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Guide d'identification : les diatomées benthiques des cours d'eau de Nouvelle-Calédonie vol.2

Julien Marquié, Estelle Lefrançois, Sébastien Boutry, Michel Coste, François
Delmas

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Submitted on 19 Mar 2020

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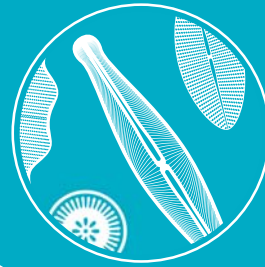
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HAL Authorization

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



OEIL
Observatoire de
l'environnement
Nouvelle-Calédonie



GOVERNEMENT DE LA
NOUVELLE-CALÉDONIE



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

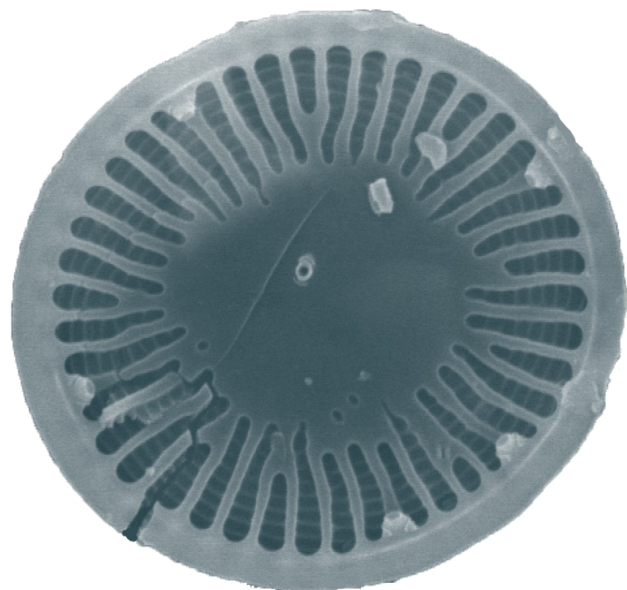
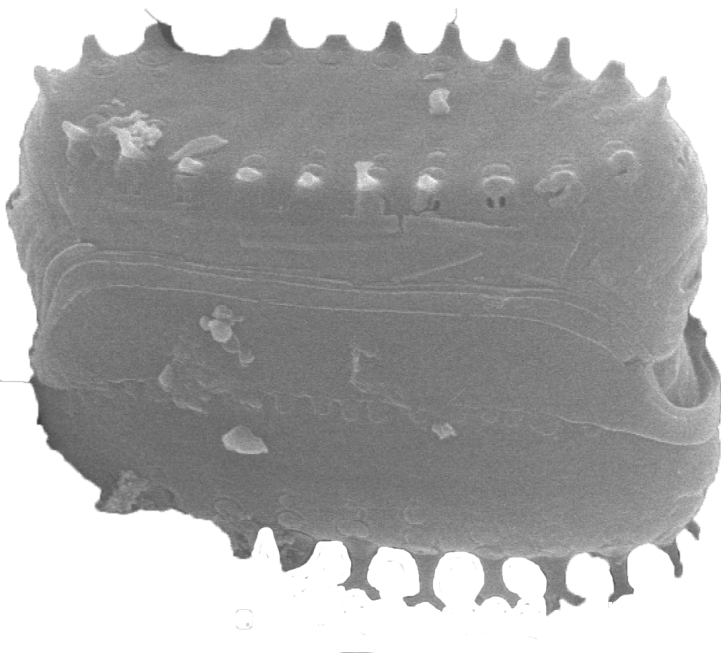
INTRODUCTION

Le présent guide iconographique est destiné à permettre l'identification fiable des taxons indicels, 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.

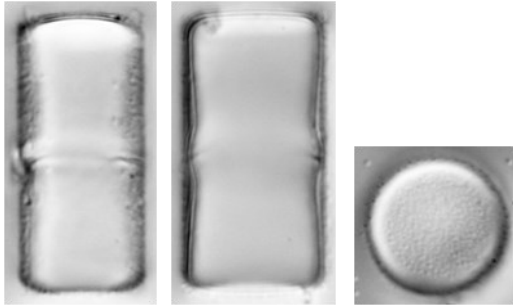
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Nitzschiacées, Epithémiacées & Surirellacées.....	Page 45

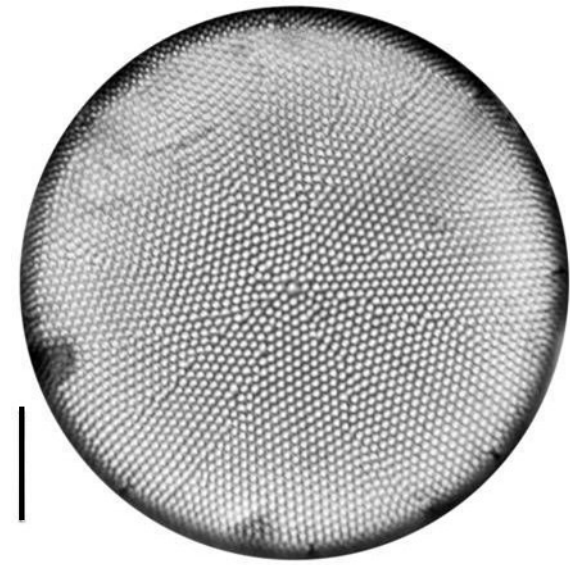
CENTROPHYCIDÉES, ARAPHIDÉES & BRACHYRAPHIDÉES



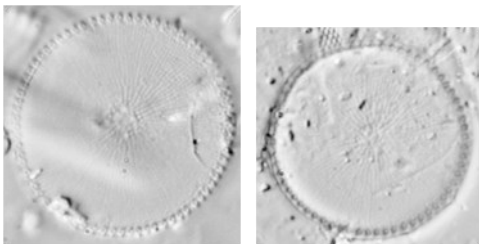
Genres *Melosira* - *Actinocyclus* - *Conticribra* - *Aulacoseira*



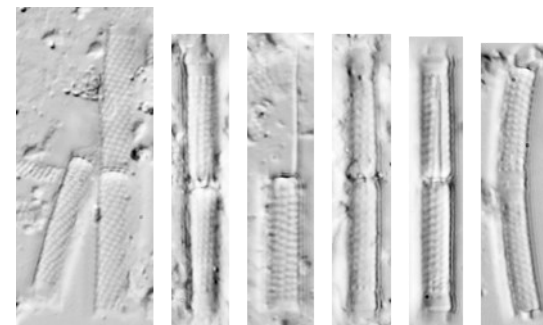
Melosira varians (MVAR)



Actinocyclus tropicus (ATPI)

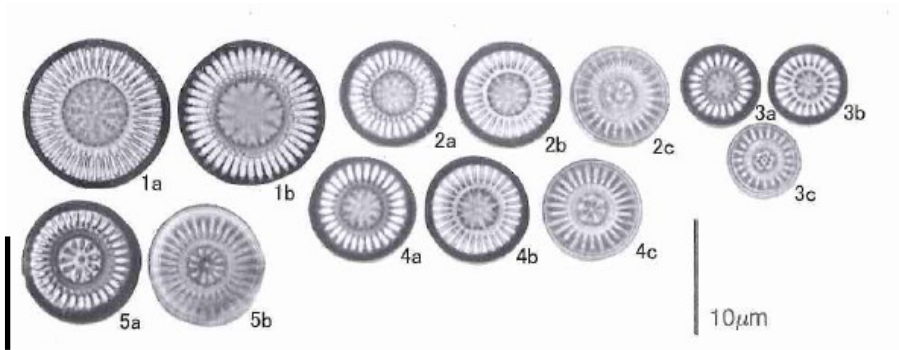


Conticribra weissflogii (CTWE)



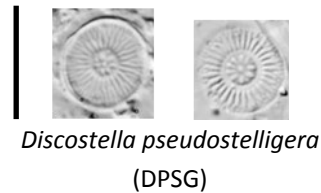
Aulacoseira granulata var.
angustissima (AUGA)

Genres *Discostella* - *Cyclotella*

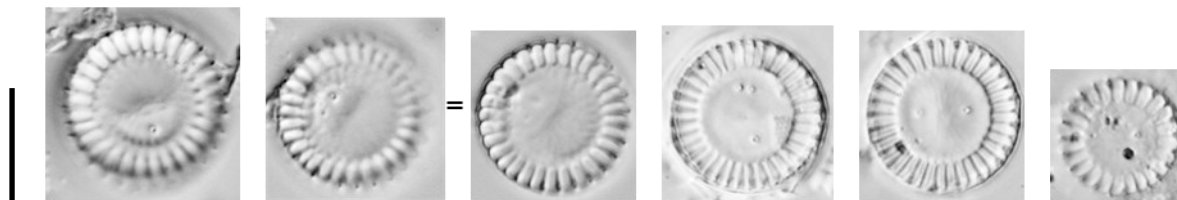


Discostella stelligera car. *tenuis* (DSTT)

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

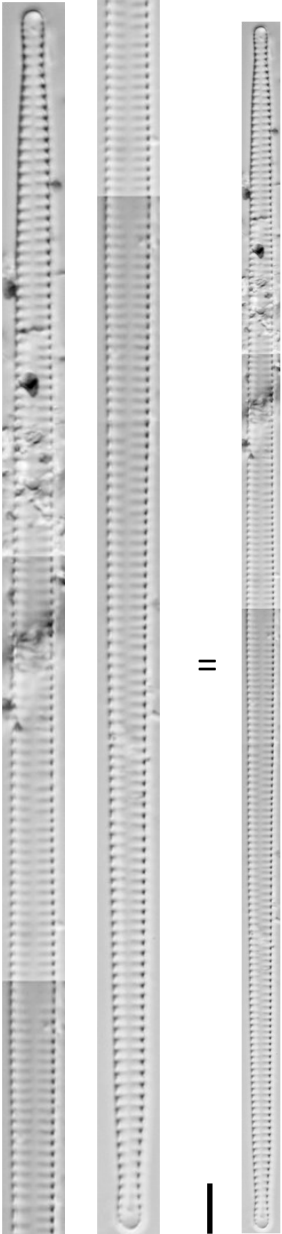


Discostella pseudostelligera
(DPSG)

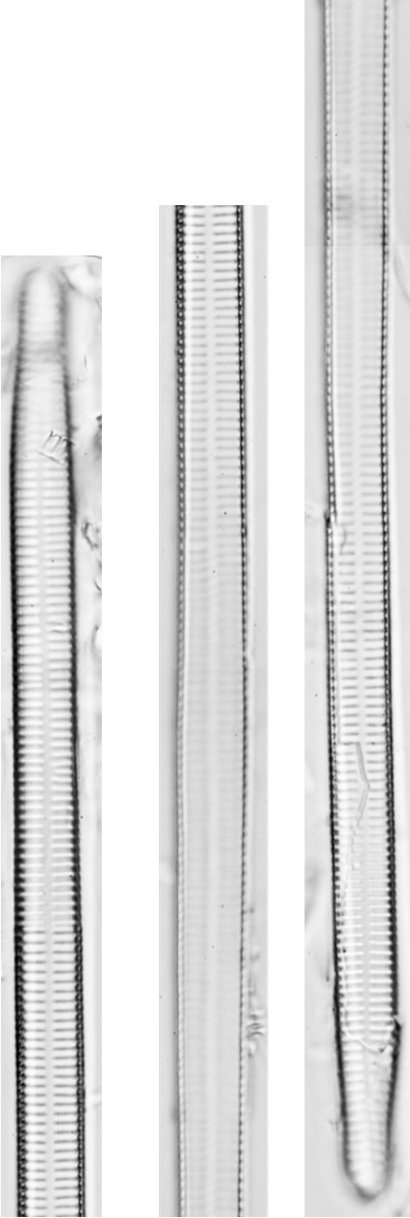


Cyclotella meneghiniana (CMEN)

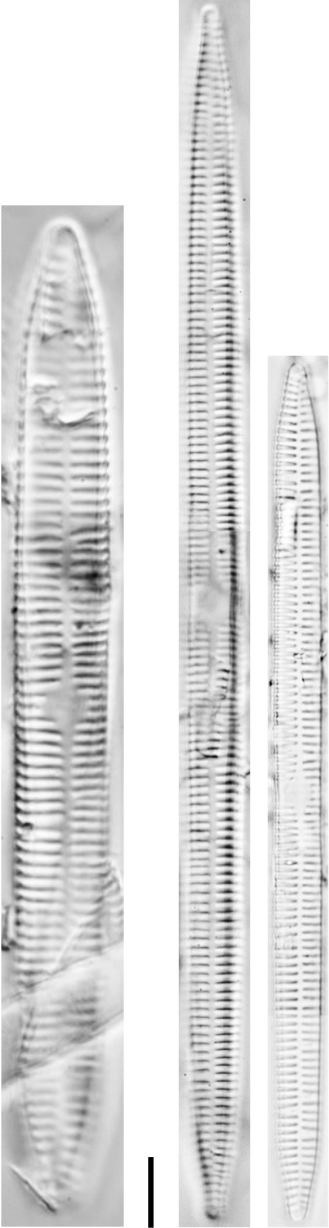
Genres *Ulnaria* - *Fragilaria*



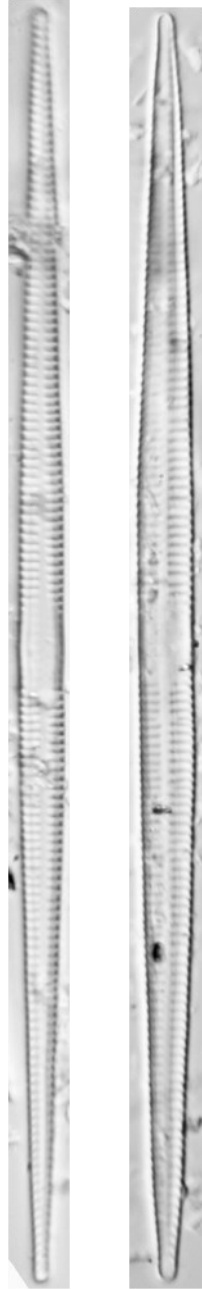
Ulnaria lanceolata (ULAN)



Ulnaria pseudogaillonii (UPSG)

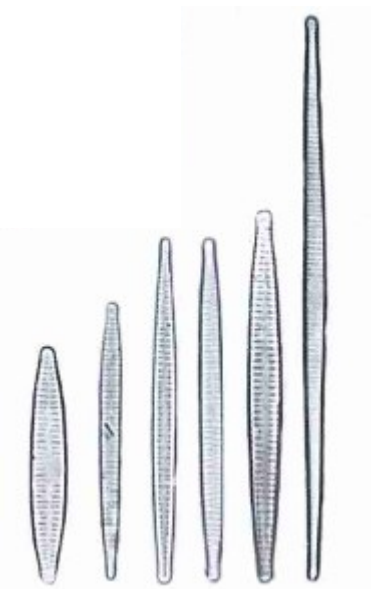


Ulnaria ulna (UULN)



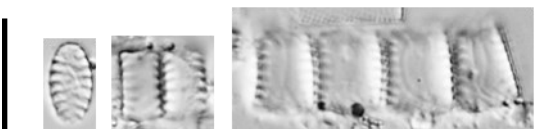
Fragilaria tenera (FTEN)

Genre *Fragilaria*

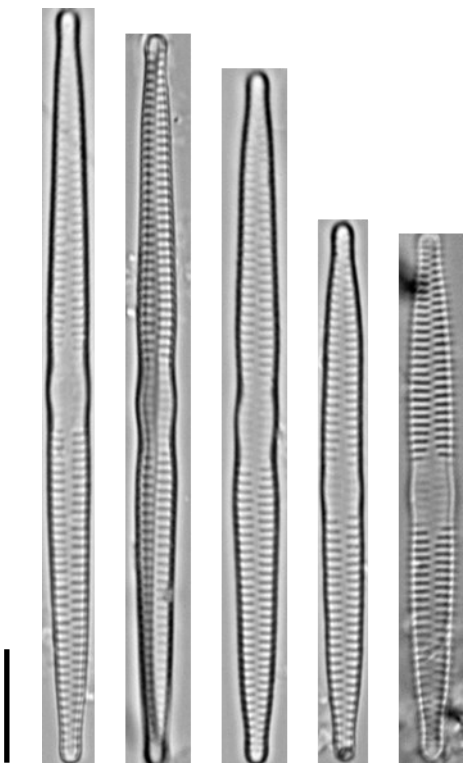


Fragilaria gracilis (FGRA)

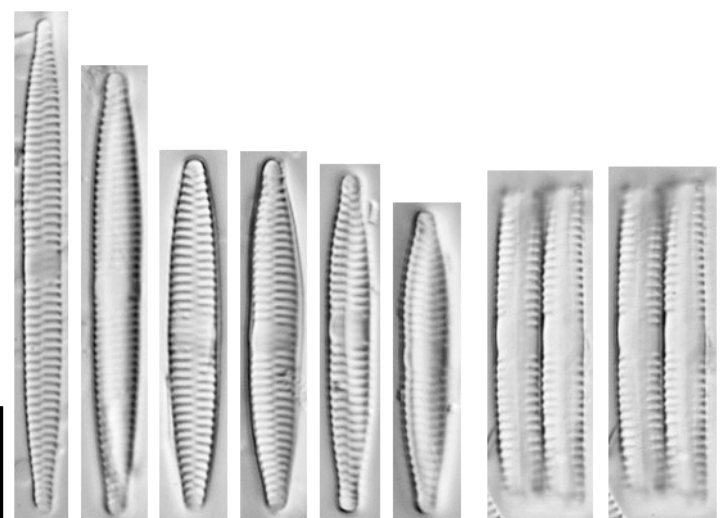
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



Fragilaria viereckiana (FVRK)



Fragilaria pararumpens (FPRU)

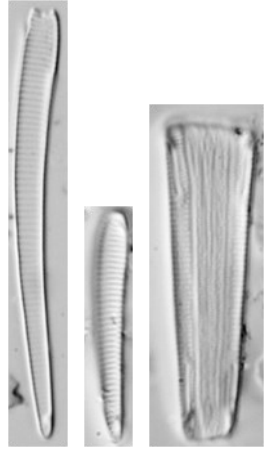


Fragilaria capucina var. *capucina* (FCAP)

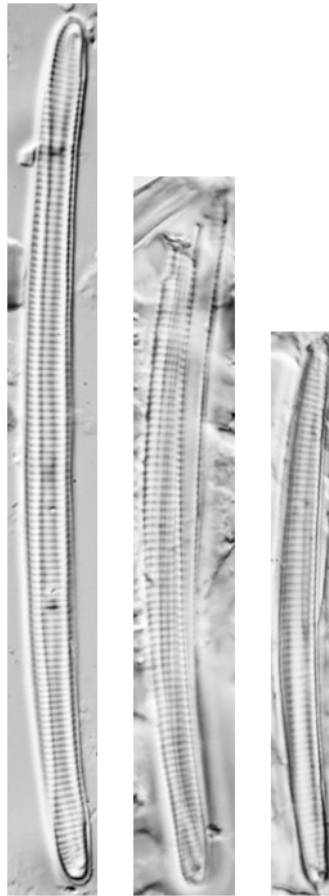


Fragilaria vaucheria (FVAU)

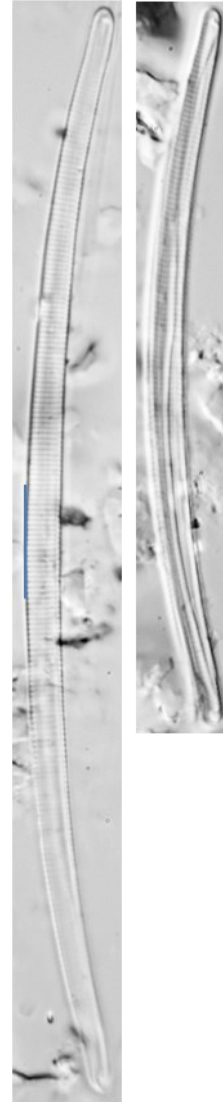
Genres *Actinella* - *Eunotia*



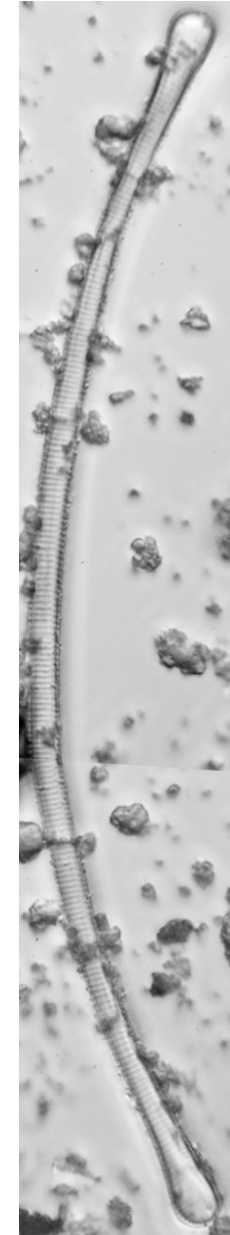
Actinella cuneiformis



Eunotia bilunaris (EBLU)

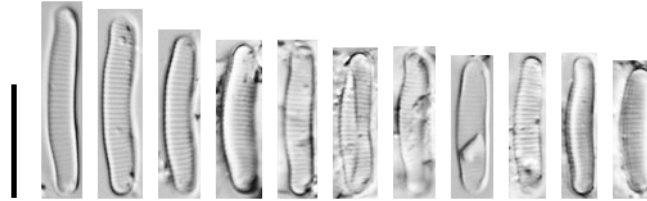


Eunotia sp4 (EUN4)

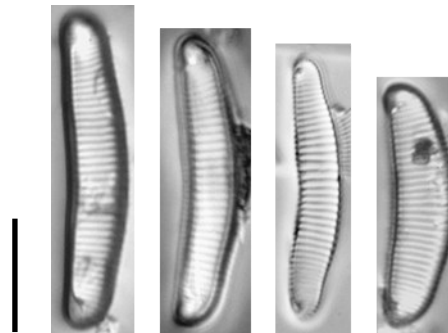


Eunotia ponspendens
(EPPD)

Genre *Eunotia*



Eunotia sp3 (EUN3)

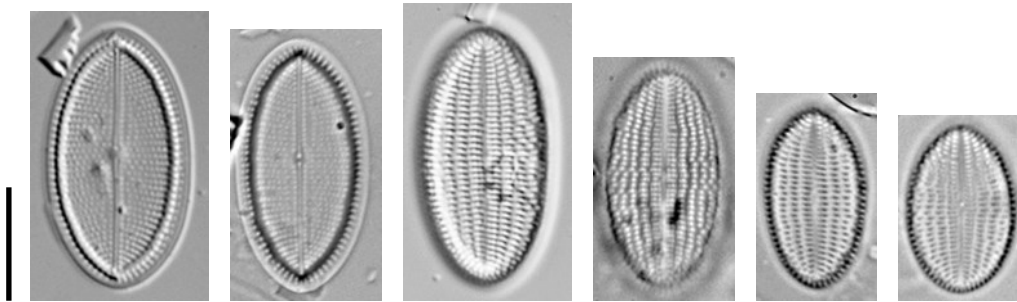


Eunotia australominor
(EAUM)

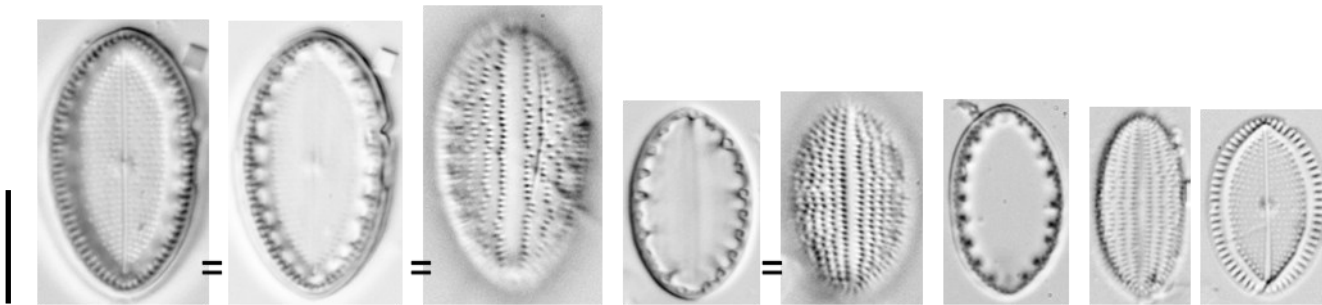
MONORAPHIDEES



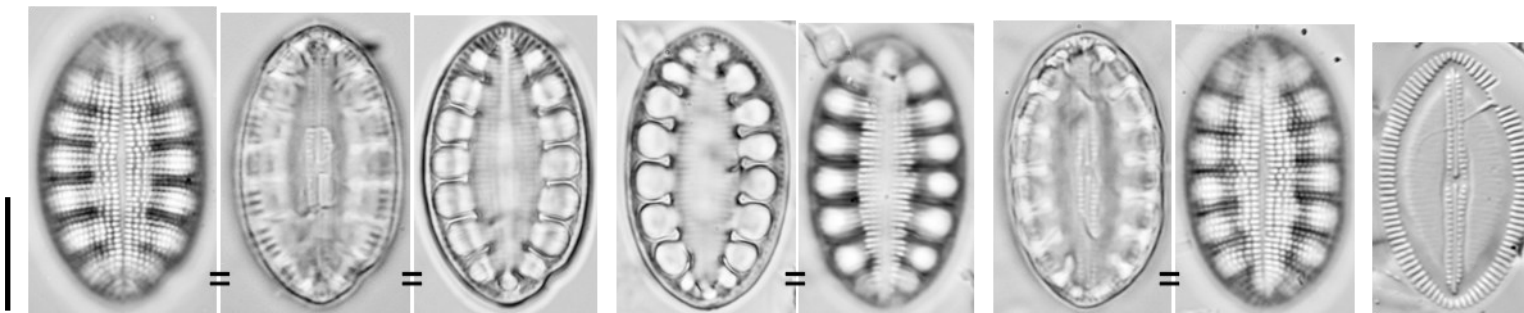
Genres *Cocconeis* - *Xenococconeis*



Cocconeis euglypta (CEUG)

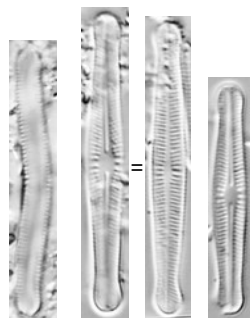


Cocconeis sp1 (COC1)

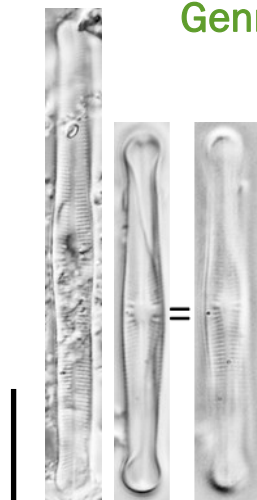


Xenococconeis neocaledonica (XNEO)

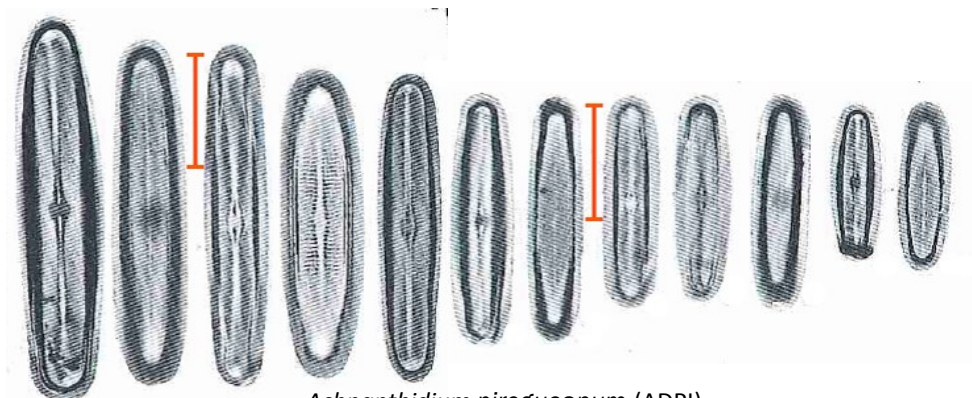
Genres *Achnanthes* - *Achnanthidium*



Achnanthidium blancheanum
(ABLA)

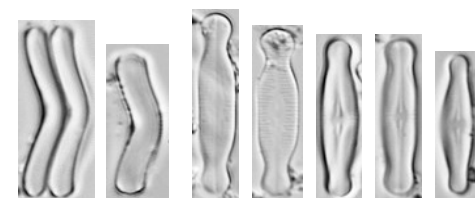


Achnanthes neocaledonica
(ANCL)

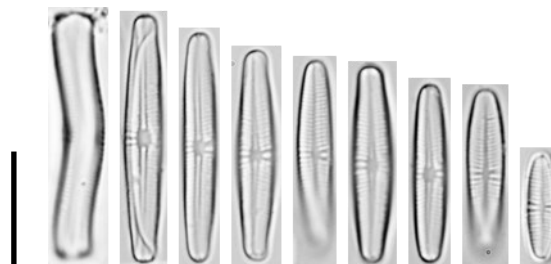


Achnanthidium pirogueanum (ADPI)

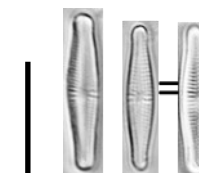
Extrait : Moser, G., Steindorf, A. and Lange-Bertalot, H. 1995. Neukaledonien
Diatomeenflora einer Tropeninsel. Revision der collection Maillard und Untersuchung
neuen materials. Bibliotheca Diatomologica 32:340 pp.



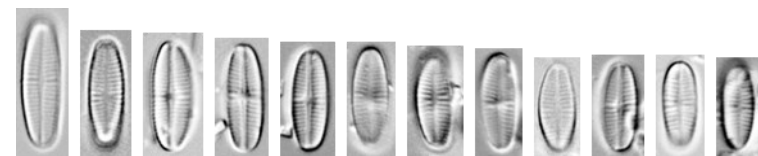
Achnanthidium peroditicum (ADPD)



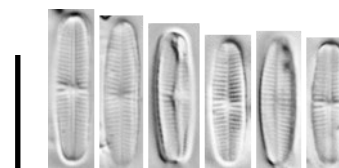
Achnanthidium minutissimum (ADMI)



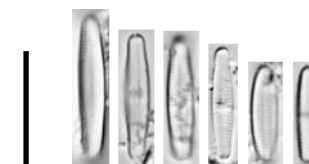
Achnanthidium catenatum
(ADCT)



Achnanthidium sp9 (AC09)

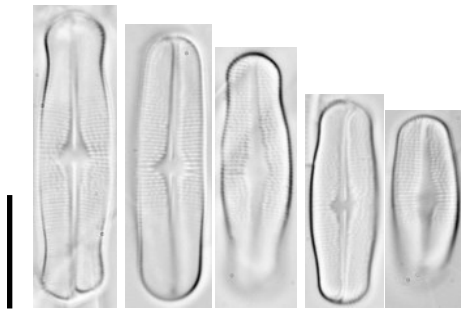


Achnanthidium sp5 (AC05)



Achnanthidium sp17 (AC17)

Genre *Achnanthydium*



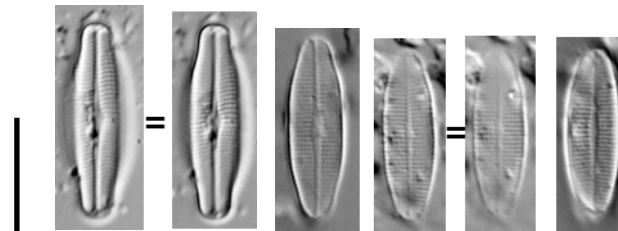
Achnanthydium contrarea (ACTR)



Achnanthydium indicatrix (ADIN)

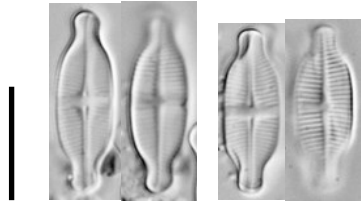


Achnanthydium koghisense (ADKO)

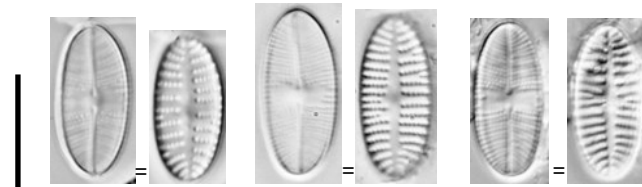


Achnanthydium arcus (AARC)

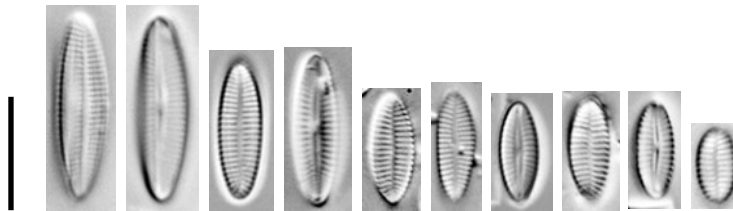
Genres *Achnanthes* - *Achnantheidium* - *Karayevia*



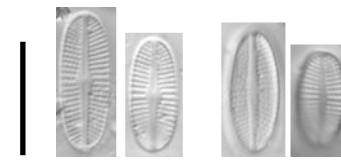
Achnantheidium exiguum (ADEG)



Karayevia oblongella (KOBG)

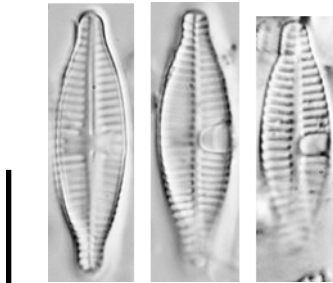


Achnanthes subhudsonis var. *densestriata*
(ASDE)



Achnanthes subcrassa (ASBC)

Genres *Planothidium* - *Platessa*



Planothidium biporum
(PLBI)

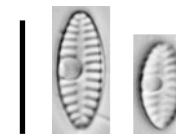


Planothidium robustius (PRBU)

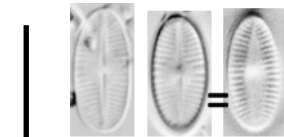


Planothidium minutissimum (PMNT)

Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011).
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Scientific Books, Königstein, 908 pp.

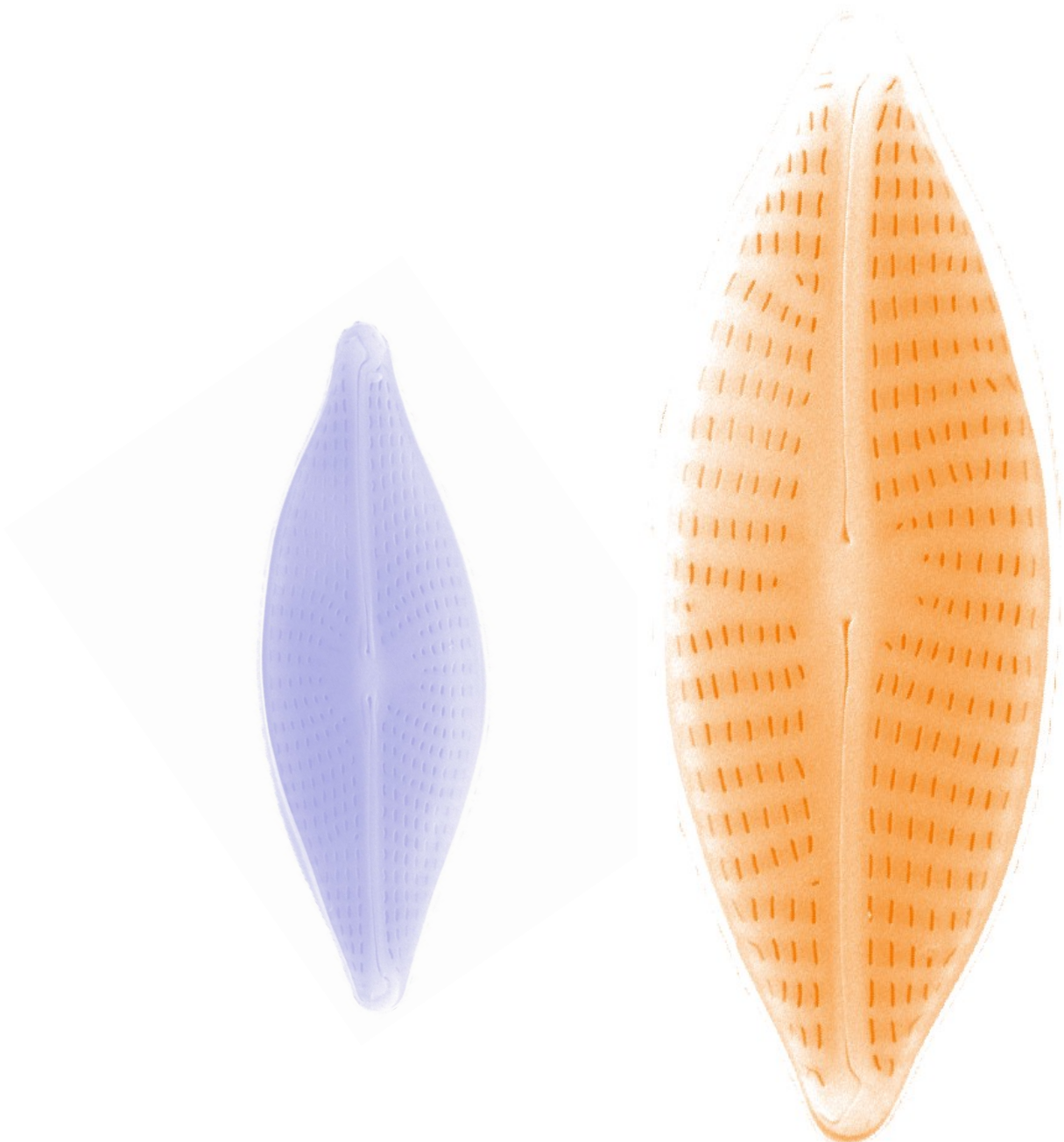


Planothidium
frequentissimum (PLFR)



Platessa hustedtii
(PLHU)

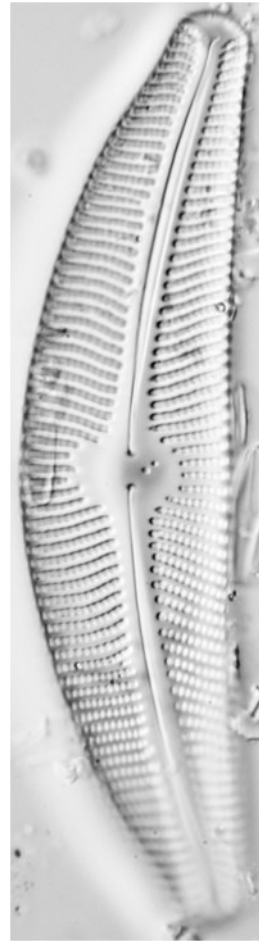
NAVICULACÉES : CYMBELLOIDÉES & GOMPHONEMATOIDÉES



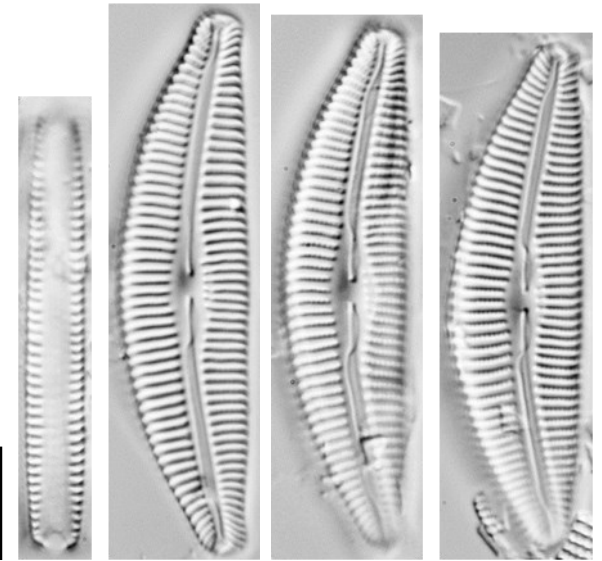
Genre *Cymbella*



Cymbella australica (CATL)



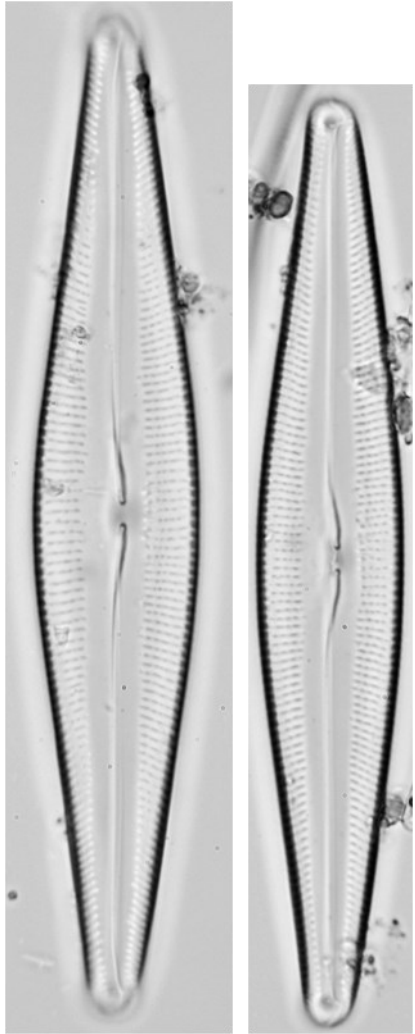
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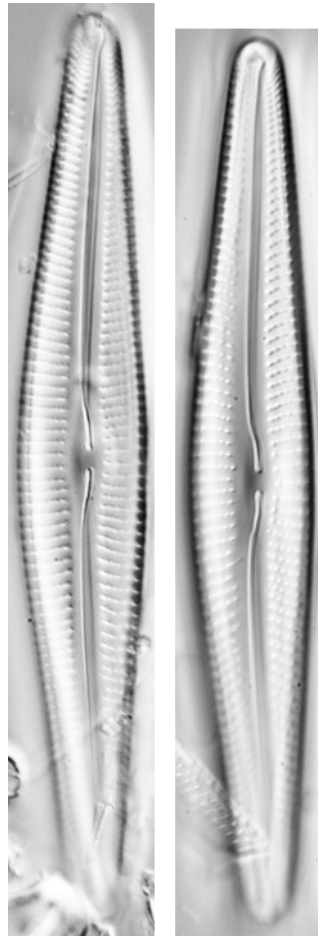
Cymbella novazeelandiana (CNZL)

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.

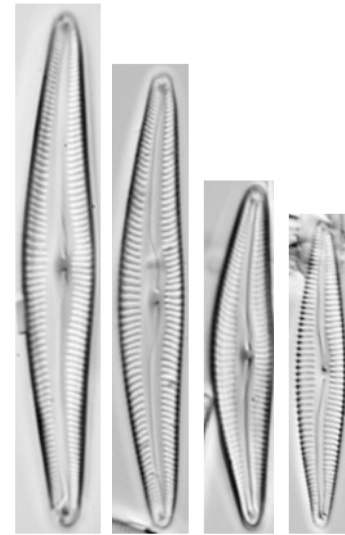
Genres *Cymbella* - *Delicata*



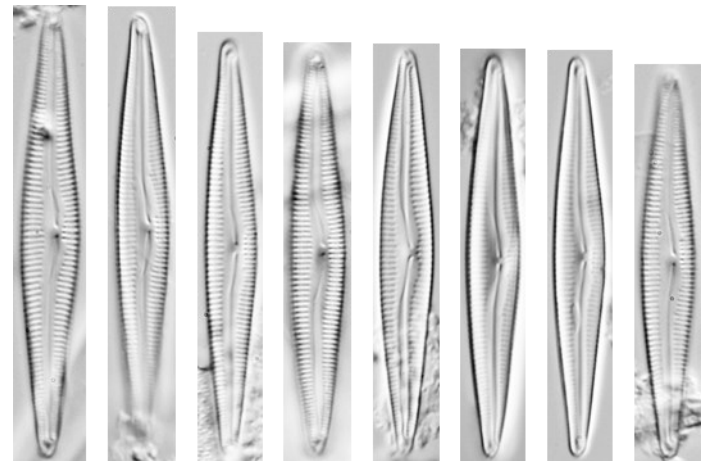
Cymbella laterata (CLTR)



Cymbella pernodensis
(CPND)

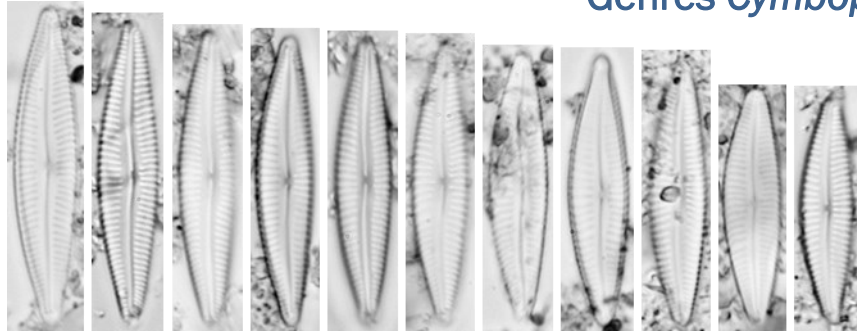


Delicata delicatula (DDEL)

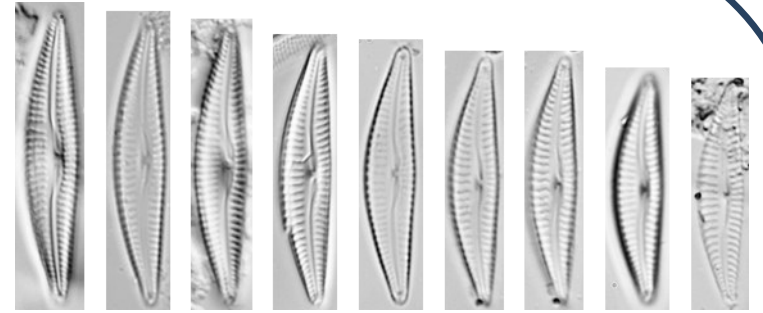


Delicata gadjana (DGAJ)

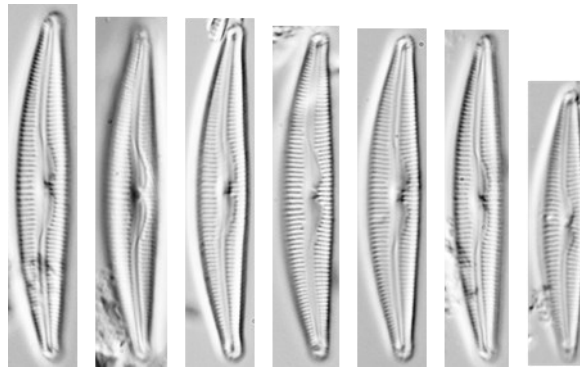
Genres *Cymbopleura* - *Delicata*



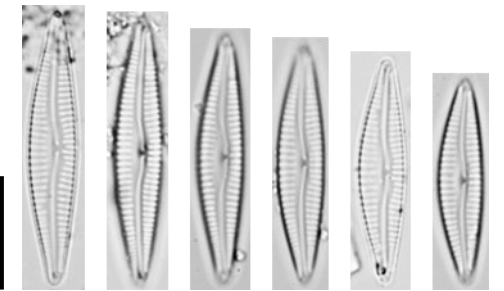
Cymbopleura nekliaiensis (CPNE)



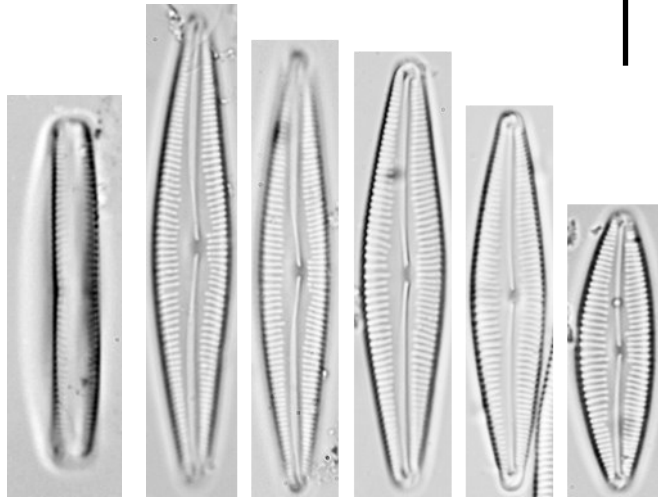
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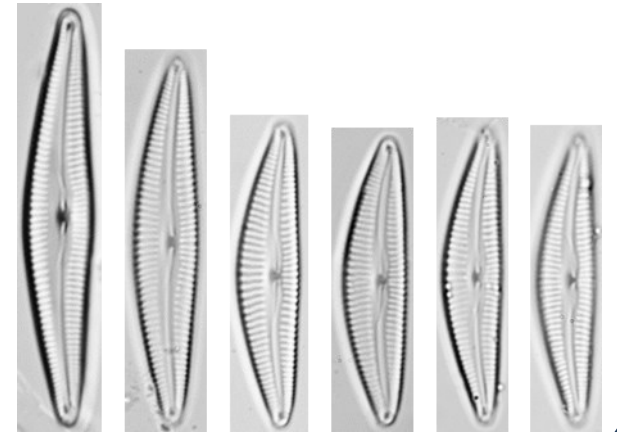
Delicata costei (DCOS)



Delicata neocaledonica (DNEO)



Cymbopleura yateana (CBYA)

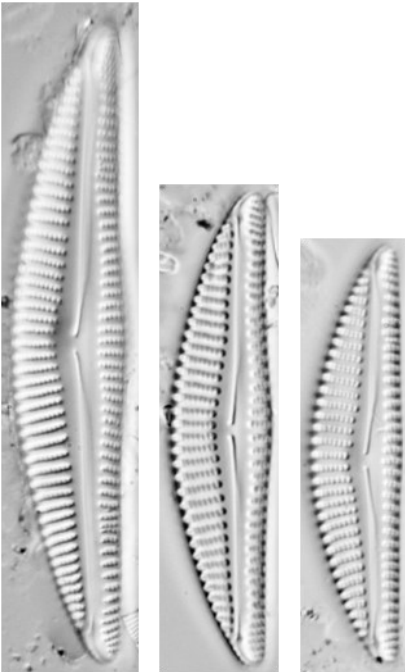


Delicata nepouina (DNEP)

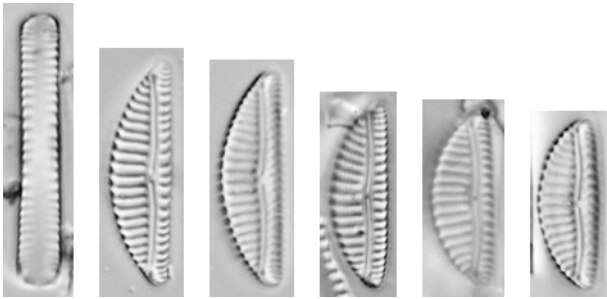
Genre *Encyonema*



Encyonema blancheanum
var. neocaledonicum (EBLN)

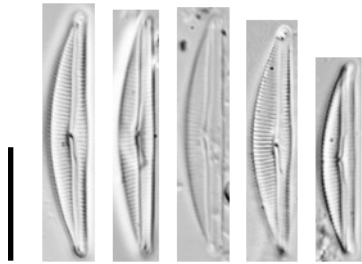


Encyonema affine (ENAF)

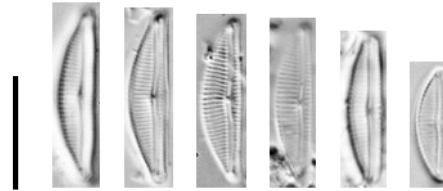


Encyonema silesiacum (ESLE)

Genres *Encyonema* - *Encyonopsis*



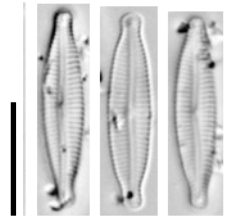
Encyonema tenuissimum (ETNS)



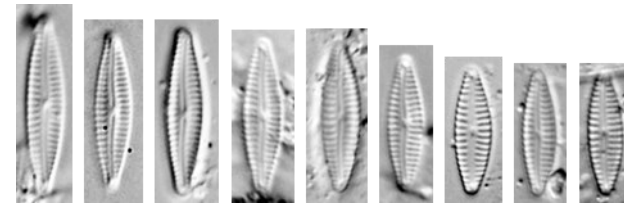
Encyonema tenerum (ETNR)



Encyonopsis opima (ENOP)

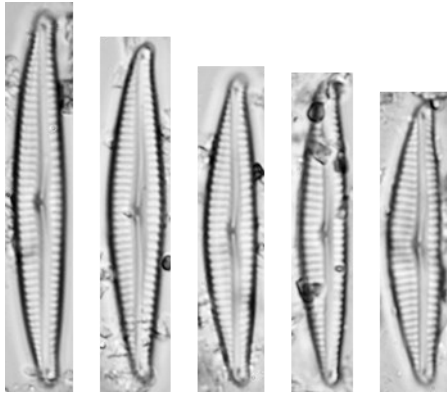


Encyonopsis subminuta (ESUM)

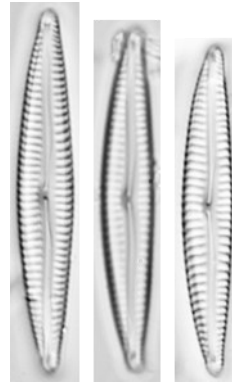


Encyonopsis subfonticola (ESFO)

Genres *Encyonema* - *Encyonopsis*



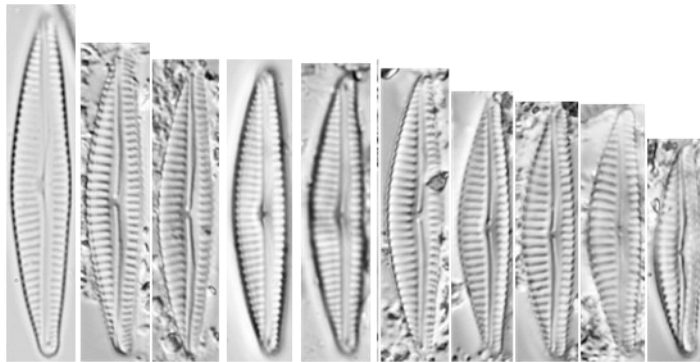
Encyonema thioense (ETIO)



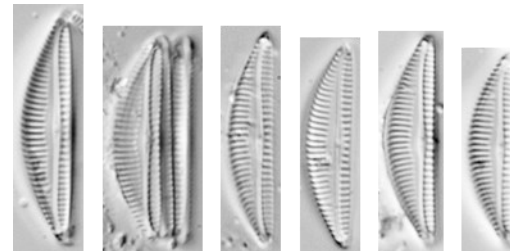
Encyonopsis degenerata
(ENDG)



Encyonema directiforme
(EDIR)



Encyonema sp2 (EN02)

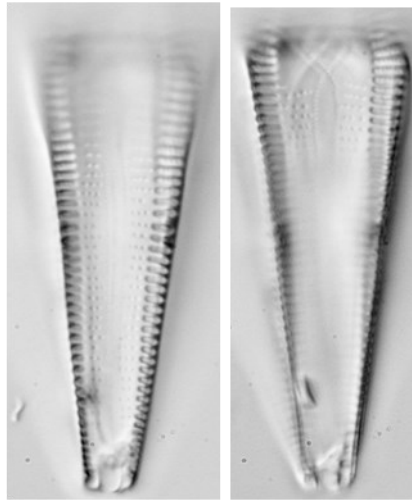


Encyonema sp9 (EN09)

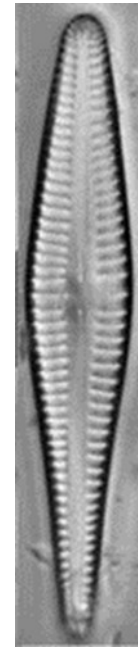
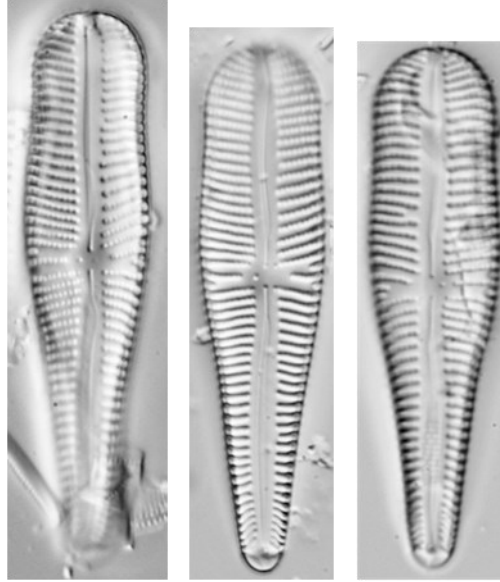
Genre *Gomphonema*



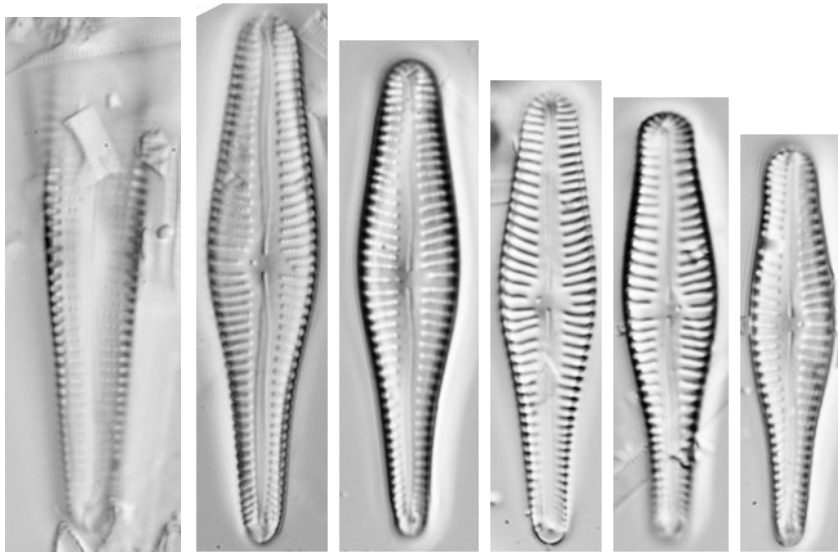
Gomphonema acuminatum
(GACU)



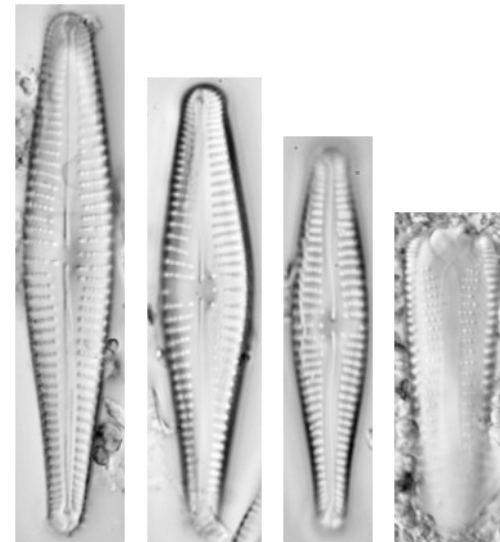
Gomphonema laticollum (GLTC)



Gomphonema affine
(GAFF)

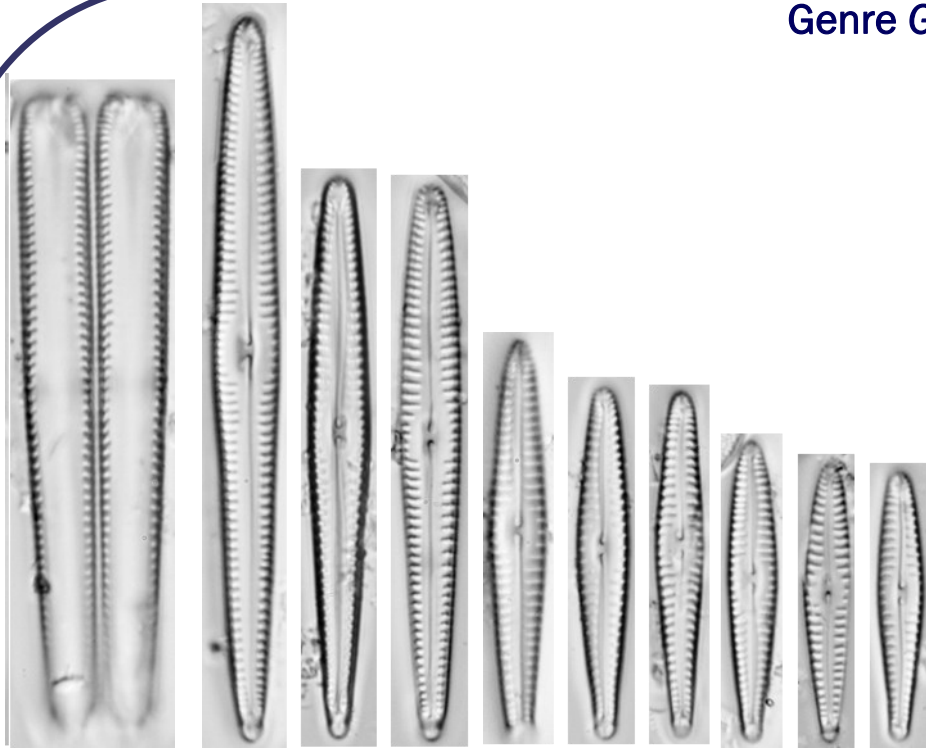


Gomphonema clavatum (GCLA)

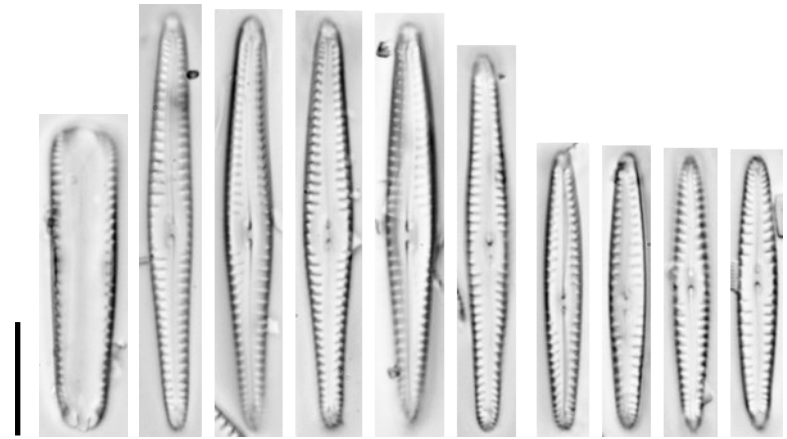


Gomphonema ricardii (GRIC)

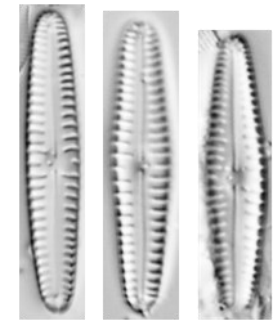
Genre Gomphonema



Gomphonema neobourrellyi (GNEO)



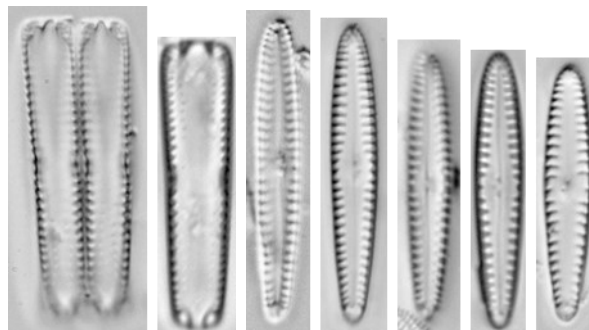
Gomphonema neobourrellyi morphotype *parvum* (GNBP)



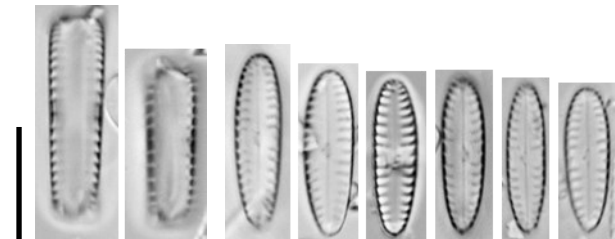
Gomphonema sp10 (GO10)



Gomphonema brasiliense ssp. *pacificum* (GBPA)



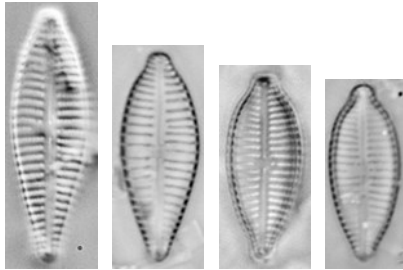
morphotype *Gomphonema designatum*



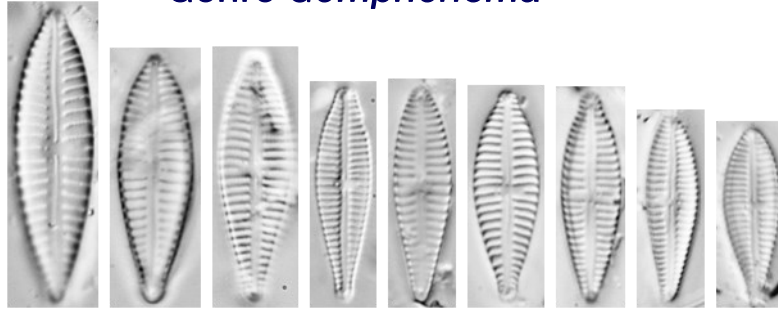
morphotype *Gomphonema bourbonense*

Gomphonema pumilum (GPUM)

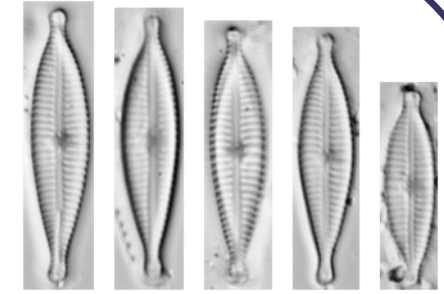
Genre *Gomphonema*



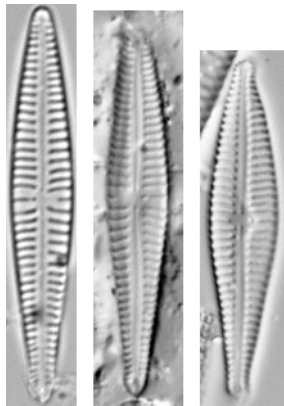
Gomphonema parvulum (GPAR)



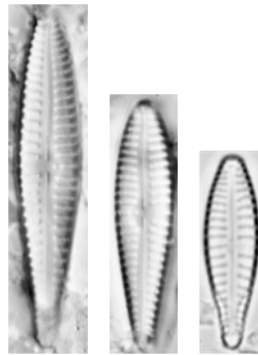
Gomphonema saprophilum (GSPP)



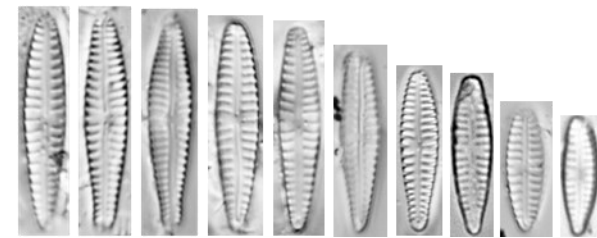
Gomphonema lagenula (GLGN)



Gomphonema gracile
(GGRA)

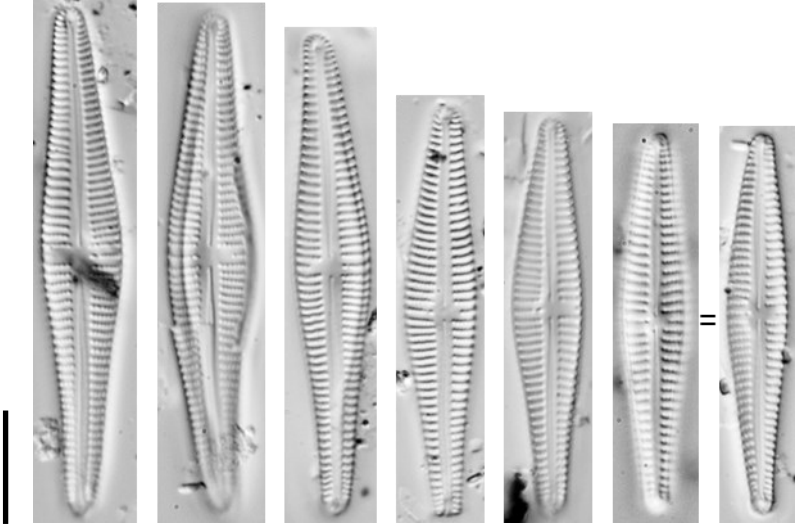


Gomphonema angustatum
(GANG)

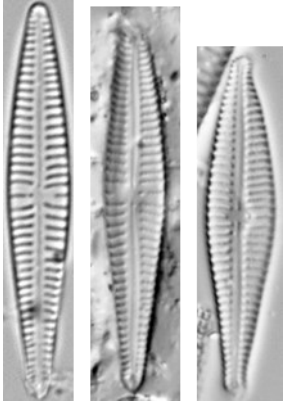


Gomphonema sp17 (GO17)

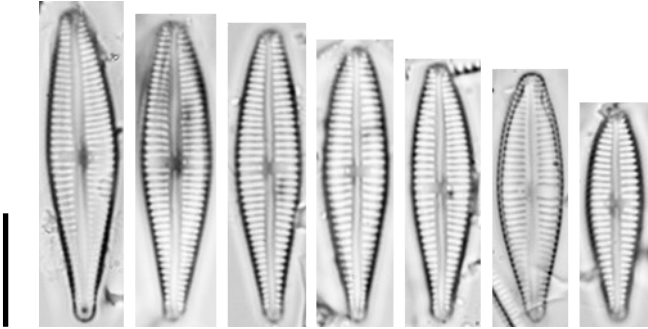
Genre Gomphonema



Gomphonema sp15 (GO15)

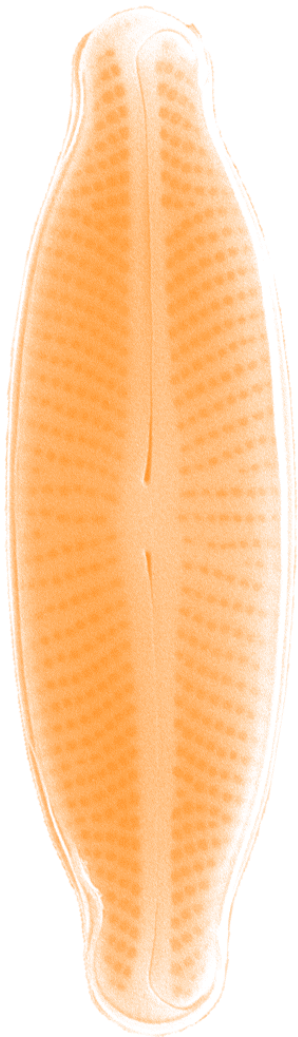


Gomphonema gracile
(GGRA)

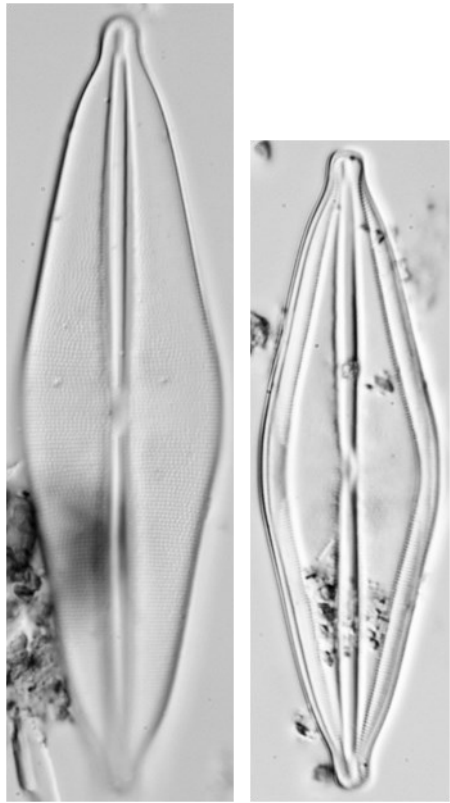


Gomphonema sp20 (GO20)

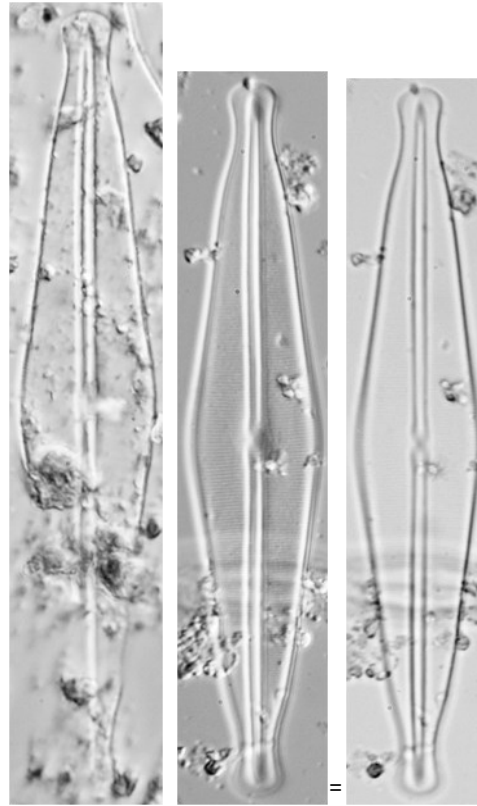
NAVICULACÉES : NAVICULOIDÉES



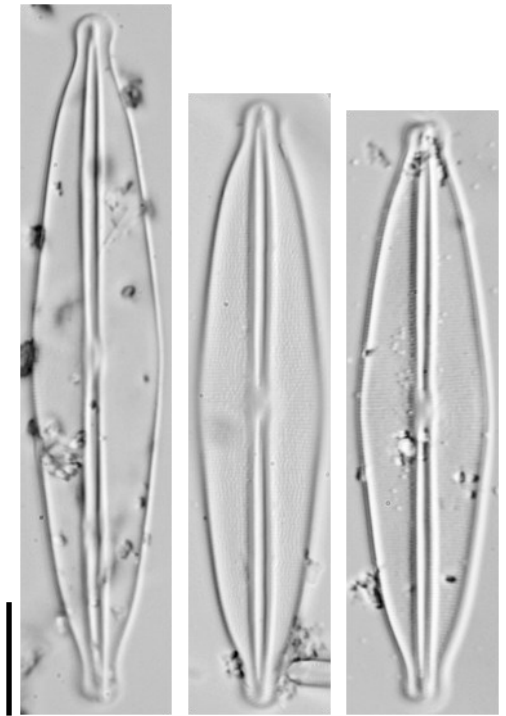
Genre *Frustulia*



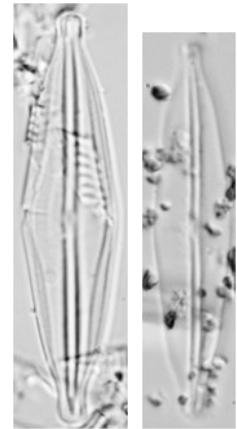
Frustulia neocaledonica (FNEO)



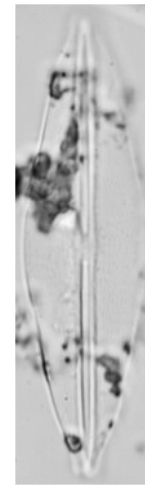
Frustulia lacustris (FLAC)



Frustulia peroditica (FPER)

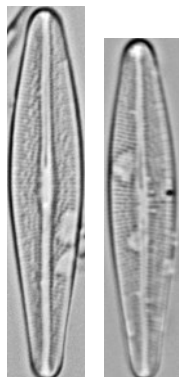


Frustulia nana (FRNA)

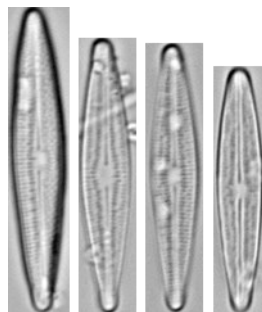


Frustulia stagnalis (FSTL)

Genre *Brachysira*



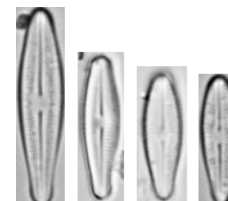
Brachysira gomphonoides
(BGOM)



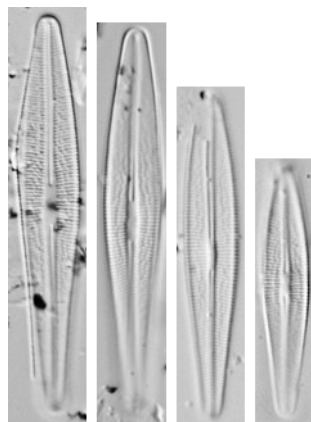
Brachysira blancheana
(BBLA)



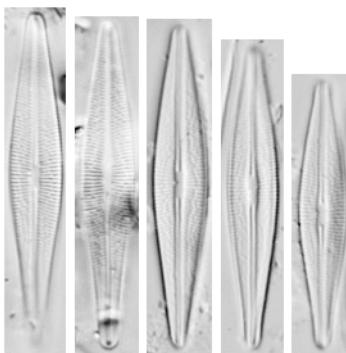
Brachysira microclava
(BMCL)



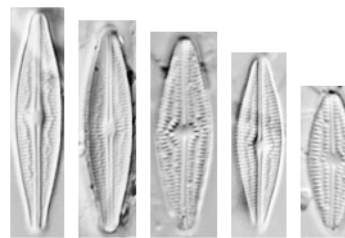
Brachysira nanoclava
(BNCV)



Brachysira irawanoides
(BIRO)



Brachysira styriaca (BSTY)

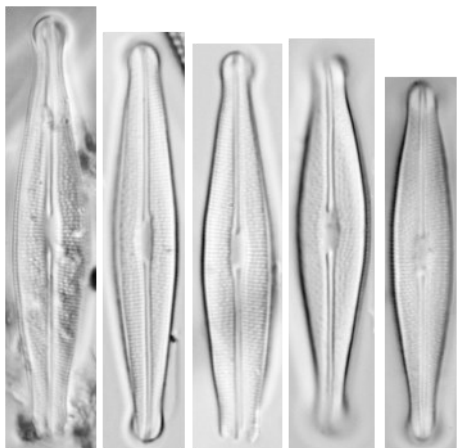


Brachysira brebissonii
(BBRE)

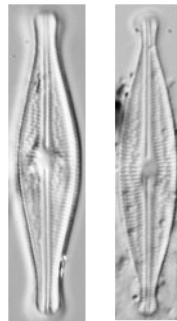


Brachysira palustris
(BPAL)

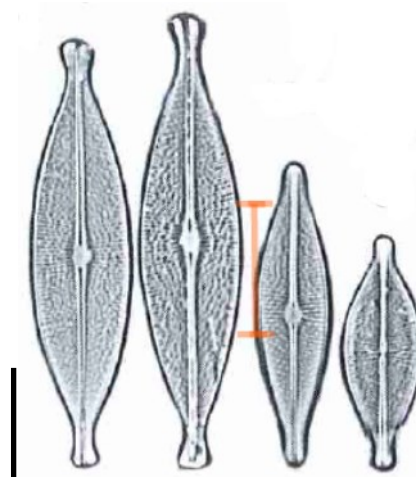
Genre *Brachysira*



Brachysira maillardii (BMAI)

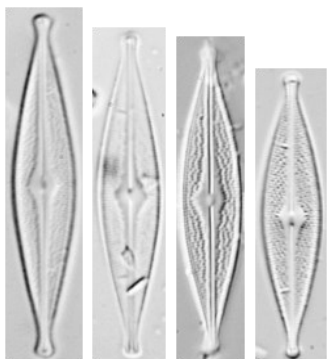


Brachysira silvicola
(BSIL)

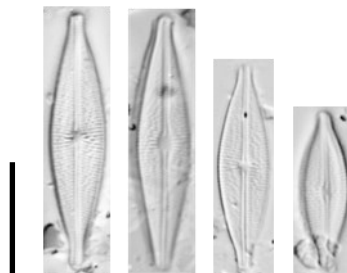


Brachysira vitrea (BVIT)

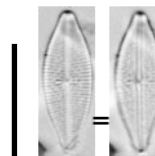
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



Brachysira angusta (BANG)

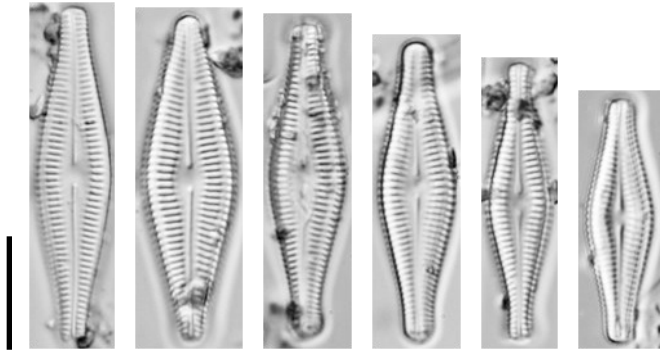


Brachysira neoexilis (BNEO)



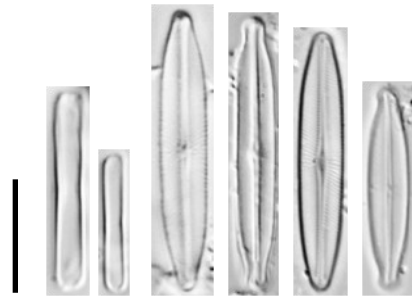
Brachysira cf. seippii
(BSEI)

Genre *Brachysira*

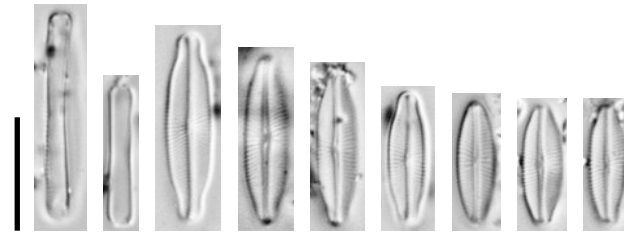


Brachysira supriniana (BSPN)

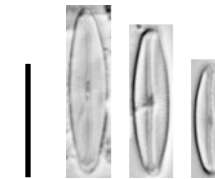
Genres *Adlafia* - *Germainiella* - *Kobayasiella* - *Fallacia* - *Mayamaea*



Kobayasiella saxicola (KOSA)



Adlafia muscora (AMUS)



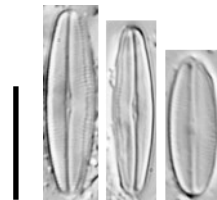
Adlafia sp1
(ADS1)



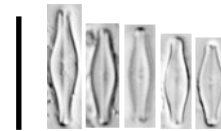
Adlafia sp2
(ADS2)



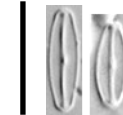
Mayamaea permitis (MPMI)



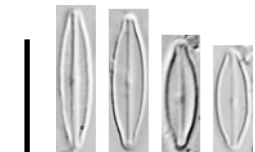
Fallacia mitis
(FMIT)



Germainiella enigmatica (GENI)

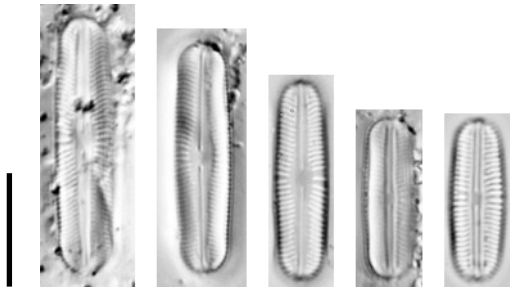


Fallacia indifferens
(FIND)

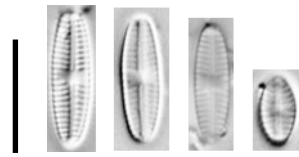


Kobayasiella sp2
(KOB2)

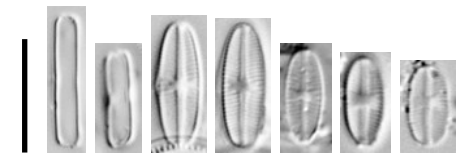
Genres *Sellaphora* - *Eolimna* - *Craticula*



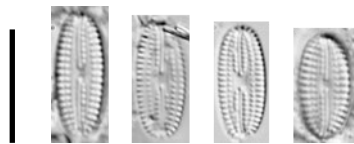
Sellaphora stroemii (SSTM)



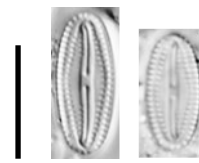
Sellaphora seminulum (SSEM)



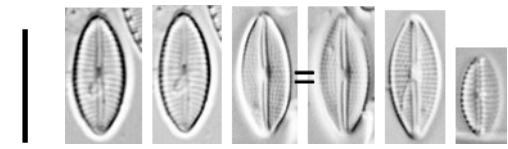
Eolimna minima (EOMI)



Pseudofallacia tenera (PFTN)

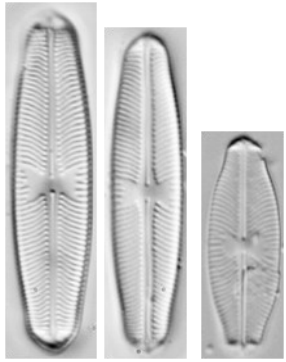


Fallacia insociabilis (FINS)

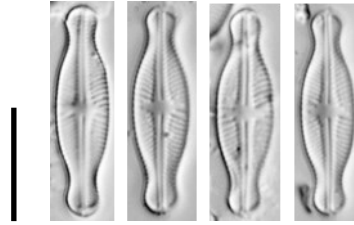


Craticula subminuscula (CSNU)

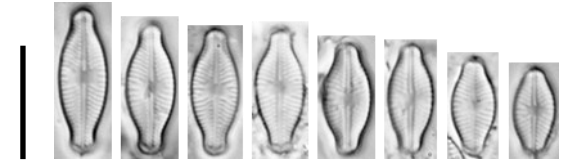
Genres *Sellaphora* - *Hippodonta*



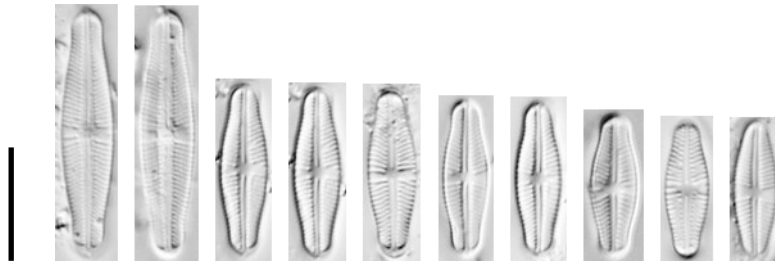
Sellaphora pupula (SPUP)



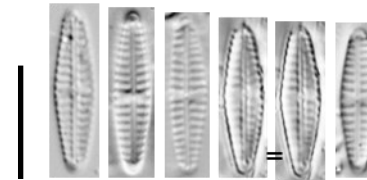
Sellaphora japonica (SJAP)



Sellaphora javanica (SEJA)

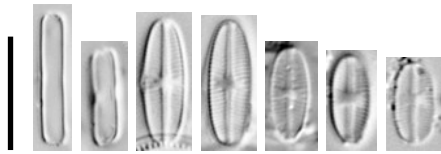


Sellaphora ruttneri (SRUT)

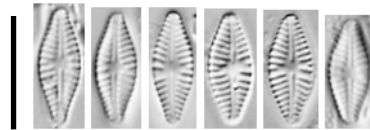


Hippodonta subtilissima (HSUT)

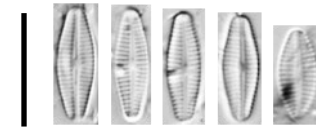
Genres *Sellaphora* - *Eolimna* - *Hippodonta* - *Chamaepinnularia*



Eolimna minima (EOMI)



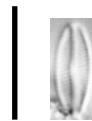
Eolimna rhombica (ERHB)



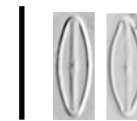
Sellaphora inconspicua (SICO)



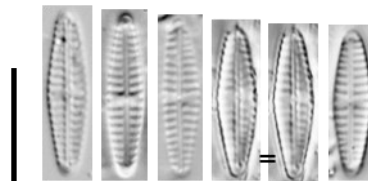
Mayamaea permitis (MPMI)



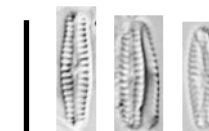
Sellaphora neocaledonica (SNCD)



Sellaphora arvensis (SARJ)

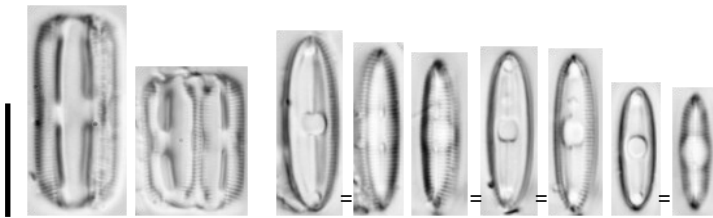


Hippodonta subtilissima (HSUT)

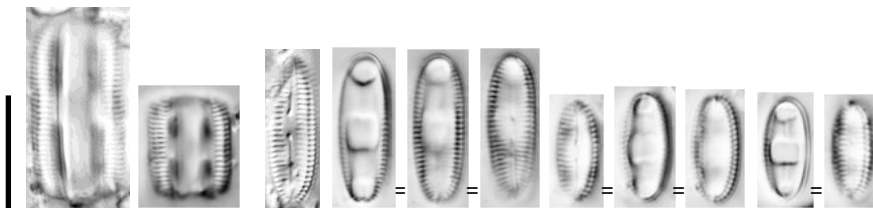


Chamaepinnularia submusicola (CSMU)

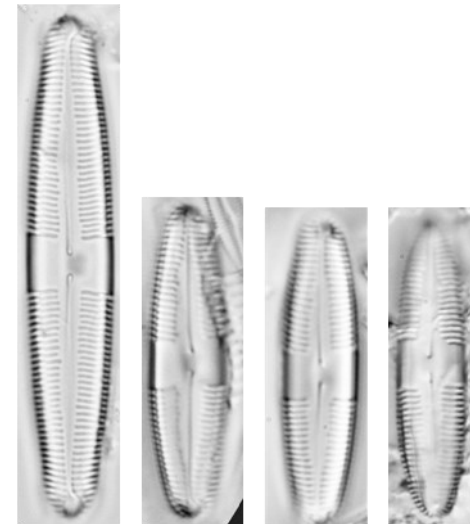
Genres *Diatomella* - *Caloneis*



Diatomella lecohui (EOMI)

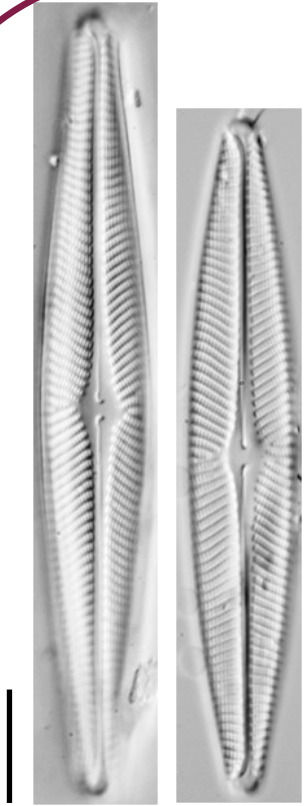


Diatomella ouenkohana (DOUE)

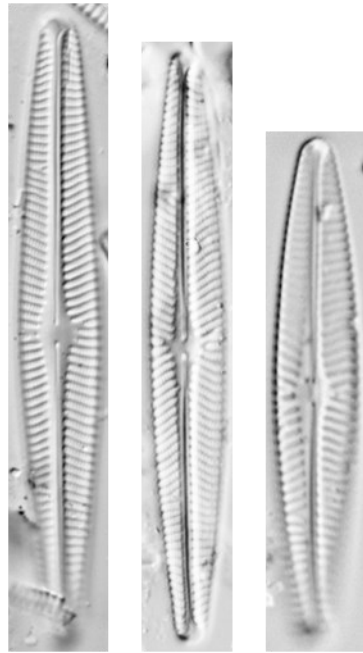


Caloneis aequatorialis (CAET)

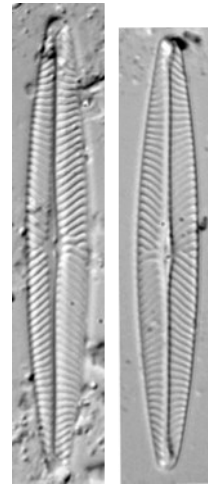
Genre *Navicula*



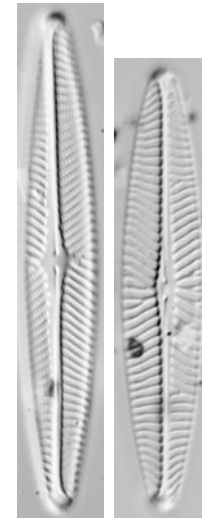
Navicula melanesica
(NMES)



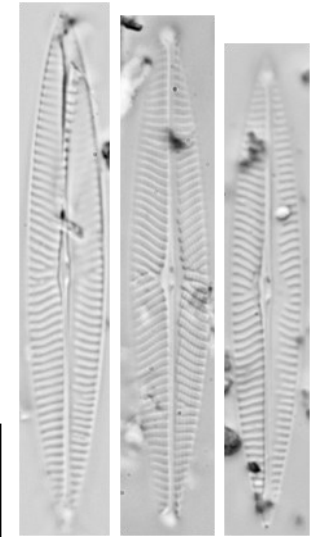
Navicula sp25 (NA25)



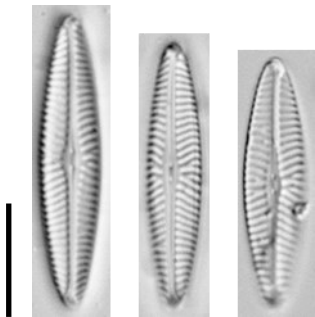
Navicula lehmanniae
(NLEH)



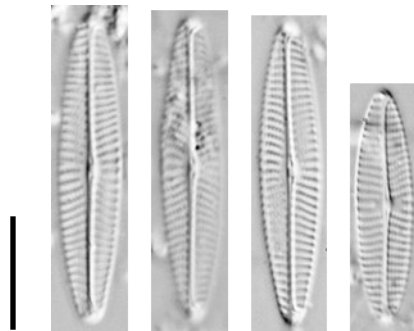
Navicula melanesica
morph. minor (NMMN)



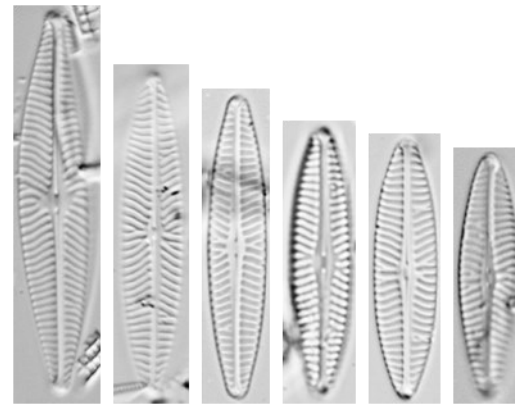
Navicula peracuta (NPTA)



Navicula cryptotenella
(NCTE)



Navicula erifuga (NERI)

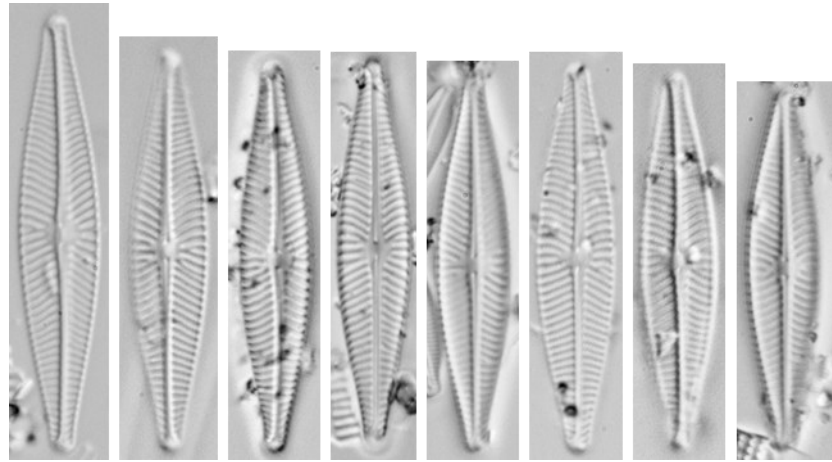


Navicula suprinii (NSUP)

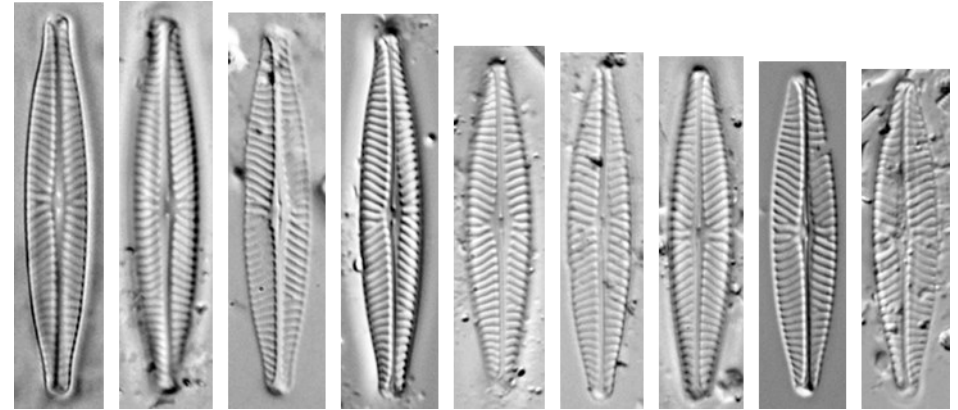


Navicula veneta
(NVEN)

Genre *Navicula*



Navicula cryptocephala (NCRY)



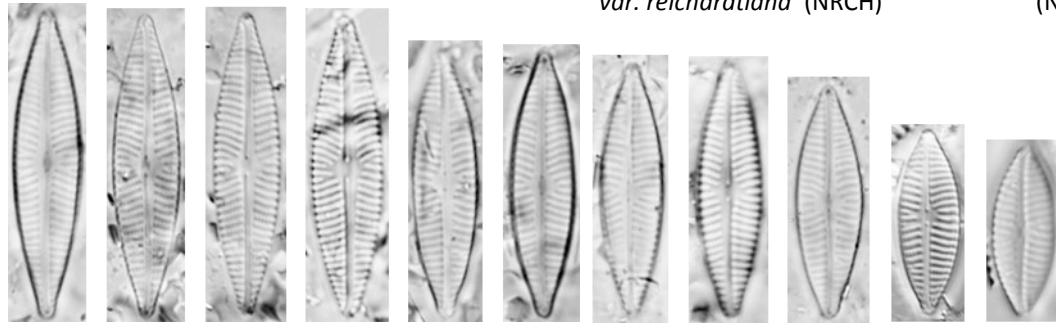
Navicula seippiana (NSPP)



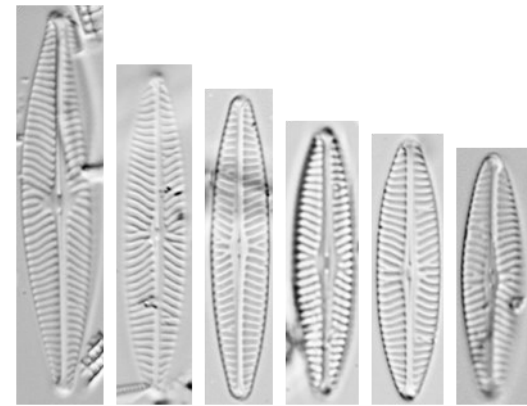
Navicula reichardtiana
var. *reichardtiana* (NRCH)



Navicula veneta
(NVEN)

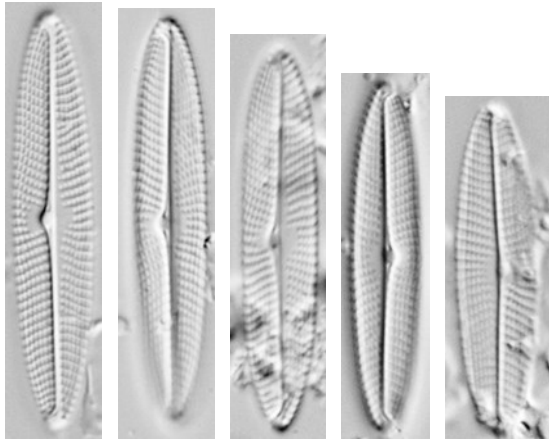


Navicula quasidisjuncta (NCQDJ)

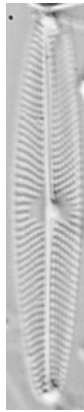


Navicula suprinii (NSUP)

Genre *Navicula*



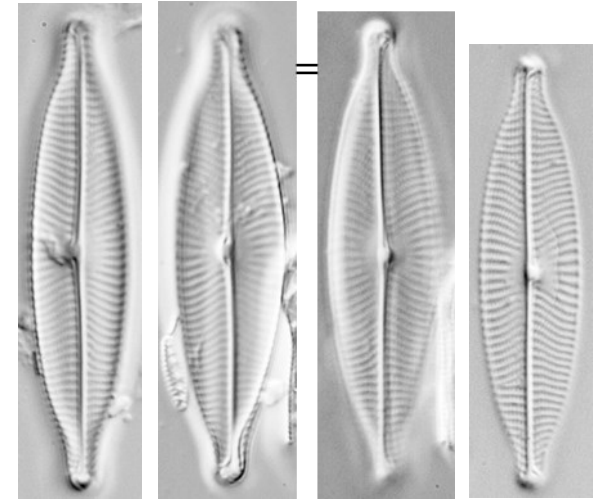
Navicula escambia (NESC)



Navicula simulata
(NSIA)



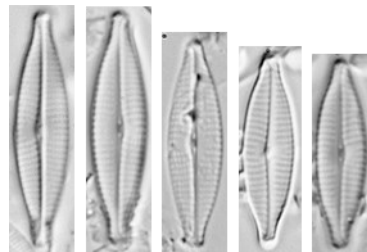
Navicula amphiceropsis
(NAAM)



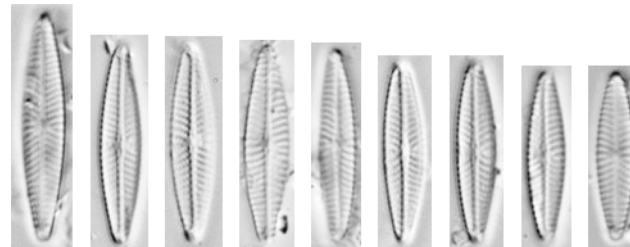
Navicula rostellata (NROS)



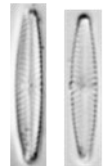
Navicula vandamii var.
vandamii (NVDA)



Navicula gregaria (NGRE)

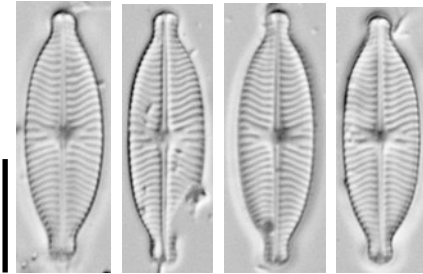


Navicula sp7 (NA07)



Navicula vilaplanii
(NVIP)

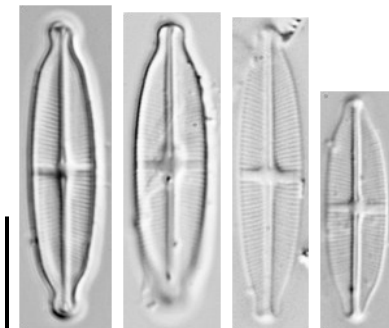
Genres *Geissleria* - *Navicula* - *Stauroneis*



Geissleria decussis (GDEC)

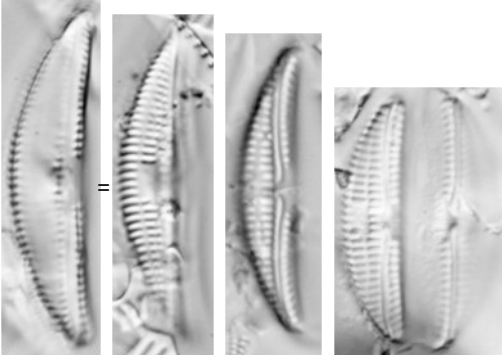


Navicula amphiceropsis
(NAAM)

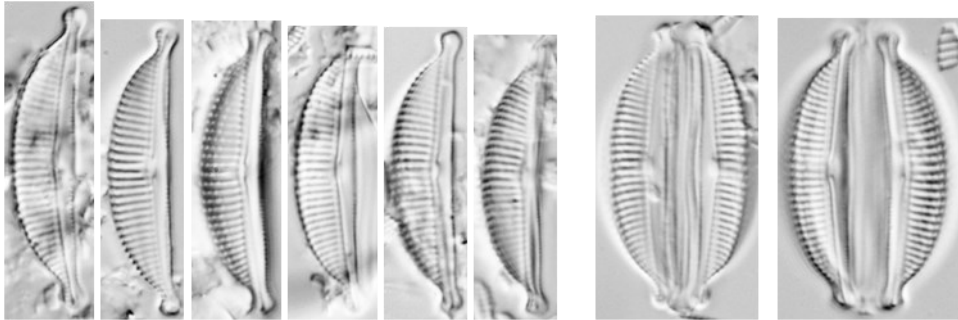


Stauroneis resoluta (SRES)

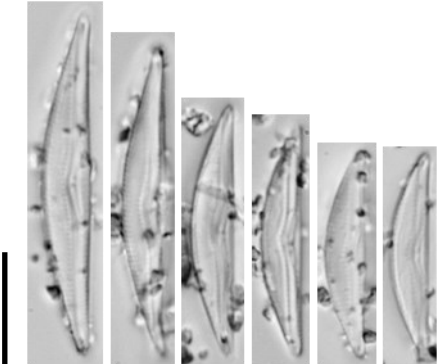
Genres *Amphora* - *Halamphora*



Amphora copulata (ACOP)



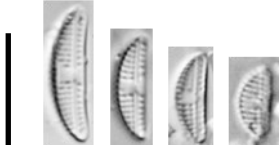
Halamphora ghanensis (HGHA)



Amphora disimilis (AMDl)

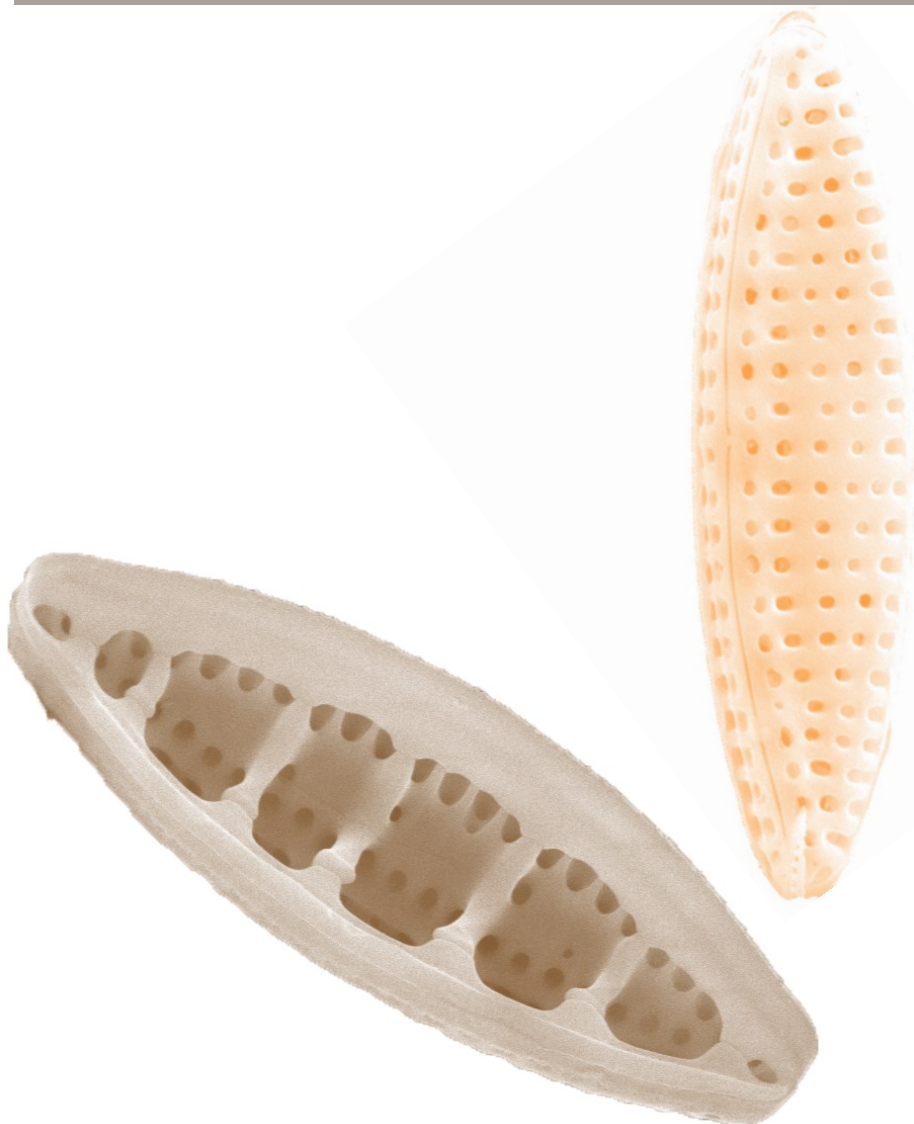


Halamphora submontana (HSMO)



Amphora pediculus (APED)

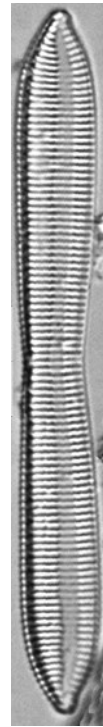
NITZSCHIACÉES, ÉPITHÉMIACÉES & SURIRELLACÉES



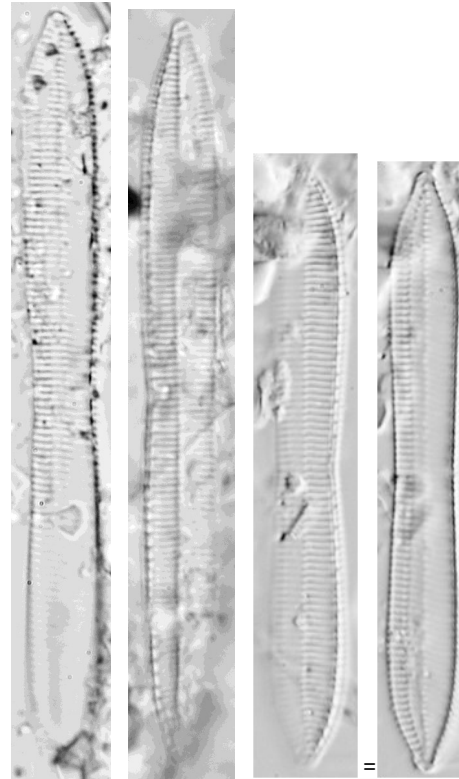
Genres *Bacillaria* - *Tryblionella*



Bacillaria paxillifera
(BPAX)

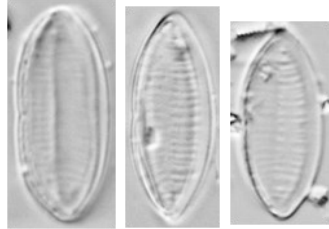


Tryblionella kuentzingii
(TKUE)

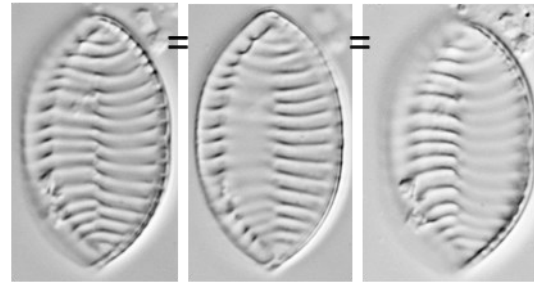


Tryblionella hungarica
(THUN)

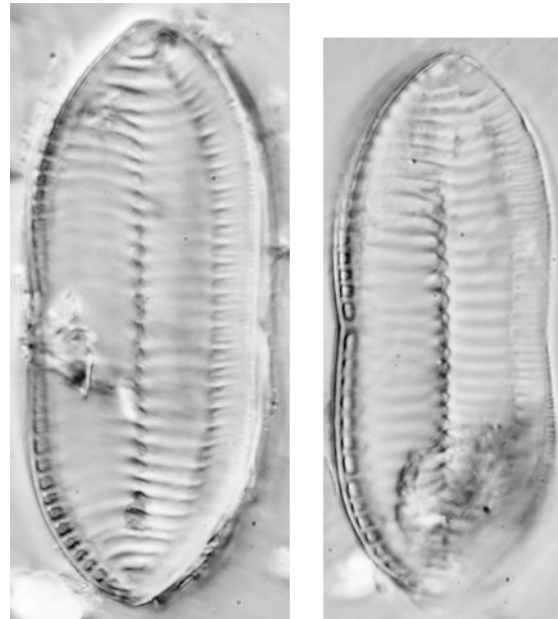
Genre *Tryblionella*



Tryblionella debilis
(TDEB)

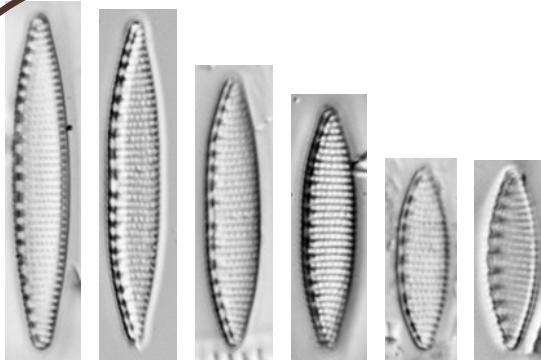


Tryblionella levidensis
(TLEV)

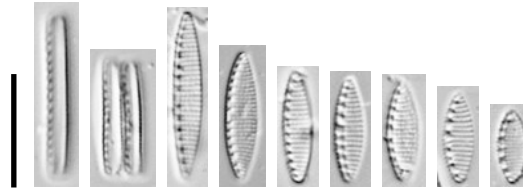


Tryblionella victoriae
(TVIC)

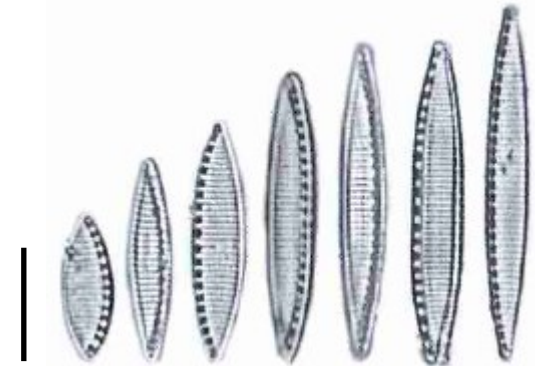
Genre *Nitzschia*



Nitzschia amphibia (NAMP)

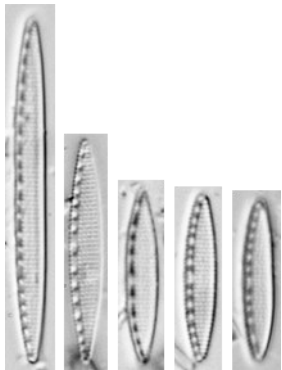


Nitzschia inconspicua (NINC)

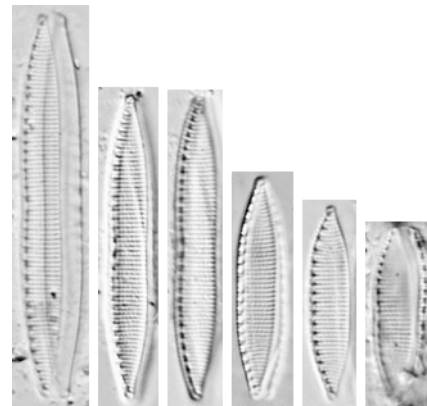


Nitzschia liebethrhii (NLBT)

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



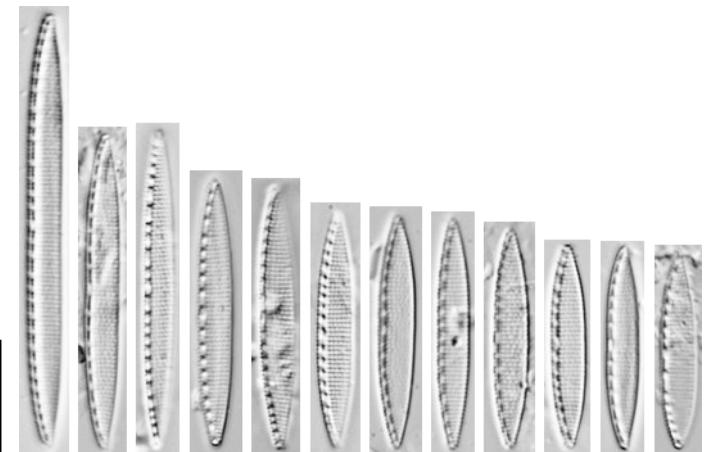
Nitzschia brevior
(NBRV)



Nitzschia hiengheneana (NIHI)



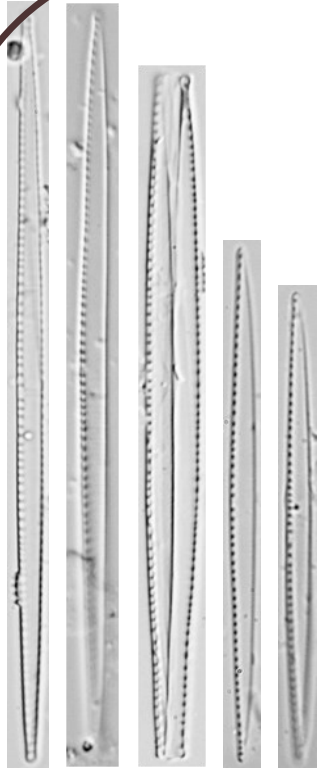
Nitzschia supralitorea (NZSU)



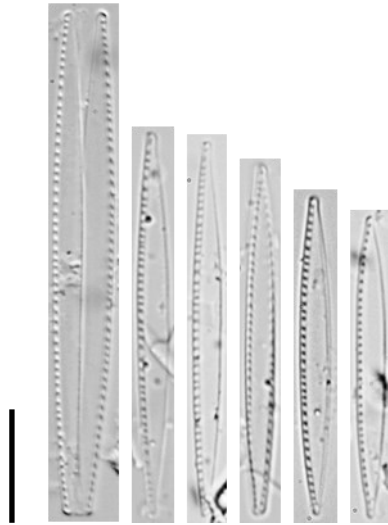
Nitzschia frustulum var. *frustulum* (NIFR)

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

Genre *Nitzschia*



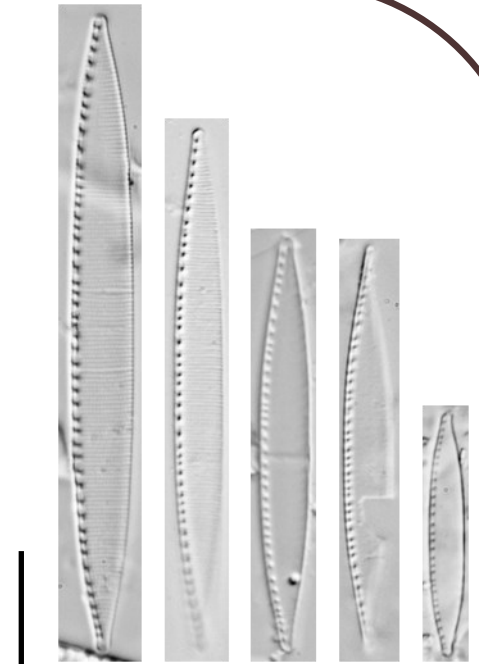
Nitzschia bacata (NZBA)



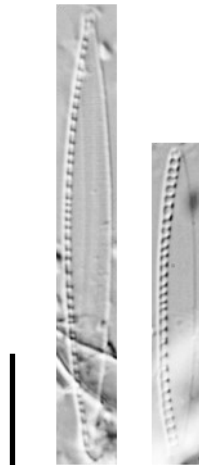
Nitzschia palea var. *debilis* (NPAD)



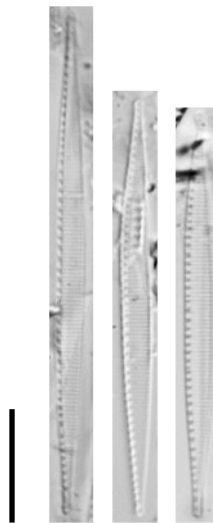
Nitzschia paleacea
(NPAE)



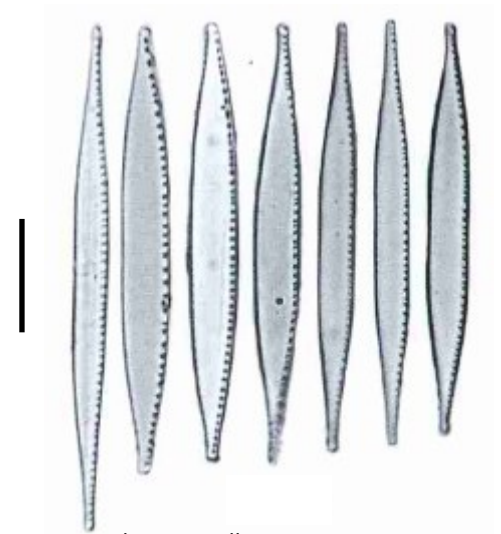
Nitzschia palea (NPAL)



Nitzschia sociabilis
(NSOC)

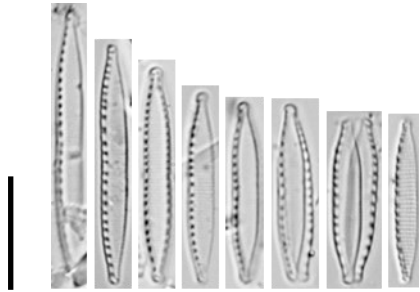


Nitzschia subacicularis
(NSUA)



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

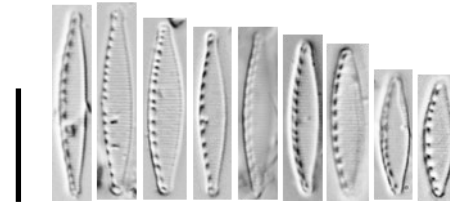
Genre *Nitzschia*



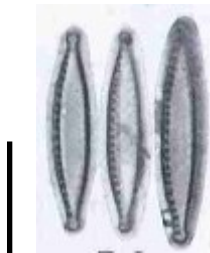
Nitzschia acidoclinata (NACD)



Nitzschia archibaldii
(NIAR)



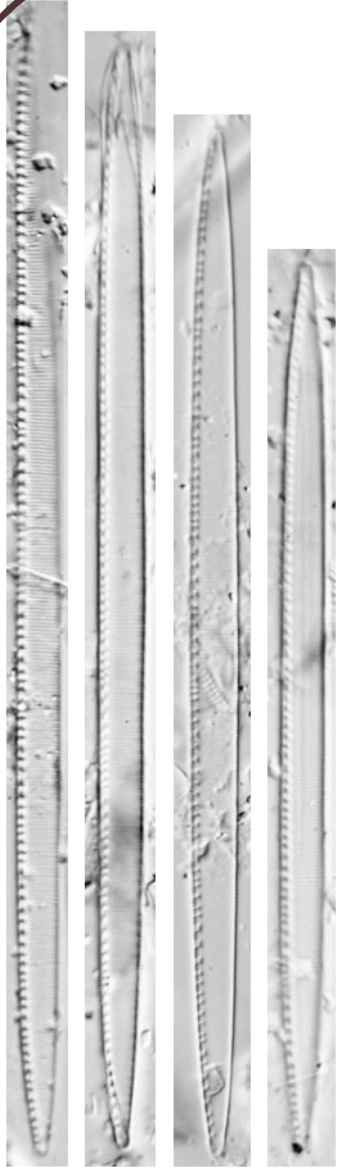
Nitzschia labella (NLAL)



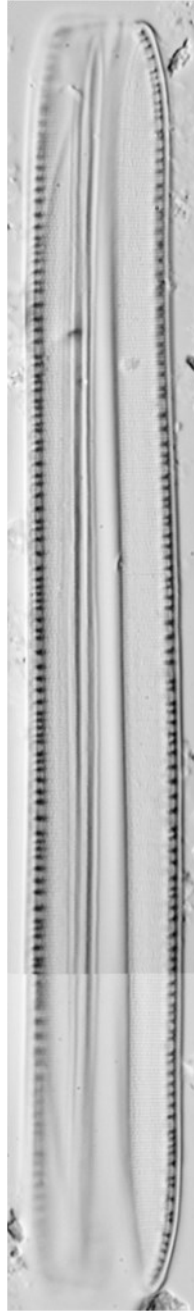
Nitzschia neocaledonica (NNCA)

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

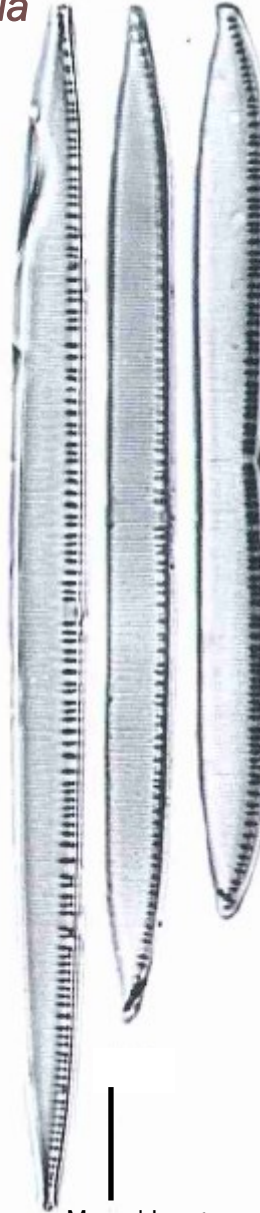
Genre *Nitzschia*



Nitzschia intermedia (NINT)

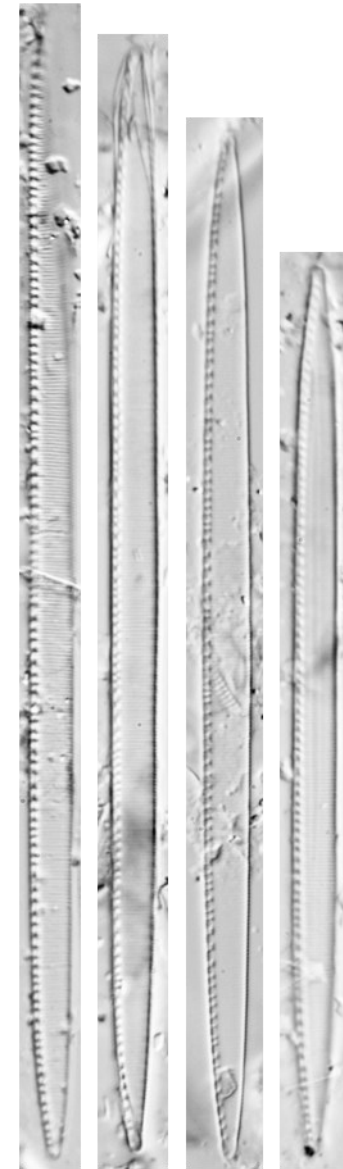


Nitzschia ingenua (NIGE)



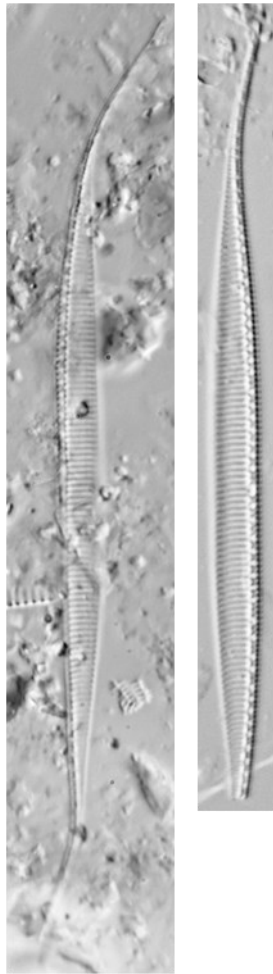
Nitzschia linearis
(NLIN)

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

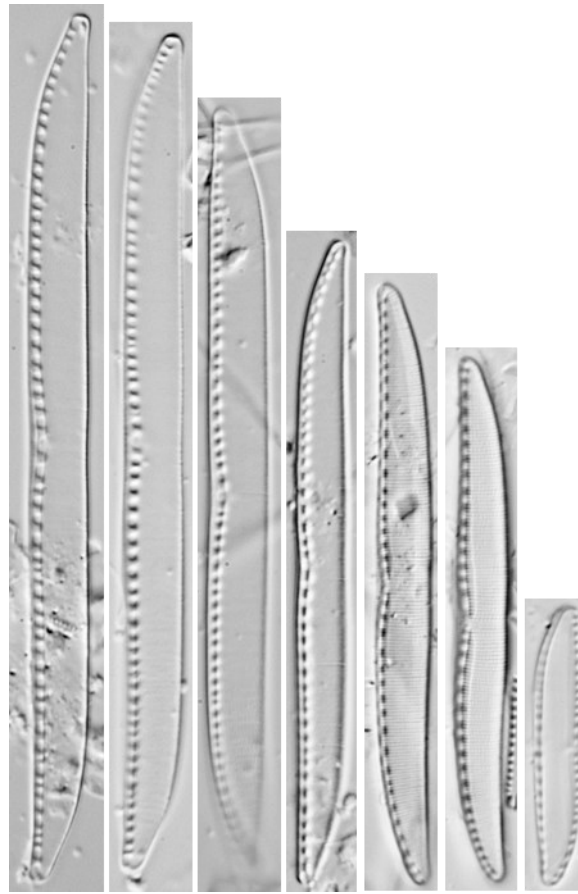


Nitzschia philippinarum (NPHL)

Genre *Nitzschia*



Nitzschia lorenziana
(NLOR)



Nitzschia scalpelliformis (NISC)



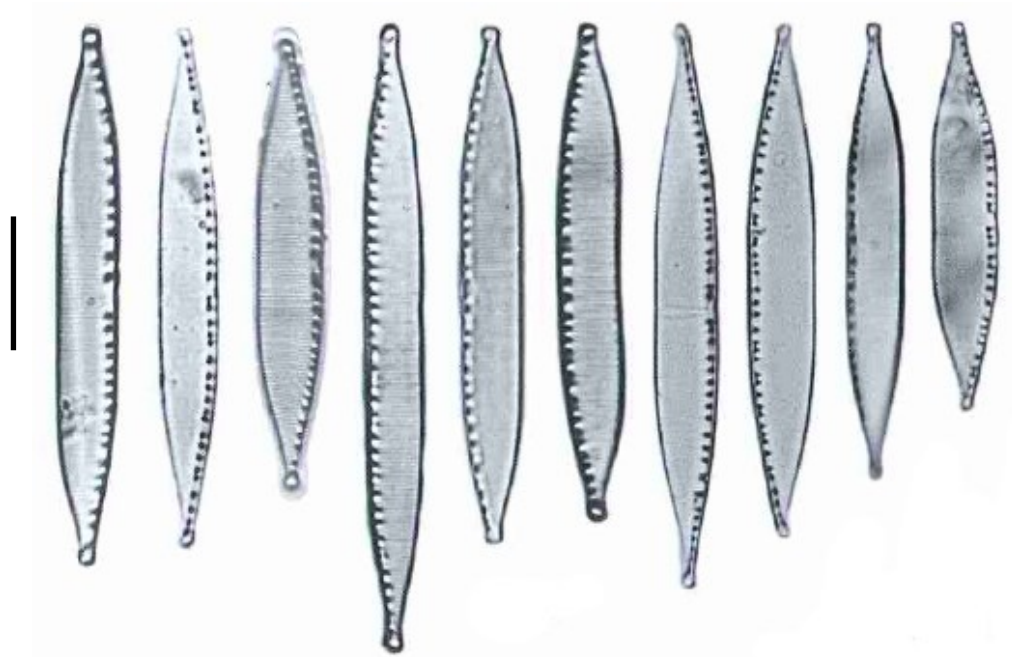
Nitzschia clausii
(NCLA)

Genre *Nitzschia*



Nitzschia dissipata var. *dissipata* (NDIS)

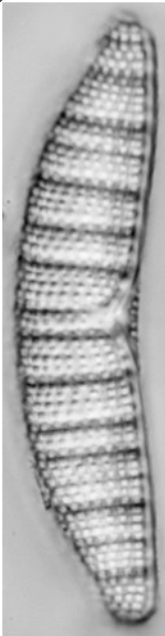
Extrait : Hofmann, G., Werum, M. and Lange-Bertalot, H. (2011). Diatomeen im Süßwasser-Benthos von Mitteleuropa. Koeltz Scientific Books, Königstein, 908 pp.



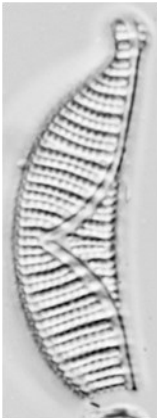
Nitzschia adamata (NZAB)

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

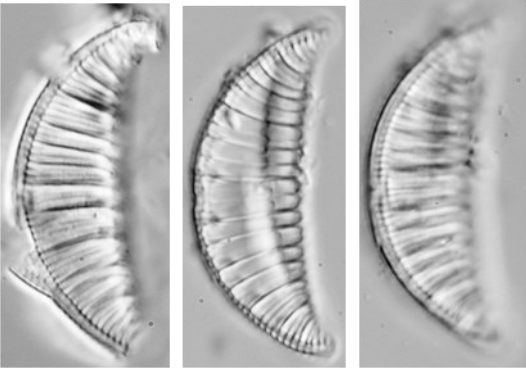
Genres Epithemia - Rhopalodia



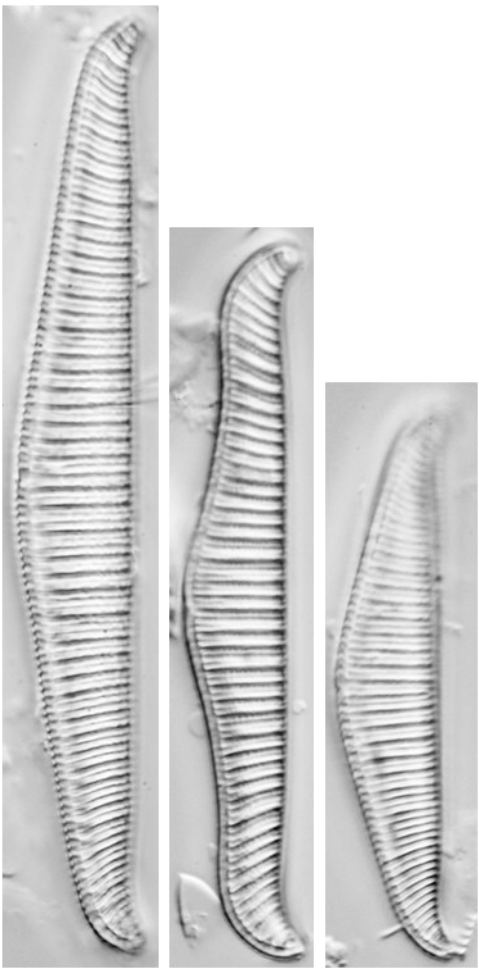
Epithemia adnata (EADN)



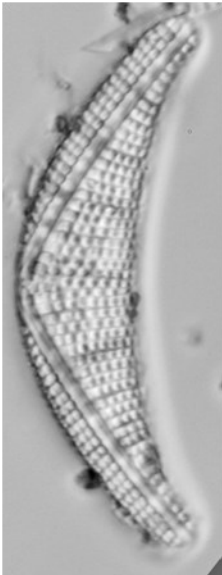
Epithemia sorex (ESOR)



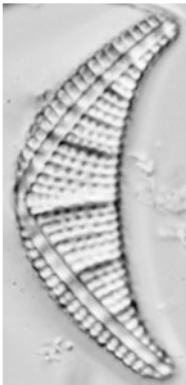
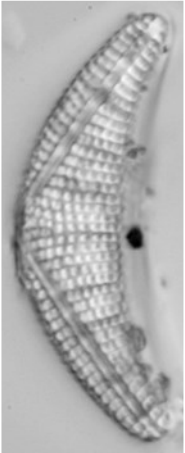
Rhopalodia operculata (ROPE)



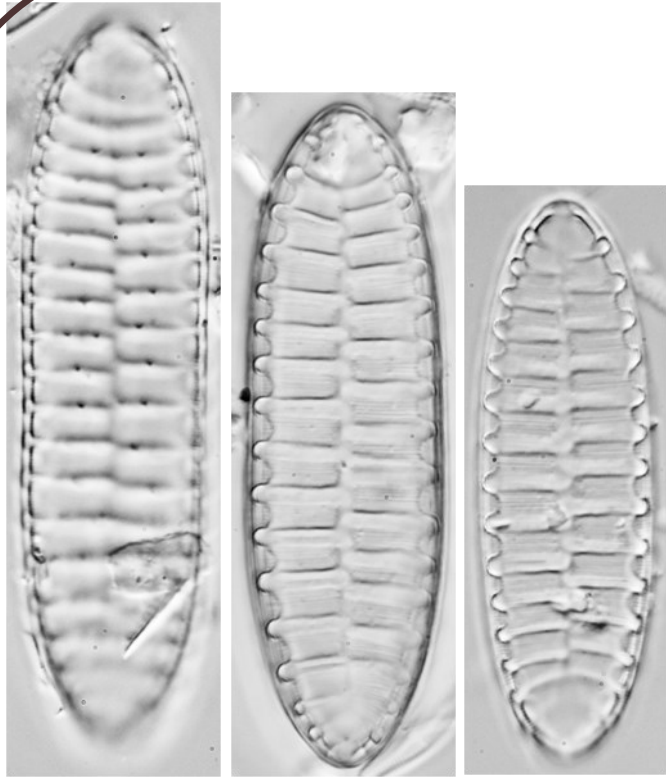
Rhopalodia gibba var. *gibba* (RGIB)



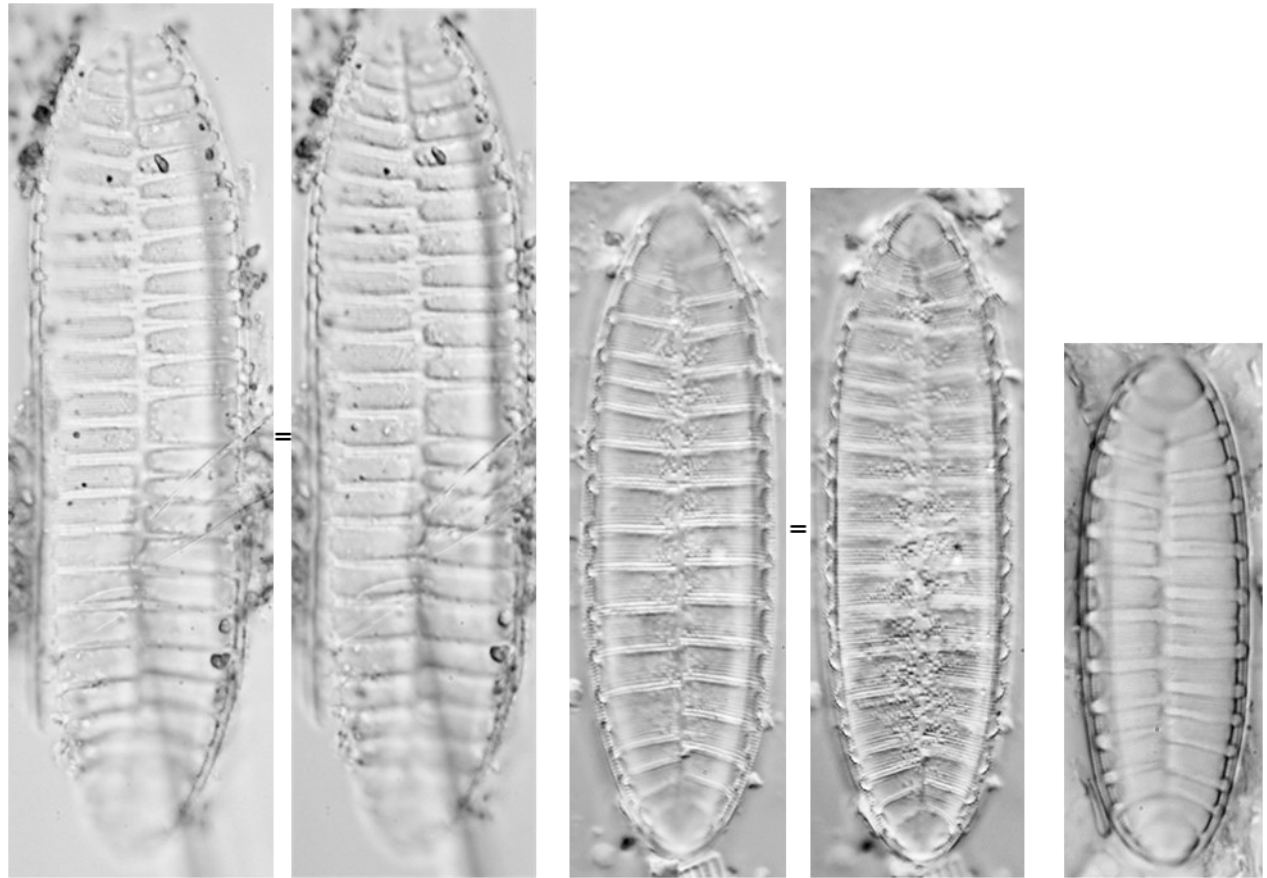
Epithemia krammeri (EKRM)



Genre *Surirella*



Surirella neocaledonica fo. *Punctata* (SNPU)



Surirella neocaledonica (SUNE)



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www.cnrt.nc

