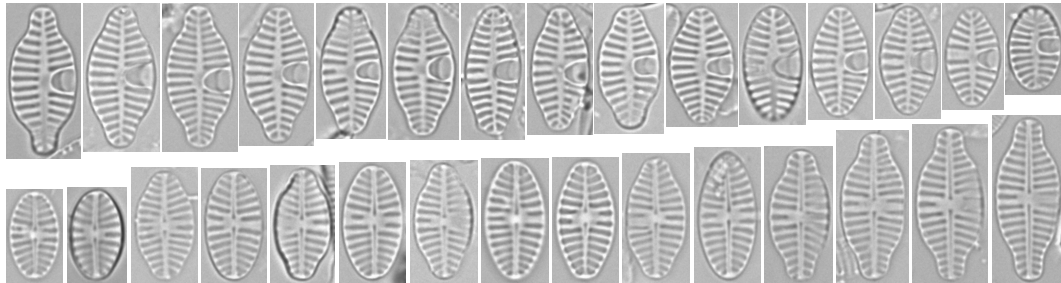


Planothidium

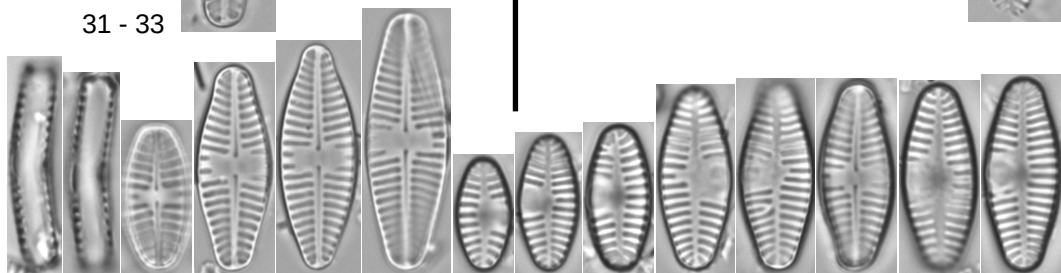


1 - 30



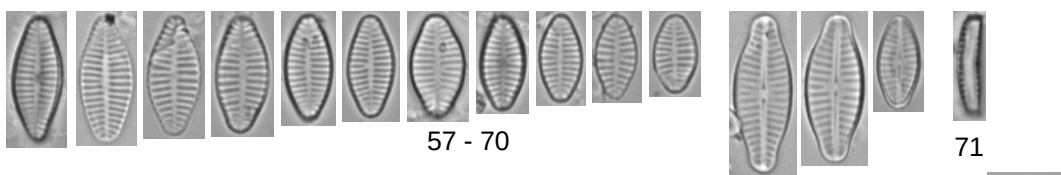
31 - 33

34 - 42



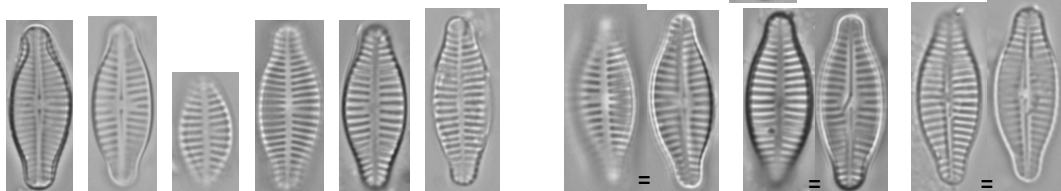
43 44

45 - 56



57 - 70

71



72 - 83

Plate 186

LM: x1500

Figs 1-41: *Planothidium delicatulum* (Kützing) Round & Bukhtiyarova sensu lato, p. 33 [PTDE]

Figs 42-46: *Lemnicola hungarica* (Grunow) Round & Basson, p. 32 [LHUN]

Figs 47-53: *Nupela lapidosa* (Krasske) Lange-Bertalot, p. 35 [NULA]

Scale bar = 10 μm

Figs 1-24: Amieira, Tejo River (Tejo basin), 06-07-2006.

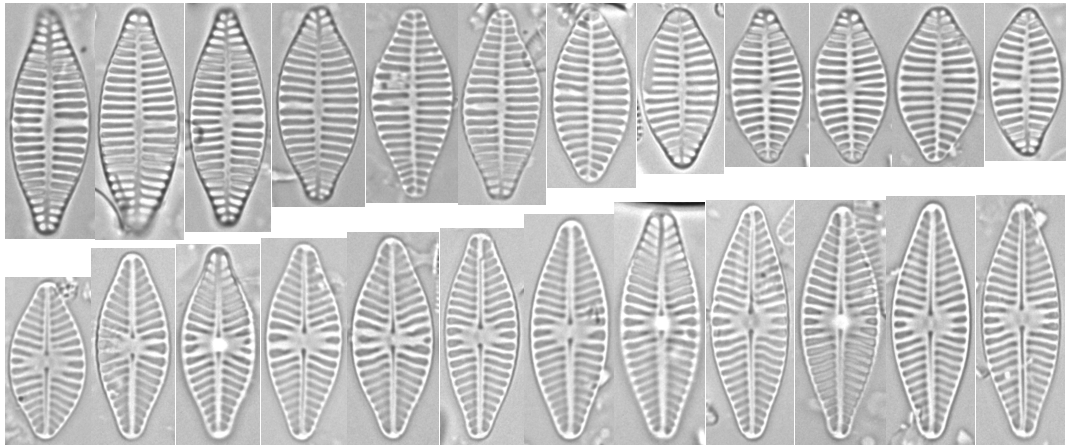
Figs 25-41: Barquinha, Tejo River (Tejo basin), 06-07-2006.

Figs 42-46: Safara Stream (Guadiana basin), 27-04-2006.

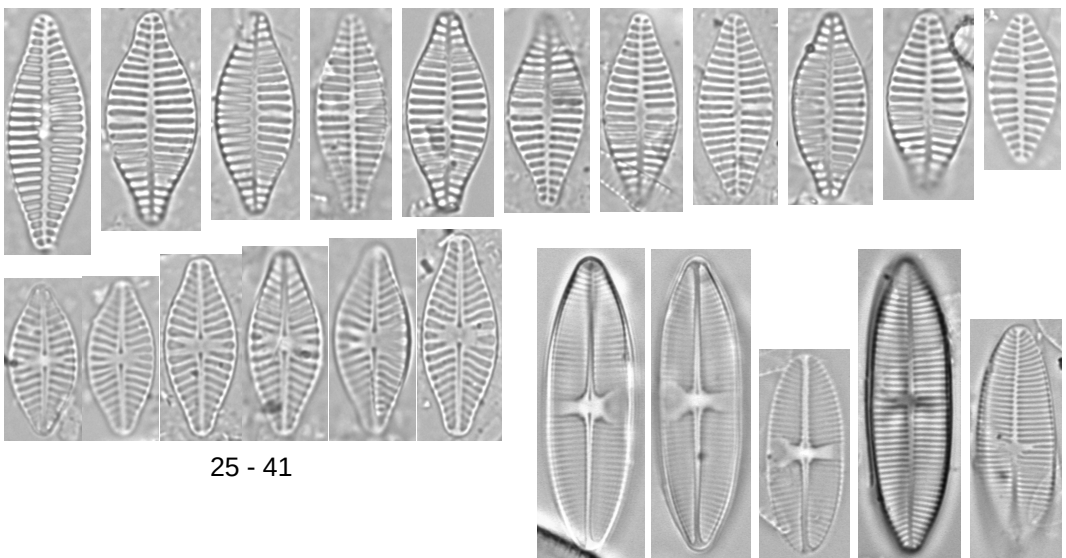
Figs 47-53: Sabugueiro, Fervença Stream (Mondego basin), 07-07-2007.

Figs 1-53: Valve view.

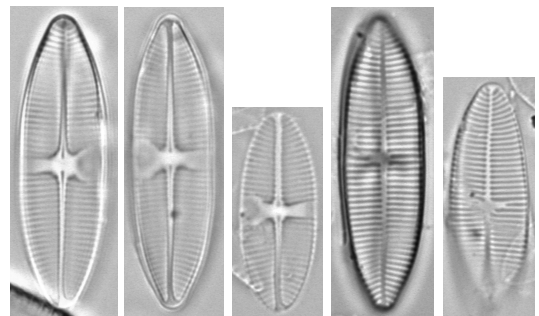
Planothidium
Lemnicola
Nupela



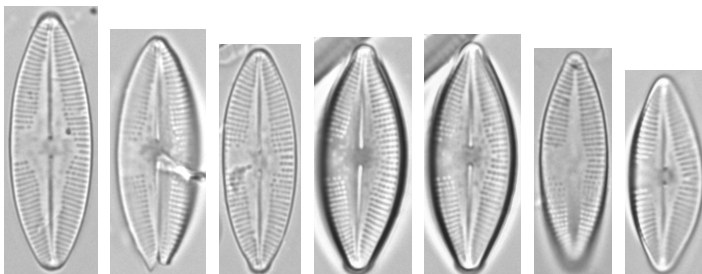
1 - 24



25 - 41



42 - 46



47 - 53

Plate 187

Figs 1-4: *Planothidium delicatulum* (Kützing) Round & Bukhtiyarova sensu lato, p. 33 [PTDE]

Scale bars = 5 μm

Figs 1-4: Amieira, Tejo River (Tejo basin), 06-07-2006.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Planothidium

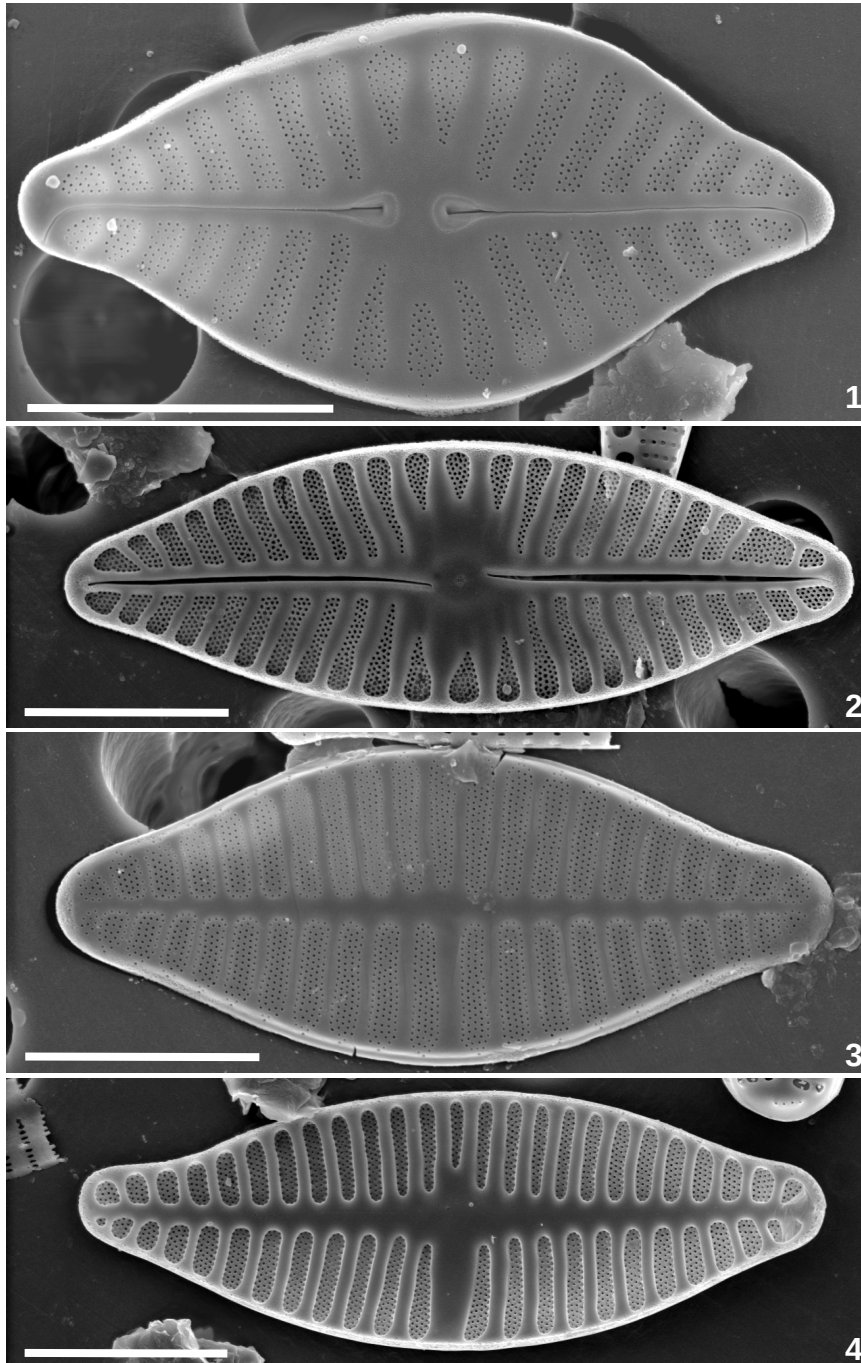


Plate 188

Figs 1, 2: *Nupela lapidosa* (Krasske) Lange-Bertalot, p. 35 [NULA]

Scale bars = 5 μm

Figs 1, 2: Sabugueiro, Fervença Stream (Mondego basin), 07-07-2007.

Fig. 1: External valve view.

Fig. 2: Internal valve view.

Nupela

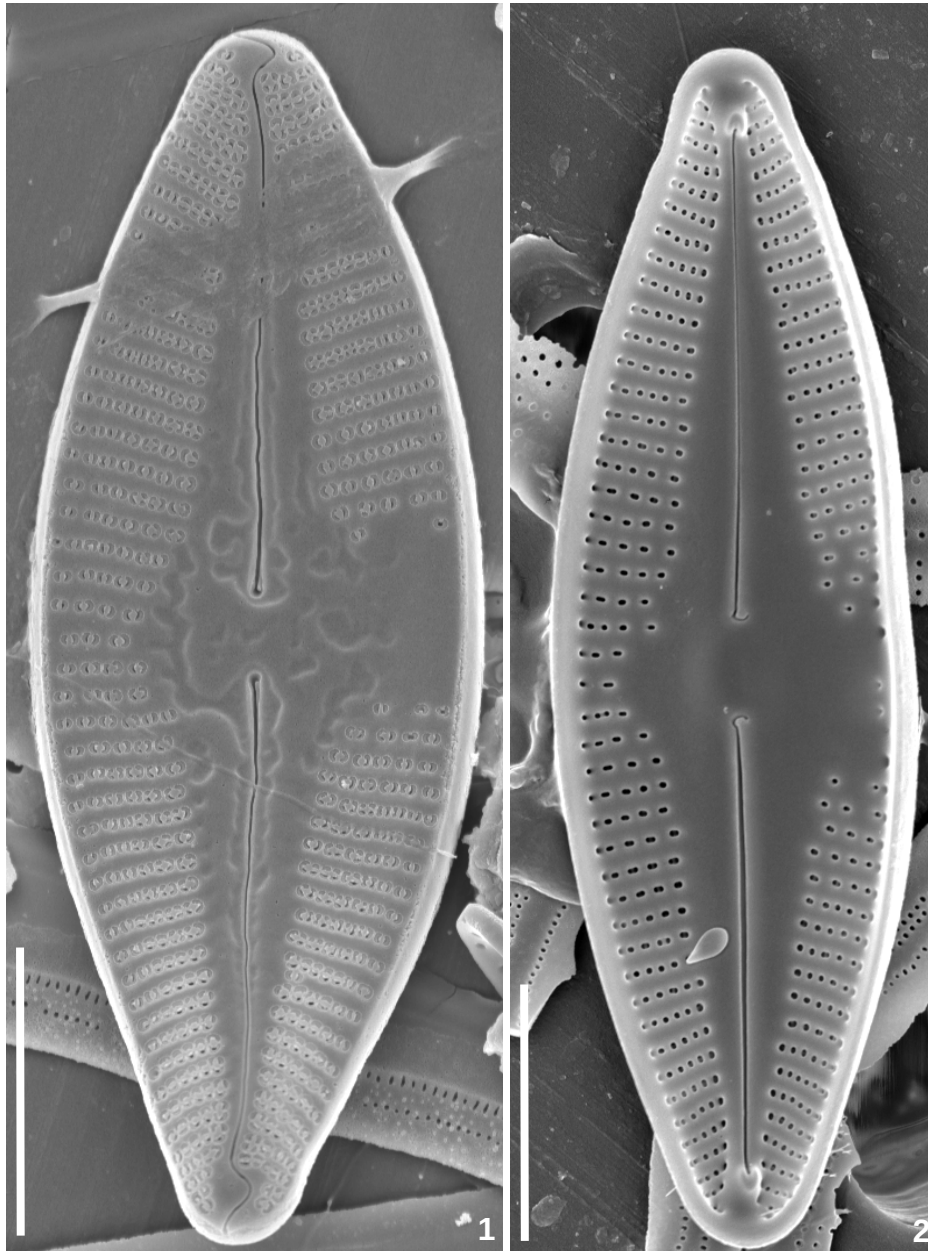


Plate 189

LM: x1500

Figs 1-35: *Planothidium daui* (Foged) Lange-Bertalot, p. 33 [PDAU]

Figs 36-53: *Planothidium minutissimum* (Krasske) E. Morales, p. 33 [PMNT]

Figs 54-69: *Planothidium conspicuum* (Mayer) Aboal in Aboal, Alvarez-Cobelas, Cambra & Ector, p. 32 [PNCO]

Figs 70-88: *Planothidium granum* (Hohn & Hellerman) Lange-Bertalot, p. 33 [PGRN]

Figs 89-98: *Psammothidium marginulatum* (Grunow) Bukhtiyarova & Round, p. 34 [PMRG]

Figs 99-102: *Psammothidium altaicum* Bukhtiyarova in Bukhtiyarova & Round, p. 34 [PALT]

Figs 103-142: *Nupela* sp., p. 35

Scale bar = 10 μ m

Figs 1-35: Lanheses, Lima River (Lima basin), 21-09-2007.

Figs 36-88: Amieira, Tejo River (Tejo basin), 06-07-2006.

Figs 89-98: Lamas de Mouro, Mouro River (Minho basin), 20-09-2007.

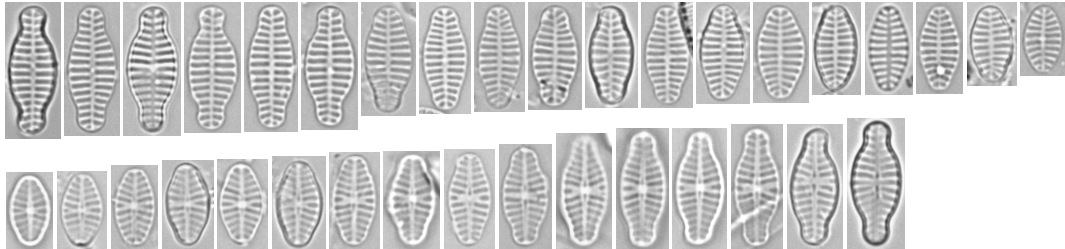
Figs 99-102: Lamas de Mouro, Mouro River (Minho basin), 20-09-2007.

Figs 103-142: Barcelos, Cávado River (Cávado basin), 22-09-2007.

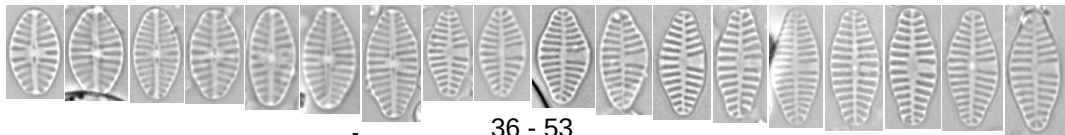
Figs 1-139: Valve view.

Figs 140-142: Girdle view.

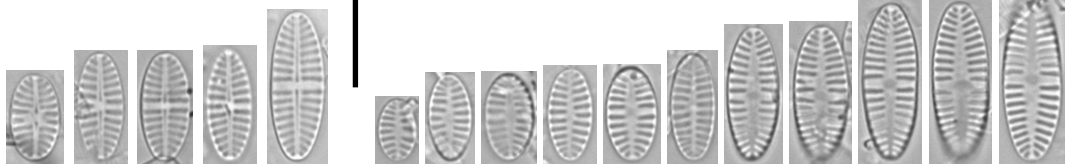
Planothidium
Psammothidium
Nupela



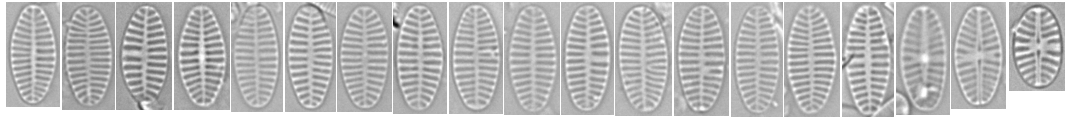
1 - 35



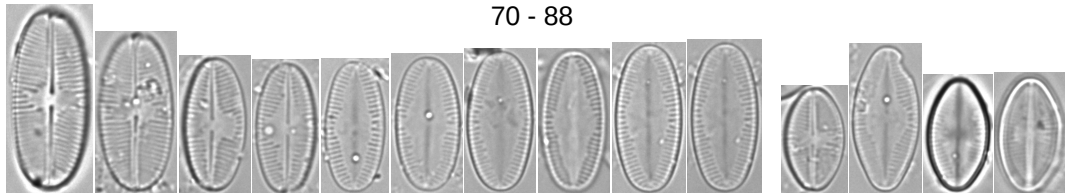
36 - 53



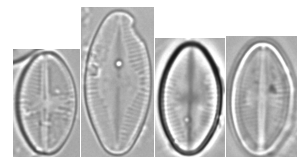
54 - 69



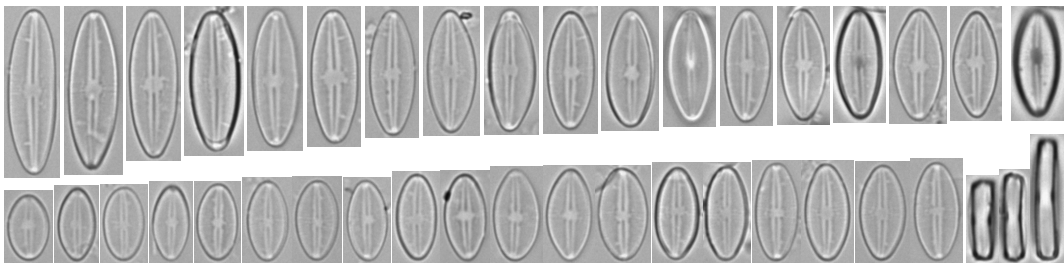
70 - 88



89 - 98



99 - 102



103 - 139

140 - 142

Plate 190

Figs 1-3: *Planothidium daui* (Foged) Lange-Bertalot, p. 33 [PDAU]

Scale bars = 1 μm

Figs 1-3: Lanheses, Lima River (Lima basin), 21-09-2007.

Figs 1, 3: Internal valve view.

Fig. 2: Internal valve view.

Planothidium

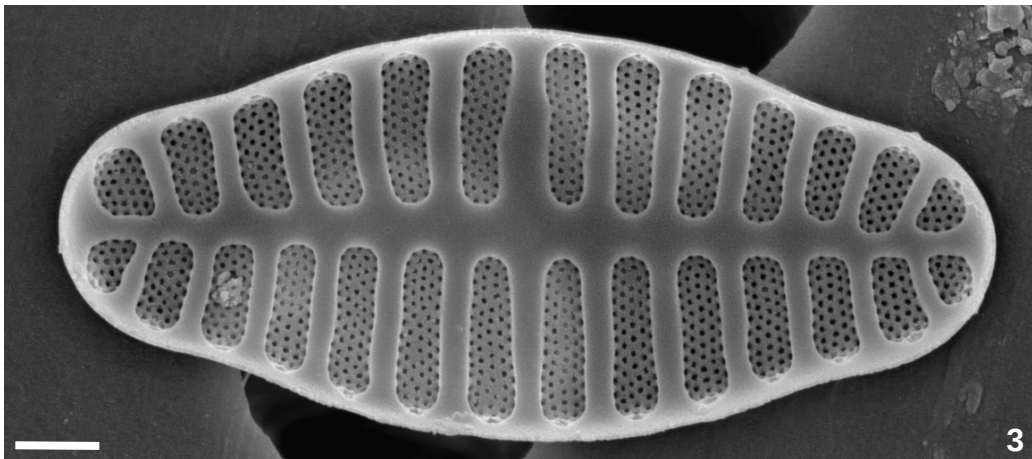
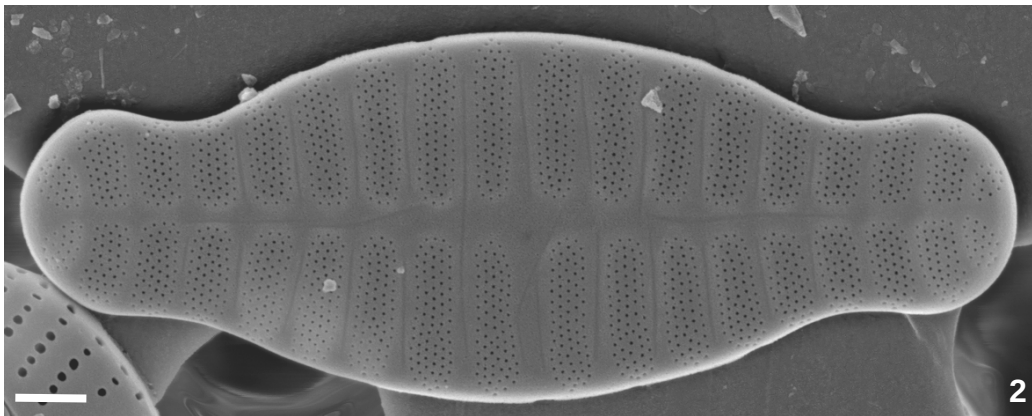
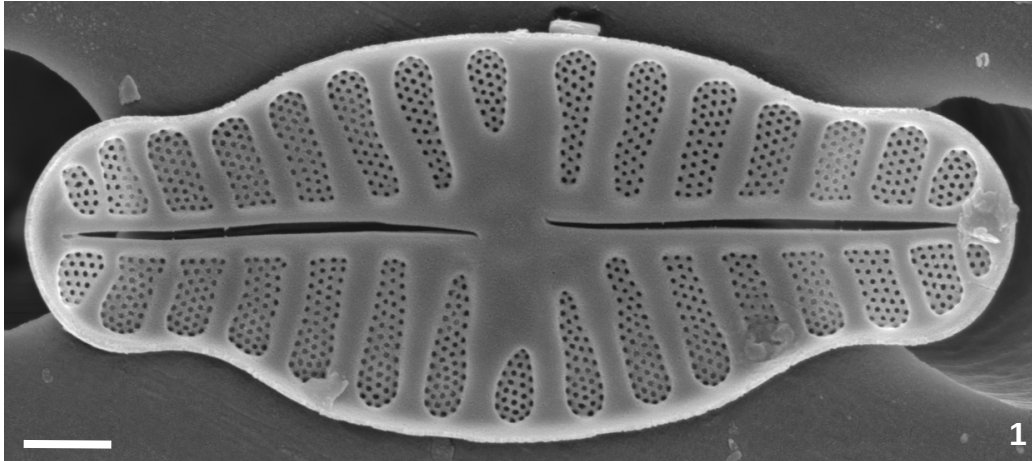


Plate 191

Figs 1-2: *Psammothidium marginulatum* (Grunow) Bukhtiyarova & Round, p. 34
[PMRG]

Fig. 3: *Psammothidium altaicum* Bukhtiyarova in Bukhtiyarova & Round, p. 34
[PALT]

Scale bars = 1 μm

Figs 1-3: Lamas de Mouro, Mouro River (Minho basin), 20-09-2007.

Figs 1, 2: External valve view.

Fig. 3: Internal valve view.

Psammothidium

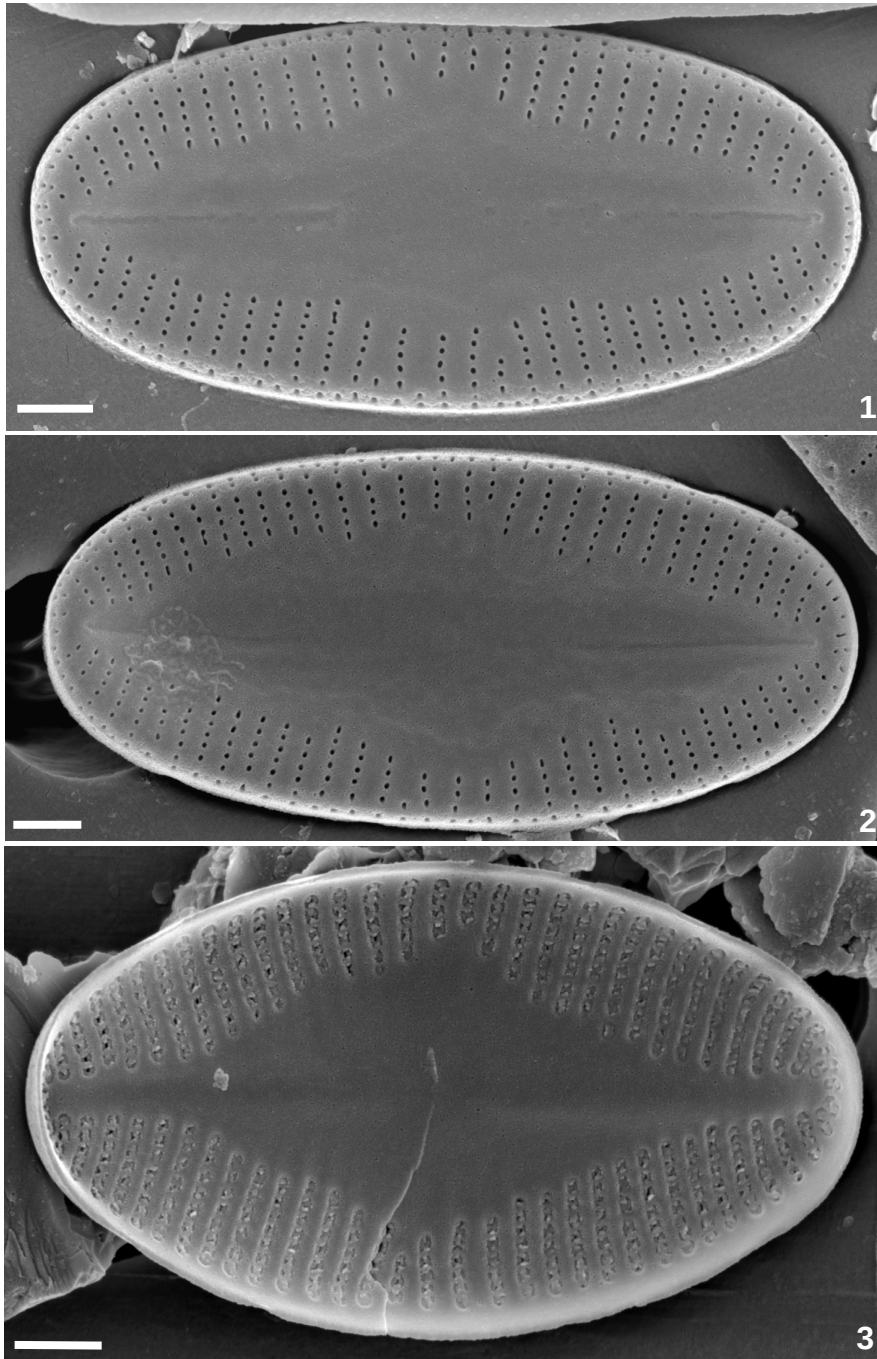


Plate 192

Figs 1-4: *Nupela* sp., p. 35

Scale bars = 1 μm

Figs 1-4: Barcelos, Cávado River (Cávado basin), 22-09-2007.

Figs 1-3: External valve view.

Fig. 4: Internal valve view.

Nupela

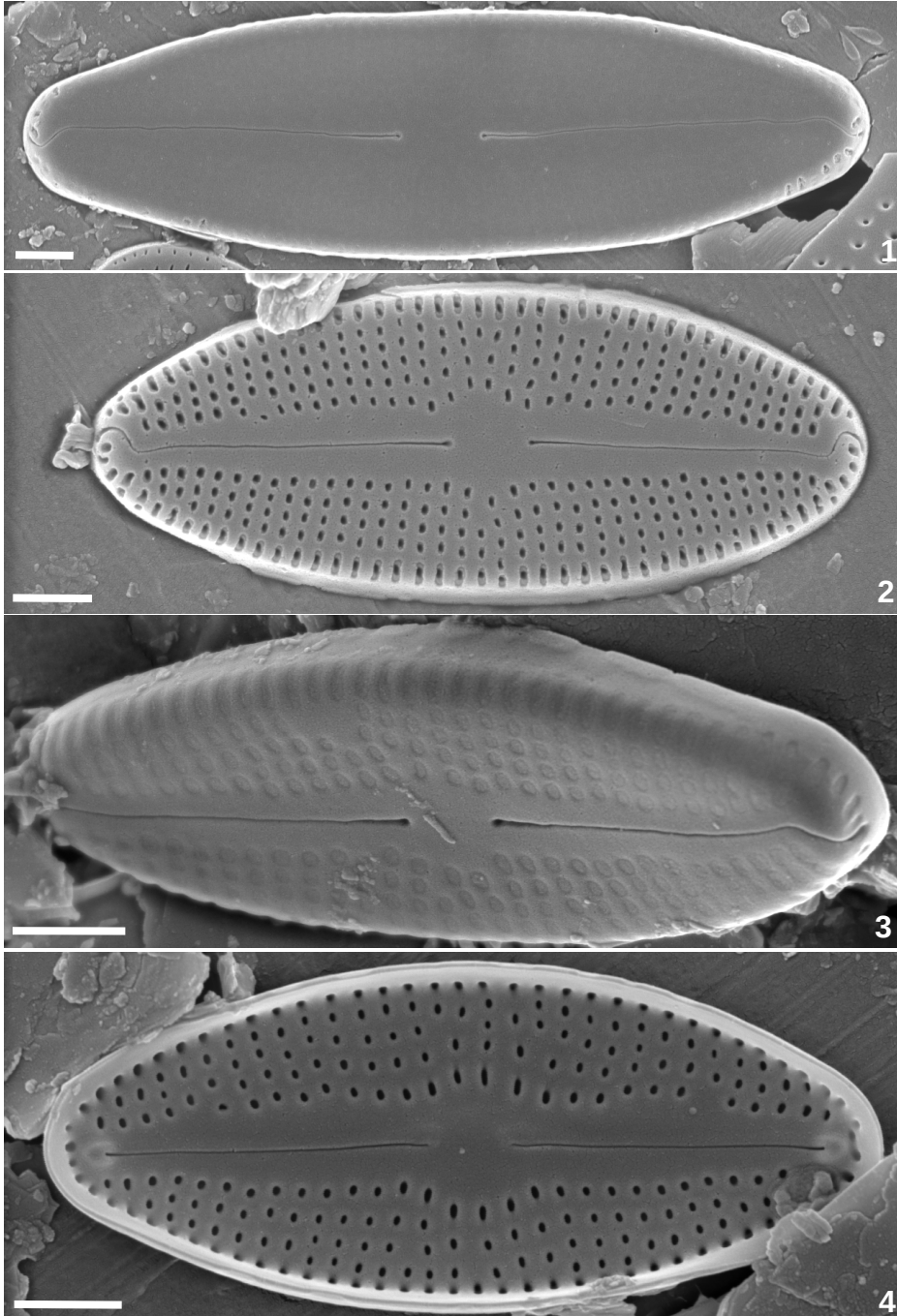


Plate 193

LM: x1500

Figs 1-40: *Karayevia clevei* (Grunow in Cleve & Grunow) Round & Bukhtiyarova, p. 32 [KCLV]

Figs 41-83: *Karayevia oblongella* (Østrup) Aboal, p. 32 [KOBG]

Scale bar = 10 µm

Figs 1-27: Amieira, Tejo River (Tejo basin), 06-07-2006.

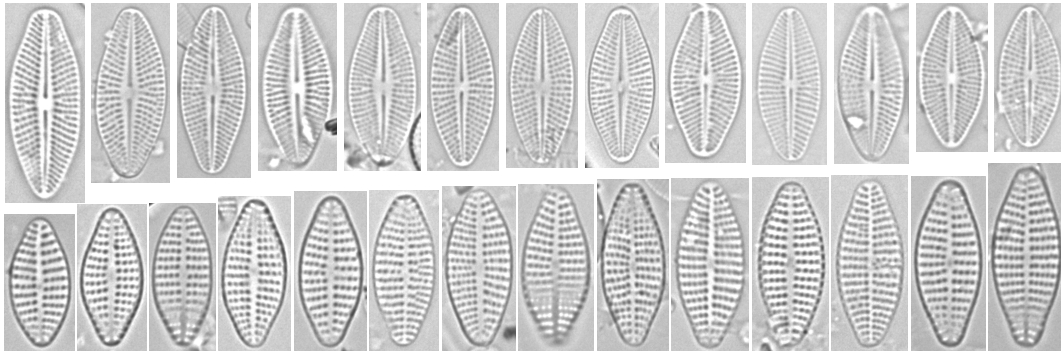
Figs 28-40: Machadinho, Guadiana River (Guadiana basin), 18-05-2006.

Figs 41-59: Seixe Stream (Ribeiras do Algarve basin), 04-12-2006.

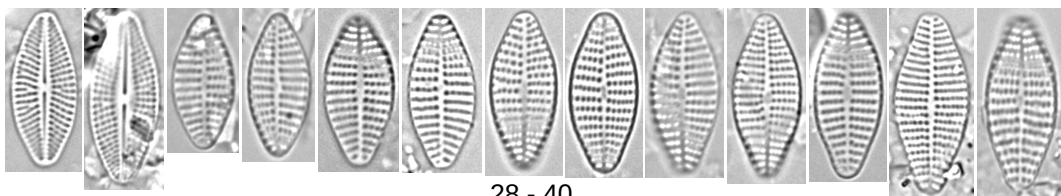
Figs 60-83: Capelinha Stream (Mira basin), 09-05-2006.

Figs 1-83: Valve view.

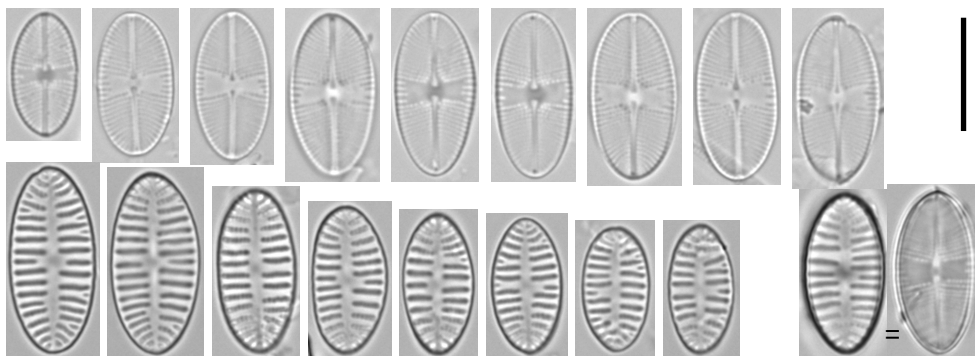
Karayevia



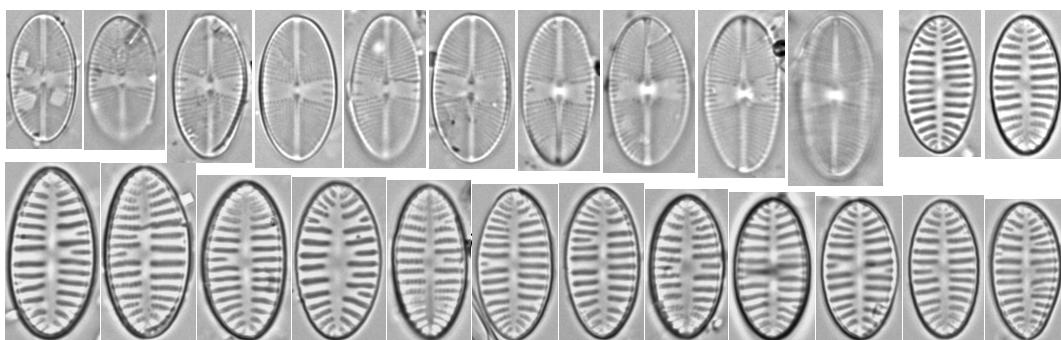
1 - 27



28 - 40



41 - 59



60 - 83

Plate 194

Figs 1, 2: *Karayevia oblongella* (Østrup) Aboal, p. 32 [KOBG]

Scale bars = 1 μm

Figs 1, 2: Seixe Stream (Ribeiras do Algarve basin), 04-12-2006.

Figs 1, 2: External valve view.

Karayevia

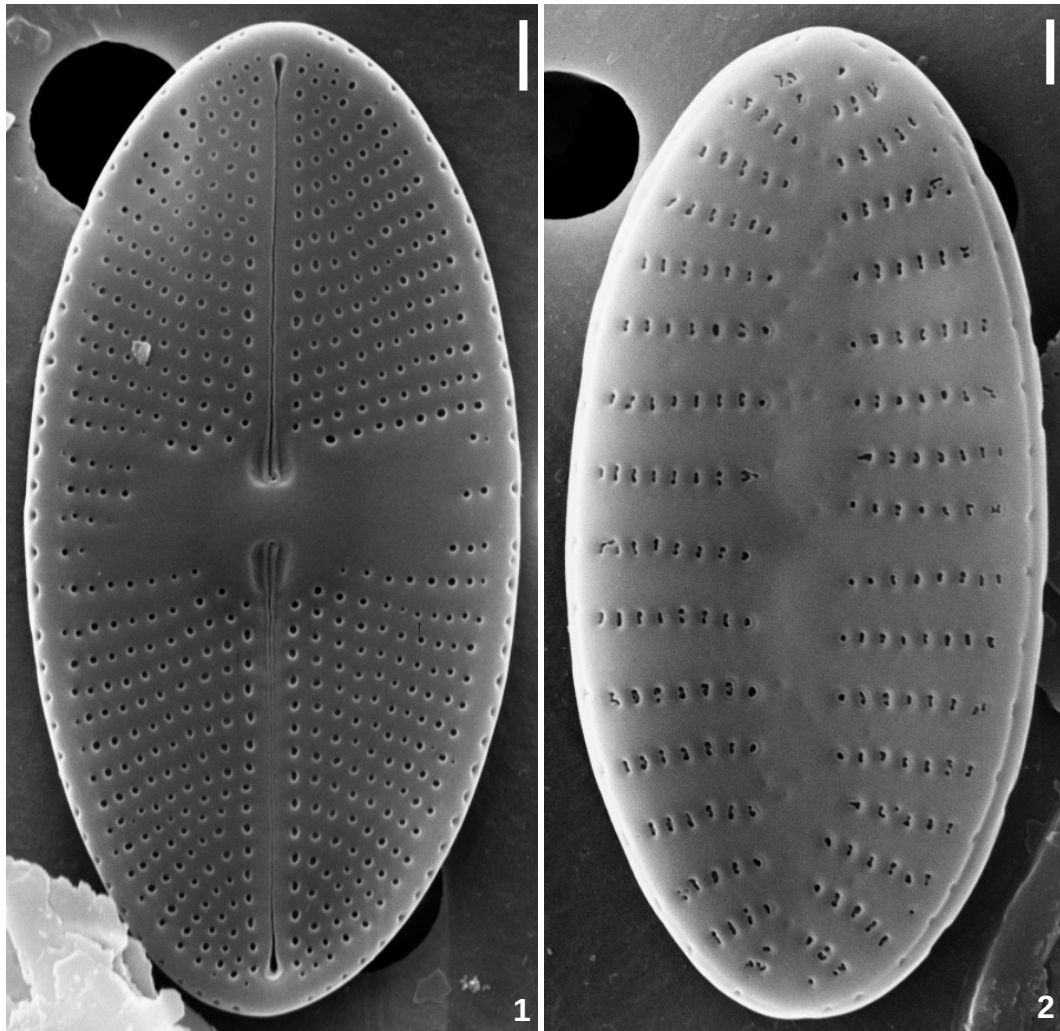


Plate 195

LM: x1500

Figs 1-20: *Diadasmus confervacea* Kützing, p. 34 [DCOF]

Figs 21-46: *Diadasmus* cf. *biceps* Arnott, p. 34 [DBIC]

Fig. 47: *Diadasmus paracontenta* subsp. *magisconcava* Lange-Bertalot, p. 34 [DPMA]

Figs 48-61: *Diadasmus perpusilla* (Grunow) D.G. Mann sensu lato, p. 34 [DPER]

Figs 62-69: *Eolimna* sp.1, p. 37 [EOSP]

Scale bar = 10 μ m

Figs 1-20: Coutada, Zêzere River (Tejo basin), 08-07-2006.

Figs 21-47: Senra, Lima River (Lima basin), 27-09-2007.

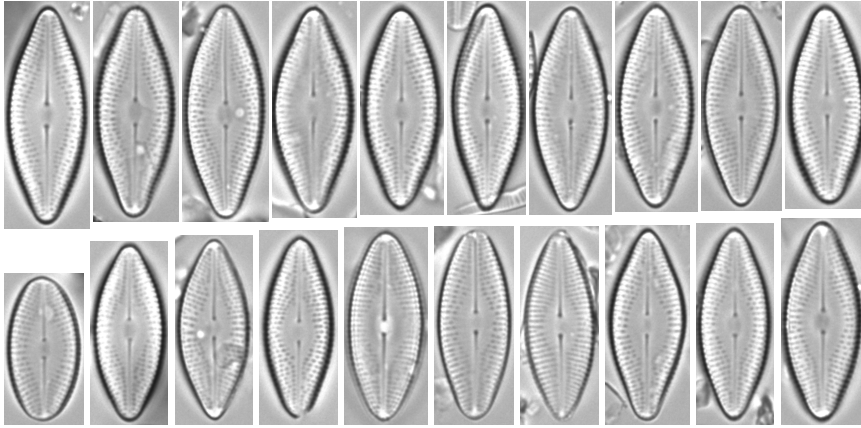
Figs 48-61: Sabugueiro, Fervença Stream (Mondego basin), 07-07-2007.

Figs 62-69: Açude da Moreira, Caima River (Vouga basin), 09-07-2007.

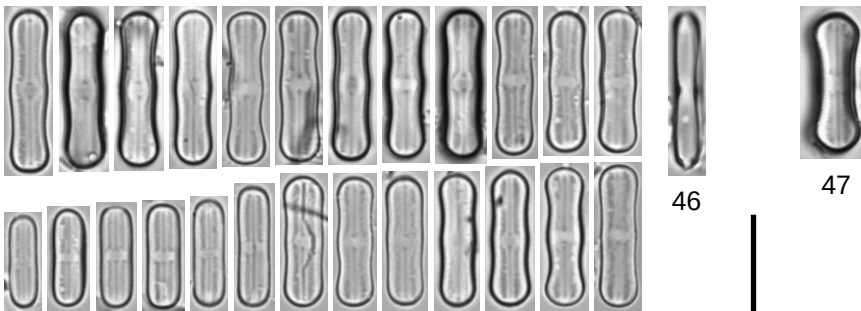
Figs 1-45, 47-69: Valve view.

Fig. 46: Girdle view.

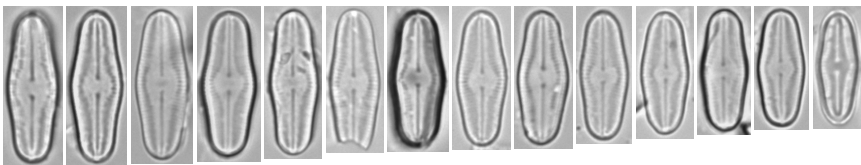
Diadesmis



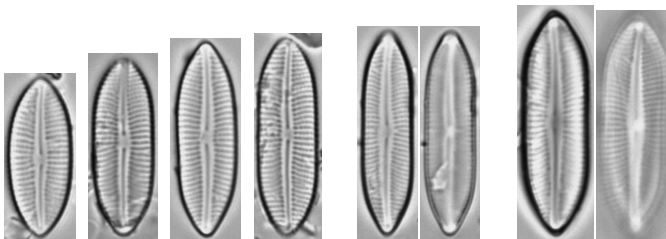
1 - 20



21 - 45



48 - 61



62 - 69

Plate 196

Figs 1-3: *Diadasmus* cf. *biceps* Arnott, p. 34 [DBIC]

Scale bars = 2 μ m

Figs 1-3: Senra, Lima River (Lima basin), 27-09-2007.

Fig. 1: External valve view.

Fig. 2: Internal valve view.

Fig. 3: Girdle view.

Diadesmis

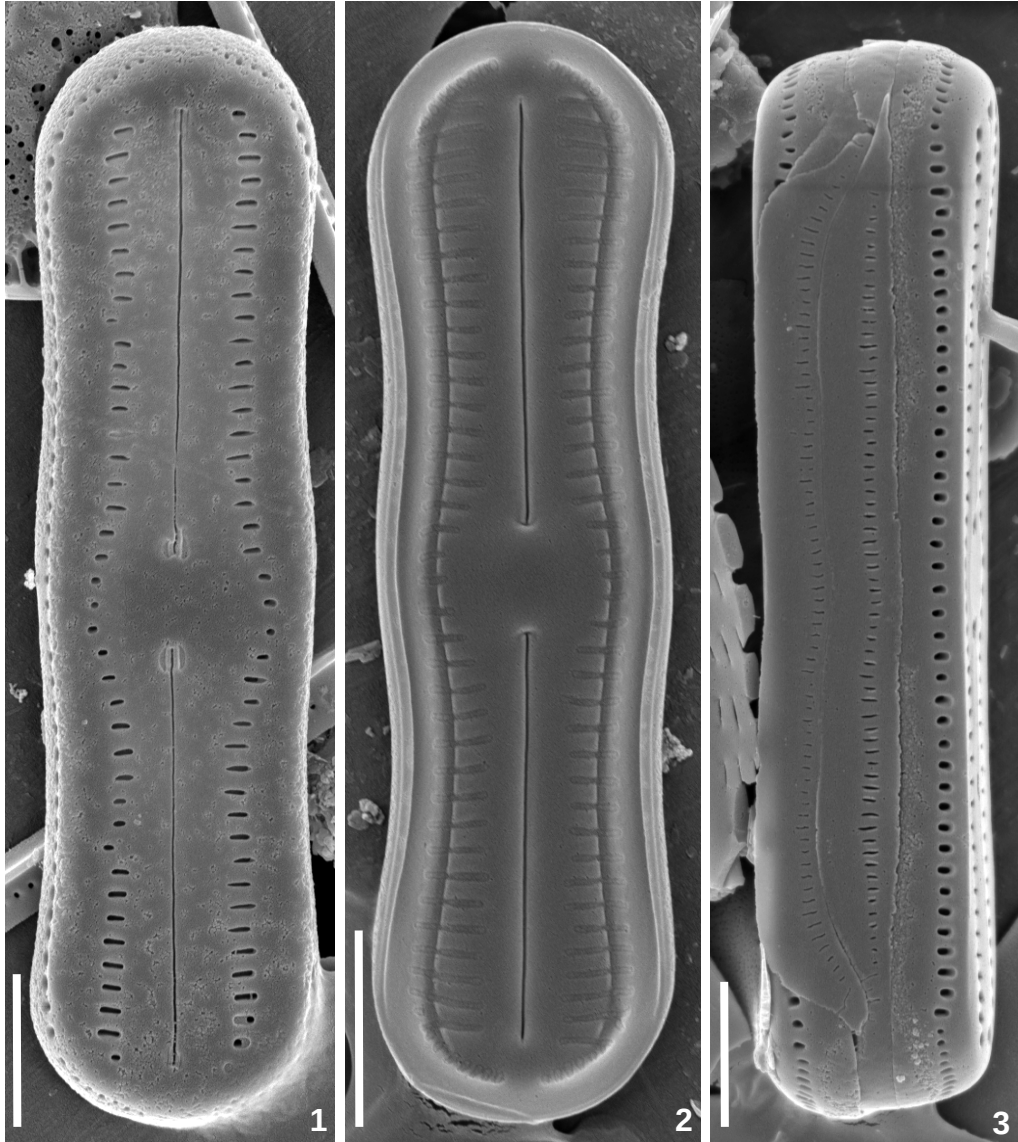


Plate 197

Figs 1, 2: *Diadasmus perpusilla* (Grunow) D.G. Mann sensu lato, p. 34 [DPER]

Scale bars = 1 μm

Figs 1, 2: Sabugueiro, Fervença Stream (Mondego basin), 07-07-2007.

Fig. 1: External valve view.

Fig. 2: Internal valve view.

Diadesmis

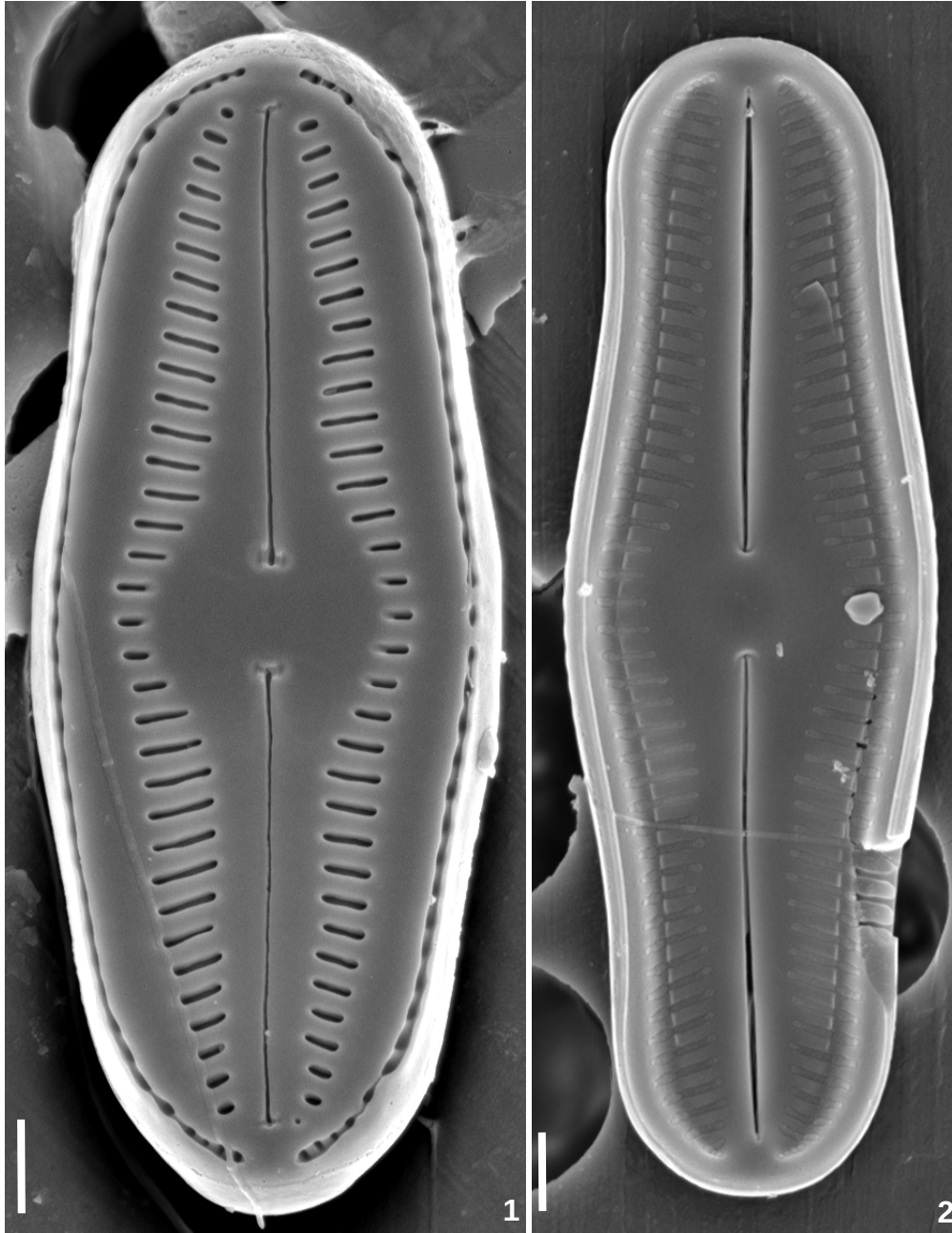


Plate 198

LM: x1500

Figs 1-43: *Luticola goeppertiana* (Bleisch in Rabenhorst) D.G. Mann, p. 34 [LGOE]

Scale bar = 10 μm

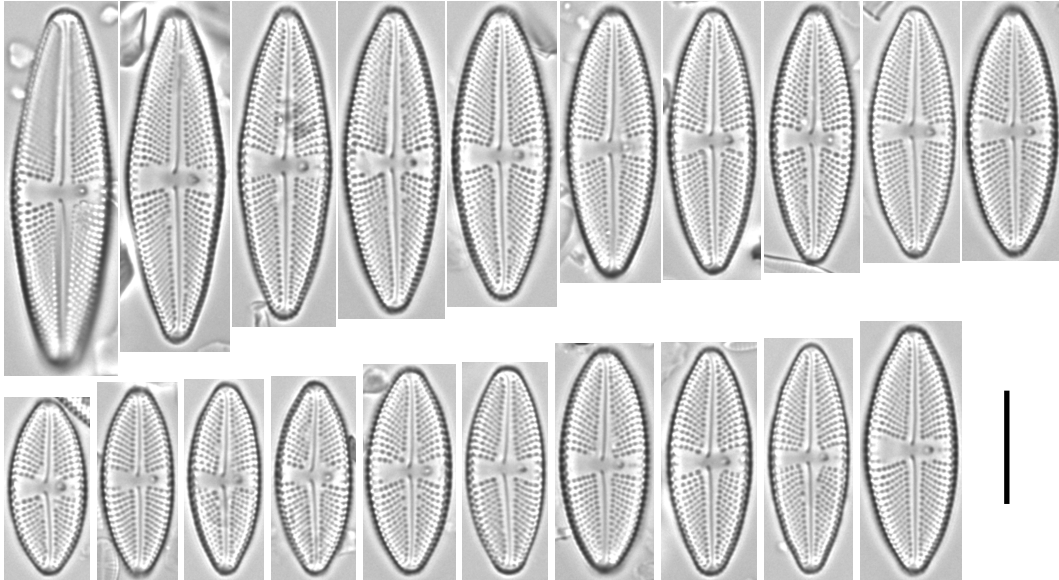
Figs 1-20: Coutada, Zêzere River (Tejo basin), 08-07-2006.

Figs 21-31: Coimbra, Mondego River (Mondego basin), 12-06-2007.

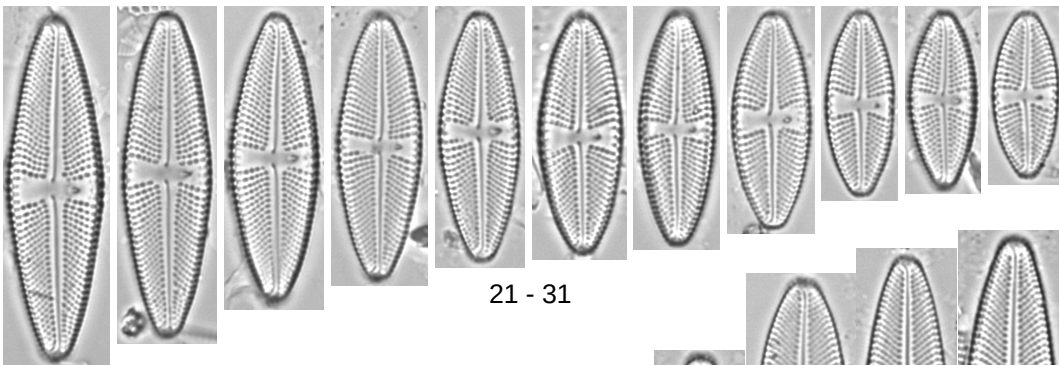
Figs 32-43: Miranda, Douro River (Douro basin), 12-08-2007.

Figs 1-43: Valve view.

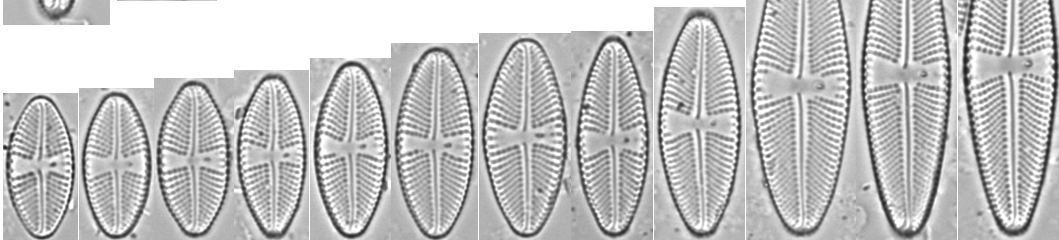
Luticola



1 - 20



21 - 31



32 - 43

Plate 199

LM: x1500

Figs 1-23: *Luticola* aff. *mutica* (Kützing) D.G. Mann, p. 35

Figs 24-36: *Luticola mutica* (Kützing) D.G. Mann, p. 35 [LMUT]

Figs 37-69: *Luticola ventriconfusa* Lange-Bertalot, p. 35 [LVCF]

Scale bar = 10 μm

Figs 1-23: Penha de Águia, Guadiana River (Guadiana basin), 18-05-2006.

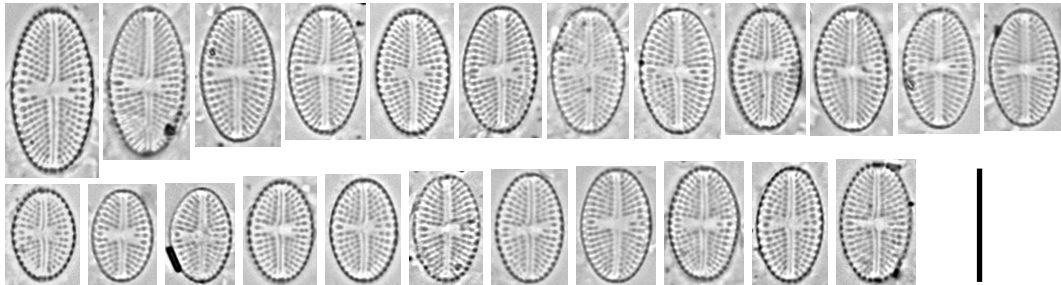
Figs 24-36: Casal Rei, Zêzere River (Tejo basin), 26-06-2006.

Figs 37-51: Miranda, Douro River (Douro basin), 12-08-2007.

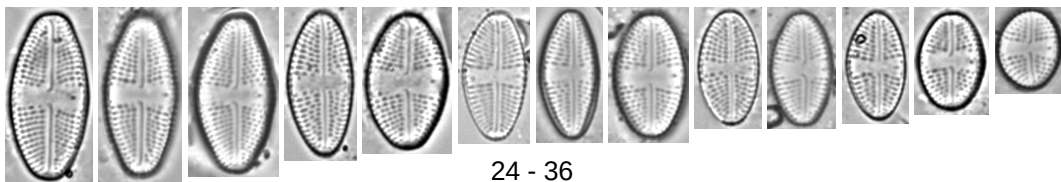
Figs 52-69: Belver, Tejo River (Tejo basin), 06-07-2006.

Figs 1-69: Valve view.

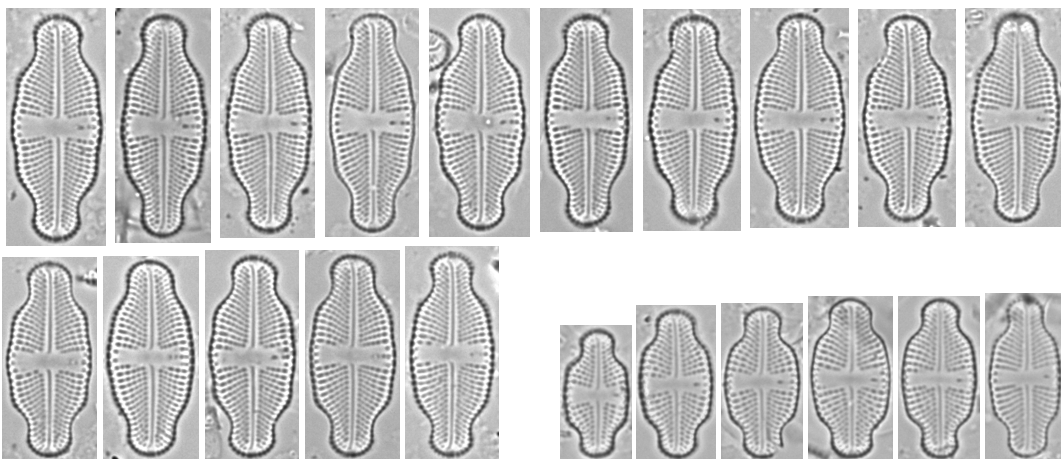
Luticola



1 - 23

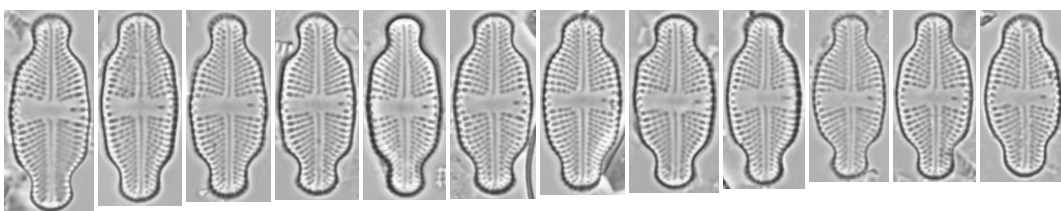


24 - 36



37 - 51

52 - 57



58 - 69

Plate 200

Figs 1-4: *Luticola ventriconfusa* Lange-Bertalot, p. 35 [LVCF]

Scale bars (Figs 1, 2) = 5 μm Scale bars (Figs 3, 4) = 1 μm

Figs 1-4: Belver, Tejo River (Tejo basin), 06-07-2006.

Fig. 1: External valve view.

Fig. 2: Internal valve view.

Fig. 3: Detail of the central area in external view.

Fig. 4: Detail of the central area in internal view.