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Band 11

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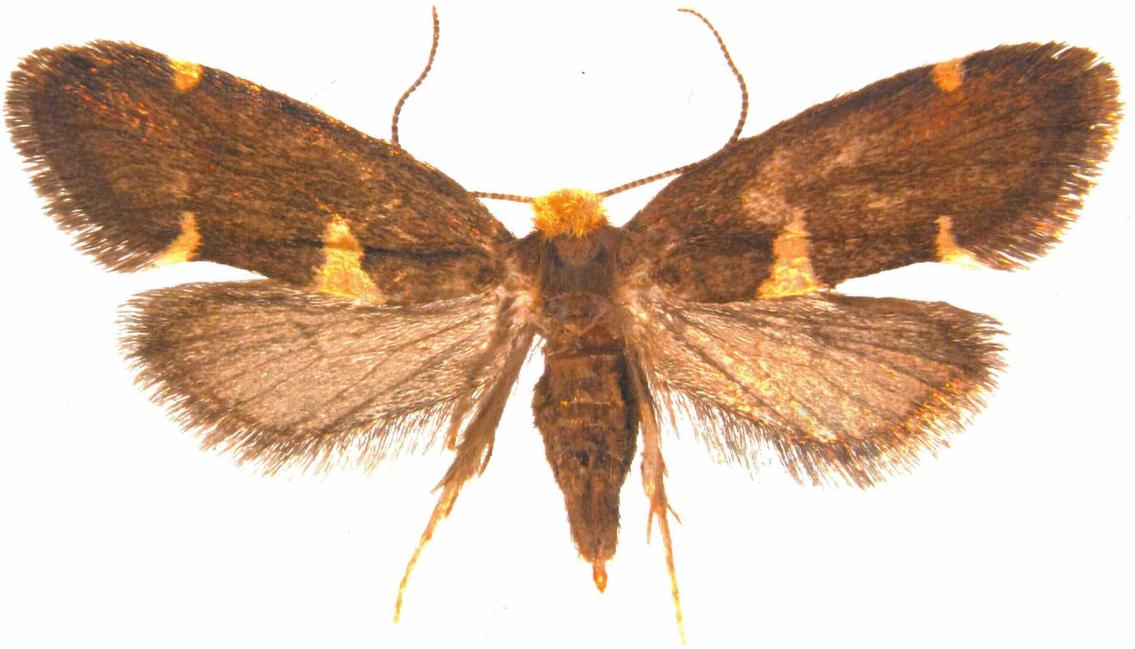
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QUADRIFINA

Bulletin zur Erforschung der Lepidopteren

Band 11



Incurvaria oehlmanniella (HÜBNER, 1796)

2014

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Kontaktadresse

Naturhistorisches Museum Wien, Burgring 7, A-1010 Wien, Österreich
Tel. +43 1/521 77/ 318 (M.Lödl); +43 1/521 77/ 553 (S.Gaal-Haszler)
e-mail: martin.loedl@nhm-wien.ac.at / sabine.gaal@nhm-wien.ac.at

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Illustrated Catalogue of Hering's herbarium of leafminers at the Natural History Museum Vienna, part 2 (plant families B-E)

M. Lödl, S. Gaal-Haszler & S. Jovanovic-Kruspel

Abstract

The authors present in this illustrated catalogue the second part of the historical herbarium of leafminers of the Natural History Museum in Vienna obtained from Erich Martin Hering. The dried plants are documented in overview and detail photos of the leaf mines are given. 96 leaf mining species of 20 families are represented.

Zusammenfassung

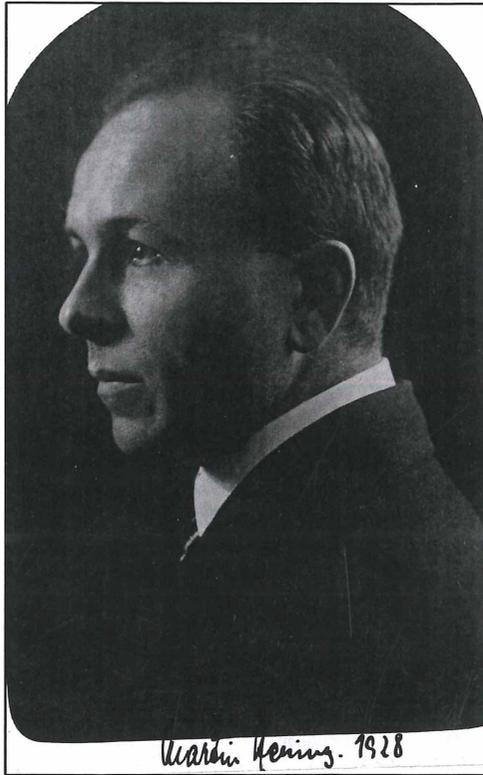
Die Autoren präsentieren in diesem illustrierten Katalog den zweiten Teil des historischen Minenherbars des Naturhistorischen Museums in Wien, das von Erich Martin Hering erworben wurde. Die getrockneten Pflanzen werden im Überblick dokumentiert, und Detailaufnahmen der Blattminen werden gezeigt. 96 blattminierende Arten aus 20 Familien sind vertreten.

Key words: Bedelliidae, Bucculatricidae, Coleophoridae, Cosmopterigidae, Crambidae, Eriocraniidae, Gelechiidae, Gracillariidae, Heliozelidae, Incurvariidae, Lyonetiidae, Nepticulidae, Psychidae, Yponomeutidae, Diptera, Agromyzidae, Coleoptera, Hymenoptera, herbarium of leafminers, leafmines, Natural History Museum Vienna, Hering, Balsaminaceae, Betulaceae, Boraginaceae, Brassicaceae, Campanulaceae, Cannabaceae, Caprifoliaceae, Caryophyllaceae, Chenopodiaceae, Cistaceae, Clusiaceae, Convolvulaceae, Cornaceae, Crassulaceae, Cyperaceae, Dennstaedtiaceae, Dipsacaceae, Equisetaceae, Ericaceae, Euphorbiaceae.

Introduction

The Natural History Museum in Vienna (NHMW) houses a historical herbarium of leafminers. This catalogue is concentrating on the rich collection of leafminers obtained from Prof. Dr. Erich Martin Hering (Berlin) in the 1920's and 1930's. The collection was presented in 22 booklets containing original material collected by Hering mainly in Germany, Austria, Spain, France, and Moldavia.

Altogether more than 440 dried plant specimens representing more than 300 different leafmining species, mainly Lepidoptera and Diptera (Agromyzidae), can be found in the herbarium. The first part of the catalogue (LÖDL et al. 2012) deals with the plant families beginning with the letter A.



Erich Martin Hering 1928 (photo: NHMW)

In this second part of the illustrated catalogue, 96 leaf mining species of 20 families are represented.

Materials and Methods

Hering's herbarium of leafminers at the NHMW is structured in 22 booklets (lots), each containing 20 herbarium sheets which are numbered consecutively. In the here presented illustrated catalogue the leaf or the leaves on the herbarium sheets are shown in overview and detail photos of the mines are given.

At the top of the page plant family name and plant species name are written in bold, followed by the valid name of the leafminer species in bold italic. At the bottom of the page lot number and herbarium sheet number are given. In square brackets the names printed on the booklet and the sheet are given, if they differ from the valid names. Handwritten corrections of NHMW curators are also written in square brackets. In the last line of the page collecting data can be found.

The plant families are listed in alphabetical order, the genera and the species of the families follow the alphabet as well. Because of that, no plant index is given at the end of the catalogue. This article contains the plant families being in Hering's herbarium beginning with the letters B to E.

Balsaminaceae

Impatiens parviflora DC.

Phytoliriomyza melampyga (LOEW, 1869) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 5, no. 93
[Liriomyza impatientis Brischke] Berlin, VI. 1930

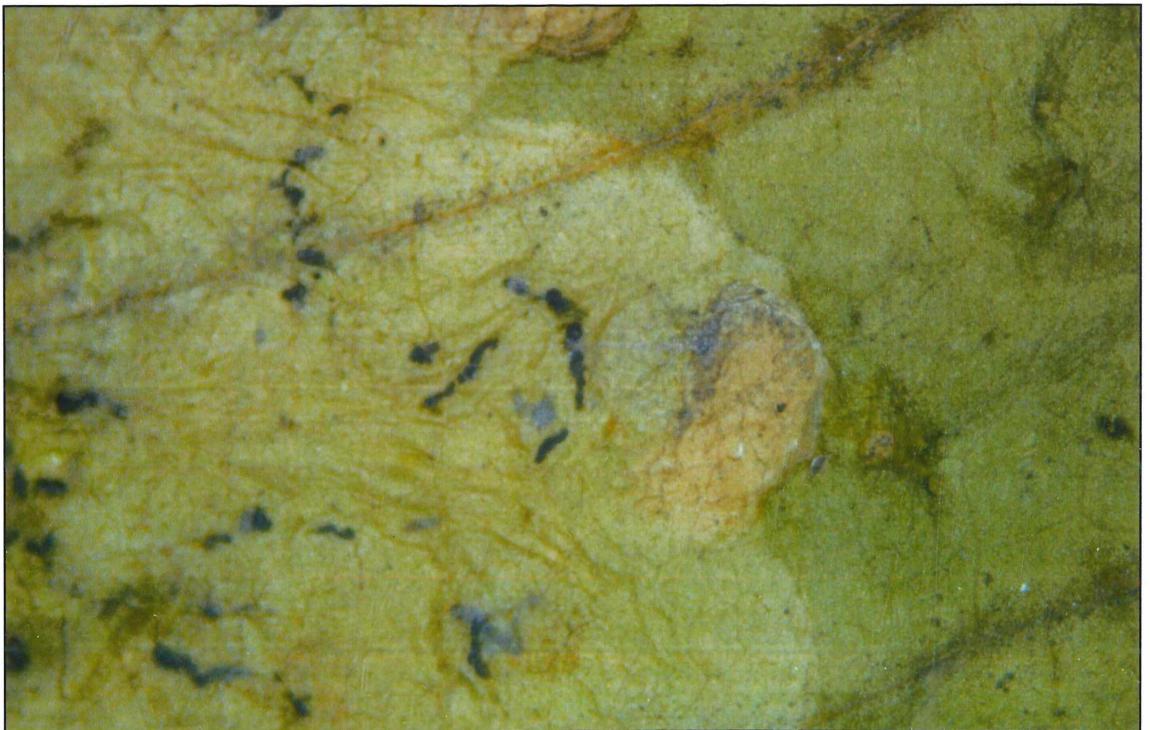
Balsaminaceae

Impatiens parviflora DC.

Phytoliriomyza melampyga (LOEW, 1869) (Diptera: Agromyzidae)



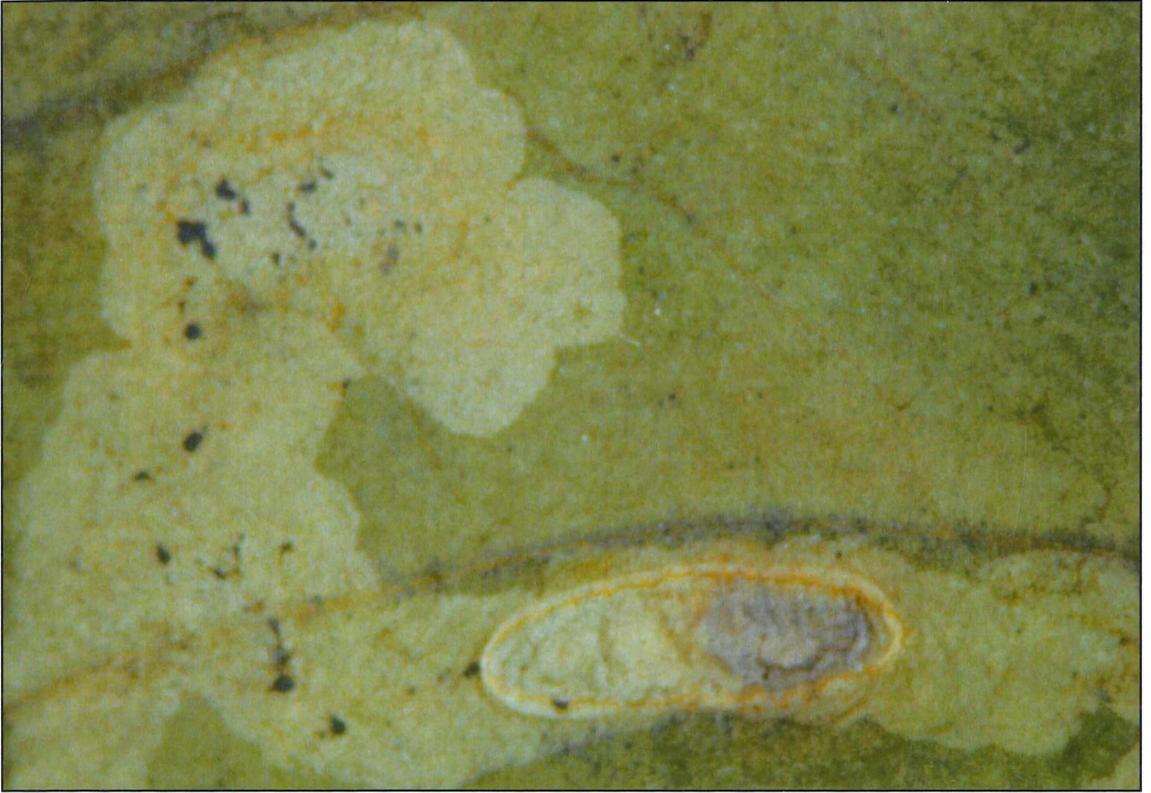
Details of previous page: different aspects of winding corridor.



Balsaminaceae

***Impatiens parviflora* DC.**

Phytoliriomyza melampyga (LOEW, 1869) (Diptera: Agromyzidae)



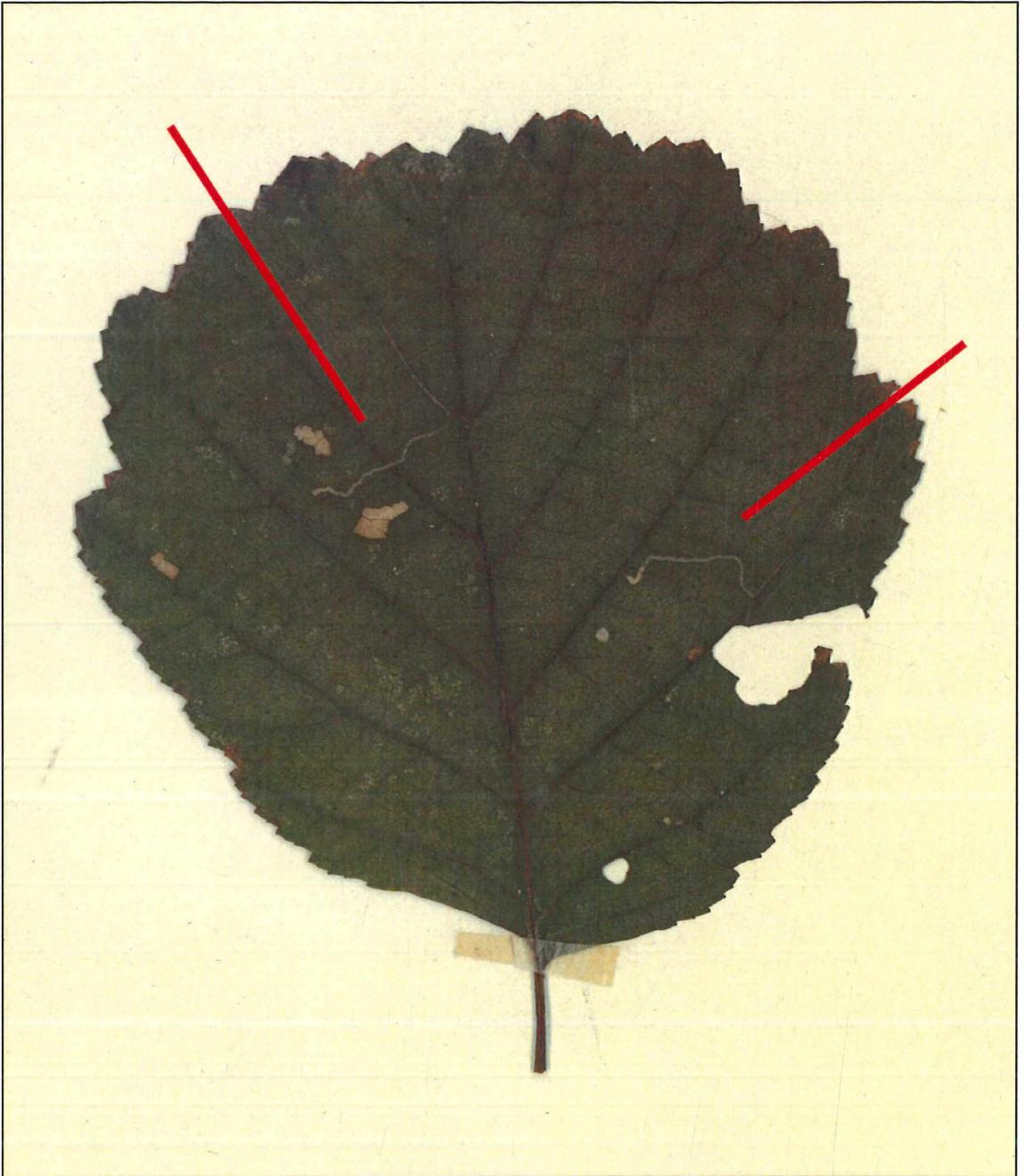
Details of page next to last, larval feeding area. Top: overview. Bottom: detail with dried larva visible as dark patch.



Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Bucculatrix cidarella (ZELLER, 1839) (Lepidoptera: Bucculatricidae)



Leafminers-Herbarium, M.Hering, Lot 1, no. 4
Berlin, VIII. 1929

Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Bucculatrix cidarella (ZELLER, 1839) (Lepidoptera: Bucculatricidae)



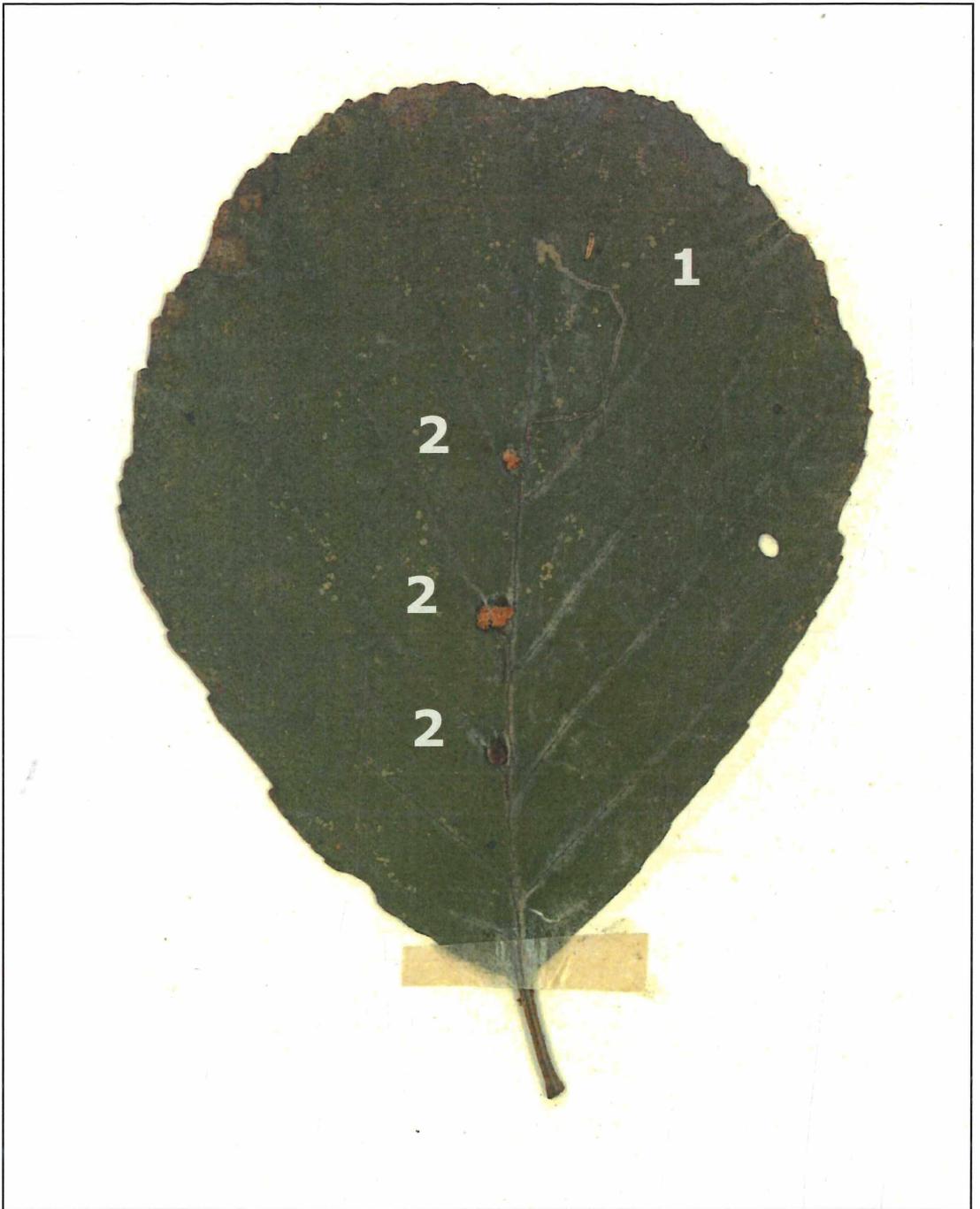
Details of previous page. Top: initial part of corridor. Bottom: end of corridor.



Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Bucculatrix cidarella (ZELLER, 1839) (Lepidoptera: Bucculatricidae)



Leafminers-Herbarium, M.Hering, Lot 1a, no. 4
Berlin, VIII. 1929

Leaf infested with Lepidoptera-mine (no.1.) and with gall mites (Fam. Eriophyidae; *Eriophyes inangulis*
NALEPA, 1919 cf.) (no. 2)

Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Bucculatrix cidarella (ZELLER, 1839) (Lepidoptera: Bucculatricidae)



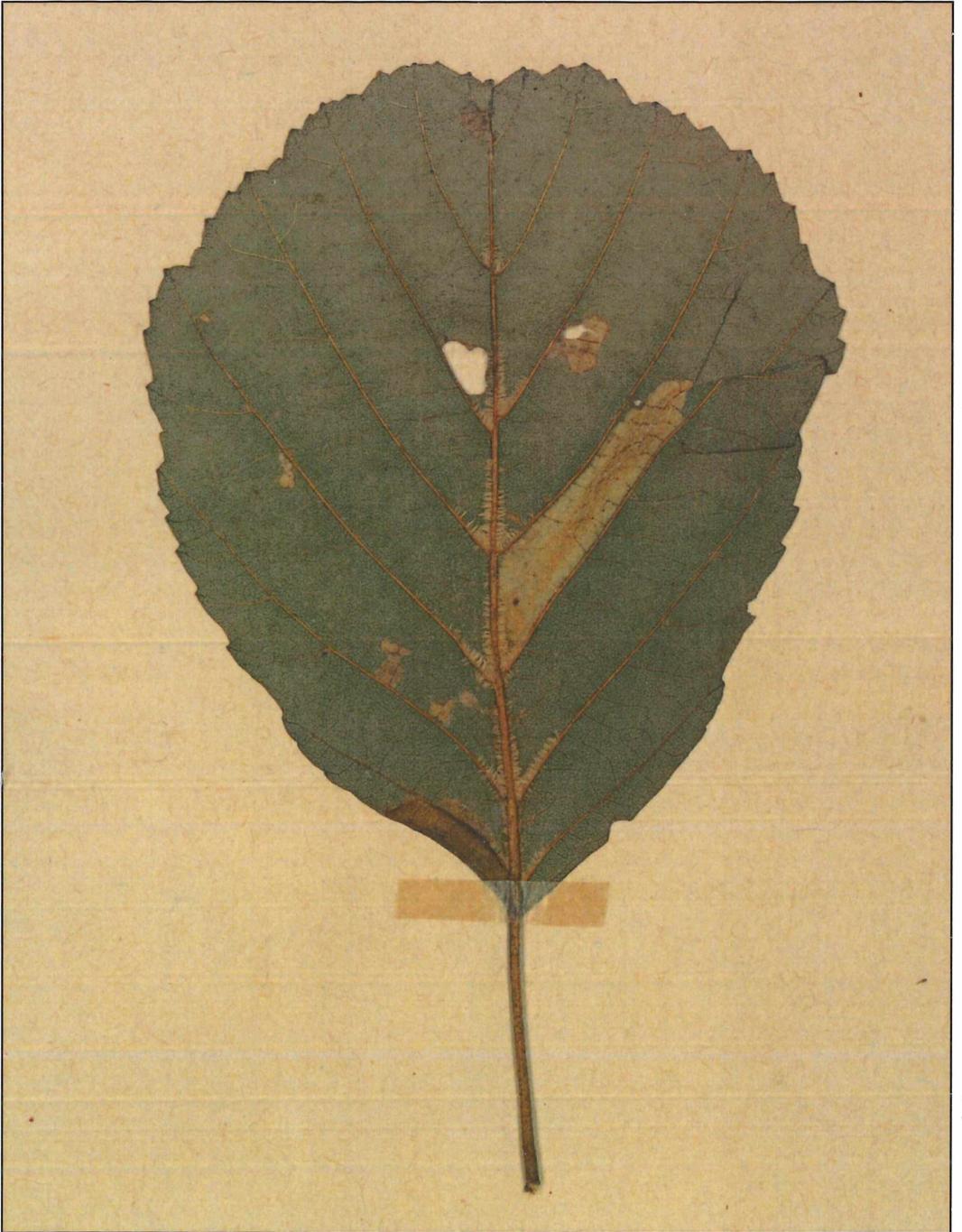
Details of previous page. Top: detail of mine (no.1). Bottom: gall of gall mite *Eriophyes inangulis* cf., typically situated along midrib, upper-surface aspect, gall squeezed during drying procedure (no. 2).



Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Phyllonorycter froelichiella (ZELLER, 1839) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 3, no. 49
[*Lithocolletis froelichiella* Z.] Berlin-Finkenkrug, Oktober 1929

Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Phyllonorycter froelichiella (ZELLER, 1839) (Lepidoptera: Gracillariidae)



Details of previous page. Top: lower-surface tentiform mine, occupying entire space between two side veins. Bottom: end of mine with wrinkles but without strong folds.



Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Heterarthrus vagans (FALLÉN, 1808) (Hymenoptera: Tenthredinidae)

Possibly with additional mine of *Phyllonorycter froelichiella* (ZELLER, 1839)



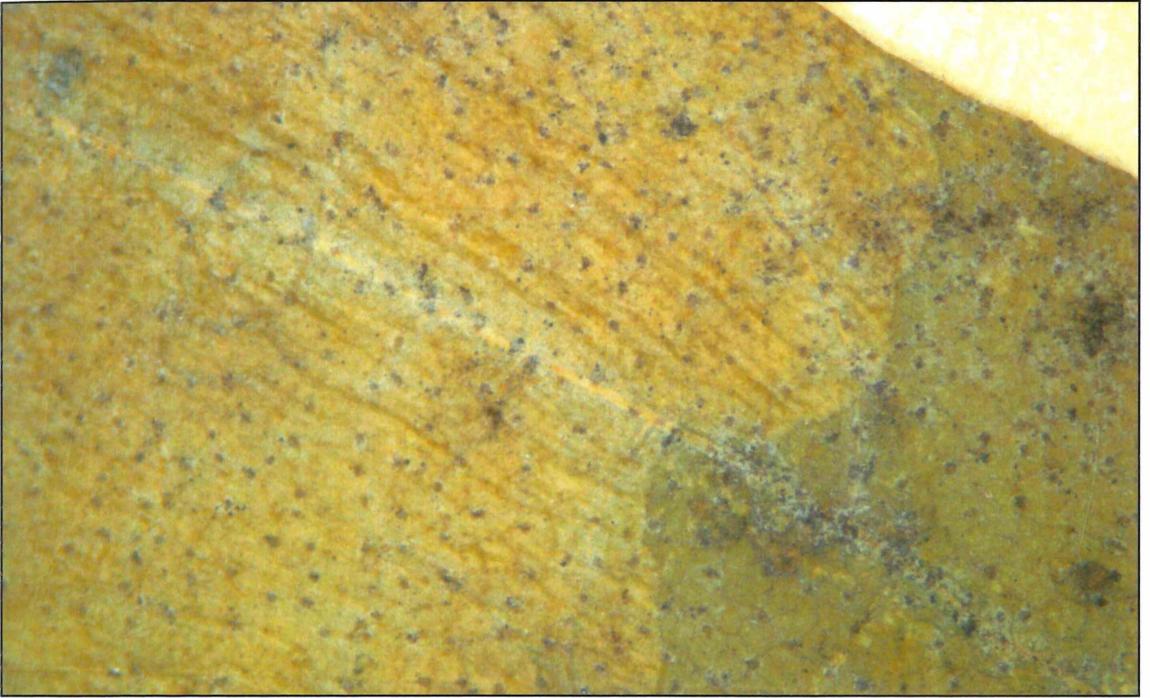
Leafminers-Herbarium, M.Hering, Lot 10, no. 195

[Phyllotoma vagans Fallén] [+ Lith. froe..l ? [handwritten note]] Berlin-Spandau, Brandenburg X. 1932

Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Heterarthrus vagans (FALLÉN, 1808) (Hymenoptera: Tenthredinidae)



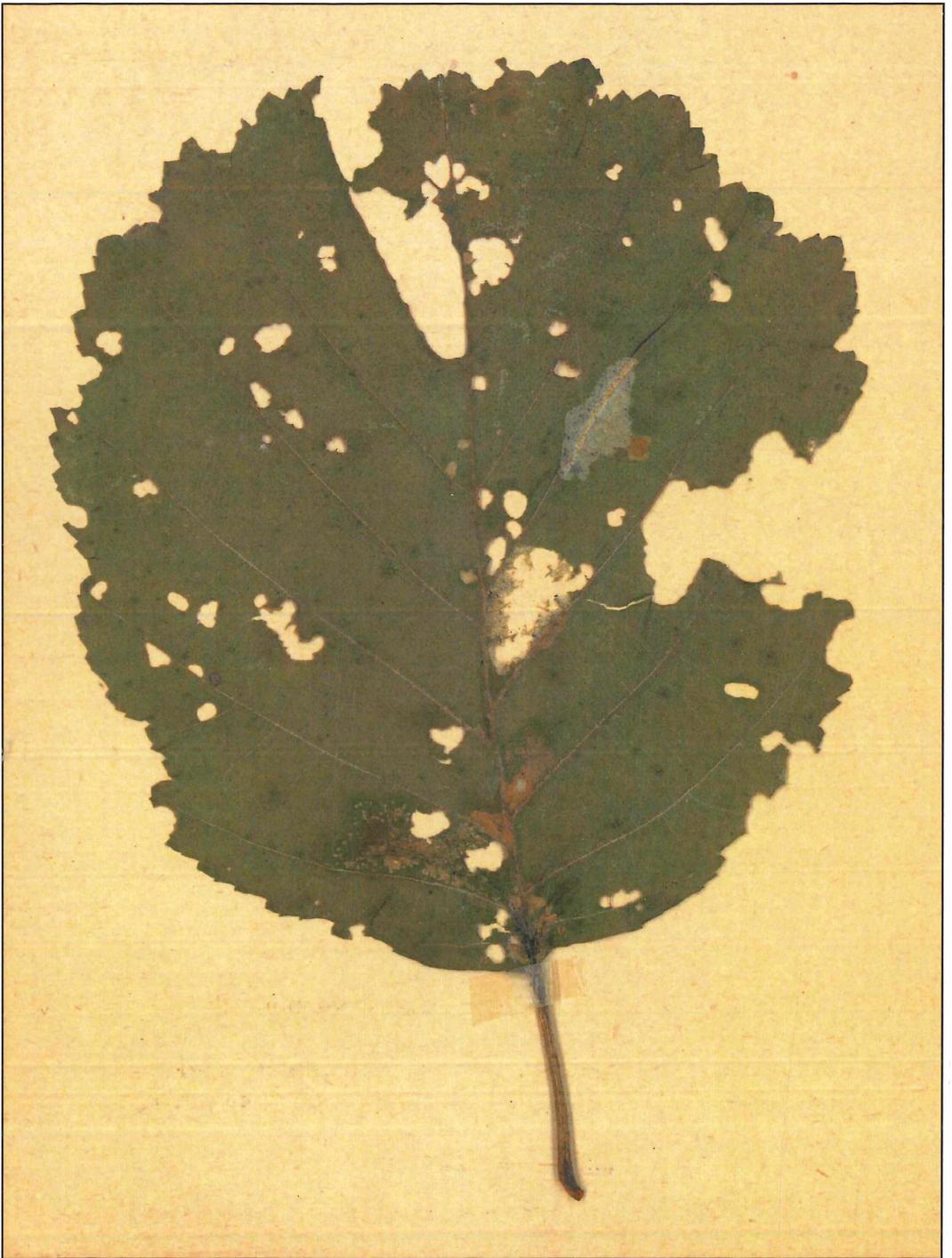
Details of previous page. Top: details of blotch mine. Bottom: area of circular cocoon field of the larva.



Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Phyllonorycter stettinensis (NICELLI, 1852) (Lepidoptera: Gracillariidae)



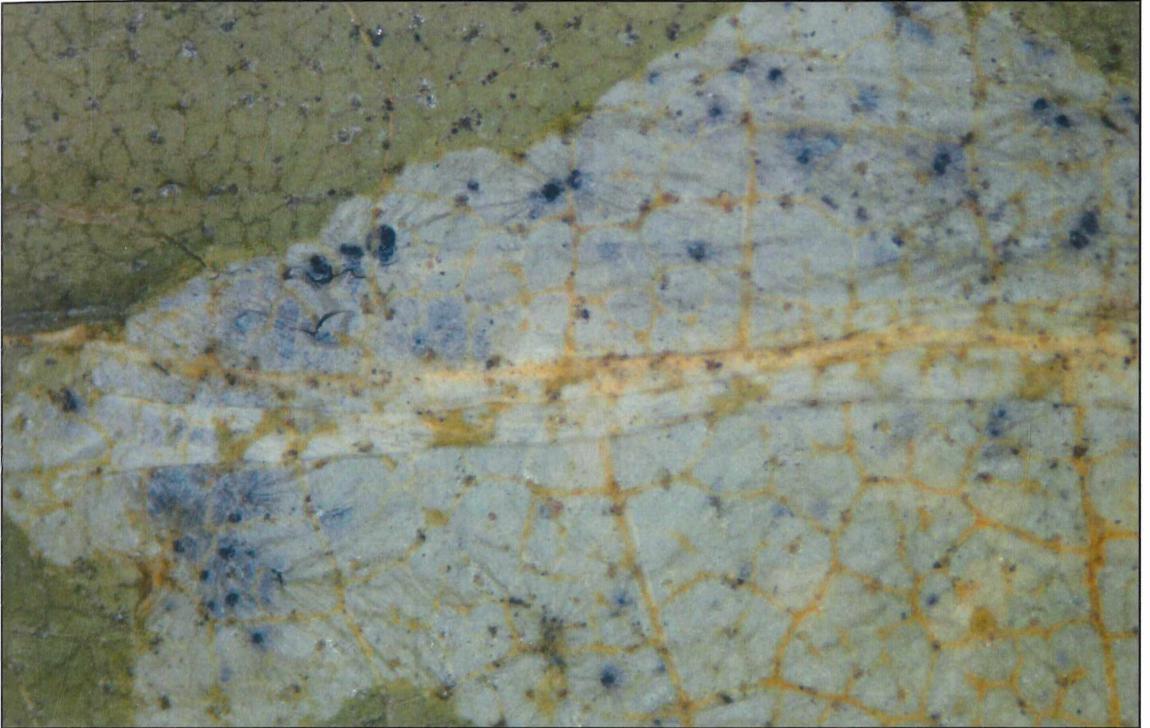
Leafminers-Herbarium, M.Hering, Lot 10, no. 196

[*Lithocolletis stettinensis* Nicelli] [+ altera sp. [handwritten note]] Berlin-Spandau, Brandenburg X. 1932

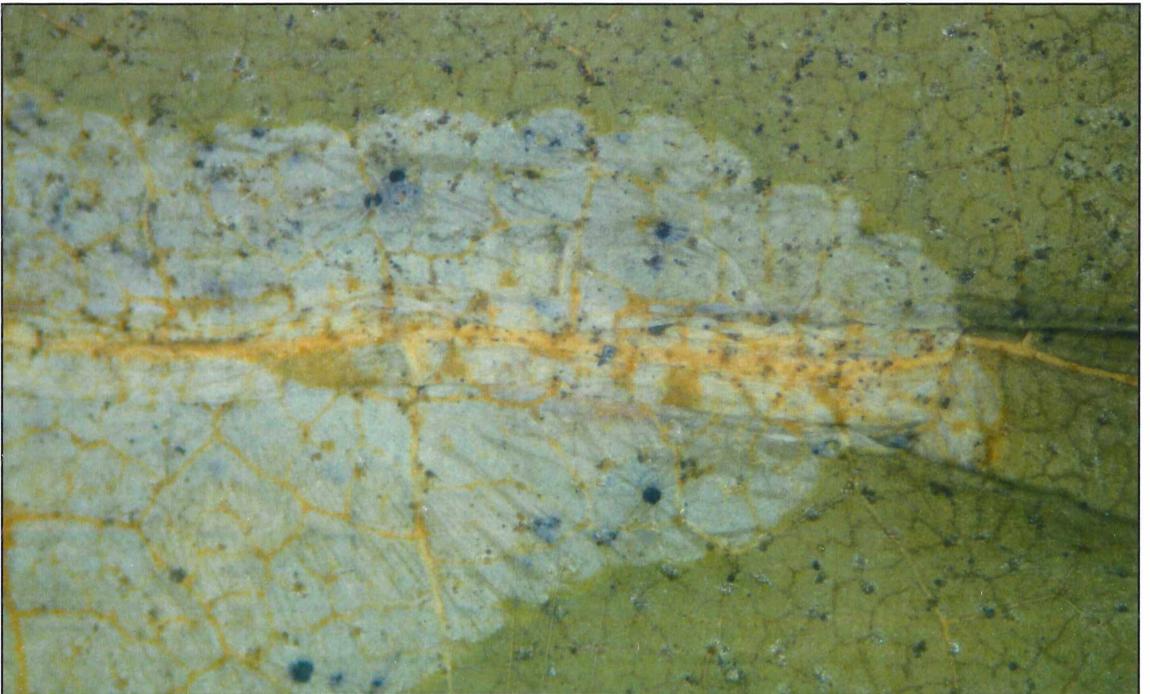
Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Phyllonorycter stettinensis (NICELLI, 1852) (Lepidoptera: Gracillariidae)



Details of previous page: details of flat, tentiform mine with strong fold in the middle, upper-surface aspect.



Betulaceae

***Alnus glutinosa* (L.) Gaertn.**

Coleophora serratella (LINNAEUS, 1761) (Lepidoptera: Coleophoridae)



Top: overview. Bottom: two aspects of feedings windows; left: lower-surface; right: upper-surface.

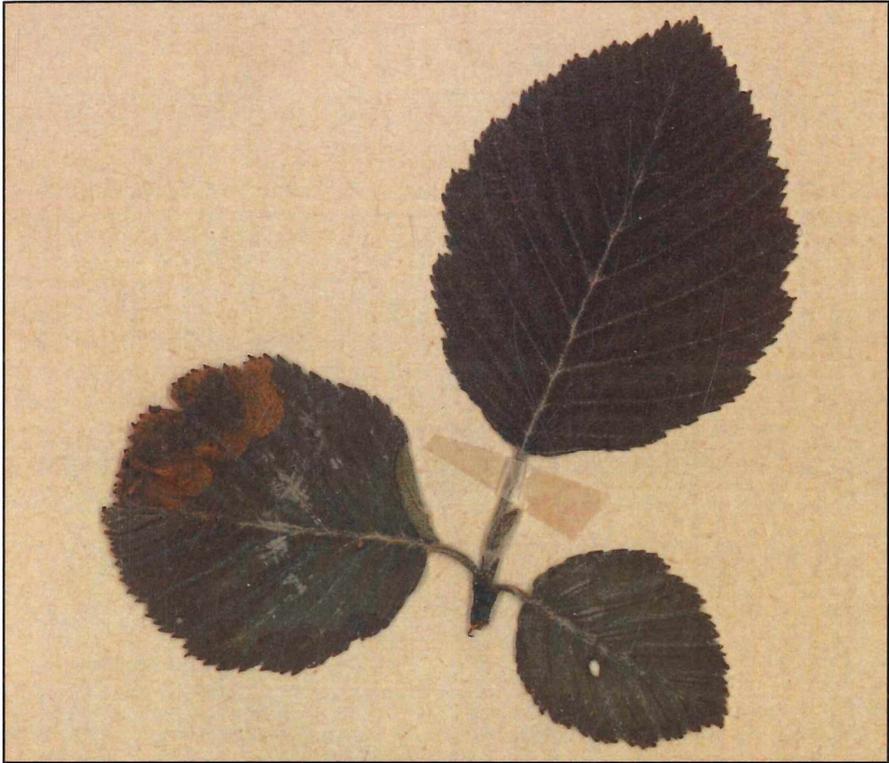


Leafminers-Herbarium, M.Hering, Lot 4, no. 65
[*Coleophora fuscadinella* Z.] Berlin-Karlshorst, Juni 1926

Betulaceae

***Alnus incana* (L.) Moench**

Orchestes testaceus (MÜLLER, 1776) (Coleoptera: Curculionidae)



Top: overview. Bottom: corridor widens strongly at the leaf tip.



Leafminers-Herbarium, M.Hering, Lot 22, no. 426

[*Alnus incana* DC] [*Rhynchaenus testaceus* Müll. emended to *Rhynchaenus alni* L. subsp. *scutellaris* F.]
Berlin – Lichterfelde, Brandenbg. Mai 1937

Betulaceae

***Alnus incana* (L.) Moench**

Orchestes testaceus (MÜLLER, 1776) (Coleoptera: Curculionidae)



Top: narrow initial corridor in the midrib. Bottom: oviposition scar on leaf underside.



Betulaceae

***Alnus incana* (L.) Moench**

Phyllonorycter strigulatella (LIENIG & ZELLER, 1846) (Lepidoptera: Gracillariidae)



Top: overview. Bottom: end of mine, untypical appearance, normally the species exhibits a tentiform mine with a strongly folded tubular terminal part.

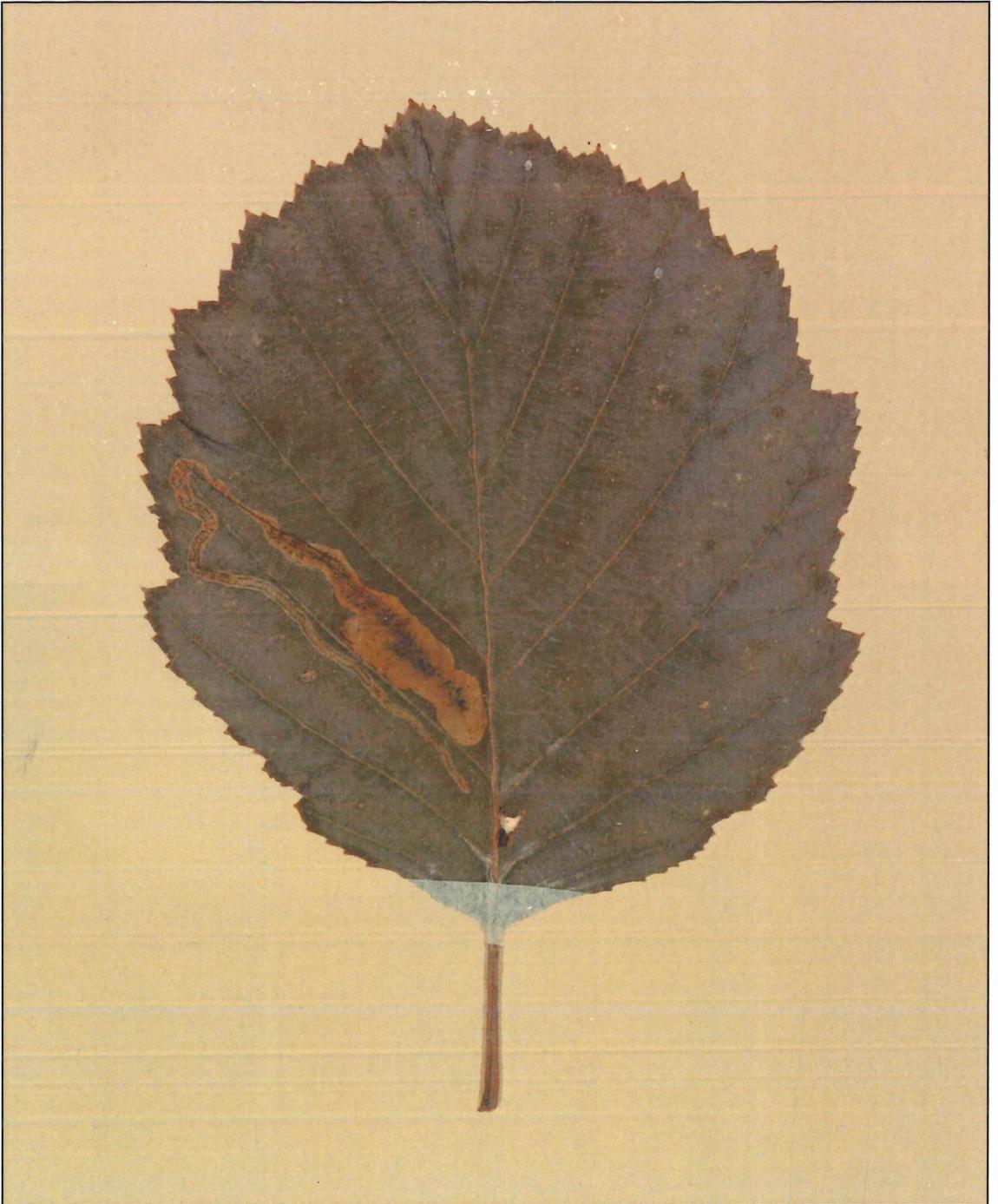


Leafminers-Herbarium, M.Hering, Lot 3, no. 50
[*Lithocolletis strigulatella* Z.] Berlin-Finkenkrug, Oktober 1929

Betulaceae

***Alnus incana* (L.) Moench**

Agromyza alnibetulae HENDEL, 1931 (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 10, no. 194

[*Alnus incana* DC.] [*Agromyza alni-betulae* Hendel] Berlin-Spandau, Brandenburg VI. 1932

Betulaceae

***Alnus incana* (L.) Moench**

Agromyza alnibetulae HENDEL, 1931 (Diptera: Agromyzidae)



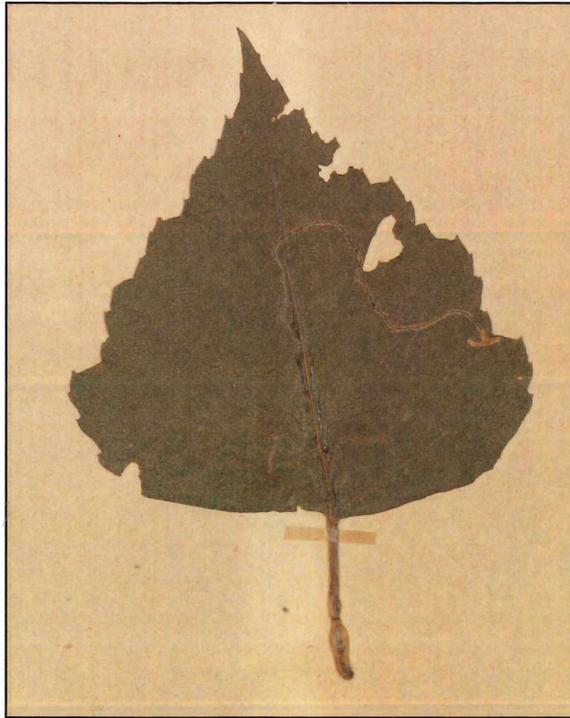
Details of previous page. Top: long primary corridor, upper-surface aspect, frass in two typical distinct rows alongside the corridor margin. Bottom: later corridor, upper-surface aspect.



Betulaceae

Betula pendula Roth

Lyonetia clerkella (LINNAEUS, 1758) (Lepidoptera: Lyonetiidae)



Top: overview. Bottom: slender corridor with frass in central line.



Leafminers-Herbarium, M.Hering, Lot 19, no. 364
[*Betula verrucosa* Ehrh. emended to *Betula pendula* Roth]
Crossen/Oder, Brandenburg. Septemb. 1935

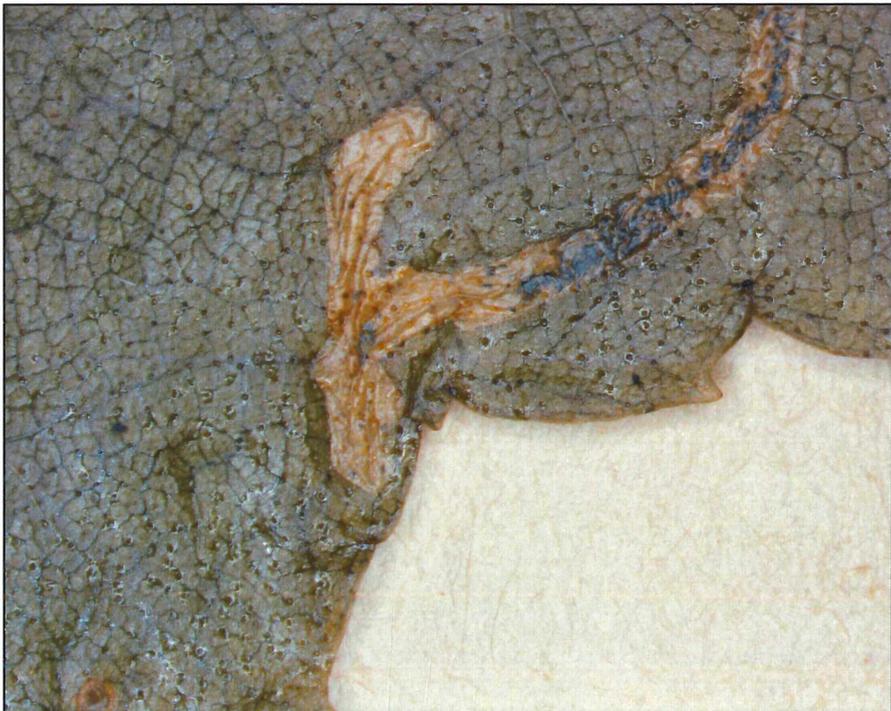
Betulaceae

Betula pendula Roth

Lyonetia clerkella (LINNAEUS, 1758) (Lepidoptera: Lyonetiidae)



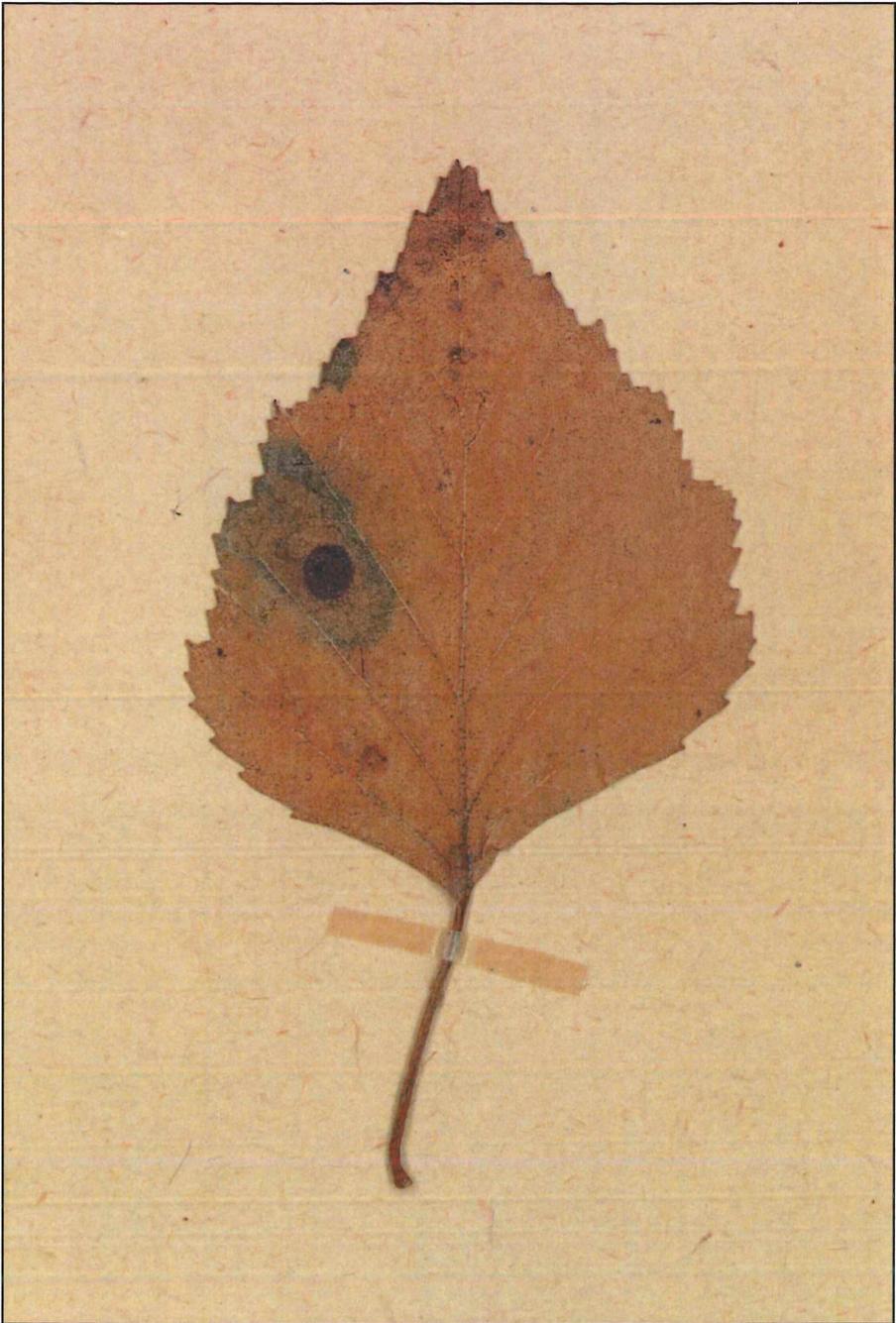
Details of previous page. Top: slender corridor with larval chamber. Bottom: larval chamber.



Betulaceae

Betula pendula Roth

Ectoedemia occultella (LINNAEUS, 1767) (Lepidoptera: Nepticulidae)

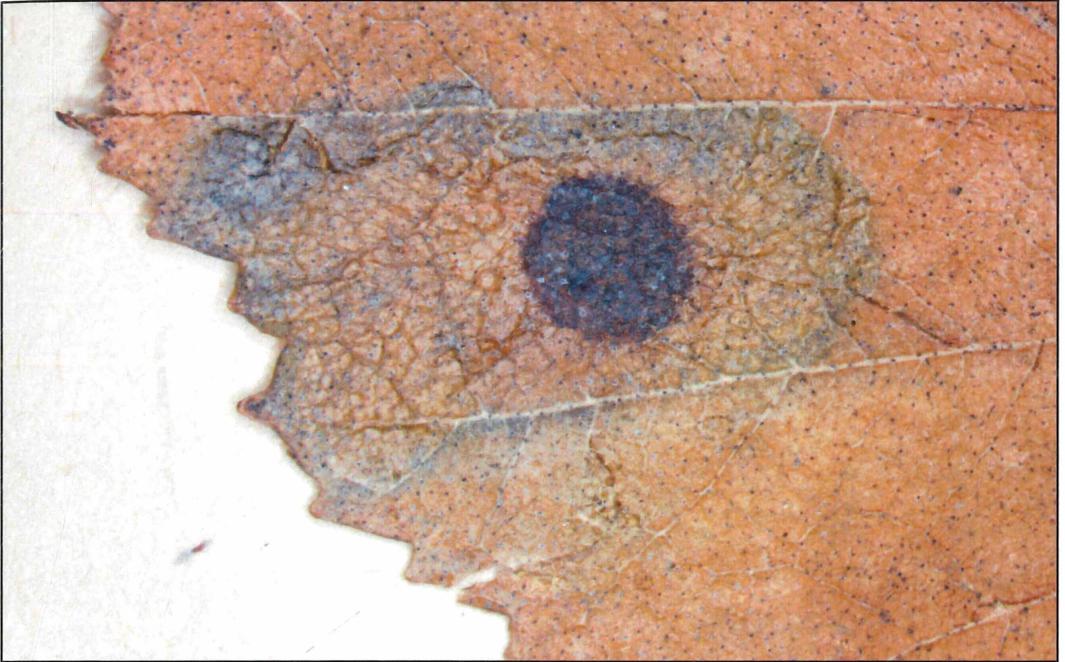


Leafminers-Herbarium, M.Hering, Lot 16, no. 311
[Betula verrucosa Ehrh. emended to Betula pendula Roth]
[Nepticula argentipedella Z. emended to Stigmella argentipedella Z.]
Geisenheim, leg. Dr. G. Voigt, October 1932

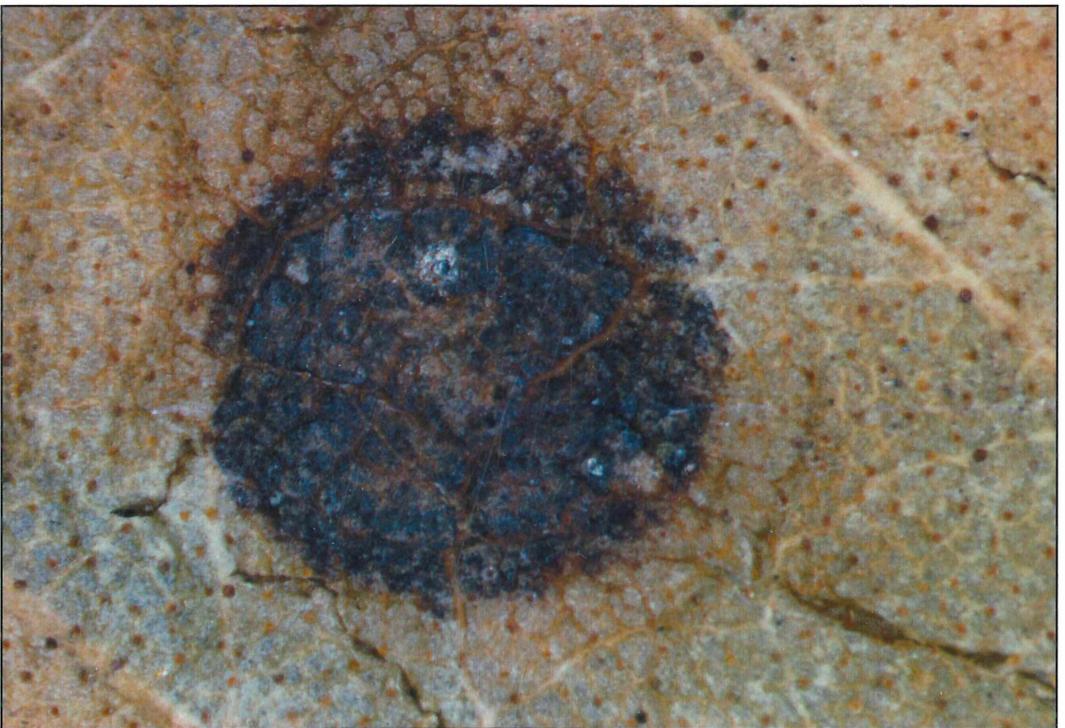
Betulaceae

Betula pendula Roth

Ectoedemia occultella (LINNAEUS, 1767) (Lepidoptera: Nepticulidae)



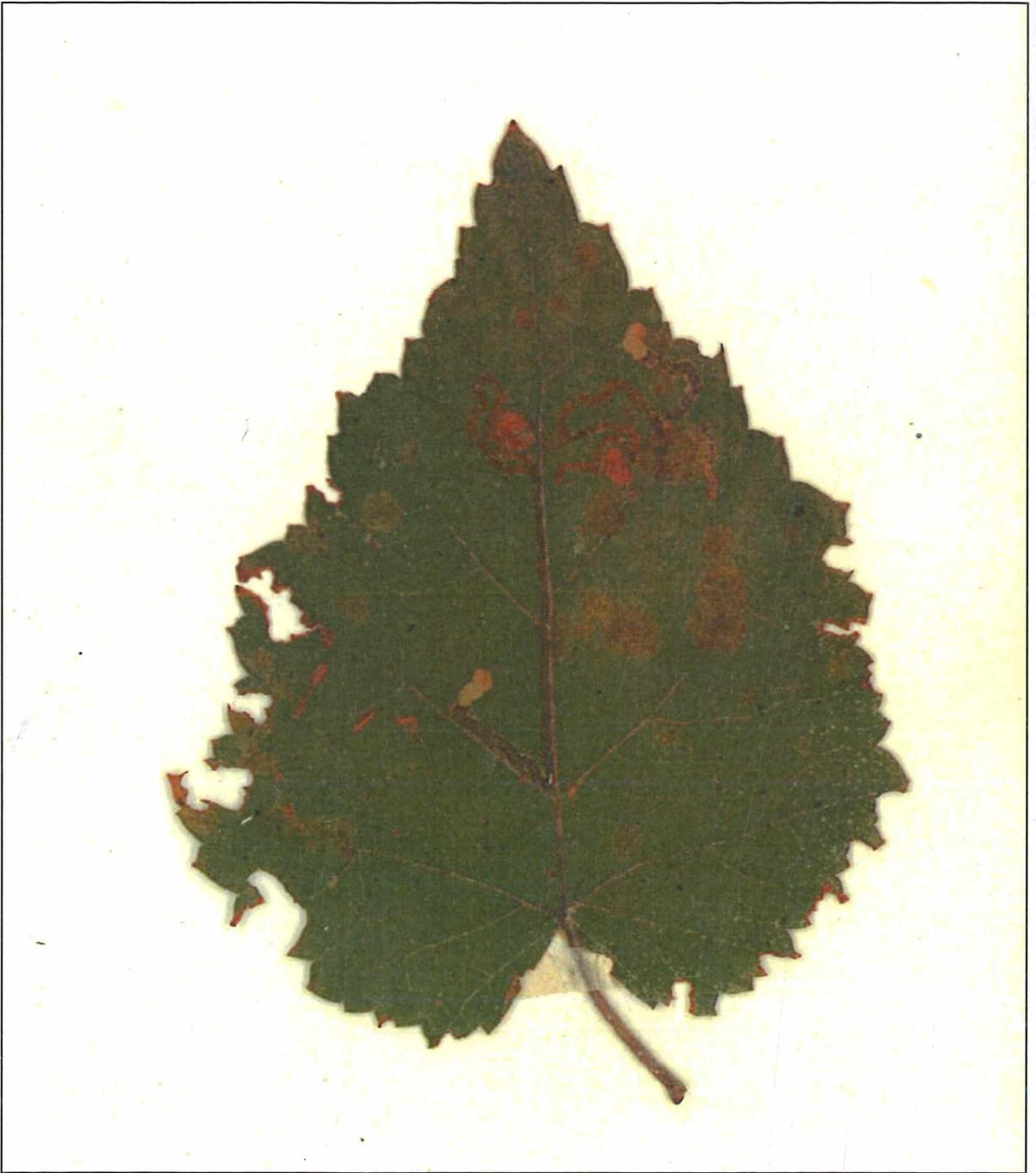
Top: blotch mine with typical dark centre, upper side of the leaf. Bottom: egg shell on the leaf underside.



Betulaceae

Betula pendula Roth

Stigmella continuella (STANTON, 1856) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 1, no. 3
[Nepticula continuella Stt.] [Betula verrucosa Ehr.]
Berlin, VIII.1929

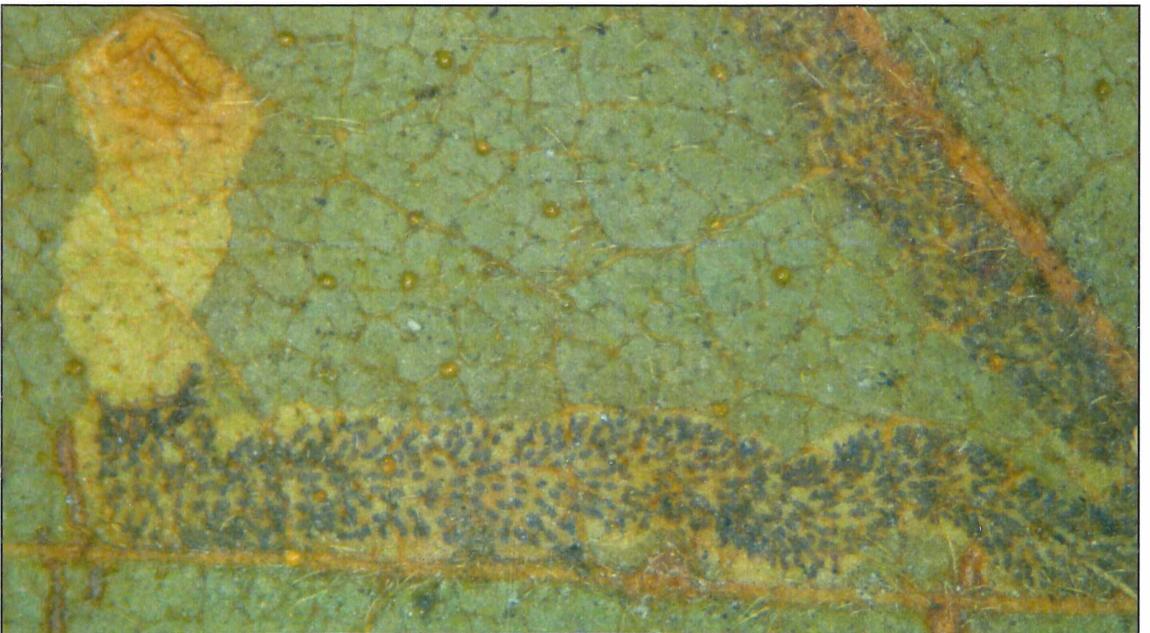
Betulaceae

Betula pendula Roth

Stigmella continuella (STAINTON, 1856) (Lepidoptera: Nepticulidae)



Details of previous page. Top: strongly contorted initial part of mine. Bottom: end of mine and coiled frass.



Betulaceae

Betula pendula Roth

Stigmella continuella (STANTON, 1856) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 1a, no. 3
[*Nepticula continuella* Stt.] [*Betula verrucosa* Ehr.]
Berlin, VIII.1929

Betulaceae

Betula pendula Roth

Stigmella continuella (STAINTON, 1856) (Lepidoptera: Nepticulidae)



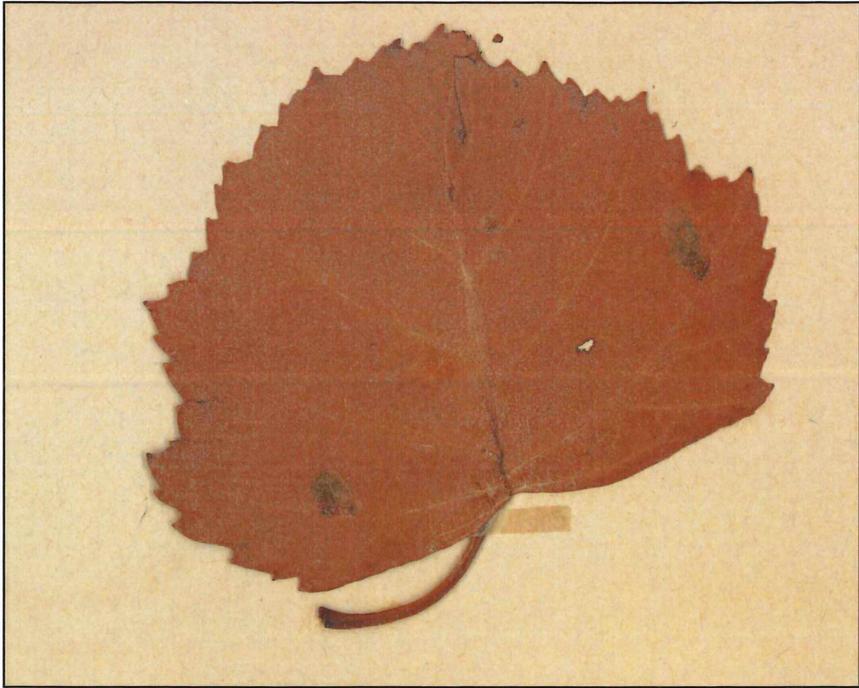
Details of previous page. Top: strongly contorted initial part of mine. Bottom: end of mine and coiled frass.



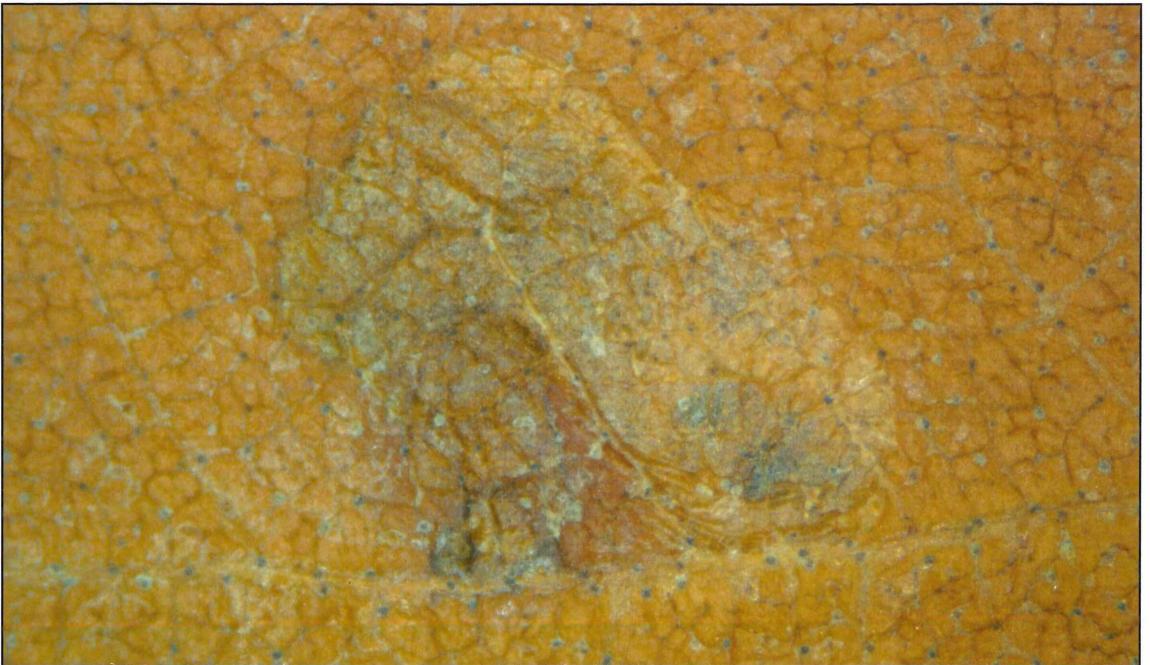
Betulaceae

Betula pendula Roth

Rhamphus pulicarius (HERBST, 1795) (Coleoptera: Curculionidae)



Top: overview. Bottom: small rounded upper-surface blotch-mine.



Leafminers-Herbarium, M.Hering, Lot 3, no. 47
[Betula verrucosa Ehr.] Berlin-Fangschleuse Oktober 1929

Betulaceae

Betula pendula Roth

Heliozela hammoniella SORHAGEN, 1885 (Lepidoptera: Heliozelidae)



Leafminers-Herbarium, M.Hering, Lot 3, no. 48
[*Heliozela betulae* Stainton] [*Betula verrucosa* Ehr.]
Berlin-Frohnau August 1929

Betulaceae

Betula pendula Roth

Heliozela hammoniella SORHAGEN, 1885 (Lepidoptera: Heliozelidae)



Details of previous page. Top: excision on the leaf on the top. Bottom: excision on the leaf at the bottom.



Betulaceae

Betula pendula Roth

Eriocrania semipurpurella (STEPHENS, 1835) (Lepidoptera: Eriocraniidae)



Top: overview. Bottom: blotch mine with frass in long threads.



Leafminers-Herbarium, M.Hering, Lot 4, no. 62
[Betula verrucosa Ehr.]
Berlin-Frohnau, V.1930

Betulaceae

Betula pendula Roth

Eriocrania semipurpurella (STEPHENS, 1835) (Lepidoptera: Eriocraniidae)



Details of previous page. Top: another view of the blotch mine with frass in threads. Bottom: larva under epidermal surface.



Betulaceae

Betula pendula Roth

Eriocrania semipurpurella (STEPHENS, 1835) (Lepidoptera: Eriocraniidae)



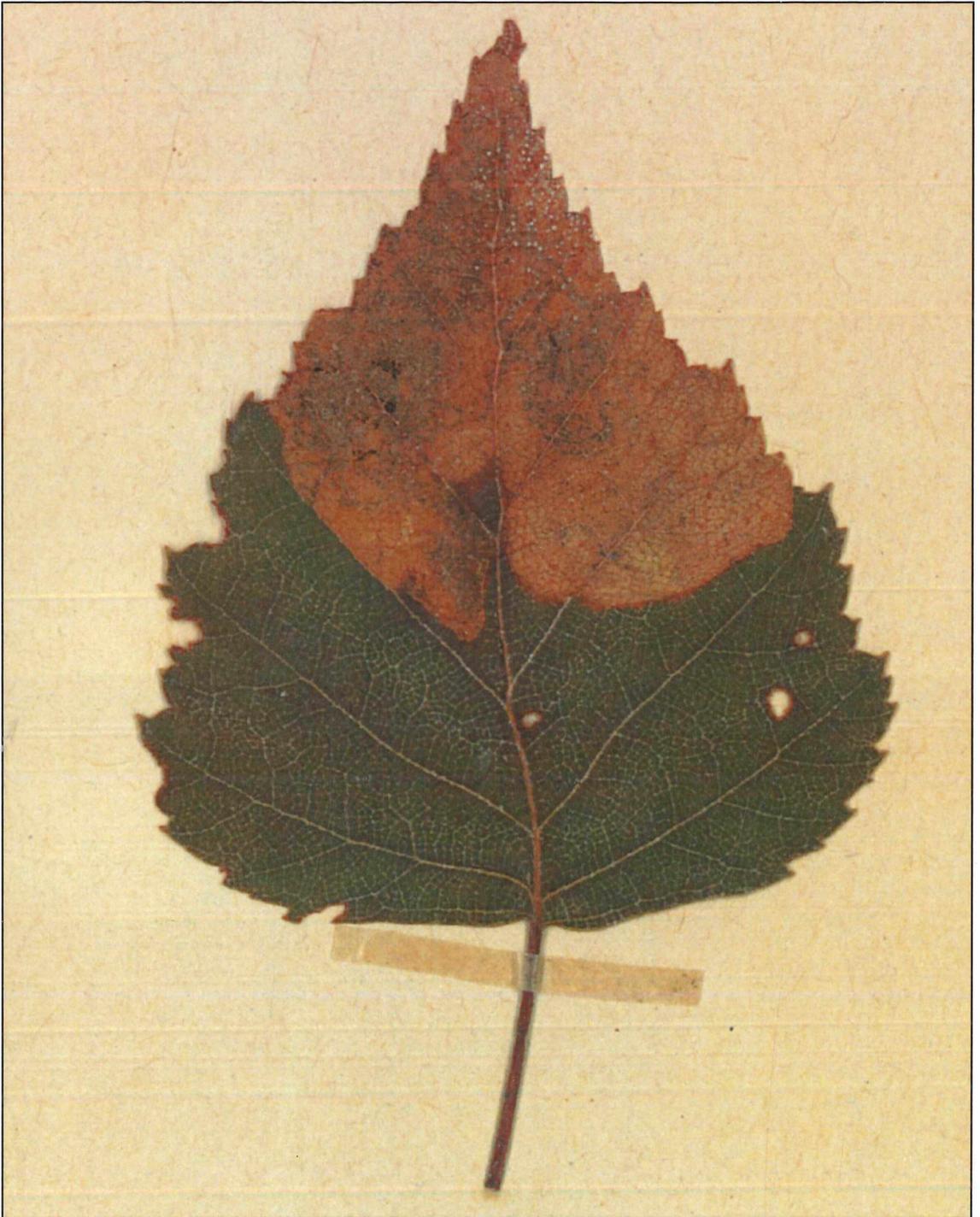
Details of page next to last. Top: larva in dried condition, extracted from cavity. Bottom: detail of larva, head region.



Betulaceae

Betula pendula Roth

Eriocrania sparrmannella (BOSC, 1791) (Lepidoptera: Eriocraniidae)



Leafminers-Herbarium, M.Hering, Lot 4, no. 63
[*Eriocrania sparmanella* Bosc.] [*Betula verrucosa* Ehr.]
Berlin-Frohnau, Juni 1926

Betulaceae

Betula pendula Roth

Eriocrania sparrmannella (BOSC, 1791) (Lepidoptera: Eriocraniidae)



Details of previous page: different aspects of blotch.



Betulaceae

Betula pendula Roth

Fenusa pumila LEACH, 1817 (Hymenoptera: Tenthredinidae)



Leafminers-Herbarium, M.Hering, Lot 4, no. 64

[*Fenusa pumila* Klug emended to *Fenusa pusilla* (Lepeletier, 1823)] [*Betula verrucosa* Ehr.]
Berlin-Frohnau, Juni 1926

Betulaceae

Betula pendula Roth

Fenusa pumila LEACH, 1817 (Hymenoptera: Tenthredinidae)



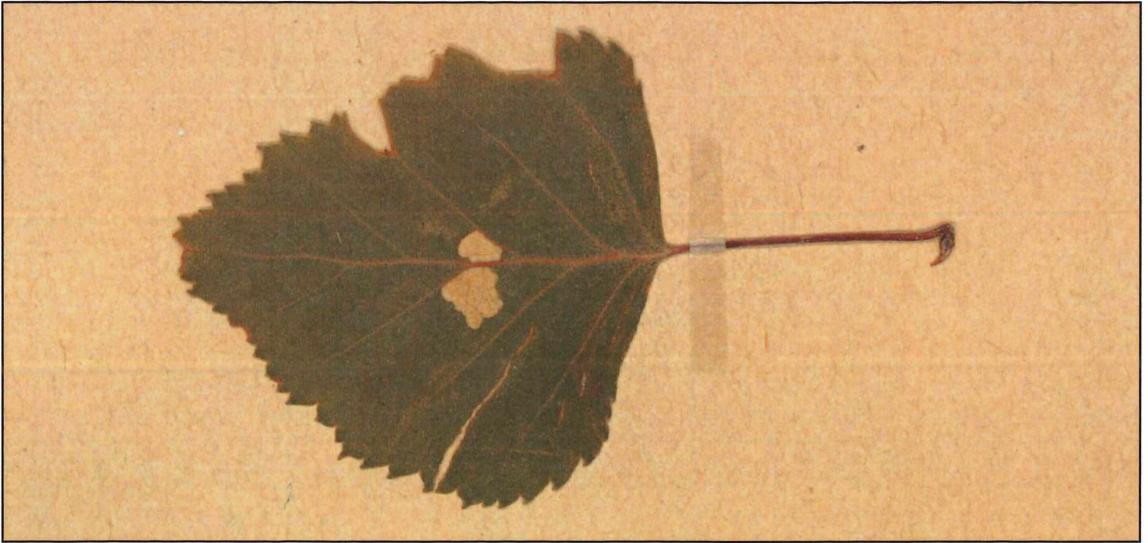
Details of previous page. Top: detail of blotch. Bottom: larva situated under the epidermal surface.



Betulaceae

Betula pendula Roth

Coleophora serratella (LINNAEUS, 1761) (Lepidoptera: Coleophoridae)



Top: overview. Bottom: different aspects of feeding areas.



Leafminers-Herbarium, M.Hering, Lot 6, no. 106

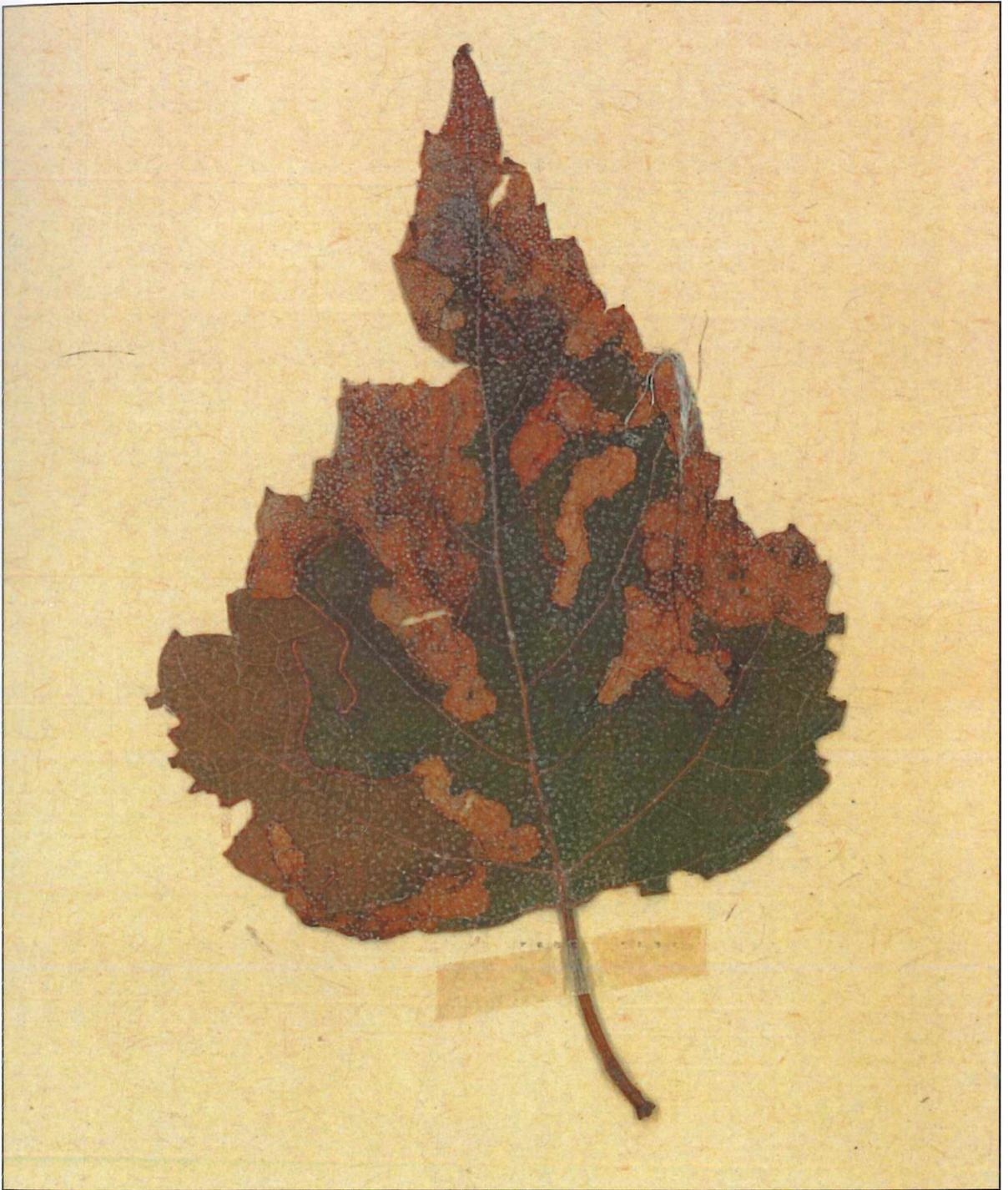
[*Coleophora fuscadinella* Z.] [*Betula verrucosa* Ehrh.] Berlin-Finkenkrug, V. 1930

In <http://www.bladmineerders.nl/minersf/lepidopteramin/coleophora/serratella/serratella.htm> (vid. Dec. 25th, 2010 it is pointed out: „Where in older publications the names *fuscadinella* and *serratella* are both used, *serratella* can probably best be interpreted as *coracipennela*“

Betulaceae

Betula pendula Roth

Lyonetia prunifoliella (HÜBNER, 1796) (Lepidoptera: Lyonetiidae)



Leafminers-Herbarium, M.Hering, Lot 10, no. 191

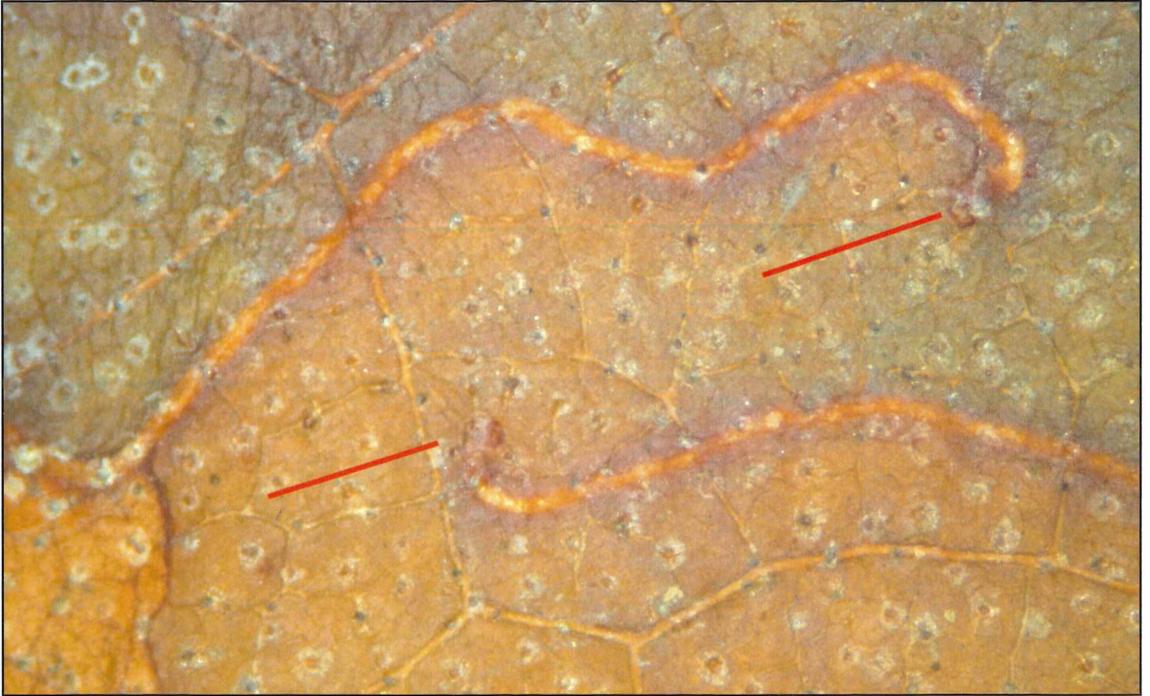
[Betula verrucosa Ehr.]

Crossen / Oder, Brandenburg IX. 1931

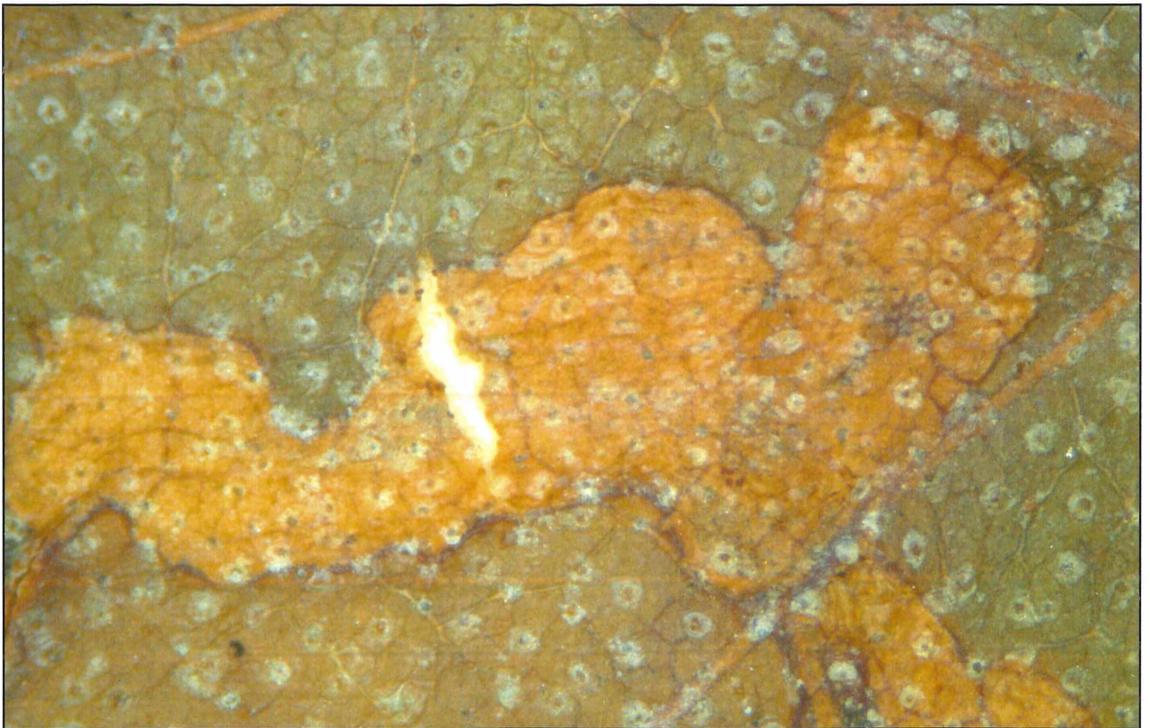
Betulaceae

Betula pendula Roth

Lyonetia prunifoliella (HÜBNER, 1796) (Lepidoptera: Lyonetiidae)



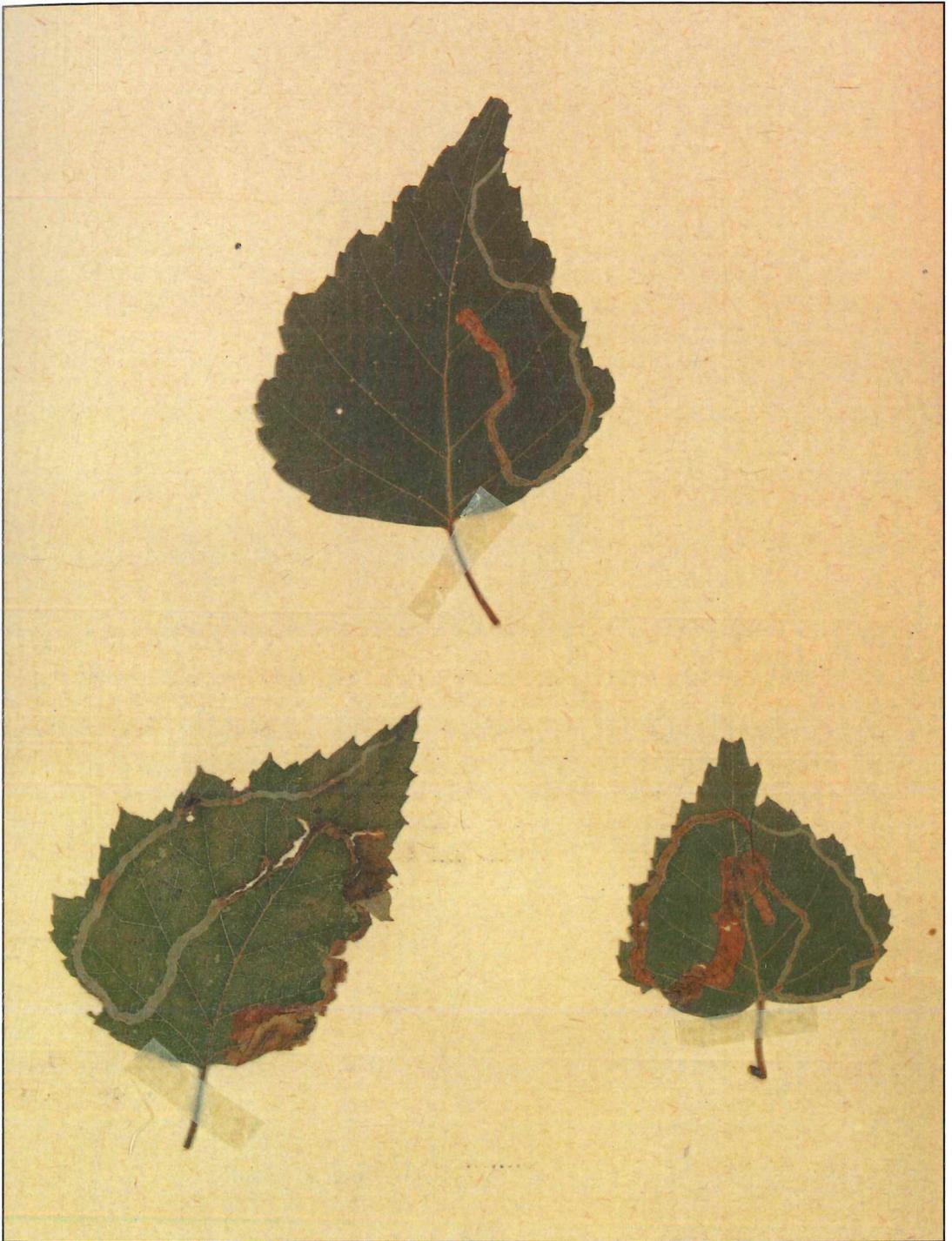
Details of previous page. Top: initial part of corridors (starting points marked with red arrows). Bottom: later stage, broader corridors.



Betulaceae

Betula pendula Roth

Agromyza alnibetulae HENDEL, 1931 (Diptera: Agromyzidae)

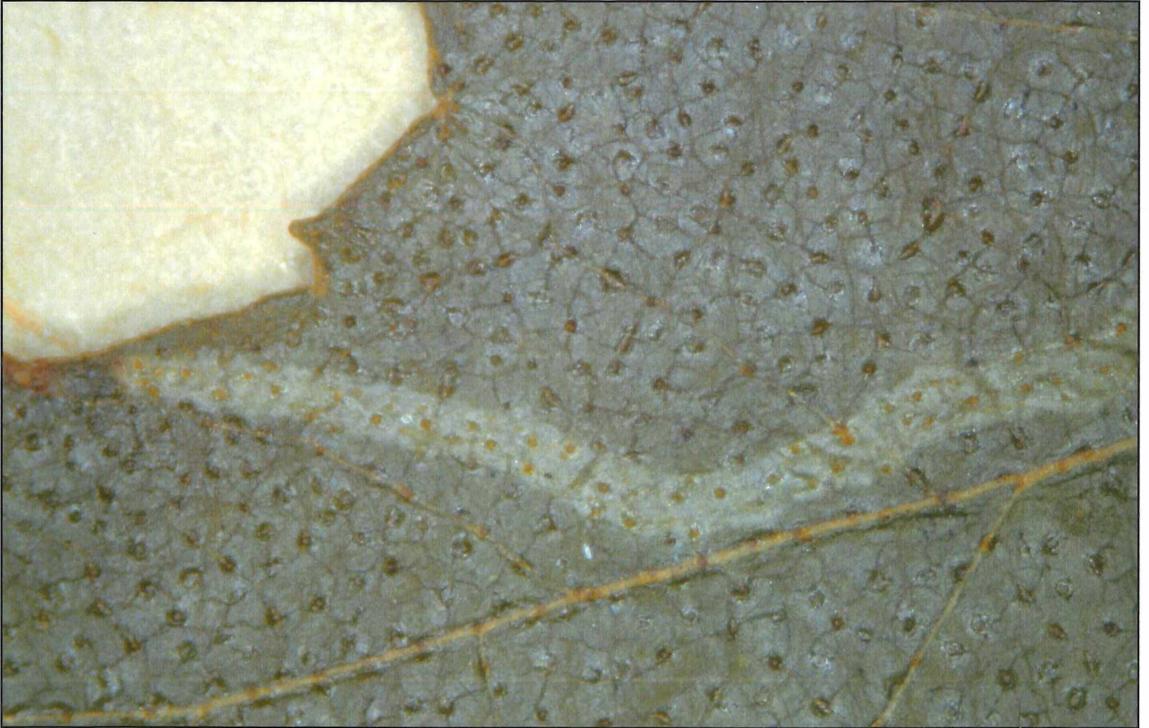


Leafminers-Herbarium, M.Hering, Lot 10, no. 192
[*Agromyza alni-betulae* Hendel] [*Betula verrucosa* Ehr.]
Berlin-Spandau, Brandenburg VI. 1932

Betulaceae

Betula pendula Roth

Agromyza alnibetulae HENDEL, 1931 (Diptera: Agromyzidae)



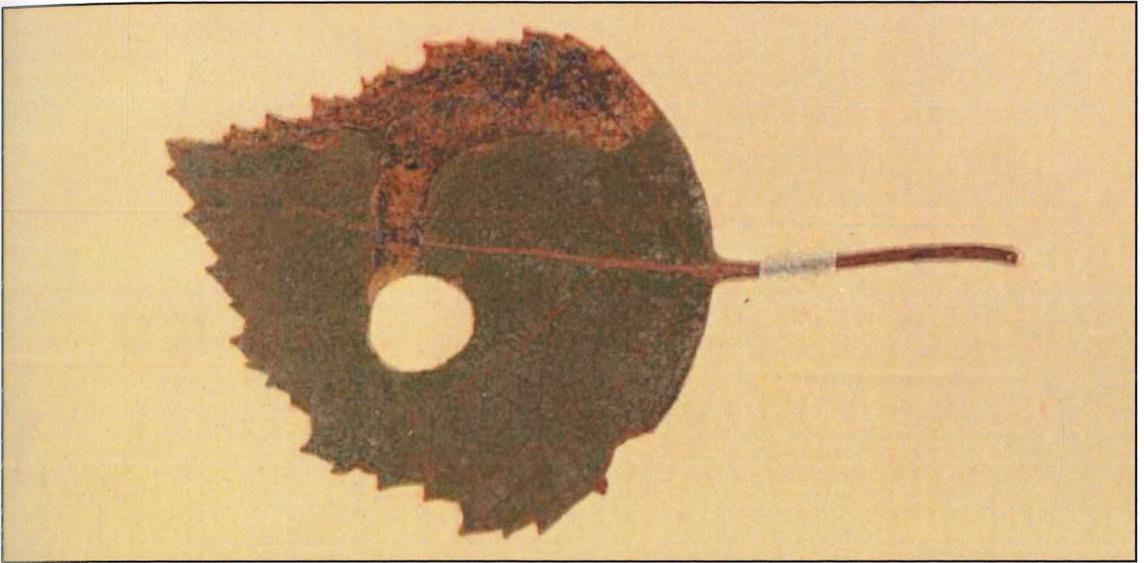
Details of previous page, long winding upper-surface corridor. Top: early aspect. Bottom: later aspect.



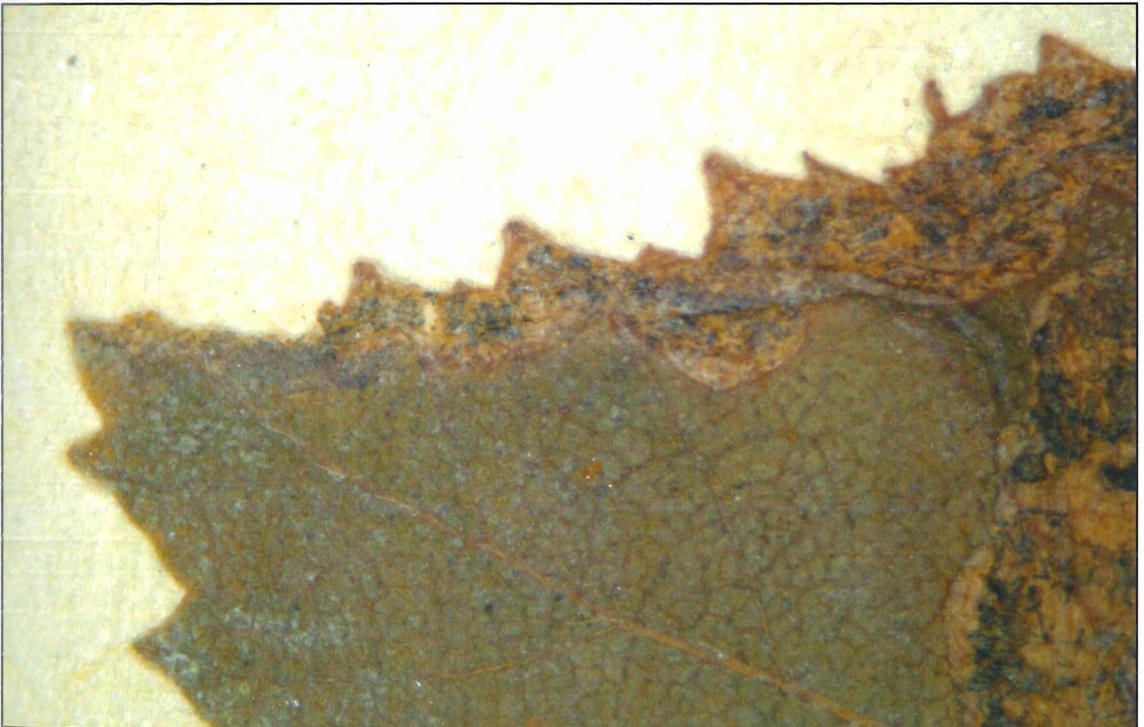
Betulaceae

Betula pendula Roth

Orchestes rusci (HERBST, 1795) (Coleoptera: Curculionidae)



Top: overview. Bottom: initial part of corridor near leaf tip descending alongside leaf margin.

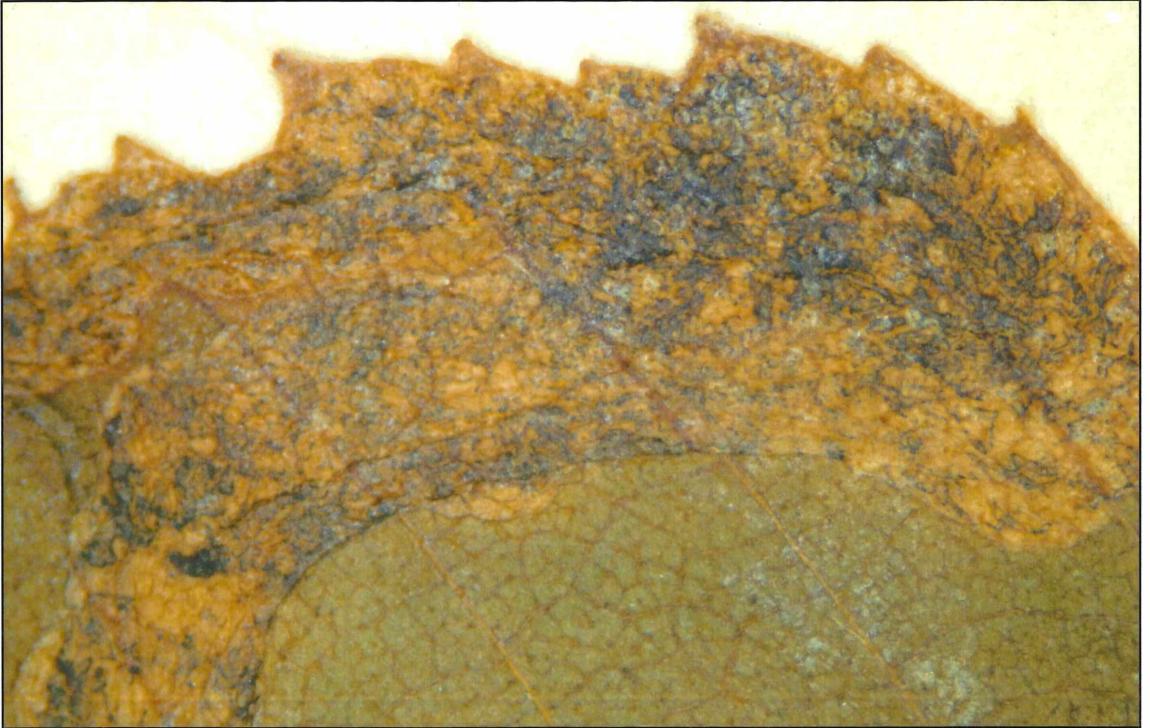


Leafminers-Herbarium, M.Hering, Lot 10, no. 193
[Rhynchaenus rusci Herbst] [Betula verrucosa Ehr.]
Berlin-Spandau, Brandenburg VI. 1932

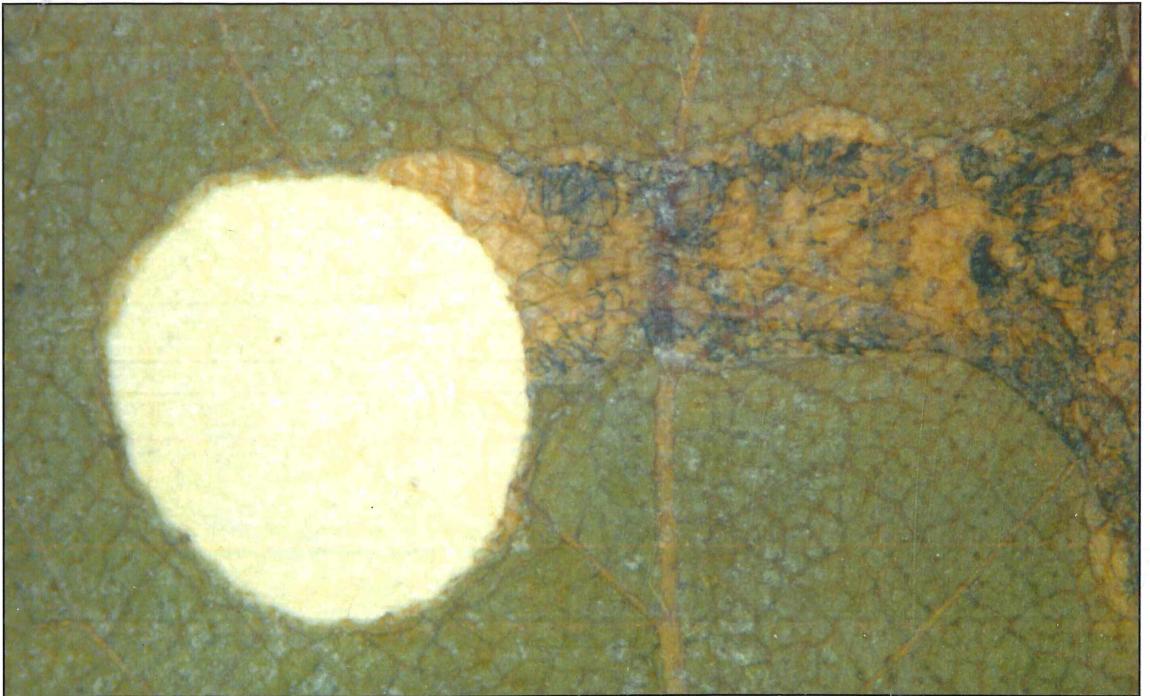
Betulaceae

Betula pendula Roth

Orchestes rusci (HERBST, 1795) (Coleoptera: Curculionidae)



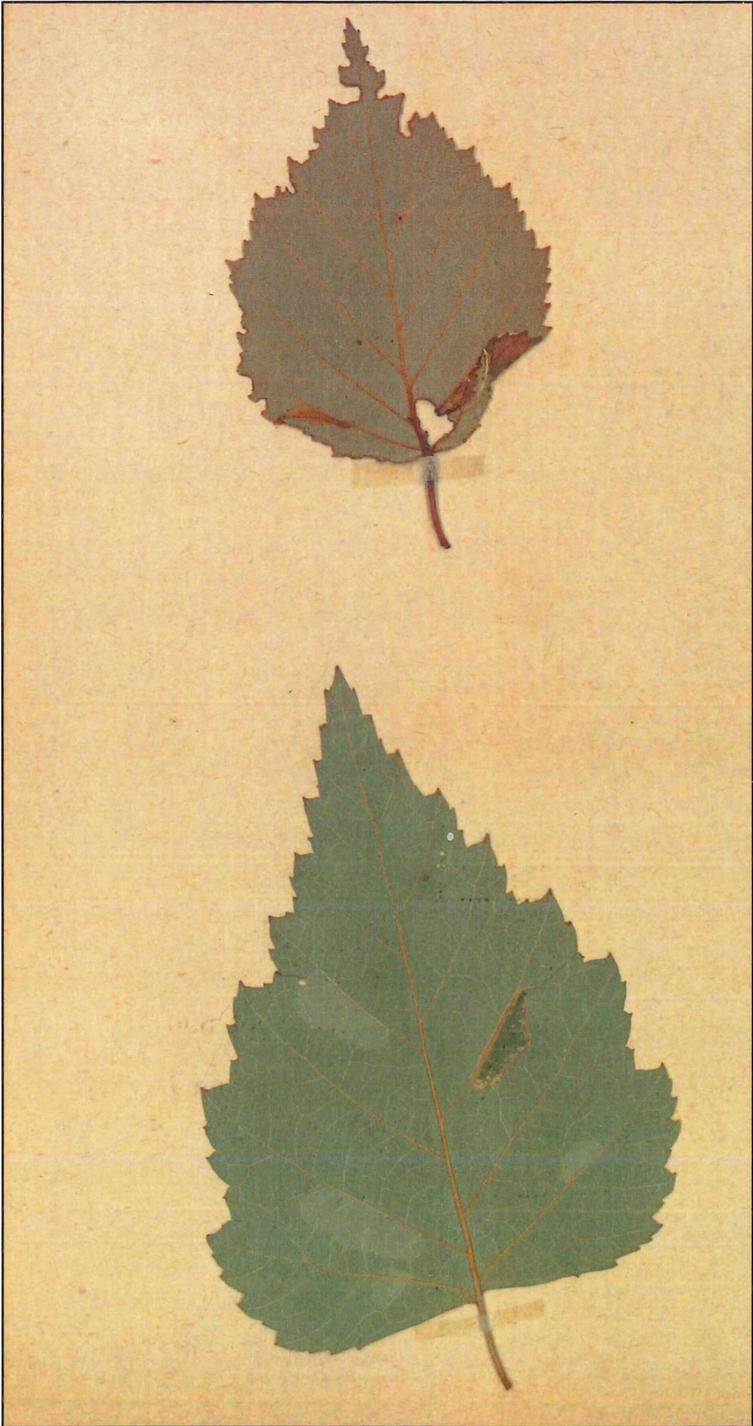
Details of previous page. Top: middle stage widened corridor. Bottom: circular cut excision of last stage larva.



Betulaceae

Betula pendula Roth & Betula pubescens Ehrh.

Parornix betulae (STANTON, 1854) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 10, no. 190
[Ornix betulae Stainton] [Betula verrucosa Ehrh.]
Berlin-Spandau, Brandenburg VI. 1932

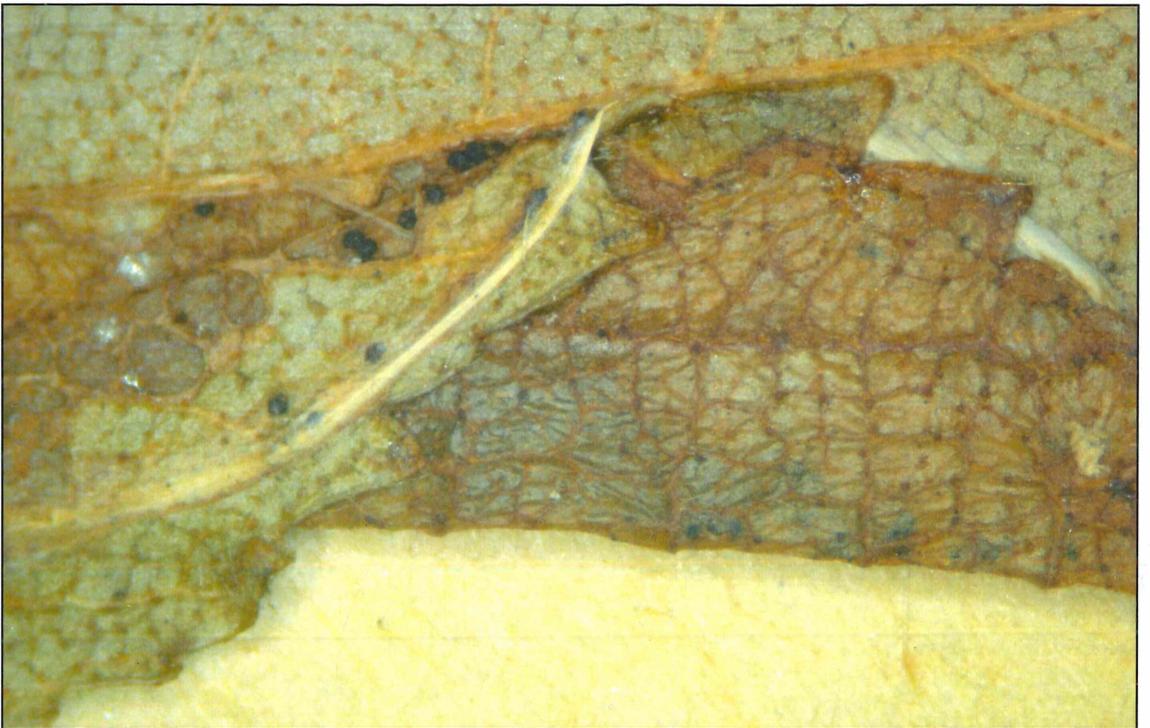
Betulaceae

Betula pendula Roth & Betula pubescens Ehrh.

Parornix betulae (STANTON, 1854) (Lepidoptera: Gracillariidae)



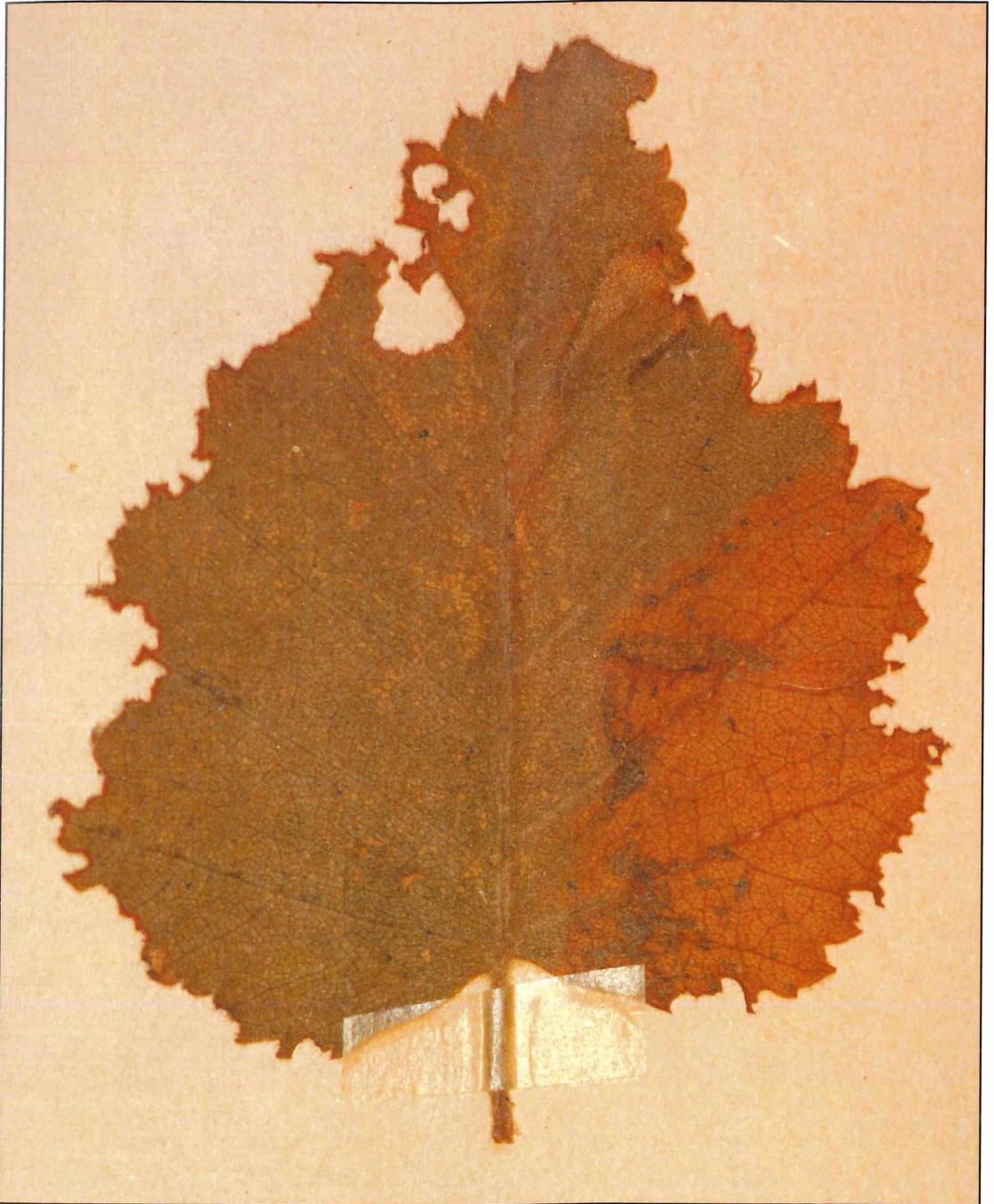
Details of previous page. Top: lower-surface tentiform mine (Betula pendula leaf (bottom of the sheet)).
Bottom: fold at the leaf margin, lower-surface of Betula pubescens leaf (top of the sheet).



Betulaceae

Betula pubescens Ehrh.

Scolioneura betuleti (KLUG, 1816) (Hymenoptera: Tenthredinidae)



Leafminers-Herbarium, M.Hering, Lot 2, no. 28
[*Scolioneura betulae* Zadd.]
Crossen / Oder, IX.1929

Betulaceae

Betula pubescens Ehrh.

Scolioneura betuleti (KLUG, 1816) (Hymenoptera: Tenthredinidae)



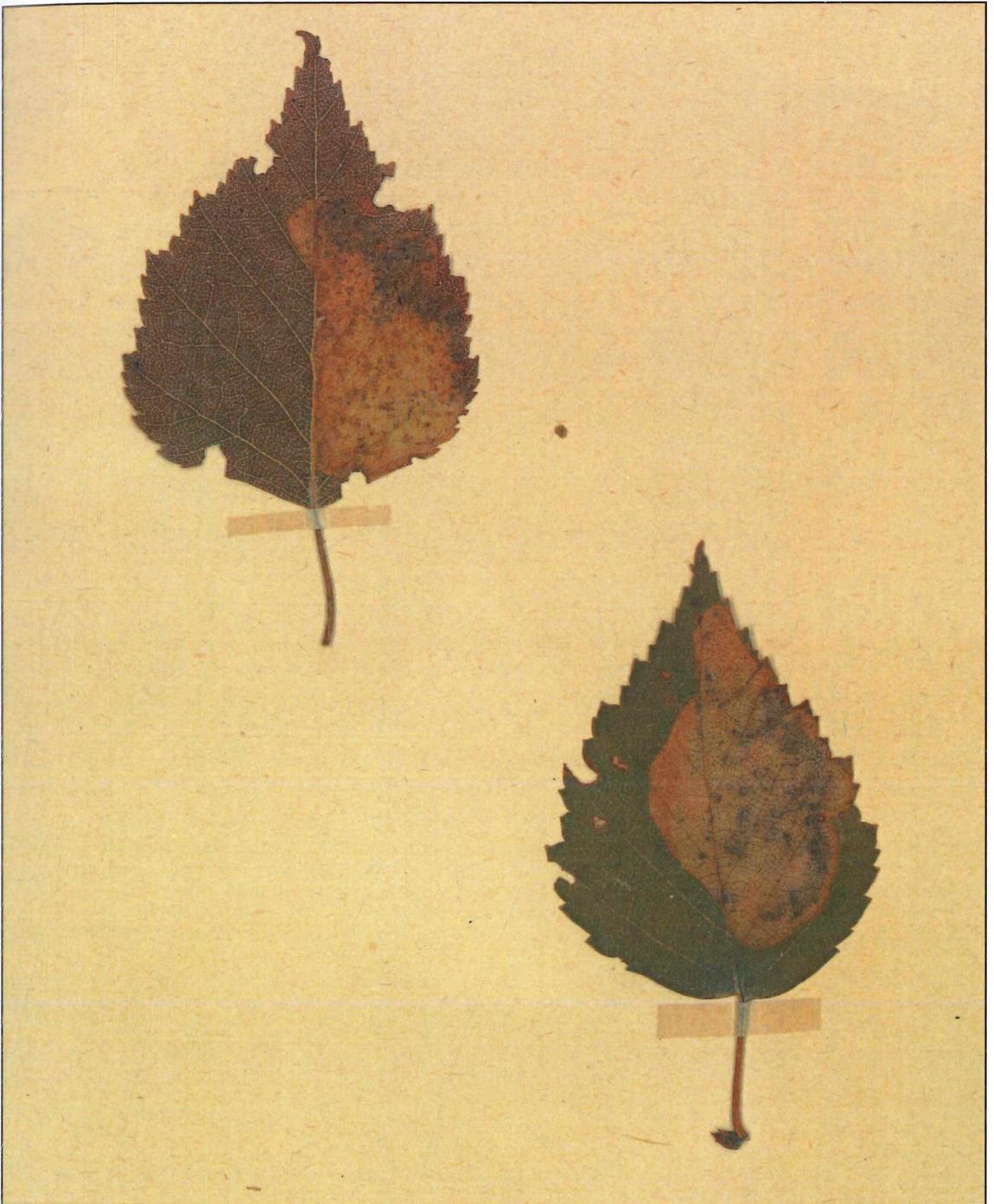
Details of previous page: details of large blotch.



Betulaceae

Betula pubescens Ehrh.

Scolioneura nana (KLUG, 1816) (Hymenoptera: Tenthredinidae)



Leafminers-Herbarium, M.Hering, Lot 7, no. 125
Berlin-Finkenkrug, Juli 1930

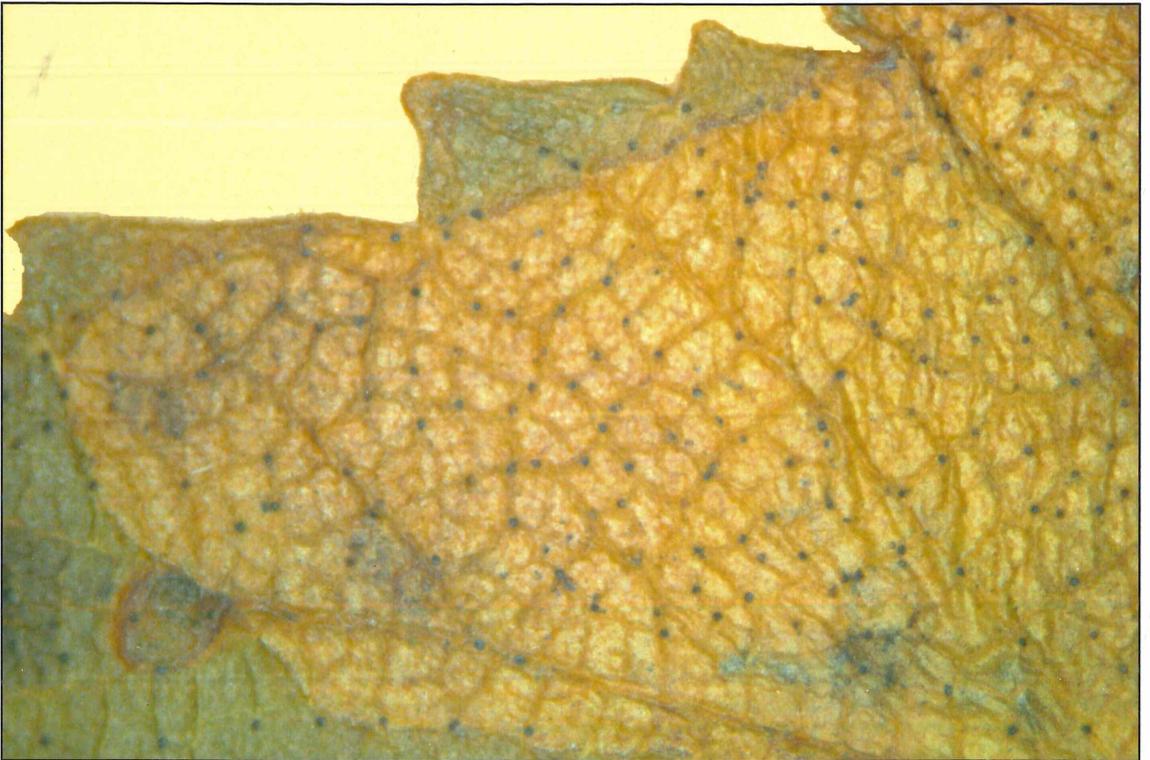
Betulaceae

Betula pubescens Ehrh.

Scolioneura nana (KLUG, 1816) (Hymenoptera: Tenthredinidae)



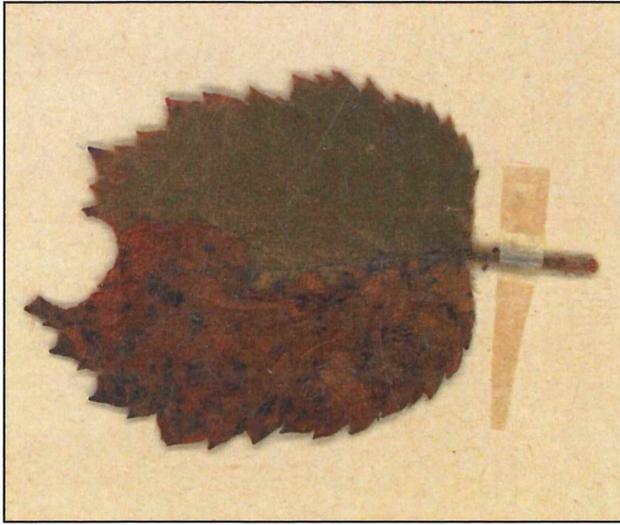
Details of previous page, different aspects of blotch mines. Top: left leaf. Bottom: right leaf.



Betulaceae

Betula pubescens Ehrh.

Atemelia torquatella (LIENIG & ZELLER, 1846) (Lepidoptera: Yponomeutidae)



Top: overview, leaf on the left side of the sheet. Bottom: detail of big blotch mine.

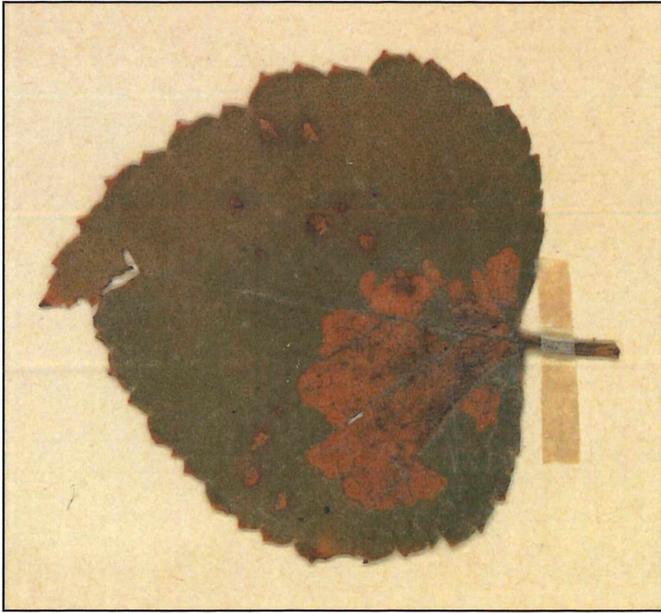


Leafminers-Herbarium, M.Hering, Lot 3, no. 45
Berlin-Finkkg. X.1929

Betulaceae

Betula pubescens Ehrh.

Atemelia torquatella (LIENIG & ZELLER, 1846) (Lepidoptera: Yponomeutidae)



Top: overview, leaf on the right side of the sheet. Bottom: initial area of the mine near the base of midrib.



Betulaceae

Betula pubescens Ehrh.

Phyllonorycter ulmifoliella (HÜBNER, 1817) (Lepidoptera: Gracillariidae)

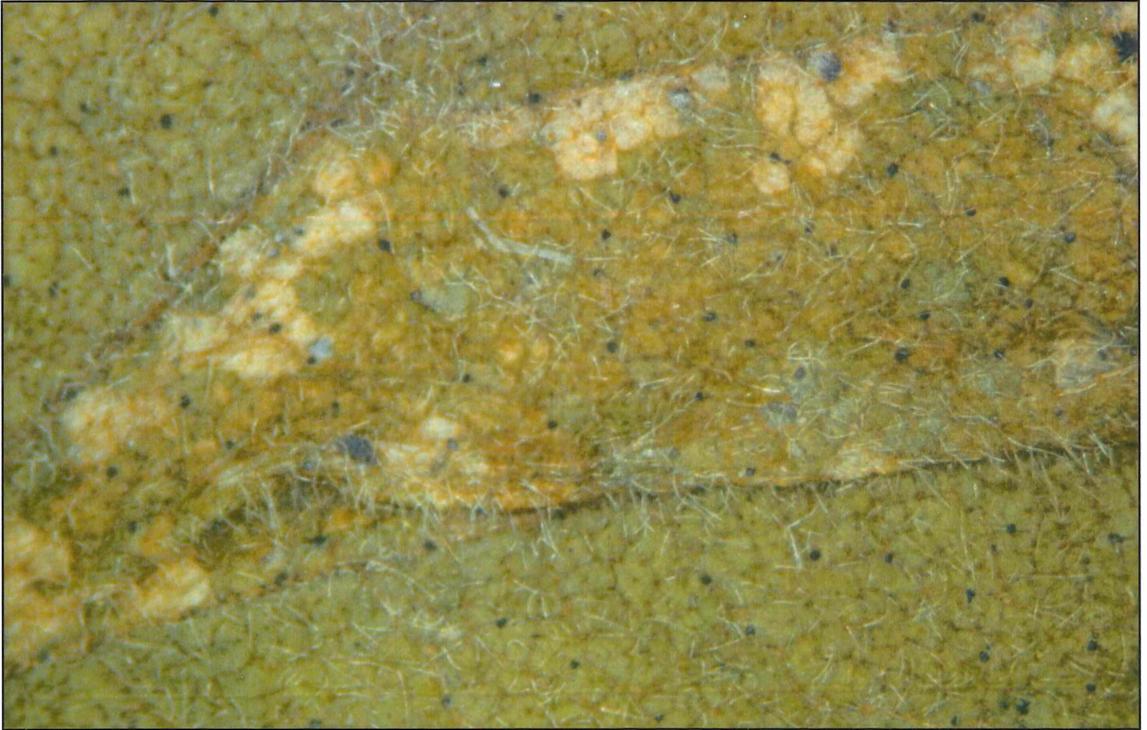


Leafminers-Herbarium, M.Hering, Lot 3, no. 46
[Lithocolletis ulmifoliella Hb.]
Berlin-Finkenkrug Oktober 1929

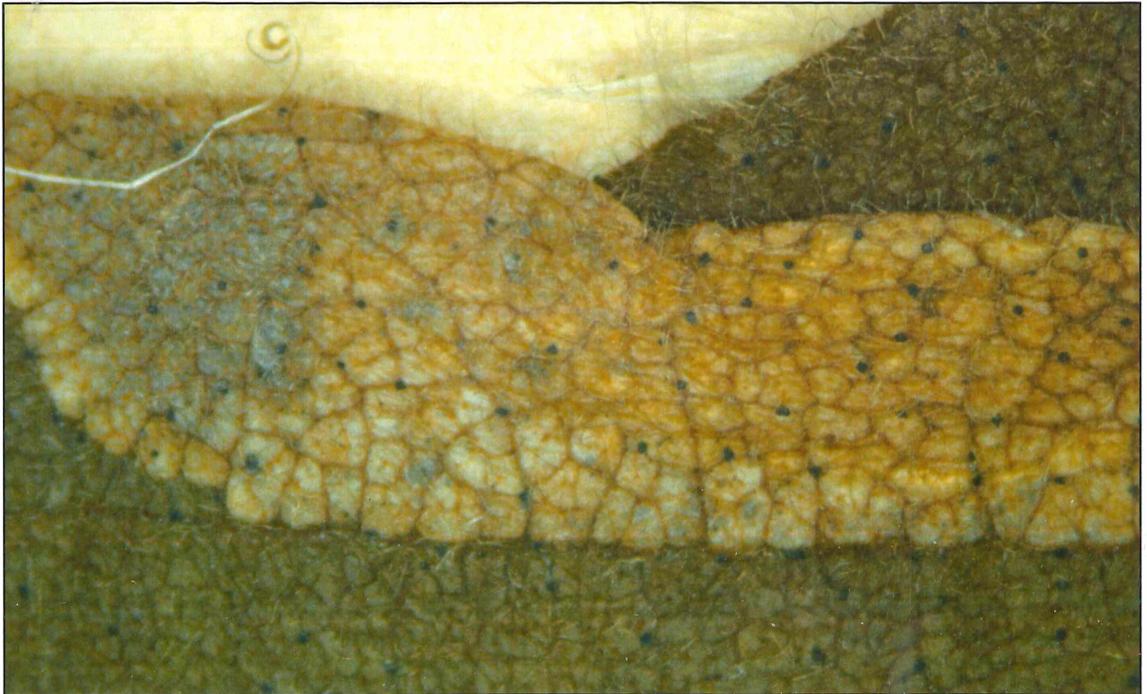
Betulaceae

Betula pubescens Ehrh.

Phyllonorycter ulmifoliella (HÜBNER, 1817) (Lepidoptera: Gracillariidae)



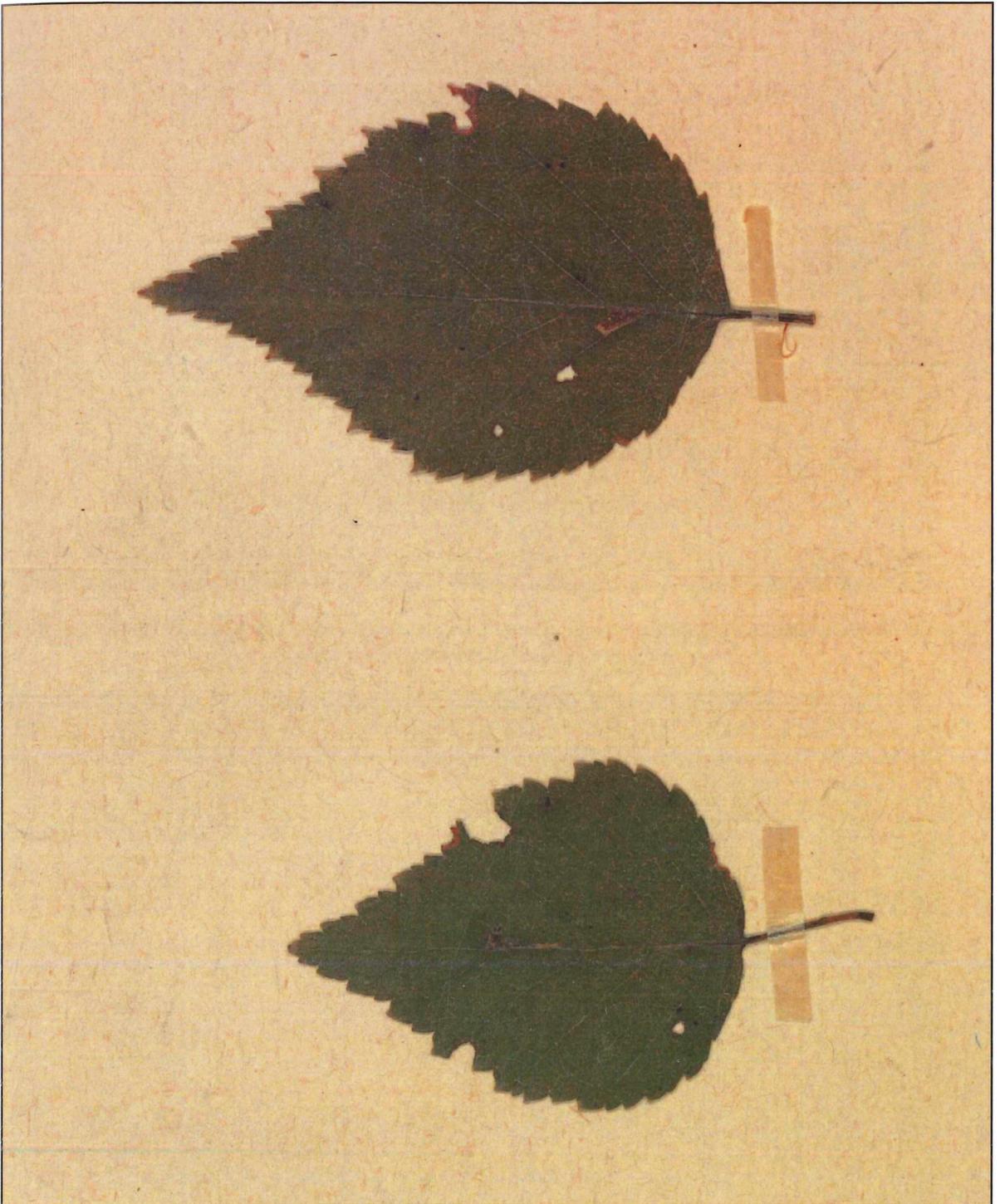
Details of previous page. Top: lower surface aspect, leaf on top of the sheet. Bottom: leaf fold upper side, leaf at the bottom of the sheet.



Betulaceae

Betula pubescens Ehrh.

Bucculatrix demaryella (DUPONCHEL, 1840) (Lepidoptera: Bucculatricidae)



Leafminers-Herbarium, M.Hering, Lot 16, no. 310
Berlin – Schwanenkrug, September 1934

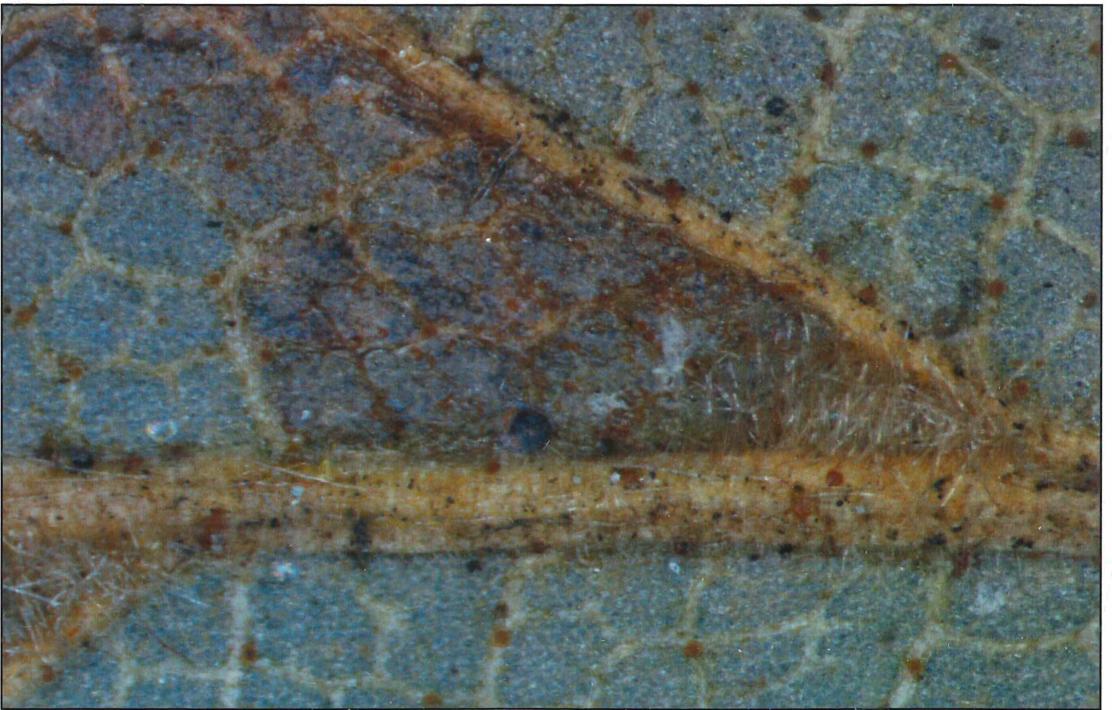
Betulaceae

Betula pubescens Ehrh.

Bucculatrix demaryella (DUPONCHEL, 1840) (Lepidoptera: Bucculatricidae)



Details of the leaf on the top of the previous page (right leaf on the sheet). Top: details of mine. Bottom: egg shell on the underside of the leaf.



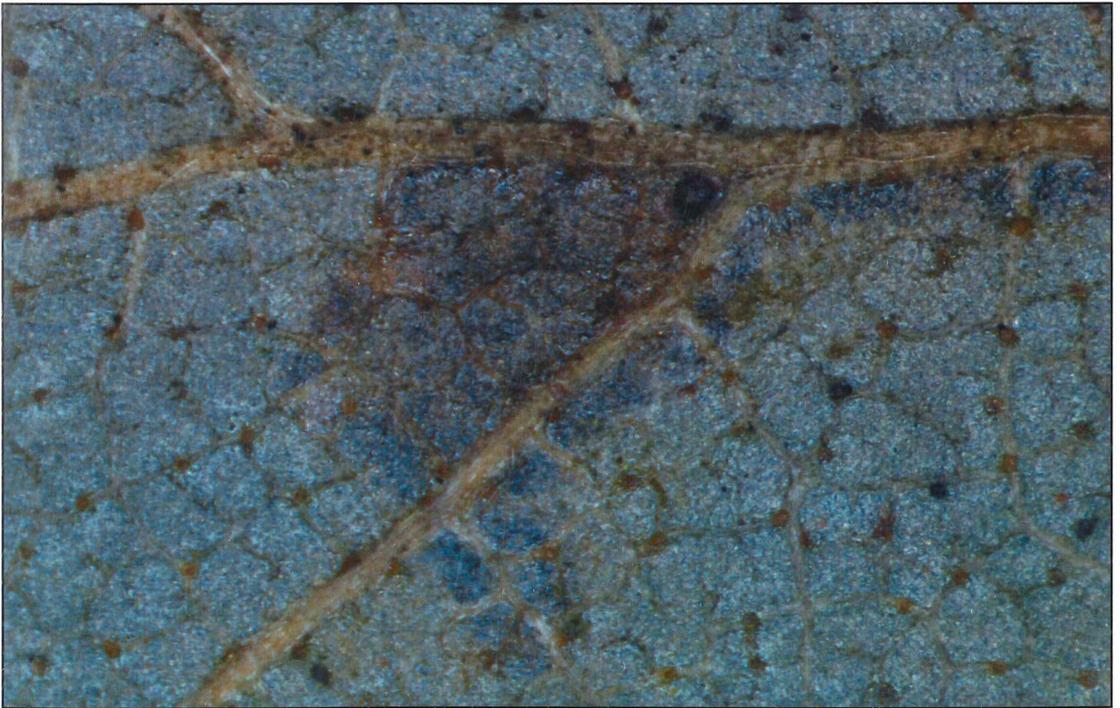
Betulaceae

Betula pubescens Ehrh.

Bucculatrix demaryella (DUPONCHEL, 1840) (Lepidoptera: Bucculatricidae)



Details of the leaf at the bottom of the page next to last (left leaf on the sheet). Top: detail of mine.
Bottom: egg shell on the underside of the leaf.



Betulaceae

Carpinus betulus L.

Stigmella microtheriella (STANTON, 1854) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 5, no. 81
[*Nepticula microtheriella* Stt.] Berlin-Finkenkrug, VII. 1930
The species exhibits very narrow corridors.

Betulaceae

Carpinus betulus L.

Stigmella microtheriella (STAINTON, 1854) (Lepidoptera: Nepticulidae)



Details of previous page. Top: early corridor, the frass line occupies pretty much of the width of the corridor, so the determination could be doubtful; *St. floslactella* exhibits a broader frass line. Bottom: end of corridor.



Betulaceae

Carpinus betulus L.

Stigmella carpinella (VON HEINEMANN, 1862) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 5, no. 82
[*Nepticula carpinella* Hein.]
Berlin-Finkenkrug, VII. 1930

Betulaceae

Carpinus betulus L.

Stigmella carpinella (VON HEINEMANN, 1862) (Lepidoptera: Nepticulidae)



Details of previous page. Top: early stage of corridor. Bottom: end of corridor.



Betulaceae

Carpinus betulus L.

Parornix carpinella (FREY, 1863) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 5, no. 83

[*Ornix carpinella* Frey]
Berlin-Finkenkrug, VII. 1930

Betulaceae

Carpinus betulus L.

Parornix carpinella (FREY, 1863) (Lepidoptera: Gracillariidae)



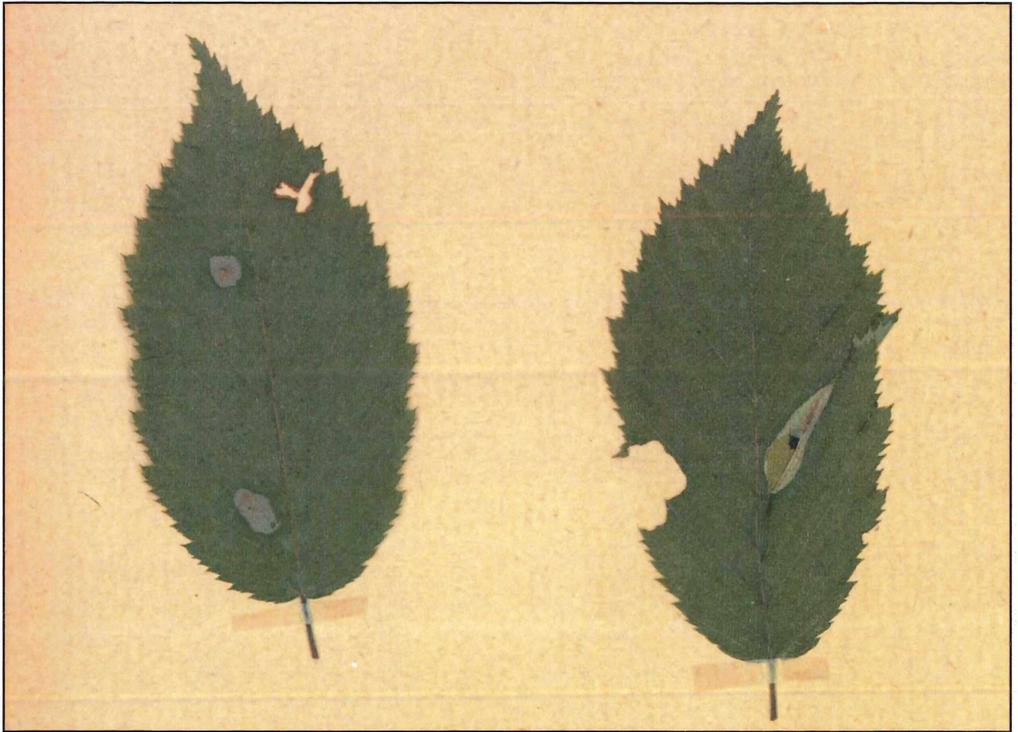
Details of previous page. Top: early blotch between side veins. Bottom: folded leaf margin (single leaf at the bottom of previous page).



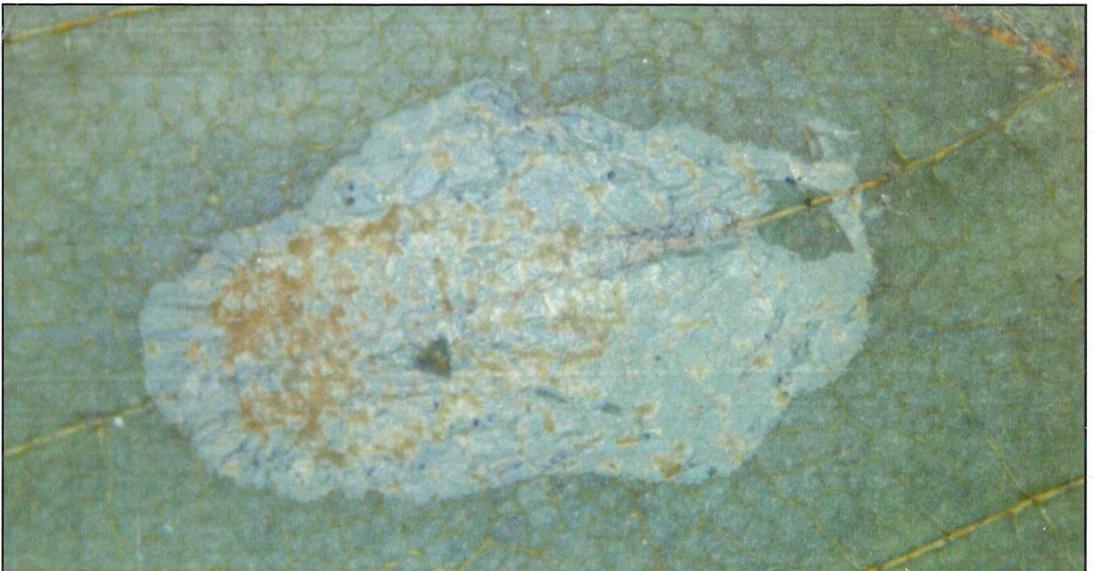
Betulaceae

Carpinus betulus L.

Phyllonorycter esperella (GOEZE, 1783) (Lepidoptera: Gracillariidae)



Top: overview. Bottom: detail of left leaf, roundish, silvery blotch mine (early stage).



Leafminers-Herbarium, M.Hering, Lot 5, no. 84

[*Lithocolletis carpinicolella* Stt.] emended to [*Lithocolletis quinnata* Fourcr. Geoff.]
Berlin-Finkenkrug, VII. 1930

Betulaceae

Carpinus betulus L.

Phyllonorycter esperella (GOEZE, 1783) (Lepidoptera: Gracillariidae)



Details of previous page. Top: detail of left leaf, roundish, silvery blotch mine (early stage). Bottom: right leaf, later stage, fold (opened, frass visible).



Betulaceae

Carpinus betulus L.

Phyllonorycter tenerella (DE JOANNIS, 1915) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 5, no. 85

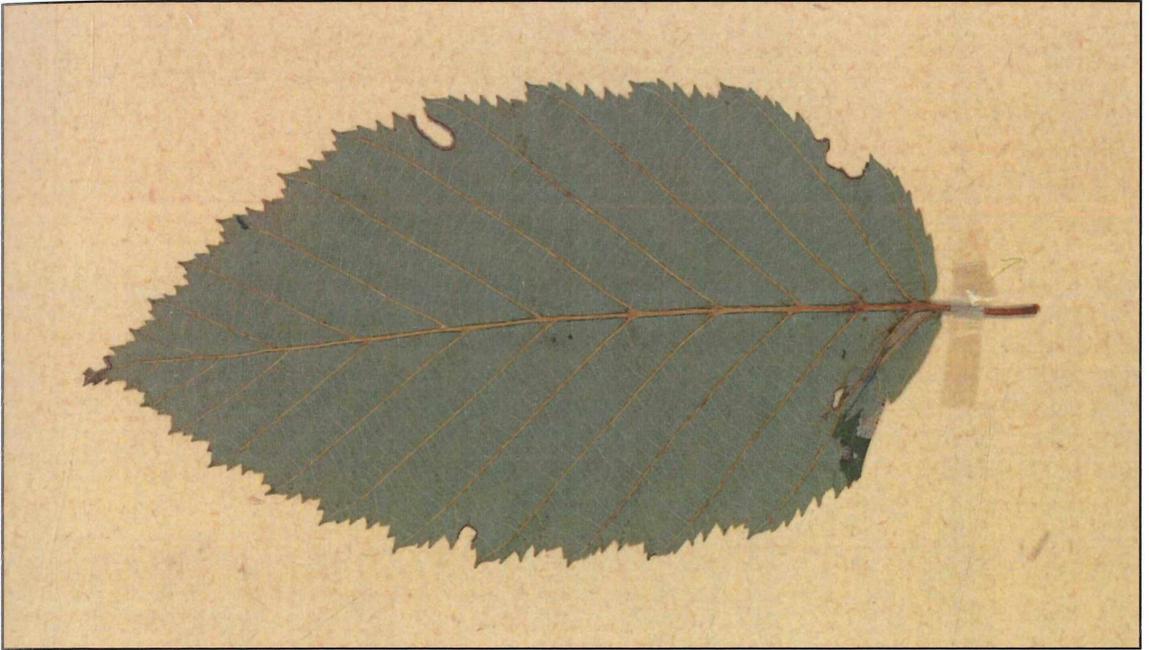
[Lithocolletis tenella Zell.]

Berlin-Finkenkrug, VII. 1930

Betulaceae

Carpinus betulus L.

Phyllonorycter tenerella (DE JOANNIS, 1915) (Lepidoptera: Gracillariidae)



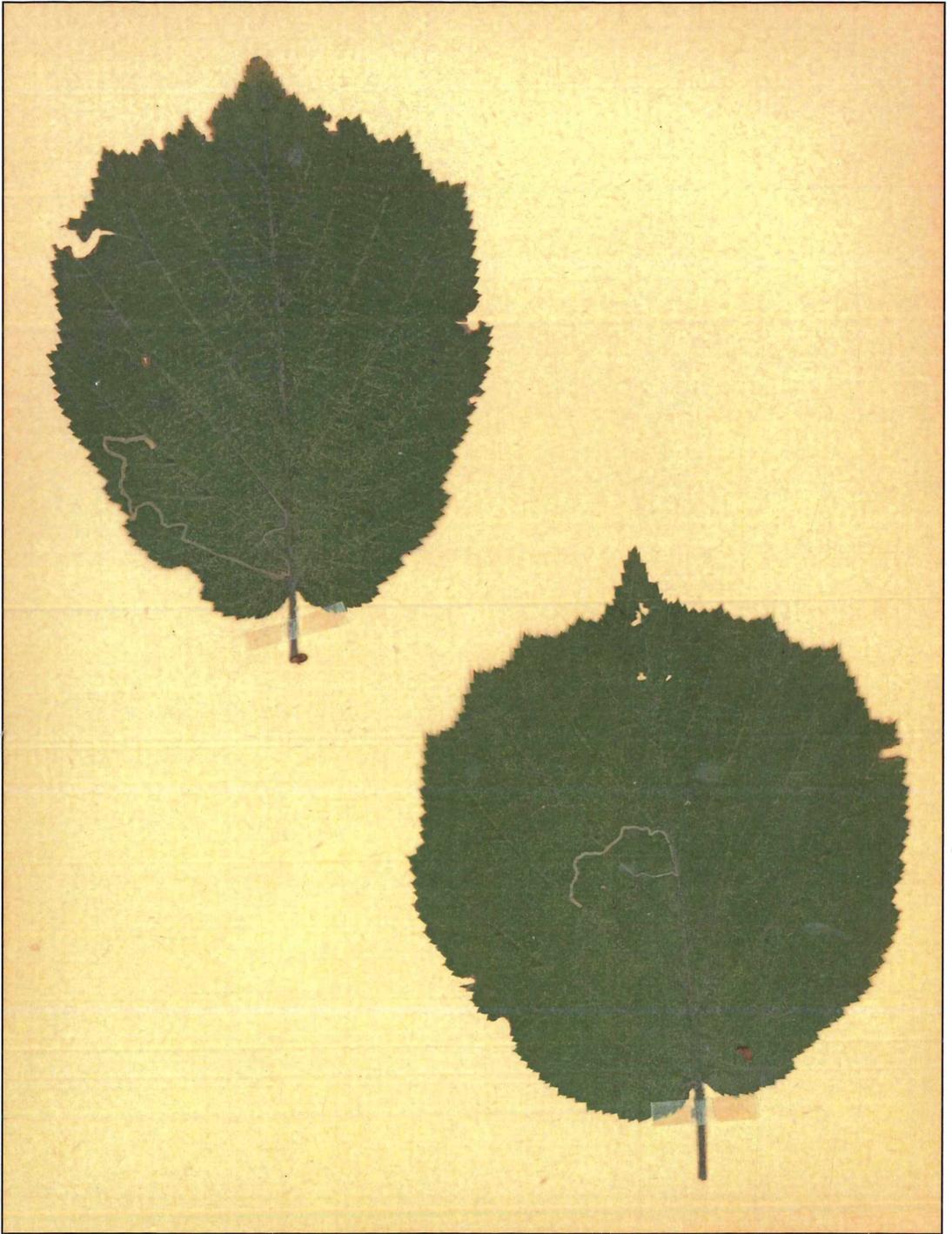
Details of previous page. Top: the same leaf, lower-surface aspect. Bottom: fold at leaf margin, lower-surface aspect.



Betulaceae

Corylus avellana L.

Stigmella microtheriella (STAINTON, 1854) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 6, no. 101
[*Nepticula microtheriella* Staint.] Berlin-Finkenkrug, VIII. 1930
The species exhibits very narrow corridors.

Betulaceae

Corylus avellana L.

Stigmella microtheriella (STANTON, 1854) (Lepidoptera: Nepticulidae)



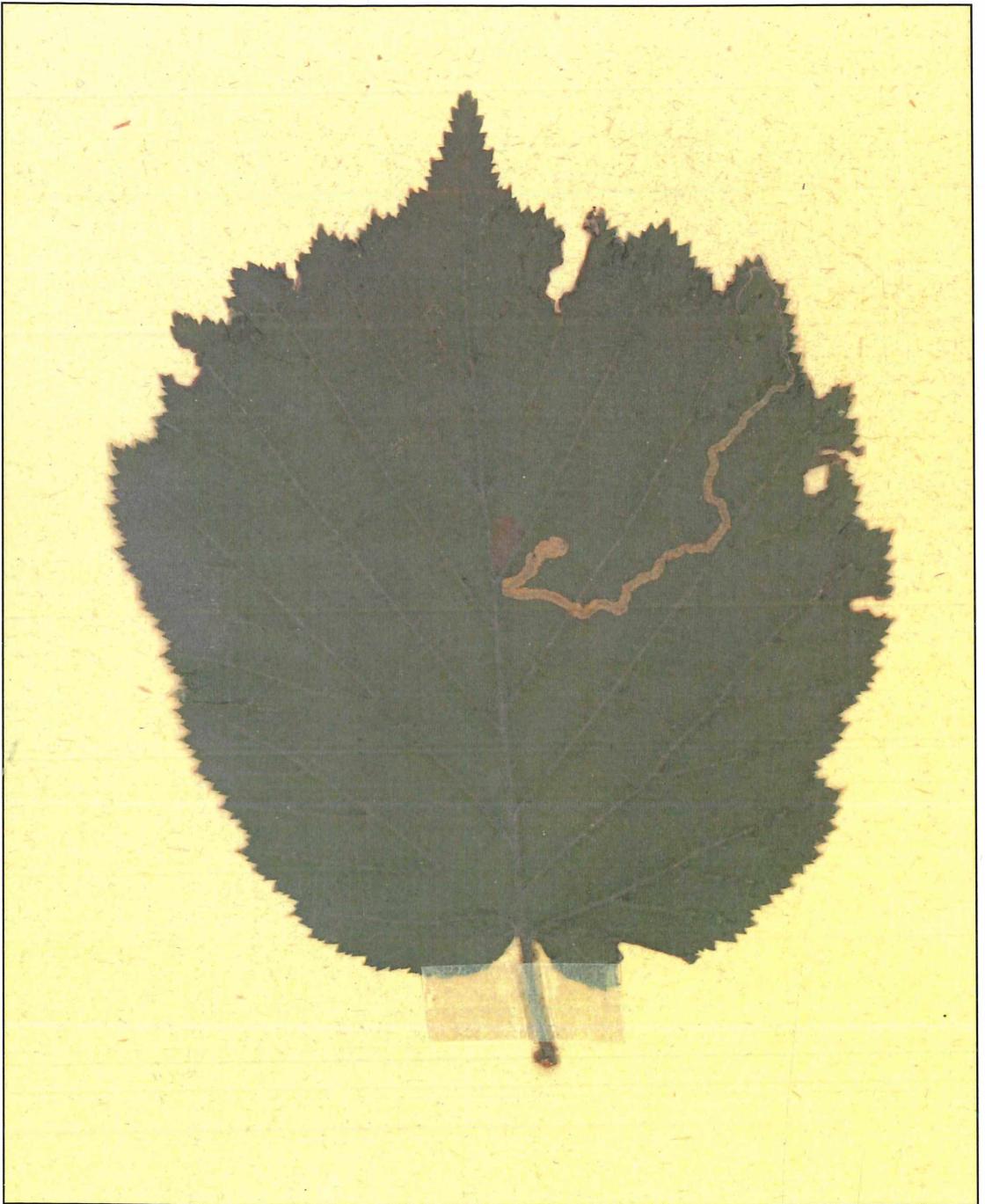
Details of previous page. Top: early stage of corridor with very narrow frass line, well separated from the corridor margin, which is a significant difference to *Stigmella floslactella* (HAWORTH, 1828) (marked with red arrow). In the latter species the frass line fills nearly the entire early corridor. (<http://www.bladmineerders.nl/minersf/lepidopteramin/stigmella/microtheriella/microtheriella.htm>) vid. Dec. 25th, 2010. Bottom: terminal part of the corridor not so much widened as in *S. floslactella*.



Betulaceae

Corylus avellana L.

Stigmella floslactella (HAWORTH, 1828) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 6, no. 102

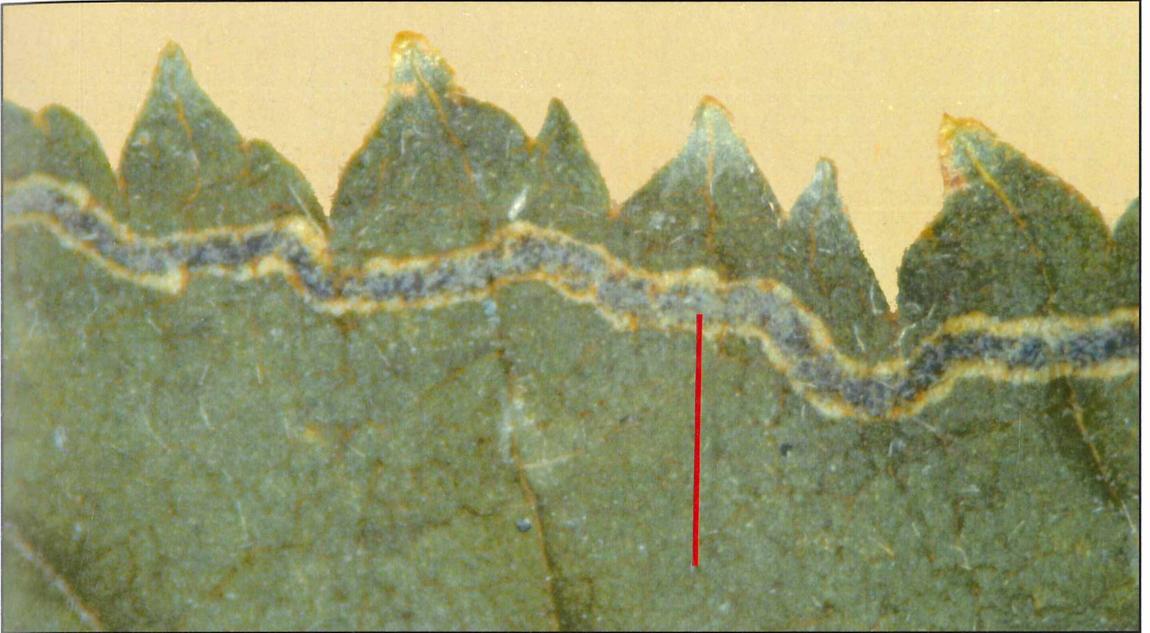
[*Nepticula floslactella* Hwth] Berlin-Finkenkrug, VIII. 1930

Like the previous species it exhibits narrow corridors, but with significant differences in frass line and terminal part.

Betulaceae

Corylus avellana L.

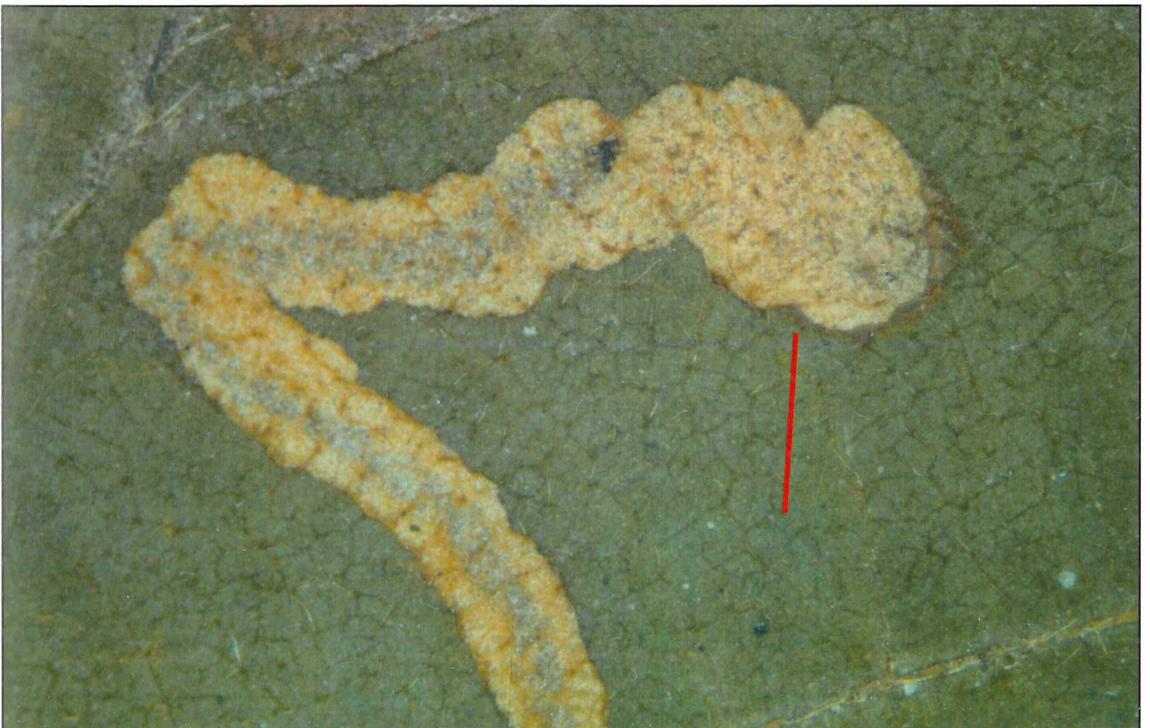
Stigmella floslactella (HAWORTH, 1828) (Lepidoptera: Nepticulidae)



Details of previous page. Top: initial part of the corridor almost completely filled with frass (marked with red arrow). Bottom: terminal part of the corridor significantly widened (marked with red arrow).

(<http://www.bladmineerders.nl/minersf/lepidopteramin/stigmella/floslactella/floslactella.htm>)

vid. Dec. 25th, 2010.



Betulaceae

Corylus avellana L.

Phyllonorycter coryli (NICELLI, 1851) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 6, no. 103
[Lithocolletis coryli Nicelli.]
Berlin-Finkenkrug, VIII. 1930

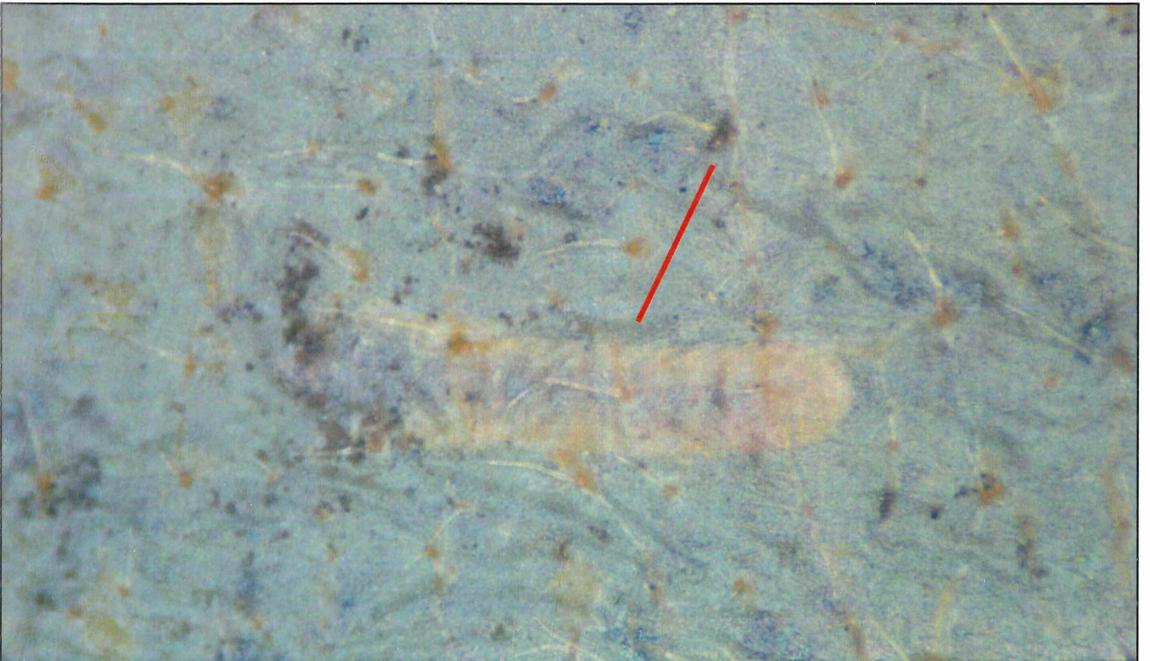
Betulaceae

Corylus avellana L.

Phyllonorycter coryli (NICELLI, 1851) (Lepidoptera: Gracillariidae)



Details of previous page. Top: early blotch-like aspect of the silvery tentiform mine. Bottom: larva situated under epidermal surface (marked with red arrow).



Betulaceae

Corylus avellana L.

Phyllonorycter coryli (NICELLI, 1851) (Lepidoptera: Gracillariidae)



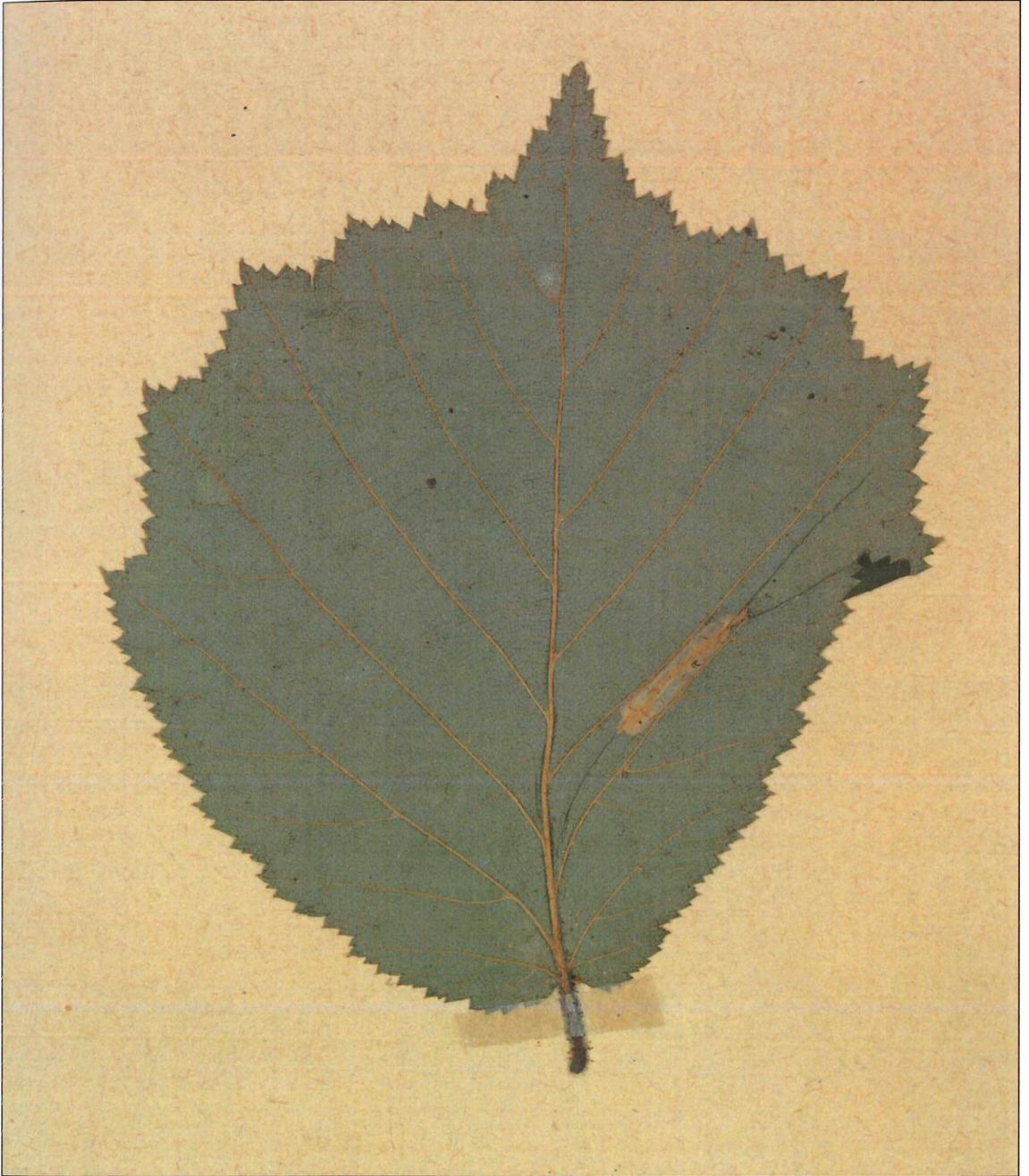
Details of previous page: dried early stage larva, overview and detail of cephal part.



Betulaceae

Corylus avellana L.

Phyllonorycter nicellii (STAINTON, 1851) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 6, no. 104
[Lithocolletis nicellii Staint.]
Berlin-Finkenkrug, VIII. 1930

Betulaceae

Corylus avellana L.

Phyllonorycter nicellii (STANTON, 1851) (Lepidoptera: Gracillariidae)



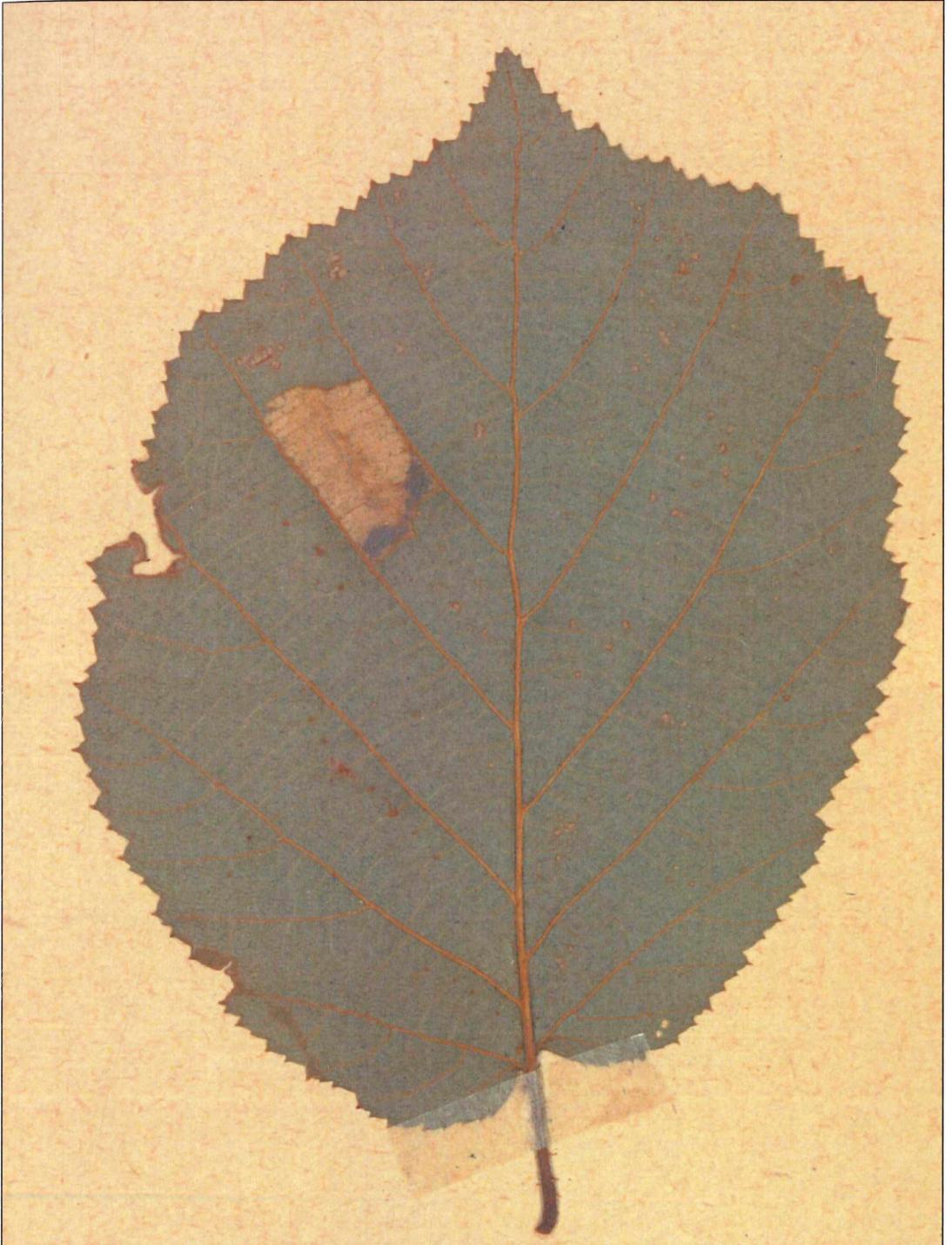
Details of previous page. Top: lower-surface tentiform mine between two side veins. Bottom: folds in the middle of the mine visible.



Betulaceae

Corylus avellana L.

Parornix devoniella (STAINTON, 1850) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 6, no. 105
[Ornix avellanella Stnt. emended to Parornix avellanella Stnt.]
Berlin-Finkenkrug, VIII. 1930

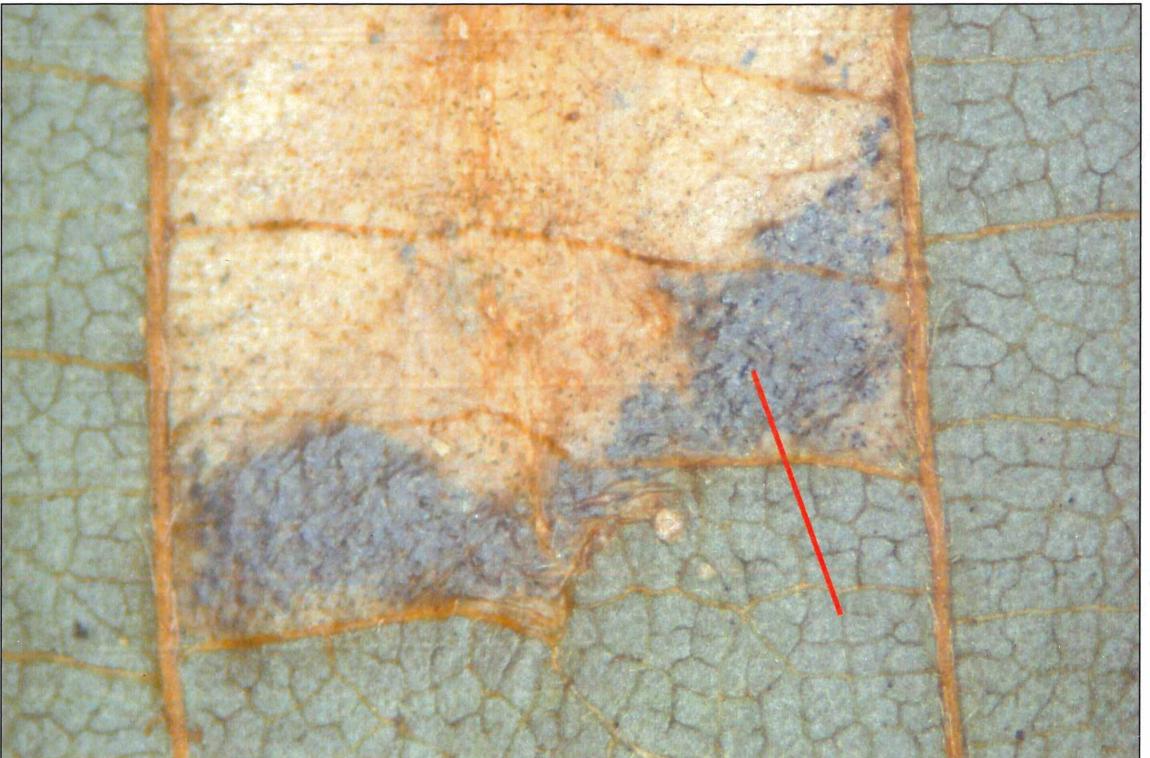
Betulaceae

Corylus avellana L.

Parornix devoniella (STANTON, 1850) (Lepidoptera: Gracillariidae)



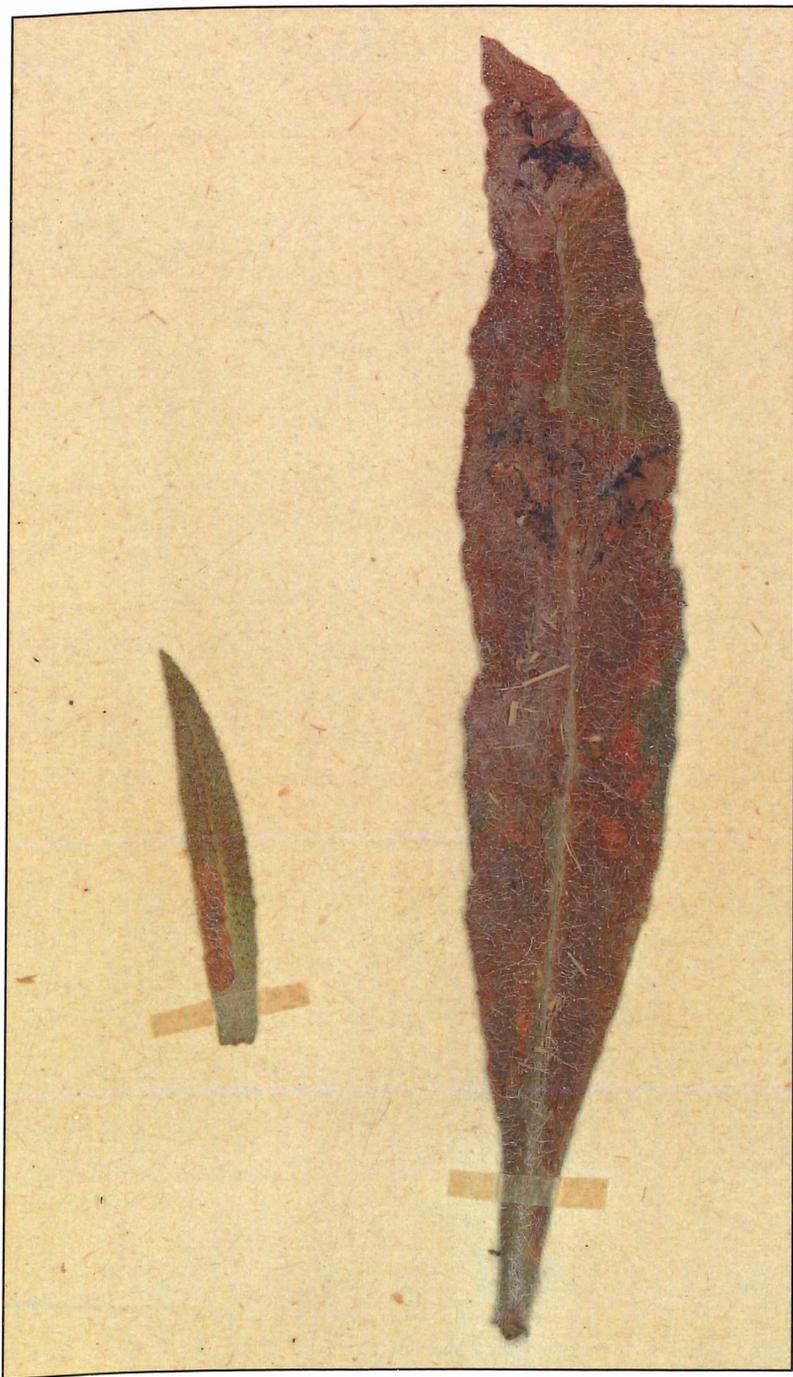
Details of previous page. Top: lower-surface aspect of the rectangular mine between two side veins.
Bottom: frass accumulated on one side of the blotch (marked with red arrow).



Boraginaceae

***Anchusa officinalis* L.**

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)

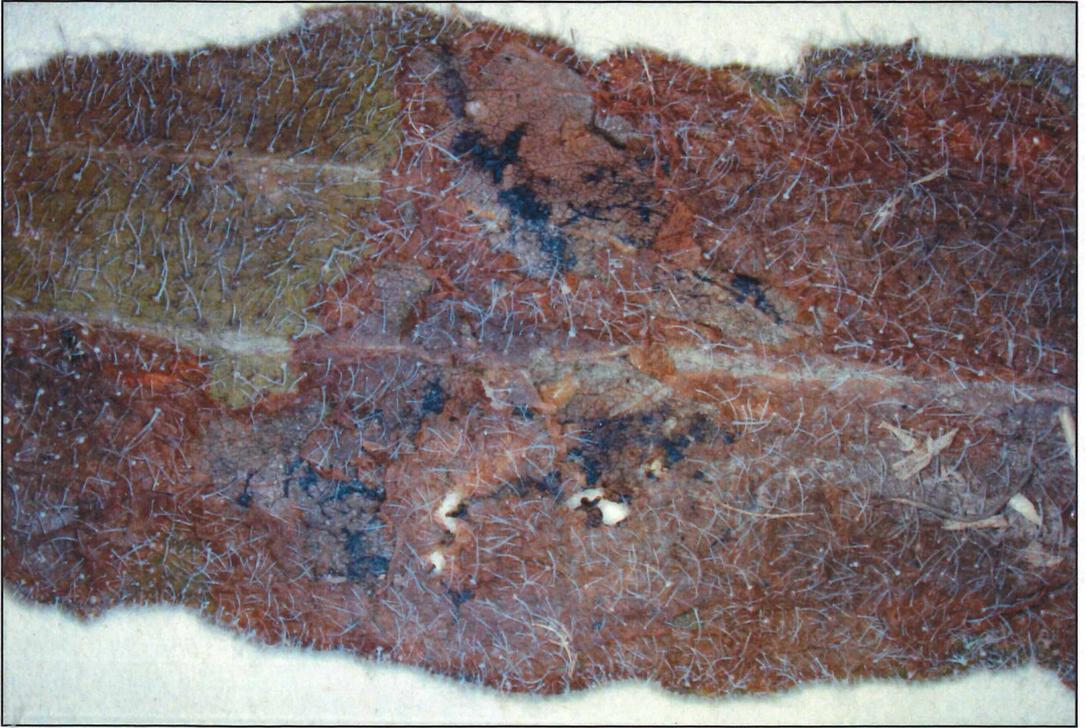


Leafminers-Herbarium, M.Hering, Lot 18, no. 347
Crossen/Oder, Brandenburg, Juni 1934

Boraginaceae

Anchusa officinalis L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)



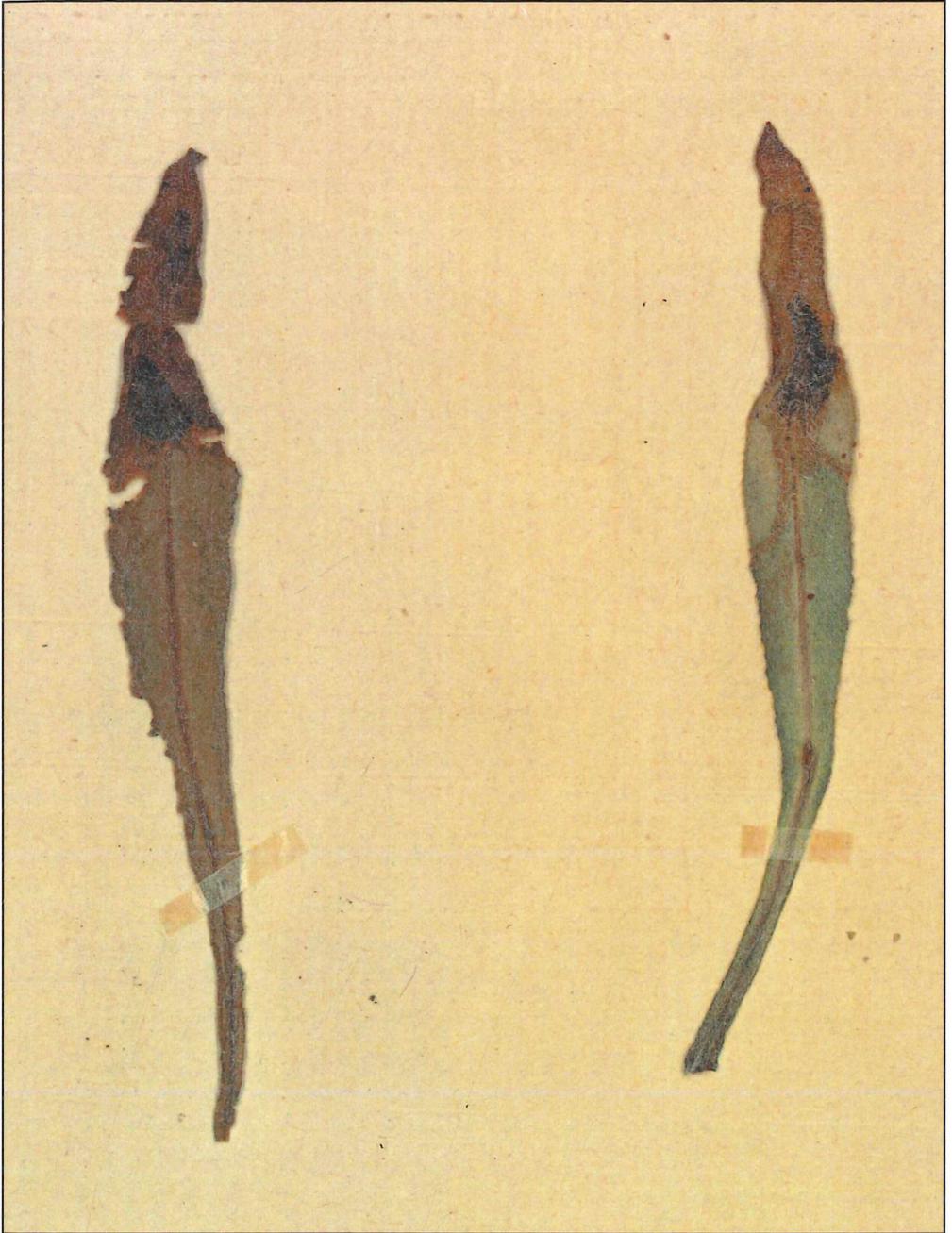
Details of large brown blotch.



Boraginaceae

Anchusa officinalis L.

Epascestria pustulalis (HÜBNER, 1823) (Lepidoptera: Crambidae)



Leafminers-Herbarium, M.Hering, Lot 21, no. 413

[Phlyctaenodes pustulalis Hb.]

Frankfurt/Oder, Brandenburg, Mai 1936

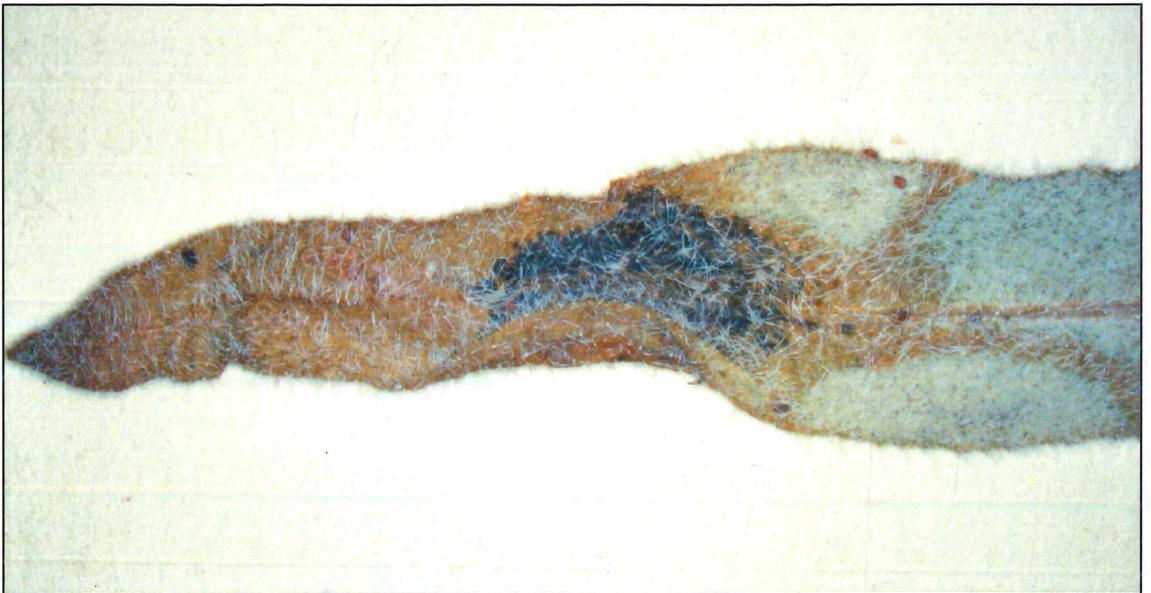
Boraginaceae

***Anchusa officinalis* L.**

Epascestria pustulalis (HÜBNER, 1823) (Lepidoptera: Crambidae)



Details of previous page, large blotch mines with frass in the centres. Top: left leaf. Bottom: right leaf.



Boraginaceae

Cerithe minor L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 22, no. 436
Tighina, Bessarabien, September 1937

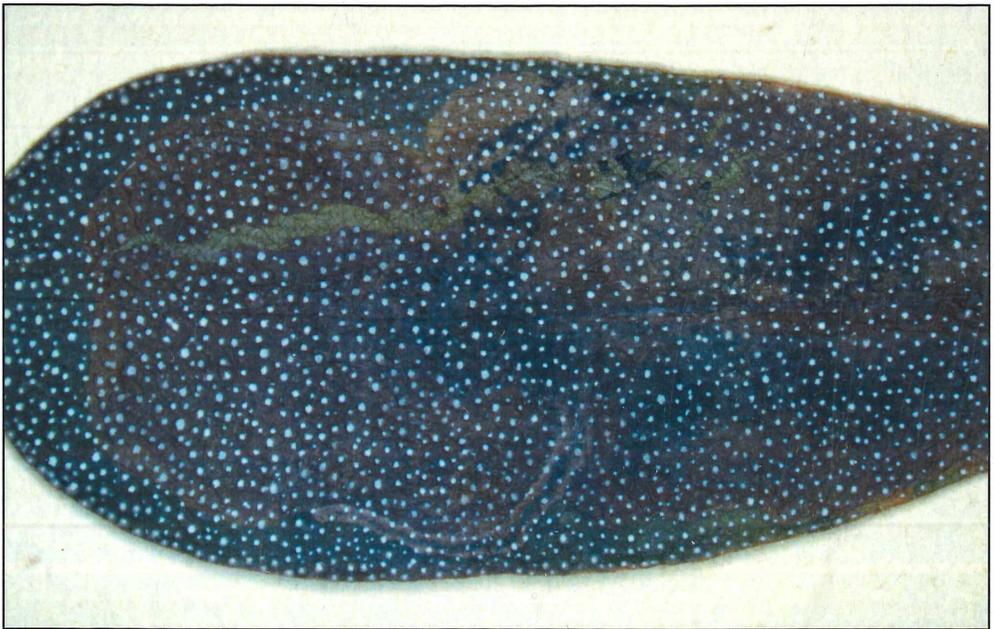
Boraginaceae

Cerintho minor L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)



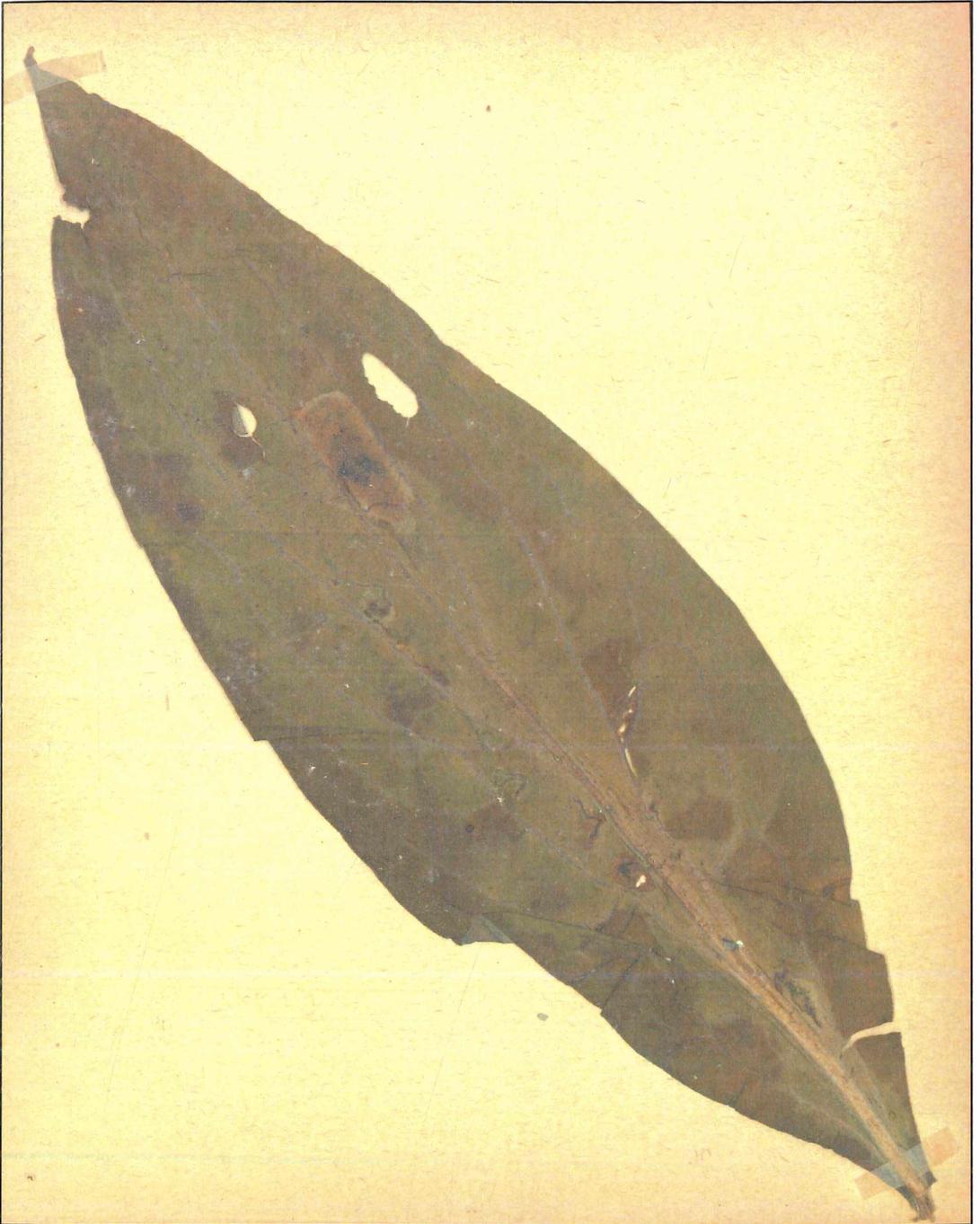
Details of previous page. Top: left leaf, young blotch mine with initial corridor. Bottom: right leaf, large final blotch mine.



Boraginaceae

Cynoglossum officinale L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)

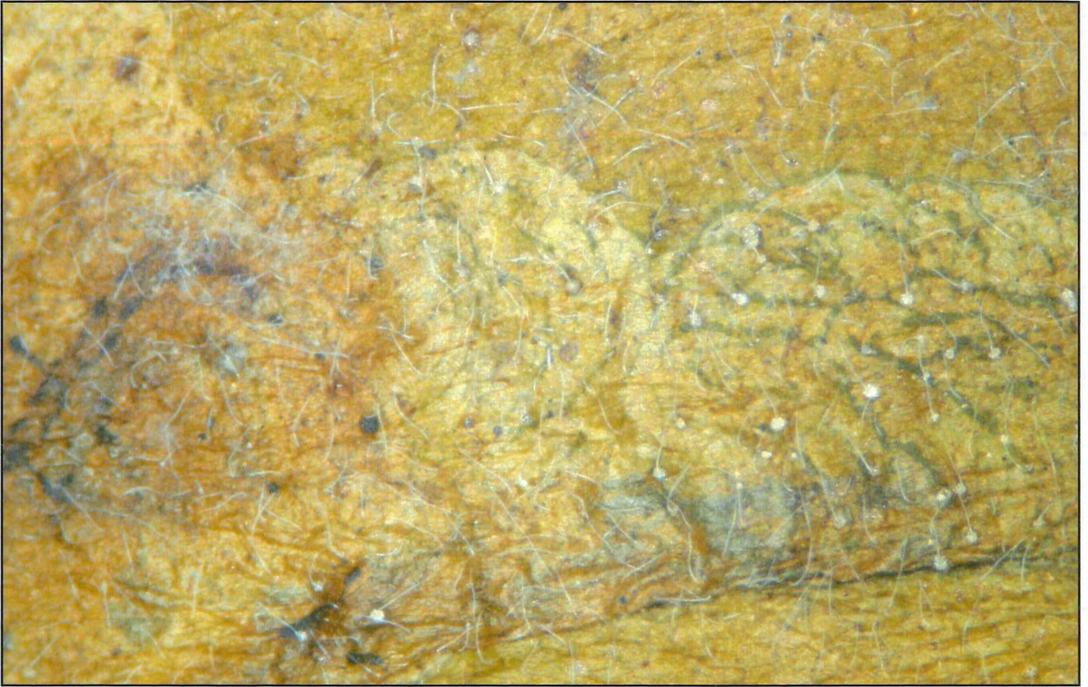


Leafminers-Herbarium, M.Hering, Lot 12, no. 231
Berlin-Frohnau, Brandenburg IX. 1931

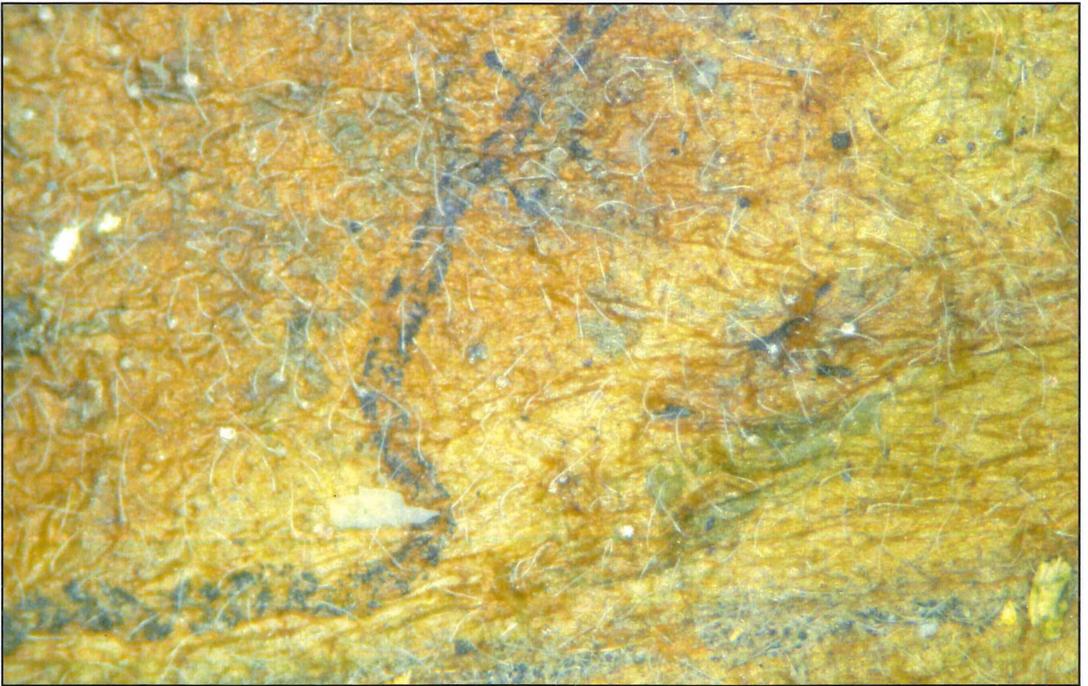
Boraginaceae

Cynoglossum officinale L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)



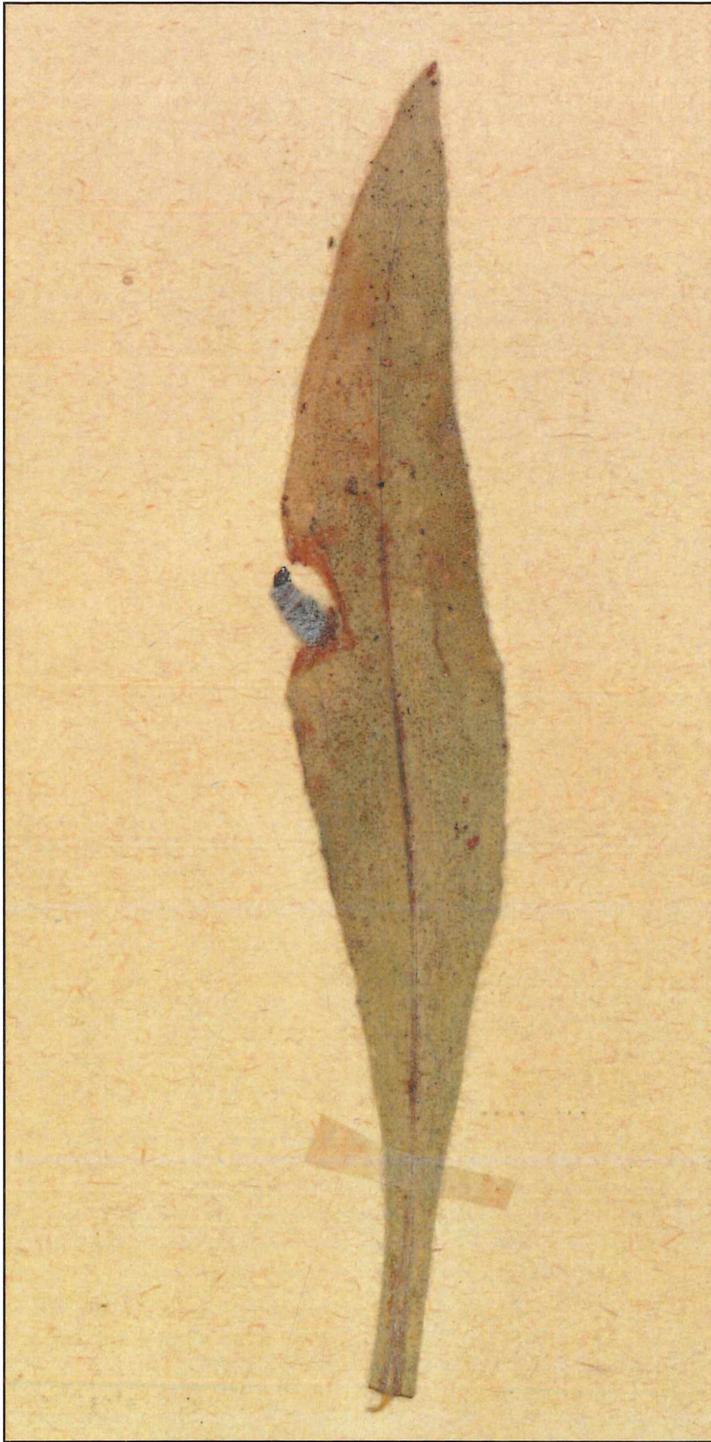
Details of previous page, different aspects of blotch mine.



Boraginaceae

Cynoglossum officinale L.

Coleophora onosmella (DENIS & SCHIFFERMÜLLER, 1775) (Lepidoptera: Coleophoridae)

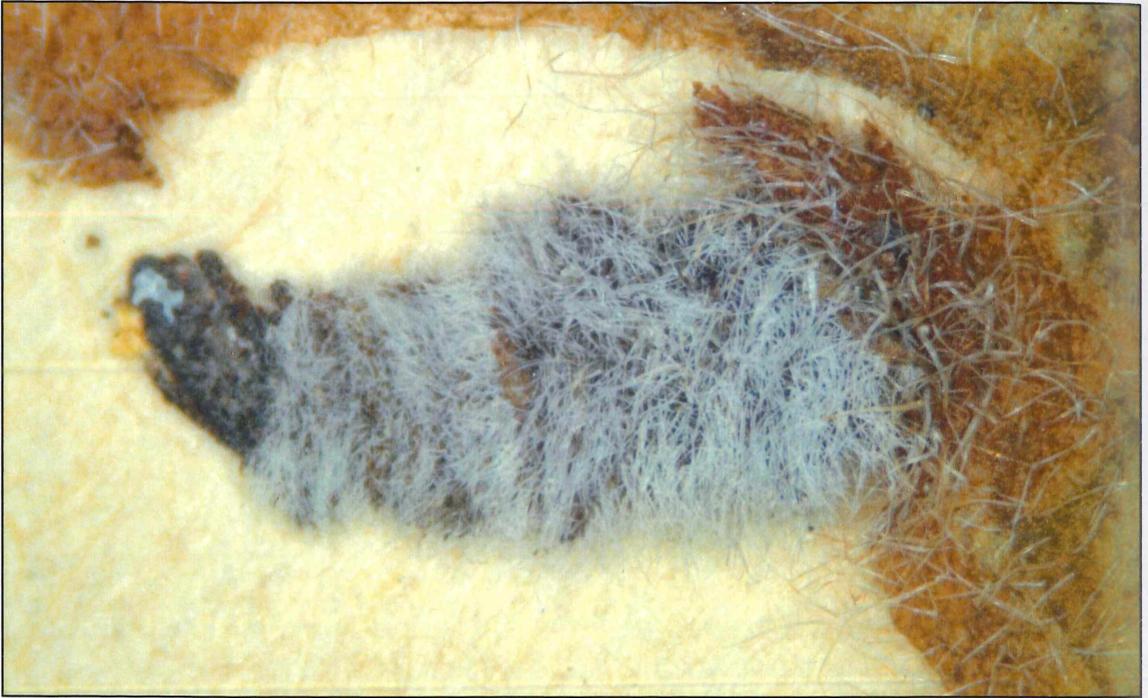


Leafminers-Herbarium, M.Hering, Lot 12, no. 232
Berlin-Dahchwitz, Brandenburg VI. 1931

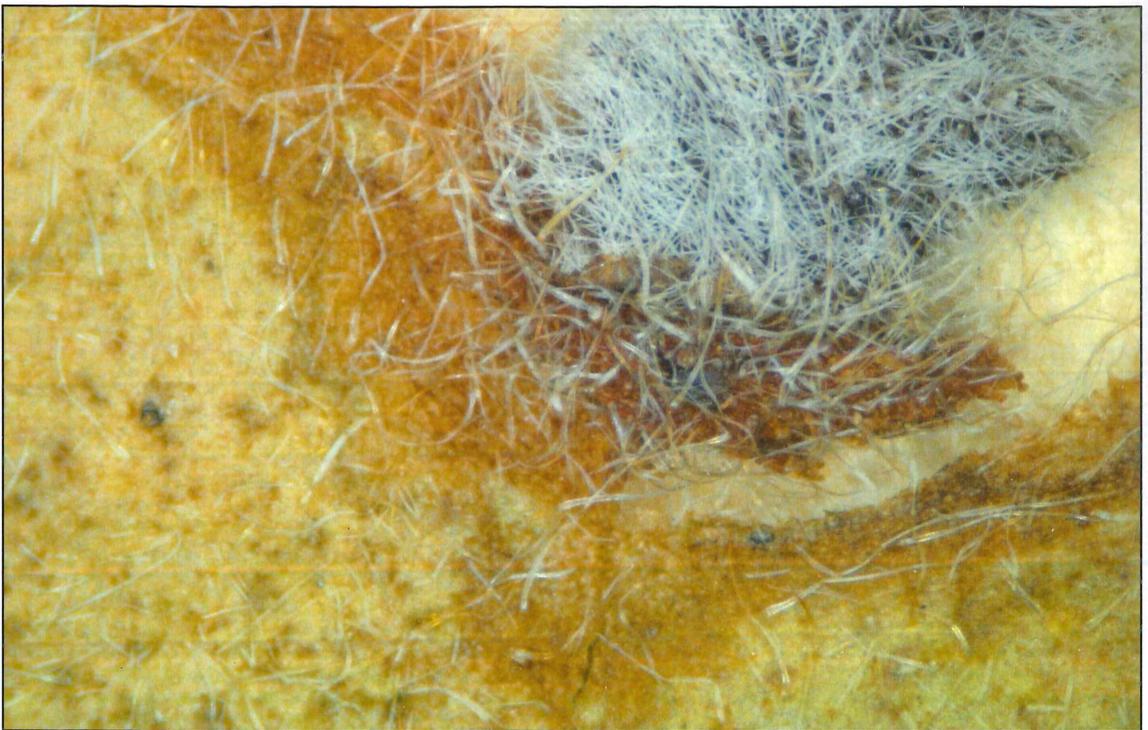
Boraginaceae

Cynoglossum officinale L.

Coleophora onosmella (DENIS & SCHIFFERMÜLLER, 1775) (Lepidoptera: Coleophoridae)



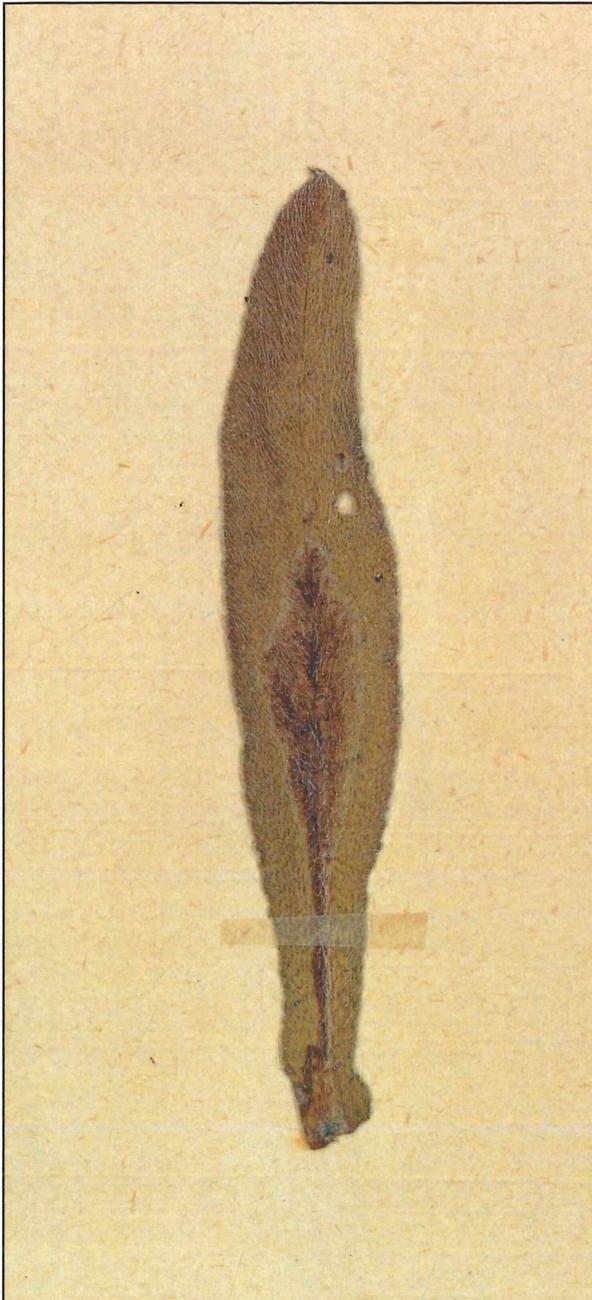
Details of previous page. Top: willow-catkin-like tubular case. Bottom: fleck mine at leaf margin with the base of the case.



Boraginaceae

Echium plantagineum L.

Dialectica scalariella (ZELLER, 1850) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 15, no. 286

[*Echium plantagineum* L. emended to *Echium lycopsis* Grub.] [*Gracil[sic]aria scalariella* Z. emended to
Dialectica scalariella Z.]

Puerto de Sta. Maria b. Cadiz, April 1933

Boraginaceae

Echium plantagineum L.

Dialectica scalariella (ZELLER, 1850) (Lepidoptera: Gracillariidae)



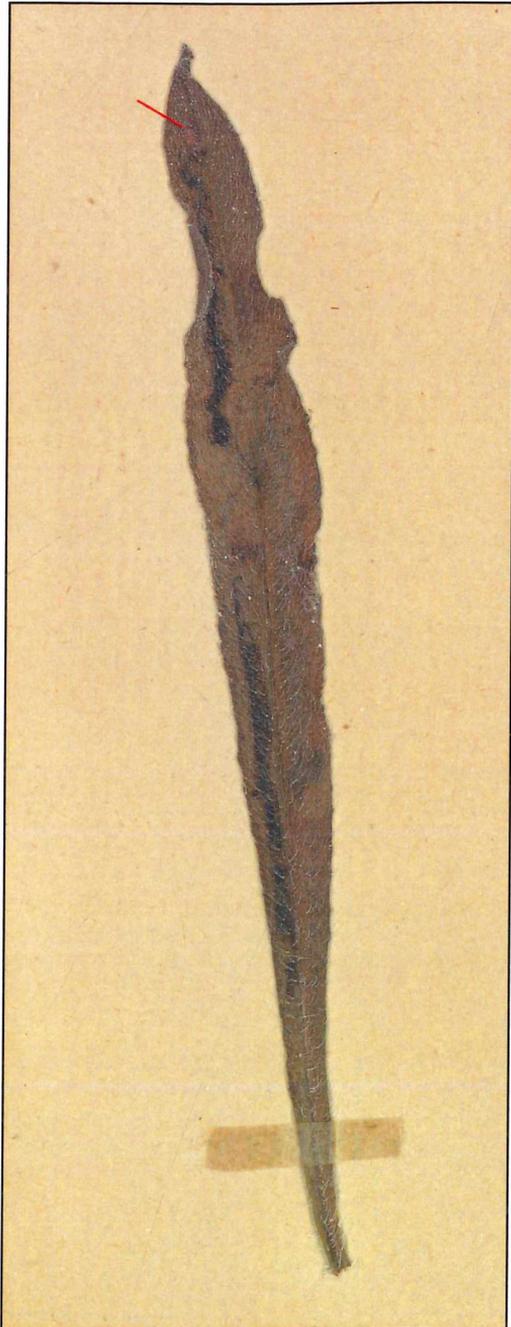
Details of previous page: elongate blotch mine with white margin, frass central.



Boraginaceae

Echium vulgare L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)



Site of puparium indicated with red arrow.

Leafminers-Herbarium, M.Hering, Lot 7, no. 137
Berlin-Cöpenick, September 1930

Boraginaceae

Echium vulgare L.

Agromyza abiens ZETTERSTEDT, 1848 (determined as *Agromyza rufipes* MEIGEN, 1830 by Hering; both species often mixed up, the latter monophagous on *Artemisia vulgaris*) (Diptera: Agromyzidae)



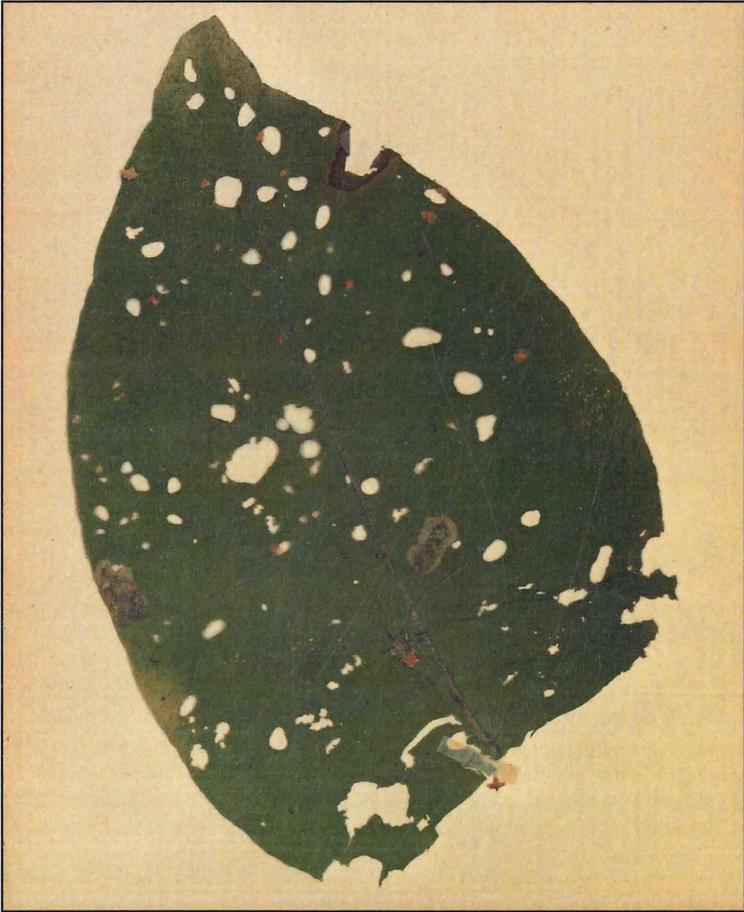
Details of previous page. Top: black patch in the middle of the mine (died off leaf tissues). Bottom: puparium at the end of the mine.



Boraginaceae

Symphytum officinale L.

Agromyza ferruginosa VAN DER WULP, 1871 (Diptera: Agromyzidae)



Top: overview. Bottom: pentatomid larva.

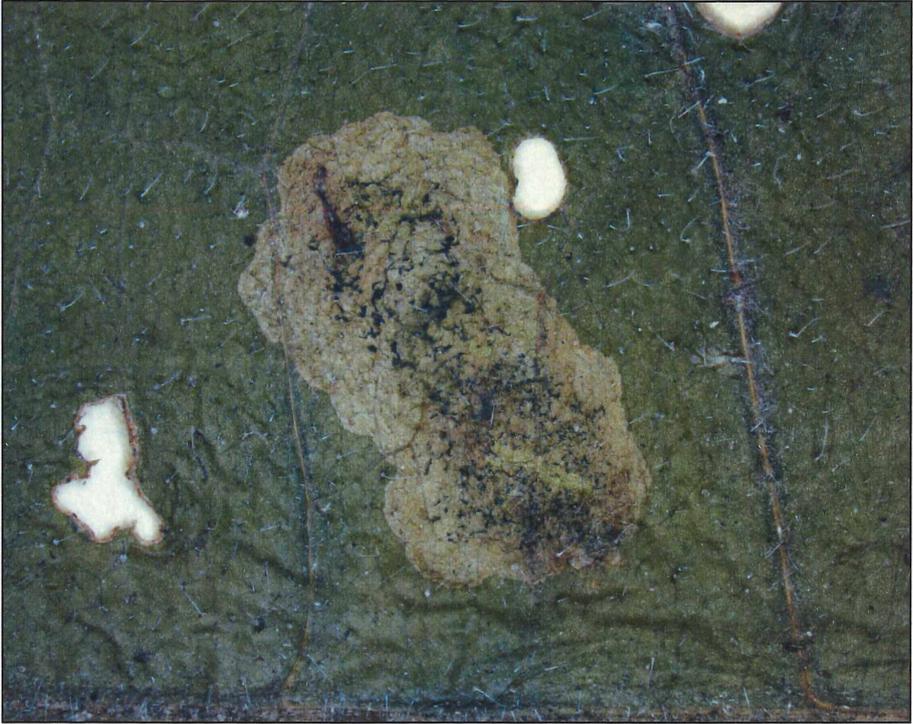


Leafminers-Herbarium, M.Hering, Lot 22, no. 435
Berlin-Finkenkrug, Brndbg. Oktober 1937

Boraginaceae

Symphytum officinale L.

Agromyza ferruginosa VAN DER WULP, 1871 (Diptera: Agromyzidae)



Details of previous page. Top: blotch mine in the middle of leaf. Bottom: secondary feeding lines in the blotch mine at the leaf margin.



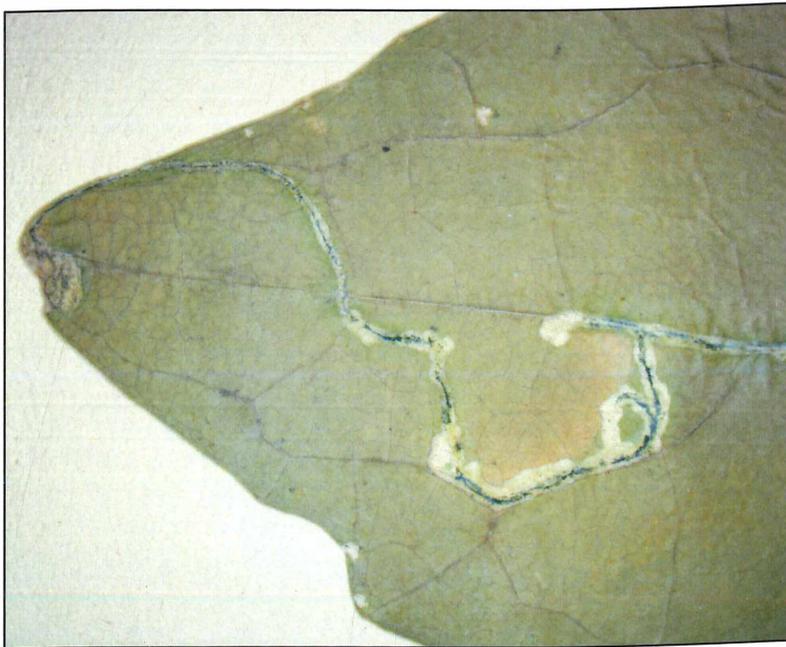
Brassicaceae

Alliaria petiolata (M.Bieb.) Cavara & Grande

Ceutorhynchus minutus (REICH, 1797) (Coleoptera: Curculionidae)



Top: overview, several mines in one leaf. Bottom: corridor with irregular sides, frass in central line.



Leafminers-Herbarium, M.Hering, Lot 19, no. 369

[*Alliaria officinalis* And.] [*Ceuthorrhynchus contractus* Mrsh. emended to *Ceutorhynchus contractus* Mrsh.]
Berlin – Finkenkrug, Mai 1935

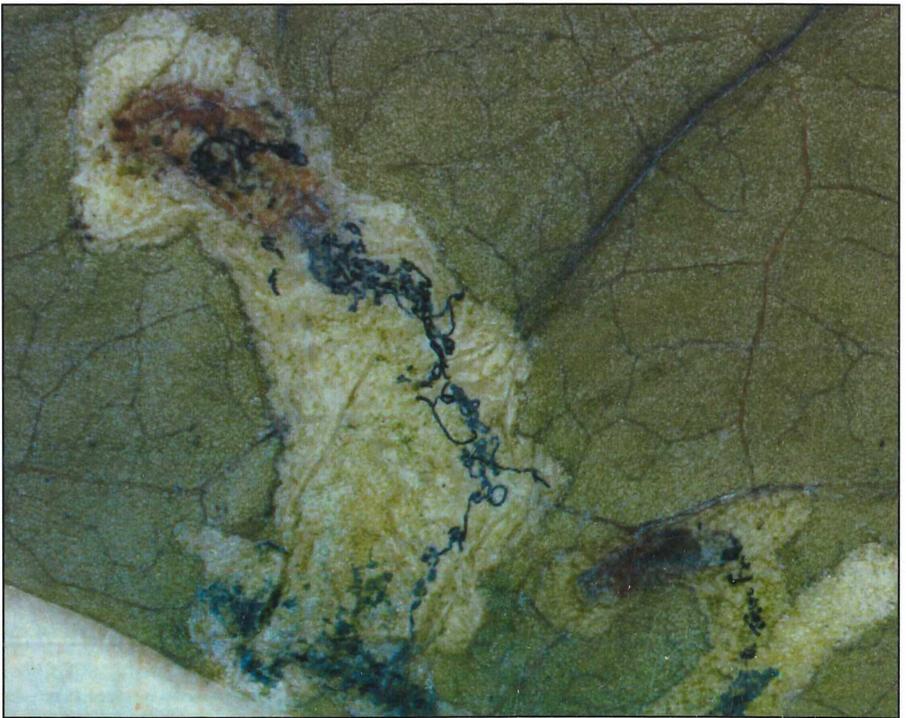
Brassicaceae

Alliaria petiolata (M.Bieb.) Cavara & Grande

Ceutorhynchus minutus (REICH, 1797) (Coleoptera: Curculionidae)



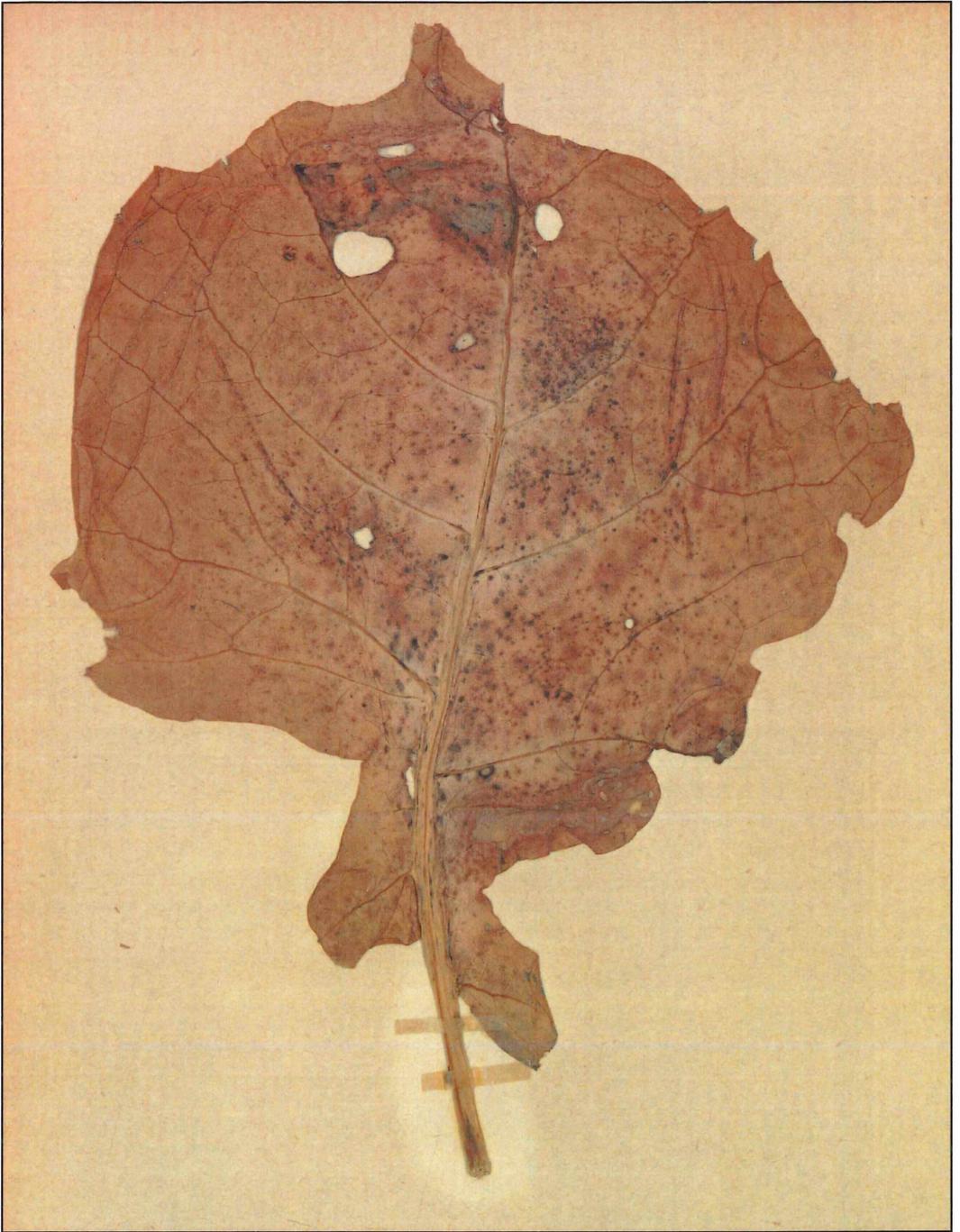
Details of previous page. Top: mine typically near leaf margin. Bottom: larva.



Brassicaceae

Brassica oleracea L.

Scaptomyza flava (FALLÉN, 1823) (Diptera: Drosophilidae)



Leafminers-Herbarium, M.Hering, Lot 19, no. 370
[*Scaptomyzella flava* Mg. emended to *Scaptomyza flaveola* Mg.]
Crossen/Oder, Brandenburg, Septemb. 1935

Brassicaceae

Brassica oleracea L.

Scaptomyza flava (FALLÉN, 1823) (Diptera: Drosophilidae)



Detail of previous page: large irregular blotch mine.



Leafminers-Herbarium, M.Hering, Lot 19, no. 370
[*Scaptomyzella flava* Mg. emended to *Scaptomyza flaveola* Mg.]
Crossen/Oder, Brandenburg, Septemb. 1935

Brassicaceae

Brassica oleracea L.

Scaptomyza flava (FALLÉN, 1923) (Diptera: Drosophilidae)



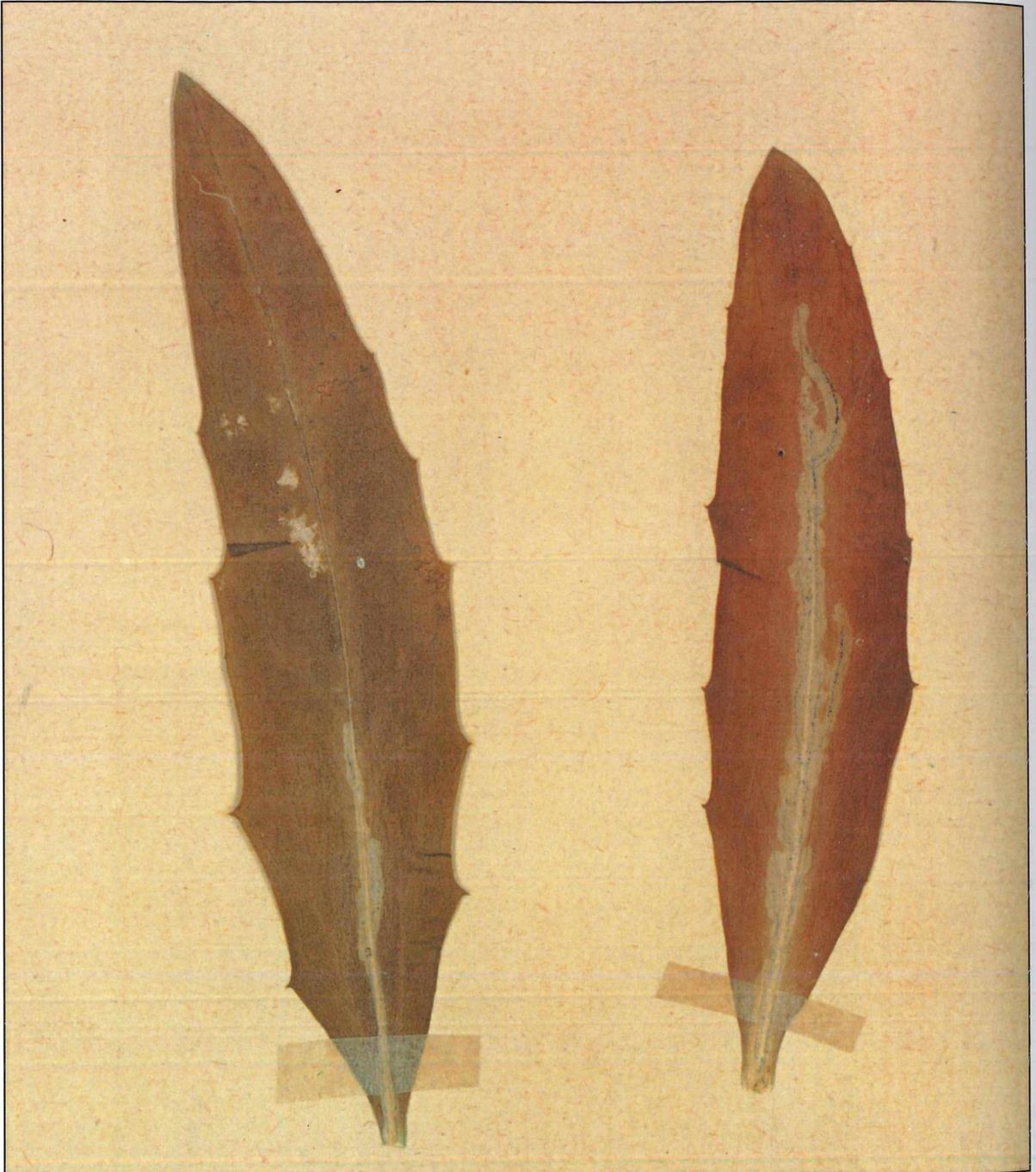
Details of previous page. Irregular blotch mine directed to the midrib, with aphids on it.



Brassicaceae

Erysimum hieraciifolium L.

Liriomyza strigata (MEIGEN, 1830) (Diptera: Agromyzidae)

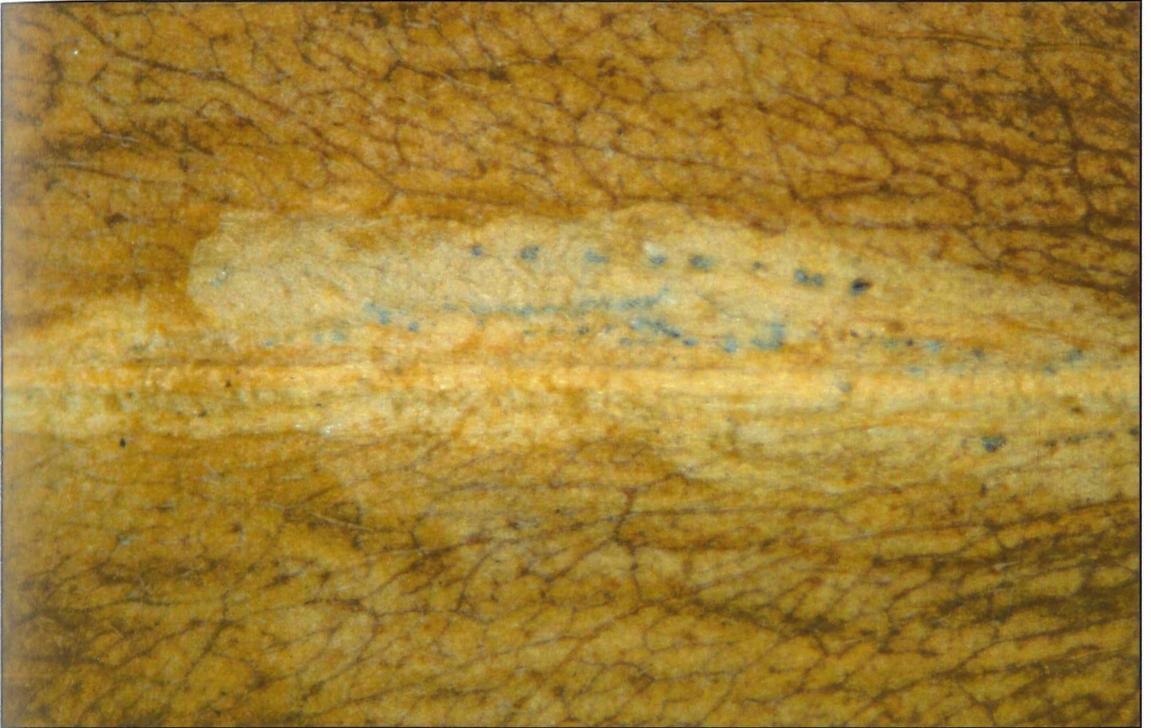


Leafminers-Herbarium, M.Hering, Lot 8, no. 149
Crossen / Oder, Brandenburg Juni 1931

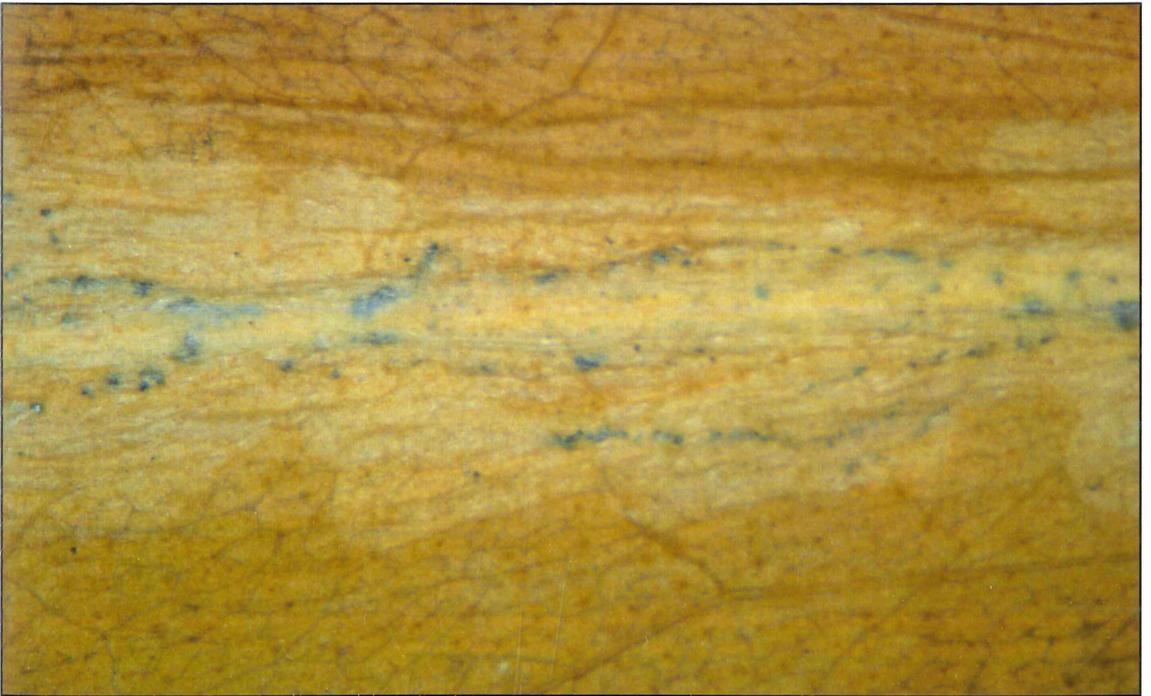
Brassicaceae

Erysimum hieraciifolium L.

Liriomyza strigata (MEIGEN, 1830) (Diptera: Agromyzidae)



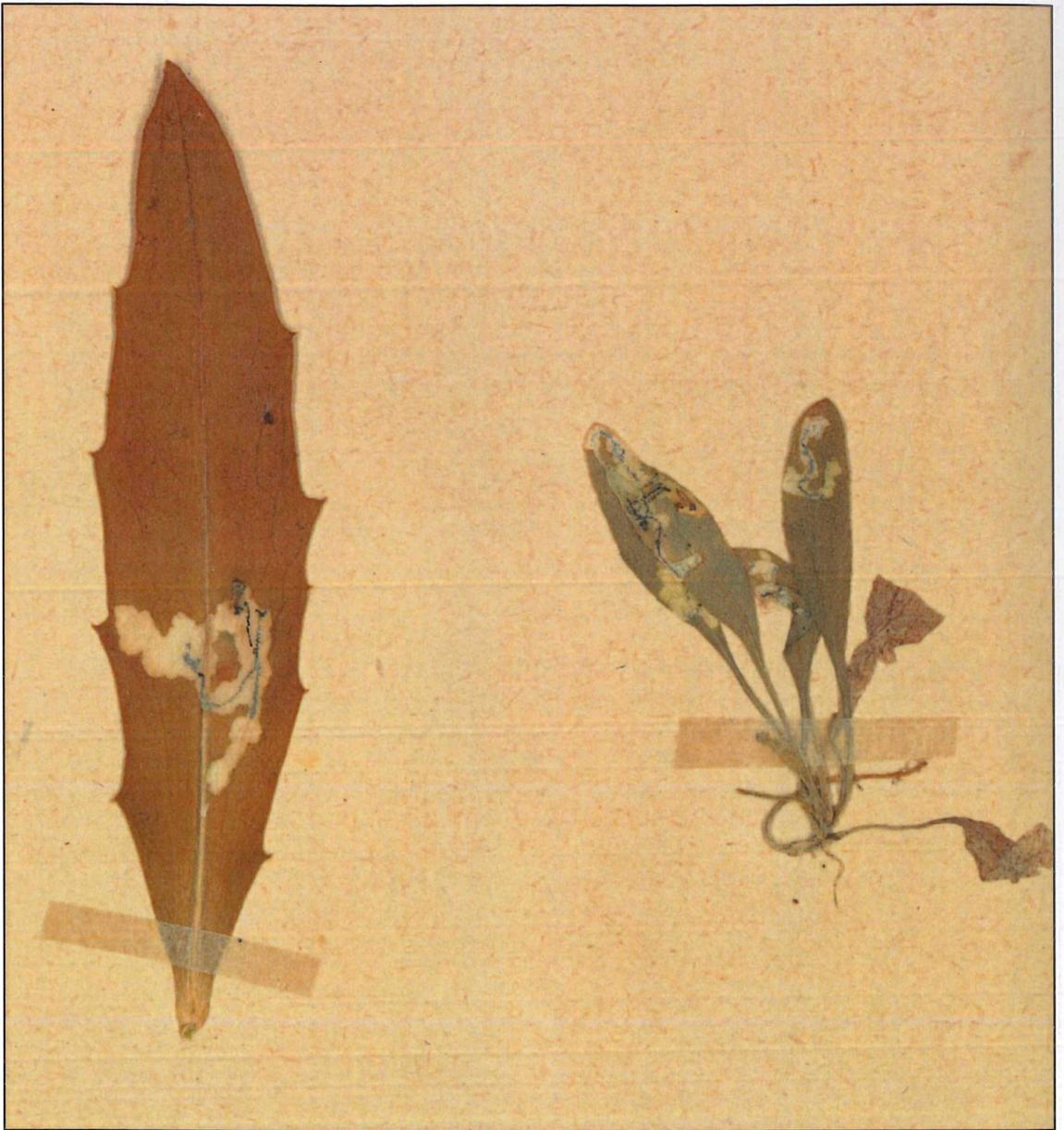
Details of previous page: corridor overlaying the midrib, not so much branched as in *Galeopsis* (Lamiaceae). Top: left leaf. Bottom: right leaf.



Brassicaceae

Erysimum hieraciifolium L.

Phyllotreta nemorum (LINNAEUS, 1758) (Coleoptera: Chrysomelidae)

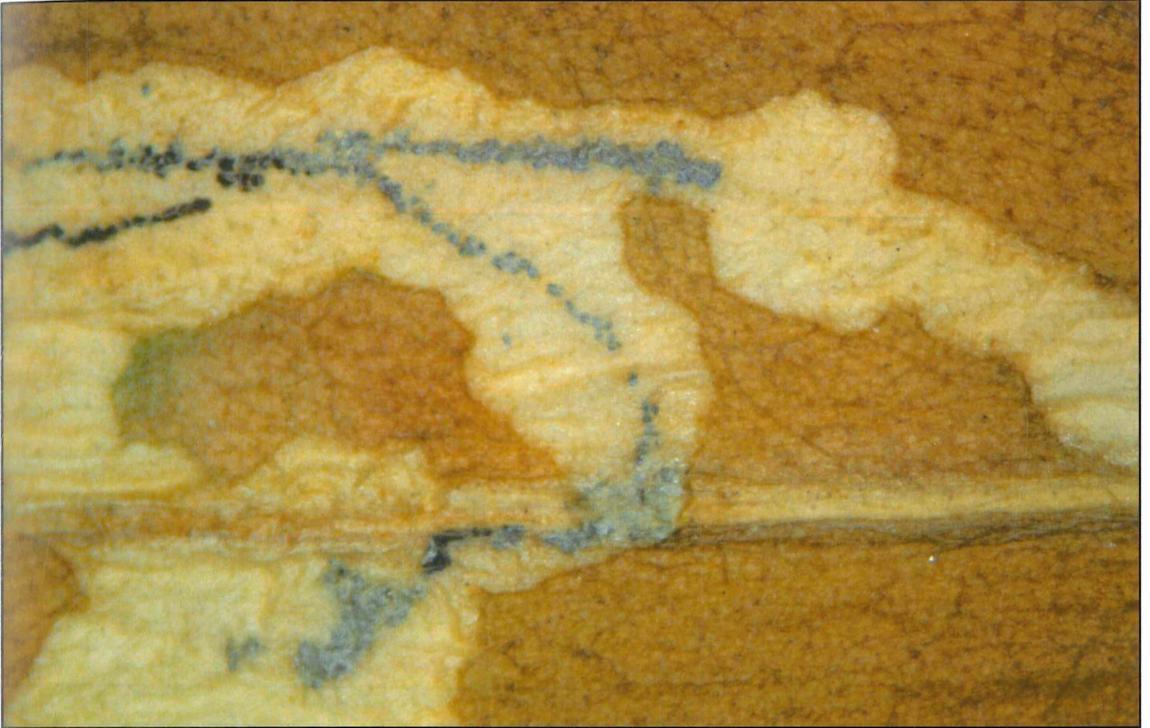


Leafminers-Herbarium, M.Hering, Lot 8, no. 150
Crossen / Oder, Brandenburg Juni 1931

Brassicaceae

Erysimum hieraciifolium L.

Phyllotreta nemorum (LINNAEUS, 1758) (Coleoptera: Chrysomelidae)



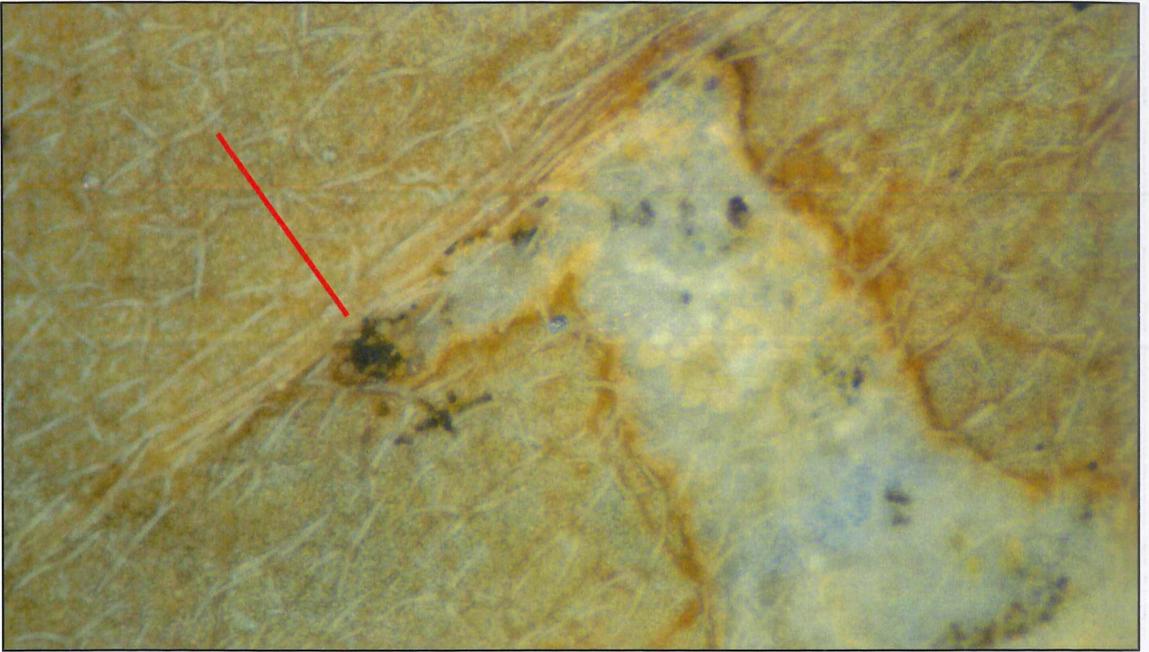
Details of previous page: different aspects of widened corridor, later formed as a blotch (bottom).



Brassicaceae

Erysimum hieraciifolium L.

Phyllotreta nemorum (LINNAEUS, 1758) (Coleoptera: Chrysomelidae)



Details of page next to last. Top: entrance hole at initial part of corridor. Bottom: larva in corridor, head region indicated with red arrow.



Brassicaceae

Sisymbrium orientale L.

Phytomyza atricornis MEIGEN, 1830 (Diptera: Agromyzidae)

According to <http://www.bladmineerders.nl/minersf/dipteramin/chromatomyia/horticola/horticola.htm> (vid. Oct. 23rd, 2013) "by that name two closely related species are covered": *Chromatomyia syngenesiae* HARDY, 1849 and *Chromatomyia horticola* (GOUREAU, 1851). "The difference is visible only in interior details of the male genitalia: neither the females nor pre-imaginal stages can be identified with certainty.... There is some difference in foodplant preference. *Ch. syngenesiae* lives almost exclusively on Asteraceae, while *horticola* has been found on at least 24 families of flowering plants, with a marked preference for Asteraceae, Brassicaceae and Fabaceae."



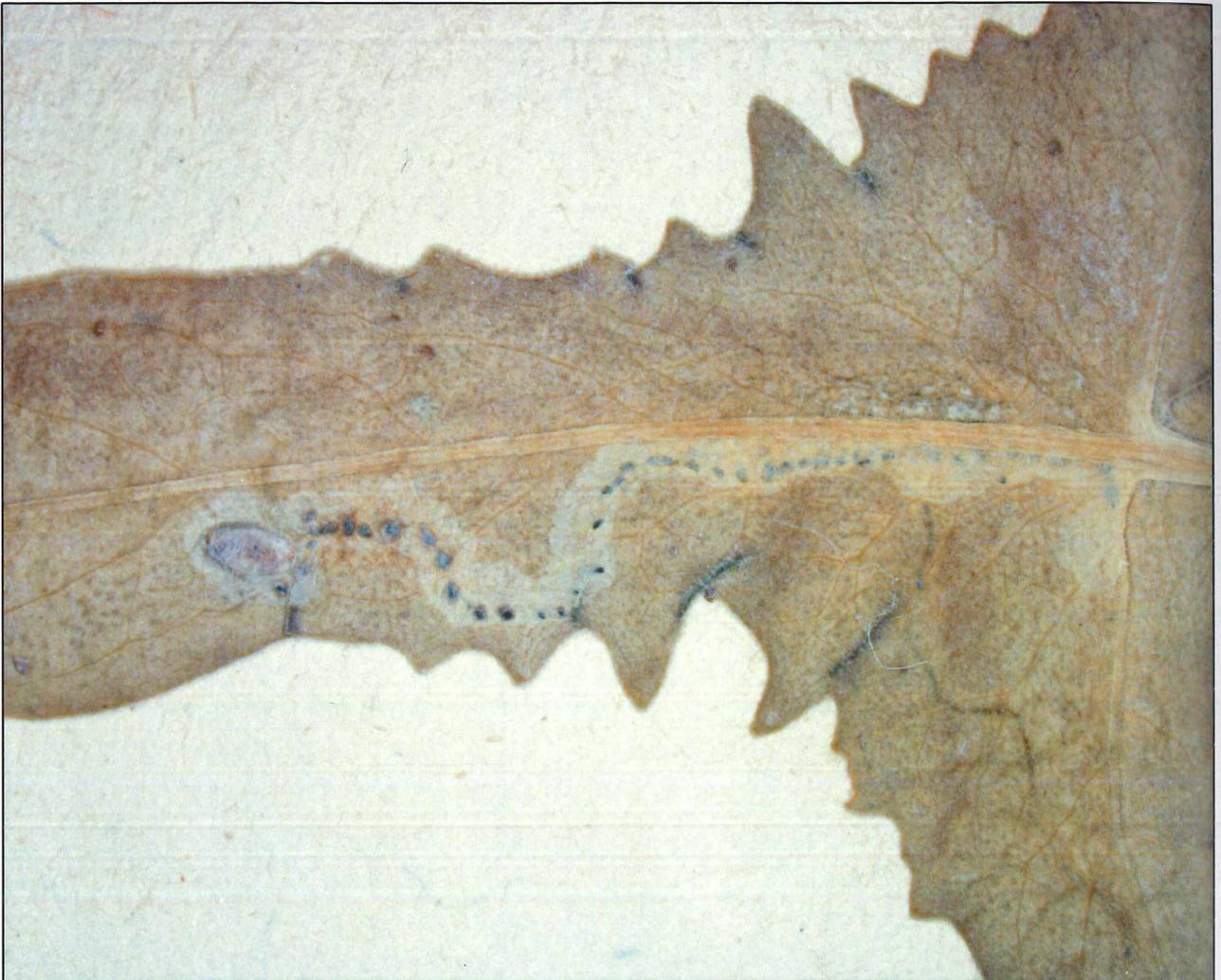
Leafminers-Herbarium, M.Hering, Lot 17, no. 321
[*Sisymbrium orientale* L. emended to Torner] [*Phytomyza atricornis* Meigen]
Albarracin, Spanien. Juni 1933

Brassicaceae

Sisymbrium orientale L.

Phytomyza atricornis MEIGEN, 1830 (Diptera: Agromyzidae)

According to <http://www.bladmineerders.nl/minersf/dipteramin/chromatomyia/horticola/horticola.htm> (vid. Oct. 23rd, 2013) “by that name two closely related species are covered”: *Chromatomyia syngenesiae* HARDY, 1849 and *Chromatomyia horticola* (GOUREAU, 1851). “The difference is visible only in interior details of the male genitalia: neither the females nor pre-imaginal stages can be identified with certainty.... There is some difference in foodplant preference. *Ch. syngenesiae* lives almost exclusively on Asteraceae, while *horticola* has been found on at least 24 families of flowering plants, with a marked preference for Asteraceae, Brassicaceae and Fabaceae.”



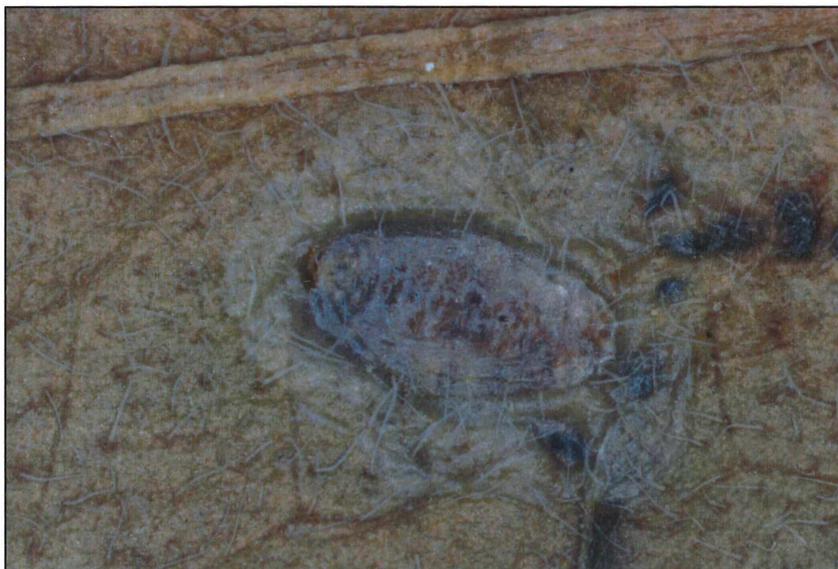
Detail of previous page: upper surface corridor with typical frass.

Brassicaceae

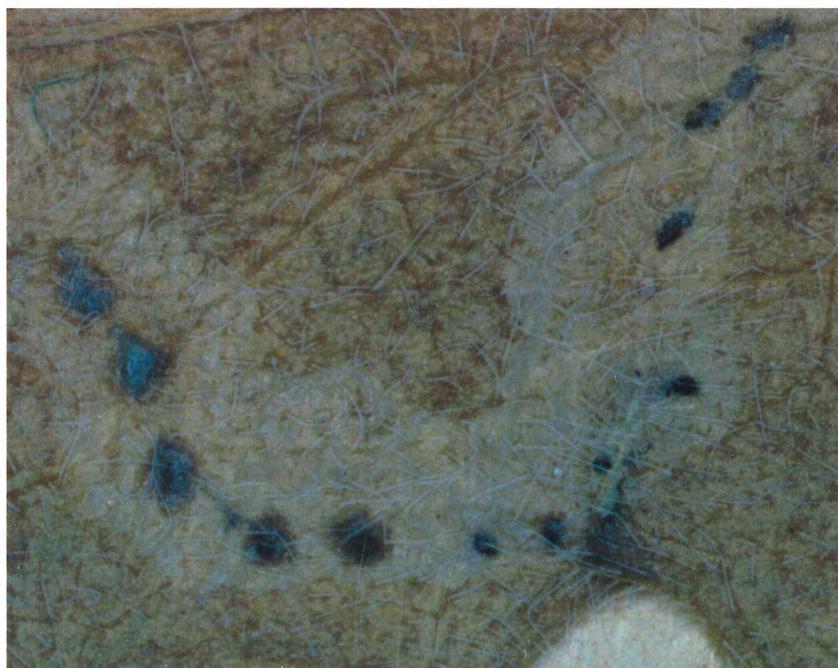
Sisymbrium orientale L.

Phytomyza atricornis MEIGEN, 1830 (Diptera: Agromyzidae)

According to <http://www.bladmineerders.nl/minersf/dipteramin/chromatomyia/horticola/horticola.htm> (vid. Oct. 23rd, 2013) “by that name two closely related species are covered”: *Chromatomyia syngenesiae* HARDY, 1849 and *Chromatomyia horticola* (GOUREAU, 1851). “The difference is visible only in interior details of the male genitalia: neither the females nor pre-imaginal stages can be identified with certainty.... There is some difference in foodplant preference. *Ch. syngenesiae* lives almost exclusively on Asteraceae, while *horticola* has been found on at least 24 families of flowering plants, with a marked preference for Asteraceae, Brassicaceae and Fabaceae.”



Details of previous page. Top: pupal chamber with puparium. Bottom: typical isolated grains of frass.



Campanulaceae

Campanula trachelium L.

Liriomyza strigata (MEIGEN, 1830) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 13, no. 250
Crossen/Oder, Brandenburg, VIII. 1932

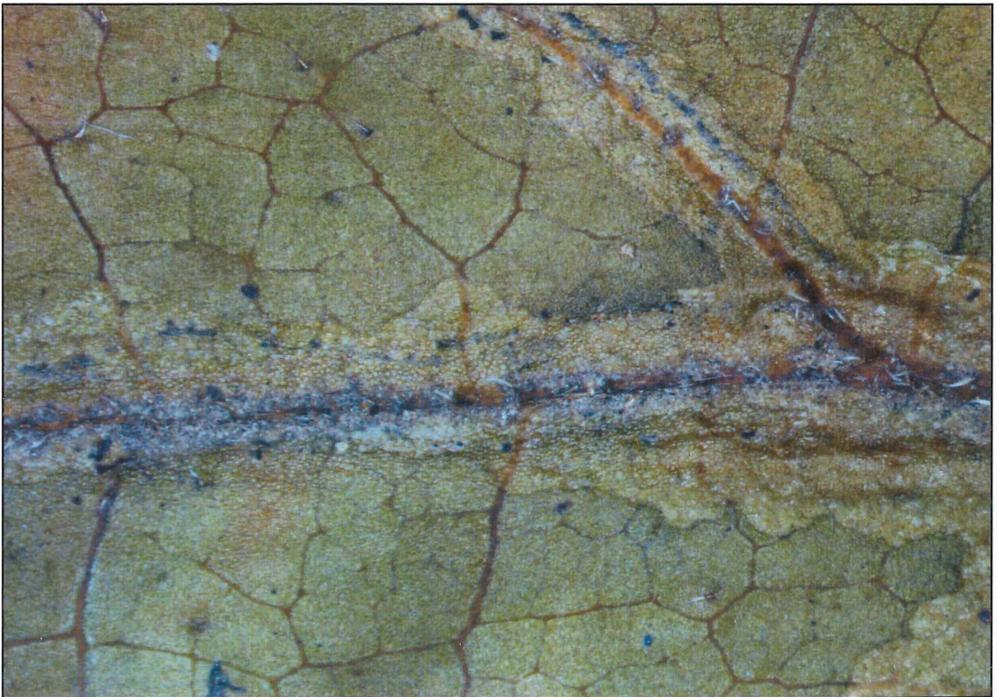
Campanulaceae

Campanula trachelium L.

Liriomyza strigata (MEIGEN, 1830) (Diptera: Agromyzidae)



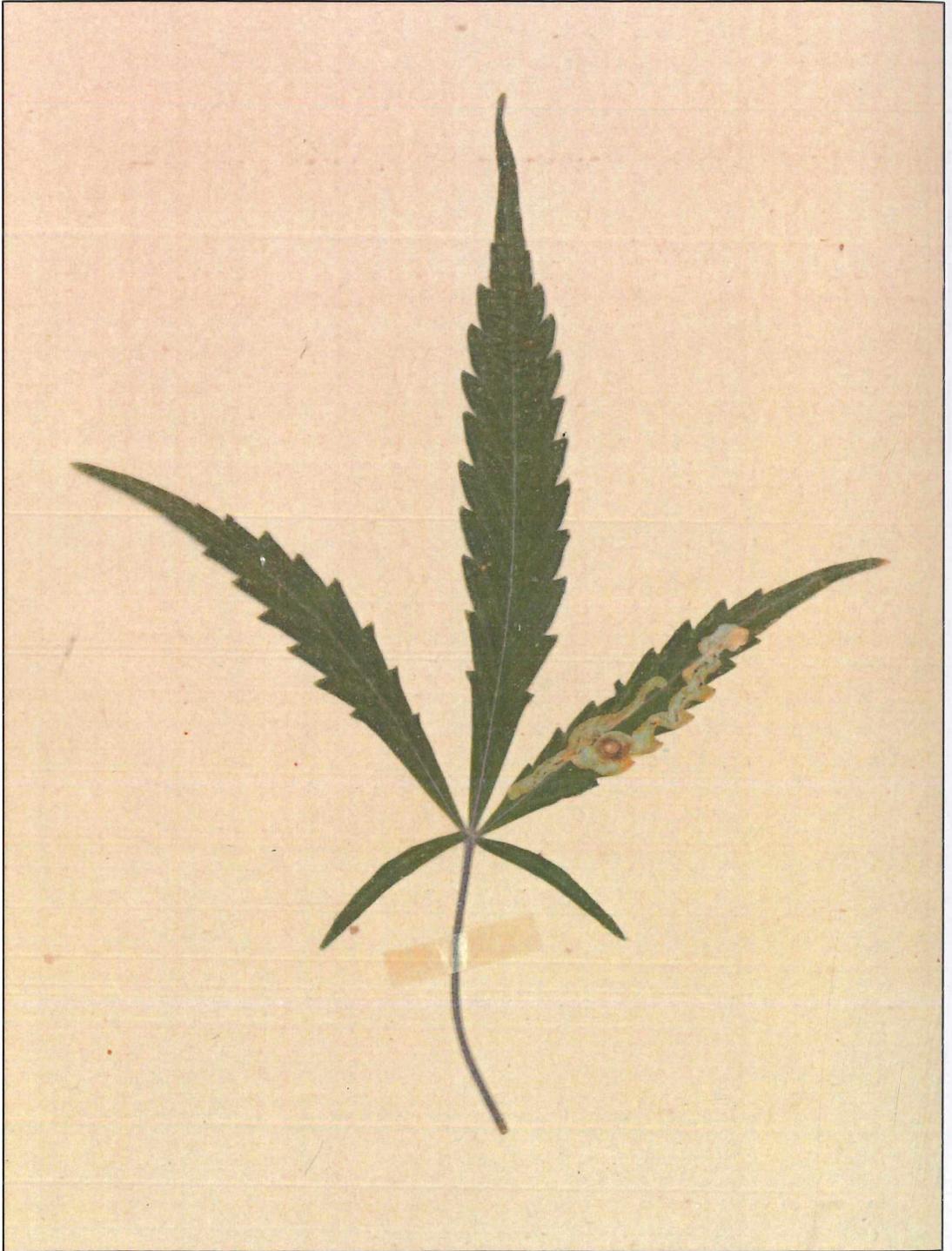
Details of previous page. Branched corridor along ribs. Top: overview. Bottom: details.



Cannabaceae

Cannabis sativa L.

Liriomyza cannabis HENDEL, 1931 (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 21, no. 403
Berlin – Bredow, Brandenburg, Juli 1936

Cannabaceae
Cannabis sativa L.

Liriomyza cannabis HENDEL, 1931 (Diptera: Agromyzidae)



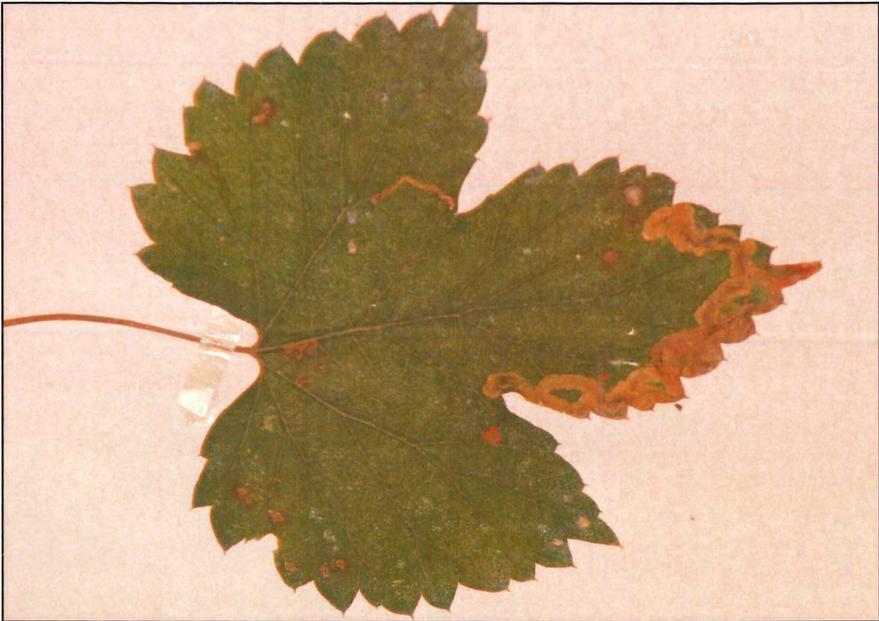
Details of previous page. Upper surface corridor.



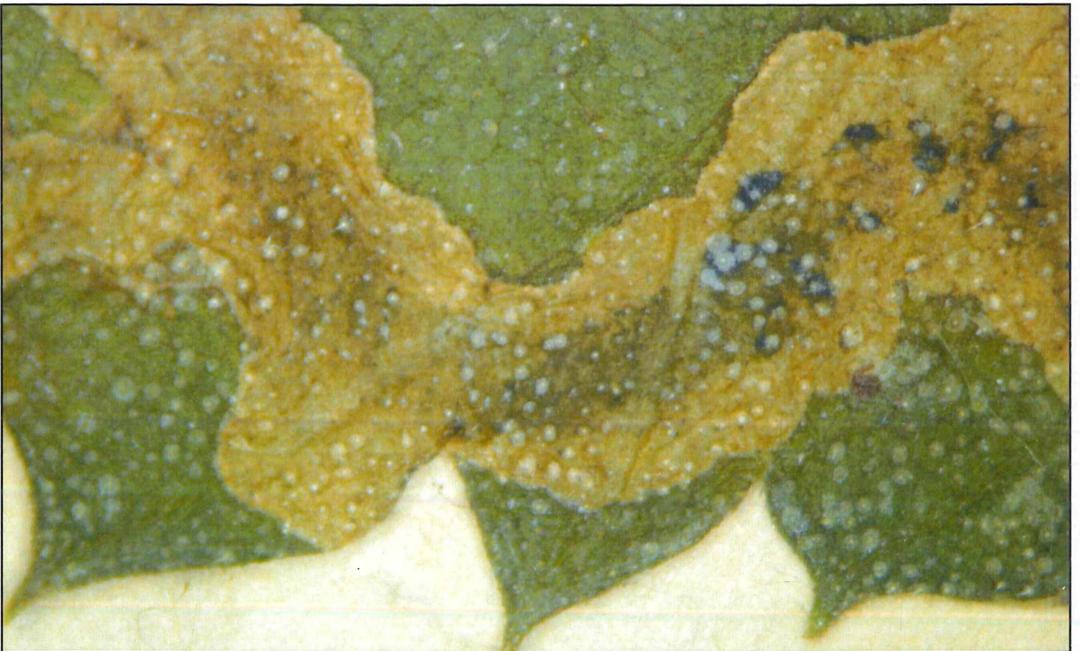
Cannabaceae

Humulus lupulus L.

Agromyza flaviceps FALLEN, 1823 (Diptera: Agromyzidae)



Top: overview. Bottom: corridor at the leaf margin with irregular margins and a diffuse band of frass in the middle.



Leafminers-Herbarium, M.Hering, Lot 2, no. 32
[*Agromyza flaviceps* Meig.]
Crossen / Oder, VIII.1929

Cannabaceae

Humulus lupulus L.

Cosmopterix zieglerella (HÜBNER, 1810) (Lepidoptera: Cosmopterigidae)



Top: overview. Bottom: corridor with typical lobelike extensions.



Leafminers-Herbarium, M.Hering, Lot 2, no. 33
[*Cosmopteryx eximia* Haw.]
Crossen / Oder, VIII.1929

Cannabaceae

Humulus lupulus L.

Agromyza igniceps HENDEL, 1920 (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 11, no. 204

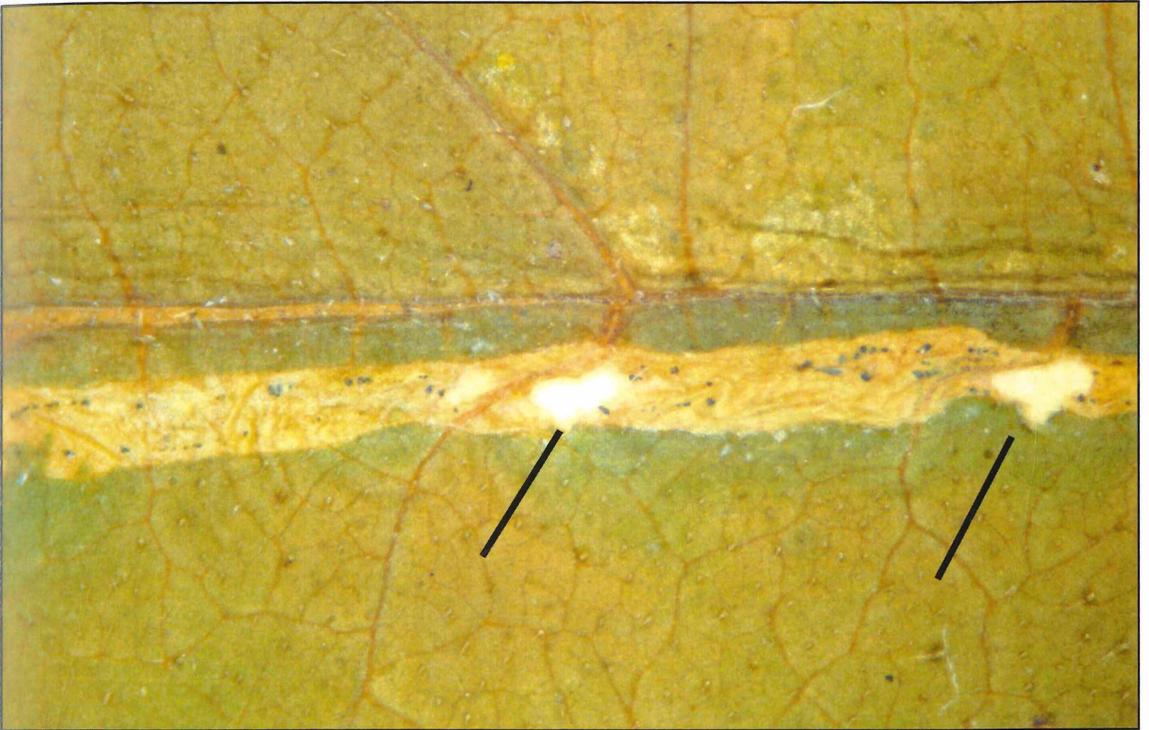
[Moraceae]

Berlin-Finkenkrug, Brandenburg VI. 1932

Cannabaceae

Humulus lupulus L.

Agromyza igniceps HENDEL, 1920 (Diptera: Agromyzidae)



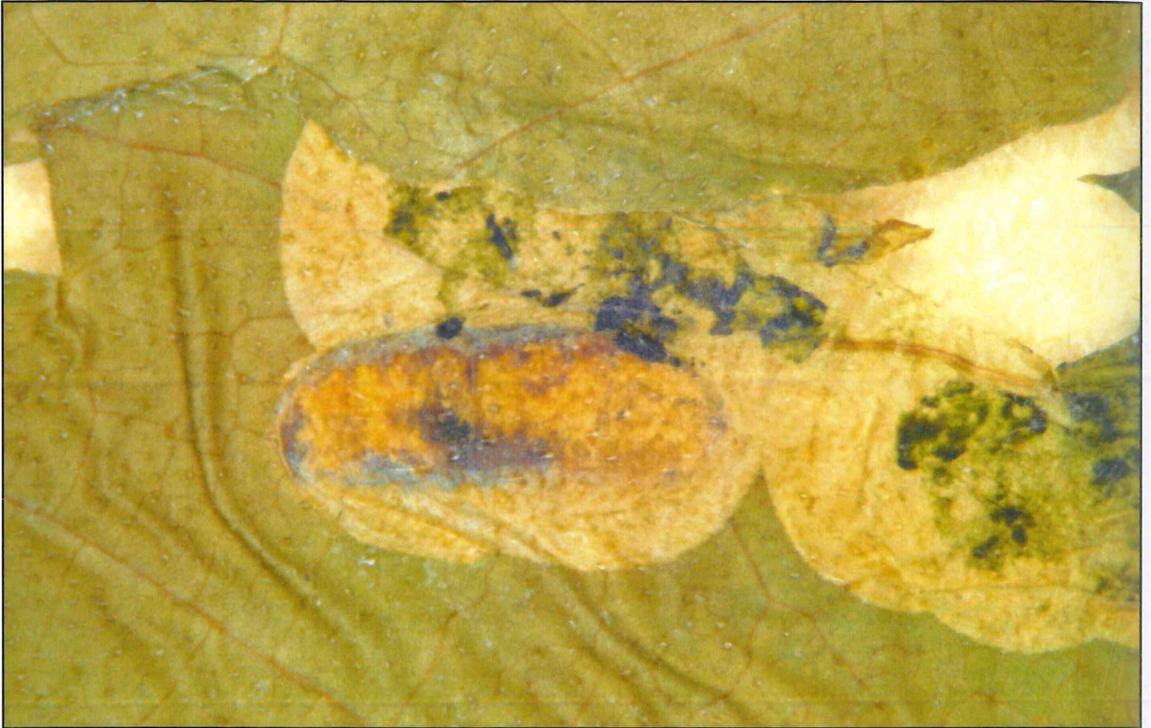
Details of previous page. Top: full, narrow corridor strictly following a vein and causing tears in the leaf surface (black arrows). Bottom: corridor with frass in two clear rows.



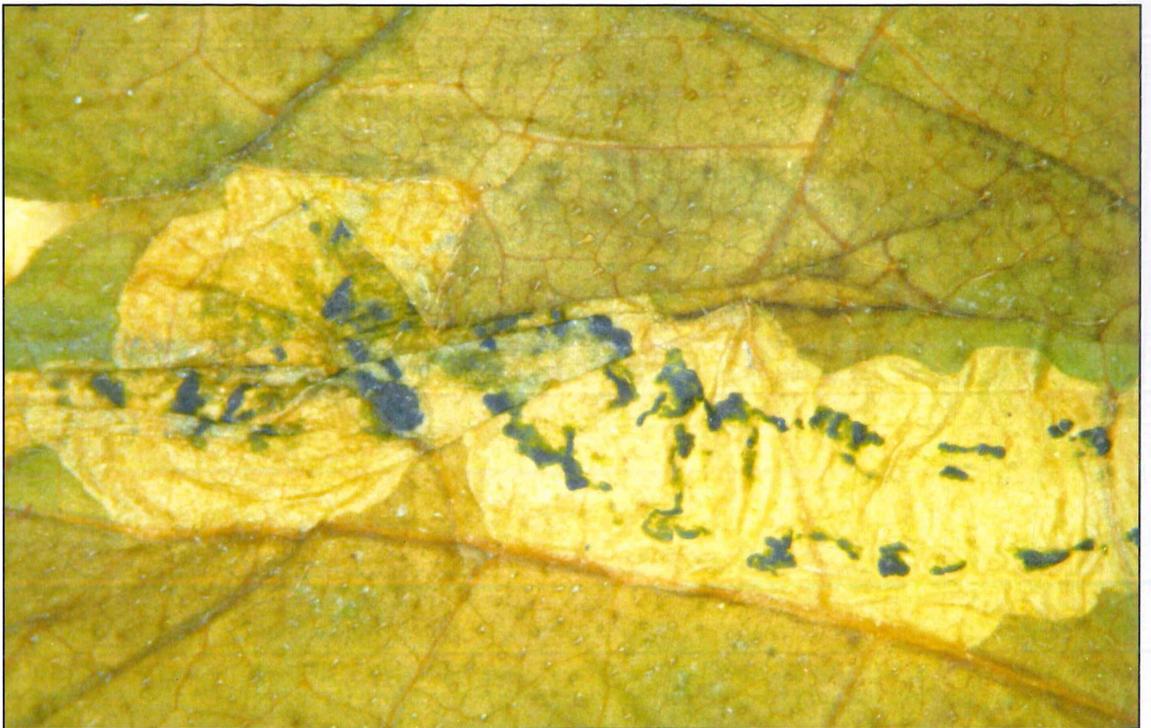
Cannabaceae

Humulus lupulus L.

Agromyza igniceps HENDEL, 1920 (Diptera: Agromyzidae)



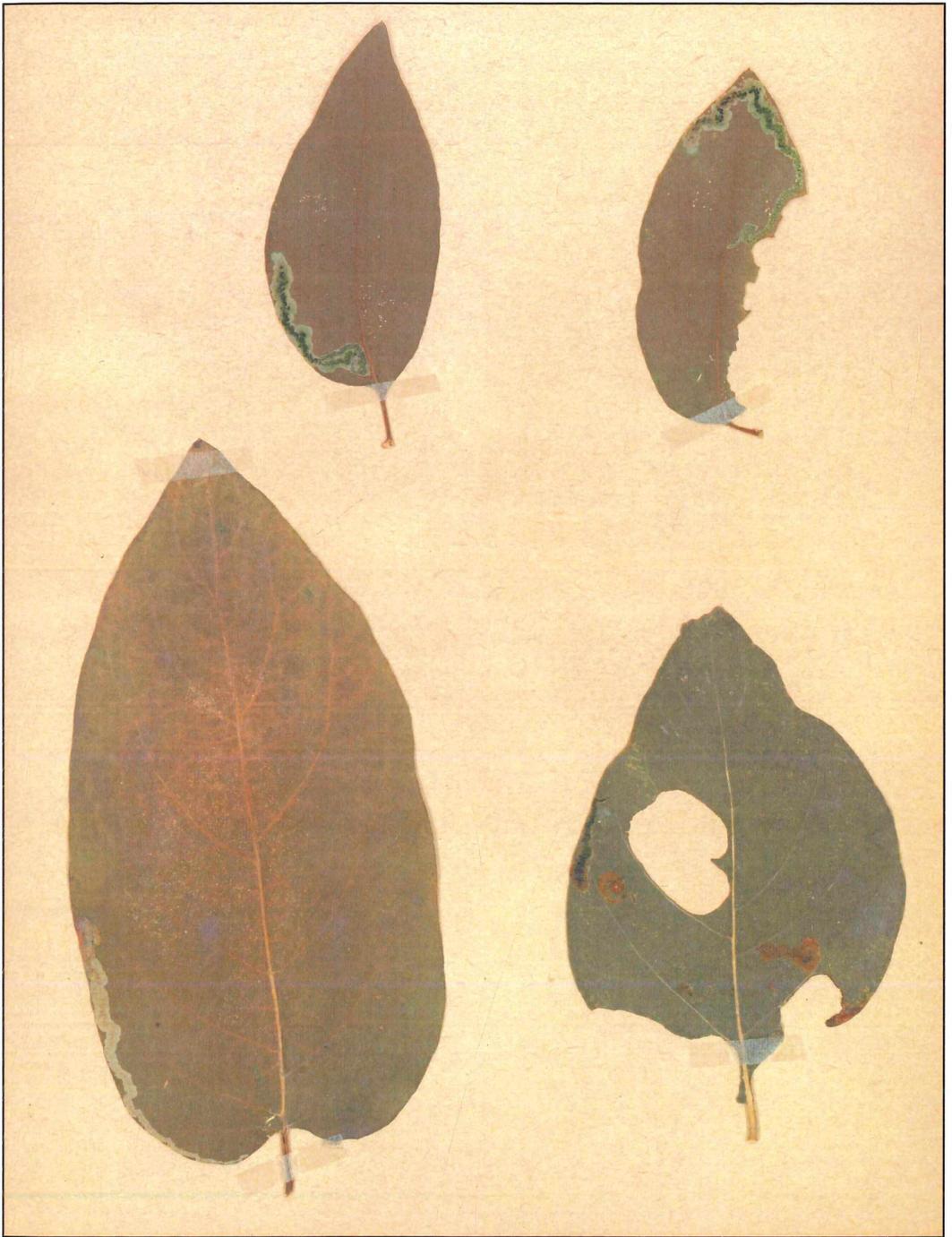
Details of page next to last. Top: corridor with larva. Bottom: details of broader section of corridor.



Caprifoliaceae

Lonicera tatarica L.

Aulagromyza luteoscutellata (DE MEIJERE, 1924) emended to *Chromatomyia aprilina*
(GOUREAU, 1851) (= *Phytagromyza xylostei* (ROBINEAU-DESVOIDY, 1851))
(Diptera: Agromyzidae)

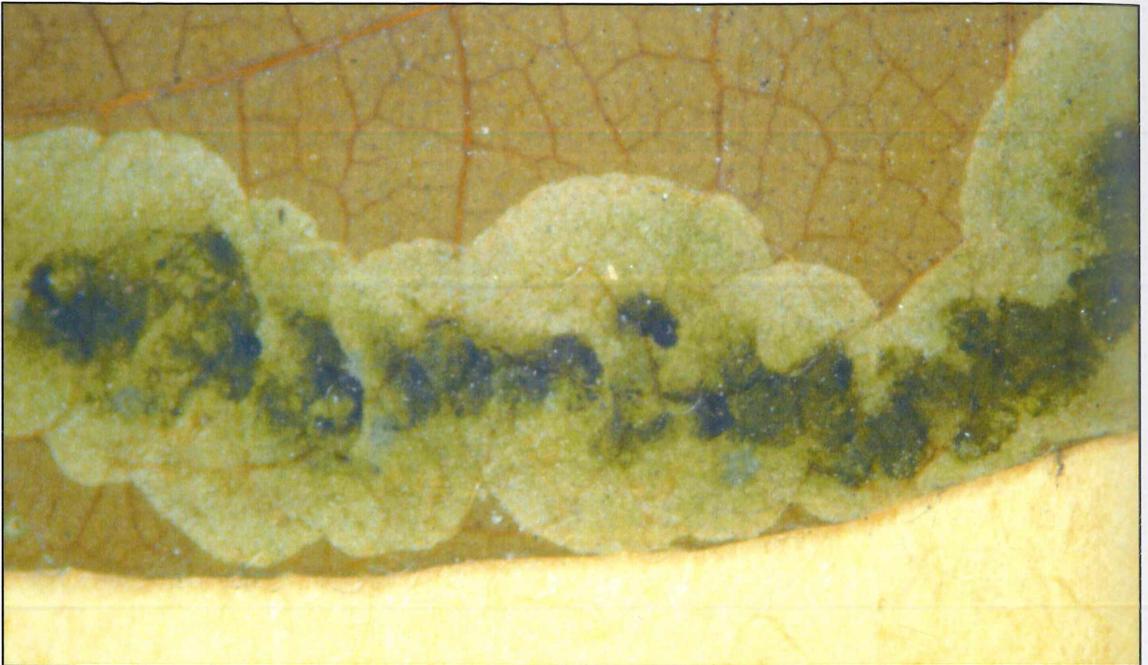


Leafminers-Herbarium, M.Hering, Lot 4, no. 78
[*Phytomyza luteoscutellata* de Meij.] [*Phytagromyza xylostei* R.D.]
Berlin-Frohnau, VIII. 1924

Caprifoliaceae

Lonicera tatarica L.

Aulagromyza luteoscutellata (DE MEIJERE, 1924) emended to *Chromatomyia aprilina*
(GOUREAU, 1851) (= *Phytagromyza xylostei* (ROBINEAU-DESVOIDY, 1851))
(Diptera: Agromyzidae)



Details of previous page. Top: leaf top left. Bottom: leaf top right. There is no star-like initial part of the mine, so we doubt the secondary determination as *Chromatomyia aprilina* (= *Phytagromyza xylostei*).



Caprifoliaceae

Lonicera tatarica L.

Aulagromyza luteoscutellata (DE MEIJERE, 1924) emended to *Chromatomyia aprilina*
(GOUREAU, 1851) (= *Phytagromyza xylostei* (ROBINEAU-DESVOIDY, 1851))
(Diptera: Agromyzidae)



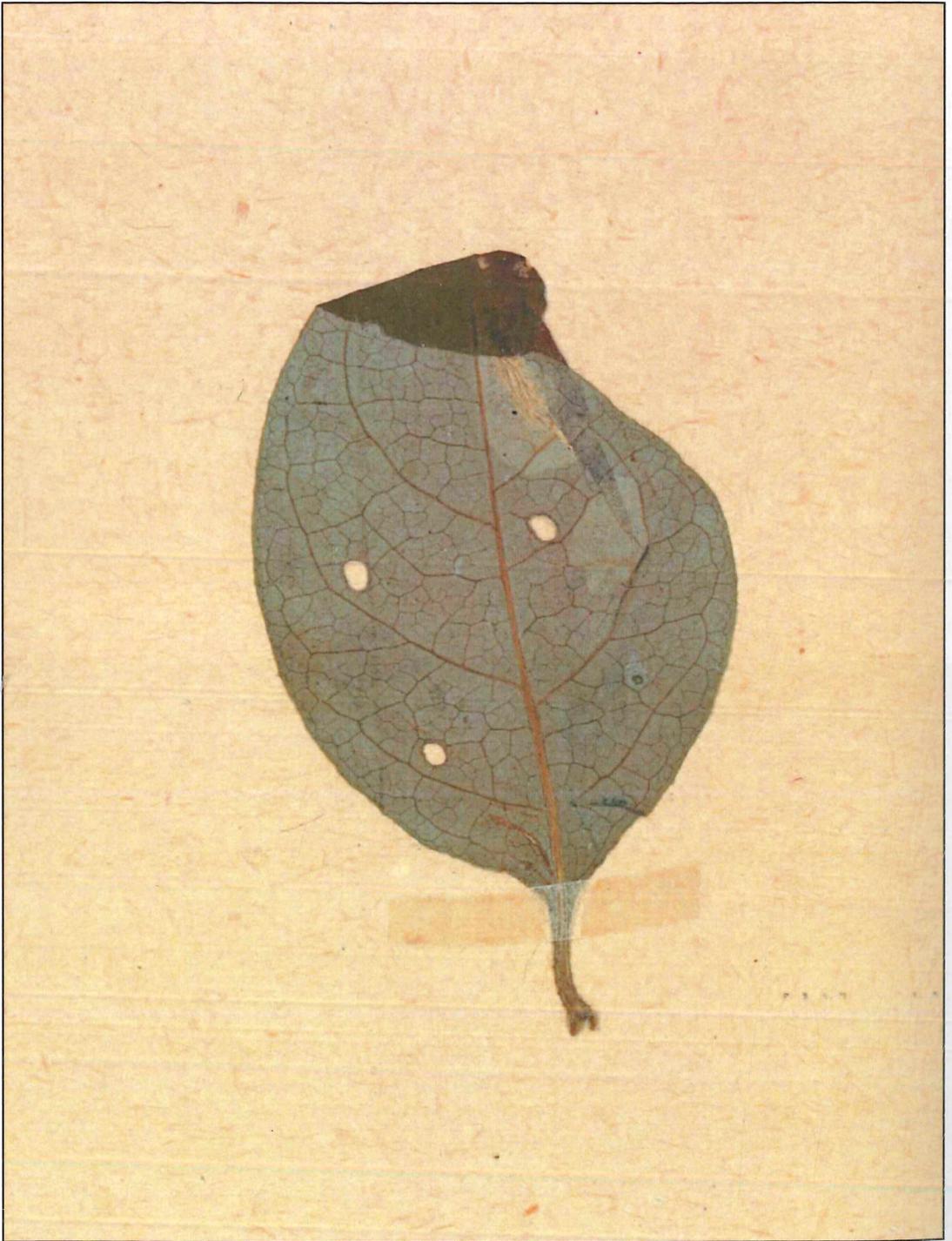
Details of page next to last, leaf bottom left. Top: initial corridor. Bottom: end of corridor.



Caprifoliaceae

Lonicera periclymenum L.

Phyllonorycter trifasciella (HAWORTH, 1828) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 13, no. 247
[*Lithocolletis trifasciella* Hw. (Lep.)]
Mesnil bei Paris, Frankr., VII. 1932

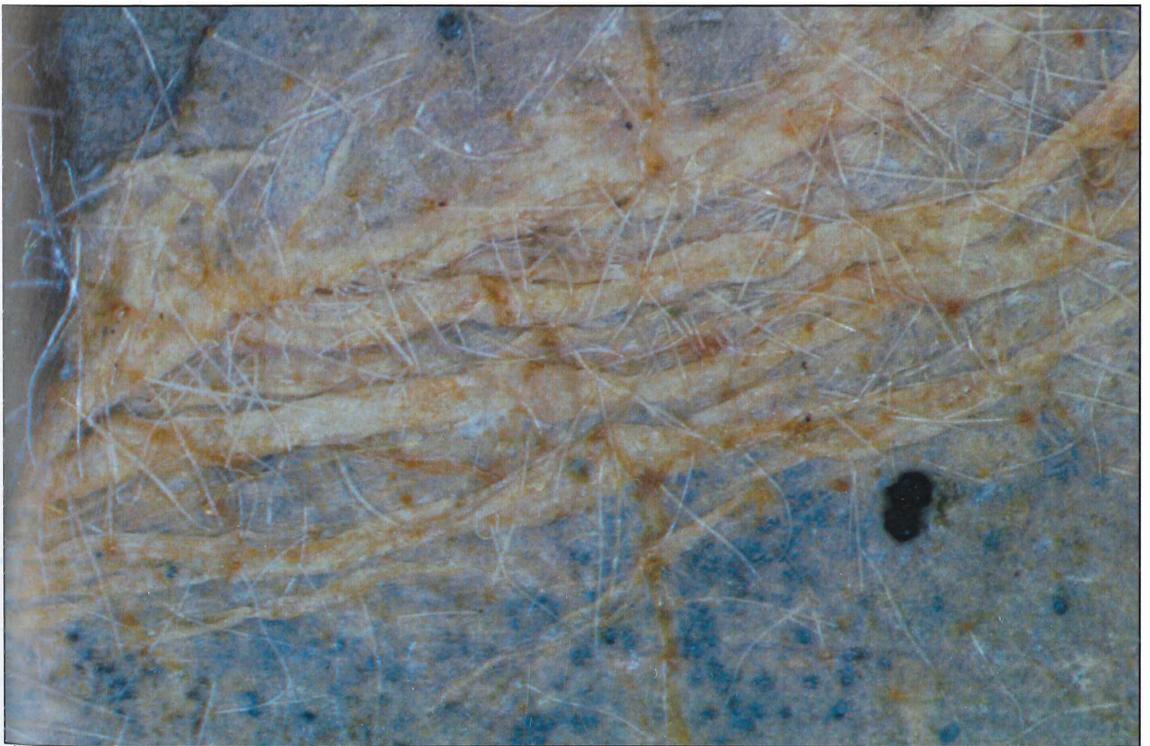
Caprifoliaceae

Lonicera periclymenum L.

Phyllonorycter trifasciella (HAWORTH, 1828) (Lepidoptera: Gracillariidae)



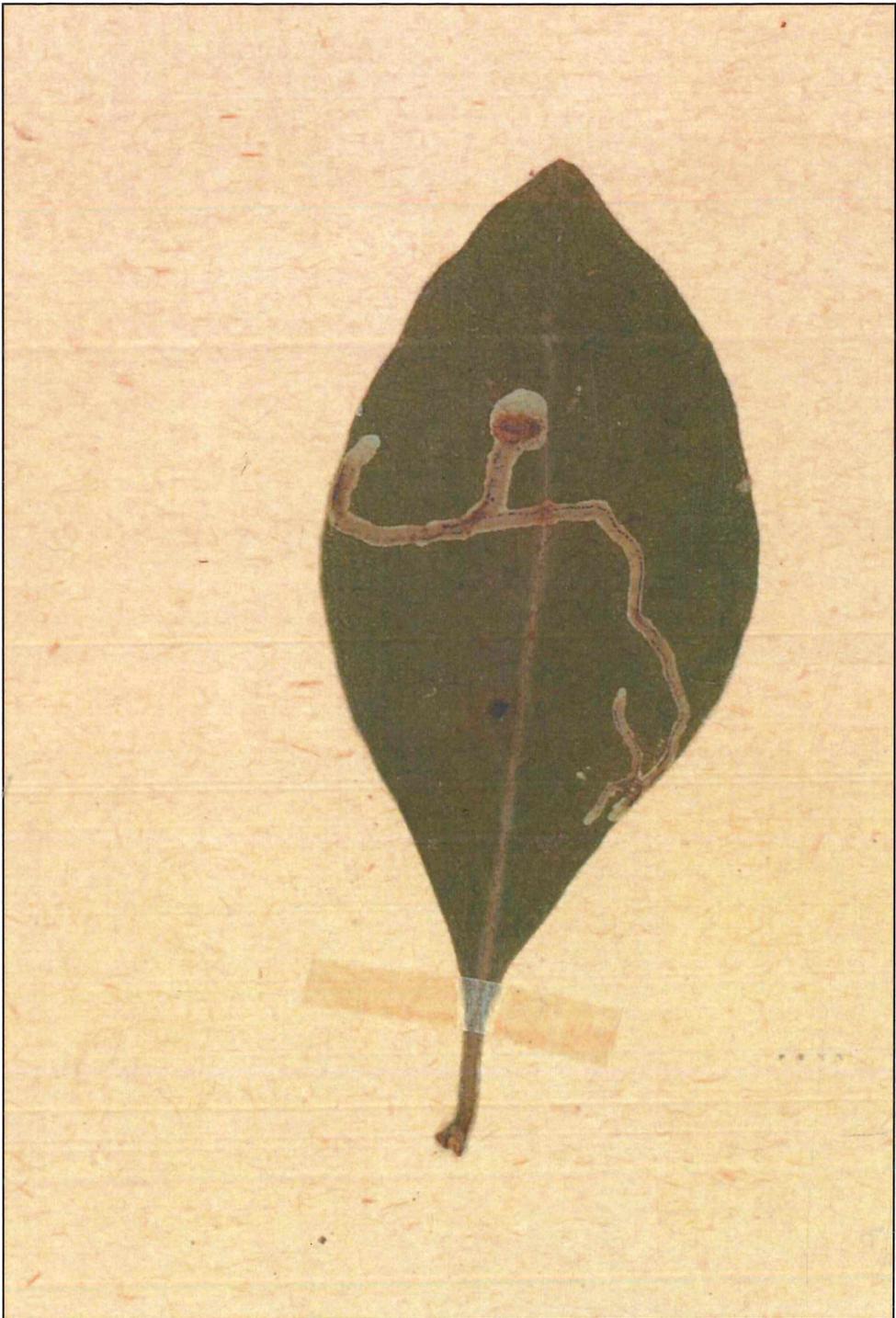
Details of previous page. Top: tentiform mine. Bottom: details of cocoon.



Caprifoliaceae

Lonicera periclymenum L.

Chromatomyia lonicerae (ROBINEAU-DESVOIDY, 1851) (Diptera: Agromyzidae)

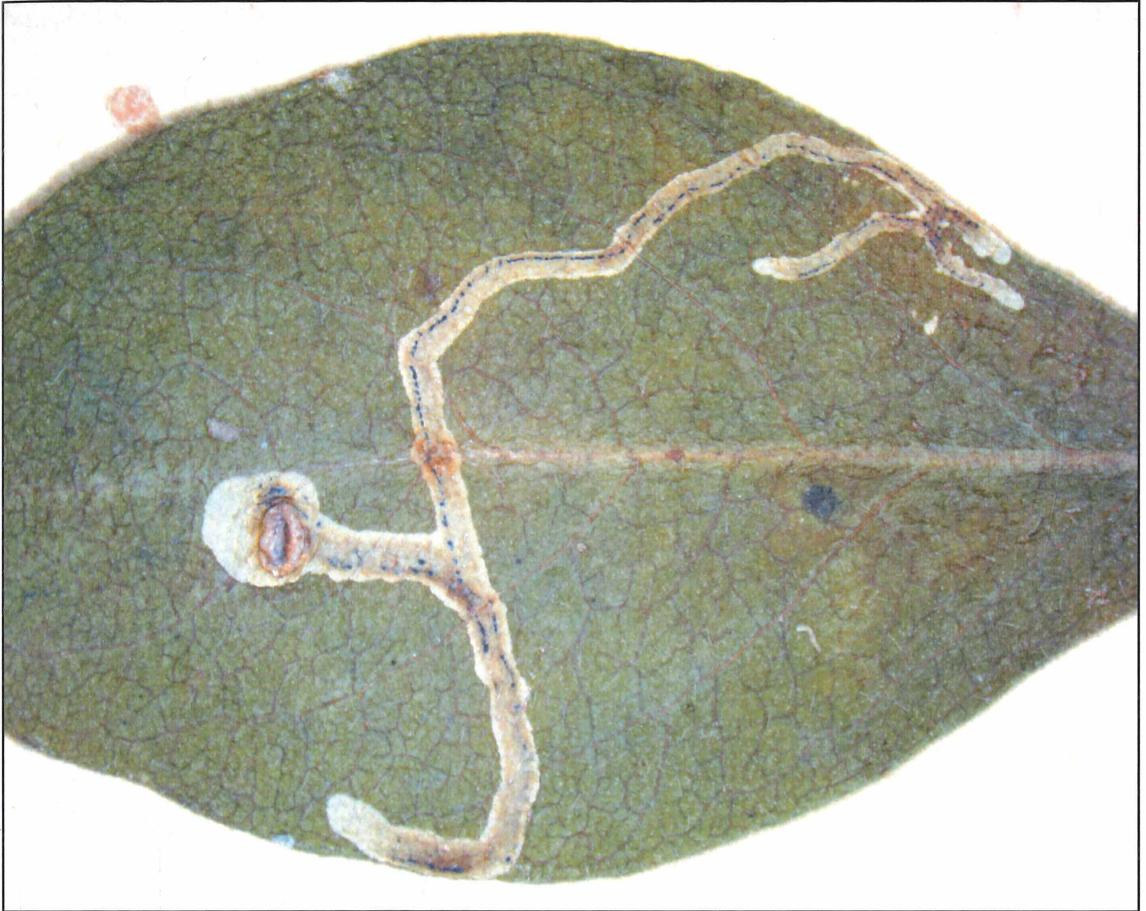


Leafminers-Herbarium, M.Hering, Lot 13, no. 248
[*Phytomyza xylostei* Klth. (Dipt.) emended to *Napomyza xylostei* Klth.]
Mesnil bei Paris, Frankr., VII. 1932

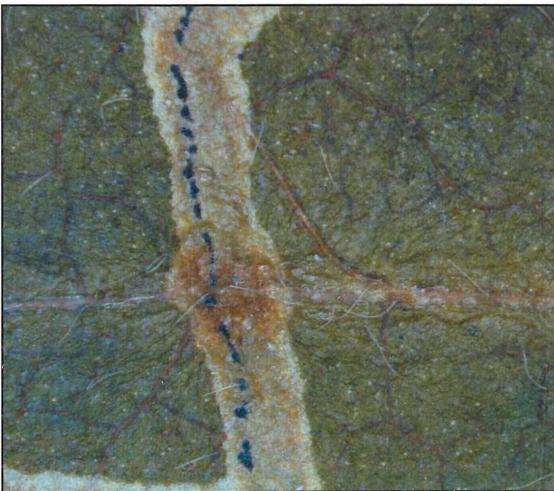
Caprifoliaceae

Lonicera periclymenum L.

Chromatomyia lonicerae (ROBINEAU-DESVOIDY, 1851) (Diptera: Agromyzidae)



Details of previous page. Top: overview, corridors radiating, puparium in the mine on the left side.
Bottom: frass in pearl chains (left) and details of puparium (right).



Caprifoliaceae

Symphoricarpos albus (L.) Blake

Phyllonorycter emberizaepenella (BOUCHÉ, 1834) (Lepidoptera: Gracillariidae)

Scan of original description by Bouché (as *Ornix emberizaepenella*) checked on October 15th, 2012 in <http://www.lepiforum.de>. In KARSHOLT & RAZOWSKI and in the Leafminers-Herbarium of Hering wrongly spelled as *emberizaepennella*.



Leafminers-Herbarium, M.Hering, Lot 13, no. 249

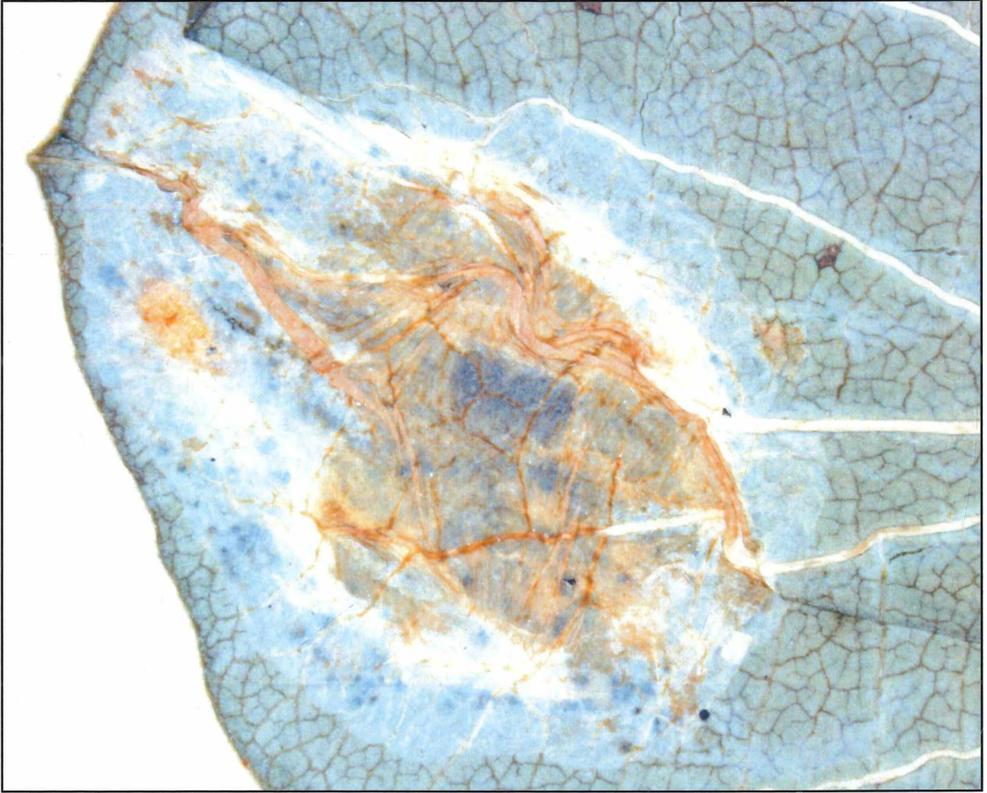
[*Symphoricarpos racemosus* Mich. emended to *Symphoricarpos albus* (L.) Blake] [*Lithocolletis emberizaepennella* Bché. (Lep.)]

Crossen/Oder, Brandenburg VII. 1931

Caprifoliaceae

Symphoricarpos albus (L.) Blake

Phyllonorycter emberizaepenella (BOUCHÉ, 1834) (Lepidoptera: Gracillariidae)



Details of previous page. Top: lower surface tentiform mine. Bottom: larva in the left part of the mine.



Caprifoliaceae

Symphoricarpos albus (L.) Blake

Chromatomyia lonicerae (ROBINEAU-DESVOIDY, 1851) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 18, no. 353

[*Symphoricarpos racemosus* Mich. emended to *Symphoricarpos albus* (L.) Blake]

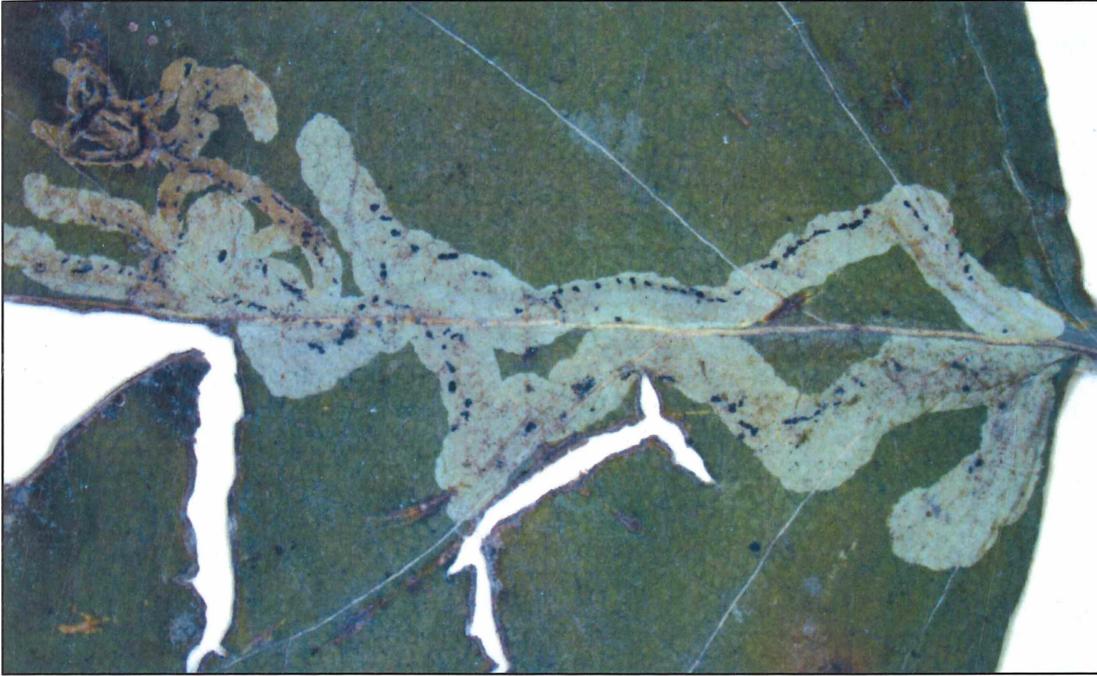
[*Phytomyza xylostei* Kaltenb. emended to *Napomyza xylostei* Kaltenb.]

Berlin, Garten, October 1934

Caprifoliaceae

Symphoricarpos albus (L.) Blake

Chromatomyia lonicerae (ROBINEAU-DESVOIDY, 1851) (Diptera: Agromyzidae)



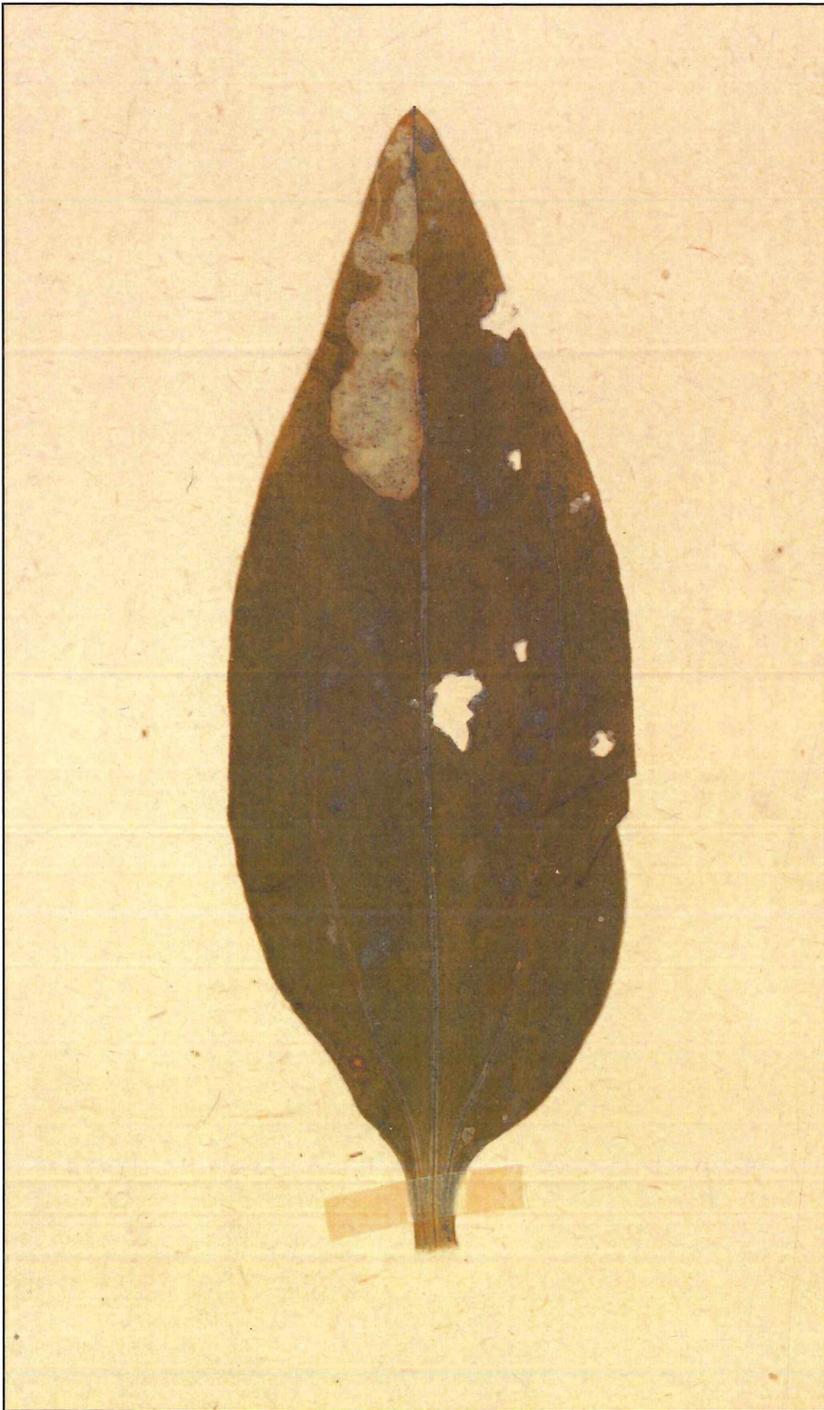
Details of previous page. Typically radiating corridor.



Caryophyllaceae

Saponaria officinalis L.

Amauromyza flavifrons (MEIGEN, 1830) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 17, no. 322

[*Dizygomyza flavifrons* Mg. emended to *Phytobia* (*Trilobomyza*) *flavifrons* Mg.]

Berlin. Garten, October 1934

Caryophyllaceae

Saponaria officinalis L.

Amauromyza flavifrons (MEIGEN, 1830) (Diptera: Agromyzidae)



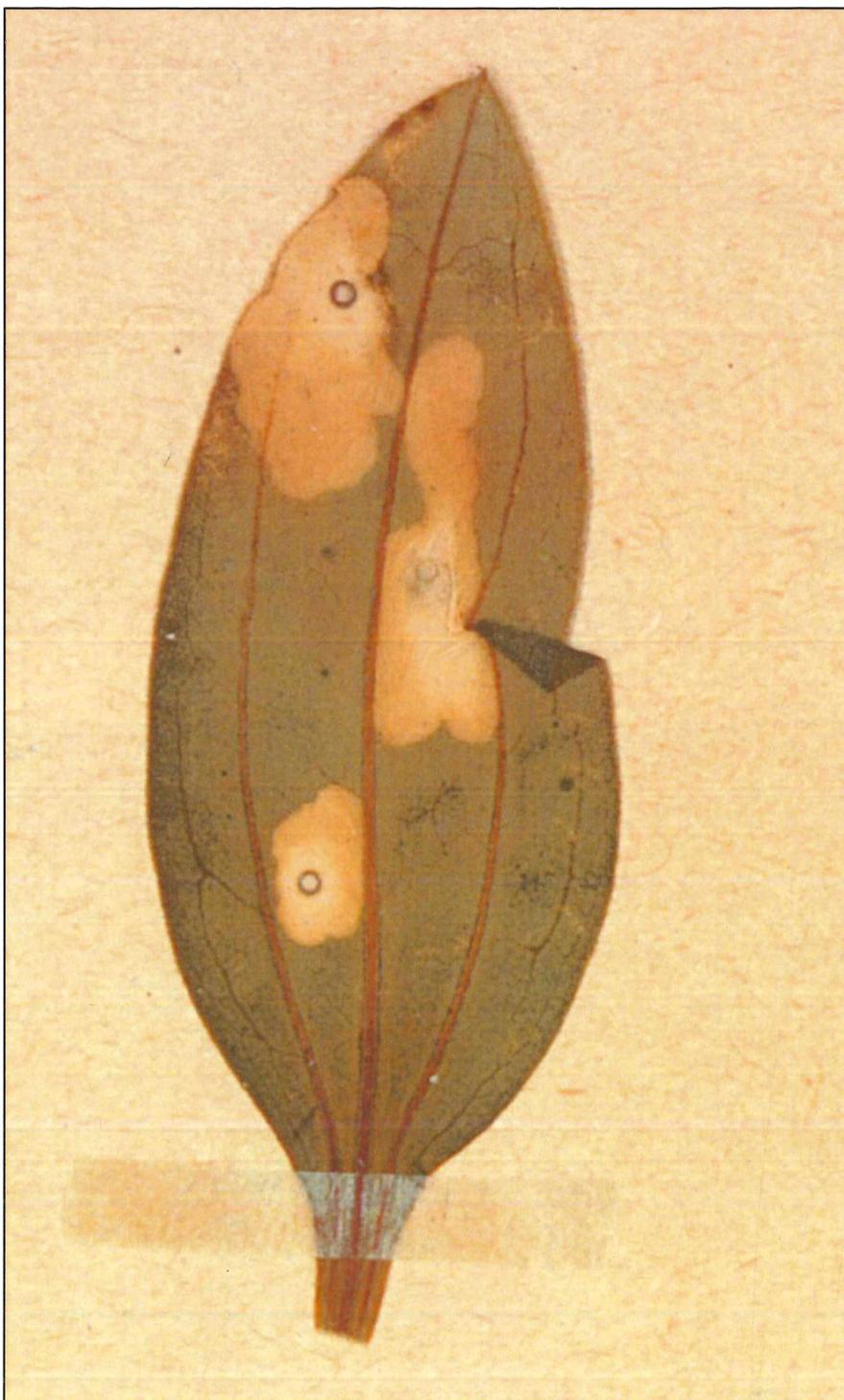
Details of previous page. Secondary blotch containing little frass.



Caryophyllaceae

Saponaria officinalis L.

Coleophora saponariella HEEGER, 1848 (Lepidoptera: Coleophoridae)

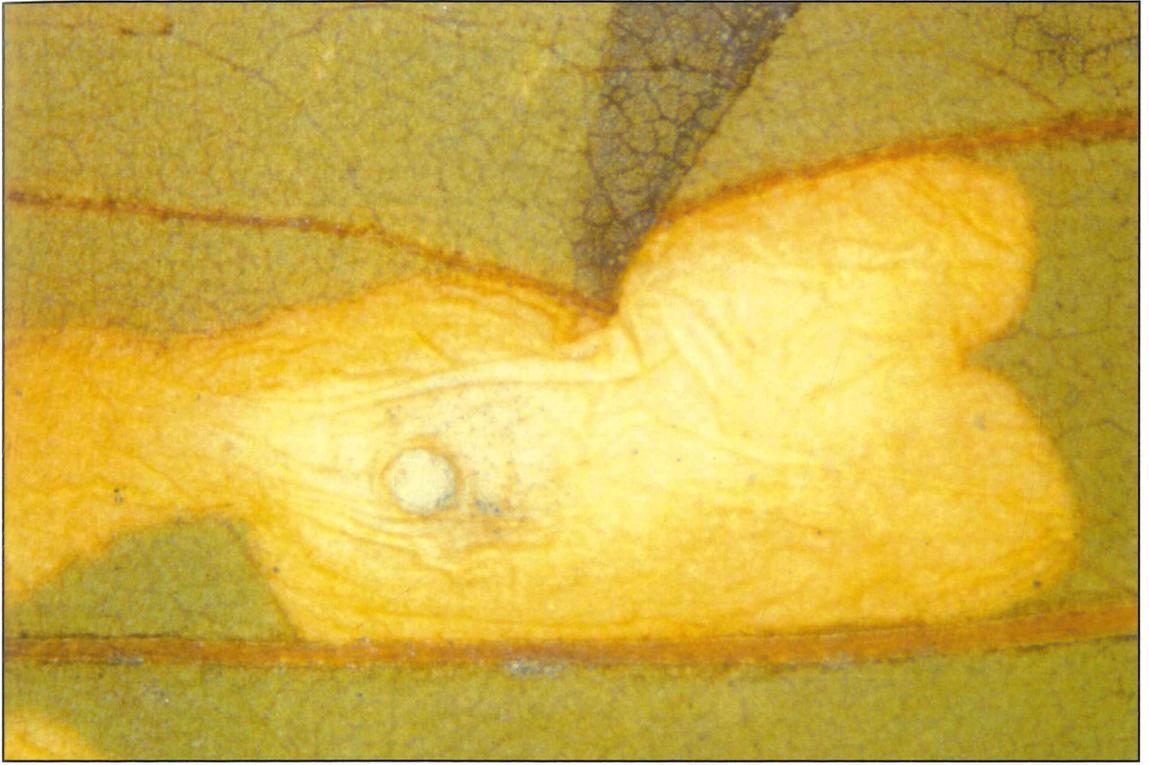


Leafminers-Herbarium, M.Hering, Lot 6, no. 108
Bendery / Bessarabien [Bender, Moldova], IX. 1930

Caryophyllaceae

Saponaria officinalis L.

Coleophora saponariella HEEGER, 1848 (Lepidoptera: Coleophoridae)



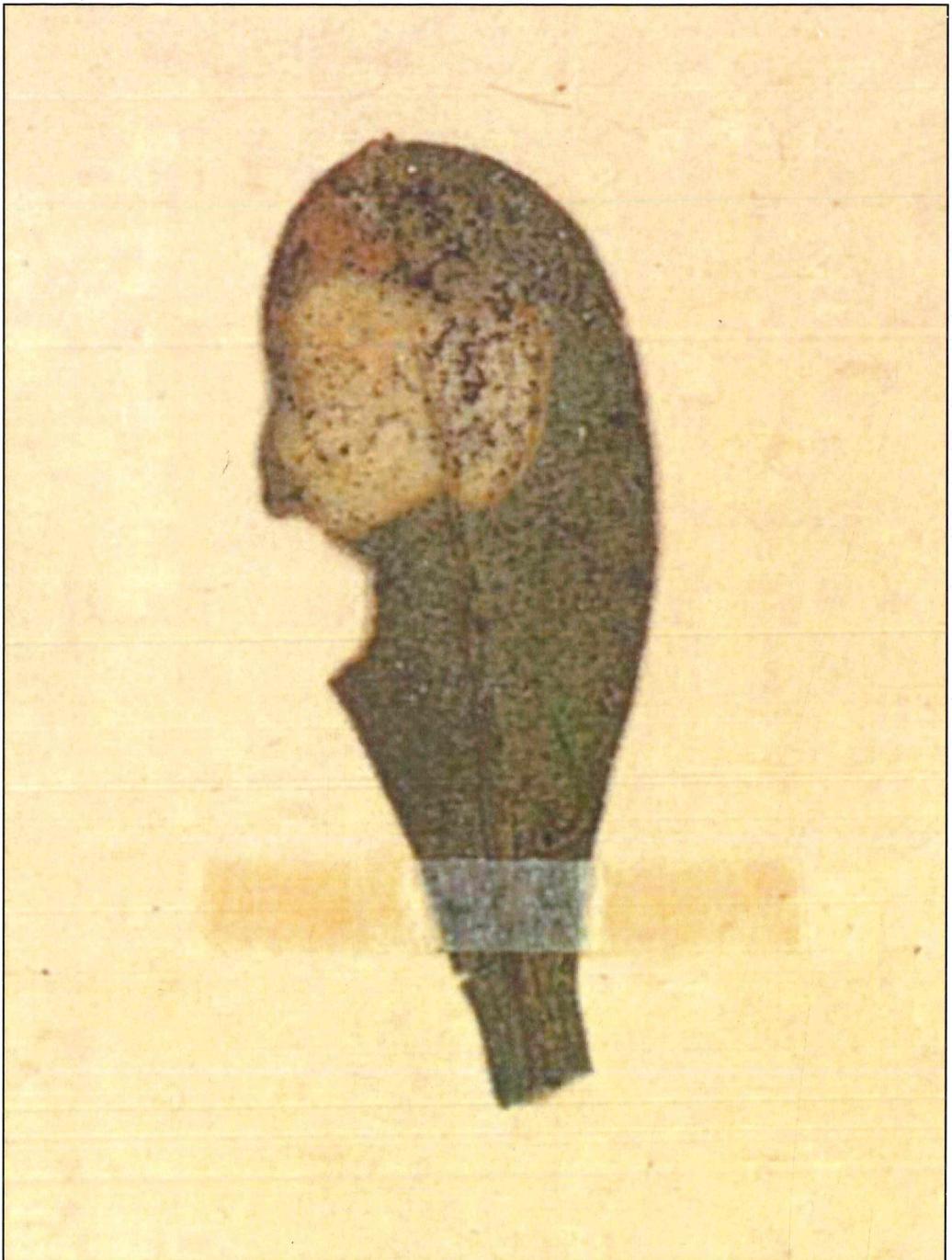
Details of previous page. Top: details of mine, characteristic pale colour in the middle, yellow at the margins. Bottom: circular hole on the epidermis, feeding area.



Caryophyllaceae

Silene otites (L.) Wibel

Coleophora galbulipennella ZELLER, 1838 (Lepidoptera: Coleophoridae)



Leafminers-Herbarium, M.Hering, Lot 21, no. 404
[*Silene otites* Smith] [*Coleophora otitae* Z.]
Frankfurt/Oder, Brandenburg, Mai 1936

Caryophyllaceae

Silene otites (L.) Wibel

Coleophora galbulipennella ZELLER, 1838 (Lepidoptera: Coleophoridae)

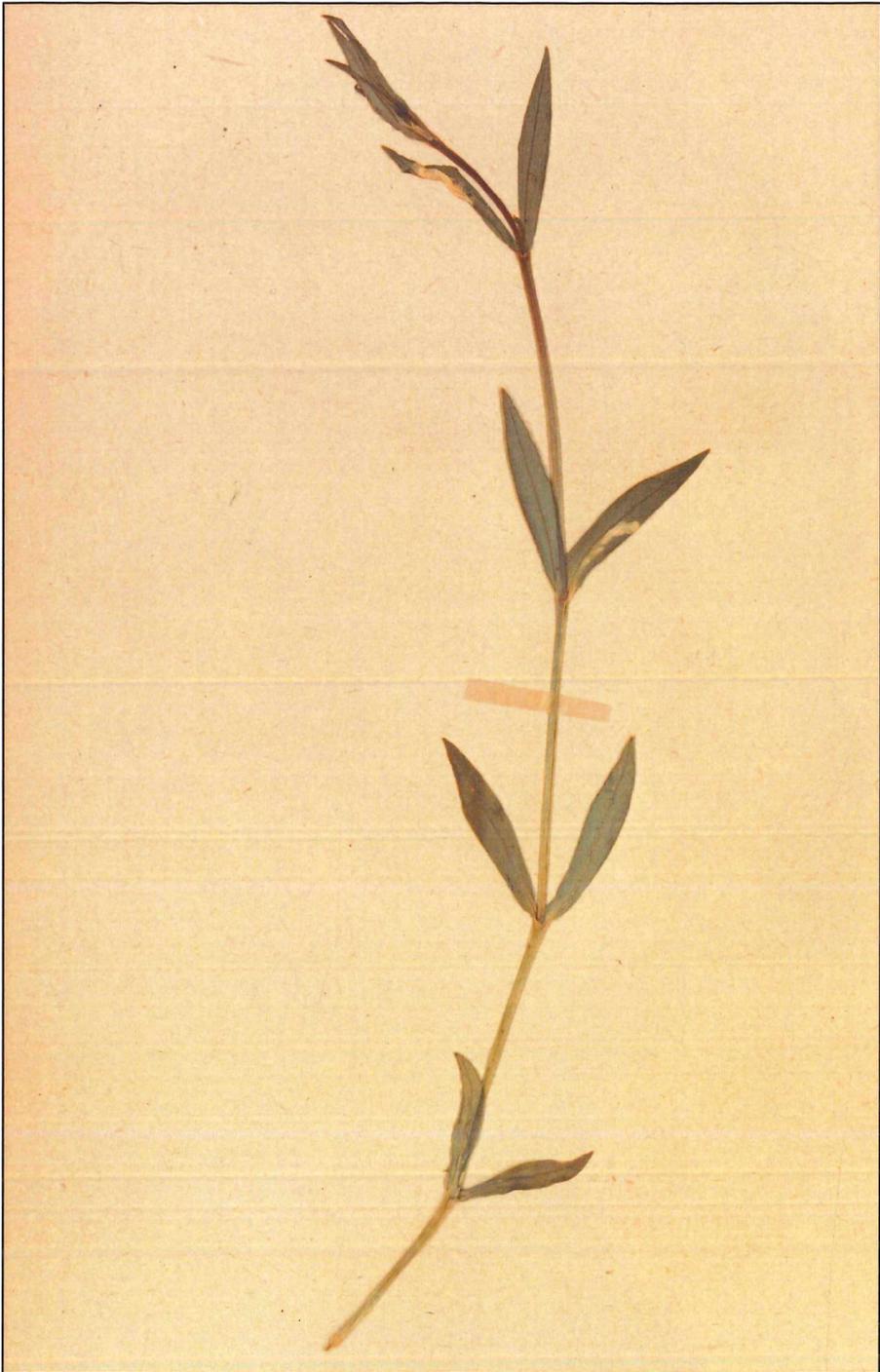


Detail of previous page.

Caryophyllaceae

Stellaria graminea L.

Scaptomyza graminum (FALLÉN, 1823) (Diptera: Agromyzidae)

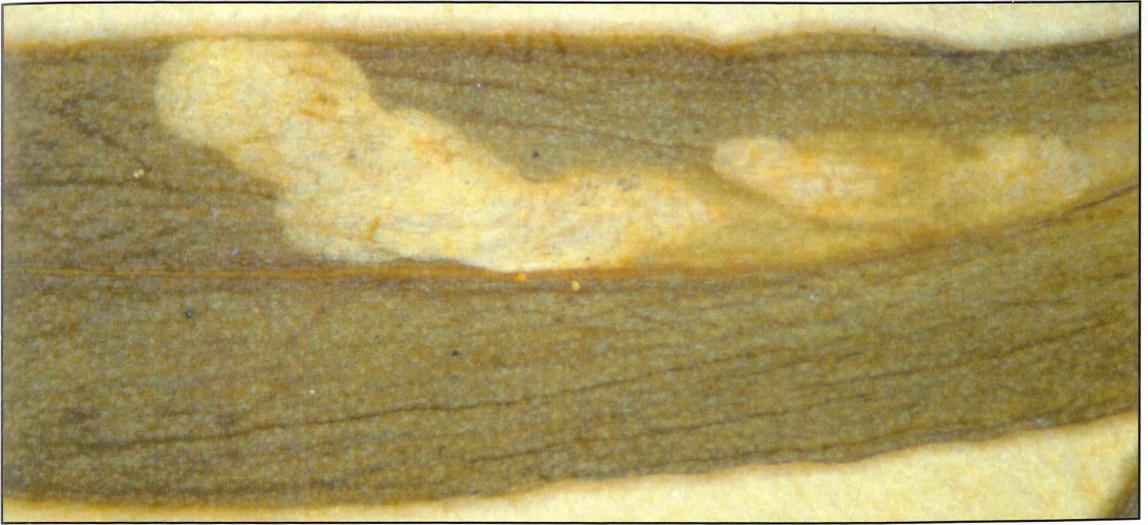


Leafminers-Herbarium, M.Hering, Lot 7, no. 132
[*Scaptomyzella incana* Meigen emended to *Scaptomyza incana*]
Berlin-Buch, Mai 1931

Caryophyllaceae

Stellaria graminea L.

Scaptomyza graminum (FALLÉN, 1823) (Diptera: Agromyzidae)



Details of previous page: different aspects of blotch mine, blotch with lobes (top).



Caryophyllaceae

Stellaria holostea L.

Coleophora solitariella ZELLER, 1849 (Lepidoptera: Coleophoridae)

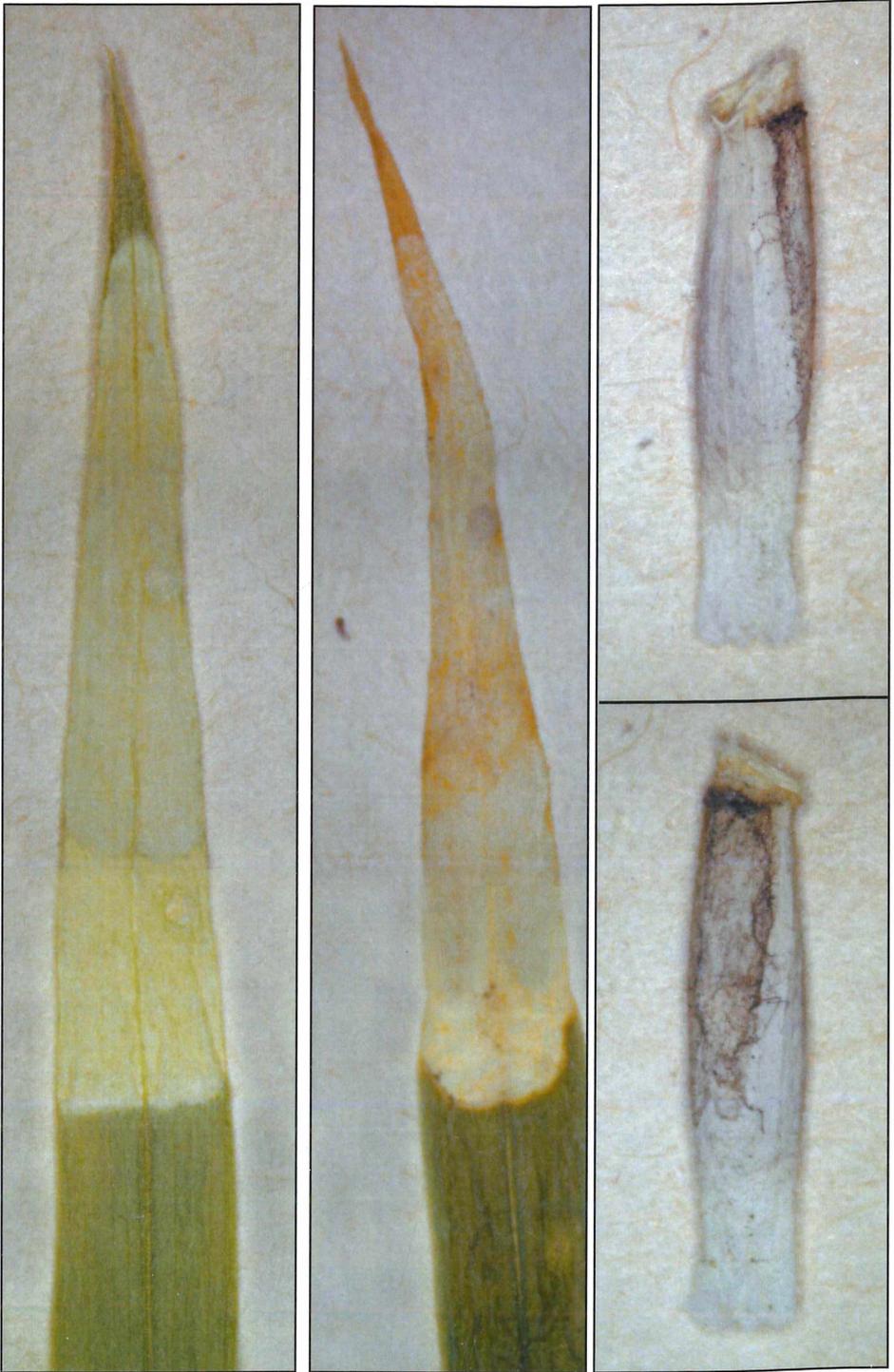


Leafminers-Herbarium, M.Hering, Lot 4, no. 69
Berlin-Finkenkrug, Juni 1930

Caryophyllaceae

Stellaria holostea L.

Coleophora solitariella ZELLER, 1849 (Lepidoptera: Coleophoridae)

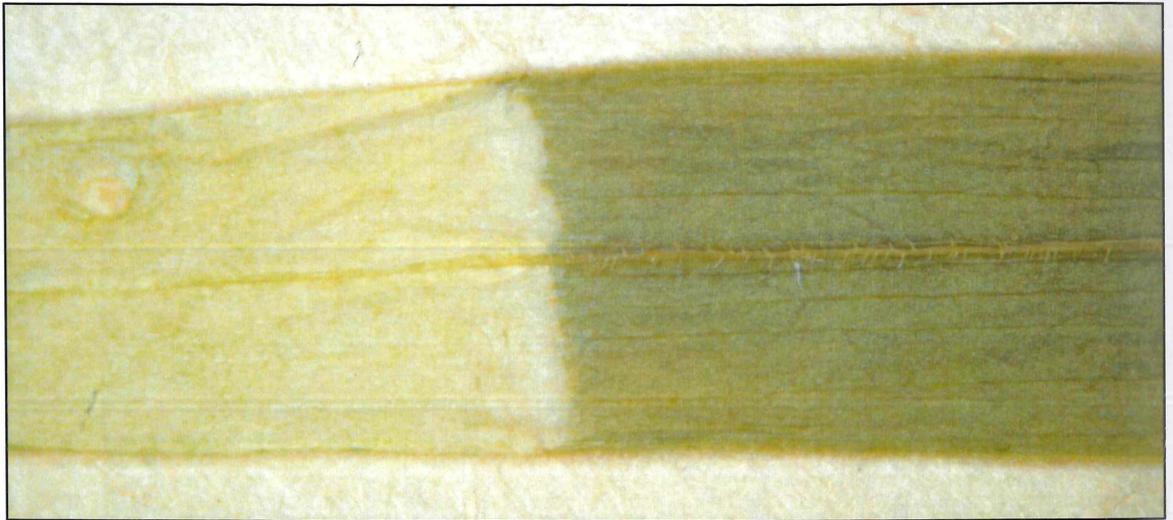


Details of previous page. Left: two samples of infested leaf tips with mine. Right: tubular case (top: ventral view; bottom: dorsal view).

Caryophyllaceae
Stellaria holostea L.

Coleophora solitariella ZELLER, 1849 (Lepidoptera: Coleophoridae)

Details of page next to last: different aspects of mine in the leaf tips.



Caryophyllaceae
Stellaria holostea L.

Caryocolum kroesmanniella (HERRICH-SCHÄFFER, 1854) (Lepidoptera: Gelechiidae)



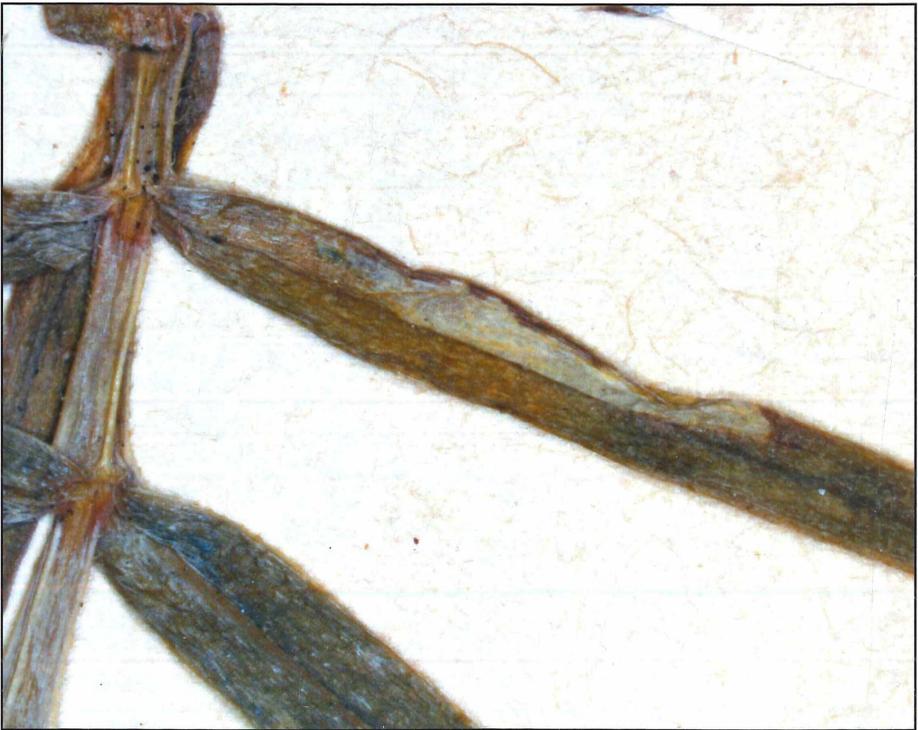
Leafminers-Herbarium, M.Hering, Lot 19, no. 366
[*Phthorimaea* (Lita) *hübneri* Haw. emended to *Caryocolum hübneri* Haw.]
Berlin – Finkenkrug, Mai 1935

Caryophyllaceae
Stellaria holostea L.

Caryocolum kroesmanniella (HERRICH-SCHÄFFER, 1854) (Lepidoptera: Gelechiidae)



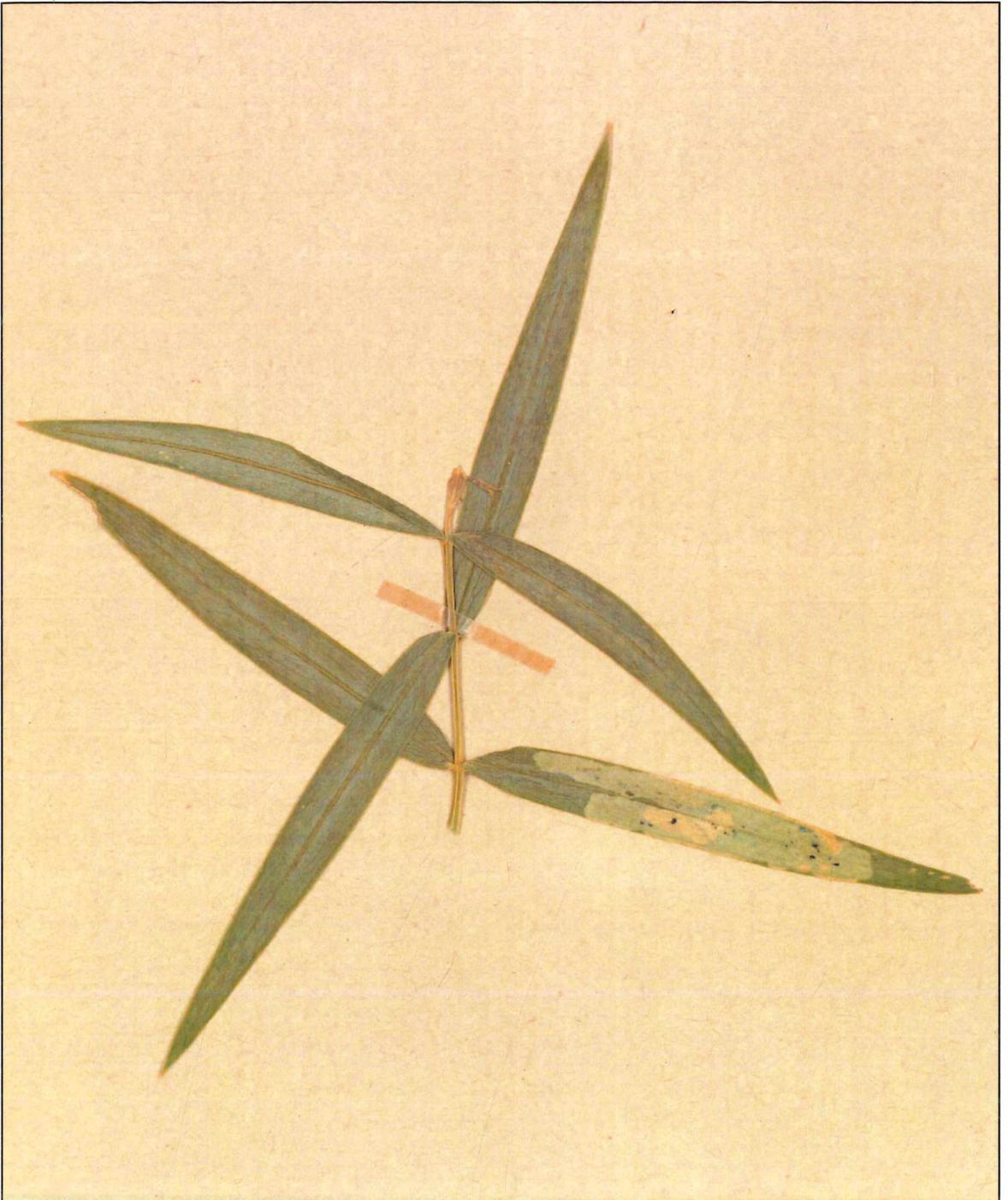
Details of previous page: broad galleries not crossing the midrib.



Caryophyllaceae

Stellaria holostea L.

Amauromyza flavifrons (MEIGEN, 1830) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 19, no. 367

[Dizygomyza flavifrons Mg. emended to Phytobia (Trilobomyza) flavifrons Mg.]

Kyffhäuser, Thuringia, Juli 1935

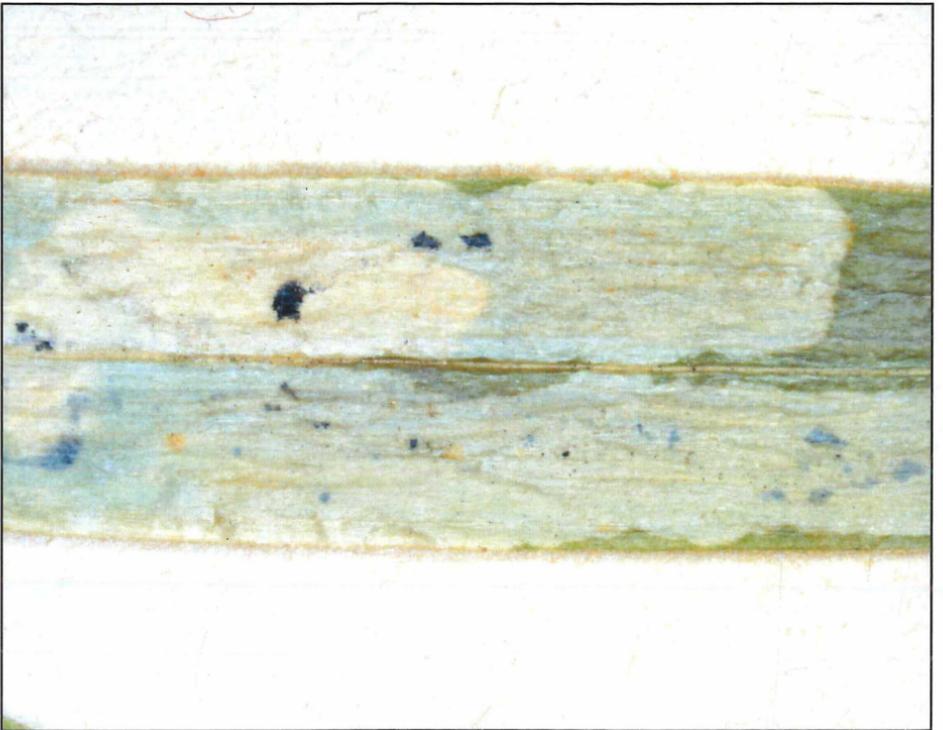
Caryophyllaceae

Stellaria holostea L.

Amauromyza flavifrons (MEIGEN, 1830) (Diptera: Agromyzidae)



Details of previous page. Secondary blotch mine with only a few grains of frass.



Chenopodiaceae

Chenopodium album L.

Pegomya hyoscyami (PANZER, 1809) (Diptera: Anthomyiidae)

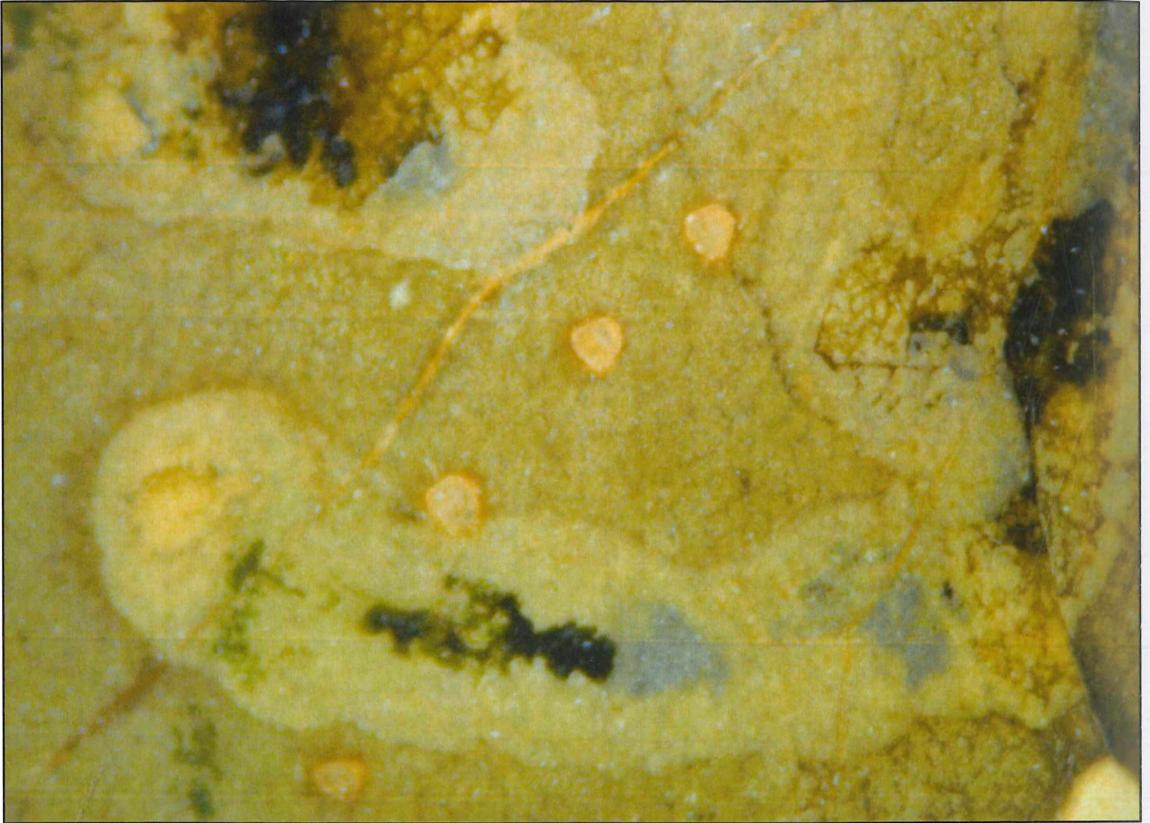


Leafminers-Herbarium, M.Hering, Lot 4, no. 67
[*Pegomya chenopodii* Rndn.]
Berlin-Karlshort, Juni 1929

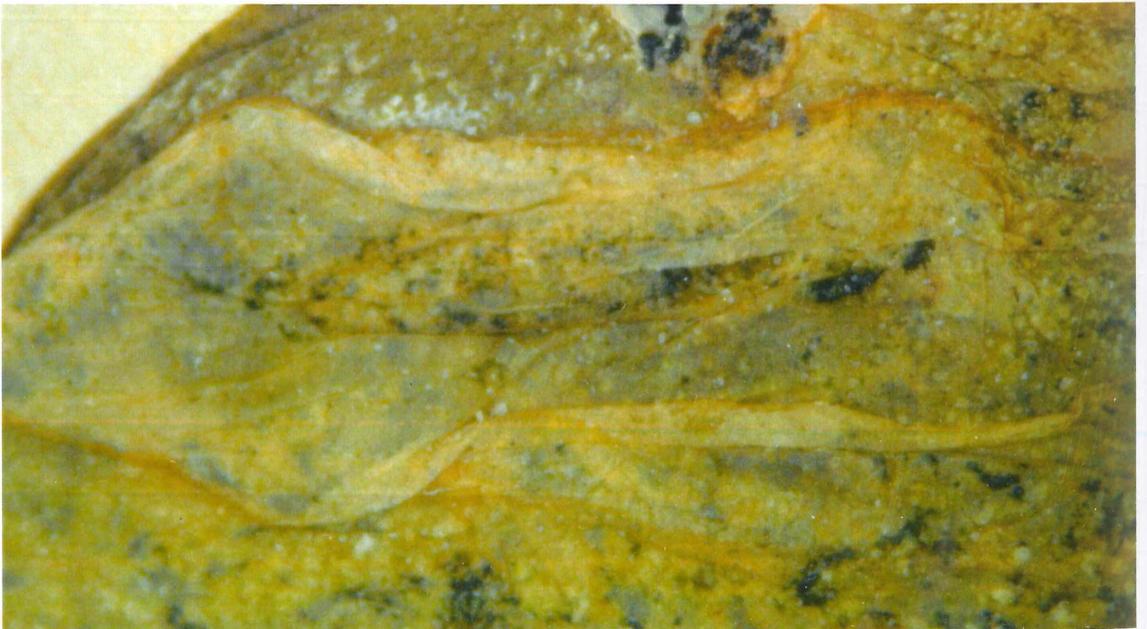
Chenopodiaceae

Chenopodium album L.

Pegomya hyoscyami (PANZER, 1809) (Diptera: Anthomyiidae)



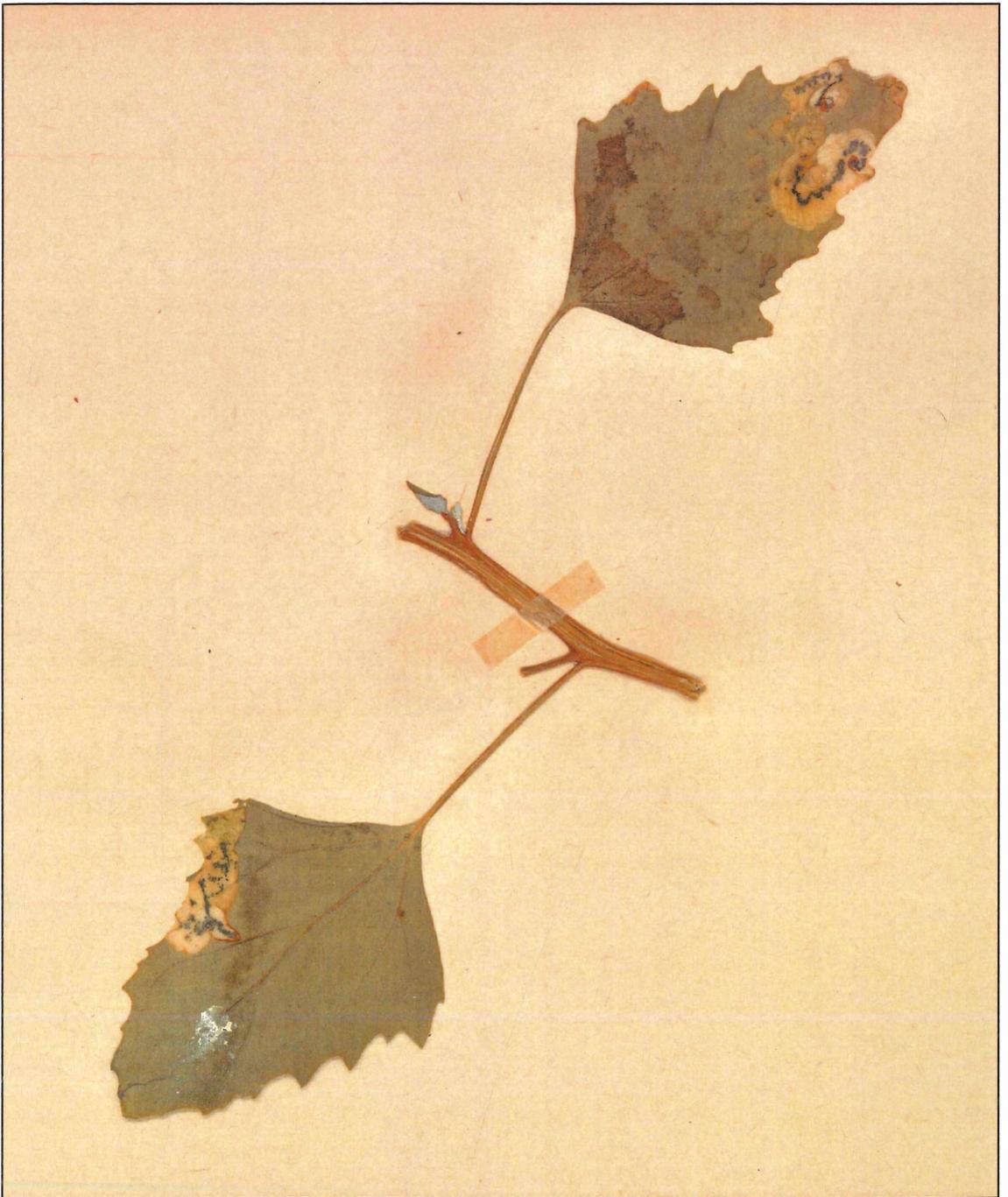
Details of previous page: different aspects of blotch, greenish black frass visible.



Chenopodiaceae

Chenopodium album L.

Chrysoesthia sexguttella (THUNBERG, 1794) (Lepidoptera: Gelechiidae)



Leafminers-Herbarium, M.Hering, Lot 4, no. 68

[Chrysopora naeviferella Dup.]

Berlin-Karlshort, Juni 1929

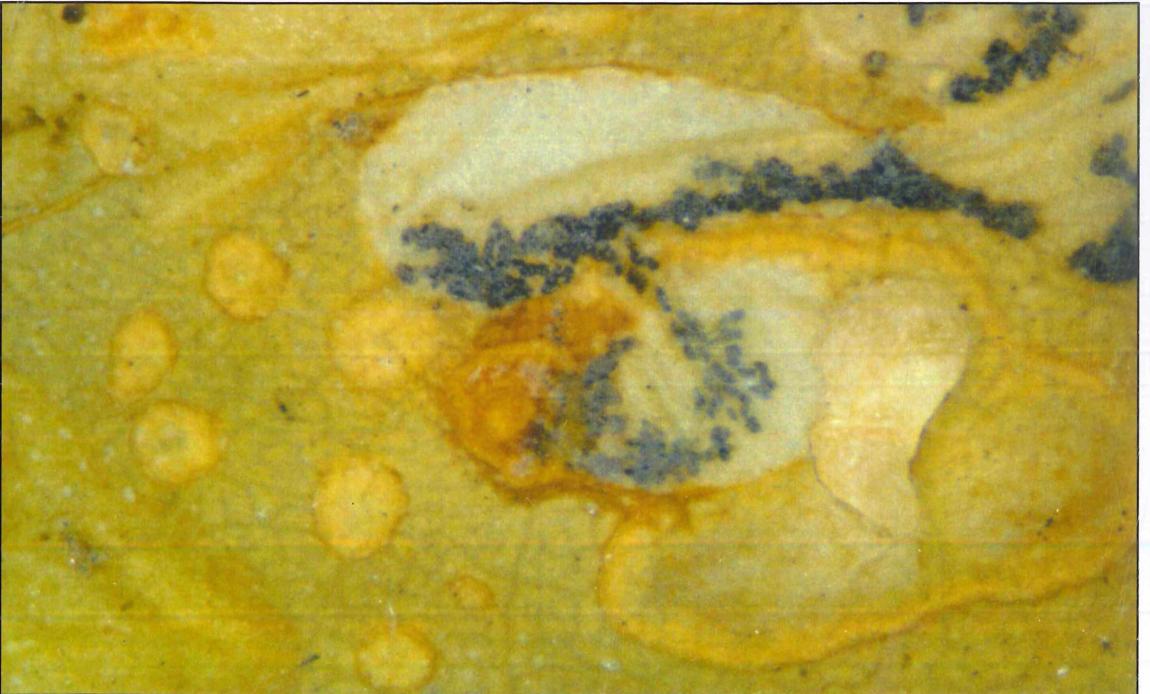
Chenopodiaceae

Chenopodium album L.

Chrysoesthia sexguttella (THUNBERG, 1794) (Lepidoptera: Gelechiidae)



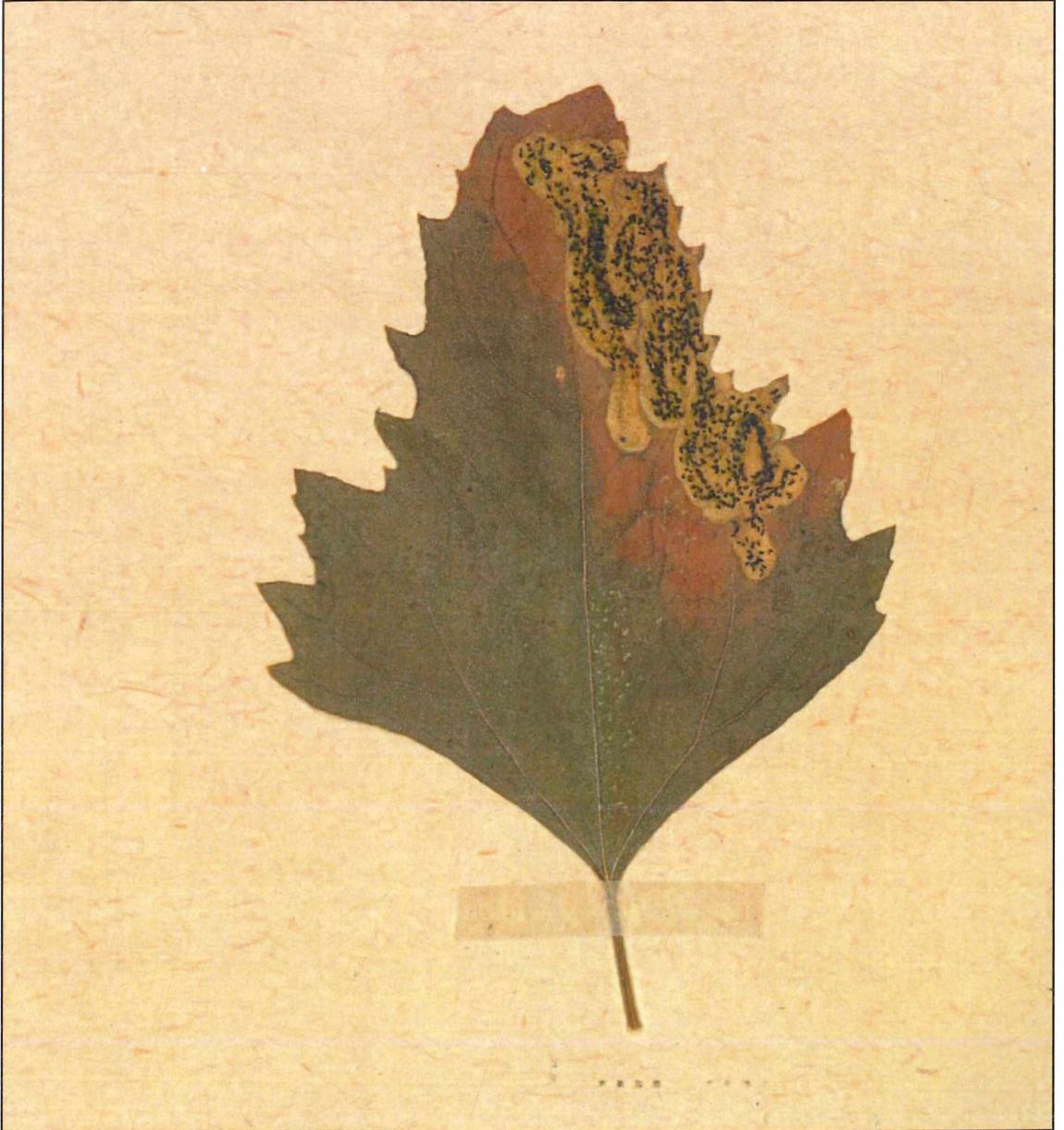
Details of previous page: different aspects of whitish blotch mine; frass lumped together.



Chenopodiaceae

Chenopodium album L.

Chrysoesthia drurella (FABRICIUS, 1775) (Lepidoptera: Gelechiidae)



Leafminers-Herbarium, M.Hering, Lot 11, no. 207
[*Chrysopora hermannella* Fb., genus emended to *Micosetia*]
Berlin-Cöpenick, Brandenburg VII. 1932

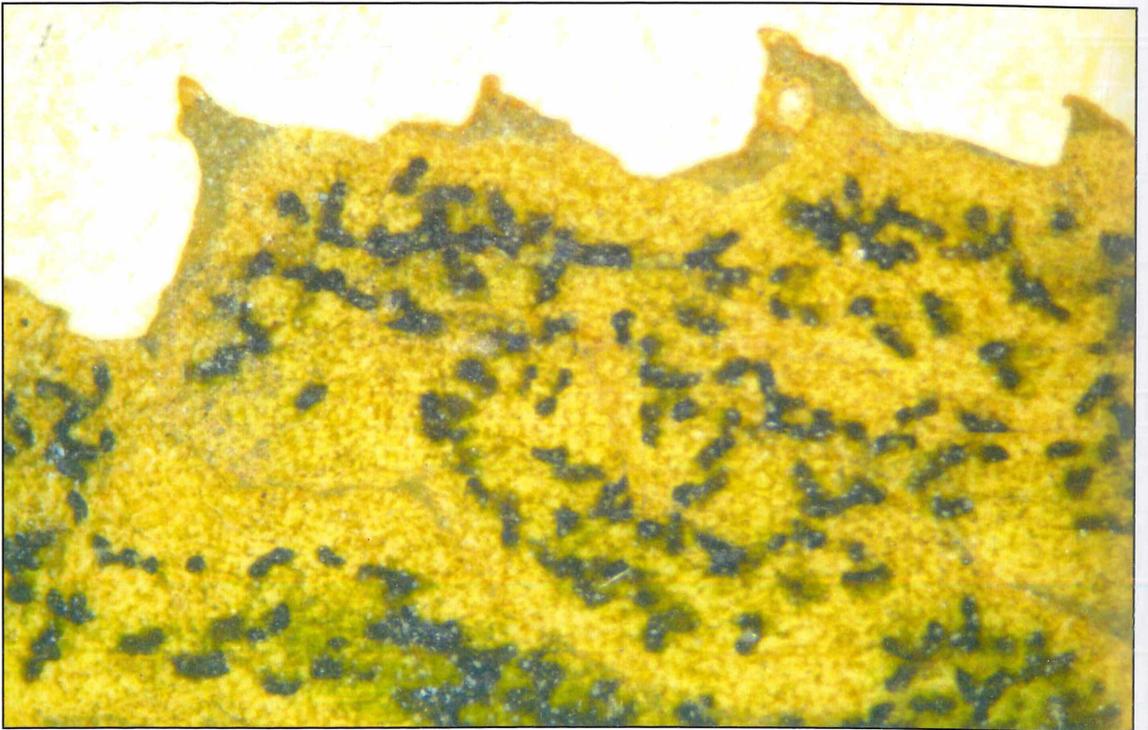
Chenopodiaceae

Chenopodium album L.

Chrysoesthia drurella (FABRICIUS, 1775) (Lepidoptera: Gelechiidae)



Details of previous page: details of intestine-like, contorted corridor, frass in thick grains or threads.



Cistaceae

Cistus albidus L.

Parafomoria liguricella (KLIMESCH, 1946) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M.Hering, Lot 15, no. 284

[*Nepticula cistivora* Peyer. emended to *Stigmella liguricella* Klim.]

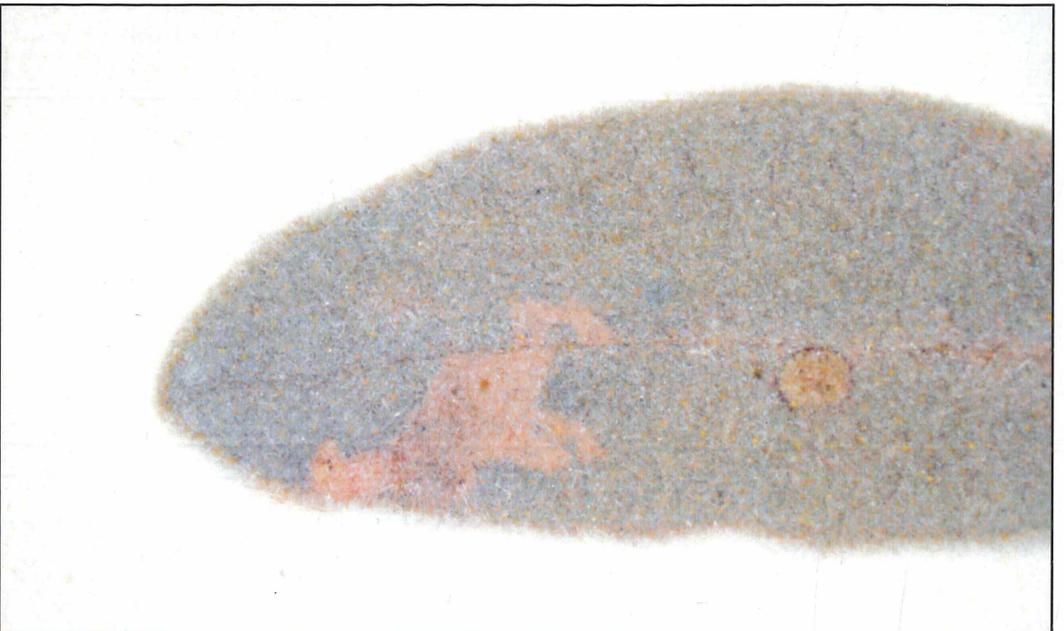
Totana, Prov. Murcia Mai 1933

Cistaceae
Cistus albidus L.

Parafomoria liguricella (KLIMESCH, 1946) (Lepidoptera: Nepticulidae)



Details of previous page. Not a very typical sample, small, secondary blotch visible, corridor insignificant, frass line also insignificant.



Cistaceae

Cistus salviifolius L.

Apterona gracilis (AD. SPEYER, 1886) (Lepidoptera: Psychidae)



Leafminers-Herbarium, M.Hering, Lot 15, no. 282
[*Cistus salviaefolius* L. emended to *Cistus salvifolius* L.]
Puerto de Sta. Maria bei Cadiz, April 1933

Cistaceae

Cistus salviifolius L.

Apterona gracilis (AD. SPEYER, 1886) (Lepidoptera: Psychidae)



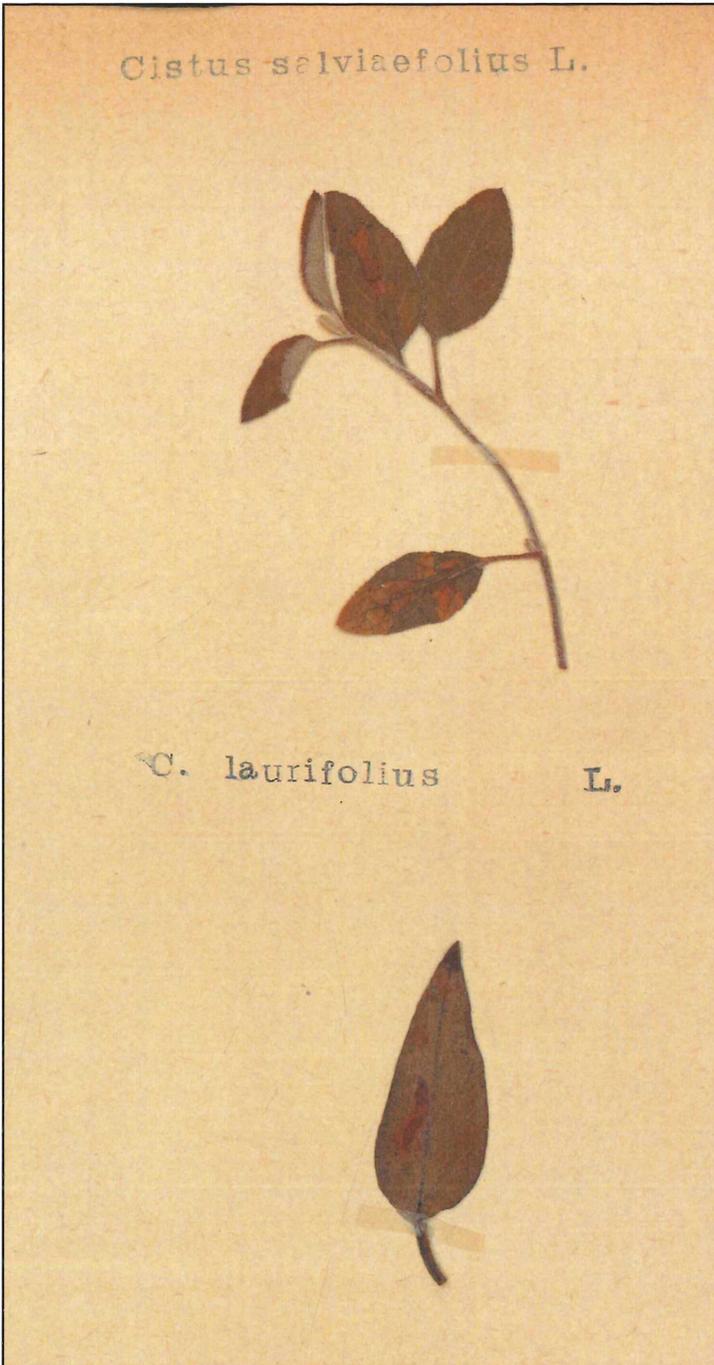
Details of previous page.



Cistaceae

Cistus salviifolius L. & Cistus laurifolius L.

Dicladispa testacea (LINNAEUS, 1767) (Coleoptera: Chrysomelidae)



Leafminers-Herbarium, M.Hering, Lot 15, no. 283

[*Cistus salviaefolius* L. emended to *Cistus salvifolius* L.] [*Hispa testacea* L. emended to *Dicladispa testacea* L.]

C. salviifolius: Puerto Real b. Cadiz, April 1933. *C. laurifolius*: Albarracin, Aragonien, Juni 1933

Cistaceae

Cistus salviifolius L.

Dicladispa testacea (LINNAEUS, 1767) (Coleoptera: Chrysomelidae)



Details of previous page. *Cistus salviifolius*, blotch mine. Bottom: puparium overlaying primary blotch.



Cistaceae

Cistus laurifolius L.

Dicladispa testacea (LINNAEUS, 1767) (Coleoptera: Chrysomelidae)



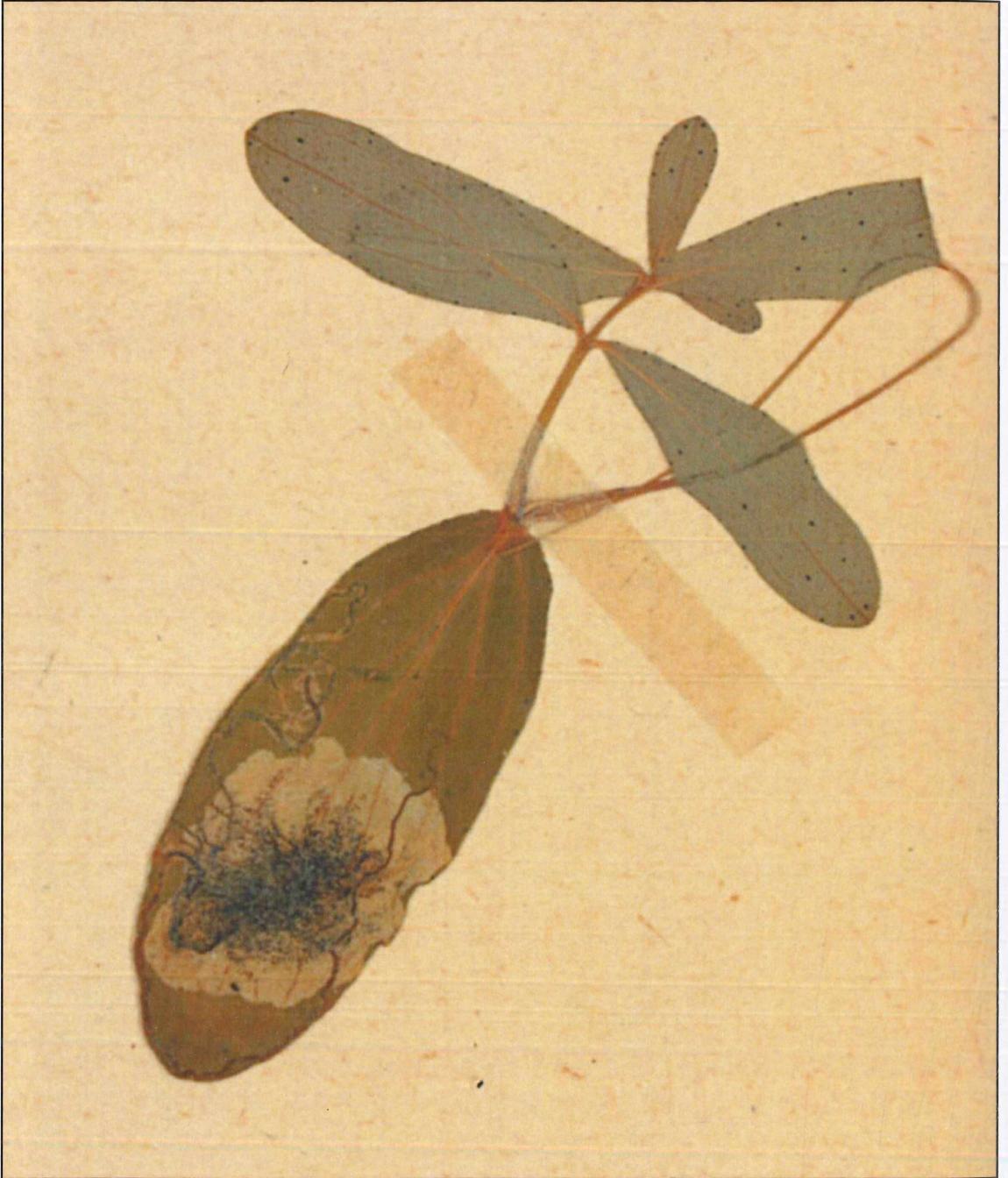
Details of page next to last. *Cistus laurifolius*, blotch mine.



Clusiaceae

Hypericum perforatum L.

Ectoedemia septembrella (STAINTON, 1849) (Lepidoptera: Nepticulidae)



Leafminers-Herbarium, M. Hering, Lot 8, no. 159
[*Nepticula septembrella* Stt.] Crossen / Oder, Brandenburg Juni 1931

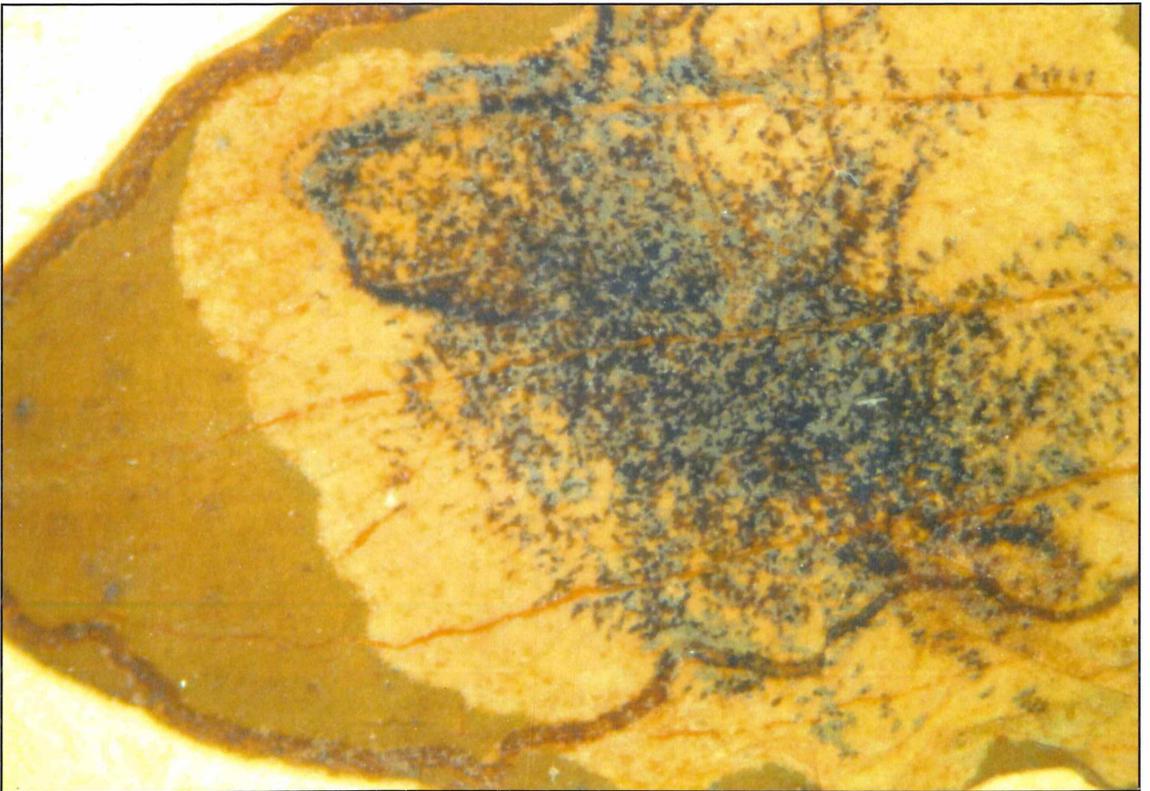
Clusiaceae

Hypericum perforatum L.

Ectoedemia septembrella (STAINTON, 1849) (Lepidoptera: Nepticulidae)



Details of previous page. Top: initial part of mine – long winding corridor with a broad frass line.
Bottom: later part as a wide blotch with frass concentrated in the middle.



Clusiaceae

Hypericum perforatum L.

Euspilapteryx auroguttella STEPHENS, 1835 (Lepidoptera: Gracillariidae)

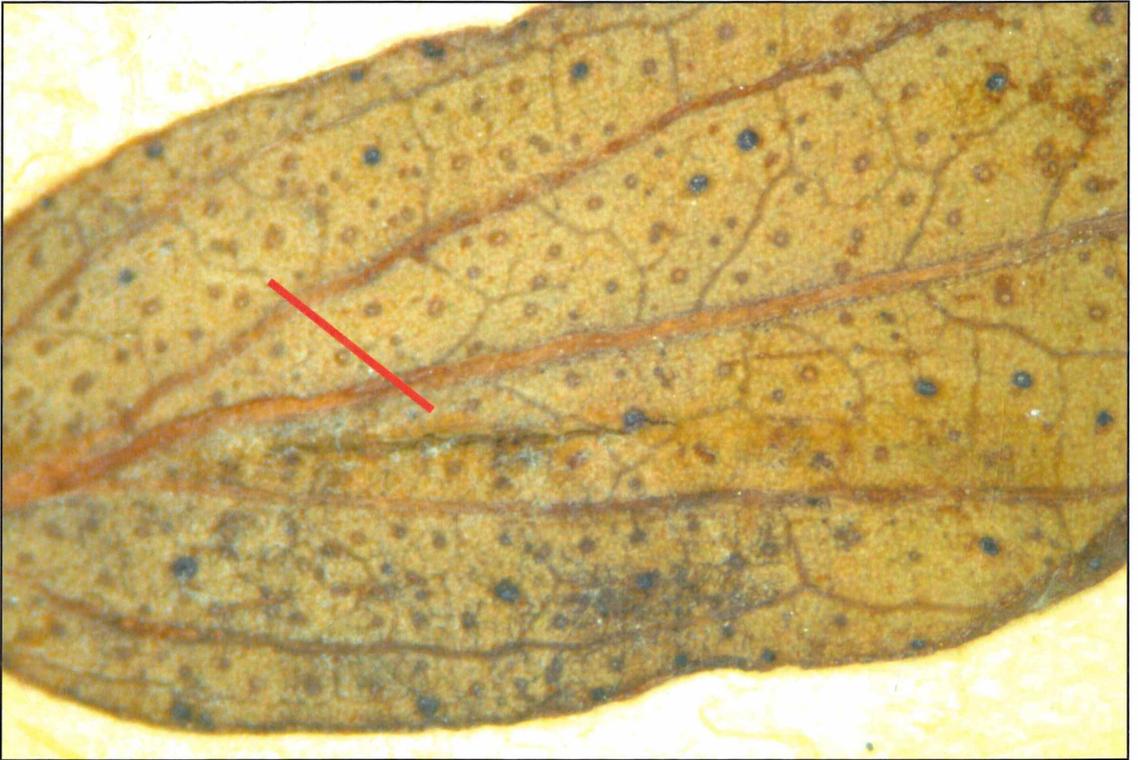


Leafminers-Herbarium, M. Hering, Lot 12, no. 223
[Gracilaria auroguttella Sph.] Crossen / Oder, Brandenburg VII. 1932

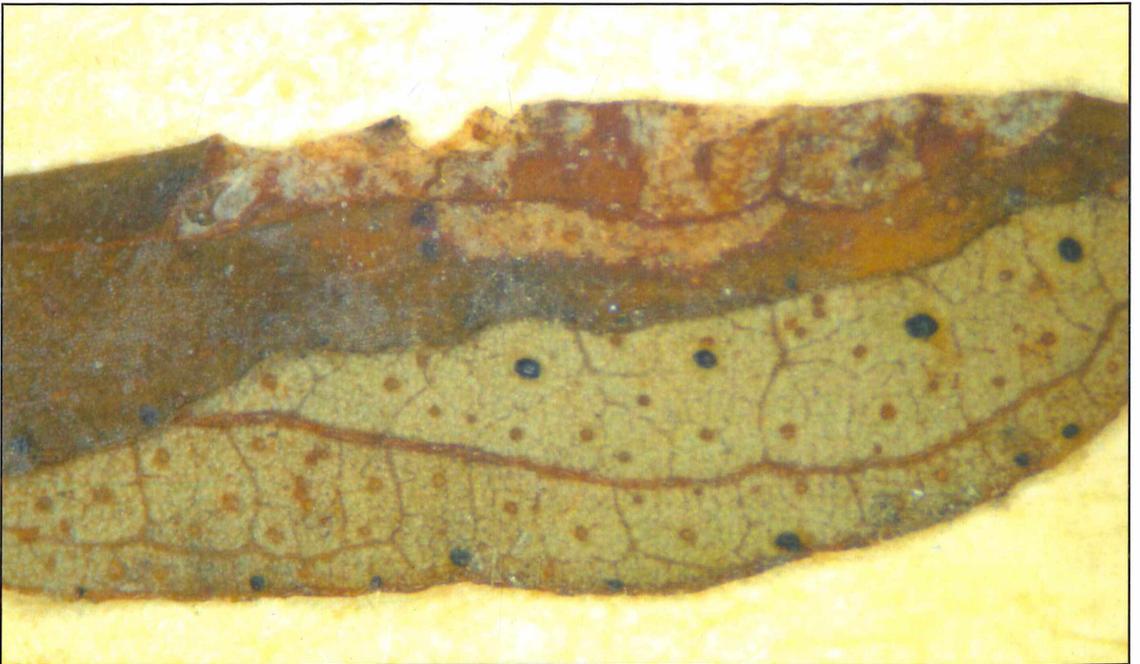
Clusiaceae

Hypericum perforatum L.

Euspilapteryx auroguttella STEPHENS, 1835 (Lepidoptera: Gracillariidae)



Details of previous page. Top: initial part of corridor on the lower surface, a very narrow epidermal line.
Bottom: later aspect – leaf folded around the mine.



Clusiaceae

Hypericum perforatum L.

Leucoptera lustratella (HERRICH-SCHÄFFER, 1855) (Lepidoptera: Lyonetiidae)



Leafminers-Herbarium, M. Hering, Lot 12, no. 224
[*Cemiostoma lustratella* H.-S.] Crossen / Oder, Brandenburg IX. 1932

Clusiaceae

Hypericum perforatum L.

Leucoptera lustratella (HERRICH-SCHÄFFER, 1855) (Lepidoptera: Lyonetiidae)



Details of previous page: different aspects of small, rounded blotch mine starting in the leaf tip.

Convolvulaceae

Calystegia sepium (L.) R. Br.

Bedellia somnulentella (ZELLER, 1847) (Lepidoptera: Bedelliidae)



Leafminers-Herbarium, M.Hering, Lot 18, no. 346
[*Calystegia sepium* F.Br. emended to *Convolvulus sepium* L.]
Crossen/Oder, Brandenburg, Septemb. 1934

Convolvulaceae

Calystegia sepium (L.) R. Br.

Bedellia somnulentella (ZELLER, 1847) (Lepidoptera: Bedelliidae)



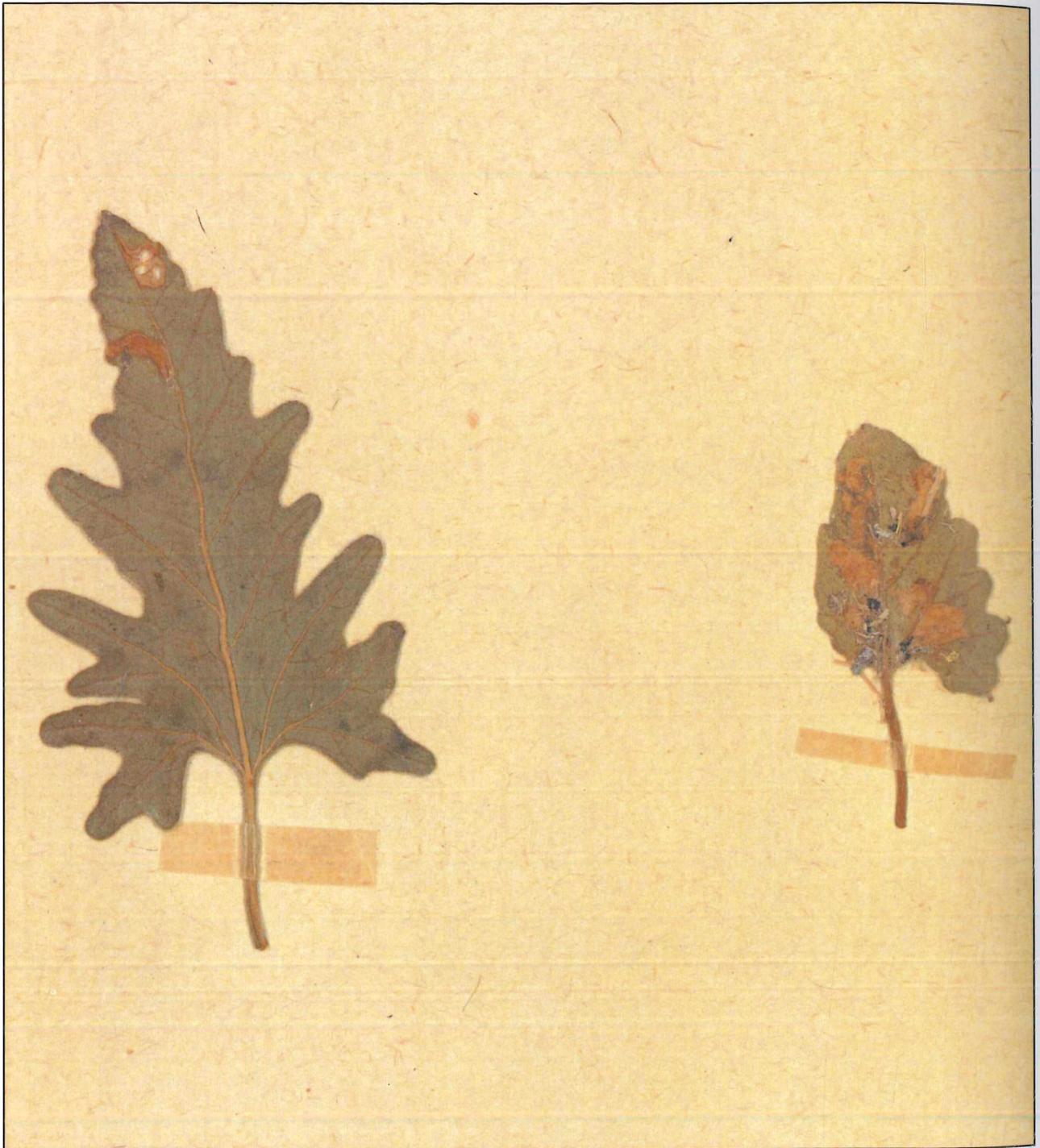
Details of previous page. Fleck mine and parts of the leaf cut off. Top: right leaf. Bottom: left leaf.



Convolvulaceae

Convolvulus althaeoides L.

Bedellia somnulentella (ZELLER, 1847) (Lepidoptera: Bedelliidae)



Leafminers-Herbarium, M.Hering, Lot 18, no. 345
Totana, Spanien. Mai 1933

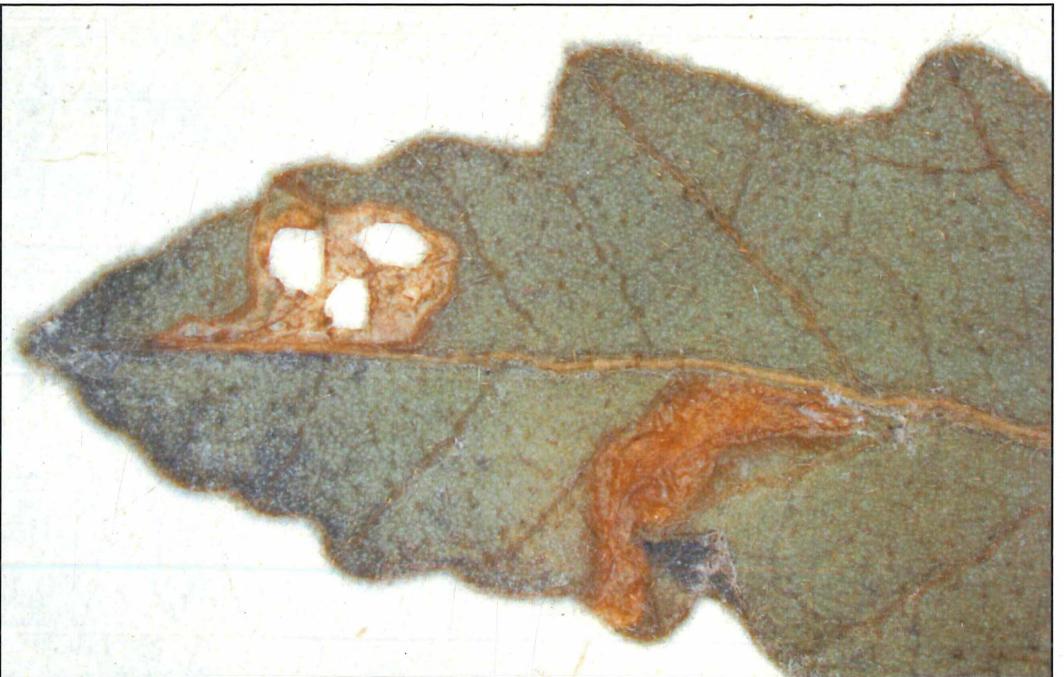
Convolvulaceae

Convolvulus althaeoides L.

Bedellia somnulentella (ZELLER, 1847) (Lepidoptera: Bedelliidae)



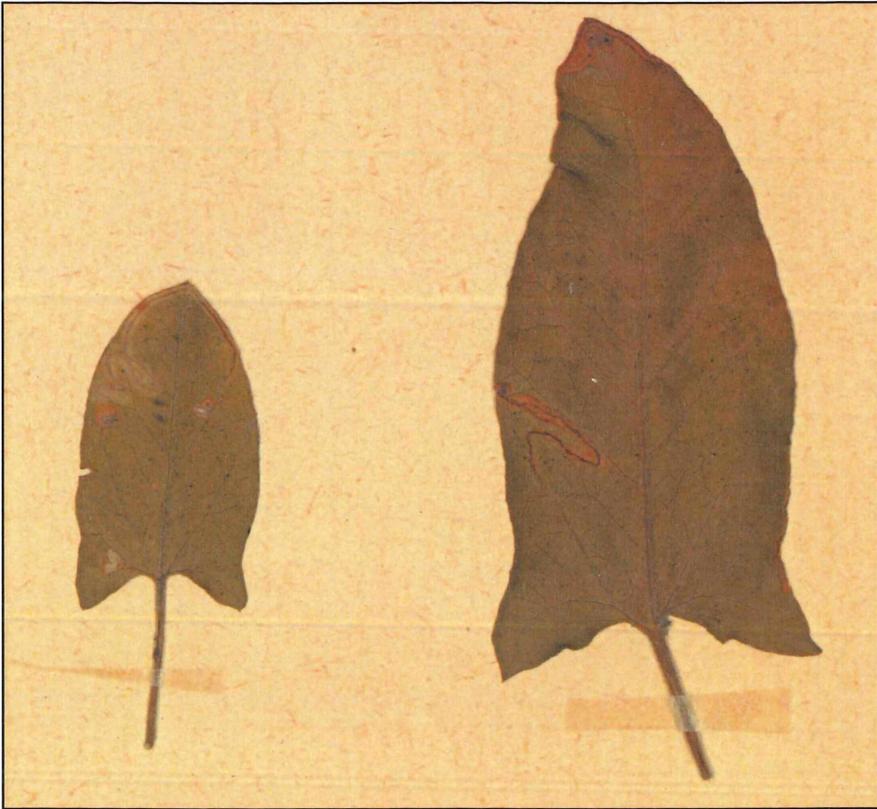
Details of previous page. Top: right leaf. Bottom: tip of left leaf.



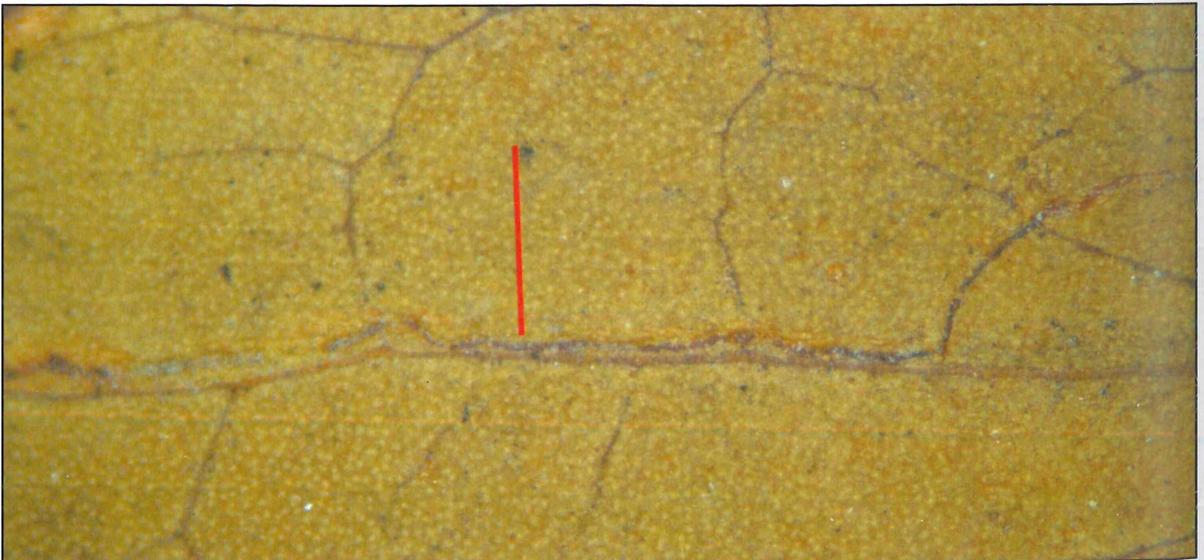
Convolvulaceae

Convolvulus arvensis L.

Stigmella freyella (VON HEYDEN, 1858) (Lepidoptera: Nepticulidae)



Top: overview. Bottom: very narrow early stage corridor (red arrow), frass as a black central line.



Leafminers-Herbarium, M. Hering, Lot 5, no. 96
[Nepticula freyella v. Heyden] Berlin, VII. 1930

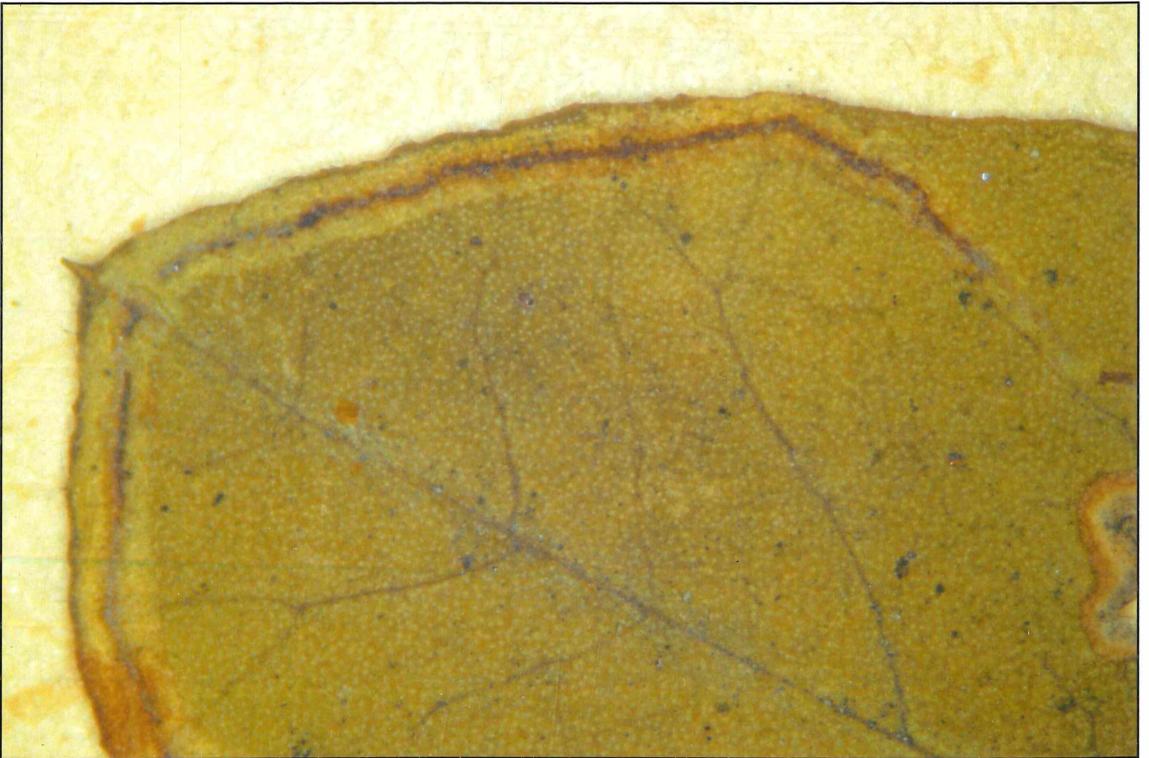
Convolvulaceae

Convolvulus arvensis L.

Stigmella freyella (VON HEYDEN, 1858) (Lepidoptera: Nepticulidae)



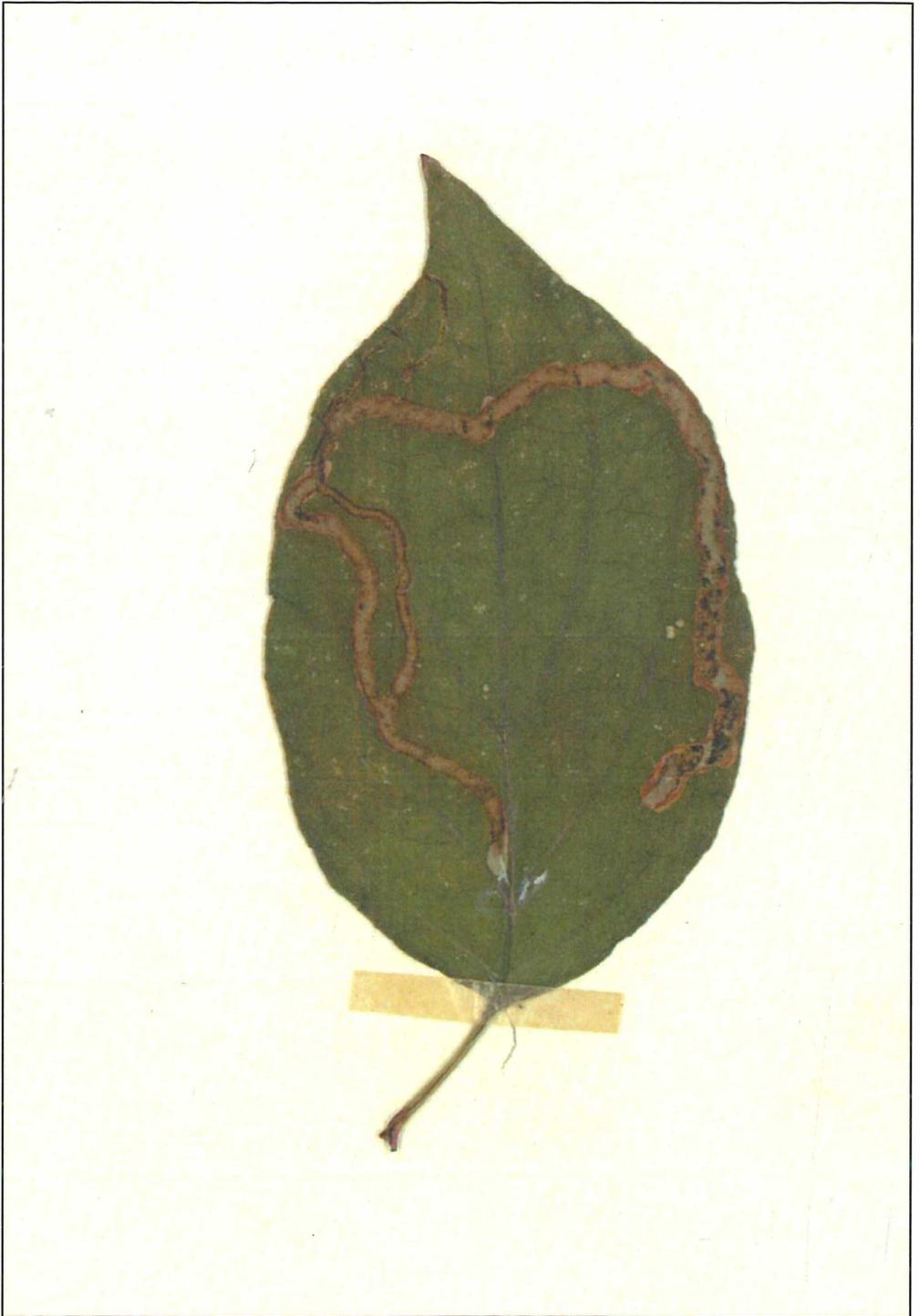
Details of previous page. Top: detail of corridor (right leaf). Bottom: detail of corridor (left leaf).



Cornaceae

Cornus sanguinea L.

Phytomyza agromyzina MEIGEN, 1830 (Diptera: Agromyzidae)

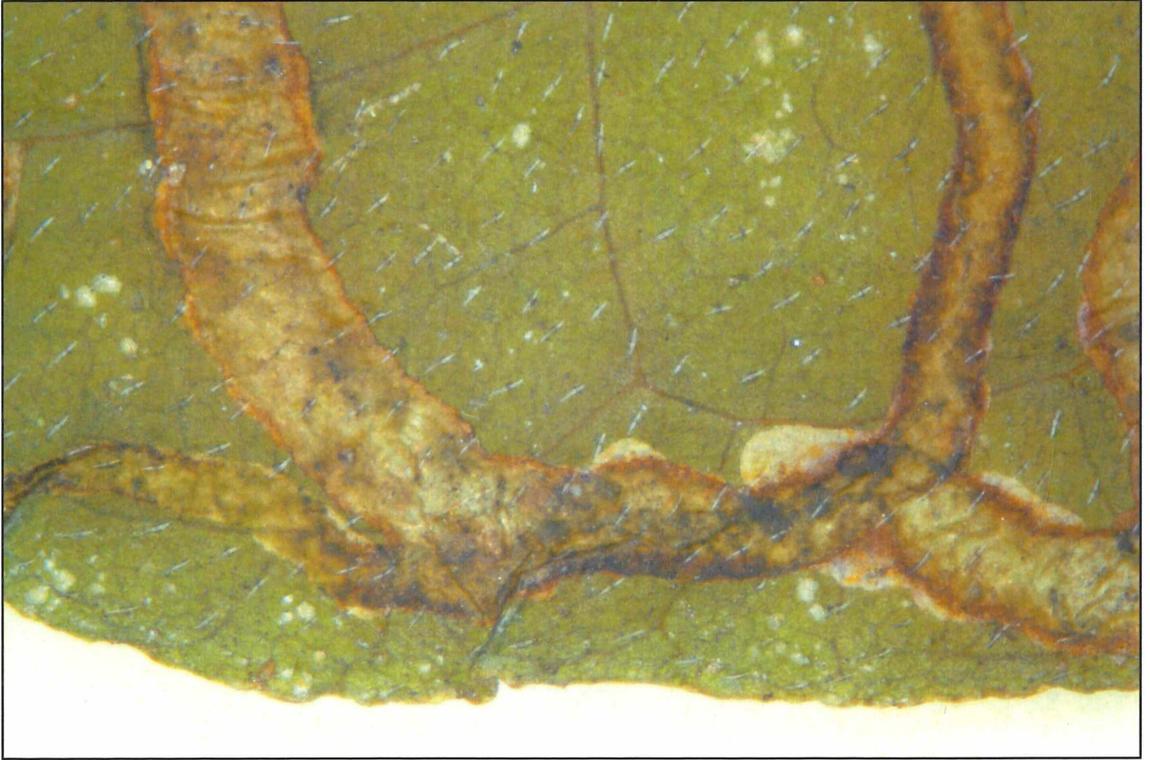


Leafminers-Herbarium, M.Hering, Lot 1, no. 13
Crossen / Oder, VIII.1929

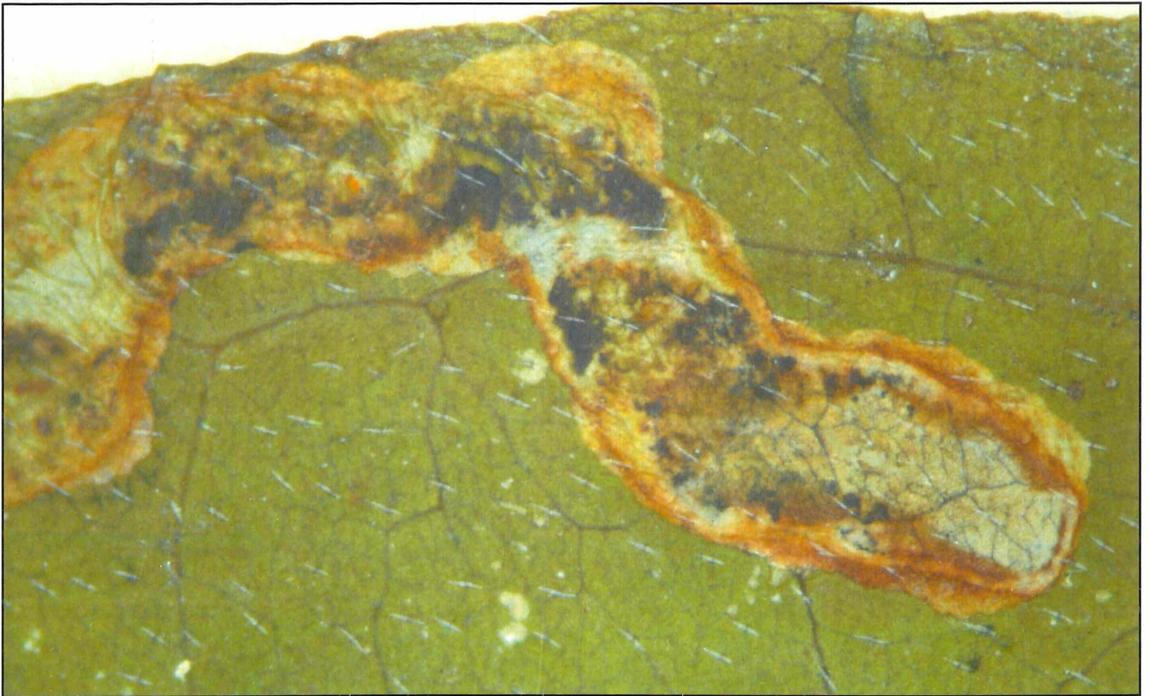
Cornaceae

Cornus sanguinea L.

Phytomyza agromyzina MEIGEN, 1830 (Diptera: Agromyzidae)



Details of previous page. Top and bottom: details of corridor mine.



Cornaceae

Cornus sanguinea L.

Phytomyza agromyzina MEIGEN, 1830 (Diptera: Agromyzidae)



Top: overview. Bottom: corridor with broad band of partly liquified frass.

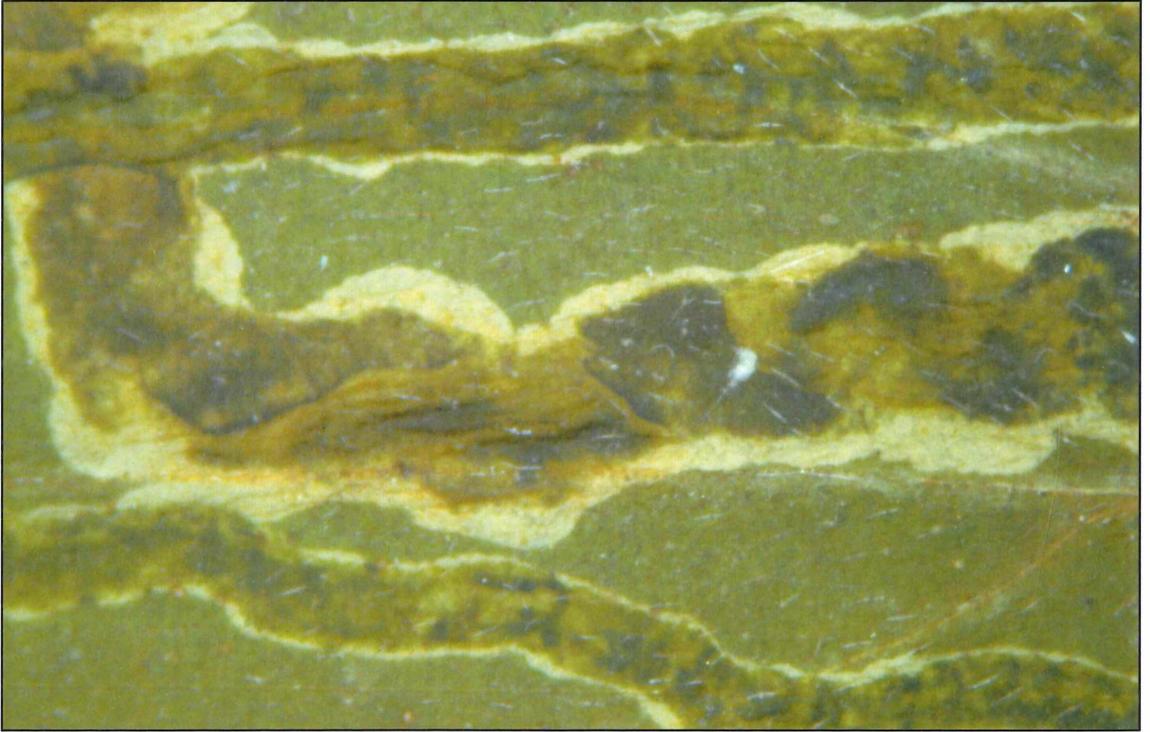


Leafminers-Herbarium, M.Hering, Lot 1a, no. 13
Crossen / Oder, VIII.1929

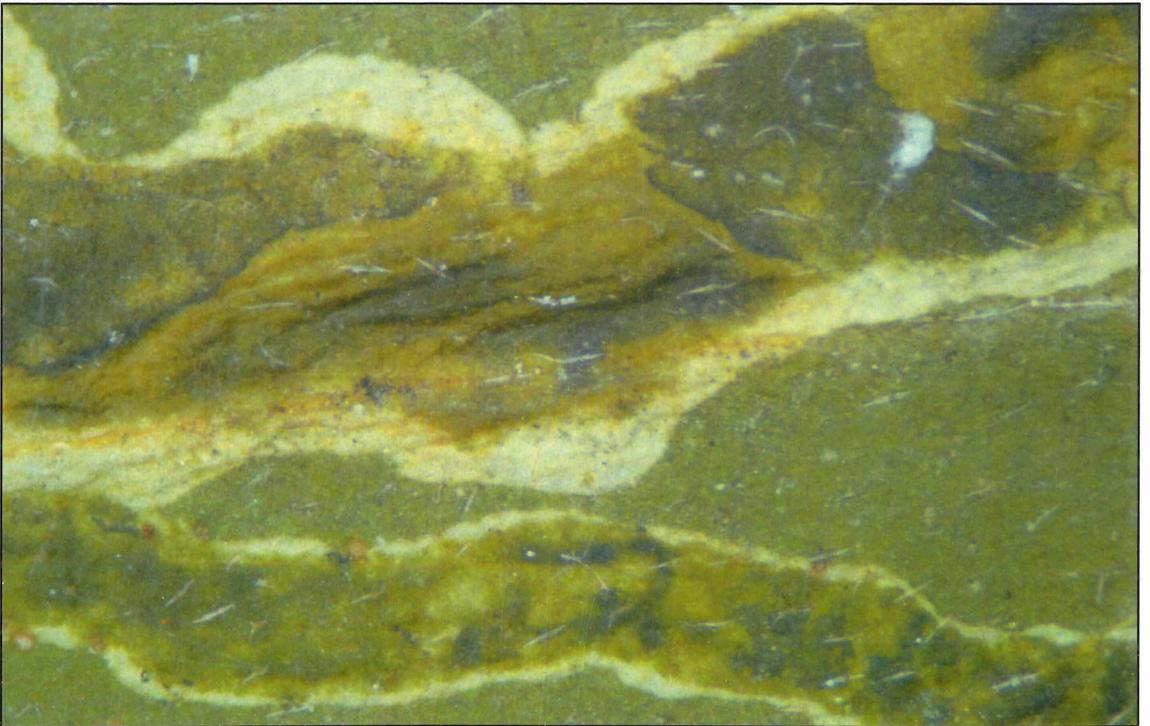
Cornaceae

Cornus sanguinea L.

Phytomyza agromyzina MEIGEN, 1830 (Diptera: Agromyzidae)



Details of previous page: different aspects of corridors.



Cornaceae

Cornus sanguinea L.

Phytomyza agromyzina MEIGEN, 1830 (Diptera: Agromyzidae)



Chalcidoid wasp pupa shells.



Cornaceae

Cornus sanguinea L.

Antispila pfeifferella (FISCHER VON RÖSLERSTAMM, 1843) (Lepidoptera: Heliozelidae)

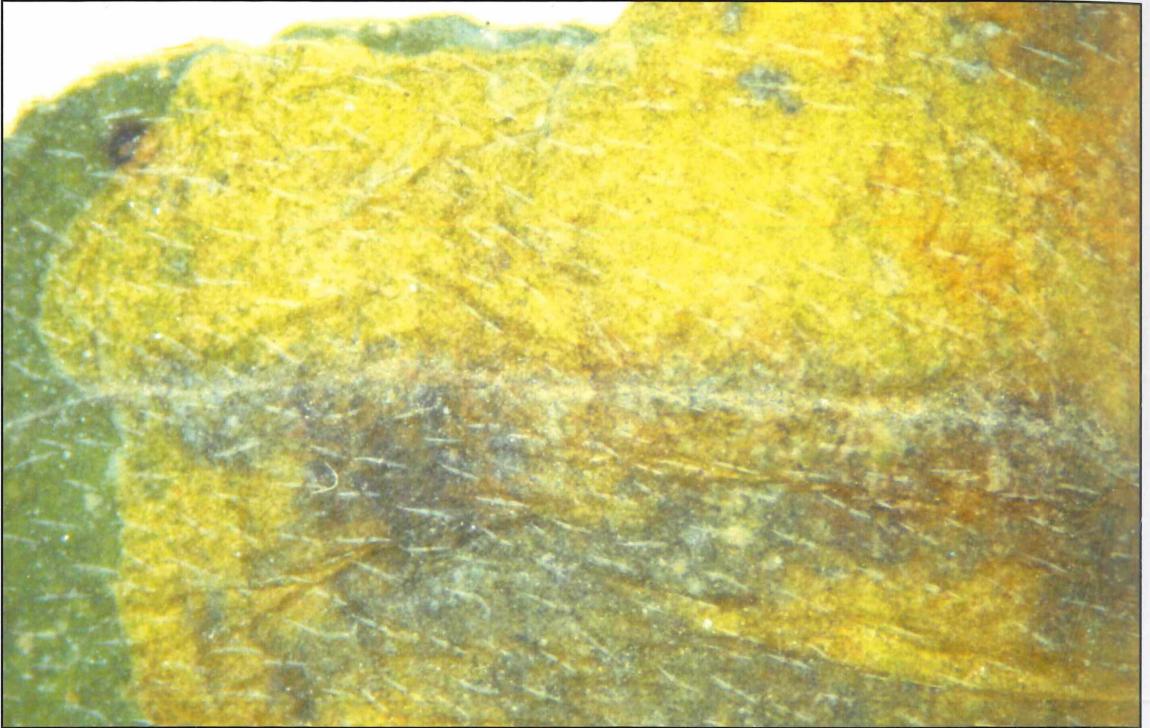


Leafminers-Herbarium, M.Hering, Lot 8, no. 160
[*Antispila pfeifferella* Hübn.] Berlin / Finkenkrug, Brandenburg, Juli 1931

Cornaceae

Cornus sanguinea L.

Antispila pfeifferella (FISCHER VON RÖSLERSTAMM, 1843) (Lepidoptera: Heliozelidae)



Details of previous page. Top: surface of full depth blotch. Bottom: oval excision of larva.



Crassulaceae

Hylotelephium telephium (L.) H. Ohba

Yponomeuta sedella TREITSCHKE, 1832 (Lepidoptera: Yponomeutidae)



Leafminers-Herbarium, M.Hering, Lot 8, no. 151

[*Hyponomeuta 20-punctatum* Rz. = *vigintipunctata* Retzius, 1783] [*Sedum maximum* Suter]

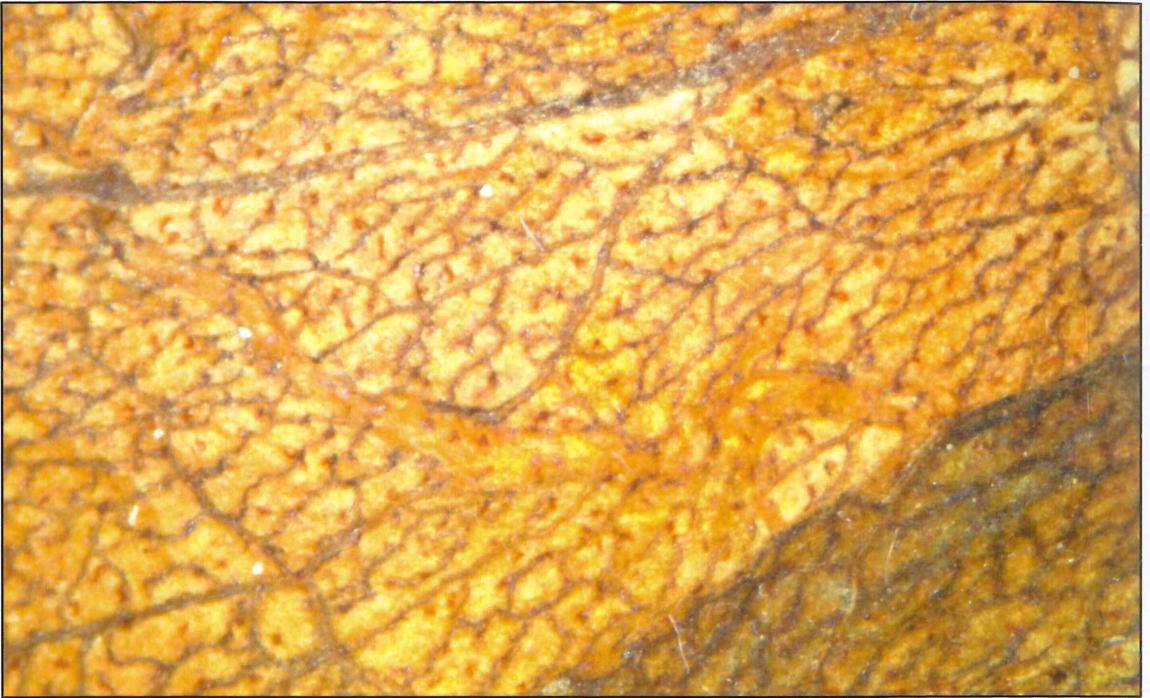
Berlin / Finkenkrug, Brandenburg Mai 1931 [Im durchfallenden Licht betrachten!]

Mines given in detail on next page marked with white arrows.

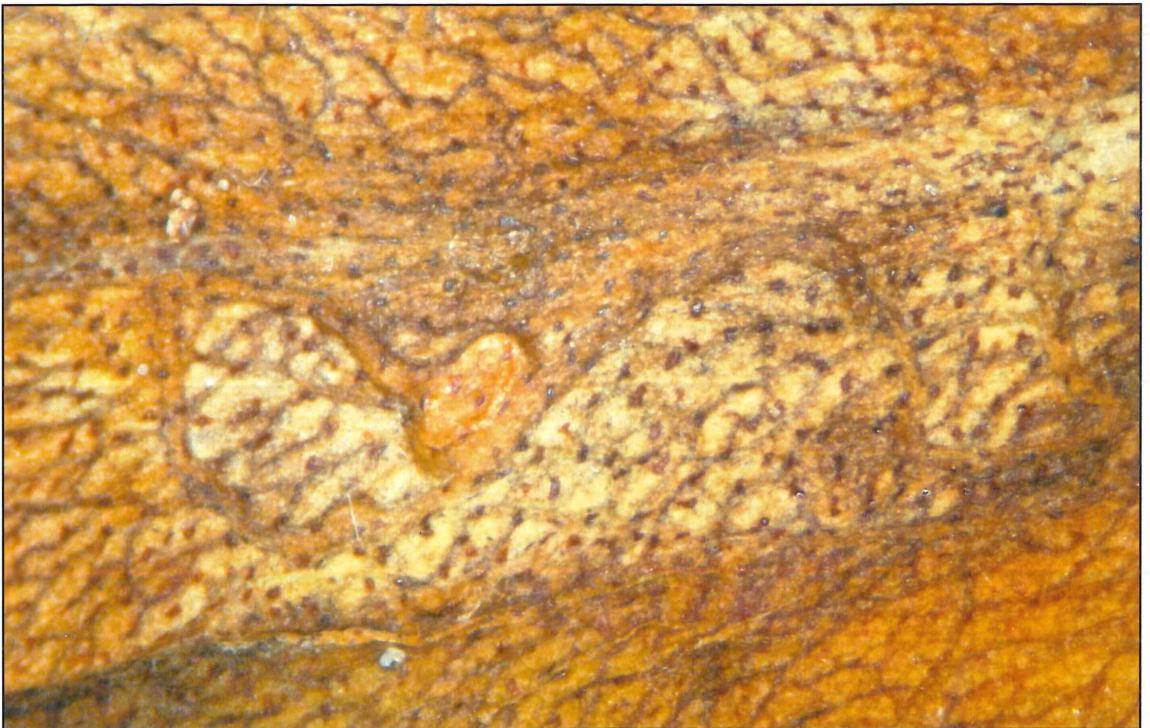
Crassulaceae

Hylotelephium telephium (L.) H. Ohba

Yponomeuta sedella TREITSCHKE, 1832 (Lepidoptera: Yponomeutidae)



Details of previous page. Top: narrow corridor, initial feeding stage. Bottom: another aspect of narrow corridor; later the larvae feed freely in groups under a web.



Crassulaceae

Hylotelephium telephium (L.) H. Ohba

Phytomyza sedicola HERING, 1924 (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 8, no. 152

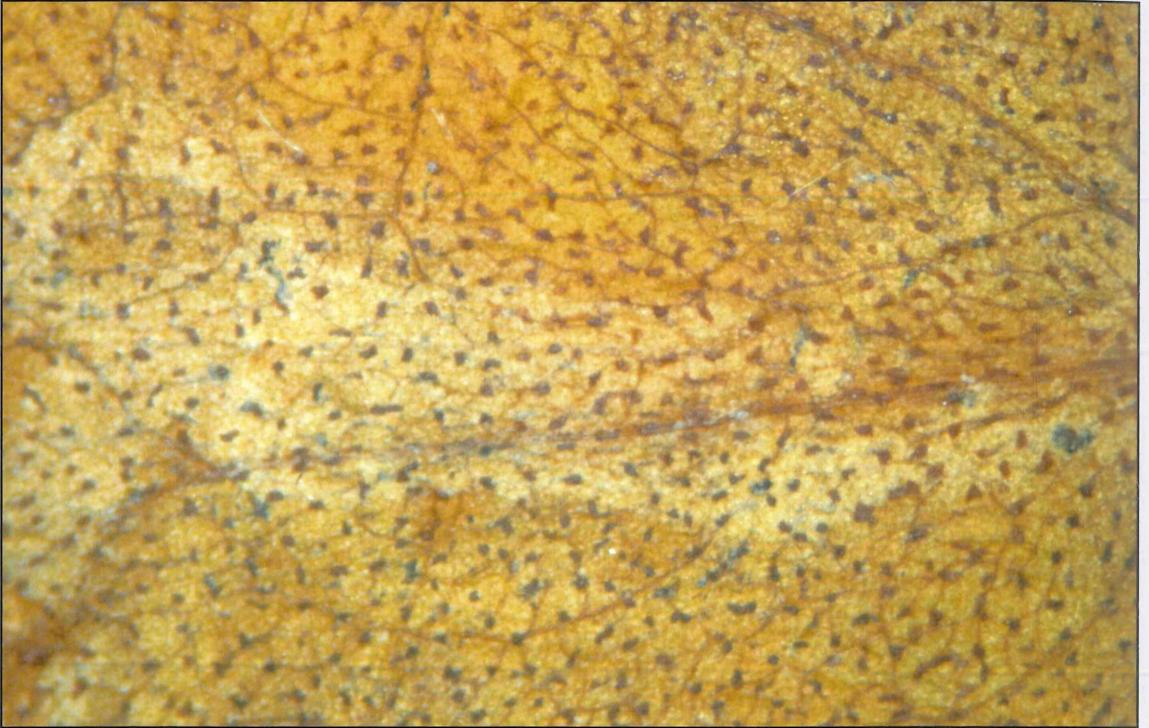
[*Sedum maximum* Suter]

Crossen /Oder, Brandenburg Mai 1931 [Im schräg auffallenden Licht betrachten!]

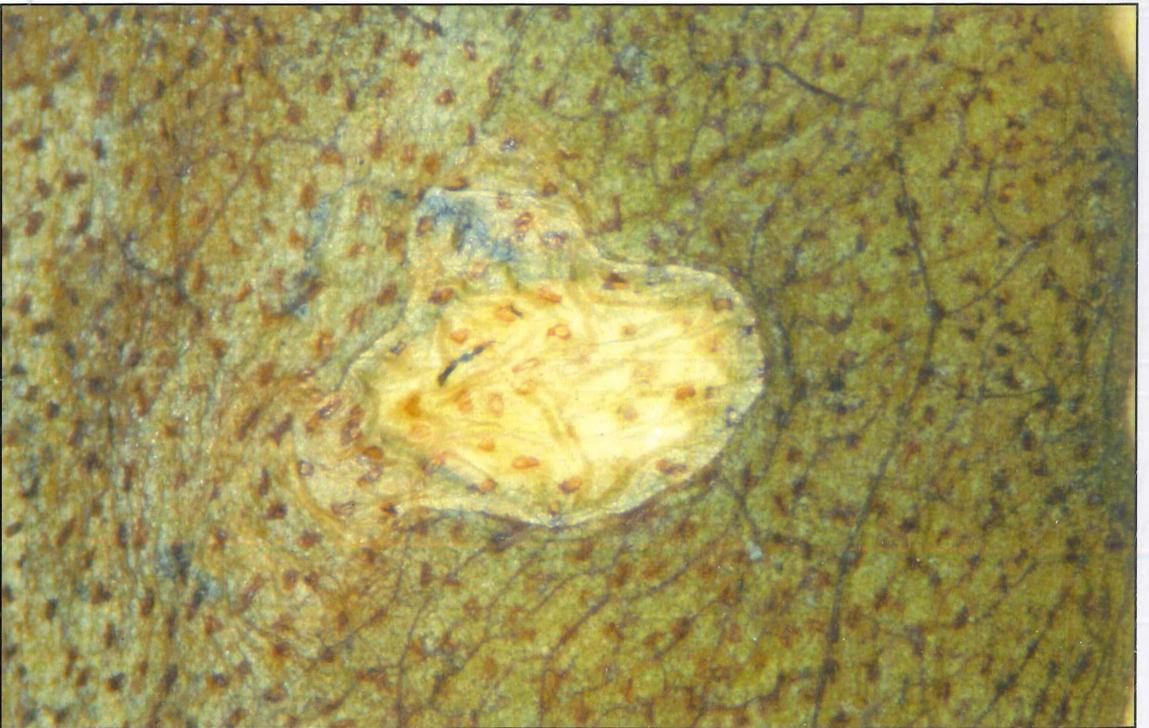
Crassulaceae

Hylotelephium telephium (L.) H. Ohba

Phytomyza sedicola HERING, 1924 (Diptera: Agromyzidae)

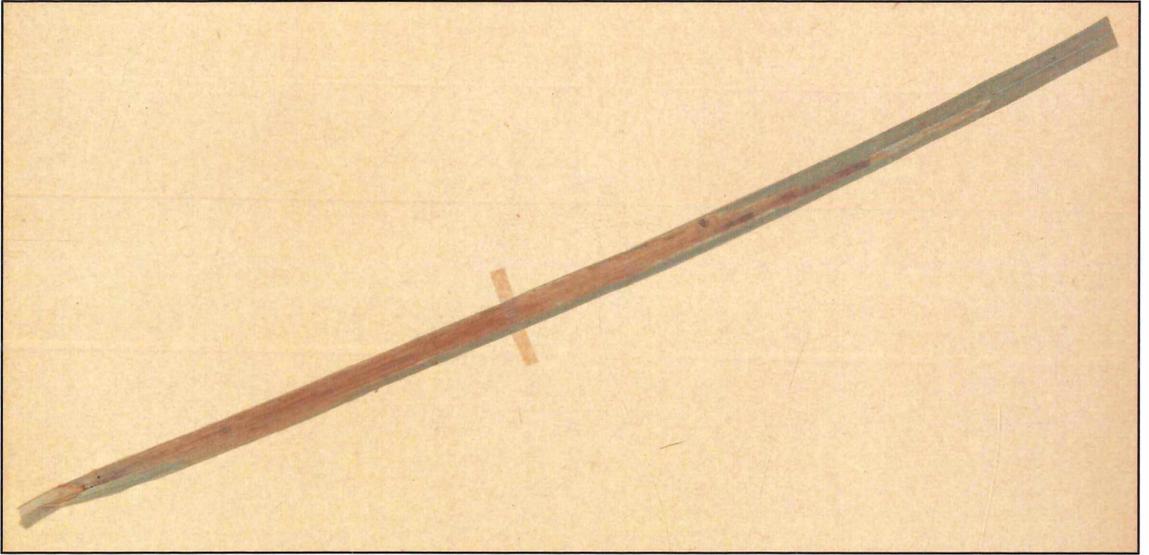


Details of previous page. Top: whitish, shallow corridor. Bottom: secondary blotch.

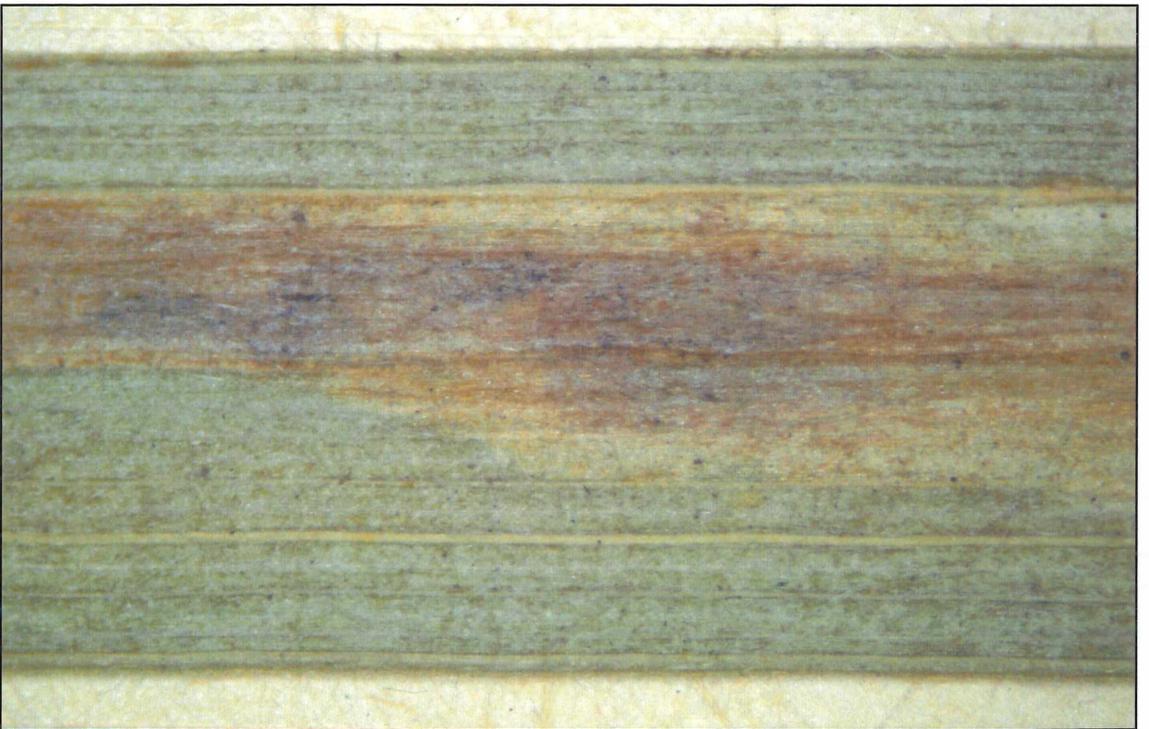


Cyperaceae
Carex hirta L.

Cerodontha angulata (LOEW, 1869) (Diptera: Agromyzidae)



Top: overview. Bottom: details of broad corridor.

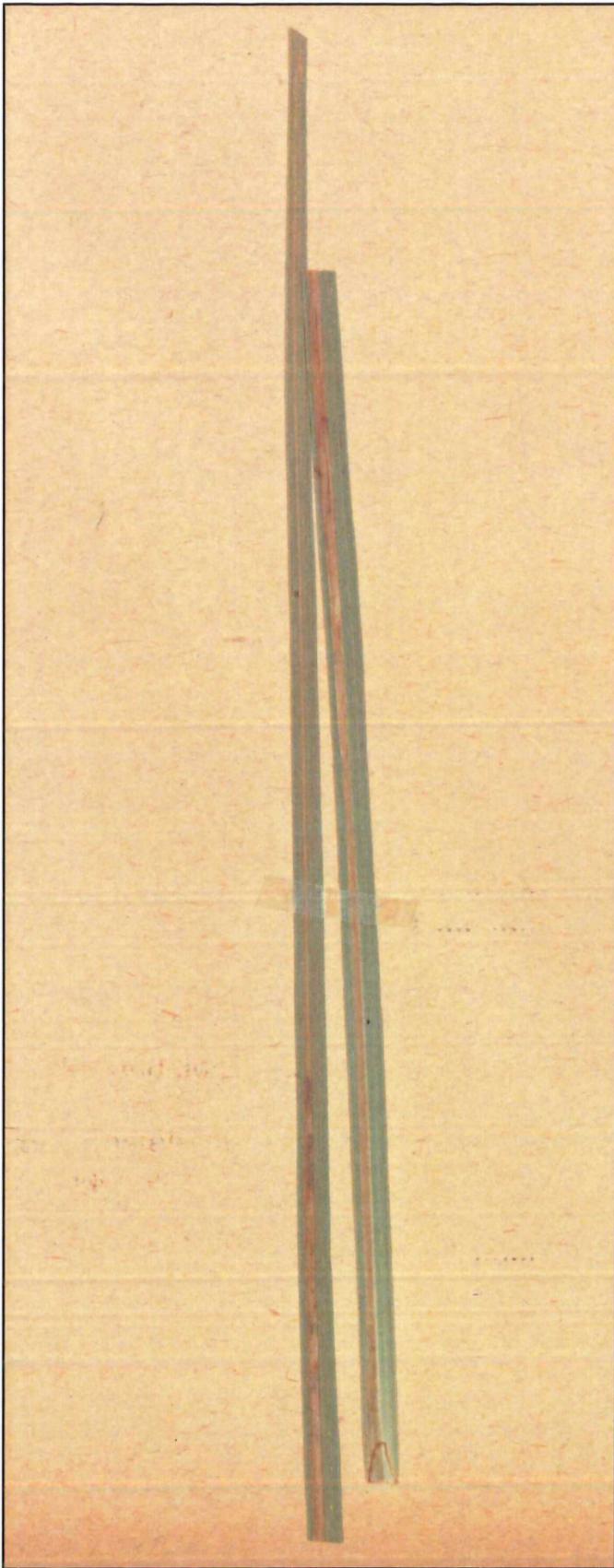


Leafminers-Herbarium, M.Hering, Lot 3, no. 41

[*Dizygomyza semiposticata* Hend. emended to *Phytobia* (*Poemyza*) *angulata* Lw.]
Berlin-Frohnau, VII. 1929

Cyperaceae
Carex hirta L.

Cerodontha luctuosa (MEIGEN, 1830) (Diptera: Agromyzidae)

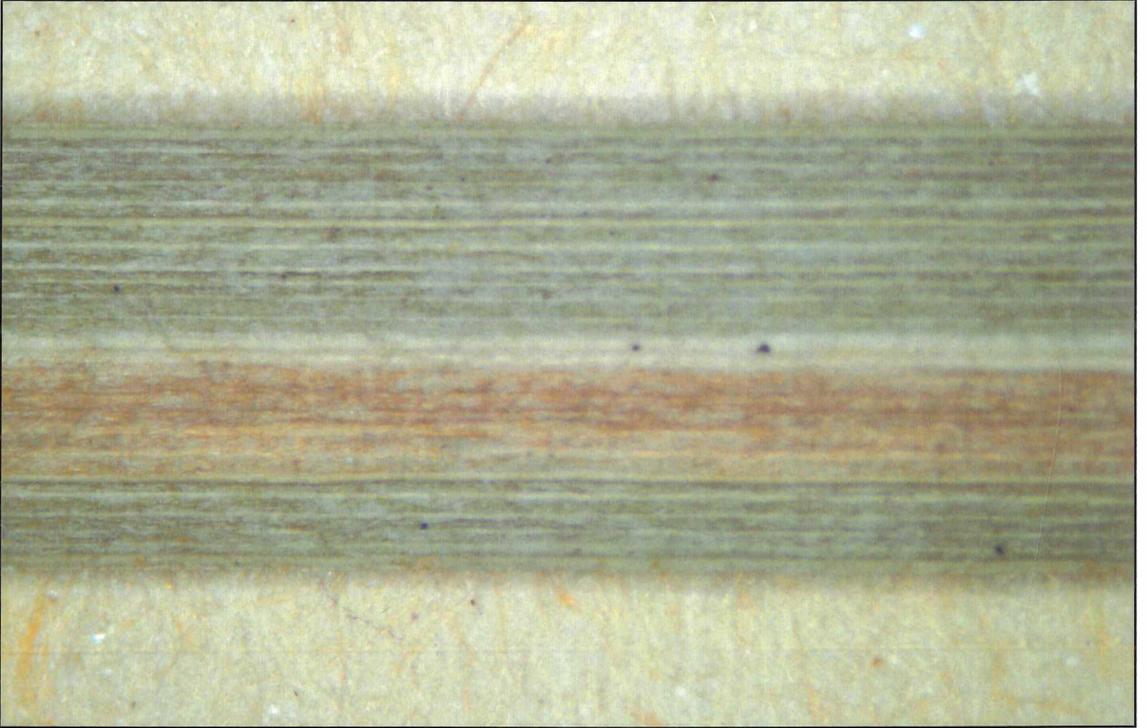


Leafminers-Herbarium, M.Hering, Lot 10, no. 182
[*Dizygomyza luctuosa* Meigen] Crossen / Oder, Brandenburg VIII. 1931

Cyperaceae

Carex hirta L.

Cerodontha luctuosa (MEIGEN, 1830) (Diptera: Agromyzidae)



Details of previous page: details of long corridor.

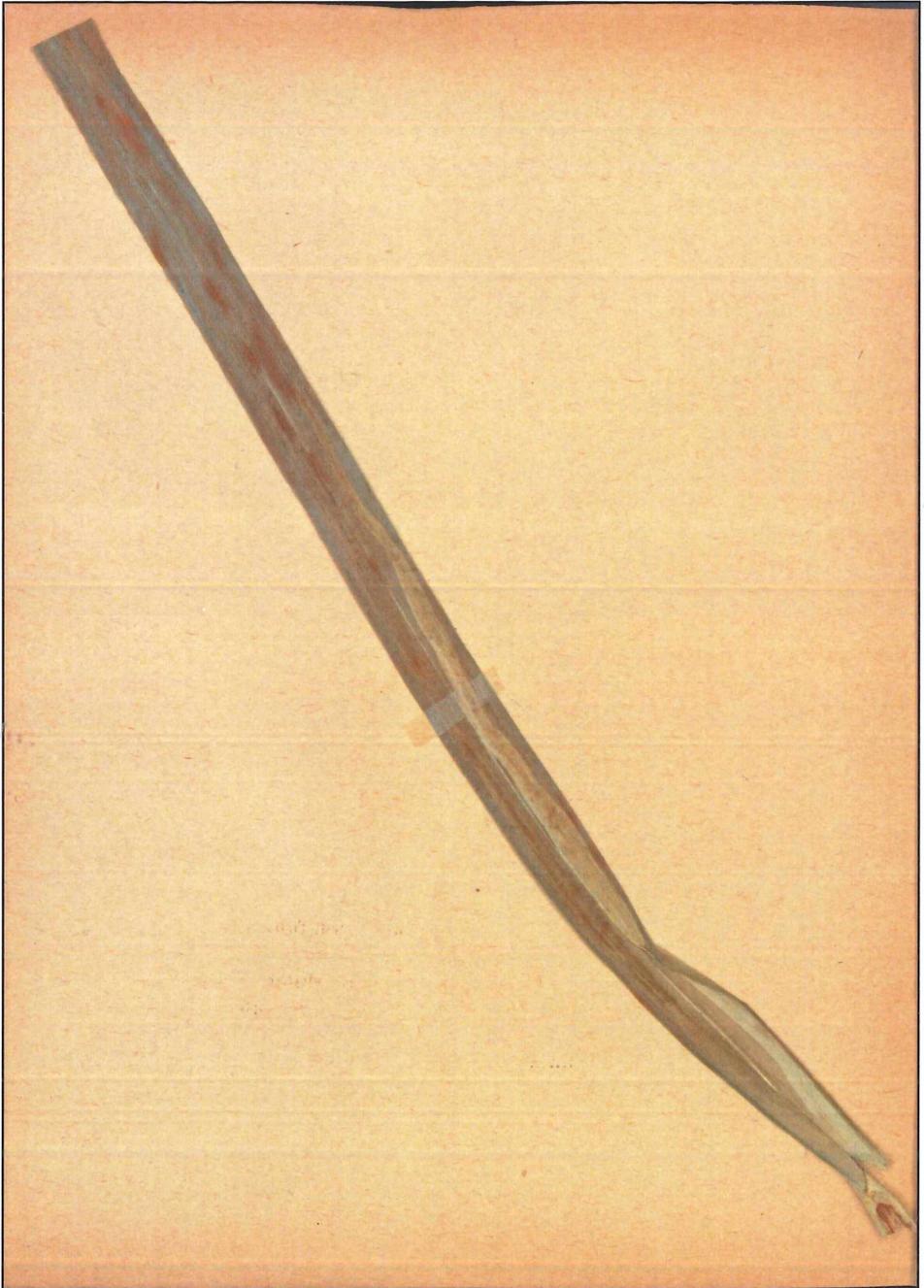


Cyperaceae

Scirpus sylvaticus L.

***Cerodontha scutellaris* (VON ROSER, 1840)** (Diptera: Agromyzidae)

(according to <http://www.bladmineerders.nl/minersf/dipteramin/cerodontha/scutellaris/scutellaris.htm>
(vid. Jan. 23rd, 2011) little is known about this species, hostplant probably Carex). The second possible
species for this herbarium sheet would be ***Cerodontha scirpi* (KARL, 1926)**



Leafminers-Herbarium, M.Hering, Lot 10, no. 181

[*Scirpus sylvaticus* L.] [*Dizyomyza scutellaris* v.Roser emended to *Phytobia* (*Poemyza*) *scutellaris*
v.Ros.] Crossen / Oder, Brandenburg VIII. 1932

Cyperaceae

Scirpus sylvaticus L.

Cerodontha scutellaris (VON ROSER, 1840) (Diptera: Agromyzidae)

(according to <http://www.bladmineerders.nl/minersf/dipteramin/cerodontha/scutellaris/scutellaris.htm>
(vid. Jan. 23rd, 2011) little is known about this species, hostplant probably Carex). The second possible
species for this herbarium sheet would be *Cerodontha scirpi* (KARL, 1926)



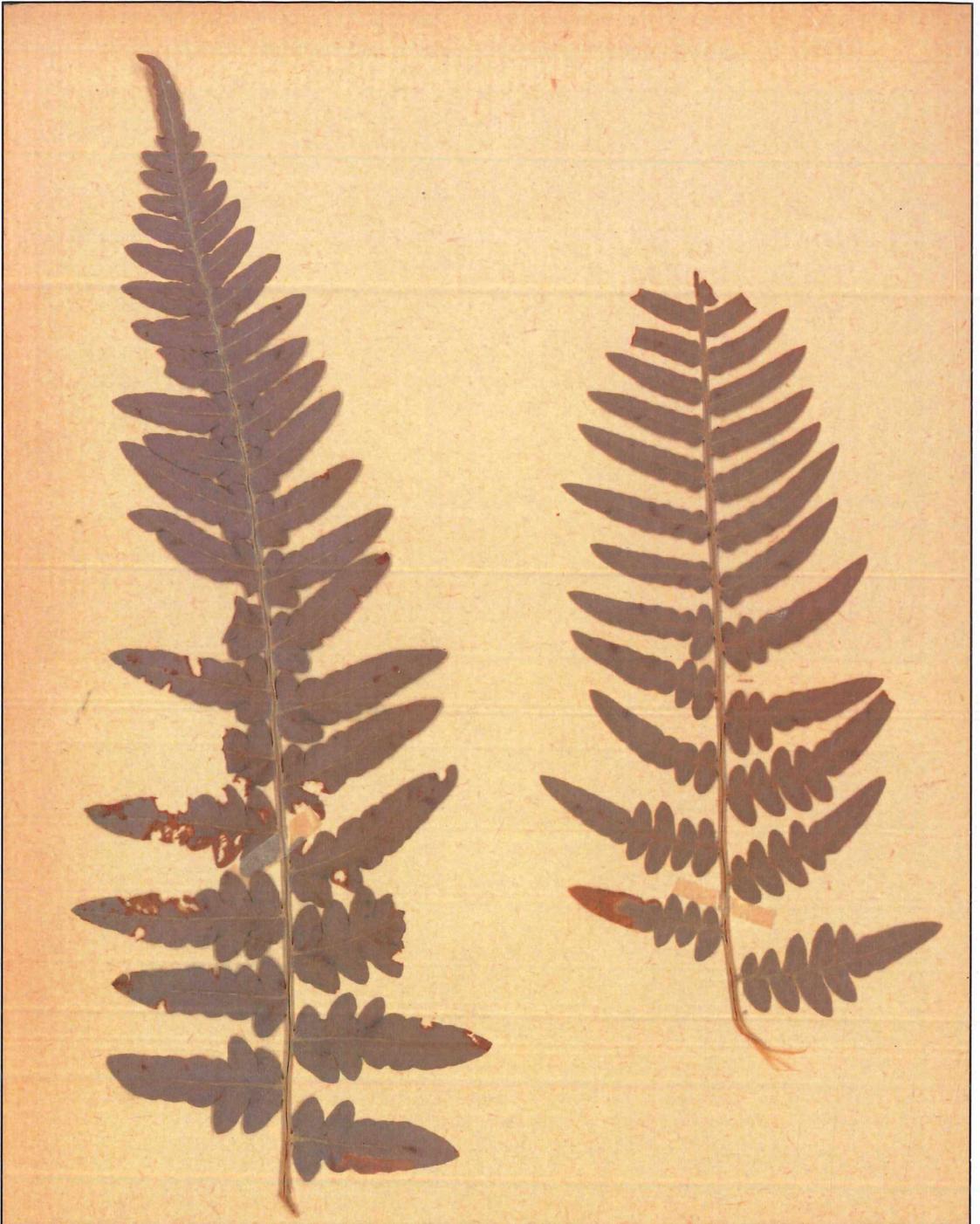
Details of previous page: details of broad upper-surface corridor.



Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn

Phytoliriomyza hilarella (ZETTERSTEDT, 1848) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 16, no. 301

[*Pteridium aquilinum* Kuhn]

[*Dizygomyza hilarella* Zett. emended to *Phytobia* (*Praspedc[sic]myza*) *Praspedomyza hilarella* Zett.]
Berlin-Fangschleuse, Juni 1932

Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn

Phytoliriomyza hilarella (ZETTERSTEDT, 1848) (Diptera: Agromyzidae)



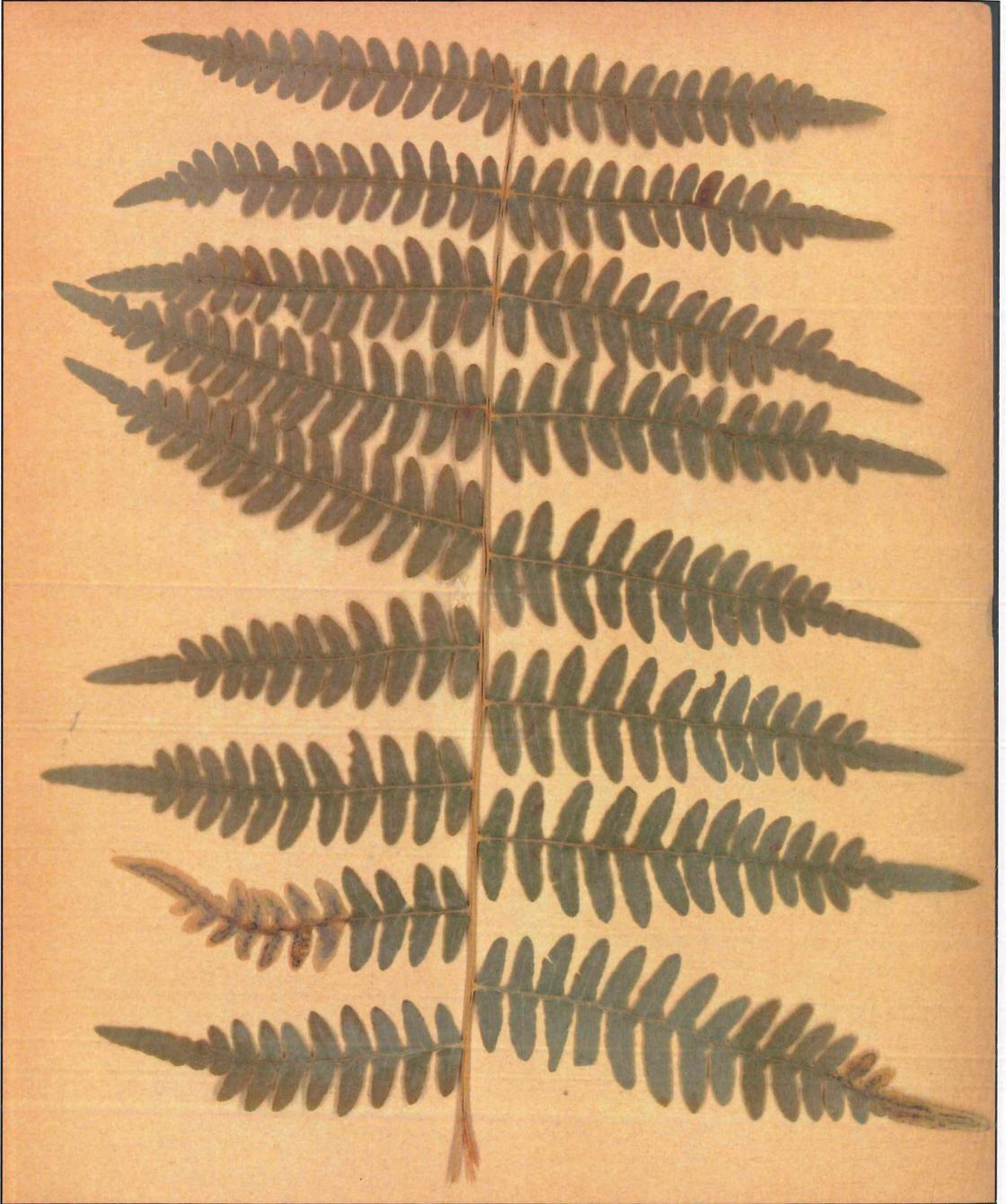
Details of previous page. Corridor ending in secondary blotch.



Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn

Chirosia cinerosa (ZETTERSTEDT, 1845) emended to *Chirosia hystrix* (RONDANI, 1866) (= *Pycnoglossa hystrix* (BRISCHKE, 1880) (Diptera: Anthomyiidae))



Leafminers-Herbarium, M.Hering, Lot 8, no. 141

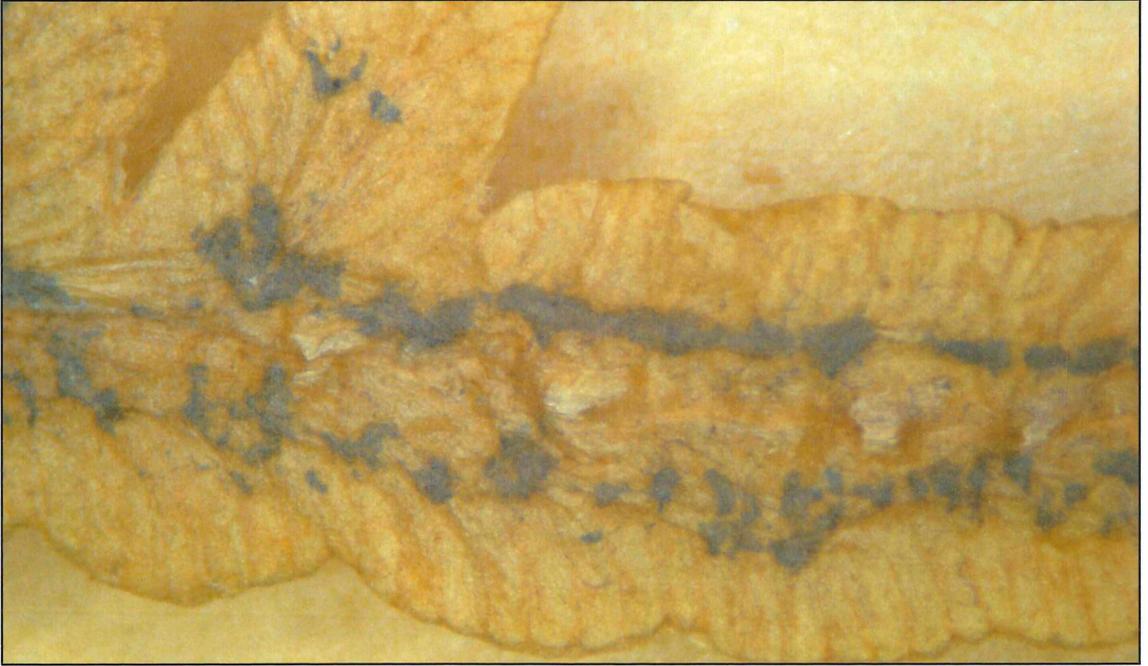
[*Pteridium aquilinum* Kuhn, Polypodiaceae] [*Hylemyia cinerosa* Zetterstedt emended to *Pycnoglossa hystrix* Bri.] Crossen / Oder, Brandenburg, Juni 1931

Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn

Chirosia cinerosa (ZETTERSTEDT, 1845) emended to *Chirosia hystrix* (RONDANI, 1866) (= *Pycnoglossa hystrix* (BRISCHKE, 1880) (Diptera: Anthomyiidae)

according to <http://www.bladmineerders.nl/minersf/dipteramin/chirosia/cinerosa/cinerosa.htm> (vid. Jan. 8th, 2011) both species cannot be distinguished by their feeding patterns.



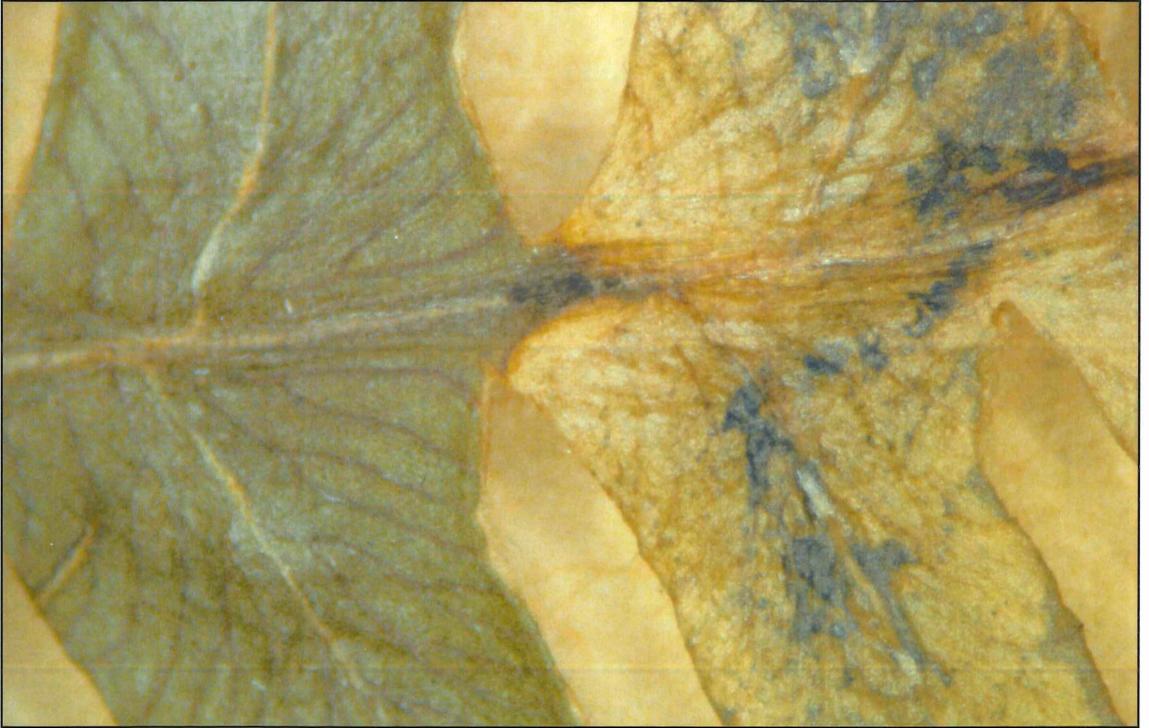
Details of previous page. Upper-surface-aspect; large blotch mine occupying the entire distal part of a pinnula, much frass is found in big lumps or rows.



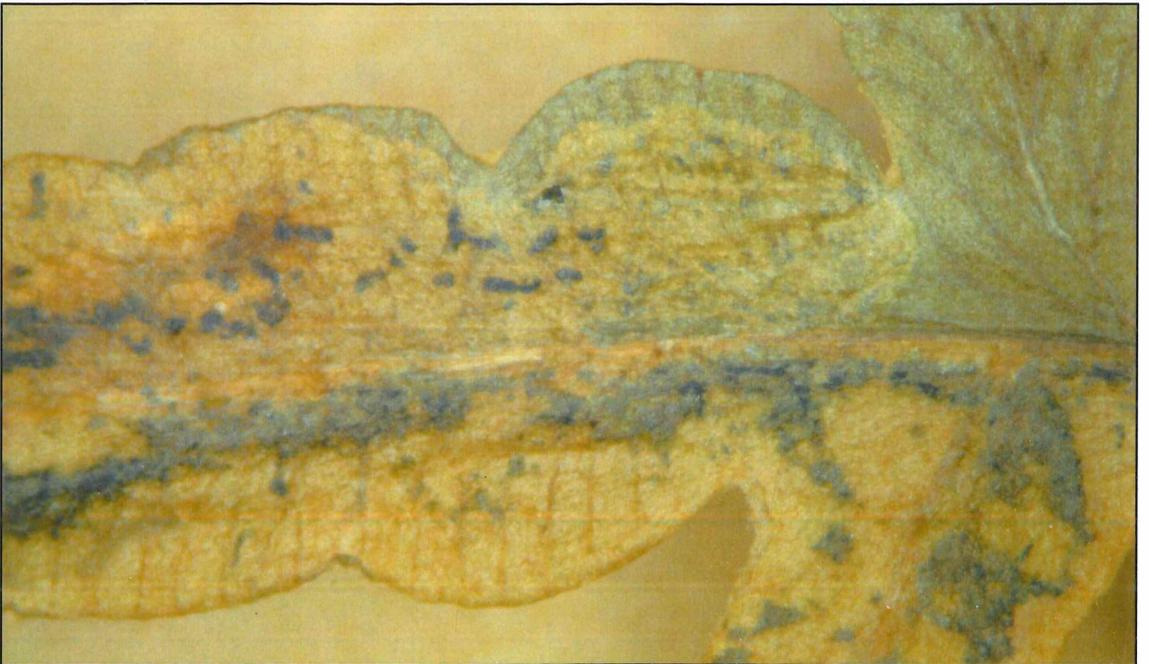
Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn

Chirosia cinerosa (ZETTERSTEDT, 1845) emended to *Chirosia hystrix* (RONDANI, 1866) (= *Pycnoglossa hystrix* (BRISCHKE, 1880) (Diptera: Anthomyiidae)



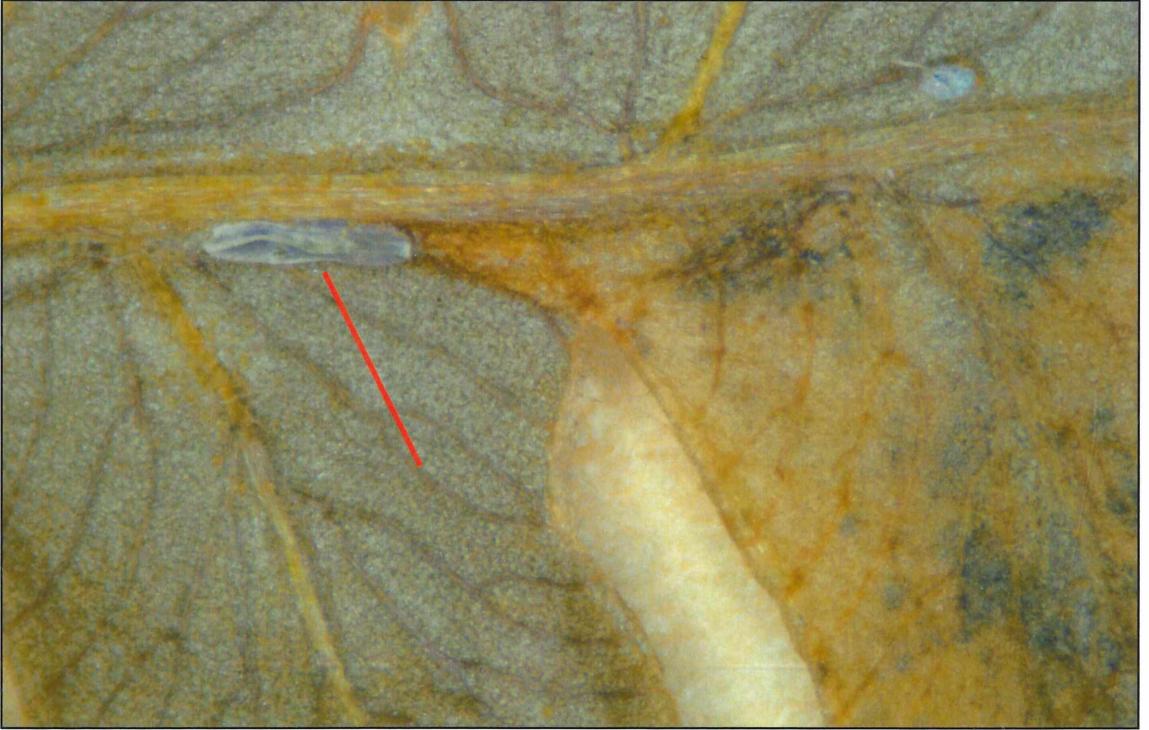
Details of page next to last. Upper-surface aspect. Top: end of blotch mine in pinnula. Bottom: another aspect of a pinnula completely covered by blotch mine.



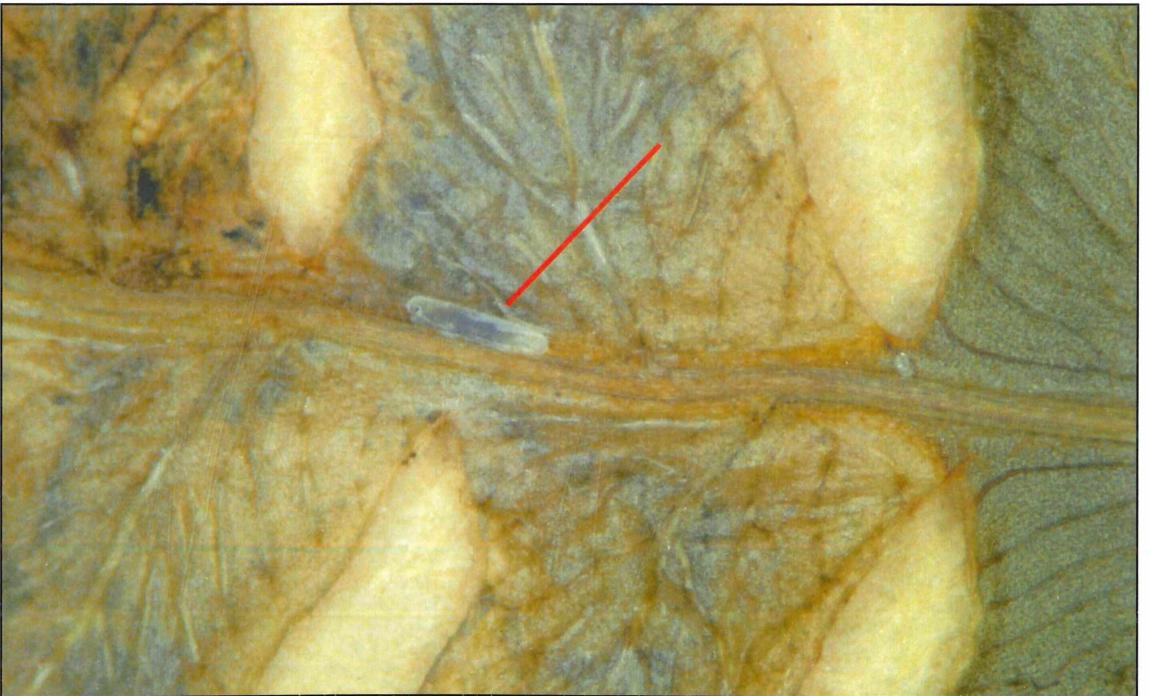
Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn

Chirosia cinerosa (ZETTERSTEDT, 1845) emended to *Chirosia hystrix* (RONDANI, 1866) (= *Pycnoglossa hystrix* (BRISCHKE, 1880) (Diptera: Anthomyiidae)



Details of page 188. Lower-surface aspect, elliptic egg shell near the rachis (red arrows).



Dipsacaceae

Knautia arvensis (L.) Coulter

Aulagromyza similis (BRISCHKE, 1880) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 18, no. 354

[*Knautia arvensis* Coult. emended to *Knautia arvensis* (L.) Coult.]

[*Phytagromyza similis* Brischke]

Berlin – Mittenwalde, Mai 1934

Dipsacaceae

Knautia arvensis (L.) Coulter

Aulagromyza similis (BRISCHKE, 1880) (Diptera: Agromyzidae)



Details of previous page. Top: right leaf with widened gallery. Bottom: Left leaf, larva in mine. Only a few grains of frass in the initial part of the mine.



Dipsacaceae

Scabiosa columbaria L.

Chromatomyia scabiosarum (DE MEIJERE, 1934) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 15, no. 297
[Phytomyza scabiosarum Hering [sic]]
Chiclana bei Cadiz, April 1933

Dipsacaceae

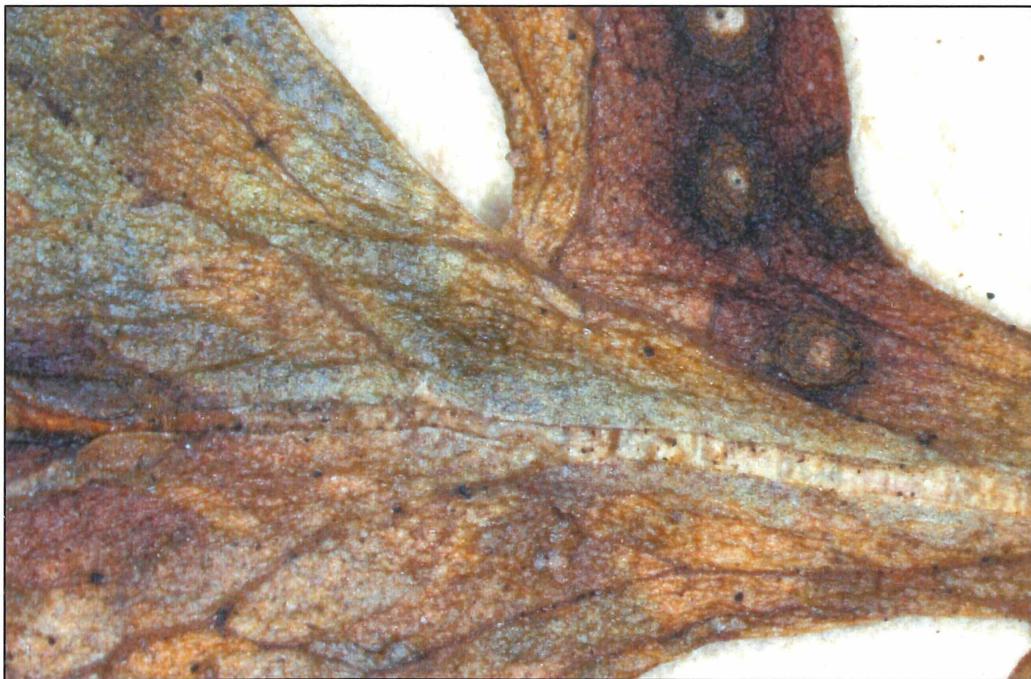
Scabiosa columbaria L.

Chromatomyia scabiosarum (DE MEIJERE, 1934) (Diptera: Agromyzidae)

Due to <http://www.bladmineerders.nl/minersf/dipteramin/chromatomyia/scabiosarum/scabiosarum.htm> mine alike to the one of *Liriomyza strigata* (MEIGEN, 1830). The pupation in *C. scabiosarum* takes place in the mine near the leaf base.



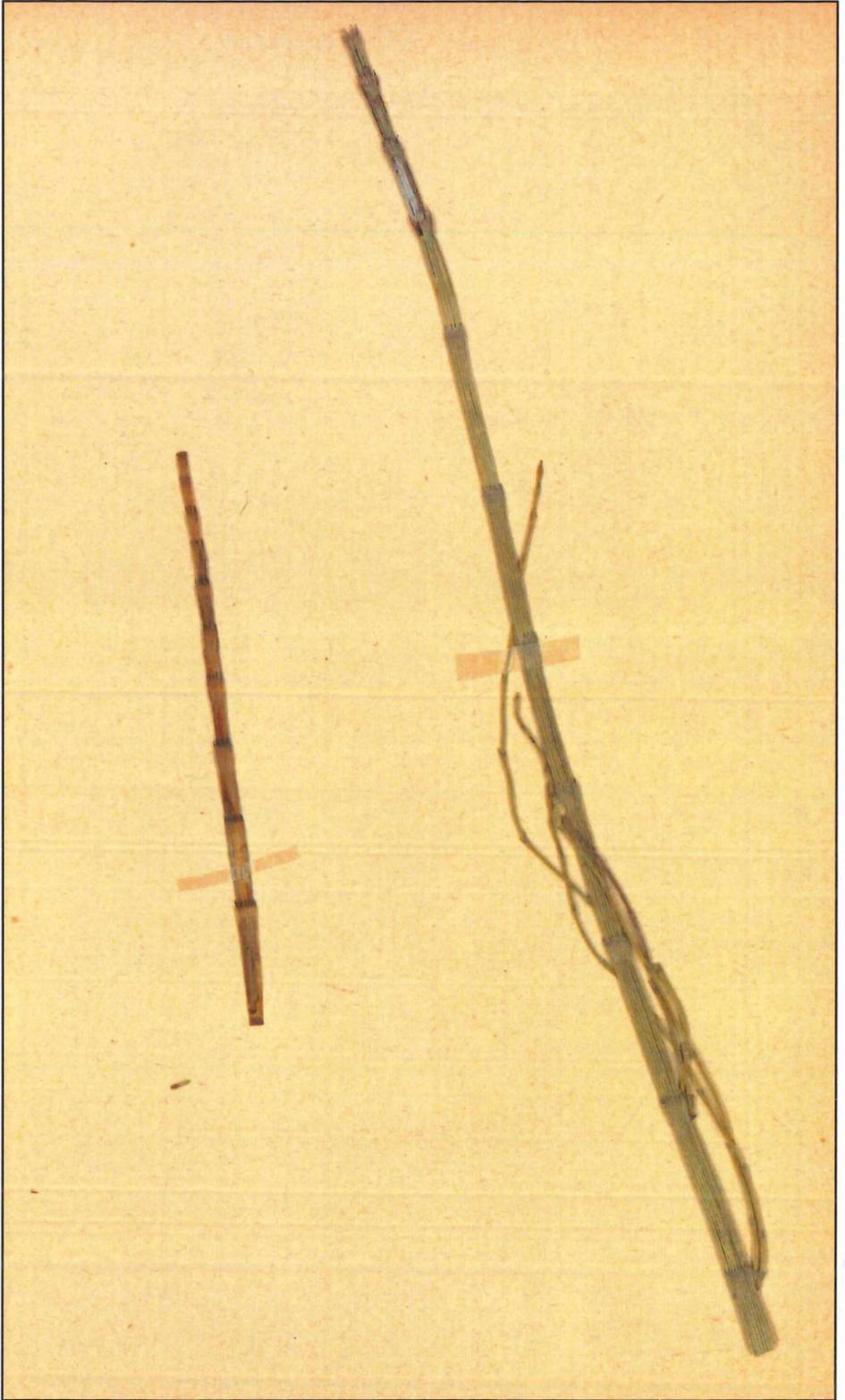
Details of previous page: corridor along the midrib. Top: left leaf. Bottom: right leaf.



Equisetaceae

Equisetum fluviatile L. emend. Erh.

Liriomyza virgo (ZETTERSTEDT, 1838) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 8, no. 142

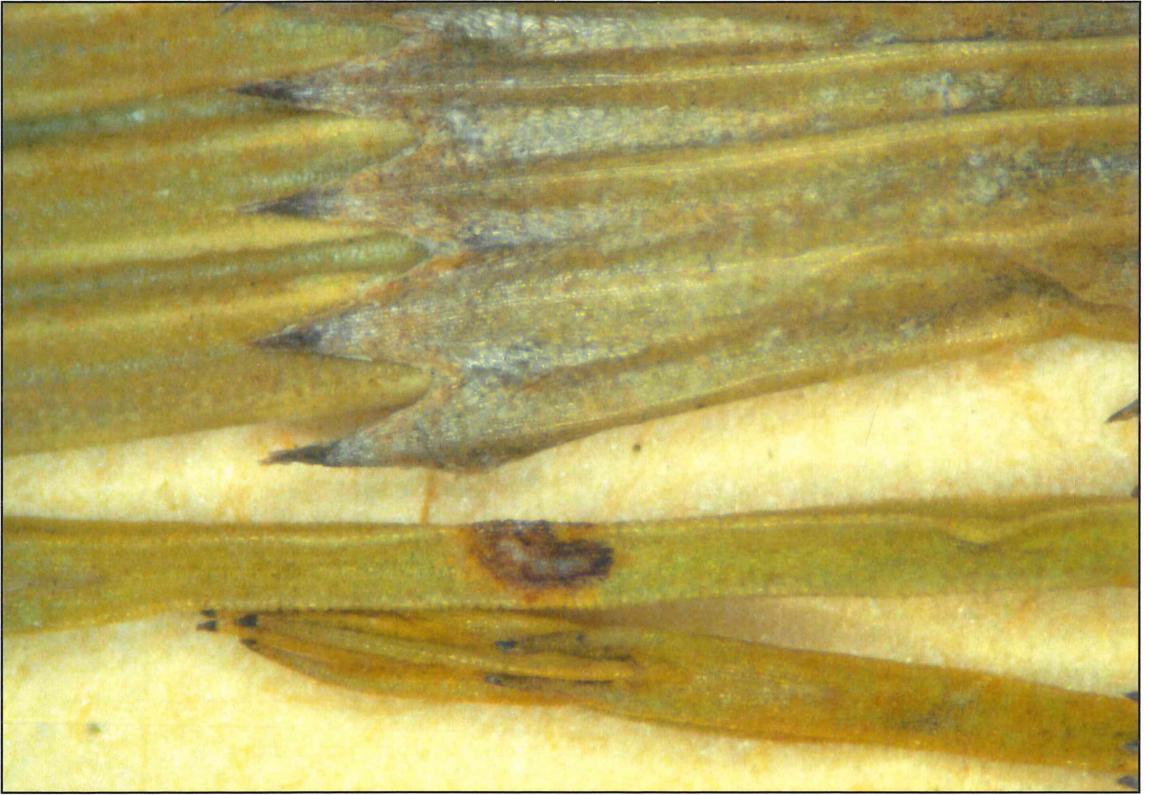
[*Equisetum limosum* L.]

Crossen / Oder, Brandenburg, Juni 1931

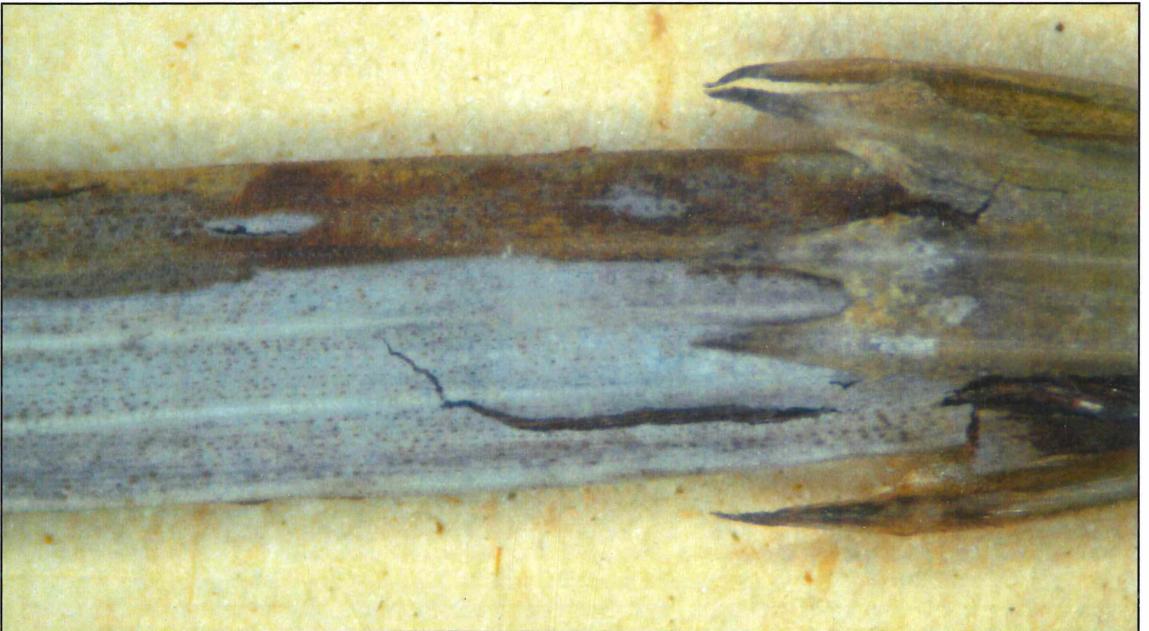
Equisetaceae

Equisetum fluviatile L. emend. Erh.

Liriomyza virgo (ZETTERSTEDT, 1838) (Diptera: Agromyzidae)



Details of previous page. Top: early aspect of stem mine. Bottom: typical feeding appearance of a stem borer.



Equisetaceae

Equisetum fluviatile L. emend. Erh.

Liriomyza virgo (ZETTERSTEDT, 1838) (Diptera: Agromyzidae)



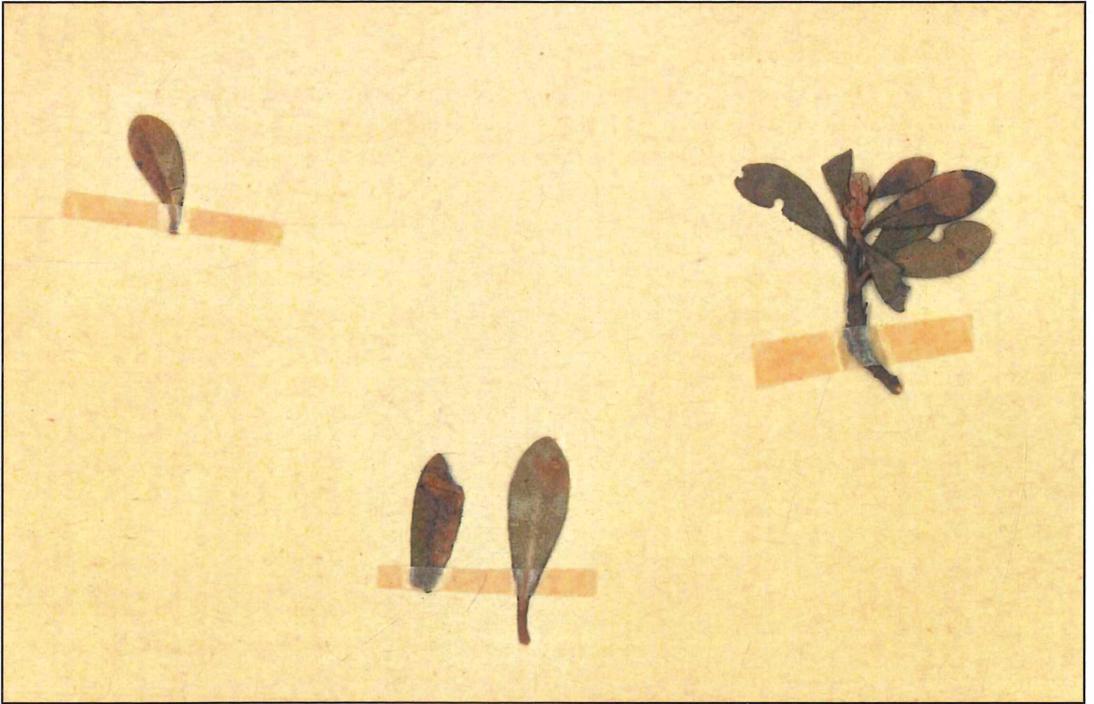
Details of page next to last: different aspects of stem mines.



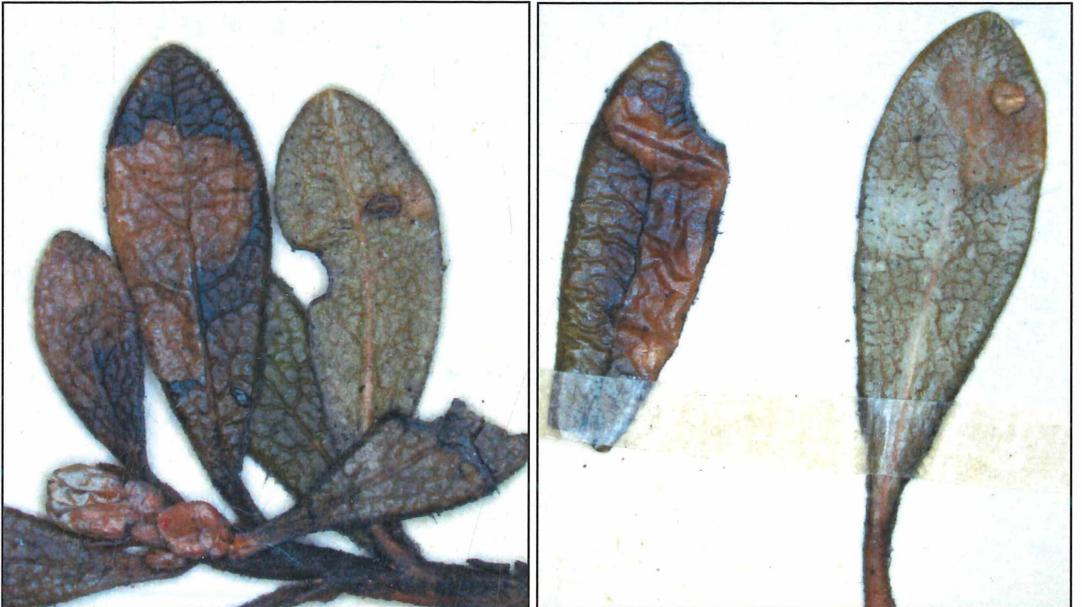
Ericaceae

Arctostaphylos uva-ursi (L.) Spreng.

Coleophora arctostaphyli MEDER, 1934 (Lepidoptera: Coleophoridae)



Top: overview. Bottom: Two detail aspects of gallery.

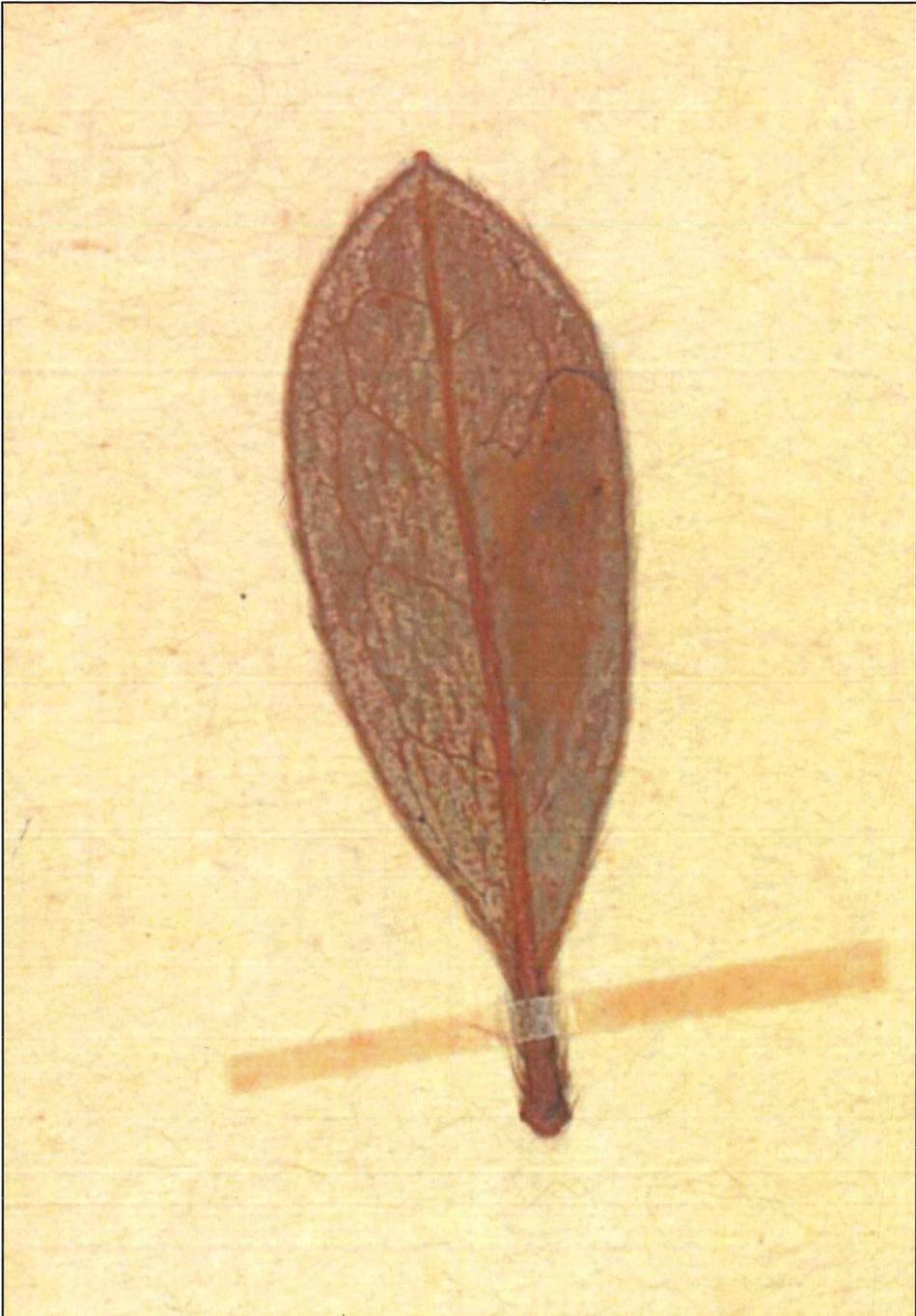


Leafminers-Herbarium, M.Hering, Lot 19, no. 380
[*Arctostaphylos uva ursi* L. emended to *Arctostaphylos uva-ursi* (L.) Spr.]
Garlsted. Heide, Weser, leg. Jäckh III-IV. 1934

Ericaceae

Rhododendron indicum (L.) Sweet

Caloptilia azaleella (BRANTS, 1913) (Lepidoptera: Gracillariidae)



Leafminers-Herbarium, M.Hering, Lot 19, no. 379
[Azalea indica L. emended to Rhododendron indicum L.]
Berlin, cultiviert. September 1930

Ericaceae

Rhododendron indicum (L.) Sweet

Caloptilia azaleella (BRANTS, 1913) (Lepidoptera: Gracillariidae)



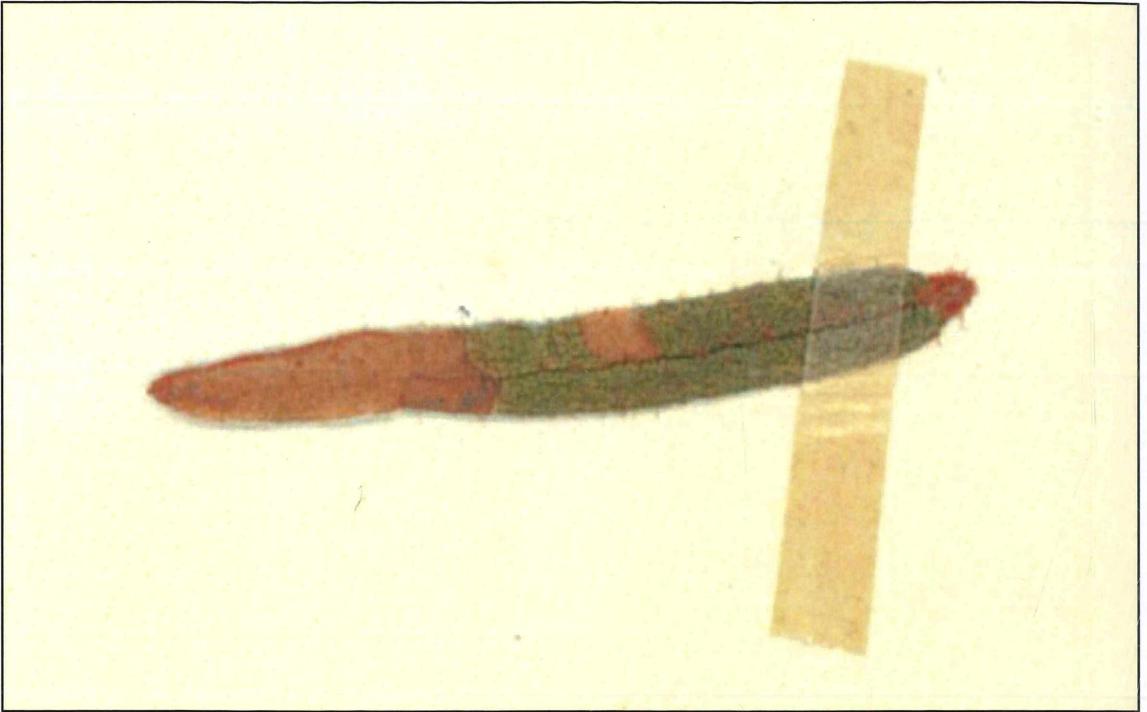
Details of previous page: lower surface, details of brownish blotch.



Ericaceae

Rhododendron tomentosum Harmaja

Lyonetia ledi WOCKE, 1859 (Lepidoptera: Lyonetiidae)



Top: overview. Bottom: large blotch mine in the tip of the leaf.



Leafminers-Herbarium, M.Hering, Lot 1, no. 14
[*Ledum palustre* L.] [*Lyonetia ledi* Wock.]
Crossen / Oder, VIII.1929

Ericaceae

Rhododendron tomentosum Harmaja

Lyonetia ledi WOCKE, 1859 (Lepidoptera: Lyonetiidae)



Top: overview. Bottom: large blotch mine in the tip of the leaf.

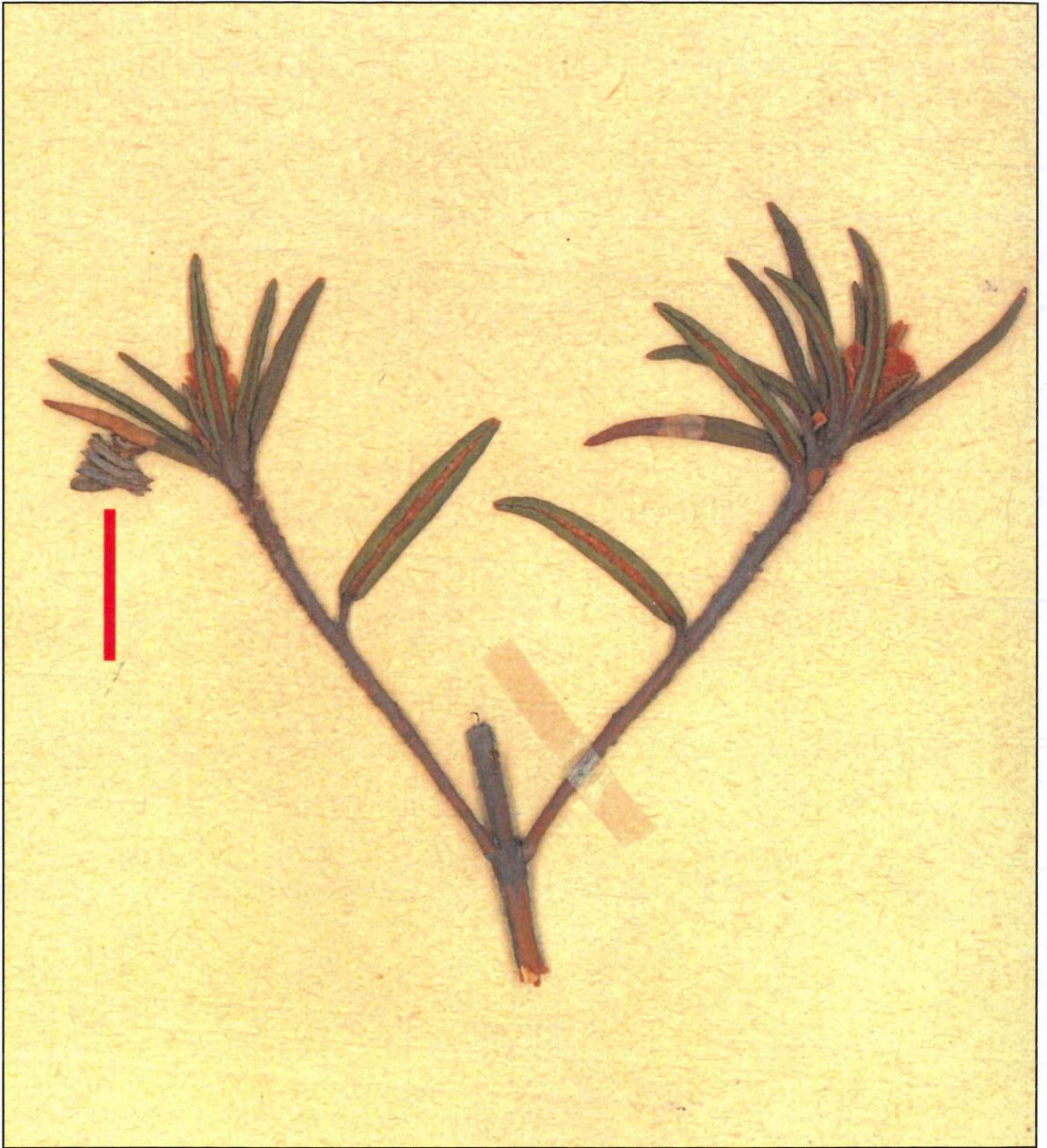


Leafminers-Herbarium, M.Hering, Lot 1a, no. 14
[*Ledum palustre* L.] [*Lyonetia ledi* Wock.]
Crossen / Oder, VIII.1929

Ericaceae

Rhododendron tomentosum Harmaja

Coleophora ledi STANTON, 1860 (Lepidoptera: Coleophoridae)



Strongly curved case marked with red arrow.

Leafminers-Herbarium, M.Hering, Lot 4, no. 76
[*Ledum palustre* L.] Crossen / Oder, VI.1920

Ericaceae

Rhododendron tomentosum Harmaja

Coleophora ledi STANTON, 1860 (Lepidoptera: Coleophoridae)



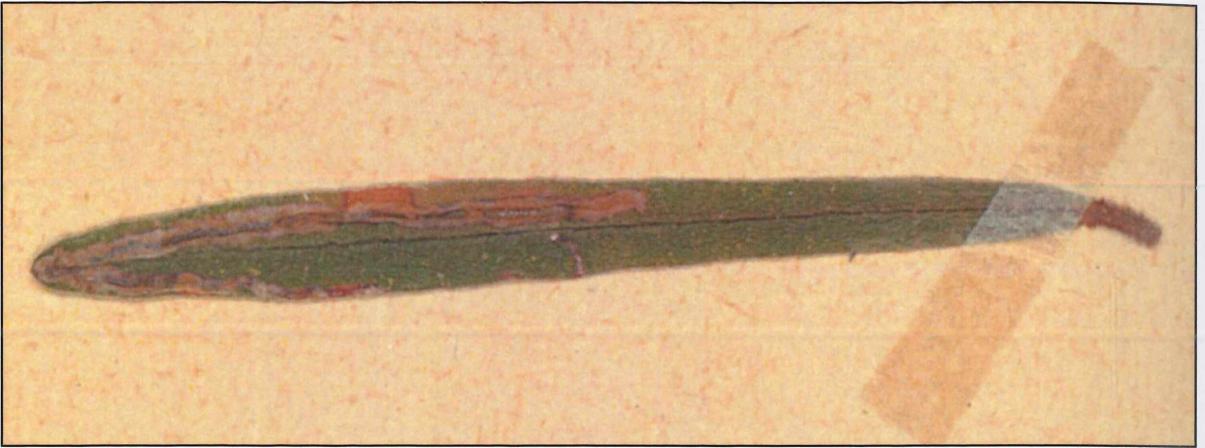
Details of previous page. Top: strongly curved case. Bottom: details of mine.



Ericaceae

Rhododendron tomentosum Harmaja

Stigmella lediella (SCHLEICH, 1867) (Lepidoptera: Nepticulidae)



Top: overview. Bottom: oviposition site with egg shell at the upper-surface of the leaf.



Leafminers-Herbarium, M.Hering, Lot 5, no. 95
[*Ledum palustre* L.] Crossen / Oder, VIII.1930

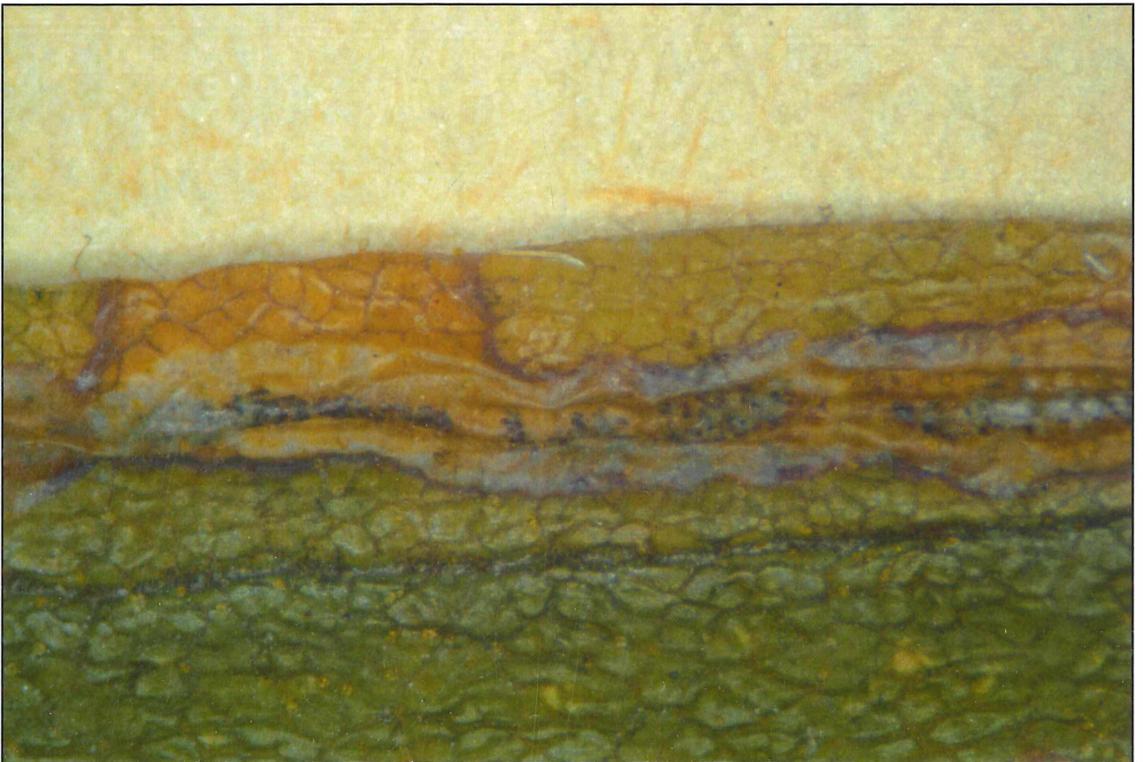
Ericaceae

Rhododendron tomentosum Harmaja

Stigmella lediella (SCHLEICH, 1867) (Lepidoptera: Nepticulidae)



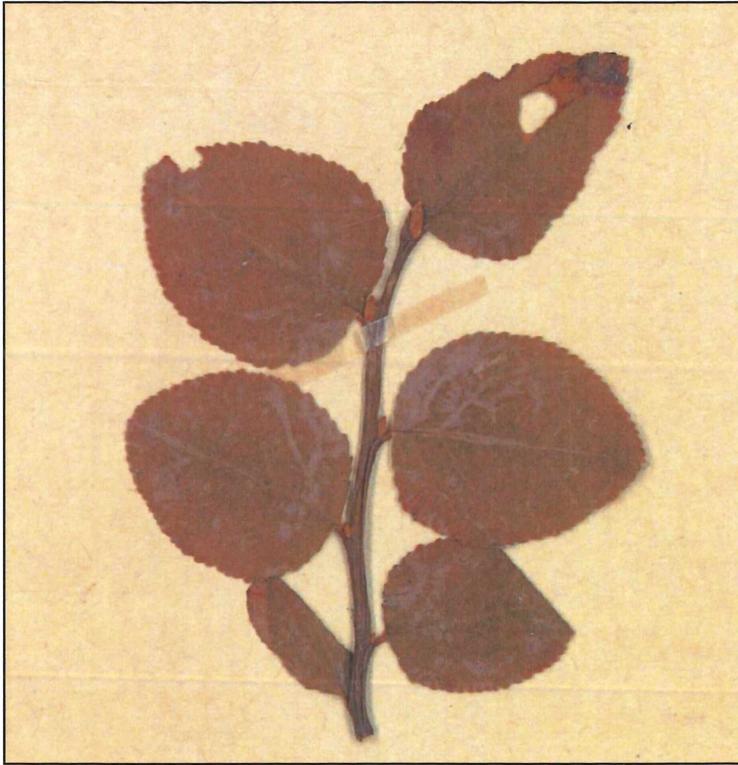
Details of previous page. Top: detail of corridor alongside leaf margin, frass in thick central line. Bottom: further details of corridors.



Ericaceae

Vaccinium myrtillus L.

Incurvaria oehlmanniella (HÜBNER, 1796) (Lepidoptera: Incurvariidae)



Top: overview. Bottom: detail of blotch on leaf tip.



Leafminers-Herbarium, M.Hering, Lot 22, no. 433
[*Incurvaria oehlmanniella* Tr. [sic]]
Krippen, Sachsen, Juni 1937

Ericaceae

Vaccinium vitis-idaea L.

Coleophora vitisella GREGSON, 1856 (Lepidoptera: Coleophoridae)



Leafminers-Herbarium, M.Hering, Lot 12, no. 228
[*Vaccinium vitis idaea* L.]
Crossen / Oder, Brandenburg VIII.1932

Ericaceae

Vaccinium vitis-idaea L.

Coleophora vitisella GREGSON, 1856 (Lepidoptera: Coleophoridae)



Details of previous page. Top: upper-surface aspect of mine (stem on the right side). Bottom: tubular case of larva consisting of rings cut out of the epidermis (see next page).



Ericaceae

Vaccinium vitis-idaea L.

Coleophora vitisella GREGSON, 1856 (Lepidoptera: Coleophoridae)



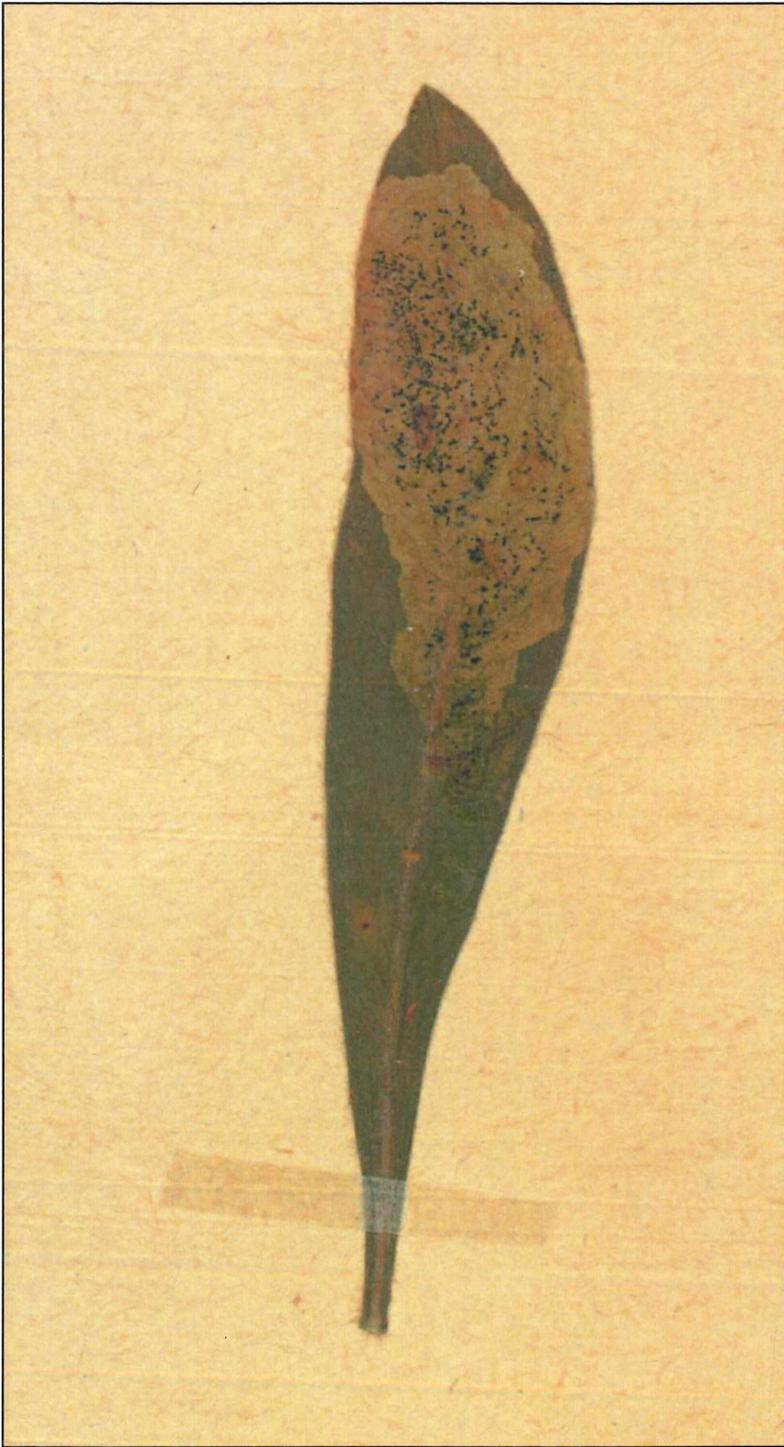
Details of page next to last; lower-surface aspect of mine; note the circular incisions on the epidermal surface used for composing the tubular case.



Euphorbiaceae

Euphorbia amygdaloides L.

Liriomyza pascuum (MEIGEN, 1838) (Diptera: Agromyzidae)



Leafminers-Herbarium, M.Hering, Lot 11, no. 220
Mesnil bei Paris, Juli 1932

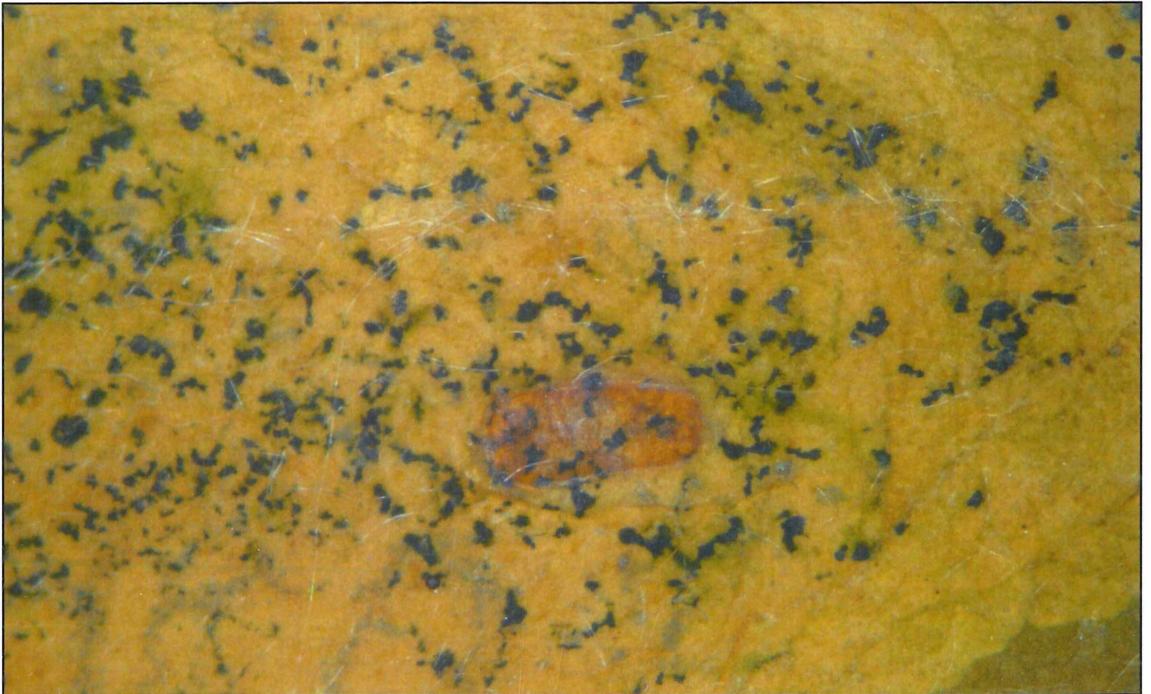
Euphorbiaceae

Euphorbia amygdaloides L.

Liriomyza pascuum (MEIGEN, 1838) (Diptera: Agromyzidae)



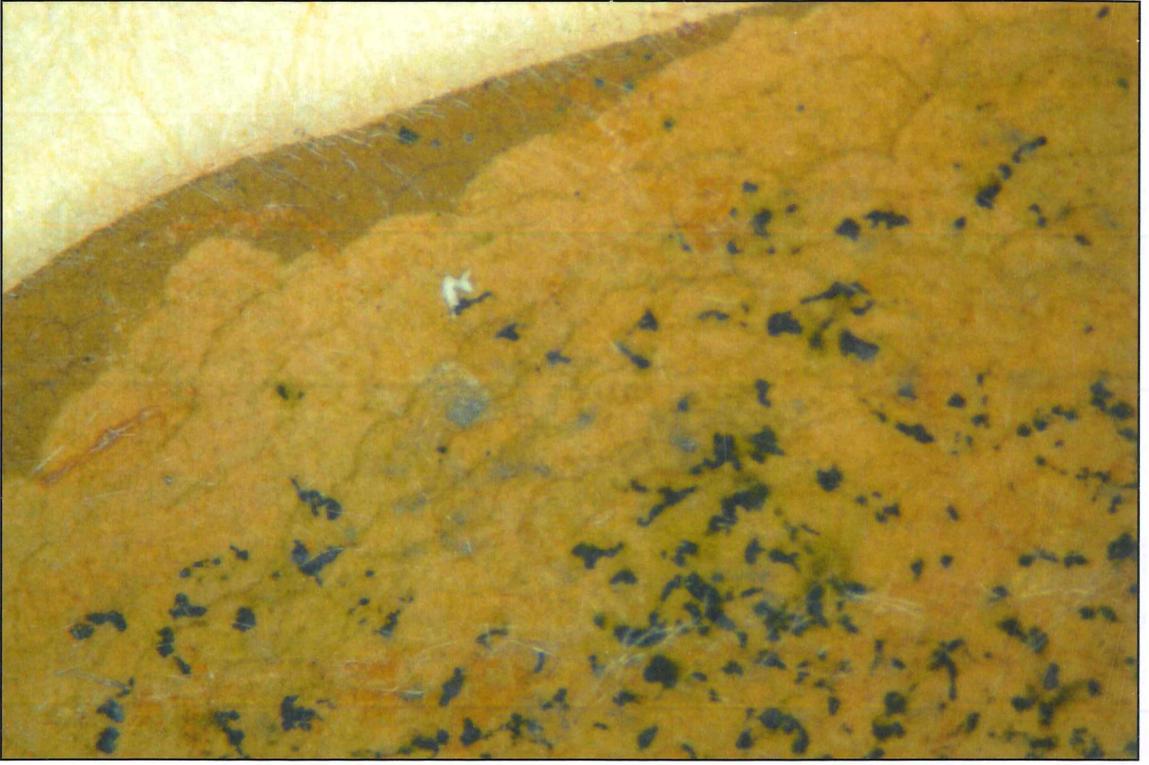
Details of previous page: details of upper-surface blotch with larva situated inside the mine.



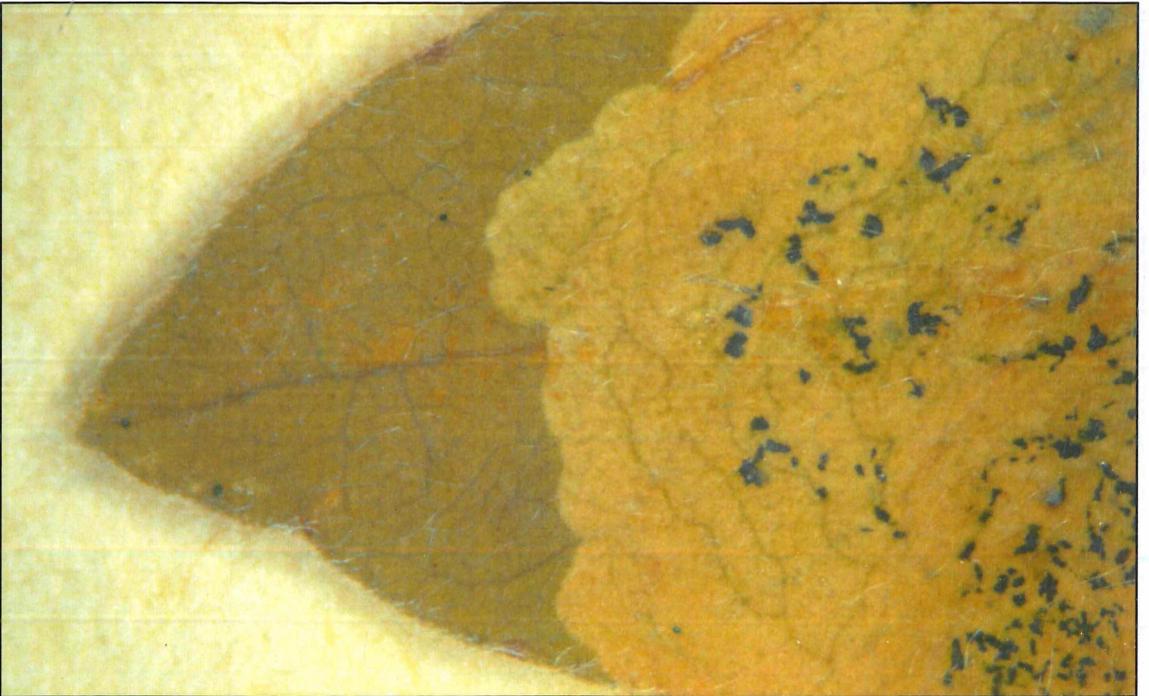
Euphorbiaceae

Euphorbia amygdaloides L.

Liriomyza pascuum (MEIGEN, 1838) (Diptera: Agromyzidae)



Details of page next to last: details of blotch mine, frass in disperse grains.



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We especially recommend the excellent website www.bladmineerders.nl from our colleague Willem N. Ellis, Zoölogisch Museum, Universiteit van Amsterdam.

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Authors:

Mag.Dr. Martin Lödl, Naturhistorisches Museum Wien, Entomology Department, Burggring 7, 1010 Wien, Austria. e-mail: martin.loedl@nhm-wien.ac.at

Mag.Dr. Sabine Gaal-Haszler, Naturhistorisches Museum Wien, Entomology Department, Burggring 7, 1010 Wien, Austria. e-mail: sabine.gaal@nhm-wien.ac.at

Mag.Dr. Stefanie Jovanovic-Kruspel, Naturhistorisches Museum Wien, Entomology Department, Burggring 7, 1010 Wien, Austria. e-mail: stefanie.jovanovic@nhm-wien.ac.at

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