

The Geometridae of the **Huinay station**, southern Chile

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The whole list actually contains 100 species, approx. further 35 species have recently been collected by Tilla Roy and Reinhard Fitzek at Huinay station

All species were taken in a short expedition from 4-14 January 2008 (87 species), unless marked with "#"

= taken in other occasions than in January 2008 expedition (occasional autumn collecting of other colleagues and Huinay staff in 2006, 2007, 2008)

"nDNA" = tissues taken directly into 100% alcohol for nDNA analysis

"BC" = barcoded specimens (COI 5')

[LINK to Neighbor Joining Tree](#), Kimura 2 Parameter, BOLD database, provided by the courtesy of Paul Hebert, CCDB, Canada

[pdf of version 1 \(May 31, 2008\)](#)

Larentiinae

Xanthorhoini

Orthonama plemyrata (Felder & Rogenhofer, 1875)



male genitalia-aedeagus, female genitalia

nDNA 9, 95. -- BC **11240**, 11262, 11272, 11391, **11403**, 11406, 11411, 11412, 11659, **11710**

Larentiini

Ennada pellicata (Felder & Rogenhofer, 1875)

male genitalia-aedeagus, female genitalia

nDNA 14. -- BC 11247, 11335, 11663

Cidariini

"Nebula" diana (Butler, 1882)

male genitalia-aedeagus, female genitalia

nDNA 61, 90. -- BC 11184, 11405, 11707

nDNA 61 (BC 11184) in habitus exactly = f. luna (BMNH)

"Nebula" bellissima (Butler, 1883)

male genitalia-aedeagus, female genitalia

nDNA 73. -- BC 11190, 11294, 11394

"Nebula" corticalis (Butler, 1882)

male genitalia-aedeagus, female genitalia

nDNA 13. -- BC 11218, 11259, 11260, 11261, 11290, 11662

"Nebula" decipiens (Butler, 1882)



male genitalia-aedeagus, female genitalia, female genitalia2

nDNA 15, 80. -- BC 11194, 11219, 11289, 11664

"Nebula" ceres (Butler, 1882)



male genitalia-aedeagus, female genitalia, female genitalia2

nDNA 18, 79. -- BC 11168, 11216, 11217, 11256, 11257, 11258, 11288, 11320, 11702

"Nebula" sp. 1



male genitalia-aedeagus, female genitalia

nDNA 62, 66. -- BC 11295, 11694, 11697

"Nebula" sp. 2 (cf. diana)



male genitalia-aedeagus, female genitalia

BC 11233

"Nebula" sp. 4 (cf. emilia)



male genitalia1-aedeagus1 (11167), male genitalia2-aedeagus2 (11183), female genitalia

nDNA 19, 58. -- BC 11183, 11667

"Nebula" adela (Butler, 1893)

male genitalia-aedeagus, female genitalia

nDNA 94. -- BC 11709

"Nebula" sp. 5

male genitalia-aedeagus, female genitalia

specimen not yet barcoded, cf *N. ceres*?

Nebula sp. 6

male genitalia-aedeagus, female genitalia

nDNA 59. -- BC 11692

Position in *Nebula* suggested by COI data and multigene analysis

Nebula sp. 7

male genitalia-aedeagus, female genitalia

specimen not yet barcoded

cf *Nebula* sp. 2, medial area with stronger marking

Euphyiini

"Euphyia" signata (Butler, 1882)

male genitalia-aedeagus, female genitalia

nDNA 103. -- BC 11207, 11239, 11323, 11421

Well corresponding to the type specimen (BMNH, examined)

"Euphyia" sp. 1 (cf. signata)



male genitalia-aedeagus, female genitalia

nDNA 104. -- BC 11324, 11408, 11713

"Euphyia" sp. 2



male genitalia-aedeagus, female genitalia

nDNA 20. -- BC 11263, 11668

Generic combination suggested by position in NJ tree, supported by wing pattern

"Euphyia" sp. 3



male genitalia-aedeagus, female genitalia

BC 11378, 11400

Rheumapterini

Rheumaptera sp. 1 (cf. "Larentia" irma)



male genitalia-aedeagus, female genitalia1 (BC 11660), female genitalia2 (BC 11695)

nDNA 11, 64. -- BC 11660, 11695

Rheumaptera sp. 2



male genitalia-aedeagus, female genitalia

BC 11311

Rheumaptera sp. 3 (cf. exacta)



male genitalia-aedeagus, female genitalia

nDNA 72. -- BC 11189, 11220, 11221, 11248

Rheumaptera sp. 4



male genitalia-aedeagus, female genitalia

BC 11416, 11422, 11423

Rheumaptera fuegata (Staudinger, 1899)



male genitalia-aedeagus, female genitalia

nDNA 10. -- BC 11167

Rheumaptera exacta (Butler, 1882)



male genitalia-aedeagus, female genitalia

BC 11382

Trichopterygini

"Hoplosauris" sp. 1



male genitalia-aedeagus, female genitalia

nDNA 74. -- BC 11191

"Hoplosauris" alba (Butler, 1882)



male genitalia-aedeagus, male genitalia2-aedeagus2, female genitalia

nDNA 44, 91. -- BC 11177, 11200, 11232, 11280, 11321, 11322, 11402

"Hoplosauris" sp. 3



male genitalia-aedeagus, female genitalia

nDNA 7. -- BC 11166

"Hoplosauris" sp. 4



male genitalia-aedeagus, female genitalia

nDNA 85. -- BC 11198

"Hoplosauris" sp. 5

male genitalia-aedeagus, female genitalia

nDNA 3. -- BC 11656

"Hoplosauris" sp. 6

male genitalia-aedeagus, female genitalia

BC 11388

Hoplosauris valeria (Butler, 1893)

male genitalia-aedeagus, female genitalia

specimen not yet barcoded

Unnames genus according to Scoble (1999), but assignation to *Hoplosauris* probable

Hoplosauris multivirgulata (Mabille, 1885)

male genitalia-aedeagus, female genitalia

BC 11281

Generic combination according to Parra (unpubl.)

Butleriana fasciata (Butler, 1882)

male genitalia-aedeagus, female genitalia

nDNA 75. -- BC 11192, 11270

Fueguina varians (Butler, 1882)



male genitalia-aedeagus, female genitalia

BC 11401

Fueguina sp. 1 (cf. *varians*)



male genitalia-aedeagus, female genitalia

nDNA 76. -- BC 11395, 11700

Triptiloides laeta (Philippi, 1873)



male genitalia-aedeagus, female genitalia

nDNA 17, 43. -- BC 11176, 11254, 11287, 11325, 11666

Triptiloides sp. 2 (cf. *laeta*)



male genitalia-aedeagus, female genitalia

BC 11277, 11326, 11327

Triptiloides esmeralda (Bartlett-Calvert, 1883)





male genitalia-aedeagus, female genitalia

nDNA 78. -- BC 11330, 11331, 11701

Triptiloides sp. 1 (cf. esmeralda)



male genitalia-aedeagus, female genitalia

BC 11329

Triptiloides sp. 2 (cf. esmeralda)



male genitalia-aedeagus, female genitalia

specimen not yet barcoded

Triptila virescens (Philippi, 1873)



male genitalia-aedeagus, female genitalia

nDNA 8. -- BC 11250, 11251, 11252, 11333, 11398, 11658

Triptila sp. 1 (cf. virescens)



male genitalia-aedeagus, female genitalia

nDNA 6. -- BC 11165

Triptila sp. 2



male genitalia-aedeagus, female genitalia

BC 11231, 11249, 11336

Parapachrophylla sp. 1



male genitalia-aedeagus, female genitalia

nDNA 93. -- BC 11708

Danielaparra fragmentata (Dognin, 1906), comb. n.



male genitalia-aedeagus, female genitalia

nDNA 57. -- BC 11319, 11691

D. viridis (Parra, 1996) synonym (L. Parra unpublished). In BMNH as "*Hoplosauris fragmentata*"; Separate genus from *Hoplosauris* justified by structure of genitalia (L. Parra unpublished). Taxon *imbricaria* Felder & Rogenhofer, 1875 possibly a synonym.

Synpelurga corralensis (Butler, 1882)



male genitalia-aedeagus, female genitalia

nDNA 23. -- BC 11230, 11276, 11298, 11376, 11418, 11670

Notholoba schausi (Warren, 1908)



male genitalia-aedeagus, [female genitalia](#)

nDNA 82, 92. -- BC [11201](#), [11703](#)

Genus AH5 sp. 1 (cf. Lagnyopteryx?)



[male genitalia-aedeagus](#), female genitalia

nDNA 39. -- BC [11236](#), [11682](#)

Relationship to *Lagnyopteryx* suggested by position in NJ tree

Perizomini

Perizoma pastoralis (Butler, 1882)



male genitalia-aedeagus, [female genitalia1](#) (BC [11657](#)), [female genitalia2](#) (BC [11185](#))

nDNA 5, 63. -- BC [11185](#), [11255](#), [11296](#), [11297](#), [11392](#), [11393](#), [11414](#), [11415](#), [11419](#), [11657](#)

Eupitheciini

Eupithecia horismoides Rindge, 1987



male genitalia-aedeagus, female genitalia

nDNA 16. -- BC [11237](#), [11307](#), [11386](#), [11665](#)

Eupithecia sp. 1



male genitalia-aedeagus, [female genitalia](#)

nDNA 83. -- BC 11196

Eupithecia sp. 2



male genitalia-aedeagus, female genitalia

BC 11283

Eupithecia sp. 3



male genitalia-aedeagus, female genitalia

BC 11210

Eupithecia sp. 4



male genitalia-aedeagus, female genitalia1 (BC 11197), female genitalia2 (BC 11178), female genitalia3 (BC 11179), female genitalia4 (BC 11180), female genitalia5 (BC 11181)

nDNA 22, 49, 50, 51, 52, 84. -- BC 11197, 11211 // 11241 // 11180, 11181, 11212, 11223 // 11178, 11179, 11235, 11292 // 11169, 11313

possibly 3-4 species, requiring revision

Eupithecia sp. 5



male genitalia-aedeagus, female genitalia

nDNA 21. -- BC 11244, 11669

Eupithecia sp. 6





male genitalia-aedeagus, female genitalia

nDNA 48. -- BC 11224, 11282, 11291, 11687

Eupithecia sp. 7



male genitalia-aedeagus, female genitalia

BC 11389

Genus AH6 sp. 1



male genitalia-aedeagus, female genitalia

nDNA 56. -- BC 11380, 11424, 11425, 11426, 11690

Tentatively placed into Eupitheciini, as suggested by position in NJ tree

Uncertain position

Larentia sp. 1 (cf. *irma*)



male genitalia-aedeagus, female genitalia

nDNA 109. -- BC 11157, 11158

Both data referring to L3-4 larvae, beaten from fern (Pteridophyta), awaiting identification through DNA barcoding. Position in NJ tree suggesting it to be a larentiine moth (cf. *Euphyja*, *Larentia*)

Ennominae

Nacophorini

Catophenissa dibapha (Felder & Rogenhofer, 1875)



male genitalia-aedeagus, female genitalia

nDNA 34. -- BC 11268, 11303, 11315, 11316, 11679

Hasodima elegans Butler, 1882



male genitalia-aedeagus, female genitalia

nDNA 28. -- BC 11275, 11305, 11332, 11675

Malleco sp. 1



male genitalia-aedeagus, female genitalia

BC 11133, 11379, 11399, 11409, 11413

Leucolithodes lecideata (Felder & Rogenhofer, 1875)



male genitalia-aedeagus, female genitalia

nDNA 38. -- BC 11245, 11306, 11681

Leucolithodes paulina (Ureta, 1956)



male genitalia-aedeagus, female genitalia

nDNA 37. -- BC 11246, 11299, 11680

Talca sp. 1



male genitalia-aedeagus, female genitalia

nDNA 25. -- BC 11234, 11302 // 11300, 11301, 11672

Dentinalia forsteri Heimlich, 1960



male genitalia-aedeagus, female genitalia

nDNA 47, 86. -- BC 11209, 11686, 11704

Omaguaca sp. 1 (cf. longibursae)



male genitalia-aedeagus, female genitalia

nDNA 1+. -- BC 11160, 11161, 11653

Larvae of different development stages beaten from *Nothofagus dombeyi*.

Macrolyrcea monochorda Prout, 1916



male genitalia-aedeagus, female genitalia

nDNA 27. -- BC 11273, 11314, 11674

Neorumia gigantea Bartlett-Calvert, 1883





male genitalia-aedeagus, female genitalia

nDNA 32. -- BC 11227, 11285, 11304, 11688

Opisogonia ? diffissata Felder & Rogenhofer, 1875



male genitalia-aedeagus, female genitalia

nDNA 32. -- BC 11227, 11285, 11678

Chloroclydon ? rinodaria (Felder & Rogenhofer, 1875)



male genitalia-aedeagus, female genitalia

nDNA 24. -- BC 11228, 11317, 11671

In Scoble (1999) as Larentiinae. Tentative position in Nacophorini near Opisogonia suggested by position in NJ tree

Pseudaleucis denticulata (Butler, 1882)



male genitalia-aedeagus, female genitalia

BC 11385

Previously under genus "*Coironalia*"

Pseudaleucis sp. 1



male genitalia-aedeagus, female genitalia

BC 11132

Lithinini

Psilaspilates signistriata (Butler, 1882)



male genitalia-aedeagus (BC 11175), female genitalia (BC 11187)

nDNA 1, 35, 41, 68, 70. -- BC 11172, 11175, 11187, 11188, 11229, 11264, 11265, 11266, 11310, 11654

Psilaspilates ceres (Butler, 1882)



male genitalia-aedeagus, female genitalia

nDNA 88. -- BC 11199

Psilaspilates sp. 2 (cf. *signistriata*)



male genitalia-aedeagus (BC 11698), female genitalia1 (BC 11203), female genitalia2 (BC 11706)

nDNA 69, 89, 99. -- BC 11203, 11698, 11706

Psilaspilates sp. 3 (cf. *stygiana*)



male genitalia-aedeagus, female genitalia, female genitalia2

nDNA 30, 77, 97. -- BC 11193, 11214, 11215, 11253, 11271, 11286, 11293, 11308, 11677, 11712

Psilaspilates sp. 4





male genitalia-aedeagus, female genitalia

BC 11420

Euclidiodes meridionalis (Wallengren, 1860)



male genitalia-aedeagus, female genitalia

BC 11407

Euclidiodes sp. 1 (cf. *meridionalis*)



male genitalia-aedeagus, female genitalia

BC 11410

Euclidiodes sp. 2



male genitalia-aedeagus, female genitalia

nDNA 36. -- BC 11173

Euclidiodes sp. 3



male genitalia-aedeagus, female genitalia

nDNA 65. -- BC 11696

Lacaria sp. 1

male genitalia-aedeagus, female genitalia

nDNA 67. -- BC 11186

Lacaria sp. 2 (cf. aracaunaria)

male genitalia-aedeagus, female genitalia

nDNA 40. -- BC 11174

Calta debilis (Butler, 1882)

male genitalia-aedeagus, female genitalia

nDNA 96. -- BC 11131, 11238, 11711

Transferred to Caltha (comb. n.) in Parra (in press)

Calta sp. 1

male genitalia-aedeagus, female genitalia

BC 11134, 11135, 11136, 11377

"Calta" sp. 2

male genitalia-aedeagus, female genitalia

nDNA 29, 81. -- BC 11195, 11226, 11676

An ennomine genus near *Caltha*

Odontothera valdiviata (Felder & Rogenhofer, 1875)



male genitalia-aedeagus, female genitalia1 (BC 11685), female genitalia2 (BC 11689)

nDNA 46, 54. -- BC 11685, 11689

Odontothera mixta (Butler, 1882)



male genitalia-aedeagus, female genitalia

nDNA 45, 55. -- BC 11182, 11225, 11243, 11684

Odontothera virescens (Butler, 1882)



male genitalia-aedeagus, female genitalia

nDNA 71, 100. -- BC 11204, 11334, 11699

Tanagridia rhapsis (Rindge, 1986)



male genitalia-aedeagus, female genitalia

nDNA 60. -- BC 11328, 11693

Tanagridia fusca Butler, 1882





male genitalia-aedeagus, female genitalia1, female genitalia2, female genitalia3

nDNA 4, 12, 42, 101. -- BC 11164, 11205, 11337, 11338, 11661, 11683

Ourapterygini

Perusia inusta (Felder & Rogenhofer, 1875)



male genitalia-aedeagus, female genitalia

nDNA 31, 98, 106. -- BC 11170, 11202, 11208

Digonis sp. 1 (cf. *punctifera*)



male genitalia-aedeagus, female genitalia

BC 11390

Digonis sp. 2 (cf. *cuprea*)



male genitalia-aedeagus, female genitalia

BC 11222

Uncertain position

Syncirsodes hyadesii (Mabille, 1882)



male genitalia-aedeagus, female genitalia

nDNA 2, 87. -- BC 11242, 11309, 11655, 11705

Syncirsodes primata (Walker, 1862)



male genitalia-aedeagus, female genitalia

nDNA 26, 33. -- BC 11154, 11171, 11267, 11284, 11673

One of the records, BC 11154, referring to a L4 larva, beaten from *Luma apiculata* (Myrtaceae) and identified through DNA barcoding.

Syncirsodes sp. 1 (cf. *primata*)



male genitalia-aedeagus, female genitalia

BC 11213, 11269

Syncirsodes sp. 2



male genitalia-aedeagus, female genitalia

nDNA 102. -- BC 11206, 11312

Syncirsodes straminea (Butler, 1882)



male genitalia-aedeagus, female genitalia

nDNA 105. -- BC 11381, 11383, 11714