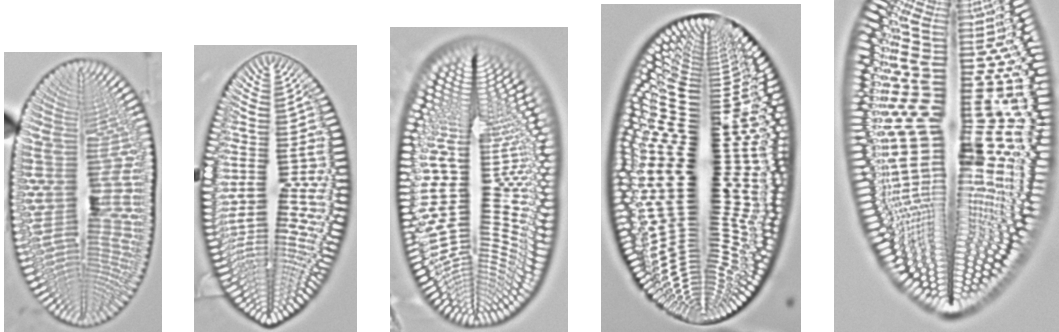


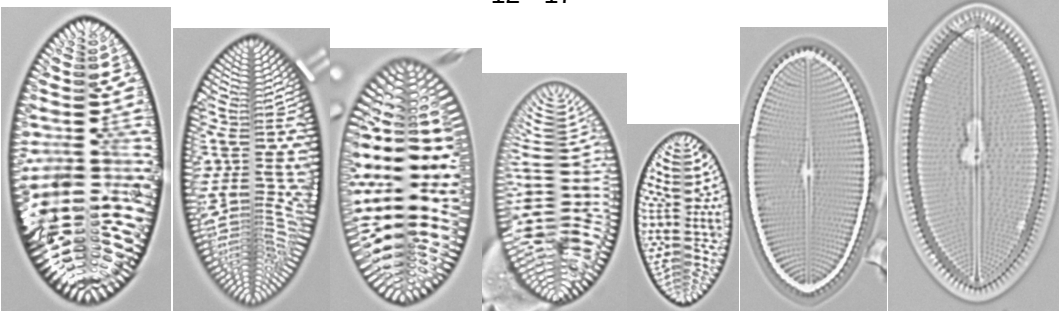
Cocconeis



1 - 11



12 - 17



18 - 24

Plate 141

LM: x1500

Figs 1-21: *Cocconeis neothumensis* Krammer, p. 28 [CNTH]

Figs 22-30: *Cocconeis* sp., p. 28 [COCS]

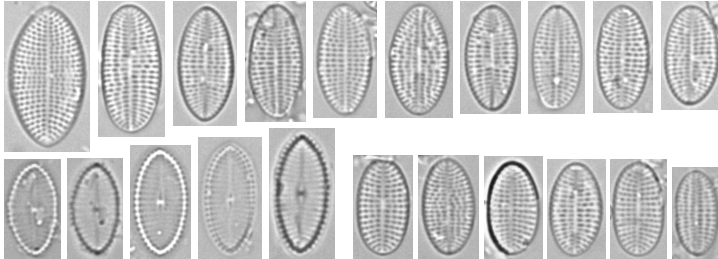
Scale bar = 10 μm

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

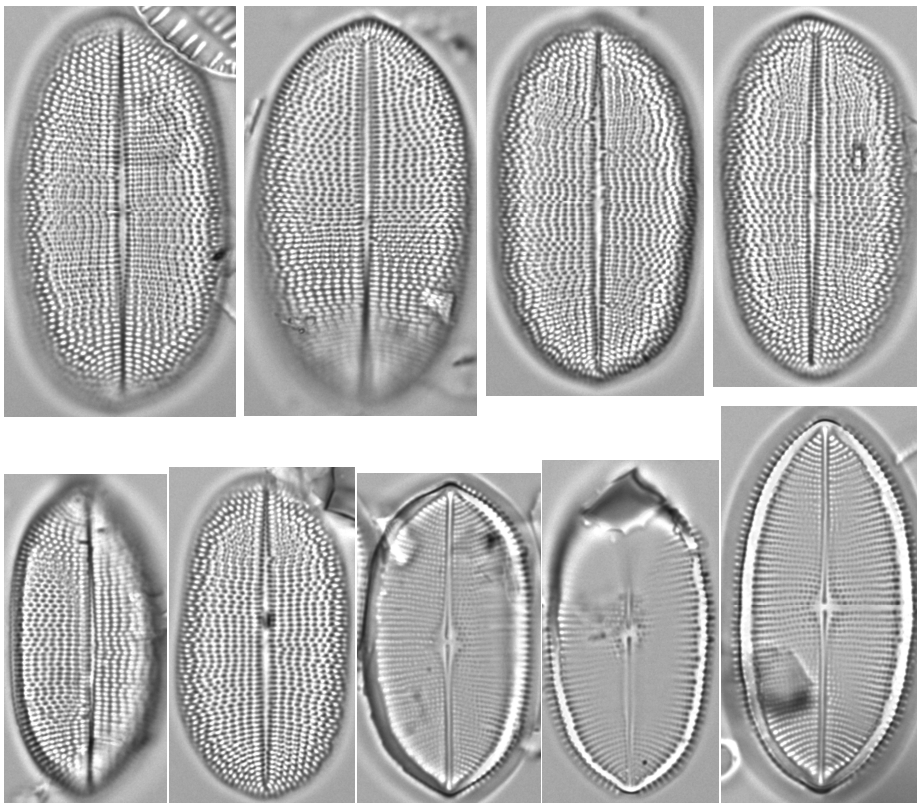
Figs 22-30: Engenho, Alge Stream (Tejo basin), 09-07-2006.

Figs 1-30: Valve view.

Cocconeis



1 - 21



22 - 30

Plate 142

LM: x1500

Figs 1-11: *Cocconeis* sp., p. 28 [COCS]

Figs 12-15: *Cocconeis pediculus* Ehrenberg, p. 28 [CPED]

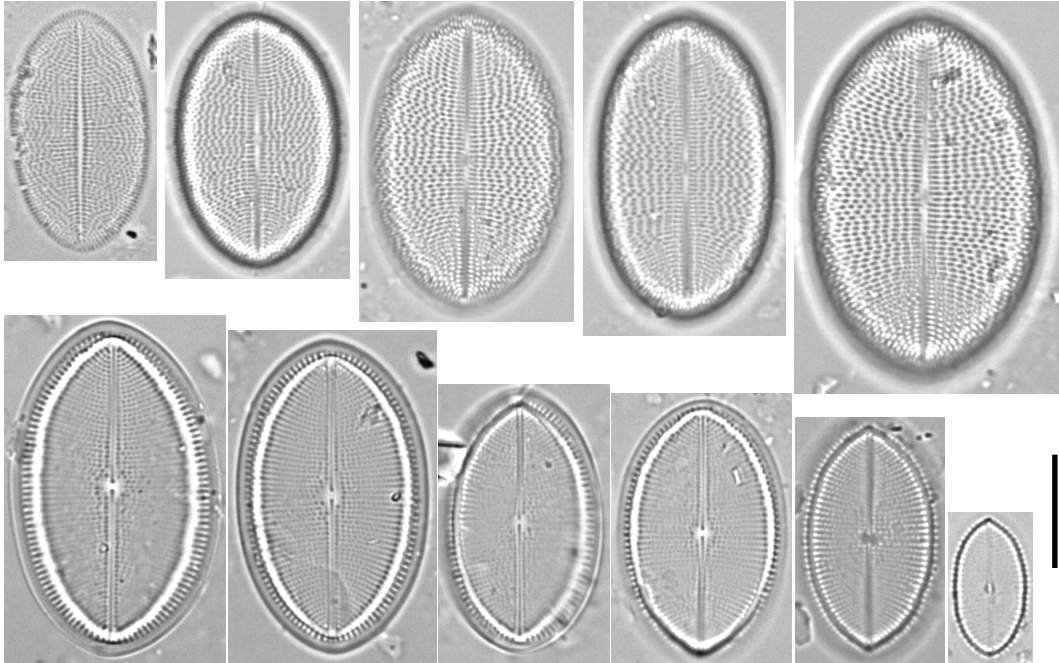
Scale bar = 10 μm

Figs 1-11: Queimado, Pardiela Stream (Guadiana basin), 25-05-2006.

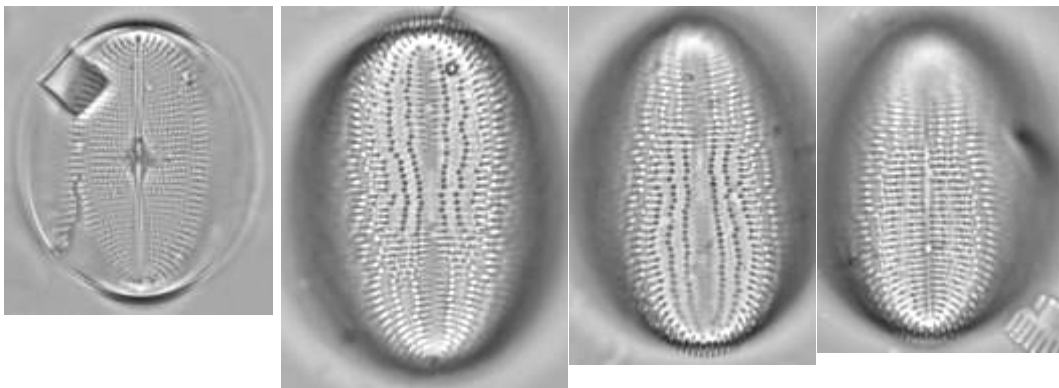
Figs 12-15: Tôr, Algibre Stream (Ribeiras do Algarve basin), 02-03-2006.

Figs 1-15: Valve view.

Cocconeis



1 - 11



12 - 15

Plate 143

LM: x1500

Figs 1-96: *Achnanthidium minutissimum* (Kützing) Czarnecki, p. 30 [ADMI]

Scale bar = 10 μ m

Figs 1-23: Gorazes, Oeiras Stream (Guadiana basin), 25-04-2006.

Figs 24-38: Barranco, Vascão Stream (Guadiana basin), 24-04-2006.

Figs 39-73: Gomes Aires (ETAR), Mira River (Mira basin), 25-04-2006.

Figs 74-119: Torno River (Douro basin), 15-08-2007.

Figs 120-142: Gomes Aires, Mira River (Mira basin), 25-04-2006.

Figs 1-21, 24-36, 39-71, 74-132, 135-142: Valve view.

Figs 22, 23, 37, 38, 72, 73, 133, 134: Girdle view.

Achnantheidium

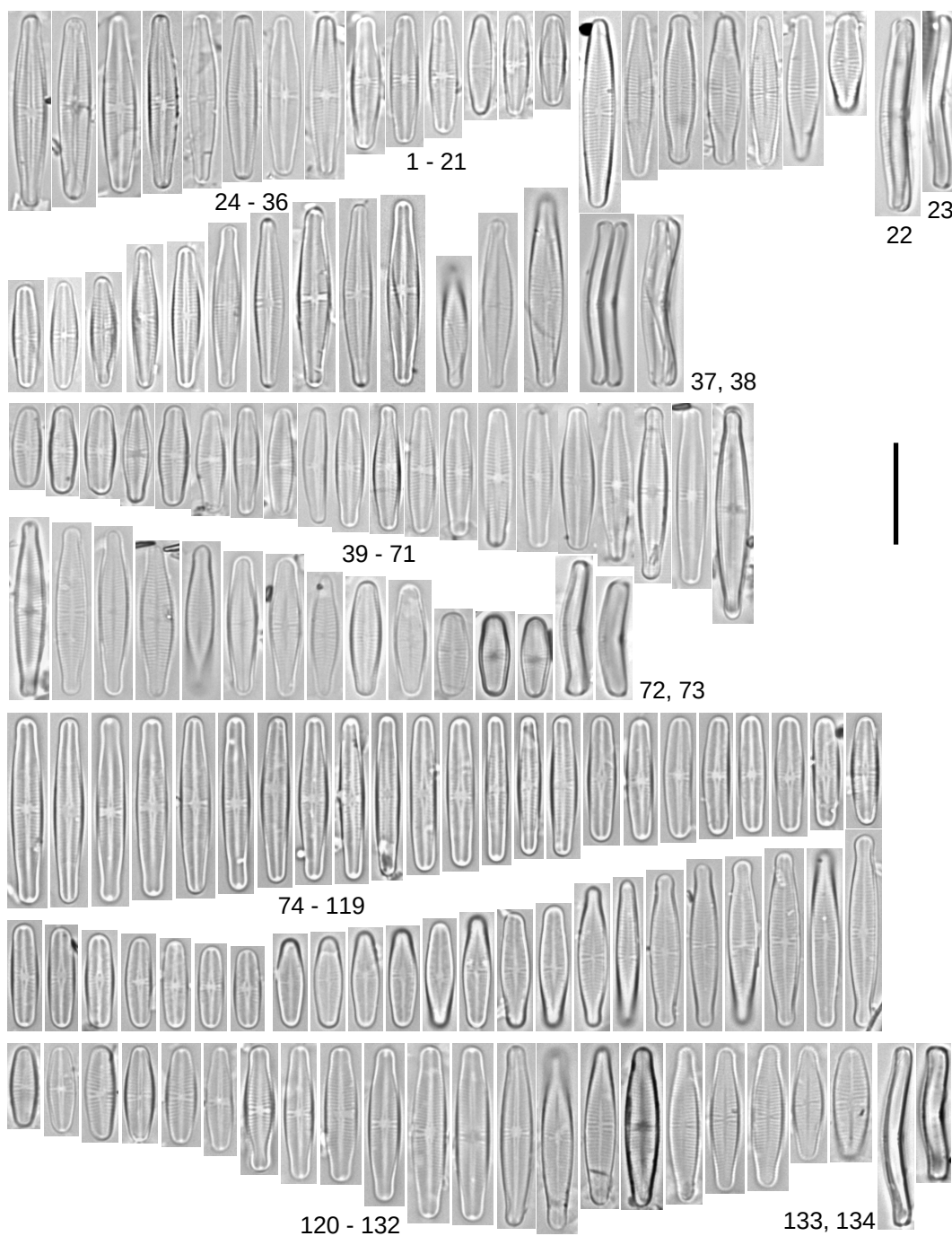


Plate 144

Figs 1-6: *Achnantheidium minutissimum* (Kützing) Czarnecki, p. 30 [ADMI]

Scale bars = 1 μm

Figs 1-6: Torno River (Douro basin), 15-08-2007.

Figs 1, 3: External valve view.

Figs 2, 4, 5: Internal valve view.

Fig. 6: Girdle view.

Achnantheidium

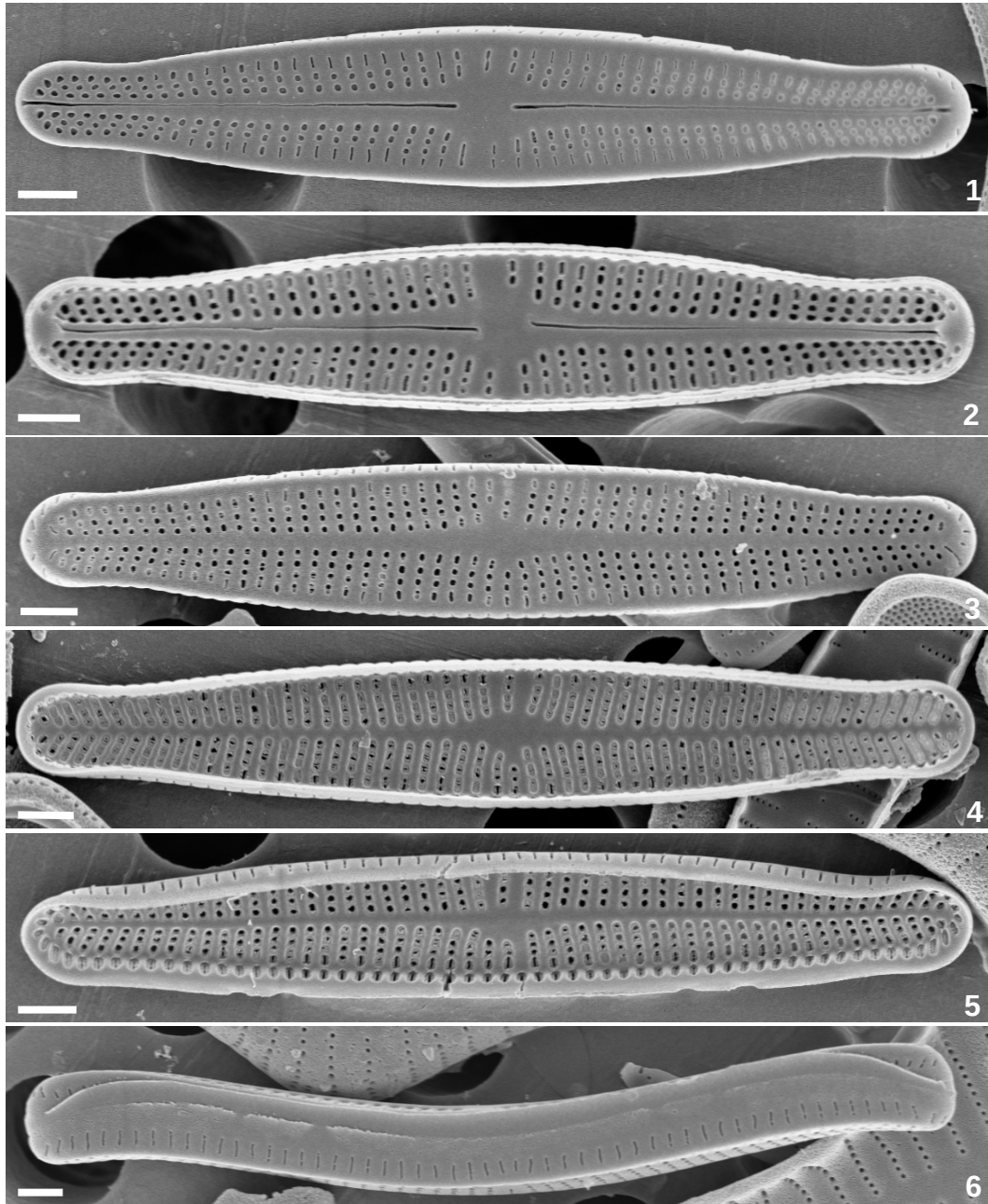


Plate 145

LM: x1500

Figs 1-21: *Achnantheidium minutissimum* (Kützing) Czarnecki sensu lato, p. 30 [ADMI]

Figs 22-65: *Achnantheidium saprophilum* (Kobayasi & Mayama) Round & Bukhtiyarova, p. 30 [ADSA]

Figs 66-104: *Achnantheidium eutrophilum* (Lange-Bertalot) Lange-Bertalot, p. 29 [ADEU]

Scale bar = 10 µm

Figs 1-21: Azenha, Alfambras Stream (Ribeiras do Algarve basin), 15-04-2006.

Figs 22-39: Canal Caveira, Grândola Stream (Sado basin), 10-05-2006.

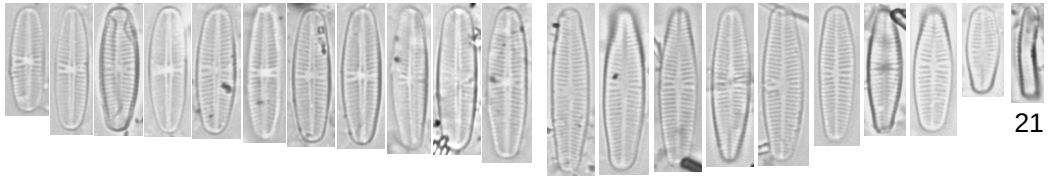
Figs 40-65: Sado River (Sado basin), 10-05-2006.

Figs 66-104: Monte Novo Reservoir, Degebe River (Guadiana basin), 02-02-2006.

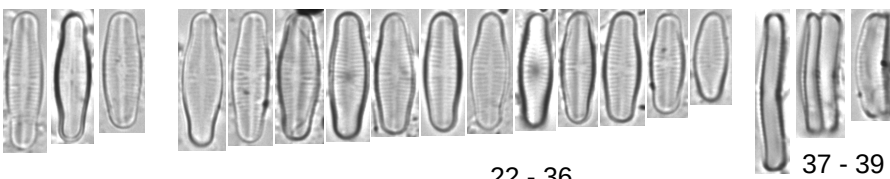
Figs 1-20, 22-36, 40-63, 66-83, 86-101: Valve view.

Figs 21, 37-39, 64, 65, 84, 85: Girdle view.

Achnantheidium

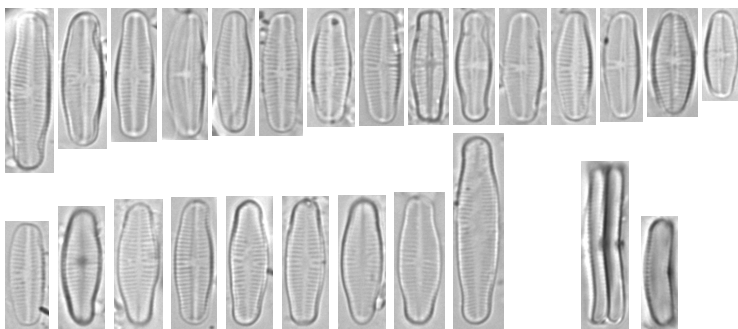


1 - 20



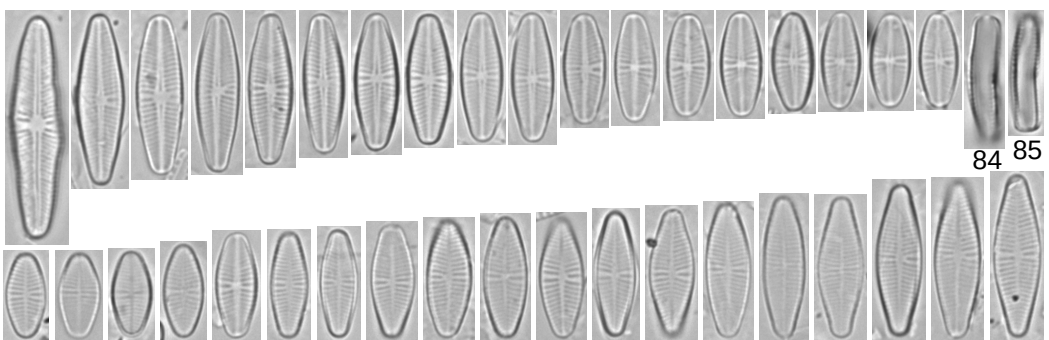
22 - 36

37 - 39



40 - 63

64 65



84 85

86 - 104

Plate 146

Figs 1-5: *Achnantheidium minutissimum* (Kützing) Czarnecki sensu lato, p. 30
[ADMI]

Scale bars = 1 μm

Figs 1-5: Azenha, Alfambras Stream (Ribeiras do Algarve basin), 15-04-2006.

Figs 1, 3: External valve view.

Figs 2, 4, 5: Internal valve view.

Achnantheidium

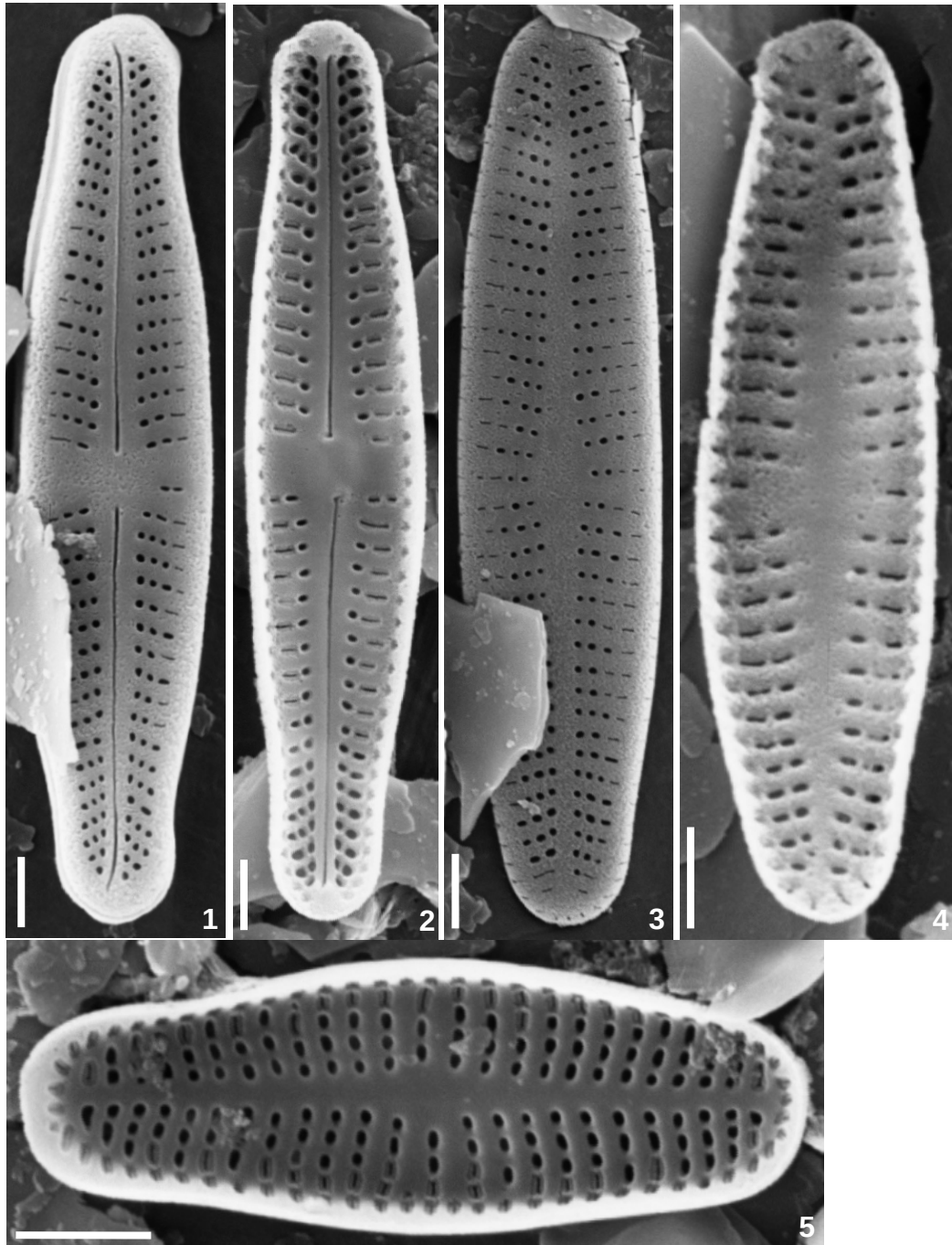


Plate 147

Figs 1-4: *Achnantheidium saprophilum* (Kobayasi & Mayama) Round & Bukhtiyarova, p. 30 [ADSA]

Scale bars = 1 μm

Figs 1-4: Canal Caveira, Grândola Stream (Sado basin), 10-05-2006.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

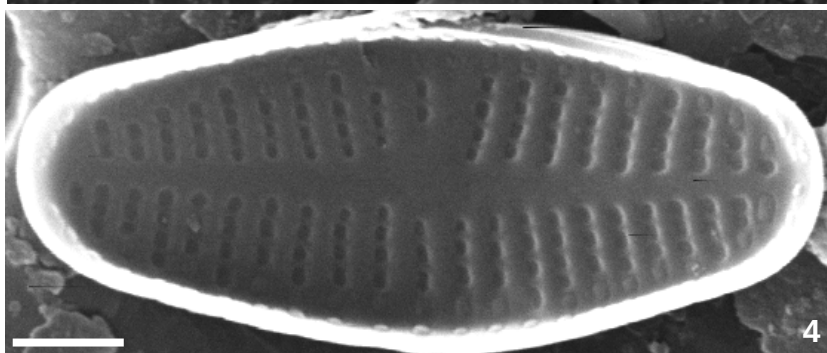
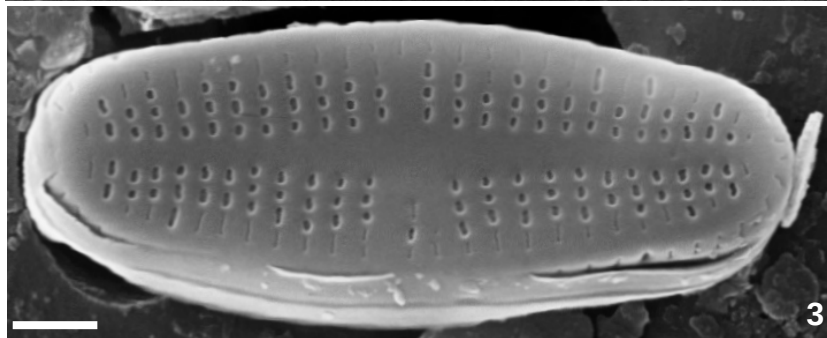
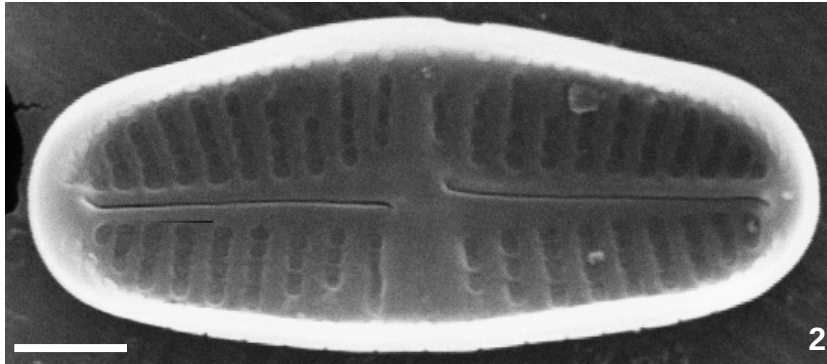
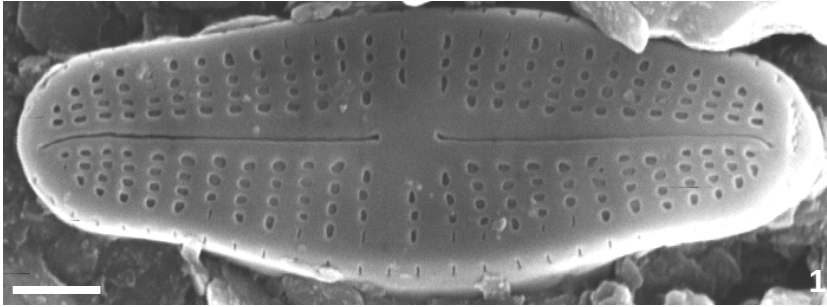


Plate 148

Figs 1-4: *Achnantheidium saprophilum* (Kobayasi & Mayama) Round & Bukhtiyarova, p. 30 [ADSA]

Scale bars = 1 μm

Figs 1-4: Canal Caveira, Grândola Stream (Sado basin), 10-05-2006.

Figs 1, 3: External valve view.

Fig. 2: Internal valve view.

Fig. 4: External girdle view.

Achnantheidium

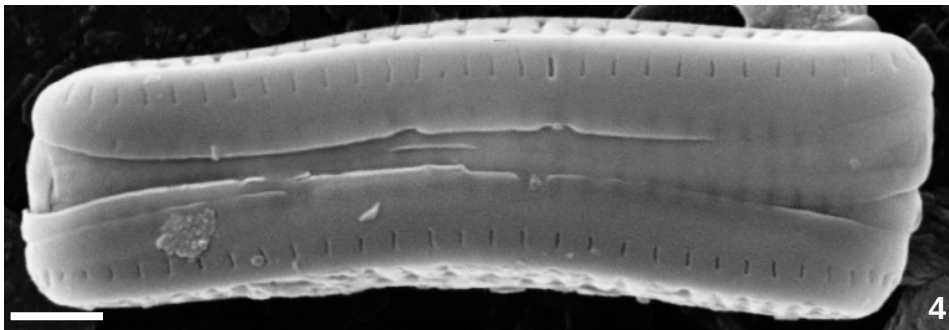
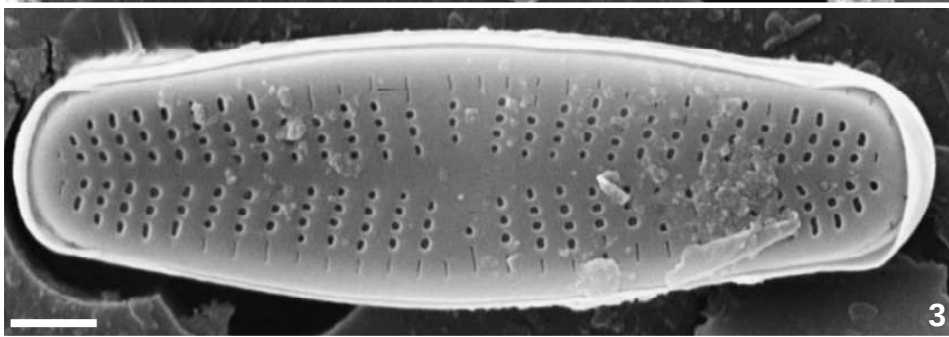
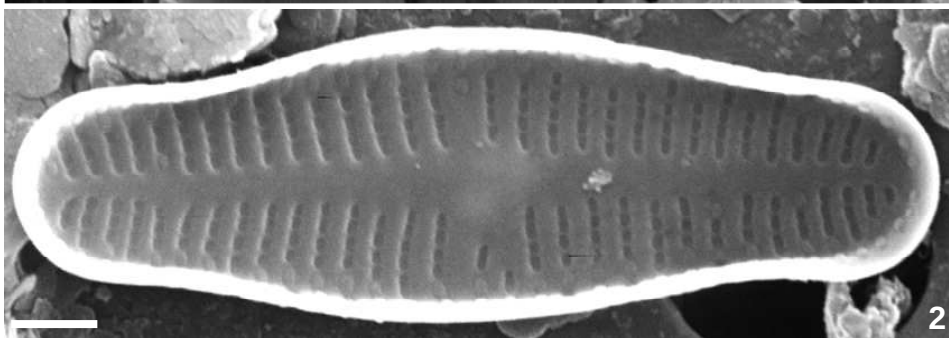
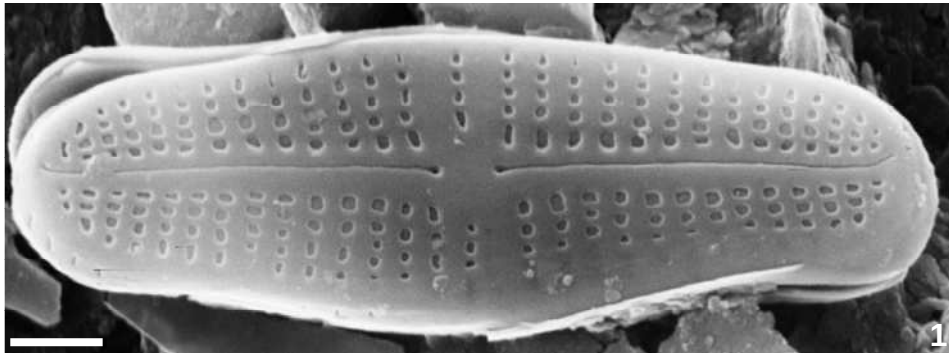


Plate 149

Figs 1-4: *Achnantheidium saprophilum* (Kobayasi & Mayama) Round & Bukhtiyarova, p. 30 [ADSA]

Scale bars = 1 μm

Figs 1-4: Sado River (Sado basin), 10-05-2006.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

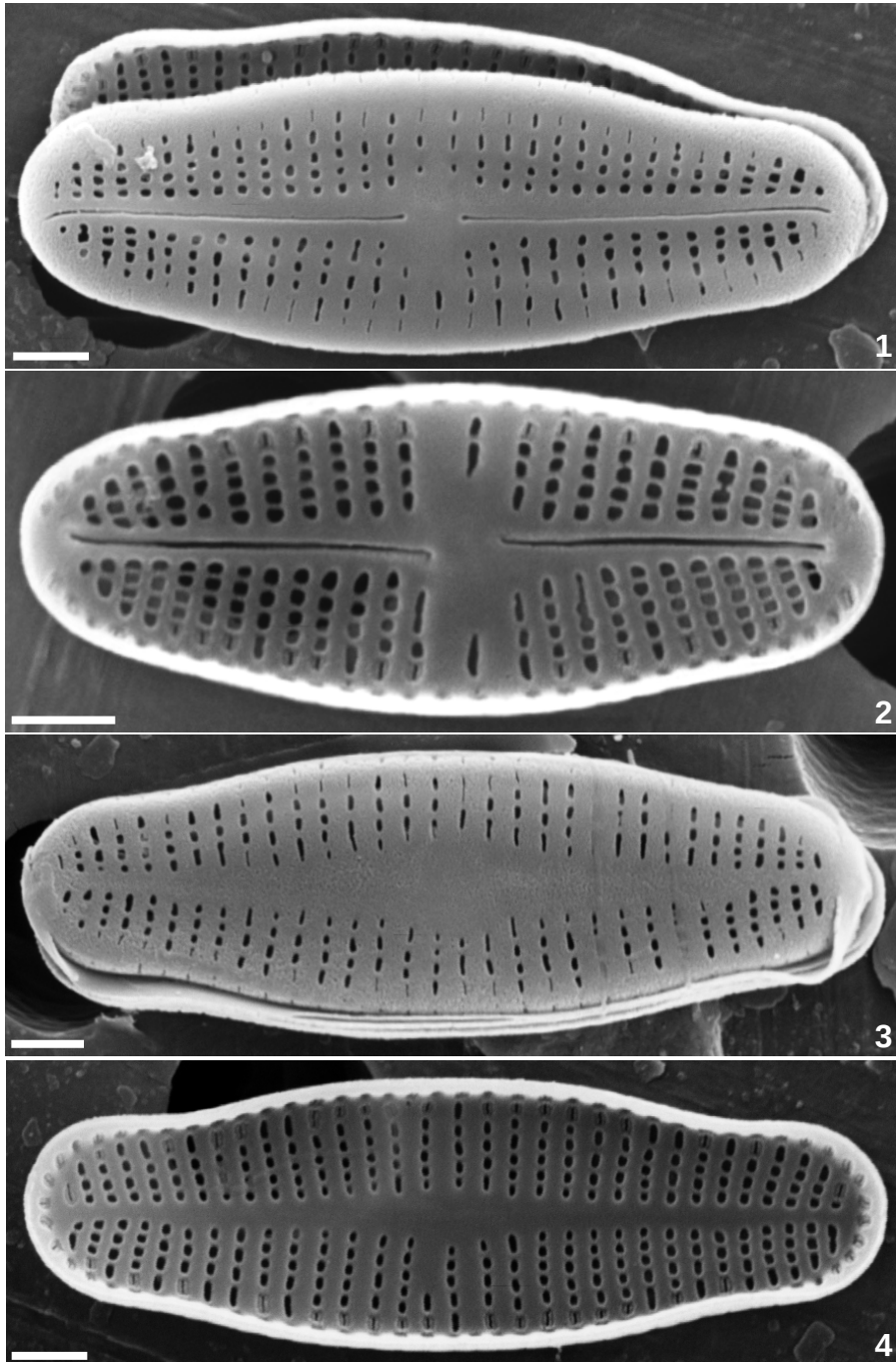


Plate 150

Figs 1-4: *Achnantheidium eutrophilum* (Lange-Bertalot) Lange-Bertalot, p. 29
[ADEU]

Scale bars = 1 μm

Figs 1-4: Monte Novo Reservoir, Degebe River (Guadiana basin), 02-02-2006.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

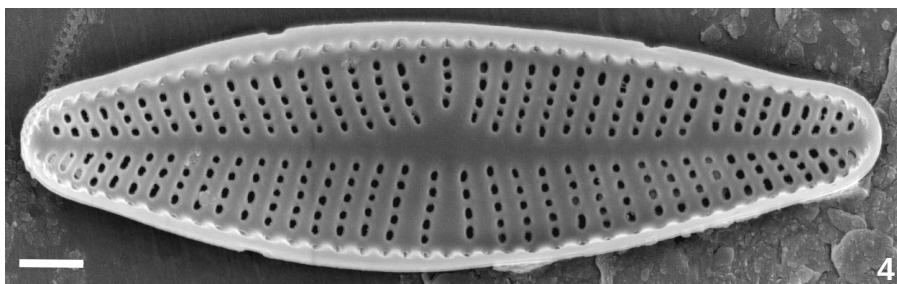
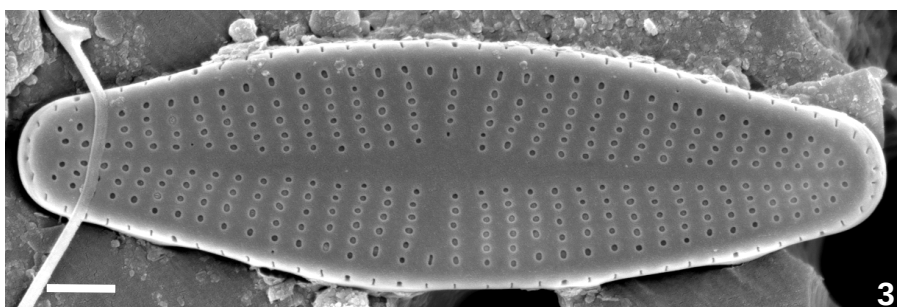
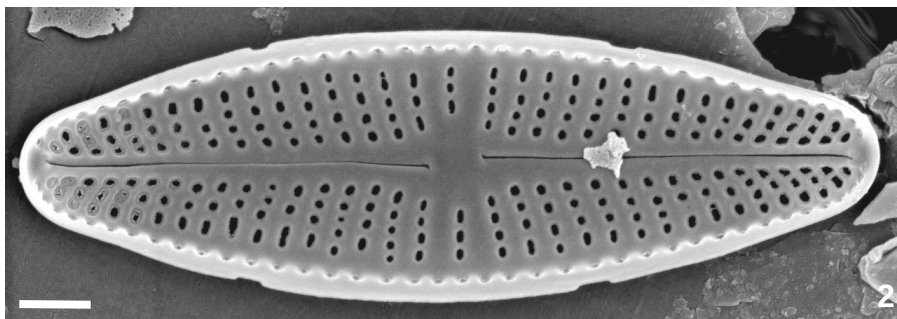
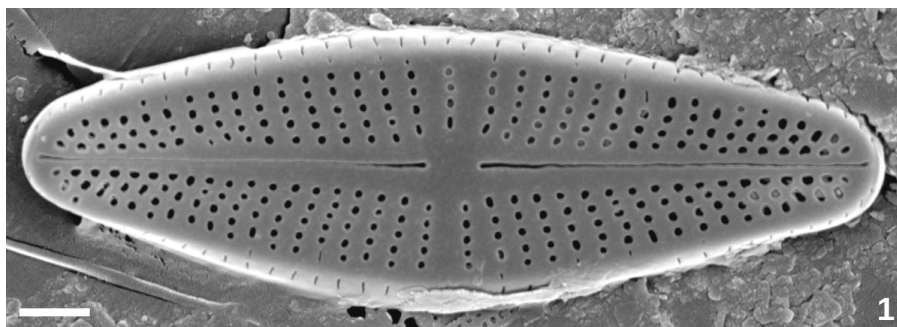


Plate 151

LM: x1500

Figs 1-41: *Achnantheidium minutissimum* (Kützing) Czarnecki sensu lato, p. 30
[ADMI]

Figs 42-57: *Achnantheidium pyrenaicum* (Hustedt) H. Kobayasi 1997, p. 30
[ADPY]

Figs 58-124: *Achnantheidium atomoides* Monnier, Lange-Bertalot & Ector, p. 29
[ADAM]

Scale bar = 10 μm

Figs 1-41: Vidual, Tapado Stream (Mondego basin), 13-06-2007.

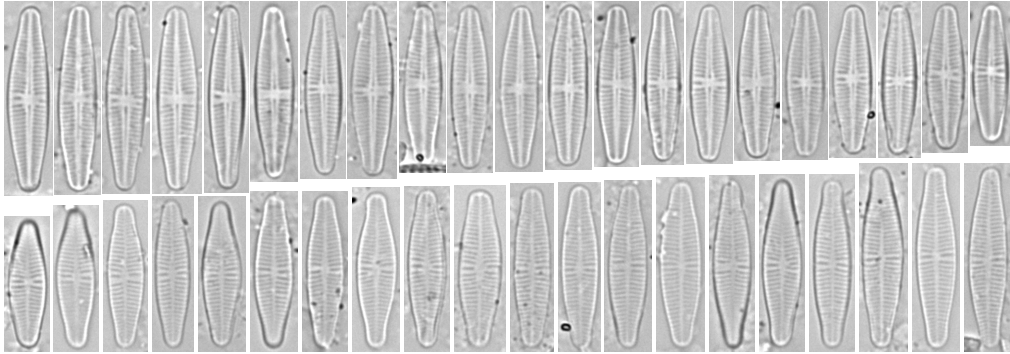
Figs 42-57: Cabroeira de Baixo, Xévora River (Guadiana basin), 24-05-2006.

Figs 58-101: Caravelas Stream (Douro basin), 22-07-2007.

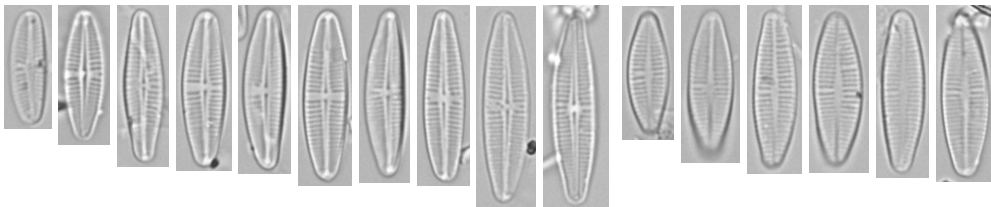
Figs 102-124: Vale de Moinhos Stream (Douro basin), 16-09-2007.

Figs 1-124: Valve view.

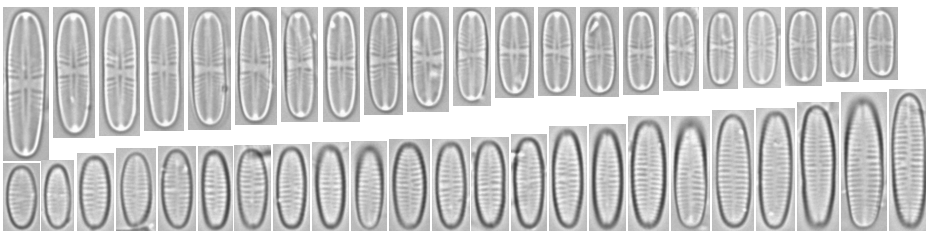
Achnantheidium



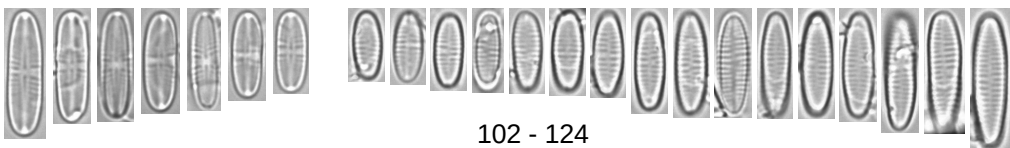
1 - 41



42 - 57



58 - 101



102 - 124

Plate 152

Figs 1-5: *Achnantheidium minutissimum* (Kützing) Czarnecki sensu lato, p. 30 [ADMI]

Scale bars = 1 μm

Figs 1-5: Vidual, Tapado Stream (Mondego basin), 13-06-2007.

Figs 1, 3, 5: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

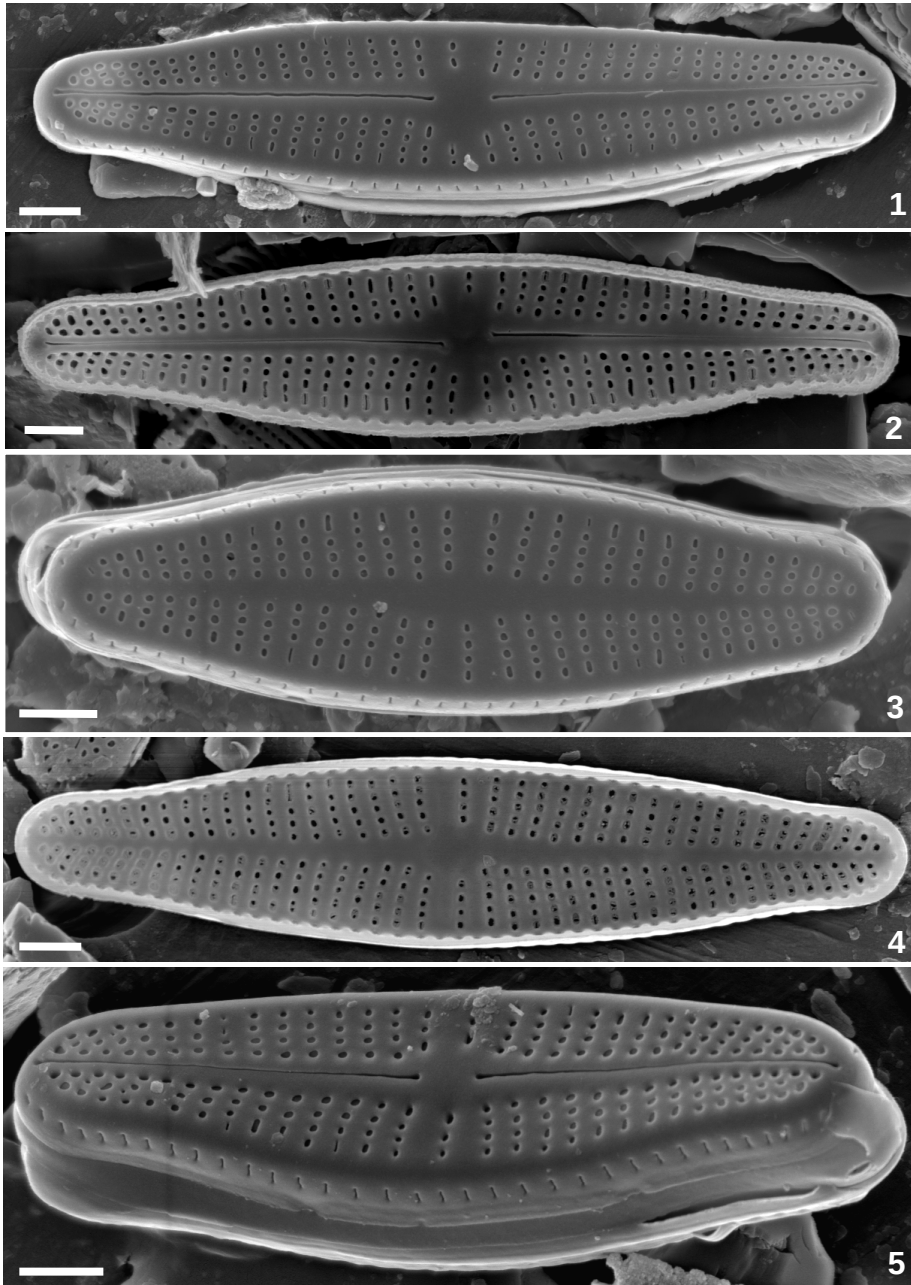


Plate 153

Figs 1-4: *Achnantheidium pyrenaicum* (Hustedt) H. Kobayasi 1997, p. 30 [ADPY]

Scale bars = 1 μm

Figs 1-4: Cabroeira de Baixo, Xévara River (Guadiana basin), 24-05-2006.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

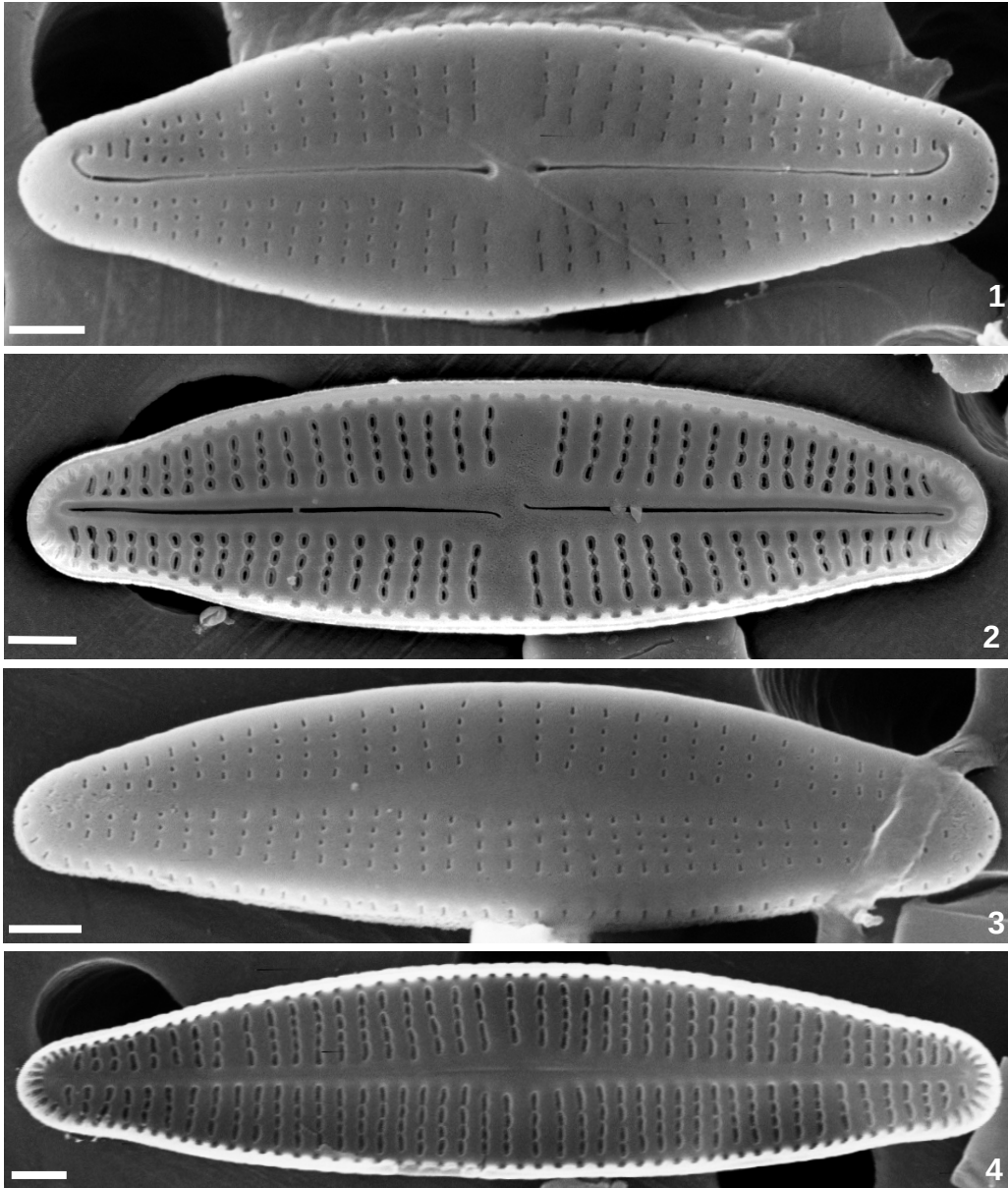


Plate 154

Figs 1-4: *Achnantheidium atomoides* Monnier, Lange-Bertalot & Ector, p. 29 [ADAM]

Scale bars = 1 μm

Figs 1-4: Vale de Moinhos Stream (Douro basin), 16-09-2007.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

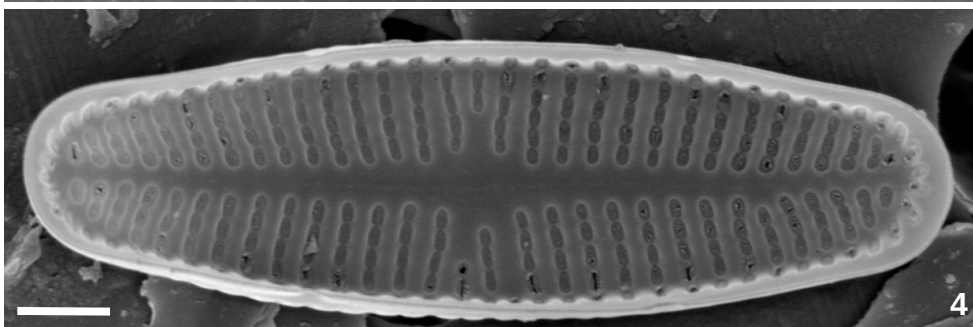
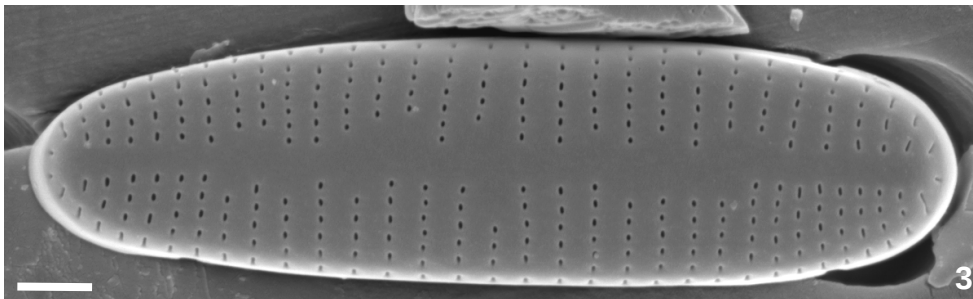
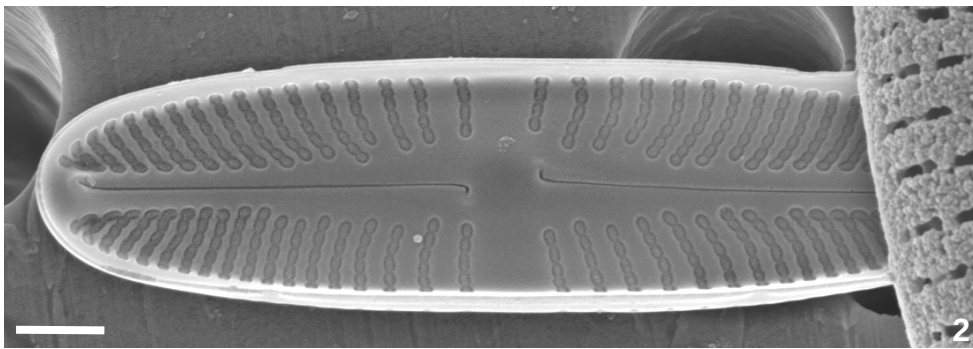
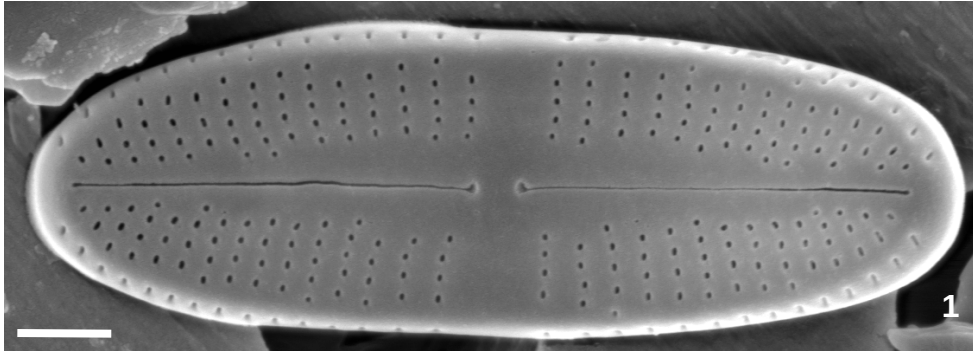


Plate 155

LM: x1500

Figs 1-51: *Achnanthidium lineare* W. Smith, p. 30 [ACLI]

Figs 52-87: *Achnanthidium* aff. *lineare* W. Smith, p. 30

Figs 88-138: *Achnanthidium pseudolineare* Van de Vijver, Novais & Ector, p. 30

Scale bar = 10 μm

Figs 1-51: Caravelas Stream (Douro basin), 22-07-2007.

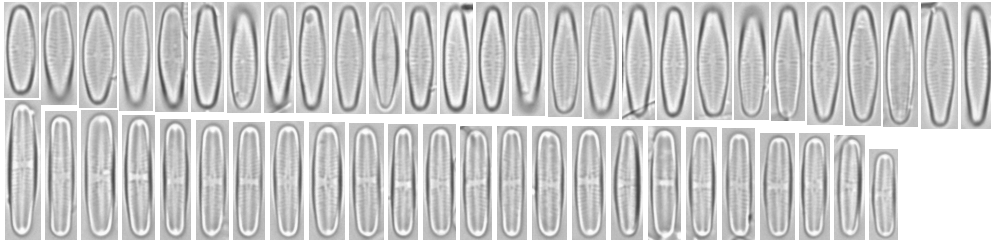
Figs 52-87: Assamaça, Valmar Stream (Mondego basin), 10-06-2007.

Figs 88-137: Abelheira Stream (Cávado basin), 24-09-2007.

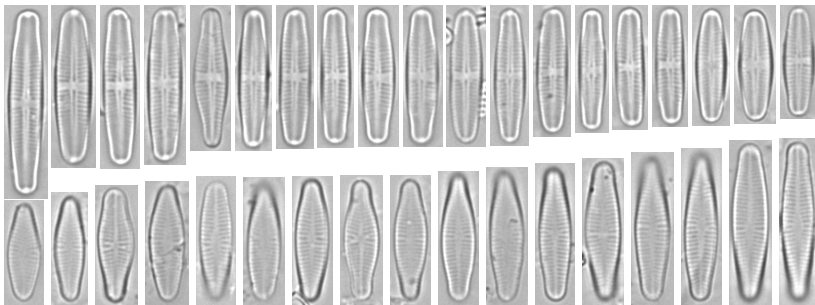
Figs 1-136: Valve view.

Fig. 137: Girdle view.

Achnanthidium



1 - 51



52 - 87



88 - 136

137

Plate 156

Figs 1-5: *Achnantheidium lineare* W. Smith, p. 30 [ACLI]

Scale bars = 1 μm

Figs 1-5: Caravelas Stream (Douro basin), 22-07-2007.

Figs 1, 3, 5: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

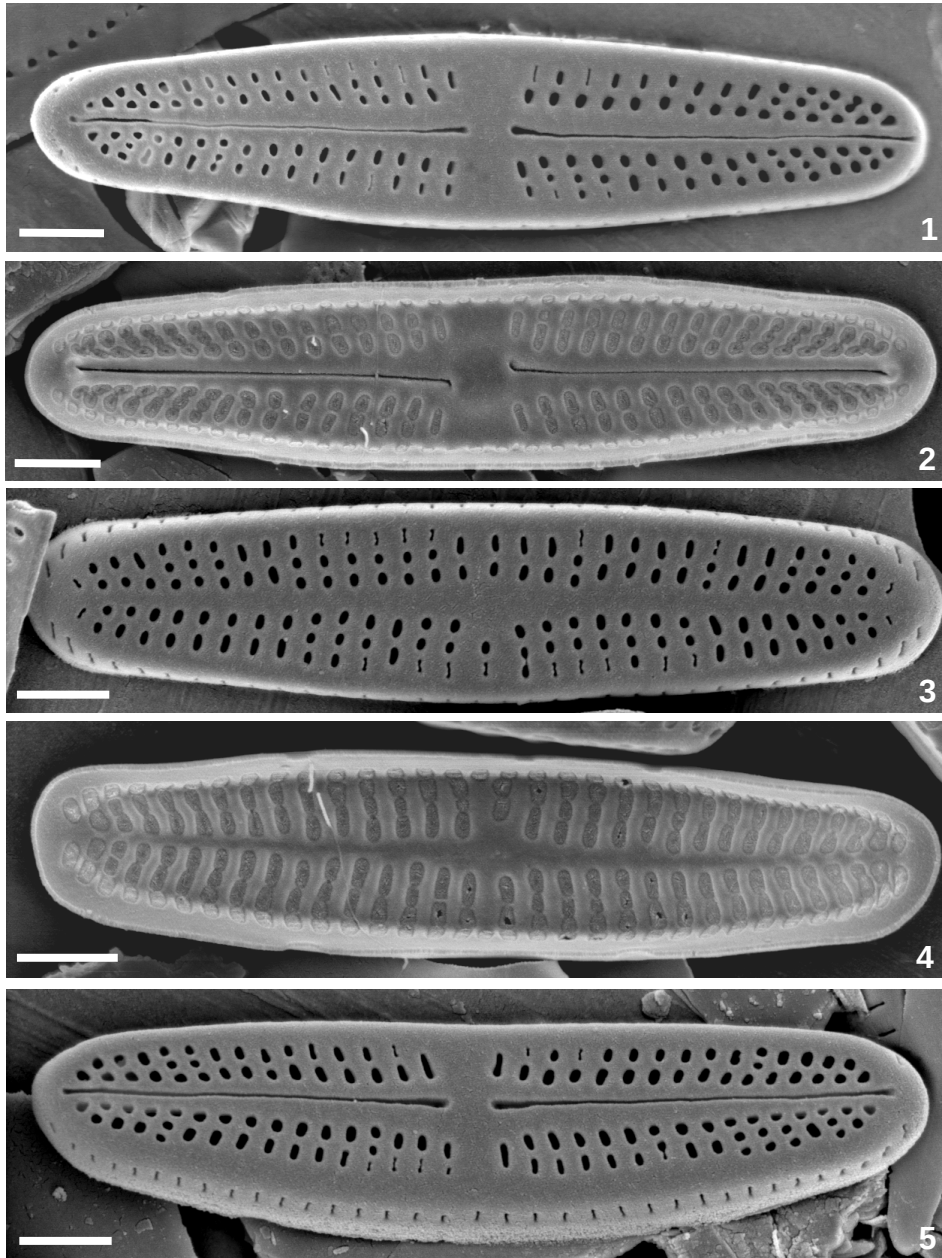


Plate 157

Figs 1-5: *Achnantheidium* aff. *lineare* W. Smith, p. 30

Scale bars = 1 μm

Figs 1-5: Assamaça, Valmar Stream (Mondego basin), 10-06-2007.

Figs 1, 2, 4: External valve view.

Figs 3, 5: Internal valve view.

Achnanthidium

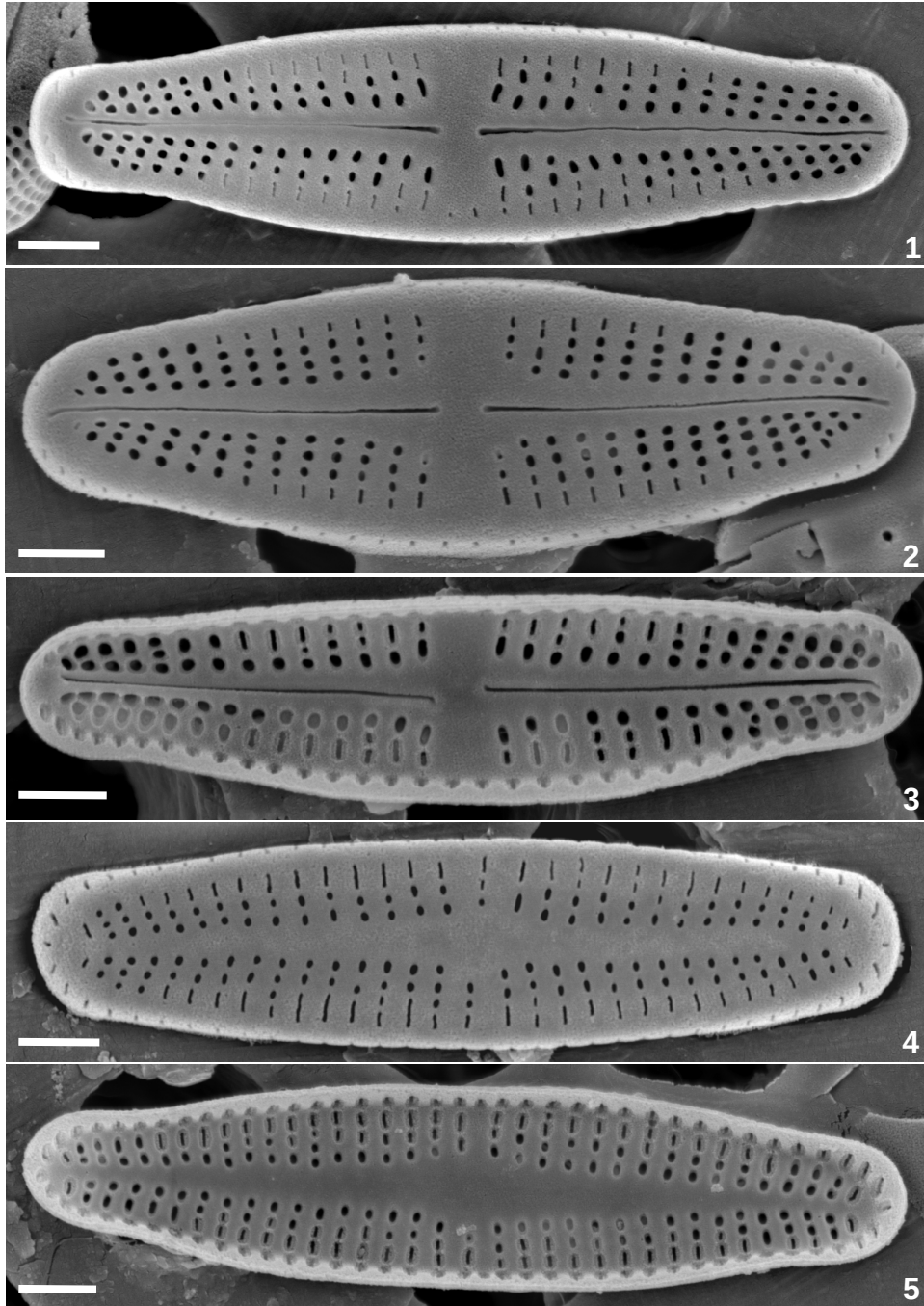


Plate 158

Figs 1-5: *Achnantheidium pseudolineare* Van de Vijver, Novais & Ector, p. 30

Scale bars = 1 μm

Figs 1-5: Abelheira Stream (Cávado basin), 24-09-2007.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Fig. 5: Girdle view.

Achnantheidium

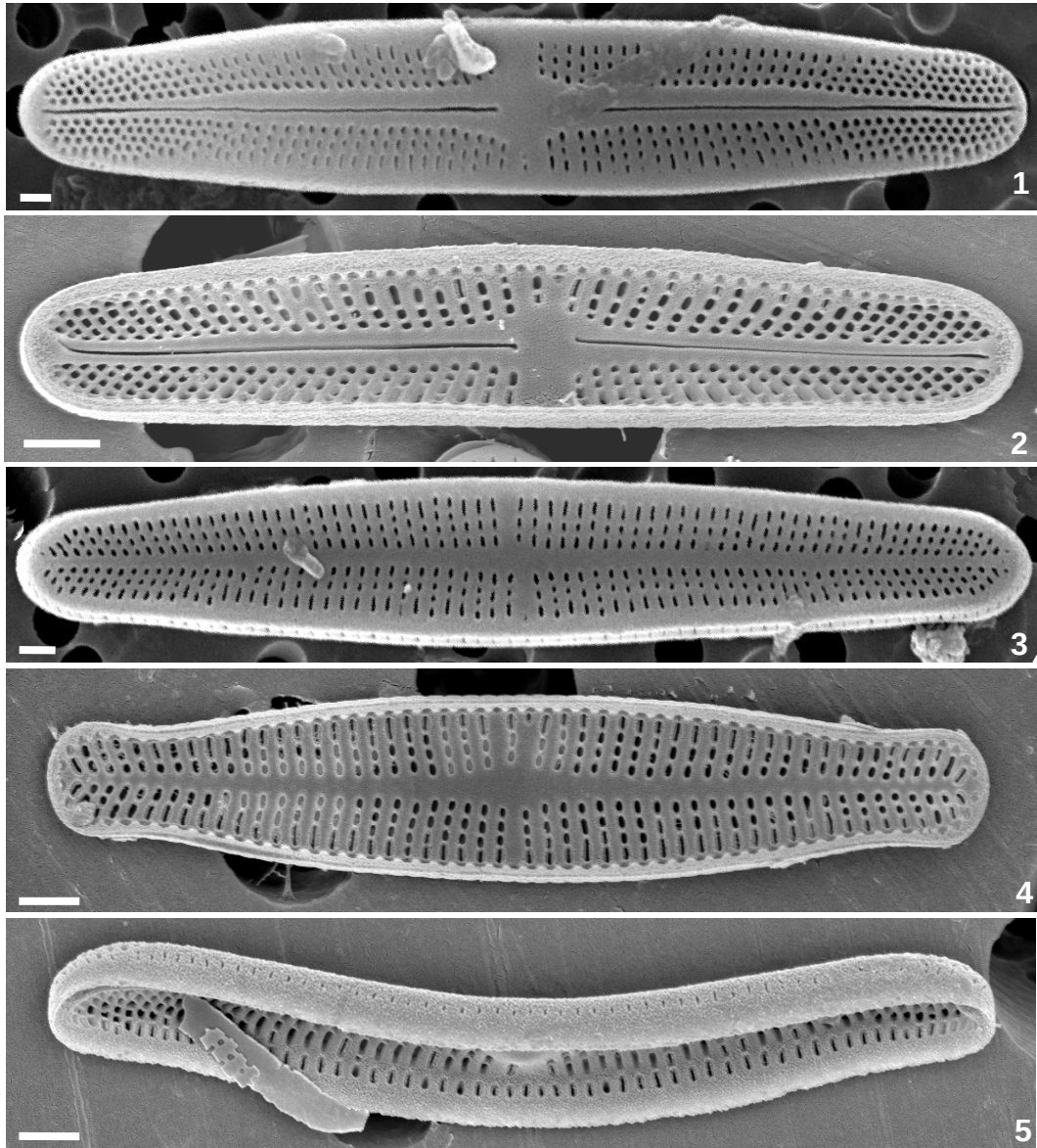


Plate 159

LM: x1500

Figs 1-118: *Achnantheidium caravelense* Novais & Ector, p. 29

Scale bar = 10 μm

Figs 1-34: Louredo, Froufe River (Lima basin), 25-09-2007.

Figs 35-74: Assento, Vizela River (Ave basin), 22-09-2007.

Figs 75-96: Torno River (Douro basin), 15-08-2007.

Figs 97-118: Caravelas Stream (Douro basin), 22-07-2007.

Figs 1-15, 18-53, 55-95, 97-115: Valve view.

Figs 16, 17, 54, 96, 116-118: Girdle view.

Achnantheidium

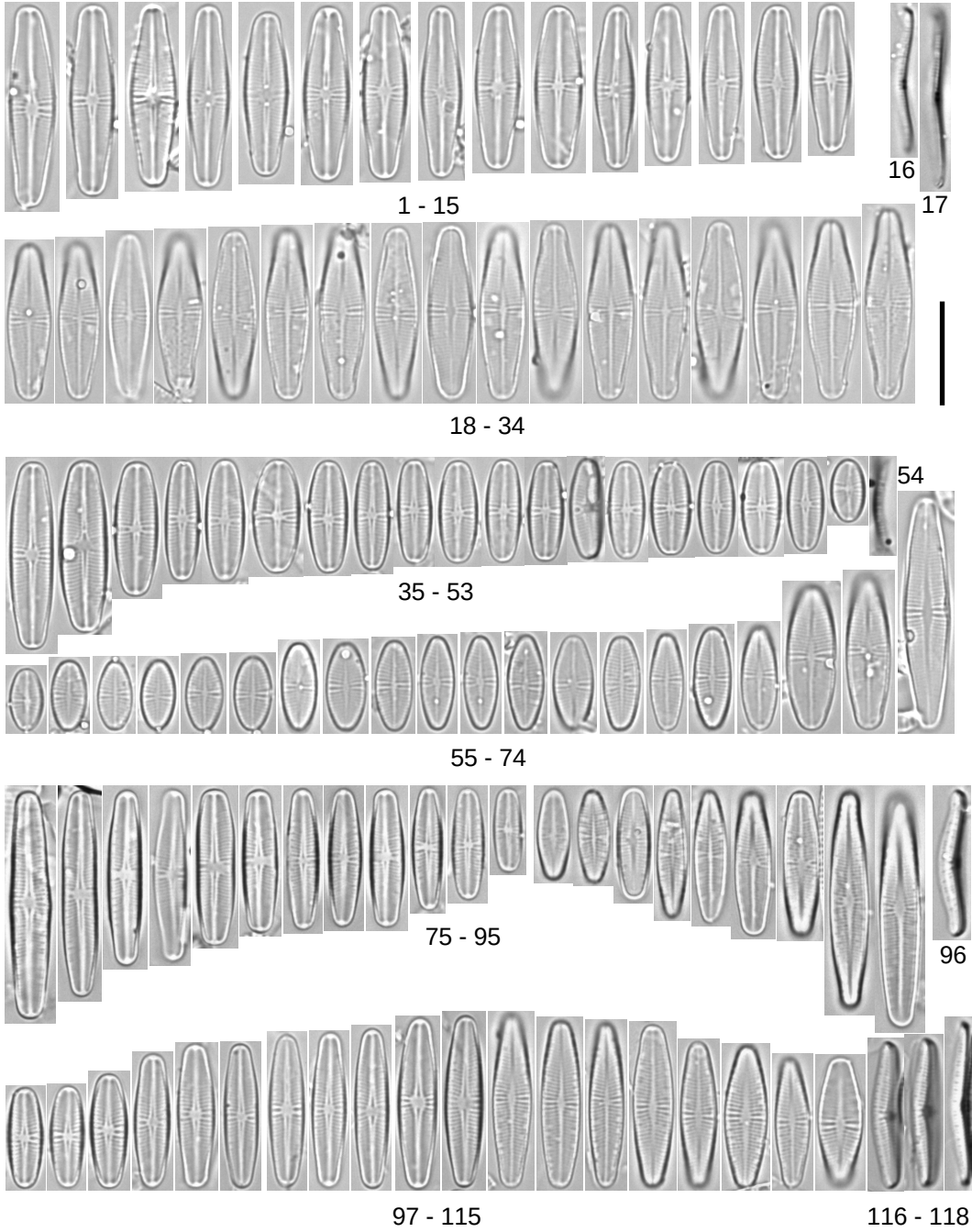


Plate 160

Figs 1-5: *Achnantheidium caravelense* Novais & Ector, p. 29

Scale bars = 1 μm

Figs 1-4: Louredo, Froufe River (Lima basin), 25-09-2007.

Figs 1, 3: External valve view.

Figs 2, 4: Internal valve view.

Achnantheidium

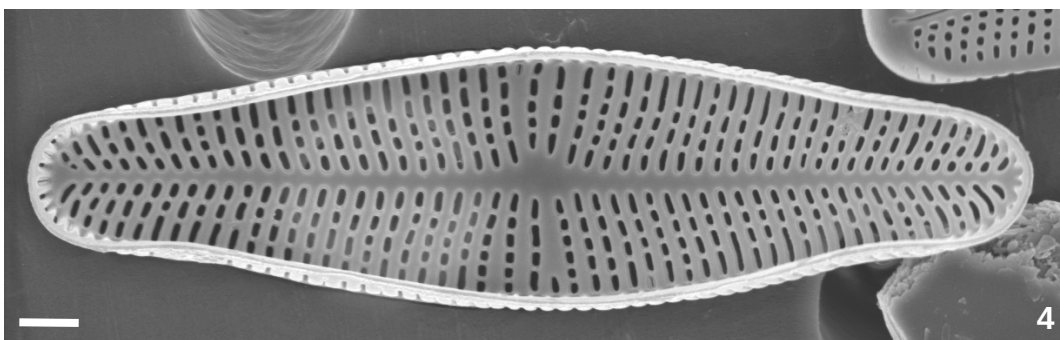
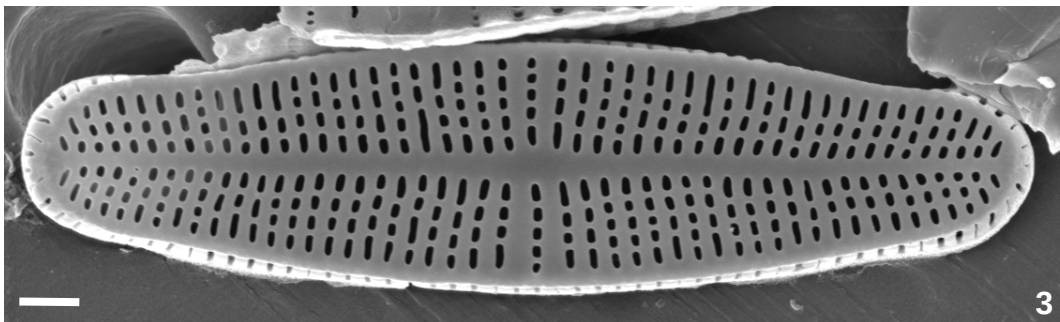
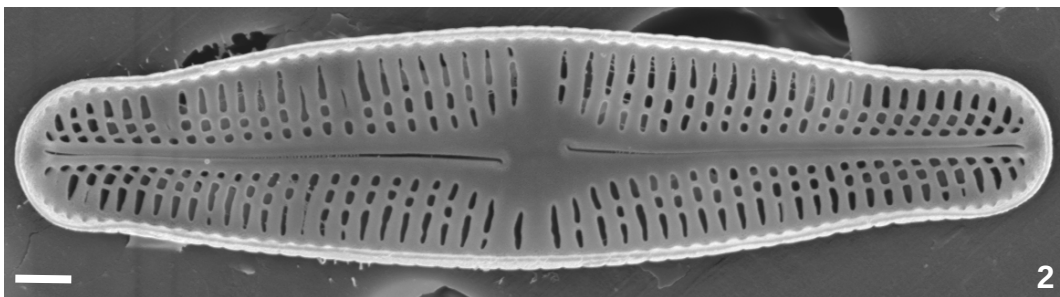
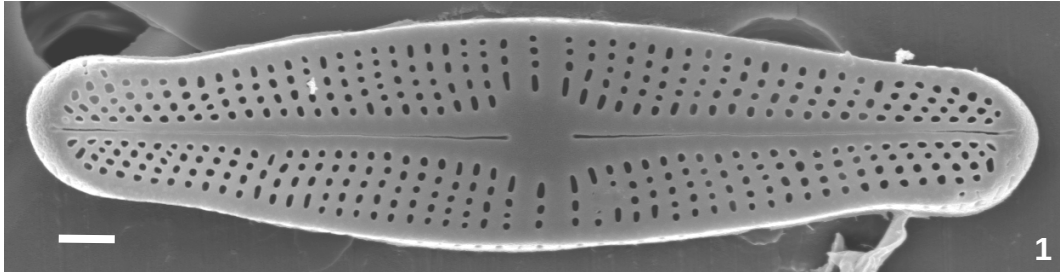


Plate 161

Figs 1-5: *Achnantheidium caravelense* Novais & Ector, p. 29

Scale bars = 1 μm

Figs 1-5: Caravelas Stream (Douro basin), 22-07-2007.

Figs 1, 3, 4: External valve view.

Figs 2, 5: Internal valve view.