

Two new species of *Phyllonorycter* Hübner, 1822 from the Far East area (Lepidoptera : Gracillariidae)

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Abstract. Two new species of *Phyllonorycter* Hübner, 1822 (*Ph. gracilis* sp. n. and *Ph. pseudojezoniella* sp. n.) from the south of the Far East are described. Figures of the imagos and male genitalia of the new species are provided. A check-list of all Far Eastern Gracillariidae is added.

Samenvatting. Twee nieuwe soorten uit het genus *Phyllonorycter* Hübner, 1822 uit het Verre Oosten (Lepidoptera : Gracillariidae)
Uit het Verre Oosten worden twee nieuwe soorten in het genus *Phyllonorycter* Hübner, 1822 beschreven : *Ph. gracilis* sp. n. en *Ph. pseudojezoniella* sp. n.
De imago's en mannelijke genitalia van beide nieuwe soorten worden afgebeeld. Het artikel bevat een check-list van alle bekende Gracillariidae uit het Verre Oosten.

Résumé. Deux espèces nouvelles du genre *Phyllonorycter* Hübner, 1822 provenant de l'Extrême-Orient (Lepidoptera : Gracillariidae)
L'auteur décrit deux nouvelles espèces dans le genre *Phyllonorycter* Hübner, 1822 en provenance de l'Extrême-Orient : *Ph. gracilis* sp. n. en *Ph. pseudojezoniella* sp. n. Les adultes et les genitalia mâles des deux espèces nouvelles sont figurés. L'article contient aussi une liste exhaustive des Gracillariidae de l'Extrême-Orient.

Key words. Gracillariidae - *Phyllonorycter* - Far East - new species - check-list.

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Introduction

The study of the Gracillariidae of the Far East was initiated by Kuznetsov (1960; 1979 a, b, c). He described nine new species and one subspecies. Later, many more species were added, due to Ermolaev's investigations (1977; 1981 a, b, c; 1982; 1984; 1986 a, b). Furthermore, this latter author contributed many excellent papers containing faunistic or ecological data on Gracillariidae of this region (Ermolaev 1979a, b; 1981 d, e; 1987 a, b, c; 1988).

Identification work on Gracillariidae in the collection of the Zoological Institute of the Russian Academy of Sciences (ZIN) in St. Petersburg revealed undescribed species belonging to the genus *Phyllonorycter* Hübner, 1822. The material was collected by Dr. S.Yu. Sinev during several expeditions to the Far East territory.

The material also contains specimens collected by Dr. R. Puplesis. As the result of investigation of collections two species - *Spulerina castaneae* Kumata & Kuroko, 1982 and *Phyllonorycter similis* Kumata, 1982 - were recorded for the first time from this region. *Phyllonorycter demetrii* (Ermolaev, 1986) is

established here as a junior synonym of *Phyllonorycter matsudai* Kumata, 1986.

Depositories. The type material of the new species is deposited in the collection of the Zoological Institute (ZIN) of the Russian Academy of Sciences, St. Petersburg.

Check-list of Far Eastern Gracillariidae

106 species and 1 subspecies of Gracillariidae, belonging to 22 genera are currently known from the Far East.

ORNIGINAE Stainton, 1854

Genus *Parornix* Spuler, 1910

1. *P. scoticella* (Stainton, 1850)
2. *P. retrusella* Kuznetsov, 1979
3. *P. fumidella* Kuznetsov, 1979
4. *P.alni* Kumata, 1965
5. *P. betulae* (Stainton, 1854)
6. *P. multimaculata* (Matsumura, 1931)
7. *P. maliphaga* Kuznetsov, 1979
8. *P. ermolaevi* Kuznetsov, 1979

Genus *Callisto* Stephens, 1834

9. *C. albicinctella* Kuznetsov, 1979
10. *C. elegantella* Kuznetsov, 1979

GRACILLARIINAE Stainton, 1854

Genus *Ornixola* Kuznetsov, 1979

11. *O. caudulatella* (Zeller, 1839)

Genus *Micrurapteryx* Spuler, 1910

12. *M. gerasimovi* Ermolaev, 1982
13. *M. gradatella* (Herrich-Schäffer, [1854])

Genus *Liocrobyla* Meyrick, 1916

14. *L. desmodiella* Kuroko, 1982
15. *L. kumatai* Kuroko, 1982

Genus *Epicephala* Meyrick, 1880

16. *E. relictella* Kuznetsov, 1979

Genus *Gracillaria* Haworth, 1828

17. *G. albicapitata* Issiki, 1930
18. *G. ussuriella* (Ermolaev, 1977)
19. *G. arsenievi* (Ermolaev, 1977)

Genus *Caloptilia* Hübner, 1825

20. *C. cuculipennella* (Hübner, 1796)
21. *C. stigmatella* (Fabricius, 1781)
22. *C. aceris* Kumata, 1966
23. *C. acericola* Kumata, 1966
24. *C. alnicolella* Chambers, 1875
25. *C. kisoensis* Kumata, 1982
26. *C. gloriosa* Kumata, 1982
27. *C. hidakensis* Kumata, 1966
28. *C. heringi* Kumata, 1966
29. *C. monticola* Kumata, 1966
30. *C. leucothoes* Kumata, 1982
31. *C. mandshurica* (Christoph, 1882)
32. *C. bicolor* Ermolaev, 1977
33. *C. orientalis* Ermolaev, 1981
34. *C. ulmi* Kumata, 1982
35. *C. sapporella* (Matsumura, 1931)
36. *C. issikii* Kumata, 1982
37. *C.alni* Kumata, 1966
38. *C. betulicola* (Hering, 1927)
39. *C. pulvereola* Kumata, 1966
40. *C. suberinella* (Tengström, 1848)
41. *C. sachalinella* Ermolaev, 1984
42. *C. schisandrae* Kumata, 1966

Genus *Calybites* Hübner, 1822

43. *C. phasianipennella* (Hübner, [1813])
44. *C. securinella* (Ermolaev, 1986) comb. n.

Genus *Eucalybites* Kumata, 1982

45. *E. auroguttella* (Stephens, 1835)
46. *E. aureola* Kumata, 1982

Genus *Aristaea* Meyrick, 1907

- 47. *A. pavoniella* (Zeller, 1847)
- 48. *A. asteris* Kumata, 1977

Genus *Cryptolectica* Vári, 1961

- 49. *C. chrysalis* Kumata & Ermolaev, 1988

Genus *Eteoryctis* Kumata & Kuroko, 1988

- 50. *E. deversa* (Meyrick, 1922)

Genus *Psydrocerops* Kumata & Kuroko, 1988

- 51. *P. wisteriae* (Kuroko, 1982)

Genus *Acrocercops* Wallengren, 1881

- 52. *A. amurensis* Kuznetsov, 1960
- 53. *A. transecta* Meyrick, 1931

Genus *Leucospilapteryx* Spuler, 1910

- 54. *L. omisella* (Stainton, 1848)
- 55. *L. anaphalidis* Kumata, 1965

Genus *Telanoptilia* Kumata & Kuroko, 1988

- 56. *T. tiliae* Kumata & Ermolaev, 1988

Genus *Spulerina* Vári, 1961

- 57. *S. dissotoma* (Meyrick, 1931)
- 58. *S. castaneae* Kumata & Kuroko, 1982
- 59. *S. corticicola* Kumata, 1964

LITHOCOLLETINAE Stainton, 1854

Genus *Chrysaster* Kumata, 1961

- 60. *Ch. hagicola* Kumata, 1961

Genus *Cameraria* Chapman, 1902

- 61. *C. acericola* Kumata, 1963
- 62. *C. nipponica* Kumata, 1963

Genus *Hyoconis* Kumata, 1963

- 63. *H. lespedezae* Kumata, 1963
- 64. *H. puerariae* Kumata, 1963
- 65. *H. improvisella* (Ermolaev, 1986) comb. n.

Genus *Phyllonorycter* Hübner, 1922

- 66. *Ph. punilae* (Ermolaev, 1981)
- 67. *Ph. ulmi* (Kumata, 1963)
- 68. *Ph. laciniatae* (Kumata, 1961)
- 69. *Ph. bicinctella* (Matsumura, 1931)
- 70. *Ph. valentina* (Ermolaev, 1981)
- 71. *Ph. reduncata* (Ermolaev, 1986)
- 72. *Ph. pastorella* (Zeller, 1846)
- 73. *Ph. cavella* (Zeller, 1846)
- 74. *Ph. ulmifoliella* (Hübner, [1817])
- 75. *Ph. kuznetzovi* (Ermolaev, 1982)
- 76. *Ph. melacoronis* (Kumata, 1963)
- 77. *Ph. ringoniella* (Matsumura, 1931)
- 78. *Ph. ginnalae* (Ermolaev, 1981)
- 79. *Ph. kisoensis* Kumata & Park, 1978
- 80. *Ph. takagii* (Kumata, 1963)
- 81. *Ph. viciae* (Kumata, 1963)
- 82. *Ph. salictella* (Zeller, 1846)
- 83. *Ph. salicicolella* (Sircom, 1848)
- 84. *Ph. jezoniella* (Matsumura, 1931)
- 85. *Ph. pseudोजezoniella* sp. n.
- 86. *Ph. orientalis* (Kumata, 1983)
- 87. *Ph. pterocaryae* (Kumata, 1963)
- 88. *Ph. pseudolautella* (Kumata, 1963)
- 89. *Ph. strigulatella* (Lienig & Zeller, 1846)
- 90. *Ph. carpini* (Kumata, 1963)
- 91. *Ph. gracilis* sp. n.
- 92. *Ph. matsudai* Kumata, 1986 (= *demetrii* Ermolaev, 1986, syn.n.)
- 93. *Ph. fruticosella* (Kuznetsov, 1979)
- 94. *Ph. nipponicella* (Issiki, 1930)
- 95. *Ph. similis* Kumata, 1982
- 96. *Ph. nigristella* (Kumata, 1957)
- 97. *Ph. watanabei* (Kumata, 1963)
- 98. *Ph. cretata* (Kumata, 1957)
- 99. *Ph. sorbicola* (Kumata, 1963)
- 100. *Ph. malicola* (Kuznetsov, 1979)
- 101. *Ph. hancola* (Kumata, 1958)
- 102. *Ph. ermami* (Kumata, 1963)
- 103. *Ph. japonica* (Kumata, 1963)
- 104. *Ph. dakekanbae* (Kumata, 1963)
- 105. *Ph. issikii* (Kumata, 1963)
- 106. *Ph. jozanae jozanae* (Kumata, 1963)
Ph. jozanae pinnatifidella (Kuznetsov, 1979)

Descriptions of the new species

Phyllonorycter gracilis sp. n.

Type material.- Holotype ♂ : GTS okr. Ussurijska, Primorskij kraj, 28.VI.1982, S. Yu. Sinev leg.

Diagnosis. Very characteristic externally. In male genitalia resembling *Ph. carpini* (Kumata, 1963), but differing by its slender valva with small tooth at the apex and the 8th sternite not pointed at the apex.

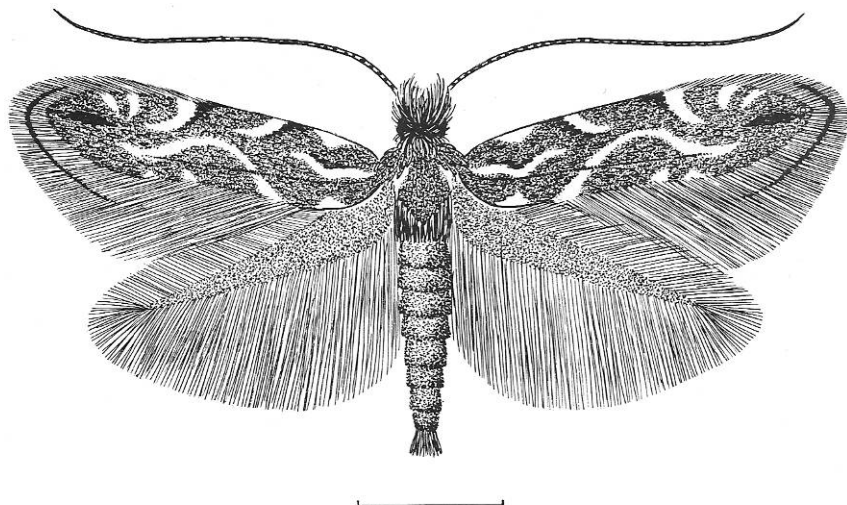


Figure 1 : *Phyllonorycter gracilis* sp. n., holotype ♂, Promorskij Kraj, GTS okr. Ussurijska, 28.VI.1982, S.Yu. Sinev leg. (scale 2,0 mm).

External characters (fig. 1). - Wingspan 11.4 mm. Face and labial palpi white. Head tuft and scape white with a mixture of pale reddish-brown scales. Antennae white, annulated with white margins. Tegulae brownish. Forewing reddish-brown with white strigulae and streaks. Mediobasal streak slightly arcuate dorsally and shorter than half wing length. Medio-dorsal and medio-costal streaks represented by short spots near base of wing. Four costal and two dorsal strigulae present, all white. First and second costal almost equal in width, their apices directed towards the exterior edge of the wing. First costal before middle of forewing, second somewhat beyond middle of forewing. Third and fourth costal smallest, situated just before apex of wing, slightly oblique inwardly. First dorsal extremely narrow, placed before middle,

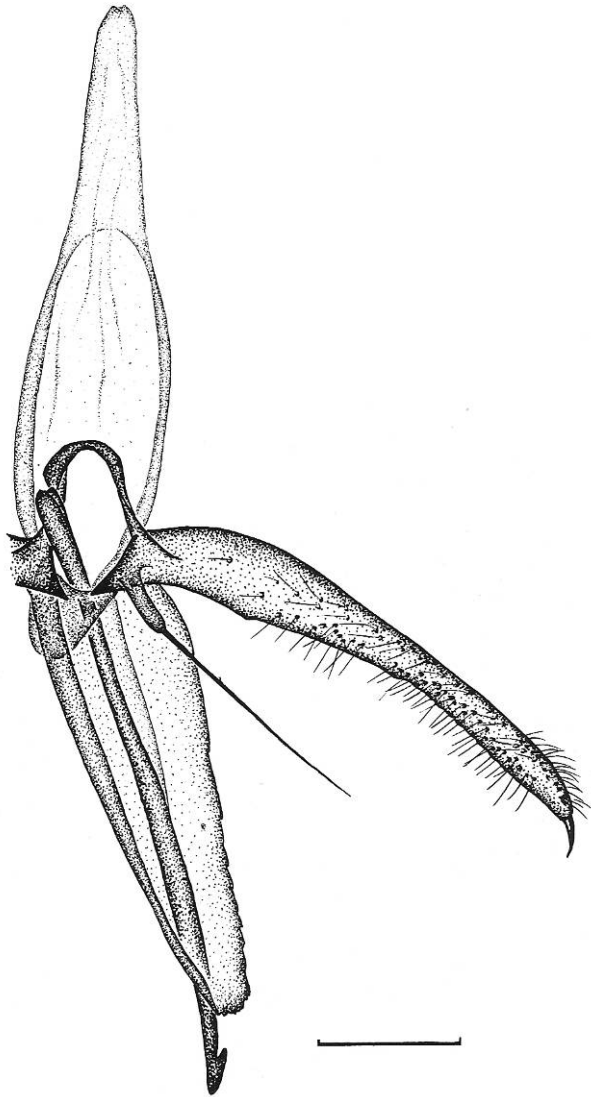


Figure 2 : *Phyllonorycter gracilis* sp. n., male genitalia without left valva (scale 0,2 mm).

strongly oblique outwardly, a little produced and pointed towards apex of wing. Second dorsal placed before middle of wing, highly reduced and short. All strigulae finely edged with brown scales inwardly at the base. Small, brown elliptical apical spot present. Apex of forewing with brown line. Cilia brownish. Hindwing and cilia whitish.

Male genitalia (fig. 2).- Symmetrical. Uncus reaching apex of valva. Valva slightly widened at basal third, tapering apically, with small tooth at apex. Costal process as long as width of valva in its basal third, with straight filament-like seta much shorter than length of valva. Transtilla symmetrical and U-shaped. Vinculum triangular, short, without saccus. 8th sternite narrowed caudally, but not pointed at apex. Aedeagus entirely slender, straight, slightly longer than valva, with an apical barb.

Female. Unkown.

Phyllonorycter pseudojezoniella sp. n.

Type material.- Holotypus ♂ : Zapadnaya Kedrovaya Pad, Primorskij Kraj, 19.V.1983, S. Yu. Sinev leg.. Paratypus ♂ , same date and locality as holotype.

Diagnosis. Most similar to *Ph. jezoniella* (Matsumura, 1931), but differing by shorter saccus and aedeagus with only one process before apex.

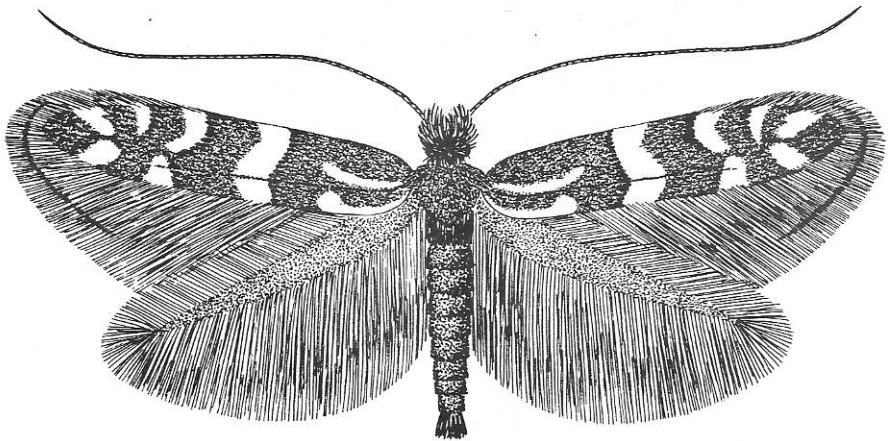


Figure 3 : *Phyllonorycter pseudojezoniella* sp. n., holotype ♂, Primorskij Kraj, Zapadnaya Kedrovaya Pad, 19.V.1983, S. Yu. Sinev leg. (scale 2,0 mm).

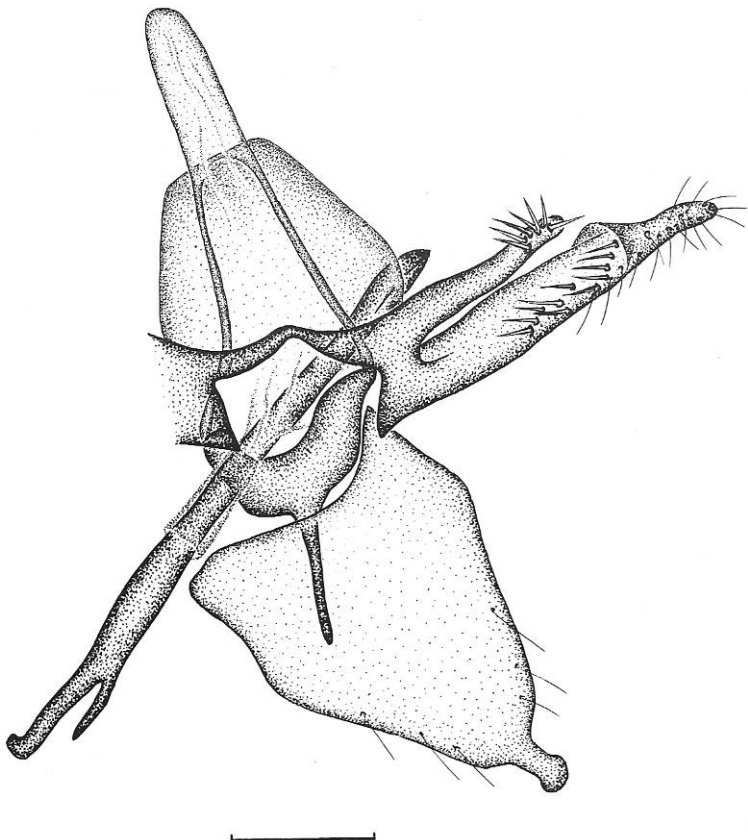


Figure 4 : *Phyllonorycter pseudojezoniella* sp. n., male genitalia without left valva (scale 0,2 mm).

External characters (fig. 3). - Wingspan 13.0-13.2 mm. Face and labial palpi white. Head tuft white with a mixture of reddish-brown scales laterally. Scape white with small brownish spot on upperside. Antennae whitish, annulated with brownish. Thorax and tegulae reddish-brown with white strigulae, streaks and fascia. Medio-basal streak placed on fold, parallel with costal margin of wing, nearly extending to basal 1/4, without any dark marginal scales. Dorso-basal streak as long as the medio-basal, but wider apically than the former, without any dark marginal scales. A rather broad fascia placed just before middle, vertical, and gently arched outwardly. On apical third of forewing three costals and two dorsals present. All strigulae, with the exception of second dorsal, and fascia edged with brown scales

internally. Apical spot blackish-brown, indistinct in shape. Apex of forewing with brown line. Cilia pale brown-reddish.

Male genitalia (fig. 4).- Symmetrical. Uncus reaching apex of valva or slightly longer. Valva branched at base into two parallel processes. The upper process reaches 2/3 of the length of the under process, with some stout setae on apex. The lower process of valva slightly tapering apically, with a tubercular projection on inner surface of apical third, with some setae on apical half. Transtilla symmetrical and U-shaped. Vinculum broad, trapezium-shaped, with long projection at top. 8th sternite elongate-hexangular, with small projection at apex. Aedeagus about twice as long as length of valva with only one acute barb before apex.

Female. Unkown.

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