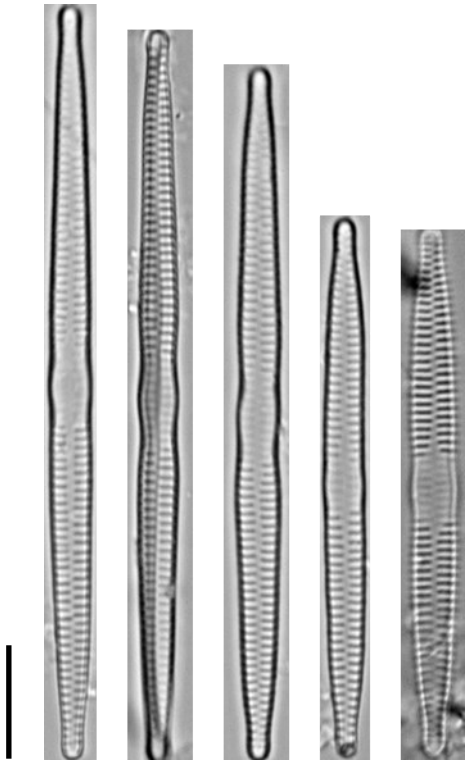

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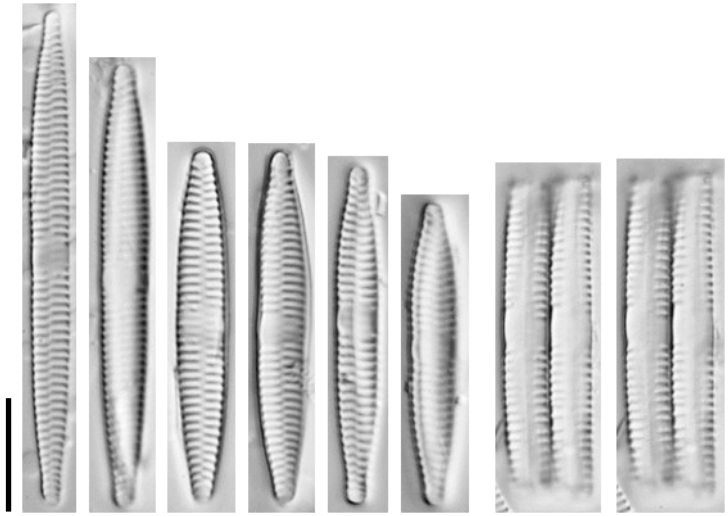
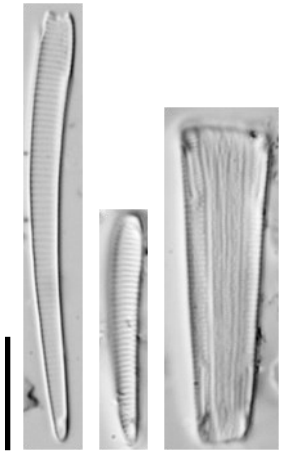


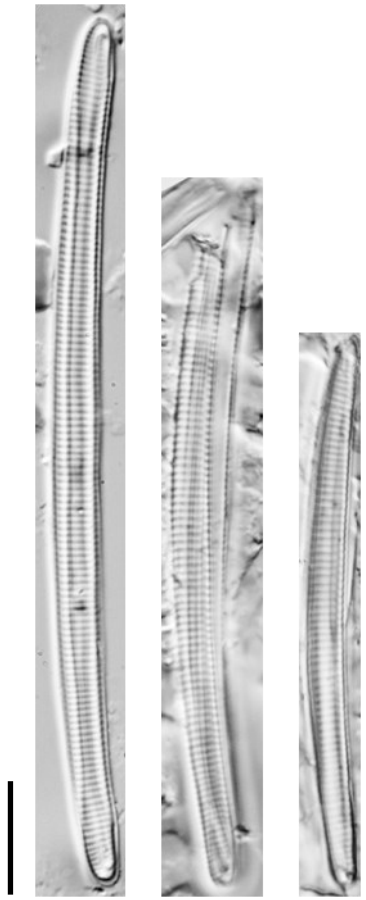
Fragilaria capucina var. *capucina* (FCAP)

Fragilaria vaucheria (FVAU)

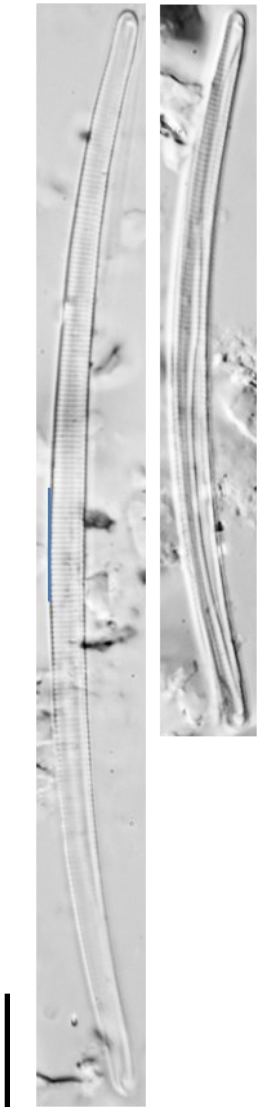
Genres *Actinella - Eunotia*



Actinella cuneiformis



Eunotia bilunaris (EBLU)



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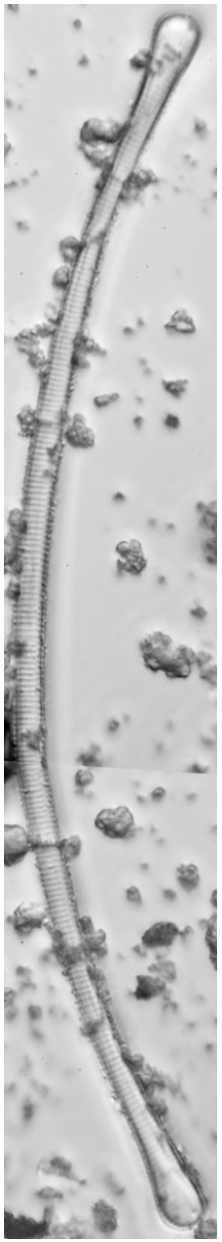
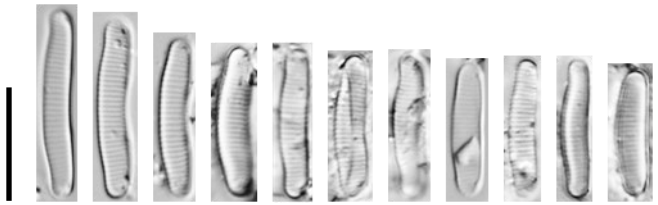
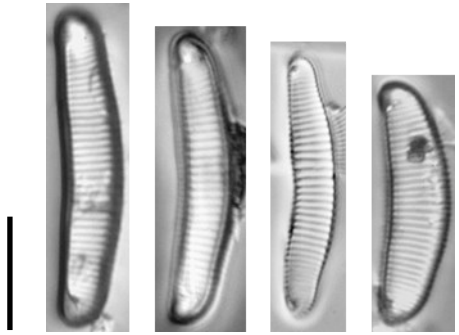


Eunotia ponspendens (EPPD)

Genre *Eunotia*

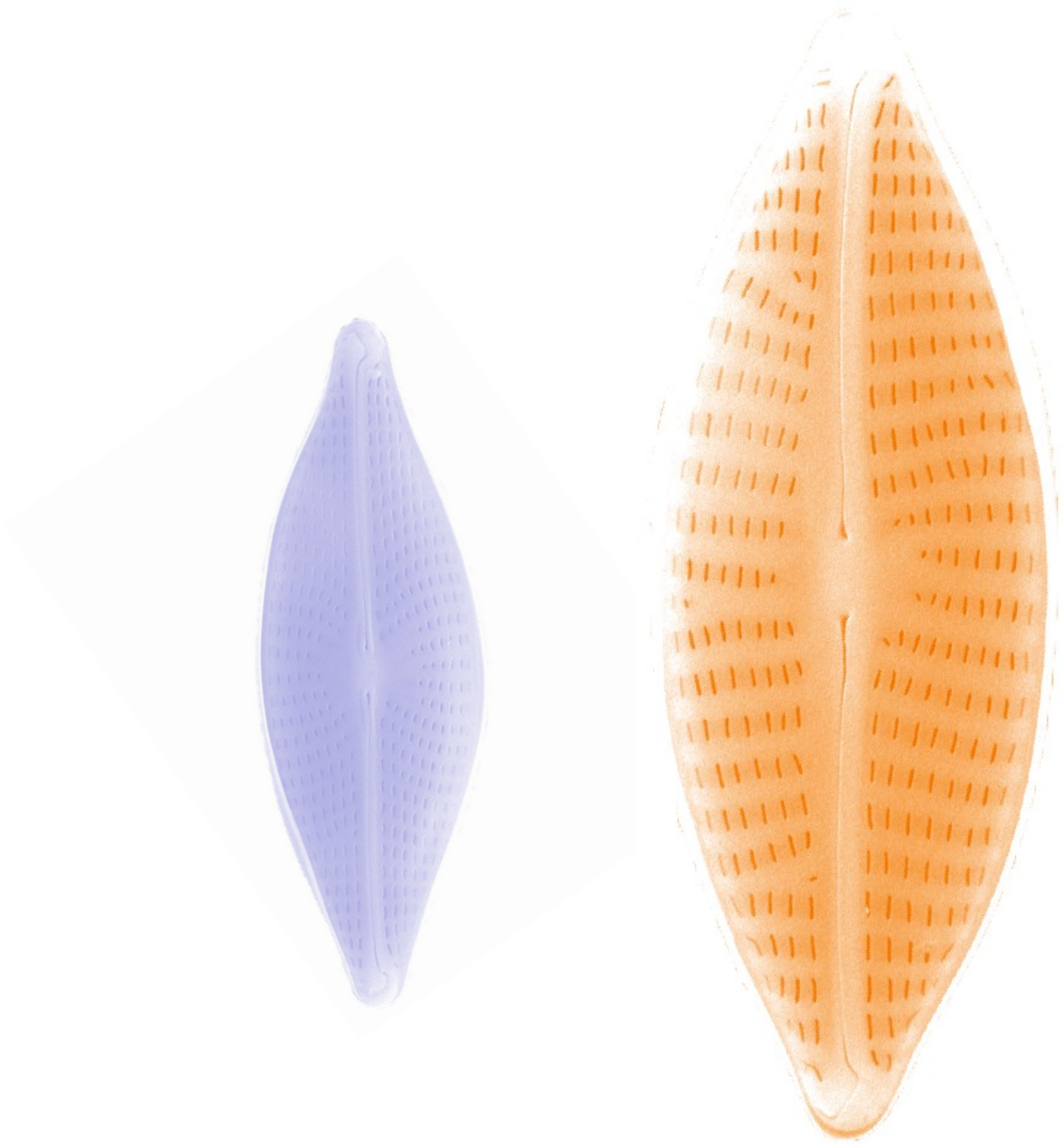


Eunotia sp3 (EUN3)

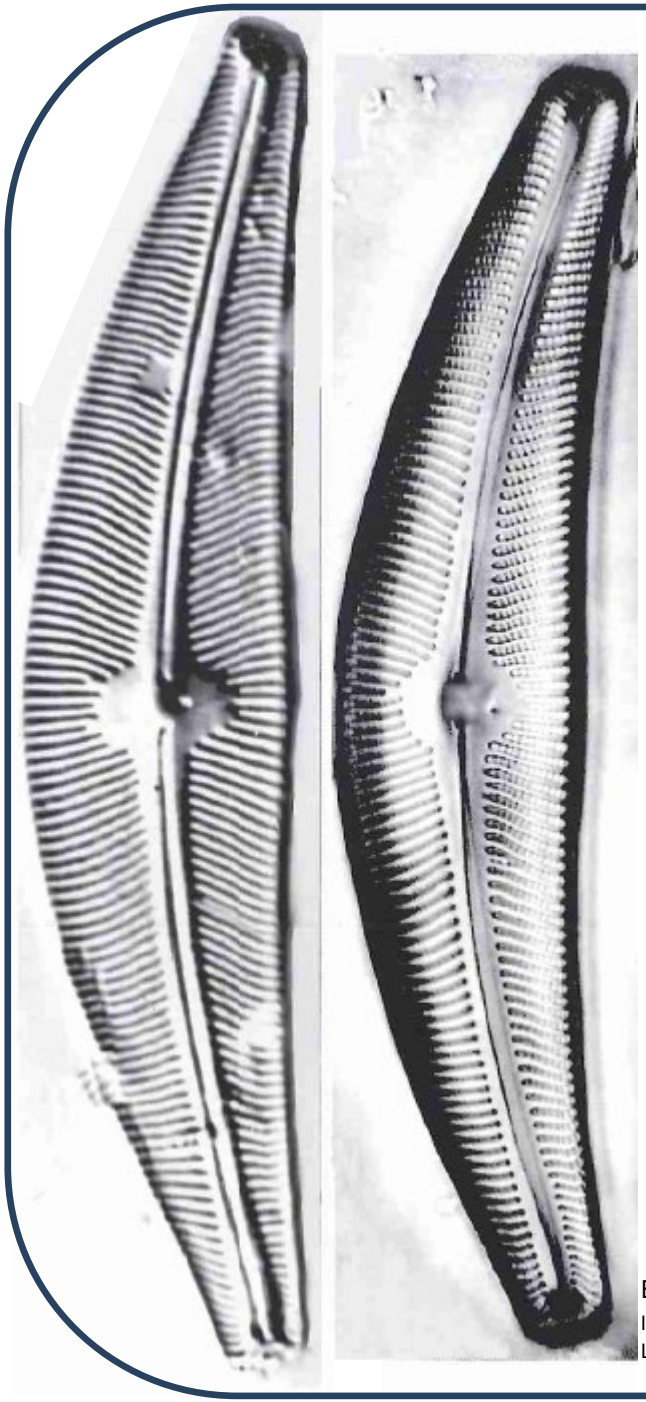


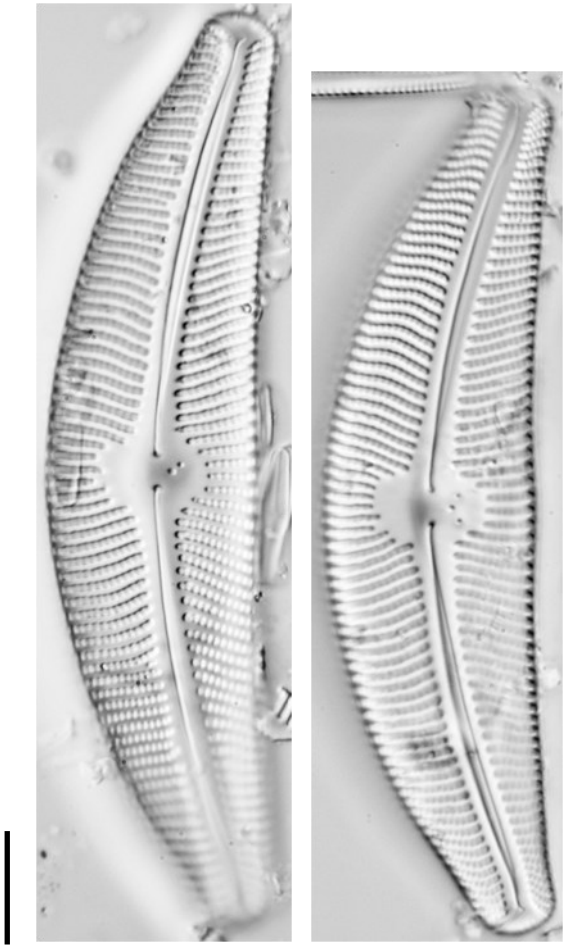
Eunotia australominor
(EAUM)

NAVICULACÉES : CYMBELLOIDÉES & GOMPHONEMATOIDÉES

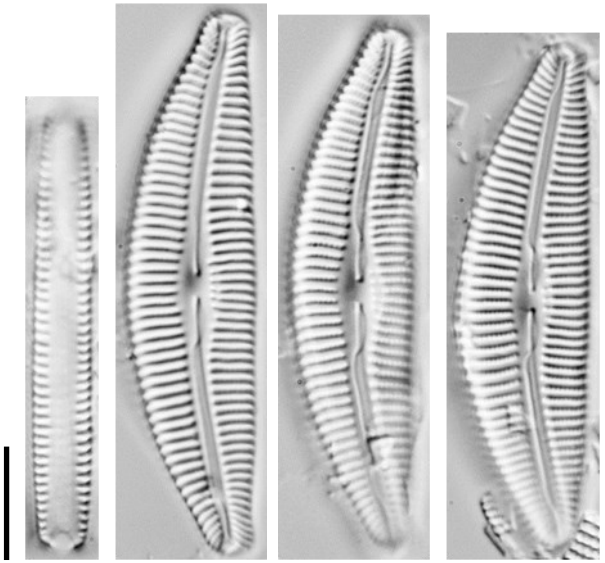


Genre *Cymbella*





Cymbella tumida (CTUM)

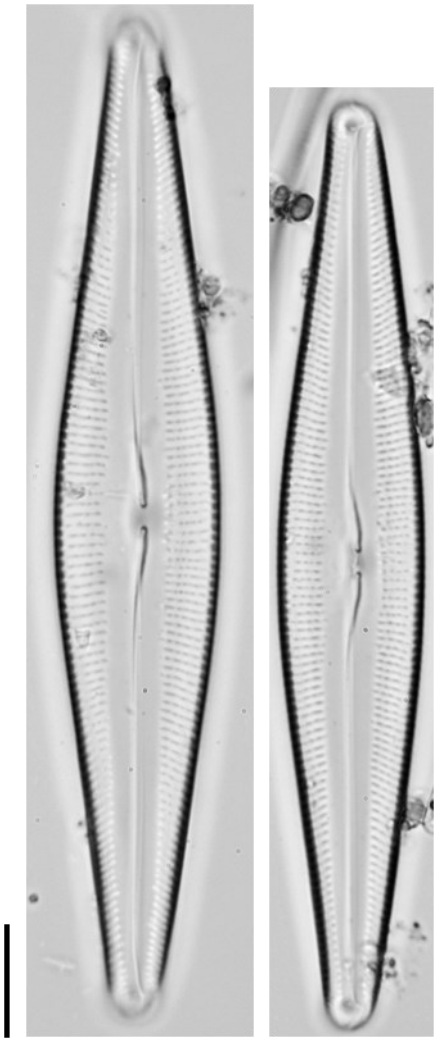


Cymbella novazeelandiana (CNZL)

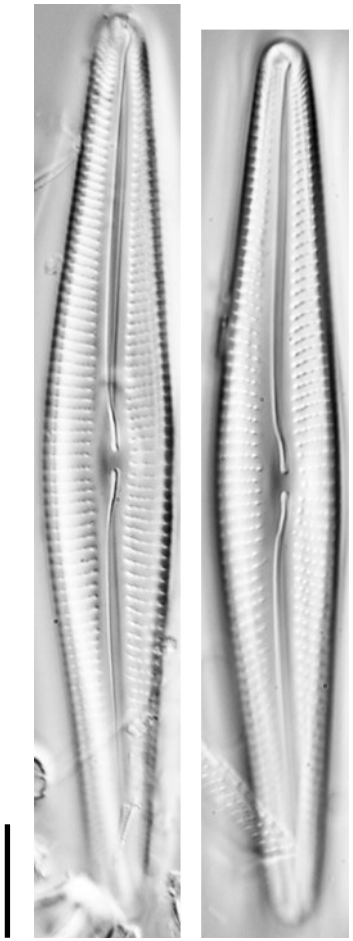
Cymbella australica (CATL)

Extrait : Krammer, K. (2002). Diatoms of Europe: Diatoms of the European Inland Waters and Comparable Habitats. Volume 3: Cymbella. Édité par Horst Lange- Bertalot. Ruggell: Gantner Verlag.

Genres *Cymbella - Delicata*



Cymbella laterata (CLTR)



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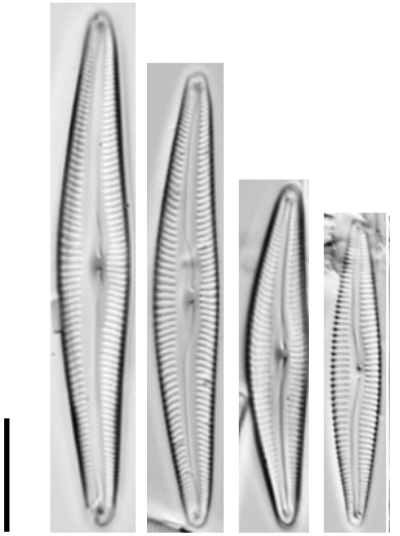

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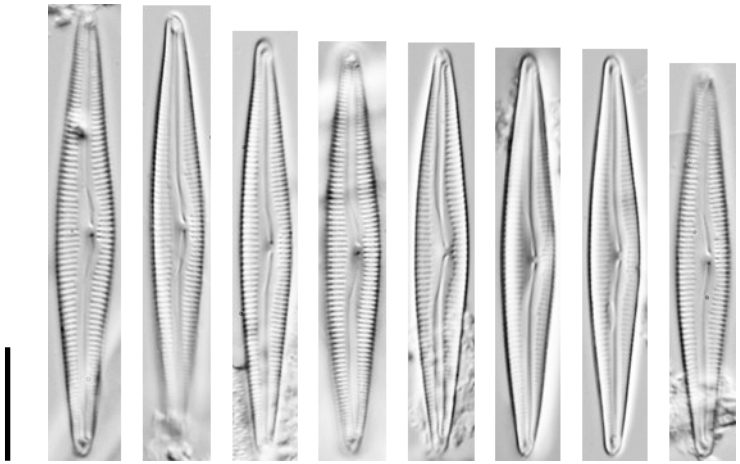

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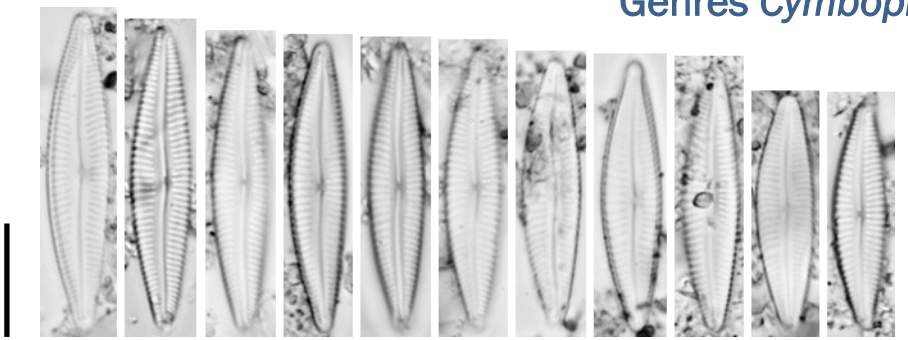
Genres *Cymbopleura - Delicata*



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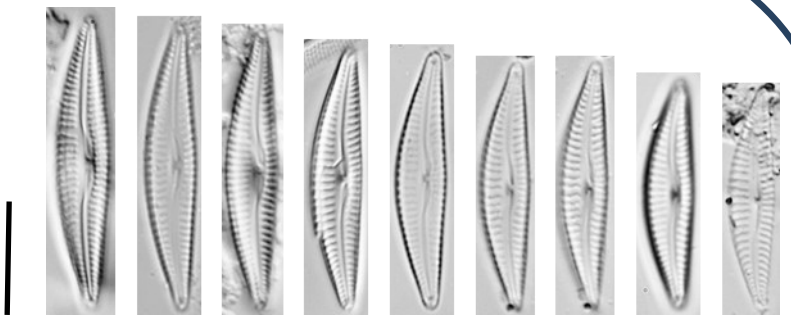

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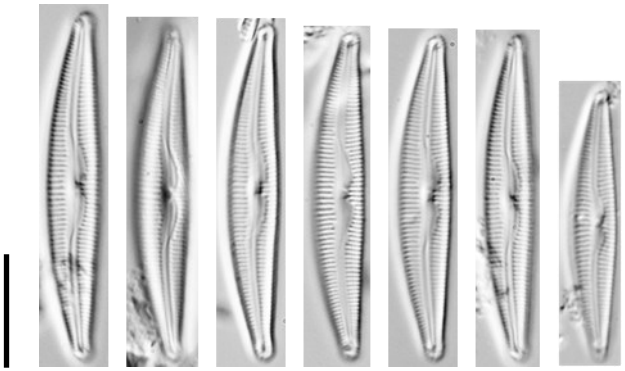

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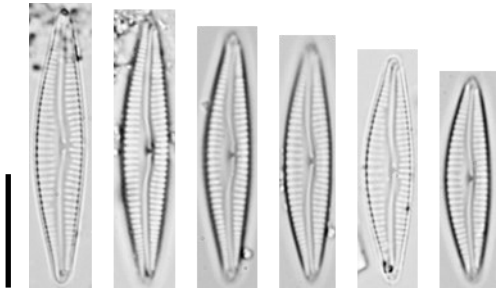

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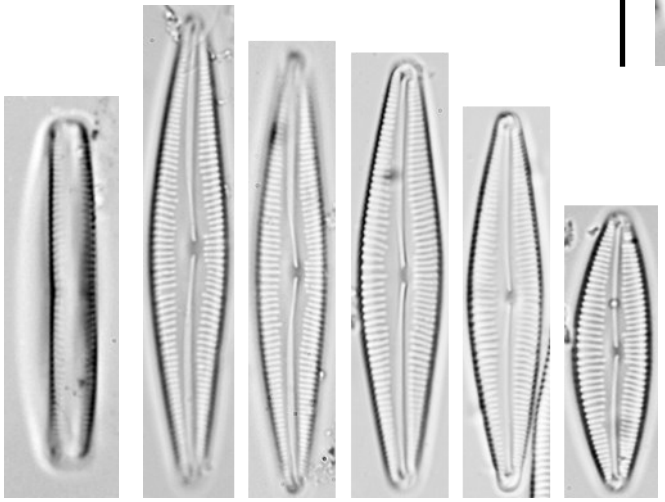

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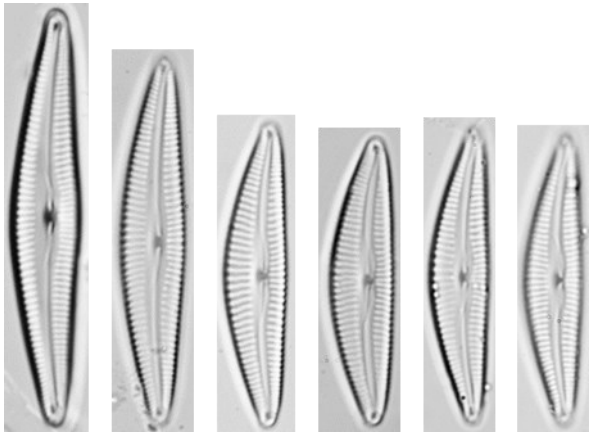

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Genre *Encyonema*

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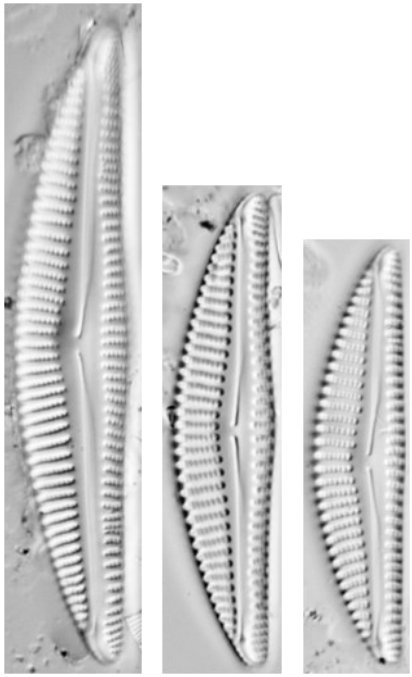

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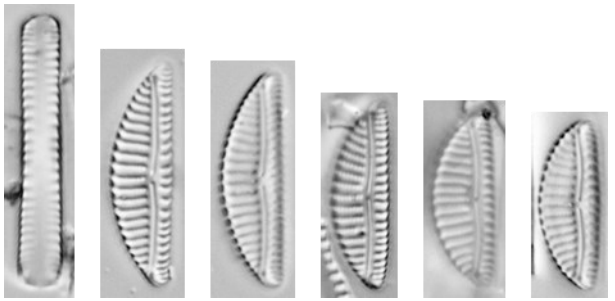
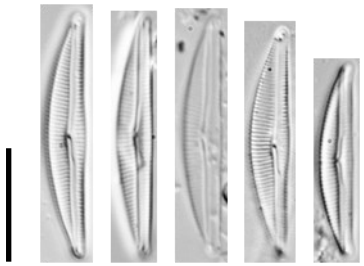


Encyonema silesiacum (ESLE)

Genres *Encyonema - Encyonopsis*



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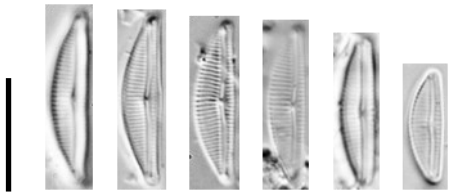

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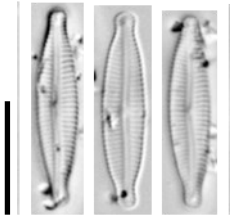
Encyonopsis opima (ENOP)



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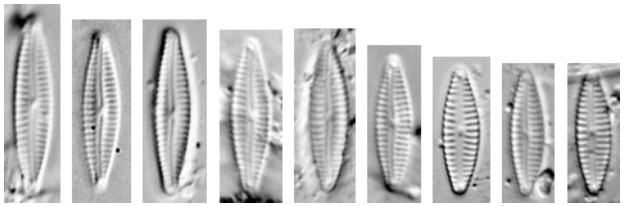

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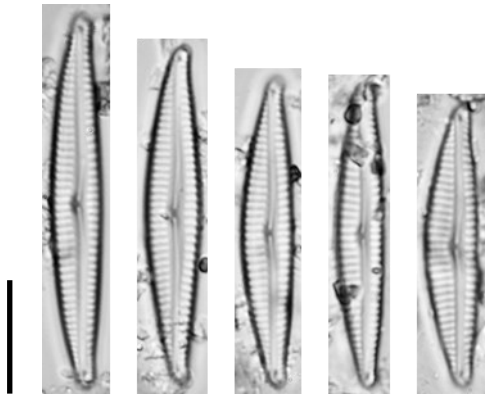
Genres *Encyonema - Encyonopsis*



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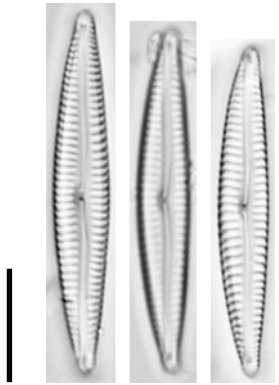

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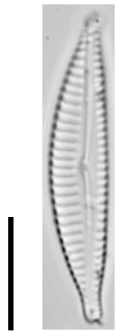

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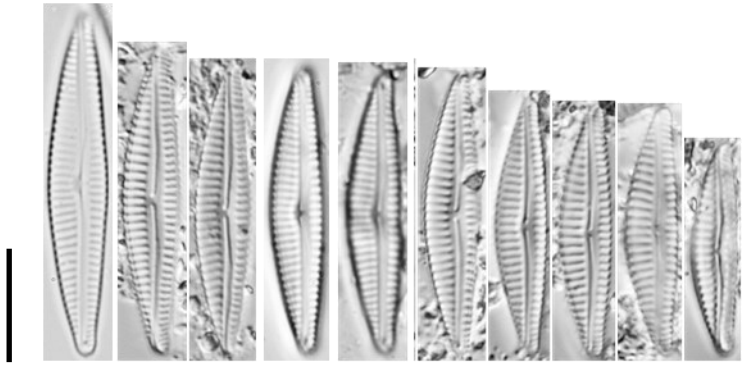
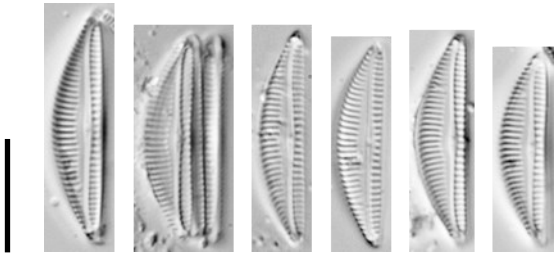
(EDIR)



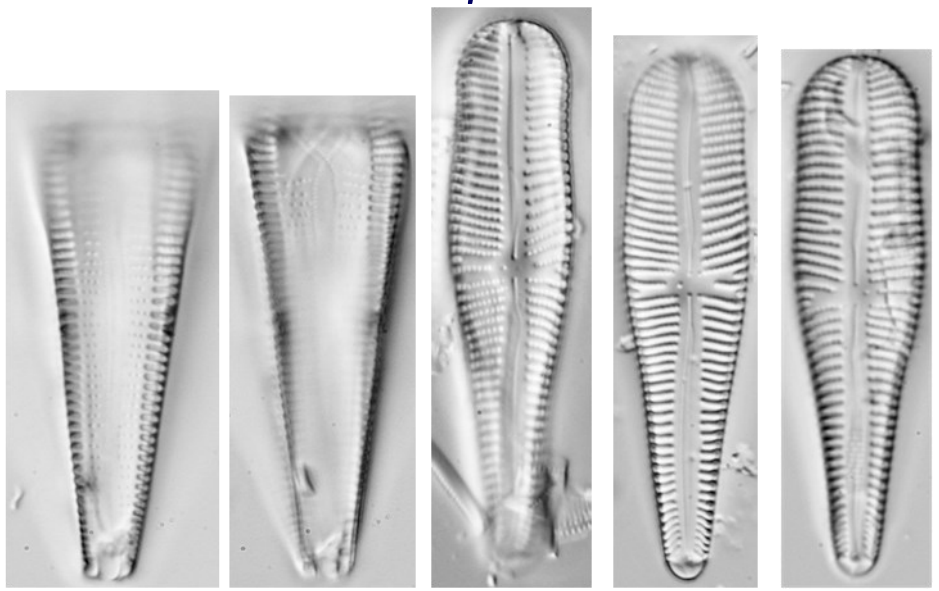
Encyonema sp2 (EN02)



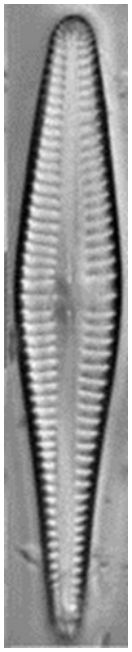
Encyonema sp9 (EN09)

Genre *Gomphonema*

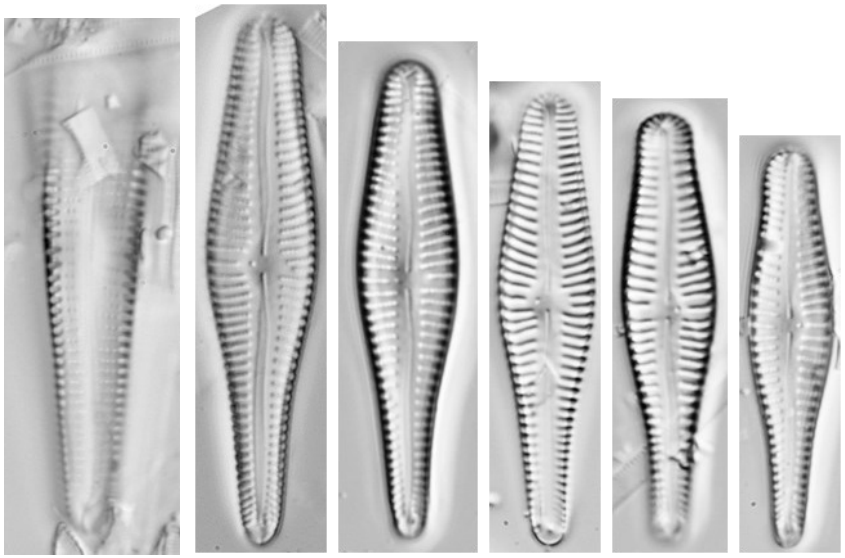
Gomphonema acuminatum
(GACU)



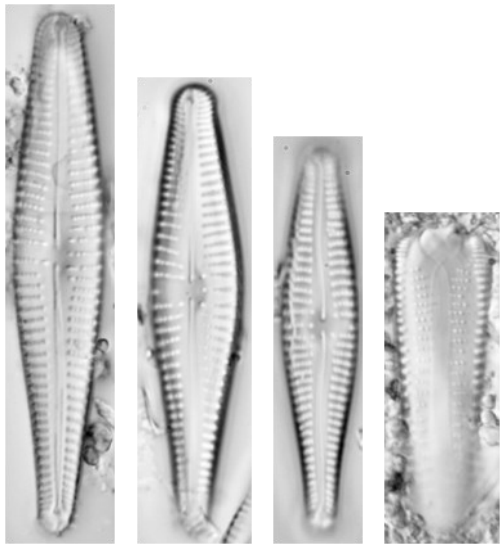
Gomphonema laticollum (GLTC)



Gomphonema affine
(GAFF)

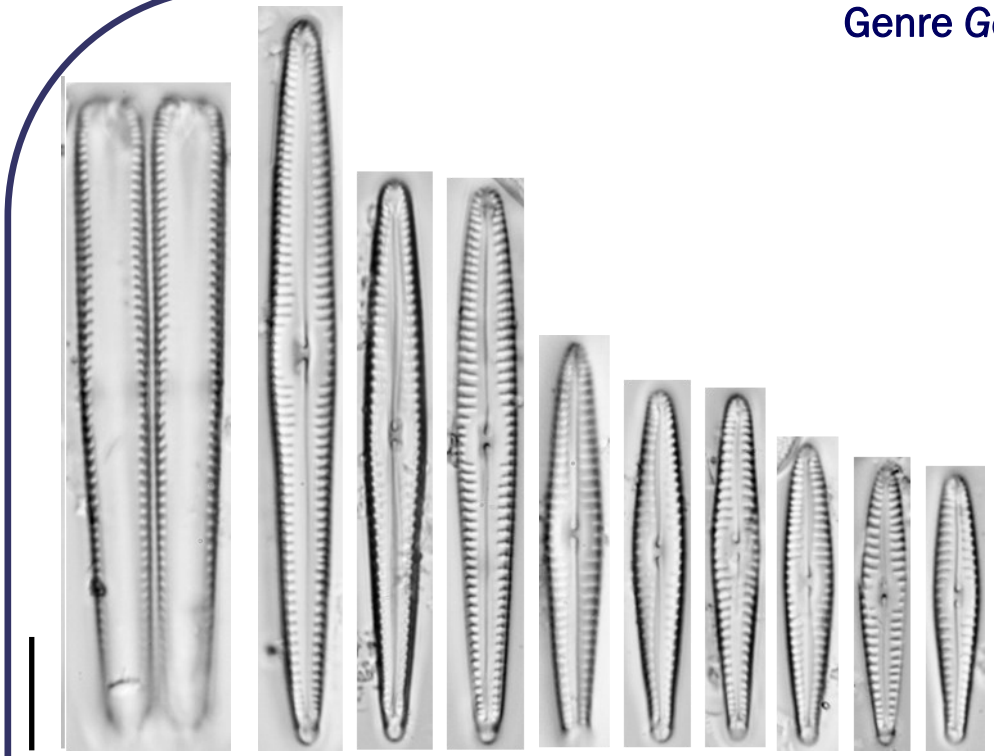


Gomphonema clavatum (GCLA)

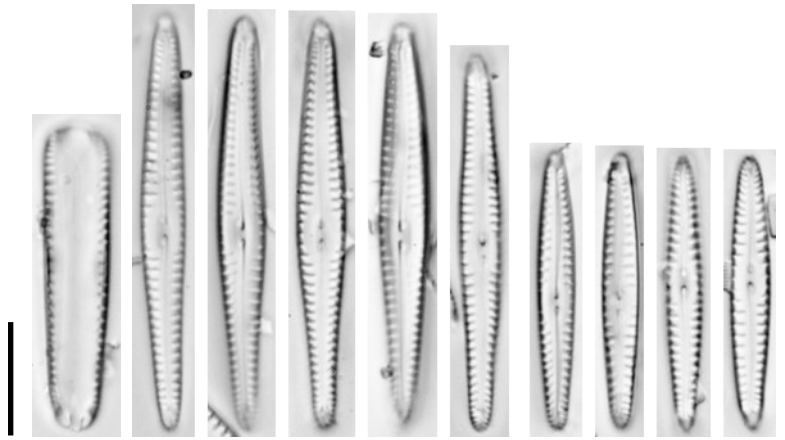


Gomphonema ricardii (GRIC)

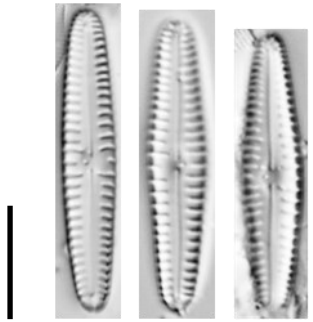
Genre *Gomphonema*



Gomphonema neobourrellyi (GNEO)

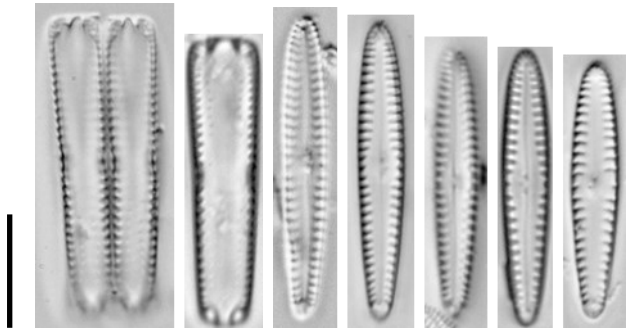


Gomphonema neobourrellyi morphotype *parvum* (GNBP)

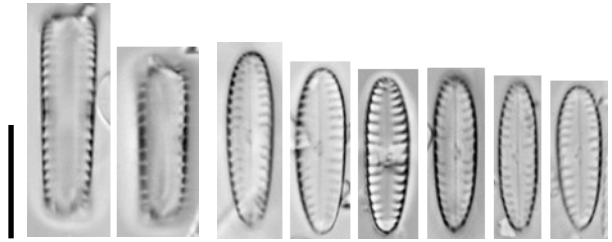


Gomphonema sp10 (GO10)

Gomphonema brasiliense ssp. pacificum (GBPA)



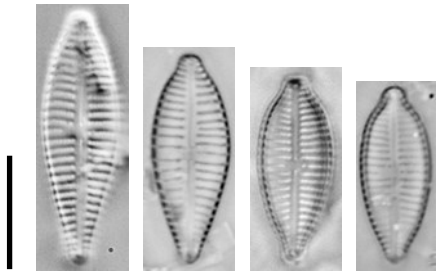
morphotype *Gomphonema designatum*



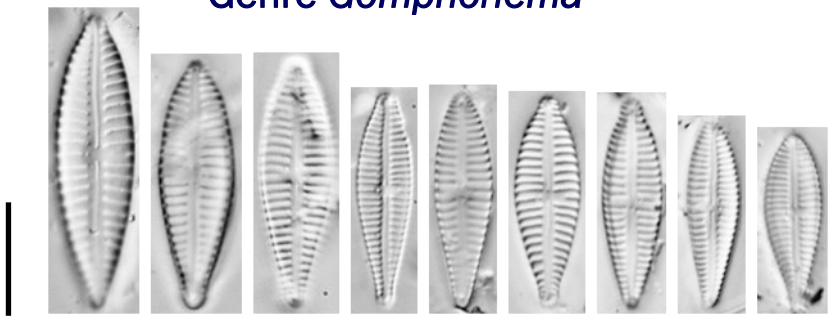
morphotype *Gomphonema bourbonense*

Gomphonema pumilum (GPUM)

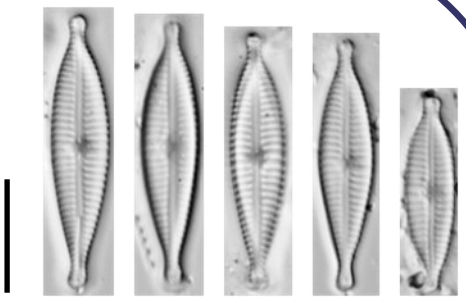
Genre *Gomphonema*



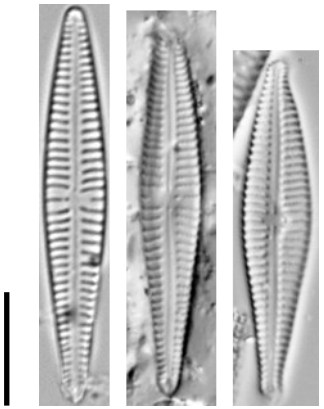
Gomphonema parvulum (GPAR)



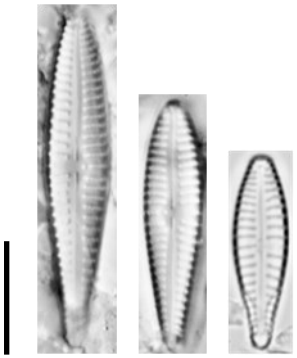
Gomphonema saprophilum (GSPP)



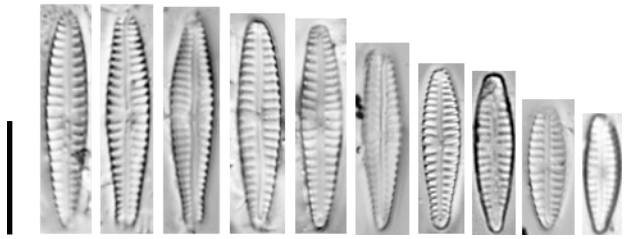
Gomphonema lagenula (GLGN)



Gomphonema gracile
(GGRA)

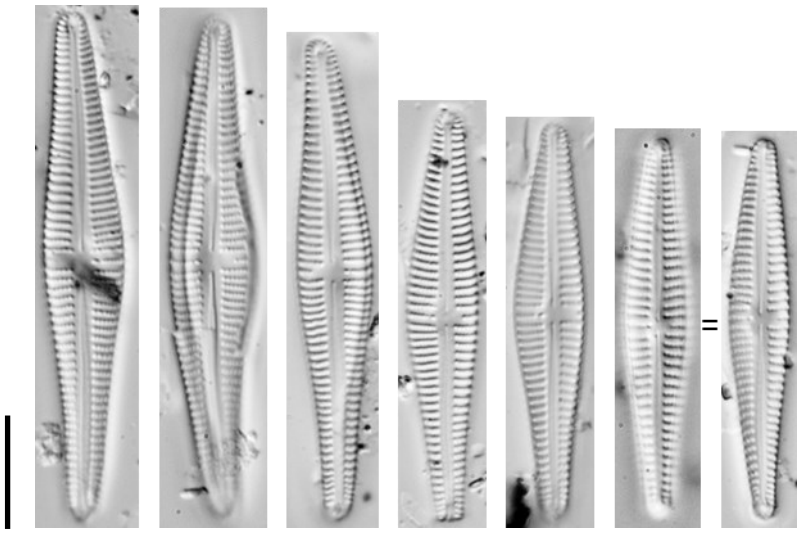


Gomphonema angustatum
(GANG)

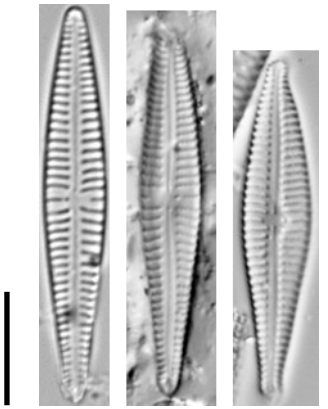


Gomphonema sp17 (GO17)

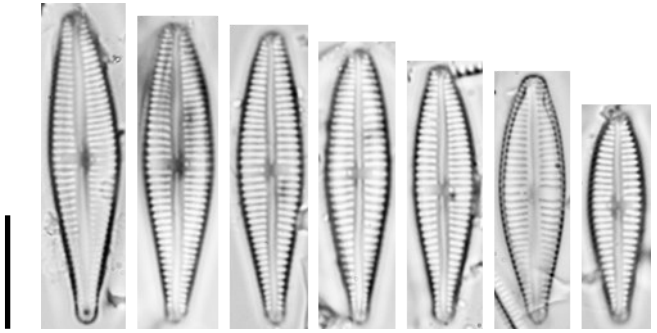
Genre *Gomphonema*



Gomphonema sp15 (GO15)



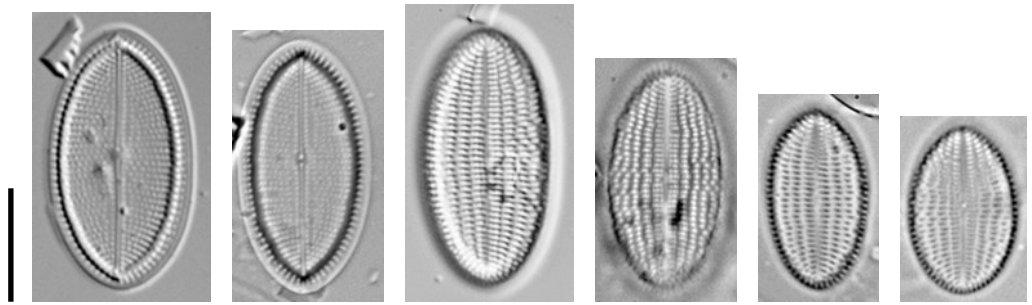
Gomphonema gracile
(GGRA)



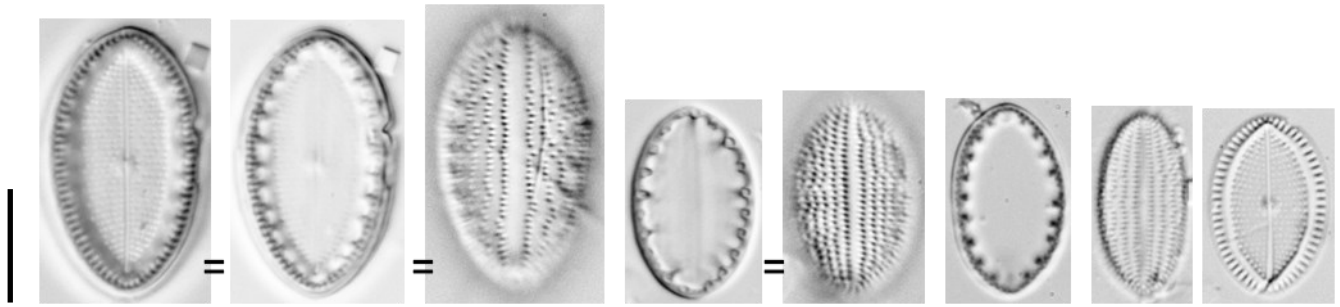
Gomphonema sp20 (GO20)

MONORAPHIDEES

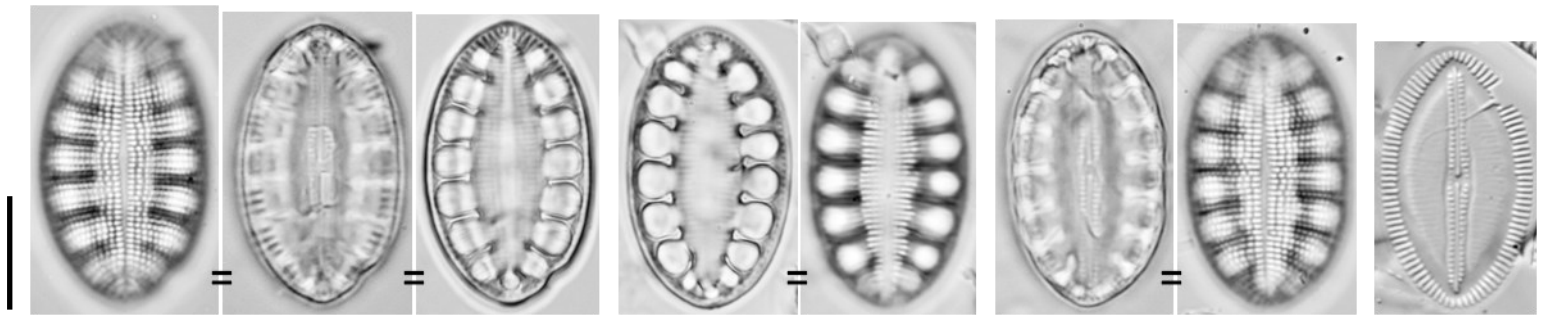
Genres *Cocconeis - Xenococconeis*



Cocconeis euglypta (CEUG)

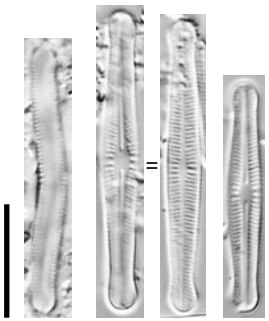


Cocconeis sp1 (COC1)

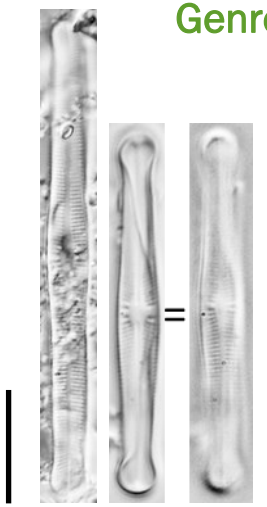


Xenococconeis neocaledonica (XNEO)

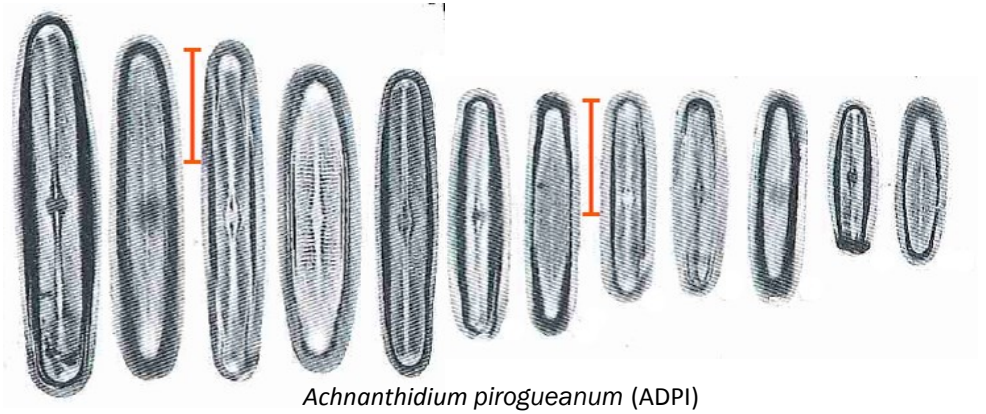
Genres *Achnanthes - Achnanthidium*



Achnanthidium blancheanum (ABLA)

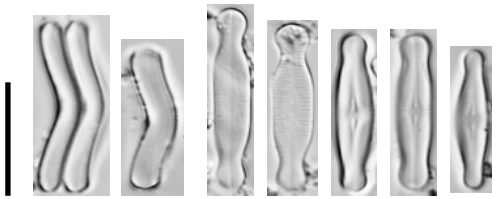


Achnanthes neocaledonica (ANCL)

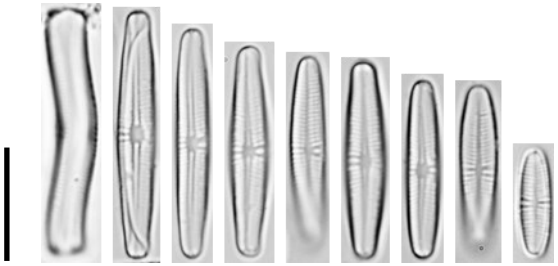


Achnanthidium pirogueanum (ADPI)

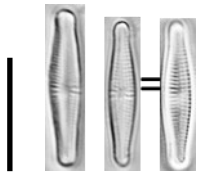
Extrait : Moser, G., Steindorf, A. and Lange-Bertalot, H. 1995. Neukaledonien Diatomeenflora einer Tropeninsel. Revision der collection Maillard und Untersuchung neuen materials. Bibliotheca Diatomologica 32:340 pp.



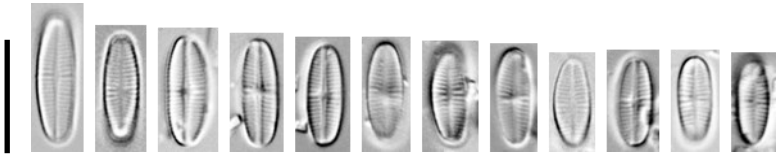
Achnanthidium peroditicum (ADPD)



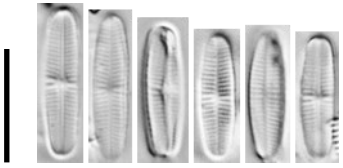
Achnanthidium minutissimum (ADMI)



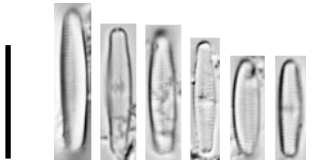
Achnanthidium catenatum (ADCT)



Achnanthidium sp9 (AC09)

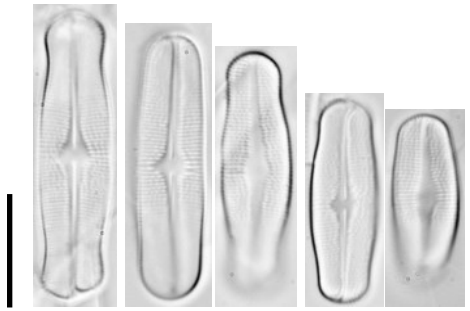


Achnanthidium sp5 (AC05)

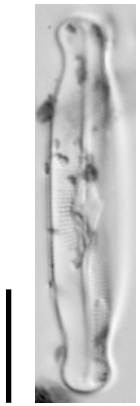


Achnanthidium sp17 (AC17)

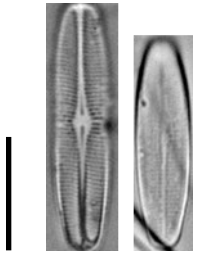
Genre *Achnanthidium*



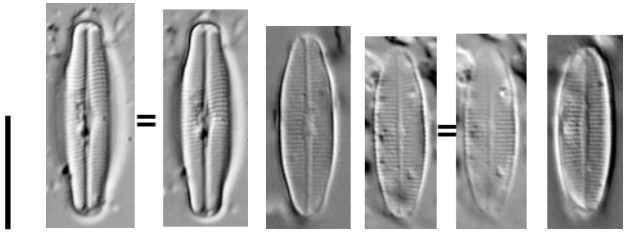
Achnanthidium contrarea (ACTR)



Achnanthidium indicatrix (ADIN)

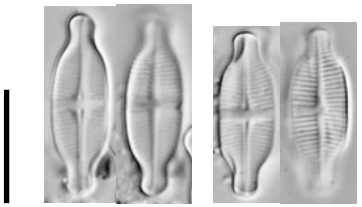


Achnanthidium koghisense (ADKO)

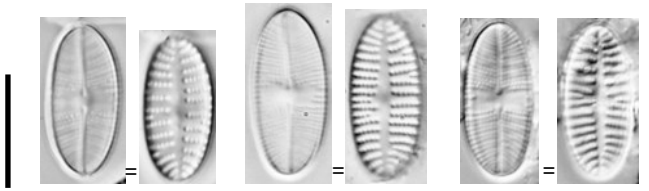


Achnanthidium arcus (AARC)

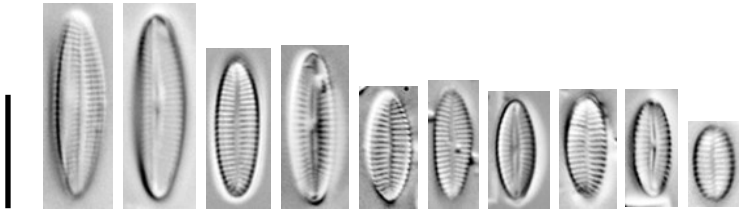
Genres *Achnanthes -Achnanthidium - Karayevia*



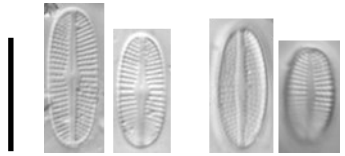
Achnanthidium exiguum (ADEG)



Karayevia oblongella (KOBG)

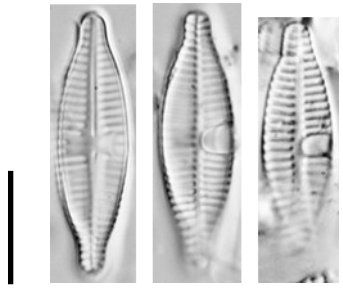


Achnanthes subhudsonis var. densestriata (ASDE)

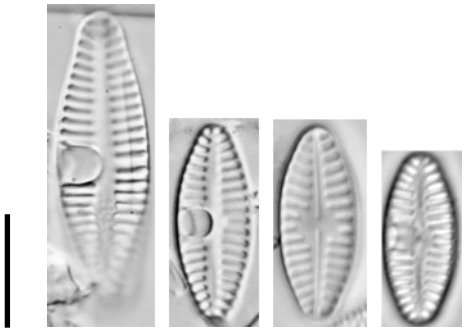


Achnanthes subcrassa (ASBC)

Genres *Planothidium - Platessa*

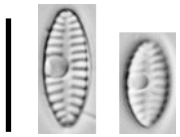


Planothidium biporomum (PLBI)

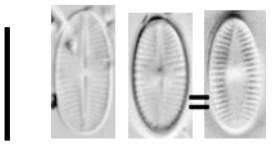


Planothidium robustius (PRBU)

Planothidium minutissimum (PMNT)



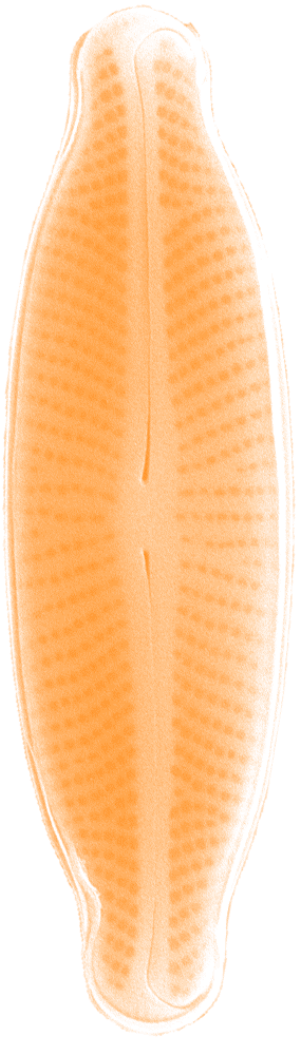
Planothidium frequentissimum (PLFR)

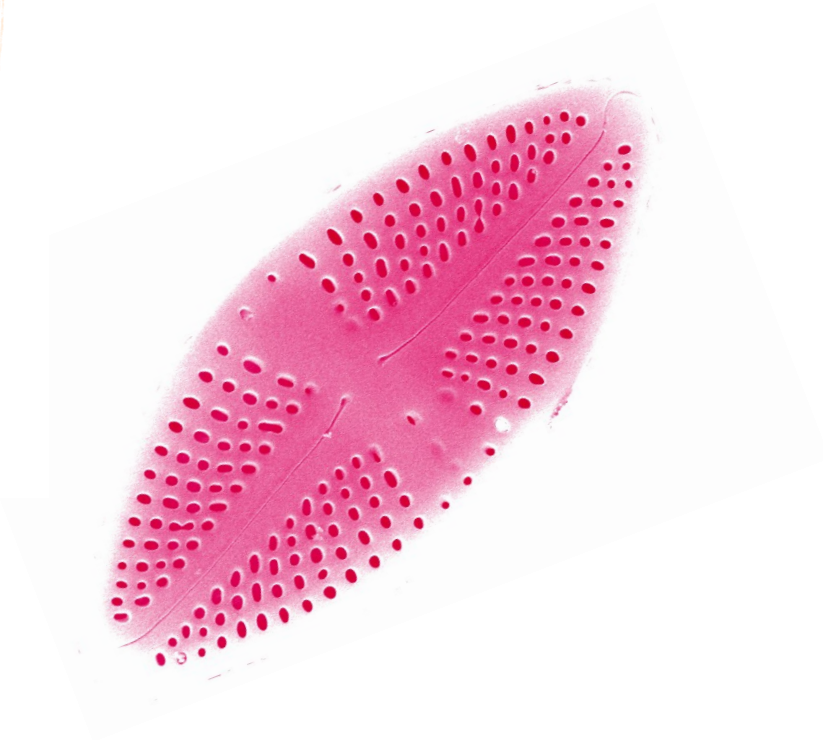


Platessa hustedtii (PLHU)

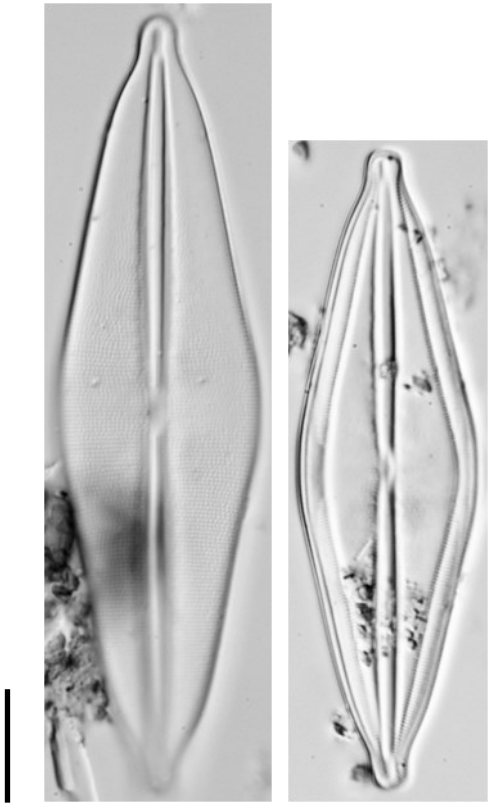
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.

NAVICULACÉES : NAVICULOIDÉES

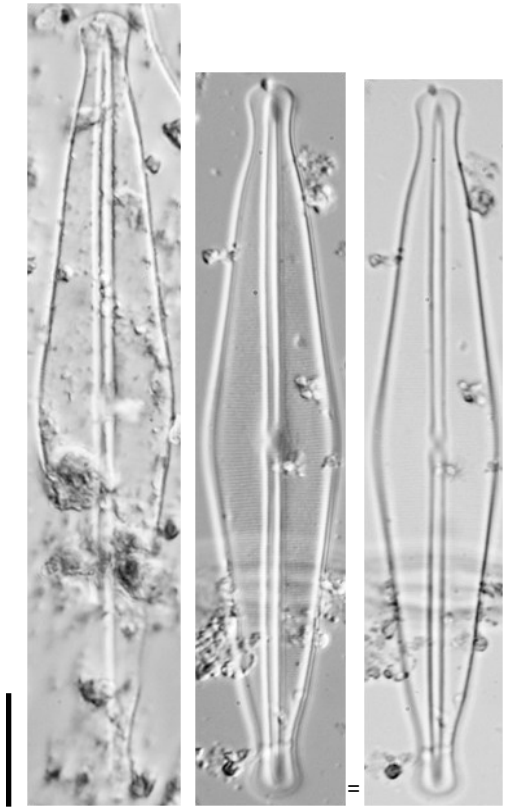




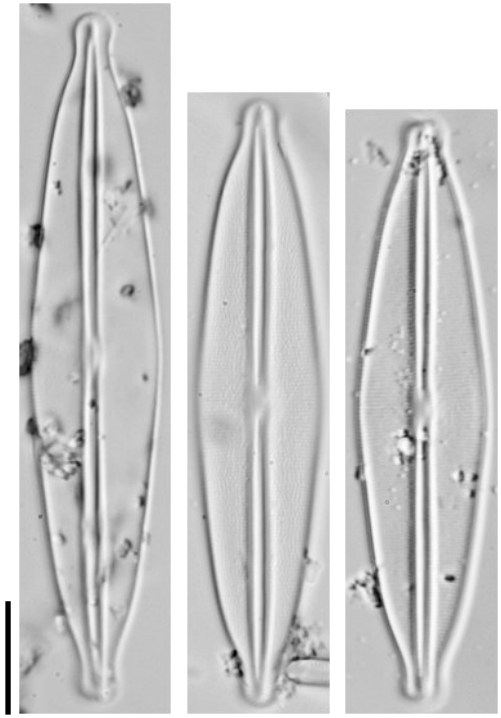
Genre *Frustulia*



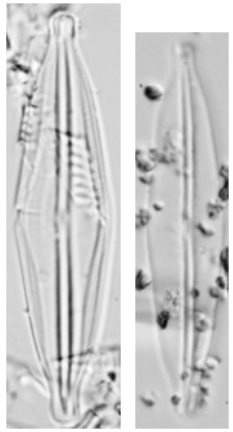
Frustulia neocaledonica (FNEO)



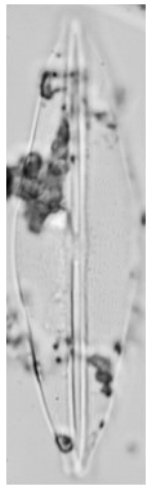
Frustulia lacustris (FLAC)



Frustulia peroditítica (FPER)



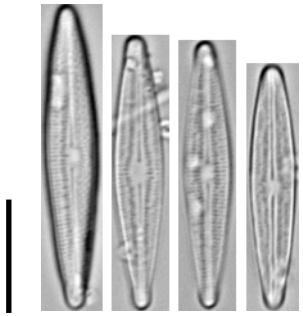
Frustulia nana (FRNA)



Frustulia stagnalis (FSTL)

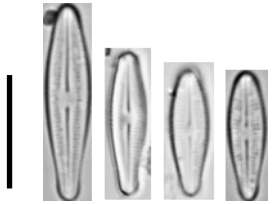
Genre *Brachysira*

Brachysira gomphonoides
(BGOM)

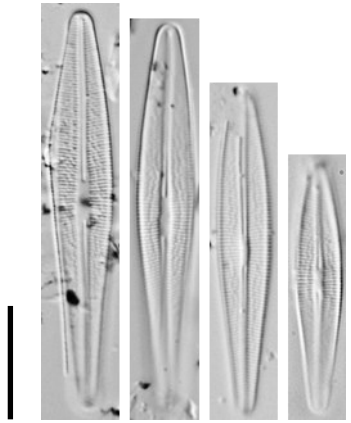


Brachysira blancheana
(BBLA)

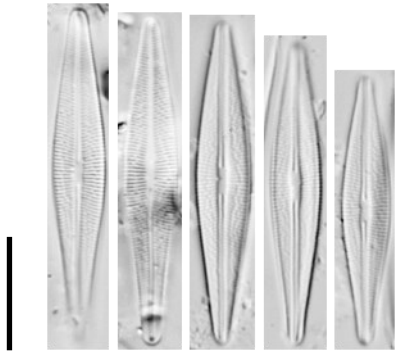
Brachysira microclava
(BMCL)



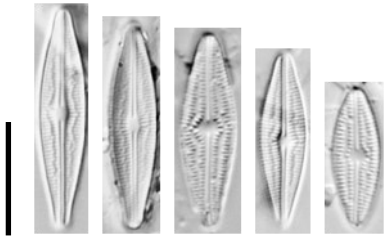
Brachysira nanoclava
(BNCV)



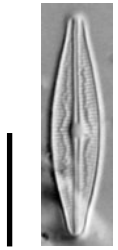
Brachysira irawanoides
(BIRO)



Brachysira styriaca (BSTY)

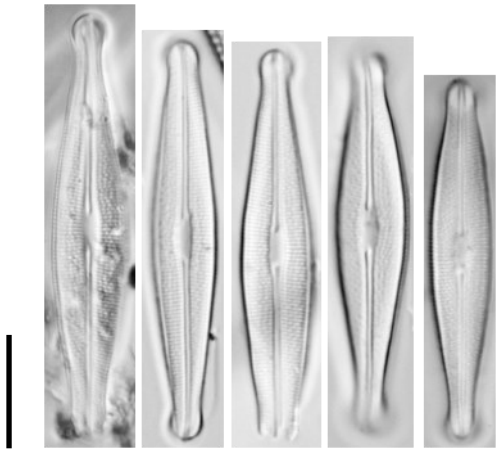


Brachysira brebissonii
(BBRE)



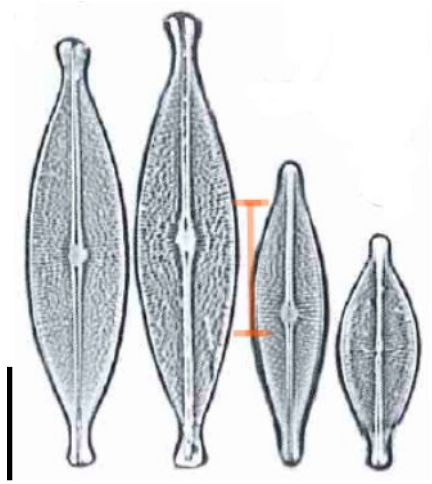
Brachysira palustris
(BPAL)

Genre *Brachysira*



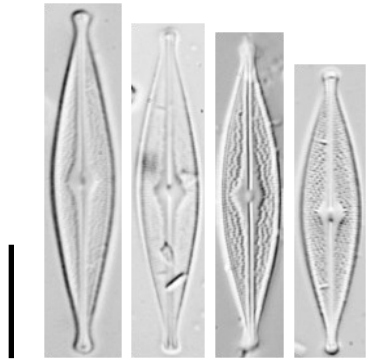
Brachysira maillardii (BMAI)

Brachysira silvicola (BSIL)

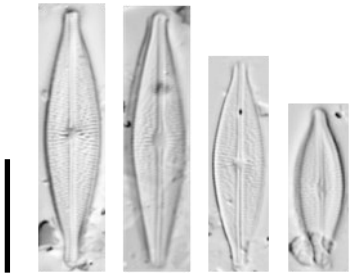


Brachysira vitrea (BVIT)

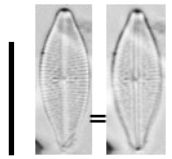
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



Brachysira angusta (BANG)

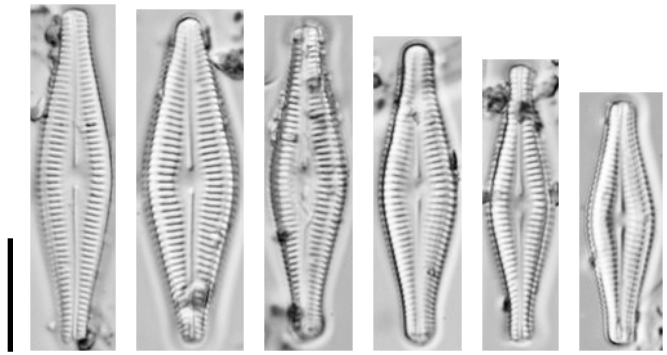


Brachysira neoexilis (BNEO)



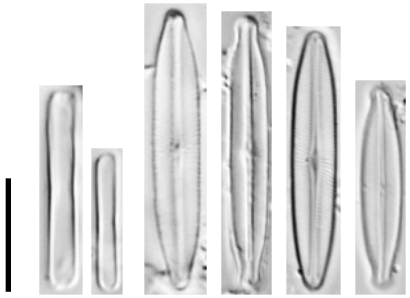
Brachysira cf. *seippii* (BSEI)

Genre *Brachysira*

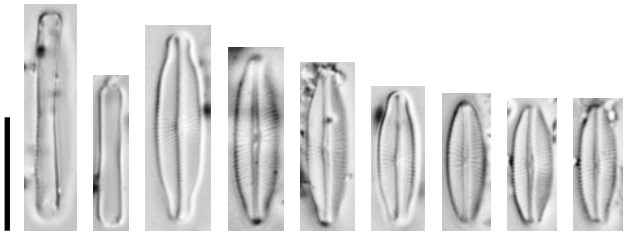


Brachysira supriniana (BSPN)

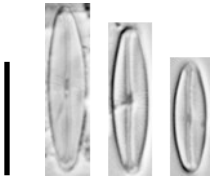
Genres *Adlafia - Germainiella - Kobayasiella - Fallacia - Mayamaea*



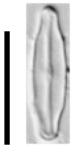
Kobayasiella saxicola (KOSA)



Adlafia muscora (AMUS)

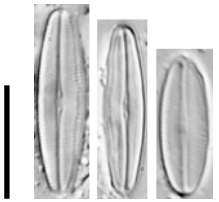


Adlafia sp1
(ADS1)

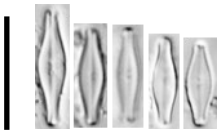


Adlafia sp2
(ADS2)

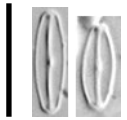
Mayamaea permitis (MPMI)



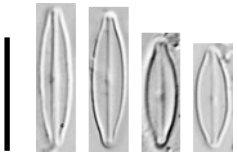
Fallacia mitis
(FMIT)



Germainiella enigmatica (GENI)

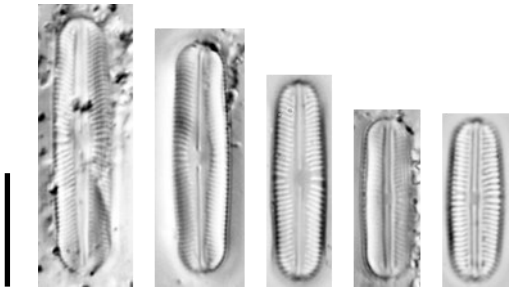


Fallacia indifferens
(FIND)

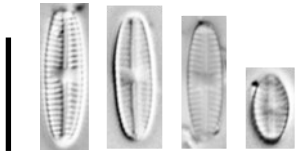


Kobayasiella sp2
(KOB2)

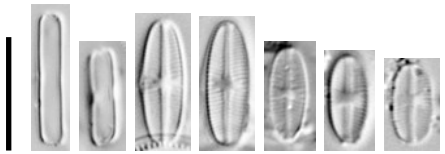
Genres *Sellaphora - Eolimna - Craticula*



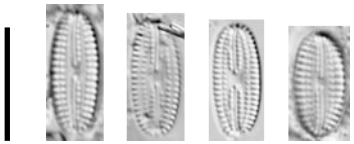
Sellaphora stroemii (SSTM)



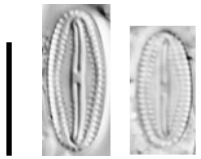
Sellaphora seminulum (SSEM)



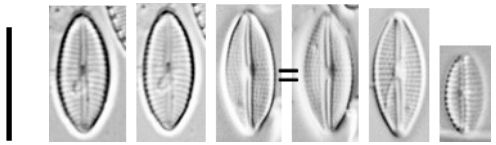
Eolimna minima (EOMI)



Pseudofallacia tenera (PFTN)

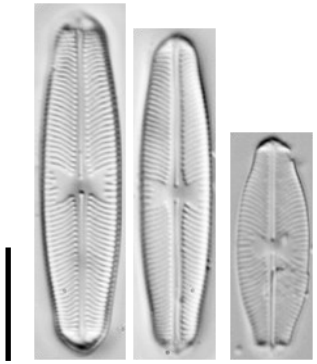


Fallacia insociabilis (FINS)

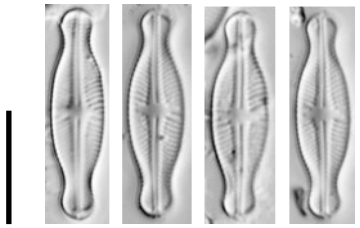


Craticula subminuscula (CSNU)

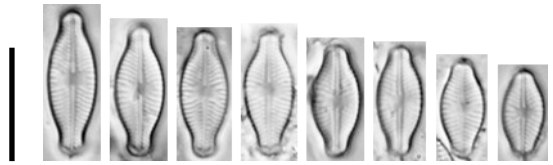
Genres *Sellaphora - Hippodonta*



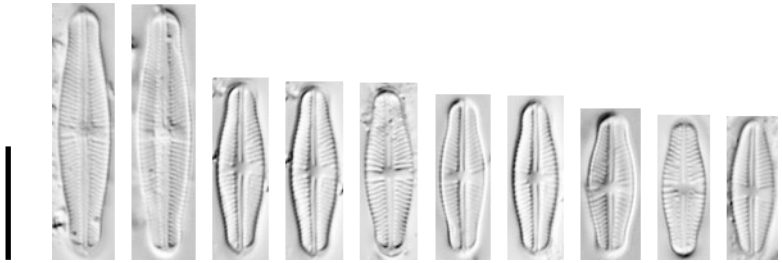
Sellaphora pupula (SPUP)



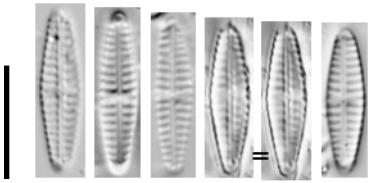
Sellaphora japonica (SJAP)



Sellaphora javanica (SEJA)

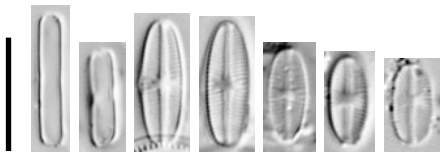


Sellaphora ruttneri (SRUT)

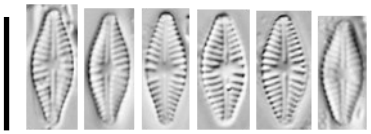


Hippodonta subtilissima (HSUT)

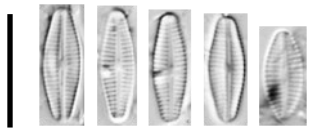
Genres *Sellaphora - Eolimna - Hippodonta - Chamaepinnularia*



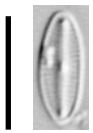
Eolimna minima (EOMI)



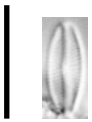
Eolimna rhombica (ERHB)



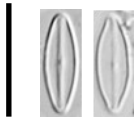
Sellaphora inconspicua (SICO)



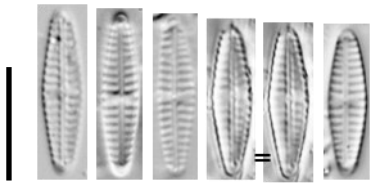
Mayamaea permitis (MPMI)



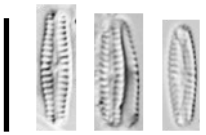
Sellaphora neocaledonica (SNCD)



Sellaphora arvensis (SARJ)

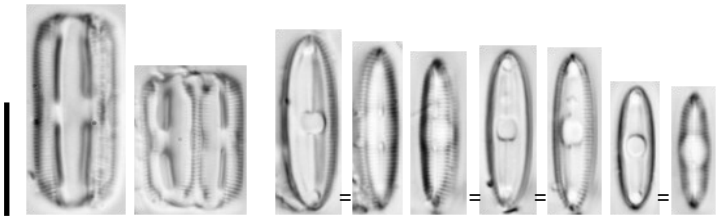


Hippodonta subtilissima (HSUT)

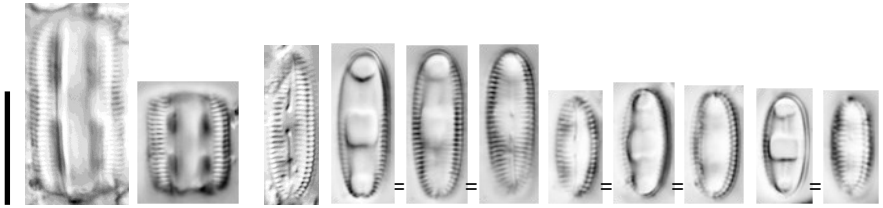


Chamaepinnularia submusicola (CSMU)

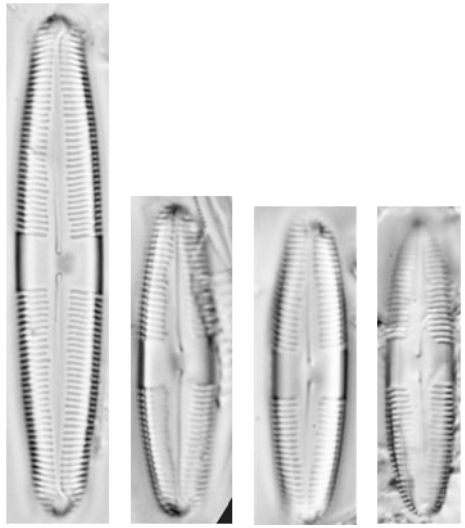
Genres *Diatomella - Caloneis*



Diatomella lecohui (EOMI)

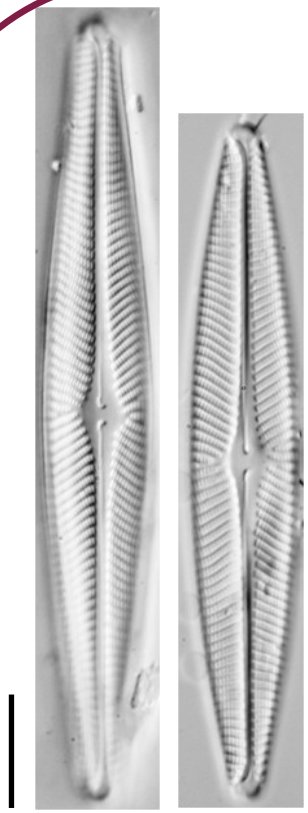


Diatomella ouenkohana (DOUE)

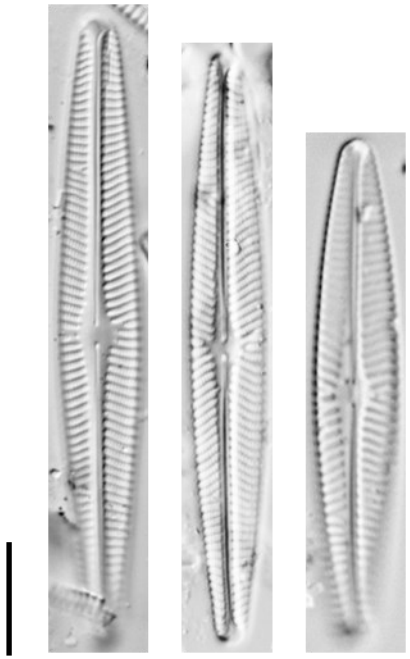


Caloneis aequatorialis (CAET)

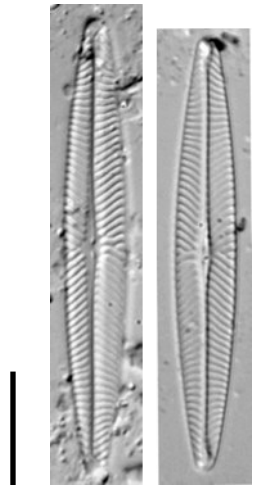
Genre *Navicula*



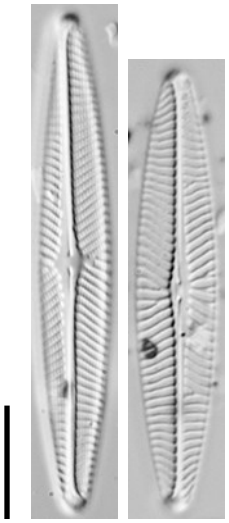
Navicula melanesica (NMES)



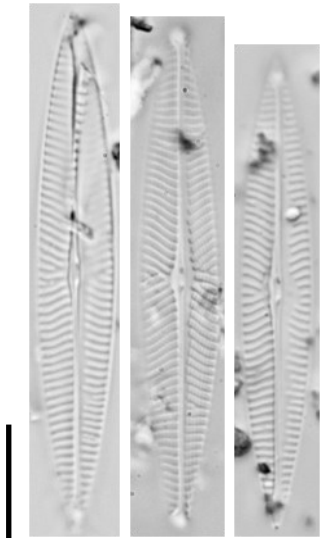
Navicula sp25 (NA25)



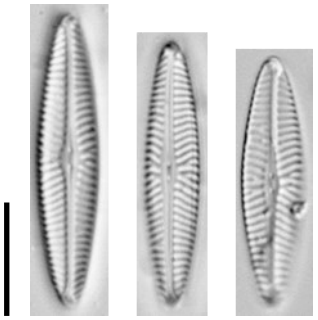
Navicula lehmanniae (NLEH)



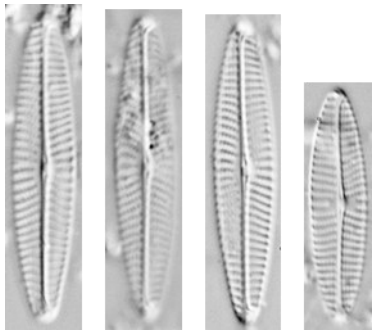
Navicula melanesica morph. minor (NMMN)



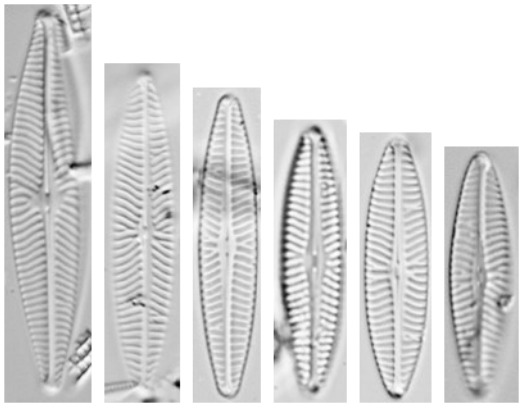
Navicula peracuta (NPTA)



Navicula cryptotenella (NCTE)



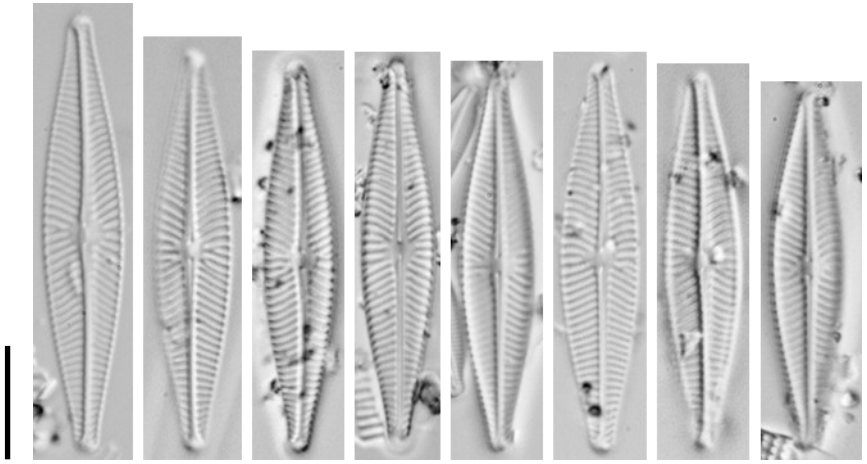
Navicula erifuga (NERI)



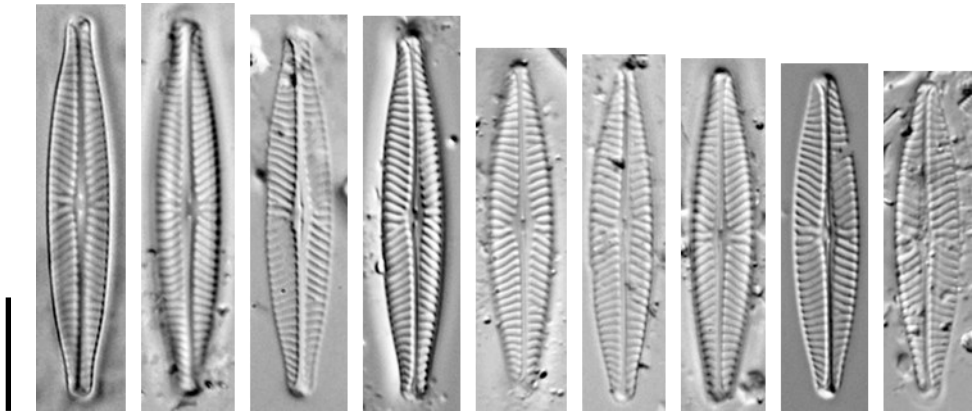
Navicula suprinii (NSUP)

Navicula veneta (NVEN)

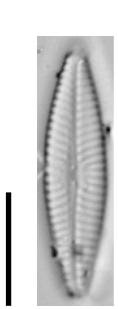
Genre *Navicula*



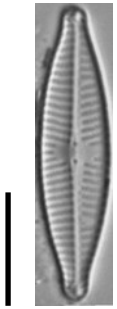
Navicula cryptocephala (NCRY)



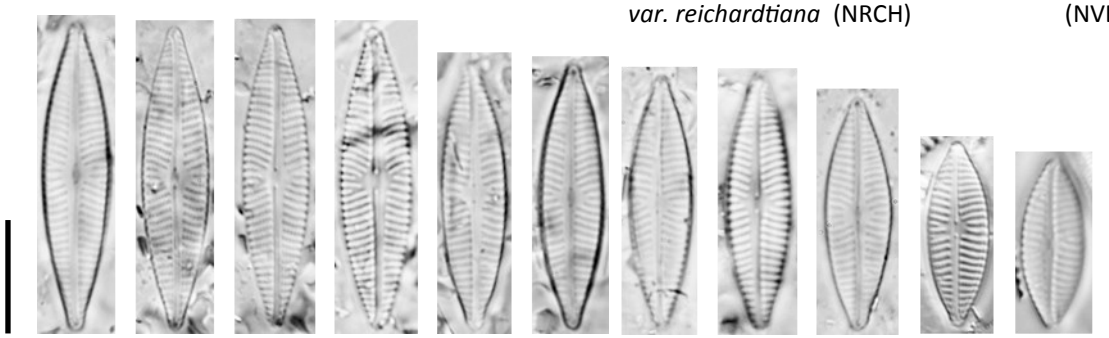
Navicula seippiana (NSPP)



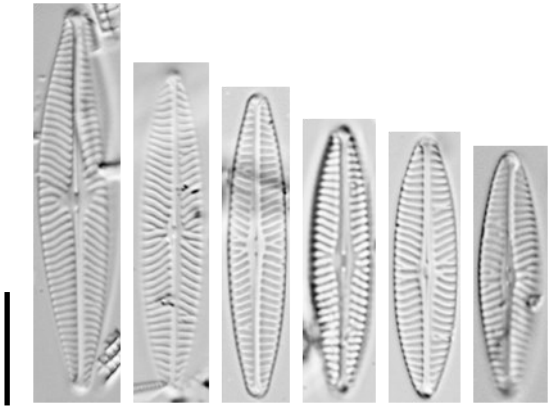
Navicula reichardtiana
var. reichardtiana (NRCH)



Navicula veneta
(NVEN)

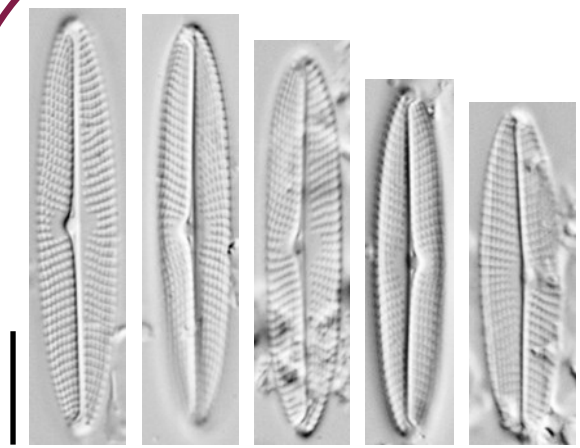


Navicula quasidisjuncta (NCQDJ)

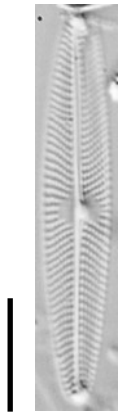


Navicula suprinii (NSUP)

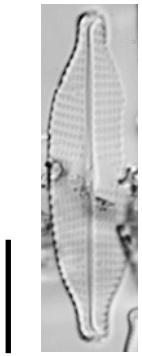
Genre *Navicula*



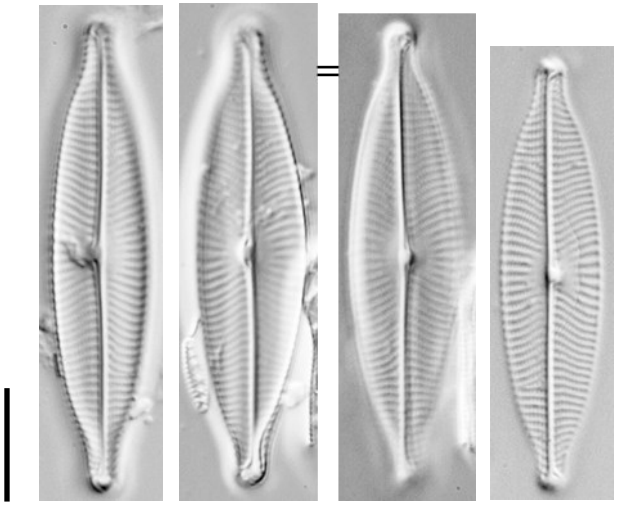
Navicula escambia (NESC)



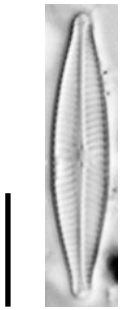
Navicula simulata (NSIA)



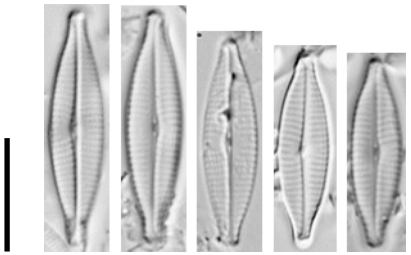
Navicula amphiceropsis (NAAM)



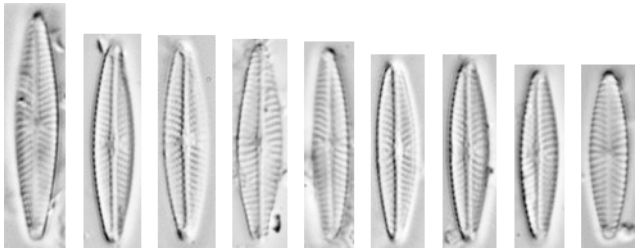
Navicula rostellata (NROS)



Navicula vandamii var. *vandamii* (NVDA)



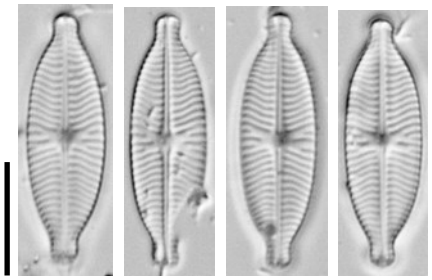
Navicula gregaria (NGRE)



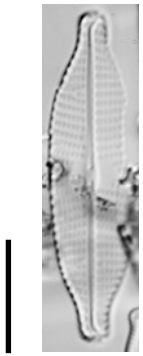
Navicula sp7 (NA07)

Navicula vilaplanii (NVIP)

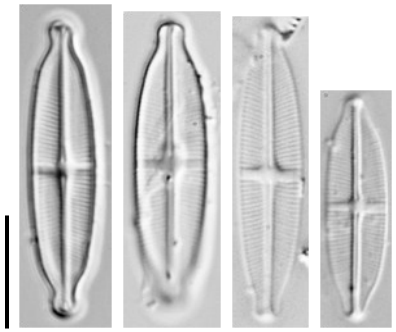
Genres *Geissleria - Navicula - Stauroneis*



Geissleria decussis (GDEC)

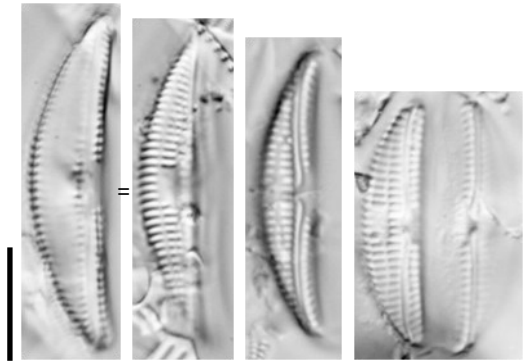


Navicula amphiceropsis (NAAM)

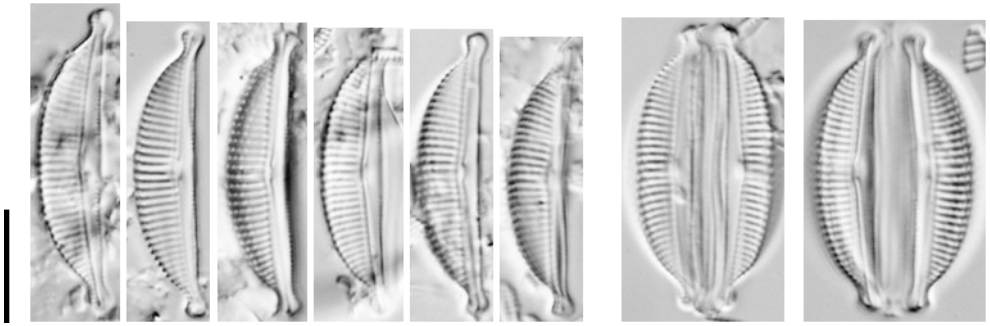


Stauroneis résoluta (SRES)

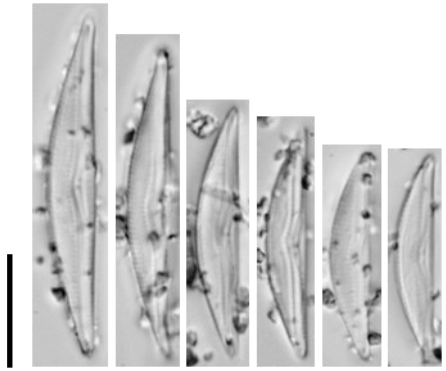
Genres *Amphora - Halamphora*



Amphora copulata (ACOP)

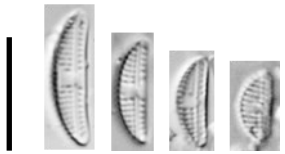


Halamphora ghanensis (HGHA)



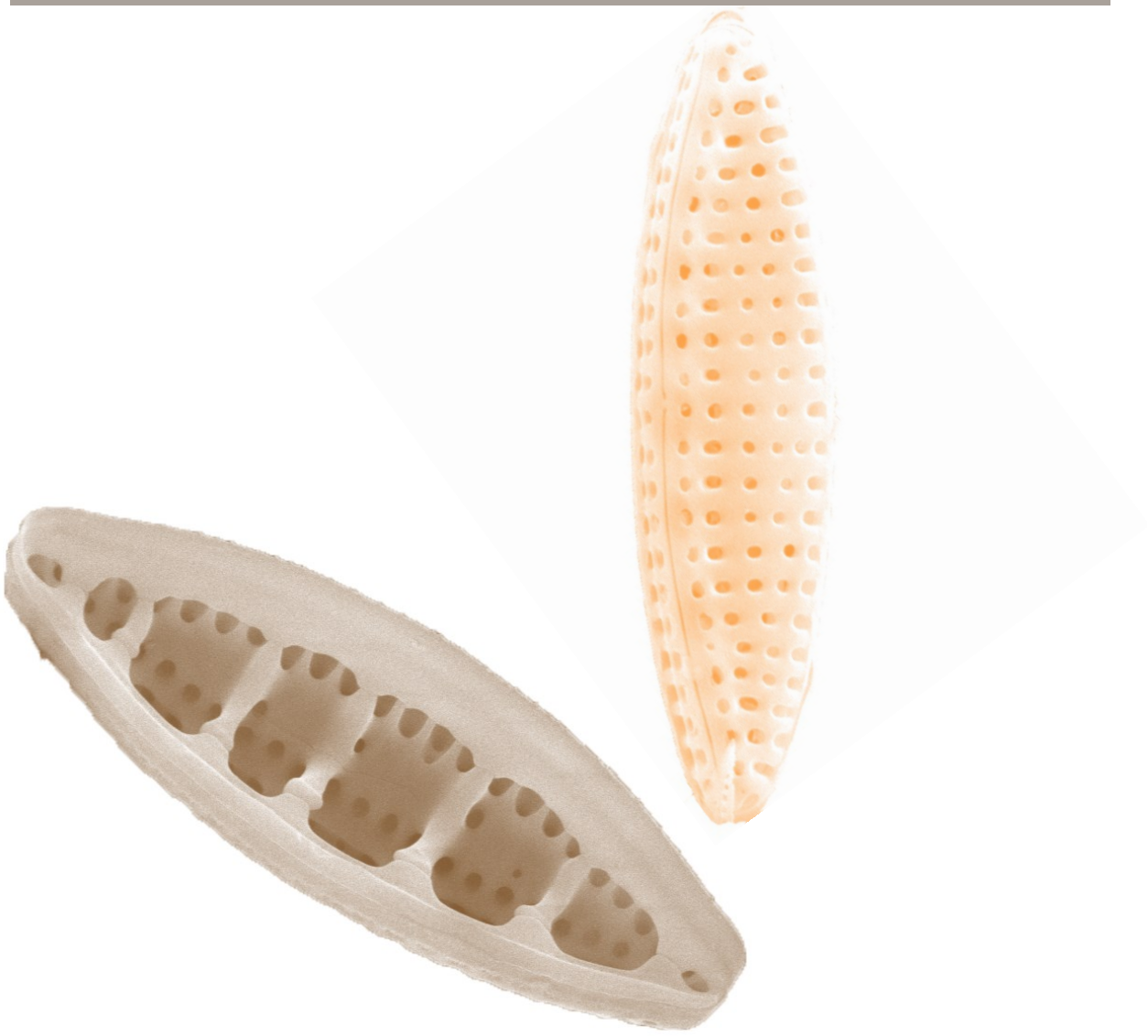
Amphora disimilis (AMDI)

Halamphora submontana (HSMO)

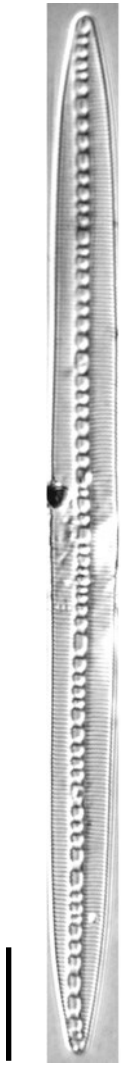


Amphora pediculus (APED)

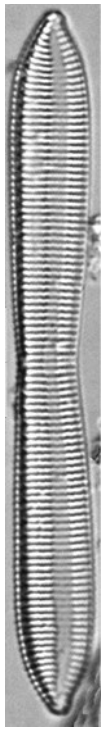
NITZSCHIACÉES, ÉPITHÉMIACÉES & SURIRELLACÉES



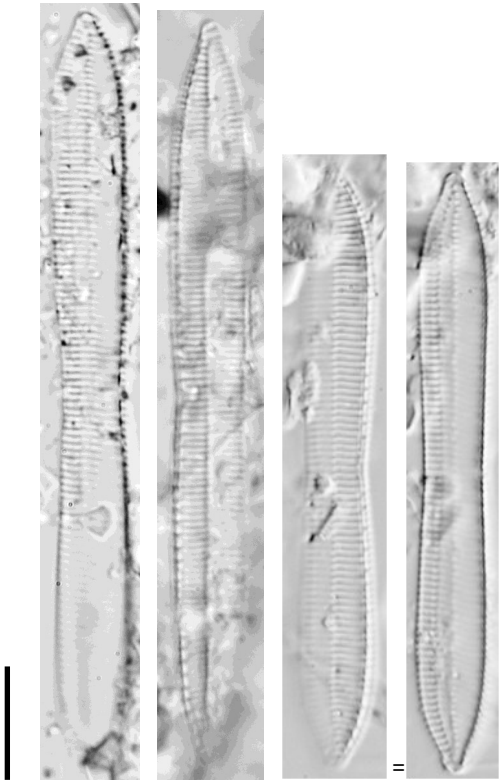
Genres *Bacillaria - Tryblionella*



Bacillaria paxillifera
(BPAX)

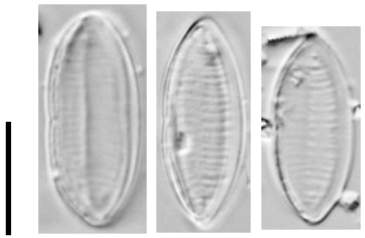


Tryblionella kuentzingii
(TKUE)

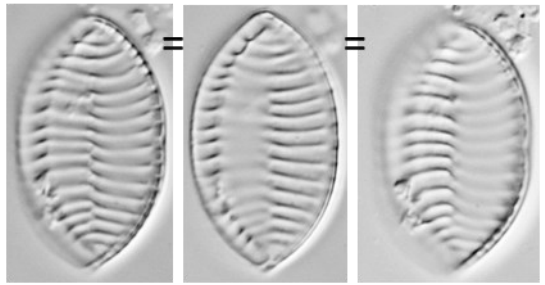


Tryblionella hungarica
(THUN)

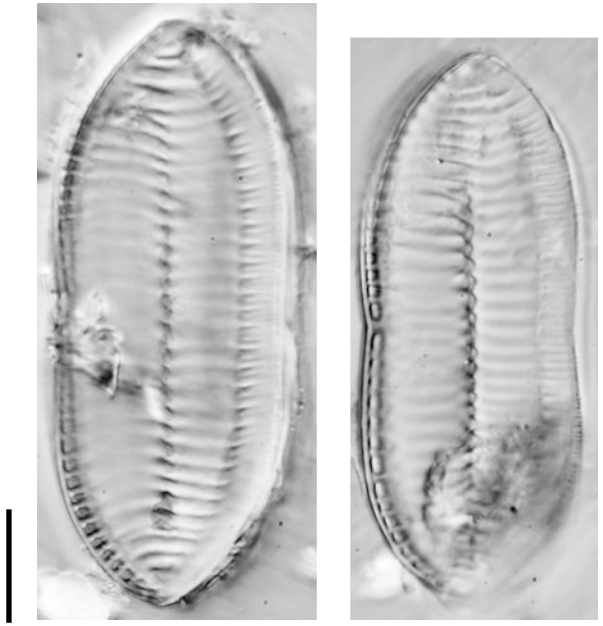
Genre *Tryblionella*



Tryblionella debilis
(TDEB)

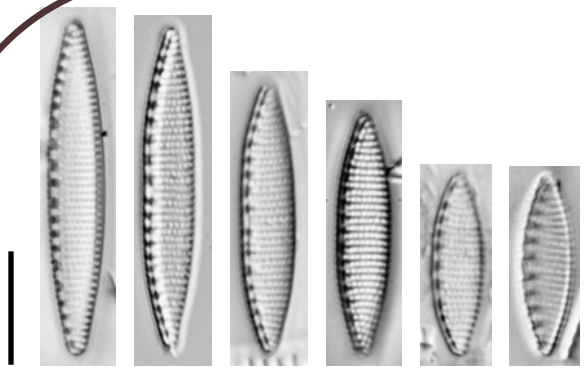


Tryblionella levidensis
(TLEV)

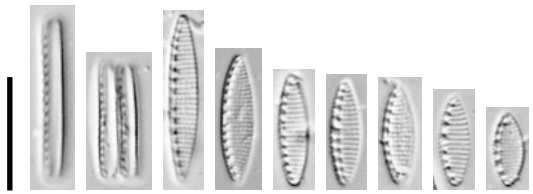


Tryblionella victoriae
(TVIC)

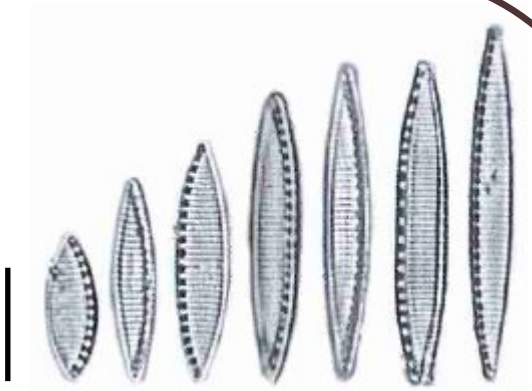
Genre *Nitzschia*



Nitzschia amphibia (NAMP)

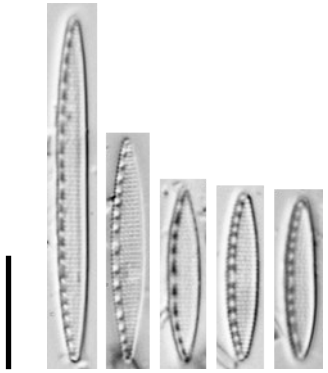


Nitzschia inconspicua (NINC)

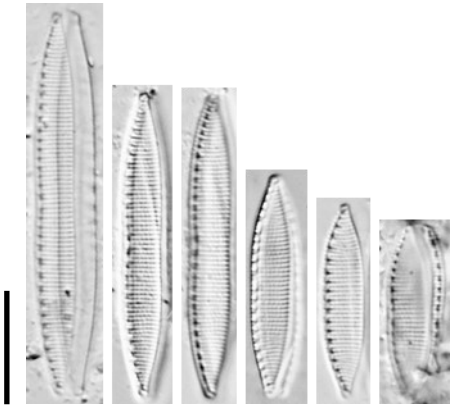


Nitzschia liebetrhthii (NLBT)

Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.

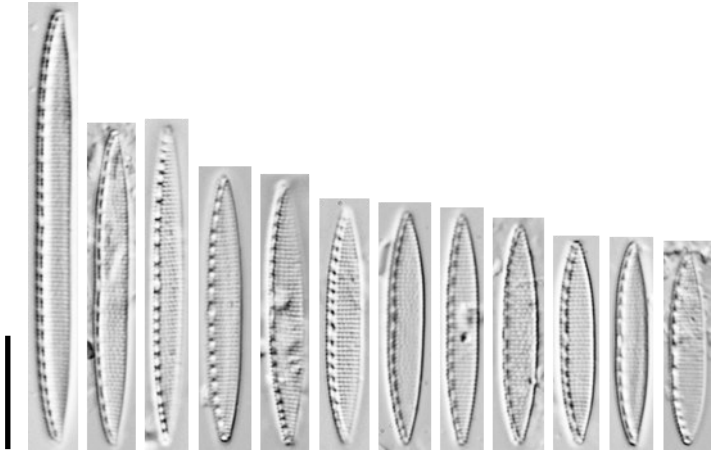


Nitzschia brevior (NBRV)



Nitzschia hiengheneana (NIHI)

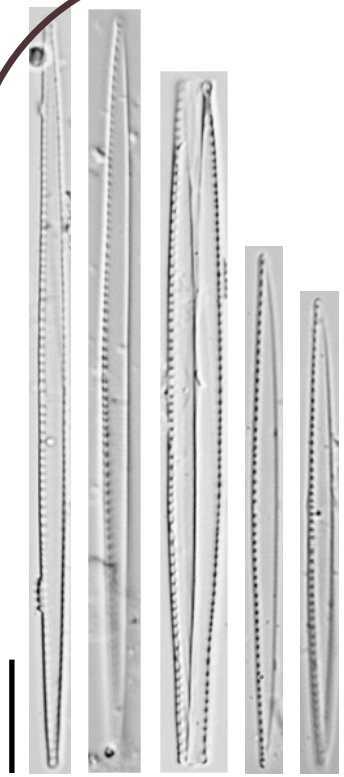
Nitzschia supralitorea (NZSU)



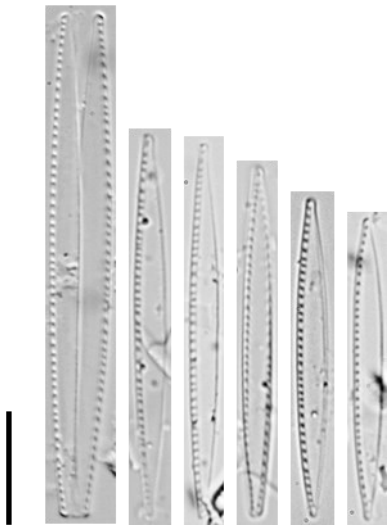
Nitzschia frustulum var. frustulum (NIFR)

Extrait : Moser, G., Lange-Bertalot, H. and Metzeltin D. 1998. Inselder Endemiten. Geobotanisches Phänomen Neukaledonien. Bibliotheca Diatomologica 38:234 pp.

Genre *Nitzschia*

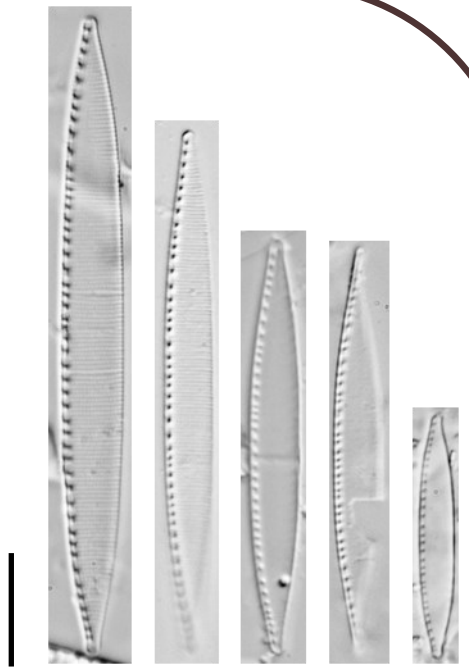


Nitzschia bacata (NZBA)

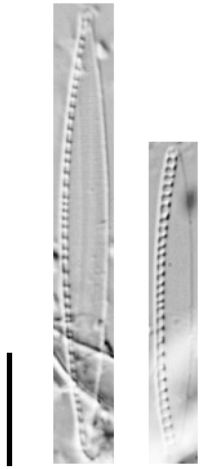


Nitzschia palea var. debilis (NPAD)

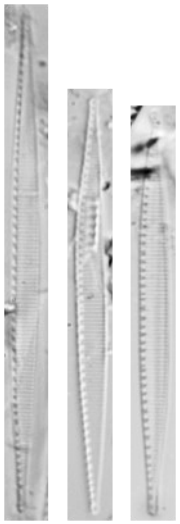
Nitzschia paleacea
(NPAE)



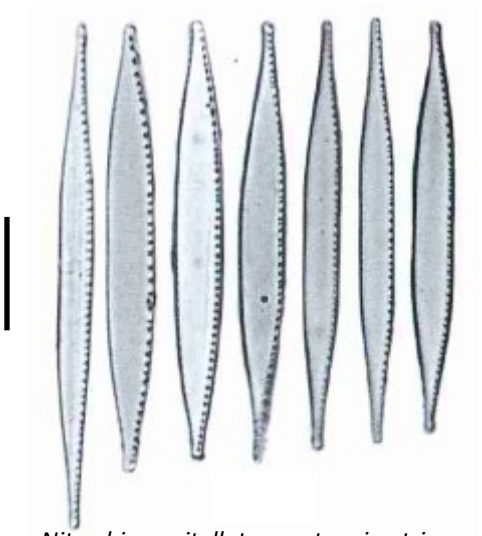
Nitzschia palea (NPAL)



Nitzschia sociabilis
(NSOC)

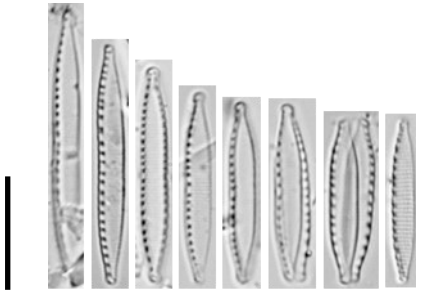


Nitzschia subacicularis
(NSUA)



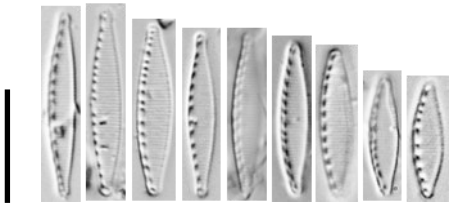
Nitzschia capitellata var. tenuirostris
(NCTN) Extrait Hoffman (2011)

Genre *Nitzschia*



Nitzschia acidoclinata (NACD)

Nitzschia archibaldii (NIAR)

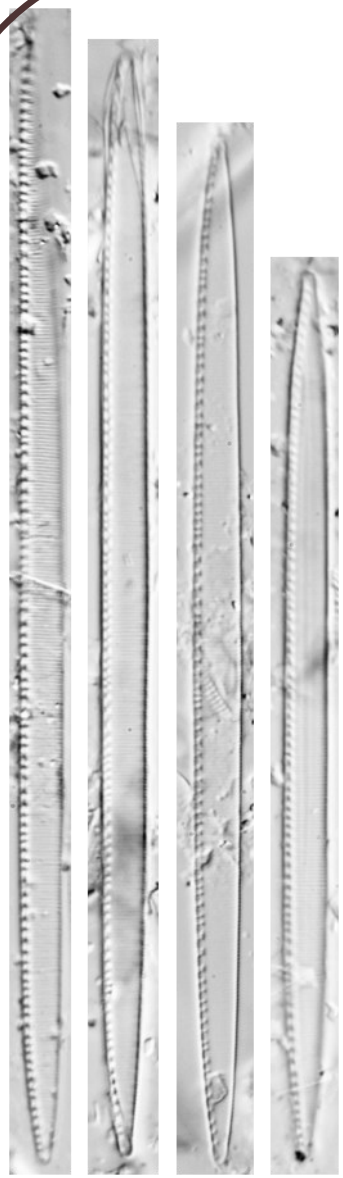


Nitzschia labella (NLAL)

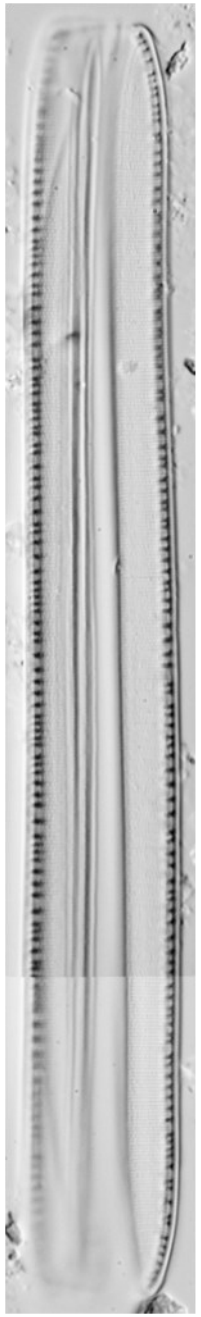
Nitzschia neocaledonica (NNCA)

Extrait : Moser, G., Lange-Bertalot, H. and Metzeltin D. 1998. Insel der Endemiten. Geobotanisches Phänomen Neukaledonien. Bibliotheca Diatomologica 38:234 pp.

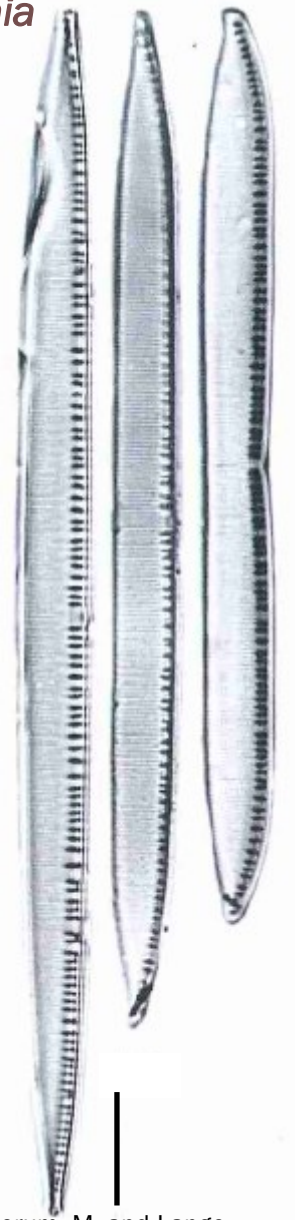
Genre *Nitzschia*



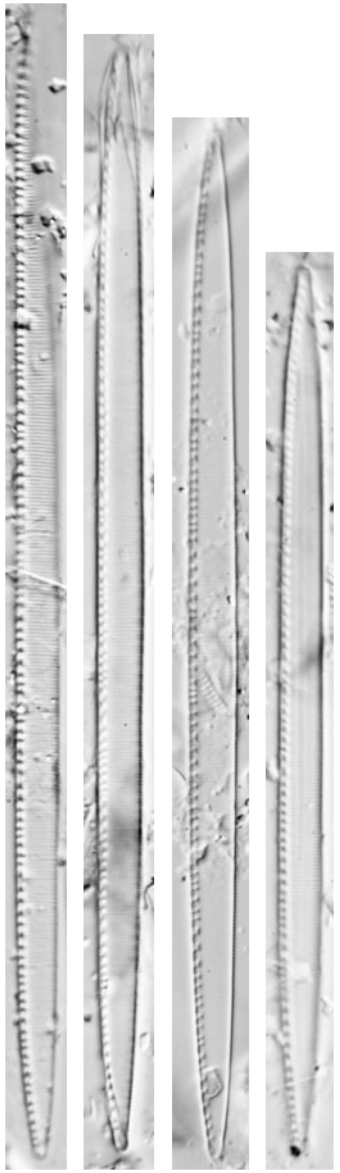
Nitzschia intermedia (NINT)



Nitzschia ingenua (NIGE)



Nitzschia linearis (NLIN)

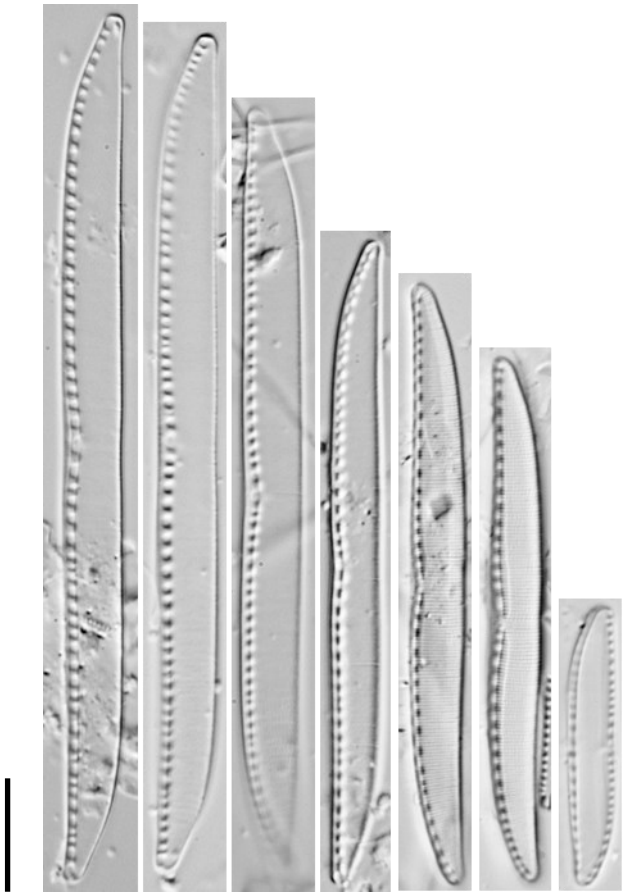


Nitzschia philippinarum (NPHL)

Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.

Genre *Nitzschia*

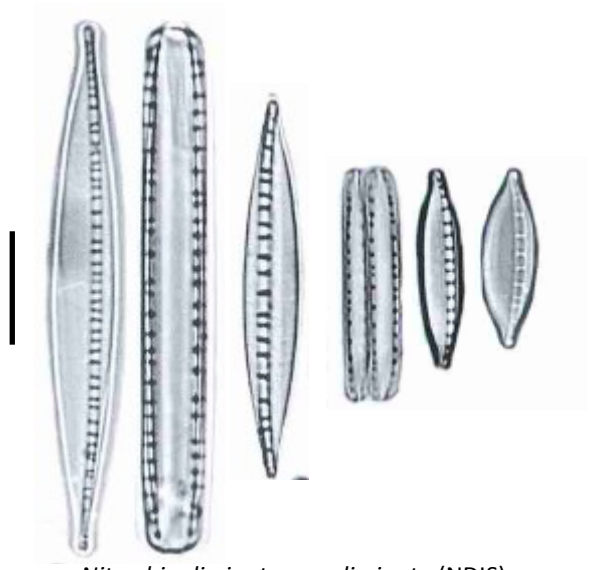
Nitzschia lorenziana
(NLOR)



Nitzschia scalpelliformis (NISC)

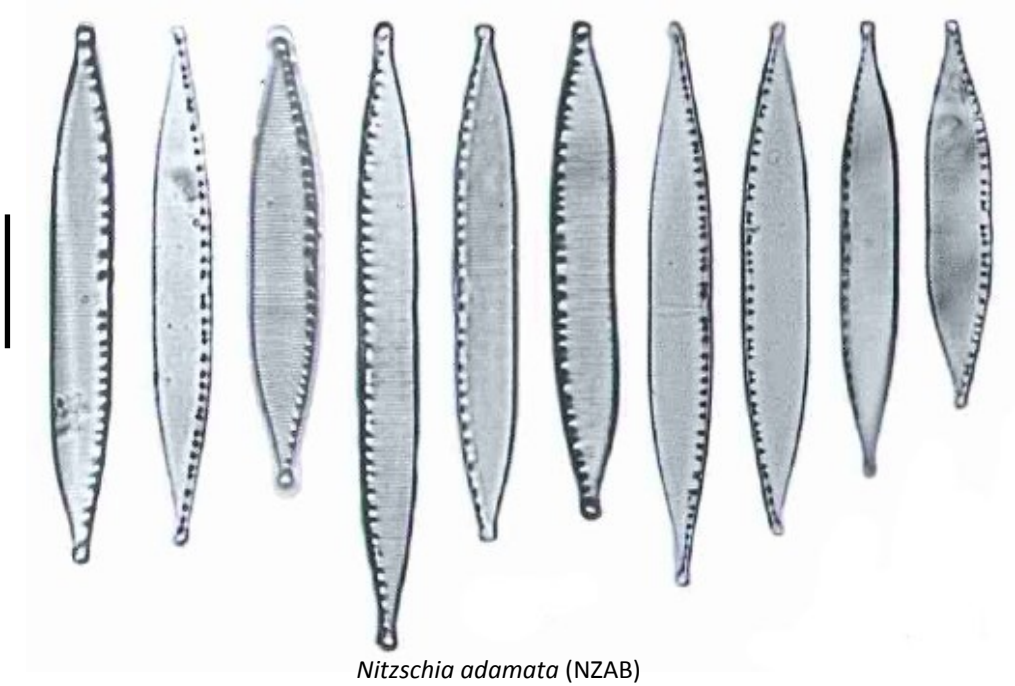
Nitzschia clausii
(NCLA)

Genre *Nitzschia*



Nitzschia dissipata var. dissipata (NDIS)

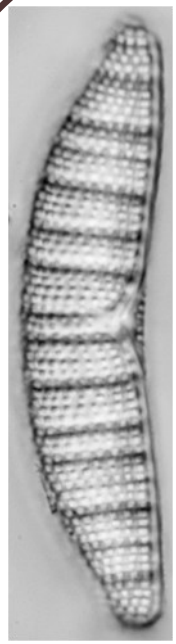
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



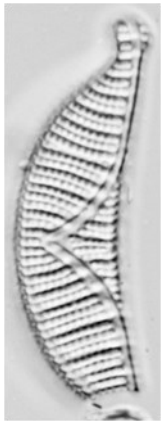
Nitzschia adamata (NZAB)

Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.

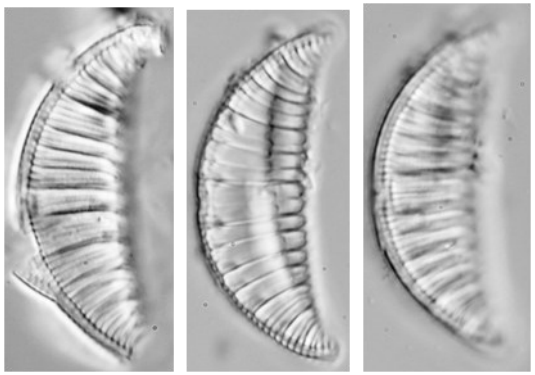
Genres Epithemia - Rhopalodia



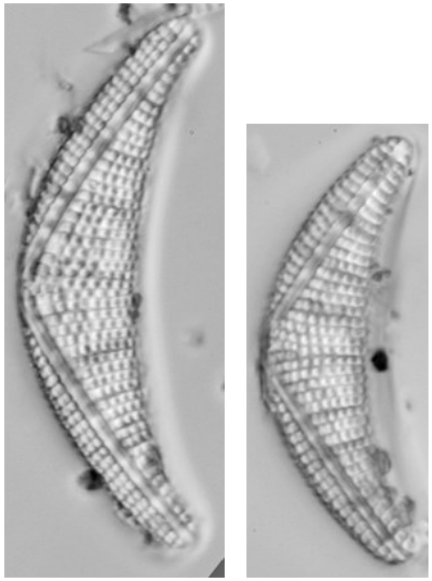
Epithemia adnata (EADN)

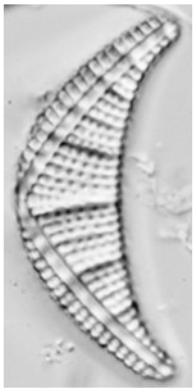


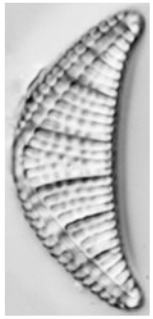
Epithemia sorex (ESOR)



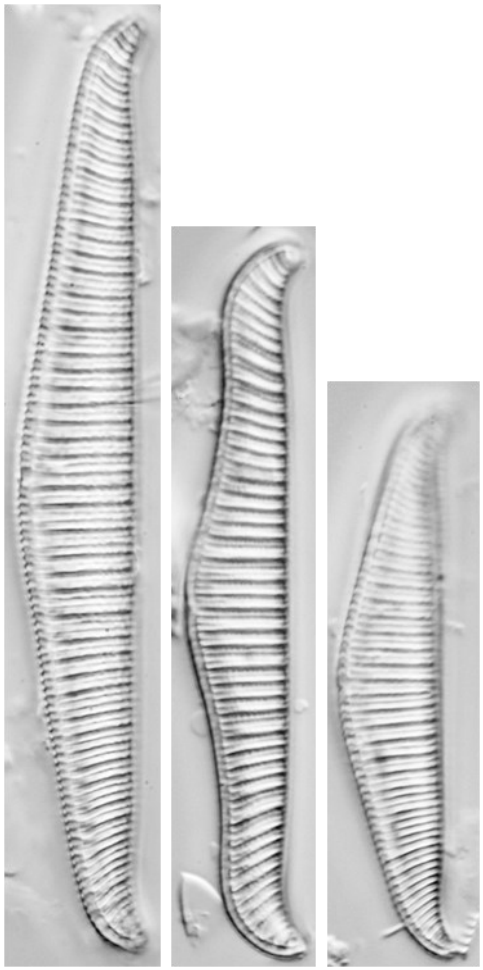
Rhopalodia operculata (ROPE)





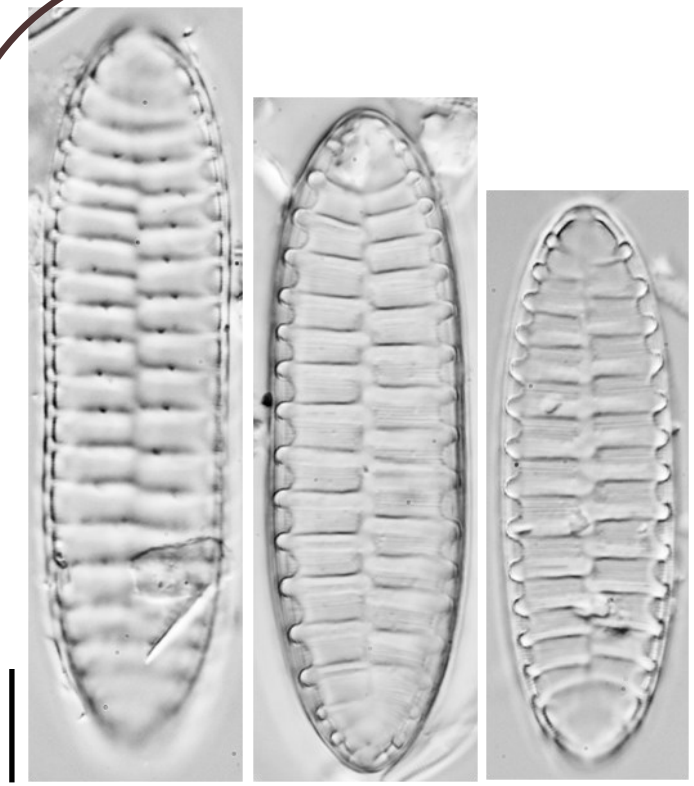


Epithemia krammeri (EKRM)

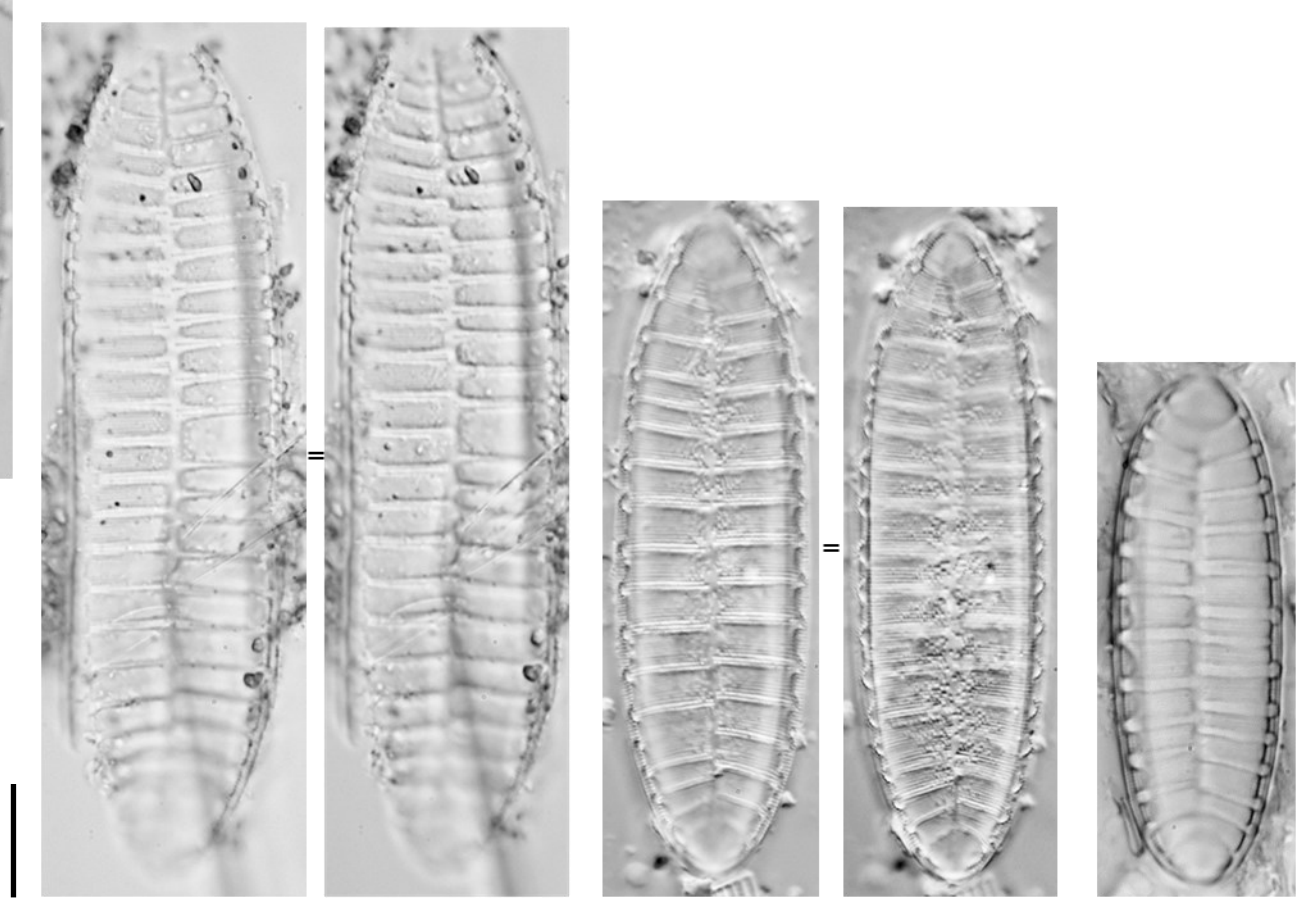


Rhopalodia gibba var. *gibba* (RGIB)

Genre *Surirella*



Surirella neocaledonica fo. Punctata (SNPU)



Surirella neocaledonica (SUNE)

Résumé :

En métropole comme en Europe continentale, les diatomées benthiques sont considérées de longue date comme un compartiment d'intérêt pour surveiller la qualité des milieux aquatiques, et de nombreux pays ont pu développer ou utiliser des indices biotiques basés sur l'abondance relative des différentes espèces composant les communautés diatomiques. La Directive-Cadre sur l'Eau (DCE), adoptée depuis le 23/10/2000 par l'Union Européenne, est venue conforter l'importance de ces indices biotiques en préconisant la prise en compte de l'état écologique au même titre que l'état chimique, et en s'appuyant pour cela sur quelques maillons biologiques-clés dont font partie, pour les cours d'eau, les diatomées benthiques, au même titre que les poissons ou les macro-invertébrés. La Nouvelle Calédonie, du fait de son statut juridique, n'est pas partie intégrante de l'Union Européenne, et La DCE n'a pas vocation légale à s'appliquer. Cependant la gestion intégrée de la ressource en eau est une préoccupation importante des gestionnaires de ce territoire considéré comme un hot-spot de biodiversité. Même s'il existe à l'heure actuelle un indice biotique basé sur la composition des communautés de macro-invertébrés benthiques validé dans le contexte très spécifique de la Nouvelle-Calédonie, l'Indice Biotique de Nouvelle-Calédonie (IBNC, Mary 1999), d'autres tentatives complémentaires n'ont pas encore débouché sur des produits suffisamment aboutis (exemple de l'Indice Bio-Sédimentaire ou IBS, lui aussi basé sur les macro-invertébrés et destiné à évaluer les altérations latéritiques dues à l'activité minière). En fonction de succès récents de démarches de création d'indices diatomiques dans des conditions ultramarines relativement comparables à celles de la Nouvelle-Calédonie (création de l'IDR à la Réunion en 2012, de l'IDA aux Antilles à partir de 2013), un projet comparable s'échelonnant sur 4 ans a été entrepris en Nouvelle Calédonie à partir d'Octobre 2012, à l'initiative de l'OEIL et avec l'appui de la DAVAR et des Provinces. Ce programme, qui a bénéficié de la précieuse collaboration locale de BioeKo et de la réalisation d'une thèse CIFRE financée par l'ANRT (thèse de Julien Marquié, Asconit Consultants, dirigée par Michel Coste d'Irstea), a été réalisé en intégralité par le consortium Asconit Consultants – Irstea. L'acquisition d'environ 220 relevés couplant inventaires diatomiques et conditions chimiques à la station a été réalisée à la faveur de 4 campagnes de prélèvement positionnées de façon équilibrée sur les 2 saisons climatiques principales. Un gros challenge initial de ce programme était d'arriver à identifier ces espèces locales, dont beaucoup sont endémiques et dont la grande majorité était encore fortement méconnue jusqu'à la présente étude. Ce point critique a pu être finalement résolu au moyen d'une bibliographie taxonomique réalisée à l'échelle mondiale, avec les difficultés inhérentes à cet exercice que sont l'accès aux ressources documentaires et les aspects linguistiques, la taxonomie ne connaissant pas de frontières… Ces échantillons ont ensuite fait l'objet d'identification et de comptages en abondances relatives, et les inventaires diatomiques ainsi obtenus ont été analysés afin de mettre en évidence la réponse différenciée des diatomées aux conditions naturelles d'une part, aux différentes altérations anthropiques d'autre part. L'étude s'est poursuivie par l'analyse biomathématique finale des données, afin d'établir les profils écologiques des espèces et de concevoir le nouvel Indice Diatomique pour la Nouvelle-Calédonie (IDNC). Outre la fourniture du nouvel indice diatomique, les autres livrables prévus de ce programme sont composés d'un guide iconographique des principaux taxons présents en Nouvelle-Calédonie, d'un guide méthodologique et de l'organisation sur place d'une formation d'acteurs locaux en fin de programme pour accompagner le transfert opérationnel de cette nouvelle méthode.

Le présent guide iconographique est destiné à permettre l'identification fiable des taxons qui sont pris en compte dans le calcul de la note d'IDNC (taxons indiciels). En effet, leur bonne reconnaissance est un élément important pour garantir la bonne application de la méthode et la robustesse du résultat. Bénéficiant de l'expérience antérieure capitalisée dans le cadre des programmes précédents conduits aux Antilles et à la Réunion, il est composé de 2 volumes : le Volume 1 décrit chaque taxon individuellement. **Le présent Volume 2**, pour sa part, compile des illustrations de taxons morphologiquement proches afin de pouvoir les comparer et de faciliter leur identification en routine.

OEIL

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