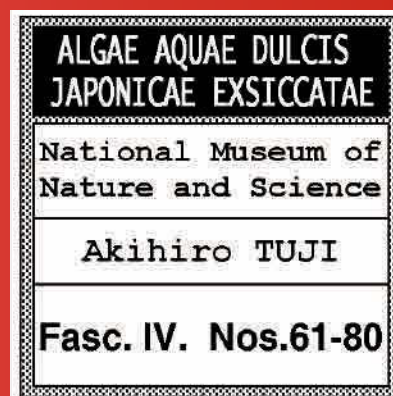


ALGAE AQUAE DULCIS JAPONICAE EXSICCATAE IV

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28 Dec. 2010

PREFACE

This exsiccata set, made from Japanese freshwater micro-algal specimens, is issued by the National Museum of Nature and Science. This third fascicle comprises 20 slides.

I make this fascicle using the culture strains. It is one of a trial for me for making a useful exsiccata set. These culture strains were isolated by me from the various places using the pipette method, and d medium (Tuji 2000: J. Phycol. 36: 659-661), which is, modified WC medium. Because of the difficulty of maintain diatom culture strains for long time, most of these strains have been died.

The study using culture strains is important for the understanding of morphological variation of diatom species, though many strain have abnormal forms in the end of culture periods. The molecular analyses for these strains have also done. It will publish these moleclar data in future papers.

If there is any problems experienced using this exsiccata, please contact me. I will send another slide. I am always pleased to receive any comments and suggestions.

CITATION

Tuji, A. 2010. Algae Aquae Dulcis Japonicae Exsiccatae. Fasc. III. nos. 41-60. 21pp. National Museum of Nature and Science, Tsukuba.

Nos. 061

Shimo-dokan, Imperial Palace, Tokyo, Japan.

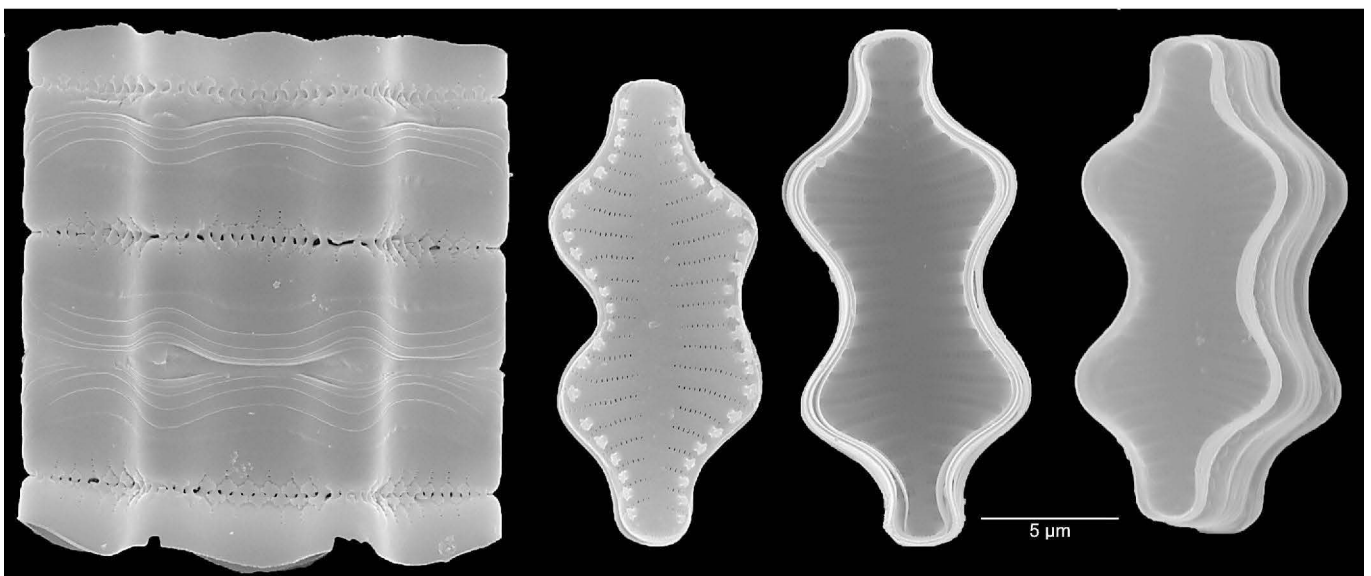
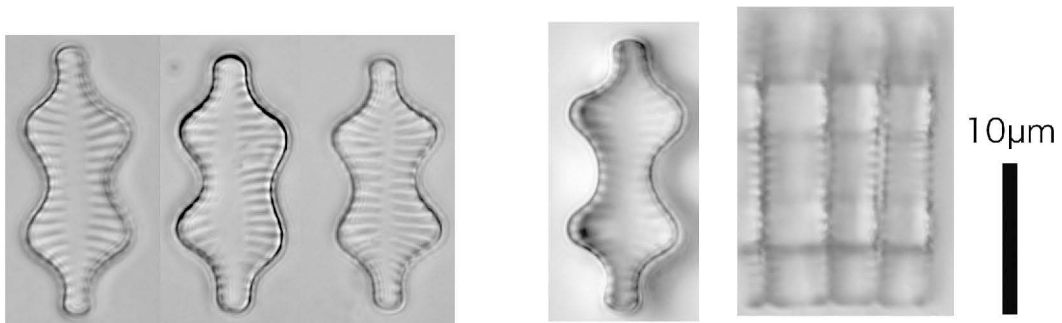
Date: 09/v/2011.

Coll. A.Tuji (duplicate of TNS-AL-57575m in TNS).

Staurosira construens var. ***binodis*** (Ehrenb.) P.B.Ham. in P.B.Ham. et al., *Diatom Res.* 7: 29.
1992.

≡ ***Fragilaria binodis*** Ehrenb., *Mikrogeologie pl.* 5/2. f. 26. 1854.

non ***Fragilaria binodis*** (Ehrenb.) Ehrenb. *Abh. Königl. Akad. Wiss. Berlin* 1841: 415 (127). 1843.
(invalid)



Nos. 062

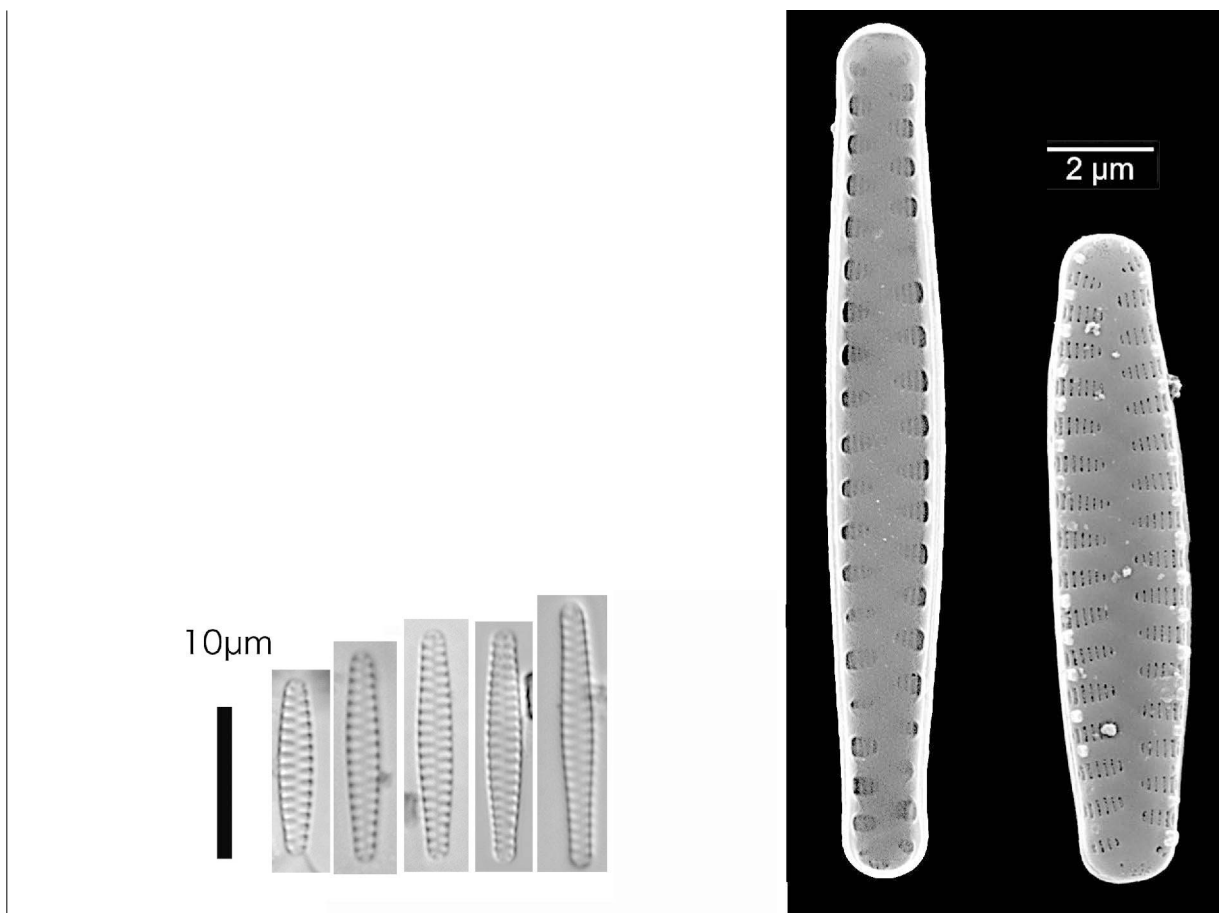
Naka-dokan, Imperial Palace, Tokyo, Japan.

Date: 09/v/2011.

Coll. A.Tuji (duplicate of TNS-AL-57581m in TNS).

Staurosirella lapponica (Grunow in Van Heurck) Williams et Round, *Diatom Res.* 2: 274. f. 21, 26, 27. 1987.

≡ ***Fragilaria lapponica*** Grunow in Van Heurck, *Synops. Diat. Belg.* pl. 45. f. 35. 1881.



Nos. 063

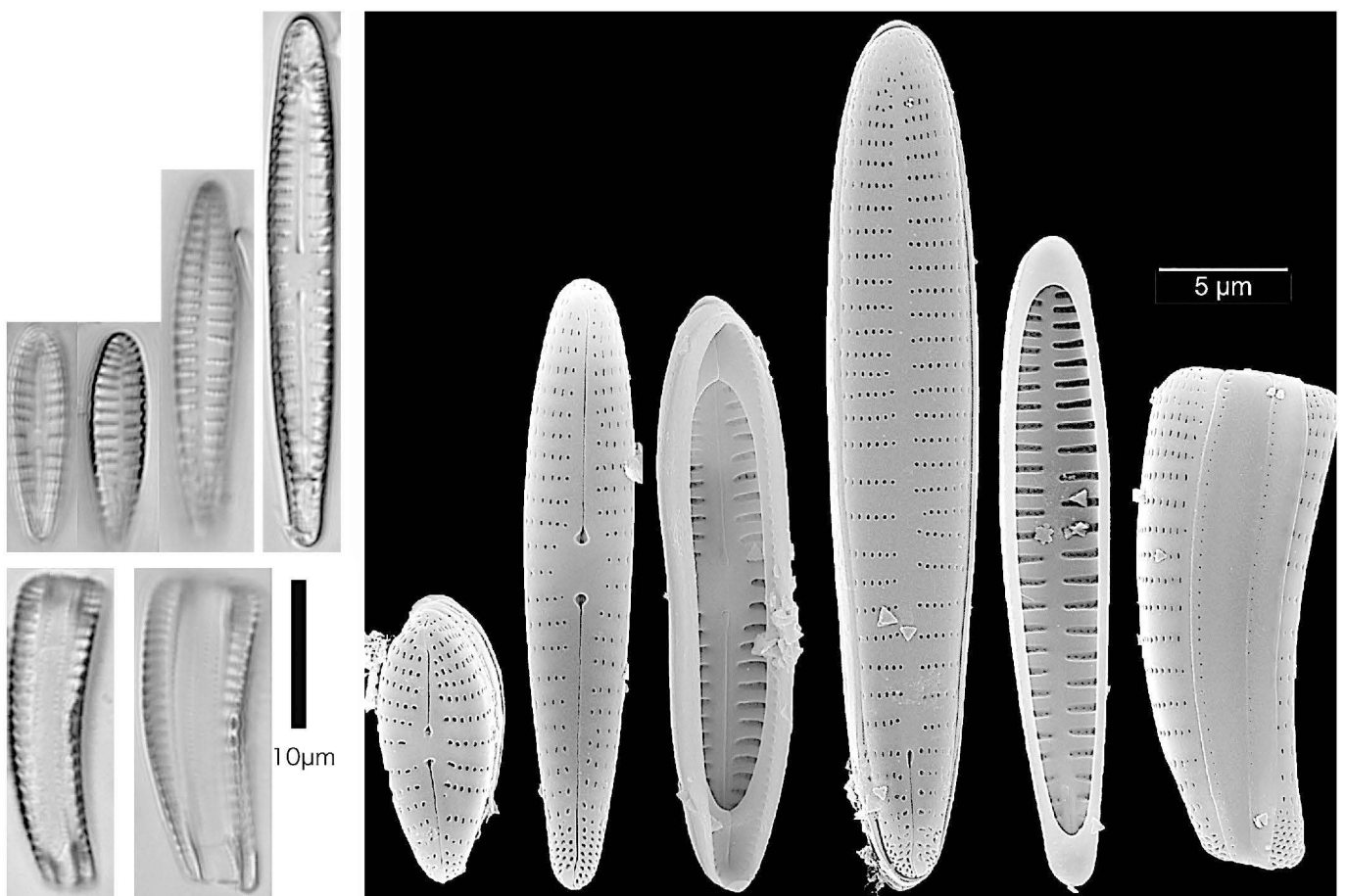
Kanbaku-tei, Imperial Palace, Tokyo, Japan.

Date: 09/v/2011.

Coll. A.Tuji (duplicate of TNS-AL-57582m in TNS).

Rhoicosphenia abbreviata (C.Agardh) Lange-Bert., Bot. Not. 133: 586. f. 1a, 3c-d, 5a. 1980.

≡ ***Gomphonema abbreviatum*** C.Agardh, Consp. Crit. Diat. 3: 34. 1831.



Nos. 064

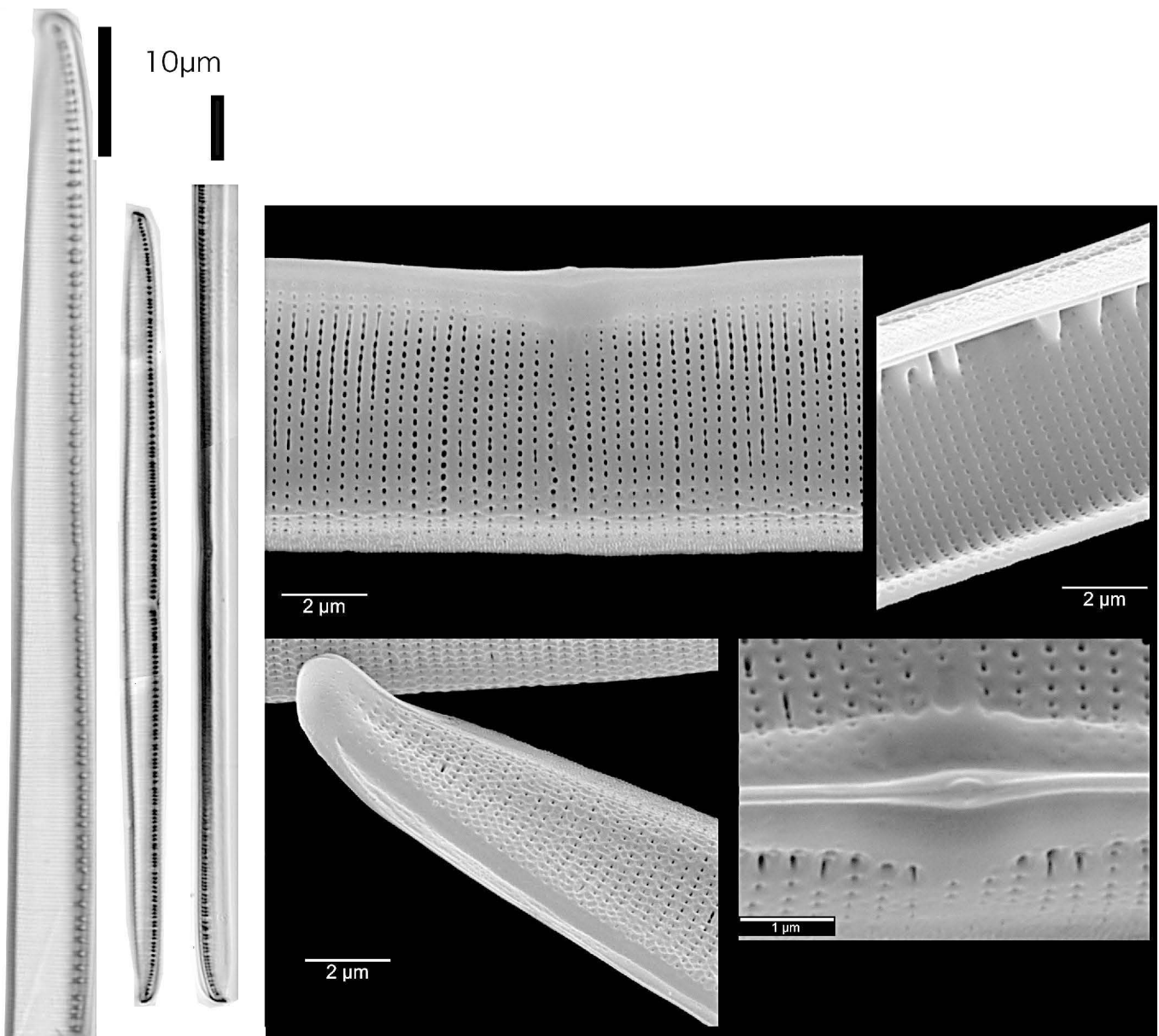
Kanbaku-tei, Imperial Palace, Tokyo, Japan.

Date: 09/v/2011.

Coll. A.Tuji (duplicate of TNS-AL-57587m in TNS).

Nitzschia linearis (W.Sm.) W.Sm., Synop. Brit. Diat. 1: 39. pl. 13. f. 110. 1853.

≡ *Frustulia linearis* C.Agardh ex W.Sm., Synop. Brit. Diat. 1: 39. pl. 13. f. 110. 1853.



Nos. 065

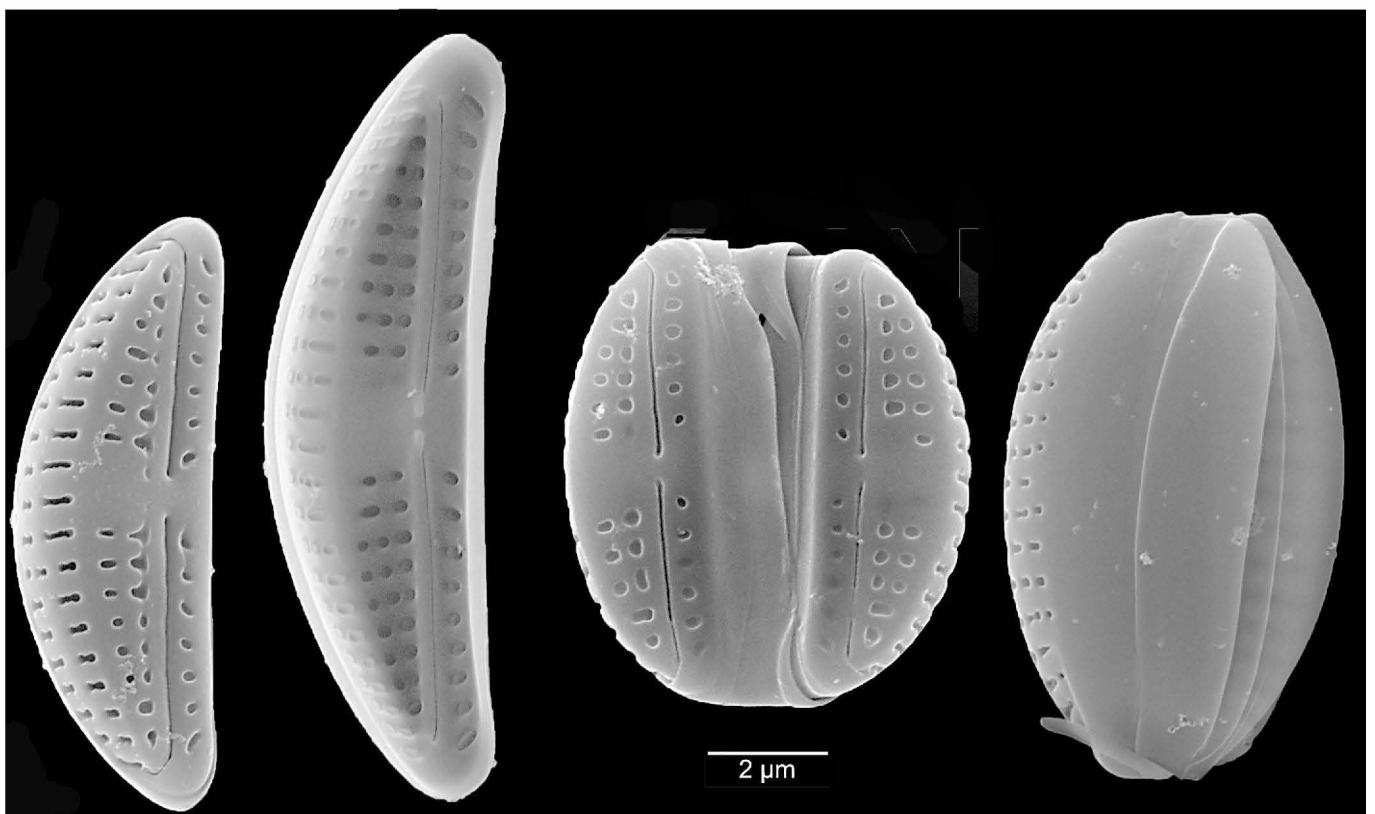
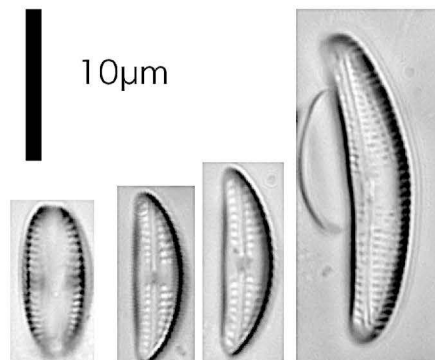
Kain-tei, Imperial Palace, Tokyo, Japan.

Date: 09/v/2011.

Coll. A.Tuji (duplicate of TNS-AL-57590m in TNS).

Amphora pediculus (Kütz.) Grunow in Schmidt et al., Atlas Diat. pl. 26. f. 99. 1875,

≡ *Cymbella pediculus* Kütz., Kieselgesch. Bacill. Diat.: 80. pl. 5. f. 8. pl. 6, 7. 1844.



Nos. 066

Kanbaku-tei, Imperial Palace, Tokyo, Japan.

Date: 03/x/2011.

Coll. A.Tuji (duplicate of TNS-AL-57602m in TNS).

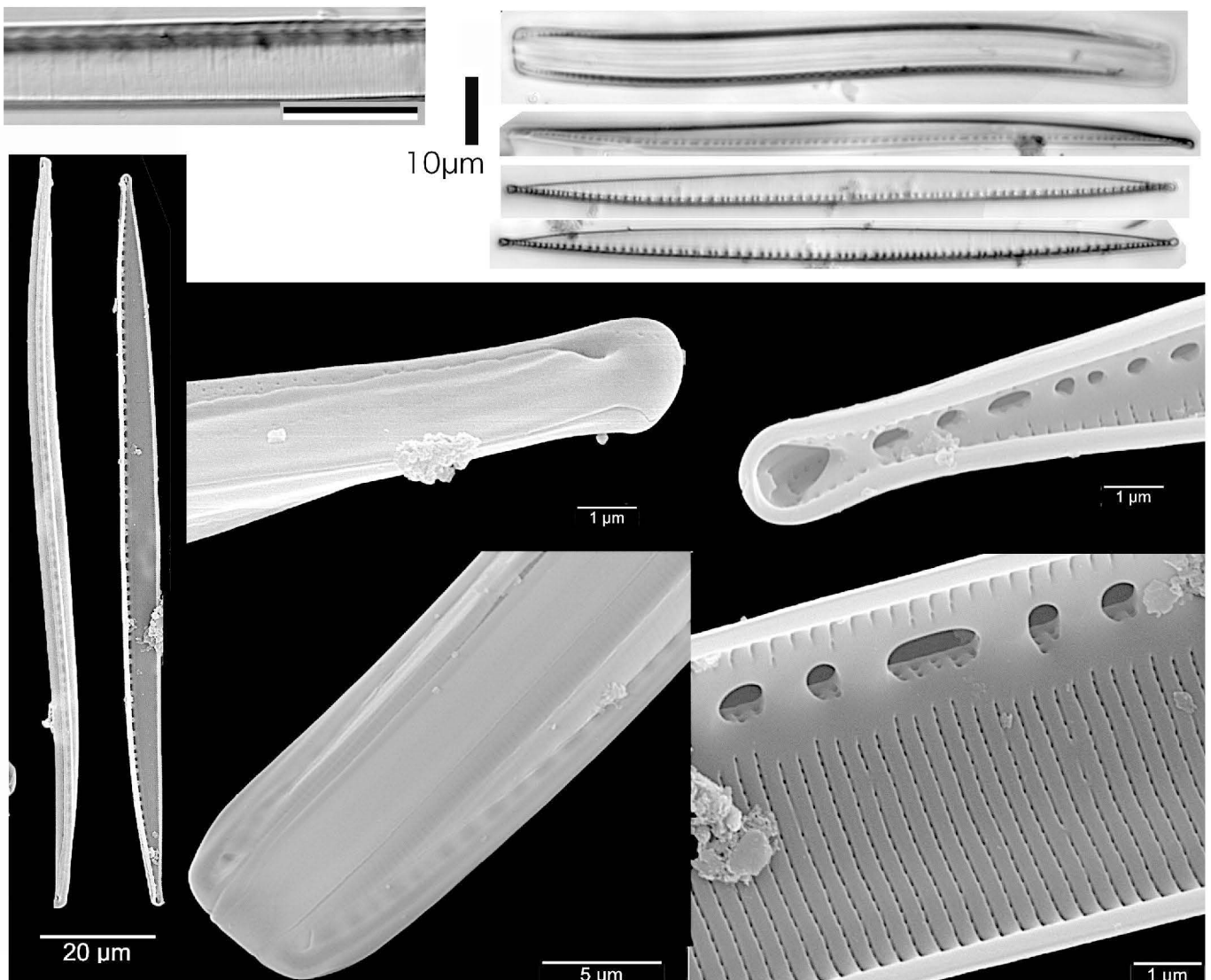
Nitzschia vermicularis (Kütz.) Hantzsch in Rabenhorst, Alg. Sach. Nr. 889. 1859.

≡ ***Frustulia vermicularis*** Kütz., Linnaea 8(5): 555. pl. 14. f. 34. 1833.

Type: Die algen sachsens, gesammelt und herausgegeben von Dr. L. Rabenhorst. Decade 89-90, Number 889, Coll. C. A. Hantzsch, Germany Dresden, Oct. 1859.

(Information from HP of Harvard University Herbaria – Farlow Herbarium of Cryptogamic Botany)

This species is closed to ***Nitzschia flexa*** Schum. The mantle view of this specimen is strongly curved and thought to be *N. flexa*. However, the density of striae is 30 – 32 str. / 10µm and more course than density of *N. flexa* (over 40 str. / 10µm).



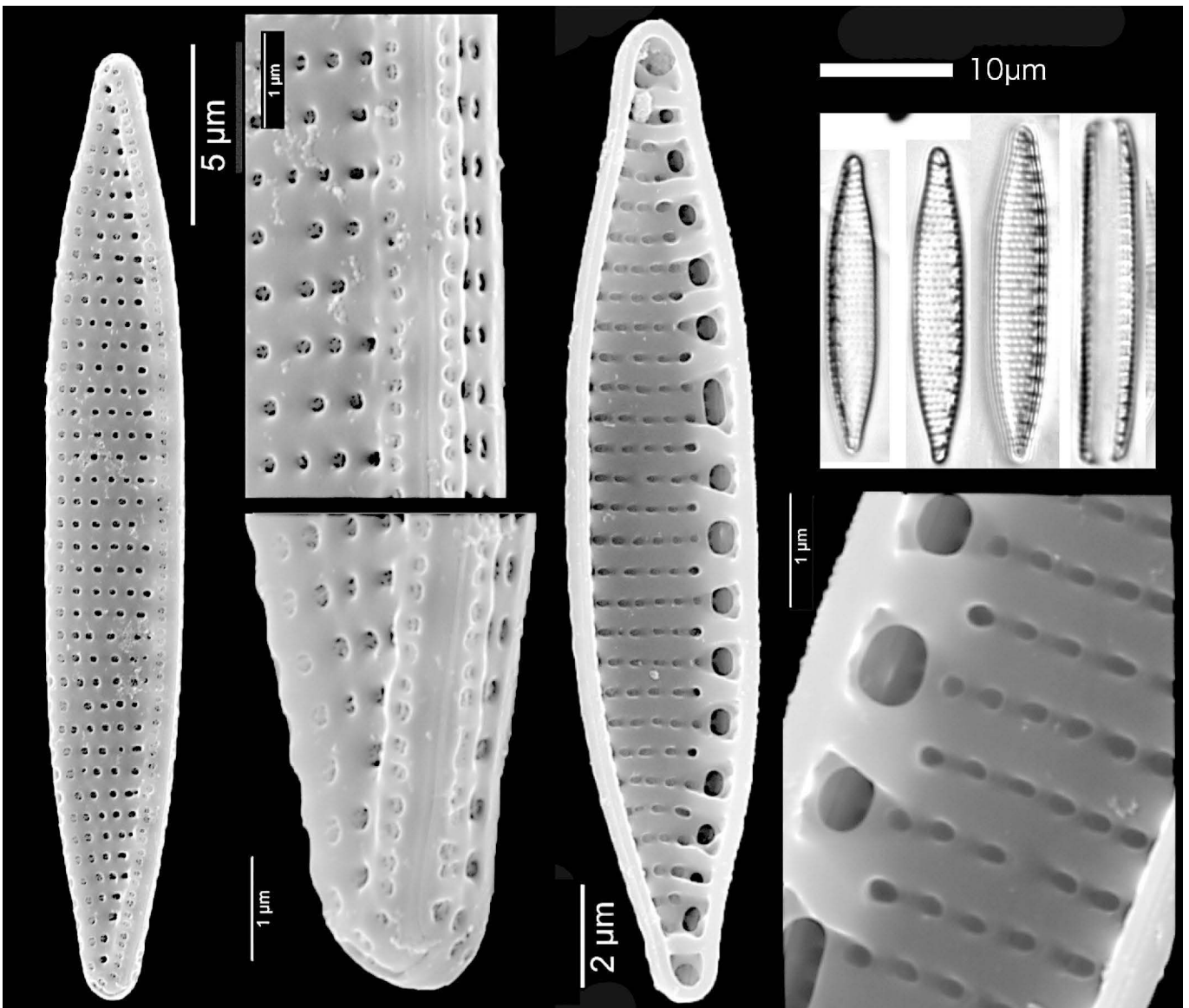
Nos. 067

Kain-tei, Imperial Palace, Tokyo, Japan.

Date: 03/x/2011.

Coll. A.Tuji (duplicate of TNS-AL-57606m in TNS).

Nitzschia romana Grunow in Van Heurck, Synops. Diat. Belg. pl. 69. f. 12-13. 1881.



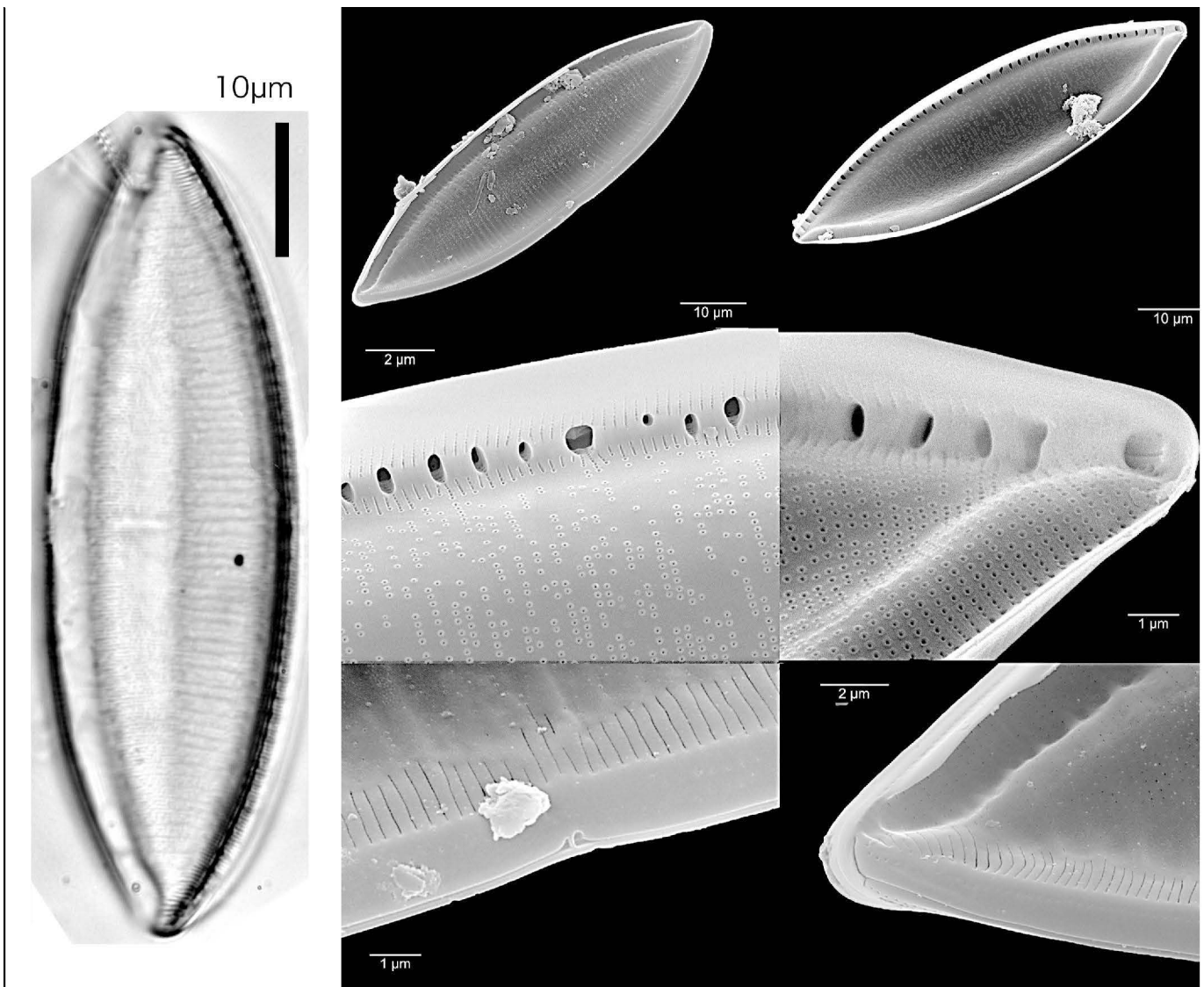
Nos. 068

Kain-tei, Imperial Palace, Tokyo, Japan.

Date: 03/x/2011.

Coll. A.Tuji (duplicate of TNS-AL-57608m in TNS).

Tryblionella sp.



Nos. 069

Kain-tei, Imperial Palace, Tokyo, Japan.

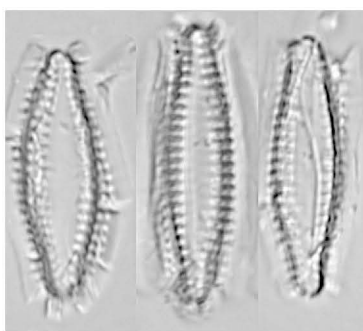
Date: 03/x/2011.

Coll. A.Tuji (duplicate of TNS-AL-57609m in TNS).

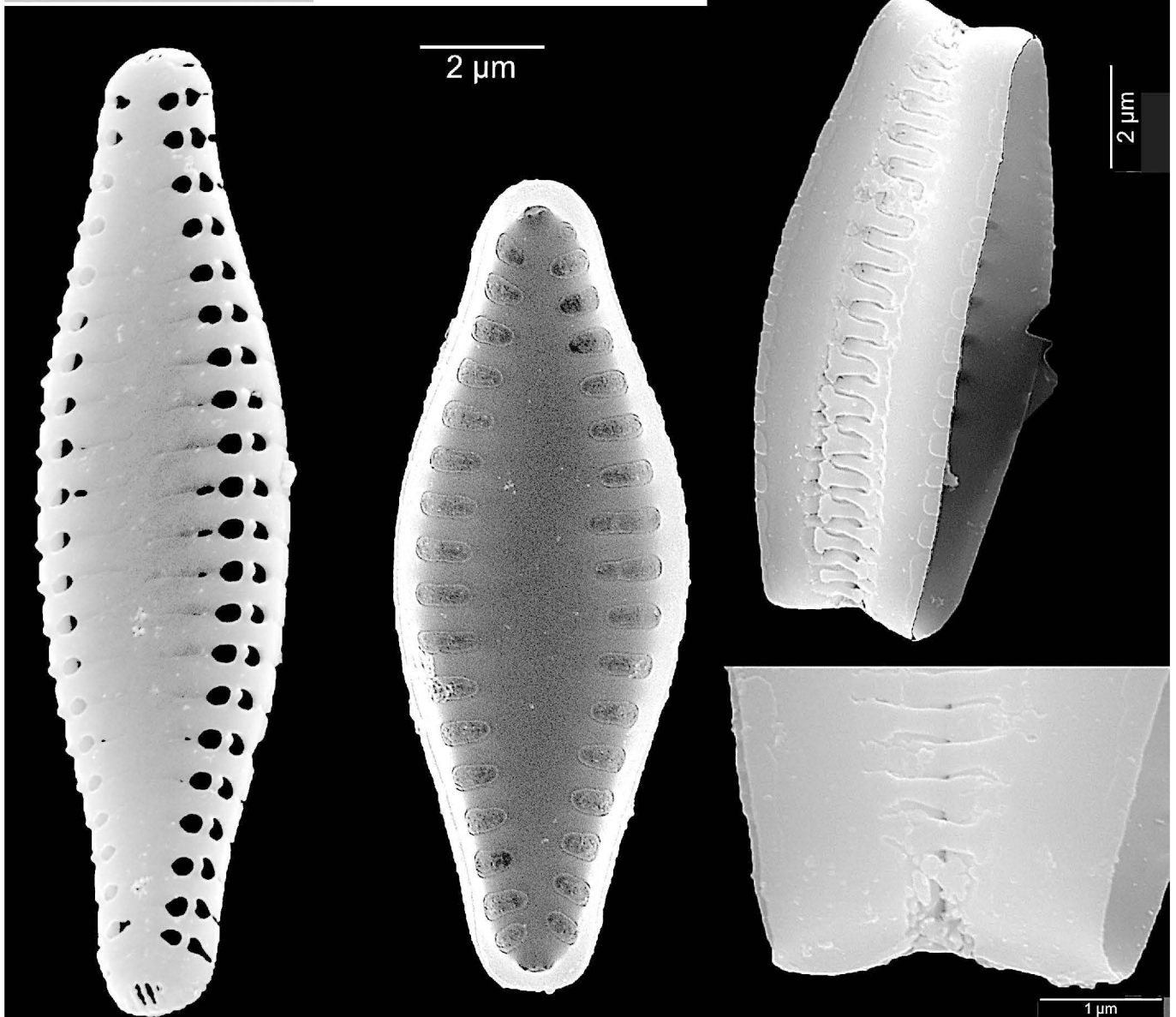
Pseudostaurosira brevistriata (Grunow in Van Heurck) Williams et Round, Diatom Res. 2: 276.

f. 28-31. 1987.

≡ *Fragilaria brevistriata* Grunow in Van Heurck, Synops. Diat. Belg. 157. 1885.



10µm



2 µm

2 µm

1 µm

Nos. 070

Shimo-dokan, Imperial Palace, Tokyo, Japan.

Date: 07/vi/2010.

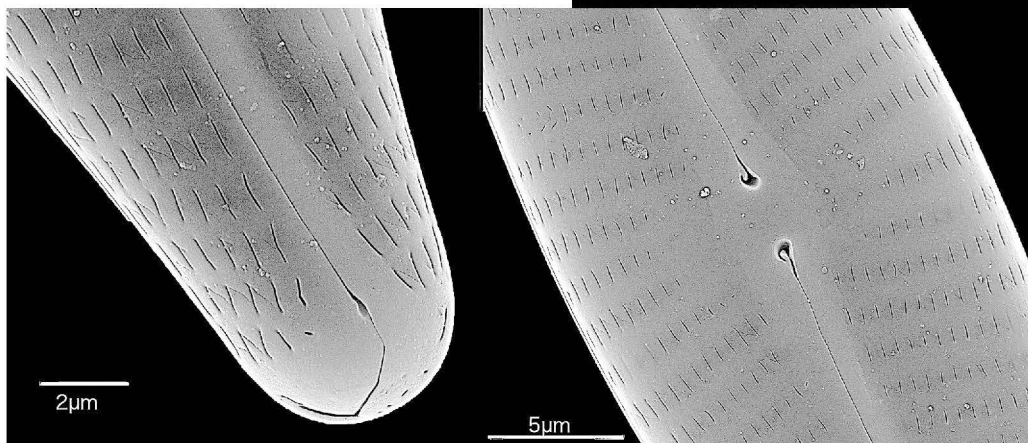
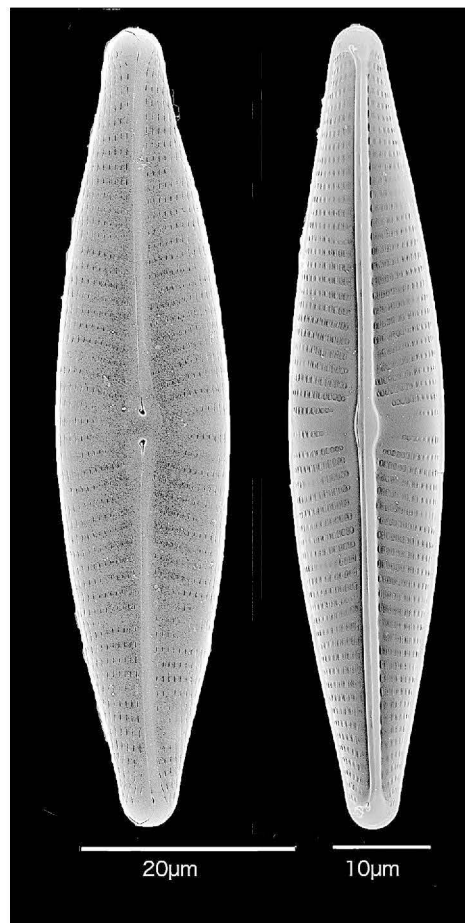
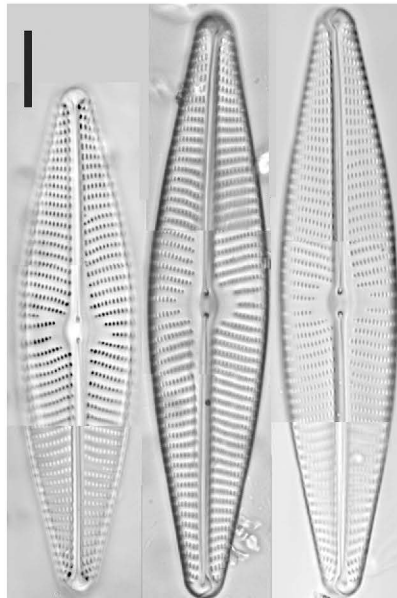
Coll. Y. Niiyama (duplicate of TNS-AL-57514m in TNS).

Navicula peregrina (Ehrenb.) Kütz., Kieselsch. Bacill. Diat. 97. pl. 28. f. 52 c. 1844,

≡ *Pinnularia peregrina* Ehrenb., Abh. Königl. Akad. Wiss. Berlin 1841: 421 (133). pl. 1/1. f. 5, 6.

1843.

10µm



Nos. 071

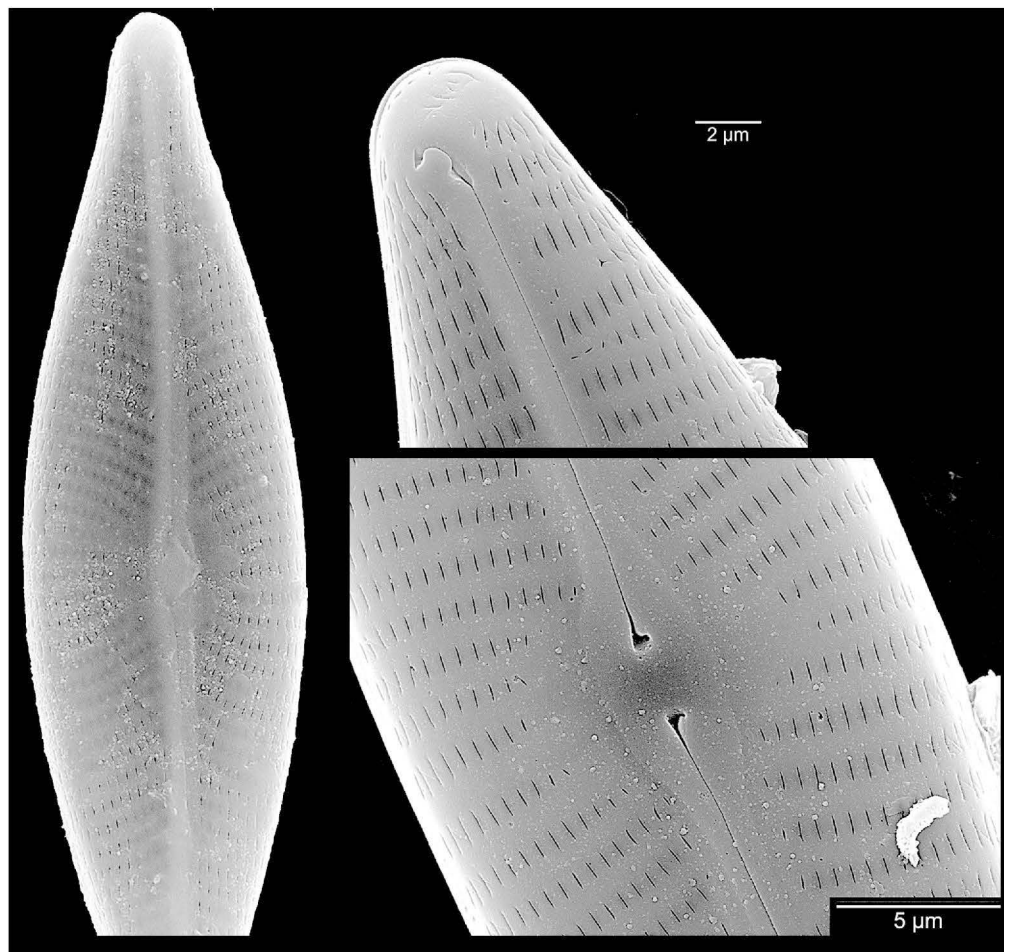
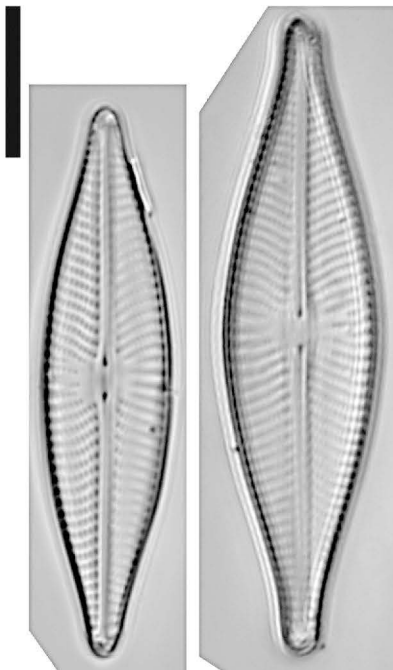
Shimo-dokan, Imperial Palace, Tokyo, Japan.

Date: 18/x/2010.

Coll. A.Tuji (duplicate of TNS-AL-57532m in TNS).

Navicula trivialis Lange-Bert., Crypt. Alg. 1: 31. *pl. 1. f. 5-9, pl. 9. f. 1-2.* 1980.

10µm



Nos. 072

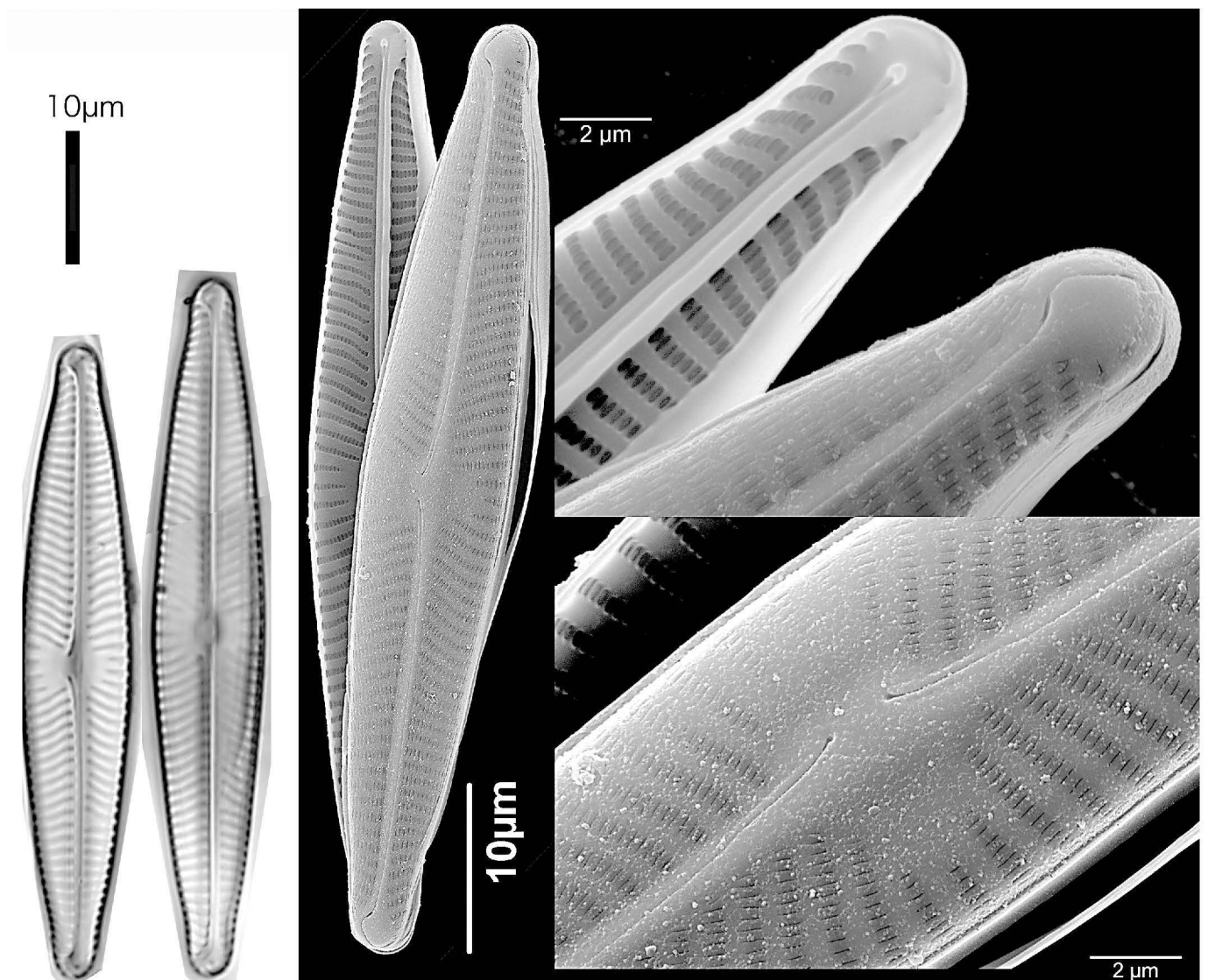
Kain-tei, Imperial Palace, Tokyo, Japan.

Date: 18/x/2010.

Coll. A.Tuji (duplicate of TNS-AL-57534m in TNS).

Navicula alineae Lange-Bert. in Nevo & Wasser, Biod. Cyanopr. algae cont. Israel 268. *pl.* 22.

f. 175-178. 2000.



Nos. 073

A pond at Kain-tei, Imperial Palace, Tokyo, Japan.

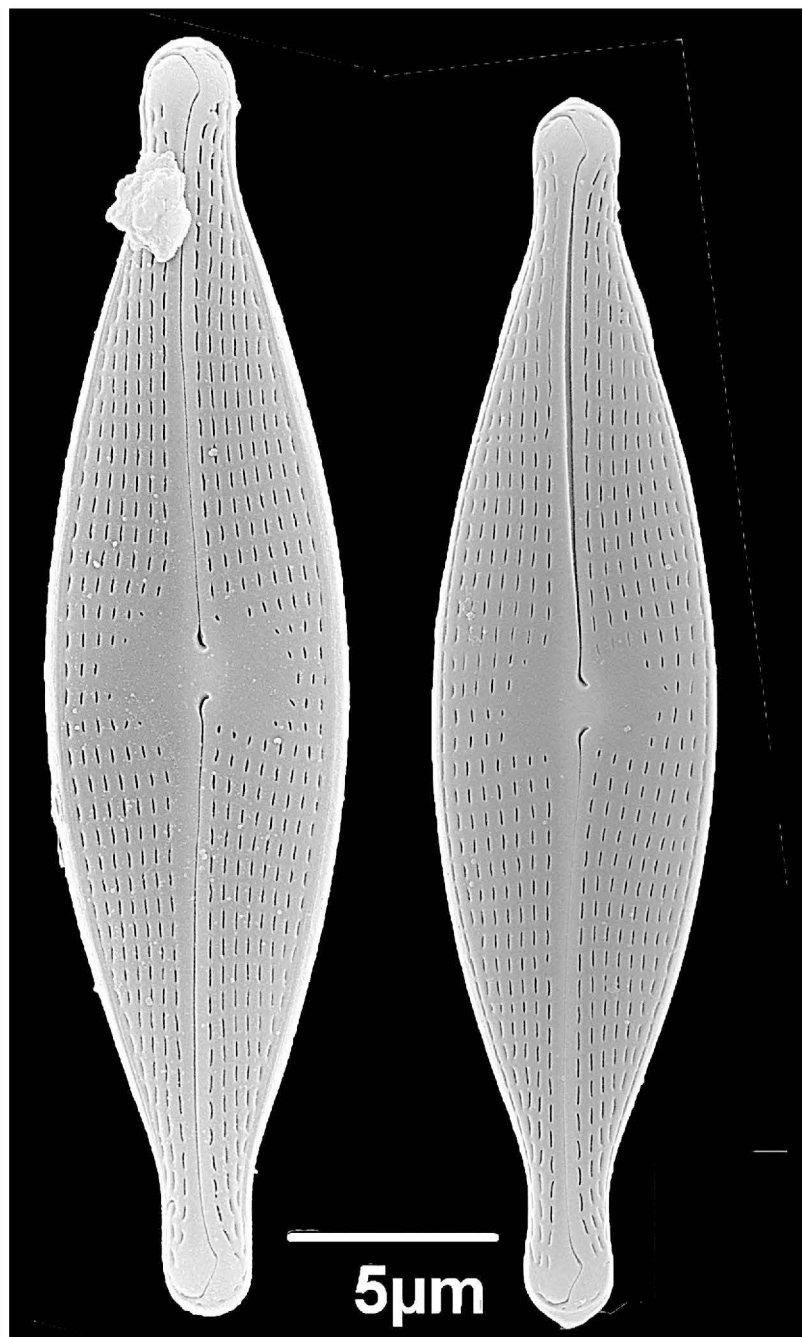
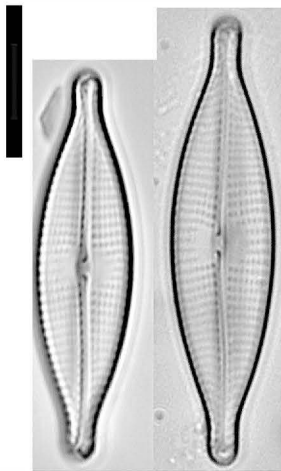
Date: 18/x/2010.

Coll. A.Tuji (duplicate of TNS-AL-57538m in TNS).

Navicula gregaria Donkin, Quart. J. Micr. Sci. new ser. London 1: 110. *pl. 1. f. 10.* 1861.

≡ *Pleurosigma obscurum* W.Sm., Ann. Mag. Nat. Hist. 2nd ser. 9: 8; *pl. 1. f. 11.* 1852.

10µm



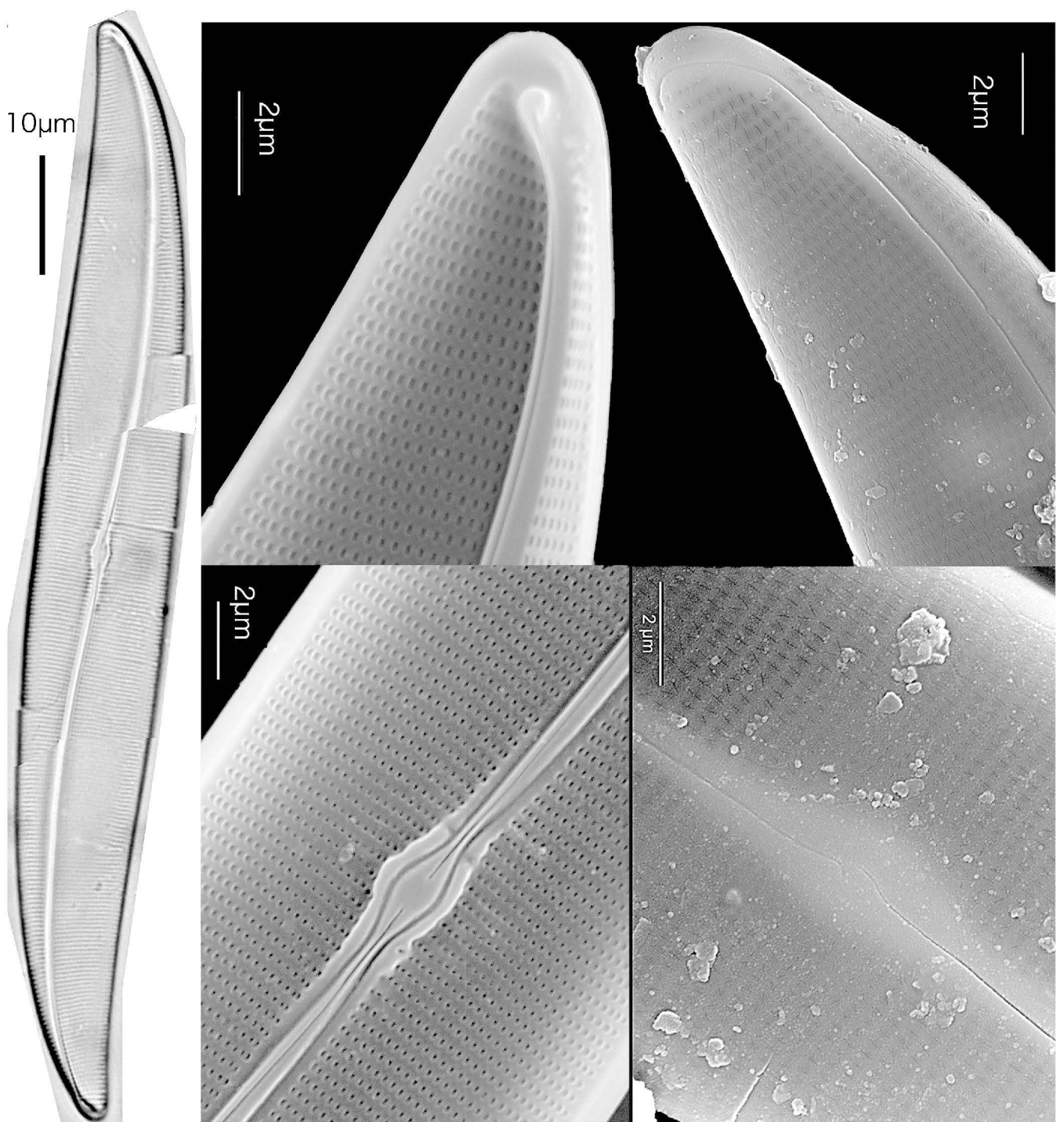
Nos. 074

A pond at Kain-tei, Imperial Palace, Tokyo, Japan.

Date: 18/x/2010.

Coll. A.Tuji (duplicate of TNS-AL-57540m in TNS).

Gyrosigma obscurum (W.Sm.) J.W.Griff. & Henfr., *Micr. Dict.* 302. *pl. 11, f. 27.* 1856.



Nos. 075

Kanbaku-tei, Imperial Palace, Tokyo, Japan.

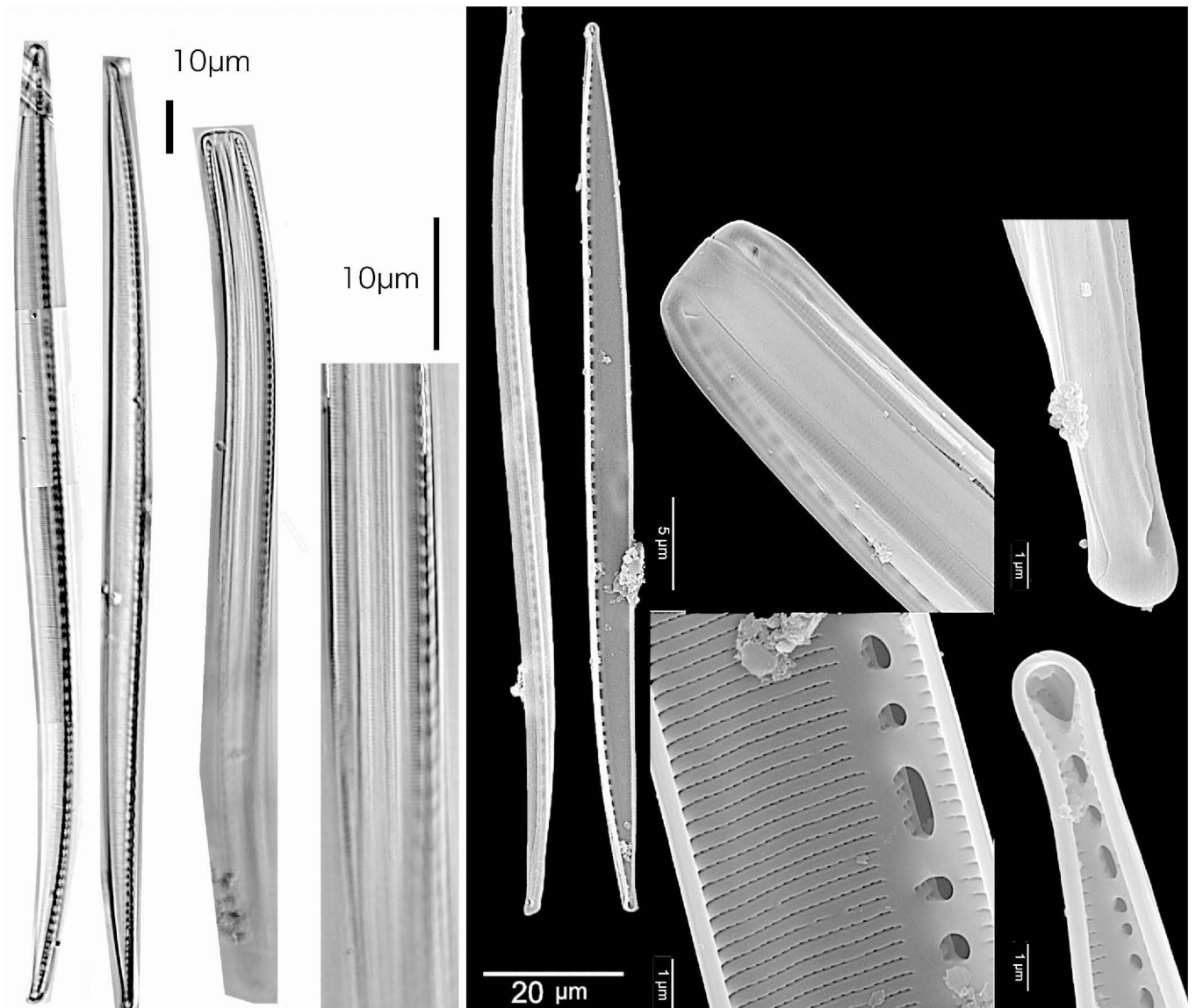
Date: 18/x/2010.

Coll. A.Tuji (duplicate of TNS-AL-57544m in TNS).

Nitzschia vermicularis (Kütz.) Hantzsch in Rabenhorst, Alg. Sach. Nr. 889. 1859.

≡ ***Frustulia vermicularis*** Kütz., Linnaea 8(5): 555. pl. 14. f. 34. 1833.

This species is closed to ***Nitzschia flexa*** Schum. The density of striae is 30 – 32 str. / 10µm and more course than density of *N. flexa* (over 40 str. / 10µm). The density of striae can be examined using mantle the view specimens (see below).



Nos. 076

A small river, Imperial Palace, Tokyo, Japan.

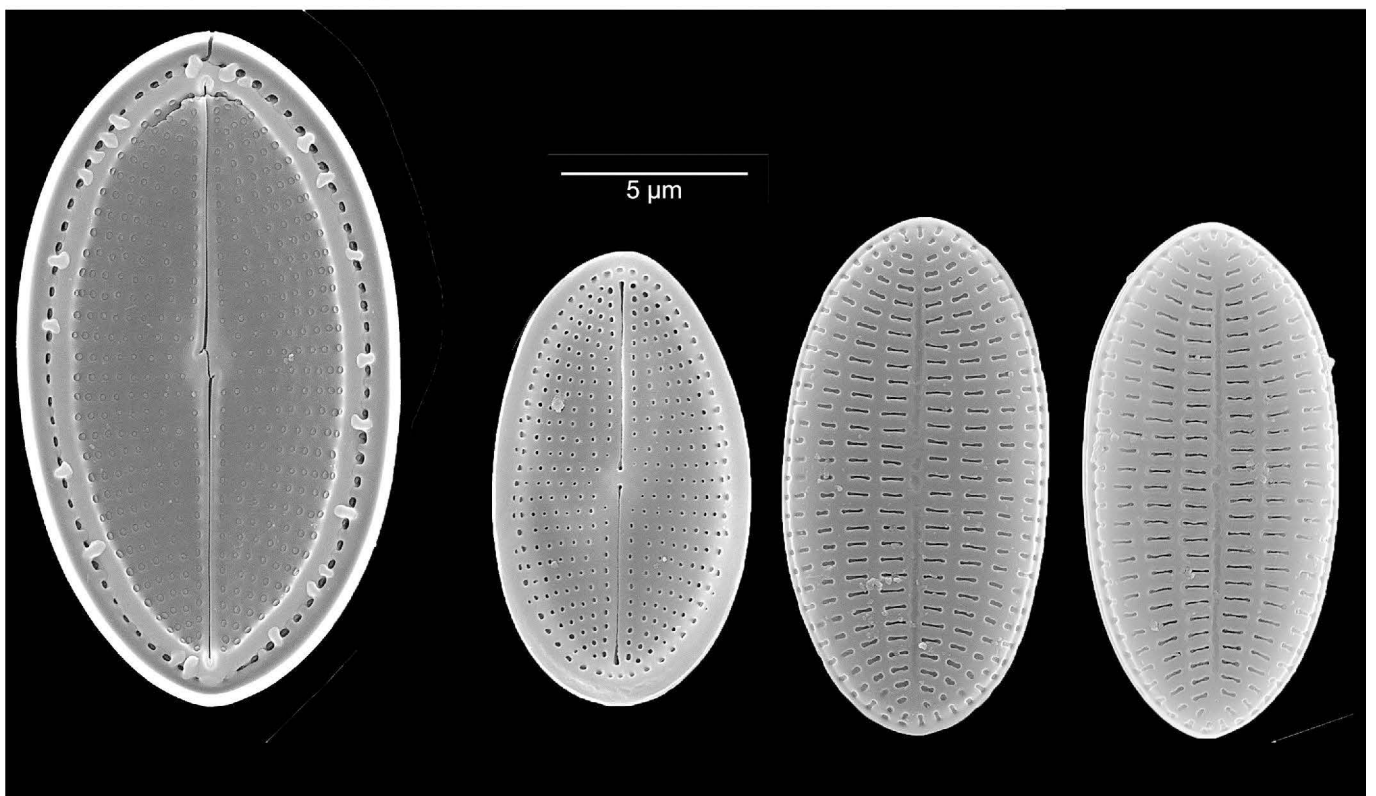
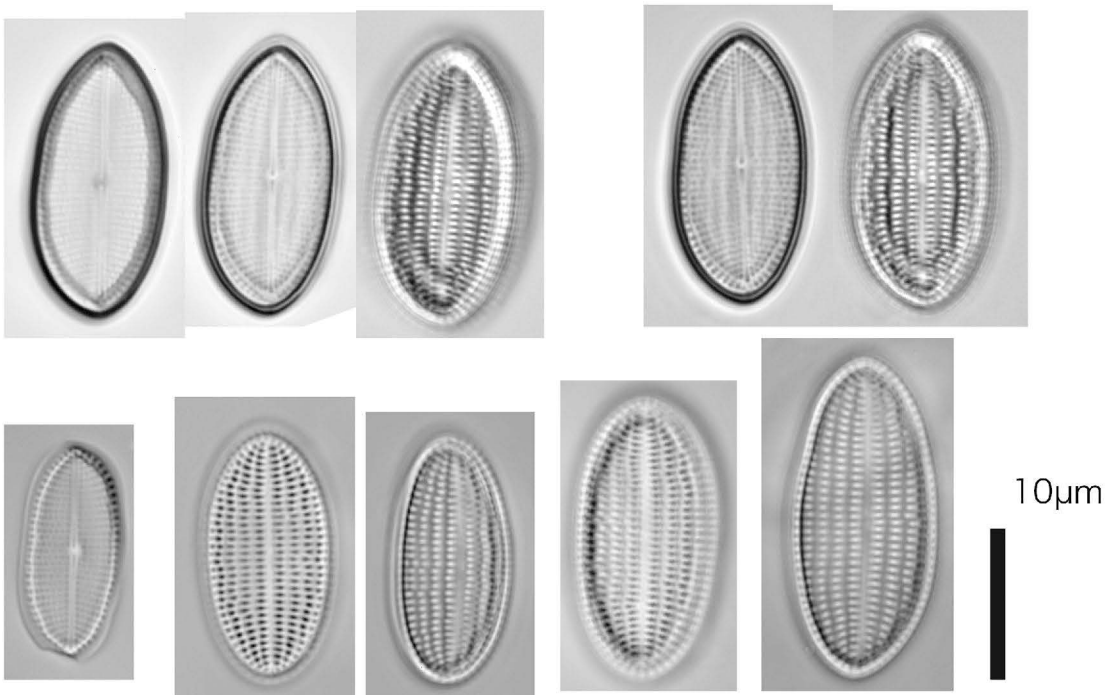
Date: 18/x/2010.

Coll. A.Tuji (duplicate of TNS-AL-57546m in TNS).

Cocconeis placentula var. *euglypta* (Ehrenb.) Grunow, Denkschr. Kais. Akad. Wiss.

Math.-Naturw. Classe. Wien. 48: 110 (58). 1884.

≡ *Cocconeis euglypta* Ehrenb., Mikrogeologie. [pl.](#) 34. f. 6a. f. 2. 1854.



Nos. 077

Shimo-dokan, Imperial Palace, Tokyo, Japan.

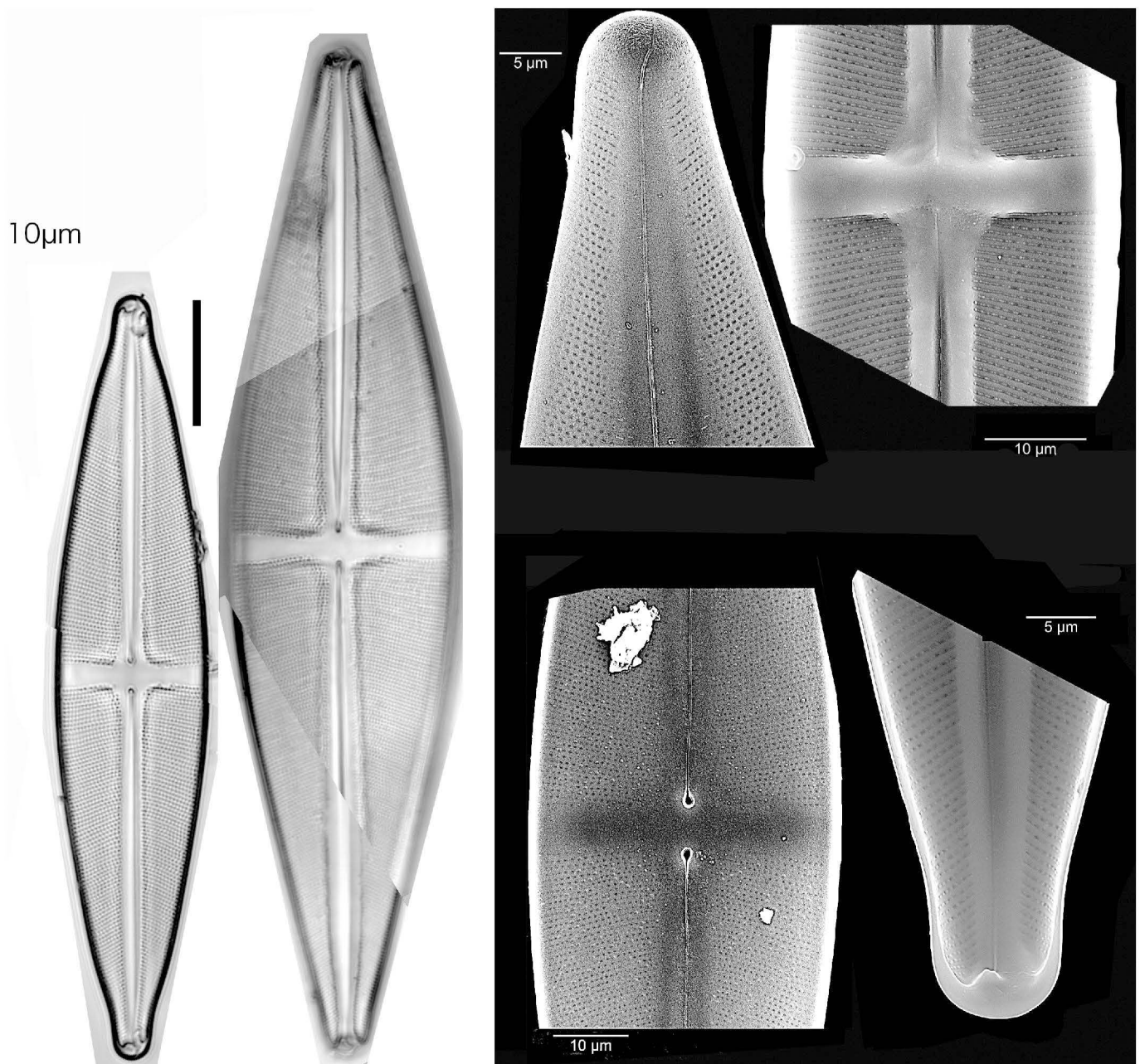
Date: 25/ii/2010.

Coll. A.Tuji (duplicate of TNS-AL-57555m in TNS).

Stauroneis phoenicenteron (Nitzsch) Ehrenb, Abh. Königl. Akad. Wiss. Berlin 1841: 311 (23).

pl. 2/5, f. 1, pl. 3/2, f. 3. 1843.

≡ ***Bacillaria phoenicenteron*** Nitzsch, Neue Schr. Naturf. Ges. Halle 92. *pl. 4, f. 1-22. 1817.*



Nos. 078

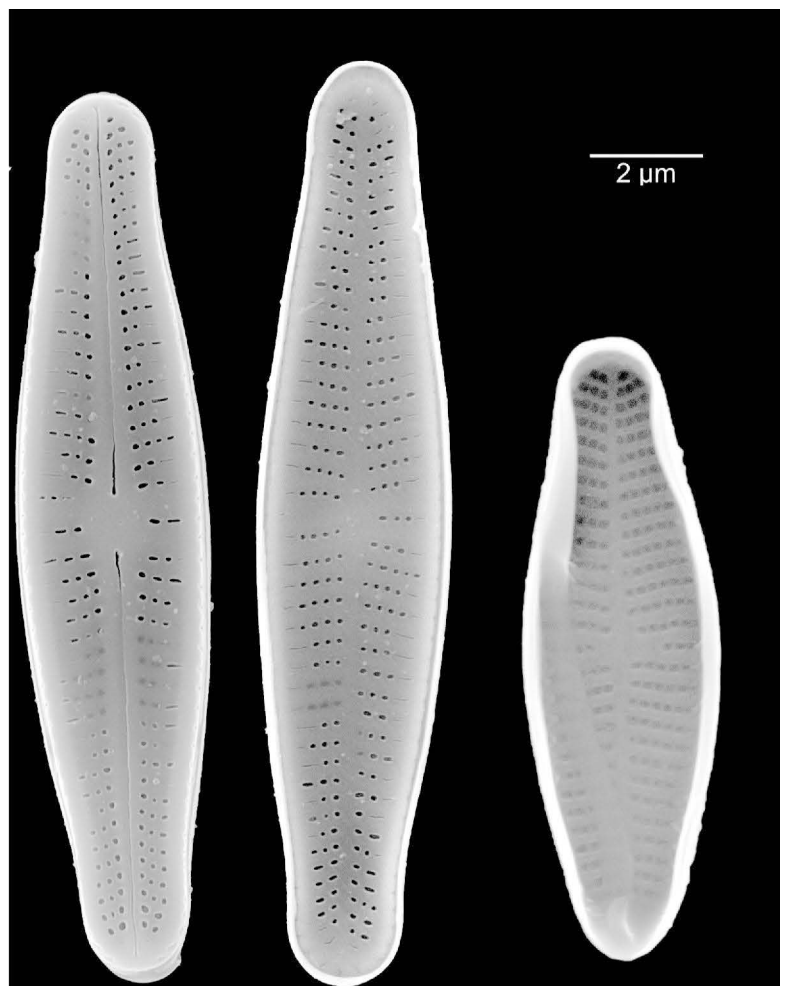
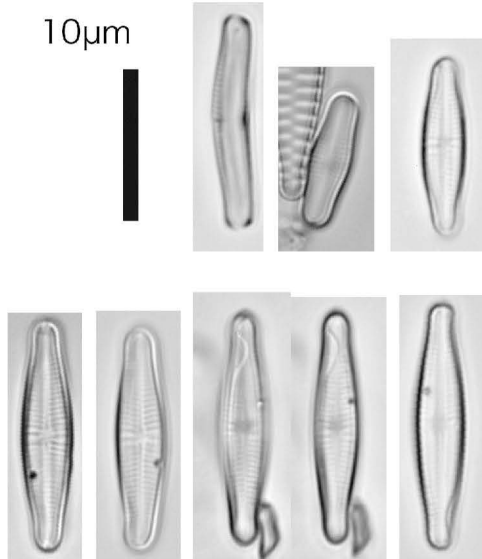
Shimo-dokan, Imperial Palace, Tokyo, Japan.

Date: 25/ii/2010.

Coll. A.Tuji (duplicate of TNS-AL-57559m in TNS).

Achnantheidium minutissimum (Kütz.) Czarnecki, Proc. 11th Int. Diat. Symp. 157. 1994.

≡ ***Achnanthes minutissima*** Kütz., Linnaea 8(5): 578. f. 54. 1833.



Nos. 079

A small river, Imperial Palace, Tokyo, Japan.

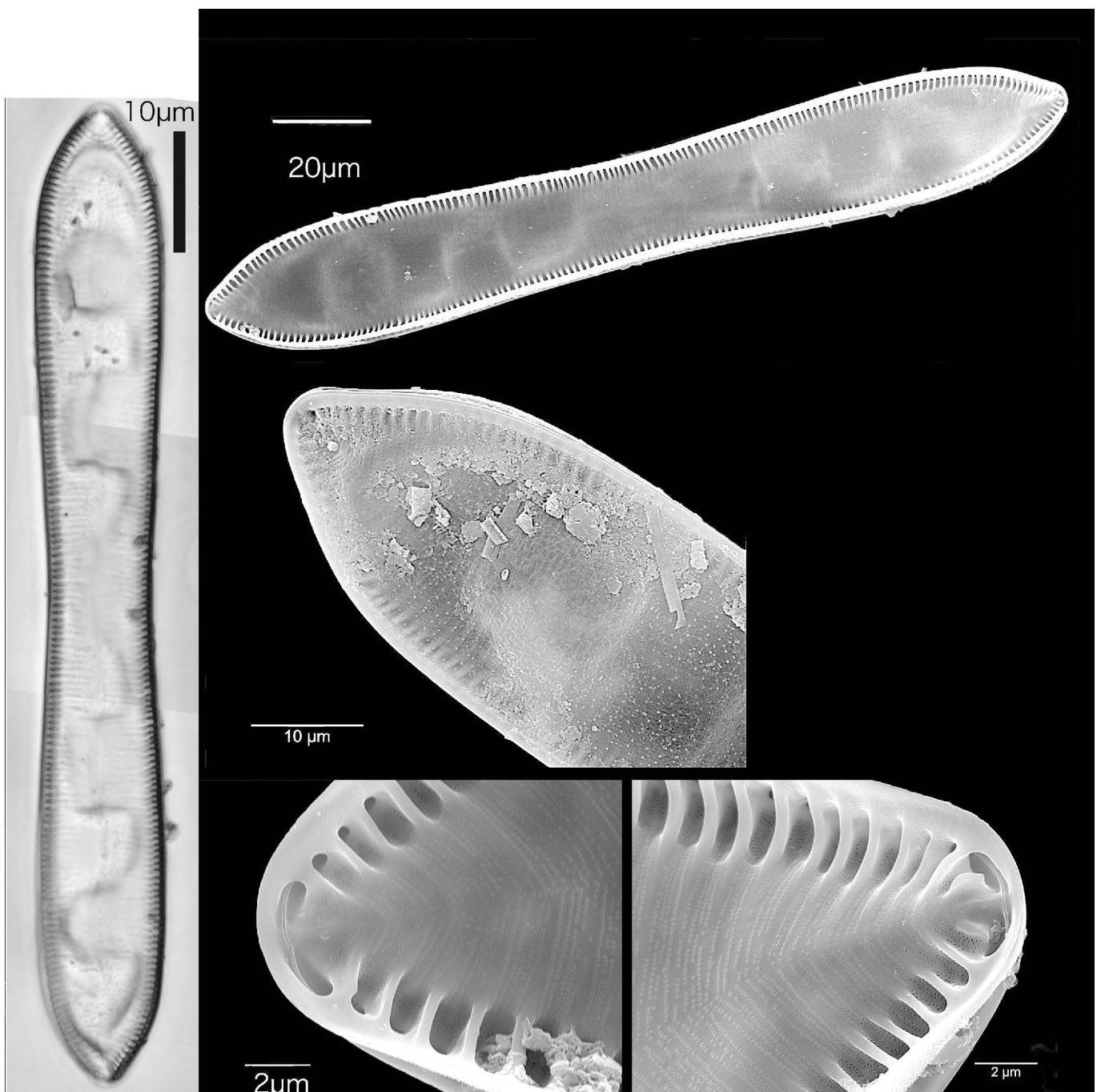
Date: 25/ii/2010.

Coll. A.Tuji (duplicate of TNS-AL-57566m in TNS).

Cymatopleura solea (Bréb.) W.Sm., Ann. Mag. Nat. Hist. 2nd ser. 7: 12. pl. 3. f. 9. 1851.

≡ ***Cymbella solea*** Bréb. in Brébisson & Godey, Mém. Soc. Acad. Sci., Arts Belles-Lettres

Falaise. 1835: 51. pl. 7. 1836.



Nos. 080

Kami-dokan, Imperial Palace, Tokyo, Japan.

Date: 25/ii/2010.

Coll. A.Tuji (duplicate of TNS-AL-57569m in TNS).

Stephanodiscus minutulus (Kütz.) A.Cleve et J.D.Möller, Diatoms. Part VI: No. 300. 1882.

≡ *Cyclotella minutula* Kütz., Kieselach. Bacill. Diat. 50. *pl.* 2, *f.* 3. 1844.

