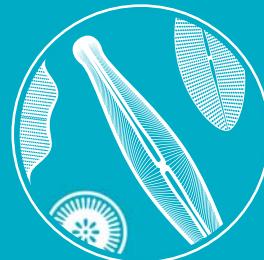


Les diatomées benthiques des cours d'eau de Nouvelle-Calédonie,

Volume 2



Marquié J., Lefrançois E.

ASCONIT

Boutry S., Coste M., Delmas F.

IRSTEA

2018



Observatoire de
l'environnement
Nouvelle-Calédonie



GOUVERNEMENT DE LA
NOUVELLE-CALÉDONIE

CNRT NICKEL
& son environnement

ASCONIT
ingénierie écologique

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Référence bibliographique du présent document :

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¹ : Asconit

² : Irstea – Unité de recherche "Écosystèmes aquatiques et changements globaux" (EABX), Équipe "Contaminants Anthropiques et Réponses des Milieux Aquatiques" (CARMA)

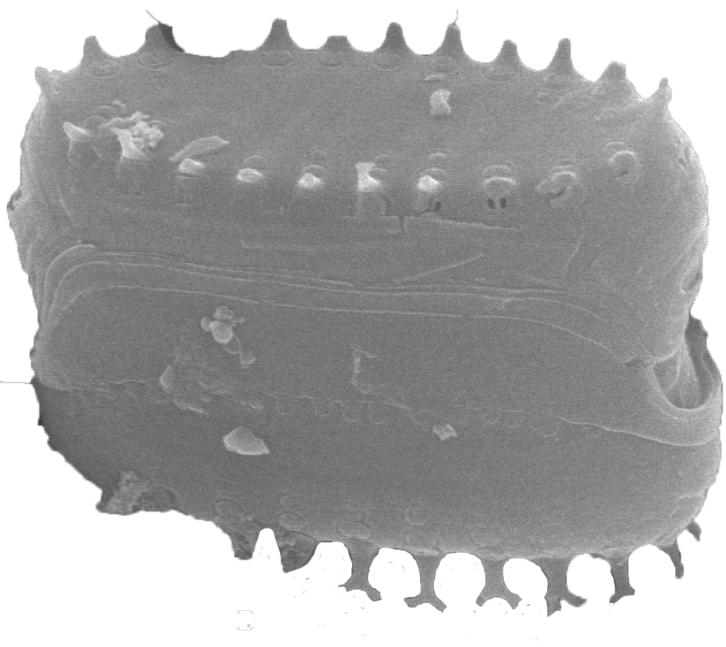
INTRODUCTION

Le présent guide iconographique est destiné à permettre l'identification 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, le second compile des illustrations de taxons morphologiquement proches afin de faciliter leur identification en routine.

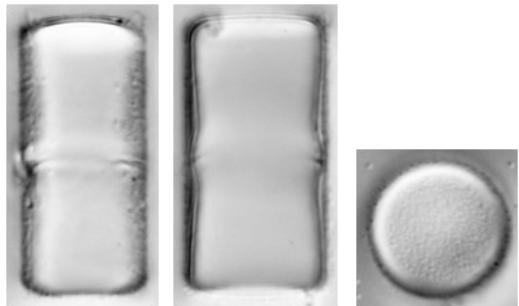
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Naviculacées : Cymbelloïdées & Gomphonematoidées.....	Page 19
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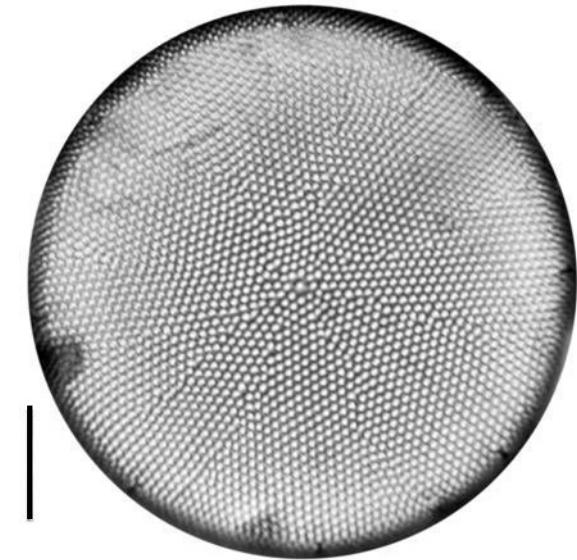
CENTROPHYCIDÉES, ARAPHIDÉES & BRACHYRAP HIDÉES



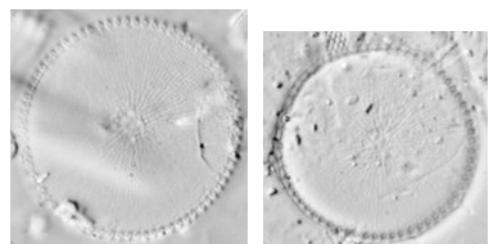
Genres *Melosira* - *Actinocyclus* - *Conticriba* - *Aulacoseira*



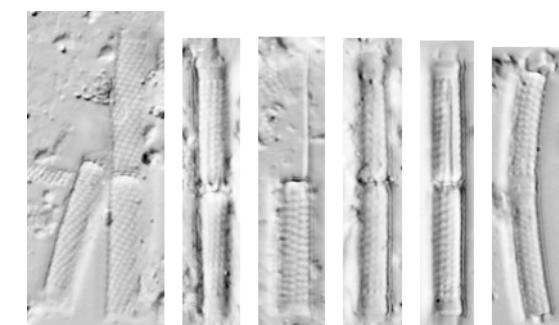
Melosira varians (MVAR)



Actinocyclus tropicus (ATPI)

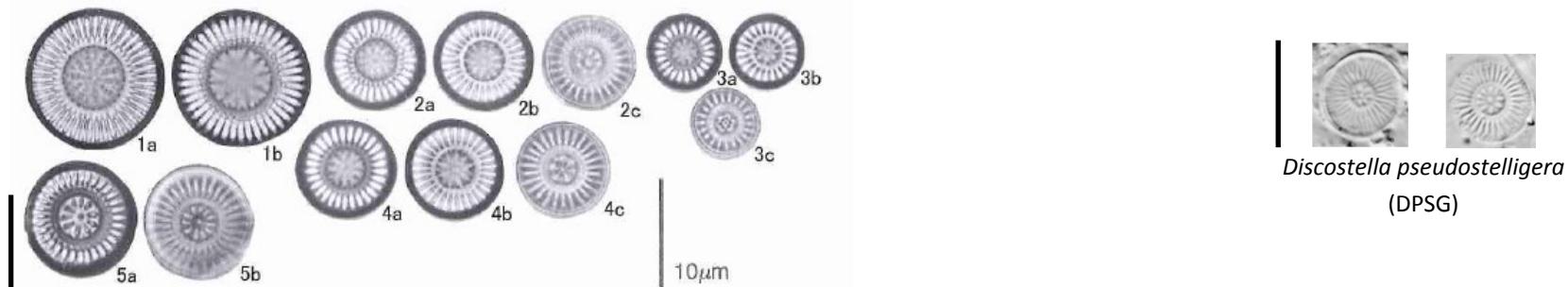


Conticriba weissflogii (CTWE)



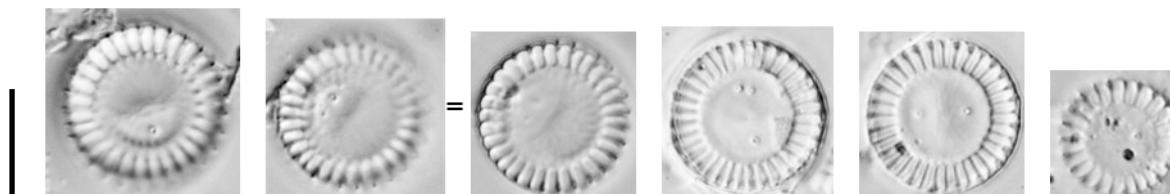
Aulacoseira granulata var.
angustissima (AUGA)

Genres *Discostella* - *Cyclotella*



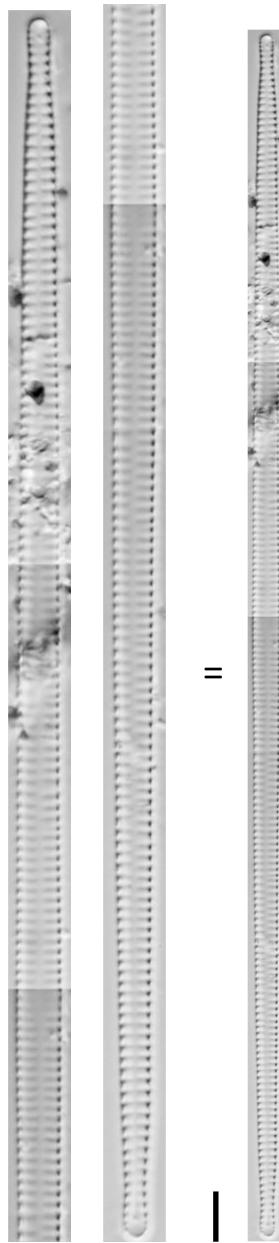
Discostella stelligera car. Tenuis (DSTT)

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 (Bacillariophyta) in Japan. *Bibliotheca Diatomologica* 53: 1-205

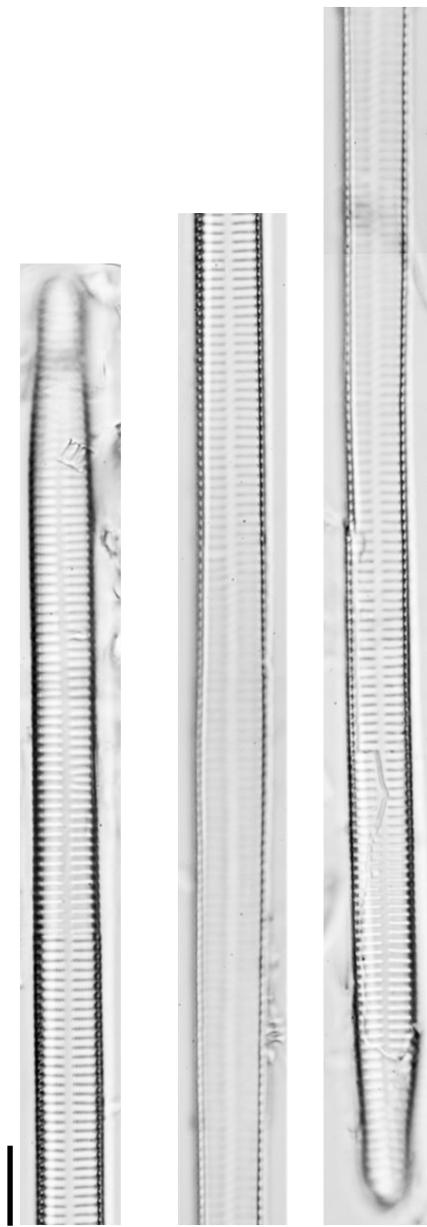


Cyclotella meneghiniana (CMEN)

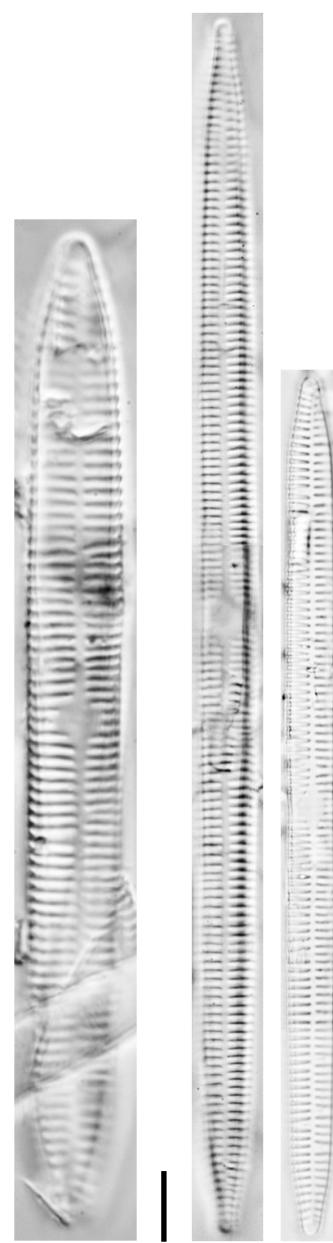
Genres *Ulnaria* - *Fragilaria*



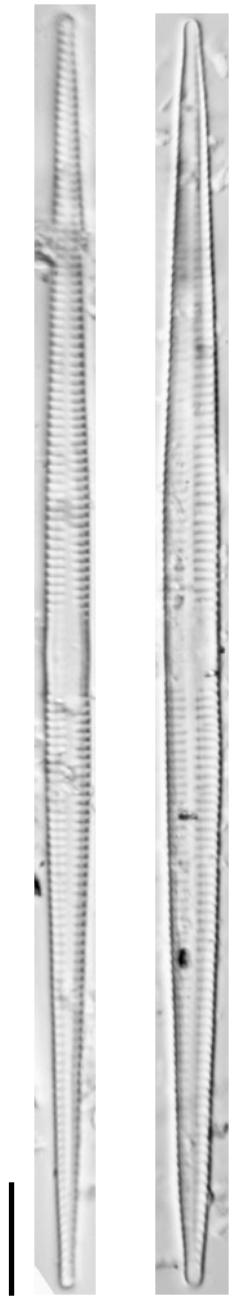
Ulnaria lanceolata (ULAN)



Ulnaria pseudogaillonii (UPSG)

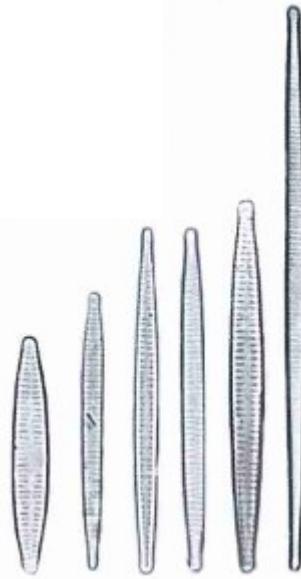


Ulnaria ulna (UULN)



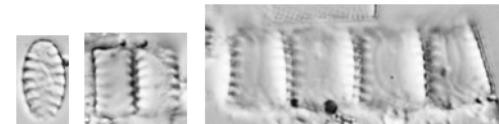
Fragilaria tenera (FTEN)

Genre *Fragilaria*

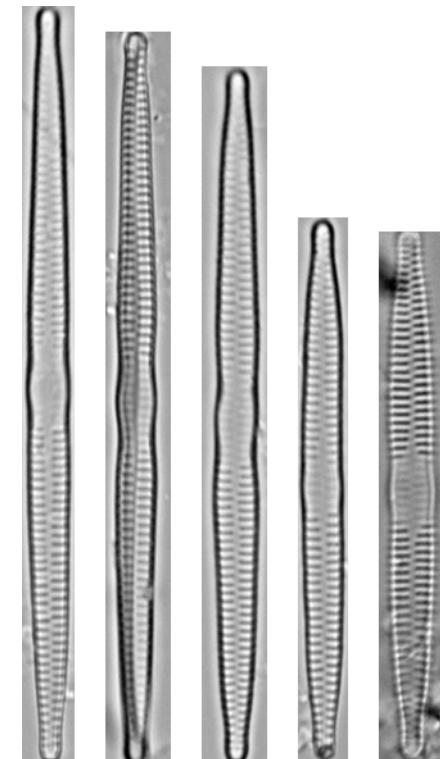


Fragilaria gracilis (FGRA)

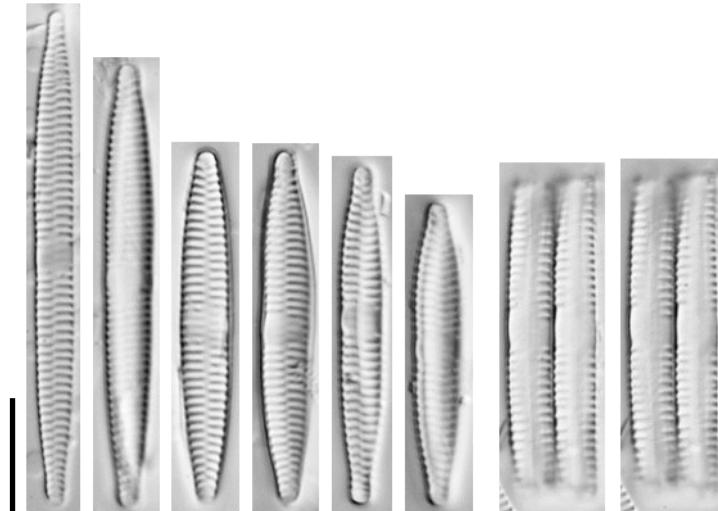
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



Fragilaria viereckiana (FVRK)



Fragilaria pararumpens (FPRU)

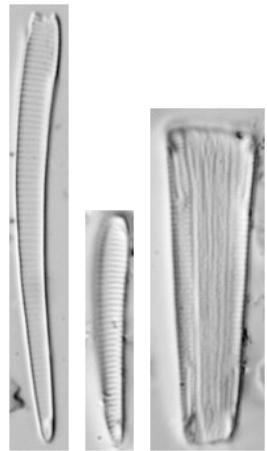


Fragilaria capucina var. *capucina* (FCAP)

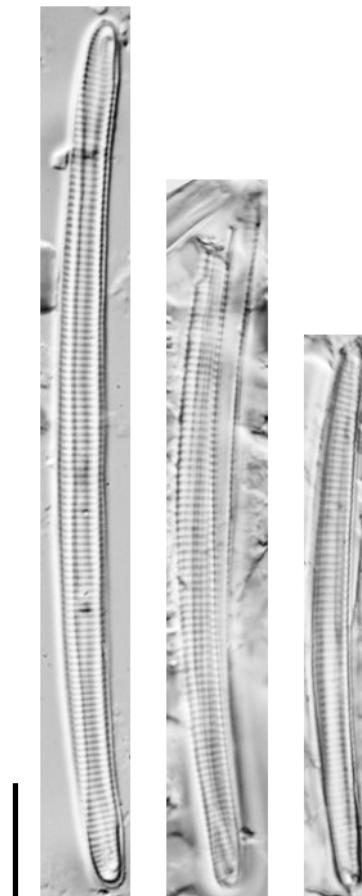


Fragilaria vaucheria
(FVAU)

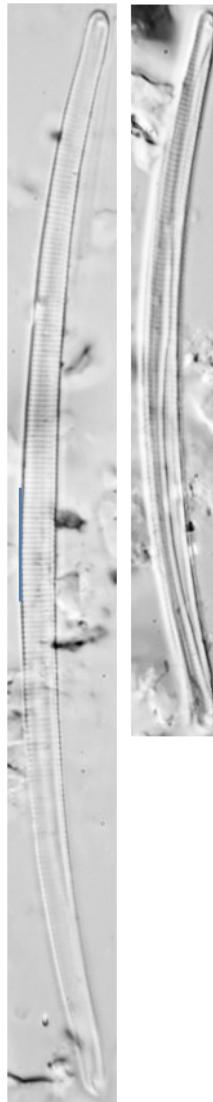
Genres *Actinella* - *Eunotia*



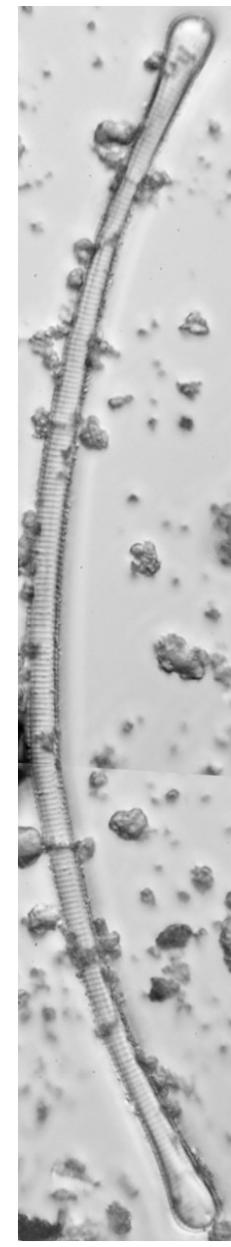
Actinella cuneiformis



Eunotia bilunaris (EBLU)

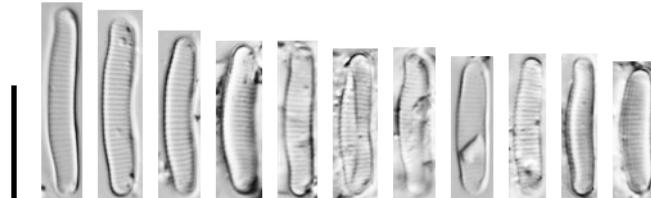


Eunotia sp4 (EUN4)

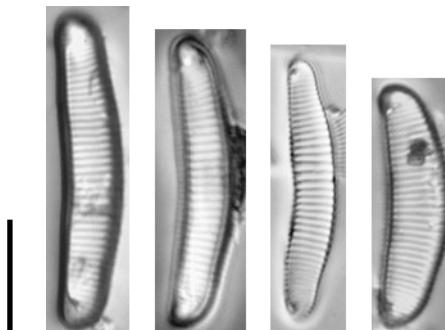


Eunotia ponspendens
(EPPD)

Genre *Eunotia*



Eunotia sp3 (EUN3)

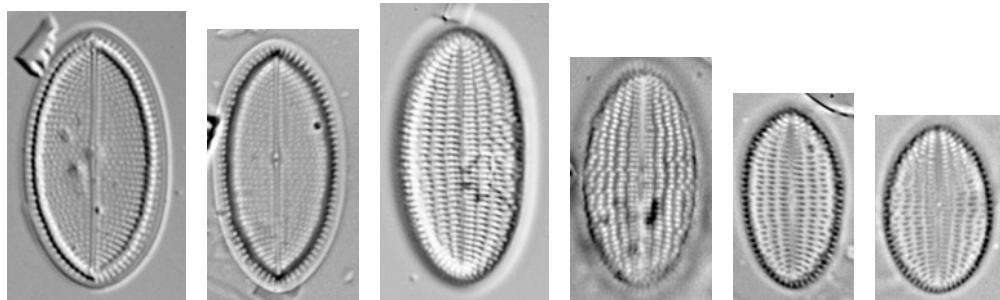


Eunotia australominor
(EAUM)

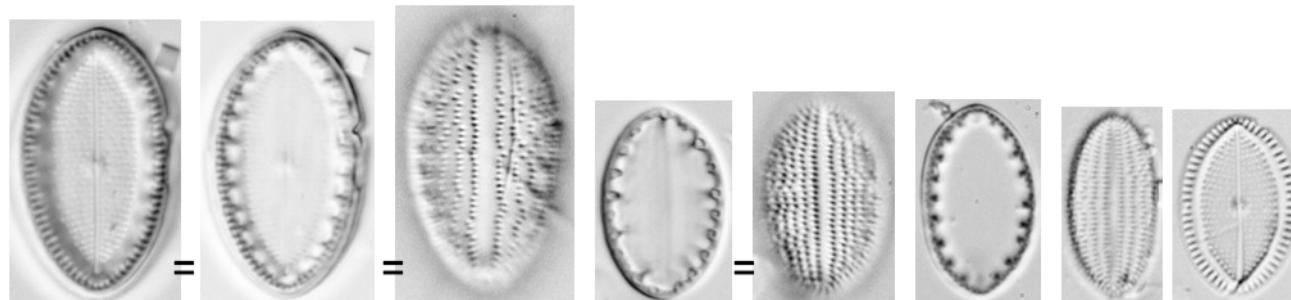
MONORAPHIDEES



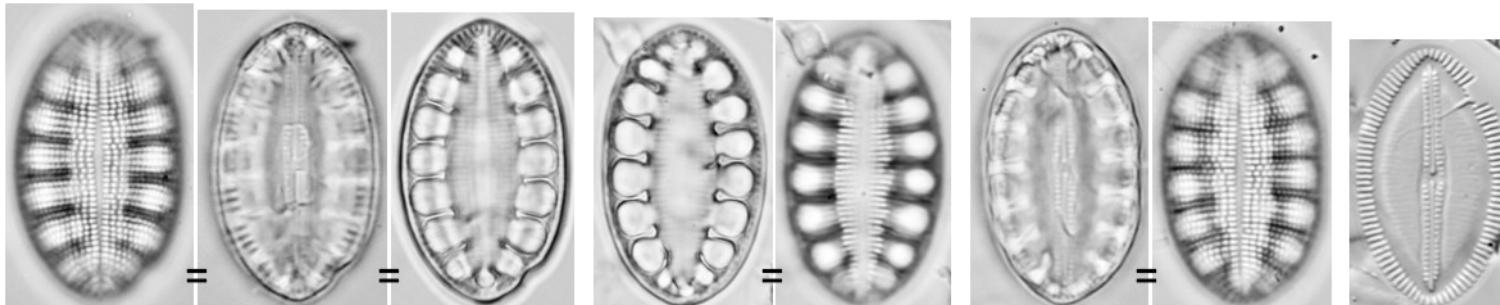
Genres Coccconeis - Xenococcconeis



Coccconeis euglypta (CEUG)

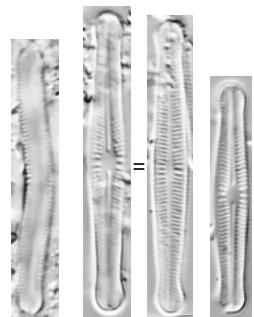


Coccconeis sp1 (COC1)

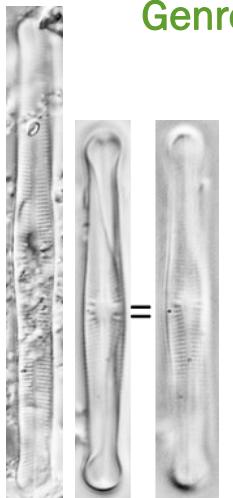


Xenococcconeis neocalledonica (XNEO)

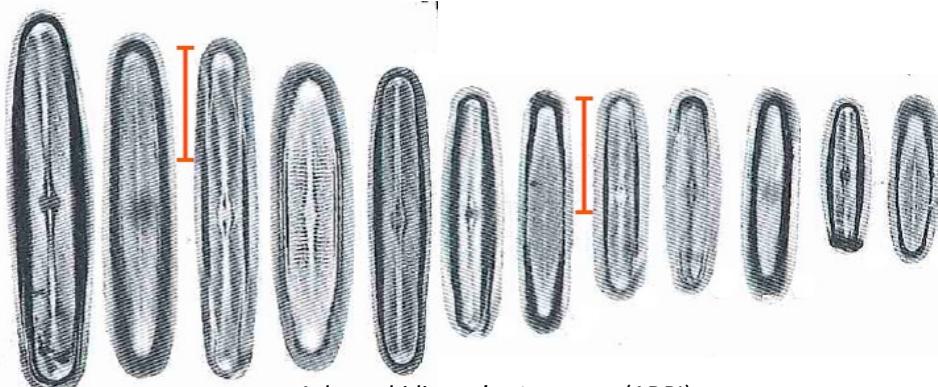
Genres *Achnanthes* - *Achnanthidium*



Achnanthidium blancheanum
(ABLA)

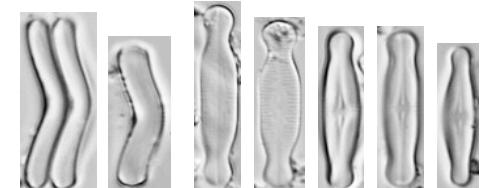


Achnanthes neocalledonica
(ANCL)

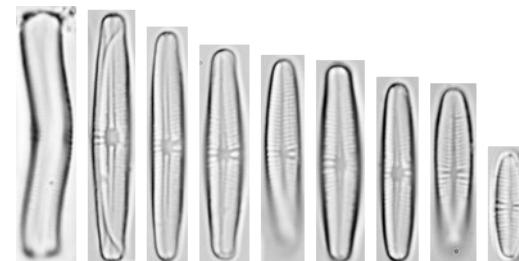


Achnanthidium pirogueanum (ADPI)

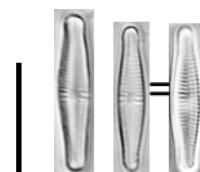
Extrait : Moser, G., Steindorf, A. and Lange-Bertalot, H. 1995. Neukaledonien
Diatomeenflora einer Tropeninsel. Revision der collection Maillard und Untersuchung
neuen materials. *Bibliotheca Diatomologica* 32:340 pp.



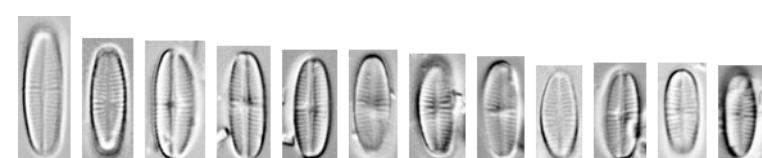
Achnanthidium peroditicum (ADPD)



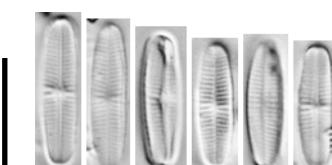
Achnanthidium minutissimum (ADMI)



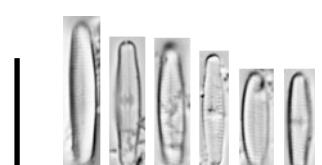
Achnanthidium catenatum
(ADCT)



Achnanthidium sp9 (AC09)

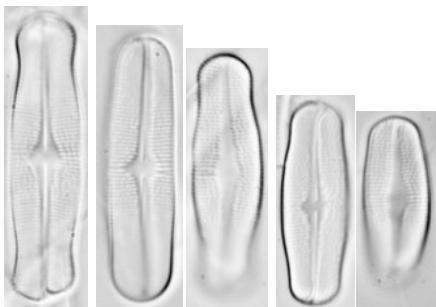


Achnanthidium sp5 (AC05)



Achnanthidium sp17 (AC17)

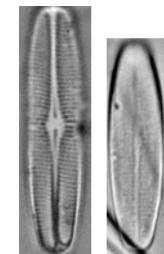
Genre *Achnanthidium*



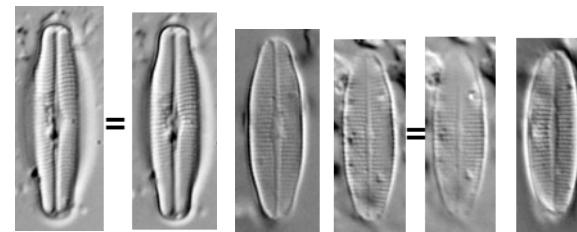
Achnanthidium contrarea (ACTR)



Achnanthidium indicatrix (ADIN)

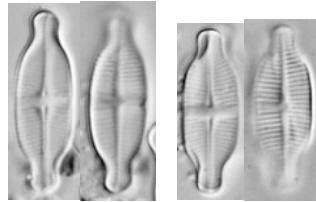


Achnanthidium koghisense (ADKO)

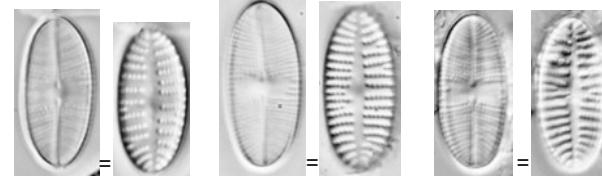


Achnanthidium arcus (AARC)

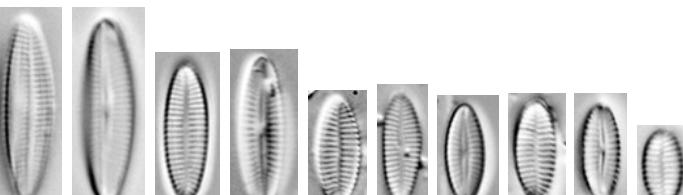
Genres *Achnanthes* -*Achnanthidium* - *Karayevia*



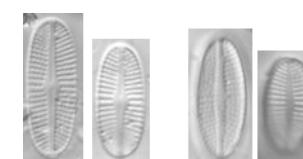
Achnanthidium exiguum (ADEG)



Karayevia oblongella (KOBG)

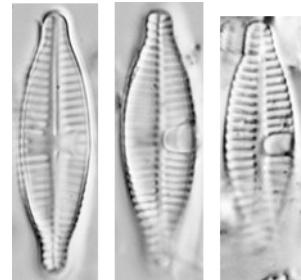


Achnanthes subhudsonis var. *densestriata*
(ASDE)

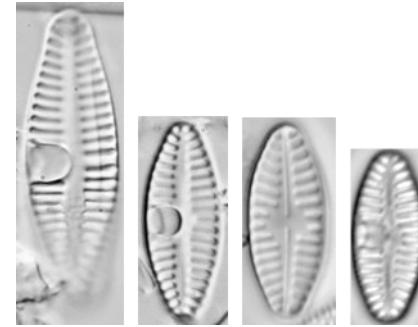


Achnanthes subcrassa (ASBC)

Genres *Planothidium* - *Plateissa*



Planothidium biporum
(PLBI)



Planothidium robustius (PRBU)

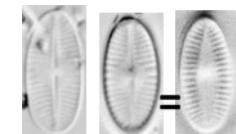


Planothidium minutissimum (PMNT)

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

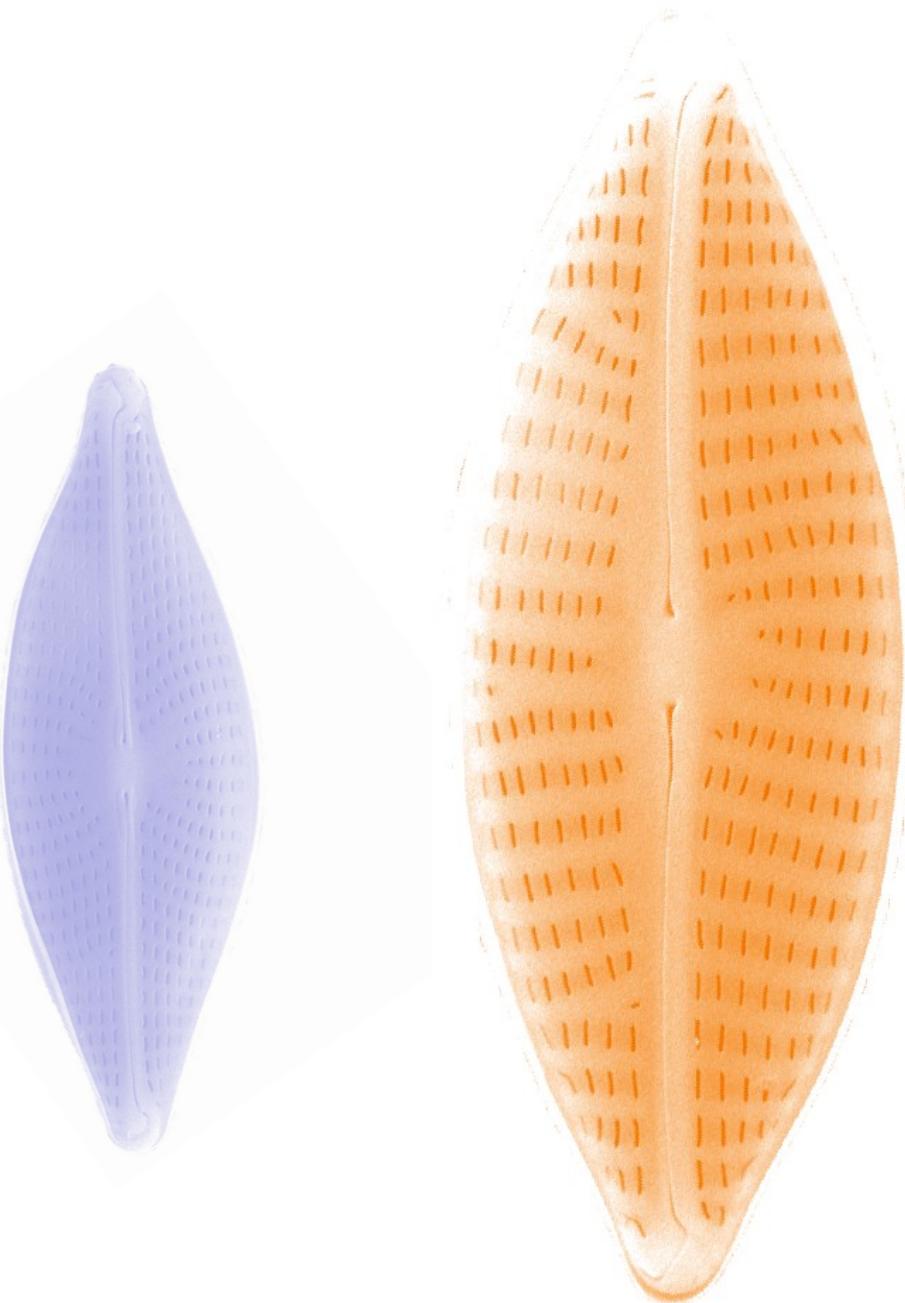


Planothidium
frequentissimum (PLFR)

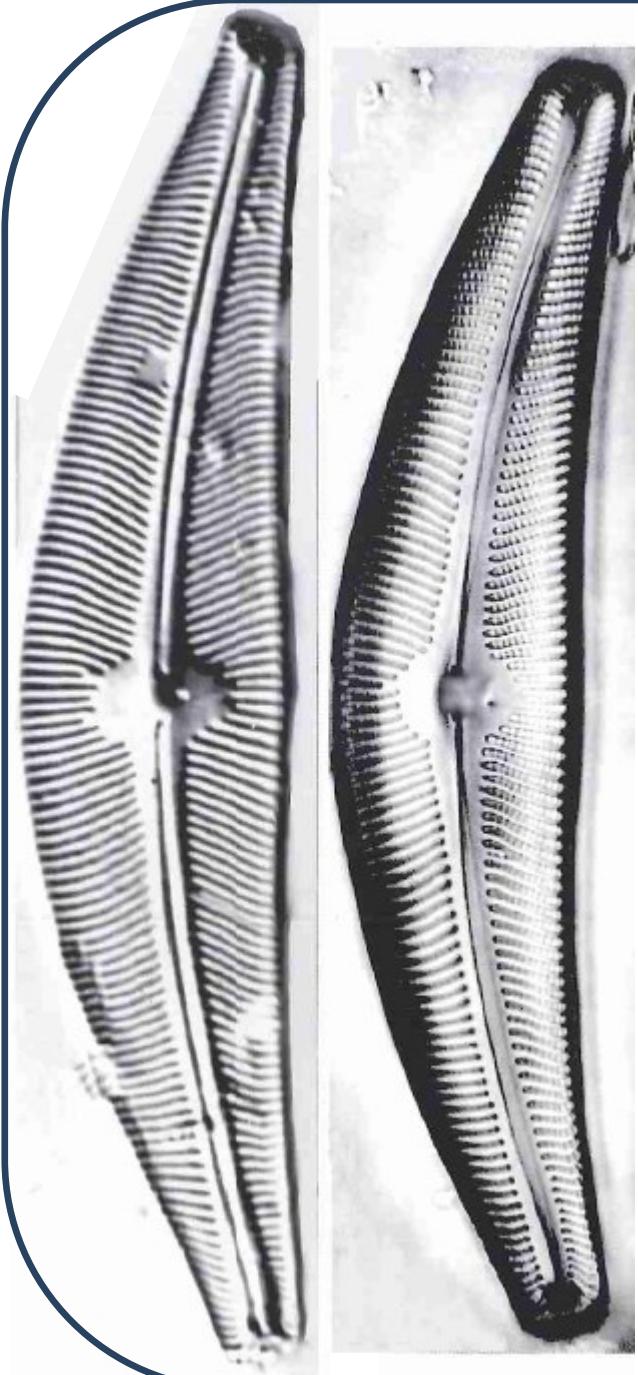


Plateissa hustedtii
(PLHU)

NAVICULACÉES : CYMBELLOIDÉES & GOMPHONEMATOIDÉES

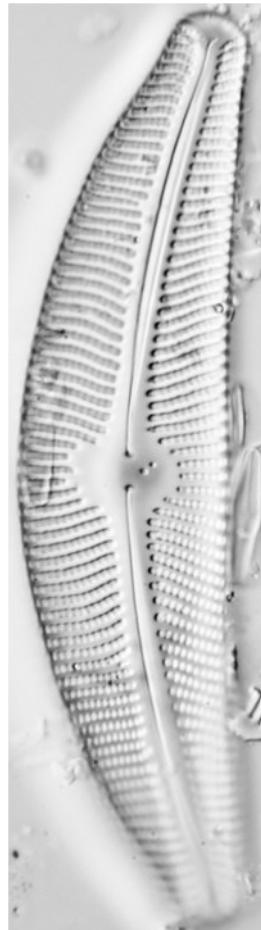


Genre *Cymbella*

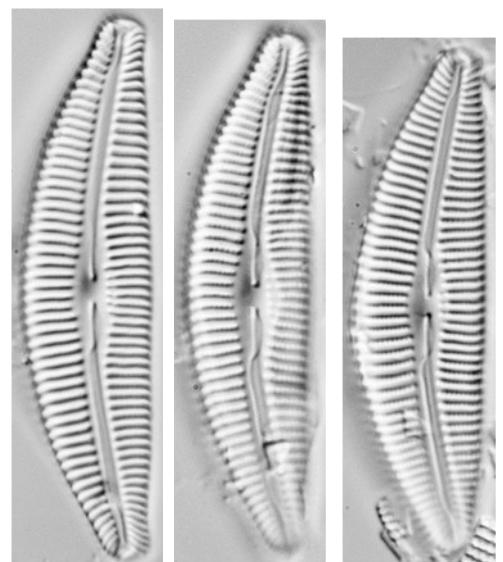
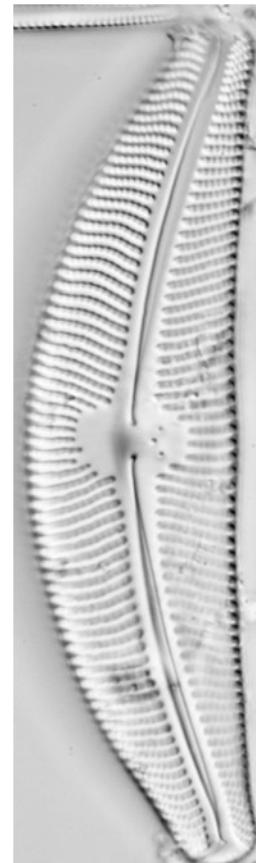


Cymbella australica (CATL)

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.

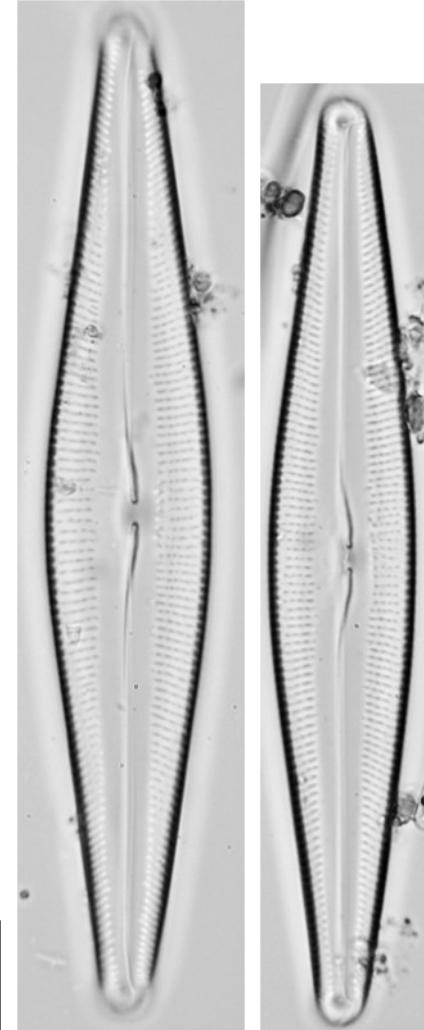


Cymbella tumida (CTUM)

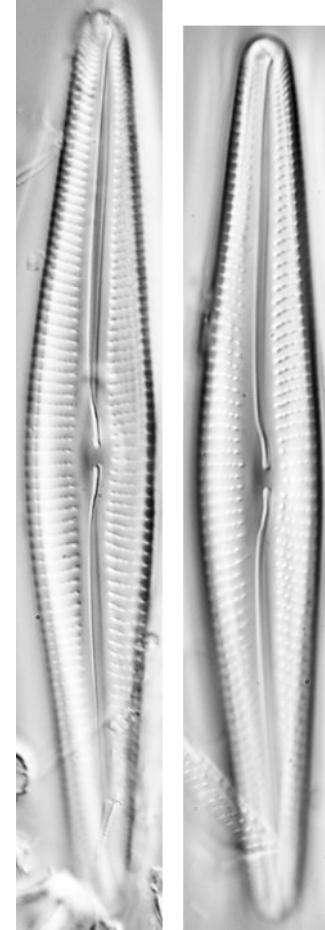


Cymbella novazeelandiana (CNZL)

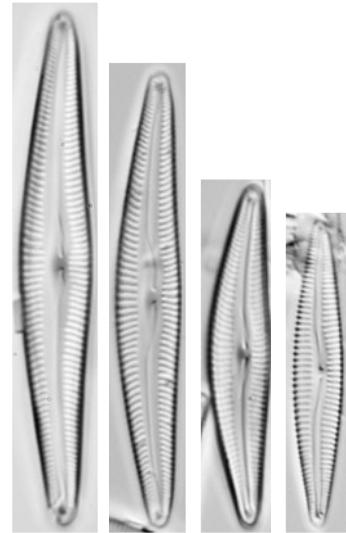
Genres *Cymbella* - *Delicata*



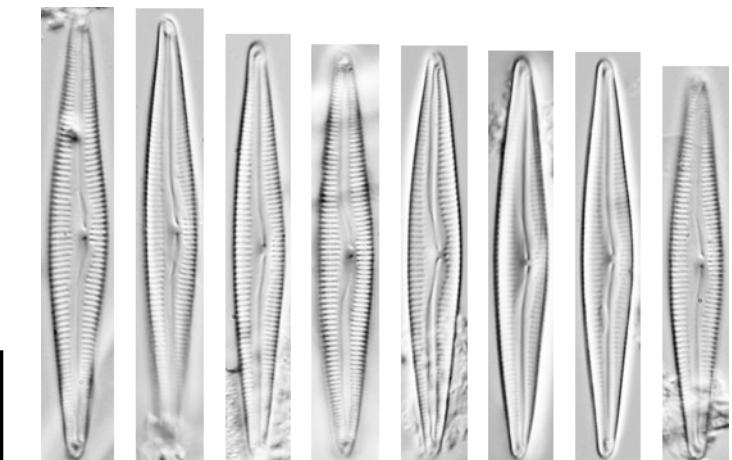
Cymbella laterata (CLTR)



Cymbella pernodensis
(CPND)



Delicata delicatula (DDEL)



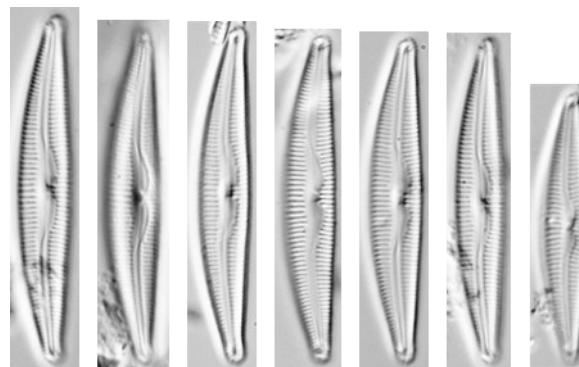
Delicata gadjiana (DGAJ)

Genres *Cymbopleura* - *Delicata*

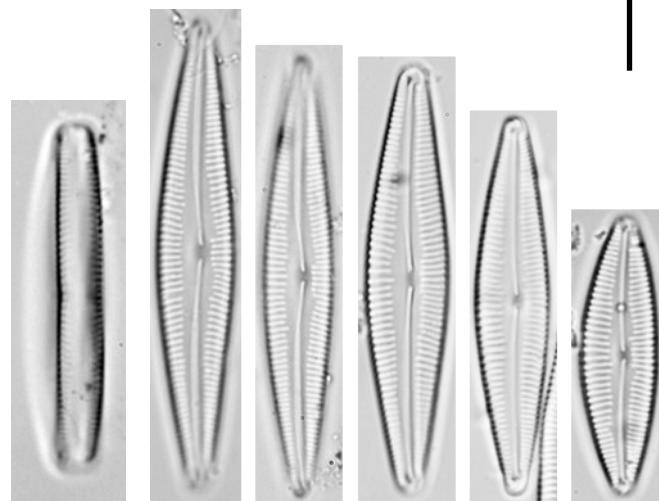


Cymbopleura nekliaensis (CPNE)

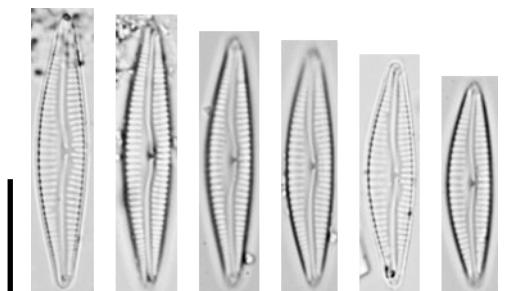
Delicata sp3 (DEL3)



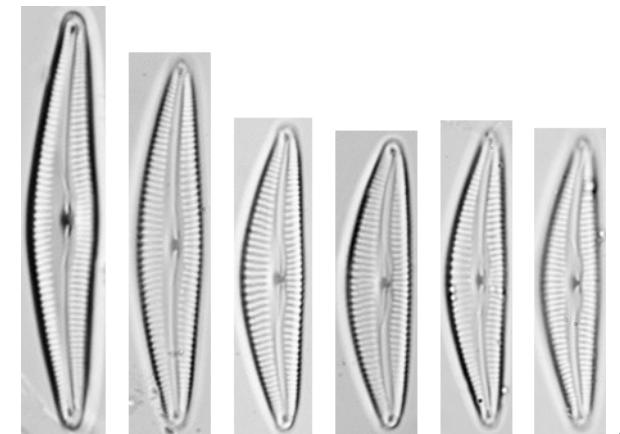
Delicata costei (DCOS)



Cymbopleura yateana (CBYA)



Delicata neocaledonica (DNEO)

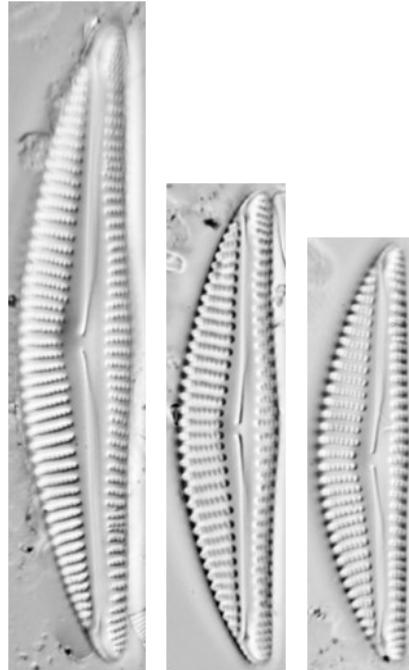


Delicata nepouina (DNEP)

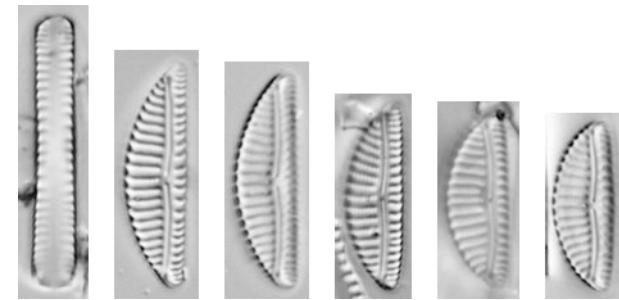
Genre *Encyonema*



Encyonema blancheanum
var. *neocaledonicum* (EBLN)

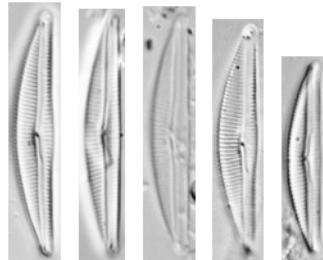


Encyonema affine (ENAF)

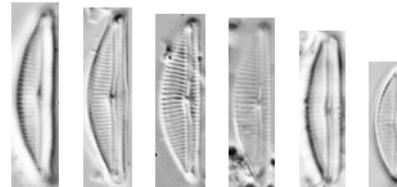


Encyonema silesiacum (ESLE)

Genres *Encyonema* - *Encyonopsis*



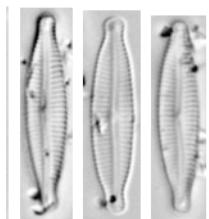
Encyonema tenuissimum (ETNS)



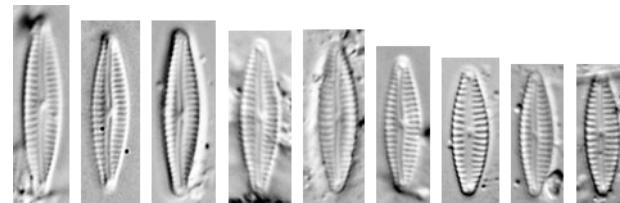
Encyonema tenerum (ETNR)



*Encyonopsis
opima* (ENOP)



Encyonopsis subminuta (ESUM)



Encyonopsis subfonticola (ESFO)

Genres *Encyonema* - *Encyonopsis*



Encyonema thioense (ETIO)



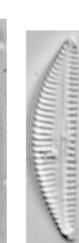
Encyonopsis degenerata
(ENDG)



Encyonema directiforme
(EDIR)



Encyonema sp2 (EN02)

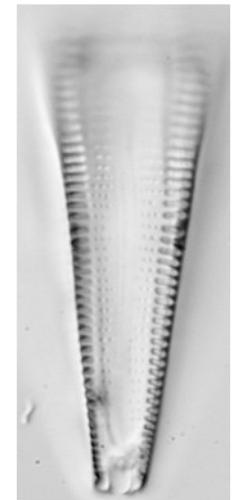


Encyonema sp9 (EN09)

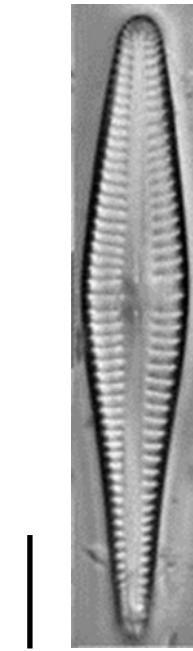
Genre *Gomphonema*



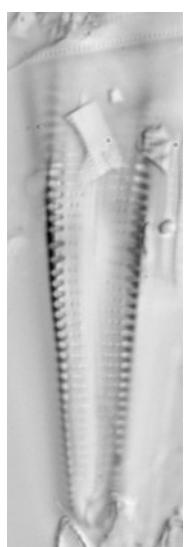
Gomphonema acuminatum
(GACU)



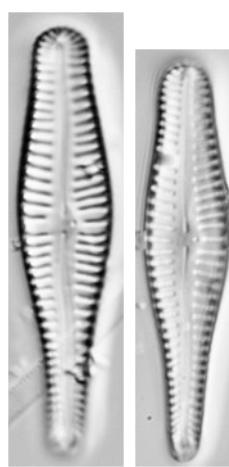
Gomphonema laticollum (GLTC)



Gomphonema affine
(GAFF)

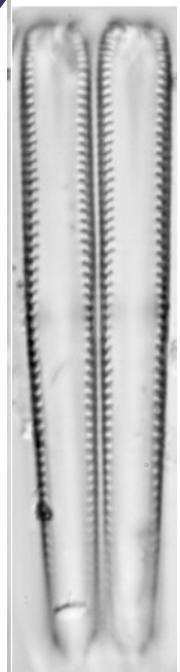


Gomphonema clavatum (GCLA)



Gomphonema ricardii (GRIC)

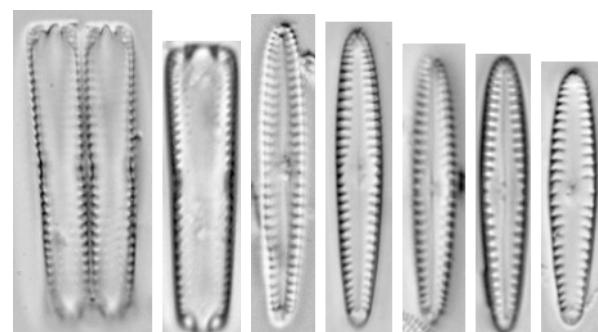
Genre *Gomphonema*



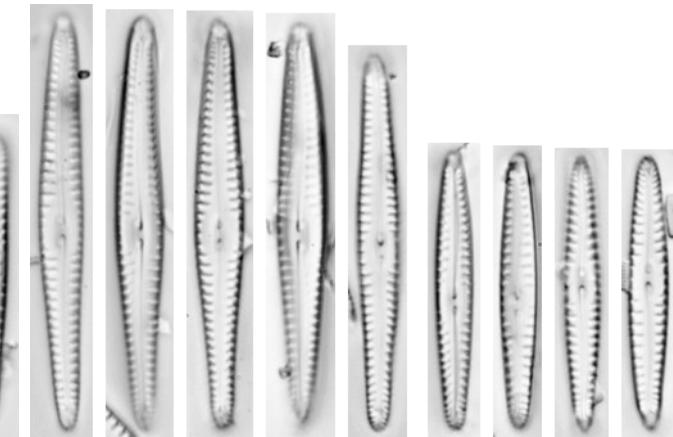
Gomphonema neobourrellyi (GNEO)



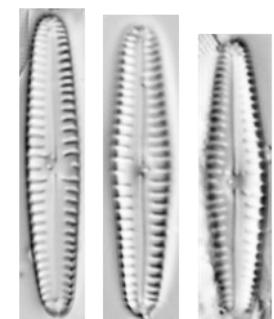
Gomphonema brasiliense ssp.
pacificum (GBPA)



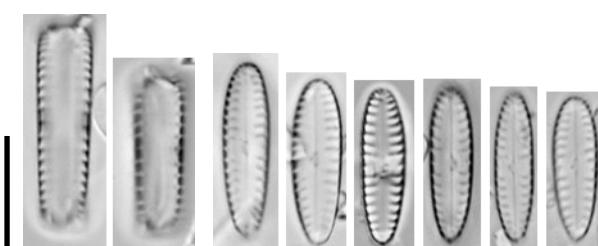
morphotype *Gomphonema designatum*



Gomphonema neobourrellyi morphotype *parvum* (GNBP)



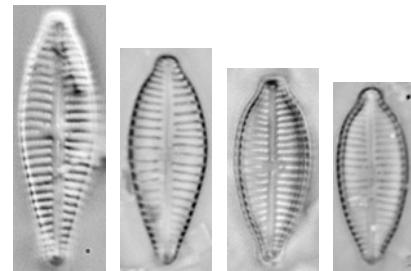
Gomphonema sp10 (GO10)



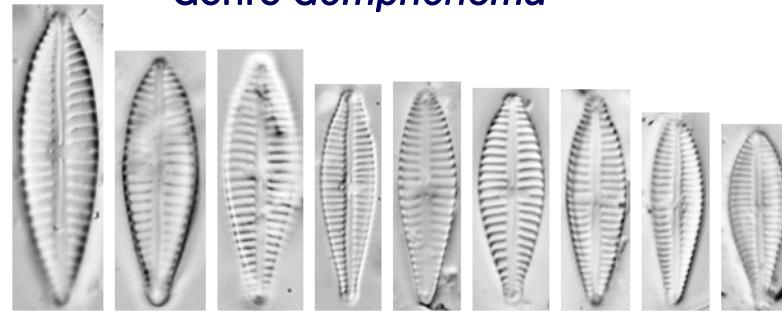
morphotype *Gomphonema bourbonense*

Gomphonema pumilum (GPUM)

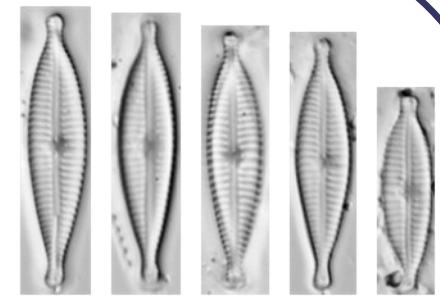
Genre *Gomphonema*



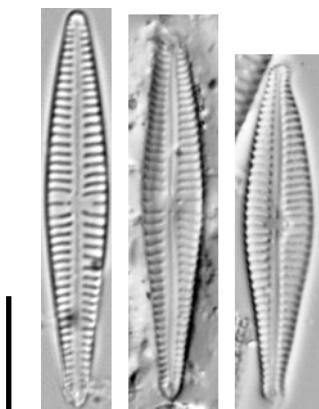
Gomphonema parvulum (GPAR)



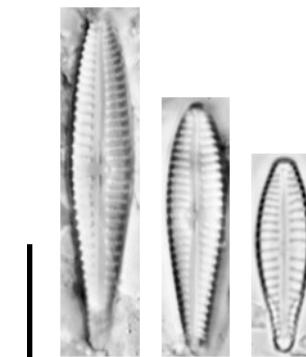
Gomphonema saprophilum (GSPP)



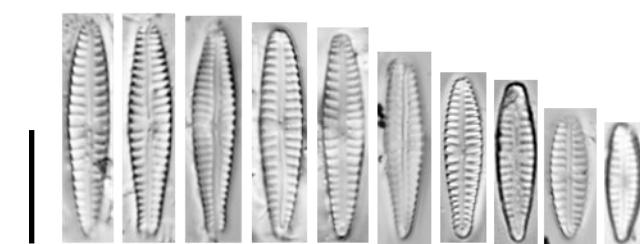
Gomphonema lagenula (GLGN)



Gomphonema gracile
(GGRA)

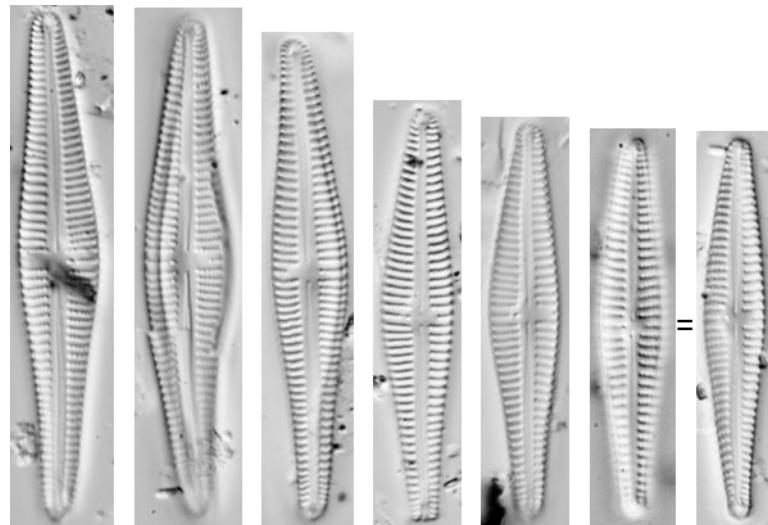


Gomphonema angustatum
(GANG)

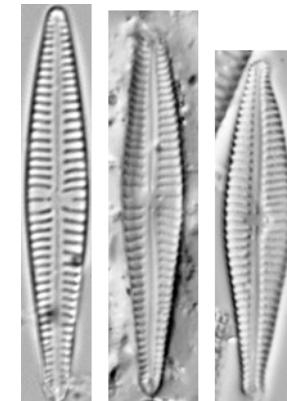


Gomphonema sp17 (GO17)

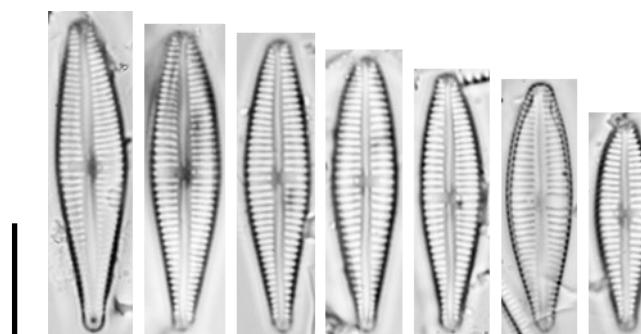
Genre *Gomphonema*



Gomphonema sp15 (GO15)

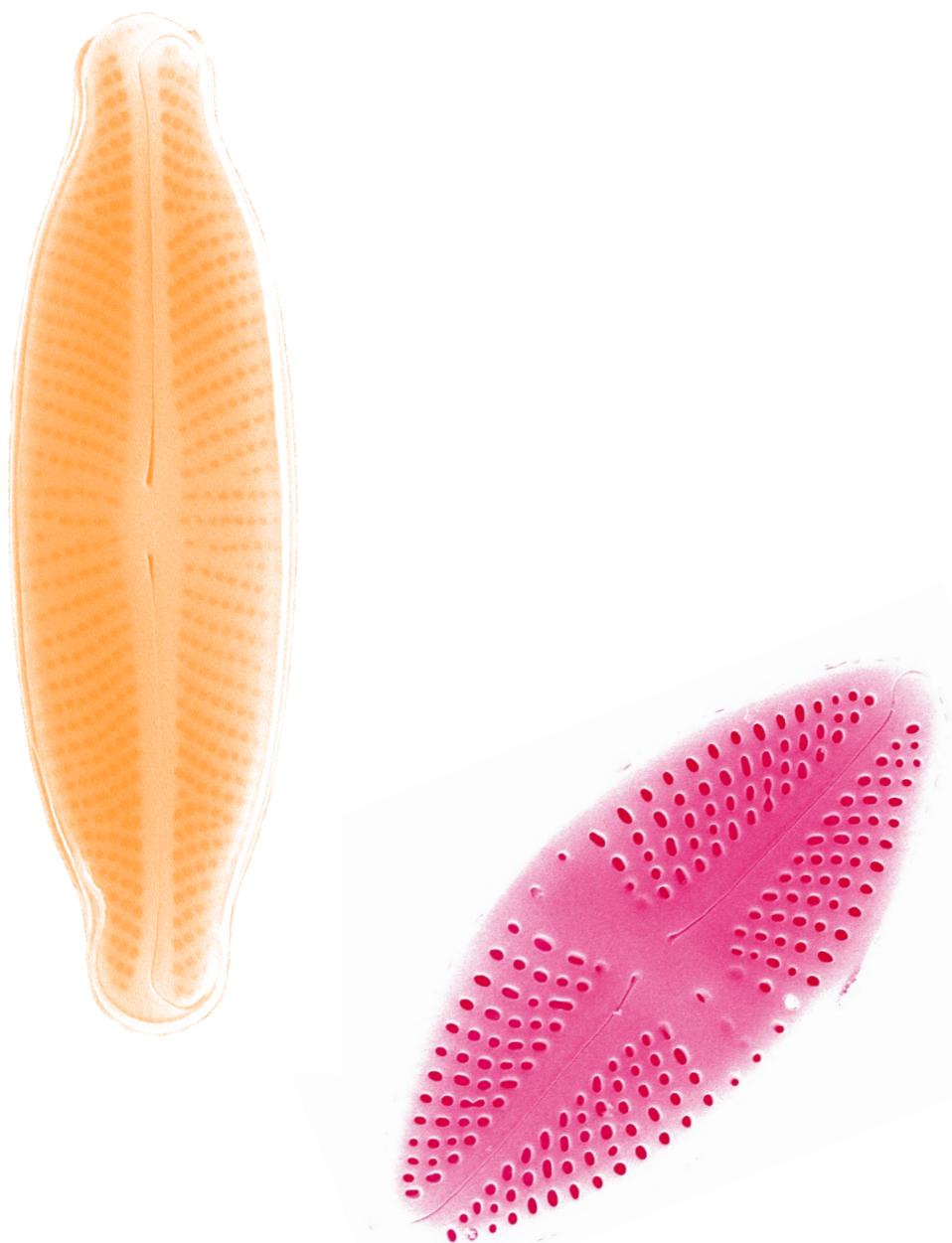


Gomphonema gracile
(GGRA)

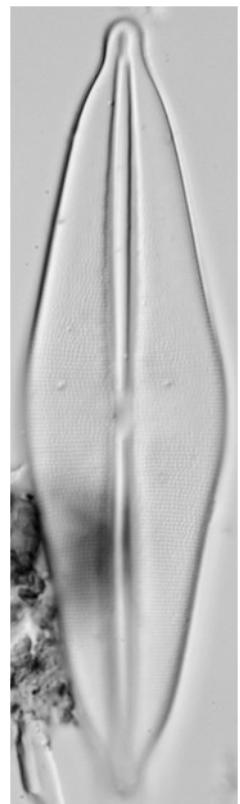


Gomphonema sp20 (GO20)

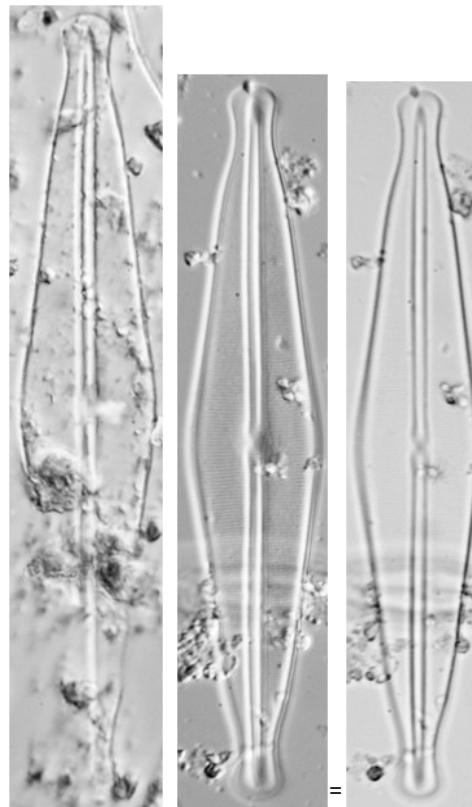
NAVICULACÉES : NAVICULOÏDÉES



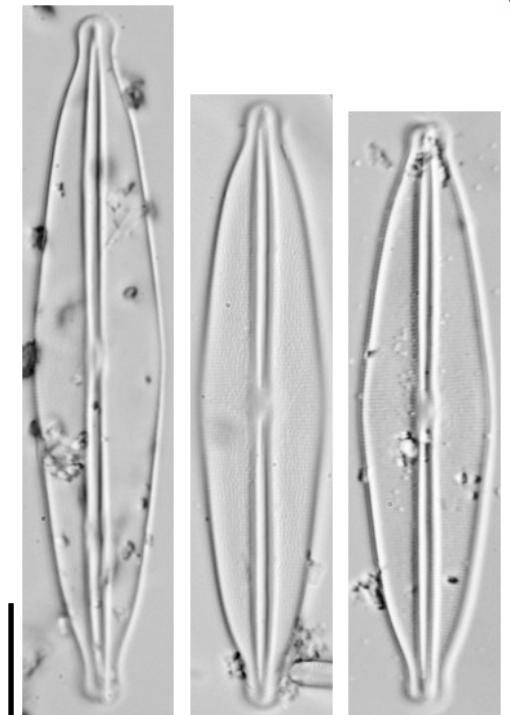
Genre *Frustulia*



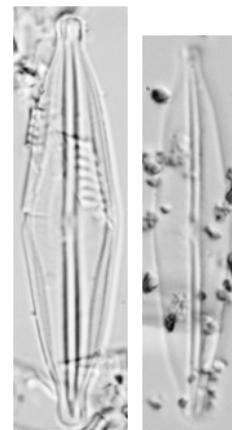
Frustulia neocaledonica (FNEO)



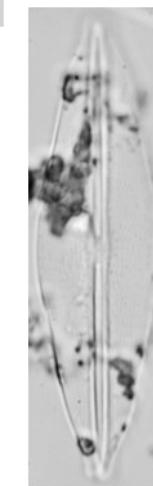
Frustulia lacustris (FLAC)



Frustulia perodititica (FPER)

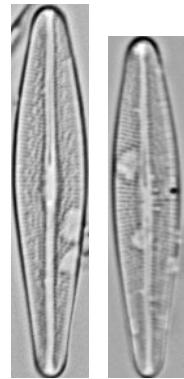


Frustulia nana (FRNA)

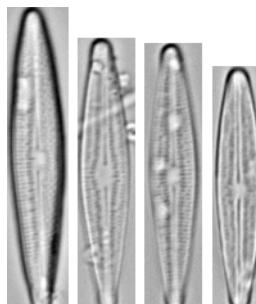


Frustulia stagnalis (FSTL)

Genre *Brachysira*



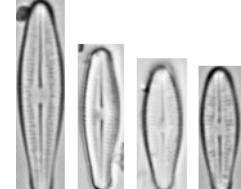
Brachysira gomphonoides
(BGOM)



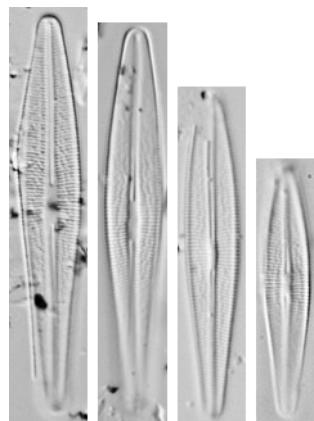
Brachysira blancheana
(BBLA)



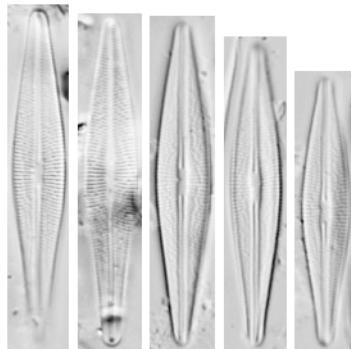
Brachysira microclava
(BMCL)



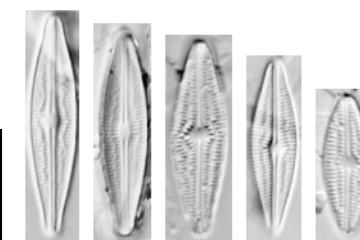
Brachysira nanoclava
(BNCV)



Brachysira irawanoides
(BIRO)



Brachysira styriaca (BSTY)

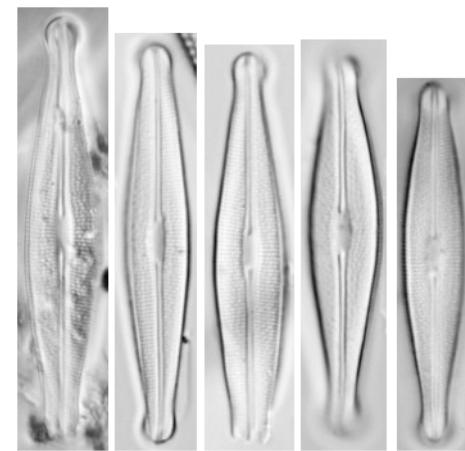


Brachysira brebissonii
(BBRE)

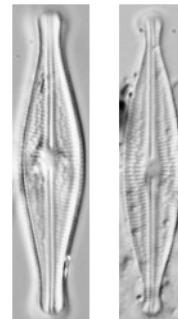


Brachysira palustris
(BPAL)

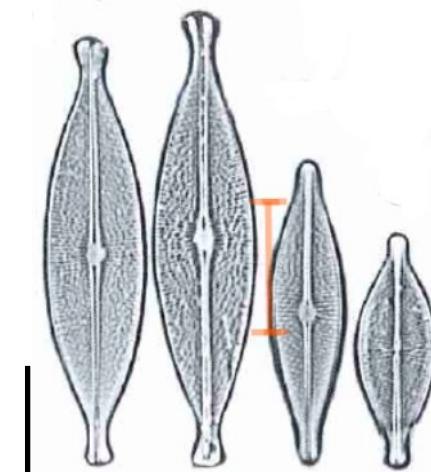
Genre *Brachysira*



Brachysira maillardii (BMAI)

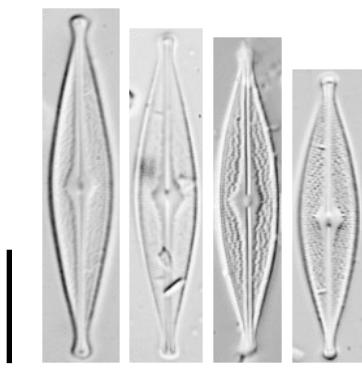


Brachysira silvicola
(BSIL)

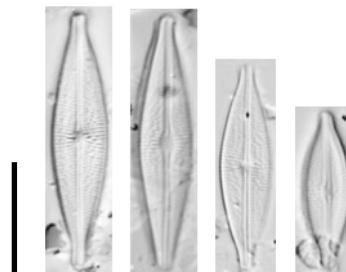


Brachysira vitrea (BVIT)

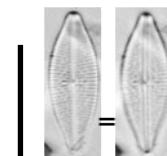
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H.
(2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa.
Koeltz Scientific Books, Königstein, 908 pp.



Brachysira angusta (BANG)

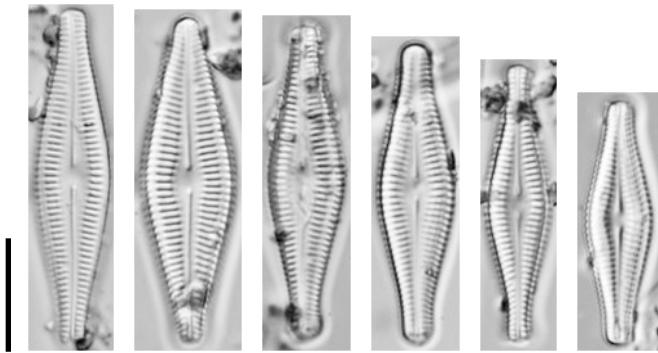


Brachysira neoexilis (BNEO)



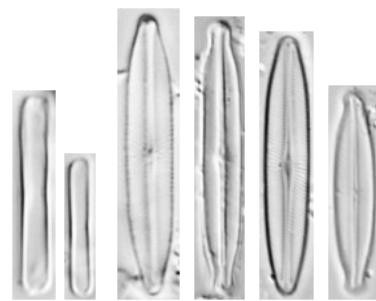
Brachysira cf. seippii
(BSEI)

Genre *Brachysira*

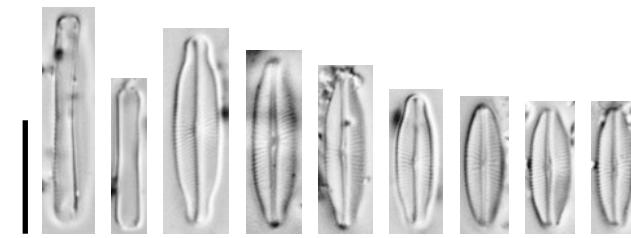


Brachysira supriniana (BSPN)

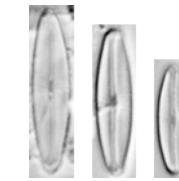
Genres *Adlafia* - *Germainiella* - *Kobayasiella* - *Fallacia* - *Mayamaea*



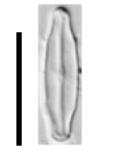
Kobayasiella saxicola (KOSA)



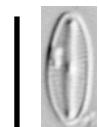
Adlafia muscora (AMUS)



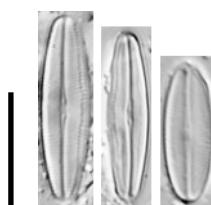
Adlafia sp1
(ADS1)



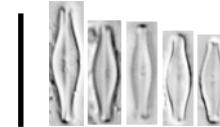
Adlafia sp2
(ADS2)



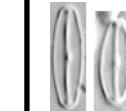
Mayamaea
permitis (MPMI)



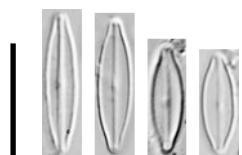
Fallacia mitis
(FMIT)



Germainiella
enigmatica (GENI)

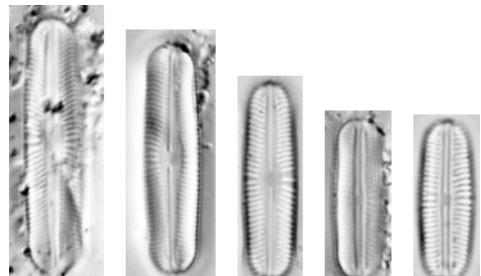


Fallacia indifferens
(FIND)

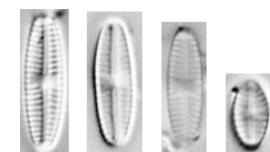


Kobayasiella sp2
(KOB2)

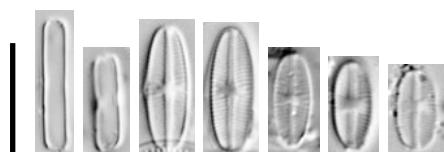
Genres *Sellaphora* - *Eolimna* - *Craticula*



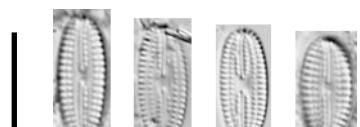
Sellaphora stroemii (SSTM)



Sellaphora seminulum (SSEM)



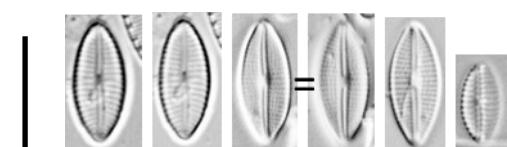
Eolimna minima (EOMI)



Pseudofallacia tenera (PFTN)

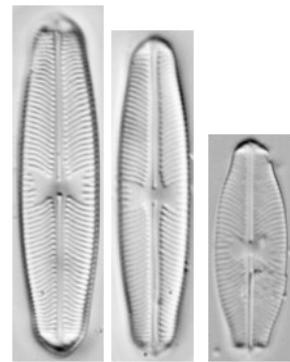


Fallacia insociabilis (FINS)

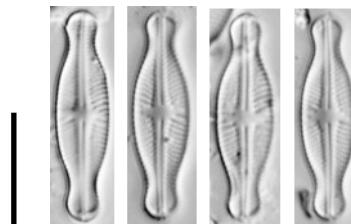


Craticula subminuscula (CSNU)

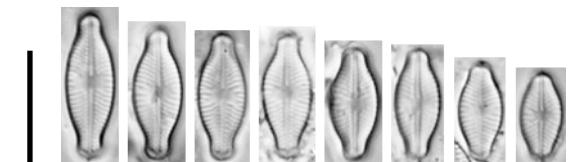
Genres Sellaphora - Hippodonta



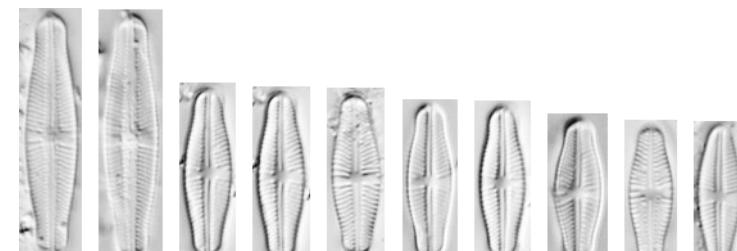
Sellaphora pupula (SPUP)



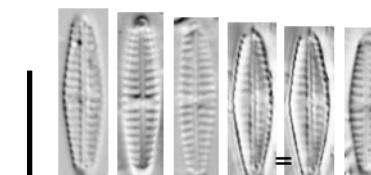
Sellaphora japonica (SJAP)



Sellaphora javanica (SEJA)

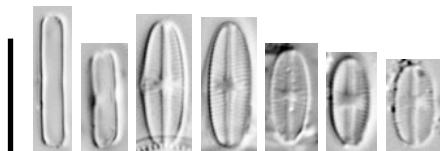


Sellaphora ruttneri (SRUT)

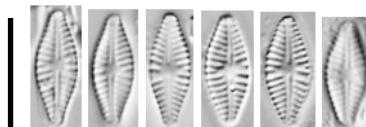


Hippodonta subtilissima (HSUT)

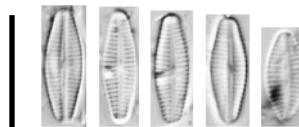
Genres *Sellaphora* - *Eolimna* - *Hippodonta* - *Chamaepinnularia*



Eolimna minima (EOMI)



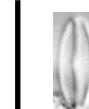
Eolimna rhombica (ERHB)



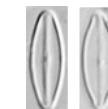
Sellaphora inconspicua (SICO)



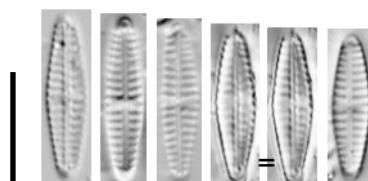
*Mayamaea
permitis* (MPMI)



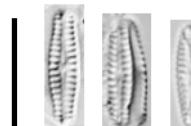
*Sellaphora
neocaledonica*
(SNCD)



Sellaphora arvensis
(SARJ)

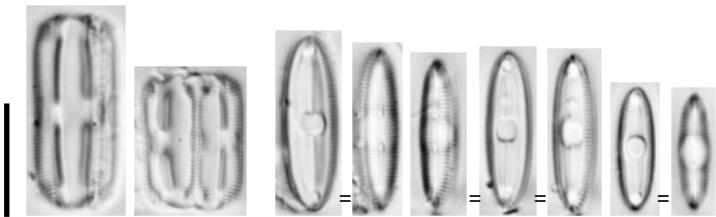


Hippodonta subtilissima (HSUT)

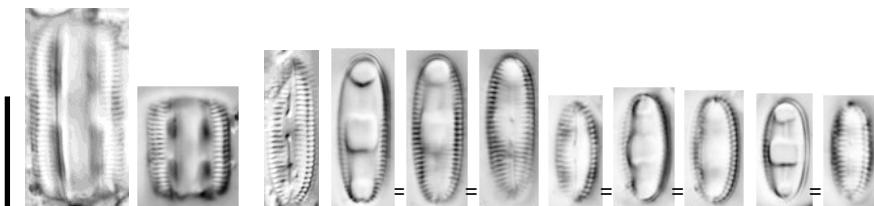


*Chamaepinnularia
submusicola* (CSMU)

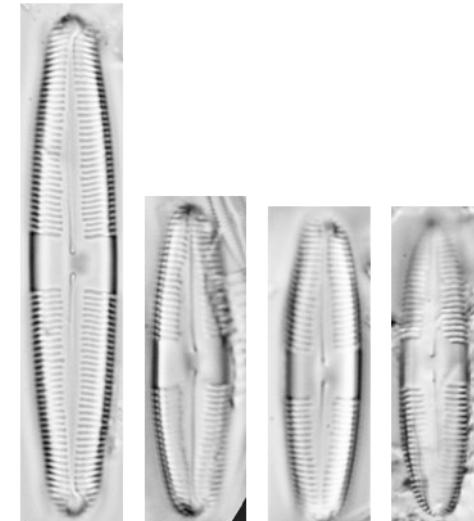
Genres *Diatomella* - *Caloneis*



Diatomella lecohui (EOMI)

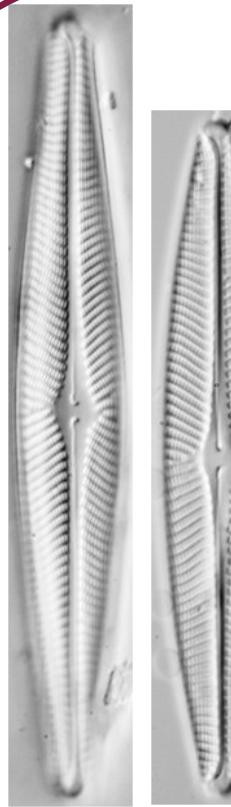


Diatomella ouenkohana (DOUE)

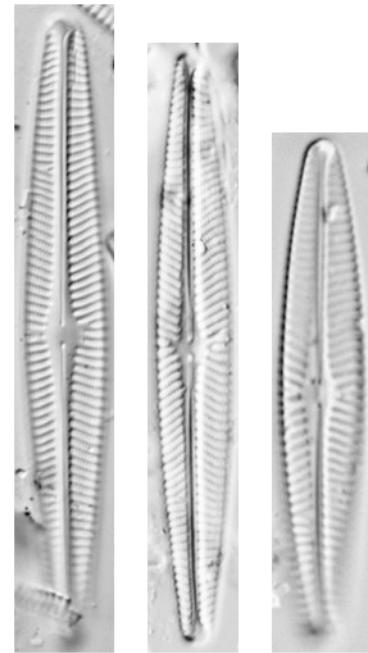


Caloneis aequatorialis (CAET)

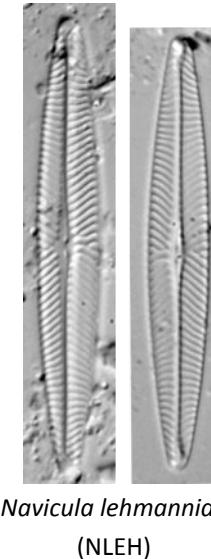
Genre *Navicula*



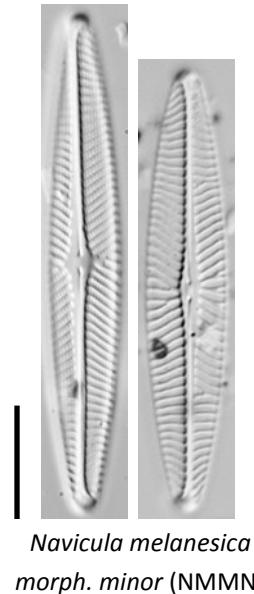
Navicula melanesica
(NMES)



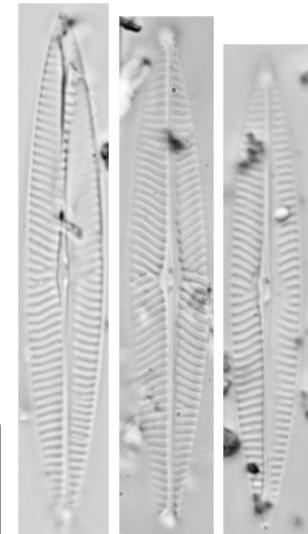
Navicula sp25 (NA25)



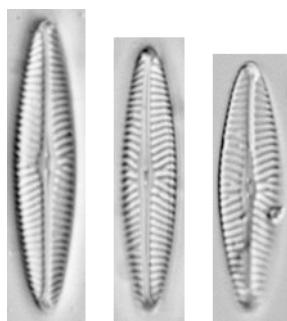
Navicula lehmanniae
(NLEH)



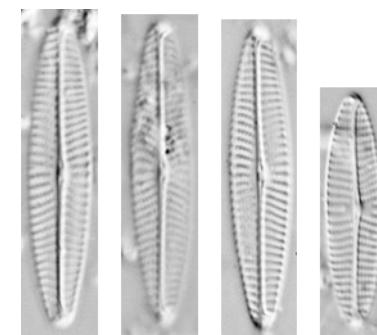
Navicula melanesica
morph. minor (NMMN)



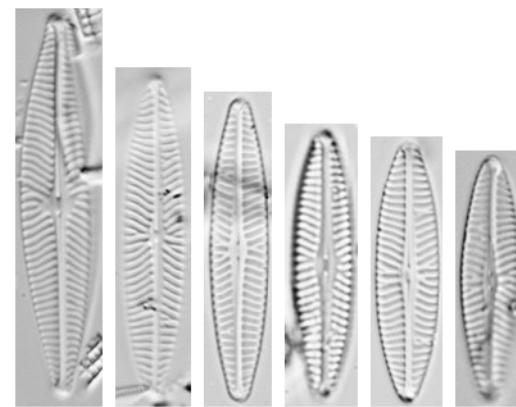
Navicula peracuta (NPTA)



Navicula cryptotenella
(NCTE)



Navicula erifuga (NERI)

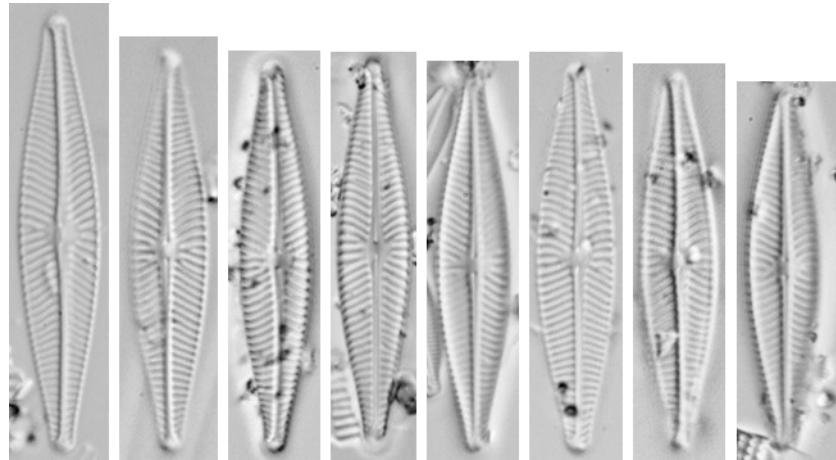


Navicula suprinii (NSUP)

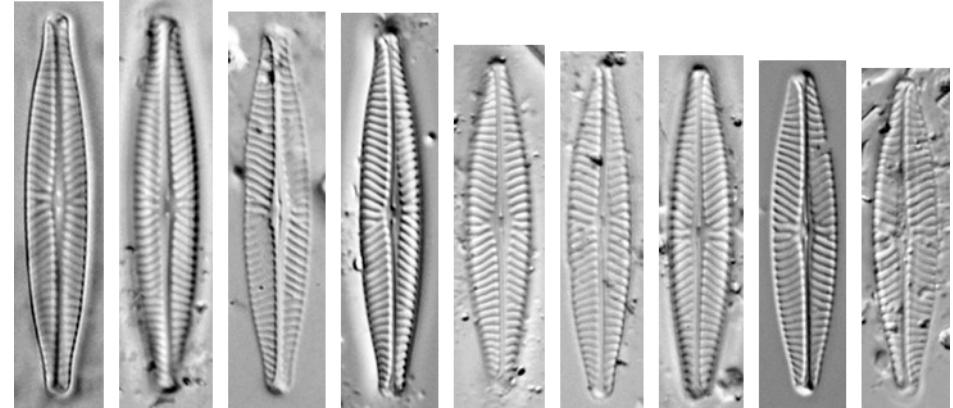


Navicula veneta
(NVEN)

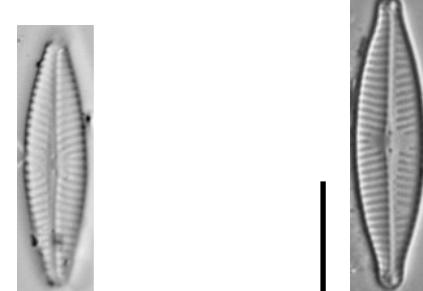
Genre *Navicula*



Navicula cryptocephala (NCRY)



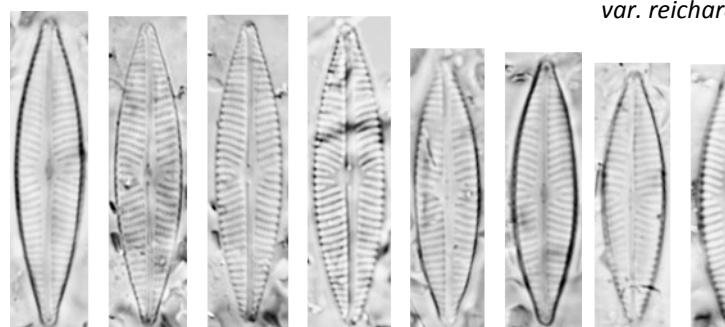
Navicula seippiana (NSPP)



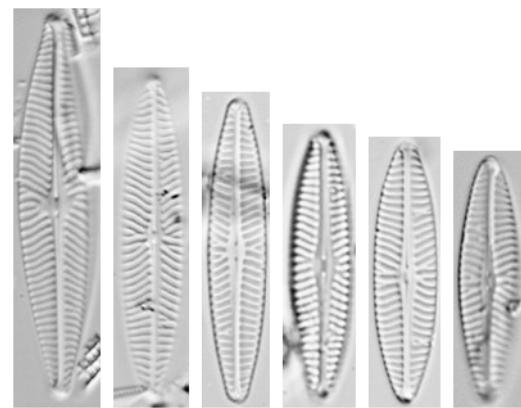
Navicula reichardtiana
var. *reichardtiana* (NRCH)



Navicula veneta
(NVEN)

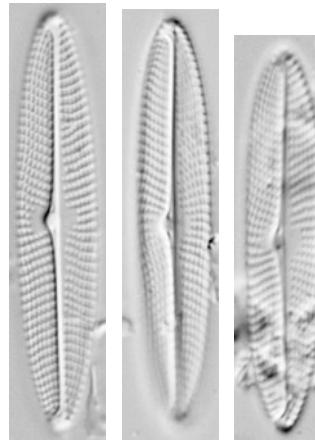


Navicula quasidisjuncta (NCQDJ)



Navicula suprinii (NSUP)

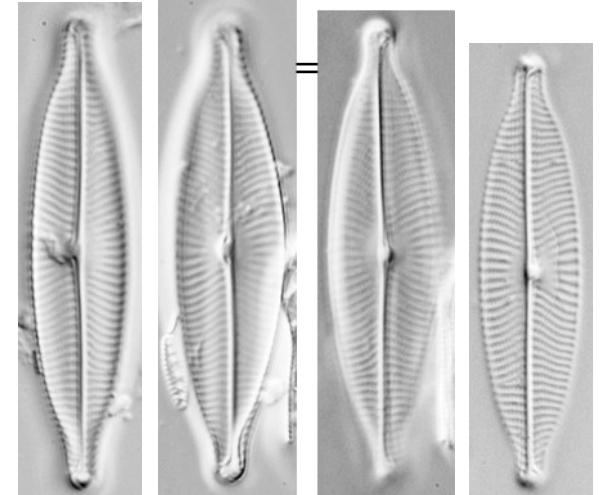
Genre *Navicula*



Navicula escambia (NESC)



Navicula simulata
(NSIA)

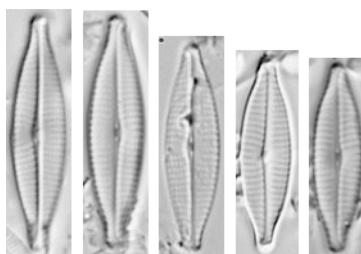


Navicula amphiceropsis
(NAAM)

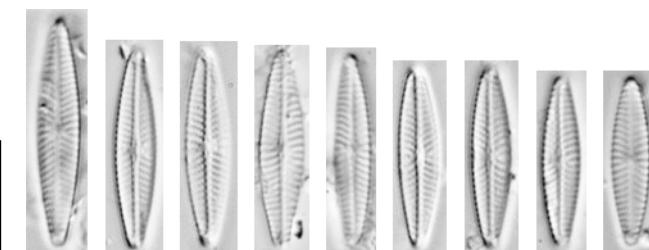
Navicula rostellata (NROS)



Navicula vandamii var.
vandamii (NVDA)



Navicula gregaria (NGRE)

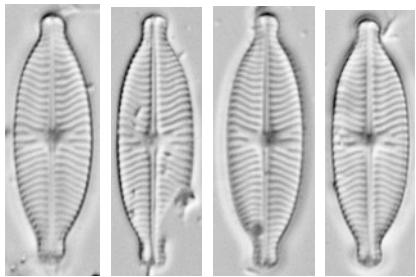


Navicula sp7 (NA07)

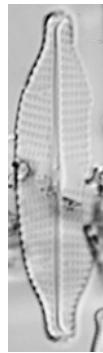


Navicula vilaplanii
(NVIP)

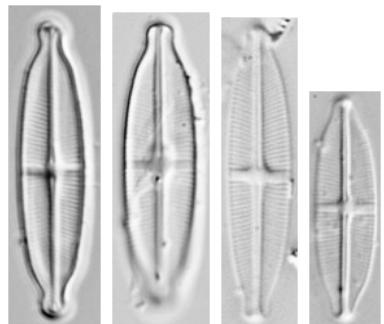
Genres Geissleria - Navicula - Stauroneis



Geissleria decussis (GDEC)

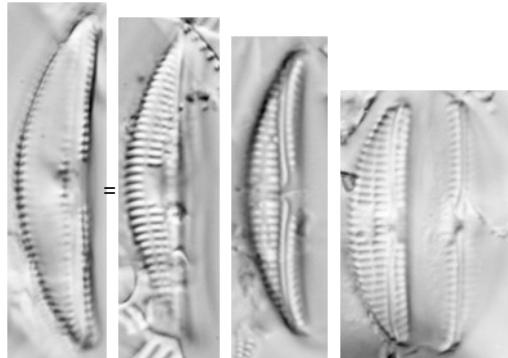


Navicula amphiceropsis
(NAAM)

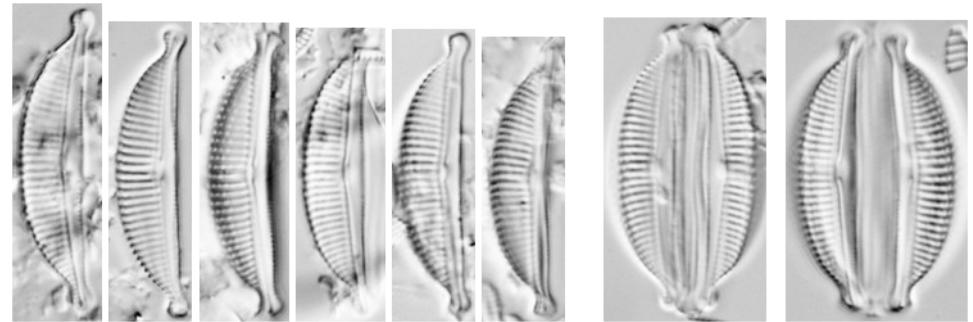


Stauroneis résoluta (SRES)

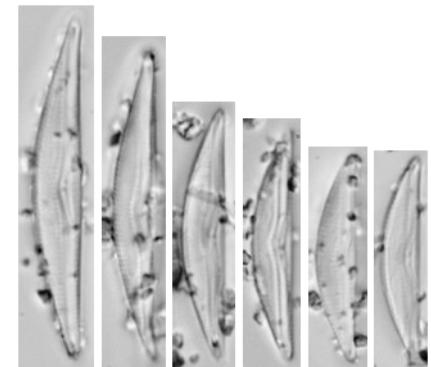
Genres *Amphora* - *Halamphora*



Amphora copulata (ACOP)



Halamphora ghanensis (HGHA)



Amphora disimilis (AMDI)



*Halamphora
submontana* (HSMO)



Amphora pediculus (APED)

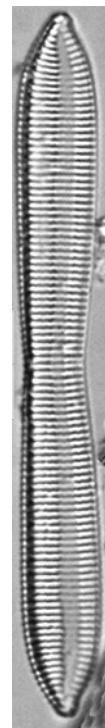
NITZSCHIACÉES, ÉPITHÉMIACÉES & SURIRELLACÉES



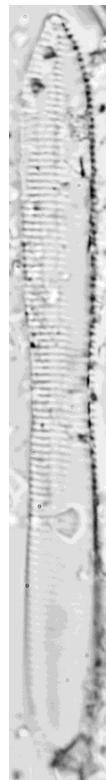
Genres *Bacillaria* - *Tryblionella*



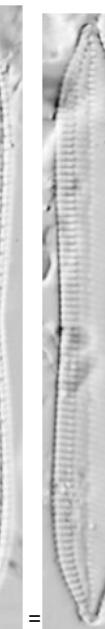
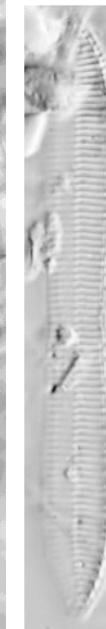
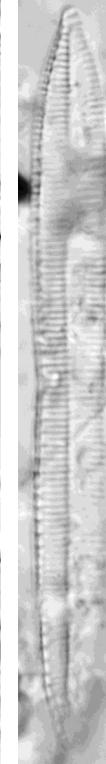
Bacillaria paxillifera
(BPAX)



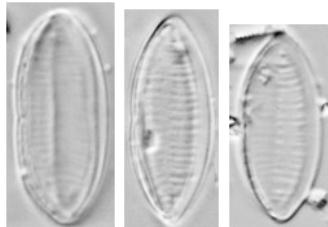
Tryblionella kuentzingii
(TKUE)



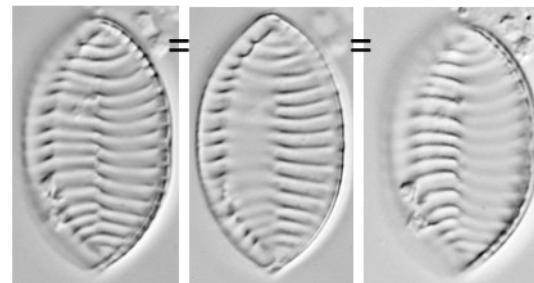
Tryblionella hungarica
(THUN)



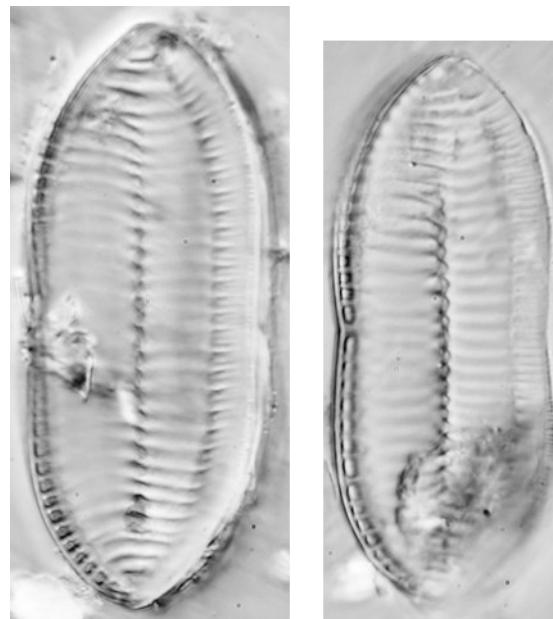
Genre *Tryblionella*



Tryblionella debilis
(TDEB)

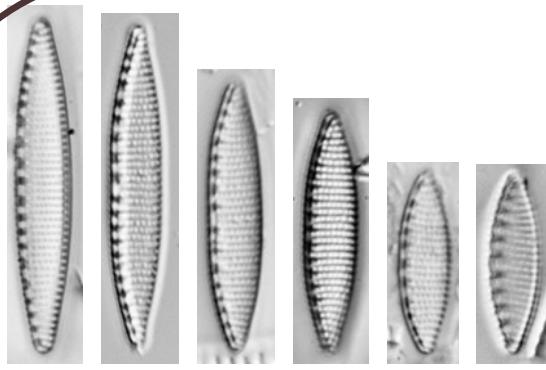


Tryblionella levidensis
(TLEV)

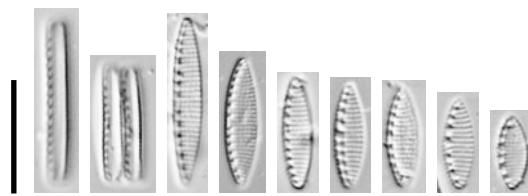


Tryblionella victoriae
(TVIC)

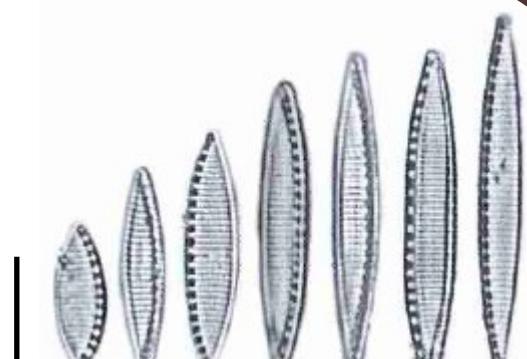
Genre *Nitzschia*



Nitzschia amphibia (NAMP)

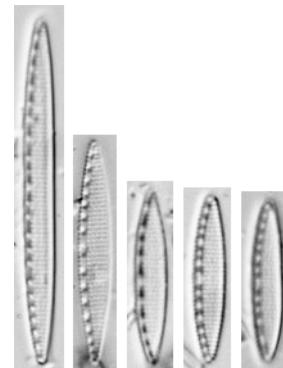


Nitzschia inconspicua (NINC)

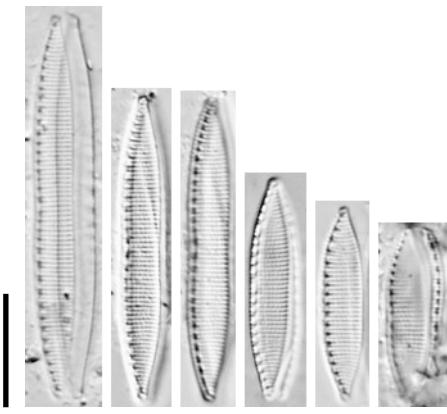


Nitzschia liebetrhthii (NLBT)

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



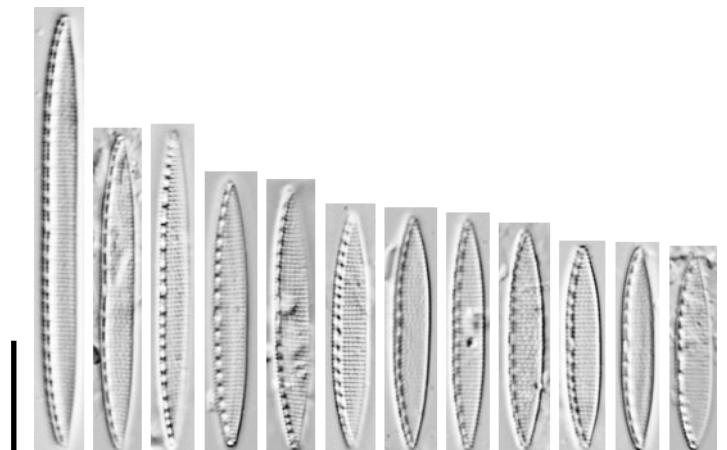
Nitzschia brevior
(NBRV)



Nitzschia hiengheneana (NIHI)



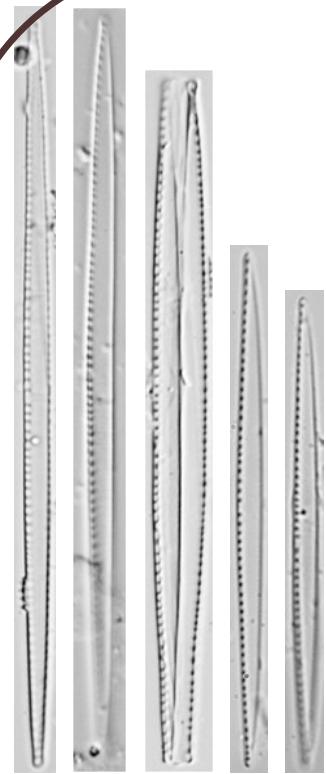
Nitzschia supralitorea (NZSU)



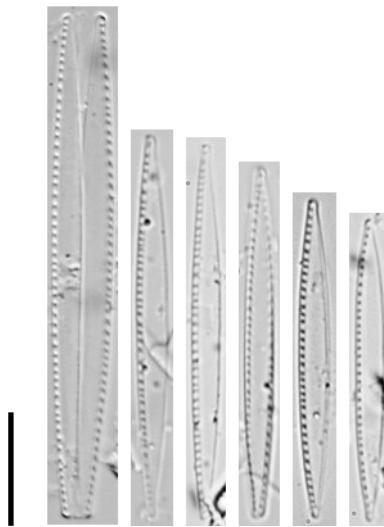
Nitzschia frustulum var. *frustulum* (NIFR)

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

Genre *Nitzschia*



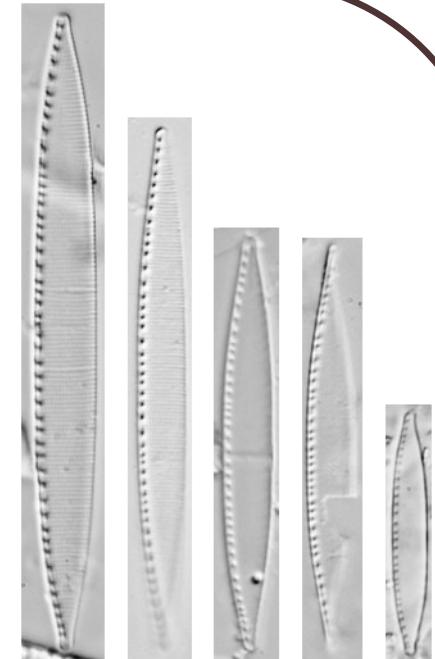
Nitzschia bacata (NZBA)



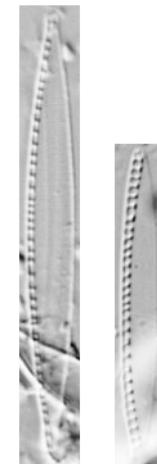
Nitzschia palea var. *debilis* (NPAD)



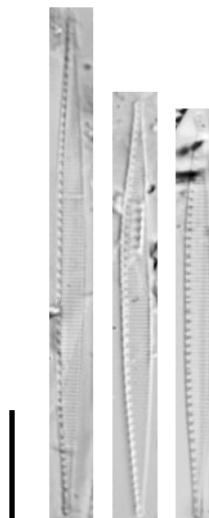
Nitzschia paleacea
(NPAE)



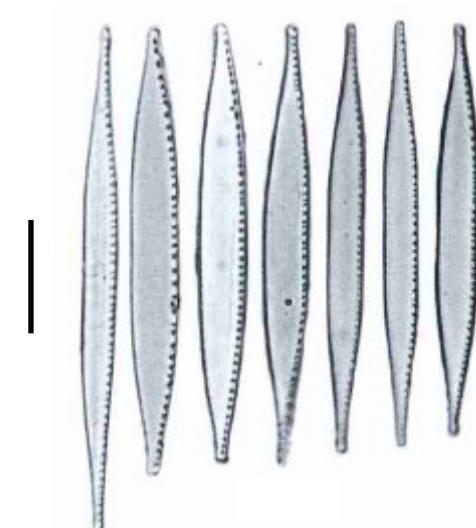
Nitzschia palea (NPAL)



Nitzschia sociabilis
(NSOC)

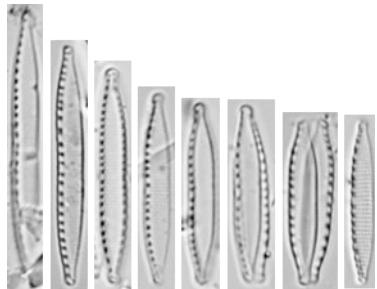


Nitzschia subacicularis
(NSUA)



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

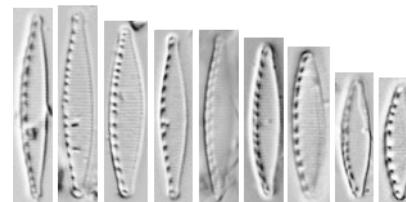
Genre *Nitzschia*



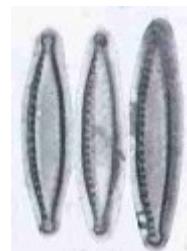
Nitzschia acidoclinata (NACD)



Nitzschia archibaldii
(NIAR)



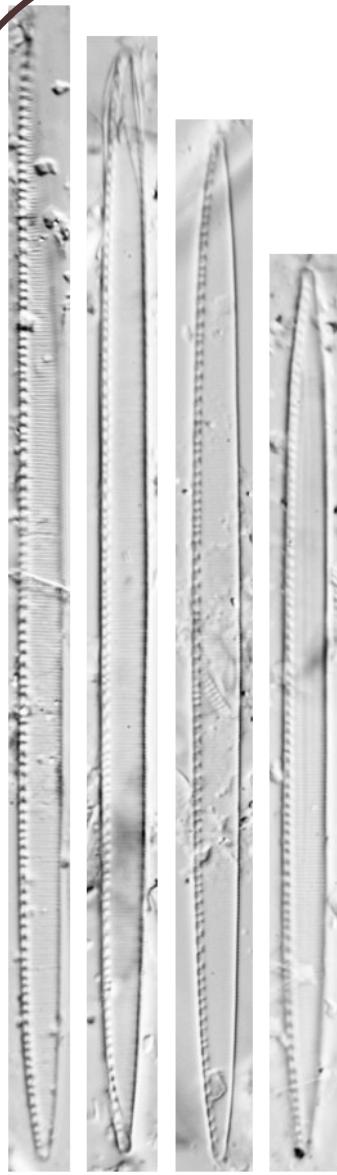
Nitzschia labella (NLAL)



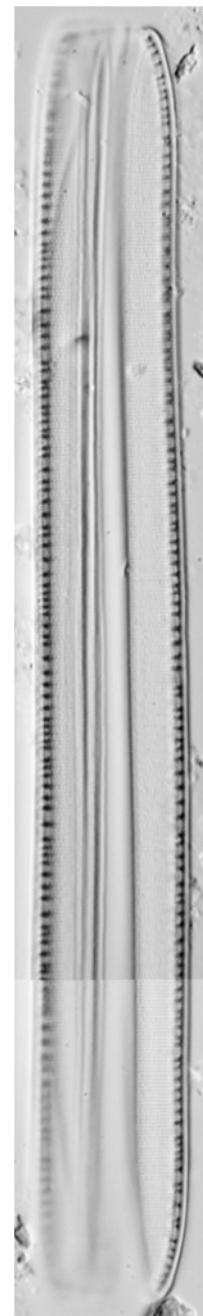
Nitzschia neocalledonica (NNCA)

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

Genre *Nitzschia*



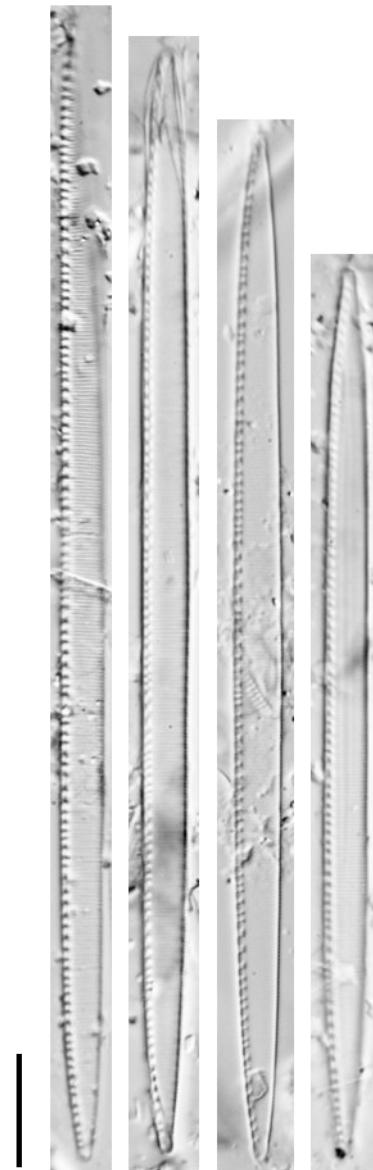
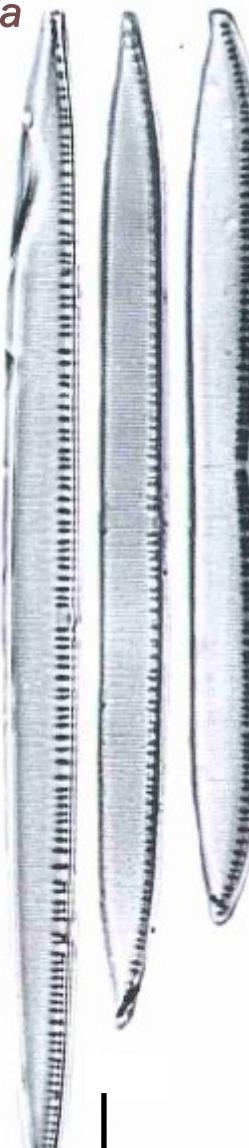
Nitzschia intermedia (NINT)



Nitzschia ingenua (NIGE)

Nitzschia linearis
(NLIN)

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



Nitzschia philippinarum (NPHL)

Genre *Nitzschia*



Nitzschia lorenziana
(NLOR)

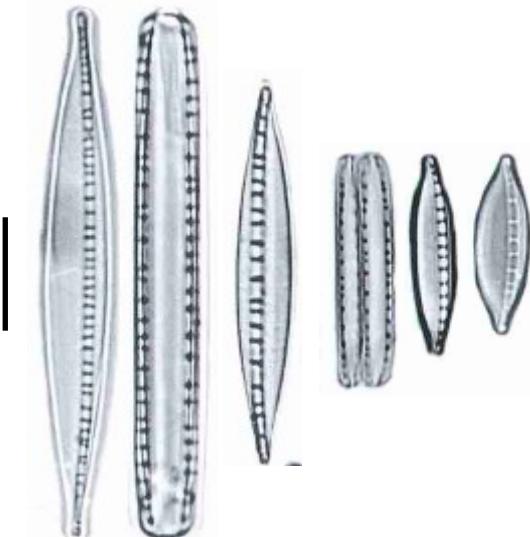


Nitzschia scalpelliformis (NISC)



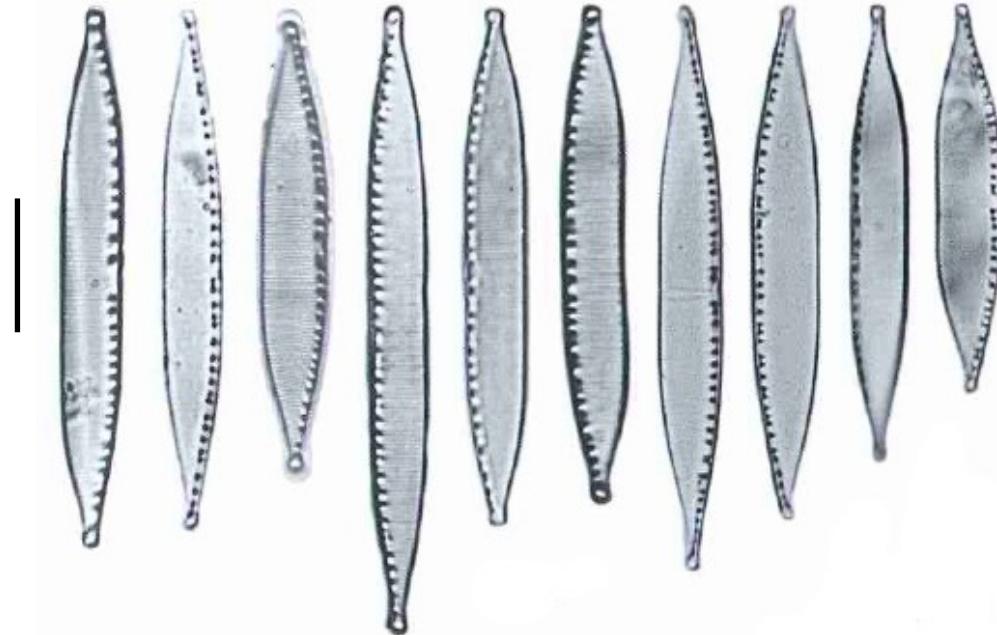
Nitzschia clausii
(NCLA)

Genre *Nitzschia*



Nitzschia dissipata var. *dissipata* (NDIS)

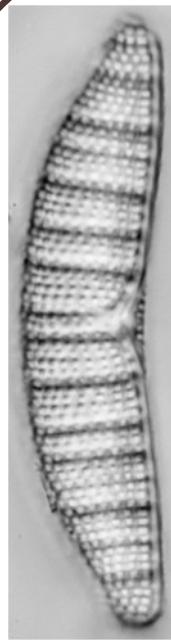
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H.
(2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa.
Koeltz Scientific Books, Königstein, 908 pp.



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



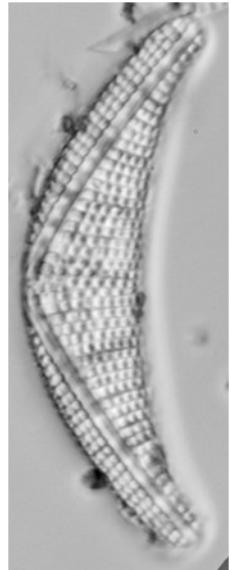
Epithemia adnata (EADN)



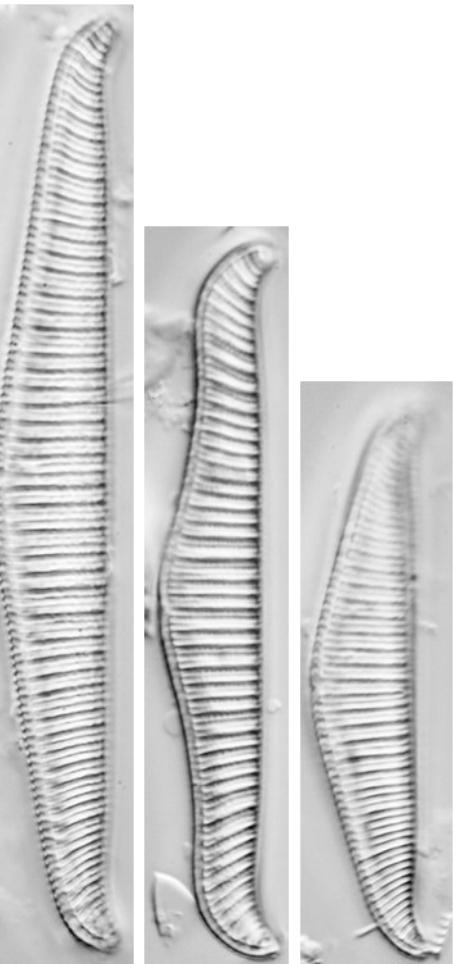
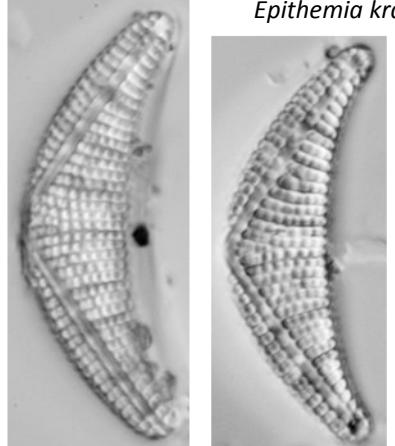
Epithemia sorex (ESOR)



Rhopalodia operculata
(ROPE)



Epithemia krammeri (EKRM)

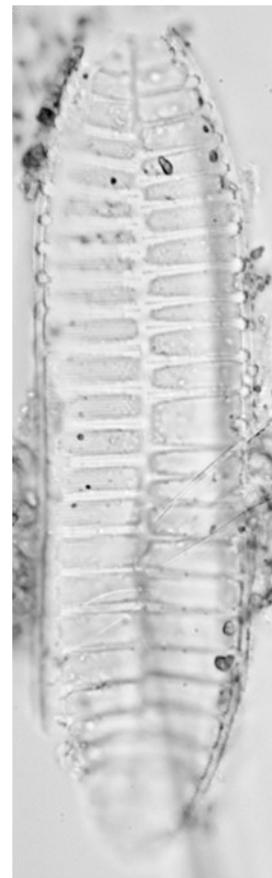
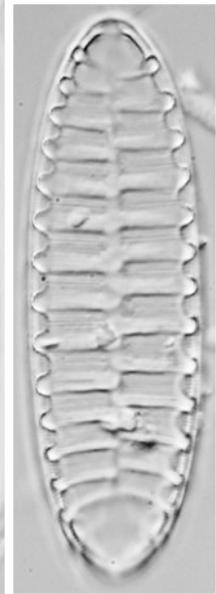


Rhopalodia gibba var. *gibba* (RGIB)

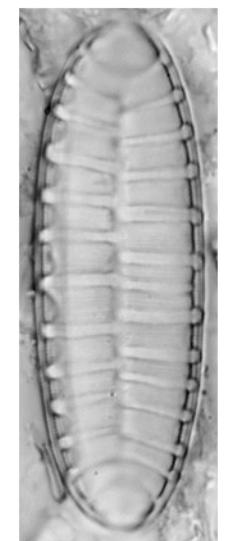
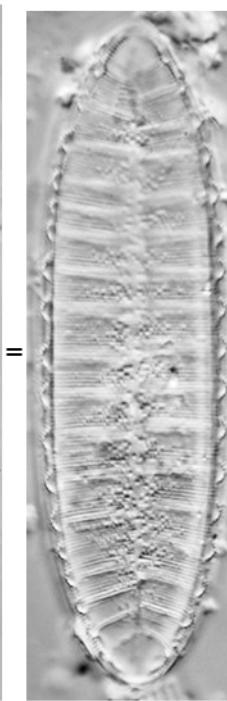
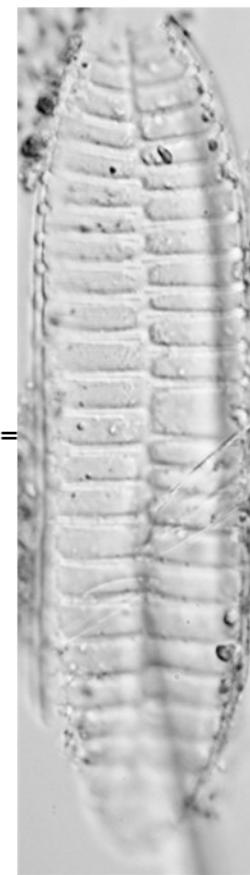
Genre *Surirella*



Surirella neocalledonica fo. *Punctata* (SNPU)



Surirella neocalledonica (SUNE)





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www.oeil.nc
www.cnrt.nc

